

Mission Possible: Keeping Your Food Service Safe TRANSCRIPT

Slide 0: MISSION POSSIBLE: KEEPING YOUR FOOD SERVICE SAFE

Good afternoon.

My name is Sharon Hill, and I am the Dietitian Program Manager for the DADS Quality Monitoring Program. Welcome to our SECOND webinar. We are excited to present Mission Possible: Keeping Your Food Service Safe. This webinar was developed with the approval of the Academy of Nutrition & Dietetics. 1 hour of CPE, Learning Level 2 has been awarded.

If you have questions during the presentation, please use the chat box to type your question. At the end of the presentation, I will read your questions. If we are unable to answer your question during the webinar, we will send answers by email to the attendees.

Now I would like to introduce our speaker: **Barbara Weathersby.**

Barbara's bio:

Barbara is a registered dietitian, licensed in the state of Texas. She joined the Quality Monitoring Program for the Houston-Beaumont area, Regions 5-6, in July 2005.

She earned her bachelor's degree and a Master of Science degree in Home Economics from Lamar University in Beaumont. In 1978, she began practicing as a clinical dietitian at Baptist Hospital in Beaumont.

She is a member of the Academy of Nutrition and Dietetics, Texas Academy of Nutrition & Dietetics, Consultant Dietitians in Health Care Facilities, and Texas Consultant Dietitians in Health Care Facilities. Barbara is the recipient of the 2005 Ross Leadership Award given by the national Consultant Dietitians in Health Care Facilities practice group.

Her career with the State began in 1983 as a Nutrition Surveyor. Through the years she has held several other positions including: Education Specialist, Long-Term Care Regulatory Program Manager, Enforcement Team, Life Safety Code program manager, and Joint Trainer.

We are fortunate to have Barbara as part of the Quality Monitoring Program team.

Barbara: Good afternoon everyone. Welcome to Mission Possible: Keeping Your Food Service Safe. This presentation is based on the Interpretive Guidelines for Long Term Care Facilities for Tag 371.

Slide 1: LEARNING OBJECTIVES

The learning objectives for this webinar are:

- Identify three food borne illnesses resulting from improper food handling and sanitation
- Identify four areas where good sanitation procedures prevent food borne illnesses
- Identify strategies to prevent food borne illnesses

- Apply knowledge to prevent food borne illnesses

Slide 2: WORDS YOU SHOULD KNOW

Terms that you should know are:

Cross contamination- transfer of harmful substances or disease-causing microorganisms to food by hands, food contact surfaces, sponges, cloth towels, or utensils which are not cleaned after touching raw food and then touching ready-to-eat foods. Can also occur when raw food touches or drips onto cooked or ready-to-eat foods such as fresh produce

Danger Zone- temperatures above 41° F and below 135° F that allow the rapid growth of microorganisms that can cause foodborne illness

Food contamination- unintended presence of potentially harmful substances, including, but not limited to microorganisms, chemicals or physical objects in food

Food service distribution – the processes involved in getting food to the individuals we serve

Foodborne illness- illness caused by eating contaminated food or beverages

Potentially Hazardous Food (PHF) or Time/Temperature Control for Safety (TCS) Food refers to food that requires time/temperature control for safety to limit the growth of pathogens or toxins

Slide 3: TYPES OF FOOD CONTAMINANTS

There are three types of food contaminants:

Biological contaminants are pathogenic bacteria, viruses, toxins, and spores that contaminate food. The two most common are bacteria and viruses. Parasites can also contaminate food, but are less common.

Chemical contaminants most commonly found in food service are cleaning agents such as soap, oven cleaners, glass cleaners, etc.

Physical contaminants are foreign objects that may inadvertently enter the food such as staples, fingernails, metal shavings from can openers, hair, and glass.

We will discuss each of these types of food contamination.

Slide 4: BIOLOGICAL CONTAMINATION

Not all bacteria cause illness in humans. For example, lactobacillus is added to yogurt to enhance digestion. Some bacteria are harmful and may cause illness or death. Examples are some strains of E coli and salmonella which occurs naturally in poultry.

