



Communicable Diseases

Communicable diseases are often thought of as diseases that are more prevalent in developing countries; however, recent outbreaks such as Walkerton, SARS and the listeriosis in meat products have shown the risk communicable disease can pose to developed countries like Canada.

Communicable diseases are caused by living organisms, such as bacteria, viruses and parasites, or by toxins these organisms produce. They are spread directly through contact with an infected person or animal, or indirectly through contact with contaminated objects or consumption of contaminated food or water.

This chapter will outline the most common communicable diseases in Huron County that are mandated by the government to be reported. In addition, the incidence of sexually transmitted infections and other blood-borne infections, food and waterborne enteric diseases, and vaccine-preventable diseases will be described. Age-standardized incidence rates are presented for the most reported diseases where there are a large number of cases per year, while crude incidence rates are presented for all other diseases. Standardized incidence ratios (SIRs) were also calculated to determine if the incidence of selected diseases in Huron County was significantly different from Ontario.

Most Common Reportable Diseases

Under the Health Protection and Promotion Act, physicians and other health care professionals, hospitals, laboratories, schools and child care facilities must report any person who may be infected with a reportable disease. A list of reportable diseases for 2006 is shown in Appendix 4.

The top 15 reportable diseases in Huron County from 1995 to 2005 are shown in **Figure 1**. There were a total of 2,005 cases of communicable diseases reported in Huron County over this time period. Campylobacter enteritis, influenza and chlamydial infections were the most commonly reported communicable diseases, accounting for 50.0% of all reported diseases.

When looking at the most common reportable diseases for men and women separately, a

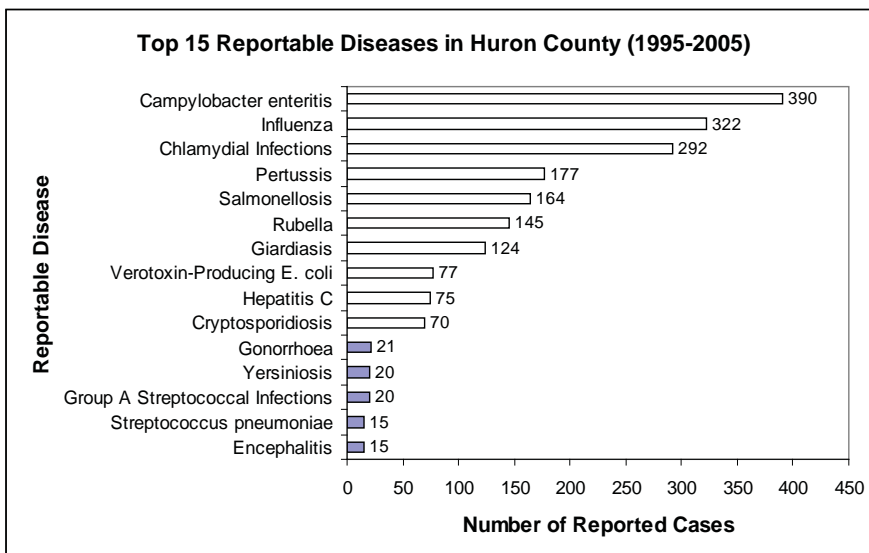


Figure 1. The 15 most commonly reported diseases in Huron County (1995-2005 data combined). Source: integrated Public Health Information System (iPHIS)., Extracted 07/03/2007.

different pattern emerges (**Figure 2** for males and **Figure 3** for females). *Campylobacter* enteritis was the most commonly reported disease among men in Huron County, while chlamydial infections were more commonly reported for women.

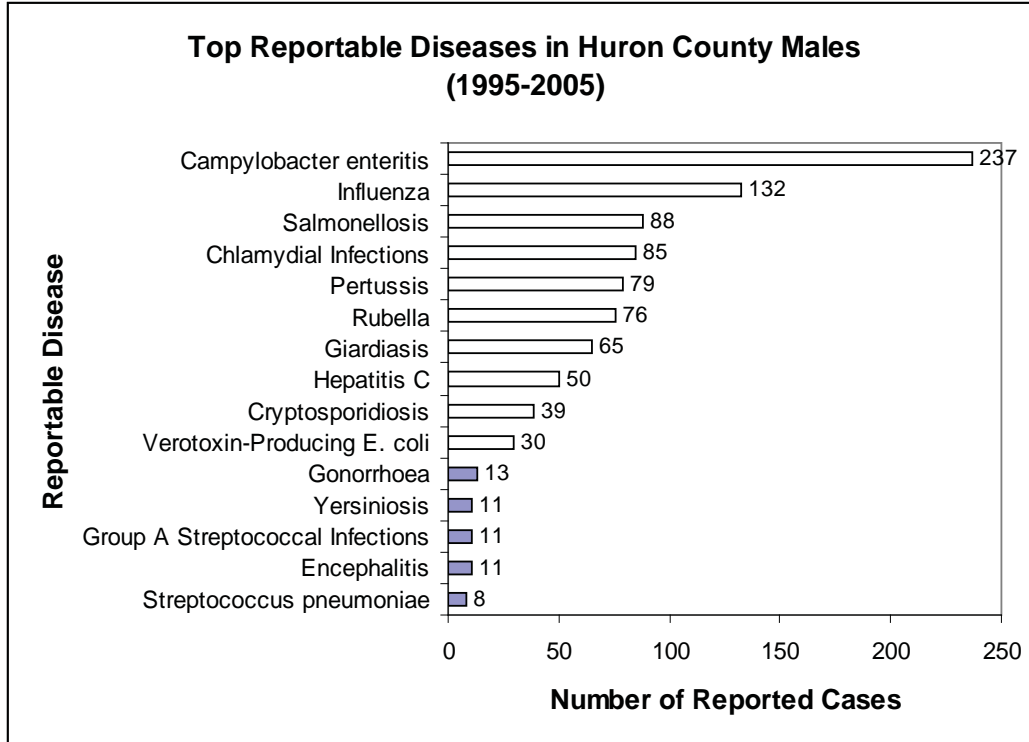


Figure 2. The 15 most commonly reported diseases in Huron County among males (1995-2005 data combined). Source: iPHIS, Extracted 07/03/2007.

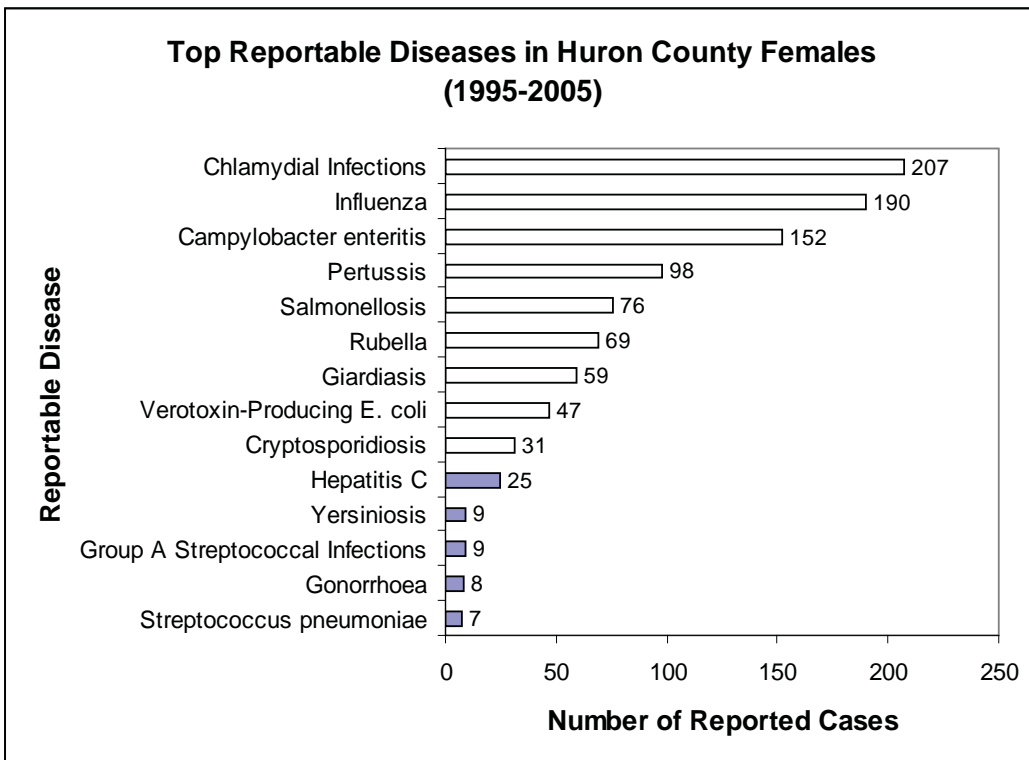


Figure 3. The 15 most commonly reported diseases in Huron County among females (1995-2005 data combined). Source: iPHIS, Extracted 07/03/2007.

