PEC2.27 Health burden of foodborne illnesses in Greece

Elissavet Gkogka (1), M Reij (1), M Zwietering (1), A Havelaar (2,3), L Gorris (1,4)
(1) Wageningen University, Wageningen, The Netherlands
(2) National Institute for Public Health and the Environment, Bilthoven, The Netherlands
(3) Utrecht University, Utrecht, The Netherlands
(4) Unilever, Safety and Environmental Assurance Center, Sharnbrook, United Kingdom

The burden of illness due to foodborne pathogens in Greece was quantified based on surveillance data, hospital statistics and available literature. Results were expressed both as the incidence of different disease outcomes and as Disability Adjusted Life Years (DALY), a health indicator combining morbidity and mortality estimates into a single metric. Estimates included uncertainty due to underreporting and foodborne transmission and were thus expressed as a plausible interval accompanied by a most likely estimate. Our preliminary findings show that approximately 320,000 illnesses, 1000 hospitalizations and 3 deaths per million inhabitants occur in the course of a year in Greece corresponding to 465 DALY per million inhabitants. Ill defined intestinal infections accounted for the greatest part of hospitalizations (75%) and 47% of the DALY. Brucellosis, salmonellosis and echinococcosis were found to be the most significant known causes of foodborne illnesses in the country being responsible for almost half of the estimated DALY. These diseases may be regarded a priority for food safety management. Overall, DALY were found to provide a different perspective on the burden of foodborne illness compared to incidence estimates. Our study shows that using DALY as a health metric is a feasible approach to burden of illness quantification that can be implemented by countries with limited resources in need of this kind of information to prioritize food safety management. Despite large uncertainties such a quantitative analysis can give important insights on the impact of foodborne illnesses on public health.