

Alberta

Notifiable Disease

Summary 2019

Health, Government of Alberta

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Key Highlights

- **Dengue:** There were 105 cases of dengue fever reported in Alberta in 2019. In the previous four years, the highest number of cases reported was 59. Most of the cases were among people who travelled to Mexico (n=22), India (n=18), or the Philippines (n=15). In 2019, there were 4.2 million cases reported worldwide which was the highest number of cases reported to date (World Health Organization [2020](#)).
- **Measles:** In 2019, there were four cases of measles reported, of which three cases likely acquired measles out of country, and one was epi-linked to an imported case. These cases were reported in the Edmonton Zone (n=2) and the Calgary Zone (n=2).
- **Syphilis:** Cases of infectious syphilis in Alberta increased 47 per cent since the previous year (from 1,545 to 2,265 cases) and 521 per cent over the past five years (from 365 to 2,265 cases). There were 44 cases of congenital syphilis (mother-to-child transmission) identified in 2019 compared with 14 cases identified in 2018. The increase in infectious syphilis follows similar trends in other countries such as the United Kingdom, Australia, USA, and Japan (Spiteri et al. [2019](#)). The increase is concerning due to the risk of severe outcomes associated with congenital syphilis and neurosyphilis, which can occur at any stage of infection.
- **Gonorrhoea:** Cases of gonorrhoea are also on the rise in Alberta, which is of global concern due to increasing rates of antibiotic and multi-drug resistance. There was a 7 per cent increase in cases from the previous year (from 5,004 to 5,333 cases) and a 58 per cent increase over the past five years (from 3,365 to 5,333 cases). Although the proportion of gonococcal isolates resistant to recommended dual therapy (cefixime/ceftriaxone and azithromycin) in Alberta is low (Gratrix et al. [2018](#)), multi-drug resistant *Neisseria gonorrhoea* in Canada is increasing (Martin et al. [2019](#)).
- **Rare Or Emerging Communicable Diseases:** There were three diagnoses of *Taenia* and one diagnosis of *Candida Auris* in Alberta in 2019.
- Additional information is available on Alberta Health's [Interactive Health Data Application \(IHDA\)](#) and in [Supplementary Alberta Health Reports](#).

Table 1 Total number of notifiable communicable diseases reported in Alberta, 2015 to 2019

Disease Name	2015	2016	2017	2018	2019
Acute Flaccid Paralysis	5	5	2	7	6
Amoebiasis	60	52	38	56	28
Botulism	1	1	0	1	0
Brucellosis	0	2	2	1	1
Campylobacteriosis	913	1,017	1,034	1,118	1,106
Carbapenemase Producing Organisms	83	54	45	45	70
Chikungunya Virus	20	18	9	5	13
Chlamydia (including Lymphogranuloma venereum)	17,269	16,361	16,586	17,374	18,206
Congenital Cytomegalovirus	11	7	15	1	0
Congenital Toxoplasmosis	1	1	0	0	0
Creutzfeldt-Jakob Disease, Classic	7	9	13	9	9
Cryptococcus (Gattii)	1	1	2	2	0
Cryptosporidiosis	161	182	127	187	138
Dengue Fever	59	59	28	44	105
Diphtheria, Toxigenic - Cutaneous	0	0	2	2	3
Escherichia coli (Vertoxigenic)	121	145	138	338	393
Flavivirus (Other)	0	21	6	20	14
Giardiasis	384	410	345	423	425
Gonorrhea	3,365	3,702	4,754	5,004	5,333
Haemolytic Uremic Syndrome	3	11	16	13	13
Haemophilus Influenzae - Non-Serotype B, Invasive	63	77	51	48	67
Haemophilus Influenzae - Serotype B, Invasive	1	0	1	3	0
Hantavirus	4	2	3	2	4
Hepatitis A	34	57	41	56	52
Hepatitis B	812	848	788	688	739
Hepatitis B (acute cases)	19	20	22	20	23
Hepatitis B (chronic carriers)	788	822	746	663	697
Hepatitis B (unknown carrier status)	5	6	20	5	19
Hepatitis C	1,493	1,664	1,477	1,452	1,327
Hepatitis C (acute cases)	94	147	130	148	154
Hepatitis C (chronic carriers)	1,380	1,498	1,336	1,285	1,140
Hepatitis C (unknown carrier status)	19	19	11	19	33
Hepatitis E	4	14	11	3	5
Herpes Simplex, Neonatal	2	3	2	0	0
Histoplasmosis	2	3	6	6	5
Human Immunodeficiency Virus	231	285	286	250	253
Influenza A, Seasonal	1,205	5,333	3,630	1,641	1,281
Influenza B, Seasonal	840	1,599	1,083	596	300
Jamestown Canyon Virus	5	2	1	0	0
Japanese Encephalitis	0	0	0	1	0
Kawasaki Disease	1	1	1	0	0
Legionellosis	6	7	13	13	16
Leprosy	3	1	0	4	0
Listeriosis (Includes Congenital)	6	8	5	15	11
Lyme Disease	14	10	13	15	14
Malaria	100	106	83	102	99
Measles	0	1	2	6	4
Meningococcal Disease, Invasive	10	8	8	23	14
Mumps	4	8	115	19	33
Paratyphoid Fever - Case And Carrier	12	5	9	10	23

