

Alberta

Notifiable Diseases

Summary 2018

Health, Government of Alberta

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Key Highlights

- **Invasive meningococcal disease (IMD):** This year there was an increase in the number of IMD cases reported (from 8 cases in 2017 to 23 cases in 2018). This increase was mainly driven by serogroup W (from 4 cases in 2017 to 11 cases in 2018), which has also been reported in Canada (Tsang et al. 2018) and several other countries (Krone et al. 2019).
- **West Nile Virus (WNV):** 2018 was a severe year for WNV in Alberta. Fifty cases of WNV were reported in Alberta, of which 8 were neurological, 37 were non-neurological and 5 were asymptomatic. WNV was the cause of or contributed to the death of 3 neurological cases. Cases were mainly in Southern Alberta: 40 in the South Zone, 7 in the Calgary Zone and 3 cases in the Central Zone. There were 28 cases among women and 22 cases among men. The age of those affected ranged between 19 and 82 years with a mean age of 50 years and a median age of 52 years.
- **Measles:** In 2018, there were 6 cases of measles reported, of which 3 cases likely acquired measles out of country, and one was epi-linked to an out of country case. These cases were reported in the Edmonton Zone (n=4) and the Calgary Zone (n=2).
- **Syphilis:** Cases of infectious syphilis in Alberta increased 187 per cent (n=1,536) from the previous year, and 14 cases of congenital syphilis (mother-to-child transmission) were identified. 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 such as congenital syphilis and neurosyphilis, which can occur at any stage of infection.
- **Gonorrhea:** Cases of gonorrhea 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 5 per cent (n=5,009) increase in cases from the previous year and a 170 per cent increase over the past five years. Although the proportion of gonococcal isolates resistant to recommended dual therapy (cefixime and azithromycin) in Alberta is low (Gratrix et al. 2018), multi-drug resistant *Neisseria gonorrhoea* in Canada is increasing (Martin et al. 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, 2014 to 2018

Disease Name	2014	2015	2016	2017	2018
Acute Flaccid Paralysis	10	5	5	2	7
Amoebiasis	74	60	52	38	56
Botulism	0	1	1	0	1
Brucellosis	2	0	2	2	1
Campylobacteriosis	978	913	1,017	1,034	1,123
Carbapenemase Producing Organisms	50	83	54	45	45
Chikungunya Virus	2	20	18	9	5
Chlamydia (including Lymphogranuloma venereum)	16,229	17,269	16,361	16,588	17,384
Congenital Cytomegalovirus	13	11	7	15	1
Congenital Toxoplasmosis	1	1	1	0	0
Creutzfeldt-Jakob Disease, Classic	6	7	9	13	9
Cryptococcus (Gattii)	1	1	1	2	2
Cryptosporidiosis	139	161	182	127	189
Cyclosporiasis	6	8	23	4	6
Dengue Fever	53	59	59	28	44
Diphtheria, Toxigenic - Cutaneous	0	0	0	2	2
Escherichia coli (Vertoxygenic)	220	121	145	138	338
Flavivirus (Other)	0	0	21	6	21
Giardiasis	439	384	410	342	426
Gonorrhea	1,852	3,365	3,702	4,759	5,009
Haemolytic Uremic Syndrome	10	3	11	16	13
Haemophilus Influenzae - Non-Serotype B, Invasive	62	63	77	51	49
Haemophilus Influenzae - Serotype B, Invasive	1	1	0	1	3
Hantavirus	5	4	2	3	2
Hepatitis A	27	34	57	41	56
Hepatitis B (acute cases)	10	18	20	22	20
Hepatitis B (chronic carriers)	842	788	821	746	663
Hepatitis B (unknown carrier status)	11	5	7	20	6
Hepatitis C (acute cases)	146	94	147	130	148
Hepatitis C (chronic carriers)	1,250	1,380	1,498	1,335	1,293
Hepatitis C (unknown carrier status)	13	19	19	11	19
Hepatitis E	6	4	14	11	3
Herpes Simplex, Neonatal	1	2	3	2	0
Histoplasmosis	2	2	3	6	6
Human Immunodeficiency Virus	282	231	286	287	250
Influenza A, Seasonal	5,256	1,205	5,333	3,539	1,691
Influenza B, Seasonal	568	840	1,599	1,040	640
Influenza, Novel	1	0	0	0	0
Jamestown Canyon Virus	0	5	2	1	0
Japanese Encephalitis	0	0	0	0	1
Kawasaki Disease	0	1	1	1	0
Legionellosis	5	6	7	13	12
Leprosy	0	3	1	0	4
Listeriosis (Includes Congenital)	10	6	8	5	15
Lyme Disease	10	14	10	13	15
Malaria	73	100	106	83	102
Measles	29	0	1	2	6
Meningococcal Disease, Invasive	9	10	8	8	23
Mumps	8	4	8	115	19
Paratyphoid Fever - Case And Carrier	12	12	5	9	10

