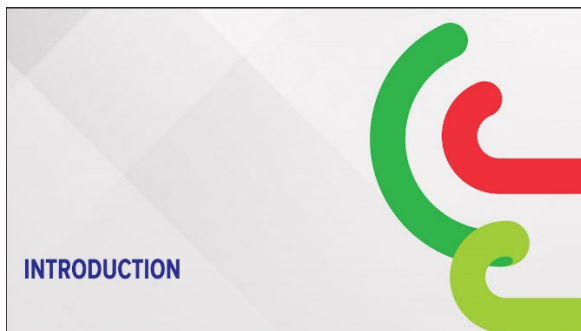




GENERAL INSTRUCTIONS

Facilitators: Use this discussion guide as a companion to the Safe Prep and Handling video for the group training session. The session is divided into topic sections when the video is paused while you facilitate discussion about the topic. Discussion questions are designed to generate ideas among WIC staff about how the information and associated WIC codes apply to working with participants and what staff experiences have been.



VIDEO PART 1: Introduction

This training will cover the basics of safely preparing, handling, and storing breastmilk and formula. WIC has two infant nutrition codes about safe preparation and handling.

- 411.6: “routinely feeding inappropriately diluted formula.”
- 411.9: “routinely using inappropriate sanitation in the feeding, preparation, handling, and/or storage of expressed human milk or formula.”

This training explains the codes, the science behind them, and how to assess for these codes. Examples of relevant education messages and resources will be shared in a later portion of the video.

All infants are at risk from unsafe or unsanitary practices, but WIC infants are at greater risk from foodborne illness and from access concerns.



DISCUSSION POINT 1: Preparing Formula

The foster father of the 6-month-old boy describes how he has been trying to save money by intentionally adding one scoop formula to 4 ounces of water, instead of one scoop of water to 2 ounces of water that was instructed by the manufacturer.

How would you respond?

What referrals would you make?

What risk code do you assign?

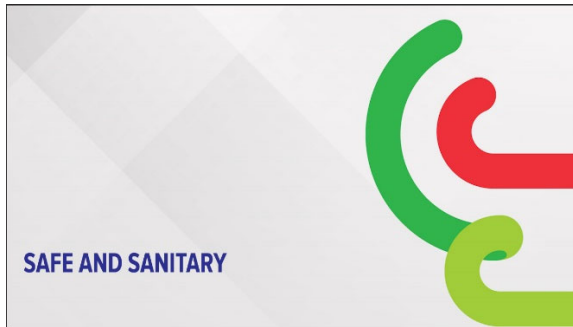
Answer: Ask for permission from caregiver to share information. Once permission has been granted, explain the risks of overdiluting formula, and the importance of following the manufacturer's mixing instructions. Refer Carlos to other resources for obtaining formula such as SNAP and food banks. Assign risk code 411.6.

Facilitator: When you are finished discussing these questions with your group, click NEXT to continue to the next video.



Facilitator: If during discussion, staff share different experiences, especially about client concerns or confusion, encourage them to share what they have found helpful in addressing client needs.

If they don't bring up different experiences, ask them if their experience is the same or different from what others have shared.



VIDEO PART 2: Safe and Sanitary

Caregivers need three things to safely prepare and store formula and expressed breastmilk:

- Safe water (safe for consumption, free from contaminants)
- Heat source (for boiling water and cleaning and sanitizing)
- Refrigeration (below 40 degrees for storing breastmilk and formula)



DISCUSSION POINT 2: Bottled Water

Is this a true statement or a myth?

It's important to use bottled water marketed and labeled for infant formula preparation.

Answer: This is a myth. Infant formula manufacturers provide directions for mixing their products with water that only indicate that the water needs to be safe to drink. In most situations, it is safe to mix formula using ordinary cold tap water that is boiled for one minute or as directed on the label of the infant formula. Some water companies make and market bottled water for mixing with infant formula and/or for infants to drink as is. The manufacturers of the water marketed towards infants must meet the same standards as tap water as set by the Environmental Protection Agency and say that the bottled water is not sterile. As with tap water, consumers should boil the bottled water for one minute before mixing with infant formula. Water that is sterilized by the manufacturer and intended for use with infants must meet certain strict FDA standards.

