



Baseline information for food safety policy and measures

www.who.int/foodsafety/foodborne_disease/ferg/en/



Estimating the Global Burden of Foodborne Diseases

Why estimate the burden?

Foodborne diseases threaten international public health security. As trade, travel and migration increase, so does the spread across borders of dangerous pathogens and contaminants in food. Diarrhoeal diseases alone - a considerable proportion of which is foodborne - kill 2.2 million people globally every year. Most of these diarrhoeal deaths occur in poor countries and jeopardize international development efforts (e.g. the achievement of the Millennium Development Goals).

Foodborne diseases are nevertheless not limited to developing countries, nor are they restricted to diarrhoeal diseases.

The full extent of the burden and cost of unsafe food, however, is currently unknown. Precise information on the burden of disease is needed to guide food safety policy, including the development and implementation of food safety standards in the context of the Codex Alimentarius Commission, and provide a baseline for monitoring and impact assessment of food safety measures.

In 2007 and in recognition of the growing threat posed by foodborne diseases worldwide, over 50 developed and developing countries adopted the Beijing Declaration on Food Safety at a high-level International Forum. The Declaration urges all countries to base their food safety measures on sound scientific evidence and risk analysis.

What is WHO doing?

In 2006, together with multiple partners, WHO's Department of Food Safety and Zoonoses (FOS) held an international consultation to launch the Initiative to Estimate the Global Burden of Foodborne Diseases and provide a strategic framework to estimate the global burden of foodborne diseases.

This Initiative will:

- strengthen country capacity for conducting burden of foodborne disease assessments in parallel with food safety policy analyses, and increase the number of countries who have undertaken such studies.
- increase awareness and commitment among member states for the implementation of food safety policy and standards.
- encourage countries to use burden of foodborne disease estimates for cost-effective analyses of prevention, intervention and control measures.
- provide estimates on the global burden of foodborne diseases according to age, sex and regions for a defined list of causative agents of microbial, parasitic, and chemical origin.

Activities

To meet the above objectives, the Initiative uses two main tracks:

Track 1) A multi-disciplinary group of internationally renowned scientists - the **Foodborne Disease Burden Epidemiology Reference Group (FERG)** has been established to:

- conduct epidemiological reviews for mortality, morbidity and disability in each of the major foodborne diseases,
- assemble, appraise and report on existing burden of foodborne disease estimates,

The mission of the WHO Department of Food Safety and Zoonoses is to lower the burden of disease from food and animals, focusing on industrialized and traditional production systems, and integrating prevention from farm to table. This work includes the provision of scientific advice, efficient standard setting, and clear communication in support of foodborne and zoonotic disease prevention and international efforts to food-related outbreak detection and response.

- provide models for the estimation of foodborne disease burden where data is lacking,
- develop source attribution models to estimate the proportion of disease that is foodborne,
- develop user-friendly tools for burden of foodborne diseases studies and policy situation analyses at country level.

Track 2) The second track of the Initiative will focus on burden of foodborne disease studies at country level and will be implemented from 2010 onwards. These studies will provide first hand burden estimates and supplement FERG's epidemiological reviews.

Track 2 will be accompanied by specific training opportunities designed for and offered to developing countries to increase their capacity in foodborne disease burden estimation. Track 2 will also be supported by policy interventions to ensure that the burden data are meaningful to end-users and to foster research-up take.



This Initiative responds to a call from governments and international partners for WHO to coordinate and lead the burden assessment and reflects WHO's implementation of the WHO Global Strategy for Food Safety, endorsed by the Executive Board in January 2002, and reinforced at the 126th Session of the World Health Assembly resolution on *Advancing food safety initiatives* in May 2010.

○ Achievements to date

- Development of the global **Strategy to Estimate the Global Burden of Foodborne Diseases**, including a Communications Strategy and a Monitoring and Evaluation Framework.
- Appointment of a multi-disciplinary **Foodborne Disease Burden Epidemiology Reference Group (FERG)** which serves as an external, technical advisory body to the Initiative.
- Preliminary burden of disease results announced in October 2010 on aflatoxins and foodborne trematodes.
- Institutionalization of interactions and exchanges with the **Stakeholder Community** (governments, industry, donors, consumers, media) to ensure that the Initiative's results are meaningful and of practical use to all food safety constituencies.

○ Planned Activities

- Technical Meeting of the FERG Task Forces to advance the burden work in the following areas: parasitic and enteric diseases, chemicals and natural toxins, source attribution, and country burden assessment.
- Pilot country studies Kick-off Meeting.
- Pilot country burden of foodborne disease studies.
- Pilot policy context mapping.
- Commissioning of systematic reviews and research studies.
- Commissioning the development of a protocol for Expert Elicitation to fill data gaps for country burden assessments.

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