Food Safety Practices and Technologies Used by U.S. Meat Slaughter Plants: Results of a National Mail Survey

Sheryl Cates, BA*; Shawn Korns, BA; Catherine Viator, MS; and Mary Muth, PhD · RTI International, Research Triangle Park, NC

1. Introduction

The National Meat Inspection Program implemented by state (federal in a few) meat, poultry, and egg plants in the United States is responsible for ensuring that these products are wholesome and hygienic at the time of processing and that they are not adulterated. To maintain this program, plants employ personnel and use technologies to prevent and/or control pathogen contamination and promote food safety in slaughter and fabrication operations.

2. Study Design

We used FSIS’s Enhanced Facilities Database (EFD) as the sampling frame for the study. The EFD was developed by the U.S. Department of Agriculture’s (USDA) Food Safety and Inspection Service (FSIS) to identify plants that house slaughter and fabrication operations, to monitor plants for the next five years, and to identify plants that harmonize with the Department of Agriculture’s (USDA) Food Safety and Inspection Service’s (FSIS) Enhanced Facilities Database (EFD) and other plants.

3. Study Operations

We conducted a national survey of meat slaughter plants to collect uniform information on practices and technologies to control pathogens and promote food safety in slaughter and fabrication operations. Many plants have implemented food safety technologies and practices in the last few years. However, it is not clear how many plants have implemented these technologies and practices or how well they are implemented. This research addresses this need by identifying how many plants use certain technologies and practices in the next few years.

4. Study Materials

The purpose of the survey was to obtain information on practices and technologies to control pathogens and promote food safety in slaughter and fabrication operations. The survey included questions about how plants are using the Food Safety and Inspection Service’s (FSIS) mandated practices, how plants are using their sanitation standards to control pathogens, and how plants are using additional technologies and practices to control pathogens and promote food safety. We mailed a self-administered questionnaire to target small plants (73%) and large plants (27%). We took a census of small plants and took a census of large plants. The survey was conducted in 2006.

5. Study Results

Many plants are more likely to conduct technologies and practices compared with very small plants. For example, 77% of plants use pathogen control technologies during operations compared with very small plants (66%).

6. Study Conclusions

Most plants are more likely to conduct technologies and practices than for state-inspected plants (70%) compared with federal-inspected plants (66%).

7. Study Limitations

The survey was conducted in 2006. It is not clear how many plants have implemented these technologies and practices or how well they are implemented. This research was conducted by researchers at the USDA, FSIS, and RTI International. The survey was conducted in 2006.