(continued)

Disease Name	2015	2016	2017	2018	2019
Pertussis	628	337	1,054	273	344
Pneumococcal Disease, Invasive	461	473	453	481	426
Q Fever	2	3	3	2	0
Rare Or Emerging Communicable Disease	0	0	6	5	4
Rickettsial Infection - including Rocky Mountain Spotted Fever	1	0	0	2	1
Salmonellosis	1,198	1,145	1,071	934	753
Severe Respiratory Illness (SRI)	2	0	0	0	0
Shellfish Poisoning	0	0	1	0	0
Shigellosis	99	74	87	78	105
Snowshoe Hare Virus Infection	1	0	1	0	0
Streptococcal Disease - Group A, Invasive	302	335	439	397	410
Streptococcal Disease - Group B, Newborn	38	30	31	1	0
Syphilis, Congenital	1	0	7	14	44
Syphilis, Infectious (Primary, secondary and early latent)	365	414	534	1,545	2,265
Syphilis, Non-infectious (Late latent)	234	245	203	228	293
Tetanus	2	1	0	0	0
Tuberculosis	210	238	225	222	246
Tularemia	1	1	1	0	1
Typhoid Fever - Case And Carrier	27	19	26	23	30
Typhus, Louseborne	0	0	0	1	0
Typhus, Murine	1	0	0	0	0
Varicella (Chickenpox) Hospitalized	11	12	6	12	4
Vibrio Cholerae Infection (Non O1,Non O139)	7	3	2	5	0
Vibrio Parahaemolyticus	27	5	3	8	2
West Nile Virus, Asymptomatic Infection	0	0	0	5	0
West Nile Virus, Neurological Syndrome	0	1	2	8	2
West Nile Virus, Non-Neurological Syndrome	0	4	5	37	2
Yersiniosis	52	56	53	54	44
Zika Virus	1	43	7	2	5

Note:

Year is based on diagnosis date.

Numbers may change from previous reports due to improvements in data cleaning and delayed reporting.

Table 2 Rates (per 100,000 population) of notifiable communicable diseases reported in Alberta, 2015 to 2019