Sexually Transmitted Infections (STIs) and Bloodborne Diseases

Sexually transmitted infections (STIs) are caused by bacteria and viruses in bodily fluids, such as blood, semen, vaginal secretions, breast milk and saliva, and are spread through sexual contact and other types of direct contact such as injections or cuts to the skin.

Chlamydia

The most common sexually transmitted infection in Canada, chlamydia is a bacterial infection spread by direct contact (usually sexual) with an infected individual. Symptoms include urinary pain and genital discharge; however, about 80% of women and 50% of men do not show symptoms.¹ If left untreated, chlamydia can cause pelvic inflammatory disease (PID) in women, which can lead to infertility, ectopic or tubal pregnancy and chronic pelvic pain.¹ In men, untreated chlamydia can cause pain of the testicles, penis or rectum.¹

In Huron County, chlamydia is the most commonly reported sexually transmitted infection, with 33 cases reported in 2005. The number of cases reported per year, along with the age-standardized incidence rates are shown in **Figure 4**. Age-standardized rates increased overall by 49% from 1995 to 2005, with the lowest number of cases reported in 1999 and a peak in 2004. Huron County rates were significantly lower than Ontario (SIR=0.35, 95% CI 0.32-0.40).

Chlamydia incidence rates in Huron County vary by age and sex (**Figure 5**). Chlamydia was most commonly reported in females and individuals aged 15-24 years. Between 2000 and 2005, there was double the number of cases of chlamydia in women compared to men (128 cases versus 64 cases) and 78% of all chlamydia cases were between the ages of 15 and 24 years. Among females, chlamydia was most commonly reported in the 20-24 years age group, while in males, chlamydia incidence appeared relatively stable between the ages of 15-29.

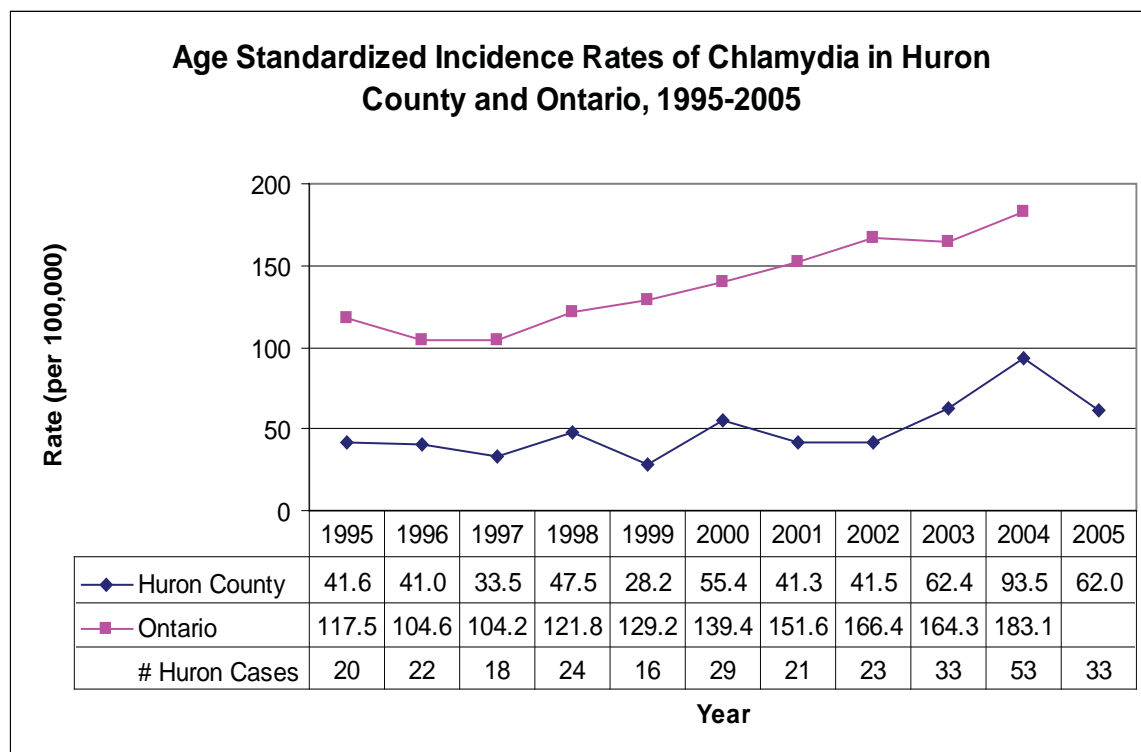


Figure 4. Age-standardized incidence rates of chlamydia for Huron County and Ontario from 1995 to 2005. 2005 data was not available for Ontario. Source: iPHIS, Extracted 08/03/2007.

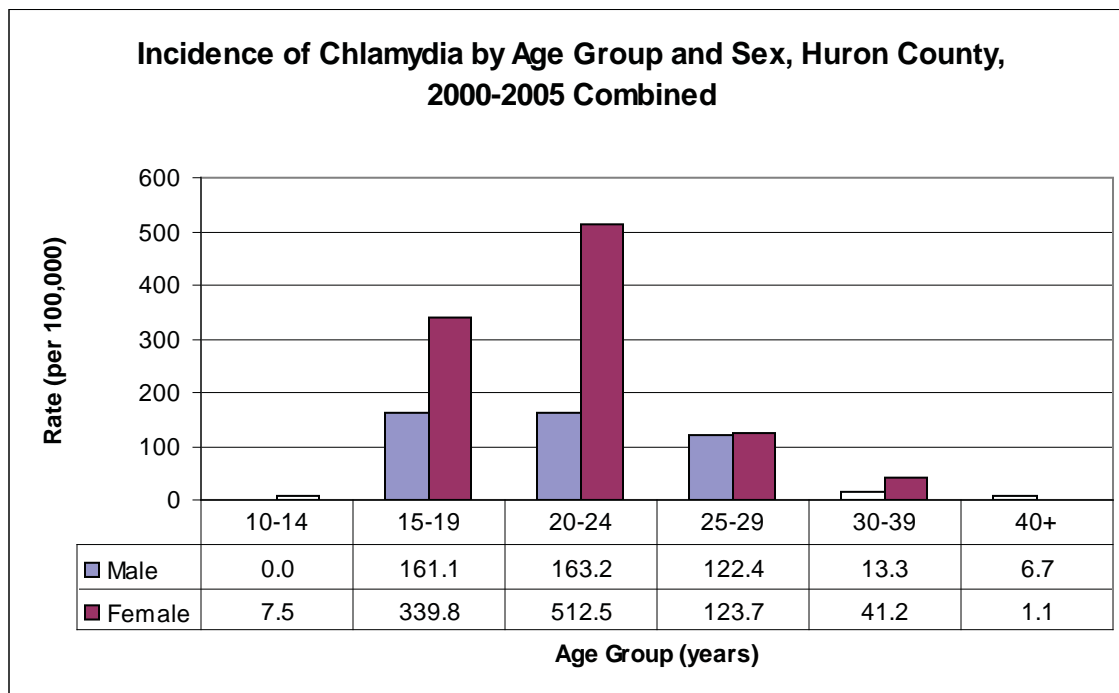


Figure 5. Incidence rate of chlamydia by age and sex for 2000-2005 combined. Source: iPHIS, Extracted 08/03/2007.

Gonorrhea

Gonorrhea is a bacterial infection that is also spread by sexual or direct contact with an infected individual. Like chlamydia, gonorrhea can be asymptomatic, although the majority of infected men have symptoms, while most women are asymptomatic.² If left untreated, females may acquire PID and both sexes may experience rectal and pharyngeal infections.² Infants born to infected mothers are at risk for developing sight-threatening eye infections, scalp abscessed or disseminated gonorrhea infection (extension of infection from genital site).²

The incidence of gonorrhea in Huron County is low, with an average of approximately two cases per year and a peak of 5 cases in 2004.³ Between 1995 and 2005, there were a total of 21 cases, 61.9% of which were male. The number of cases of gonorrhea has remained stable over this time period.

Hepatitis C

Hepatitis C is a viral infection of the liver and is acquired primarily through activities which involve the exchange of blood, such as sharing needles. Symptoms include loss of appetite,

nausea and vomiting, stomach pain, fatigue and jaundice, although most infected persons experience no or very mild symptoms.⁴ Most persons infected with hepatitis C will remain infected for the rest of their lives and may experience complications such as cirrhosis of the liver and liver failure.³

In Huron County, there have been 75 reported cases from 1995 to 2005, with males accounting for 66.7% of all cases.⁵ Age and sex-specific incidence rates were calculated for 1995-2004 combined and are shown in **Figure 6** for males and **Figure 7** for females. Men aged 40-59 years had the highest incidence of hepatitis C at 33.0 cases per 100,000 population, which is over three times that of women in the same age group. In both males and females, age-specific incidence of hepatitis C was lower in Huron County than Ontario.

