

MAINE STATE LEGISLATURE

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ANNUAL REPORT 2022

MAINE REPORTABLE INFECTIOUS DISEASES SUMMARY

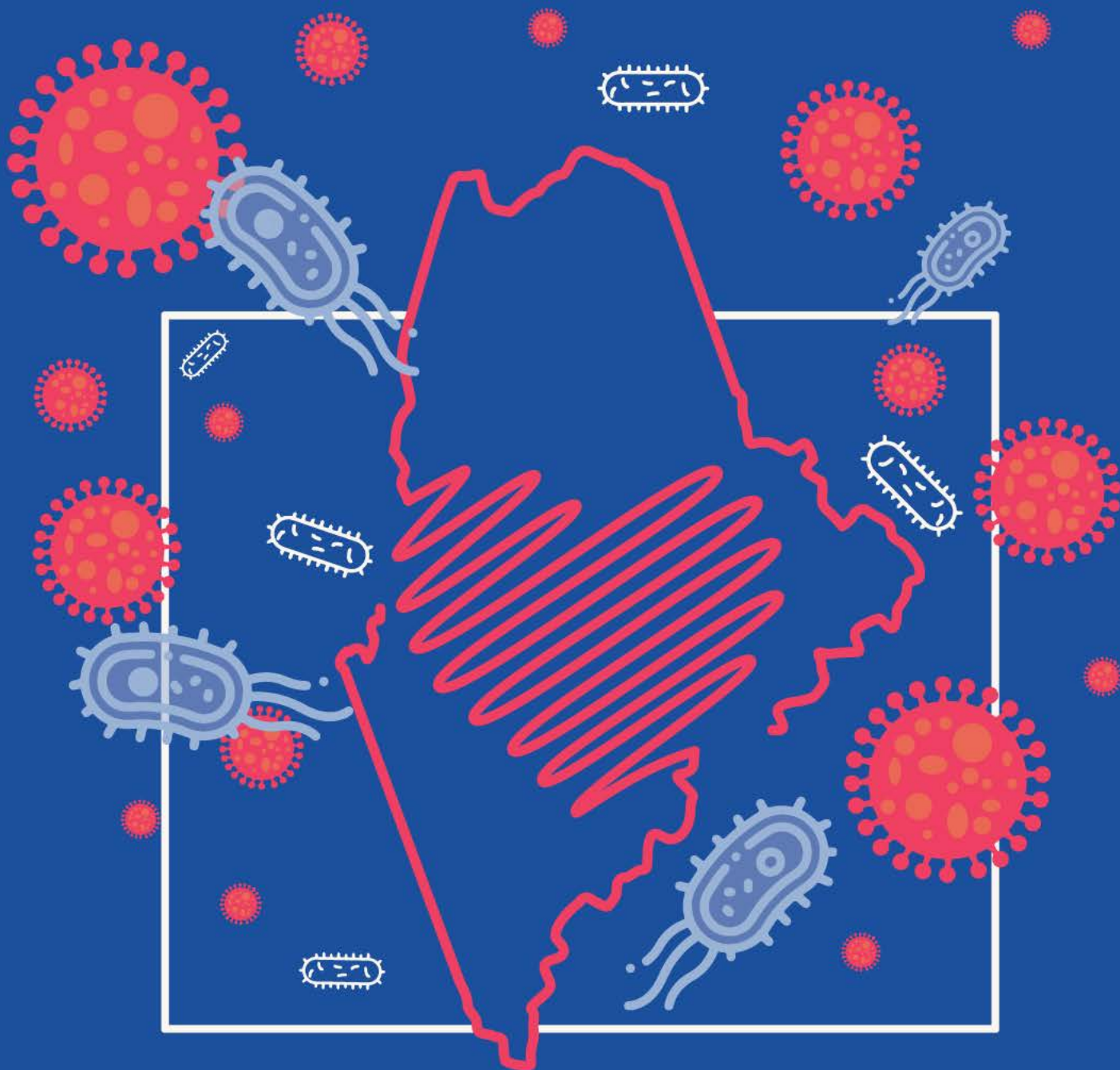


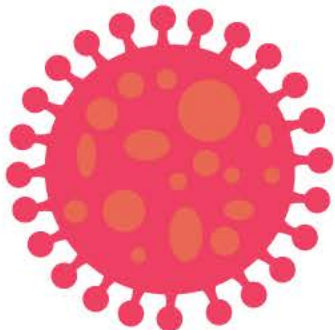
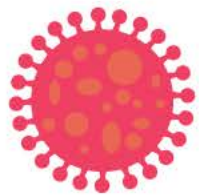
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Reportable Infectious Diseases in Maine 2022 Summary

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Thank You

We could not produce this report without the continued support of our healthcare and public health partners throughout the state. We greatly appreciate all the laboratories, healthcare providers, child care centers, school nurses, veterinarians, and others who provide disease surveillance information. Partners spend considerable time assisting Maine Center for Disease Control and Prevention (CDC) with infectious disease investigations and disease control measures that affect Maine residents. Public health partners' active and critical role in the infectious disease surveillance cycle informs statewide policies and programs that protect our residents from infectious diseases through health promotion, disease prevention, early detection, containment, and treatment.

We appreciate and encourage your vigilance in this effort through timely, complete, and accurate notifiable infectious disease reporting. It is through these collaborative efforts that we can respond to emerging infectious disease threats and prevent outbreaks.

We hope you find this report useful as we all work to protect and promote the health of Maine's residents. As always, we welcome your feedback on how we can provide more useful disease information to you, our partners.

For more information on what, when, and how to report infectious diseases, please see the Notifiable Diseases and Conditions List on page [70](#) of this report, visit our website at www.maine.gov/idepi, or call 1-800-821-5821.



Ann Farmer, MS

Associate Director, Division of Disease Surveillance
Maine Center for Disease Control and Prevention



2022 Infectious Disease Surveillance Highlights

89,129

*Disease reports handled without a full investigation by staff, either through passive surveillance or laboratory reports.

89,081

Met a probable or confirmed case definition.

*The main diseases include Coronavirus Disease 2019 (COVID-19), Chlamydia, Lyme disease, chronic Hepatitis C, and Rabies Post-Exposure Prophylaxis.

74,204

Disease reports investigated by Maine CDC.

72,827

Met a probable or confirmed case definition.

1,573

Potential outbreaks investigated by Maine CDC staff (including absenteeism).

1,376

Classified as outbreaks.

10

Maine had cases in 10 out of state or national enteric outbreaks.



166

Maine CDC investigators who investigated at least one case.



35

Animals tested positive for rabies at Health and Environmental Testing Laboratory (HETL)



34%
12 RACOONS



3%
1 COW



26%
9 BATS



3%
1 OTTER



26%
9 SKUNKS



3%
1 FOX



3%
1 CAT



3%
1 WOODCHUCK



2,652

*Reported cases of Lyme disease in 2022.

A record number.

*Lyme disease case definition changed as of January 1, 2022.

5,405

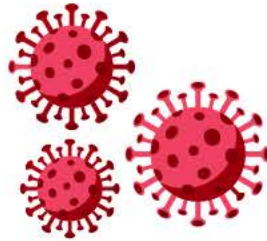
2022 MAINE CDC INFECTIOUS DISEASE PROGRAM CONSULTS.

Most Common Topic:

61%
Coronavirus Disease 2019
 (COVID-19)

Top 5 Consult Topics:

Coronavirus-2019 (COVID-19)	61%
Rabies	12%
Mpox	3%
Tuberculosis	2%
Influenza	2%



All Consults:

January	1,261
February	431
March	355
April	410
May	434
June	334
July	435
August	526
September	329
October	343
November	252
December	295

INFLUENZA DATA FOR 2021-2022 SEASON VS 2022-2023 SEASON



	2021-2022	2022-2023
Positive flu reports	5,133	16,552
Influenza-related hospitalizations	199	873
Influenza-related deaths	15	84
Influenza-related outbreaks	35	248



3 pediatric flu deaths...

...reported in 2022.
 The highest number reported in Maine
 in a single calendar year.



The first **Acute Flaccid Myelitis (AFM)** cases reported in Maine since 2016.

Investigated **3 cases of AFM.**



The first cases of **Congenital Syphilis** born in Maine in 25 years.

Investigated **3 cases of congenital syphilis.**



First cases of **Mpox** reported in Maine associated with a national outbreak.

Investigated **13 cases of Mpox**

Counts of Selected* Reportable Diseases by Year

Maine, 2013-2022**

CONDITION	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Acute flaccid myelitis	0	1	1	2	0	0	0	0	0	3
<i>Anaplasma phagocytophilum</i>	94	191	185	372	663	476	685	442	841	824
Babesiosis	36	42	55	82	118	101	138	66	201	193
<i>Borrelia miyamotoi</i>	0	0	0	0	6	8	13	12	9	12
Botulism	0	0	0	0	0	0	0	0	1	1
Brucellosis	0	0	0	0	1	0	0	0	0	1
Campylobacteriosis	229	225	221	255	234	247	191	177	271	215
Carbapenem-Producing Carbapenem-Resistant Organism (CP CRO)***	NR	NR	12	51	58	92	155	149	48	54
Chikungunya	1	6	2	0	1	2	0	0	0	0
<i>Chlamydia trachomatis</i> infection	3440	3491	3851	4151	4553	4344	3989	3464	3372	3137
Coronavirus Disease 2019 (COVID-19)	0	0	0	0	0	0	0	27348	129625	150224
Creutzfeldt-Jakob Disease (CJD)	1	1	1	0	0	0	0	0	0	0
Cryptosporidiosis	35	51	34	55	45	60	71	72	59	61
Cyclosporiasis	0	7	1	3	0	0	0	0	2	1
Dengue	1	1	5	2	0	3	1	0	0	0
Eastern Equine Encephalitis	0	1	1	0	0	0	0	0	0	0
Ehrlichiosis	4	8	5	7	10	19	13	2	4	7
Giardiasis	218	154	116	137	129	163	142	140	140	99
Gonorrhea	246	236	422	444	576	686	544	520	463	621
Group A <i>Streptococcus</i> , invasive	37	53	56	60	56	85	114	64	57	122
<i>Haemophilus influenzae</i> , invasive	25	21	39	29	34	24	38	9	14	30
Hemolytic uremic syndrome	2	1	7	2	2	0	1	0	3	0
Hepatitis A, acute	10	7	8	8	7	9	45	145	50	64
Hepatitis B, acute	11	12	9	53	77	52	58	40	33	29
Hepatitis B, chronic	105	108	107	158	177	201	164	125	162	195
Hepatitis B, perinatal infection	0	0	0	0	0	0	1	0	1	0
Hepatitis C, acute	9	31	29	37	33	38	59	206	168	131
Hepatitis C, chronic	1236	1413	1449	1647	1868	1858	1900	1401	1554	1336
Hepatitis C, perinatal infection	0	0	0	0	0	0	4	8	2	4
Hepatitis D, acute	0	0	0	0	0	0	0	1	1	0
Hepatitis E, acute	0	0	0	1	0	0	2	0	0	0
HIV Infection	33	61	48	53	29	30	29	16	30	41

NR = not reportable; NA = not available

CONDITION	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Influenza Associated Pediatric Mortality	0	1	0	1	0	0	1	1	0	3
Invasive Pneumococcal Disease	121	137	135	133	141	132	172	99	87	167
Jamestown Canyon	0	0	0	0	2	1	0	0	1	0
Legionellosis	23	19	16	16	16	34	30	11	39	25
Leptospirosis	0	0	0	0	0	0	0	0	0	1
Listeriosis	4	8	7	11	5	7	5	6	6	2
Lyme disease	1384	1412	1216	1498	1859	1411	2175	1129	1511	2652
Malaria	10	7	7	10	18	9	15	2	3	9
Measles (Rubeola)	0	0	0	0	1	0	2	0	0	0
Mpox	0	0	0	0	0	0	0	0	0	13
Mumps	1	0	0	34	1	4	5	2	1	0
<i>Neisseria meningitidis</i> , invasive (Mening. disease)	4	2	4	1	1	1	5	2	2	2
Pertussis	332	557	281	259	411	445	383	30	16	79
Powassan	1	0	1	1	3	0	2	1	3	4
Psittacosis (Ornithosis)	0	0	0	0	0	0	0	1	0	0
Q fever	0	0	0	0	0	1	0	1	0	0
Rabies PEP	128	107	112	131	108	152	147	129	101	117
Rabies, animal	50	44	28	66	61	76	89	71	61	35
<i>S. aureus</i> , vancomycin intermediate resistance (VISA)	0	1	2	1	0	0	0	1	0	0
Salmonellosis	131	127	123	123	102	119	142	111	129	150
Shiga toxin-producing <i>Escherichia coli</i> (STEC)	27	33	29	37	34	37	27	11	23	17
Shigellosis	5	29	4	2	13	7	12	4	6	11
Spotted Fever Rickettsiosis	2	3	1	4	3	10	5	0	2	1
Syphilis	17	15	49	48	83	104	108	66	101	112
Syphilis, congenital	0	0	0	0	0	0	0	0	0	3
Tetanus	1	0	0	1	1	0	0	0	0	0
Tuberculosis	15	14	18	23	14	14	18	17	14	17
Tularemia	0	0	0	0	0	0	1	0	0	1
Varicella (Chickenpox)	140	207	233	228	198	250	93	33	63	41
Vibriosis	9	9	6	7	7	14	9	12	11	12
West Nile	0	0	1	0	0	2	0	1	0	0
Zika	0	0	0	12	1	0	0	0	0	0

***Maine did not have any cases of the following reportable conditions in the last ten years:**

- Anthrax
- Chancroid
- Diphtheria
- Hantavirus
- Hepatitis D, chronic
- Influenza A, novel
- Plague
- Polio
- Rabies, human
- Ricin
- Rubella
- Smallpox
- Saint Louis Encephalitis
- Shellfish Poisoning
- Trichinosis
- Viral Hemorrhagic Fever
- Western Equine Encephalitis
- Yellow Fever

**Counts are updated annually. Data as of 1/15/24.

***Carbapenem-Producing *Enterobacteriaceae* (CRE) became reportable as of September 8, 2015 so the 2015 numbers do not represent a full year. In 2021, the notifiable condition changed from CRE to CP CRO, which accounts for the drop in reported numbers from 2020 to 2021.

Rates of Selected* Reportable Diseases by Year

Maine, 2013-2022**
(per 100,000 Persons)

CONDITION	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Acute flaccid myelitis	0.0	0.1	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.2
<i>Anaplasma phagocytophilum</i>	7.1	14.4	13.9	27.9	49.7	35.5	51.0	32.4	61.1	59.5
Babesiosis	2.7	3.2	4.1	6.2	8.8	7.5	10.3	4.8	14.6	13.9
<i>Borrelia miyamotoi</i>	0.0	0.0	0.0	0.0	0.4	0.6	1.0	0.9	0.7	0.9
Botulism	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
Brucellosis	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Campylobacteriosis	17.2	16.9	16.6	19.2	17.5	18.4	14.2	13.0	19.7	15.5
Carbapenem-Producing Carbapenem-Resistant Organism (CP CRO)***	NR	NR	0.9	3.8	4.3	6.9	11.5	10.9	3.5	3.9
Chikungunya	0.1	0.5	0.2	0.0	0.1	0.1	0.0	0.0	0.0	0.0
<i>Chlamydia trachomatis</i> infection	259.0	262.4	289.9	311.8	341.1	324.4	296.8	254.0	244.8	226.4
Coronavirus Disease 2019 (COVID-19)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2005.6	9412.1	10843.8
Creutzfeldt-Jakob Disease (CJD)	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cryptosporidiosis	2.6	3.8	2.6	4.1	3.4	4.5	5.3	5.3	4.3	4.4
Cyclosporiasis	0.0	0.5	0.1	0.2	0.0	0.0	0.0	0.0	0.1	0.1
Dengue	0.1	0.1	0.4	0.2	0.0	0.2	0.1	0.0	0.0	0.0
Eastern Equine Encephalitis	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ehrlichiosis	0.3	0.6	0.4	0.5	0.7	1.4	1.0	0.1	0.3	0.5
Giardiasis	16.4	11.6	8.7	10.3	9.7	12.2	10.6	10.3	10.2	7.1
Gonorrhea	18.5	17.7	31.8	33.4	43.2	51.2	40.5	38.1	33.6	44.8
Group A <i>Streptococcus</i> , invasive	2.8	4.0	4.2	4.5	4.2	6.3	8.5	4.7	4.1	8.8
<i>Haemophilus influenzae</i> , invasive	1.9	1.6	2.9	2.2	2.5	1.8	2.8	0.7	1.0	2.2
Hemolytic uremic syndrome	0.2	0.1	0.5	0.2	0.1	0.0	0.1	0.0	0.2	0.0
Hepatitis A, acute	0.8	0.5	0.6	0.6	0.5	0.7	3.3	10.6	3.6	4.6
Hepatitis B, acute	0.8	0.9	0.7	4.0	5.8	3.9	4.3	2.9	2.4	2.1
Hepatitis B, chronic	7.9	8.1	8.1	11.9	13.3	15.0	12.2	9.2	11.8	14.1
Hepatitis B, perinatal infection	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0
Hepatitis C, acute	0.7	2.3	2.2	2.8	2.5	2.8	4.4	15.1	12.2	9.5
Hepatitis C, chronic	93.1	106.2	109.1	123.7	140.0	138.8	141.3	102.7	112.8	96.4
Hepatitis C, perinatal infection	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.6	0.1	0.3
Hepatitis D, acute	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Hepatitis E, acute	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0
HIV Infection	2.5	4.6	3.6	4.0	2.2	2.2	2.2	1.2	2.2	3.0

NR = not reportable; NA = not available

CONDITION	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Influenza Associated Pediatric Mortality	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.2
Invasive Pneumococcal Disease	9.1	10.3	10.2	10.0	10.6	9.9	12.8	7.3	6.3	12.1
Jamestown Canyon	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.0
Legionellosis	1.7	1.4	1.2	1.2	1.2	2.5	2.2	0.8	2.8	1.8
Leptospirosis	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Listeriosis	0.3	0.6	0.5	0.8	0.4	0.5	0.4	0.4	0.4	0.1
Lyme disease	104.2	106.1	91.5	112.5	139.3	105.4	161.8	82.8	109.7	191.4
Malaria	0.8	0.5	0.5	0.8	1.3	0.7	1.1	0.1	0.2	0.6
Measles (Rubeola)	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0
Mpox	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
Mumps	0.1	0.0	0.0	2.6	0.1	0.3	0.4	0.1	0.1	0.0
<i>Neisseria meningitidis</i> , invasive (Mening. disease)	0.3	0.2	0.3	0.1	0.1	0.1	0.4	0.1	0.1	0.1
Pertussis	25.0	41.9	21.2	19.5	30.8	33.2	28.5	2.2	1.2	5.7
Powassan	0.1	0.0	0.1	0.1	0.2	0.0	0.1	0.1	0.2	0.3
Psittacosis (Ornithosis)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Q fever	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0
Rabies PEP	9.6	8.0	8.4	9.8	8.1	11.4	10.9	9.5	7.3	8.4
Rabies, animal	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<i>S. aureus</i> , vancomycin intermediate resistance (VISA)	0.0	0.1	0.2	0.1	0.0	0.0	0.0	0.1	0.0	0.0
Salmonellosis	9.9	9.5	9.3	9.2	7.6	8.9	10.6	8.1	9.4	10.8
Shiga toxin-producing <i>Escherichia coli</i> (STEC)	2.0	2.5	2.2	2.8	2.5	2.8	2.0	0.8	1.7	1.2
Shigellosis	0.4	2.2	0.3	0.2	1.0	0.5	0.9	0.3	0.4	0.8
Spotted Fever Rickettsiosis	0.2	0.2	0.1	0.3	0.2	0.7	0.4	0.0	0.1	0.1
Syphilis	1.3	1.1	3.7	3.6	6.2	7.8	8.0	4.8	7.3	8.1
Syphilis, congenital	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Tetanus	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Tuberculosis	1.1	1.1	1.4	1.7	1.0	1.0	1.3	1.2	1.0	1.2
Tularemia	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1
Varicella (Chickenpox)	10.5	15.6	17.5	17.1	14.8	18.7	6.9	2.4	4.6	3.0
Vibriosis	0.7	0.7	0.5	0.5	0.5	1.0	0.7	0.9	0.8	0.9
West Nile	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.1	0.0	0.0
Zika	0.0	0.0	0.0	0.9	0.1	0.0	0.0	0.0	0.0	0.0