Several factors that influence the growth of bacteria include: **the hazardous nature of the food.**

Although, almost any food can be contaminated certain foods are considered more hazardous than others. These are called potentially hazardous foods (PHF) or time/temperature control for safety (TCS)

foods. Examples of these are ground beef, chicken, seafood, cut melon, unpasteurized eggs, milk, yogurt, and cottage cheese.

Do any of you remember the E-coli problem at Jack-In –the Box? This incidence resulted from improperly cooked meat which cause [people to become infected with e-coli.

Acidity (pH of the food). More acidic foods such as pineapple, vinegar, and lemon juice inhibit bacterial growth.

Water percentage of the food- a high level of water found in vegetables and fruit encourage bacterial growth

Time and temperature control of the food- the longer food remains in the danger zone, the greater the risks for growth of harmful pathogens. Bacteria multiply rapidly in a moist environment in the danger zone. Freezing does not kill bacteria. Rapid death of most bacteria occurs at 165° F or above.

Viruses- cannot reproduce without a living host (animal or human). Viruses can survive long enough to be transmitted to a new host. Two viruses that are well known for being spread by poor food handling techniques are norovirus and hepatitis A

Toxins- are substances that are produced by some bacteria such as Clostridium botulinum and Staphylococcus aureus. Most toxins are not destroyed by high temperatures. Example- the Clostridium botulinum is in raw honey and causes botulism.

Slide 5: CHEMICAL CONTAMINATION

The most common chemical contaminants are cleaning agents such as glass cleaner, bleach, oven cleaner, and insecticides. If chemicals are sprayed during food preparation, then food contamination is possible. Contamination can also occur if cleaning chemicals are not labeled and stored correctly. Chemical products should always be stored in the original container with the original label intact. For example, incorrectly stored dishwashing liquid in a syrup bottle or unlabeled granulated cleaner that looks like salt can accidentally be added to food and cause illness or possibly death. Chemical products should be stored separately from food items.

Slide 6: PHYSICAL CONTAMINATION

These are examples of foreign objects. Can you think of other objects?

I was in a facility kitchen that was so hot that the cooks were sweating and the sweat was falling in the food. This is a type of contamination that you don't usually encounter and one that the consumer cannot detect.

Slide 7: OTHER FACTORS IMPLICATED IN FOOD BORNE ILLNESSES

Poor hand-washing techniques can spread an infection or communicable disease. Food service workers who are "infectious" must not be allowed to work in food service.

Poorly cooked food promotes the growth of pathogens that may cause foodborne illnesses. PHF/TCS foods require adequate cooking and proper holding temperatures to reduce the rapid and progressive growth of illness producing microorganisms such as salmonellae or clostridium botulinum.

Equipment can become contaminated by poor personal hygiene, improper sanitation, and contact with raw foods such as eggs, poultry, seafood, and meat.

Unsafe food sources are sources that are not considered satisfactory by Federal, state, or local authorities. Nursing facilities cannot use home prepared or home preserved foods that are canned or pickled. However, Family members or other guests who bring in food for an individual resident are allowed to do so, but the food cannot be reheated in the facility kitchen. Facility staff is responsible for ensuring that safe food handling techniques are used for food brought in by family.

Slide 8: PATHOGENIC ORGANISMS AND STRATEGIES FOR CONTROL

These are the most common microorganisms and strategies or ways to control them.

<u>Source of Contamination</u>	<u>Primary Agents of Concern</u>	<u>PHF/TCS Control Strategy</u>
Fresh fruits & vegetables	E.Coli, Salmonella, Norovirus, Hepatitis A, Shigella	Wash well. Cook to proper temps. Prevention of cross contamination to ready-to- eat foods
Ready-to-use meat & Poultry products	Listeria	Proper refrigeration during storage
Pasteurized egg products	Listeria	Proper refrigeration during storage
Ice	Norovirus	Cleaning & sanitizing internal parts of ice machines.

