Food Safety for Schools – A Process Approach to HACCP

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Child Nutrition Programs
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After this Training….

You will have a solid foundation for developing a food safety plan using the process approach to HACCP principles. Today we will:

1) Give an overview of School HACCP.
2) Categorize menus according to the Process Approach to HACCP.
3) Provide a guide to a HACCP plan for your school.

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Test Your Knowledge: True or False

- Foodborne illnesses are caused more often by physical hazards, such as fingernails or getting glass into food.
- Young children are more susceptible to foodborne illness than adults.
- Improperly cooled foods can lead to foodborne illness.
- Time and Temperature controls are best methods to prevent the growth of harmful microorganisms.
- The best way to prevent hazards from causing foodborne illness is to have a comprehensive food safety program.

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2004-Mandate for schools

- Reauthorization Act of 2004 requires that all schools participating in federally funded Child Nutrition Program(s), implement a HACCP plan by the end of the 2005/2006 school year.
- In addition….2 inspections are now required for schools participating in the program…..

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Why Implement a Food Safety Program using HACCP Principles?

To ensure that the food served to children is as safe as possible

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What is HACCP?

- H Hazard
- A Analysis
- C Critical
- C Control
- P Points

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HACCP is a food safety system that helps identify **foods** and **procedures** that are most likely to cause foodborne illness

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Key Terms…

- Hazard Analysis
- Control Measures
- Critical Control Points
- Potentially Hazardous Food (PHF)
- Process Approach
- Standard Operating Procedures (SOPs)

Adapted from: United States Department of Agriculture, Food and Nutrition Service. (June 2005). *Guidance for School Food Authorities: Developing a School Food Service Program Based on the Process Approach to HACCP Principles.* United States Department of Agriculture, Food and Nutrition Service. Author. http://www.fns.usda.gov/cnd/lunch/Downloadable/HACCPGuidance.pdf

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Consequences of a foodborne outbreak…

- ✓ Medical/legal claims
- ✓ Lost wages
- ✓ Cleaning and sanitizing costs
- ✓ Food loss-costs associated
- ✓ Bad publicity
- ✓ Embarrassment-loss of reputation
- ✓ Child Nutrition Program closes = hungry children

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An interesting comparison….

- If you wear a seat belt you may not prevent an accident—but you may reduce your risk of getting hurt….

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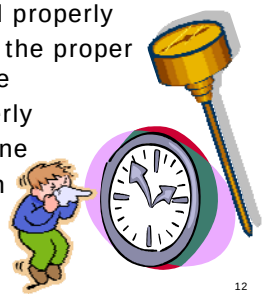
What are some common activities in a Child Nutrition Program (CNP) that could cause a foodborne illness?

Causes of foodborne illness:

- Food in the danger zone too long
- Not cooling hot food properly
- Not cooking food to the proper internal temperature
- Not reheating properly
- Poor personal hygiene
- Cross contamination



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An Effective Food Safety Program Controls Food Safety Hazards During All Aspects of Food Service

- Receiving
- Storing
- Preparing
- Cooking
- Cooling
- Reheating
- Holding
- Assembling
- Packaging
- Transporting
- Serving

Three Essential Points to Developing this Plan

- Sanitation
- Temperature Control
- Standard Operating Procedures (SOPs)

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Sanitation

The promotion of hygiene and prevention of disease by maintenance of sanitary conditions

(Readily kept in cleanliness)

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Sanitation

- Use the Food Safety Checklist (located in the Resources section of your production record book) to see that your food preparation areas are clean and sanitary

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Why Thermometer Usage is Important

- Maintaining appropriate temperatures is very important in food service operations
- Ensures food is safe for children to eat
- Minimizes bacterial growth
- Maintains quality of food

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Potentially Hazardous Foods:

- Are capable of supporting the growth of pathogenic microorganisms:
  - High Protein
  - Moist
  - Neutral pH
    - Remember FAT TOM.....

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Standard Operating Procedures

- After sanitation……..the SOPs are:
  - First step for overall food safety program.
  - Step-by-step instruction for routine food service task that affect the safety of food.
  - Instructions for monitoring, documentation, corrective action, verification and record keeping.
  - Allows managers and employees to effectively control and prevent hazards.