(<https://www.fda.gov/food/people-risk-foodborne-illness/questions-answers-consumers-concerning-infant-formula#11>)



Facilitator: The additional information provided below may be of interest to RDs/DTRs. You can share this information or skip it depending on what would be helpful to your group.

USDA's WICWORKS website has an online learning module titled, *Feeding Infants: Nourishing Attitudes and Techniques*, as well as a related job aid on infant food safety that you can download and print for reference. RDs can earn a CEU for completing the course.

Description: "Food safety is of the utmost importance when preparing, handling, and storing foods for infants. This job aid supports content in the WIC Learning Online course, Infant Feeding, Nourishing Attitudes and Techniques, highlighting important food safety tips for human milk, infant formula, and both store-bought and home-prepared infant food as well as choking risks."

<https://wicworks.fns.usda.gov/resources/wic-learning-online-wlo/>



VIDEO PART 3: Breastmilk and Formula Safety

To maintain safety and reduce bacterial growth, expressed breastmilk should be stored according to these guidelines.

**TABLE 3.1 – Human Milk Storage Guidelines
for the Special Supplemental Nutrition Program
for Women, Infants, and Children (WIC)**

	Countertop or table	Refrigerator	Freezer with separate door
Storage temperatures*	77°F or colder (25°C)	40°F or colder (4°C)	0°F or colder (-18°C)
Freshly pumped / expressed human milk	Up to 4 hours	Up to 4 days	Within 6 months is best, up to 12 months is acceptable
Thawed human milk	1–2 hours	Up to 1 day (24 hours)	Never refreeze human milk after it has been thawed

Breastmilk banks provide screened milk from donors, but this should only be used in consultation with a healthcare provider. Using milk obtained from the internet or informal milk sharing is not recommended.

Formula comes in three different forms: powdered, concentrated liquid, and ready-to-feed or RTF. Improper handling and sanitation with formula can lead to infants being hospitalized with vomiting and diarrhea.



DISCUSSION POINT 3: Storing Breastmilk

A mother of a 3-month-old says she's worried about having enough pumped breastmilk now that she's gone back to work. She has started saving leftover breastmilk from bottles to add to fresh or thawed breastmilk for future feedings.

Is this practice safe? Should you assign a risk code for this infant? What other examples of unsafe practices for preparing and handling breastmilk should you assess for?

Answer: No, this practice is not safe. The infant should be assigned risk code 411.9, routinely using unsanitary practices in the preparation, handling, and storage of breastmilk because her mother is saving her breastmilk from used bottles for future feedings.

- Other examples of this risk code are: Thawing/heating in a microwave.
- Refreezing.
- Adding freshly-expressed, unrefrigerated human milk to frozen human milk.
- Adding freshly-pumped chilled human milk to frozen human milk in an amount that is greater than the amount of frozen human milk.
- Feeding thawed refrigerated human milk more than 24 hours after it was thawed.
- Saving human milk from a used bottle for another feeding.
- Failure to clean breast pump per manufacturer's instruction.
- Breastmilk held in the freezer for more than six months.
- Feeding donor human milk acquired directly from individuals or the Internet.

Facilitator: Check that the group lists all of the unsafe practices listed above. If they miss any of the listed risks, share them with the group.

Optional follow-up questions: Which unsafe practices do you see most often with participants? Are there any of these unsafe practices which you see rarely, if ever?



Facilitator: The additional information provided below may be of interest to RDs/DTRs. You can share this information or skip it depending on what would be helpful to your group.

Storing Expressed Breastmilk

The CDC breastfeeding webpage has the guidelines posted as well as a downloadable handout of them. It also has lots of other information and resources for professionals, parents, and caregivers:

https://www.cdc.gov/breastfeeding/recommendations/handling_breastmilk.htm.

