



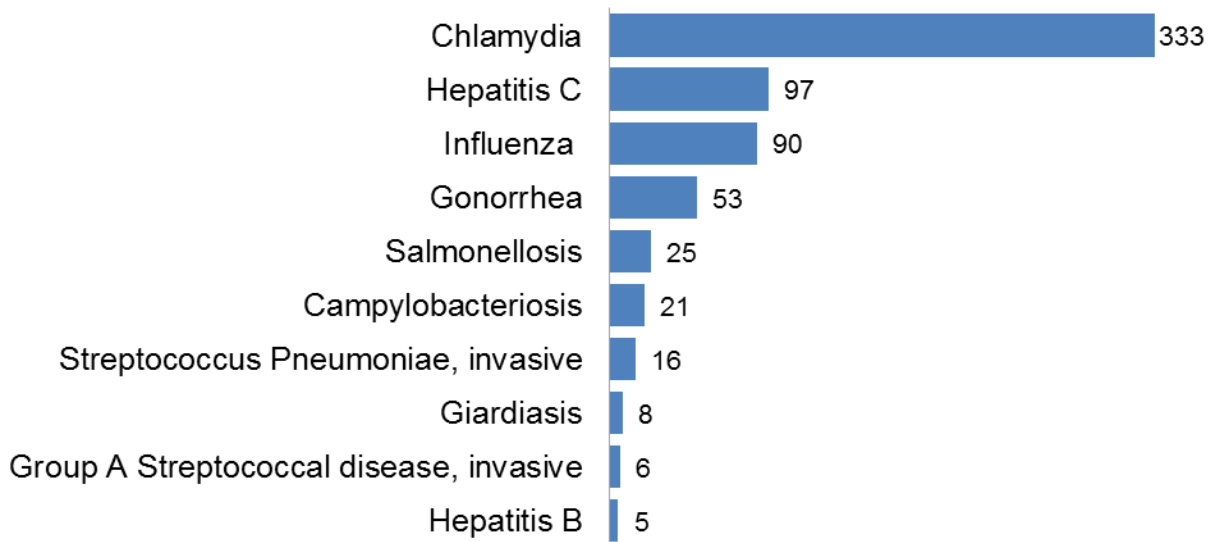
2017 Annual Report

Released: June 2018

This report summarizes reportable infectious disease information in order to communicate highlights to community health care providers and stakeholders. Under the authority of the Health Protection and Promotion Act (HPPA), these diseases or suspected occurrences of these diseases must be reported to Lambton Public Health (LPH).

Highlights

The most common reportable diseases in Lambton County in 2017:



See page 5 for a complete list of reportable disease case counts and rates.

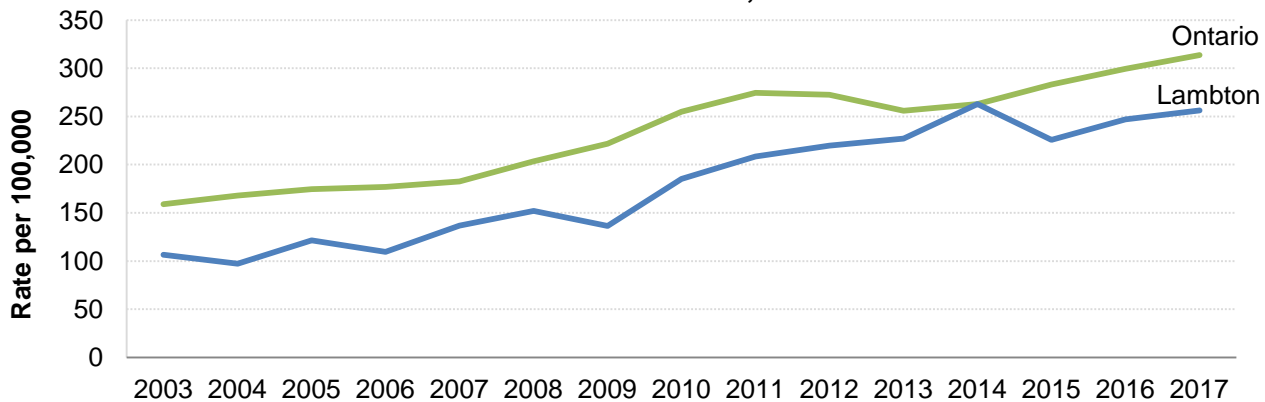
- In 2017, Lambton Public Health investigated 685 confirmed cases of reportable diseases. This represents a 24% increase since 2013.
- There were 17 institutional outbreaks and 2 community outbreaks reported to LPH in 2017. Aetiological agents for 8 of 19 outbreaks were identified as the following: 3 norovirus, 3 influenza A, 1 coronavirus, and 1 respiratory syncytial virus (RSV).
- In 2017, local incidence rates were significantly lower than provincial rates for most sexually transmitted infections, campylobacteriosis, giardiasis, influenza, and tuberculosis.
- Local incidence rates in 2017 were significantly higher than the 5-year historical average for most sexually transmitted diseases, cyclosporiasis, salmonellosis, verotoxin-producing E. coli, influenza, and mumps.

