



Alberta Notifiable Disease Summary

2022



Health, Government of Alberta

November 2023

Alberta Notifiable Disease Summary 2022

ISBN: 978-1-4601-5903-3

© 2023 Government of Alberta

For more information about this document contact:

Analytics and Performance Reporting Branch, Alberta Health

PO Box 1360 Stn Main

Edmonton, AB T5J 2N3

Email: Health.Surveillance@gov.ab.ca

This Publication is issued under the Open Government License – Alberta (<http://open.alberta.ca/licence>)

This document is available online at: <https://open.alberta.ca/publications/alberta-notifiable-disease-summary>

Key Highlights

Alberta's communicable disease trends in 2022 continued to fluctuate since the declaration of the COVID-19 pandemic in 2020. For some diseases, incidence returned to pre-pandemic levels (e.g., chlamydia, verotoxigenic *Escherichia coli*, HIV, and hospitalized varicella (chickenpox)) and others remained low (e.g., hepatitis C, invasive meningococcal disease (IMD), and pertussis). However, several diseases exceeded both pre-pandemic (2019) and pandemic year case numbers including seasonal influenza, syphilis, invasive *Haemophilus influenzae* (non-serotype b), carbapenemase producing organisms (CPO), invasive pneumococcal disease (IPD) and shigellosis.

- **Seasonal Influenza:** In 2022, influenza A cases initially increased through April and peaked in early May before declining. Cases remained low throughout the summer and then a second increase occurred at the end of October, which peaked rapidly in mid-November. There were 11,173 influenza A cases reported in 2022, which represented a 183 per cent increase from the last pre-pandemic year (2019). There were only a small number of influenza B cases reported since the start of the pandemic.
- **Syphilis:** Syphilis cases continued to increase in 2022. The number of congenital syphilis cases (n=80) increased by 4 per cent from 2021 and by 375 per cent from 2018. Infectious syphilis case numbers increased by 2 per cent from 2021 to 2022 but increased by 113 per cent compared to 2018; there were 3,326 cases (73.21 cases per 100,000 population) in 2022. Detailed information can be found [here](#)
- **Rare Or Emerging Communicable Disease:** Mpox was reported for the first time in Alberta in June 2022. A total of 44 cases of mpox were identified, primarily among men belonging to the gay, bisexual and other men who have sex with men (gbMSM) community. Three cases of *Cronobacter sakazakii* were reported in 2022 under the rare or emerging disease category (*Table 1*).
- **Carbapenemase Producing Organisms:** The number of new CPO cases reported increased to 105 (2.31 cases per 100,000 population) in 2022 from 48 cases (1.08 cases per 100,000 population) in 2021. The number of cases was 52 per cent higher than pre-pandemic, in 2019. Approximately 49 per cent of cases had no documented travel outside of Alberta in 2022, which is a decrease from 2021 where 84 per cent had no documented travel out of Alberta. The number of cases detected in 2022 was the highest number of cases detected in a year since 2012 when reporting became mandatory.
- **Shigellosis:** There was a substantial increase in the number of shigellosis cases reported in 2022 compared to previous years. In 2022, there were 287 cases compared to 24 cases in 2021 and 105 cases in 2019 (pre-pandemic). Nearly half of the cases in 2022 were linked to an outbreak affecting Edmonton's inner-city residents.
- **Haemophilus influenzae (non-serotype B), Invasive:** In 2022, the highest number of *H. influenzae* cases were reported in Alberta (n = 101) since reporting became mandatory in 2011. This represented a 173 per cent increase from 2021 and a 51 per cent increase from 2019 (pre-pandemic). The majority of these cases were non-typeable.
- **Pneumococcal Disease, Invasive:** The number of IPD cases increased from 426 cases (9.76 cases per 100,000) in the pre-pandemic year of 2019 to 626 cases (13.78 cases per 100,000) in 2022, which represents an increase of 47 per cent. The case number and rate for 2022 is at its highest since it became reportable in 1998.
- **Streptococcal Disease – Group A, Invasive:** Although the annual case total remained relatively unchanged from the previous five years (434 cases; 9.55 cases per 100,000), an increase in cases was identified in the winter months. This included an increase in pediatric cases (< 18 years of age) which began in November of 2022 and continued into December. The most common *Emm* types among the pediatric population was *emm1* and *emm12* whereas the dominant *Emm* type among other age groups was *emm74* and *emm49*.
- Additional information on notifiable infectious diseases in Alberta is available on Alberta Health's [Interactive Health Data Application \(IHDA\)](#) (http://www.ahw.gov.ab.ca/IHDA_Retrieval/) and in [Other Alberta Health Reports](#).