(continued)

Disease Name	2014	2015	2016	2017	2018
Pertussis	383	628	337	1,054	273
Pneumococcal Disease, Invasive	379	461	473	453	481
Q Fever	0	2	3	3	2
Rare Or Emerging Communicable Disease	0	0	0	6	5
Rickettsial Infection - including Rocky Mountain Spotted Fever	1	1	0	0	2
Salmonellosis	1,066	1,198	1,145	1,069	944
Severe Respiratory Illness (SRI)	1	2	0	0	0
Shellfish Poisoning	0	0	0	1	0
Shigellosis	105	99	74	86	80
Snowshoe Hare Virus Infection	0	1	0	1	0
Streptococcal Disease - Group A, Invasive	265	302	335	437	401
Streptococcal Disease - Group B, Newborn	34	38	30	31	1
Subacute Sclerosing Panencephalitis	1	0	0	0	0
Syphilis, Congenital	0	1	0	7	14
Syphilis, Infectious (Primary, secondary and early latent)	161	366	416	535	1,536
Syphilis, Non-infectious (Late latent)	258	233	243	201	224
Tetanus	0	2	1	0	0
Tuberculosis	217	210	238	225	221
Tularemia	2	1	1	1	0
Typhoid Fever - Case And Carrier	22	27	19	25	25
Typhus, Louseborne	0	0	0	0	1
Typhus, Murine	0	1	0	0	0
Varicella (Chickenpox) Hospitalized	11	11	12	6	12
Vibrio Cholerae Infection (Non O1,Non O139)	2	7	3	2	5
Vibrio Parahaemolyticus	16	27	5	3	8
West Nile Virus, Asymptomatic Infection	0	0	0	0	5
West Nile Virus, Neurological Syndrome	0	0	1	2	8
West Nile Virus, Non-Neurological Syndrome	0	0	4	5	37
Yersiniosis	42	52	56	53	54
Zika Virus	0	1	43	7	2

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, 2014 to 2018

Disease Name	2014	2015	2016	2017	2018
Acute Flaccid Paralysis	0.24	0.12	0.12	0.05	0.16
Amoebiasis	1.81	1.45	1.24	0.90	1.30
Botulism	0.00	0.02	0.02	0.00	0.02
Brucellosis	0.05	0.00	0.05	0.05	0.02
Campylobacteriosis	23.95	22.03	24.24	24.36	26.07
Carbapenemase Producing Organisms	1.22	2.00	1.29	1.06	1.04
Chikungunya Virus	0.05	0.48	0.43	0.21	0.12
Chlamydia (including Lymphogranuloma venereum)	397.41	416.67	389.91	390.86	403.61
Congenital Cytomegalovirus	0.32	0.27	0.17	0.35	0.02
Congenital Toxoplasmosis	0.02	0.02	0.02	0.00	0.00
Creutzfeldt-Jakob Disease, Classic	0.15	0.17	0.21	0.31	0.21
Cryptococcus (Gattii)	0.02	0.02	0.02	0.05	0.05
Cryptosporidiosis	3.40	3.88	4.34	2.99	4.39
Cyclosporiasis	0.15	0.19	0.55	0.09	0.14
Dengue Fever	1.30	1.42	1.41	0.66	1.02
Diphtheria, Toxigenic - Cutaneous	0.00	0.00	0.00	0.05	0.05
Escherichia coli (Vertoxygenic)	5.39	2.92	3.46	3.25	7.85
Flavivirus (Other)	0.00	0.00	0.50	0.14	0.49
Giardiasis	10.75	9.27	9.77	8.06	9.89
Gonorrhea	45.35	81.19	88.23	112.13	116.30
Haemolytic Uremic Syndrome	0.24	0.07	0.26	0.38	0.30
Haemophilus Influenzae - Non-Serotype B, Invasive	1.52	1.52	1.84	1.20	1.14
Haemophilus Influenzae - Serotype B, Invasive	0.02	0.02	0.00	0.02	0.07
Hantavirus	0.12	0.10	0.05	0.07	0.05
Hepatitis A	0.66	0.82	1.36	0.97	1.30
Hepatitis B (acute cases)	0.24	0.43	0.48	0.52	0.46
Hepatitis B (chronic carriers)	20.62	19.01	19.57	17.58	15.39
Hepatitis B (unknown carrier status)	0.27	0.12	0.17	0.47	0.14
Hepatitis C (acute cases)	3.58	2.27	3.50	3.06	3.44
Hepatitis C (chronic carriers)	30.61	33.30	35.70	31.46	30.02
Hepatitis C (unknown carrier status)	0.32	0.46	0.45	0.26	0.44
Hepatitis E	0.15	0.10	0.33	0.26	0.07
Herpes Simplex, Neonatal	0.02	0.05	0.07	0.05	0.00
Histoplasmosis	0.05	0.05	0.07	0.14	0.14
Human Immunodeficiency Virus	6.91	5.57	6.82	6.76	5.80
Influenza A, Seasonal	128.71	29.07	127.10	83.39	39.26
Influenza B, Seasonal	13.91	20.27	38.11	24.51	14.86
Influenza, Novel	0.02	0.00	0.00	0.00	0.00
Jamestown Canyon Virus	0.00	0.12	0.05	0.02	0.00
Japanese Encephalitis	0.00	0.00	0.00	0.00	0.02
Kawasaki Disease	0.00	0.02	0.02	0.02	0.00
Legionellosis	0.12	0.14	0.17	0.31	0.28
Leprosy	0.00	0.07	0.02	0.00	0.09
Listeriosis (Includes Congenital)	0.24	0.14	0.19	0.12	0.35
Lyme Disease	0.24	0.34	0.24	0.31	0.35
Malaria	1.79	2.41	2.53	1.96	2.37
Measles	0.71	0.00	0.02	0.05	0.14
Meningococcal Disease, Invasive	0.22	0.24	0.19	0.19	0.53
Mumps	0.20	0.10	0.19	2.71	0.44
Paratyphoid Fever - Case And Carrier	0.29	0.29	0.12	0.21	0.23

