



# What is the Cost of Food Safety?

## Nossack News & Trends

March 2013

### How much costs E. coli O157 Canada per year?

A recent study on the long-term health costs associated with E. coli O157 has estimated the cost of primary and secondary illnesses **in Canada to be \$240 million per year.**

According to the model, **22.329 cases** of primary VTEC infections occur in Canada annually, costing Canada \$26.7 million in medical costs, lost productivity and premature death. The estimated annual medical cost of the long-term health outcomes attributed to E. coli O157 infection is \$213 million annually, making the combined total costs approximately \$240 million per year.

While there are several measures that meat processors undertake to prevent E. coli O157 from coming into contact with meat, Canada currently does not impose on-farm measures to prevent E. coli O157 contamination of the environment which can lead to contamination of other foods including produce.

#### Fast Facts:

- *E. coli* O157 does not make cattle sick but a 2009 study found *E. coli* O157 on 52% of the farms surveyed in Ontario, confirming that cows are still widely regarded as the primary source of this bacterium that is harmful to humans.
- Approximately 100,000 cases of human infection with the *E. coli* O157 organism are reported each year in North America.
- The Canadian government's approach to fighting *E. coli* O157 focuses primarily on the meat processing stage but this policy approach to dealing with the problem does not address the source of the pathogen on the farm.
- Canada is the only country in the world with a fully licensed vaccine to reduce shedding of *E. coli* O157 by cattle.

Canadian Food Safety Alliance / January newsletter 2013

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### **E. coli O157– What changed 20 years after Jack in the box?**

20 years ago, in 1993, 623 people in the western U.S. fell ill with a little-known bacteria called E. coli O157:H7. Ultimately, **four children would die from their infections**; many others suffered long-term medical complications. The bug was later traced to undercooked hamburger served at Jack in the Box restaurants. This outbreak thrust foodborne illness onto the national stage as a real and present threat, sparking a sea change in the way Americans and the government treat this issue.

The Jack in the Box outbreak is considered the meat industry's 9/11. As soon as hamburgers killed kids, everything changed. Congressional hearings were held. The national media put a spotlight on the industry. State and federal health codes were upgraded. E. coli became a reportable disease among all state health departments. Mandatory internal cooking temperatures for beef were raised to 155 degrees throughout the country. Even the warning labels that you see on all the meat and poultry sold in the supermarket today are a direct result of the Jack in the Box outbreak.

<http://www.foodsafetynews.com/2013/01/food-safety-since-jack-in-the-box-progress-made-and-progress-still-needed/>

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### E. coli O157– What changed 20 years after Jack in the box?



It's fair to say that the Jack in the Box case helped establish food safety as a serious public-health issue.

The CDC estimates that foodborne disease causes about 48 million illnesses in the U.S. per year. Roughly one in six Americans get sick from bad food. Many of these cases are mild gastroenteritis, commonly referred to as the stomach bug. But too many food poisoning cases are more serious, resulting in approximately 125,000 hospitalizations and 3,000 deaths annually. The fatalities are often among children and the elderly.

Besides the obvious human toll, there's an economic side to this.

**Foodborne illness in the United States costs about \$152 billion a year.** That's the sum of medical expenses, insurance costs and lost wages. It's a staggering number. But it's not surprising given the number of major outbreaks in recent years. In 2010, more than half a billion eggs were recalled after nearly two thousand people became ill with Salmonella poisoning. A year before that, nine people died in a Salmonella outbreak linked to a peanut-manufacturing plant. Hundreds of food products from breakfast cereal to energy bars had to be recalled, costing food manufacturers over a billion dollars.

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### **E. coli O157– What changed 20 years after Jack in the box?**

E. coli O157:H7 is often more deadly than Salmonella. Although beef remains the most common vector of E. coli poisoning, the list of other foods responsible for major E. coli outbreaks is bewildering: spinach, unpasteurized apple juice, peppers, bagged lettuce, sprouts, raw milk, cilantro and cheese, to name just a few. E.coli even found its way into raw cookie dough in 2009.

Meanwhile, six new strains of E. coli—known as non-O157s—have surfaced. The CDC estimates that these strains poison 37,000 people each year and kill nearly thirty.

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### **Tips for cleaning and sanitizing food surfaces**

#### **How to reduce the risk of cross-contamination:**

- Follow provincial and local health department guidelines.
- Follow equipment manufacturer's instructions regarding proper use of sanitizers.
- Follow chemical manufacturer's instructions regarding proper chemical use directions, dilution rates and safe handling directions for dish detergent and sanitizer.
- Wash, rinse, and sanitize food-contact surfaces before each use.
- Always refer to the (WHMIS) Workplace Hazardous Materials Information System provided by the chemical manufacturer if you have questions about the use of specific chemicals.

#### **Sanitizing and cleaning:**

- Each time there is a change in processing between different types of animal products.
- Each time there is a change from raw to ready-to-eat foods.
- After surface contact with any major food allergen.
- At least ever four hours on equipment and utensils used at room temperature.
- Throughout the day as necessary.
- After final use each working day.

<http://restaurantcentral.ca/cleaningandsanitizingfoods-surfaces.aspx>

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### Tips for cleaning and sanitizing food surfaces

#### Best practice for handling and using sanitizer:

Handling and using sanitizers can be dangerous if not done properly. Following these guidelines can help you and your staff avoid the risks.

- Never mix detergent and a chemical sanitizer.
- When testing mixed sanitizer solution, always ensure the solution is at room temperature (24°C) to receive an accurate reading from test strips.
- Use a clean towel to apply sanitizer onto surfaces.



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Additional Food Safety links:

- ✓ <http://www.foodhaccp.com/online.html> (Education and the newsletter)
- ✓ [http://www.fsis.usda.gov/education/food\\_safety\\_education\\_programs/index.asp](http://www.fsis.usda.gov/education/food_safety_education_programs/index.asp)
- ✓ <http://www.crfa.ca/resources/nfstp/posters.asp> (free download Food Safety Training Posters)

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