I am often asked: How should I prepare myself, my staff, and my facility for an inspection, survey, or evaluation? The easy answer is to be prepared all of the time. The more complicated and complex answer is to understand and know the Centers for Disease Control and Prevention (CDC) Risk Factors that contribute to foodborne illness and have Active Managerial Control (AMC) over your facility.

What are the CDC Risk Factors? They are statistically known reasons why foodborne illness occurs. They are:

- Food from unsafe sources
- Inadequate cooking
- Improper holding, hot or cold
- Contaminated equipment
- Poor personal hygiene

In 1998 the Food & Drug Administration (FDA) began a study to determine the “in” or “out” of compliance level for nine different foodservice and retail food facility segments with regards to the CDC Risk Factors. This study concluded in 2008, with a final Trend Analysis published in 2010. FDA began another continuation study in 2013, which will conclude in 2023. Preliminary results for the 2013 study should be available from FDA any day now. In the meantime, the study was able to provide valuable
The industry segment of focus is “Institutions,” which encompasses Hospitals, Nursing Homes, and Elementary Schools. These three categories are considered Highly Susceptible Populations (HSPs), which are populations most at risk for foodborne illness due to being immunocompromised in some manner.

Within each of the five CDC Risk Factors there were several data points evaluated. For example, the Improper Holding (Time/ Temperature) risk factor had seven data points that were evaluated.

**RISK FACTOR: IMPROPER HOLDING (TIME/TEMPERATURE)**

- TCS* food cooled properly
- TCS food held cold (41°F or below)
- Commercially processed ready-to-eat (RTE), TCS foods date marked
- TCS food held hot at 140°F or above (Note: 140°F was used in this survey; since then, the Food Code has reduced hot holding to 135°F)
- RTE, TCS date marked after 24 hours
- Ambient temperature prepared TCS foods cooled properly
- RTE, TCS foods discarded after 7 days (41°F or below) or 4 days (45°F or below)

**Hospitals and Nursing Homes**

The results for Hospitals and Nursing Homes were as follows (based off OUT of Compliance Rates, in order most out of compliance to least)

- Improper Holding: Time & Temp.
  - Cooling
  - Cold Holding
  - Date Marking

**Prevention of Equipment Contamination**

- Cleaning and Sanitizing of Surfaces and Equipment

**Personal Hygiene**

- Proper and Adequate Handwashing

**Elementary Schools**

The results for Elementary Schools were as follows (based off OUT of Compliance Rates, in order most out of compliance to least)

- Improper Holding: Time & Temp.
  - Date Marking
  - Cold Holding

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* TCS = Time/Temperature Control for Safety food (i.e., PHF or potentially hazardous food)
Other/Chemical
- Storage, Labeling & Use of Toxic Materials

Personal Hygiene
- Proper and Adequate Handwashing

How did the Institutions do when compared side by side for controlling Risk Factors? See Table 1.

FDA RECOMMENDATIONS FOR INSTITUTIONAL FOOD SERVICE
The overall impact of this study resulted in several recommendations from FDA to the Institutional Food Service Industry:
- Review and address the impact areas (data points identified)
- Practice safe procedures—follow Standard Operating Procedures (SOPs)
- Provide staff training
- Monitoring
- Adhere to Food Code requirements of your jurisdiction

How did institutions fare against other segments of the retail food industry? The baseline study additionally focused on Restaurants and Retail Food Service. The 2010 Improvement Goal is the part of the survey that is being conducted by FDA now. Hopefully we will see improvement when study results are released. I urge you to read the FDA Baseline Study in whole. I promise you will find it very enlightening.

HOW TO USE THIS DATA
How do you use this data to prepare for an inspection or survey by your regulatory agency or accrediting body? There are two essential items you must address in your facility.
- Have Active Managerial Control (AMC) of Foodborne Illness Risk Factors
- Have a Food Safety Culture

AMC is the purposeful incorporation of specific actions or procedures by industry management to attain control of foodborne

Table 1: Percent Out of Compliance Rates of Risk Factors for Institutional Settings