(continued)

Disease Name	2014	2015	2016	2017	2018
Pertussis	9.38	15.15	8.03	24.84	6.34
Pneumococcal Disease, Invasive	9.28	11.12	11.27	10.67	11.17
Q Fever	0.00	0.05	0.07	0.07	0.05
Rare Or Emerging Communicable Disease	0.00	0.00	0.00	0.14	0.12
Rickettsial Infection - including Rocky Mountain Spotted Fever	0.02	0.02	0.00	0.00	0.05
Salmonellosis	26.10	28.91	27.29	25.19	21.92
Severe Respiratory Illness (SRI)	0.02	0.05	0.00	0.00	0.00
Shellfish Poisoning	0.00	0.00	0.00	0.02	0.00
Shigellosis	2.57	2.39	1.76	2.03	1.86
Snowshoe Hare Virus Infection	0.00	0.02	0.00	0.02	0.00
Streptococcal Disease - Group A, Invasive	6.49	7.29	7.98	10.30	9.31
Streptococcal Disease - Group B, Newborn	0.83	0.92	0.71	0.73	0.02
Subacute Sclerosing Panencephalitis	0.02	0.00	0.00	0.00	0.00
Syphilis, Congenital	0.00	0.02	0.00	0.16	0.33
Syphilis, Infectious (Primary, secondary and early latent)	3.94	8.83	9.91	12.61	35.66
Syphilis, Non-infectious (Late latent)	6.32	5.62	5.79	4.74	5.20
Tetanus	0.00	0.05	0.02	0.00	0.00
Tuberculosis	5.31	5.07	5.67	5.30	5.13
Tularemia	0.05	0.02	0.02	0.02	0.00
Typhoid Fever - Case And Carrier	0.54	0.65	0.45	0.59	0.58
Typhus, Louseborne	0.00	0.00	0.00	0.00	0.02
Typhus, Murine	0.00	0.02	0.00	0.00	0.00
Varicella (Chickenpox) Hospitalized	0.27	0.27	0.29	0.14	0.28
Vibrio Cholerae Infection (Non O1,Non O139)	0.05	0.17	0.07	0.05	0.12
Vibrio Parahaemolyticus	0.39	0.65	0.12	0.07	0.19
West Nile Virus, Asymptomatic Infection	0.00	0.00	0.00	0.00	0.12
West Nile Virus, Neurological Syndrome	0.00	0.00	0.02	0.05	0.19
West Nile Virus, Non-Neurological Syndrome	0.00	0.00	0.10	0.12	0.86
Yersiniosis	1.03	1.25	1.33	1.25	1.25
Zika Virus	0.00	0.02	1.02	0.16	0.05

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>

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