Sharing Session
Risk Factor Study Part II

September 14, 2017
Housekeeping Items

All lines will be muted during the entirety of the webinar.

Throughout the presentation and during the discussion and Q&A session, please use the chat box to share your experiences and questions. The facilitator will pose your questions to the presenters.
Overview

• Structured Q&A Time with Panelists
• FDA Resources
• Final Q&A Session
A link to the recorded webinar will be emailed to all participants. This recording and past food safety sharing sessions can also be found on the NACCHO website:

Clark County, NV

- Jurisdiction of SNHD:
  - 8,000 square miles
    - 14th largest county in US
  - Population >2.2 million
  - 46 million visitors/year
  - About 20,000 annual food permits
  - More than 5,000 temporary food establishments per year
Southern Nevada Health District

To assess, protect, and promote the health, the environment, and the well-being of Southern Nevada communities, residents, and visitors.

- Enrolled in Standards in 2012
- Self-Assessment June, 2015

<table>
<thead>
<tr>
<th>Food Facility Staff</th>
<th>89</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food Operations EHS I/II</td>
<td>51</td>
</tr>
<tr>
<td>Food Ops Leadership</td>
<td>12</td>
</tr>
<tr>
<td>FDAP</td>
<td>10</td>
</tr>
<tr>
<td>Special Programs</td>
<td>10</td>
</tr>
<tr>
<td>Training/Special Processes</td>
<td>7</td>
</tr>
</tbody>
</table>
Rockingham County, NC

- Population: 91,878
- 573 square miles
- Staff of 9 EHS with 4 that work in the Retail Food Inspections Program
- 278 Food Service Establishments
  - Restaurants
  - Retail Food Stores
  - Institutions
Rockingham County, NC

• Enrolled in the FDA Program Standards in 2014
• Completed our Self Assessment August 2015
• Currently meet Standards 1 and 4 and are waiting on audit of Standard 9

• Began planning our Risk Factor Study December 2015
• Trained staff March 2016
• Data Collection took place from April 2016-August 2016
• Data Entry into FoodSHIELD completed October 2016
Topics Covered Today by Panel

• Initial Steps
• Study Design
• Choosing Staff
• Training Staff
• Time Commitment
• Lessons Learned
• Final Thoughts
### Confidence Levels

<table>
<thead>
<tr>
<th>Confidence Level</th>
<th># of Fast Food Permits</th>
<th># of Full Service Permits</th>
<th>Total # of Data Collections</th>
</tr>
</thead>
<tbody>
<tr>
<td>95%±5%</td>
<td>331</td>
<td>327</td>
<td>658</td>
</tr>
<tr>
<td>90%±5%</td>
<td>243</td>
<td>241</td>
<td>484</td>
</tr>
<tr>
<td>95%±10%</td>
<td>93</td>
<td>92</td>
<td>185</td>
</tr>
<tr>
<td>90%±10%</td>
<td>66</td>
<td>66</td>
<td>132</td>
</tr>
</tbody>
</table>

2,362 Fast Food Permits  
2,159 Full Service Permits
• There are two choices:
  • 95% confident that compliance percentages derived from the data collections are within 5% of their actual occurrence or
  • 95% confident that compliance percentages derived from the data collections are within 10% of their actual occurrence

<table>
<thead>
<tr>
<th>Facility type</th>
<th>Establishment inventory</th>
<th>Sample size (95/5)</th>
<th>Sample size (95/10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full service restaurants</td>
<td>94</td>
<td>76</td>
<td>48</td>
</tr>
<tr>
<td>Fast food restaurants</td>
<td>92</td>
<td>75</td>
<td>48</td>
</tr>
<tr>
<td>Schools</td>
<td>26</td>
<td>25</td>
<td>21</td>
</tr>
<tr>
<td>Hospitals</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Nursing homes</td>
<td>12</td>
<td>12</td>
<td>11</td>
</tr>
<tr>
<td>Deli</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Meat</td>
<td>15</td>
<td>15</td>
<td>14</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>251</strong></td>
<td><strong>215</strong></td>
<td><strong>154</strong></td>
</tr>
</tbody>
</table>
### Example of Sample Size Considerations
#### Study Design

#### Sample Size

<table>
<thead>
<tr>
<th>Facility Type</th>
<th>Inventory</th>
<th>95/5</th>
<th>95/10</th>
<th>90/5</th>
<th>90/10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fast Food Restaurants</td>
<td>488</td>
<td>216</td>
<td>81</td>
<td>175</td>
<td>60</td>
</tr>
<tr>
<td>Full Service Restaurants</td>
<td>469</td>
<td>212</td>
<td>80</td>
<td>172</td>
<td>60</td>
</tr>
<tr>
<td>Deli Departments</td>
<td>46</td>
<td>42</td>
<td>32</td>
<td>40</td>
<td>28</td>
</tr>
<tr>
<td>Schools K-12</td>
<td>110</td>
<td>86</td>
<td>52</td>
<td>79</td>
<td>43</td>
</tr>
<tr>
<td>Senior Living</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
</tbody>
</table>
FDA Resources for Conducting a Risk Factor Study