<table>
<thead>
<tr>
<th>HOSPITALS</th>
<th>NURSING HOMES</th>
<th>ELEMENTARY SCHOOLS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hot Hold; T/T</td>
<td>Hot Hold; T/T</td>
<td>Hot Hold; T/T</td>
</tr>
<tr>
<td>40.3% Cooling</td>
<td>30.7% Cooling</td>
<td>30.8% Date Marking</td>
</tr>
<tr>
<td>Prevention of Contamination</td>
<td>Prevention of Contamination</td>
<td>Chemicals*</td>
</tr>
<tr>
<td>18.9%</td>
<td>20.4%</td>
<td>21.2%</td>
</tr>
<tr>
<td>Personal Hygiene</td>
<td>Personal Hygiene</td>
<td>Personal Hygiene</td>
</tr>
<tr>
<td>17.5%</td>
<td>20.2%</td>
<td>16.3%</td>
</tr>
<tr>
<td>Chemicals*/Other</td>
<td>Chemicals*/Other</td>
<td>Prevention from Contamination</td>
</tr>
<tr>
<td>13.4%</td>
<td>18.1%</td>
<td>13.5%</td>
</tr>
<tr>
<td>Improper Cooking</td>
<td>Improper Cooking</td>
<td>Improper Sources</td>
</tr>
<tr>
<td>6.3%</td>
<td>5%</td>
<td>4.5%</td>
</tr>
<tr>
<td>Improper Sources</td>
<td>Improper Sources</td>
<td>Improper Cooking</td>
</tr>
<tr>
<td>.5%</td>
<td>3.2%</td>
<td>3%</td>
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* ‘Chemicals’ is not an official CDC Risk Factor, but was evaluated in this Survey.
There are many SOPs in the foodservice industry—have them written and make sure they are being followed. This should be followed by providing employees with specific training and equipment to implement the SOPs. Document this training!

Employees must also be trained to know their critical limits. These are measurable standards to control risk factors. Again, document the training and provide log sheets for employees to capture their measurements. There should be monitoring procedures in place for all critical processes and practices.

Continued on page 14

Table 2: Overall Percentage of Observable and Applicable Data Items Found IN Compliance

<table>
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<tr>
<th>INDUSTRY SEGMENT</th>
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<th>2000 REPORT</th>
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<tr>
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<td>Elementary School</td>
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<td>74%</td>
<td>78%</td>
<td>81%</td>
<td></td>
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<tr>
<td></td>
<td>Full Service</td>
<td>60%</td>
<td>64%</td>
<td>70%</td>
<td></td>
</tr>
<tr>
<td>Retail Food</td>
<td>Deli</td>
<td>73%</td>
<td>74%</td>
<td>80%</td>
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<tr>
<td></td>
<td>Meat &amp; Poultry</td>
<td>81%</td>
<td>88%</td>
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<tr>
<td></td>
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illness risk factors. Have control over your facility!

A Food Safety Culture, according to many experts, is a culture of food safety building on a set of shared assumptions, behaviors, and values that organizations and their employees embrace to produce and provide safe food. It’s a belief that food safety, when done right, works to keep people healthy. This is just how we do things in the food safety industry!

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Additionally, identify methods to routinely assess your facility (checklists, third party audits, walk-through self-inspections, employee reviews of the facility). Have management verification procedures in place so management staff can verify that things are working the way they are supposed to be working. Again, document thoroughly.

Be ready for an inspection every day!

• Be organized and detailed.
• Set the example. Management, practice what you preach.
• Document, document, document!
• Run your facility as if you will be inspected every day.
• Have a strong food safety culture.
• Have Active Managerial Control.

REFERENCES


SAN CE Questions

1. What is the purposeful incorporation of specific actions or procedures by industry management to attain control of foodborne illness risk factors?
   A. Active management contract
   B. Active managerial confirmation
   C. Active managerial control

2. What is a culture of food safety building on a set of shared assumptions, behaviors, and values that organizations and their employees embrace to produce and provide safe food?
   A. Food safety culture
   B. Behavioral food safety culture
   C. Food safety control

3. What was the number one Risk Factor category OUT of control in ALL institutional settings?
   A. Improper sources
   B. Improper hot holding (T/T)
   C. Improper cooking

4. The CDC Risk Factors include all the following except:
   A. Food from unsafe sources
   B. Monitoring
   C. Improper cooking

5. It is important to have written __________ in your facility for your staff to follow.
   A. Standardized Operational Procedures
   B. Standard Occupational Procedures
   C. Standard Operating Procedures

6. What must you always do to have Active Managerial Control over the risk factors?
   A. Document, document, document
   B. Hire more qualified managers
   C. Give fewer breaks so employees can rest

7. Run your facility as if:
   A. There is an active foodborne illness
   B. Every day could be an inspection day
   C. You will get fired if you do not