Annual Infectious Disease Surveillance Report (2018): Disease of Public Health Significance (DOPHS) Cases for January to December 2018

Confirmed Reportable Disease	2018–Case Counts by Quarter (HNHU)				2018–Total (HNHU)		2018–Total (ON)		2014 to 2018–Avg. Total (HNHU)	
	Q1	Q2	Q3	Q4	Count	Rate (per 100,000 population)	Count	Rate (per 100,000 population)	Count	Rate (per 100,000 population)
Acute Flaccid Paralysis	0	0	0	0	0	0	15	0.10	0	0
AIDS	0	1	1	1	3	2.7	81	0.56	2.2	2
Amebiasis	0	0	0	0	0	0	100	0.69	0.2	0.2
Blastomycosis~	0	0	0	0	0	0	62	0.43	0	0
Botulism	0	0	0	0	0	0	3	0.02	0	0
Brucellosis	0	0	0	0	0	0	10	0.07	0	0
Campylobacter Enteritis	3	7	13	9	32	28.6	3430	23.76	36	32.4
Carbapenemase–Producing Enterobacteriaceae (CPE)~	0	0	1	3	4	3.6	198	1.37	0.8	3.6
Chlamydial Infections	51	65	66	73	255	227.9	47900	331.74	200.8	180.5
Cholera	0	0	0	0	0	0	0	0	0	0
Cryptosporidiosis	1	3	6	0	10	8.9	751	5.20	4.2	8.9
Cyclosporiasis	1	1	1	0	3	2.7	269	1.86	0.8	0.7
Echinococcus Multilocularis Infection~	0	0	0	0	0	0	1	0.01	0	0
Encephalitis	0	0	0	0	0	0	38	0.26	0	0
Encephalitis/Meningitis	0	1	1	0	2	1.8	159	1.10	2.8	1.8
Food Poisoning, All Causes	2	0	0	0	2	1.8	52	0.36	0.6	0.5
Giardiasis	0	1	4	1	6	5.4	1525	10.56	7.6	6.8
Gonorrhoea (All Types)	5	6	9	10	30	26.8	10431	72.24	26.4	23.7

Confirmed Reportable Disease	2018–Case Counts by Quarter (HNHU)				2018–Total (HNHU)		2018–Total (ON)		2014 to 2018–Avg. Total (HNHU)	
	Q1	Q2	Q3	Q4	Count	Rate (per 100,000 population)	Count	Rate (per 100,000 population)	Count	Rate (per 100,000 population)
Group A, Streptococcal Disease, Invasive	3	2	1	2	8	7.2	52	0.41	0.6	0.3
Group B, Streptococcal Disease, Neonatal	1	1	0	0	2	1.8	59	0.41	0.6	0.5
Haemophilus Influenzae Disease, All Types, Invasive*	0	0	0	1	1	0.9	201	1.39	0.2	0.2
Hepatitis A	0	0	0	1	1	0.9	220	1.52	0.8	0.7
Hepatitis B (Chronic)	1	0	1	1	3	2.7	90	0.62	1.8	1.6
Hepatitis C	17	10	7	7	41	36.6	5278	36.55	42	37.8
HIV	0	1	1	1	3	2.7	905	6.27	2.2	2
Influenza	97	9	0	12	118	105.5	19147	132.61	93.8	84.3
Legionellosis	1	0	1	1	3	2.7	333	2.31	1	0.9
Leprosy	0	0	0	0	0	0	5	0.03	0	0
Listeriosis	1	0	0	0	1	0.9	77	0.53	0.8	0.7
Lyme Disease	0	0	2	1	3	2.7	577	4.00	3.6	3.2
Measles	0	0	0	0	0	0	8	0.06	0	0
Meningitis	0	1	1	1	3	2.7	235	1.63	1.2	1.1
Meningococcal Disease, Invasive	0	0	0	0	0	0	32	0.22	0	0
Mumps	0	0	0	0	0	0	87	0.60	0	0
Ophthalmia Neonatorum	0	0	0	0	0	0	1	0.01	0	0
Paralytic Shellfish Poisoning	0	0	0	0	0	0	0	0	0	0
Paratyphoid Fever	0	0	0	0	0	0	27	0.19	0	0