Age-Specific Incidence of Hepatitis C in Males, Huron County and Ontario, 1995-2004 Combined

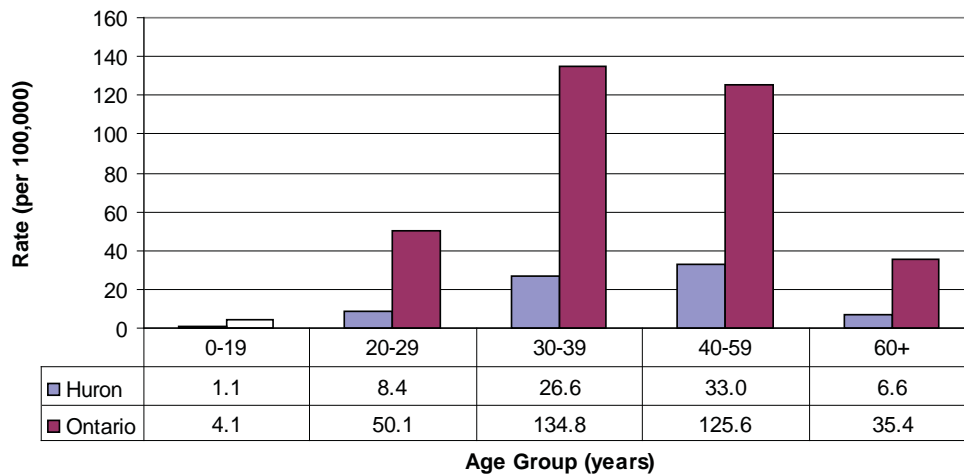


Figure 6. Age-specific incidence of hepatitis C for males in Huron County and Ontario, 1995-2004 data combined. Source: iPHIS, Extracted 12/03/2007.

Age-Specific Incidence of Hepatitis C in Females, Huron County and Ontario, 1995-2004 Combined

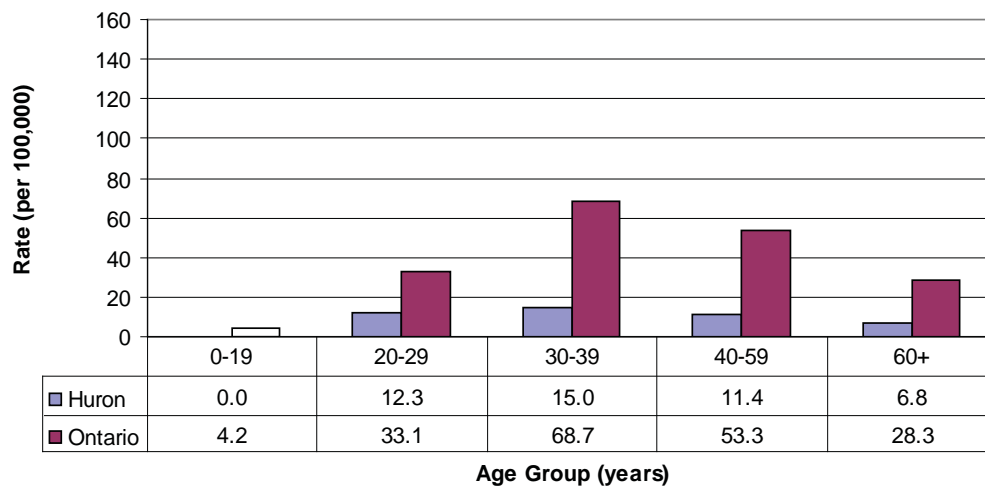


Figure 7. Age-specific incidence of hepatitis C for females in Huron County and Ontario, 1995-2004 data combined. Source: iPHIS, Extracted 12/03/2007.

Food and Waterborne Enteric Diseases

Food and waterborne enteric diseases are acquired mainly through consuming contaminated food or water and/or through direct fecal-oral contact. Common symptoms of enteric illness include nausea, vomiting, diarrhea, cramps, fatigue, fever, headache, chills and loss of appetite. While most infected individuals recover without antibiotics, some infections may cause long-term complications such as kidney failure, systemic infections and immune system problems. Food and waterborne enteric disease are most common in those under five years of age.

Campylobacteriosis

(*Campylobacter enteritis*)

Campylobacteriosis, a bacterial infection that targets the digestive system, is the most common enteric disease in Canada. An individual can become infected through eating undercooked chicken or pork, drinking contaminated water or raw milk or through close contact with infected animals.⁶

In Huron County, campylobacteriosis is the most commonly reported disease and also the most

commonly reported enteric illness, accounting for 19.5% of all reportable diseases.⁷ In 2005, 28 cases were reported, resulting in a crude incidence rate of 45.5 cases per 100,000 population, down from 53.4 cases per 100,000 population in 1995. Age-standardized incidence rates from 1995 to 2005 are presented in **Figure 8** for both Huron County and Ontario. Huron County and Ontario rates remained similar until 2000, at which time Huron County rates increased. A possible explanation for this peak in 2000 was the contaminated municipal water in Walkerton which resulted in an outbreak of both campylobacteriosis and verotoxin-producing *E. coli*. The sustained increase in Huron since 2000 is likely due to increased physician visits and testing resulting from heightened awareness and willingness to be tested. Overall, between 1995 and 2004, Huron County had significantly higher rates of campylobacteriosis compared to Ontario (SIR=1.43, 95% CI 1.29-1.58).

Age-specific incidence of campylobacteriosis in Huron County is shown in **Figure 9**. Campylobacteriosis rates were highest among those under the age of five years and those aged 25-29 years. In Huron County, children are most likely infected with *Campylobacter enteritis* through contact with farm animals and barn cats and through sharing baths with infected children and siblings. The higher incidence among the 25-29 year age group may be due to a high proportion of individuals who work with chickens in Huron County.

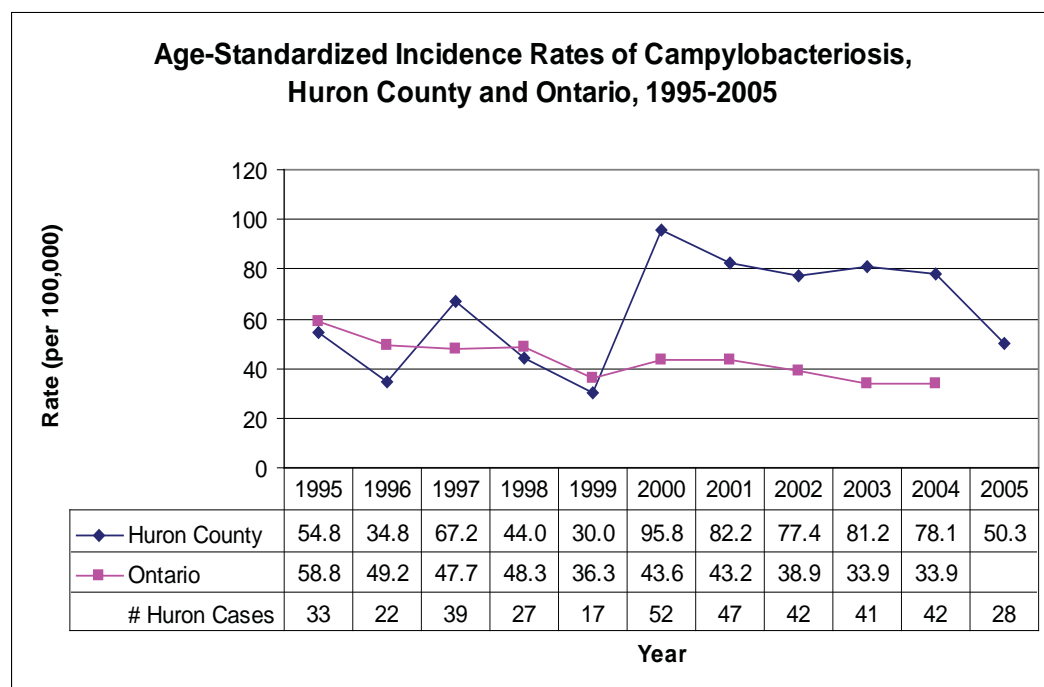


Figure 8. Age-standardized incidence rates of campylobacteriosis for both Huron County and Ontario from 1995 to 2005. 2005 data was not available for Ontario. Source: iPHIS, Extracted 13/03/2007.