Disease Name	2015	2016	2017	2018	2019
Acute Flaccid Paralysis	0.12	0.12	0.05	0.16	0.14
Amoebiasis	1.45	1.24	0.90	1.30	0.64
Botulism	0.02	0.02	0.00	0.02	0.00
Brucellosis	0.00	0.05	0.05	0.02	0.02
Campylobacteriosis	22.03	24.24	24.37	26.00	25.30
Carbapenemase Producing Organisms	2.00	1.29	1.06	1.05	1.60
Chikungunya Virus	0.48	0.43	0.21	0.12	0.30
Chlamydia (including Lymphogranuloma venereum)	416.67	389.91	390.85	403.98	416.49
Congenital Cytomegalovirus	0.27	0.17	0.35	0.02	0.00
Congenital Toxoplasmosis	0.02	0.02	0.00	0.00	0.00
Creutzfeldt-Jakob Disease, Classic	0.17	0.21	0.31	0.21	0.21
Cryptococcus (Gattii)	0.02	0.02	0.05	0.05	0.00
Cryptosporidiosis	3.88	4.34	2.99	4.35	3.16
Dengue Fever	1.42	1.41	0.66	1.02	2.40
Diphtheria, Toxigenic - Cutaneous	0.00	0.00	0.05	0.05	0.07
Escherichia coli (Vertoxigenic)	2.92	3.46	3.25	7.86	8.99
Flavivirus (Other)	0.00	0.50	0.14	0.47	0.32
Giardiasis	9.27	9.77	8.13	9.84	9.72
Gonorrhea	81.19	88.23	112.03	116.35	122.00
Haemolytic Uremic Syndrome	0.07	0.26	0.38	0.30	0.30
Haemophilus Influenzae - Non-Serotype B, Invasive	1.52	1.84	1.20	1.12	1.53
Haemophilus Influenzae - Serotype B, Invasive	0.02	0.00	0.02	0.07	0.00
Hantavirus	0.10	0.05	0.07	0.05	0.09
Hepatitis A	0.82	1.36	0.97	1.30	1.19
Hepatitis B	19.59	20.21	18.57	16.00	16.91
Hepatitis B (acute cases)	0.46	0.48	0.52	0.47	0.53
Hepatitis B (chronic carriers)	19.01	19.59	17.58	15.42	15.94
Hepatitis B (unknown carrier status)	0.12	0.14	0.47	0.12	0.43
Hepatitis C	36.02	39.66	34.81	33.76	30.36
Hepatitis C (acute cases)	2.27	3.50	3.06	3.44	3.52
Hepatitis C (chronic carriers)	33.30	35.70	31.48	29.88	26.08
Hepatitis C (unknown carrier status)	0.46	0.45	0.26	0.44	0.75
Hepatitis E	0.10	0.33	0.26	0.07	0.11
Herpes Simplex, Neonatal	0.05	0.07	0.05	0.00	0.00
Histoplasmosis	0.05	0.07	0.14	0.14	0.11
Human Immunodeficiency Virus	5.57	6.79	6.74	5.81	5.79
Influenza A, Seasonal	29.07	127.10	85.54	38.16	29.30
Influenza B, Seasonal	20.27	38.11	25.52	13.86	6.86
Jamestown Canyon Virus	0.12	0.05	0.02	0.00	0.00
Japanese Encephalitis	0.00	0.00	0.00	0.02	0.00
Kawasaki Disease	0.02	0.02	0.02	0.00	0.00
Legionellosis	0.14	0.17	0.31	0.30	0.37
Leprosy	0.07	0.02	0.00	0.09	0.00
Listeriosis (Includes Congenital)	0.14	0.19	0.12	0.35	0.25
Lyme Disease	0.34	0.24	0.31	0.35	0.32
Malaria	2.41	2.53	1.96	2.37	2.26
Measles	0.00	0.02	0.05	0.14	0.09
Meningococcal Disease, Invasive	0.24	0.19	0.19	0.53	0.32
Mumps	0.10	0.19	2.71	0.44	0.75
Paratyphoid Fever - Case And Carrier	0.29	0.12	0.21	0.23	0.53

(continued)

