The Costs of Foodborne Illness

Helen H. Jensen
Iowa State University, hhjensen@iastate.edu

Follow this and additional works at: http://lib.dr.iastate.edu/iowaagreview
Part of the Agricultural Economics Commons, Economics Commons, and the Food Security Commons

Recommended Citation
Available at: http://lib.dr.iastate.edu/iowaagreview/vol8/iss3/4

This Article is brought to you for free and open access by the Center for Agricultural and Rural Development at Iowa State University Digital Repository. It has been accepted for inclusion in Iowa Ag Review by an authorized editor of Iowa State University Digital Repository. For more information, please contact digirep@iastate.edu.
Despite evidence that the U.S. food supply is among the safest in the world, there is continuing concern over the human health risks posed by microbial pathogens (bacteria, parasites, fungi, and viruses) in food. Each year an estimated 6 to 33 million cases of foodborne disease occur in the United States, and up to 9,000 people die. The USDA's Economic Research Service (ERS) has estimated that diseases caused by five major bacterial pathogens alone—Campylobacter spp., E. coli O157:H7, E. coli non O157:H7, Listeria monocytogenes, and Salmonella—cause at least $6.9 billion (in 2000 dollars) in medical costs and productivity losses annually, with a total of 3.4 million cases, over 31,000 hospitalizations, and 1,229 deaths. Campylobacter spp. and Salmonella are responsible for most of the foodborne illness cases, and Listeria monocytogenes and Salmonella are responsible for most of the costs attributed to these five pathogens because of their larger share of fatalities.

The cost-of-illness estimates are calculated from the number of annual foodborne illness cases, hospitalizations, and attributable deaths; the number of cases that develop secondary complications or chronic complications; and the corresponding medical costs, lost wages (productivity losses), and other illness-specific costs, such as special education and residential-care costs.

New food safety regulation, including the mandated use of Hazard Analysis Critical Control Point (HACCP) systems of control for meats, poultry, and fruit juices, has contributed to a reduction in bacterial foodborne illness since 1996. So has the food industry’s more widespread adoption of technological innovations for quality control, such as pasteurizers, antimicrobial rinses, and irradiation.

Although much of the responsibility for reducing pathogens in foods used to rest with the final food preparer, a shift to more ready-to-eat foods, an increase in imports and the variety of food preparations, and more meals consumed away from home have reduced direct consumer control over food preparation and have strained the traditional safety control system. These changes have transferred greater responsibility for food safety to the food industry.

At the federal level, new controls and regulation for animal products have focused on the animal slaughter and processing stage as the critical control point for reducing pathogens in the food chain. Policymakers and industry leaders are challenged to balance the benefits and costs of regulation while finding cost-effective ways to identify the optimum stages for intervention system-wide in order to protect consumers.