Confirmed Reportable Disease	2018–Case Counts by Quarter (HNHU)				2018–Total (HNHU)		2018–Total (ON)		2014 to 2018–Avg. Total (HNHU)	
	Q1	Q2	Q3	Q4	Count	Rate (per 100,000 population)	Count	Rate (per 100,000 population)	Count	Rate (per 100,000 population)
Pertussis (Whopping Cough)	4	3	0	0	7	6.3	336	2.33	6.8	6.1
Q Fever	0	0	0	1	1	0.9	7	0.05	0	0.4
Rabies	0	0	0	0	0	0	0	0	0	0
Rubella	0	0	0	0	0	0	0	0	0	0
Rubella, Congenital Syndrome	0	0	0	0	0	0	0	0	0	0
Salmonellosis	6	1	7	5	19	17	2668	18.48	25.2	22.7
Shigellosis	0	0	1	0	1	0.9	317	2.20	0.8	0.7
Streptococcus Pneumoniae, Invasive	3	2	2	4	11	9.8	1294	8.96	10.8	9.9
Syphilis, Early Congenital	0	0	0	0	0	0	1	0.01	0	0
Syphilis, Infectious	1	1	1	1	4	3.6	1906	13.20	3	2.9
Syphilis, Other	1	2	0	0	3	2.7	908	6.29	1.8	1.4
Tetanus	0	0	0	0	0	0	0	0	0	0
Tuberculosis	0	0	0	0	0	0	662	4.58	0.2	0.2
Tularemia	0	0	0	0	0	0	0	0	0	0
Typhoid Fever	0	0	0	0	0	0	107	0.74	0	0
Verotoxin Producing E. coli Including HUS	0	0	0	0	0	0	173	1.20	1.6	1.4
West Nile Virus Illness	0	0	6	0	6	5.4	123	0.85	1.6	1.4
Yersiniosis	1	0	1	0	2	1.8	299	2.07	1.2	1.1

General Data Notes and Caveats:

- This report contains recent data on Diseases of Public Health Significance (DOPHS) in Haldimand Norfolk Health Unit (HNHU) and Ontario (ON) as reported through the Integrated Public Health Information System (iPHIS). The presented cases are confirmed counts and rates for all diseases. The last two columns of the table provide comparison of historical data of 5–year average total count and rate (per 100,000 population). Population Estimates and Projections was used from Public Health Ontario in order to calculate disease rates. Case counts are current as of the most recent Wednesday at 7:00 am and thereby, data extracted from iPHIS represent a snap shot at the time of extraction and may differ from previous or subsequent reports. Quarters (2018): Q1–Jan to March; Q2–April to June; Q3–July to Sept; Q4–Oct to Dec. Data Source: iPHIS; Date Last Extracted: Aug 1, 2019.
- The data only represent cases reported to public health and recorded in iPHIS. As a result, all counts will be subject to varying degrees of underreporting due to a variety of factors, such as disease awareness and medical care seeking behaviours which may depend on severity of illness, clinical practice, changes in laboratory testing, and reporting behaviours.
- Only provincial case classifications, as listed in the Ontario Ministry of Health and Long-Term Care (MOHLTC) surveillance case definitions are included in the report counts. Cases are excluded if they do not meet the provincial case classifications in place at the time that the case was reported. Changes to provincial surveillance case definitions and disease classifications have occurred over the years. Cases are classified in iPHIS according to the Ontario Ministry of Health and Long-Term Care (MOHLTC) surveillance case definitions used at the time the case was identified.
- Cases are reported based on "episode date", with the exception of CPE, HIV, AIDS, and TB. The episode date is an estimate of the onset date of disease for a case. In order to determine the episode date, the following hierarchy is in place in iPHIS: Onset Date > Specimen Collection Date > Lab Test Date > Reported Date. If an onset date exists it will be used as the episode date. If not available, then the next available date in the hierarchy will be used. For congenital rubella syndrome, the 'episode date' is the case's date of birth.
- Orientation of case counts by geography is based on the diagnosing health unit (DHU). DHU refers to the case's public health unit of residence at the time of illness onset and not necessarily the location of exposure. Cases for which the DHU was reported as MOHLTC (to signify a case that is not a resident of Ontario) or Muskoka Parry Sound (a public health unit that no longer exists) have been excluded from all analyses.
- Cases for which the Disposition Status was reported as ENTERED IN ERROR, DOES NOT MEET DEFINITION, DUPLICATE-DO NOT USE, or any variation on these values have been excluded.
- The potential for duplicates exists because duplicate sets were not identified and excluded unless they were resolved at either the local or provincial level prior to data extraction from iPHIS.
- Cases of recently reported diseases that are rare (e.g., chancroid, hemorrhagic fever, Lassa fever, plague, psittacosis, rubella, SARS, tetanus, tularemia, yellow fever, etc.) should be interpreted with caution, as follow-up and verification by public health units may still be in progress and may result in updates to the iPHIS records.

