Some Food-Borne Illnesses Declined in 2004

BY MIRIAM E. TUCKER
Senior Writer

The incidence of several major food-borne infections declined markedly between 1996 and 2004, preliminary data from the Centers for Disease Control and Prevention suggest.

For all food-borne illnesses combined, the national incidence of Shiga-toxin-producing Escherichia coli (STEC) O157 infections fell below the Healthy People 2010 goal of 1 case per 100,000 population. In addition, rates of Campylobacter are approaching the target of below 12.5 cases per 100,000, while the 2004 rate of Listeria, 2.7 per 1 million population, is nearly down to the goal of 2.5 cases per million by the end of 2005.

But although most of the news from the CDC's 10-state FoodNet Surveillance Network (FoodNet) was good, there were increases in the incidence of both Vibrio and of two Salmonella serotypes from baseline in 1996-1998 to 2004, according to the CDC (MMWR 2005;54:392-6).

In 2004, a total of 15,806 laboratory-confirmed cases of infections were identified in the FoodNet surveillance area, which included 44.1 million individuals, or 15.2% of the U.S. population. The three most frequent were Salmonella (6,464 cases), Campylobacter (5,665), and Shigella (2,231), followed by Cryptosporidium (613), STEC O157 (401), Yersinia (173), Vibrio (124), Listeria (120), and Cyclospora (15).

FoodNet cases were part of 239 nationally reported food-borne disease outbreaks, of which 58% were associated with restaurants. Of the 152 outbreaks in which an etiology was reported, the most common were norovirus (37%) and Salmonella (18%).

In 2003, FoodNet collected data on 52 cases of hemolytic-uremic syndrome in children less than 13 years of age (rate 0.6 per 100,000). Of those, 36% (90%) were among those younger than 5 years, the CDC said.

In comparing the preliminary 2004 numbers with those from 1996 to 1998, the CDC adjusted for the difference in FoodNet's population, which was just 14.2 million during the earlier time period. The estimated incidence of infections with Campylobacter decreased by 41%, Cyclospora by 40%, STEC O157 by 42%, Listeria by 40%.

Yersinia by 45%, and overall Salmonella infections by 8%. The estimated incidence of Shigella infections in 2004 wasn't significantly different from the baseline period, while overall Vibrio infections increased by 47%, to 2.8 per 100,000 population in 2004, the CDC reported.

Although the incidence of Salmonella decreased overall, only one of the five most common serotypes, S. typhimurium, actually dropped significantly (by 41%). Two of the others—S. enteritidis and S. heidelberg—didn’t change, while both S. newport and S. javnica rose by 41% and 167%, respectively.

The substantial increase in S. javinica was due in part to a multisite outbreak in 2004 that was associated with Roma tomatoes, they noted.

The substantial decline in STEC O157, first seen in 2003, coincides with several important food safety initiatives and educational efforts, and is consistent with reports from the U.S. Department of Agriculture of declines in contamination of ground beef following industry responses to governmental food safety initiatives.

The drop in Campylobacter, on the other hand, likely reflects efforts to reduce contamination of poultry and to educate consumers about safe food handling, the CDC said.

Rises in some Salmonella strains reflect a lack of understanding about the epidemiology of the bacteria, researchers said, which in turn produces outbreaks.

Some Vibrio, typically associated with seafood, are not clear. The Food and Drug Administration is currently conducting an assessment.

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