

Annual Infectious Disease Surveillance Report

The Infectious Diseases team at the Simcoe Muskoka District Health Unit (SMDHU) performs ongoing surveillance of infectious diseases. We depend on disease reporting from health care practitioners, laboratory results, and our active surveillance activities to generate a continually monitored database to detect disease clusters and outbreaks. This surveillance report provides health professionals with a snapshot of pertinent diseases in Simcoe Muskoka to improve clinical decision making, patient care, and detection of unusual clusters. Not all diseases of public health significance are included below; selection is based on incidence, severity of disease and public awareness.

Incidence of Diseases of Public Health Significance in Simcoe Muskoka, 2018

Data Source: Integrated Public Health Information System, Extracted May 2019

		January-December 2018 [^]		5 Year Mean* Jan-Dec, 2013-2017		Comments
		# of Cases	Rate per 100,000 Population	# of Cases	Rate per 100,000 Population	
Moderate (1-2 Standard Deviation (SD)) increase (↑) or decrease (↓), and significant (>2 SD's) increase (↑↑) or decrease (↓↓) compared to the historical average.						
Sexually Transmitted Infections and Bloodborne Infections						
Chlamydia	↑↑	1585	277.0	1309	238.4	Rate has increased in Ontario since 2012. Local lab testing percent positivity (6.3%) has remained relatively stable over time. The increase is likely largely due to increased testing. Highest rate is in females aged 15-24 years.
Hepatitis C	↑	235	41.1	202	36.7	Important to order viral load and refer to GI specialist for treatment options, as treatment is effective and often available free of cost.
Gonorrhea	↑↑	204	35.7	106	19.4	Significant local and provincial increase since Fall 2013. Local lab testing percent positivity (1.3%) has doubled from 2017. Mainly affecting males between 25-34 years. 15% identify as men who have sex with men (MSM).
Syphilis		10	1.7	9	1.6	SMDHU rate is 1/7 th of Ontario rate. Infectious syphilis is increasing provincially; 60% of cases identify as MSM; 30% are HIV+.
HIV		10	1.7	9	1.7	Highest incidence in urban centres (Toronto, Ottawa, London) and northern Ontario. SMDHU ~ 1/3 of provincial rate.
Hepatitis B (acute)	↑↑	8	1.4	2	0.3	Small actual increase in the number of cases, many are immigrants from endemic countries.
Respiratory Diseases						
Influenza		724	123.9	667	121.4	2018/19 flu season saw two waves of flu A: H1N1 followed by H3. Minimal flu B activity. Fairly typical influenza season.
Invasive Group A Streptococcal infection	↑↑	64	11.2	29	5.3	Increasing incidence across Ontario since 2015. Locally in 2018: cluster of cases in under-housed individuals and those experiencing homelessness.
Pertussis		13	2.3	16	3.0	Studies have shown that for the Tdap vaccine given between 14-16 years of age and in adulthood, immunity/protection wanes from roughly 70% in 1 st year to between 30-40% by the 4 th year after immunization (Acosta et al., Pediatrics, 2015).
Tuberculosis (active pulmonary)	↑	4	0.7	2	0.4	SMDHU rate is typically ~20% of Ontario rate. Concentrated in risk populations in urban centres (Toronto, Ottawa).
Mumps		1	0.2	2	0.4	
Legionellosis	↑↑	10	1.8	4	0.8	Increased incidence across Ontario in 2018. No common exposures noted among local cases.
Meningococcal disease, invasive		1	.2	1	.3	

Moderate (1-2 Standard Deviation (SD)) increase (↑) or decrease (↓), and significant (>2 SD's) increase (↑↑) or decrease (↓↓) compared to the historical average.

		January-December 2018 [^]		5 Year Mean* Jan-Dec, 2013-2017		Comments
		# of Cases	Rate per 100,000 Population	# of Cases	Rate per 100,000 Population	
Gastro-Intestinal diseases						
Campylobacter enteritis	↓	117	20.5	125	22.7	
Salmonellosis	↓	86	15.0	104	18.9	
Amebiasis, Cryptosporidiosis, Cyclosporidiosis, Shigellosis, and Yersiniosis	↑↑	80	14.0	45	8.3	Local outbreak of Cryptosporidiosis in 2018. Provincially, increases observed in cryptosporidiosis may largely be an artifact resulting from the change in testing methodology by some labs in the province.
Giardiasis		68	11.9	58	10.6	
Listeriosis		3	0.5	3	0.5	
Verotoxin-producing <i>E.coli</i>	↑↑	18	3.2	4	.7	Local cases linked to farms/petting zoo exposures, improperly cooked meats and uncooked flour products (part of a 2017 national food recall).
Hepatitis A	↑↑	4	0.7	1	.1	Low level of endemicity in Canada. Provincially: clusters of cases in under-housed individuals and those experiencing homelessness.
Vector-Borne and Zoonotic Diseases						
Lyme Disease (confirmed + probable)	↑↑	14	2.5	6	1.1	Increasing human cases across Ontario with increasing number of risk areas identified. Health Quality Ontario clinical algorithm here.
West Nile virus		1	.2	2	.4	Well-established in Ontario.
Rare Diseases						
Diphtheria, Polio, Rubella, Tetanus		0	0.0	0	0.1	No cases reported since 2013.
Haemophilus influenzae, all types **		14	2.5	N/A	N/A	All types of Haemophilus influenzae became reportable in 2018. Previously, only type b was reportable. Historical data is not available.
Measles		0	0.0	0	0.0	Measles has been eliminated in Canada; however, as it remains endemic in other countries, sporadic imported and travel-related cases continue to appear across the province.
Rabies		No non-imported human cases in Ontario in 20+ yrs. Animals with highest incidence in Ontario are: bats, skunks, foxes and livestock. Cats and dogs can also become infected with rabies.				

[^] All disease counts are reported by calendar year except influenza, which are reported by flu season (September to August).

* Outbreak years are excluded from historical average calculations.

** There is no historical data available for Haemophilus influenzae, all types, as prior to 2018, only type B of Haemophilus influenzae was reportable.

For infectious disease statistics in Simcoe Muskoka and Ontario, please visit:

www.simcoemuskokahealthstats.org

Please continue to report all confirmed or suspected cases of Diseases of Public Health Significance to the SMDHU via phone: 705-721-7520 ext. 8809 (After hours: 1-888-225-7851) or fax: 705-733-7738.

For more information and resources on infectious diseases, please go to our Health Professionals Portal:

www.smdhu.org/HPportal

SMDHU's Weekly Influenza News is released weekly throughout flu season: www.smdhu.org/WeeklyFluNews

Sign up to receive electronic copies of SMDHU's HealthFAX: <http://smdhu.org/eHealthFAX>