Slide 9: PATHOGENIC MICROORGANISMS & STRATEGIES FOR CONTROL

<u>Source of Contamination</u>	<u>Primary Agents of Concern</u>	<u>PHF/TCS Control Strategy</u>
Eggs, raw or unpasteurized	Salmonella	Cook to proper temps. Prevent cross-contamination to ready-to-eat foods
Poultry, raw	Campylobacter, salmonella, clostridium perfringens	Cook to proper temps. Prevent cross-contamination to ready-to-eat foods
Meat, raw	E. Coli, Campylobacter, salmonella, clostridium perfringens	Cook to proper temps. Prevent cross-contamination to ready-to-eat foods
Infectious food workers	Norovirus, Hepatitis A, shigella, salmonella, staphylococcus aureus	Proper handwashing procedures. Avoid bare-hand contact with ready-to-eat food.

Slide 10: PREVENTION OF FOOD BORNE ILLNESSES

Prevention of foodborne illness involves many factors.

- Food handling & preparation
- Employee health
- Hand washing, gloves, and hand sanitizers
- Hair restraints
- Jewelry/Nail Polish
- Food receiving & Storage
- Safe food preparation

We will explore each of these factors mentioned on the slide.

Slide 11: FOOD HANDLING & PREPARATION

Proper food preparation, storage, and handling practices are essential in preventing foodborne illnesses.

Education, training, and monitoring of all staff and volunteers in food service, as well as establishing effective infection control & quality assurance programs, help maintain safe food handling practices.

Some of the most common mistakes made during meal service are made by persons who are assisting the residents after the food is served. One is the handling of bread, rolls, and buns with bare hands when applying butter or condiments such as mayonnaise or mustard. Other common mistakes include picking up glasses with the bare hands touching the drinking rim of the glass and touching the eating end of utensils such as knives, forks and spoons. The use of gloves is not the answer to these problems. The answer is in training individuals to use proper food handling techniques such as using the fork and knife to separate the roll for buttering or using a napkin to touch the bread when applying butter.

Slide 12: FOOD DISTRIBUTION PROBLEMS/RISKS

Dining locations include any area where one or more individuals eat their meals. These can be located adjacent to the kitchen or a distance from the kitchen, such as residents' rooms and dining rooms in nursing units on other floors or wings of the building. Potential food handling problems/risks associated with food distribution include:

- Staff distributing trays without first properly washing their hands
- Serving food to individuals after collecting soiled plates and food waste, without proper hand washing and
- Putting trays that have been served and the food has been eaten back on carts with trays that have not been served. Another problem is taking food down a hall without being covered, including beverages.

Slide 13: EMPLOYEE HEALTH

Examples of communicable diseases are: E Coli, Hepatitis, Influenza, Meningitis, and Tuberculosis which may cause acute gastrointestinal symptoms such as vomiting, diarrhea, jaundice, sore throat with fever,

coughing, sneezing, and flu-like symptoms. Skin lesions are boils with pus, or an infected wound that is draining unless the area is covered with an impermeable cover (if on the hands or wrists) and a dry, durable tight-fitting bandage on other body parts. Cooked/ ready-to-eat foods include all foods that can be consumed without additional preparation such as raw fruits and vegetables or bread. Regulatory will definitely write a deficiency in kitchen sanitation if employees are handling ready-to-eat foods with bare hands. Example is picking up bread to be buttered.

Slide 14: HANDWASHING, GLOVES, AND ANTIMICROBIAL GEL

Consistent use of good hygienic practices and techniques is critical to prevent microorganisms carried on the skin.