Table 1 Total number of notifiable communicable diseases reported in Alberta, 2018 to 2022

Disease Name	2018	2019	2020	2021	2022
Acute Flaccid Paralysis	7	6	5	2	3
Amoebiasis	56	28	23	14	31
Botulism	1	0	1	2	1
Brucellosis	1	1	0	3	8
Campylobacteriosis	1,118	1,106	918	841	884
Carbapenemase Producing Organisms	45	69	43	48	105
Chikungunya Virus	5	13	0	0	3
Chlamydia (including Lymphogranuloma venereum)	17,377	18,214	14,120	14,076	16,809
Congenital Cytomegalovirus	1	0	0	0	0
Creutzfeldt-Jakob Disease, Classic	9	9	4	5	13
Cryptosporidiosis	187	138	98	63	96
Cyclosporiasis	6	2	0	2	11
Dengue Fever	44	105	27	25	51
Diphtheria, Toxigenic - Cutaneous	2	3	1	1	0
Escherichia coli (Verotoxigenic)	338	393	222	249	363
Flavivirus (Other)	20	14	4	0	0
Giardiasis	423	425	243	238	270
Gonorrhea	5,008	5,339	4,895	5,016	4,984
Haemolytic Uremic Syndrome	13	13	4	7	11
Haemophilus influenzae - Non-serotype B, Invasive	48	67	40	37	101
Haemophilus influenzae - Serotype B, Invasive	3	0	0	1	0
Hantavirus	2	4	2	0	1
Hepatitis A	56	52	16	15	41
Hepatitis B	689	742	457	439	594
Hepatitis B (acute cases)	20	22	19	6	18
Hepatitis B (chronic carriers)	665	703	431	426	555
Hepatitis B (unknown carrier status)	4	17	7	7	21
Hepatitis C	1,451	1,323	602	648	548
Hepatitis C (acute cases)	147	153	85	88	84
Hepatitis C (chronic carriers)	1,288	1,140	509	555	461
Hepatitis C (unknown carrier status)	16	30	8	5	3
Hepatitis E	3	5	2	3	1
Histoplasmosis	6	5	4	2	6
Human Immunodeficiency Virus	254	256	193	244	288
Influenza A, Seasonal	6,321	3,947	3,483	32	11,173
Influenza B, Seasonal	2,147	1,975	2,123	2	35
Influenza, Novel	0	0	1	0	0
Jamestown Canyon Virus	0	0	3	1	0
Japanese Encephalitis	1	0	0	0	0
Legionellosis	13	16	10	10	16
Leprosy	4	0	0	2	2
Listeriosis (includes congenital)	15	11	7	6	15
Lyme Disease	15	14	4	16	17
Malaria	102	99	44	44	75
Measles	6	4	1	0	0
Meningococcal Disease, Invasive	23	14	13	9	7
Mpox	0	0	0	0	44
Mumps	19	33	14	5	9
Paratyphoid Fever (case and carrier)	10	23	10	2	17
Pertussis	273	344	134	1	13

(continued)