Infectious Diseases in Lambton - continued

Chlamydia:

- Chlamydia rates in both Lambton and Ontario have steadily increased since 2003. Lambton rates are consistently lower than the province (Figure 1).
- Approximately 68% of cases were among females. In addition, the majority of cases were among those aged 15-29 years, accounting for approximately 83% of total cases.
- Risk factors include sex with opposite sex (84%), no condom used (77%), new contact in past 2 months (21%), more than one sex contact in past 6 months (11%), and sex with same sex (5%).

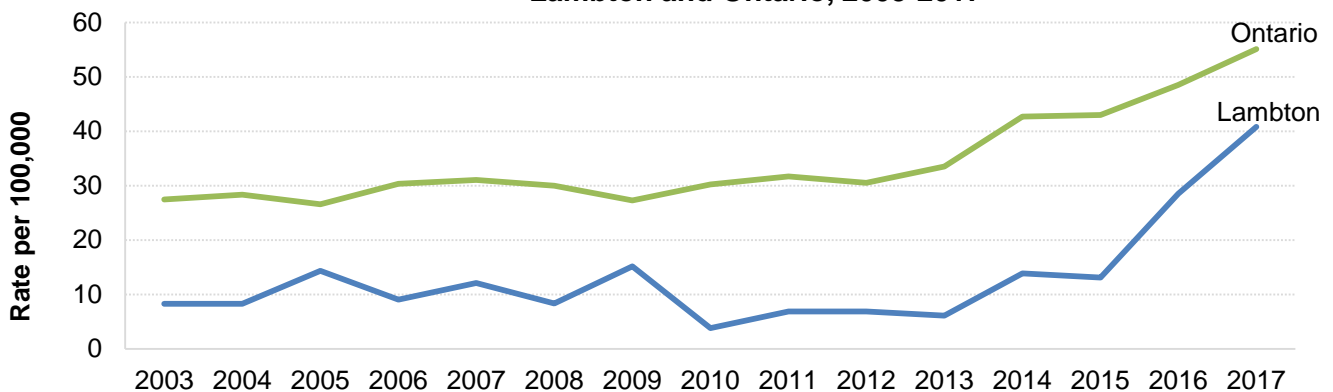
**Figure 1: Incidence of chlamydia infections by year
Lambton and Ontario, 2003-2017**



Gonorrhea:

- While local rates of gonorrhea remain lower than provincial rates, the Lambton rate is at an all-time high of 40.8, which is a 43% increase from 2016 and a ten-fold increase from 2010 (**Figure 2**).
- Approximately 60% of cases occurred among males. Over 75% of cases were among those 20-34 years of age.
- Risk factors include no condom used (77%), sex with opposite sex (70%), new contact in past 2 months (30%), more than one sex contact in past 6 months (23%), sex with same sex (13%), anonymous sex (4%).
- In 2017, 59% of confirmed cases of gonorrhea in Lambton were treated according to the [Guidelines for Testing and Treatment of Gonorrhea in Ontario](#).

