

V. Recommendations

The following recommendations are based on the findings in this report and are intended to enhance the effectiveness of regulatory and industry retail food protection programs. Each of the foodborne illness risk factors is comprised of a number of food safety practices and employee behaviors. These practices and behaviors are captured by the individual data items in this report and are based on the food safety provisions of the 2009 FDA Food Code.

The results of the 2015 risk factor study indicate that overall all Risk Factors improved from the 2010 baseline study. This can be attributed partially to the adoption of the 2009 FDA Food Code by the State of North Carolina. Although overall percentages of IN compliance have increased (table R-1), the percentage remains under 80% for Certified Food Protection Manager (CFPM) and Improper Holding for foods (see tables R-2 and R-3).

Table R-1

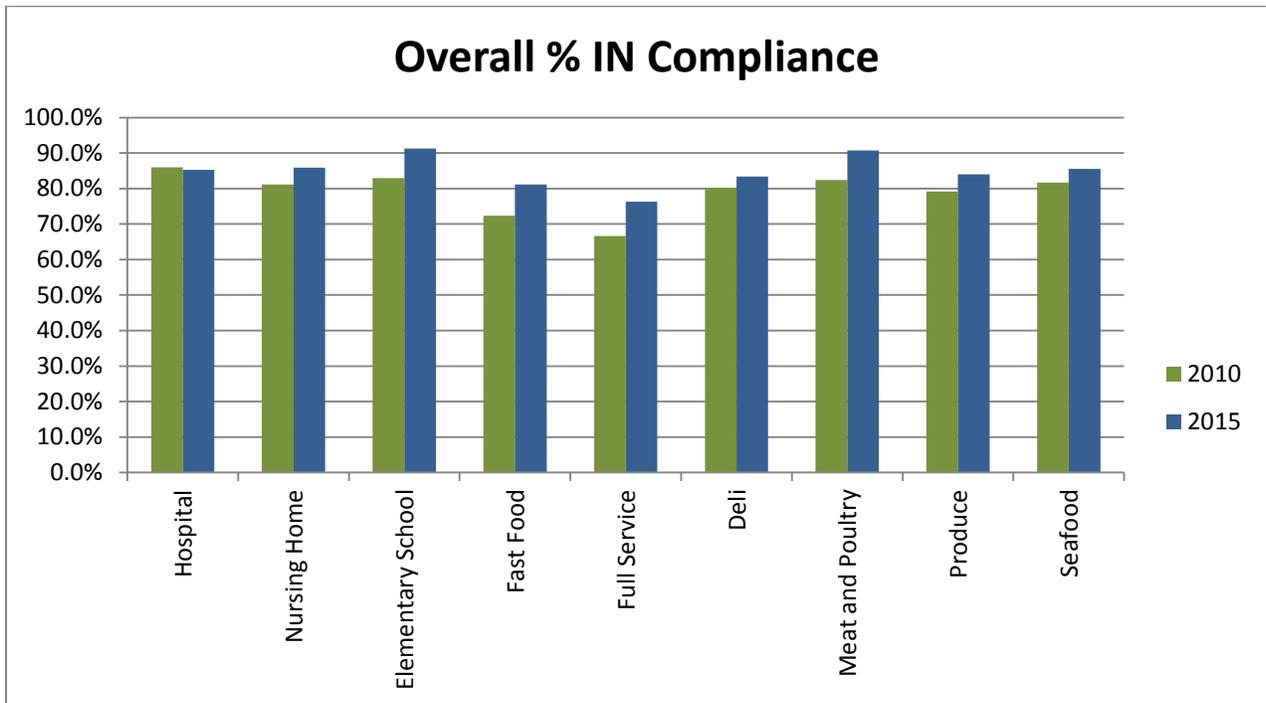
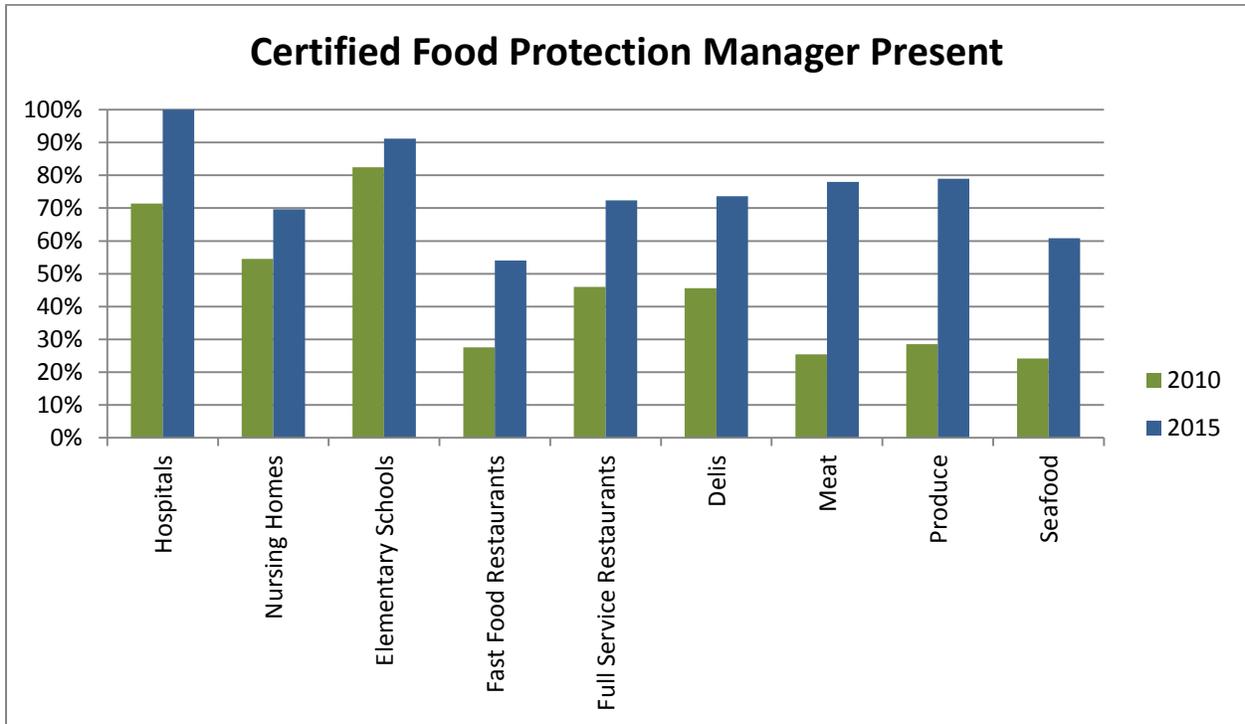


