

# Research Policy Brief

Family Economics Research Coordinating Committee (NCCC052)

## The Economic Costs of Foodborne Illness

**The issue.** Approximately 76 million cases of foodborne illness, resulting in 5,000 deaths and 325,000 hospitalizations, occur in the United States each year. Nevertheless, few published studies evaluate the economic burden from foodborne illnesses. Such studies that have been conducted have failed to paint a complete picture of the economic cost of foodborne illness for consumers. These studies have typically evaluated one or a small number of ‘important’ pathogens. For example, the seminal USDA Economic Research Service study of the burden of foodborne illness estimated annual total costs of \$6.7 billion in 2000. This study was admittedly limited, however, because only 5% of all foodborne illnesses were accounted for and no values for pain and suffering losses were included.

**The focus of this research.** We developed an improved cost-of-illness model for estimating the economic cost of foodborne illness. In contrast with the ERS study, which estimates the annual economic cost of five selected pathogens, our model includes values for all foodborne illnesses and includes nonmonetary costs attributable to illness. Specifically, we include the typical consumer’s willingness to pay to avoid the pain, suffering and chance of death associated with these illnesses. By marrying well-accepted revealed preference measures for the value of a statistical life (VSY) and the value of a statistical life year (VSLY) from the economics literature with mortality estimates and quality of life year (QALY) estimates from the public health literature, we are able to provide a more comprehensive measure for the economic cost of foodborne illness. We preserve the uncertainty inherent in the component data through use of a Monte Carlo analysis. For the state of Ohio, we find that the cost of foodborne illness is \$1.0 to \$7.1 billion, as opposed to \$199 to \$883 million in costs that would have been predicted using the ERS approach.

**Policy implications.** Interventions designed to prevent foodborne illness are costly. The prevailing economic crisis has led government at all levels to consider cuts in all manner of programs, including those designed to eliminate or mitigate harms from foodborne illness. To ascertain whether such cuts are justified, public officials would be aided by use of valid estimates of the economic cost of foodborne illness. As a result, our research gives policymakers a tool that can be used to improve decision making.

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The NCCC052 committee, functioning under the National Agricultural Experiment Station System, facilitates collaboration among family economics researchers nationally and internationally. The committee provides a forum to examine research methodology and family economic issues in depth from a multidisciplinary perspective. The committee fosters development of research related to the economic well-being of individuals and families that is of interest to multiple institutions across the nation. For more information, see <http://nimss.umd.edu/homepages/home.cfm?trackID=7036>.