Data (or not) on US Foodborne Illness Due to Imports

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Increasing Proportion of Specific Food Categories that are Imported

<table>
<thead>
<tr>
<th>Food Category</th>
<th>1980</th>
<th>1990</th>
<th>2007*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fruit and Nuts</td>
<td>9.7%</td>
<td>29.4%</td>
<td>32.4%</td>
</tr>
<tr>
<td>Vegetables</td>
<td>4.7%</td>
<td>7.5%</td>
<td>13.6%</td>
</tr>
<tr>
<td>Fish and shellfish</td>
<td>45.3%</td>
<td>56.3%</td>
<td>84.3%</td>
</tr>
<tr>
<td>Red Meat</td>
<td>6.6%</td>
<td>8.3%</td>
<td>9.5%</td>
</tr>
<tr>
<td>Total food consumed</td>
<td>8.2%</td>
<td>11.3%</td>
<td>15.5%</td>
</tr>
</tbody>
</table>

*Jerado USDA/ERS 2007 (2007 estimates are preliminary)
Based on US Outbreak Data —
we would expect several of these foods
to pose a risk for illness

Causes of illness in 1,565 outbreaks
of single food commodities,
2003-2008
Can we say what the risk of Imported Food Is?

- Best source of information would be outbreak investigations

- But, how many foodborne outbreaks are linked to imported foods?

- A question asking if “contaminated food was linked to imports?” was added to the NORS form in 1998, but…
  - Information rarely collected, and
  - Rarely reported
33 such outbreaks reported

- 26 bacterial (15 *Salmonella*, 2 *E. coli* O157, 9 other pathogens)
- 3 parasitic (2 *Cyclospora*)
- 3 viral (Hepatitis A, 2 norovirus)
- 1 ciguatoxin

13 fresh produce (9 fruit)
- 7 seafood
- 7 dairy (all unpasteurized, 6 queso fresco)
- 3 alfalfa sprouts

17 from Latin America, 2 from Asia/Pacific
However, foodborne illness data regarding imports — *is incomplete*

- Source(s) of sporadic illnesses are rarely determined
- When a food is implicated during an outbreak, the source of a contaminated ingredient may not be known or obvious
- Illustrative investigations show how helpful this information can be to prevention activities
Cyclosporiasis: *Parasita non grata*

- *Cyclospora cayetanensis*: causes diarrhea / fatigue

- 1996: 1,465 cases in 20 states, D.C., and Canada
  - At least 55 local outbreaks

- Epidemiologically linked to raspberries grown in Guatemala
  - New seasonal crop, recently introduced
  - Flown in fresh in the months of May-June

- CDC, FDA, Guatemalan authorities identified a few possible farm sources (river water used to mix fungicide sprays?)
  - Some changes made in production and processing
Still more cyclosporiasis…

- **1997**: More outbreaks linked to Guatemalan raspberries
- Spring illness in children of workers identified as cyclosporiasis, and linked to drinking river water
- Additional steps taken to maximize hygiene, water quality
- **1998**: US ends imports of raspberries – outbreaks end. Canada continues imports and has outbreaks
- Reservoir remains unknown. Local wild animal or bird?
- Ecology of contamination unclear, but the Central American Highlands are the wrong place to grow raspberries.

Herwaldt 2000  CID 31:1040-57
2003: 4 large outbreaks of hepatitis in
  - Tennessee
  - Georgia
  - North Carolina
  - Pennsylvania

In all, 1,023 cases reported.

In Pennsylvania alone 124 cases hospitalized and 3 died after eating at one restaurant. About 15,000 gamma globulin shots administered.

Illness in each state linked to eating green onions.

Three closely related strains of the virus, previously seen on the Texas-Mexico border.
Jaundice and Green Onions: Solved?

- **Traceback:** green onions traced back to several possible source farms in northern Mexico

- **Onsite investigation by FDA, CDC, Mexico**
  - Four likely source farms
  - Water used for rinsing and ice of questionable quality
  - Poor sanitation and handwashing facilities
  - Possibility that young children were in contact with harvested produce

- **Solutions:**
  - Failsafe potability of water used in packing shed
  - Keep young children away from harvested produce
Salmonella Litchfield and imported cantaloupe - 2008

- 51 ill in 26 states, with onset between Jan 10 - March 10, 2008
- Most adults, wide age range, 59% female
- Epidemiological investigation: strongly associated with eating fresh cantaloupe.
- Traceback of cantaloupe to one large grower in Honduras
- FDA halts imports – steps taken to reduce risk

http://www.cdc.gov/salmonella/litchfield/
General Observations

- Only a small number of outbreaks are recognized

- These “recognized outbreaks”:
  - Often involve produce eaten without cooking
  - Sometimes involve imported ingredients used in a domestically produced food
  - Are labor intensive and require multiple agencies
  - Require close international collaboration
  - Provide useful information
Most of these outbreaks were multistate, but…

- Of 5,696 foodborne outbreaks in 2004-2008:
  - Only 68 or ~1% were multistate
  - 165 or ~3% were multicounty within a state
  - The rest or 96% were from a single county

- Conclusion: Most outbreak data is local
So why don’t health departments track implicated imported food items to their source?

After all, how hard can it be?...
Suppliers of jalapenos (April-July 2008)

Last updated: July 10, 2008
Post script (P.S.) … Whose responsibility is it to do tracebacks of implicated (imported) foods?

- Health Departments investigate outbreaks, but once a possible source is indentified, they refer to USDA or FDA for tracebacks

- Thus, it is not a health department responsibility and could be considered:
  - An unfunded mandate
  - Duplicative of federal responsibility

- Also, State/local Health Departments are on life support
  - 14,000 state job losses
  - 30,000 local job losses
How do we get better import outbreak data?

- Clarify traceback responsibility
- Streamline traceback process
- Improve traceability mechanisms
- Improve sharing of traceback information
- Monitor international outbreak data
- Consider funding sites that are in place, FoodNet or Outbreak Sentinel sites, to help collect needed information
Questions?

CDC Food Safety Site:
http://www.cdc.gov/foodsafety/

For more information please contact Centers for Disease Control and Prevention
1600 Clifton Road NE, Atlanta, GA 30333
Telephone, 1-800-CDC-INFO (232-4636)/TTY: 1-888-232-6348
E-mail: cdcinfo@cdc.gov  Web: www.cdc.gov

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.