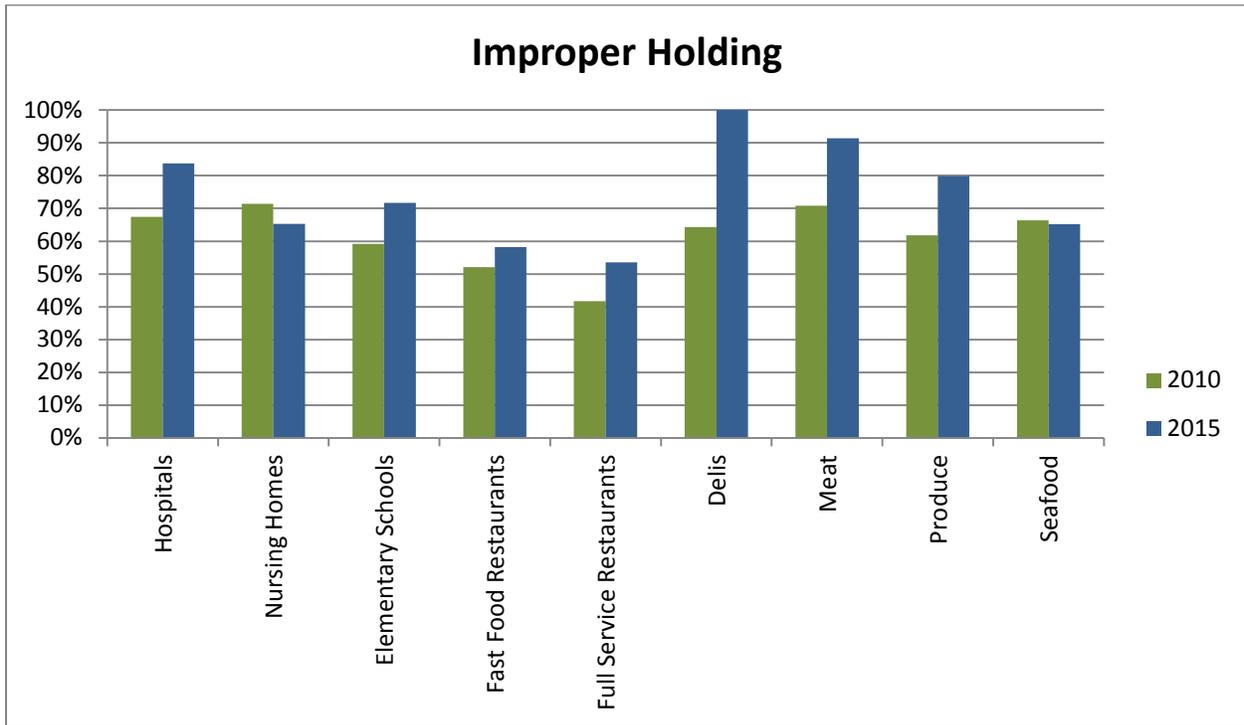
Table R-2



Although the percent IN compliance increased overall from the 2010 baseline data, seven out of nine facility types remain below 80% IN compliance.