Data Notes and Caveats for Enteric Diseases:

- For amebiasis, *Campylobacter enteritis*, cryptosporidiosis, cyclosporiasis, salmonellosis, shigellosis, verotoxin-producing *E. coli*, yersiniosis: From 2009 onwards, both symptomatic and asymptomatic individuals are included under the confirmed case definition, whereas previously only symptomatic cases were reportable. This impact of these changes on confirmed case counts was minimal.
- For botulism, *Campylobacter enteritis*, cholera, cryptosporidiosis, cyclosporiasis, giardiasis, paratyphoid fever, salmonellosis, shigellosis, typhoid fever, verotoxin-producing *E. coli*, yersiniosis: From 2009 onwards, symptomatic individuals with an epidemiologic link to one or more laboratory-confirmed cases are counted as probable, whereas they were previously counted as confirmed. However, provincial analyses of enteric disease cases typically include only confirmed cases, due to the limited number of probable and/or suspect cases reported and variability in reporting across public health units, except for amebiasis as described below.
- Amebiasis: To ensure valid comparisons over time, probable cases should be included from 2009 onwards due to changes to the case definition, as these cases would have previously been classified as confirmed cases. After this date, cases with laboratory test results that do not differentiate between the non-pathogenic *Entamoeba dispar* and the pathogenic *E. histolytica* are counted as probable, whereas they were previously counted as confirmed.
- Botulism: As of December 2014, the criteria for a suspect case was updated slightly such that individuals with strongly suggestive clinical evidence of botulism (as determined by a Medical Officer of Health or attending physician), in the absence of laboratory confirmation or an epidemiologic link, are considered suspect.
- Hepatitis A: From 2009 onwards, symptomatic individuals with an epidemiologic link to a laboratory-confirmed case are counted as probable if they have not themselves been established as having immunoglobulin M (IgM) antibody to hepatitis A virus (anti-HAV), whereas they were previously counted as confirmed. A caveat was also included in the confirmed definition in 2009 to specify that cases must have not received a recent hepatitis A vaccination. The updated confirmed definition also further specifies clinically compatible symptoms as acute illness with discrete onset of symptoms and jaundice or elevated serum aminotransferase levels. Lastly, from 2009 onwards, asymptomatic individuals who are anti-HAV IgM-positive are no longer reportable without an epidemiologic link to a laboratory-confirmed case. The impact of these changes on Hepatitis A epidemiological trends is unclear.
- Listeriosis: From 2009 onwards, a probable case definition was added to capture symptomatic individuals with an epidemiologic link to a laboratory-confirmed case or a confirmed source (i.e., food item).
- Paratyphoid fever: In December 2014, the confirmed case definition was clarified to state that *S.* Paratyphi B variant Java must be excluded from counts of paratyphoid fever, as these cases are reported as salmonellosis.
- Verotoxin-producing *E. coli* (VTEC) infection indicator conditions, including Haemolytic Uraemic Syndrome (HUS): While all VTEC (including non-O157 VTEC) must be reported in Ontario, stool samples are not routinely screened for non-O157 VTEC at front line laboratories and

very few cases of HUS are reported in the absence of laboratory confirmed O157 VTEC. Case counts reported under this case definition are, therefore, most representative of O157 VTEC incidence in Ontario.