Proper hand-washing facilities include soap (regular or antimicrobial), hot water, and disposable towels, and/ or heat/air drying methods. Wash hands for twenty seconds with hot water and soap. Dry hands and use paper towels to turn off the water after drying hands. Staff cannot wash hands in food preparation sink, or ware-washing, or in a service sink or a curbed cleaning facility used for disposal of mop water and similar waste liquid. Hands should be washed before working with food preparation, after using the toilet room, after coughing, sneezing, eating, drinking, and using tobacco. Hands should be washed after handling soiled equipment or utensils, when changing from working with raw food to ready-to-eat food, before donning gloves for working with food, and as necessary to remove soil and contamination to prevent contamination when changing tasks.

Antimicrobial gel (hand hygiene that does not require water) cannot be used in place of proper hand-washing techniques in a food service setting.

The use of disposable gloves is NOT a substitute for proper hand washing with soap and water. Gloved hands can get contaminated or soiled and gloves need to be changed between tasks to prevent cross-contamination. Disposable gloves are single use items and should be discarded after each use. I usually ask the dietary staff, "Does anyone have those magic gloves that never have to be changed once you put them on? They always look puzzled, and I say, you know those gloves do not exist.. This makes them laugh, but it gets the point across that gloves are not the magic cure for handling food.

Slide 15: HAIR RESTRAINTS/JEWELRY/NAIL POLISH

Dietary staff must wear hair restraints such as hats, hair coverings or nets, beard restraints, and clothing that covers body hair, to keep their hair from contacting exposed food. Hair in your food will probably not make you sick, but it definitely decreases the aesthetic value of your meal.

Fingernails must be trimmed, filed, and maintained so the edges and surfaces are cleanable and not rough.

Unless wearing intact gloves in good repair, a food employee may not wear fingernail polish or artificial fingernails when working with exposed food. Gloves need to be changed appropriately to reduce the spread of microorganisms.

Jewelry use- Since jewelry can harbor microorganisms, it is recommended that dietary staff keep jewelry to a minimum and cover hand jewelry with gloves when handling food.

Slide 16: FOOD STORAGE

When supplies are delivered, inspect for safe transport and quality. Examples: Look to see if any foods are opened, out of date, or if cans are bent and/or leaking. If cans are bent or leaking, discard, do not use.

Dry Food Storage -Dry storage may be in a room or area designated for the storage of dry goods, such as single service items, canned goods, and packaged or containerized bulk food that is not PHF/TCS. The focus of protection for dry storage is to keep non-refrigerated foods, disposable dishware, and napkins in a clean, dry area, which is free from contaminants. Controlling temperature, humidity, rodent and insect infestation helps prevent deterioration or contamination of the food. Dry foods and goods should be handled and stored to maintain the integrity of the packaging until they are ready to use. It is recommended that foods stored in bins (e.g., flour or sugar) be removed from their original packaging. Keeping food off the floor and clear of ceiling sprinklers, sewer/waste disposal pipes, and vents can also help maintain food quality and prevent contamination. Desirable practices include managing the receipt and storage of dry food, removing foods not safe for consumption, keeping dry food products in closed containers, and rotating supplies.

It is recommended that foods stored in bins (e.g. flour or sugar) be removed from the original packaging. A desirable practice is to rotate supplies to ensure freshness. The best way to accomplish this task is to date the cans, packages, etc. when received and then use the oldest first.

Refrigeration prevents food from becoming a hazard by significantly slowing the growth of most microorganisms. Inadequate temperature control during refrigeration can promote bacterial growth. Adequate circulation of air around refrigerated products is essential to maintain appropriate food temperatures. Foods in a walk-in unit should be stored off the floor.

Practices to maintain safe refrigerated storage include:

- Monitoring food temperatures and functioning of the refrigeration equipment daily and at routine intervals during all hours of operation;
- Placing hot food in containers (e.g., shallow pans) that permit the food to cool rapidly;
- Separating raw animal foods (e.g., beef, fish, lamb, pork, and poultry) from each other and storing raw meats on shelves below fruits, vegetables or other ready-to-eat foods so that meat juices do not drip onto these foods; and
- Labeling, dating, and monitoring refrigerated food, including, but not limited to leftovers, so it is used by its use-by date, or frozen (where applicable) or discarded.