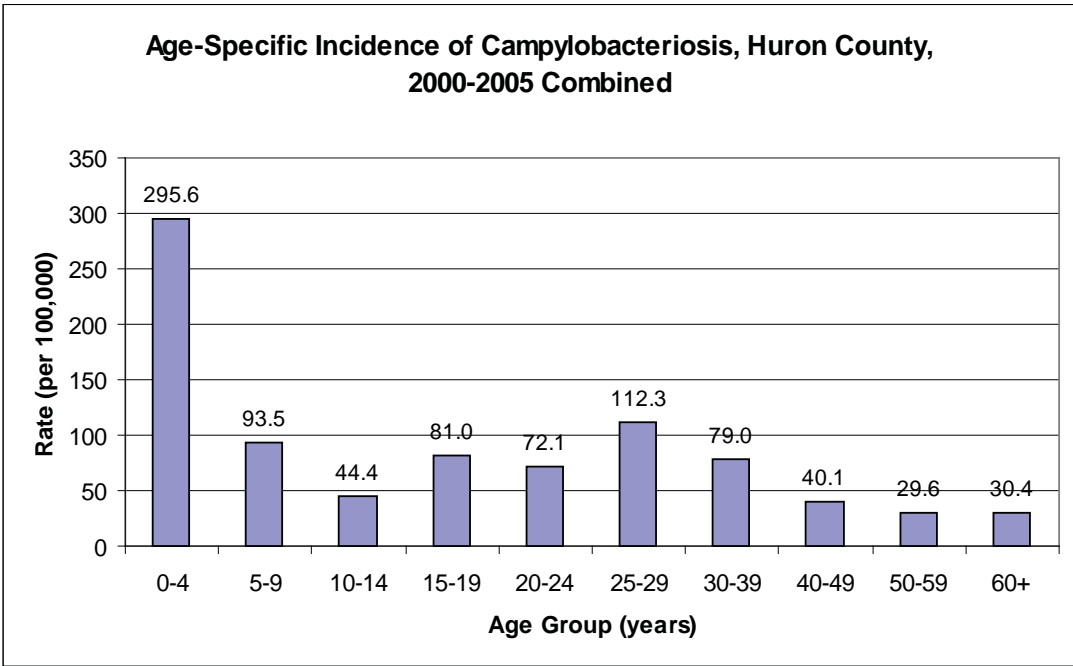


Figure 9. Age-specific incidence rates of campylobacteriosis in Huron County for 2000-2005 combined. Source: iPHIS, Extracted 13/03/2007.

Salmonellosis

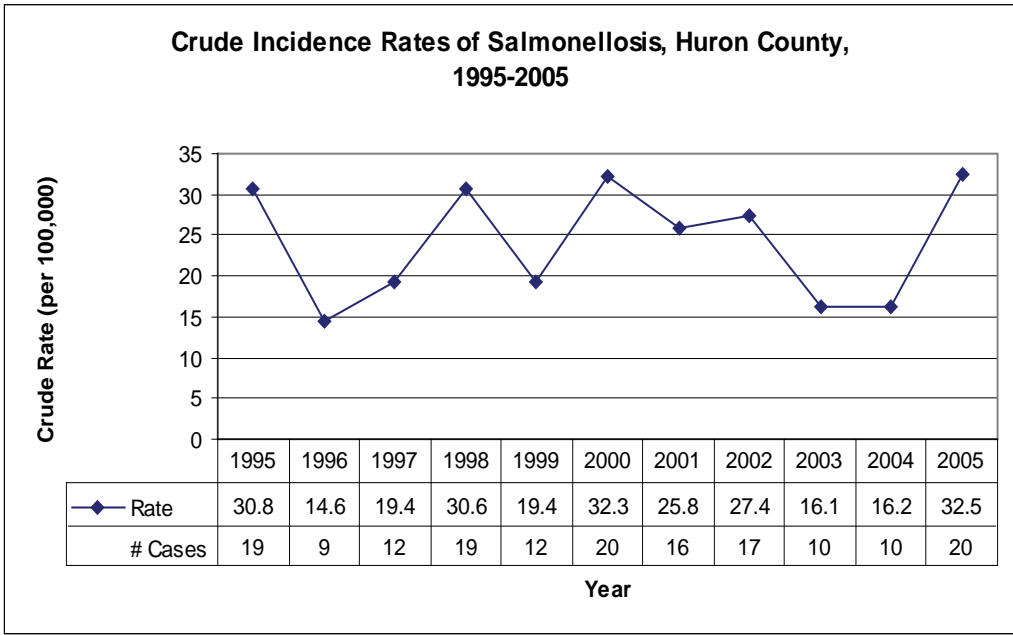
Salmonellosis is caused by different types of Salmonella bacteria and results from ingesting contaminated food (usually of animal origin such as beef, poultry, pork and eggs).⁸ Salmonellosis can also be associated with pets, such as dogs, cats and turtles. Young children, seniors and those with weakened immune systems are the most vulnerable.⁸

Salmonellosis is the second most commonly reported enteric illness in Huron County. The crude incidence rates of salmonellosis are shown

in **Figure 10**. Incidence rates of salmonellosis have fluctuated between 14.6 to 32.5 cases per 100,000 population over the eleven-year period. The peak in cases in 1998 is likely due to the Canada-wide outbreak, while the increase in cases in 2005 is due to a bean sprout-related outbreak.

To compare incidence of salmonellosis in Huron County with that of Ontario, age-specific incidence rates were calculated (**Figure 11**). For most age groups, incidence of salmonellosis was higher in Huron County than Ontario, with the exception of those aged 60 years old and older.

Figure 10. Crude incidence rates for salmonellosis in Huron County from 1995 to 2005. Age-standardized rates were not calculated due to small number of cases. Source: iPHIS, Extracted 07/03/2007.



Overall, however, incidence of salmonellosis between 1999 and 2004 in Huron County did not differ significantly from Ontario (SIR=1.21, 95% CI

0.95-1.47). For both Huron County and Ontario, those under the age of five years were the most vulnerable to infection.

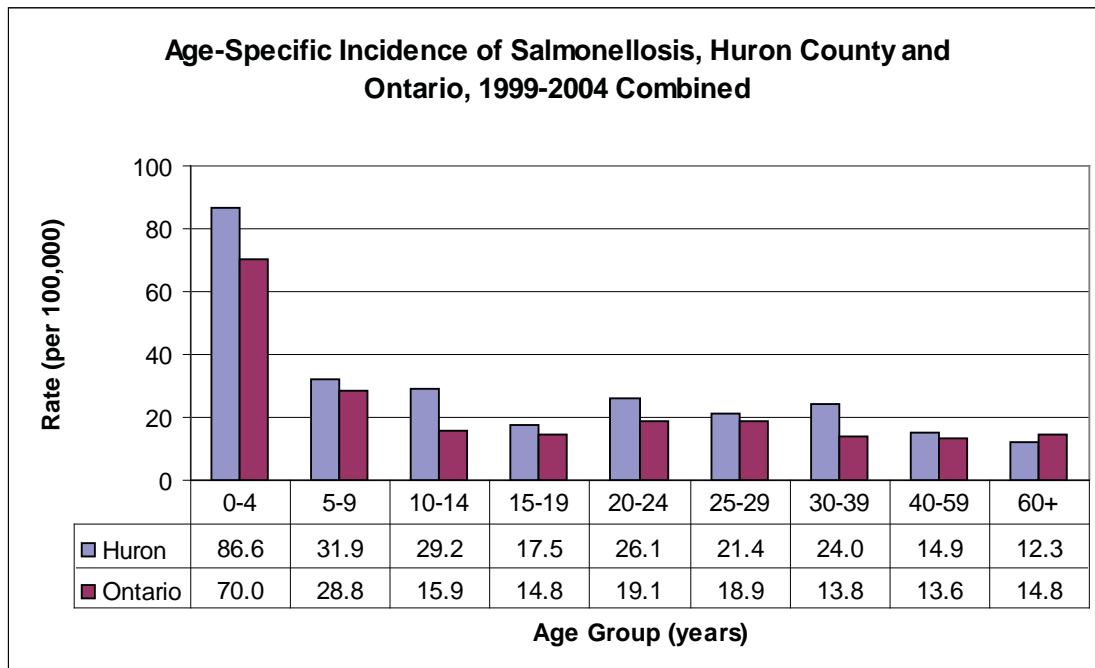


Figure 11. Age-specific incidence rates of salmonellosis in Huron County, 1999-2004 combined. Source: iPHIS, Extracted 15/03/2007.

Giardiasis

Giardiasis is a parasitic infection that can be spread person-to-person or through contaminated food or water. Common symptoms include chronic diarrhea, abdominal cramps and bloating and fatigue. Infections are more common in institutions and daycare centres where children are not yet toilet trained. Children under five

years and their parents are at increased risk of infection.⁹

From 1995 to 2005, an average of 11 cases annually has been reported in Huron County.¹⁰ Crude incidence rates for giardiasis are shown in Figure 12. The incidence of giardiasis has generally decreased since 1998, with six reported cases in 2005 or a crude incidence rate of 9.8 cases per 100,000.

