E. Restaurants-Full Service

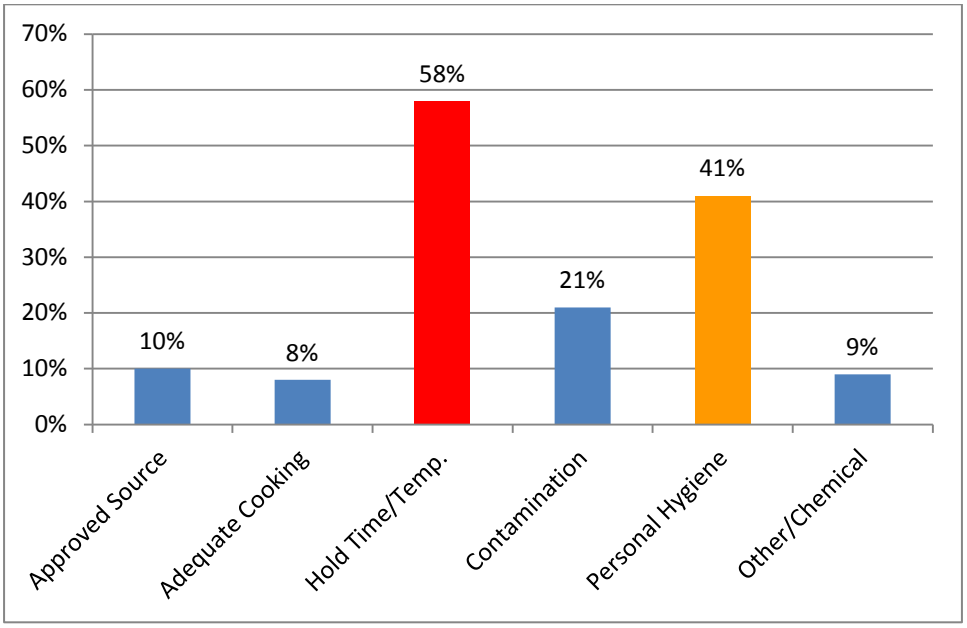
Introduction

For the 2010 Wake County Baseline survey, 87 full service restaurants were surveyed. For the 46 possible individual data items on the survey instrument 1,901 observations were made at 87 full service restaurants. See Appendix E for complete data related to full service restaurants.

Certified food protection managers (46%): For this survey, a certified food protection manager had to be present, and possess a State-approved course certificate, in order to be marked IN compliance. A certified food protection manager was present at 40 of the 87 facilities (46% IN compliance).

Results and Discussion

Table Res-1: The following diagram represents OUT of compliance risk factors by category as a percentage of total observations.



The same data is shown in the table below with the actual number of OUT of compliance observations relative to the total number of observations (IN and OUT).

Foodborne Illness Risk Factor Risk Factor OUT of compliance:	Full Service Restaurants		
	% OUT	# OUT observations	Total Observations
Food from Unsafe Source	10%	22	216
Inadequate Cooking	8%	11	132
Improper Holding/Time-Temperature	**58%**	**292**	**501**
Contaminated Equipment/Contamination	21%	90	429
Poor Personal Hygiene	**41%**	**210**	**508**
Other/Chemical	9%	10	115
Totals	33%	635	1,901

The foodborne illness risk factors needing priority attention are:

- Improper Holding/Time and Temperature (58% OUT of compliance)
- Poor Personal Hygiene (41% OUT of compliance)

Tables Res-2 and Res-3 show the breakdown of these risk factors into the specific individual data items on the survey instrument that need priority attention.

Table Res-2: **Holding/Time-Temperature (58% OUT)**

Data Item	# OUT	Total Obs.	% OUT
RTE, PHF discarded after 7 days 10b	**67**	**85**	**79%**
Commercially prepared RTE, PHF date marked 10c	**57**	**78**	**73%**
RTE prepared on site, PHF date marked 10a	**57**	**82**	**70%**
Cold Hold 8a	**59**	**87**	**68%**
Proper Cooling Procedure (Cooked and cooled) 7a	**28**	**56**	**50%**
Time as Public Health Control 10c	**1**	**3**	**33%**
Proper Cooling Procedure (Ambient and cooled) 7b	5	22	23%
Hot Hold 9a	16	75	21%
Proper Cooling Procedure (Received and cooled) 7c	2	12	17%

Items with ≥ 25%, with significant sample size, are shown in **bold.*

Date marking (Individual Data Items 10a, 10b, 10c and 10d): Date marking of refrigerated ready-to-eat, PHF foods is an important food safety system component designed to promote proper food rotation and limit the growth of *Listeria monocytogenes* during cold storage. Discarding ready-to-eat, PHF that has remained in cold storage beyond the parameters

described in the *FDA Food Code* prevents foods with a harmful level of *Listeria monocytogenes* from being served. North Carolina's current rules do not require date marking.