***Maine did not have any cases of the following reportable conditions in the last ten years:**

- Anthrax
- Chancroid
- Diphtheria
- Hantavirus
- Hepatitis D, chronic
- Influenza A, novel
- Plague
- Polio
- Rabies, human
- Ricin
- Rubella
- Smallpox
- Saint Louis Encephalitis
- Shellfish Poisoning
- Trichinosis
- Viral Hemorrhagic Fever
- Western Equine Encephalitis
- Yellow Fever

****Counts are updated annually. Data as of 1/15/24.**

*****Carbapenem-Producing *Enterobacteriaceae* (CRE) became reportable as of September 8, 2015 so the 2015 numbers do not represent a full year. In 2021, the notifiable condition changed from CRE to CP CRO, which accounts for the drop in reported numbers from 2020 to 2021.**

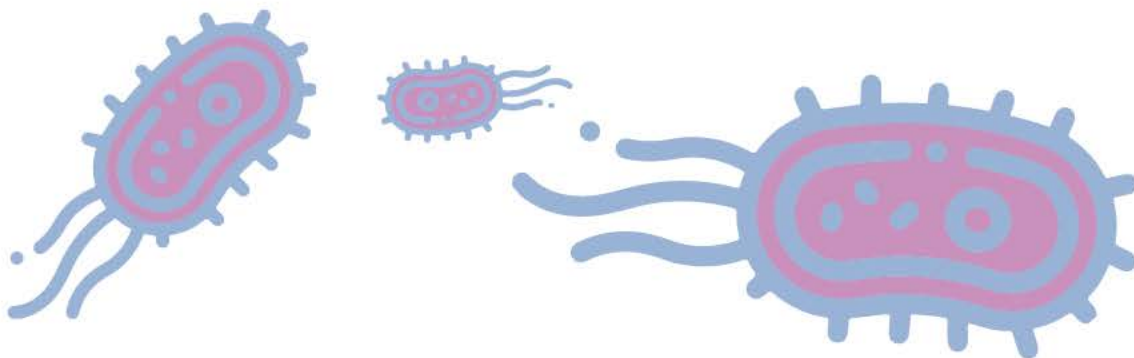
Cases of Reported Diseases by Age and Gender

Maine, 2022*

CONDITION	GENDER			AGE GROUP							
	F	M	U	0-4 years	5-14 years	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65+ years
Acute flaccid myelitis	1	2	0	2	1	0	0	0	0	0	0
<i>Anaplasma phagocytophilum</i>	334	490	0	2	9	10	27	51	80	146	499
Babesiosis	73	120	0	4	3	5	4	14	19	41	103
<i>Borrelia miyamotoi</i>	6	6	0	0	0	0	0	0	0	0	12
Botulism	0	1	0	1	0	0	0	0	0	0	0
Brucellosis	0	1	0	0	0	0	0	1	0	0	0
Campylobacteriosis	115	100	0	6	8	19	24	31	27	41	59
Carbapenemase-Producing Carbapenem-Resistant Organisms (CP-CRO)	14	40	0	1	0	0	3	7	5	15	23
<i>Chlamydia trachomatis</i> infection	2006	1131	0	0	13	1883	873	263	70	26	9
Coronavirus Disease 2019 (COVID-19)	84384	65816	24	6968	18357	21100	21745	19787	17615	17893	26759
Cryptosporidiosis	28	33	0	5	4	4	9	8	4	11	16
Cyclosporiasis	0	1	0	0	0	0	0	0	1	0	0
Ehrlichiosis	3	4	0	0	0	0	1	0	0	2	4
Ehrlichiosis/Anaplasmosis, undetermined	1	0	0	0	0	0	0	0	0	0	1
Emerging Infection	3	3	0	0	0	0	0	0	1	0	5
Giardiasis	46	53	0	2	4	6	13	11	10	13	40
Gonorrhea	220	401	0	0	2	176	213	151	48	27	4
Group A <i>Streptococcus</i> , invasive	40	82	0	0	1	4	17	31	24	17	28
<i>Haemophilus influenzae</i> , invasive	17	13	0	2	0	0	0	3	1	4	20
Hepatitis A, acute	29	35	0	1	0	3	22	25	6	4	3
Hepatitis B, acute	17	12	0	0	0	0	6	12	8	2	1
Hepatitis B, chronic	77	118	0	2	2	16	40	52	41	25	17
Hepatitis C, acute	53	78	0	0	0	12	37	45	19	13	5
Hepatitis C, chronic	609	727	0	4	1	72	364	371	188	164	172
Hepatitis C, perinatal infection	1	3	0	4	0	0	0	0	0	0	0
Hepatitis Non-ABC, Acute	0	1	0	1	0	0	0	0	0	0	0
HIV Infection	16	26	0	0	1	6	11	14	6	2	2

NR = not reportable; NA = not available

CONDITION	GENDER			AGE GROUP							
	F	M	U	0-4 years	5-14 years	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65+ years
Influenza Associated Pediatric Mortality	2	1	0	1	2	0	0	0	0	0	0
Invasive Pneumococcal Disease	61	106	0	7	6	1	9	16	16	32	80
Legionellosis	5	20	0	0	0	0	1	3	4	7	10
Leptospirosis	0	1	0	0	0	0	1	0	0	0	0
Listeriosis	1	1	0	0	0	0	0	0	0	0	2
Lyme disease	1143	1509	0	45	268	165	177	248	276	450	1023
Malaria	3	6	0	1	0	1	5	1	1	0	0
Mpox	1	12	0	1	0	0	5	7	0	0	0
Multisystem Inflammatory Syndrome (MIS)	5	2	0	0	7	0	0	0	0	0	0
<i>Neisseria meningitidis</i> , invasive (Mening. disease)	0	2	0	0	0	0	0	0	0	1	1
Pertussis	34	45	0	40	27	3	3	1	1	2	2
Powassan	2	2	0	0	0	0	1	0	0	1	2
Rabies PEP	60	57	0	10	10	11	24	17	19	16	10
Rabies, animal	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Salmonellosis	91	59	0	7	8	14	13	22	18	18	50
Shiga toxin-producing <i>Escherichia coli</i> (STEC)	10	7	0	4	0	3	2	0	1	5	2
Shigellosis	6	5	0	1	0	2	0	0	0	1	7
Spotted Fever Rickettsiosis	0	1	0	0	0	0	0	0	0	0	1
Streptococcal toxic-shock syndrome	4	12	0	0	0	0	1	4	3	4	4
Syphilis	25	87	0	0	0	11	36	28	18	16	3
Syphilis, congenital	2	1	0	3	0	0	0	0	0	0	0
Tuberculosis	7	10	0	3	2	6	0	2	1	2	1
Tularemia	1	0	0	0	0	0	0	0	0	1	0
Varicella (Chickenpox)	21	20	0	15	16	7	2	1	0	0	0
Vibriosis	7	5	0	0	1	0	1	0	3	2	5



*Counts are updated annually. Data as of 1/15/2024.

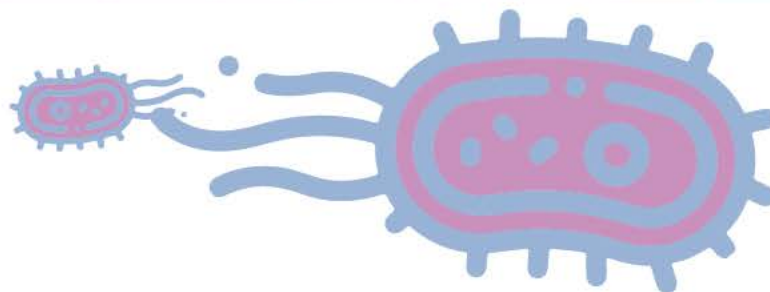
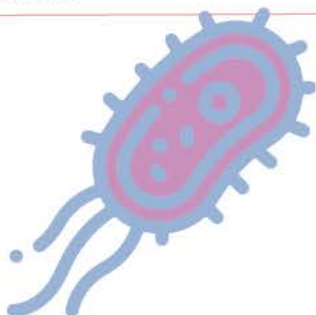
Cases of Reported Diseases by Race and Ethnicity

Maine, 2022*

CONDITION	RACE							ETHNICITY		
	American Indian or Alaska Native	Asian or Pacific Islander	Black or African American	White	Two or more	Other	Unknown	Hispanic	Non-Hispanic	Unknown
Acute flaccid myelitis	0	0	0	3	0	0	0	0	3	0
<i>Anaplasma phagocytophilum</i>	3	2	4	799	2	2	12	6	719	99
Babesiosis	1	0	2	183	1	2	4	1	175	17
<i>Borrelia miyamotoi</i>	0	0	0	12	0	0	0	0	8	4
Botulism	0	0	0	1	0	0	0	0	1	0
Brucellosis	0	0	1	0	0	0	0	0	1	0
Campylobacteriosis	1	2	0	205	0	1	6	3	197	15
Carbapenemase-Producing Carbapenem-Resistant Organisms (CP CRO)	0	0	3	47	1	1	2	0	36	18
<i>Chlamydia trachomatis</i> infection	11	17	218	1910	16	50	915	56	1908	1173
Coronavirus Disease 2019 (COVID-19)	884	1902	4483	130513	1737	1663	9402	1994	96398	51832
Cryptosporidiosis	0	1	2	56	0	0	2	0	57	4
Cyclosporiasis	0	0	0	1	0	0	0	0	1	0
Ehrlichiosis	0	0	0	7	0	0	0	0	7	0
Ehrlichiosis/Anaplasmosis, undetermined	0	0	0	1	0	0	0	0	1	0
Emerging Infection	0	0	0	6	0	0	0	0	6	0
Giardiasis	0	1	3	90	0	3	2	1	92	6
Gonorrhea	2	8	105	440	32	11	23	19	557	45
Group A <i>Streptococcus</i> , invasive	4	0	1	114	2	0	1	0	116	6
<i>Haemophilus influenzae</i> , invasive	0	0	0	30	0	0	0	0	30	0
Hepatitis A, acute	0	0	1	63	0	0	0	2	57	5
Hepatitis B, acute	1	1	1	23	2	0	1	1	25	3
Hepatitis B, chronic	1	19	71	83	1	4	16	8	152	35
Hepatitis C, acute	4	0	3	123	0	1	0	3	111	17
Hepatitis C, chronic	8	9	29	1045	20	27	198	14	737	585
Hepatitis C, perinatal infection	0	0	0	4	0	0	0	0	4	0
Hepatitis Non-ABC, Acute	0	0	0	1	0	0	0	0	1	0
HIV Infection	0	0	16	25	1	0	0	1	42	0

NR = not reportable; NA = not available

CONDITION	RACE							ETHNICITY		
	American Indian or Alaska Native	Asian or Pacific Islander	Black or African American	White	Two or more	Other	Unknown	Hispanic	Non-Hispanic	Unknown
Influenza Associated Pediatric Mortality	0	0	0	3	0	0	0	0	3	0
Invasive Pneumococcal Disease	2	1	3	159	0	0	2	0	159	8
Legionellosis	0	0	1	24	0	0	0	0	22	3
Leptospirosis	0	0	0	1	0	0	0	0	1	0
Listeriosis	0	0	0	2	0	0	0	0	2	0
Lyme disease	2	3	13	2308	0	25	301	16	1640	996
Malaria	0	0	6	2	0	0	1	1	6	2
Mpox	0	0	1	11	0	1	0	1	10	2
Multisystem Inflammatory Syndrome (MIS)	0	0	0	7	0	0	0	0	7	0
<i>Neisseria meningitidis</i> , invasive (Mening. disease)	0	0	0	2	0	0	0	0	2	0
Pertussis	0	3	1	69	3	0	3	3	75	1
Powassan	0	0	0	4	0	0	0	0	3	1
Rabies PEP	0	5	0	103	0	3	6	3	101	13
Rabies, animal	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Salmonellosis	0	0	1	142	2	0	5	3	135	12
Shiga toxin-producing <i>Escherichia coli</i> (STEC)	0	0	2	14	0	0	1	0	15	2
Shigellosis	0	0	1	8	0	0	2	0	8	3
Spotted Fever Rickettsiosis	0	0	0	1	0	0	0	0	1	0
Streptococcal toxic-shock syndrome	1	0	0	14	0	0	1	0	16	0
Syphilis	3	1	7	92	5	3	1	4	102	6
Syphilis, congenital	0	0	1	0	2	0	0	0	1	2
Tuberculosis	0	3	10	2	1	0	1	1	15	1
Tularemia	0	0	0	1	0	0	0	0	0	1
Varicella (Chickenpox)	1	2	4	29	2	0	3	3	32	6
Vibriosis	0	0	0	12	0	0	0	0	10	2



*Counts are updated annually. Data as of 1/15/2024.

2022 Maine Outbreaks

Outbreaks are a reportable condition in Maine and are classified into types of outbreak by the potential etiology. All reported outbreaks are assigned out for follow-up. This table only represents those that met an outbreak definition of confirmed, probable, or suspect. Outbreak definitions vary based on the category, setting, and suspected etiology.

Outbreak Categories and Definitions

Absenteeism: Absenteeism reports are submitted by schools when they have $\geq 15\%$ absenteeism due to illness. If there is a single etiology, an absenteeism report may also be counted as a disease-specific outbreak.

Airborne and Direct Contact (ADC): Airborne and Direct Contact outbreaks are infections transmitted through airborne bacteria or viruses or through direct contact. Examples of Airborne and Direct Contact outbreaks include pneumonia, conjunctivitis, hand foot and mouth disease, Methicillin-Resistant *Staphylococcus aureus* (MRSA), and Coronavirus Disease 2019 (COVID-19).

Gastrointestinal Illness (GI): GI illness outbreaks are characterized through gastrointestinal symptoms. The most commonly reported GI outbreak is caused by norovirus. Out-of-state GI outbreaks are when a Maine resident matches a national cluster, usually through whole genome sequencing (WGS) testing, such as *Salmonella* or Shiga toxin producing *E. coli* (STEC).

Influenza-like Illness (ILI): Influenza-like illness outbreaks are characterized as a respiratory illness with fever with cough and/or sore throat without another known cause. The majority of ILI outbreaks are confirmed as influenza through laboratory testing.

Vaccine-Preventable Disease (VPD): Vaccine-preventable disease outbreaks are caused by one of the illnesses for which there is a routine vaccine.

Vector: Vector outbreaks are caused by an organism that spreads infection from one host to another. The most common vectors in Maine are ticks and mosquitoes, but the most common vector outbreak is caused by scabies.

	Absenteeism	ADC Outbreak	GI Illness Outbreak	ILI Outbreak*	VPD Outbreak	Vector Outbreak	Total
Androscoggin	14	44	1	19	0	0	78
Aroostook	57	64	1	30	0	0	152
Cumberland	62	134	8	43	0	0	247
Franklin	11	12	0	12	0	0	35
Hancock	48	32	2	20	0	0	102
Kennebec	43	64	6	25	0	1	139
Knox	11	20	1	7	0	0	39
Lincoln	18	16	1	6	1	0	42
Out of State	0	0	10	0	0	0	10
Oxford	22	31	1	9	0	0	63
Penobscot	34	78	4	26	0	0	142
Piscataquis	7	5	1	5	0	0	18
Sagadahoc	14	12	0	5	0	0	31
Somerset	19	24	0	13	0	0	56
Waldo	35	18	0	5	1	0	59
Washington	20	17	1	12	0	0	50
York	30	64	2	16	1	0	113
Total	445	635	39	253	3	1	1376

*ILI outbreaks included here are for the calendar year 2022, so include outbreaks from the 2021-2022 and 2022-2023 influenza seasons. Any outbreak can be healthcare associated.

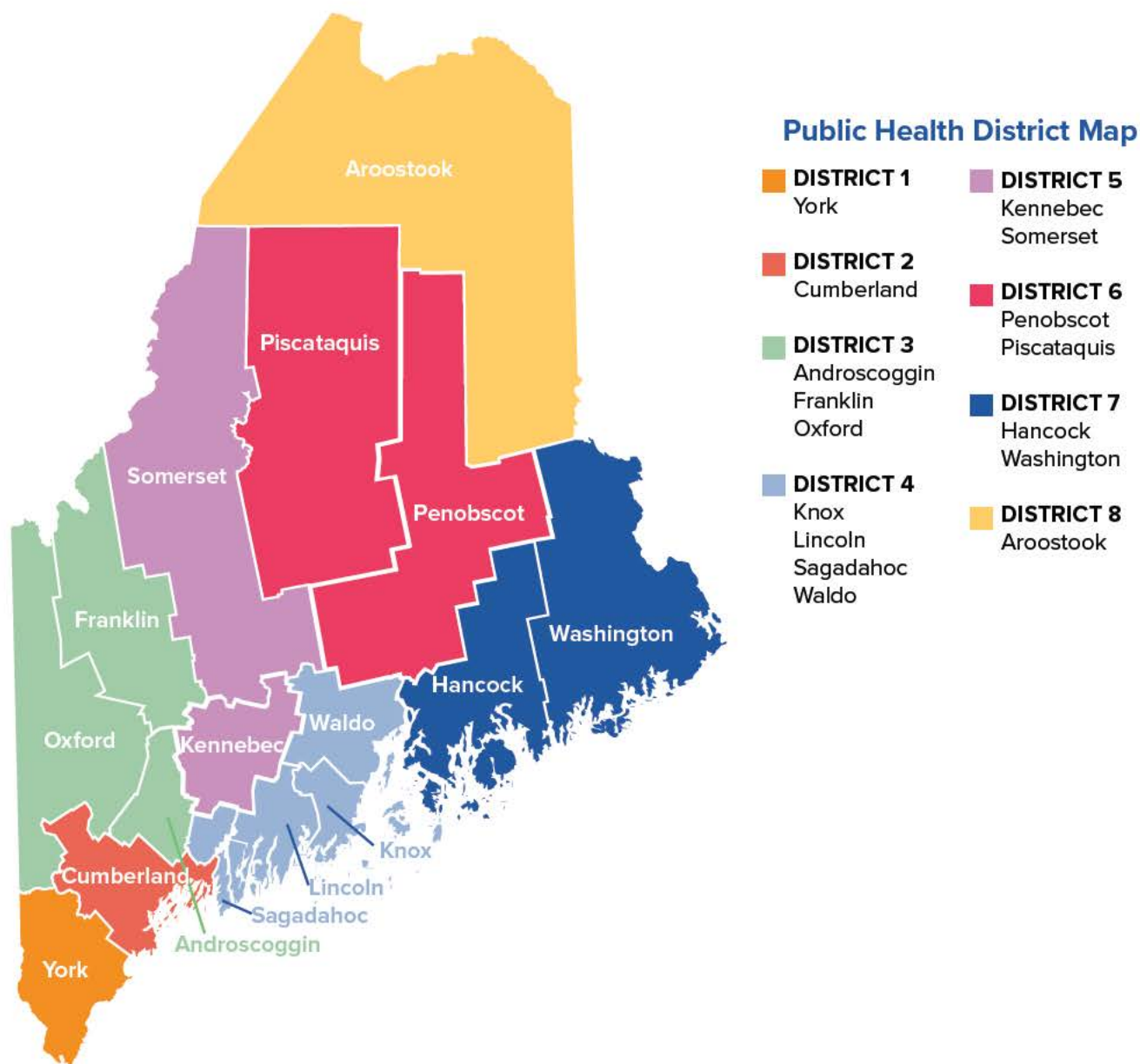
About the Data

The Infectious Disease Programs of Maine CDC publish an annual summary of infectious disease data. Publishing reports on surveillance activities and data provides the health care community, government agencies, individuals, and groups with important statistical information on Maine’s reportable diseases and conditions.

This annual report also includes information on conditions that are investigated that are not explicitly reportable but have public health significance. Examples of these conditions include Coccidioidomycosis and Multisystem Inflammatory Syndrome (MIS). Maine also follows up on unusual conditions that may not have specific case definitions but potentially have public health significance. These conditions are indicated by “Emerging Infections.” In 2022, the six reported emerging infections were reports of leishmaniasis and Alpha-Gal Syndrome. The goal of this annual report is to provide Maine CDC’s partners with a helpful resource.

Maine CDC counts cases by their residence, not where they acquired the condition.

(Population data are from 2022 census estimates.)