- Study Protocol
- Model Collection Forms
- Database
Objectives of Previous FDA Risk Factor Study 1998-2008

- Identify food safety practices and employee behaviors that require priority attention
- Establish a national “Baseline” and then analyze trends & assess progress
- Establish a model for use by state & local partners to conduct own studies
- Impact of a certified food protection manager
Objectives of Current FDA Risk Factor Study 2013-2024

- Determine FBI risk factors in most need of attention
- Determine improvement / regression trends for FBI risk factor over time
- Correlations: Operational aspects of Industry and control of FBI risk factors
- Correlations: Regulatory retail food program elements and control of FBI risk factors
- Correlations: Industry food safety management systems and control of FBI risk factors
Current FDA Risk Factor Study Protocol

• Industry Segments and Facility Types Included in the Study
  • Restaurants- full service and fast food
  • Healthcare Facilities- hospitals and long term care
  • Schools (K-12)- base, on-site and combination kitchens
  • Retail Food Stores- deli, seafood and produce
Current FDA Risk Factor Study Protocol

• Sample Size: Enough observations to be 95% confident that percentages derived from the data collections are within 5% of their actual occurrence

• Random selection of facilities to include alternates

• Verification of facilities in meeting definitions
Model Collection Forms

• Demographics of each industry type
• Establishment Information
• Establishments that are Part of Multi-Unit Operations
• Manager Certification
• Employee Health Policy
• Highly Susceptible Populations
• Information on jurisdiction

www.fda.gov
Primary Data Areas 1-10

- **Risk Factor – Poor Personal Hygiene**
  - #1 – Employees practice proper handwashing
  - #2 – Food Employees do not contact ready-to-eat foods with bare hands

- **Contaminated Equipment / Protection from Contamination**
  - #3 – Food is protected from cross-contamination during storage, preparation, and display
  - #4 – Food contact surfaces are properly cleaned and sanitized

- **Improper Holding / Time and Temperature**
  - #5 – Foods requiring refrigeration are held at the proper temperature
  - #6 – Foods displayed or stored hot are held at the proper temperature
  - #7 – Foods are cooled properly
  - #8 – Refrigerated, ready-to-eat foods are properly date marked and discarded within 7 days of preparation or opening

- **Inadequate Cooking**
  - #9 – Raw animal foods are cooked to required temperatures
  - #10 – Cooked foods are reheated to required temperatures
Other Areas of Interest 11-19

- **Other Areas of Interest**
- Data Item #11 – Handwashing facilities are accessible and properly maintained
- Data Item #12 – Employees practice good hygiene
- Data Item #13 – Consumers are properly advised of risks of consuming raw or undercooked animal foods
- Data Item #14 – Time alone is properly used as a public health control Data Item #15 – Facilities have adequate equipment and tools for ensuring food temperature control and sanitization of food contact surfaces
- Data Item #16 – Special processes are conducted in compliance with issued variance / HACCP Plan, when required
- Data Item #17 – Food is received from safe sources
- Data Item #18 – Toxic materials are identified, used and stored properly Data Item #19 – Management and food employees are trained in food allergy awareness as it relates to their assigned duties
# Model Data Collection Forms

## POOR PERSONAL HYGIENE

<table>
<thead>
<tr>
<th>IN</th>
<th>OUT</th>
<th>NO</th>
<th>NA</th>
<th>1. Employees practice proper handwashing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>Description of HANDWASHING OBSERVATIONS</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>A. Hands are cleaned and properly washed using hand cleanser / water supply / appropriate drying methods / length of time as specified in Section 2-301.12 of the <em>Food Code.</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>B. Hands are cleaned and properly washed when required as specified in Section 2-301.14 of the <em>Food Code.</em></td>
</tr>
</tbody>
</table>

**COMMENTS:**
## Model Data Collections Forms

### Temperature Charts

<table>
<thead>
<tr>
<th>FOOD PRODUCT</th>
<th>FINAL COOK TEMP.</th>
<th>FOOD CODE CRITICAL LIMIT</th>
<th>CONSUMER ADVISORY</th>
<th>FOOD PRODUCT</th>
<th>FINAL COOK TEMP.</th>
<th>FOOD CODE CRITICAL LIMIT</th>
<th>CONSUMER ADVISORY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>YES</td>
<td></td>
<td></td>
<td></td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>NO</td>
<td></td>
<td></td>
<td></td>
<td>NO</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>YES</td>
<td></td>
<td></td>
<td></td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>NO</td>
<td></td>
<td></td>
<td></td>
<td>NO</td>
</tr>
</tbody>
</table>
### Model Data Collection Forms