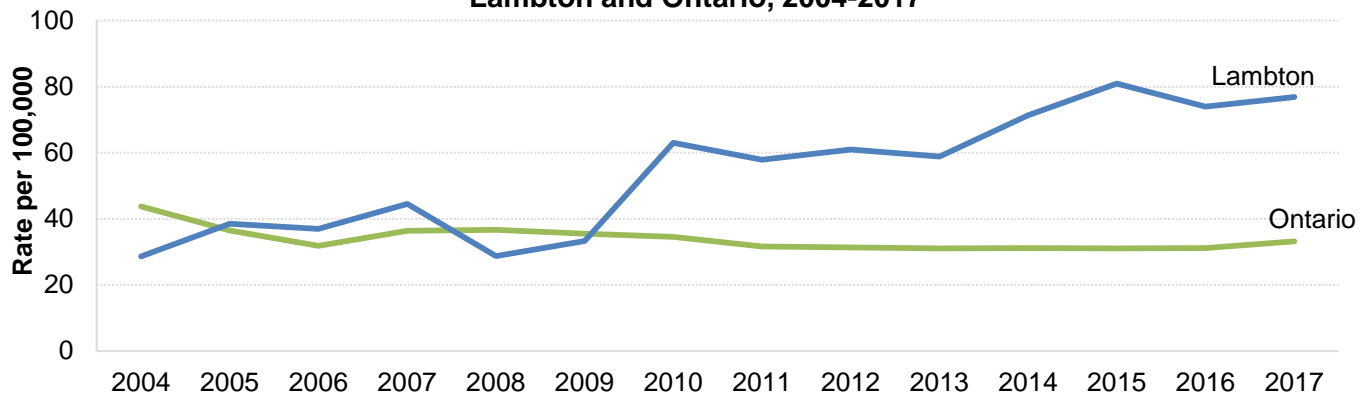
**Figure 2: Incidence of gonorrhea infections by year
Lambton and Ontario, 2003-2017**



Hepatitis C:

- Following a steep increase between 2009 and 2015, local hepatitis C rates have remained relatively stable since 2016. Lambton rates remain significantly higher than Ontario rates (**Figure 3**).
- About 61% of cases were among males. Approximately 58% of cases were among those aged 20-39 years and 30% were among those aged 50 years and older.
- Risk factors include: injection drug use (77%), tattoo and piercing (46%), contact is hepatitis C positive (20%), sex with opposite sex (15%), correctional facility (8%), inhalation drug use (5%), received blood or blood products (3%).

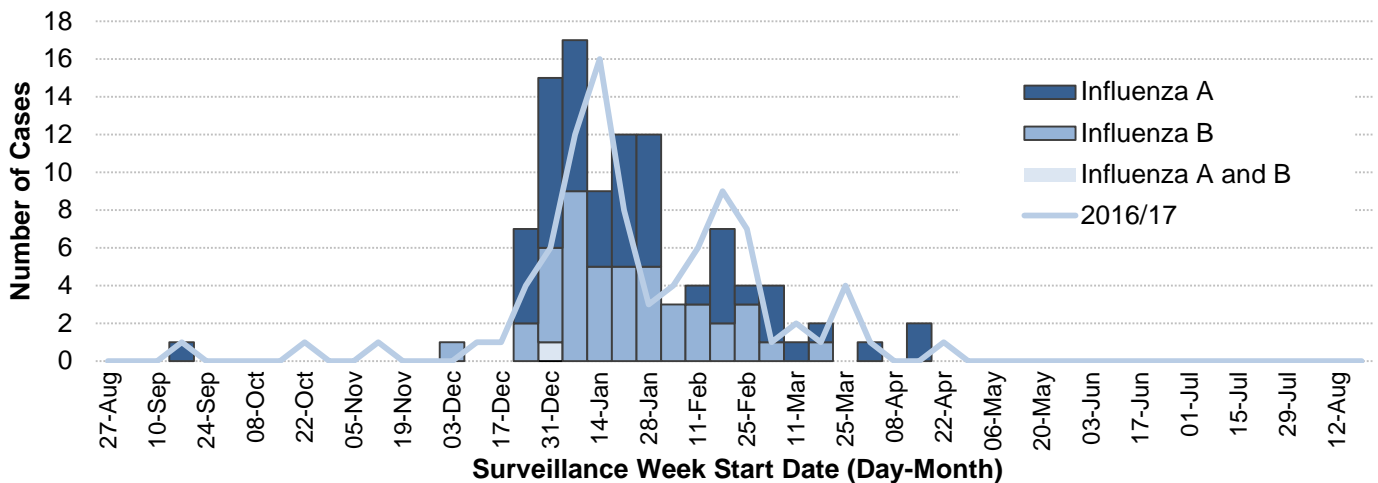
**Figure 3: Incidence of hepatitis C infections by year
Lambton and Ontario, 2004-2017**



