



Public Health Information System (PHIS)

An Overview for Stakeholders

Revised September 3, 2010



PHIS and Domestic Inspection

Judith Riggins

Deputy Assistant Administrator
Office of Field Operations



FSIS Inspection and Data Infrastructure Improvements

- **OIG December 2007 audit identified 35 needed improvements to the FSIS data infrastructure.**
- **OIG approved FSIS' responses to all 35 recommendations.**
- **A public health-based, data-driven approach to improving processing and slaughter inspection.**
- **The Agency is developing a dynamic, integrated infrastructure to support a comprehensive, timely and reliable data-driven inspection system.**



OIG Recommendations

- Develop strong scientific and statistical basis for resource allocation
- Undertake third party review of Agency programs
- Prioritize food safety assessments (FSAs) and utilize their findings to inform resource allocation
- Conduct in-depth review of data systems and develop an integrated data infrastructure
- Consistently produce data reports to inform decision makers



PHIS Overview

- Automates and replaces many of FSIS' existing systems, such as PBIS, RIS and AIIIS.
- Integrates these separate and disparate systems into one comprehensive data-driven, easy-to-use data-analytics system.
- Will facilitate sharing of data among inspection personnel, their managers and headquarters on a daily basis.
- Powerful decisionmaking tool that will enable FSIS to protect public health more efficiently, effectively and rapidly than under existing systems.
- PHIS will operate through the interaction of four components: domestic inspection, import activities, export activities and predictive analytics.



Four Components of PHIS

➤ Domestic Inspection

- Enhanced establishment and inspection data (e.g., establishment profile information, in-plant verification activities, and food safety assessments)
- Data-driven inspection activities and food safety assessments

➤ Import Activities

- Data-driven foreign country audits and point-of-entry (POE) inspection activities
- Automation of import application process
- Receipt of electronic foreign health certificates for advanced notice of incoming shipments

➤ Export Activities

- Automation of export certification process
- PHIS will ensure certificates accurately reflect foreign country import requirements.

➤ Predictive Analytics

- Alerts, reports and data-mining tools to better inform decisionmakers
- Automated scheduling of inspection tasks and responses to threats to public health



Inspection Procedures

Basically the same as in the existing PBIS system,
but with a few changes

- Includes separate tasks for zero-tolerance checks
- Combines the HACCP 01 and 02 procedures into HACCP tasks that are more like the existing HACCP 02 procedures
- Added the hazard analysis verification (HAV) procedure
 - CSIs are to verify that an establishment meets the regulatory requirements for the hazard analysis by performing a hazard analysis verification (HAV) procedure.



Inspection Procedures

Does not create any new requirements or regulations on establishments for domestic inspection



Documentation of Inspection Procedures

- Documentation of procedures by inspection personnel will differ under PHIS:
 - Document specific regulations verified, via drop-down menu, and the findings
 - Document additional information for some procedures
 - Be able to document a memorandum of interview (MOI) or their notes from meeting with plant management



PHIS and Import Activities

Mary Stanley

Director, International Policy Division
Office of Policy and Program Development

Jerry Elliott

Director, Import Inspection Division
Office of International Affairs



Import Activities

- Advance Notification of Shipments
 - Electronic certification (eCert) from foreign countries
 - Electronic application by importer of record, broker and agent
 - Interim solution until the Custom and Border Protection's Automated Commercial Environment (ACE) system is able to interface with PHIS

- Enhances Shipment Tracking
 - Alerts when shipments "fail to present" for inspection
 - Automates refused-entry disposition decisions and tracking system



Import Activities

- Incorporates all point-of-entry reinspection activities
 - Integrates shell eggs and egg products (“Shell eggs” includes those for breaking that go directly to the FSIS-regulated breaking plant and shell eggs for the consumer, verifying that “keep refrigerated” label is along with certificate attestations.)
 - Automates “increased” level of inspection
 - Improves targeting appropriate type of inspection to specific products
 - Enables record of inspection results



