



GENERAL INSTRUCTIONS

Facilitators: Use this discussion guide as a companion to the Food Safety 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 clients and what staff experiences have been.



VIDEO PART 1: Introduction

This is an introduction to the video and overview of food safety. Pregnant women, infants, and children are more likely to get foodborne illnesses and more likely to suffer negative outcomes. Because WIC serves populations at higher risk, food safety is an important concern.

This training will provide an overview of food safety and foodborne illnesses. The videos will review specific food safety concerns and recommendations for at-risk WIC clients.

The WIC codes for routinely offering and/or eating foods that may be contaminated with harmful bacteria or toxins are

- 411.5 for infants
- 425.5 for children
- 427.5 for pregnant women



DISCUSSION POINT 1: Foodborne Illness

How often do you currently assign codes related to food safety?

This doesn't need to be a long discussion, but it may help you identify how much people already know about this topic so you can adjust for later discussions if needed. It's likely that staff are currently assigning these codes rarely, if at all.

Optional follow-up question: What is the difference between food poisoning and foodborne illness?

Answer: The terms are often used interchangeably, but they have different meanings. Foodborne illness is a disease resulting from eating food contaminated with microorganisms or their toxins. Foodborne illness also includes allergic reactions (although allergies are not addressed in this training). Food poisoning is a specific type of foodborne illness caused by eating toxins created by microorganisms.

Citation: https://askkaren.custhelp.com/app/answers/detail/a_id/750/~/_what-is-the-difference-between-food-poisoning-and-foodborne-illness%3F

Facilitator: This question on terminology will help you gauge the current understanding of your group. If they are very familiar with the terms, you can make this a very quick discussion and move on to the rest of the material. It's also possible they may have different definitions that contradict the ones given above, as other sources aren't consistent. It's fine if they disagree with the definitions given here.

If they seem very unfamiliar with the terms, pause to ask what questions participants have that they hope will be addressed in the training. As you watch the rest of the training together, note when those questions are answered.

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



VIDEO PART 2: Symptoms and Causes of Foodborne Illness

Although the U.S. food supply is very safe, foodborne illnesses are still common. Common symptoms include GI symptoms (e.g., nausea, vomiting, and diarrhea) and other bodily symptoms (e.g., fever, headache, dehydration). Symptoms may occur as soon as 1 hour after eating contaminated food or may be delayed for weeks. Long-term symptoms such as kidney failure are more likely for populations at risk, including infants, young children, and pregnant women.

Foodborne illnesses are primarily caused by bacteria, viruses, and parasites.



DISCUSSION POINT 2: Myth or Fact?

Facilitator note: Decide as a group if each statement is a myth or fact. If your group is split, take a vote to decide which answer to select. You may encourage the group to convince others of why something is a myth or a fact; that discussion might bring out some valuable points. There are five questions total, but they will appear on screen one at a time. After you submit your group's answer for each statement, the next statement will appear.

Which of these statements are myths, and which ones are facts?

Correct answers:

Vegetarians and vegans don't need to worry about foodborne illnesses. (Myth)

Some bacteria that cause foodborne illness can survive when frozen. (Fact)

Melons should be rinsed, even though the rind isn't eaten. (Fact)

Rinsing raw chicken is recommended to remove bacteria like salmonella. (Myth)

Microwaves kill bacteria, so microwaving food for even a few seconds makes it safe. (Myth)



Facilitator note: For any questions that generated disagreement or discussion, share the following explanations.

Explanations:

- Vegetarians and vegans are susceptible to foodborne illnesses via fruits and vegetables. Rinsing produce can reduce the risk.
- Listeria and some other potentially harmful bacteria can survive both the refrigerator and the freezer. Previously frozen food may also develop bacteria when thawed. It's important to cook foods to the recommended temperature as measured by a thermometer.
- Many people believe that as long as the rind or skin on a fruit or vegetable isn't consumed that they don't need to rinse it. This potentially harmful myth means that bacteria or pathogens could transfer to the melon when cut or peeled. Rinsing melons and other produce reduces the chance of contamination.
- Rinsing raw chicken is an old recommendation, but we now know that it's a myth. In fact, rinsing chicken may spread bacteria to countertops, faucets, or other nearby food. The way to kill salmonella and prevent foodborne illness from chicken is to cook it to 165° as measured by a thermometer.
- It's not the microwaves that kill bacteria; it's the heat. Microwaves can be effective if they're used to heat food to a safe internal temperature. Deli meats and hot dogs should be heated until steaming to reduce the risk of listeria. Be cautious of uneven heating, and follow directions for letting food stand before eating to allow the temperature to even out.