Influenza:

- The 2017/18 influenza season peaked in early January (**Figure 4**). A total of 56 confirmed cases of influenza A, 45 cases of influenza B and 1 co-infection with A and B were reported.
- The predominant circulating strain was A (H3N2). Although still less prevalent than A, influenza B constituted a notably larger proportion (44%) of cases in the 2017/18 season when compared to past seasons.
- Approximately 63% of influenza cases were among adults 65 years and older.

Figure 4: Confirmed influenza cases in Lambton, 2017/18 influenza season by week compared to previous season

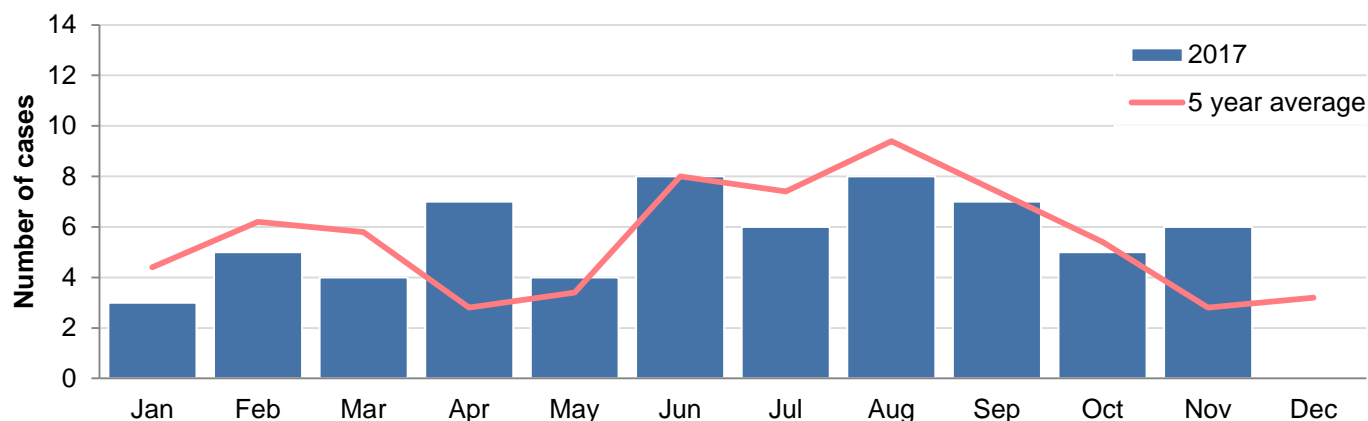


Infectious Diseases in Lambton - continued

Enteric Diseases:

- In 2017, 63 enteric disease cases were reported to Lambton Public Health. In general, Lambton rates have been lower than provincial rates over the past 5 years.
- Males were slightly more likely than females to be diagnosed with a reportable enteric disease. Peaks in the number of local cases occurred among the 20-24 and 50-69 age groups.
- **Figure 5** shows the seasonal distribution of cases, with a small peak between January and March and a larger peak between June and September, with the greatest number of cases occurring in June and August.

**Figure 5. Enteric disease 2017 case counts and historical averages
Lambton, by month**



*Includes amebiasis, campylobacter enteritis, cryptosporidiosis, cyclosporiasis, giardiasis, hepatitis A, listeriosis, salmonellosis, shigellosis, verotoxin producing E. Coli, yersiniosis.

Data Sources:

1. Case Counts and Crude Rates of Reportable Diseases by Year, Public Health Ontario, Query @ PHO, Extracted May 15, 2018.
2. Population Projections [2017], Ontario Ministry of Health and Long-Term Case, IntelliHEALTH Ontario, Extracted May 2018.
3. Risk Factors: iPHIS, Extracted May, 2018
4. Case Counts and Crude Rates of Reportable Diseases by Gender and Age Group, Public Health Ontario, Query @ PHO, Extracted May 23, 2018.