ANDROSCOGGIN COUNTY



113,023

Population



8%
of Maine's
Total Population

Condition	County		District		State	
	Count	Rate	Count	Rate	Count	Rate
Acute flaccid myelitis	0	0	0	0	3	0.2
<i>Anaplasma phagocytophilum</i>	54	47.8	103	50.7	824	59.5
Babesiosis	11	9.7	15	7.4	193	13.9
<i>Borrelia miyamotoi</i>	2	1.8	2	1	12	0.9
Botulism	0	0	0	0	1	0.1
Brucellosis	0	0	0	0	1	0.1
Campylobacteriosis	8	7.1	27	13.3	215	15.5
Carbapenemase-Producing Carbapenem-Resistant Organisms (CP CRO)	6	5.3	7	3.4	54	3.9
<i>Chlamydia trachomatis</i> infection	368	325.6	557	274.4	3137	226.4
Coronavirus Disease 2019 (COVID-19)	11254	9957.3	20580	10138.3	150224	10843.8
Cryptosporidiosis	4	3.5	9	4.4	61	4.4
Cyclosporiasis	0	0	0	0	1	0.1
Ehrlichiosis	1	0.9	1	0.5	7	0.5
Ehrlichiosis/Anaplasmosis, undetermined	0	0	0	0	1	0.1
Emerging Infection	0	0	0	0	6	0.4
Giardiasis	0	0	6	3	99	7.1
Gonorrhea	137	121.2	157	77.3	621	44.8
Group A <i>Streptococcus</i> , invasive	17	15	25	12.3	122	8.8
<i>Haemophilus influenzae</i> , invasive	5	4.4	6	3	30	2.2
Hepatitis A, acute	18	15.9	20	9.9	64	4.6
Hepatitis B, acute	3	2.7	8	3.9	29	2.1
Hepatitis B, chronic	30	26.5	33	16.3	195	14.1
Hepatitis C, acute	15	13.3	21	10.3	131	9.5
Hepatitis C, chronic	101	89.4	189	93.1	1336	96.4

Condition	Count	Rate	Count	Rate	Count	Rate
Hepatitis C, perinatal infection	0	0	0	0	4	0.3
Hepatitis Non-ABC, Acute	1	0.9	1	0.5	1	0.1
HIV Infection	4	3.5	7	3.4	42	3
Influenza Associated Pediatric Mortality	0	0	1	0.5	3	0.2
Invasive Pneumococcal Disease	14	12.4	29	14.3	167	12.1
Legionellosis	2	1.8	3	1.5	25	1.8
Leptospirosis	0	0	0	0	1	0.1
Listeriosis	0	0	0	0	2	0.1
Lyme disease	79	69.9	184	90.6	2652	191.4
Malaria	2	1.8	2	1	9	0.6
Mpox	2	1.8	2	1	13	0.9
Multisystem Inflammatory Syndrome (MIS)	0	0	1	0.5	7	0.5
<i>Neisseria meningitidis</i> , invasive (Mening. disease)	0	0	0	0	2	0.1
Pertussis	6	5.3	8	3.9	79	5.7
Powassan	0	0	0	0	4	0.3
Rabies PEP	6	5.3	11	5.4	117	8.4
Rabies, animal	5	NA	11	NA	35	NA
Salmonellosis	9	8	19	9.4	150	10.8
Shiga toxin-producing <i>Escherichia coli</i> (STEC)	1	0.9	2	1	17	1.2
Shigellosis	3	2.7	3	1.5	11	0.8
Spotted Fever Rickettsiosis	0	0	0	0	1	0.1
Streptococcal toxic-shock syndrome	1	0.9	5	2.5	16	1.2
Syphilis	8	7.1	9	4.4	112	8.1
Syphilis, congenital	1	0.9	1	0.5	3	0.2
Tuberculosis	3	2.7	3	1.5	17	1.2
Tularemia	0	0	0	0	1	0.1
Varicella (Chickenpox)	1	0.9	3	1.5	41	3
Vibriosis	0	0	0	0	12	0.9

Counts of confirmed and probable cases. Rates of confirmed and probable cases per 100,000 people.

AROOSTOOK COUNTY



Population



of Maine's
Total Population

Condition	County		District		State	
	Count	Rate	Count	Rate	Count	Rate
Acute flaccid myelitis	0	0	0	0	3	0.2
<i>Anaplasma phagocytophilum</i>	1	1.5	1	1.5	824	59.5
Babesiosis	0	0	0	0	193	13.9
<i>Borrelia miyamotoi</i>	0	0	0	0	12	0.9
Botulism	0	0	0	0	1	0.1
Brucellosis	0	0	0	0	1	0.1
Campylobacteriosis	11	16.4	11	16.4	215	15.5
Carbapenemase-Producing Carbapenem-Resistant Organisms (CP CRO)	2	3	3	3	54	3.9
<i>Chlamydia trachomatis</i> infection	124	184.4	124	184.4	3137	226.4
Coronavirus Disease 2019 (COVID-19)	10077	14983.3	10077	14983.3	150224	10843.8
Cryptosporidiosis	3	4.5	4.5	4.5	61	4.4
Cyclosporiasis	0	0	0	0	1	0.1
Ehrlichiosis	0	0	0	0	7	0.5
Ehrlichiosis/Anaplasmosis, undetermined	0	0	0	0	1	0.1
Emerging Infection	0	0	0	0	6	0.4
Giardiasis	6	8.9	6	8.9	99	7.1
Gonorrhea	9	13.4	9	13.4	621	44.8
Group A <i>Streptococcus</i> , invasive	5	7.4	5	7.4	122	8.8
<i>Haemophilus influenzae</i> , invasive	1	1.5	1	1.5	30	2.2
Hepatitis A, acute	1	1.5	1	1.5	64	4.6
Hepatitis B, acute	0	0	0	0	29	2.1
Hepatitis B, chronic	1	1.5	1	1.5	195	14.1
Hepatitis C, acute	5	7.4	5	7.4	131	9.5
Hepatitis C, chronic	40	59.5	40	59.5	1336	96.4

Condition	Count	Rate	Count	Rate	Count	Rate
Hepatitis C, perinatal infection	1	1.5	1	1.5	4	0.3
Hepatitis Non-ABC, Acute	0	0	0	0	1	0.1
HIV Infection	1	1.5	1	1.5	42	3
Influenza Associated Pediatric Mortality	1	1.5	1	1.5	3	0.2
Invasive Pneumococcal Disease	14	20.8	14	20.8	167	12.1
Legionellosis	1	1.5	1	1.5	25	1.8
Leptospirosis	0	0	0	0	1	0.1
Listeriosis	0	0	0	0	2	0.1
Lyme disease	13	19.3	13	19.3	2652	191.4
Malaria	0	0	0	0	9	0.6
Mpox	2	3	2	3	13	0.9
Multisystem Inflammatory Syndrome (MIS)	1	1.5	1	1.5	7	0.5
<i>Neisseria meningitidis</i> , invasive (Mening. disease)	0	0	0	0	2	0.1
Pertussis	0	0	0	0	79	5.7
Powassan	0	0	0	0	4	0.3
Rabies PEP	2	3	2	3	117	8.4
Rabies, animal	0	NA	0	NA	35	NA
Salmonellosis	6	8.9	6	8.9	150	10.8
Shiga toxin-producing <i>Escherichia coli</i> (STEC)	2	3	2	3	17	1.2
Shigellosis	1	1.5	1.5	1.5	11	0.8
Spotted Fever Rickettsiosis	0	0	0	0	1	0.1
Streptococcal toxic-shock syndrome	0	0	0	0	16	1.2
Syphilis	2	3	2	3	112	8.1
Syphilis, congenital	0	0	0	0	3	0.2
Tuberculosis	0	0	0	0	17	1.2
Tularemia	0	0	0	0	1	0.1
Varicella (Chickenpox)	3	4.5	3	4.5	41	3
Vibriosis	1	1.5	1	1.5	12	0.9

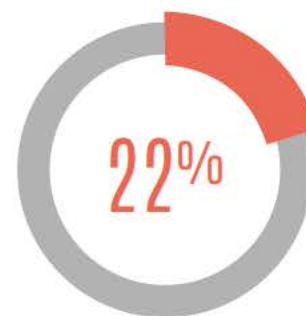
Counts of confirmed and probable cases. Rates of confirmed and probable cases per 100,000 people.

CUMBERLAND COUNTY



307,451

Population



of Maine's
Total Population

Condition	County		District		State	
	Count	Rate	Count	Rate	Count	Rate
Acute flaccid myelitis	0	0	0	0	3	0.2
<i>Anaplasma phagocytophilum</i>	88	28.6	88	28.6	824	59.5
Babesiosis	25	8.1	25	8.1	193	13.9
<i>Borrelia miyamotoi</i>	1	0.3	1	0.3	12	0.9
Botulism	1	0.3	1	0.3	1	0.1
Brucellosis	1	0.3	1	0.3	1	0.1
Campylobacteriosis	54	17.6	54	17.6	215	15.5
Carbapenemase-Producing Carbapenem-Resistant Organisms (CP CRO)	15	4.9	15	4.9	54	3.9
<i>Chlamydia trachomatis</i> infection	785	255.3	785	255.3	3137	226.4
Coronavirus Disease 2019 (COVID-19)	33135	10777.3	33135	10777.3	150224	10843.8
Cryptosporidiosis	6	2	6	2	61	4.4
Cyclosporiasis	0	0	0	0	1	0.1
Ehrlichiosis	0	0	0	0	7	0.5
Ehrlichiosis/Anaplasmosis, undetermined	0	0	0	0	1	0.1
Emerging Infection	2	0.7	2	0.7	6	0.4
Giardiasis	19	6.2	19	6.2	99	7.1
Gonorrhea	174	56.6	174	56.6	621	44.8
Group A <i>Streptococcus</i> , invasive	28	9.1	28	9.1	122	8.8
<i>Haemophilus influenzae</i> , invasive	4	1.3	4	1.3	30	2.2
Hepatitis A, acute	1	0.3	1	0.3	64	4.6
Hepatitis B, acute	4	1.3	4	1.3	29	2.1
Hepatitis B, chronic	82	26.7	82	26.7	195	14.1
Hepatitis C, acute	20	6.5	20	6.5	131	9.5
Hepatitis C, chronic	366	119	366	119	1336	96.4

Condition	Count	Rate	Count	Rate	Count	Rate
Hepatitis C, perinatal infection	2	0.7	2	0.7	4	0.3
Hepatitis Non-ABC, Acute	0	0	0	0	1	0.1
HIV Infection	23	7.5	23	7.5	42	3
Influenza Associated Pediatric Mortality	0	0	0	0	3	0.2
Invasive Pneumococcal Disease	14	4.6	14	4.6	167	12.1
Legionellosis	2	0.7	2	0.7	25	1.8
Leptospirosis	1	0.3	1	0.3	1	0.1
Listeriosis	1	0.3	1	0.3	2	0.1
Lyme disease	355	115.5	355	115.5	2652	191.4
Malaria	4	1.3	4	1.3	9	0.6
Mpox	3	1	3	1	13	0.9
Multisystem Inflammatory Syndrome (MIS)	1	0.3	1	0.3	7	0.5
<i>Neisseria meningitidis</i> , invasive (Mening. disease)	0	0	0	0	2	0.1
Pertussis	5	1.6	5	1.6	79	5.7
Powassan	1	0.3	1	0.3	4	0.3
Rabies PEP	14	4.6	14	4.6	117	8.4
Rabies, animal	6	NA	6	NA	35	NA
Salmonellosis	27	8.8	27	8.8	150	10.8
Shiga toxin-producing <i>Escherichia coli</i> (STEC)	3	1	3	1	17	1.2
Shigellosis	2	0.7	2	0.7	11	0.8
Spotted Fever Rickettsiosis	0	0	0	0	1	0.1
Streptococcal toxic-shock syndrome	4	1.3	4	1.3	16	1.2
Syphilis	30	9.8	30	9.8	112	8.1
Syphilis, congenital	0	0	0	0	3	0.2
Tuberculosis	11	3.6	11	3.6	17	1.2
Tularemia	0	0	0	0	1	0.1
Varicella (Chickenpox)	8	2.6	8	2.6	41	3
Vibriosis	2	0.7	2	0.7	12	0.9

Counts of confirmed and probable cases. Rates of confirmed and probable cases per 100,000 people.

FRANKLIN COUNTY



30,474

Population



2%
of Maine's
Total Population

Condition	County		District		State	
	Count	Rate	Count	Rate	Count	Rate
Acute flaccid myelitis	0	0	0	0	3	0.2
<i>Anaplasma phagocytophilum</i>	18	59.1	103	50.7	824	59.5
Babesiosis	1	3.3	15	7.4	193	13.9
<i>Borrelia miyamotoi</i>	0	0	2	1	12	0.9
Botulism	0	0	0	0	1	0.1
Brucellosis	0	0	0	0	1	0.1
Campylobacteriosis	5	16.4	27	13.3	215	15.5
Carbapenemase-Producing Carbapenem-Resistant Organisms (CP CRO)	0	0	7	3.4	54	3.9
<i>Chlamydia trachomatis</i> infection	58	190.3	557	274.4	3137	226.4
Coronavirus Disease 2019 (COVID-19)	3192	10474.5	20580	10138.3	150224	10843.8
Cryptosporidiosis	1	3.3	9	4.4	61	4.4
Cyclosporiasis	0	0	0	0	1	0.1
Ehrlichiosis	0	0	1	0.5	7	0.5
Ehrlichiosis/Anaplasmosis, undetermined	0	0	0	0	1	0.1
Emerging Infection	0	0	0	0	6	0.4
Giardiasis	4	13.1	6	3	99	7.1
Gonorrhea	3	9.8	157	77.3	621	44.8
Group A <i>Streptococcus</i> , invasive	1	3.3	25	12.3	122	8.8
<i>Haemophilus influenzae</i> , invasive	0	0	6	3	30	2.2
Hepatitis A, acute	1	3.3	20	9.9	64	4.6
Hepatitis B, acute	3	9.8	8	3.9	29	2.1
Hepatitis B, chronic	0	0	33	16.3	195	14.1
Hepatitis C, acute	1	3.3	21	10.3	131	9.5
Hepatitis C, chronic	27	88.6	189	93.1	1336	96.4

Condition	Count	Rate	Count	Rate	Count	Rate
Hepatitis C, perinatal infection	0	0	0	0	4	0.3
Hepatitis Non-ABC, Acute	0	0	1	0.5	1	0.1
HIV Infection	3	9.8	7	3.4	42	3
Influenza Associated Pediatric Mortality	0	0	1	0.5	3	0.2
Invasive Pneumococcal Disease	2	6.6	29	14.3	167	12.1
Legionellosis	0	0	3	1.5	25	1.8
Leptospirosis	0	0	0	0	1	0.1
Listeriosis	0	0	0	0	2	0.1
Lyme disease	40	131.3	184	90.6	2652	191.4
Malaria	0	0	2	1	9	0.6
Mpox	0	0	2	1	13	0.9
Multisystem Inflammatory Syndrome (MIS)	0	0	1	0.5	7	0.5
<i>Neisseria meningitidis</i> , invasive (Mening. disease)	0	0	0	0	2	0.1
Pertussis	0	0	8	3.9	79	5.7
Powassan	0	0	0	0	4	0.3
Rabies PEP	3	9.8	11	5.4	117	8.4
Rabies, animal	1	NA	11	NA	35	NA
Salmonellosis	1	3.3	19	9.4	150	10.8
Shiga toxin-producing <i>Escherichia coli</i> (STEC)	1	3.3	2	1	17	1.2
Shigellosis	0	0	3	1.5	11	0.8
Spotted Fever Rickettsiosis	0	0	0	0	1	0.1
Streptococcal toxic-shock syndrome	1	3.3	5	2.5	16	1.2
Syphilis	0	0	9	4.4	112	8.1
Syphilis, congenital	0	0	1	0.5	3	0.2
Tuberculosis	0	0	3	1.5	17	1.2
Tularemia	0	0	0	0	1	0.1
Varicella (Chickenpox)	0	0	3	1.5	41	3
Vibriosis	0	0	0	0	12	0.9

Counts of confirmed and probable cases. Rates of confirmed and probable cases per 100,000 people.

HANCOCK COUNTY



Condition	County		District		State	
	Count	Rate	Count	Rate	Count	Rate
Acute flaccid myelitis	0	0	0	0	3	0.2
<i>Anaplasma phagocytophilum</i>	78	137.6	94	106.7	824	59.5
Babesiosis	23	40.6	26	29.5	193	13.9
<i>Borrelia miyamotoi</i>	2	3.5	2	2.3	12	0.9
Botulism	0	0	0	0	1	0.1
Brucellosis	0	0	0	0	1	0.1
Campylobacteriosis	12	21.2	14	15.9	215	15.5
Carbapenemase-Producing Carbapenem-Resistant Organisms (CP CRO)	1	1.8	4	4.5	54	3.9
<i>Chlamydia trachomatis</i> infection	81	142.9	122	138.4	3137	226.4
Coronavirus Disease 2019 (COVID-19)	5095	8985.7	7855	8912.2	150224	10843.8
Cryptosporidiosis	4	7.1	9	10.2	61	4.4
Cyclosporiasis	0	0	0	0	1	0.1
Ehrlichiosis	0	0	0	0	7	0.5
Ehrlichiosis/Anaplasmosis, undetermined	0	0	0	0	1	0.1
Emerging Infection	0	0	1	1.1	6	0.4
Giardiasis	8	14.1	12	13.6	99	7.1
Gonorrhea	16	28.2	18	20.4	621	44.8
Group A <i>Streptococcus</i> , invasive	6	10.6	9	10.2	122	8.8
<i>Haemophilus influenzae</i> , invasive	3	5.3	4	4.5	30	2.2
Hepatitis A, acute	1	1.8	1	1.1	64	4.6
Hepatitis B, acute	2	3.5	3	3.4	29	2.1
Hepatitis B, chronic	5	8.8	8	9.1	195	14.1
Hepatitis C, acute	7	12.3	10	11.3	131	9.5
Hepatitis C, chronic	29	51.1	58	65.8	1336	96.4

Condition	Count	Rate	Count	Rate	Count	Rate
Hepatitis C, perinatal infection	0	0	0	0	4	0.3
Hepatitis Non-ABC, Acute	0	0	0	0	1	0.1
HIV Infection	1	1.8	3	3.4	42	3
Influenza Associated Pediatric Mortality	0	0	0	0	3	0.2
Invasive Pneumococcal Disease	8	14.1	10	11.3	167	12.1
Legionellosis	2	3.5	2	2.3	25	1.8
Leptospirosis	0	0	0	0	1	0.1
Listeriosis	1	1.8	1	1.1	2	0.1
Lyme disease	363	640.2	457	518.5	2652	191.4
Malaria	0	0	0	0	9	0.6
Mpox	1	1.8	1	1.1	13	0.9
Multisystem Inflammatory Syndrome (MIS)	0	0	0	0	7	0.5
<i>Neisseria meningitidis</i> , invasive (Mening. disease)	0	0	0	0	2	0.1
Pertussis	1	1.8	1	1.1	79	5.7
Powassan	0	0	0	0	4	0.3
Rabies PEP	2	3.5	3	3.4	117	8.4
Rabies, animal	1	NA	1	NA	35	NA
Salmonellosis	8	14.1	12	13.6	150	10.8
Shiga toxin-producing <i>Escherichia coli</i> (STEC)	0	0	0	0	17	1.2
Shigellosis	0	0	0	0	11	0.8
Spotted Fever Rickettsiosis	0	0	0	0	1	0.1
Streptococcal toxic-shock syndrome	1	1.8	2	2.3	16	1.2
Syphilis	5	8.8	7	7.9	112	8.1
Syphilis, congenital	0	0	0	0	3	0.2
Tuberculosis	2	3.5	2	2.3	17	1.2
Tularemia	0	0	0	0	1	0.1
Varicella (Chickenpox)	3	5.3	4	4.5	41	3
Vibriosis	1	1.8	2	2.3	12	0.9

Counts of confirmed and probable cases. Rates of confirmed and probable cases per 100,000 people.

