WHO Estimates of the Global Burden of Foodborne Diseases

Foodborne Disease Burden Epidemiology Reference Group 2007-2015

This report, resulting from the WHO Initiative to Estimate the Global Burden of Foodborne Diseases and prepared by the WHO Foodborne Disease Burden Epidemiology Reference Group (FERG), provides the first estimates of global foodborne disease incidence, mortality, and disease burden in terms of Disability Adjusted Life Years (DALYs). For the global estimates, thirty-one foodborne hazards causing 32 diseases are included, being 11 diarrhoeal disease agents (1 virus, 7 bacteria, 3 protozoa), 7 invasive infectious disease agents (1 virus, 5 bacteria, 1 protozoon), 10 helminths and 3 chemicals.

In addition to providing global and regional estimates, the Initiative sought to promote actions at a national level. This involved capacity building through national foodborne disease burden studies, and encouraging the use of burden information in setting evidence informed policies. A suite of tools and resources were created to facilitate national studies of the foodborne burden of disease, and pilot studies were conducted in four countries (Albania, Japan, Thailand and Uganda). Data gaps were the major hurdle in estimating the foodborne disease burden in these national studies, and the global and regional estimates provided by FERG offer an interim solution, until improved surveillance and laboratory capacity is developed.

Despite the data gaps and limitations of these initial estimates, it is apparent that the global burden of foodborne disease is considerable, and affects individuals of all ages, but particularly children under 5 years of age and persons living in low-income sub-regions of the world. All stakeholders can contribute to improvements in food safety throughout the food chain by incorporating these estimates into policy development at national, regional and international levels.


The study reported here in this Research Brief was not funded by the beef checkoff, but is made available to expand the usefulness of this checkoff-funded website for those interested in beef safety.