

Implementing FSMA: CDC's Surveillance Provisions

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Foodborne Illness in the United States

Each year, 1 out of 6 Americans (or 48 million people) gets sick and 3,000 die of foodborne diseases.

2011 Estimates of Foodborne Illness in the United States

"These estimates provide valuable information to help CDC and its partners set priorities and further reduce illnesses from food."

CDC Director Thomas Frieden,
M.D., M.P.H.

THE IMPACT OF PREVENTION



Reducing foodborne illness by 10% would keep 5 million from getting sick.

Prevention of a single fatal case of *E. coli* O157 infection would save an estimated \$7 million.

CDC and state/local Partners Provide the Vital Link

Public Health provides the vital link between illness in people and the food safety systems of government regulatory agencies and food producers



CDC's Role in Food Safety

CDC and state/local partners provide this vital link by:

- ❑ Monitoring human illness—Tracking the occurrence of foodborne diseases**
- ❑ Defining the public health burden of foodborne illness**
- ❑ Attributing illness to specific foods and settings**
- ❑ Investigating outbreaks and sporadic cases**
- ❑ Empowering state and local health departments**
- ❑ Targeting prevention measures to meet food safety goals**
- ❑ Informing food safety action and policy**

Informing food safety policies*

Using CDC data and expertise

1994
1996

*USDA declared **E. coli O157:H7** an adulterant in ground beef; HACCP Pathogen Reduction Regulation changed meat and poultry inspected throughout the US*

CDC data linked large number of *E. coli* O157:H7 outbreaks to beef; concern about pathogens in raw meat and poultry

2005

FDA withdraws approval of Enrofloxacin (a ciprofloxacin-like antibiotic) for use in poultry

CDC data showed antibiotic-resistant human infections originating from poultry

2009/
2010

FDA mandates regulations of egg farms with 3,000 or more laying hens

CDC/state investigations linked shell eggs and *Salmonella* Enteritidis

The Food Safety Modernization Act (FSMA)

- ❑ Enacted January 2011
- ❑ Primarily effects FDA
- ❑ Authorization, but not appropriation
- ❑ 4 provisions directed at CDC
- ❑ Multiple other provisions for which CDC has a role

Main Themes of the Legislation



The Food Safety Modernization Act: CDC's task

—The act requires CDC to strengthen the capacity of state and local health departments to respond to foodborne outbreaks and improve the coordination and integration of surveillance systems and laboratory networks.”



-Thomas R. Frieden, MD, MPH, Director, CDC

At a Glance: CDC and FSMA

CDC FSMA Lead Activities

205(b)1 Surveillance Systems

205(b)2; 210, 399V-5:

Working Group Development

210: Centers of Excellence

112(b): Food Allergies

CDC FSMA Supporting activities (FDA lead)

103: Processing Sector Study

104: Performance Standards, Contaminants

105(a): Produce Safety Regulation

110(a): Report on Domestic Capacity

110 (g): Food Safety Research Plan

202(b): FERN Report (DPEI)

203: ICLN (DPEI)

204(d)(2): High Risk Foods

205(c)(1): Enhance S&L Capacity

205(c)(2): Review S&L Capacity

CDC FSMA Enhanced Surveillance Responsibilities

- ❑ Coordinating and integrating Federal, State and local foodborne illness surveillance systems**
- ❑ Increasing participation in national networks**
- ❑ Facilitating timely sharing of information**
- ❑ Developing improved epi and lab tools**
- ❑ Improving attribution of illness to specific foods**

CDC's Foodborne Disease Surveillance Systems: 'The GOOD'



<http://www.imdb.com/title/tt0060196/>

- ❑ World recognized experts
- ❑ State-of-the-art networks
 - FoodNet, PulseNet, etc.
- ❑ Credible, independent disease burden data
- ❑ Successful outbreak investigations
- ❑ Increased data quality via CIFOR

CDC's Foodborne Disease Surveillance Systems: **'The BAD'**



<http://www.imdb.com/title/tt0060196/>

- Surveillance systems are underfunded, understaffed, poorly integrated, often outdated and siloed (e.g. in June 2011:
 - Last state FOOD website data from 2008
 - Last outbreak summary from 2007
 - Last PHLIS website data from 2006
- State and local HDs on life support

CDC's Foodborne Disease Surveillance Systems: **'The UGLY'**



<http://www.imdb.com/title/tt006019/>

- For better timeliness, consumer groups (e.g. Center for Science in the Public Interest) publish their own Foodborne outbreak data
- Congress found it necessary to legislate that a Work Group monitor and recommend enhancements to CDC's foodborne illness surveillance

Chinese Symbol for Crisis



Danger (top) + Opportunity (bottom)

CDC's Foodborne Disease Surveillance Systems: Already the 'BAD' is getting 'BETTER'



Lee Van Cleef in the '50s.

http://www.westernclippings.com/hutch/hutch_2008_08.shtml

- Significant progress in updating the CDC website and surveillance reports, e.g.:

<http://www.cdc.gov/foodborneburden/surveillance-systems.html>

- State FOOD data for 2009
- Outbreak summary data for 2008
- Salmonella lab data for 2007, 2008, and 2009
- NARMS data for 2009
- More updates coming

CDC FSMA Enhanced Surveillance Current Components and Plans

- ❑ Maintain critical components of existing epidemiological, laboratory, environmental networks**
- ❑ Continued improvements in sharing existing data**
- ❑ Develop new investigation tools and laboratory methods**
- ❑ Enhance collaboration with partners**
- ❑ Augment capacity, to more accurately attribute illness to specific foods**
- ❑ Expand the number of FoodCORE sites (funds permitting)**

Progress on Creating FSMA Working Group(s)

- ❑ Combined working groups on surveillance and Centers of Excellence**
- ❑ Established under the CDC Board of Scientific Counselors (BSC) FACA**
 - Members were named by July 1**
 - Members include representatives from**
 - Federal, state, and local government**
 - Academia**
 - Industry**
 - Consumers**
- ❑ First meeting to be held November 7 and 8**
- ❑ Summary to be presented at BSC on Nov 9**

FSMA Integrated Food Safety Centers of Excellence

- **Public/private/academic partnerships**
 - State Health Department lead
 - Partnership with 1 or more academic institution

- **Specified activities are related to surveillance***
 - Training
 - Education
 - Program evaluation/research

- **Existing networks can serve as building blocks***
 - FoodNet
 - FoodCORE

*Examples are not limited to these activities

Questions?

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

For more information please contact Centers for Disease Control and Prevention

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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.

National Center for Emerging and Zoonotic Infectious Diseases
Division of Foodborne, Waterborne, and Environmental Diseases







**WE ARE
NOT
ALONE.**

<http://harajukumatt.deviantart.com/art/We-Are-Not-Alone-146898693>

**And now that you have your
involuntary FSMA upgrade, I and
CDC are not alone either**



<http://www.phonemag.com/verizon-drops-most-existing-smartphones-to-99-or-less-089999.php>