For additional information, see the Fight Bac website:

<http://www.fightbac.org/food-safety-education/home-food-safety-mythbusters/top-10-myths/>



VIDEO PART 3: Risks for WIC Participants

Infants, children, and pregnant women are at higher risk for foodborne illnesses. Infants and children aren't as able to fight off infections because their immune systems are still developing. They're also more likely to become dehydrated from diarrhea and to require hospitalization due to foodborne illness.

Pregnancy causes changes in the immune system that make pregnant women more susceptible to foodborne illness. They're much more likely to get listeria infections. Listeriosis and toxoplasmosis can infect the fetus even if the mother doesn't feel sick.



DISCUSSION POINT 3: Participant Question

You're talking about food safety recommendations with a woman with two foster children, ages one and two. She asks, "Why does WIC recommend that young children avoid foods like cold deli meat or ceviche?"

What do you say?

Answer: These foods can be contaminated with bacteria. Because children are still growing, they are more likely to get sick and have worse symptoms if they consume contaminated food. Small changes like heating deli meat and hotdogs, and cooking meat, seafood and eggs can help protect them.

Facilitator: Encourage RDs / DTRs to share additional information about these risks and to help improve the educational messages staff suggest.



Additional Information for RDs / DTRs: The five symptoms of severe foodborne illness that may require a doctor's visit/call include bloody diarrhea, frequent vomiting, severe dehydration, and/or a fever over 102°F and/or diarrhea for more than 3 days.



VIDEO PART 4: Listeria

Listeriosis is a serious illness caused by eating food contaminated with the *listeria monocytogenes* bacteria. Pregnant women, especially pregnant Hispanic women, are more likely to get listeriosis than other healthy adults. The most common foods contaminated with listeria are unpasteurized dairy and processed and prepared meat and dairy dishes. This includes deli meat and hot dogs. Listeria is unusual because it can grow in the refrigerator and freezer. Symptoms can vary and may take weeks before appearing, making listeriosis challenging to diagnose.



DISCUSSION POINT 4: Soft Cheese

You're talking about food safety recommendations with a woman who is two months pregnant. She asks, "Do I really have to avoid eating queso fresco and other soft cheese while I'm pregnant? My sister ate those cheeses during her pregnancies, and both her kids turned out fine."

What would you say?

Answer: These cheeses can be contaminated with bacteria called listeria. Many people will have mild symptoms, but in pregnancy they can be more severe and include miscarriage. Just look for cheese that is labeled pasteurized.



Additional Information For RDs / DTRs:

Pasteurization

Pasteurized foods have fewer harmful contaminants because the pasteurization



process destroys or deactivates things like bacteria in food products that increase risk of foodborne illnesses and make foods spoil faster. Pasteurization is a widely used heating process that has been used since it was first developed by Louis Pasteur in 1864. Pasteurization kills harmful organisms responsible for such diseases as listeriosis and tuberculosis. (<https://www.fda.gov/food/buy-store-serve-safe-food/dangers-raw-milk-unpasteurized-milk-can-pose-serious-health-risk>)