Cold Holding at 41°F (Individual Data Item 8a): Maintaining potentially hazardous food (PHF) foods under the cold temperature control of 41°F limits the growth of pathogens that may be present in or on the food and may help prevent foodborne illness. Temperature has significant impact on both the generation time of an organism and its lag period. Control of the growth of *Listeria monocytogenes* (*Lm*) is the basis for the cold holding temperature of 41°F. North Carolina's cold holding temperature requirement is 45°F.

Proper Cooling Procedure (Individual Data Items 7a, 7b and 7c): Safe cooling requires rapid removal of heat from foods quickly enough to prevent the growth of spore-forming pathogens. Foodservice directors and managers need to ensure their practices and procedures are capable of rapidly cooling PHF. Item 7a represents those items that are cooled from a cooked state, 7b represents cooling from ambient temperatures, and 7c addresses cooling after receiving food shipments.

Table Res-3: **Poor Personal Hygiene (41% OUT)**

Data Item	# OUT	Total Obs.	% OUT
Employee Health Policy 17a	**86**	**87**	**99%**
Prevention of Hand Contamination 15a	**45**	**77**	**58%**
Proper Handwashing 13a	**27**	**84**	**32%**
Good Hygienic Practices 14a	**22**	**86**	**26%**
Handwash facilities (accessible) 16a	18	87	21%
Handwash facilities (soap and towels) 16b	12	87	14%

Items with ≥ 25%, with significant sample size, are shown in **bold.*

Employee Health Policy (Item 17a): The development and effective implementation of an employee health policy based on the provisions in the Food Code may help to prevent foodborne illness associated with contamination of food by ill or infected food employees. Current North Carolina rules do not require an employee health policy.

Prevention of Hand Contamination (Item 15a): Handwashing alone may not prevent the transmission of pathogens to foods via hand contact; therefore, preventing bare hand contact with ready-to-eat (RTE) foods is a major control measure for limiting the spread of harmful bacteria and viruses from the hands to RTE food. Reinforcing the importance of preventing bare hand contact with RTE foods should be supported by a management system that includes proper employee training and monitoring of practices to identify to what extent procedures are being followed. North Carolina rules stress minimal bare hand contact, but do not differentiate between RTE food and raw products, and do not fully restrict bare hand contact of RTE foods.

Proper Handwashing (Item 13a): Handwashing is a critical factor in reducing fecal-oral pathogens that can be transmitted from hands to RTE food as well as other pathogens that can be transmitted from environmental sources. Many employees fail to wash their hands as often as necessary, and even those who do may use flawed techniques.

Good Hygienic Practices (Item 14a): Proper hygienic practices by food employees minimize the possibility of transmitting disease through food. Employee practices such as eating, drinking and smoking in food preparation areas and working while experiencing persistent coughing and sneezing must be prohibited. Elimination of these practices will help prevent the transfer of microorganisms to foods and food contact surfaces.

Handwash facilities (Item 16a and 16b): Hands are a common vehicle for the transmission of pathogens to foods in an establishment. Hands can become soiled with a variety of contaminants during routine operations. The transfer of contaminants can be limited by providing food employees with handwashing sinks that are properly equipped and conveniently located. Handwashing sinks that are blocked by portable equipment or stacked full of soiled utensils and other items, are rendered unavailable for employee use. In addition to keeping sinks available for handwashing, they must be stocked with soap and towels.

Summary

Table Res-4: foodborne illness risk factor categories and individual data items in need of priority attention

Foodborne Illness Risk Factor in need of priority attention	Individual data items in need of priority attention with % OUT
Holding/Time-Temperature (58% OUT)	**RTE, PHF discarded after seven days 10b (79% OUT)**
	Commercially prepared RTE, PHF date marked 10c (73% OUT)
	RTE prepared on site, PHF date marked 10a (70% OUT)
	Cold Hold 8a (68% OUT)
	Proper Cooling Procedure (Cooked and cooled) 7a (50% OUT)
	Time as Public Health Control 10d (33% OUT)
	Proper Cooling Procedure (Ambient and cooled) 7b (23% OUT)
	Hot Hold 9a (21% OUT)
	Proper Cooling Procedure (Received and cooled) 7c (17% OUT)
Personal Hygiene (41% OUT)	**Employee Health Policy 17a (99% OUT)**
	Prevention of Hand Contamination 15a (58% OUT)
	Proper Handwashing 13a (32% OUT)
	Good Hygienic Practices 14a (26% OUT)
	Handwash facilities (accessible) 16a (21% OUT)
	Handwash facilities (soap and towels) 16b (14% OUT)

Items with ≥ 25%, with significant sample size, are shown in **bold.*