KENNEBEC COUNTY



125,540

Population



9%
of Maine's
Total Population

Condition	County		District		State	
	Count	Rate	Count	Rate	Count	Rate
Acute flaccid myelitis	2	1.6	2	1.1	3	0.2
<i>Anaplasma phagocytophilum</i>	87	69.3	114	64.5	824	59.5
Babesiosis	25	19.9	28	15.9	193	13.9
<i>Borrelia miyamotoi</i>	2	1.6	2	1.1	12	0.9
Botulism	0	0	0	0	1	0.1
Brucellosis	0	0	0	0	1	0.1
Campylobacteriosis	11	8.8	22	12.5	215	15.5
Carbapenemase-Producing Carbapenem-Resistant Organisms (CP CRO)	3	2.4	7	4	54	3.9
<i>Chlamydia trachomatis</i> infection	310	246.9	426	241.2	3137	226.4
Coronavirus Disease 2019 (COVID-19)	14056	11196.4	19688	11146	150224	10843.8
Cryptosporidiosis	6	4.8	13	7.4	61	4.4
Cyclosporiasis	0	0	0	0	1	0.1
Ehrlichiosis	4	3.2	4	2.3	7	0.5
Ehrlichiosis/Anaplasmosis, undetermined	1	0.8	1	0.6	1	0.1
Emerging Infection	2	1.6	2	1.1	6	0.4
Giardiasis	7	5.6	12	6.8	99	7.1
Gonorrhea	52	41.4	62	35.1	621	44.8
Group A <i>Streptococcus</i> , invasive	12	9.6	15	8.5	122	8.8
<i>Haemophilus influenzae</i> , invasive	1	0.8	3	1.7	30	2.2
Hepatitis A, acute	14	11.2	28	15.9	64	4.6
Hepatitis B, acute	1	0.8	1	0.6	29	2.1
Hepatitis B, chronic	6	4.8	13	7.4	195	14.1
Hepatitis C, acute	15	11.9	26	14.7	131	9.5
Hepatitis C, chronic	98	78.1	140	79.3	1336	96.4

Condition	Count	Rate	Count	Rate	Count	Rate
Hepatitis C, perinatal infection	0	0	0	0	4	0.3
Hepatitis Non-ABC, Acute	0	0	0	0	1	0.1
HIV Infection	2	1.6	4	2.3	42	3
Influenza Associated Pediatric Mortality	0	0	1	0.6	3	0.2
Invasive Pneumococcal Disease	19	15.1	26	14.7	167	12.1
Legionellosis	3	2.4	4	2.3	25	1.8
Leptospirosis	0	0	0	0	1	0.1
Listeriosis	0	0	0	0	2	0.1
Lyme disease	233	185.6	360	203.8	2652	191.4
Malaria	0	0	0	0	9	0.6
Mpox	0	0	0	0	13	0.9
Multisystem Inflammatory Syndrome (MIS)	0	0	1	0.6	7	0.5
<i>Neisseria meningitidis</i> , invasive (Mening. disease)	0	0	1	0.6	2	0.1
Pertussis	0	0	0	0	79	5.7
Powassan	0	0	0	0	4	0.3
Rabies PEP	19	15.1	25	14.2	117	8.4
Rabies, animal	3	NA	4	NA	35	NA
Salmonellosis	13	10.4	20	11.3	150	10.8
Shiga toxin-producing <i>Escherichia coli</i> (STEC)	3	2.4	4	2.3	17	1.2
Shigellosis	0	0	0	0	11	0.8
Spotted Fever Rickettsiosis	0	0	0	0	1	0.1
Streptococcal toxic-shock syndrome	0	0	0	0	16	1.2
Syphilis	15	11.9	16	9.1	112	8.1
Syphilis, congenital	0	0	0	0	3	0.2
Tuberculosis	0	0	0	0	17	1.2
Tularemia	0	0	0	0	1	0.1
Varicella (Chickenpox)	2	1.6	5	2.8	41	3
Vibriosis	2	1.6	4	2.3	12	0.9

Counts of confirmed and probable cases. Rates of confirmed and probable cases per 100,000 people.

KNOX COUNTY



41,164

Population



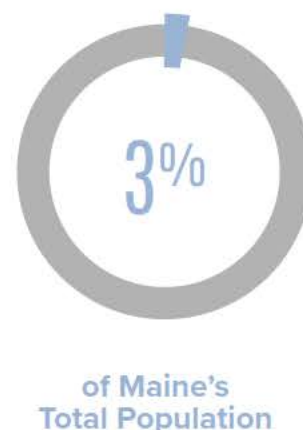
3%
of Maine's
Total Population

Condition	County		District		State	
	Count	Rate	Count	Rate	Count	Rate
Acute flaccid myelitis	0	0	0	0	3	0.2
<i>Anaplasma phagocytophilum</i>	94	228.4	326	210.3	824	59.5
Babesiosis	28	68	75	48.4	193	13.9
<i>Borrelia miyamotoi</i>	1	2.4	3	1.9	12	0.9
Botulism	0	0	0	0	1	0.1
Brucellosis	0	0	0	0	1	0.1
Campylobacteriosis	2	4.9	22	14.2	215	15.5
Carbapenemase-Producing Carbapenem-Resistant Organisms (CP CRO)	0	0	4	2.6	54	3.9
<i>Chlamydia trachomatis</i> infection	65	157.9	245	158.1	3137	226.4
Coronavirus Disease 2019 (COVID-19)	4331	10521.3	15332	9890.8	150244	10843.8
Cryptosporidiosis	0	0	1	0.6	61	4.4
Cyclosporiasis	0	0	0	0	1	0.1
Ehrlichiosis	1	2.4	2	1.3	7	0.5
Ehrlichiosis/Anaplasmosis, undetermined	0	0	0	0	1	0.1
Emerging Infection	0	0	1	0.6	6	0.4
Giardiasis	6	14.6	18	11.6	99	7.1
Gonorrhea	7	17	29	18.7	621	44.8
Group A <i>Streptococcus</i> , invasive	0	0	5	3.2	122	8.8
<i>Haemophilus influenzae</i> , invasive	1	2.4	5	3.2	30	2.2
Hepatitis A, acute	1	2.4	9	5.8	64	4.6
Hepatitis B, acute	0	0	4	2.6	29	2.1
Hepatitis B, chronic	0	0	7	4.5	195	14.1
Hepatitis C, acute	7	17	15	9.7	131	9.5
Hepatitis C, chronic	51	123.9	157	101.3	1336	96.4

Condition	Count	Rate	Count	Rate	Count	Rate
Hepatitis C, perinatal infection	0	0	0	0	4	0.3
Hepatitis Non-ABC, Acute	0	0	0	0	1	0.1
HIV Infection	0	0	0	0	42	3
Influenza Associated Pediatric Mortality	0	0	0	0	3	0.2
Invasive Pneumococcal Disease	4	9.7	26	16.8	167	12.1
Legionellosis	0	0	3	1.9	25	1.8
Leptospirosis	0	0	0	0	1	0.1
Listeriosis	0	0	0	0	2	0.1
Lyme disease	264	641.3	752	485.1	2652	191.4
Malaria	0	0	0	0	9	0.6
Mpox	1	2.4	2	1.3	13	0.9
Multisystem Inflammatory Syndrome (MIS)	0	0	0	0	7	0.5
<i>Neisseria meningitidis</i> , invasive (Mening. disease)	0	0	1	0.6	2	0.1
Pertussis	0	0	38	24.5	79	5.7
Powassan	0	0	1	0.6	4	0.3
Rabies PEP	5	12.1	12	7.7	117	8.4
Rabies, animal	1	NA	5	NA	35	NA
Salmonellosis	3	7.3	16	10.3	150	10.8
Shiga toxin-producing <i>Escherichia coli</i> (STEC)	1	2.4	3	1.9	17	1.2
Shigellosis	0	0	0	0	11	0.8
Spotted Fever Rickettsiosis	0	0	1	0.6	1	0.1
Streptococcal toxic-shock syndrome	0	0	0	0	16	1.2
Syphilis	1	2.4	6	3.9	112	8.1
Syphilis, congenital	0	0	0	0	3	0.2
Tuberculosis	0	0	0	0	17	1.2
Tularemia	0	0	0	0	1	0.1
Varicella (Chickenpox)	0	0	9	5.8	41	3
Vibriosis	0	0	1	0.6	12	0.9

Counts of confirmed and probable cases. Rates of confirmed and probable cases per 100,000 people.

LINCOLN COUNTY



Condition	County		District		State	
	Count	Rate	Count	Rate	Count	Rate
Acute flaccid myelitis	0	0	0	0	3	0.2
<i>Anaplasma phagocytophilum</i>	108	298.2	326	210.3	824	59.5
Babesiosis	19	52.5	75	48.4	193	13.9
<i>Borrelia miyamotoi</i>	1	2.8	3	1.9	12	0.9
Botulism	0	0	0	0	1	0.1
Brucellosis	0	0	0	0	1	0.1
Campylobacteriosis	3	8.3	22	14.2	215	15.5
Carbapenemase-Producing Carbapenem-Resistant Organisms (CP CRO)	1	2.8	4	2.6	54	3.9
<i>Chlamydia trachomatis</i> infection	59	162.9	245	158.1	3137	226.4
Coronavirus Disease 2019 (COVID-19)	3562	9835.7	15332	9890.8	150224	10843.8
Cryptosporidiosis	1	2.8	1	0.6	61	4.4
Cyclosporiasis	0	0	0	0	1	0.1
Ehrlichiosis	1	2.8	2	1.3	7	0.5
Ehrlichiosis/Anaplasmosis, undetermined	0	0	0	0	1	0.1
Emerging Infection	0	0	1	0.6	6	0.4
Giardiasis	3	8.3	18	11.6	99	7.1
Gonorrhea	4	11	29	18.7	621	44.8
Group A <i>Streptococcus</i> , invasive	2	5.5	5	3.2	122	8.8
<i>Haemophilus influenzae</i> , invasive	2	5.5	5	3.2	30	2.2
Hepatitis A, acute	2	5.5	9	5.8	64	4.6
Hepatitis B, acute	0	0	4	2.6	29	2.1
Hepatitis B, chronic	3	8.3	7	4.5	195	14.1
Hepatitis C, acute	4	11	15	9.7	131	9.5
Hepatitis C, chronic	35	96.6	157	101.3	1336	96.4

Condition	Count	Rate	Count	Rate	Count	Rate
Hepatitis C, perinatal infection	0	0	0	0	4	0.3
Hepatitis Non-ABC, Acute	0	0	0	0	1	0.1
HIV Infection	0	0	0	0	42	3
Influenza Associated Pediatric Mortality	0	0	0	0	3	0.2
Invasive Pneumococcal Disease	6	16.6	26	16.8	167	12.1
Legionellosis	0	0	3	1.9	25	1.8
Leptospirosis	0	0	0	0	1	0.1
Listeriosis	0	0	0	0	2	0.1
Lyme disease	184	508.1	752	485.1	2652	191.4
Malaria	0	0	0	0	9	0.6
Mpox	0	0	2	1.3	13	0.9
Multisystem Inflammatory Syndrome (MIS)	0	0	0	0	7	0.5
<i>Neisseria meningitidis, invasive</i> (Mening. disease)	0	0	1	0.6	2	0.1
Pertussis	0	0	38	24.5	79	5.7
Powassan	0	0	1	0.6	4	0.3
Rabies PEP	3	8.3	12	7.7	117	8.4
Rabies, animal	1	NA	5	NA	35	NA
Salmonellosis	5	13.8	16	10.3	150	10.8
Shiga toxin-producing <i>Escherichia coli</i> (STEC)	0	0	3	1.9	17	1.2
Shigellosis	0	0	0	0	11	0.8
Spotted Fever Rickettsiosis	1	2.8	1	0.6	1	0.1
Streptococcal toxic-shock syndrome	0	0	0	0	16	1.2
Syphilis	2	5.5	6	3.9	112	8.1
Syphilis, congenital	0	0	0	0	3	0.2
Tuberculosis	0	0	0	0	17	1.2
Tularemia	0	0	0	0	1	0.1
Varicella (Chickenpox)	7	19.3	9	5.8	41	3
Vibriosis	0	0	1	0.6	12	0.9

Counts of confirmed and probable cases. Rates of confirmed and probable cases per 100,000 people.

OXFORD COUNTY

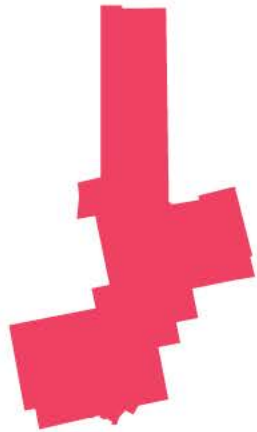


Condition	County		District		State	
	Count	Rate	Count	Rate	Count	Rate
Acute flaccid myelitis	0	0	0	0	3	0.2
<i>Anaplasma phagocytophilum</i>	31	52.1	103	50.7	824	59.5
Babesiosis	3	5	15	7.4	193	13.9
<i>Borrelia miyamotoi</i>	0	0	2	1	12	0.9
Botulism	0	0	0	0	1	0.1
Brucellosis	0	0	0	0	1	0.1
Campylobacteriosis	14	23.5	27	13.3	215	15.5
Carbapenemase-Producing Carbapenem-Resistant Organisms (CP CRO)	1	1.7	7	3.4	54	3.9
<i>Chlamydia trachomatis</i> infection	131	220.2	557	274.4	3137	226.4
Coronavirus Disease 2019 (COVID-19)	6134	10310.1	20580	10138.3	150224	10843.8
Cryptosporidiosis	4	6.7	9	4.4	61	4.4
Cyclosporiasis	0	0	0	0	1	0.1
Ehrlichiosis	0	0	1	0.5	7	0.5
Ehrlichiosis/Anaplasmosis, undetermined	0	0	0	0	1	0.1
Emerging Infection	0	0	0	0	6	0.4
Giardiasis	2	3.4	6	3	99	7.1
Gonorrhea	17	28.6	157	77.3	621	44.8
Group A <i>Streptococcus</i> , invasive	7	11.8	25	12.3	122	8.8
<i>Haemophilus influenzae</i> , invasive	1	1.7	6	3	30	2.2
Hepatitis A, acute	1	1.7	20	9.9	64	4.6
Hepatitis B, acute	2	3.4	8	3.9	29	2.1
Hepatitis B, chronic	3	5	33	16.3	195	14.1
Hepatitis C, acute	5	8.4	21	10.3	131	9.5
Hepatitis C, chronic	61	102.5	189	93.1	1336	96.4

Condition	Count	Rate	Count	Rate	Count	Rate
Hepatitis C, perinatal infection	0	0	0	0	4	0.3
Hepatitis Non-ABC, Acute	0	0	1	0.5	1	0.1
HIV Infection	0	0	7	3.4	42	3
Influenza Associated Pediatric Mortality	1	1.7	1	0.5	3	0.2
Invasive Pneumococcal Disease	13	21.9	29	14.3	167	12.1
Legionellosis	1	1.7	3	1.5	25	1.8
Leptospirosis	0	0	0	0	1	0.1
Listeriosis	0	0	0	0	2	0.1
Lyme disease	65	109.3	184	90.6	2652	191.4
Malaria	0	0	2	1	9	0.6
Mpox	0	0	2	1	13	0.9
Multisystem Inflammatory Syndrome (MIS)	1	1.7	1	0.5	7	0.5
<i>Neisseria meningitidis</i> , invasive (Mening. disease)	0	0	0	0	2	0.1
Pertussis	2	3.4	8	3.9	79	5.7
Powassan	0	0	0	0	4	0.3
Rabies PEP	2	3.4	11	5.4	117	8.4
Rabies, animal	5	NA	11	NA	35	NA
Salmonellosis	9	15.1	19	9.4	150	10.8
Shiga toxin-producing <i>Escherichia coli</i> (STEC)	0	0	2	1	17	1.2
Shigellosis	0	0	3	1.5	11	0.8
Spotted Fever Rickettsiosis	0	0	0	0	1	0.1
Streptococcal toxic-shock syndrome	3	5	5	2.5	16	1.2
Syphilis	1	1.7	9	4.4	112	8.1
Syphilis, congenital	0	0	1	0.5	3	0.2
Tuberculosis	0	0	3	1.5	17	1.2
Tularemia	0	0	0	0	1	0.1
Varicella (Chickenpox)	2	3.4	3	1.5	41	3
Vibriosis	0	0	0	0	12	0.9

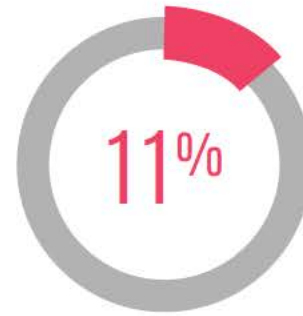
Counts of confirmed and probable cases. Rates of confirmed and probable cases per 100,000 people.

PENOBSCOT COUNTY



153,704

Population



11%
of Maine's
Total Population

Condition	County		District		State	
	Count	Rate	Count	Rate	Count	Rate
Acute flaccid myelitis	0	0	0	0	3	0.2
<i>Anaplasma phagocytophilum</i>	45	29.3	46	26.9	824	59.5
Babesiosis	7	4.6	7	4.1	193	13.9
<i>Borrelia miyamotoi</i>	1	0.7	1	0.6	12	0.9
Botulism	0	0	0	0	1	0.1
Brucellosis	0	0	0	0	1	0.1
Campylobacteriosis	18	11.7	23	13.4	215	15.5
Carbapenemase-Producing Carbapenem-Resistant Organisms (CP CRO)	2	1.3	2	1.2	54	3.9
<i>Chlamydia trachomatis</i> infection	415	270	445	260	3137	226.4
Coronavirus Disease 2019 (COVID-19)	17577	11435.6	19284	11269.2	150224	10843.8
Cryptosporidiosis	11	7.2	11	6.4	61	4.4
Cyclosporiasis	1	0.7	1	0.6	1	0.1
Ehrlichiosis	0	0	0	0	7	0.5
Ehrlichiosis/Anaplasmosis, undetermined	0	0	0	0	1	0.1
Emerging Infection	0	0	0	0	6	0.4
Giardiasis	15	9.8	16	9.4	99	7.1
Gonorrhea	95	61.8	97	56.7	621	44.8
Group A <i>Streptococcus</i> , invasive	24	15.6	28	16.4	122	8.8
<i>Haemophilus influenzae</i> , invasive	4	2.6	5	2.9	30	2.2
Hepatitis A, acute	2	1.3	3	1.8	64	4.6
Hepatitis B, acute	4	2.6	4	2.3	29	2.1
Hepatitis B, chronic	27	17.6	28	16.4	195	14.1
Hepatitis C, acute	21	13.7	24	14	131	9.5
Hepatitis C, chronic	172	111.9	186	108.7	1336	96.4

Condition	Count	Rate	Count	Rate	Count	Rate
Hepatitis C, perinatal infection	1	0.7	1	0.6	4	0.3
Hepatitis Non-ABC, Acute	0	0	0	0	1	0.1
HIV Infection	0	0	0	0	42	3
Influenza Associated Pediatric Mortality	0	0	0	0	3	0.2
Invasive Pneumococcal Disease	26	16.9	29	16.9	167	12.1
Legionellosis	3	2	3	1.8	25	1.8
Leptospirosis	0	0	0	0	1	0.1
Listeriosis	0	0	0	0	2	0.1
Lyme disease	239	155.5	254	148.4	2652	191.4
Malaria	1	0.7	1	0.6	9	0.6
Mpox	0	0	0	0	13	0.9
Multisystem Inflammatory Syndrome (MIS)	0	0	0	0	7	0.5
<i>Neisseria meningitidis</i> , invasive (Mening. disease)	0	0	0	0	2	0.1
Pertussis	3	2	3	1.8	79	5.7
Powassan	1	0.7	1	0.6	4	0.3
Rabies PEP	8	5.2	12	7	117	8.4
Rabies, animal	3	NA	4	NA	35	NA
Salmonellosis	14	9.1	15	8.8	150	10.8
Shiga toxin-producing <i>Escherichia coli</i> (STEC)	1	0.7	1	0.6	17	1.2
Shigellosis	0	0	0	0	11	0.8
Spotted Fever Rickettsiosis	0	0	0	0	1	0.1
Streptococcal toxic-shock syndrome	4	2.6	5	2.9	16	1.2
Syphilis	21	13.7	22	12.9	112	8.1
Syphilis, congenital	2	1.3	2	1.2	3	0.2
Tuberculosis	1	0.7	1	0.6	17	1.2
Tularemia	1	0.7	1	0.6	1	0.1
Varicella (Chickenpox)	5	3.3	6	3.5	41	3
Vibriosis	0	0	0	0	12	0.9

Counts of confirmed and probable cases. Rates of confirmed and probable cases per 100,000 people.