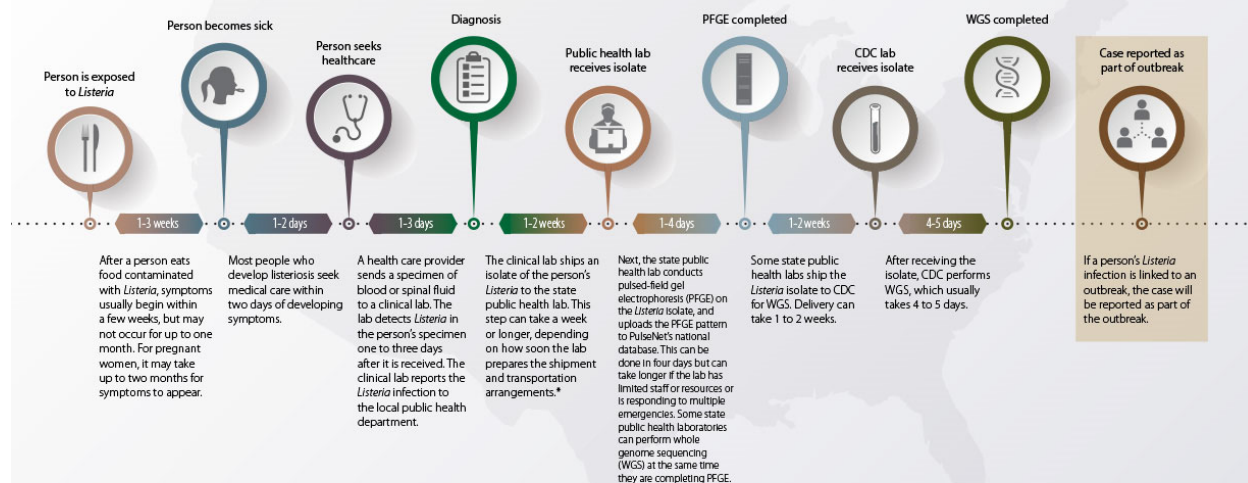
Since listeria can be so dangerous in pregnancy, it is important to make sure women are aware of food safety recommendations. Unfortunately, according to a national survey of 403 pregnant women “only 18% were familiar with listeriosis recommendations and less than 30% knew that it could be prevented by avoiding delicatessen meats, soft cheeses and unpasteurized dairy products.” The same study found that in focus groups, “few (pregnant women) knew that pregnancy increased the risk for development of listeriosis...” and “none had made any change to their food-handling habits, and all had continued to eat hot dogs and delicatessen meats during pregnancy.” Because the surveyed women were not aware of the risks of listeriosis and recommended prevention practices, they were eating foods that increase their risk for listeriosis during their pregnancy. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3593057/>

How Long Can It Take to Link a Case of Listeriosis to an Outbreak? (<https://www.cdc.gov/listeria/timeline.html>)

Have you ever wondered why it takes a while to hear about cases of Listeria infection after a person gets sick? Or why the number of cases linked to an outbreak can increase for weeks after measures are taken to stop the outbreak? This CDC timeline shows the series of events, starting from when someone eats a food contaminated with Listeria to weeks later when public health officials can determine that the person is part of an outbreak.



Timeline for Linking a Case of *Listeria* Infection to an Outbreak



*Not all states require clinical laboratories to forward *Listeria* isolates to public health laboratories, so some isolates are not sent.



VIDEO PART 5: Toxoplasmosis and Botulism

Toxoplasmosis is a parasite and the leading cause of death related to foodborne illness in the U.S. Toxoplasmosis is especially dangerous during pregnancy, since infection can result in miscarriage, stillbirth, or severe disabilities for the baby.

Botulism is an illness caused by a toxin produced by bacteria found naturally in some foods. Untreated botulism can cause muscle paralysis. Honey is a common source of the botulism spores, so infants under 12 months old should never be given honey.



DISCUSSION POINT 5: Honey Pacifier

A mother is sharing her challenges regarding her four-month-old baby's frequent crying. She says, "My friend suggested buying a 'honey pacifier' she saw on the internet. Do you think that might help?"

How would you respond? What education messages would you share?

Answer: It sounds like the pacifier may be made with or coated in honey. Because honey can be contaminated with a bacteria that can cause a serious illness in infants, called botulism, all forms of honey should be avoided until one year old. May I share some other tips from parents that have helped soothe their crying infants? For example, some parents find holding and rocking their baby or wearing them in a front wrap or infant carrier while walking around helpful with crying.



VIDEO PART 6: Preventing Foodborne Illnesses

Teach WIC participants four basic food safety principles:

- Clean
- Separate
- Cook
- Chill

WIC recommends that infants, children, and pregnant women avoid the following foods.

- Unpasteurized juices and dairy
- Soft cheese unless clearly labeled as pasteurized
- Deli meats, hot dogs, and processed meats unless heated to steaming
- Raw sprouts
- Raw or undercooked eggs, meat, poultry, or seafood

Infants should avoid all forms of honey, as well as breastmilk that is obtained from the internet.

Pregnant women should avoid refrigerated pate and meat spread, as well as smoked seafood like salmon, unless they're cooked.

The codes are for "routinely offering and/or eating foods that may be contaminated with harmful bacteria or toxins."

- 411.5 Infants
- 425.5 Children
- 427.5 Pregnant Women



Additional Information for RDs / DTRs:

Donor Breastmilk: To learn more about donor breastmilk, please see the Nutrition Risk Criteria Manual, the Nutrition Care Guidelines and/or the training on Safe Preparation and Handling of Breastmilk and Infant Formula.

