Food safety threats
international coordination

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How safe is our food?
Outline of presentation

- Foodborne disease burden
- **Outbreaks** – intentional * accidental - International preparedness
- Prevention – surveillance – response – **Global awareness**
- WHO Networks – Lab-based surveillance
WHO Surveillance Programme for Control of Foodborne Diseases in Europe

Campylobacteriosis trends

Incidence (cases/100000)

England & Wales
Denmark
Switzerland
Israel
Iceland
Finland
Sweden
Norway
Slovakia
Scotland

BgVV; Berlin
**S. enteritidis**, increase in human infections, Europe and North America, 1981-2000

- Canada
- USA
- Spain
- Hungary
- Netherlands
- Denmark
- Slovak Republic
- Sweden
- Finland
- Scotland
- Poland
- Norway
- Austria
- France (parts)
- England/Wales
Disease burden from Diarrhoea
Food- and Waterborne

Disease Incidence

approximately 4,000,000,000 cases per year

Deaths

approximately 1,800,000 per year (below five mortality)

Remember

Significant numbers of other foodborne diseases

(caused by both microorganisms and chemical substances)
Deliberate contamination of Food

recent concern – but old problem

- The recognition of the source and potential intention behind an outbreak or contamination event will in many cases only be possible at a very late stage.

- Although deliberate contamination presents a special set of issues, the same detection and response systems need to tackle outbreaks or contamination events whether the event is intentional or unintentional.

- It is important to maintain that prevention needs to be part of any coherent food safety system – covering both intentional and unintentional events.

- Intentional Outbreaks, Accidental Outbreaks and Sporadic Cases all part of the disease burden and often difficult to separate.

- Reinforcing the need to use one emergency system.
Deliberate contamination of Food

one global market

- Contamination events will not be prevented through border control
- Early detection will most likely not be achieved through border control
- New – and more efficient - food safety systems try to focus on preventative efforts as close to the source as possible (e.g. HACCP)
- Many food contamination events have international implications
- Capacity to prevent and detect need to be build in all countries

- reinforcing the need to use an international system
Food Safety Emergency Preparedness

Strengthening food safety systems through

- Prevention
- Surveillance, preparedness & response

Foodborne Outbreaks

- Large number of casualties – intentional or accidental:
  - accidental outbreaks up to 300,000 patients
- Economic disruption:
  - a product, a manufacturer, an industry or a country.
- Fear:
  - consumers, public.
WHO Alert & Response

Epidemic Alert & Response

International Health Regulations

- Contain known risks
- Respond to the unexpected
- Improve preparedness

Global Partnership
NEW (and better) International Health Regulations (IHR)

- Old IHR only covered Yellow Fever, Cholera and Plague

- New IHR proposes the extension of the WHO coordinated public health emergency system to include *all public health emergencies of international concern* - including foodborne emergencies

- New IHR will enter into force May 2007

- No need for national ratification

- All WHO Member States will be obliged to declare public health emergencies of international concern to WHO
What is needed for food emergencies?

International system to minimize impact on public health and food trade by:
- Detecting an international incident rapidly
- Rapidly responding to international emergency
- Deciding on when the emergency situation is over

System requires:
- Rapid communication
- Capacity to verify and make decisions
- Procedures to respond and capacity to assist
- National preparedness capacity with international links
INFOSAN

Information sharing on any food safety issues

INFOSAN Emergency
Food safety alert and response
One Contact Point/country

Many Focal Points from govt agencies
INFOSAN
International Food Safety Authorities Network

- Linking all national food safety authorities (150 countries now members)
- Providing information and assistance to Member States
- Enhancing interaction between food safety authorities
- Enabling information on national needs to WHO and FAO
- Supporting reorientation of strategic directions
INFOSAN Emergency

- Part of INFOSAN (150 Member States)
- A network of designated contact points for international food safety emergencies
- Working to retrieve information on incidents with international importance
- Working towards spreading international alert information, when needed
- Supporting the definition of national alert and response systems
- Supporting exchange of outbreak experience from Member States, including specific prevention and response advice
INFOSAN Emergency Network

National INFOSAN Emergency Contact Point

Communications Linkages
- Recall & tracing systems
- Food import/export inspection
- Food control laboratories
- Industry alert systems
- Food contaminant monitoring
- Other systems

Rapid intelligence, e.g. poison control centres

Foodborne disease surveillance & investigation

National Outbreak Alert & Response System

WHO Global Outbreak Alert & Response International Health Regulations (IHR)
INFOSAN DEVELOPMENT

Reaching out to all Food Safety Authorities
Guided by the participants
Looking for partners

Developing Operating Procedures and training for National Contact Points

Defining network, national focal and contact points

Experience sharing, Response and Prevention Drills to test system

2004  2005  2006
INFOSAN DEVELOPMENT
Examples of Emergency Action

July 2005
- *Salmonella* in Powdered infant formula from France – to 13 countries
  - Most countries reported that they received official info from INFOSAN only

August 2005
- *Salmonella* in unpasteurized orange juice USA – to 4 countries
  - Most countries reported that they received official info from INFOSAN only
- *Streptococcus suis* in pork
  - No international action upon advice from Emergency Contact Point

September 2005
- *E. coli* O157 in lettuce
  - No international action upon advice from Emergency Contact Point
WHO Global Salm-Surv
Building Capacity for Foodborne Disease Surveillance and Response
WHO Global Salm-Surv
a network building capacity for laboratory-based surveillance for salmonellosis and other foodborne diseases

- Surveillance of foodborne diseases provides information for action. The use of laboratory data in surveillance enables the identification of pathogens and the potential sources of infection.

- Integrated surveillance including human data as well as animal- and food-monitoring data allows preventive action along the entire food-chain.

- In 2000 WHO initiated the WHO Global Salm-Surv (GSS) network to build laboratory and epidemiological capacity for integrated laboratory-based foodborne disease surveillance.

- The network now has almost 900 members from 141 countries.
GSS web-based Data-bank

Number of reported isolations
(2000-2004):

Human 565,042
Non-human 102,113
Global Network for lab-based surveillance
How safe is our food?