CDC also has excellent information about the importance of breastfeeding and keeping breast pumps and accessories clean as well as step-by-step instructions

<https://www.cdc.gov/healthywater/hygiene/healthychildcare/infantfeeding/science-behind-recommendations.html>.

Milk Banks: A Deeper Dive from the CDC

“Non-profit donor milk banks that process milk from screened donors have a long safety record...” Human Milk Banking Association of North America (HMBANA) members must operate under “specific evidence-based guidelines that require extensive testing and processing procedures as well as self-reported health information and a health statement from both the donor’s healthcare provider and the infant’s healthcare provider. Because most of the milk from milk banks is given to hospitalized and fragile infants, milk banks may not have enough to serve healthy infants...” <https://www.cdc.gov/breastfeeding/faq/#milk-banks>

Cronobacter

To learn more about Cronobacter, a germ that can live in very dry places like powdered infant formula, visit <https://www.cdc.gov/cronobacter/index.html>

Reporting a problem or illness caused by infant formula

If you or a participant would like to report a problem or illness that is caused by an infant formula, FDA says, “healthcare providers can report infants that have suffered a serious harmful effect or illness from an infant formula, by calling FDA’s MedWatch hotline at 1-800-FDA-1088 or by using Reporting by Health Professionals. The MedWatch program allows healthcare providers to report problems possibly caused by FDA-regulated products” such as medical foods, dietary supplements, and infant formulas. The patient’s identity is kept confidential. Consumers may also report an illness, injury, or other problem they believe to be related to using an infant formula by calling FDA at 1-800-FDA-1088 or using Reporting by Consumers. “FDA would like to know when a product may have caused a problem even if you are unsure if the product caused the problem or even if you and the baby do not visit a doctor or



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clinic.” For more information, visit FDA’s website: <https://www.fda.gov/food/people-risk-foodborne-illness/questions-answers-consumers-concerning-infant-formula#19>



VIDEO PART 4: Assessment

The routine practices related to risk codes 411.6 and 411.9 will most often come up during the D, diet and nutrition, portion of assessment. For 411.6, assess whether the participant is following the manufacturer's instructions for measuring and mixing formula, including using the provided scoop. 411.6 is automatically assigned in HANDS. For 411.9, note any of these unsafe or unsanitary practices.

Unsafe Formula Practices

- Has been held at room temperature longer than 1 hour or longer than recommended by the manufacturer.
- Has been held in the refrigerator longer than the safe storage time indicated by the manufacturer.
- Remains in a bottle one hour after the start of feeding.
- Remains in a bottle from an earlier feeding.
- Is fed using improperly cleaned baby bottles.

Unsafe Breastmilk Practices

- Thawing/heating in a microwave.
- Refreezing.
- Adding freshly expressed unrefrigerated human milk to frozen human milk.
- Adding freshly pumped chilled human milk to frozen human milk in an amount that is greater than the amount of frozen human milk.
- Feeding thawed refrigerated human milk more than 24 hours after it was thawed.
- Saving human milk from a used bottle for another feeding.
- Failure to clean breast pump per manufacturer's instruction.
- Breastmilk held in the freezer for more than six months.



- Feeding donor human milk acquired directly from individuals or the Internet.



DISCUSSION POINT 4: Frequent Vomiting and Diarrhea

Cassandra, the mother of a 7-month-old exclusively breastfed baby, mentions to you that her baby has been having frequent vomiting and diarrhea. She explains that these problems started a few days ago when she began going back to work, and that she had instructed her husband to feed the baby the breastmilk she has stored in the freezer.

What questions do you ask Cassandra to complete your assessment and determine if you need to assign a risk code?

Answer:

“How long has the breastmilk been thawed before being offered to your baby?”

“Did you ever add refrigerated or freshly pumped breastmilk to frozen breastmilk?”