A Certified Food Protection Manager (CFPM) is knowledgeable about the relationship between the prevention of foodborne illness and the various operations, practices, and behaviors that take place in the food establishment, and will be in a far better position to exert active managerial control over foodborne illness risk factors.

Table R-3



The two risk factors that are the highest OUT of compliance are shown below

Data Item	Individual Risk Factor	% OUT of compliance
9B	Discard RTE TCS and/or opened commercial container exceeding 7 days at < 41°F. (5°C.)	34%
9C	Opened Commercial container of prepared ready-to-eat TCS is date marked as required	27%

Date marking (Individual Data Items 9a, 9b, 9c and 9d): Date marking of refrigerated ready-to-eat, TCS foods is an important food safety system component designed to promote proper food rotation and limit the growth of *Listeria monocytogenes (Lm)* during cold storage. Discarding ready-to-eat, PHF/TCS Food 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 sold or served. It is especially important to date mark ready-to-eat, PHY/TCS food in hospitals and nursing homes because the meals are primarily served to a highly susceptible population. When cooling, cold holding and date marking are viewed in the context of a total food safety management system, the potential for bacterial growth increases with each uncontrolled process step. It is essential that each process step be routinely monitored in a manner that enables management to take prompt corrective action before an unsafe product reaches the consumer.

V. Recommendations

A. Recommendations for Foodservice and Retail Food Industries

Managing risk factors must be a fully integrated part of every business operation if the industry is to significantly reduce the risk of foodborne illness. Ultimate responsibility for the development and maintenance of effective food safety management systems lies with the management of institutional foodservice, restaurant, and retail food store operations. Individual operators that are responsible for the day-to-day management of these facilities play a key role in preventing foodborne illness. Reducing the occurrence of foodborne illness risk factors should be a goal for all those involved in food safety.

Food safety management systems can take many forms. Every establishment has some set pattern of procedures, even if it is simply described as “the way we do things.” Some establishments have implemented effective food safety management systems by establishing controls for food preparation methods and monitoring processes common to their operation. Many others, however, continue to rely on vague, unmonitored procedures. At a minimum, an operator’s food safety management system should be based on achieving the same level of safety established by the critical limits in the Food Code. Recommendations for industry managers include the following:

- **Develop and implement written Standard Operating Procedures (SOPs)** that address the risk factors. These SOPs should detail the monitoring and corrective action procedures necessary for time/temperature control of potentially hazardous food and cooking of raw animal foods, good personal hygiene, and prevention of cross-contamination. The SOPs should include the critical limits, or the minimum or maximum parameters that must be met to ensure that food safety hazards are controlled at critical process steps. Responsibility for measuring the critical limits should be assigned to specific employees or employee positions. These SOPs should be specific to the operation and tested by management to ensure that the procedures are effective for controlling the risk factor. Training on the implementation of SOPs should be included in employee orientation and in periodic refresher training.
- **Provide the necessary resources, equipment, and supplies to implement the SOPs.** Items such as temperature measurement devices, temperature logs, the availability of hand soap and towels at each handwashing station, and the use of chemical sanitizers at the required strength along with chemical test papers are crucial to the successful control of specific risk factors.
- **Verify that monitoring procedures are being followed by employees.** Monitoring procedures will only be effective if employees are given the knowledge, skills, and responsibility for specific food safety tasks. Management should verify, through active daily oversight, that critical processes are being monitored by employees
- **Identify methods to routinely assess the effectiveness of the SOPs.** Managers should review SOPs at least annually to determine whether the SOPs as written are still

effective or whether changes in the operation, ingredients, equipment, or personnel have triggered the need for revisions

B. Recommendations for Regulatory Retail Food Protection Programs

The common goal for industry and regulatory agencies is to protect public health by reducing or eliminating risk factors that contribute to foodborne illness. In addition to Food Code adoption, Wake County recommends that regulatory agencies ensure that their inspections, education and enforcement activities are geared toward the control of the risk factors that contribute to foodborne illness outbreaks. Participation in FDA's Program Standards provides guidance for continuing to focus on these improvements.

Recommendations for Regulatory retail food protection programs include the following:

- **Adoption of the current FDA Food Code Manual.** A new FDA Food Code Manual is released every four years. The study suggests that the State of North Carolina keep current with the latest Code.
- **Continuous Program Improvement by participating in the FDA's Program Standards.** The Program Standards are a foundation to build upon through a continuous improvement process. Currently Wake County is in compliance with five of the nine Program Standards and is in the process of reviewing existing practices and procedures against the criteria in the Program Standards to ensure that current program activities target reducing the occurrence of risk factors.
- **Provide on-site education and achieve voluntary compliance.** Recognize and make use of existing industry quality assurance (QA) or training programs. Inspectors should become familiar with an establishment's existing QA and employee training programs and reinforce components of these programs that lead to active managerial control of risk factors. Time spent learning an establishment's system can allow an inspector to focus on potential weaknesses and offer suggestions for strengthening an existing food safety management system.