PISCATAQUIS COUNTY



Population



of Maine's
Total Population

Condition	County		District		State	
	Count	Rate	Count	Rate	Count	Rate
Acute flaccid myelitis	0	0	0	0	3	0.2
<i>Anaplasma phagocytophilum</i>	1	5.7	46	26.9	824	59.5
Babesiosis	0	0	7	4.1	193	13.9
<i>Borrelia miyamotoi</i>	0	0	1	0.6	12	0.9
Botulism	0	0	0	0	1	0.1
Brucellosis	0	0	0	0	1	0.1
Campylobacteriosis	5	28.7	23	13.4	215	15.5
Carbapenemase-Producing Carbapenem-Resistant Organisms (CP CRO)	0	0	2	1.2	54	3.9
<i>Chlamydia trachomatis</i> infection	30	172.2	445	260	3137	226.4
Coronavirus Disease 2019 (COVID-19)	1707	9800.8	19284	11269.2	150224	10843.8
Cryptosporidiosis	0	0	11	6.4	61	4.4
Cyclosporiasis	0	0	1	0.6	1	0.1
Ehrlichiosis	0	0	0	0	7	0.5
Ehrlichiosis/Anaplasmosis, undetermined	0	0	0	0	1	0.1
Emerging Infection	0	0	0	0	6	0.4
Giardiasis	1	5.7	16	9.4	99	7.1
Gonorrhea	2	11.5	97	56.7	621	44.8
Group A <i>Streptococcus</i> , invasive	4	23	28	16.4	122	8.8
<i>Haemophilus influenzae</i> , invasive	1	5.7	5	2.9	30	2.2
Hepatitis A, acute	1	5.7	3	1.8	64	4.6
Hepatitis B, acute	0	0	4	2.3	29	2.1
Hepatitis B, chronic	1	5.7	28	16.4	195	14.1
Hepatitis C, acute	3	17.2	24	14	131	9.5
Hepatitis C, chronic	14	80.4	186	108.7	1336	96.4

Condition	Count	Rate	Count	Rate	Count	Rate
Hepatitis C, perinatal infection	0	0	1	0.6	4	0.3
Hepatitis Non-ABC, Acute	0	0	0	0	1	0.1
HIV Infection	0	0	0	0	42	3
Influenza Associated Pediatric Mortality	0	0	0	0	3	0.2
Invasive Pneumococcal Disease	3	17.2	29	16.9	167	12.1
Legionellosis	0	0	3	1.8	25	1.8
Leptospirosis	0	0	0	0	1	0.1
Listeriosis	0	0	0	0	2	0.1
Lyme disease	15	86.1	254	148.4	2652	191.4
Malaria	0	0	1	0.6	9	0.6
Mpox	0	0	0	0	13	0.9
Multisystem Inflammatory Syndrome (MIS)	0	0	0	0	7	0.5
<i>Neisseria meningitidis</i> , invasive (Mening. disease)	0	0	0	0	2	0.1
Pertussis	0	0	3	1.8	79	5.7
Powassan	0	0	1	0.6	4	0.3
Rabies PEP	4	23	12	7	117	8.4
Rabies, animal	1	NA	4	NA	35	NA
Salmonellosis	1	5.7	15	8.8	150	10.8
Shiga toxin-producing <i>Escherichia coli</i> (STEC)	0	0	1	0.6	17	1.2
Shigellosis	0	0	0	0	11	0.8
Spotted Fever Rickettsiosis	0	0	0	0	1	0.1
Streptococcal toxic-shock syndrome	1	5.7	5	2.9	16	1.2
Syphilis	1	5.7	22	12.9	112	8.1
Syphilis, congenital	0	0	2	1.2	3	0.2
Tuberculosis	0	0	1	0.6	17	1.2
Tularemia	0	0	1	0.6	1	0.1
Varicella (Chickenpox)	1	5.7	6	3.5	41	3
Vibriosis	0	0	0	0	12	0.9

Counts of confirmed and probable cases. Rates of confirmed and probable cases per 100,000 people.

SAGADAHOC COUNTY



Population



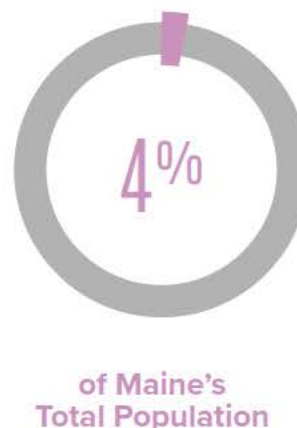
of Maine's
Total Population

Condition	County		District		State	
	Count	Rate	Count	Rate	Count	Rate
Acute flaccid myelitis	0	0	0	0	3	0.2
<i>Anaplasma phagocytophilum</i>	38	101.6	326	210.3	824	59.5
Babesiosis	9	24.1	75	48.4	193	13.9
<i>Borrelia miyamotoi</i>	1	2.7	3	1.9	12	0.9
Botulism	0	0	0	0	1	0.1
Brucellosis	0	0	0	0	1	0.1
Campylobacteriosis	6	16	22	14.2	215	15.5
Carbapenemase-Producing Carbapenem-Resistant Organisms (CP CRO)	0	0	4	2.6	54	3.9
<i>Chlamydia trachomatis</i> infection	49	131	245	158.1	3137	226.4
Coronavirus Disease 2019 (COVID-19)	3565	9533.9	15332	9890.8	150224	10843.8
Cryptosporidiosis	0	0	1	0.6	61	4.4
Cyclosporiasis	0	0	0	0	1	0.1
Ehrlichiosis	0	0	2	1.3	7	0.5
Ehrlichiosis/Anaplasmosis, undetermined	0	0	0	0	1	0.1
Emerging Infection	1	2.7	1	0.6	6	0.4
Giardiasis	5	13.4	18	11.6	99	7.1
Gonorrhea	10	26.7	29	18.7	621	44.8
Group A <i>Streptococcus</i> , invasive	2	5.3	5	3.2	122	8.8
<i>Haemophilus influenzae</i> , invasive	2	5.3	5	3.2	30	2.2
Hepatitis A, acute	5	13.4	9	5.8	64	4.6
Hepatitis B, acute	1	2.7	4	2.6	29	2.1
Hepatitis B, chronic	1	2.7	7	4.5	195	14.1
Hepatitis C, acute	2	5.3	15	9.7	131	9.5
Hepatitis C, chronic	30	80.2	157	101.3	1336	96.4

Condition	Count	Rate	Count	Rate	Count	Rate
Hepatitis C, perinatal infection	0	0	0	0	4	0.3
Hepatitis Non-ABC, Acute	0	0	0	0	1	0.1
HIV Infection	0	0	0	0	42	3
Influenza Associated Pediatric Mortality	0	0	0	0	3	0.2
Invasive Pneumococcal Disease	2	5.3	26	16.8	167	12.1
Legionellosis	3	8	3	1.9	25	1.8
Leptospirosis	0	0	0	0	1	0.1
Listeriosis	0	0	0	0	2	0.1
Lyme disease	101	270.1	752	485.1	2652	191.4
Malaria	0	0	0	0	9	0.6
Mpox	1	2.7	2	1.3	13	0.9
Multisystem Inflammatory Syndrome (MIS)	0	0	0	0	7	0.5
<i>Neisseria meningitidis</i> , invasive (Mening. disease)	0	0	1	0.6	2	0.1
Pertussis	1	2.7	38	24.5	79	5.7
Powassan	0	0	1	0.6	4	0.3
Rabies PEP	1	2.7	12	7.7	117	8.4
Rabies, animal	1	NA	5	NA	35	NA
Salmonellosis	5	13.4	16	10.3	150	10.8
Shiga toxin-producing <i>Escherichia coli</i> (STEC)	0	0	3	1.9	17	1.2
Shigellosis	0	0	0	0	11	0.8
Spotted Fever Rickettsiosis	0	0	1	0.6	1	0.1
Streptococcal toxic-shock syndrome	0	0	0	0	16	1.2
Syphilis	1	2.7	6	3.9	112	8.1
Syphilis, congenital	0	0	0	0	3	0.2
Tuberculosis	0	0	0	0	17	1.2
Tularemia	0	0	0	0	1	0.1
Varicella (Chickenpox)	2	5.3	9	5.8	41	3
Vibriosis	0	0	1	0.6	12	0.9

Counts of confirmed and probable cases. Rates of confirmed and probable cases per 100,000 people.

SOMERSET COUNTY



Condition	County		District		State	
	Count	Rate	Count	Rate	Count	Rate
Acute flaccid myelitis	0	0	2	1.1	3	0.2
<i>Anaplasma phagocytophilum</i>	27	52.8	114	64.5	824	59.5
Babesiosis	3	5.9	28	15.9	193	13.9
<i>Borrelia miyamotoi</i>	0	0	2	1.1	12	0.9
Botulism	0	0	0	0	1	0.1
Brucellosis	0	0	0	0	1	0.1
Campylobacteriosis	11	21.5	22	12.5	215	15.5
Carbapenemase-Producing Carbapenem-Resistant Organisms (CP CRO)	4	7.8	7	4	54	3.9
<i>Chlamydia trachomatis</i> infection	116	227	426	241.2	3137	226.4
Coronavirus Disease 2019 (COVID-19)	5632	11022	19688	11146	150224	10843.8
Cryptosporidiosis	7	13.7	13	7.4	61	4.4
Cyclosporiasis	0	0	0	0	1	0.1
Ehrlichiosis	0	0	4	2.3	7	0.5
Ehrlichiosis/Anaplasmosis, undetermined	0	0	1	0.6	1	0.1
Emerging Infection	0	0	2	1.1	6	0.4
Giardiasis	5	9.8	12	6.8	99	7.1
Gonorrhea	10	19.6	62	35.1	621	44.8
Group A <i>Streptococcus</i> , invasive	3	5.9	15	8.5	122	8.8
<i>Haemophilus influenzae</i> , invasive	2	3.9	3	1.7	30	2.2
Hepatitis A, acute	14	27.4	28	15.9	64	4.6
Hepatitis B, acute	0	0	1	0.6	29	2.1
Hepatitis B, chronic	7	13.7	13	7.4	195	14.1
Hepatitis C, acute	11	21.5	26	14.7	131	9.5
Hepatitis C, chronic	42	82.2	140	79.3	1336	96.4

Condition	Count	Rate	Count	Rate	Count	Rate
Hepatitis C, perinatal infection	0	0	0	0	4	0.3
Hepatitis Non-ABC, Acute	0	0	0	0	1	0.1
HIV Infection	2	3.9	4	2.3	42	3
Influenza Associated Pediatric Mortality	1	2	1	0.6	3	0.2
Invasive Pneumococcal Disease	7	13.7	26	14.7	167	12.1
Legionellosis	1	2	4	2.3	25	1.8
Leptospirosis	0	0	0	0	1	0.1
Listeriosis	0	0	0	0	2	0.1
Lyme disease	127	248.5	360	203.8	2652	191.4
Malaria	0	0	0	0	9	0.6
Mpox	0	0	0	0	13	0.9
Multisystem Inflammatory Syndrome (MIS)	1	2	1	0.6	7	0.5
<i>Neisseria meningitidis</i> , invasive (Mening. disease)	1	2	1	0.6	2	0.1
Pertussis	0	0	0	0	79	5.7
Powassan	0	0	0	0	4	0.3
Rabies PEP	6	11.7	25	14.2	117	8.4
Rabies, animal	1	NA	4	NA	35	NA
Salmonellosis	7	13.7	20	11.3	150	10.8
Shiga toxin-producing <i>Escherichia coli</i> (STEC)	1	2	4	2.3	17	1.2
Shigellosis	0	0	0	0	11	0.8
Spotted Fever Rickettsiosis	0	0	0	0	1	0.1
Streptococcal toxic-shock syndrome	0	0	0	0	16	1.2
Syphilis	1	2	16	9.1	112	8.1
Syphilis, congenital	0	0	0	0	3	0.2
Tuberculosis	0	0	0	0	17	1.2
Tularemia	0	0	0	0	1	0.1
Varicella (Chickenpox)	3	5.9	5	2.8	41	3
Vibriosis	2	3.9	4	2.3	12	0.9

Counts of confirmed and probable cases. Rates of confirmed and probable cases per 100,000 people.

WALDO COUNTY



Condition	County		District		State	
	Count	Rate	Count	Rate	Count	Rate
Acute flaccid myelitis	0	0	0	0	3	0.2
<i>Anaplasma phagocytophilum</i>	86	213.7	326	210.3	824	59.5
Babesiosis	19	47.2	75	48.4	193	13.9
<i>Borrelia miyamotoi</i>	0	0	3	1.9	12	0.9
Botulism	0	0	0	0	1	0.1
Brucellosis	0	0	0	0	1	0.1
Campylobacteriosis	11	27.3	22	14.2	215	15.5
Carbapenemase-Producing Carbapenem-Resistant Organisms (CP CRO)	3	7.5	4	2.6	54	3.9
<i>Chlamydia trachomatis</i> infection	72	178.9	245	158.1	3137	226.4
Coronavirus Disease 2019 (COVID-19)	3874	9627	15332	9890.8	150244	10843.8
Cryptosporidiosis	0	0	1	0.6	61	4.4
Cyclosporiasis	0	0	0	0	1	0.1
Ehrlichiosis	0	0	2	1.3	7	0.5
Ehrlichiosis/Anaplasmosis, undetermined	0	0	0	0	1	0.1
Emerging Infection	0	0	1	0.6	6	0.4
Giardiasis	4	9.9	18	11.6	99	7.1
Gonorrhea	8	19.9	29	18.7	621	44.8
Group A <i>Streptococcus</i> , invasive	1	2.5	5	3.2	122	8.8
<i>Haemophilus influenzae</i> , invasive	0	0	5	3.2	30	2.2
Hepatitis A, acute	1	2.5	9	5.8	64	4.6
Hepatitis B, acute	3	7.5	4	2.6	29	2.1
Hepatitis B, chronic	3	7.5	7	4.5	195	14.1
Hepatitis C, acute	2	5	15	9.7	131	9.5
Hepatitis C, chronic	41	101.9	157	101.3	1336	96.4

Condition	Count	Rate	Count	Rate	Count	Rate
Hepatitis C, perinatal infection	0	0	0	0	4	0.3
Hepatitis Non-ABC, Acute	0	0	0	0	1	0.1
HIV Infection	0	0	0	0	42	3
Influenza Associated Pediatric Mortality	0	0	0	0	3	0.2
Invasive Pneumococcal Disease	14	34.8	26	16.8	167	12.1
Legionellosis	0	0	3	1.9	25	1.8
Leptospirosis	0	0	0	0	1	0.1
Listeriosis	0	0	0	0	2	0.1
Lyme disease	203	504.5	752	485.1	2652	191.4
Malaria	0	0	0	0	9	0.6
Mpox	0	0	2	1.3	13	0.9
Multisystem Inflammatory Syndrome (MIS)	0	0	0	0	7	0.5
<i>Neisseria meningitidis</i> , invasive (Mening. disease)	1	2.5	1	0.6	2	0.1
Pertussis	37	91.9	38	24.5	79	5.7
Powassan	1	2.5	1	0.6	4	0.3
Rabies PEP	3	7.5	12	7.7	117	8.4
Rabies, animal	2	NA	5	NA	35	NA
Salmonellosis	3	7.5	16	10.3	150	10.8
Shiga toxin-producing <i>Escherichia coli</i> (STEC)	2	5	3	1.9	17	1.2
Shigellosis	0	0	0	0	11	0.8
Spotted Fever Rickettsiosis	0	0	1	0.6	1	0.1
Streptococcal toxic-shock syndrome	0	0	0	0	16	1.2
Syphilis	2	5	6	3.9	112	8.1
Syphilis, congenital	0	0	0	0	3	0.2
Tuberculosis	0	0	0	0	17	1.2
Tularemia	0	0	0	0	1	0.1
Varicella (Chickenpox)	0	0	9	5.8	41	3
Vibriosis	1	2.5	1	0.6	12	0.9

Counts of confirmed and probable cases. Rates of confirmed and probable cases per 100,000 people.

WASHINGTON COUNTY



31,437

Population



of Maine's
Total Population

Condition	County		District		State	
	Count	Rate	Count	Rate	Count	Rate
Acute flaccid myelitis	0	0	0	0	3	0.2
<i>Anaplasma phagocytophilum</i>	16	50.9	94	106.7	824	59.5
Babesiosis	3	9.5	26	29.5	193	13.9
<i>Borrelia miyamotoi</i>	0	0	2	2.3	12	0.9
Botulism	0	0	0	0	1	0.1
Brucellosis	0	0	0	0	1	0.1
Campylobacteriosis	2	6.4	14	15.9	215	15.5
Carbapenemase-Producing Carbapenem-Resistant Organisms (CP CRO)	3	9.5	4	4.5	54	3.9
<i>Chlamydia trachomatis</i> infection	41	130.4	122	138.4	3137	226.4
Coronavirus Disease 2019 (COVID-19)	2760	8779.5	7855	8912.2	150224	10843.8
Cryptosporidiosis	5	15.9	9	10.2	61	4.4
Cyclosporiasis	0	0	0	0	1	0.1
Ehrlichiosis	0	0	0	0	7	0.5
Ehrlichiosis/Anaplasmosis, undetermined	0	0	0	0	1	0.1
Emerging Infection	1	3.2	1	1.1	6	0.4
Giardiasis	4	12.7	12	13.6	99	7.1
Gonorrhea	2	6.4	18	20.4	621	44.8
Group A <i>Streptococcus</i> , invasive	3	9.5	9	10.2	122	8.8
<i>Haemophilus influenzae</i> , invasive	1	3.2	4	4.5	30	2.2
Hepatitis A, acute	0	0	1	1.1	64	4.6
Hepatitis B, acute	1	3.2	3	3.4	29	2.1
Hepatitis B, chronic	3	9.5	8	9.1	195	14.1
Hepatitis C, acute	3	9.5	10	11.3	131	9.5
Hepatitis C, chronic	29	92.2	58	65.8	1336	96.4

Condition	Count	Rate	Count	Rate	Count	Rate
Hepatitis C, perinatal infection	0	0	0	0	4	0.3
Hepatitis Non-ABC, Acute	0	0	0	0	1	0.1
HIV Infection	2	6.4	3	3.4	42	3
Influenza Associated Pediatric Mortality	0	0	0	0	3	0.2
Invasive Pneumococcal Disease	2	6.4	10	11.3	167	12.1
Legionellosis	0	0	2	2.3	25	1.8
Leptospirosis	0	0	0	0	1	0.1
Listeriosis	0	0	1	1.1	2	0.1
Lyme disease	94	299	457	518.5	2652	191.4
Malaria	0	0	0	0	9	0.6
Mpox	0	0	1	1.1	13	0.9
Multisystem Inflammatory Syndrome (MIS)	0	0	0	0	7	0.5
<i>Neisseria meningitidis</i> , invasive (Mening. disease)	0	0	0	0	2	0.1
Pertussis	0	0	1	1.1	79	5.7
Powassan	0	0	0	0	4	0.3
Rabies PEP	1	3.2	3	3.4	117	8.4
Rabies, animal	0	NA	1	NA	35	NA
Salmonellosis	4	12.7	12	13.6	150	10.8
Shiga toxin-producing <i>Escherichia coli</i> (STEC)	0	0	0	0	17	1.2
Shigellosis	0	0	0	0	11	0.8
Spotted Fever Rickettsiosis	0	0	0	0	1	0.1
Streptococcal toxic-shock syndrome	1	3.2	2	2.3	16	1.2
Syphilis	2	6.4	7	7.9	112	8.1
Syphilis, congenital	0	0	0	0	3	0.2
Tuberculosis	0	0	2	2.3	17	1.2
Tularemia	0	0	0	0	1	0.1
Varicella (Chickenpox)	1	3.2	4	4.5	41	3
Vibriosis	1	3.2	2	2.3	12	0.9

Counts of confirmed and probable cases. Rates of confirmed and probable cases per 100,000 people.

