“If you don't know where you are going, you might wind up someplace else.” Yogi Berra
The Center for Science in the Public Interest (CSPI) is a bi-national NGO representing over 850,000 consumers in both the U.S. and Canada.

Safe Food International (SFI), a CSPI project, partners with consumer organizations in other regions of the world on food safety issues.

The International Association of Consumer Organizations provides representation in Codex for consumer organizations on five continents.
Reliable data and appropriate metrics are essential to measure performance for managing food safety programs and making continuous improvements to better protect the public from foodborne disease.

The keys to good metrics are:
- Having good data,
- Choosing the right things to measure, and
- Transparent, consistent reporting.

For consumers, public reporting of data and metrics provides accountability and builds trust in the food safety system.
What Will FDA Need under FSMA

- FDA will need at least three specific data collections to implement import provisions under the FDA Food Safety Modernization Act.
  - Attribution data for the identification of high-risk foods.
  - International disease reporting for the identification of high-risk countries, territories and regions.
  - Inspection reports to establish the compliance histories for firms/facilities.

- Import metrics under FSMA include –
  - Number of inspections performed
  - Accrediting bodies performance
  - Auditors performance
Data Resources
Outbreak Alert! contains over 6,600 outbreaks between 1990-2008.

Using CDC’s Foodborne Outbreak Online Database (FOOD), CSPI maintains a database of those foodborne illness outbreaks with an identified etiology and food vehicle.

Outbreaks in the CSPI database are placed within one of thirteen food categories. Each category is then subdivided into food types.
Food Categories in Outbreak Alert!

**FDA-Regulated Food**
- Beverages
- Breads & Bakery
- Dairy
- Eggs & Egg Dishes
- Game
- Multi-Ingredient Foods (No-Meat)
- Produce
- Seafood

**USDA-Regulated Food**
- Beef
- Pork
- Poultry
- Luncheon & Other Meats
- Both
Total and Solved Outbreaks 1998-2007

Colorado*

<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
<th>Solved</th>
<th>CO Only, Solved</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>398</td>
<td>30%</td>
<td></td>
</tr>
<tr>
<td>1999</td>
<td>454</td>
<td>34%</td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>514</td>
<td>36%</td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td>548</td>
<td>44%</td>
<td></td>
</tr>
<tr>
<td>2002</td>
<td>560</td>
<td>42%</td>
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</tr>
<tr>
<td>2003</td>
<td>418</td>
<td>39%</td>
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<tr>
<td>2004</td>
<td>499</td>
<td>38%</td>
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<tr>
<td>2005</td>
<td>415</td>
<td>42%</td>
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</tr>
<tr>
<td>2006</td>
<td>454</td>
<td>36%</td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>378</td>
<td>34%</td>
<td></td>
</tr>
</tbody>
</table>

Reported Outbreaks to CDC: 273
Solved Outbreaks: 170
Solved Outbreaks CO Only: 150

Source: Outbreak Alert database

* 10 years of data
† Excludes multi-state outbreaks
Foods Linked to Solved Cases, 1998-2007

Source: Outbreak Alert database
Identifying High-Risk Foreign Countries

Regions
- Africa
- Europe
- Western Pacific
- Latin America
- Middle East/North Africa
- Southeast Asia

Information Sources
- ProMed
- Bites, safe food from farm to fork (ksu.edu)
- The Center for Animal Health and Food Safety at the University of Minnesota
- STOP E-Alerts
## Identifying Factors that May Affect Imports

**Europe (n=97)**

<table>
<thead>
<tr>
<th>Contaminant</th>
<th>No.</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salmonella</td>
<td>20</td>
<td>21%</td>
</tr>
<tr>
<td>E. coli</td>
<td>16</td>
<td>16%</td>
</tr>
<tr>
<td>Gastroenteritis</td>
<td>12</td>
<td>12%</td>
</tr>
<tr>
<td>Norovirus</td>
<td>9</td>
<td>9%</td>
</tr>
<tr>
<td>Cryptosporidium</td>
<td>6</td>
<td>6%</td>
</tr>
</tbody>
</table>

