

IV. Results and Discussion - Summary

The results of this study highlight foodborne illness risk factors associated with food preparation procedures and employee behaviors. A common goal for industry and regulators is to reduce the occurrence of foodborne illness risk factors. Industry achieves this goal through education and active managerial control. Recommended intervention strategies for both regulatory and industry food safety professionals are presented in Section V, “Recommendations.”

The 2015 Wake County study instrument consisted of 46 individual data items that are grouped into the five CDC risk factor categories and sections for chemicals, employee health policy and food preparation for highly susceptible populations. The individual data items on the study form are grouped as follows:

Risk Factor	Individual Data Items	Number of items
Food source	1a-3c	7
Inadequate cooking	4a-5d	12
Improper holding	6a-9d	10
Contamination	10a-11a	5
Personal hygiene	12a-15b	5
Other/chemical	16a-18c	7

The study instrument is available at Appendix O “2015 Data Collection Form”.

Certified Manager Presence

Designation of a person in charge during all hours of operation ensures the continuous presence of someone who is responsible for monitoring and managing all food establishment operations and who is authorized to take actions to ensure that public health objectives are fulfilled. During the day-to-day operation of a food establishment, a person who is immediately available and knowledgeable in both operational and regulatory requirements is needed to respond to questions and concerns and to resolve problems. During the 2015 Wake County risk factor study, staff surveyed whether a Certified Food Protection Manager (CFPM) was present and could present a State-approved course certificate. If the conditions were met, the observation was marked IN compliance. The following table lists the facility type and the corresponding percent compliance with this question.

Facility Type	2015 # facilities with CFPM present	2015 % presence of CFPM’s	2010 % presence of CFPM’s	% increase in CFPM’s present
Hospitals (n=6)	6	100%	71%	29%
Nursing Homes (n=33)	23	70%	55%	15%
Elementary Schools (n=57)	52	91%	82%	9%
Fast Food Restaurants (n=87)	47	54%	28%	26%
Full Service Restaurants (n=87)	63	72%	46%	26%
Deli (n=57)	42	74%	46%	28%
Meat (n=59)	46	78%	25%	53%
Produce (n=38)	30	79%	29%	50%
Seafood (n=23)	14	61%	24%	37%

The highest percentage of facilities with a certified manager present was the hospital facility type. Fast Food Restaurants had the lowest percentage of certified managers present. Since 2010, there has been an overall increase in the presence of CFPM's in kitchens. This may be attributed to a rule change that allows a two point deduction when a CFPM is not present in the facility.

Presentation of the data results

A summary of the overall percentage of IN compliance individual data items (Appendix K) per facility type is presented in Table 1 of this section. The data reflect the overall percentage of observable and applicable data items found to be IN compliance.

Table 1

Overall percent (%) of Observable and Applicable data items found IN compliance by facility type					
		2015 Wake County Study % IN Compliance	2010 Wake County Baseline % IN Compliance	FDA National 2008 study	FDA National 2003 study
Institutions	Hospital	85%	86%	81%	80%
	Nursing Home	86%	81%	83%	80%
	Elementary School	92%	83%	84%	83%
Restaurants	Fast Food	81%	72%	78%	74%
	Full Service	76%	67%	64%	62%
Retail Store Departments	Deli	91%	80%	74%	70%
	Meat and Poultry	91%	82%	88%	80%
	Produce	84%	79%	86%	79%
	Seafood	86%	82%	84%	80%

2015 Wake County Risk Factor Study calculation: Percentage IN compliance=all applicable, observable, IN COMPLIANCE data items within all risk factor categories(IN) / total number of observations (IN and OUT) *Note: The data in Table 1 represents the percentages of observations found IN compliance with the 2013 Food Code.*

Percentage of IN compliance observations for each risk factor category for each of the nine facility types is presented in Appendix K. The table provides the percent of IN compliance observations for each of the nine facility types as they pertain to controlling the five risk factors contributing to foodborne illness. The “other” risk factor is included to collect data on the storage and use of chemicals.

Percentage of OUT of compliance observations for each risk factor category for each of the nine facility types is presented in Appendix L. The table provides the percentage of OUT of compliance observations for each of the nine facility types as they pertain to controlling the five risk factors contributing to foodborne illness. The “other” risk factor is included to collect data on the storage and use of chemicals. This table provides the basis of directing priority attention to specific risk factors for each facility type.

Immediately following this section, the results are presented separately for each of the nine facility types, as independent reports. Each report is intended to compare comparable facilities and may be used by regulators and industry to focus attention on those areas found OUT of compliance during the survey.

These sections are:

- A. Institutional Food Service - Hospitals
- B. Institutional Food Service - Nursing Homes
- C. Institutional Food Service - Elementary Schools
- D. Restaurants - Fast Food
- E. Restaurants - Full Service
- F. Retail Food Stores - Delis
- G. Retail Food Stores - Meat Markets
- H. Retail Food Stores - Produce
- I. Retail Food Stores - Seafood