Outline

- Assessing Foodborne Disease
- Methods for Foodborne Disease Surveillance in Selected Sites, Leipzig, March 2002
- International Burden Studies
- Successes & outcomes
- Tying it all together
Foodborne Gastroenteritis

Identify Key Potential Pathogens

What Proportion is Foodborne?

US 36%
AUS 32%
UK 26%

Aetiological fraction

Undercount

Notified
Notifiable organism
Lab test
Faecal Specimen
Person seeks medical care
Person becomes ill
Exposures in the general population

Salmonella
Giardia
Norovirus
C. perfringens
WHO Consultation on Methods of Foodborne Disease Surveillance, Leipzig, March 2002
Consultation Aims

- Categorize surveillance systems
- Criteria for establishing studies
- Burden study workplans
- Extrapolate regionally & globally?
- Describe contribution to prevention
Surveillance Categories

1. No formal surveillance
   • Burden Estimate difficult
2. Syndromic surveillance
   • Limited usefulness for Burden Estimate
3. Laboratory-based surveillance
   • Potentially significant for Burden Estimate
4. Integrated food-chain surveillance
   • High value for Burden Estimate
Burden Study Country Selection

- Lack of disease data regionally
- Surveillance ideally category 3+
- Food contamination & consumption data
- Scientific resources available

Including countries:
- Representative of several regions
- Representative of large proportion of world popn.

- Avoid duplication from other organisations
General Work Plan

- Define aims
- Select survey site
- Sample size
- ID data collection
- Analysis plan

- Assess generalisability
- Quality assurance
- Ethical considerations
- Consider study design
  - Cohort, Cross sectional
  - Laboratory
  - Physician
  - Food contribution
Consultation Summary

- Global extrapolation is possible
  - New data required
  - Challenging for certain regions

- Foodborne disease estimation
  - Strengthen support for food safety interventions
  - Can improve surveillance
Outcomes

- Studies conducted:
  - Vietnam
  - Jordan

- WHO Global Salm Surv Advanced Workshops
- International Collaboration on Enteric Diseases
- Countries in process estimating foodborne diseases
  - Poland
  - Carribean
  - Slovenia
  - Guatemala
  - Japan
  - Malaysia
  - Brazil
  - Argentina
  - Macedonia
  - Pacific

Most focusing on selected pathogens
Foodborne Disease Annually

5.4 million cases Gastroenteritis

6,000 cases Non-Gastroenteritis

42,000 chronic sequelae

18,000 hospitalisations

120 deaths

Outcomes

- Policy makers using data
- Economic costs - $AUD1.2 billion/yr
- Some difficulties
  - Multipliers too high?
  - Proportion foodborne too high?
    - Atypical enteropathogenic *E. coli*
    - Norovirus
  - Lack of data for certain diseases
    - Toxoplasmosis
    - Ciguatera
Thank You....