Data Notes and Caveats for Vectorborne Diseases:

- With the exception of Lyme disease and West Nile Virus as described below, provincial analyses of vectorborne disease cases (which also include malaria and yellow fever) typically include only confirmed cases, due to the limited number of probable cases reported and variability in reporting across public health units.
- Lyme disease: To ensure valid comparisons over time, the sum of confirmed and probable cases from 2009 onwards is comparable to confirmed case counts prior to 2009. This arose from case definition changes in 2009, which resulted in a large proportion of cases that had previously been classified as confirmed thereafter being classified as probable.
- West Nile Virus (WNV): Since 2002, both confirmed and probable cases have been included in provincial analyses of WNV. National WNV data make no distinction between confirmed and probable case counts
- Malaria: As of May 1, 2018, malaria was removed from the list of diseases of public health significance in Ontario.
- Yellow fever: As of May 1, 2018, yellow fever was removed from the list of diseases of public health significance in Ontario.

Data Notes and Caveats for Zoonotic Diseases:

- Provincial analyses of most zoonotic disease cases (which include anthrax, brucellosis, Hantavirus pulmonary syndrome, plague, psittacosis/ornithosis, Q fever, rabies, trichinosis and tularemia) typically include only confirmed cases, due to the limited number of probable and/or suspect cases reported and variability in reporting across public health units.
- Due to small counts of zoonotic diseases, the impact of surveillance case definition changes is unlikely to greatly influence interpretation of the trends observed. Refer to the surveillance case definition files for the latest version of the case definitions along with a history of all changes from 2013 onwards.

Data Notes and Caveats for Vaccine Preventable Diseases (VPD):

- Provincial analyses of VPD typically include case classifications that are reportable at the provincial level (refer to Appendix B – or Table if included under general caveats). An exception is for measles, rubella and congenital rubella syndrome where probable cases are excluded from provincial analyses despite being reportable at the provincial level since strict criteria are required to identify cases under Canada's elimination status.
- Reporting on probable cases for some diseases was instituted following case definition change on April 28, 2009 because cases that previously met the confirmed case definition were subsequently required to be reported as probable. To facilitate trending over time,

probable cases should be included as of April 28, 2009 for pertussis, mumps, Haemophilus influenzae (Hi), and invasive meningococcal disease.

- Chickenpox (varicella): In Ontario, cases of varicella are reported both individually and in aggregate numbers. Cases reported in aggregate have been excluded from ID Query as they are not reliably reported. Counts are only available for individual case-by-case reports which reflect laboratory-confirmed cases, cases with complications including death, and hospitalized cases.
- Haemophilus influenzae, all types (Hi): Significant changes to the reporting requirements for Haemophilus influenzae (Hi) took effect as of May 1, 2018. Therefore, users are advised against comparing trends before and after May 1, 2018, as these data are not comparable. Prior to May 1, 2018, only serotype b was reportable and was thus the only serotype reflected in trends of Hi. As of May 1, 2018, all serotypes (a, b, c, d, e, f, non-typeable, and undifferentiated) were added to the list of diseases of public health significance and were thus all included in trends of Hi. Furthermore, changes were made to the case definition such that some cases previously reported as a probable case of Hi (serotype b) were subsequently required to be reported as a confirmed case of Hi. Serotype information should be considered when conducting an epidemiological analysis of Hi in Ontario to differentiate between vaccine and non-vaccine serotypes. However, serotype data are not currently available through ID Query. Interpretation of data prior to 2012 must be made with caution, as this was prior to detailed provincial follow-up. Case counts for Hib presented in ID Query (which are derived solely using iPHIS data) may not be consistent with case counts presented in historical surveillance products published by PHO, which may use iPHIS data linked to Public Health Ontario Laboratories (PHOL) data. The use of additional data from PHOL is to identify additional confirmed cases of disease and/or obtain serotype information.
- Invasive meningococcal disease: Serogroup information should be considered when conducting an epidemiological analysis of invasive meningococcal disease in Ontario as vaccine programs have impacted serogroup distribution. Serogroup data are not currently available through ID Query. Case counts for IMD presented in ID Query (which are derived solely using iPHIS data) may not be consistent with case counts presented in historical surveillance products published by PHO, which may use iPHIS data linked to Public Health Ontario Laboratories (PHOL) data. The use of additional data from PHOL is to identify additional confirmed cases of disease and to ensure accurate reporting of serogroup data.
- Invasive pneumococcal disease: Serotype information should be considered when conducting an epidemiological analysis of invasive pneumococcal disease in Ontario to differentiate between vaccine and non-vaccine serotypes. Serotype data are not currently available through ID Query.
- Measles: Measles has been eliminated from Canada since 1997. Despite measles elimination, Ontario continues to experience ongoing measles activity due to importation of cases from parts of the world where the disease remains endemic. Exposure data, including case travel information, are currently not available through ID Query. Users should be aware that enhanced surveillance activities to document the elimination of measles commenced in 2012 which may impact trend analyses.