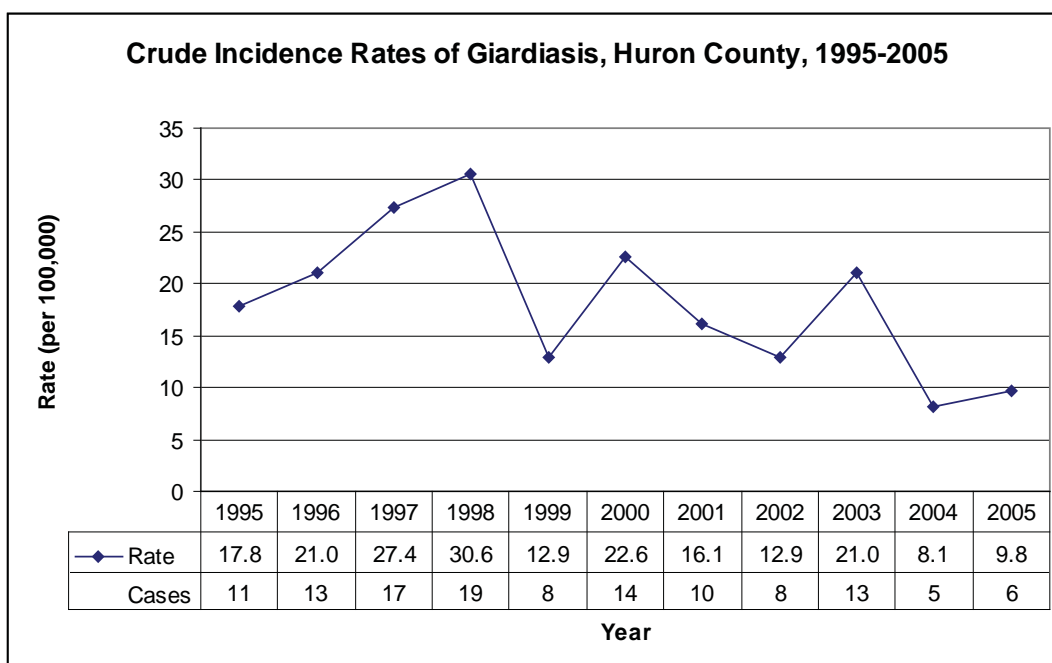


Figure 12. Crude incidence rates of giardiasis in Huron County from 1995 to 2005. Age-standardized rates were not calculated due to small number of cases. Source: iPHIS, Extracted 15/03/2007.

Age-specific incidence rates were calculated for Huron County and Ontario and are shown in **Figure 13**. Huron County's age-specific incidence rates are similar to Ontario. Individuals under the age of five years and those aged 30-39 years had the highest incidence of giardiasis. Possible

explanations for higher incidence rates among 30-39 year olds is that these individuals may be parents of young children and/or there are a high proportion of individuals in this age group who fish in Huron County.

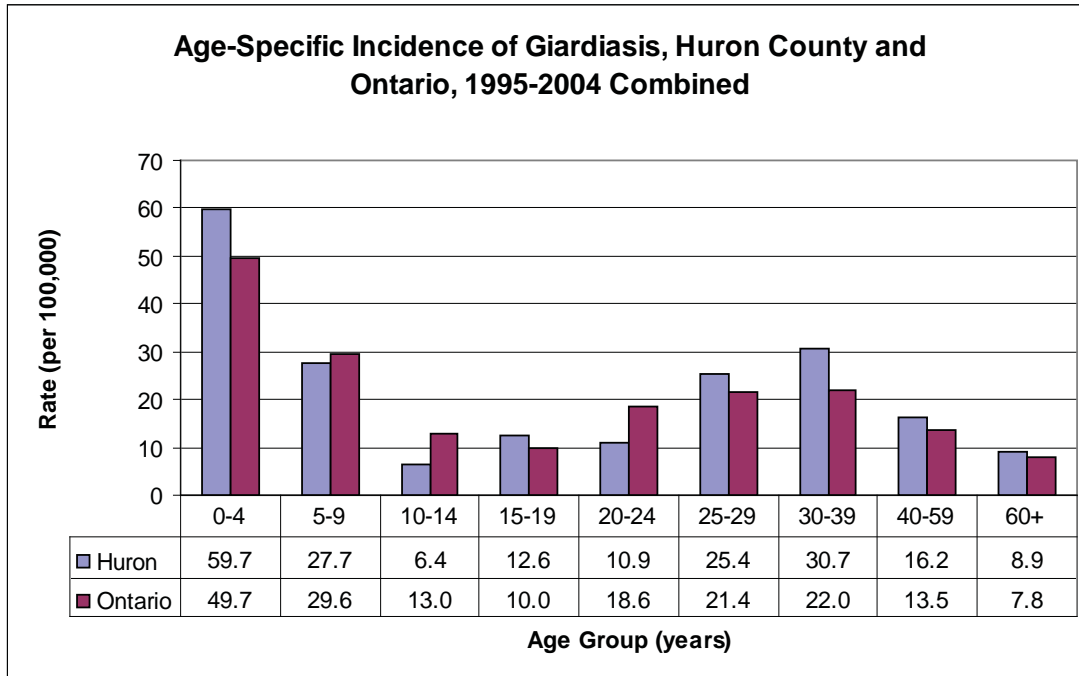


Figure 13. Age-specific incidence rates of giardiasis in Huron County, 1995-2004 combined. Source: iPHIS, Extracted 16/03/2007.

Verotoxin-Producing Escherichia coli (VTEC)

VTEC is a strain of Escherichia coli (E. coli) that can cause enteric illness. Individuals most commonly become infected by consuming contaminated hamburger or ground meat product. However, in 2000, a contaminated municipal water supply caused a serious outbreak of VTEC in Walkerton, Ontario, resulting in seven deaths and approximately 2,300 infected.¹¹ VTEC causes diarrhea and can cause hemolytic uremic syndrome (HUS), a life-threatening condition in which the red blood cells are destroyed and the kidneys fail, among seniors or those under the age of five years.¹²

in Huron County or 14.6 cases per 100,000 population. There was a peak in cases in Huron County in 2000 likely due to increasing testing related to the major VTEC outbreak in Walkerton, Ontario. Fourteen cases were reported in 2000 in Huron County, giving a crude incidence rate of 22.6 cases per 100,000.

The crude incidence of verotoxin-producing E. coli (VTEC) in Huron County from 1995 to 2005 is shown in **Figure 14**. In 2005, nine cases of verotoxin-producing E. coli (VTEC) were reported

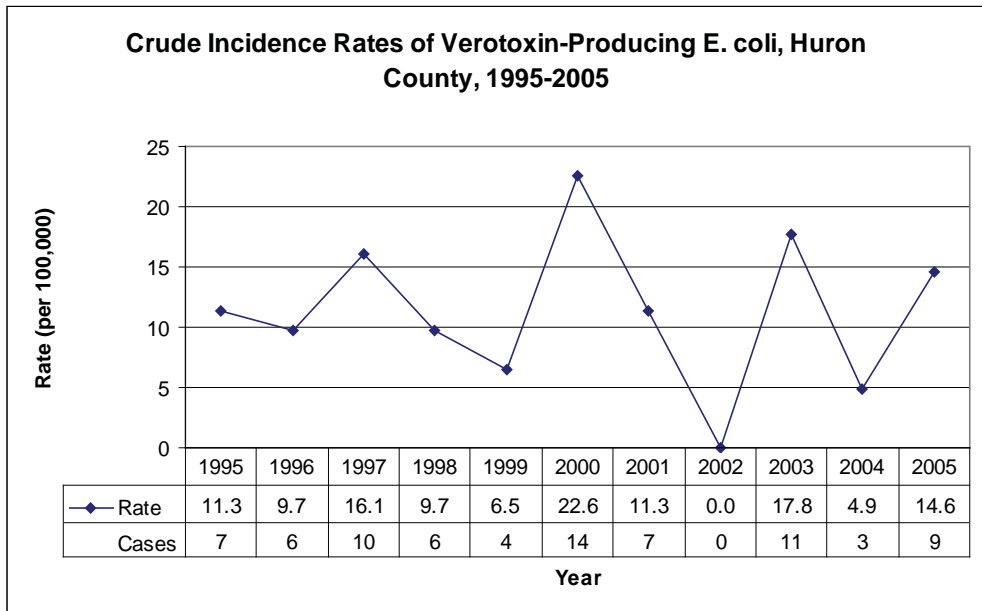


Figure 14. Crude incidence rates of verotoxin-producing E. coli (VTEC) in Huron County from 1995 to 2005. Age-standardized rates were not calculated due to small number of cases. Source: iPHIS, Extracted 16/03/2007.