Temperatures for Safe Food: The foodsafety.gov site provides a table with minimum safe temperatures for cooking different foods. This table can be downloaded as a PDF to share with participants. <https://www.foodsafety.gov/food-safety-charts/safe-minimum-cooking-temperature>

Additional Food Safety Information: The Fight Bac campaign has several webinars for further information and learning about food safety topics. Consider viewing and discussing webinars of interest to you and your colleagues. <http://www.fightbac.org/free-resources/recorded-webinars/>



DISCUSSION POINT 6: Food Safety While Pregnant

You're talking with a newly pregnant woman. She says, "I love fish, especially sushi! I eat it whenever I can."

What, if any, food safety concerns do you have with what she has shared? How would you respond to her statement?

Answer: Raw or undercooked seafood, like ceviche or sushi--as well as eggs, meat, and poultry--can be contaminated with harmful bacteria, like listeria, toxoplasma, or E. coli. These foods need to be cooked to the proper internal temperature before they are eaten to help kill any bacteria that may present.

Possible response: Fish is a great food to include in your diet. However, during pregnancy, you're more susceptible to foodborne illness. The recommendation is to eat fish that is cooked in order to protect you and your baby from getting sick. How do you feel about that?



Additional Information for RDs / DTRs:

Seafood, especially fish high in omega-3 fat like salmon, are an important part of a healthy diet. However, it is important to choose seafood wisely to minimize exposure to mercury, especially for pregnant women, infants, and children. The [2015-2020 Dietary Guidelines for Americans](#) recommend eating at least 8 ounces of seafood for adults per week and that women who are pregnant or breastfeeding eat between 8 and 12 ounces of a variety of seafood per week, from choices that are lower in mercury. Starting at age 2, the recommendation is to serve fish 1-2 times a week (~an ounce for 2- and 3-year-olds and 2 ounces for 4-year-olds).

Advice About Eating Fish

What Pregnant Women & Parents Should Know

Fish and other protein-rich foods have nutrients that can help your child's growth and development.

For women of childbearing age (about 16-49 years old), especially pregnant and breastfeeding women, and for parents and caregivers of young children.

- Eat 2 to 3 servings of fish a week from the "Best Choices" list OR 1 serving from the "Good Choices" list.
- Eat a variety of fish.
- Serve 1 to 2 servings of fish a week to children, starting at age 2.
- If you eat fish caught by family or friends, check for fish advisories. If there is no advisory, eat only one serving and no other fish that week.*

Use this chart!

You can use this chart to help you choose which fish to eat, and how often to eat them, based on their mercury levels. The "Best Choices" have the lowest levels of mercury.

What is a serving?

To find out, use the palm of your hand!



For an adult
4 ounces



For children,
ages 4 to 7
2 ounces

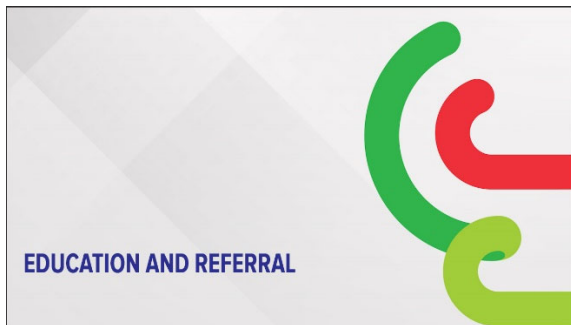
Best Choices EAT 2 TO 3 SERVINGS A WEEK			OR	Good Choices EAT 1 SERVING A WEEK		
Anchovy	Herring	Scallop		Bluefish	Monkfish	Tilefish (Atlantic Ocean)
Atlantic croaker	Lobster	Shad		Buffalofish	Rockfish	
Atlantic mackerel	American and spiny	Shrimp		Carp	Sablefish	Tuna, albacore/white tuna, canned and fresh/frozen
Black sea bass	Mullet	Skate		Chilean sea bass/Patagonian toothfish	Sheepshead	
Butterfish	Oyster	Smelt		Grouper	Snapper	Tuna, yellowfin
Catfish	Pacific chub mackerel	Sole		Sole	Spanish mackerel	Weakfish/seatrout
Clam	Perch, freshwater and ocean	Squid		Halibut	Striped bass (ocean)	White croaker/Pacific croaker
Cod	Pickering	Tilapia		Mahi mahi/dolphinfish		
Crab	Potlatch	Trout, freshwater				
Crawfish	Pollock	Tuna, canned light (includes skipjack)				
Flounder	Salmon	Whitefish				
Haddock	Sardine	Whiting				
Hake						

Choices to Avoid HIGHEST MERCURY LEVELS		
King mackerel	Shark	Tilefish (Gulf of Mexico)
Marlin	Swordfish	Tuna, bigeye
Orange roughy		

*Some fish caught by family and friends, such as larger carp, catfish, trout and perch, are more likely to have fish advisories due to mercury or other contaminants. State advisories will tell you how often you can safely eat those fish.

www.FDA.gov/fishadvice www.EPA.gov/fishadvice EPA U.S. FOOD & DRUG ADMINISTRATION

To learn more about seafood, including recommendations, and for useful participant resources about eating fish, please visit: <https://www.fda.gov/food/consumers/advice-about-eating-fish>



VIDEO PART 7: Education and Referral

Offer relevant education messages, customized to the participant's immediate needs.