YORK COUNTY



216,732

Population



16%
of Maine's
Total Population

Condition	County		District		State	
	Count	Rate	Count	Rate	Count	Rate
Acute flaccid myelitis	1	0.5	1	0.5	3	0.2
<i>Anaplasma phagocytophilum</i>	52	24	52	24	824	59.5
Babesiosis	17	7.8	17	7.8	193	13.9
<i>Borrelia miyamotoi</i>	1	0.5	1	0.5	12	0.9
Botulism	0	0	0	0	1	0.1
Brucellosis	0	0	0	0	1	0.1
Campylobacteriosis	42	19.4	42	19.4	215	15.5
Carbapenemase-Producing Carbapenem-Resistant Organisms (CP CRO)	13	6	13	6	54	3.9
<i>Chlamydia trachomatis</i> infection	433	199.8	433	199.8	3137	226.4
Coronavirus Disease 2019 (COVID-19)	24272	11199.5	24273	11199.5	150224	10843.8
Cryptosporidiosis	9	4.2	9	4.2	61	4.4
Cyclosporiasis	0	0	0	0	1	0.1
Ehrlichiosis	0	0	0	0	7	0.5
Ehrlichiosis/Anaplasmosis, undetermined	0	0	0	0	1	0.1
Emerging Infection	0	0	0	0	6	0.4
Giardiasis	10	4.6	10	4.6	99	7.1
Gonorrhea	75	34.6	75	34.6	621	44.8
Group A <i>Streptococcus</i> , invasive	7	3.2	7	3.2	122	8.8
<i>Haemophilus influenzae</i> , invasive	2	0.9	2	0.9	30	2.2
Hepatitis A, acute	1	0.5	1	0.5	64	4.6
Hepatitis B, acute	5	2.3	5	2.3	29	2.1
Hepatitis B, chronic	23	10.6	23	10.6	195	14.1
Hepatitis C, acute	10	4.6	10	4.6	131	9.5
Hepatitis C, chronic	200	92.3	200	92.3	1336	96.4

Condition	Count	Rate	Count	Rate	Count	Rate
Hepatitis C, perinatal infection	0	0	0	0	4	0.3
Hepatitis Non-ABC, Acute	0	0	0	0	1	0.1
HIV Infection	4	1.8	4	1.8	42	3
Influenza Associated Pediatric Mortality	0	0	0	0	3	0.2
Invasive Pneumococcal Disease	19	8.8	19	8.8	167	12.1
Legionellosis	7	3.2	7	3.2	25	1.8
Leptospirosis	0	0	0	0	1	0.1
Listeriosis	0	0	0	0	2	0.1
Lyme disease	277	127.8	277	127.8	2652	191.4
Malaria	2	0.9	2	0.9	9	0.6
Mpox	3	1.4	3	1.4	13	0.9
Multisystem Inflammatory Syndrome (MIS)	3	1.4	3	1.4	7	0.5
<i>Neisseria meningitidis</i> , invasive (Mening. disease)	0	0	0	0	2	0.1
Pertussis	24	11.1	24	11.1	79	5.7
Powassan	1	0.5	1	0.5	4	0.3
Rabies PEP	38	17.5	38	17.5	117	8.4
Rabies, animal	4	NA	4	NA	35	NA
Salmonellosis	35	16.1	35	16.1	150	10.8
Shiga toxin-producing <i>Escherichia coli</i> (STEC)	2	0.9	2	0.9	17	1.2
Shigellosis	5	2.3	5	2.3	11	0.8
Spotted Fever Rickettsiosis	0	0	0	0	1	0.1
Streptococcal toxic-shock syndrome	0	0	0	0	16	1.2
Syphilis	20	9.2	20	9.2	112	8.1
Syphilis, congenital	0	0	0	0	3	0.2
Tuberculosis	0	0	0	0	17	1.2
Tularemia	0	0	0	0	1	0.1
Varicella (Chickenpox)	3	1.4	3	1.4	41	3
Vibriosis	2	0.9	2	0.9	12	0.9

Counts of confirmed and probable cases. Rates of confirmed and probable cases per 100,000 people.

Infant Botulism Case

Maine's First in Two Decades

Infant botulism is a rare but serious infection caused by a toxin produced by the *Clostridium botulinum* bacterium. Infant botulism infection occurs when an infant swallows spores of the *C. botulinum* bacterium. The bacteria grow in the infant's large intestine and produce botulinum toxin that then attacks the body's nervous system. Infant botulism is different from foodborne botulism. Foodborne botulism occurs when a person ingests botulism toxin in food contaminated with the bacterium. Honey is the only known dietary risk factor for infant botulism infection. Maine CDC recommends not giving honey to infants 12 months of age or younger. For most cases of infant botulism, there are no sources of infection identified. The most likely source of infection comes from infants swallowing microscopic dust particles that carry the *C. botulinum* spores.

Botulism in infants usually begins with:

- Constipation
- Difficulty in feeding (sucking and swallowing)
- Weak and altered cry
- Diminished facial expression

If left untreated, infant botulism can result in muscle paralysis, respiratory failure, and death. Infant botulism is treated with botulism antitoxin. This stops further progression of symptoms. With timely administration of antitoxin, most infants fully recover over time. In 2022, Maine had its first confirmed infant botulism case reported in two decades.

On **September 8, 2022**, a Maine hospital contacted Maine CDC regarding a previously healthy full term **10-week-old infant** who was hospitalized.

The infant presented with a 10-day history of:

- Fatigue
- Poor feeding
- Constipation
- Progressively worsening descending weakness without respiratory issues
- Moderate dehydration and weight loss





The infant's medical providers consulted with pediatric infectious disease and neurology doctors. Based on clinical presentation and rule out of other possible causes through imaging, diagnostic testing, and bloodwork, the leading diagnosis became infant botulism.



The hospital contacted Maine CDC right away for notification, testing advice, and assistance in obtaining botulism antitoxin. BabyBIG is the botulism antitoxin approved for children under the age of 15 months and is made and distributed by the California Department of Public Health's Infant Botulism Treatment and Prevention Program (IBTPP). The IBTPP requires a clinical consultation prior to release of the antitoxin. Due to the urgency of botulism infection, botulism antitoxin is advised to be given upon strong clinical suspicion without needing prior laboratory confirmation.



The hospital directly contacted the IBTPP on-call doctors for a clinical consultation who agreed to the need for BabyBIG administration. The infant received the BabyBIG on September 9. Stool specimens collected on September 10 were sent for testing to U.S. CDC in Atlanta, Georgia. The stool specimen was polymerase chain reaction (PCR) positive for *C. botulinum* toxin type A on September 14 and *C. botulinum* neurotoxin type A through culture on November 23.



A Maine CDC field epidemiologist interviewed the family to identify possible exposures for infant botulism infection. The infant had only been fed with formula mixed with bottled water in the weeks prior to symptom onset. Maine CDC obtained two cans of formula from the family and submitted the formula for testing which did not find any *C. botulinum*. Other exposures identified included unintentional exposure to excessive airborne dust while walking around the perimeter of construction sites, and on family members' clothing through direct contact.



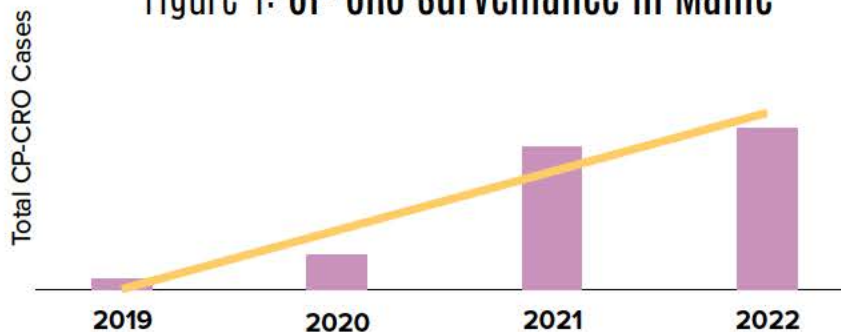
After treatment with BabyBIG, the infant made incremental progress in extremity movement, strength, and activity with continued head lag and sluggish pupils. The infant was not deemed fully recovered at the time of discharge. Symptoms most notably affected the infant's ability to take oral feeds, and the case was discharged home with a nasogastric tube for supportive feeding as health continued to improve. The infant made a full recovery within a few months of discharge from the hospital.

CARBAPENEMASE PRODUCING CARBAPENEM RESISTANT ORGANISMS (CP-CROs) IN MAINE

Beta(β)-lactamase enzymes are weapons produced by bacteria to fight certain antibiotics. These enzymes break the antibiotic, making it ineffective. In the late 1960s, scientists found the first carbapenem antibiotic that was active against β -lactamase enzymes. In 1985, the first carbapenem antibiotic became available for the treatment of complex microbial infections. By 1988, Japanese scientists isolated the first plasmid-encoded carbapenemase. This was a β -lactamase that inactivated carbapenems. Organisms that produce these enzymes can share these genes with other unrelated bacteria and spread antibiotic resistance.

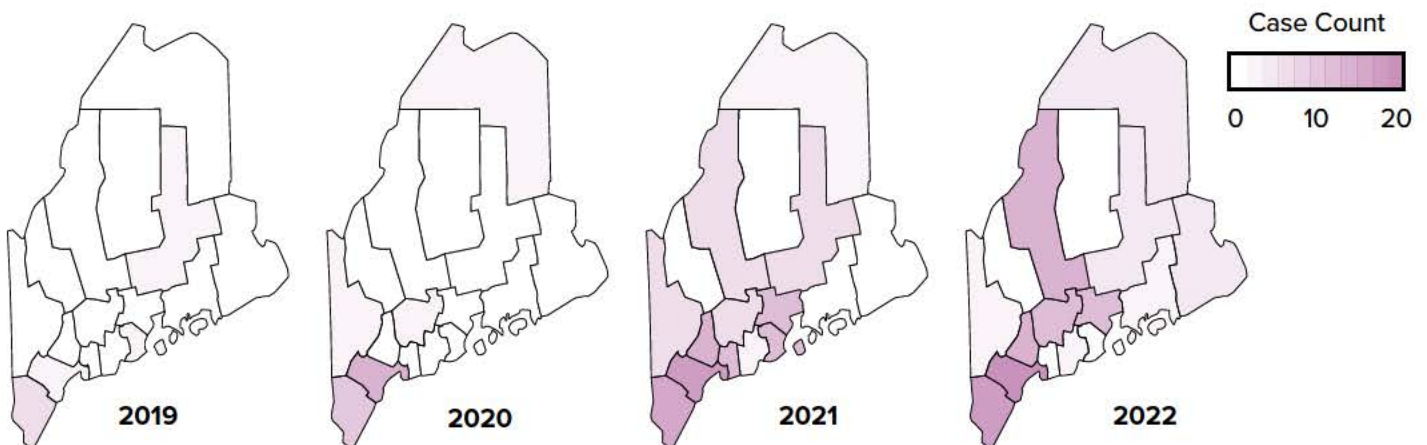
Carbapenem Resistant *Enterobacteriaceae* (CRE) became a reportable condition in Maine in 2015. This allowed Maine CDC to monitor CRE in Maine. The overarching goal was to find carbapenemase-producing carbapenem resistant *Enterobacteriaceae* (CP-CRE). This is important because Maine CDC actively responds to every report to slow the spread of these organisms, particularly within health care facilities. As testing capacity expanded, Maine CDC changed the reportable condition from CRE to Carbapenemase Producing Carbapenem Resistant Organisms (CP-CRO) in 2021. This change expanded surveillance to capture isolates with carbapenemase production beyond the family *Enterobacteriaceae*, including *Pseudomonas aeruginosa* and *Acinetobacter baumannii*.

Figure 1: CP-CRO Surveillance in Maine



Statewide surveillance for CP-CRO began in the fall of 2018. CP-CRO cases in Maine are on the rise (Figure 1), with annual observed increases over the past four years. The number of cases has increased by more than six times from 2019 to 2022, with the highest concentration in the southern counties (Figure 2).

Figure 2: CP-CRO Cases by County



Isolates identified as CP-CRO in Maine include:

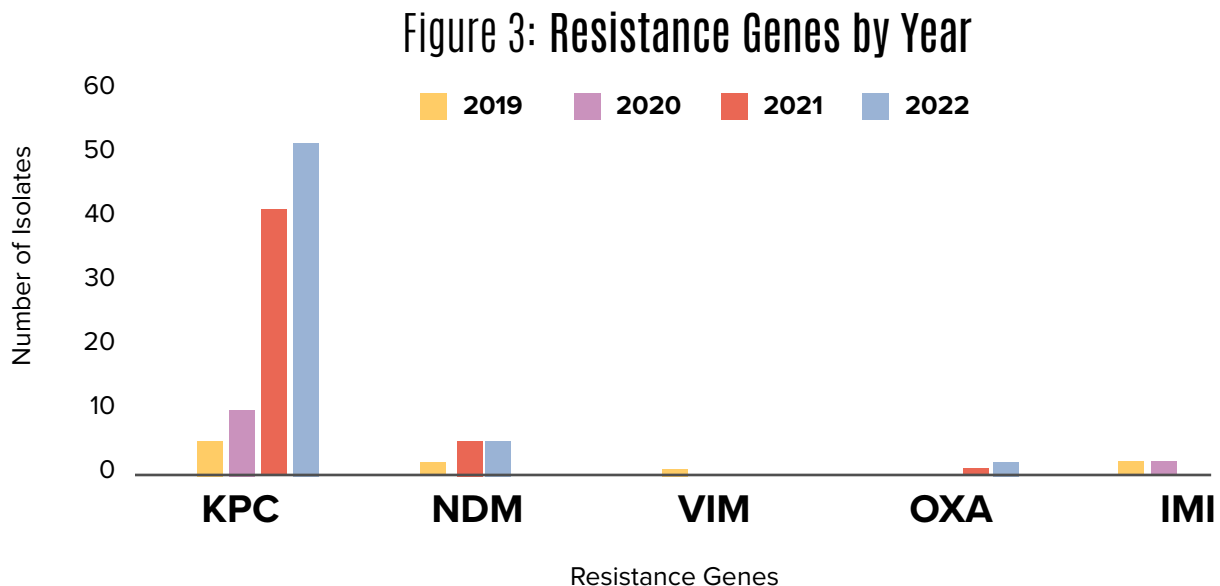
- *Klebsiella pneumoniae*
- *Escherichia coli*
- *Enterobacter cloacae*
- *Citrobacter freundii*
- *Raoutella planticola*
- *Pseudomonas aeruginosa*
- *Acinetobacter baumannii*

Specimen collection sites included bone, sputum, blood, urine, wound sites, abscesses, and colonization screens (typically a rectal swab). The variety of resistance genes carried by the CP-CRO isolates in Maine has been increasing over the years.

The resistance genes found in Maine in 2022 are:

- *Klebsiella pneumoniae* carbapenemase (KPC)
- New Delhi metallo- β -lactamase (NDM)
- Oxacillinase-23 (OXA-23)

KPC was the most predominant gene found every year (Figure 3).



Currently in Maine, most people get CP-CRO in health care settings. While persons of all ages can get these resistant organisms, some are more at risk. This includes people over 65 years of age, people who are immunocompromised, and people with a history of recent antibiotic use. Maine CDC's Healthcare Epidemiology program continues to work with hospitals and nursing homes in Maine to slow the spread of CP-CROs. The most effective methods used are good Infection Prevention and Control practices and engagement in Antibiotic Stewardship initiatives.

Maine CDC's

Highly Pathogenic Avian Influenza Response

Highly Pathogenic Avian Influenza (HPAI) refers to an infection caused by avian influenza A viruses. These viruses occur naturally among wild birds, particularly wild aquatic birds. These viruses can spread to other wild birds, domestic poultry, and mammals. Starting in 2021, Canadian officials identified an HPAI H5N1 influenza virus which later spread to the United States, including Maine. This virus, originally detected in Asia, spread across Europe, the Middle East, and Africa along migratory bird routes. Wild shore birds migrating across the Atlantic Ocean from northwestern Europe brought H5N1 to the shorelines of Canada and Maine. From there it spread to poultry flocks, wild birds, and some mammals.

HPAI viruses, including H5N1, are highly contagious among birds. After infecting the respiratory and gastrointestinal tracts, they spread through saliva, mucous, and feces. These viruses have the potential to spread to other animals by direct contact with wild bird droppings, or indirectly, via contaminated water, feed, bedding, equipment, and property. The virus can stay in the environment for weeks.

During 2022, Maine detected H5N1 in:



14 domestic flocks
in 6 counties



42 wild birds
from 11 different species in 7 counties



16 Harbor seals



1 Grey seal

Though rare, avian influenza viruses can also infect humans. Globally in 2022, 5 humans tested positive for influenza A H5N1 virus. No evidence of human-to-human transmission has been seen. To reduce potential spread of the virus, Maine CDC conducts symptom monitoring for those in close contact with HPAI-infected animals. This includes people involved in the H5N1 response. During 2022, Maine CDC monitored 68 close contacts, including 21 state responders, 8 United States Department of Agriculture (USDA) responders, and 39 other persons. Of these close contacts, four became symptomatic. Specimens collected from all 4 people were negative for influenza at Maine's Health and Environmental Testing Laboratory (HETL), the only laboratory in Maine currently able to test for H5N1.

In addition to monitoring, Maine CDC brought in stakeholders to create a subgroup of Maine's Influenza Workgroup to help communicate between the human and animal sides of the HPAI response and serve as a platform for exchange of information and sharing resources.

Maine CDC created educational materials for the public and for persons exposed to H5N1. Maine DACF distributed information on post-exposure steps to flock owners during HPAI responses.

Though the public health risk of this virus remains low, people with exposures should take appropriate precautions.



To prevent infection with HPAI:

- Avoid direct contact with wild birds and enjoy them only from a distance.
- Avoid unprotected contact with domestic birds that look sick or have died.
- Do not touch surfaces that may be contaminated with saliva, mucous, or feces from wild or domestic birds.

If exposure does occur, people should watch for symptoms for 10 days following their last exposure.

Symptoms include:



Fever



Cough



Sore throat



Difficulty breathing



Eye irritation



Headache



Runny or stuffy nose



Diarrhea

Biosecurity measures for HPAI eliminate or limit contact with wild birds to prevent transmission of HPAI virus from wild birds to domestic birds, animals, property, and humans.

Some biosecurity measures include:



Keeping domestic birds housed indoors when infection and transmission threat is high.



Keeping visitors to a minimum.



Washing hands and equipment regularly.



Changing clothing and footwear.



Covering boots.



Purchasing birds from reputable sources that practice biosecurity.



Reporting illness in flocks to a veterinarian or DACF.

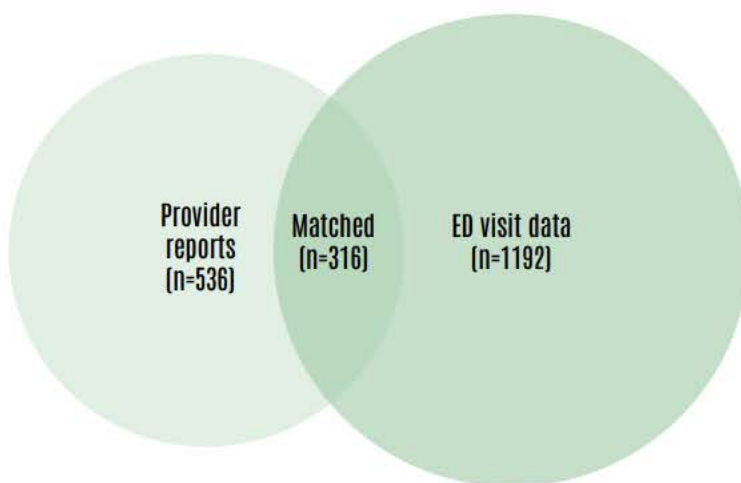
RABIES POST-EXPOSURE PROPHYLAXIS REPORTING IN MAINE

Rabies is a disease caused by a virus that infects the central nervous system. It is nearly always fatal but is preventable with prompt use of rabies postexposure prophylaxis (PEP) after exposure. Rabies PEP administration is reportable in Maine, yet staff have long suspected it is underreported. To assess completeness of rabies PEP reporting in Maine, we compared reports of rabies PEP from Maine’s reportable disease database with emergency department (ED) visit records from syndromic surveillance during January 2018–June 2022. We also evaluated feasibility of using ED visit records from syndromic surveillance for improving rabies PEP surveillance in Maine. Syndromic surveillance uses deidentified ED visit records to detect patterns. We used fields including triage notes, chief complaints, and diagnosis codes to categorize visit type and assess trends in emergency care use.

First, we looked at rabies PEP reports from healthcare providers. Then we queried Maine’s ED visit data for relevant diagnosis codes. Since “rabies PEP administration” is not a specific diagnosis code, we used “contact with and (suspected) exposure to rabies” or “encounter for prophylactic rabies immune globulin” to find likely visits. We only included ED visit data from likely first rabies PEP dose by selecting the earliest dose in a series of patient visits. This made sure that we did not include records for second, third, fourth, or other follow-up doses as new individuals seeking rabies PEP. We used patient identification numbers to find first rabies PEP administrations included in both sources, and those found in one source but not the other (Figure 1).