“How long was the breastmilk stored in the freezer?”

“Was the breastmilk ever thawed and then re-frozen?”

“Was the breastmilk ever partially consumed before being frozen?”



VIDEO PART 5: Nutrition Education 411.6

Tailor the education messages for code 411.6 to the participant's needs and situation. The Nutrition Care Guidelines provide a number of sample messages, including those shared here.

- "Powdered infant formula is prepared by using the measured scoop that comes in the can of formula, to mix one unpacked level scoop of dry powder with two ounces of water."
- "It's important to prepare the infant formula bottle according to the instructions to make sure your baby gets all of the calories and nutrients needed for healthy growth."



DISCUSSION POINT 5: Formula Preparation Education

Carlos, the father of a 3-month-old infant, is worried about mixing the concentrated formula recommended by his doctor.

What instructions would you give him to safely prepare the formula.

Answer:

"Concentrated infant formula is prepared by combining equal parts of water and concentrated liquid. That would be one ounce of formula for every one ounce of water." Make sure that the water that you use has been sterilized, such as by boiling, and that the bottles that you use have been properly cleaned and sterilized.



VIDEO PART 6: Nutrition Education 411.9

The Nutrition Care Guidelines provide sample education messages you can share or modify to fit the participant's needs and situation.

- “Young infants may become ill from bottles that are not cleaned and prepared properly.”
- (If formula-feeding) “Prepare and/or store formula according to manufacturer or physician instructions.”
- “As a precaution, discard any unused breastmilk or formula left in the bottle after a feeding to prevent the growth of bacteria.”



DISCUSSION POINT 6: Access Concerns

A new mother, Katrina, tells you she's been homeless for the past several months, and sometimes sleeping in homeless shelters. Although she has been providing her infant with powdered infant formula, she doesn't always have access to a refrigerator or a safe water supply. As a result, she admits that sometimes she uses water from a local stream to mix the powdered formula

How would you respond to Katrina?

What risk code would you assign?

Answer: Ask for permission from caregiver to share information. Once permission has been granted, explain the risks of not using properly cleaned bottles, or stored bottles of formula. Offer ready to feed formula, and ask if that would improve her ability to provide safe formula. Assign risk code 411.9.



Facilitator: The additional information provided below may be of interest to RDs/DTRs. You can share this information or skip it depending on what would be helpful to your group.

Cleaning and Sanitizing

For more information and resources about how to clean, sanitize (including when it is recommended), and store infant feeding items like bottles and nipples, please visit CDC's website.

<https://www.cdc.gov/healthywater/hygiene/healthychildcare/infantfeeding/cleansanitize.html>

Anticipatory Guidance

The Infant Nutrition and Feeding Guide for WIC (USDA May 2019) has lots of information about breastfeeding and formula feeding, guidelines, recommendations, tips, and more. Consider reading or re-reading this updated resource to expand your ability to offer participants targeted anticipatory guidance and nutrition messages.

https://wicworks.fns.usda.gov/sites/default/files/media/document/Infant_Feeding_Guide_Final_508c_0.pdf



VIDEO PART 7: Summary

Using safe and sanitary practices when preparing, handling, and storing breastmilk and formula is particularly important for WIC infants. Identifying participants with these risk codes and offering relevant information supports participants in making healthy decisions.

Facilitator: After the summary video, you may ask some or all of these reflection questions.

- *What is one important thing you learned during this training?*
- *What do you still need to learn more about (or what are you confused about)?*
- *What is one thing you will change due to this training?*

Citations and Resources

- USDA Infant Feeding Guidelines 2019
- Nutrition Risk Manual
- Nutrition Care Guidelines
- https://wicworks.fns.usda.gov/sites/default/files/media/document/Infant_Feeding_Guide_Final_508c_0.pdf
- https://www.cdc.gov/breastfeeding/recommendations/handling_breastmilk.htm
- <https://pediatrics.aappublications.org/content/132/5/e1227>