Slide 17: SAFE FOOD PREPARATION

Many steps in safe food preparation must be controlled or monitored to prevent foodborne illness. Identification of potential hazards in the food preparation process and adhering to critical control points can reduce the risk of food contamination and thereby prevent foodborne illness.

Commercially pre-washed, pre-cut, and pre-packaged lettuce and other fruits and vegetables are considered edible without further preparation. We will explore each of these ways of safe food preparation.

Slide 18: CROSS CONTAMINATION

Cross-Contamination - Cross-contamination can occur when harmful substances or disease-causing microorganisms are transferred to food by hands, food contact surfaces, sponges, cloth towels, or utensils that are not cleaned after touching raw food and then touch ready-to-eat goods. Cross-contamination can also occur when raw food touches or drips onto cooked or ready-to-eat foods. Examples of ways to reduce cross-contamination include, but are not limited to:

- Store raw meat (e.g., beef, pork, lamb, poultry, and seafood) separately and in drip-proof containers and in a manner that prevents cross-contamination of other food in the refrigerator;
- Between uses, store towels/cloths used for wiping surfaces during the kitchen's daily operation in containers filled with sanitizing solution at the appropriate concentration per manufacturer's specifications). Periodically testing the sanitizing solution helps assure that it maintains the correct concentration.
- Wash and sanitize cutting boards made of acceptable materials (e.g., hardwood, acrylic) between uses,
- Clean and sanitize work surfaces and food-contact equipment (e.g., food processors, blenders, preparation tables, knife blades, can openers, and slicers) between uses.

Slide 19: THAWING METHODS

Thawing -Thawing frozen foods is often the first step in food preparation. Thawing food at room temperature is not acceptable because the food is within the danger zone for rapid bacterial proliferation. Recommended methods to safely thaw frozen foods include:

- Thawing in the refrigerator, in a drip-proof container, and in a manner that prevents cross-contamination;
- Completely submerging the item under cold water (at a temperature of 70 degrees F or below) that is running fast enough to agitate and float off loose ice particles;
- Thawing the item in a microwave oven, then cooking and serving it immediately afterward; or
- Thawing as part of a continuous cooking process such as making chili when you put a small amount of water and frozen meat in the pot. As the meat thaws, it also cooks and eventually browns when it is completely thawed.

Slide 20: FINAL COOKING TEMPERATURES

Final Cooking Temperatures -Cooking is a critical control point in preventing foodborne illness. Cooking to heat all parts of food to the temperature and for the time specified below will either kill dangerous organisms or inactivate them sufficiently so that there is little risk to the individual if the food is eaten promptly after cooking. Monitoring the food's internal temperature for 15 seconds determines when microorganisms can no longer survive and food is safe for consumption. Foods should reach the following internal temperatures:

- Poultry and stuffed foods - 165 degrees F;
- Ground meat (e.g., ground beef, ground pork), ground fish, and eggs held for service -at least 155 degrees F;
- Fish and other meats - 145 degrees F for 15 seconds;
- Unpasteurized eggs when cooked to order in response to an individual's request and to be eaten promptly after cooking;
- 145 degrees F for 15 seconds; until the white is completely set and the yolk is congealed; and
- When cooking raw animal foods in the microwave, foods should be rotated and stirred during the cooking process so that all parts of the food are heated to a temperature of at least 165 degrees F, and allowed to stand covered for at least 2 minutes after cooking to obtain temperature equilibrium.

NOTE: Fresh, frozen, or canned fruits and vegetables that are cooked do not require the same level of microorganism destruction as raw animal foods. Cooking to a hot holding temperature (135 degrees F) prevents the growth of pathogenic bacteria that may be present in or on these foods.

