

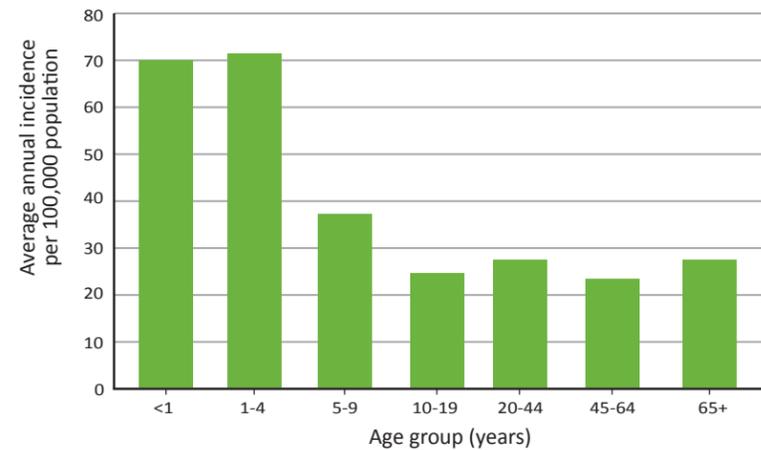
FOODBORNE ILLNESS

WHAT WE DON'T KNOW CAN HARM US

OCCURRENCE OF FOODBORNE ILLNESSES*

- AGE**
- Children are more likely to be diagnosed with foodborne illness
 - Adults aged 65 or older are most likely to be hospitalized or die as a result of infection¹

Average annual incidence of foodborne illness* by age group, Ontario, 2006-2012²



- SEASON**
- Reported cases of foodborne illness increase in summer months.

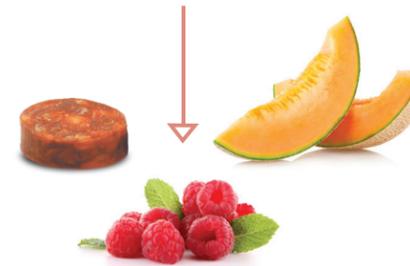
Average annual number of foodborne illnesses* by month, Ontario, 2006-2012²



The burden of foodborne illness is estimated to be substantial.³⁻⁵ Although self-limited in most instances, serious health effects or death may occur.⁶ Determining the true impact foodborne illness has on Ontario is difficult as it is underreported.

100,000
Estimated true[†] number of cases of foodborne illnesses* in Ontario each year²

Approximately **4%** of the estimated true number of cases of foodborne illness* are reported:
3,700 Estimated known[‡] cases of foodborne illnesses* in Ontario each year²



While reportable, not all cases of foodborne illness are captured. Reasons cases may not be captured include:

- Symptomatic individuals do not seek medical attention
- Symptomatic individuals seek medical attention but a lab test is not ordered
- A lab test is ordered but the individual does not submit a specimen
- A specimen is submitted but does not contain the organism resulting in a negative test
- The organism causing the illness may be present but cannot be identified by the lab
- A positive test result may not be reported to the health unit and entered in the tracking system
- Cases may be entered in the tracking system but a link to food as the source of the illness may not be made

SUSPECTED FOOD SOURCES

The top four food sources for reported cases of domestically-acquired foodborne illness[§] in Ontario, 2007-2010, were:⁷

Salmonellosis



Campylobacter enteritis

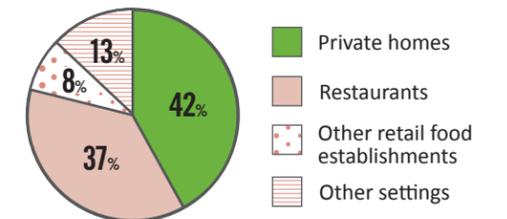


Verotoxin-producing E. coli infection



REPORTED EXPOSURE SETTINGS

Place where reported foodborne illnesses* were contracted, Ontario, 2007-2010⁷



AN OUNCE OF PREVENTION

Unsafe food practices can lead to foodborne illness. To reduce risk of contamination and illness:^{8,9}

- Use proper hand hygiene
- Obtain food from approved sources
- Avoid cross-contamination
- Follow safe cooking/preparation practices
- Store food at appropriate temperatures

Encourage reporting of suspected cases of foodborne illness.

*Refers to domestically-acquired, laboratory-confirmed cases in iPHIS² of *Campylobacter* enteritis, listeriosis, salmonellosis, verotoxin-producing *E. coli* infection, and yersiniosis. These are believed to be the top five reportable foodborne illnesses in Ontario. [†]Laboratory-confirmed domestic cases in iPHIS² of the top five reportable enteric illnesses*, adjusted for foodborne transmission, under-reporting and under-diagnosis. [‡]Laboratory-confirmed cases of the top five reportable enteric illnesses* in iPHIS² believed to be attributed to food, adjusted for foodborne transmission and domestic acquisition. [§]Based on domestically-acquired cases for which most likely exposure data were available.

1. Centers for Disease Control and Prevention. Incidence and trends of infection with pathogens transmitted commonly through food - foodborne diseases active surveillance network, 10 U.S. sites, 1996 - 2012. *Morbidity and Mortality Weekly Report* 2013;62(15):283-87. 2. Data Source: Ontario. Ministry of Health and Long-Term Care, Integrated Public Health Information System (iPHIS) database, extracted by Public Health Ontario, Date Extracted: 2013 Dec 6. 3. Thomas MK, Murray R, Flockhart L, Pintar K, Pollari F, Fazil A, et al. Estimates of the burden of foodborne illness in Canada for 30 specified pathogens and unspecified agents, circa 2006. *Foodborne Pathog Dis*. 2013;10(7):639-48. 4. Scallan E, Griffin PM, Angulo FJ, Tauxe RV, Hoekstra RM. Foodborne illness acquired in the United States - unspecified agents. *Emerg Infect Dis*. 2011;17(1):16-22. 5. Scallan E, Hoekstra RM, Angulo FJ, Tauxe RV, Widdowson MA, Roy SL, et al. Foodborne illness acquired in the United States - major pathogens. *Emerg Infect Dis*. 2011;17(2):7-15. 6. Batz MB, Henke E, Kowalczyk B. Long-term consequences of foodborne infections. *Inf Dis Clin N Am*. 2013;27:599-616. 7. Data Source: Ontario. Ministry of Health and Long-Term Care, Integrated Public Health Information System (iPHIS) database, extracted by Public Health Ontario, Date Extracted: 2011 Oct 3. 8. FDA National Retail Food Team. FDA trend analysis report on the occurrence of foodborne illness risk factors in selected institutional foodservice, restaurant, and retail food store facility types (1998 - 2008). Silver Spring, MD: U.S. Food and Drug Administration; 2008. Available from: <http://www.fda.gov/downloads/Food/GuidanceRegulation/RetailFoodProtection/FoodborneIllnessRiskFactorReduction/UCM369245.pdf> 9. Centers for Disease Control and Prevention [Internet]. Atlanta, GA: Centers for Disease Prevention and Control. Food Safety. Prevention and education; 2013 Sep 6. Available from: <http://www.cdc.gov/foodsafety/prevention.html>