

**National Advisory Committee on Meat and Poultry Inspection**  
**August 8-9, 2007**

Subcommittee 1 Report

**Issue: *Linking FSIS Activities to its Public Health Goals***

The Subcommittee was presented the following questions by the Agency.

- 1. What analyses or approaches would you propose to determine the relationship between FSIS' activities and contamination rates in FSIS-regulated foods (e.g., correlation analyses, etc.)?*
- 2. What analyses or approaches would you propose to determine the relationship between contamination rates in FSIS-regulated foods and food-related human illness (e.g., expert elicitation, risk assessment, etc.)?*
- 3. Do you have any suggestions to directly link FSIS activities to changes in the incidence of human illness or are indirect linkages most appropriate?*

The Subcommittee submitted the following recommendations to the Agency.

Sub-committee 1 recognized that these were very broad issues. Furthermore the sub-committee has concerns about the adequacy of the currently available data specifically the Salmonella verification data and the public health NRs. Trying to predict and minimize public health problems based on a potential correlation between USDA inspection activities and a public health event may be beyond the scope of existing data which was not collected for this purpose. It is part of a regulatory activity.

**1. What analyses or approaches would you propose to determine the relationship between FSIS' activities and contamination rates in FSIS-regulated foods (e.g., correlation analyses, etc.)?**

Before using public health NRs (HACCP) and the pathogen data sets (i.e., Salmonella, Campylobacter, Listeria monocytogenes, 0157:H7) to attempt public health correlation FSIS should analyze a relevant portion of the data to generate preliminary analysis and convene a panel of public health experts (working through the subcommittee) including appropriate statisticians to review the extent to which the existing data can predict a public health correlation. SSOP NRs and public health food safety assessments may also be able to be evaluated for correlation data, after review by outside expert panel including appropriate statisticians.

All of these analyses and interpretations will be incorporated into a technical plan which will undergo stakeholder input and peer review.

Expert panels should be done by email or conference call.

**2. What analyses or approaches would you propose to determine the relationship between contamination rates in FSIS-regulated foods and food-related human illness (e.g., expert elicitation, risk assessment, etc.)?**

Well-developed research programs are required to properly identify and reduce risk associated with pathogens of concern from foodborne illnesses and originating from FSIS amenable products.

Federal funding must also be available to obtain significantly valuable and applicable attribution data and epidemiological (quantitative/qualitative) data in pursuit of foodborne pathogens. This includes appropriate integration of existing data contained in federal and state repositories.

Federal funding should be provided to pay for all sample submissions from establishments for pathogen isolation, identification, enumeration and typing. This should also include sufficient funding for expanding the PFGE database to determine how widespread various pathogen serotypes may be as associated with foodborne illnesses.

Funding should be sufficient for the research to obtain samples

1. from raw product entering the plant
2. from product exiting a specific intervention intended to reduce/eliminate the pathogen of interest
3. from finished product obtained from retail store shelves

FSIS may try to correlate regulatory activities verifying a given intervention in an attempt to predict increased pathogen risk associated with finished products.

A joint effort including funding among the federal and state agencies (USDA, FDA, CDC, State Departments of Agriculture and Health) is essential if the recommended approach is to be successful.

Specific interventions need to be developed and available for use at the FSIS regulated establishments. APHIS and FDA-CVM need to work together to provide incentive to allied industries to develop the appropriate interventions. Regulatory barriers need to be removed as previously experienced with probiotics and inactivated vaccines.

**3. Do you have any suggestions to directly link FSIS activities to changes in the incidence of human illness or are indirect linkages most appropriate?**

The response to question 2 addresses this question.