Slide 21: REHEATING FOODS

Reheated cooked foods present a risk because they have passed through the danger zone multiple times during cooking, cooling, and reheating. The PHF/TCS food that is cooked and cooled must be reheated so that all parts of the food reach an internal temperature of 165 degrees F for at least 15 seconds before holding for hot service. Ready-to-eat foods that require heating before consumption are best taken directly from a sealed container (secured against the entry of microorganisms) or an intact package from an approved food processing source and heated to at least 135 degrees F for holding for hot service.

Although proper reheating will kill most organisms of concern, some toxins, such as that produced by *Staphylococcus aureus* cannot be inactivated by reheating food.

NOTE: Using the steam table to reheat food is unacceptable since it does not bring the food to the proper temperature within acceptable time-frames.

Slide 22: COOLING

Improper cooling is a major factor in causing foodborne illness. Taking too long to chill PHF/TCS foods has been consistently identified as one factor contributing to foodborne illness. Foods that have been cooked and held at improper temperatures promote the growth of disease-causing microorganisms that may have survived the cooking process (e.g., spore-formers). Cooled food items can be re-contaminated by unsanitary handling practices or cross-contaminated from other food products, utensils, and equipment.

Large or dense food items, such as roasts, turkeys, soups, stews, legumes, and chili may require interventions (e.g., placing foods in shallow pans, cutting roasts into smaller portions, utilizing ice water baths, and stirring periodically) to be chilled safely within an allowed time period. These foods take a long time to cool because of their volume and density. If the hot food container is tightly covered, the cooling rate may be slowed further, leading to longer cooling times during which the food remains in the danger zone- 135 ° to 41°. Cooked potentially hazardous foods that are subject to time and temperature control for safety are best cooled rapidly within 2 hours, from 135 to 70 degrees F, and within 4 more hours to the temperature of approximately 41 degrees F. The total time for cooling from 135 to 41 degrees F should not exceed 6 hours.

Slide 23: MODIFIED CONSISTENCY

Modified Consistency - individuals who require a modified consistency diet may be at risk for developing foodborne illness because of the increased number of food handling steps required when preparing pureed and other modified consistency foods. When hot pureed, ground, or diced foods drop into the danger zone (below 135 degrees F), the mechanically altered foods must be reheated to 165 degrees F for 15 seconds

Slide 24: EGGS

Pooled Eggs -Pooled eggs are raw eggs that have been cracked and combined together. The facility should crack only enough eggs for immediate service in response to an individual's request or as an ingredient immediately before baking. Texas Food Establishment Rules (TFER) does not allow pooled eggs in nursing facilities. In the past, cooks would crack fresh eggs the night before for use in the morning. Salmonella infections associated with unpasteurized eggs can be prevented by using pasteurized shell eggs or pasteurized egg products in foods that require pooling of eggs or foods that will not be thoroughly cooked..

The U.S. Department of Agriculture, Food and Safety inspection Service, Salmonella Enteritidis (SE) Risk assessment states "A partial list of persons with increased susceptibility to infectious agents includes persons with chronic diseases, and individuals in nursing homes. The elderly are particularly susceptible to infectious agents such as SE for a number of reasons. The disproportionate impact of severe complications and death from salmonellosis is illustrated by epidemiologic evidence." Waivers to allow undercooked unpasteurized eggs for individual preference are not acceptable. Pasteurized shell eggs are available and allow for safe consumption of undercooked eggs.

NOTE: Raw eggs with damaged shells are unsafe because of the potential for contamination.

Slide 25: FOOD PREPARATION OR SERVICE AREA PROBLEMS/RISKS TO AVOID

The tray line may include, but is not limited to the steam table where hot prepared foods are held and served, and the chilled area where cold foods are held and served. An individual's meal tray may consist of a combination of foods that require different temperatures. Food preparation or service area problems/risks to avoid include, but are not limited to: read slide.

The maximum length of time that foods can be held on a steam table is a total of 4 hours. Monitoring of the temperature by food service workers while food is on the steam table is essential. Foods may be reheated (only once) to 165 degrees F. Reheated foods are best discarded if not eaten within two hours after reheating.

