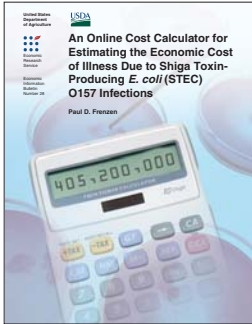


ERS *Report Summary*

Economic Research Service

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*This is a summary
of an ERS report.*

Find the full report at
[www.ers.usda.gov/
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ment,
and rural America.*

An Online Cost Calculator for Estimating the Economic Cost of Illness Due to Shiga Toxin-Producing *E. coli* (STEC) O157 Infections

Paul Frenzen

Foodborne pathogens are a significant cause of illness and death in the United States. ERS estimates the annual economic cost of illness due to several important foodborne pathogens, including Shiga toxin-producing *E. coli* (STEC) O157. These cost estimates allow policymakers to rank the risks from different pathogens and prioritize government spending on food safety. ERS has also created an online Foodborne Illness Cost Calculator (www.ers.usda.gov/data/foodborneillness/) that enables policymakers and others to review and modify the assumptions underlying the STEC O157 cost estimate and then recalculate the cost. The cost estimate can be adjusted for inflation for any year from 1997 through 2006.

What Is the Issue?

The most recent estimate of the annual number of STEC O157 cases in the United States by the Centers for Disease Control and Prevention (CDC) is for 1997. ERS relied on the CDC estimate of annual cases to calculate the cost of STEC O157. Other information from the Foodborne Diseases Active Surveillance Network (FoodNet) indicates that the annual incidence of laboratory-diagnosed STEC O157 infections has changed over time, decreasing substantially from the 1996-98 baseline during 2003 and 2004 and then returning to the baseline in 2006, following several multistate outbreaks of STEC O157 associated with fresh produce. Although the FoodNet surveillance sites were not selected to be representative of the entire United States, the FoodNet data suggest that the CDC estimate of annual STEC O157 cases may be outdated.

What Did the Study Find?

The potential utility of ERS's Foodborne Illness Cost Calculator was demonstrated by changing the number of STEC O157 cases and then recalculating the cost. The new number of cases was obtained by assuming that the national trend in the incidence of STEC O157 was the same as the downward trend in the incidence of laboratory-diagnosed STEC O157 infections in the FoodNet surveillance sites through 2005, before the multistate outbreaks of STEC O157 associated with fresh produce. Under this assumption, the annual number of STEC O157 cases decreased from 73,480 in 1997 to 56,911 in 2005. When the number of cases was changed to 56,911 in the calculator without altering any other assumptions, the annual cost of STEC O157 in 2005 was estimated at \$333.5 million (in 2005 dollars), or \$97.9 million less than the cost if the number of cases had not decreased.

www.ers.usda.gov

How Was the Study Conducted?

ERS used the online Foodborne Illness Cost Calculator to change the annual number of STEC O157 cases and recalculate the cost of illness from this pathogen. The new estimate of cases was obtained by assuming that the trend in the incidence of STEC O157 in the United States through 2005 was the same as the downward trend in the incidence of laboratory-diagnosed STEC O157 cases in the FoodNet surveillance sites. No other assumptions about the distribution of STEC O157 cases by severity or the costs per case were changed in this example.