Disease Name	2018	2019	2020	2021	2022
Pneumococcal Disease, Invasive	481	426	294	323	626
Q Fever	3	0	1	1	1
Rare Or Emerging Communicable Disease	5	4	1	2	3
Rickettsial Infection (includes Rocky Mountain Spotted Fever)	2	1	4	0	1
Salmonellosis	934	753	779	456	579
Shigellosis	78	105	54	24	287
Snowshoe Hare Virus Infection	0	0	1	0	0
Streptococcal Disease - Group A, Invasive	397	410	434	359	434
Streptococcal Disease - Group B, Newborn	1	0	0	0	0
Syphilis, Congenital	16	45	57	75	80
Syphilis, Infectious (Primary, secondary and early latent)	1,559	2,331	2,521	3,248	3,326
Syphilis, Non-infectious (Late latent)	235	321	330	404	521
Tetanus	0	0	0	1	1
Tuberculosis	221	246	252	241	243
Tularemia	0	1	1	0	1
Typhoid Fever - Case And Carrier	23	30	9	8	33
Varicella (Chickenpox; Hospitalized)	12	4	6	4	14
Vibrio cholerae (non O1, non O139)	5	0	0	3	0
Vibrio parahaemolyticus	8	2	1	0	1
West Nile Virus, Asymptomatic Infection	5	0	1	0	0
West Nile Virus, Neurological Syndrome	8	2	0	0	0
West Nile Virus, Non-Neurological Syndrome	37	2	0	0	0
Yersiniosis	54	44	31	43	39
Zika Virus	2	5	0	0	1

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, 2018 to 2022

Disease Name	2018	2019	2020	2021	2022
Acute Flaccid Paralysis	0.16	0.14	0.11	0.05	0.07
Amoebiasis	1.30	0.64	0.52	0.32	0.68
Botulism	0.02	0.00	0.02	0.05	0.02
Brucellosis	0.02	0.02	0.00	0.07	0.18
Campylobacteriosis	26.01	25.35	20.78	18.93	19.46
Carbapenemase Producing Organisms	1.05	1.58	0.97	1.08	2.31
Chikungunya Virus	0.12	0.30	0.00	0.00	0.07
Chlamydia (including Lymphogranuloma venereum)	404.28	417.50	319.70	316.76	369.99
Congenital Cytomegalovirus	0.02	0.00	0.00	0.00	0.00
Creutzfeldt-Jakob Disease, Classic	0.21	0.21	0.09	0.11	0.29
Cryptosporidiosis	4.35	3.16	2.22	1.42	2.11
Cyclosporiasis	0.14	0.05	0.00	0.05	0.24
Dengue Fever	1.02	2.41	0.61	0.56	1.12
Diphtheria, Toxigenic - Cutaneous	0.05	0.07	0.02	0.02	0.00
Escherichia coli (Verotoxigenic)	7.86	9.01	5.03	5.60	7.99
Flavivirus (Other)	0.47	0.32	0.09	0.00	0.00
Giardiasis	9.84	9.74	5.50	5.36	5.94
Gonorrhea	116.51	122.38	110.83	112.88	109.70
Haemolytic Uremic Syndrome	0.30	0.30	0.09	0.16	0.24
Haemophilus influenzae - Non-serotype B, Invasive	1.12	1.54	0.91	0.83	2.22
Haemophilus influenzae - Serotype B, Invasive	0.07	0.00	0.00	0.02	0.00
Hantavirus	0.05	0.09	0.05	0.00	0.02
Hepatitis A	1.30	1.19	0.36	0.34	0.90
Hepatitis B	16.03	17.01	10.35	9.88	13.07
Hepatitis B (acute cases)	0.47	0.50	0.43	0.14	0.40
Hepatitis B (chronic carriers)	15.47	16.11	9.76	9.59	12.22
Hepatitis B (unknown carrier status)	0.09	0.39	0.16	0.16	0.46
Hepatitis C	33.76	30.33	13.63	14.58	12.06
Hepatitis C (acute cases)	3.42	3.51	1.92	1.98	1.85
Hepatitis C (chronic carriers)	29.97	26.13	11.52	12.49	10.15
Hepatitis C (unknown carrier status)	0.37	0.69	0.18	0.11	0.07
Hepatitis E	0.07	0.11	0.05	0.07	0.02
Histoplasmosis	0.14	0.11	0.09	0.05	0.13
Human Immunodeficiency Virus	5.91	5.87	4.37	5.49	6.34
Influenza A, Seasonal	147.06	90.47	78.86	0.72	245.93
Influenza B, Seasonal	49.95	45.27	48.07	0.05	0.77
Influenza, Novel	0.00	0.00	0.02	0.00	0.00
Jamestown Canyon Virus	0.00	0.00	0.07	0.02	0.00
Japanese Encephalitis	0.02	0.00	0.00	0.00	0.00
Legionellosis	0.30	0.37	0.23	0.23	0.35
Leprosy	0.09	0.00	0.00	0.05	0.04
Listeriosis (includes congenital)	0.35	0.25	0.16	0.14	0.33
Lyme Disease	0.35	0.32	0.09	0.36	0.37
Malaria	2.37	2.27	1.00	0.99	1.65
Measles	0.14	0.09	0.02	0.00	0.00
Meningococcal Disease, Invasive	0.54	0.32	0.29	0.20	0.15
Mpox	0.00	0.00	0.00	0.00	0.97
Mumps	0.44	0.76	0.32	0.11	0.20
Paratyphoid Fever (case and carrier)	0.23	0.53	0.23	0.05	0.37
Pertussis	6.35	7.89	3.03	0.02	0.29