Slide 26: FOODS (SNACKS) STORED ON THE UNITS PROBLEMS/RISKS

Snacks refer to those foods that are served between meals or at bed time. Temperature control and freedom from contamination are also important when ready-to eat or prepared food items for snacks are sent to the unit and are held for delivery; or stored at the nursing station, in a unit refrigerator or unit cupboards. Food handling risks associated with food stored on the units may include but are not limited to:

- Food left on trays or countertops beyond safe time and/or temperature requirements;
- Food left in refrigerators beyond safe "use by" dates (including, but not limited to foods that have been opened but were not labeled, etc.);
- Food stored in a manner (open containers, without covers, spillage from one food item onto another, etc.) that allows cross-contamination; and
- Failure to maintain refrigerated food temperatures at safe levels

Slide 27: SPECIAL EVENTS

"The facility has a responsibility under the food and safety regulatory language at F-371 to help visitors understand safe food handling practices (such as not holding or transporting foods containing perishable ingredients at temperatures above 41 degrees F) and to ensure that if they are assisting visitors with reheating or other preparation activities, that facility staff use safe food handling practices and encourage visitors and residents who are contributing to food preparation in the facility to use these safe practices as well."

In other words, food can be brought in, but the facility has responsibilities to ensure the food was transported in as safe a condition as possible and to keep it safe after being delivered to the facility. A provider can develop their own policies and practices, as well as keeping food safe, to uphold resident rights. One way this may be accomplished is for the registered dietitian, dietary manager, and other staff to plan and document how staff will manage the food temperatures and sanitation of the items brought in by the families and community.

There is no conflict between the CMS guidance for a nursing facility as provided in S&C 39.09 and a holiday pot-luck meal, as long as each resident has the right to choose not to participate in that meal and the facility provides a comparable "facility prepared" meal.

Slide 28: ICE PROBLEMS/RISKS

Appropriate ice and water handling practices prevent contamination and the potential for waterborne illness. Ice must be made from potable (safe for drinking and use) water. Ice that is used to cool food items (e.g., ice in a pan used to cool milk cartons) is not to be used for consumption. Keeping the ice machine clean and sanitary will help prevent contamination of the ice. Contamination risks associated with ice and water handling practices may include, but are not limited to:

Staff who use poor hygiene, fail to wash hands adequately, or handle ice with their bare hands are not following appropriate infection control practices when dispensing water and ice

Staff who dispense ice should make sure that the scoop is stored in a container and that a glass is not used to scoop ice

Unclean equipment, including the internal components of ice machines that are not drained, cleaned, and sanitized as needed and according to manufacturer's specifications

This is an area that regulatory inspectors always observe. If you listen to any investigative reports on restaurants, you will always hear about slime in the ice machine.

Slide 29: METHODS TO DETERMINE PROPER WORKING ORDER OF REFRIGERATORS/FREEZERS

Refrigeration - A potential cause of foodborne illness is improper storage of PHF/TCS food. The refrigerator must be in good repair and keep foods at or below 41 degrees F. The freezer must keep frozen foods frozen solid. The following are methods to determine the proper working order of the refrigerators and freezers:

- Measure whether the temperature of a PHF/TCS food that has been inside for at least 24 hours is 41 degrees or less;
- To make sure the cooling process is effective, measure the temperature of a PHF/TCS that has a prolonged cooling time (e.g., one in a large, deep, tightly covered container). Determine if it is in the danger zone;
- Check for situations where potential for cross-contamination is high (e.g., raw meat stored over ready-to-eat items);
- Check the firmness of frozen food and inspect the wrapper to determine if it is intact enough to protect the food
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Slide 30: EQUIPMENT AND UTENSIL CLEANING AND SANITATION

A potential cause of foodborne outbreaks is improper cleaning (washing and sanitizing) of contaminated equipment. Protecting equipment from contamination via splash, dust, grease, etc. is indicated.