These sample messages are from the nutrition care guidelines:

"Foods that may cause food poisoning include unpasteurized juices, unpasteurized dairy products, such as imported cheeses, raw or undercooked meat, fish, poultry, and eggs, and processed deli meats and hot dogs."

"To avoid illness, it is recommended that you heat hot dogs and deli or sandwich meats before offering them to your child."

"Read the labels on dairy products, such as cheeses, to make sure they include pasteurized products. Most cheeses made in the United States are pasteurized, but imported cheeses, such as those from Mexico, may not be pasteurized."

"Unpasteurized foods, such as unpasteurized milk, cheese, or juice, may result in illness as a result of the bacteria in the food."



DISCUSSION POINT 7: Education Message

You're doing an assessment for a participant who has two sons, ages 2 and 4. She explains, "We often run errands around town all afternoon, so I pack deli meat and cheese for a snack while we're out."



Is there a food safety risk for these children? What other questions would you ask? What relevant nutrition education message would you share?

Answer: Yes, they likely are at risk because they “often” eat deli meat that has not been properly stored and heated to steaming before eating. Ask further questions about frequency, as well as other food safety concerns to completely assess for the food safety codes.

An example of a relevant nutrition education message is, “First off, great job planning snacks while you’re out running errands. However, deli meat can be contaminated with harmful bacteria, so to avoid illness we recommend that you heat deli or deli/sandwich meats and hot dogs until steaming before offering them to your children.” You may also offer information about keeping perishable foods like cheese and deli meat at safe temperatures.

Facilitator: An optional follow-up question for this discussion is “What alternative, safe snacks that travel well would you recommend for this participant?”



Additional Questions for RDs / DTRs:

- What kinds of referrals do you currently receive related to food safety?
- What food safety resources do you use for learning more?
- What food safety resources do you share with participants?



VIDEO PART 8: Summary

Food safety and foodborne illness prevention are especially important for WIC participants. Infants, children, and pregnant women are at higher risk for getting foodborne illnesses from contaminated food.

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

Two primary resources

- Food Safety.gov <https://www.foodsafety.gov>
- Fight Bac Campaign <https://www.fightbac.org>

Additional citations and resources

- <http://www.fightbac.org/food-safety-education/home-food-safety-mythbusters/top-10-myths/>
- <https://wicworks.fns.usda.gov/resources/food-safety-education-materials-and-information-resources>
- <https://www.cdc.gov/foodsafety/foodborne-germs.html>



- <https://www.foodsafety.gov/food-poisoning>
- <http://www.fightbac.org/food-poisoning/about-foodborne-illness/>
- <https://www.foodsafety.gov/people-at-risk/children-under-five>
- <https://www.cdc.gov/foodsafety/people-at-risk-food-poisoning.html>
- <https://www.foodsafety.gov/people-at-risk/pregnant-women>
- <https://www.cdc.gov/listeria/index.html>
- <https://www.fda.gov/food/health-educators/listeria-food-safety-moms-be>
- <https://www.ncbi.nlm.nih.gov/pubmed/21517700>
- <https://www.foodsafety.gov/food-poisoning/bacteria-and-viruses>
- <https://www.cdc.gov/listeria/faq.html>
- <https://www.cdc.gov/listeria/prevention.html>
- <https://www.cdc.gov/parasites/toxoplasmosis/>
- <https://www.choosemyplate.gov/moms-food-safety-toxoplasmosis>
- https://www.cdc.gov/parasites/toxoplasmosis/gen_info/pregnant.html
- <https://www.cdc.gov/botulism/prevention.html>
- <https://www.cdc.gov/botulism/general.html>
- <http://www.infantbotulism.org/general/faq.php>
- <https://www.foodsafety.gov/keep-food-safe/4-steps-to-food-safety>
- <http://www.fightbac.org/food-safety-basics/the-core-four-practices/>