Import Activities

- Aligns import and domestic programs
 - Applies same tasks/management for SPS, SSOP, food defense
 - Harmonized product classification
 - HACCP process categories; finished product categories
 - Same process for NRs, appeals, MOI, etc.
 - Same process for official import establishment profile
 - Enables OIA use of Resource Management functions



Import Activities

- Enhanced external communication
 - Direct notification of rejected product to other agencies (e.g., APHIS, CBP)
 - Direct notification to competent authorities of foreign countries
 - Direct communication with importers of record, brokers and agents
- Automates foreign country audit processes
 - Improves linkage between previous audit findings, results at port-of-entry reinspection and other data used in analysis, planning and scheduling of foreign country audits



PHIS and Export Activities

Rick Harries

Director, Export Programs Division
Office of International Affairs



Existing Export Certification System

- Manual
- Paper-based
- FSIS inspection personnel verify requirements
- Data is not readily available



PHIS Export Certification System

- Automates paper-based processes for forms:
 - 9080-3, Establishment Approval
 - 9060-6, Application for Export Certificate
 - 9010-1, Return of U.S. Exported Products
- Ensures certificates reflect importing country requirements
- Improves use of resources



Export Library in PHIS

- Automates establishment/product eligibility
 - Export Library Validation Service (ELVS)
- Automates selection of export certificate statements
- Provides checklists for requirements that inspection personnel must verify



Export Product Lists

- Provides details about products each establishment exports
- Used by the Export Library Validation Service
- Differs from the product category on approved plant lists:
 - Goes into greater detail than species level
 - Does not specify lists per importing country
- AMS approves or denies inclusion of product list items in EV programs



Exporter/Processor Access to PHIS

- Processors maintain a product list in PHIS that the Export Library Validation Service uses to determine product eligibility.
- Exporters can submit export applications:
 - individually through a web-based interface and
 - in batches through a computer-to-computer interface.
- Exporters can manage export applications in PHIS.



Export Certificates in PHIS

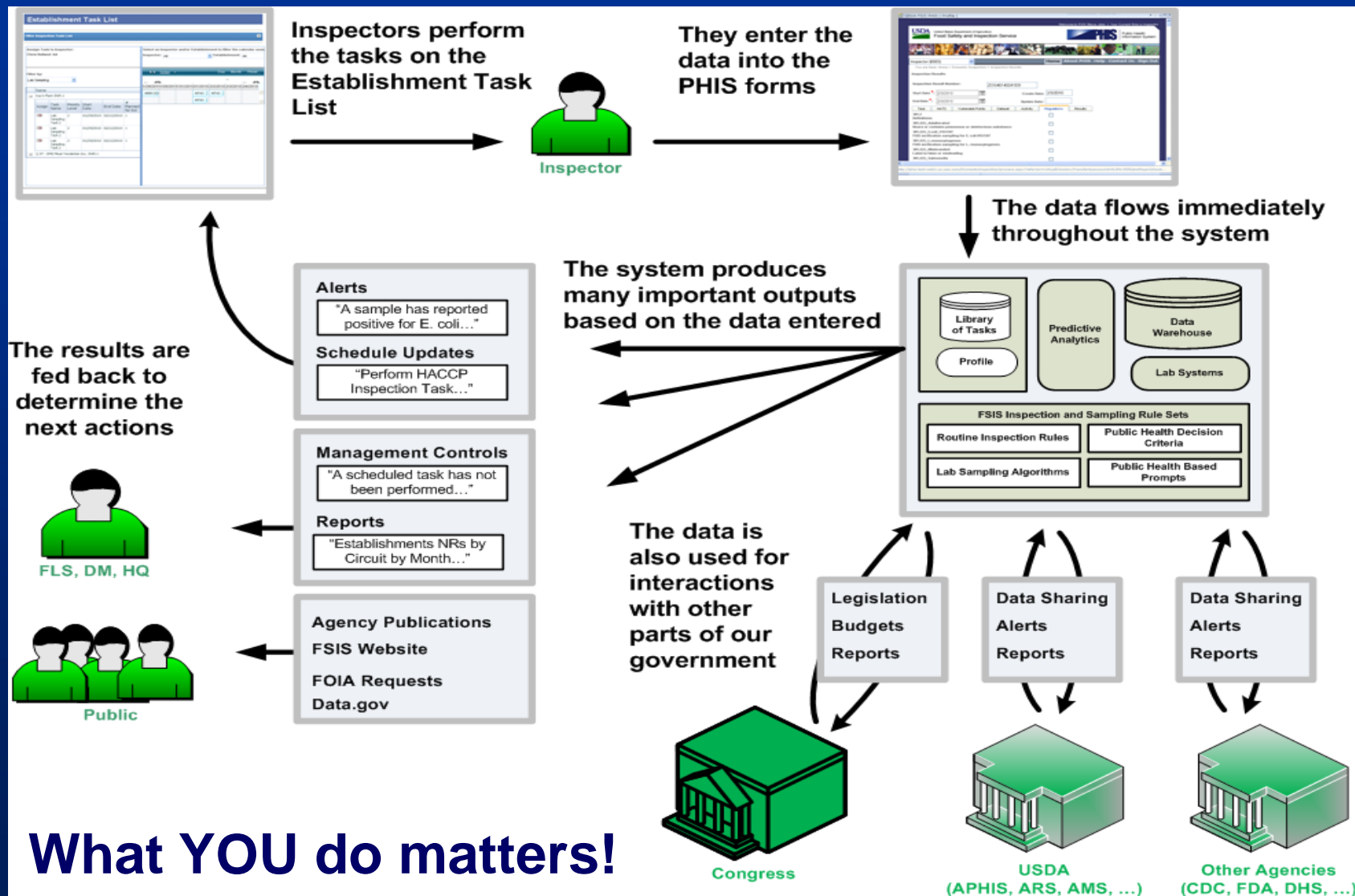
- Paper certificates printed on security paper
- USDA/AMS eTDE (electronic Trade Document Exchange) certificate image
- eCert developed by UN/CEFACT- certificate data exchange by secure internet protocols.