**Africa (n=128)**

<table>
<thead>
<tr>
<th>Contaminant</th>
<th>No.</th>
<th>Percent</th>
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</thead>
<tbody>
<tr>
<td>Cholera</td>
<td>105</td>
<td>82%</td>
</tr>
<tr>
<td>Gastroenteritis</td>
<td>12</td>
<td>9%</td>
</tr>
<tr>
<td>Contamination</td>
<td>2</td>
<td>2%</td>
</tr>
<tr>
<td>Schistosomiasis</td>
<td>2</td>
<td>2%</td>
</tr>
<tr>
<td>Hepatitis E</td>
<td>2</td>
<td>2%</td>
</tr>
</tbody>
</table>

**Western Pacific (n=118)**

<table>
<thead>
<tr>
<th>Contaminant</th>
<th>No.</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gastroenteritis</td>
<td>30</td>
<td>25%</td>
</tr>
<tr>
<td>Cholera</td>
<td>21</td>
<td>18%</td>
</tr>
<tr>
<td>Contamination</td>
<td>16</td>
<td>14%</td>
</tr>
<tr>
<td>Salmonella</td>
<td>9</td>
<td>8%</td>
</tr>
<tr>
<td>Hepatitis A</td>
<td>6</td>
<td>5%</td>
</tr>
</tbody>
</table>

**Source:** Safe Food International Reports
Metrics Choices
Choice of What is Measured Matters

- FDA-Track provides useful metrics for internal management but isn’t as useful for informing public about what FDA does.
- Public metrics are available in FDA’s budget justification documents, but may not tell a complete story.
- Other metrics have to be drawn out from publically available materials on FDA’s website.
Inspections Measured Against Funding

FY2001: $11,246
FY2002: $11,767
FY2003: $13,567
FY2004: $12,853
FY2005: $10,498
FY2006: $9,164
FY2007: $7,846
FY2008: $8,045
FY2009: $8,490
FY2010 est: $8,851

Source: FDA Budget Justifications
Changes in Allocation of Staff Activities

2001
- Domestic Inspections: 56.3%
- Sample Collections: 8.8%
- Investigations, Recall Audits & Coordination: 7.9%
- Training Given & Received: 10.2%
- Technical Assistance & Coordination: 12.2%
- Miscellaneous: 1.7%
- Foreign Inspections: 2.9%

2009
- Domestic Inspections: 49.9%
- Sample Collections: 7.5%
- Investigations, Recall Audits & Coordination: 17.5%
- Training Given & Received: 12.6%
- Technical Assistance & Coordination: 6.3%
- Miscellaneous: 1.4%
- Foreign Inspections: 4.8%

Source: FDA
Refusals of Imported Produce, 2009-2010

- Data gathered during border refusals can produce meaningful metrics
- Problems for consumers
  - Data presentation is not user friendly
  - Coding makes information less accessible to public

Source: FDA Import Refusal Report
Types of Imported Foods Frequently Refused, FY2010

- Seafood: 16%
- Vegetables: 15%
- Fruits: 9%
- Spices/Flavors/Salts: 8%
- Nonchocolate Candy: 8%
- Bakery Products: 8%
- Snack Foods: 3%
- Multi-Food Dinners: 4%
- Soft Drinks & Water: 4%
- Nuts & Edible Seeds: 3%
- Cheese: 3%
- Chocolate & Cocoa: 4%
- Pasta: 2%
- Dressings & Condiments: 2%
- Other: 11%

Source: FDA Import Refusal Report
Consistency

Vanishing Reports
Case Study
Seafood HACCP
Case Study
Vanishing Data and Inconsistent Reporting

- Changes in administrations result in lost data and metrics
  - Historic budget justifications are no longer available beyond FY2005.
  - Strategic plans from prior administration difficult to find.
  - Audit reports on state inspections were taken down.

- Metrics information changes
  - Seafood HACCP evaluations stopped reporting overall implementation after 2001.
Recommendation for Consumer Friendly Metrics

- **Data sources**
  - FDA should make use of publically available and validated data resources.

- **Baselines**
  - FDA should establish baselines for measuring progress on implementing FSMA.

- **Consistency**
  - Reporting should be consistent over time.
  - Baselines, such as past reports and plans should be publically available.

- **Transparency**
  - FDA should make data used in metrics publically available.
Thank you!

David W. Plunkett, J.D., J.M.
Center for Science in the Public Interest
1220 L St., NW Suite 300
Washington, DC 20005
Phone: (202) 777-8319
Fax: (202) 265-4954
E-mail: dplunkett@cspinet.org