Dishwashing machines, operated according to the manufacturer specifications, wash, rinse, and sanitize dishes and utensils using either heat or chemical sanitization. Manual dishwashing is often used for pots and pans, or when the dishwashing machine is not operational. We will discuss each individually and we will discuss each type of machine.

Slide 31: MACHINE WASHING AND SANITIZING

High Temperature Dishwasher (heat sanitization): Wash 150-165 degrees F wash; and Final Rinse 180 degrees F final rinse (160 degrees F at the rack level/dish surface reflects 180 degrees F at the manifold, which is the area just before the final rinse nozzle where the temperature of the dish machine is measured); or 165 degrees F for a stationary rack, single temperature machine

Slide 32: MACHINE WASHING AND SANITIZING

Low Temperature Dishwasher (Chemical)

- Wash -120 degrees F
- Final Rinse 50 ppm (parts per million) chlorine on dish surface in final rinse

The important thing to remember is to follow the recommendations of the machine manufacturer.

Slide 33: MANUAL WASHING AND SANITIZING

A 3-step process is used to manually wash, rinse, and sanitize dishware correctly in a three compartment sink. The first step is thorough washing using hot water and detergent after food particles have been scraped. The second is rinsing with hot water to remove all soap residues. The third step is sanitizing with either hot water or a chemical solution maintained at the correct concentration, based on periodic testing, and for the effective contact time according to manufacturer's guidelines.

After washing and rinsing, dishes and utensils are sanitized by immersion in either:

- Hot water (at least 171 degrees F) for 30 seconds; or
- A chemical sanitizing solution used according to manufacturer's instructions

Chemical sanitization requires greater controls than hot water sanitization. **If explicit instructions are not provided by the manufacturer, the recommended sanitization concentrations are as follows:**

- **Chlorine 50-100 ppm minimum 10 second contact time**
- **Iodine 12.5 ppm minimum 30 second contact time**
- **QAC space (Quaternary) 150-200 ppm concentration and contact time per Manufacturer's instructions (Ammonium Compound)**

A high concentration of sanitation solutions may be potentially hazardous (see manufacturer's instructions). Improper test strips yield inaccurate results when testing for chemical sanitation. **Drying food preparation equipment and utensils with a towel or cloth may increase risks for cross contamination.**

Slide 34: CLEANING FIXED EQUIPMENT

When cleaning fixed equipment (e.g., mixers, slicers, and other equipment that cannot readily be immersed in water), the removable parts are washed and sanitized and non-removable parts are cleaned with detergent and hot water, rinsed, air-dried and sprayed with a sanitizing solution (at the effective concentration). Finally, the equipment is reassembled and any food contact surfaces that may

have been contaminated during the process are re-sanitized (according to the manufacturer's instructions).

In my time as a surveyor, I observed a commercial slicer that had not been taken apart for cleaning in a facility. The slicer actually had maggots in and under the slicer. This facility definitely got a sanitation deficiency.

Service area wiping cloths are cleaned and dried or placed in a chemical sanitizing solution of appropriate concentration.

Slide 35: DON'T BE THE WEAKEST LINK

It is important that the RD consultant stress to the facility employees the importance of handling food safely, not only to protect the residents, but also to prevent deficiencies being written by the regulatory inspection team.

Slide 36: REFERENCES

If following these guidelines that are provided to the surveyors, food service in a facility should be able to prevent food borne illnesses in their kitchen and ensure the safety of their individuals.

There are no questions displayed at this time.

Closing:

Thank you for this very informative presentation, Barbara: Questions

When I sent the slides to you this week, 5 email addresses were returned. If you want the slides please email me and check your email address for accuracy. Shortly, you will receive an email with a link to a survey about the webinar using Survey Monkey. After you complete the survey, a certificate will be emailed to you that you attended this webinar. **YOU MUST COMPLETE THE SURVEY TO RECEIVE A CERTIFICATE.**

Two more webinars are planned by the Quality Monitoring dietitians in 2013. Stay tuned for upcoming announcements about these webinars.

Thank you for your attention and have a good afternoon.