Figure 1: Rabies PEP in Maine

January 2018-June 2022



Overall, we found 1,408 rabies PEP first dose administrations. Provider reports included 536 (38%) rabies PEP administrations. This includes 220 reports not found in ED visit data (Figure 1). ED visit data included 1,192 (85%) rabies PEP administrations. This includes 872 doses not found in provider reports (Figure 1).

Rabies PEP is underreported in Maine. Although provider reports and ED visit data both captured rabies PEP events, each system found events missing in the other. Because using ED visit data is a low effort way to receive this information, efforts are currently underway to use syndromic surveillance data in place of provider reports to understand rabies PEP usage statewide.

Notable Zoonotic Disease in Maine

Human Brucellosis Infection



In June 2022, an adult male from Cumberland County developed lower back and leg pain after returning from a four month trip to Somalia and Kenya. By July 2022, his symptoms progressed to include fever, night sweats, and epididymitis. He presented multiple times to hospital emergency rooms during this time and was eventually hospitalized in October 2022. An MRI showed infections in his spine and back muscles, which led providers to suspect brucellosis infection. Initial laboratory testing came back positive for *Brucella* spp. HETL confirmed the positive results and U.S. CDC identified the species as *Brucella melitensis*. A field epidemiologist interviewed the case and found the source of infection was most likely consumption of raw camel milk. The case received treatment with broad-spectrum antibiotics and was recovering when discharged. This is the first confirmed human brucellosis case in Maine since 2017. Maine CDC encourages everyone to avoid unpasteurized foods and liquids to prevent brucellosis infection.

Rabid Animals



In early November 2022, farm owners in Somerset County called a local veterinarian to assess one of their cows that was acting strangely. The cow was immobile and drooling, calling through the night, and stopped eating. No other farm animals were acting strangely. The owners reported seeing a strange-acting raccoon roaming their property, which they shot and buried. The owners decided to euthanize the cow for rabies testing at HETL where it came back positive for rabies virus. Because there was a risk that some other animals on the farm had close contact with the rabid cow, Maine DACF recommended quarantine timelines for those close-contact animals.

In an unrelated situation in November 2022, a river otter attacked an adult male from Kennebec County on his property. He went outside after hearing some noises and found an otter rummaging through his recycle bin. Startled, the otter charged at him and scratched him on the legs. The man euthanized the otter with a firearm. A Maine Game Warden picked up the otter from the resident's home and sent it to HETL for rabies testing, which came back positive for rabies virus. Because of his contact with a rabid animal, Maine CDC recommended rabies treatment. People can prevent rabies infection by avoiding direct interactions with wildlife and by contacting a healthcare provider after a possible rabid animal exposure.

Ebola Monitoring in 2022



In September 2022, Uganda reported an outbreak of Ebola Virus Disease (EVD). In response to this outbreak, epidemiologists began monitoring travelers arriving from Uganda to ensure these travelers were Ebola-free. Between October 2022 and December 2022, field epidemiologists evaluated 41 travelers arriving from Uganda. Most travelers remained symptom-free during the 21-day monitoring period. Maine CDC was unable to reach some individuals. Two individuals developed non-specific symptoms. Local hospitals evaluated both travelers and found other causes of the infections in both individuals.

Along with traveler monitoring, Maine CDC's Healthcare Epidemiology Program assessed hospitals for their Ebola readiness to make sure hospitals could safely care for potential cases. During this time, Maine CDC engaged with multiple stakeholder groups around the state to review and update the state Ebola response plan. These same groups later came together for an Ebola tabletop exercise. This exercise tested the state's ability to respond to a suspect Ebola case in Maine. The goal was to make sure a suspect case could be safely transported to a healthcare facility for evaluation.

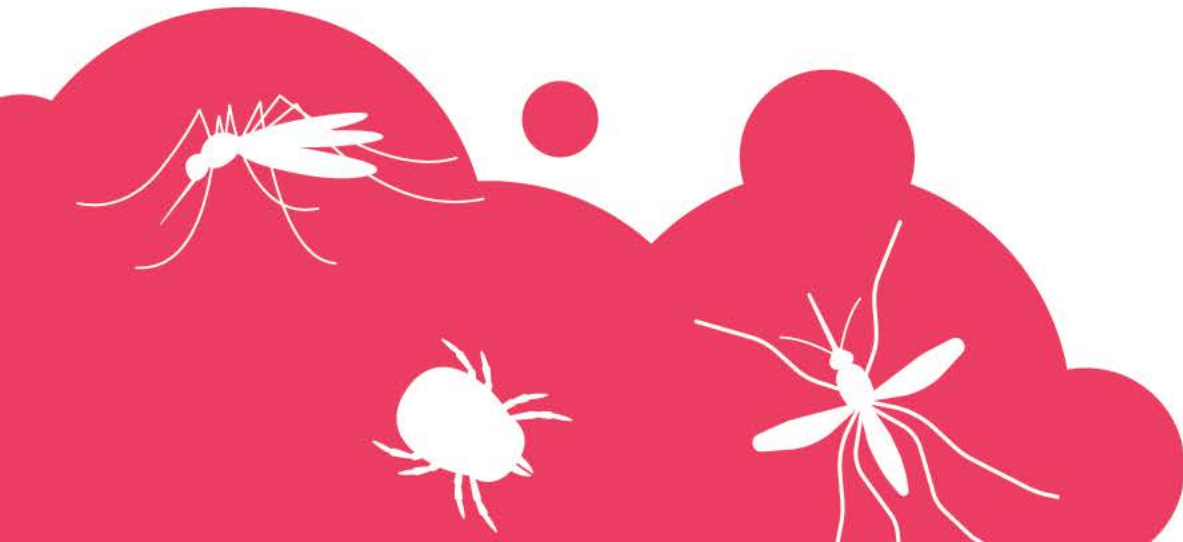
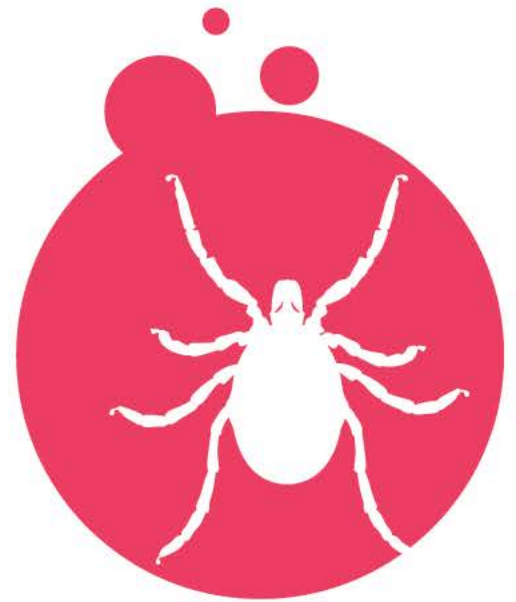
Vectorborne Diseases



Babesia & Malaria Co-Infection

In November 2022, a male child from Androscoggin County returned from an extended trip to Chad in Africa. Two weeks later, the child presented to the emergency room with symptoms of fever, chills, increased sleepiness, fatigue, and lower abdominal pain. Since his medical history showed he had gotten malaria during his recent travels, his provider ordered tests and sent him home with medication for his symptoms. He returned two days later after his symptoms progressed to include a runny nose, congestion, malaise, some yellowing of the eyes, and a few episodes of diarrhea. His provider ordered a blood smear which showed infection with *Plasmodium* spp. parasites. Later testing further identified this as *Plasmodium falciparum*. They diagnosed him with malaria and hospitalized him for evaluation.

While undergoing treatment for malaria, further testing showed he had anemia and thrombocytopenia. Providers ran a tickborne disease PCR panel and found *Babesia microti*, which is a parasite of red blood cells. Since another blood smear taken four days after admission suggested the parasites had cleared from his body, he was discharged and sent home. Maine CDC sent blood samples to U.S. CDC for confirmatory testing. U.S. CDC found both *Plasmodium* spp. and *Babesia* spp. parasites in the blood samples, which confirmed the babesiosis and malaria co-infection. It is unclear from the case investigation when the *Babesia*-infected tick bit this child. Maine CDC suspects the tick bite occurred in Maine soon after returning from Chad. This is the first confirmed co-infection of babesiosis and malaria in a Maine resident.



Food Safety Workgroup

Maine CDC's Foodborne Disease Epidemiologist leads the Maine Food Safety Workgroup. Members include representatives from state and federal agencies and other organizations involved in improving food safety in Maine.

These include:

- **Maine Department of Marine Resources (DMR)**
- **Maine Department of Agriculture, Conservation, and Forestry (DACF)**
- **Maine Department of Education (DOE)**
- **U.S. Department of Agriculture (USDA)**
- **U.S. Food and Drug Administration (FDA)**
- **University of Maine Cooperative Extension**

The workgroup's purpose is to:

- **Reduce the incidence of foodborne and waterborne infectious diseases in the state**
- **Respond to foodborne and waterborne outbreaks**
- **Advance food safety initiatives**

The Workgroup meets quarterly to discuss the latest developments in food safety. In and out of the workgroup, members cooperate to improve foodborne disease response and prevention. The workgroup occasionally holds trainings and exercises for member agencies.

Members of the Workgroup and Maine CDC collaborated on several outbreak investigations in 2022. These included a catered wedding reception outbreak and multiple restaurant related outbreaks.

Vectorborne Workgroup

Maine's Vectorborne Workgroup meets every other month to address current topics in vectorborne disease. This includes illnesses spread by ticks, mosquitoes, and vectors of other medical importance like browntail moths. The Infectious Disease Epidemiology Program Director at Maine CDC chairs the Workgroup.

It includes representatives from:

- **Infectious disease epidemiology**
- **Environmental health**
- **HETL**
- **Maine DACF**
- **Maine DOE**
- **Maine Department of Environmental Protection (DEP)**
- **MaineHealth Institute for Research**
- **University of Maine Cooperative Extension**
- **Maine Inland Fisheries and Wildlife (IF&W)**
- **Vector control companies**

The Workgroup coordinates mosquito and tick surveillance within the state and organizes subcommittees to address topics of interest. The Messaging and Education Subcommittee creates and standardizes information for common questions and outreach and coordinates activities for Lyme Disease Awareness Month each May. The Wildlife Subcommittee monitors and reports out on tickborne trends in wild animals like deer and turkey. In 2022, the Workgroup created the Vector Control Subcommittee to explore options for expanding vector control services in Maine. This subcommittee plans to continue meeting in 2023 and beyond.

Rabies Workgroup

Rabies is a fatal zoonotic disease that is endemic in Maine. The Maine Rabies Workgroup formed to control the spread of rabies in Maine. Animal and human health representatives from local, state, and federal agencies work together to address statewide rabies prevention and management.

Workgroup members include:

- **Maine CDC**
- **Maine DACF**
- **HETL**
- **IF&W**
- **USDA**
- **Maine Veterinary Medical Association**
- **Maine Federation of Humane Societies**
- **Maine Animal Control Association.**

In 2022, members of the workgroup presented to more than 50 veterinarians and wildlife conflict agents about rabies and control of the disease in Maine. The USDA's Animal and Plant Health Inspection Service distributes approximated 385,000 oral rabies vaccines in northern Maine to reduce the spread of raccoon rabies.

2022 Mpox Outbreak Response

Background

Mpox is a disease caused by an orthopox virus infection. People with mpox can have general symptoms like rash, headache, and swollen lymph nodes. They also get a rash on the face, inside the mouth, or on the hands, feet, chest, genitals, or anus.

Mpox virus spreads in several ways, including:

- Through direct contact with body fluid or sores of an infected person.
- Through direct contact with contaminated materials such as clothing or bedding.
- Through respiratory droplets during prolonged face-to-face contact with an infected person, like during oral, anal, or vaginal sex.
- Through contact with an infected animal.

The best way to prevent infections is by using safer sex practices and by vaccinating individuals at higher risk for exposure.

Prior to 2022, mpox cases in humans in the U.S. were linked to international travel or imported animals. In 2022, countries that had not historically reported mpox transmission began reporting cases, including the United States. Gay, bisexual, and other men who have sex with men made up most cases in the 2022 outbreak.

Maine CDC Response

Before Maine had any reported cases, Maine CDC began hosting biweekly stakeholder calls with statewide Lesbian, Gay, Bisexual, Transsexual, and Queer (LGBTQ) groups, Human Immunodeficiency Virus (HIV) and sexually transmitted infection (STI) prevention and care clinics, and providers (Figure 1). The stakeholder group identified key sites for vaccination, testing, and treatment. Maine CDC provided information to patients through our website and through community partners and clinics. Maine CDC also provided key clinical information to health care providers via webinars and health advisories.

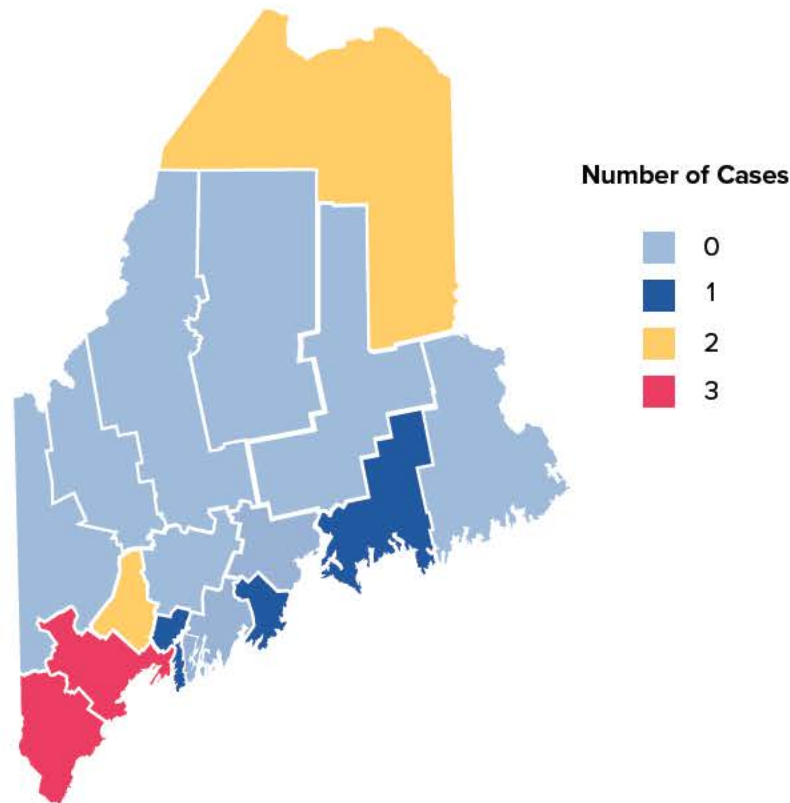
Figure 1: Maine Mpox Stakeholder Group Members

Maine CDC Internal Response Team		External Stakeholders		
Surveillance and Epidemiology	Immunization	Infectious Disease Clinics	Ryan White Part C Clinics	HIV/STD Clinics
Medical Countermeasures	State Public Health Lab	Federally Qualified Health Centers (FQHCs)	HIV/STI Community Based Organizations	HIV Case Managers
Public Health Nursing	HIV/STD & Viral Hepatitis Prevention Program	Syringe Service Providers	LGBTQ Organizations	Indigenous Organizations
Medical Epidemiology	Communications	Bars/Clubs	Pride Organizers	Racial/Ethnic Community Based Organizations

Cases

Maine reported thirteen mpox cases in 2022 in seven counties (Figure 2). The median age was 33 years, and most patients were male (92%), white (85%) and not Hispanic or Latino (77%). Ten (69%) reported male to male sexual contact.

Figure 2: Mpox Cases by County



Maine CDC worked with health systems, hospitals, clinics, and pharmacies to make treatment with tecovirimat (TPOXX), an antiviral medication, widely available. There were over 40 locations where patients could be seen for mpox illness and treated with TPOXX dispensed on-site, as well as telehealth for TPOXX prescribing available statewide. Any clinician in Maine can prescribe TPOXX from selected pharmacies, including one chain pharmacy that can mail prescriptions.

Vaccination

With limited vaccine supply early in the response, Maine CDC placed most vaccine doses in areas with higher HIV disease burden. This distribution focused on smaller clinics and other venues that held trust in the community. Community organizations held vaccination events during evening hours and weekends at venues such as bars and clubs, naturist lodges, and bondage, discipline, sadism, and masochism (BDSM)/leather events. There were 2,529 doses of mpox vaccine administered in Maine in 2022 to individuals ranging in age from 18 to 85 years, most of whom were male (94%), white (72%), and not Hispanic or Latino (87%).

Influenza Workgroup

Maine's Influenza Workgroup meets quarterly to address current topics in influenza and other viral respiratory pathogens. Maine CDC's Influenza Surveillance Coordinator chairs the workgroup.

Workgroup members include:

- ***Infectious Disease Epidemiology***
- ***Public Health Emergency Preparedness (PHEP)***
- ***Maine Immunization Program (MIP)***
- ***Public Health Nursing (PHN)***
- ***HETL***
- ***Maine DACF***

Workgroup responsibilities include:

- **Coordinating surveillance and response to influenza in Maine.**
- **Maintaining the Pandemic Influenza Operations Plan.**
- **Organizing a conference call for health care providers and laboratories at the start of influenza season. This call shares new guidance, reporting requirements, and aid available from the State.**

During 2022, the workgroup served as a communication platform during the highly pathogenic avian influenza H5N1 response. Members met through the workgroup for information-sharing, discussion, and decision-making with the shared goal of preventing and controlling H5N1 in Maine.

Hepatitis A Workgroup

Since 2019 there has been an ongoing outbreak of hepatitis A in Maine. This outbreak mostly involves person-to-person transmission. It disproportionately affects persons reporting injection and non-injection drug use or experiencing homelessness. To address this unprecedented rate of hepatitis A cases in the state, Maine CDC used a multi-pronged strategy focusing on increasing widespread availability of hepatitis A vaccine. This included creating the Hepatitis A Workgroup in August 2022.

This multi-sector workgroup meets monthly and brings together organizations serving at-risk populations such as:

- ***Syringe service programs***
- ***Maine Primary Care Association***
- ***Infectious disease clinicians***
- ***MaineCare***
- ***Infectious Disease Epidemiology***
- ***PHN***
- ***MIP***

The Maine CDC Viral Hepatitis Epidemiologist chairs the workgroup.

The workgroup addresses issues like:

- **Hepatitis A vaccine equity**
- **Increasing provider awareness**
- **Hepatitis A public and health care provider education**
- **Targeted strategies for reaching those most at risk of infection**

This workgroup has been effective in bringing together a diverse group of stakeholders to represent the needs of the community and leverage existing resources.

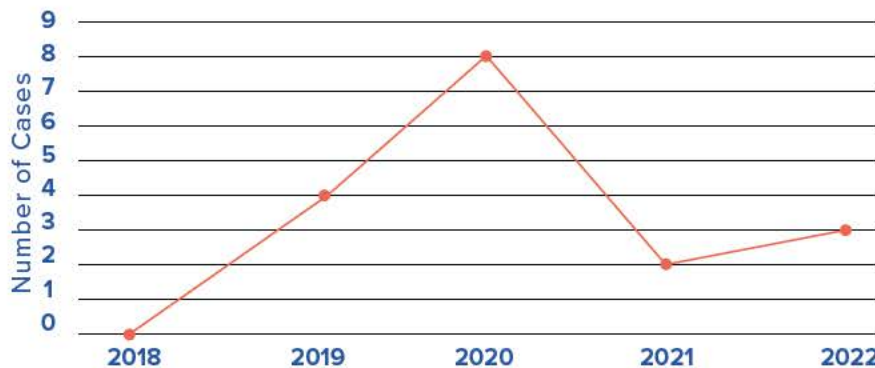
MAINE CDC PERINATAL HEPATITIS C SURVEILLANCE AND OUTREACH ACTIVITIES



Children born to gestational parents with hepatitis C are at risk for getting the infection. Perinatal hepatitis C occurs when the pregnant person passes the hepatitis C virus (HCV) to the child in utero or during childbirth. The rate of transmission of HCV from the pregnant person to the fetus during pregnancy or at the time of delivery is approximately 5.8%. This could be as high as 10.8% in gestational parents who have an HIV coinfection.