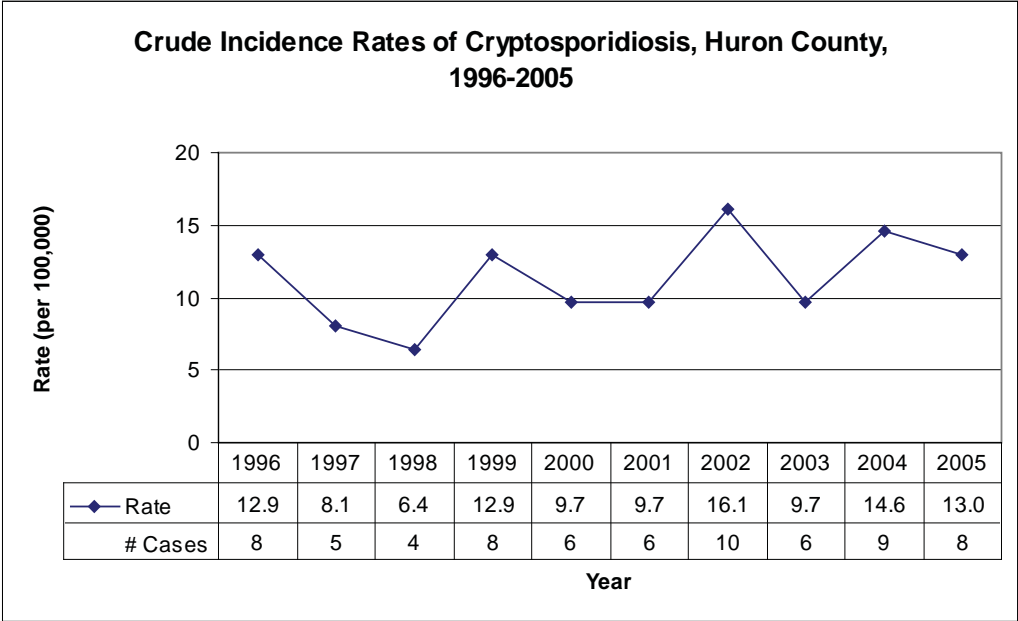
Cryptosporidiosis

Like giardiasis, cryptosporidiosis is a parasitic infection that results in similar symptoms, most commonly watery diarrhoea, abdominal cramps, nausea, and headaches. Those at increased risk of infection are children under two years of age, parents of young children or child care workers, animal handlers, travellers, people who drink from untreated shallow, unprotected wells and men who have sex with multiple same sex partners.¹³

Crude incidence rates of cryptosporidiosis are

shown in **Figure 15**. Incidence has remained between 8.1 to 16.1 cases per 100,000 from 1996 to 2005 in Huron County. Crude incidence of cryptosporidiosis in Ontario is lower than Huron County, with 2.4 cases per 100,000 population reported in Ontario for 2005 compared to 13.0 cases per 100,000 population in Huron County. From 2000 to 2004, Huron County rates were significantly higher than Ontario (SIR=6.10, 95% CI 4.13-8.07). Possible explanations for this include the predominance of agricultural industry in Huron County and the subsequently higher proportion of animal handlers.

Figure 15. Crude incidence rates of cryptosporidiosis in Huron County from 1996 to 2005. Ontario cases were not mandated to be reported until 1996. Source: iPHIS, Extracted 07/03/2007.



Vaccine Preventable Diseases

Vaccine preventable diseases are caused by viruses and bacteria which are highly contagious and can be spread through a cough or sneeze of an infected person. Outbreaks of vaccine preventable disease can occur in developed countries when immunization rates decline, in the case of influenza, or when the vaccine formula is insufficiently targeted to the season's pathogen.

For the 2005/2006 school year, 76.6% of all students entering junior kindergarten in Huron County had been vaccinated with the mandatory vaccines (diphtheria-polio and measles-mumps-rubella).¹⁴

Influenza

Influenza, a viral infection, is a highly infectious respiratory illness. Common symptoms include fever, headache, cough and muscle aches.¹⁵ These symptoms are similar to those of the common cold but are usually more severe and can result in complications like pneumonia. In 2000, Ontario began to implement free, voluntary influenza vaccinations (flu shots) to those aged six months and older.¹⁶

When surveyed, 50.9% (95% CI 44.6-57.2) of Huron County adults aged 18 years and older reported getting a flu shot during the 2005/2006 season (n=240).¹⁷ Among those 65 years and older, 89.8% (95% CI 81.3-98.3) reported receiving a flu shot. Immunization coverage was highest for the 2005/2006 season when compared to the previous three seasons.

Huron County Health Unit also provided influenza vaccine to hospitals, retirement and nursing homes for the vaccination of staff and residents (in long-term care facilities).

Location	Coverage	
	Staff	Residents
Hospitals	78%	N/A
Nursing Homes	74%	95%
Retirement Homes	79%	92%

Immunization coverage rates are shown in **Table 1** for the 2005/2006 season.

For the 2005/2006 influenza season (July 1, 2005 to June 30, 2006), 44 positive cases were confirmed in Huron County. Age-standardized incidence rates of lab-confirmed influenza for Huron County and Ontario are shown in **Figure 16**. For most years, Huron County incidence rates were higher than Ontario, although they had similar trends.

In general, young children and the elderly have the highest incidence rates of influenza.¹⁴ In Huron County, individuals aged 15-19 years and those aged 60 years and older had the highest incidence rates of influenza (**Figure 17**). The unusual peak in 15-19 year olds is due to 11 reported cases of influenza B in this age group for the 2005/2006 season, which was a result of both a poor vaccine match for the influenza B virus and increased testing in this age group.

Table 1. Influenza immunization coverage rates for staff and residents of 6 area hospitals, 9 area nursing homes and 6 area retirement homes for the 2005/2006 influenza season. Source: Internal communication with the Building Community Capacity Quad, Huron County Health Unit 2007.

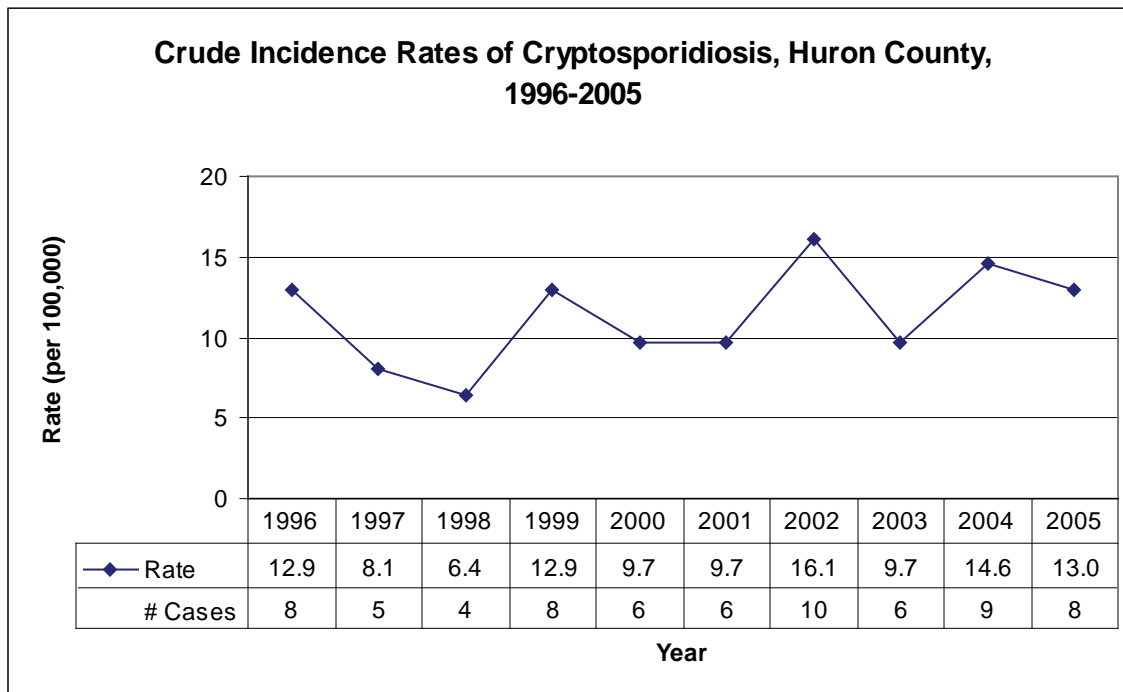
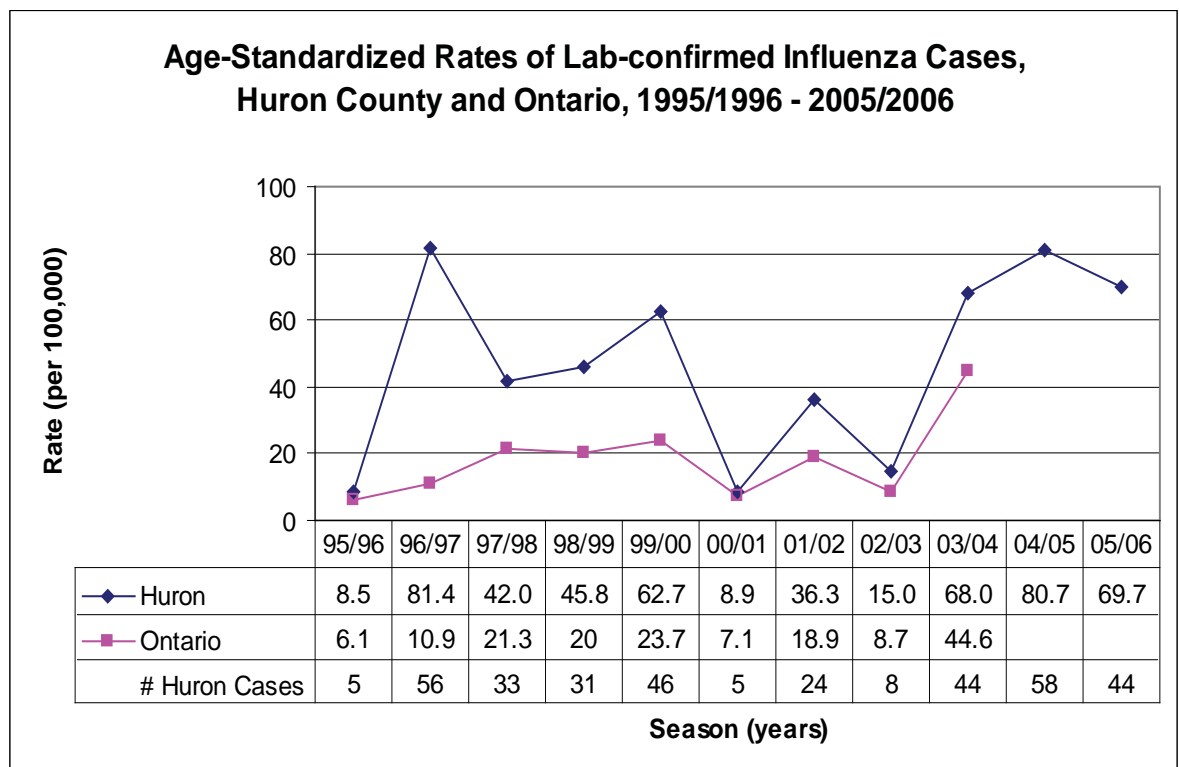