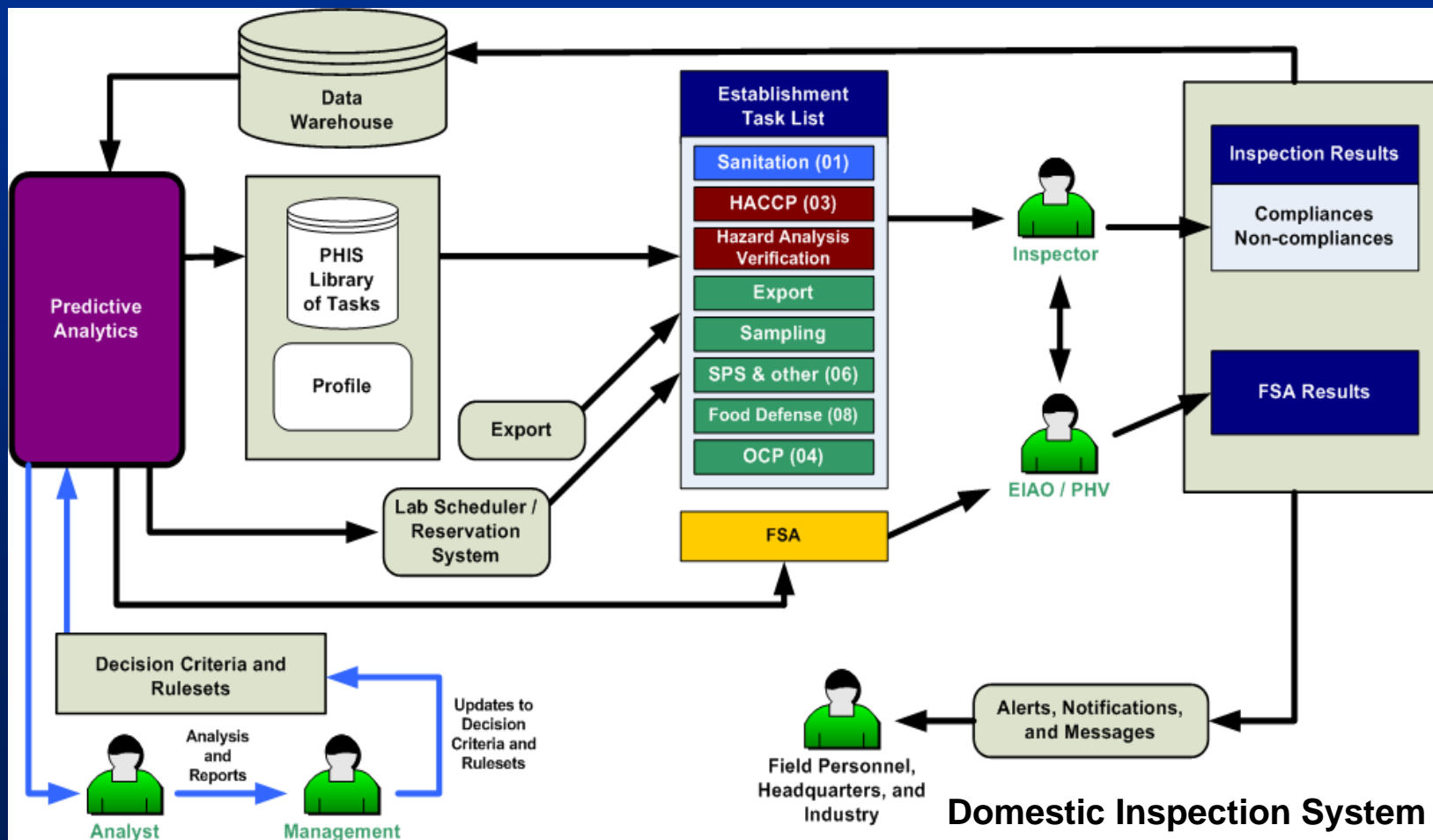
Predictive Analytics

Dorothy L. Andrews

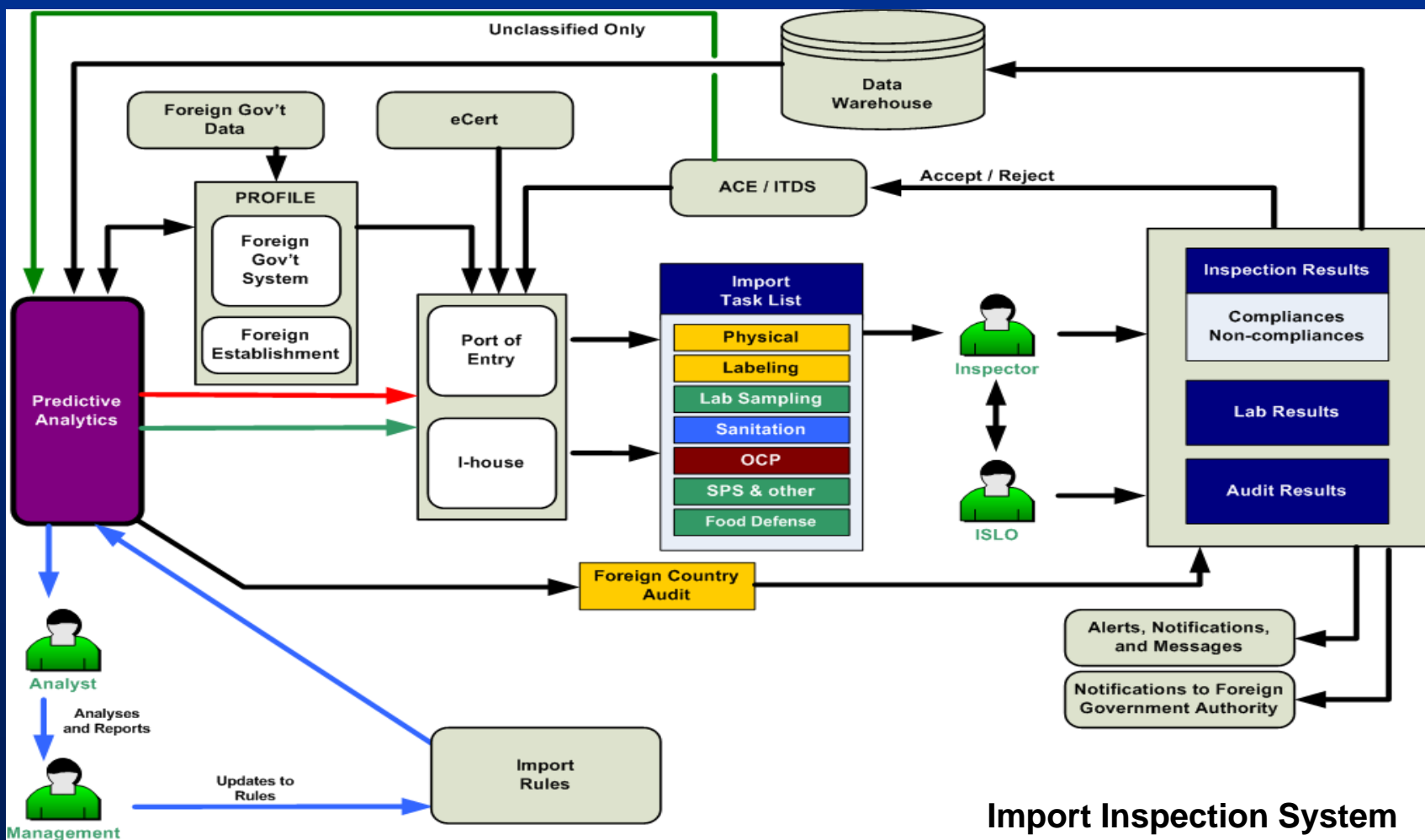
Branch Chief, Field Operation Analysis Branch
Office of Data Integration and Food Protection



