Food Safety and Inspection Service (FSIS) Use and Application of Harmonized IFSAC Attribution Approach and Estimates

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Importance of Attribution to FSIS

- Performance Measurement
  - FSIS Strategic Plan
    - Goals 1 and 4
  - Agency Priority Goal
  - *Salmonella* Action Plan
  - FSIS Annual Performance Plan
- Policy Development
  - Risk Assessments and Economic Analyses
  - Performance Standards
  - New Initiatives
- IFSAC
  - Joint participation on projects, technical workgroup, steering committee and communications

FSIS Performance Measurement

All Illness Measure

- The All Illness Measure is included in the FSIS Strategic Plan for 2011-2016 (Goal 1) and the USDA Strategic Plan.

USDA Agency Priority Goal

- USDA also specifically tracks the *Salmonella* portion of the All Illness Measure to focus Agency attention on reducing *Salmonella* illnesses associated with FSIS-regulated products.

FSIS Strategic Plan for 2011-2016; Goal 4

- FSIS seeks to maximize its relationships with public health and food safety partners to enhance the food safety system.
  - **Goal 4:** % of results from interagency collaboration on analytics used in FSIS policy; IFSAC

FSIS All Illness Measure

- FSIS developed the All Illness Measure in 2009 to allow the Agency to track foodborne illnesses due to *Salmonella*, *E. coli* O157:H7 and *Listeria monocytogenes (Lm)* that are associated with FSIS-regulated products.
- A summary measure (estimate) of all *Salmonella, E. coli* O157:H7, and *Lm* foodborne illnesses attributed to FSIS-regulated products (meat, poultry, processed egg products)
  - Incorporates CDC case rate data and attribution estimates
- Utilizes a 3 year window FDOSS 'simple food' data to estimate attribution
- Reduction goals are linked to Healthy People 2020 Objectives

FSIS *Salmonella* Action Plan

- FSIS convened personnel from across the Agency to gather ideas about actions FSIS could take to decrease salmonellosis
- Led to the development of a priority list of actions
- Sets priorities for FSIS to address *Salmonella,* examples include:
  - Develop performance standards
    - Comminuted poultry, Poultry parts, Pork products
  - Improve Sampling approaches
    - Better designs, coverage
  - Modernization of poultry inspection
- Foodborne illness attribution informs these priorities

FSIS Policy Development and New Initiatives

- Earlier performance standards were linked to prevalence estimates and establishment performance relative to that estimate
- New approach is to set performance standards linked to HP2020
  - Potential Public Health Impact of *Salmonella* and *Campylobacter* Performance Guidance for Young Chickens and Turkeys
  - Docket No. FSIS-2014-0023 "Changes to the *Salmonella* and *Campylobacter* Verification Testing Program: Proposed Performance Standards for *Salmonella* and *Campylobacter* in Not-Ready-to-Eat Comminuted Chicken and Turkey Products and Raw Chicken Parts and Related Agency Verification"
- New Initiative: Pork products sampling
  - FSIS sampled pork carcasses for *Salmonella*, but found very low rates of contamination and stopped the program in 2011
  - Illness attribution data indicates that pork is a source of foodborne illness from *Salmonella*
  - In 2014, FSIS began exploratory sampling in pork products

FSIS Use of IFSAC Estimates

- Conducted internal FSIS analyses to determine:
  - Impact of new commoditization scheme and FSIS attribution fractions
  - Relationship between harmonized attribution fractions and FSIS attribution fractions
- Plan to assess impact on All Illness Measure moving forward, as compared with current FSIS approach to estimation attribution
- Anticipate incorporating harmonized estimates into the FSIS All Illness Measure in future, likely in coordination with the next 5 year FSIS Strategic Plan
- Plan to assess impact/investigate use of harmonized estimates in other FSIS performance measurement and policy development activities

Summary

- FSIS uses foodborne illness attribution data in a variety of ways; performance measurement and policy development, and accurate data is key to understanding what food products contribute most to foodborne illness.
- A harmonized approach to attribution, like that undertaken through IFSAC, is essential for consistent analysis and reporting across the government.
- FSIS is committed to its collaboration with IFSAC and pursuing new collaborative projects moving forward.

Summary

- Foodborne Disease Illness Source Attribution is important to FSIS
  - Current decision-making
  - Long-term planning and goal setting
  - Helps FSIS measure contributions to improving public health
- Collaboration is critical
  - Support improved data collection
  - Consensus on methodology
  - Transparency