



**Food and Agriculture
Organization of the
United Nations**



**World Health
Organization**

**Joint FAO/WHO Expert Meeting on Shiga toxin-
producing *Escherichia coli* (STEC)**

Background

- Request from the 47th session of CCFH to FAO and WHO to develop a report compiling available relevant information on the following aspects of STEC:
 - (a) Global burden of disease
 - (b) Source attribution
 - (c) Hazard identification and characterization
 - (d) Current monitoring and assurance programs

FAO/WHO Approach

- Call for data
 - Approach for data collection;
 - Compilation and organization of the data.
- Established a core expert group and had a meeting to review the data and provide guidance for next steps.
- Meeting report published online.
- Multi-year project.

Burden of disease

- Burden of disease already estimated by WHO FERG on the global incidence of STEC illnesses and deaths.
- More than 1 million illnesses, 128 deaths, and nearly 13000 DALYs (Foodborne STEC).
- Way forward
 - Collation of the analysis undertaken by the WHO FERG estimate of the burden of STEC disease in 2010;
 - No additional work at this point.

Source attribution

FERG focus food vs non-food, therefore need for more work

Method	Principles	Data requirements
Occurrence approach		
Subtyping	Compare subtypes (sources and humans)	space/time related isolates
Comparative exposure assessment	Determine relative importance of transmission routes	Prevalence, concentration, effect of changes, exposure data Need data
Epidemiological Approach		
★ Case-control studies of sporadic infections	Interviewed cases and controls, estimation of relative role of exposures	Registry data, systematic review sufficient studies published
★ Analysis of data from outbreak investigations	Outbreaks caused by each food represent all illnesses	Data, number suspected/confirmed cases, implicated sources

Hazard Identification and characterization

- **STEC** - The expert group agreed to only use the term STEC.
- **Challenge** - There is no single trait of STEC that can be used to determine the public health risk.
- The group considered approaches to categorizing STEC on a risk-basis.
- Way forward
 - Approach to categorizing STEC to support decision-making
 - Historical database of strains and serotypes involved in human diseases.
 - Subjected to peer-review

Monitoring and assurance programs

- Limited number of information obtained on country programs
- Purpose of monitoring programs must be clearly defined (e.g. market access, baseline)
- Monitoring for STEC should be commodity specific
- Way forward
 - Targeted call for data
 - Report on currently available monitoring and assurance programs in member countries
 - Overview of available laboratory methods for STEC

Question to CCFH

1. Is everything covered
2. More data
3. Suggestion for peer-reviewers