(continued)

Disease Name	2018	2019	2020	2021	2022
Pneumococcal Disease, Invasive	11.19	9.76	6.66	7.27	13.78
Q Fever	0.07	0.00	0.02	0.02	0.02
Rare Or Emerging Communicable Disease	0.12	0.09	0.02	0.05	0.07
Rickettsial Infection (includes Rocky Mountain Spotted Fever)	0.05	0.02	0.09	0.00	0.02
Salmonellosis	21.73	17.26	17.64	10.26	12.74
Shigellosis	1.81	2.41	1.22	0.54	6.32
Snowshoe Hare Virus Infection	0.00	0.00	0.02	0.00	0.00
Streptococcal Disease - Group A, Invasive	9.24	9.40	9.83	8.08	9.55
Streptococcal Disease - Group B, Newborn	0.02	0.00	0.00	0.00	0.00
Syphilis, Congenital	0.37	1.03	1.29	1.69	1.76
Syphilis, Infectious (Primary, secondary and early latent)	36.27	53.43	57.08	73.09	73.21
Syphilis, Non-infectious (Late latent)	5.47	7.36	7.47	9.09	11.47
Tetanus	0.00	0.00	0.00	0.02	0.02
Tuberculosis	5.14	5.64	5.71	5.42	5.35
Tularemia	0.00	0.02	0.02	0.00	0.02
Typhoid Fever - Case And Carrier	0.54	0.69	0.20	0.18	0.73
Varicella (Chickenpox; Hospitalized)	0.28	0.09	0.14	0.09	0.31
Vibrio cholerae (non O1, non O139)	0.12	0.00	0.00	0.07	0.00
Vibrio parahaemolyticus	0.19	0.05	0.02	0.00	0.02
West Nile Virus, Asymptomatic Infection	0.12	0.00	0.02	0.00	0.00
West Nile Virus, Neurological Syndrome	0.19	0.05	0.00	0.00	0.00
West Nile Virus, Non-Neurological Syndrome	0.86	0.05	0.00	0.00	0.00
Yersiniosis	1.26	1.01	0.70	0.97	0.86
Zika Virus	0.05	0.11	0.00	0.00	0.02

Note:

Year is based on diagnosis date.

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

Other 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>