- Pertussis: Users should be aware that pertussis follows a cyclical incidence pattern with peaks observed every three to five years. Changes to laboratory testing may also impact temporal trends; testing by polymerase chain reaction (PCR), a more sensitive diagnostic tool, was first implemented in 1998, followed by real-time PCR in 2005. Effective 2009, the minimum threshold used to determine a positive PCR result was increased, leading to a reduction in the number of positive cases identified through PCR.
- Rubella and congenital rubella syndrome: Rubella and congenital rubella syndrome (CRS) have been eliminated from Canada since 2005 and 2000, respectively. Despite elimination, Ontario has had rare cases due to travel to other parts of the world where the disease remains endemic. Exposure data are currently not available through ID Query. Users should also be aware that although the practice is discouraged, some public health units may enter reactive prenatal serology results as a confirmed rubella case until case investigation is completed and the case is reclassified as 'does not meet'. Users should also be aware that enhanced surveillance activities to document the elimination of rubella commenced in 2012 which may impact trend analyses.

Data Notes and Caveats for Sexually Transmitted Infections and Blood Borne Infections:

- Chancroid: No confirmed cases of chancroid have been reported in Ontario since 1997. Since this disease is so rare in Ontario, for any case of chancroid that is reported and entered in iPHIS, PHO contacts the public health unit to verify the diagnosis.
- Cytomegalovirus infection, congenital: Until 2009, a suspect case definition was available for congenital cytomegalovirus infection. As of April 28, 2009, the suspect case definition was removed and a probable case definition was added to capture cases with clinical manifestations in the absence of lab confirmation. As of December 4, 2013, congenital cytomegalovirus infection was removed from the list of reportable diseases in Ontario.
- Chlamydia: A probable case definition was added in 2014 to include epidemiologically-linked cases with clinical manifestation in the absence of lab confirmation. Provincial analyses of trends over time typically exclude probable cases due to the limited number of cases reported under this case classification. Changes in screening guidelines and testing practices have had an impact on case incidence over time. Chlamydia remains largely underreported, likely due to the large proportion of cases that are asymptomatic.
- Gonorrhea: A probable case definition was added in 2014 to include epidemiologically-linked cases with clinical manifestation in the absence of lab confirmation. Provincial analyses of trends over time typically exclude probable cases due to the limited number of cases reported under this case classification. Changes in screening guidelines and testing practices, as well as evolving resistance to various first-line treatments, have had an impact on case incidence over time. Gonorrhea remains largely underreported, likely due to the large proportion of cases that are asymptomatic.
- Group B streptococcal disease, neonatal: As of April 28, 2009, the suspect case classification was converted to a probable case classification. Provincial analyses of trends over time typically exclude probable cases due to the limited number of cases reported under this classification.