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Infectious Diseases in Lambton - continued

Reportable Disease Case Counts and Rates, Lambton County, 2017¹

	Confirmed Cases 2017 ²	Historical 5-year average ³	Comparison to 5-yr ave ⁴	2017 Lambton Rate	2017 Ontario Rate ⁵	Comparison to Ontario Rate ⁶
Sexually Transmitted and Bloodborne						
Chlamydia	333	288.4	Higher	256.2	313.7	Lower
Gonorrhea	53	17.6	Higher	40.8	55.1	Lower
Group B Streptococcal, neonatal	0	0.2	Similar	0	0.4	Similar
Hepatitis B	5	3.0	Similar	3.8	0.8	Similar
Hepatitis C	100	90.2	Higher	76.9	33.2	Higher
HIV	1	2.2	Lower	0.8	5.9	Similar
Syphilis, infectious	3	1.8	Higher	2.3	10.9	Lower
Syphilis, other	2	0.8	Higher	1.5	5.2	Lower
Enteric, Food and Waterborne						
Amebiasis	0	1.6	Similar	0.0	0.7	Similar
Campylobacteriosis	21	29.0	Lower	16.2	24.3	Lower
Cryptosporidiosis	2	4.6	Lower	1.5	2.8	Similar
Cyclosporiasis	2	0.6	Higher	1.5	2.1	Similar
Giardiasis	8	33.0	Similar	6.2	9.6	Lower
Listeriosis	0	0.2	Similar	0.0	0.4	Similar
Salmonellosis	25	20.8	Higher	19.2	19.1	Similar
Shigellosis	2	1.6	Similar	1.5	2.1	Similar
Verotoxin-producing E.coli	2	0.6	Higher	1.5	0.9	Similar
Yersiniosis	1	0.6	Similar	0.8	2.0	Similar
Vaccine Preventable						
Adverse vaccine reactions	5	6.6	Similar	0.0	na	na
Influenza	90	56.6	Higher	69.3	83.7	Lower
Streptococcus Pneumoniae, invasive	16	12.6	Similar	12.3	8.0	Similar
Meningococcal disease, invasive	0	0.6	Similar	0	0.2	Similar
Mumps	2	0.2	Higher	1.5	1.7	Similar
Pertussis	0	2.0	Similar	0	3.6	Similar
Tetanus	0	0.4	Similar	0	0.0	Similar
Vector-borne & Zoonotic						
Lyme Disease	1	0.2	Similar	0.8	6.3	Similar
Malaria	1	0.8	Similar	0.8	1.5	Similar
Q Fever	0	0.4	Similar	0.0	0.1	Similar
West Nile Virus	1	0.4	Similar	0.0	1.1	Similar
Other Infectious Diseases						
Creutzfeldt-Jacob Disease (<i>sporadic</i>)	2	0	na	1.5	0	Higher
Encephalitis/Meningitis	4	3.0	Similar	3.1	3.2	Similar
Group A Streptococcal disease, invasive	6	9.0	Lower	4.6	6.5	Similar
Legionellosis	0	0.6	Similar	0.0	1.4	Similar
Tuberculosis	0	0.6	Similar	0.0	4.8	Lower
Outbreaks						
Enteric Outbreaks	7	7.8	Similar	na	na	na
Respiratory Outbreaks	12	12.8	Similar	na	na	na
Probable Cases 2017						
Food Poisoning, all causes	2					
Encephalitis/Meningitis	1					

Infectious Diseases in Lambton - continued

¹ Rates were obtained from Query if available; otherwise calculated using Population Projections [2017].

² Confirmed case count in 2017 (Lambton residents). Table EXCLUDES reportable diseases with NO confirmed cases in Lambton between 2012 and 2017.

³ Mean confirmed case count in Lambton for the 5-year period, 2012-2016, rounded to the nearest integer if ≥ 1 .

⁴ Confirmed case count in 2017 compared to the previous 5-year annual mean; direction indicated if $p < 0.05$ (log likelihood test) AND effect size is not negligible (e.g. > 0.01 or > 1.01)

⁵ Crude rate per 100,000 population

⁶ Lambton crude rate compared to the Ontario rate; significant if $p < 0.05$ (mid-p exact probability test)