## G. Retail Food-Meat Markets

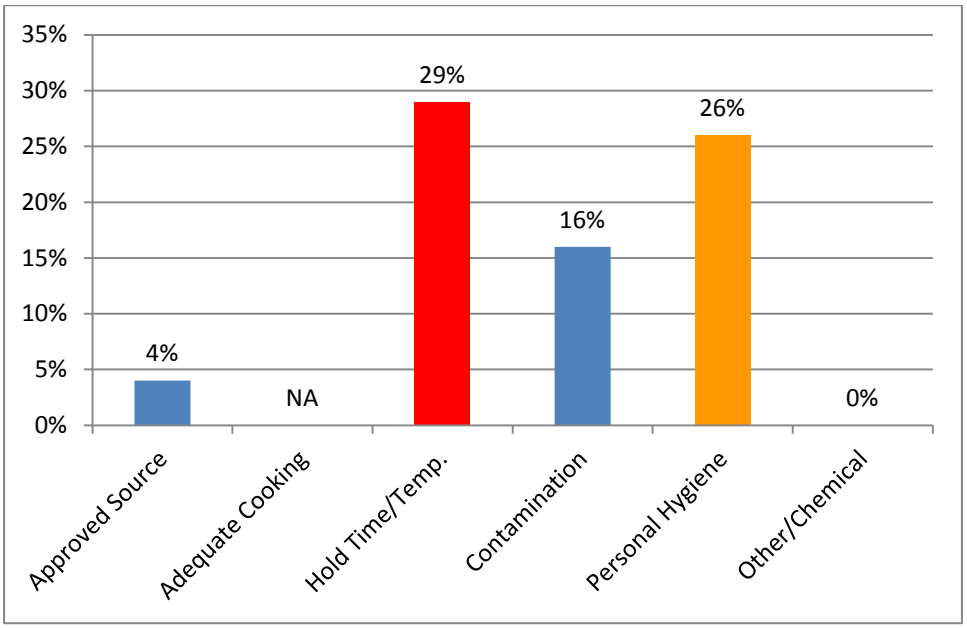
### *Introduction*

For the 2010 Wake County Baseline survey, 59 meat markets were surveyed. For the 46 possible individual data items on the survey instrument 830 observations were made at 59 meat markets. See Appendix G for complete data related to meat markets.

*Certified food protection managers (25%)*: 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 15 of the 59 facilities (25% IN compliance).

### Results and Discussion

**Figure Meat-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<br>Risk Factor OUT of compliance: | Meat Markets | | |
|---|---|---|---|
| | % OUT | # OUT observations | Total Observations |
| Food from Unsafe Source | 4% | 5 | 129 |
| Inadequate Cooking | NA | 0 | 0 |
| **Improper Holding/Time-Temperature** | **29%** | **26** | **89** |
| Contaminated Equipment/Contamination | 16% | 42 | 266 |
| **Poor Personal Hygiene** | **26%** | **73** | **281** |
| Other/Chemical | 0% | 0 | 65 |
| Totals | 18% | 146 | 830 |

The foodborne illness risk factors needing priority attention are:

- Improper Holding/Time and Temperature (29% OUT of compliance)
- Poor Personal Hygiene (26% OUT of compliance)

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

**Table Meat-2**: ***Improper Holding/Time-Temperature (29% OUT)***

| Data Item | # OUT | Total Obs. | % OUT |
|---|---|---|---|
| **RTE, PHF discarded after 7 days 10b** | **5** | **14** | **36%** |
| **Commercially prepared RTE, PHF date marked 10c** | **5** | **14** | **36%** |
| **Cold Hold 8a** | **16** | **59** | **27%** |

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

*Date marking (Individual Data Items 10b and 10c)*: 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.

**Table Meat-3**: ***Poor Personal Hygiene (26% OUT)***

| Data Item | # OUT | Total Obs. | % OUT |
|---|---|---|---|
| **Employee Health Policy 17a** | **51** | **59** | **86%** |
| Handwash facilities (accessible) 16a | 10 | 59 | 17% |
| Prevention of Hand Contamination 15a | 2 | 14 | 14% |
| Proper Handwashing 13a | 5 | 38 | 13% |
| Handwash facilities (accessibility) 16a | 3 | 59 | 5% |
| Good Hygienic Practices 14a | 2 | 52 | 4% |

**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.

*Handwash facilities (Item 16a)*: 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.

The other individual data items are listed, and are important for prevention of foodborne illness. The sample sizes are relatively small for analysis.

**Summary**

**Table Meat-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 (29% OUT) | **RTE, PHF discarded after seven days 10a (36% OUT)** |
| | **Commercially prepared RTE, PHF date marked 10c (36% OUT)** |
| | **Cold Hold 8a (27% OUT)** |
| Personal Hygiene (26% OUT) | **Employee Health Policy 17a (86% OUT)** |
| | Handwash facilities (accessible) 16a (17% OUT) |
| | Prevention of Hand Contamination 15a (14% OUT) |
| | Proper Handwashing 13a (13% OUT) |
| | Handwash facilities (accessibility) 16a (5% OUT) |
| | Good Hygienic Practices 14a (4% OUT) |

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