- Hepatitis B: ID Query at PHO only includes acute cases (confirmed or probable) of Hepatitis B. The probable case classification was added as of April 28, 2009.
- Hepatitis C: Confirmed cases of hepatitis C virus includes all cases with a positive antibody test result and therefore includes people with acute infections, spontaneously resolved acute infections, chronic infections or who received effective anti-viral therapies leading to a sustained virological result (i.e. cure). Incidence of hepatitis C infections represents cases reported to public health in a given year, although infection may have taken place in a prior year.
- Hepatitis D: As of December 4, 2013, hepatitis D was removed from the list of reportable diseases in Ontario.
- Herpes, Neonatal: As of December 4, 2013, neonatal herpes was removed from the list of reportable diseases in Ontario.
- HIV/AIDS: Individuals with laboratory-confirmed HIV infection are entered in iPHIS as an HIV/AIDS carrier with a classification of 'Carrier'. If an individual infected with HIV develops one or more AIDS indicative diseases, and this information is reported to the Public Health Unit, they are subsequently updated to a case with a classification of 'Confirmed'. To obtain the total number of HIV cases in a given time period, all HIV/AIDS carriers classified as 'Carrier' and cases classified as Confirmed' in iPHIS were combined. Reported incidence for HIV represents positive tests identifying newly reported HIV infections in the given year, although infection may have taken place in the past. HIV diagnosis may be coincident with AIDS diagnosis in the same year, and as such may be included in counts for both in a given year. HIV cases are counted based on the 'Encounter Date' while AIDS cases are counted based on the 'Diagnosis Date' (the date the individual was diagnosed with AIDS) entered in iPHIS. As of April 28, 2009 a positive lab confirmation of HIV is required for entry of a confirmed HIV/AIDS case and the list of AIDS indicative diseases was expanded to include additional diseases that were not on the list for the previous case definition. With HIV cases, the potential for duplicates exists due to the option of anonymous testing, which can impact provincial case counts.
- Ophthalmia Neonatorum: As of April 28, 2009 a probable case classification was added for ophthalmia neonatorum to capture cases with clinical evidence and maternal laboratory confirmation of *Neisseria gonorrhoeae* or *Chlamydia trachomatis* in the absence of laboratory evidence for the infant. In addition, conjunctivitis was removed from the required criteria for confirmed cases.
- Syphilis: Confirmation of syphilis staging takes time. As a result, case counts for syphilis do not start to become stable for at least three months. For example, syphilis case counts for January only start to stabilize in April. As of April 28, 2009, unspecified neurosyphilis was divided into infectious and non-infectious neurosyphilis. Infectious neurosyphilis cases previously captured under the general category of neurosyphilis are now captured along with cases in primary, secondary and early latent syphilis stages under the grouping of infectious syphilis. As of April 28, 2009, the timeframe for early latent infection was reduced from two years to one year, which would have resulted in some infections that would previously have been considered early latent subsequently being categorized as late latent and therefore non-infectious syphilis. These changes may have had an impact on trends over time.

Data Notes and Caveats for Respiratory Diseases:

- Blastomycosis: As of May 1, 2018, blastomycosis was added to the list of diseases of public health significance. Therefore, case counts of blastomycosis in 2018 only represent a partial year.
- Group A streptococcal disease, invasive: As of April 28, 2009, a probable case classification was added for invasive Group A streptococcal disease (iGAS) to capture cases for which there was evidence of clinical severity in a person with an epidemiological link to a laboratory-confirmed case. Provincial analyses of trends over time typically exclude probable cases due to the limited number of cases reported under this case classification. In 2011, the confirmed case classification for iGAS was updated to include pneumonia and death as criteria indicative of clinical severity. This change increased the sensitivity of the case definition and may account, to some degree, for the increase in cases observed since 2011. In December 2014, pneumonia was removed from the case definition as a criterion for evidence of severity. As well, the probable case definition was removed. The confirmed case definition was amended to capture cases with laboratory evidence (GAS isolates) from non-sterile sites and evidence of severity. This may lead to an increase in confirmed cases.
- Influenza: During the pandemic, counts of influenza A (H1N1) pdm09 were reported in aggregate from June 2009 until February 2010. Individual case records for influenza A (H1N1) pdm09 were not required to be entered into iPHIS during this time. As a result, the influenza counts, which are based on individual case records, represent an underestimate of the true number of influenza cases reported during the time period of June 2009 to February 2010. Changes to laboratory test methods, such as the wider use of more sensitive molecular methods since the 2009 influenza A H1N1 pandemic, may affect temporal trends. Similarly, the use of more sensitive tests in hospitalized patients and institutional outbreak settings may also increase the likelihood of positive influenza diagnoses among these individuals. Certain age groups/genders may be more likely to present for medical care, and therefore have laboratory testing performed resulting in a higher likelihood of being included as cases.
- Legionellosis: As of April 28, 2009, the case definition was updated to include a probable case classification, and new validated laboratory tests for cases were added. While trends over time have demonstrated a notable increase in legionellosis, this may have been due, in part, to increased testing with less invasive methods. Since 2013 there has been a notable decrease in cases. The reason for this decrease is unknown.
- Tuberculosis: Confirmed and suspect cases of active tuberculosis (TB) are included in data extracted for ID Query, while latent TB infections are not included. These data include both culture and clinically confirmed cases of tuberculosis. TB is counted based on 'Diagnosis Date' in iPHIS (the date the individual was diagnosed with active TB), not by symptom onset date. Data are reported by the public health unit the individual resides in 'most of the time' and not necessarily the place of TB exposure or acquisition. An annual data cleanup occurs by public health units across the province to review case counts and key data elements as part of national reporting to the Public Health Agency of Canada (PHAC); however, reporting practices and completeness may vary by public health unit. With lower numbers of cases reported in less populous public health units, the rates for these health units may be highly variable and as such should be reported with caution. Also, since Aboriginal persons or persons living on reserves with TB in Ontario fall within the federal jurisdiction

of Health Canada, First Nations and Inuit Health Branch (FNIHB), information on these cases may not be consistently reported to public health units or entered into iPHIS when public health units are notified.

Data Notes and Caveats for Other Diseases:

- Encephalitis/meningitis: This is a non-specific disease category. Encephalitis and meningitis may be caused by any number of viral, bacterial, or other pathogens which, in many cases, may not be identified. If laboratory testing identifies a pathogen that is a disease of public health significance (DOPHS), these cases will be updated in iPHIS such that they are removed from the disease category encephalitis/meningitis and reported via the appropriate disease identified. Within the appropriate disease designated under DOPHS, encephalitis/meningitis can be recorded as a symptom or complication. In the event that the agent is not specifically identified, or the agent responsible is not reportable under another DOPHS, these cases will remain reported as cases of encephalitis/meningitis. Note that the causative agents, even if known, are not included in the ID Query data.
- Creutzfeldt-Jakob Disease: The counts of Creutzfeldt-Jakob Disease (CJD), All Types represent only those cases reported to public health units and recorded in iPHIS. These counts are an underestimate because some cases or final case findings may have only been reported to the Public Health Agency of Canada's CJD Surveillance System.
- Hemorrhagic Fevers: This refers to a group of illnesses caused mainly by viruses that belong to several different families, including Ebola, Marburg disease, and dengue fever. These viruses are not endemic in Ontario, and as such, cases are rare and travel-associated. As of April 28, 2009, suspect and probable classifications were added to the case definition requiring varying degrees of confirmatory evidence; as well, additional laboratory testing methods were added for confirmed cases.
- Carbapenemase-Producing Enterobacteriaceae (CPE): Case counts of CPE include CPE -Infection, CPE-Colonization, CPE-Unspecified. Where multiple reports with the same carbapenemase are entered in IPHIS for a client, only the first report is included. CPE case counts are based on the earliest specimen collection date (cases with missing specimen collection dates are excluded). Only confirmed cases of CPE are included in provincial analyses of CPE trends.