How will Predictive Analytics Support a Data-Driven Approach to Inspections?



How will Predictive Analytics Support a Data-Driven Approach to Inspections?





Concurrent Data Mining and Analysis

- Integrate data streams and provide data reporting and visualization tools
- Perform real-time data mining and send alerts when irregularities are detected.
- Automated scheduling rules will provide quicker response time when reacting to events and performing follow-up tasks
- Public health-based prompts triggers hazard analysis verification (HAV) activities
- Analysts will be able to carry out spontaneous data analyses using multiple data sources



PHIS Training

Stephanie Wilkins

Acting Assistant Administrator
Office of Outreach, Employee Education
and Training (OOEET)



PHIS Training for FSIS

- Training approach:
 - Inspection personnel and supervisors will be trained together
 - Training will have numerous workshops and exercises to reinforce learning
 - Integration of policy and “click-by-click” training
 - Throughout, an emphasis on gathering and assessing information, determining compliance/noncompliance, documentation (including MOIs) and enforcement



PHIS Training for FSIS

- Proposed training content:
 - Introduction to PHIS (reasons for PHIS, anticipated public health benefit)
 - Overview of PHIS (Domestic, Export, Import, Predictive Analytics; comparison between PHIS and PBIS)
 - Overview of policy changes (updated directives, tasks, HAV)
 - “Click by click” in PHIS (by contractor) including a review of Home Page, Plant Profile, Tasks, Task Calendar, Documenting Results
 - Basic steps of HAV



PHIS Training for FSIS

- Proposed training content (cont'd):
 - Hazard analysis exercise (includes a review of the Hazards Control Guide)
 - Verifying plant's flow chart
 - Verifying plant's support for hazard analysis
 - Verifying plant's prerequisite programs and control programs related to food safety
 - Review of basic micro principles
 - Exports, eADRS, STEPS, HATS in PHIS



PHIS Training for FSIS

- Training logistics:
 - Training is estimated to take 2 weeks (including travel time)
- Training evaluation:
 - Pre- and post-training will be conducted as a measure of training effectiveness



Outreach to Industry

- Webinars offered for applicants for import and export
- Informational mailings
- Presentations
- More under development
- FSIS website: <http://www.fsis.usda.gov/PHIS>