Figure 16. Age-standardized rates of lab-confirmed influenza cases for both Huron County and Ontario from 1995/1996 to 2005/2006. 2004/05 and 2005/06 data was not available for Ontario. Note: seasons are defined as July 1 to June 30. Source: iPHIS, Extracted 16/03/2007.

Figure 17. Age-specific incidence rates of influenza in Huron County, 2000/2001 to 2005/2006 combined. Source: iPHIS, Extracted 16/03/2007.



Pertussis

Pertussis, or whooping cough, is a bacterial infection which can result in very severe coughing spells.¹⁸ Complications from pertussis are more common among the very young and include pneumonia, brain damage and death. Pertussis is easily transmitted from one person to another through the discharges or droplets from an infected person's nose or mouth.

In Huron County, pertussis is the fourth most commonly reported disease due to three outbreaks of pertussis that have occurred in Huron County between 1995 and 2005.¹⁹ In 1995, 84 cases were reported; in 1998, 50 cases; and in 2002, 12 cases. These outbreaks are due to a largely unvaccinated pocket of the population in Huron County. For all other years, the average number of cases reported is just under four cases per year. These peaks match Ontario trends.

Rubella

Rubella, also called the German Measles, is a mild, viral illness that produces a rash, followed by a fever and upper respiratory symptoms. It is transmitted by direct contact with or inhalation of the secretions from an infected person's nose or mouth. If a pregnant woman becomes infected with rubella early in the pregnancy, serious consequences can result for the baby, such as congenital rubella syndrome or death.²⁰

In 1995, there was an outbreak of 144 rubella cases reported in Huron County.²¹ This outbreak occurred in a largely unvaccinated pocket of population in Huron County. Only one other case of rubella has been reported since then, which is likely due to the introduction of the second-dose measles-mumps-rubella (MMR) vaccine introduced in 1996.²²

Zoonotic Diseases

Zoonotic diseases are any diseases or infections which are transmissible from animals to humans.²⁵

Rabies

Rabies is a viral infection of animals, which attacks the central nervous system and eventually affects the brain.²³ The virus, usually found in the

saliva of an infected animal, can be transmitted to humans through a bite or a scratch. Rabies is almost always fatal in humans once symptoms occur.

The Huron County Health Unit investigates all reported human-animal exposures. In 2006, 167 investigations were made, up from 158 in 2005 (**Table 2**). Of all investigations made in 2006, 14 individuals received rabies prophylaxis to prevent the development of rabies (**Table 2**) and three animals tested positive for rabies. To date, no human rabies cases have been reported in Huron County.

To eliminate the potential incidence of rabies in humans, it is mandatory in Huron County that cats and dogs be vaccinated against rabies.

In 2006, Huron County households who had at least one cat or dog were questioned on whether or not their pet had received a rabies vaccine within the past 12 months.

Of all Huron County households who had at least one dog, 76.7% (95% CI 71.6-81.8) reported that all of their dogs had received the vaccine within the past 12 months (**Figure 18**). By contrast, only 47.5% (95% CI 40.6-54.4) of households with at least one cat reported that all of their cats had been vaccinated against rabies (**Figure 18**). This is likely due to a high number of barn cats in Huron County, which present difficulties for vaccination.

One barrier to vaccinating pets is cost. Huron County provides low-cost rabies vaccination clinics to help make rabies vaccination more accessible to individuals and households with lower income. In 2006, 511 dogs and 264 cats were vaccinated at low-cost clinics in Huron County.²⁴

Year	# Investigations Conducted	# Individuals Receiving Rabies Vaccine
2002	176	11
2003	139	19
2004	183	13
2005	158	17
2006	167	14

Table 2. The number of human-animal exposure investigations conducted and the number of individuals put on prophylaxis for rabies in Huron County, 2002-2006. Source: Internal communication with Protecting the Environment Quad, Huron County Health Unit 2007.

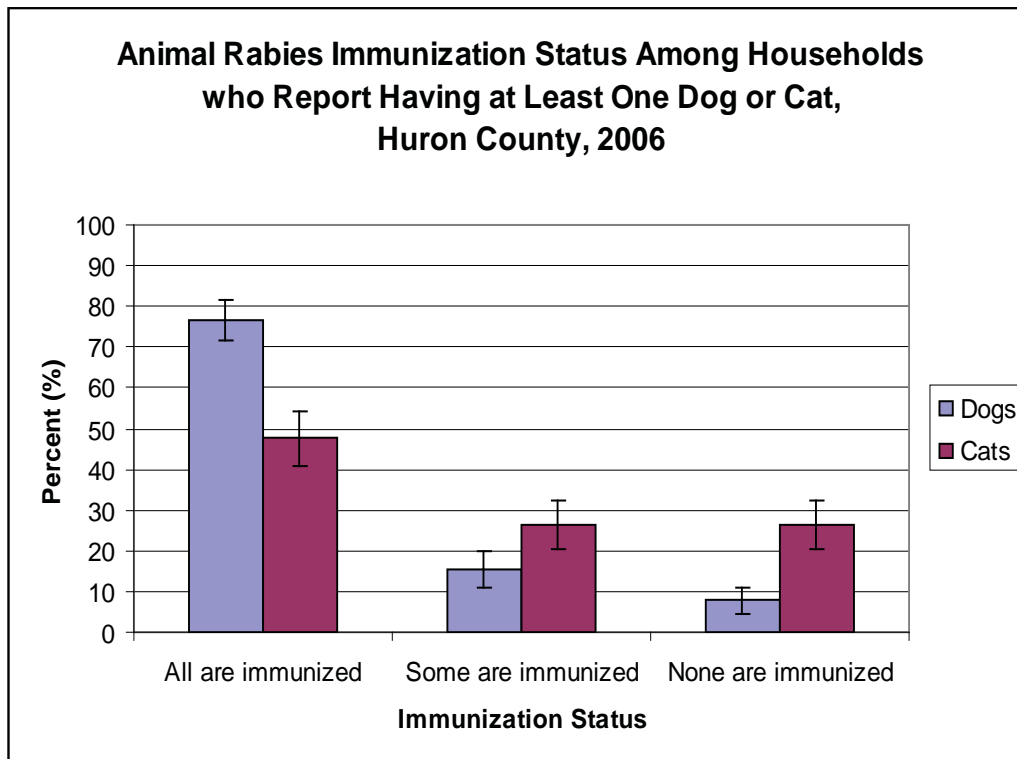


Figure 18. The frequency of reported rabies vaccination status among households with at least one dog (n=266) or cat (n=202), Huron County, 2006. Source: Rapid Risk Factor Surveillance System, January-December 2006.

West Nile Virus (WNV)

West Nile virus belongs to the family of viruses entitled Flaviviridae and is closely related to the viruses that cause Dengue fever, Yellow fever, and St. Louis encephalitis. Generally the virus is spread to humans by mosquitoes that have fed on the blood of an infected bird. Many individuals that become infected with WNV show no symptoms and do not get sick. In mild cases, there may be flu like symptoms, including rash, fever, headache, and general malaise. In rare cases, some individuals with weakened immune systems can react quite severely to the infection and present symptoms such as severe headache, high fever, stiff neck, nausea, difficulty swallowing, vomiting, loss of consciousness, and even paralysis.²⁶

Monitoring WNV in birds and mosquitoes helps to predict the risk of acquiring WNV in humans and determine appropriate control measures.