Disease Name	2015	2016	2017	2018	2019
Pertussis	15.15	8.03	24.84	6.35	7.87
Pneumococcal Disease, Invasive	11.12	11.27	10.68	11.18	9.75
Q Fever	0.05	0.07	0.07	0.05	0.00
Rare Or Emerging Communicable Disease	0.00	0.00	0.14	0.12	0.09
Rickettsial Infection - including Rocky Mountain Spotted Fever	0.02	0.00	0.00	0.05	0.02
Salmonellosis	28.91	27.29	25.24	21.72	17.23
Severe Respiratory Illness (SRI)	0.05	0.00	0.00	0.00	0.00
Shellfish Poisoning	0.00	0.00	0.02	0.00	0.00
Shigellosis	2.39	1.76	2.05	1.81	2.40
Snowshoe Hare Virus Infection	0.02	0.00	0.02	0.00	0.00
Streptococcal Disease - Group A, Invasive	7.29	7.98	10.35	9.23	9.38
Streptococcal Disease - Group B, Newborn	0.92	0.71	0.73	0.02	0.00
Syphilis, Congenital	0.02	0.00	0.16	0.33	1.01
Syphilis, Infectious (Primary, secondary and early latent)	8.81	9.87	12.58	35.92	51.81
Syphilis, Non-infectious (Late latent)	5.65	5.84	4.78	5.30	6.70
Tetanus	0.05	0.02	0.00	0.00	0.00
Tuberculosis	5.07	5.67	5.30	5.16	5.63
Tularemia	0.02	0.02	0.02	0.00	0.02
Typhoid Fever - Case And Carrier	0.65	0.45	0.61	0.53	0.69
Typhus, Louseborne	0.00	0.00	0.00	0.02	0.00
Typhus, Murine	0.02	0.00	0.00	0.00	0.00
Varicella (Chickenpox) Hospitalized	0.27	0.29	0.14	0.28	0.09
Vibrio Cholerae Infection (Non O1,Non O139)	0.17	0.07	0.05	0.12	0.00
Vibrio Parahaemolyticus	0.65	0.12	0.07	0.19	0.05
West Nile Virus, Asymptomatic Infection	0.00	0.00	0.00	0.12	0.00
West Nile Virus, Neurological Syndrome	0.00	0.02	0.05	0.19	0.05
West Nile Virus, Non-Neurological Syndrome	0.00	0.10	0.12	0.86	0.05
Yersiniosis	1.25	1.33	1.25	1.26	1.01
Zika Virus	0.02	1.02	0.16	0.05	0.11

Note:

Year is based on diagnosis date.

Numbers may change from previous reports due to improvements in data cleaning and delayed reporting.

Supplementary Alberta Health Publications

- Alberta Notifiable Disease Guidelines
<https://www.alberta.ca/notifiable-disease-guidelines.aspx>
- Alberta STI Summary Report
<https://open.alberta.ca/publications/9781460145449>
- Alberta Tick Surveillance Report
<https://open.alberta.ca/publications/2369-0690>
- Seasonal Influenza in Alberta Report
<https://open.alberta.ca/publications/2561-3154>
- Historical Trends of Selected Notifiable Communicable Diseases in Alberta, 1919 to 2014
<https://open.alberta.ca/publications/9781460125618>

References

Gratrix, Jennifer, Anmmd Kamruzzaman, Irene Martin, Petra Smyczek, Ron Read, Lindsay Bertholet, Prenilla Naidu, et al. 2018. "Surveillance for Antimicrobial Resistance in Gonorrhoea: The Alberta Model, 2012–2016." *Antibiotics* 7 (3): 63. <https://doi.org/10.3390/antibiotics7030063>.

Martin, I, P Sawatzky, V Allen, B Lefebvre, LMN Hoang, P Naidu, J Minion, et al. 2019. "Multidrug-resistant and extensively drug-resistant *Neisseria gonorrhoeae* in Canada, 2012–2016." *Canada Communicable Disease Report* 45 (2/3): 45–53. <https://doi.org/10.14745/ccdr.v45i23a01>.

Spiteri, G, M Unemo, O Mårdh, and A J Amato-Gauci. 2019. "Epidemiology and Infection The resurgence of syphilis in high-income countries in the 2000s: a focus on Europe." *Epidemiology & Infection* 147 (E143). <https://doi.org/10.1017/S0950268819000281>.

World Health Organization. 2020. "Dengue and severe dengue." <https://www.who.int/news-room/fact-sheets/detail/dengue-and-severe-dengue>.