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Developing Food Safety Plan – Getting Ready

- Sanitation and Safety training for lead workers. This is required in ND.
- HACCP training for manager to develop the framework
- Standardize recipes

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Review Operations Within Your School

- If you serve at more than one site you will need to review the operations at EACH of these sites
- Considerations:
  - Number & Type of Employees at Each Site
  - Types of Equipment
  - Processes for Food Preparation
  - Menu Items

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Recommended Steps

1. Collect and follow Standard Operating Procedures (SOPs)
2. Classify menu items according to the process approach to HACCP
3. Identify Control Measures and Critical Limits

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Recommended Steps

5. Set up Monitoring Procedures
6. Set up Corrective Action Procedures
7. Keep records
8. Review and revise plan each year

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Step One: Collect and Follow Standard Operating Procedures (SOPs)

An Effective Food Safety Program Controls Food Safety Hazards During Each Step of the Food Preparation Process…SOPs are needed for all of these:

- Date Marking
- Receiving
- Storing
- Preparing
- Cooking
- Holding
- Serving
- Cooling
- Reheating

Sample SOPs

- In the USDA Guidance that you received, pgs. 30-53 (Appendix I) provide sample SOPs that can be rewritten for your facility
- Additional SOPs can be found on the www.nfsmi.org website.
- Change the wording as necessary to make these SOPs fit your school

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Understanding an SOP

Each SOP has the following sections:

- Purpose
- Scope
- Key Words
- Instructions
- Monitoring
- Corrective Measure
- Verification & Record Keeping

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Step Two…Classify Food According to the Process Approach to HACCP

No Cook

Same Day Service

Complex Food Preparation

PROCESS CATEGORIES for Potentially Hazardous Foods:

1. No Cook Process
2. Same Day Service Process
3. Complex Food Process

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Process 1: NO COOK

- Keep Cold - hold at 41° F or below
- Check and record temperatures
- Examples:
  - Fruit Salad
  - Sandwiches

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No Cook Process

NO COOKING TO KILL PATHOGENS!

KEY TO PREVENTING FOOD BORNE ILLNESS?

KEEP FOOD COLD!

LESS THAN 41 degrees F

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Process 2: Same Day Service Process

Food passes through the temperature danger zone only once before it is served…..

(Cooking or Cooling)

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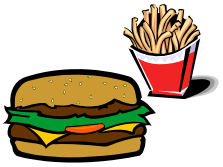
Process 2: Preparation for Same Day Service

Receive ⇗ Store ⇗ Prepare ⇗ Cook ⇗ Hold ⇗ Serve

Example: Hamburgers
Baked Chicken
Pizza
Hot Vegetables



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Process 3: Complex Food Process

Food passes through the danger zone more than one time…..

Process 3: Complex Food Preparation

Receive ⇗ Store ⇗ Prepare ⇗ Cook ⇗ Cool ⇗ Reheat

⇗ Hot Hold ⇗ Serve

Example: Spaghetti w/Meat Sauce
Potato Salad
Leftovers

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- Step Three…

Identify and document control measures and critical limits

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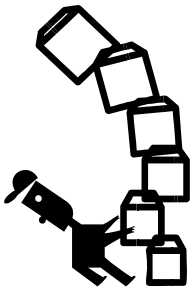
Control Measures



- Control measures are any means taken to prevent, eliminate or reduce hazards
- Control measures that are absolutely essential must be applied at key points….known as CCPs

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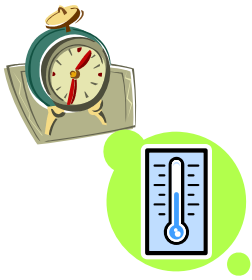
Critical Control Points (CCPs)



- A CCP is a key point where a step can be taken to prevent, eliminate, or reduce a food safety hazard
- Loss of control at this point may result in a health risk

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Critical Control Points require Critical Limits

Cook ground beef to an internal temperature of 155 degrees Fahrenheit for 15 seconds

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Critical Control Limits

- Critical limits (time/temperature) are measurable and observable.
- The Food and Drug Administration has defined critical limits for you to use… i.e. when cooking chicken, the Food Code sets the critical limit at 165° for 15 seconds. Find these in the North Dakota Food Code.