#### Temperature Charts

<table>
<thead>
<tr>
<th>FOOD PRODUCT</th>
<th>FOOD TEMP.</th>
<th>FOOD CODE CRITICAL LIMIT</th>
<th>TYPE OF COLD HOLDING EQUIPMENT</th>
<th>FOOD PRODUCT</th>
<th>FOOD TEMP.</th>
<th>FOOD CODE CRITICAL LIMIT</th>
<th>TYPE OF COLD HOLDING EQUIPMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooked Chicken</td>
<td>40°F</td>
<td>41°F</td>
<td>Walk-in Cooler</td>
<td>Diced Ham</td>
<td>44°F</td>
<td>41°F</td>
<td>Refrigerated Sandwich Preperation Table</td>
</tr>
<tr>
<td>Raw Hamburger Patty</td>
<td>52°F</td>
<td>41°F</td>
<td>Refrigeration Drawer Preparation Line</td>
<td>Cooked Pasta</td>
<td>39°F</td>
<td>41°F</td>
<td>Walk-in Cooler</td>
</tr>
</tbody>
</table>
Model Data Collection Forms

Temperature Summaries

<table>
<thead>
<tr>
<th>NUMBER OF FOOD PRODUCT TEMPERATURES</th>
<th>SUMMARY COOKING FOOD PRODUCT TEMPERATURE CATEGORIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. – Number of product temperature measurements <strong>IN</strong> Compliance with <em>Food Code</em> critical limits</td>
<td></td>
</tr>
<tr>
<td>II. – Number of <strong>OUT</strong> of Compliance product temperature measurements <em>1°F - 2°F</em> below <em>Food Code</em> critical limits</td>
<td></td>
</tr>
<tr>
<td>III. – Number of <strong>OUT</strong> of Compliance product temperature measurements <em>3°F - 4°F</em> below <em>Food Code</em> critical limits</td>
<td></td>
</tr>
<tr>
<td>IV. – Number of <strong>OUT</strong> of Compliance product temperature measurements <em>5°F - 9°F</em> below <em>Food Code</em> critical limits</td>
<td></td>
</tr>
<tr>
<td>V. – Number of <strong>OUT</strong> of Compliance product temperature measurements <em>10°F or more</em> below <em>Food Code</em> critical limits</td>
<td></td>
</tr>
</tbody>
</table>
Handwashing Frequency Assessment

- Washing hands properly and when required,
- Washing hands improperly, or
- Failing to wash hand when required.
## Handwashing Frequency Assessment

<table>
<thead>
<tr>
<th>Handwashing Frequency Assessment</th>
<th>C1</th>
<th>C2</th>
<th>C3</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1 Employee observed washing hands properly and when required</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C2 Employee observed washing hands improperly</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C3 Employee observed failing to wash hand when required</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Total Count |   |   |   |
Assessment of Food Safety Management Systems

• **Procedures** – A defined set of actions adopted by food service management for accomplishing a task in a way that minimizes food safety risks.

• **Training** – Management informs employees what the procedures are and teaches the employees how to carry them out. This is **not** to be used for determining manager knowledge or certification.

• **Monitoring** – Routine observations and measurements made by management to determine if procedures are being followed and maintained.
## Model Data Collection Forms
### Assessment of Food Safety Management Systems

<table>
<thead>
<tr>
<th>PROCEDURES</th>
<th>TRAINING</th>
<th>MONITORING</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 COMMENTS:</td>
<td>1 COMMENTS:</td>
<td>1 COMMENTS:</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>
Model Data Collection Forms
Marking Instructions

• IN, OUT, NA and NO
• Include Food Code citations (2013)
• Instructions for completing handwashing frequency, FSMS assessment
Study Database

- Food SHIELD
- Secure
- Pre-loaded forms
- Editable Forms

National Rollout Fall 2017
Other Resources

• National Voluntary Retail Food Program Standards FoodSHIELD site
• NRFRPS web listing
• Neighboring jurisdictions
• FDA Retail Food Specialist
Donna Wanucha, REHS
Retail  Food Specialist
Office of State Cooperative Programs
Office of Regulatory Affairs

Donna.Wanucha@fda.hhs.gov
Voluntary National Retail Food Regulatory Program Standards

www.fda.gov/Food/GuidanceRegulation/RetailFoodProtection/ProgramStandards
• Request for Applications is currently open and closes October 6.

• Informational webinar on September 27.

• More information can be found at http://www.naccho.org/programs/environmental-health/hazards/food-safety/mentorship
Thank you for your participation in today’s sharing session!

For more information about NACCHO’s Food Safety Program, contact:

• foodsafetyinfo@naccho.org
• Amy Chang(achang@naccho.org; 202-507-4284)
• Jennifer Li (jli@naccho.org; 202-507-4242)