Food Safety

and

Food Security

Minnesota Department of Health
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Dianne Mandernach, Commissioner
Is it safe?

✦ How do you know the food you just ate was safe?
✦ How do you know the water in your glass is safe to drink?
✦ We all take our food safety for granted.
What the Food Safety system looks like from Farm to Table

Farm → Processor → Distribution Center → Retail → Restaurant / Home
“Food Safety” vs. “Food Security”

- a question of terminology
- “food safety” is part of our public health vocabulary
- we all have a good idea what it means
- it covers a range of activities
Food Safety includes....

- Preventing foodborne illness
  - protecting crops and food animals from contaminants and pathogens
  - Preventing contamination/adulteration during processing and distribution
  - regulating and inspecting food establishments (enforcing food codes)
  - educating about food handling at hygiene (in the home and elsewhere)
Food Safety includes….

- Identifying & responding to outbreaks
  - effective surveillance for foodborne illness
  - using genetic fingerprinting, other lab techniques to identify or rule out outbreaks
  - sharing of information through vehicles like PulseNet
  - identifying and addressing the sources of foodborne illness (outbreak investigation – closing the loop)
Food Safety includes....

- Addressing emerging foodborne disease threats (e.g. – BSE in cattle)
In short, food safety is:

- everything we do to protect the food supply
- a basic function of public health
On the other hand….

“Food Security” is
- a relatively new term
- not always used consistently
- not clearly distinguished from “food safety”
A suggested definition....

“Food Security”
- is a part of the broader food safety picture
- deals primarily with intentional efforts to harm or compromise our food supply
Food Safety vs. Food Security

Food Safety – the big picture
Food Safety vs. Food Security

Food Safety – the big picture

Food Security – a new piece of the puzzle
But is it so new?

- We didn’t think much about food security before 9/11
- In fact, our food supply has always been vulnerable to mischief
- First bioterrorism incident in modern era involved foodborne disease
The Rajneeshee cult

- Oregon – mid-1980s
- Spiked restaurant salad bars with salmonella
- Objective was to influence local election
- Had no effect on election – but caused widespread disease
We *are* vulnerable

- An attack on our food supply could take many forms
  - targeting of crops and food animals – using agents like soy bean rust or foot-and-mouth (severe economic impact)
  - contamination of food with pathogens or toxic materials – anywhere between the farm and the table
Human health and economic impacts

★ Potential for widespread illness - unprecedented numbers
  • 76 million cases of “natural” food borne illness in US each year
    • 325,000 hospitalized
    • 5,000 died (CDC)

★ Costs would be measured in billions of $
  – $6.9 billion/year for 5 pathogens (USDA/ERS 2000)
  – Mars candy hoax cost $4.5 million loss
What are we doing?

🌟 A look at some state/federal initiatives:
- Government Coordinating Council
- ASTHO; Food Safety and Security Taskforce
- Other states
- Multistate Partnership for Agrosecurity
- Minnesota
Government Coordinating Council (GCC)

- Government Food and Agriculture Sector
  GCC works with Private Sector entities
- Part of National Infrastructure Protection Plan (NIPP) of Homeland Security
  - Identify critical infrastructure, assess vulnerabilities, prioritize high risk assets, implement protective measures, measure effectiveness
- Food and Agriculture Sector -- Homeland Security Information Network (HSIN-F&A)
HSIN is designed to

- Improve and streamline communications and information sharing
- Provide access to resources
- Enhance collaboration
- Provide incident and infrastructure monitoring capabilities
  - Pilot testing scheduled
Kentucky DPH’s food security information sheet

- Distributed to all food establishments holding a food permit
- Information, tips for increasing overall food security and managers’ and employees FS awareness
  - Lock doors to prevent unauthorized entry
  - Restrict unauthorized personnel in food production areas (kitchen)
- The sheet also provided space for local emergency phone numbers to be written
North Carolina

 nederland

NC DHHS participates in NC Food Security and Safety Coalition
– Coalition has conducted series of tabletop exercises on food security issues
– “Dark Pantry”
Dark Pantry

 Scrolls Designed to:

- Exercise state, federal, local agencies’ and industry’s
  - Response to
  - Crisis management of
  - Consequence mitigation of
- A lethal contamination of the state’s food supply
Dark Pantry--Food Security Problems

- Vulnerabilities within the food chain not fully understood
- Known vulnerabilities not tied to current threat reduction efforts
- Threat reduction effort not tied to National Threat Alert Schemes
- Intelligence assessment and industry threat detection not coordinated or integrated
- Response and mitigation plans not coordinated with vulnerability or threat/intelligence assessments
Multi-State Partnership for Agriculture Security

- Collaboration of several state departments of agriculture
- IA, MN, WI, SD, MI, KS, NE, IL
- Received $2 million for joint projects
  - Risk communication
  - Response plan template and assessment
  - Assessment of animal and plant disease surveillance
What is Minnesota doing?

🌟 Multifaceted approach to food safety, food security

– MN Dept. of Agriculture
– MN Dept. of Health
  • Food-borne illness surveillance
    – Epidemiologists+Public Health Lab+clinical labs
  • EH Food Service regulation/education
– Board of Animal Health
– University of Minnesota
– Homeland Security and Emergency Management (HSEM)
Minnesota Dept. of Agriculture

- Issued recommendations on preventing terrorist activities at food and dairy facilities
- Providing guidelines for facilities and producers to do advance planning for emergency management.
- Offering security tips for chemical storage facilities
- Offering security tips for feed manufacturers.
Minn. Dept. of Agriculture

- Enhancing GIS capacity
- Agricultural Commodity Vulnerability Assessment
  - With Univ. of Minn.
  - Use assessment of fluid milk supply as template for others
- Education/Outreach
  - With local Emergency Management Directors
  - Seminar w/ UoM on food security held in 5 major cities
MDH-EH efforts have been mainly to:
- 1. Raise awareness among all players, public and private sector
- 2. Develop response and recovery plans as a food annex to the MDH emergency response plan
- 3. Build connections between different parts of the system
MDH advice to food service

- Maintain cleanliness and sanitation in establishments;
- Restrict access
- Monitor work areas;
- Encourage customers to report suspicious behavior;
- Remove clutter and unwanted chemicals;
- Ensure that salad bars are supervised; and
- Inspect incoming orders, maintain tracking of ingredients and outgoing food.
Minn. Dept. of Health

- Held workshop, “Identifying the gaps in Food Emergency Response Plans” in May 2004
- Conference for Food Protection public-private workgroup
- Increased overall communication capabilities: GovDocs
What if prevention fails?

★ Maintain and strengthen surveillance system
  – MN enjoys strong interaction between the state public health lab, state epis, all clinical labs and MDA
    • Proves itself again and again:
      – Detected E. Coli O157 in frozen steaks sold door to door in several midwestern states
What are we learning? What do we need to do?

- Good food safety maximizes food security
- Prevention important, but need adequate response to limit impacts. Work toward national real time capabilities.
- State departments of Agriculture are not getting adequate preparedness dollars
  - Need to find way to get $ from USDA and FDA to state and local levels
What else are we learning? What else do we need to do?

- Communication is key!
  - Keep trying to cut across “silos” and build connections among all players, especially local entities
- Remember: All disasters are local!