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Critical Limits- No Cook Process

- Cold holding or limiting time in the danger zone to inhibit bacterial growth and toxin production (e.g. limiting time would be holding at room temperature for 4 hours and then discarding)

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Critical Limits- Same Day Service

- Cooking to destroy bacteria and other pathogens
- Hot holding or limiting time in the danger zone to prevent the growth of bacteria

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Critical Limits- Complex Food Preparation

- **Cooking** to destroy bacteria and other pathogens
- **Cooling** to prevent the growth of bacteria
- **Hot and cold holding** or limiting time in the danger zone to inhibit bacterial growth and toxin formation
- **Reheating** for hold holding, if applicable

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Step Four

Establish Monitoring Procedures

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Establish Monitoring Procedures

- How will you monitor?
- When and how often will you monitor?
- Who will be responsible for monitoring?

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Step Five

Establish Corrective Actions

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Corrective Actions

- Whenever a critical limit is not met, a corrective action must be taken.
- Employees must know what these corrective actions are and be trained in making the right decisions.
- Corrective actions allow you to reduce the chance of illness or injury.

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Establish Corrective Actions

- What specific actions will be taken?
- Who will be responsible?
- Who will document?

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Problem:
Temperature of food during time of service is below 135°

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Ask Yourself: WHY?

- Why was food out of temperature?
  - Food not stored in heated/cooling units
  - Not enough serving wells
  - Not enough shallow pans to cool food
  - Food transported without adequate heated/cooling equipment.
  - Improper thawing techniques used

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Corrective Actions

- How long was food out of temperature?
- If less than 2 hours, heat food back up to over 165° and serve
- If more than 4 hours, discard

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Preventive Action for Food out of Temperature

- Are SOPs being followed?
- Does menu need to be adjusted due to equipment limitations?
- Does additional equipment need to be purchased?
- Do thermometers need to be checked?
- Is more training necessary?

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Problem: Temperature of leftovers is 76° when checked 2 hours after meal service.

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WHY?

- Not enough shallow pans to store food
- Food not handled quickly/left unattended
- Temperatures not checked
- Not enough refrigerator/freezer space

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Corrective Action

- Hot food must be cooled to 70° F within 2 hours. They have another 4 hours to reach 41°
- Foods that aren't cooled to 41° within 6 hours must not be served!

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Preventative Action

- Purchase sufficient equipment/pans
- Review SOPs
- Review production records against numbers served, adjust amounts
- Training

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Corrective Action Worksheet

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Corrective Action Log

- If a problem occurs, and is corrected, write it down.
- Way to show that efforts were made to prevent foodborne illness.

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Corrective Action Summary

- SOPs alone will not ensure HACCP is implemented
- Other barriers exist
- Continuous oversight necessary to eliminate potential problems
- Ongoing training is necessary
- Preventative action is recommended to prevent problems

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Step Six

Keep Records

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Recordkeeping

- Records can verify that the food safety program is working.
- Records provide a basis for review of the overall food safety program.
- If a foodborne illness outbreak happens, recordkeeping documents will provide proof that reasonable care was being taken.

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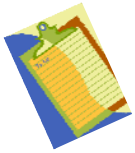
Records that need to be kept

- SOPs
- Time and Temperature Monitoring Records
- Corrective Action Records



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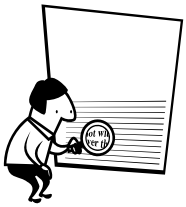
Step Seven

Review and Revise Periodically



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Review and Revise

Change happens:
- Menus
- Equipment
- Staff
- Schedules

Food Safety Plans need to change to cover the needs of the foodservice.

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Review and Revise

- Ongoing review allows you to verify that the program is addressing the food safety concerns and, if it is not, checking to see what needs to be modified or improved.

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ND DPI Child Nutrition Office
328-2294
1-888-338-3663

Eastern ND - Stacie Morowski
1-888-788-8901
www.dpi.state.nd.us

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Other Contacts

National Food Service Management Institute 1-800-321-3045
nfsmi@olemiss.edu
www.nfsmi.org

Local sanitarian
Local county extension office

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Questions?