Bird Surveillance

The goal of bird surveillance is to use bird mortality to monitor the presence of WNV in the bird population. Data is collected on all species; however, only crows and blue jays are sent for

testing, based upon their susceptibility to WNV and the fact that they frequently die of the disease.

Huron County Health Unit has been monitoring birds for WNV since 2002. In that year, a total of 5 WNV positive birds were identified in Huron County. The total number of WNV positive birds in 2003, 2004, and 2005 were two, four, and four, respectively.²⁷ Five positive birds were identified for 2006, indicating viral activity has been consistent in Huron County's bird population. The number of dead bird sightings, along with the number of birds submitted for testing, is shown in **Figure 19**.

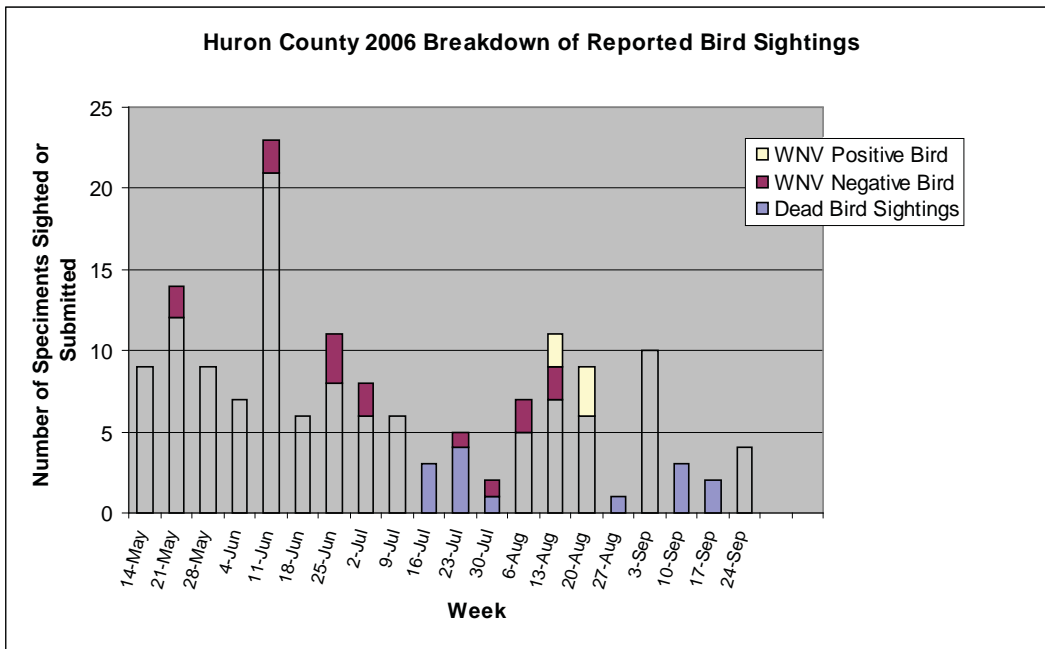


Figure 19. The number of reported dead birds, along with the number of birds submitted for testing for West Nile Virus, in Huron County for 2006. Source: Huron County Health Unit, 2007.

Mosquito Surveillance

The purpose of mosquito surveillance is to determine if WNV is circulating in the area so that preventive measures (i.e. larviciding) can take place.

Adult mosquitoes are trapped at fixed and flexible sites throughout Huron County. Female mosquitoes are submitted for testing in order to identify species types and infection with WNV. Species identification determines the prevalence of enzootic (mosquitoes that bite mainly birds and occasionally bite mammals) and bridge (mosquitoes that bite both birds and mammals) vectors in the county, while viral testing detects any mosquito pools infected with the virus.

The total number of female adult mosquitoes trapped, along with a breakdown by vector type,

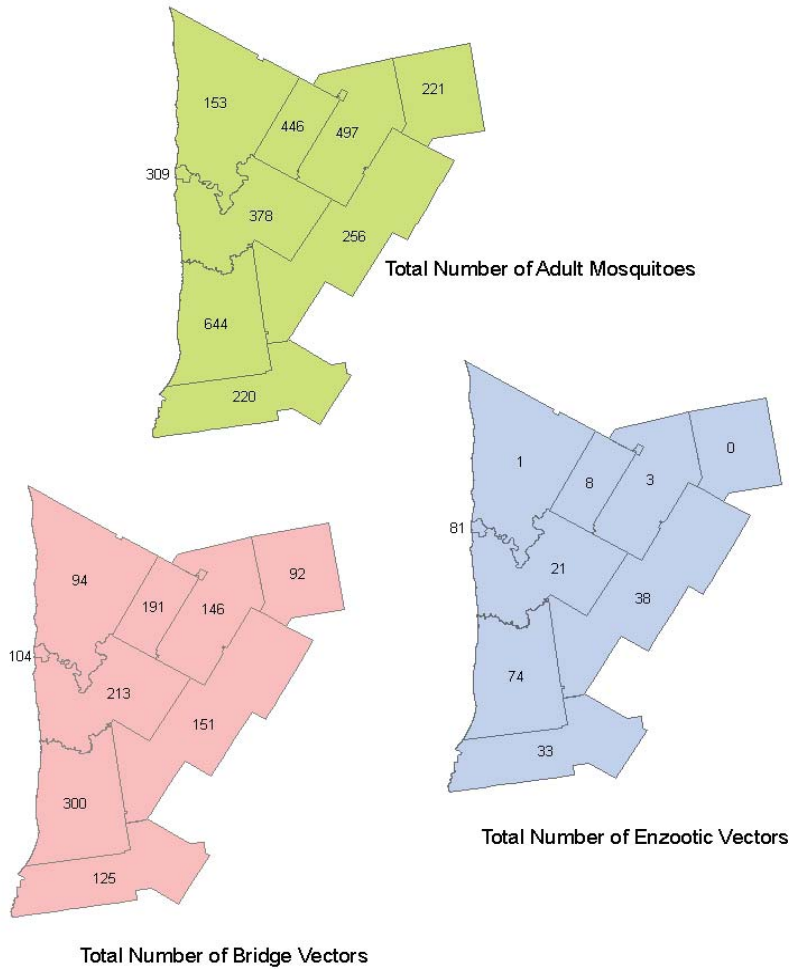
for each municipality is shown in **Figure 20**. Both enzootic and bridge vector mosquitoes were detected in the county. In total, 261 (9%) female enzootic and 1,453 (49%) bridge vectors were trapped.

The most prevalent mosquito species trapped in Huron County included: *Oc. stimulans*, *Ae. vexans vexans* and *Cx. pipiens/restuans*, as shown in **Table 4**. Of all mosquitoes submitting for viral testing, none were infected with WNV for the 2006 surveillance season.

Mosquito larvae are also monitored to determine the composition of container breeding mosquito populations in the area, to determine the prevalence of species of concern (i.e. species of the *Culex* genus), and to respond to standing water complaints. Larval surveillance is also used as a risk assessment tool to determine whether mosquito control measures are necessary.

Species Name	Vector Type	Count	% of Total Female Mosquitoes
<i>Oc. stimulans</i>	Bridge	730	24.7
<i>Ae. vexans vexans</i>	Bridge	459	15.5
<i>Cx. pipiens/restuans</i>	Enzootic	252	8.5

Table 4. Number of female adult mosquitoes by vector type and species, Huron County, 2006.



20. The total number of adult mosquitoes, along with the number of mosquitoes that were classified as bridge or enzootic vectors, by municipality in Huron County, for the 2006 surveillance season. Source: Huron County Health Unit, 2007.

Culex pipiens/restuans and *Ochlerotatus triseriatus* were the species identified by larval dipping. *Cx. pipiens/restuans* are enzootic vectors, which are active vectors in the WNV transmission cycle.

Human Surveillance

There have been no reported human cases of WNV in Huron County to date.

Location	Respiratory	Enteric
Long-term care facility	16	12
Childcare facility	0	1
Hospital	1	1
Community	1	3
Other	0	1
Total	18	18

Outbreaks

An outbreak occurs when there is a greater incidence for a particular disease than what would normally be expected in a defined location.

In 2006, there were 36 confirmed outbreaks in Huron County (**Table 5**). Half of all outbreaks were related to respiratory infections. The majority of all outbreaks occurred in long-term care facilities, such as nursing and retirement homes.

Table 5. The number of confirmed outbreaks in Huron County for 2006 by location and outbreak type. Source: Huron County Health Unit, 2007.

Conclusion

While Huron County has lower incidence of sexually transmitted infections and other blood-borne infections than Ontario, it has higher reported incidence for most food and waterborne infections, specifically campylobacteriosis and cryptosporidiosis. This is likely due to the predominance of the agricultural industry and farms in Huron County, leading to a higher proportion of individuals who come into contact with animals. Trends in lab-confirmed influenza cases mirror Ontario, while other vaccine-preventable diseases that have reports of a high number of cases, such as pertussis and rubella, were a result of a largely unvaccinated pocket of population in Huron County.

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