Public Health agencies consider an infant to have perinatal hepatitis C if they have a positive HCV test at 2-36 months of age. This includes nucleic acid amplification tests (NAAT) or HCV antigen tests. Health care providers report these cases to Maine CDC yearly, as seen in Figure 1. This number is likely an underrepresentation of the true number of cases in Maine due to under-testing. According to the 2020 Viral Hepatitis Surveillance Report from United States Center for Disease Control and Prevention (U.S. CDC), Maine had the highest rate of acute hepatitis C in the country.

Figure 1: Number of Perinatal Hepatitis C Cases, Maine, 2018-2022



Testing and identifying hepatitis C in exposed infants is important so that they can receive health care and treatment. The American Association for the Study of Liver Diseases recommends:

- HCV NAAT testing for children between the ages of 2- and 18-months, OR
- HCV antibody testing in children greater than 18 months. This is because maternal hepatitis C antibodies may persist in the infant for up to 18 months.

Testing early can increase the rate of infected infants detected. It also increases the likelihood that infants will get tested in a patient group that is often lost to later health care follow-up.

U.S. CDC recommends that prenatal care providers screen all pregnant persons for hepatitis C. This screening finds hepatitis C in pregnant people who otherwise may not know about their infection. This allows them to access treatment and take steps to monitor and protect their at-risk infants.

In 2022, Maine CDC worked with the Office of Child and Family Services, Office of MaineCare Services, and the DHHS Commissioner's Office to improve infant HCV screening. The new program, set to begin in 2023, aims to increase patient, provider and public awareness and education about perinatal HCV transmission, testing, and treatment recommendations. These efforts will improve surveillance through increased confirmatory HCV testing for exposed infants and treatment for pregnant persons. As part of this activity, Maine CDC and its partners developed resources for parents, pediatricians, primary care providers, obstetricians and gynecologists and other health care providers. These materials help raise awareness of recommendations for HCV testing and management among pregnant persons and exposed infants. These materials and additional information can be found at www.maine.gov/dhhs/hepatitis.

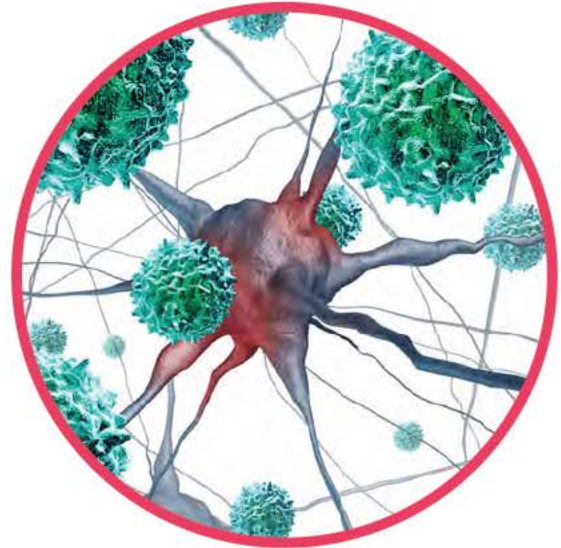
Acute Flaccid Myelitis (AFM)

Maine's First Confirmed Cases Since 2016

Acute Flaccid Myelitis (AFM) is an uncommon but serious condition that affects the nervous system. Similar to poliomyelitis, AFM is characterized by sudden onset of limb weakness and lesions in the gray matter of the spinal cord, and mostly occurs in young children.

Other common symptoms of AFM include:

- Pain in the neck or back
- Difficulty moving the eyes
- Drooping eyelids
- Facial droop
- Difficulty swallowing
- Slurred speech



National AFM surveillance began in 2014 after health care providers reported a cluster of cases of acute flaccid weakness among previously healthy children. These children had no laboratory or epidemiologic evidence of poliovirus infection. Depending on the year, almost all AFM cases confirmed by U.S. CDC are hospitalized. The cause of AFM is unknown; it is hypothesized that infectious etiologies, such as Enterovirus D68 may contribute to the onset of AFM.

In 2022 there were 44 cases of AFM in the United States confirmed by U.S. CDC (as of January 4, 2023).

Case confirmation by U.S. CDC is independent of a provider's diagnosis and requires review by a panel of neurologists. Confirmation depends on evaluation of medical imaging and the case's signs and symptoms via provider documentation. Case confirmation does not affect the provider's diagnosis or treatment plan for the patient.

Two of the 44 confirmed cases in 2022 were Maine residents. Prior to 2022, the last year that Maine had any confirmed AFM cases was 2016, when two cases were confirmed. In 2014 and 2015 Maine had one confirmed case of AFM each year.

Both Maine residents lived in Kennebec County, were under 10 years of age, and were hospitalized as result of symptoms consistent with AFM. One patient first presented to emergency medical services with fever, pain, and body weakness. The parent decided not to transport the child to the local emergency department at that time. The next day the patient was brought to the emergency department as they were becoming progressively more lethargic and were unable to lift their head or move their upper limbs. Health care providers transferred this patient to another facility for further evaluation and care. The second patient went to a local urgent care facility with respiratory symptoms. A few days later the child was brought to an emergency department with leg weakness, altered gait, headache, and fever. Medical providers noted that this was polio-like illness, and the patient was transferred to another facility for further evaluation and care.

Both patients were vaccinated for polio, and polio testing was negative. Both patients had MRI scans of the brain and spine, with abnormalities consistent with AFM. Both children were treated with steroid medication and received supportive care and physical therapy. One patient also received an antibiotic.

One patient returned home within 60 days of onset of illness, using mobility devices as needed. The other patient was transferred to receive more specific rehabilitation care and remained in inpatient care, dependent on trachea and nasogastric tubes, and had limited movement in extremities.

MAINE'S INTEGRATED HIV PREVENTION AND CARE PLAN: 2022-2026

What is the Integrated Plan?

Maine's 5-year HIV Prevention and Care Integrated Plan outlines and guides services for people living with or at risk for HIV. Anyone who has relevant life or work experience related to HIV/STD/Hepatitis prevention or care is welcome to participate in the planning process.

How was it created?

Maine's HIV/AIDS Advisory Board (MeHAAB), which consists of non-profit organizations, hospitals, universities, indigenous groups, syringe service programs and racial/ethnic organizations, contributed to a year-long process to draft the Integrated Plan. Various interviews, needs assessments, focus groups, and data analysis were conducted to determine the highest needs of people living with HIV and those at risk of HIV in Maine.

What did the data tell us?

PEOPLE LIVING WITH HIV

Clients of case management organizations and the State's Ryan White Part B Program want better communication about programmatic changes. But almost everyone is very happy with the quality and type of services available. The most common unmet needs were:

- Hepatitis A vaccine equity
- Increasing provider awareness
- Hepatitis A public and health care provider education
- Targeted strategies for reaching those most at risk of infection
- Most common barriers to accessing services were cost, transportation, and mental health issues.
- Internet access is common except among people who inject drugs. Internet is often accessed via cell phone.
- People engaging in high-risk activities were not often aware that these activities place them at risk for HIV other STDs.
- There is limited knowledge of Pre-exposure Prophylaxis (PrEP) and Post-exposure Prophylaxis (PEP).

WHAT OVERARCHING GOALS DID WE SET FOR 2022-2026?

- Diagnose all people with HIV as early as possible.
- Treat people with HIV rapidly and effectively to reach sustained viral suppression.
- Prevent new HIV transmission by using proven interventions including PrEP and Syringe Service Providers (SSPs).
- Respond quickly to HIV outbreaks to get vital prevention and treatment services to people who need them.

For more information and a look at the full Integrated Plan please visit:
www.maine.gov/dhhs/mecdc/infectious-disease/hiv-std.

MAINE'S RYAN WHITE PART B AND AIDS DRUG ASSISTANCE PROGRAM

The Ryan White Part B Program helps low-income people living with HIV in Maine fill gaps in care and treatment by providing a variety of services (Figure 1). Financial help is available for food, dental care, and housing. Case management, which helps link clients to medical and support services, is available for those who do not qualify for other available case management. The AIDS Drug Assistance Program (ADAP) helps Ryan White Part B members obtain and maintain access to prescription drugs to treat HIV and its related conditions.

Figure 1: People Living with HIV Utilizing Ryan White Part B Services, 2015-2022

Service	2015	2016	2017	2018	2019	2020	2021	2022
Dental assistance	183	180	279	293	290	252	257	264
Food assistance	497	522	579	584	561	512	445	442
Full-cost drugs	110	120	106	118	116	90	59	69
Housing assistance	168	199	257	304	324	274	251	290
Insurance premiums	208	190	240	299	307	248	157	164
Lab tests	14	20	24	25	21	15	16	17
Case management	87	90	97	101	118	119	115	126
Prescription wrap-around	626	602	544	560	394	369	276	256
Emergency assistance	n/a	n/a	n/a	n/a	n/a	234	6	44
Total utilizing members	882	923	939	987	973	934	843	836

People living with HIV who are virally suppressed* are less likely to develop HIV-related complications, so they lead longer, healthier lives and require less costly care. People living with HIV who are virally suppressed are much less likely to transmit the virus to others. The National HIV/AIDS Strategy calls for viral suppression among 95 percent of all people living with HIV in the U.S. by 2025. In 2022, 88% of Part B Program enrollees in Maine were virally suppressed (Figure 2).

Figure 2: Viral Suppression Among Ryan White Part B Enrollees by Public Health District, 2022

District	Number Virally Suppressed	Total Number Enrolled	% Virally Suppressed
Aroostook (District 8)	23	25	92%
Central (District 5)	109	118	92%
Cumberland (District 2)	346	381	91%
Downeast (District 7)	59	67	88%
Midcoast (District 4)	73	79	92%
Penquis (District 6)	77	89	87%
Western (District 3)	128	152	84%
York (District 1)	121	149	81%
Overall	936	1,060	88%

* Defined as a very small amount of the virus in the blood (less than 200 copies/mL).

Increasing Syphilis Rates in Maine

Background

Syphilis is a sexually transmitted infection (STI) caused by the bacterium *Treponema pallidum*. The infection spreads during vaginal, anal, or oral sex. A pregnant person with syphilis can also pass the infection to their fetus, known as congenital syphilis. The risk of congenital syphilis is highest if the pregnant person was recently infected. If undetected or not treated promptly, congenital syphilis can cause stillbirth or newborn death in up to 40% of babies born to persons with untreated syphilis. It can also lead to newborn and childhood illness, including deformed bones, severe anemia, enlarged liver and spleen, jaundice, skin rashes, meningitis, and brain and nerve problems like blindness or deafness. Treating an infected pregnant person is effective at preventing congenital syphilis. Health care providers should evaluate infants born to untreated pregnant persons and pregnant persons with inadequate treatment (including those treated less than 30 days prior to delivery).

There are three stages of syphilis – primary, secondary, and tertiary. The primary stage presents with a sore or sores at the site of infection, often on the penis, vagina, in or around the mouth, or around the anus or rectum. The sores last 3 to 6 weeks and heal even without treatment. If untreated, the infection will progress to the secondary stage, which presents when the primary sore or sores are resolving or several weeks later and can include skin rash, fever, swollen lymph nodes, sore throat, and fatigue. The latent stage can last for years with no signs or symptoms. Tertiary syphilis can appear 10-30 years after infection, causing serious medical problems involving the brain, heart, and other organs. Symptoms vary depending on the organ system(s) affected. Most people with untreated syphilis do not develop tertiary syphilis, but it is very serious and can be fatal. Syphilis can also affect the nervous system, vision, and hearing at any stage. Symptoms can include changes in vision, hearing loss, muscle weakness or paralysis, and changes in mental status. Health care providers treat syphilis with antibiotics. Treatment will prevent progression of the infection but may not undo any damage already caused.

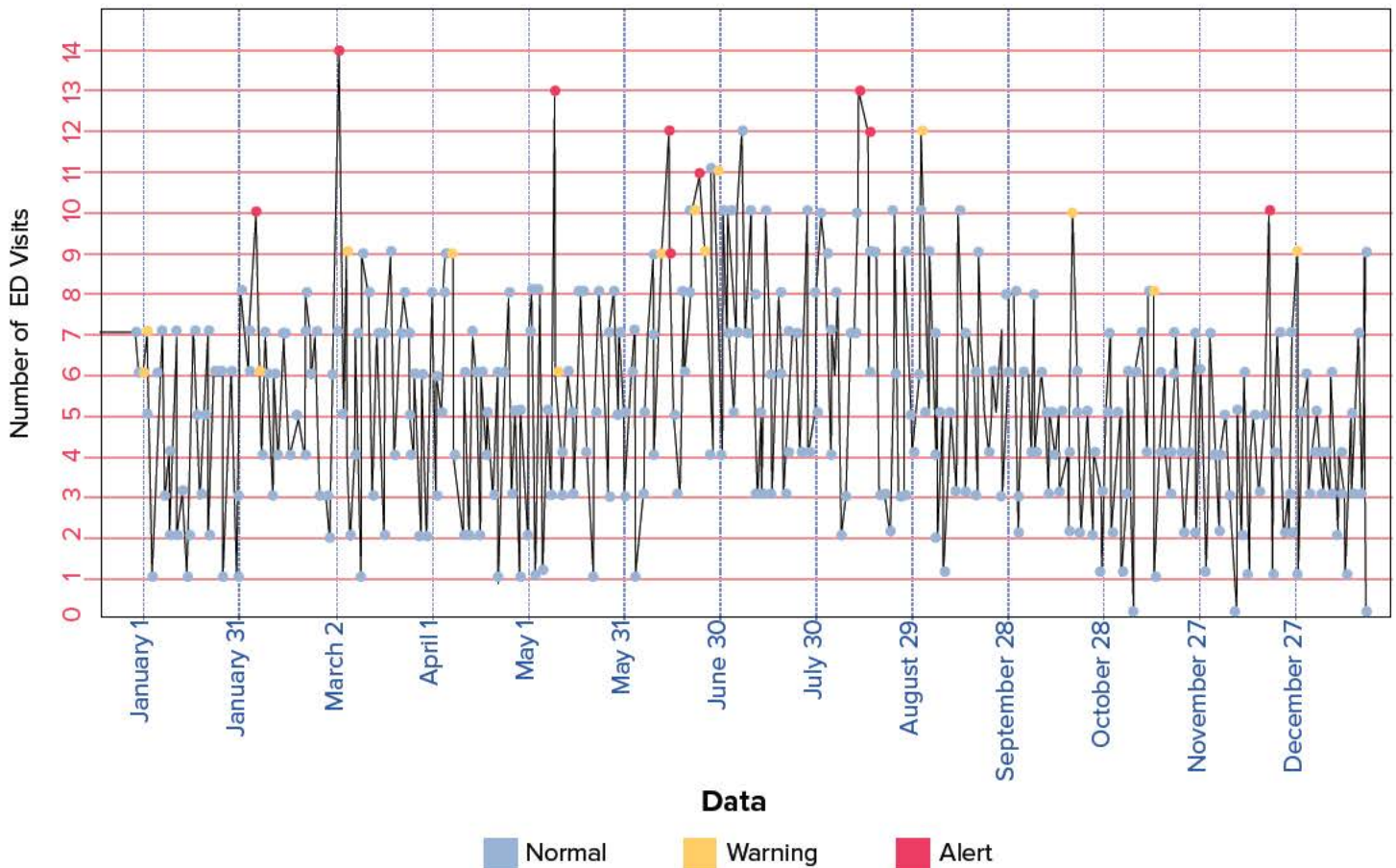
Increasing Syphilis Rates in Maine

In 2022 there were 112 cases of syphilis reported in Maine and three congenital syphilis cases. There are substantial disparities in rates of syphilis by race and ethnicity in Maine. The rate of syphilis among Hispanic Mainers was about twice as high as among non-Hispanic Mainers, the rate among Black and African Americans was over four times as high as among white individuals in Maine, and the rate among American Indian and Alaska Natives in Maine was over eight times as high as the rate among whites (Figure 1). Syphilis rates were highest in Penobscot and Kennebec counties (Figure 2).

Syphilis cases have been increasing in Maine since 2015, particularly among women. Over the five-year period from 2018 to 2022, the percent of cases among women increased from 7.7% to 22.3%. Of the 25 female syphilis cases reported in 2022, 23 were of reproductive age (15-44 years) and two were pregnant. The increase in syphilis cases among women is particularly concerning given the potential for congenital syphilis. In 2021 there were a total of 2,677 cases of congenital syphilis reported in the U.S., an increase of 754.8% from 2012. The cases of congenital syphilis reported in Maine residents in 2022 were the first in nearly 30 years.

Syndromic Surveillance and Opioid Spike Alert

Figure 1: Opioid Suspected Overdose in Maine, 2022



Maine CDC uses ESSENCE, a syndromic surveillance tool, to monitor trends in emergency department (ED) visits. Through ESSENCE, Maine CDC can set thresholds to trigger alerts (Figure 1). Maine CDC uses this information to implement public health strategies to respond to specific diseases or conditions. This includes increased testing, enhanced surveillance, outreach, and education. One category Maine monitors for is opioid overdoses.

Opioid Overdose Spike Detection

The opioid epidemic has ravaged America for decades. Maine's drug landscape reflects the rest of the country. In 2022, Maine reported 10,110 overdoses across the state with 716 suspected or confirmed to be fatal. Due to the nature of opioid overdoses, many people do not make it to the ED.

In 2022, Maine found 4,502 total drug-related ED visits with 1,796 opioid-related visits through syndromic surveillance. Syndromic surveillance allows Maine CDC to differentiate between types of drugs, including opioids like fentanyl and other drugs, like cocaine and methamphetamines.

In December 2022, Maine CDC began an opioid overdose alert pilot program. This program provides community partners with information about overdoses in EDs. The program relies on ESSENCE to detect opioid-involved overdoses in people who go to the ED. Once cases reach a set threshold, ESSENCE triggers a spike alert. The opioid coordinator at Maine CDC sends a notification to community partners with general information about the cases presenting to the ED. The goal of this pilot program is to raise awareness of overdoses and enable community partners to better respond to individuals visiting EDs.

Maine CDC detects a spike in opioid-involved overdoses when there are at least 10 opioid-involved overdoses in a single day, statewide. Maine CDC also monitors specifically for spikes in opioid-involved overdoses among the youth population (0-18 years). A spike in Maine’s youth occurs when there are 2 or more overdoses in this age category within a single day. Along with statewide spike alerts, there are also regional cluster spike alerts. These occur when at least 3 people with opioid-related overdoses are admitted to a single hospital, or the region meets the threshold for a spike alert (Table 1). The spike alert threshold varies by region.

Table 1: Maine Opioid-Related Overdose Spike Thresholds

Associated Alert Threshold	Threshold Criteria	Source of Alert
General Population	≥ 10 cases in one day	ESSENCE
Youth (0-18 years)	≥ 2 cases in one day	ESSENCE
Region Cluster: Northern Maine Somerset, Penobscot, Aroostook, Piscataquis, Washington, Hancock	≥ 3 cases admitted to one hospital OR ≥ 6 in region	ESSENCE
Region Cluster: Southern Maine York, Cumberland, Androscoggin, Sagadahoc	≥ 3 cases admitted to one hospital OR ≥ 6 in region	ESSENCE
Region Cluster: Central Maine Kennebec, Oxford, Franklin, Lincoln, Knox, Waldo	≥ 3 cases admitted to one hospital OR ≥ 5 in region	ESSENCE

Maine CDC continues to work with individuals and community partners to reduce the incidence of opioid overdoses within the state.

WASTEWATER SURVEILLANCE IN MAINE, 2022

In 2022, Maine CDC and the Maine Department of Environmental Protection invited Maine municipalities to take part in two wastewater surveillance programs in Maine. They could choose to take part in the Maine CDC program or the U.S. CDC's National Wastewater Surveillance System (NWSS). As of the end of 2022, 24 wastewater treatment plants across Maine enrolled.

Wastewater, also referred to as sewage, includes water that flows from homes and businesses to wastewater treatment plants. It includes water from toilets, showers, and sinks. It also includes rainwater and water from some other sources. Wastewater surveillance looks for pathogens (viruses and bacteria) in the wastewater. The goal of wastewater surveillance is to better understand which pathogens are in the groups of people contributing to the wastewater and how they change. Data from wastewater testing represent communitywide trends. We cannot name the specific person infected with the pathogen. Public health has used wastewater surveillance for decades. It was initially used to monitor polio eradication. Wastewater surveillance gained popularity during the COVID-19 pandemic as a public health tool to watch communitywide trends of SARS-CoV-2, the virus that causes COVID-19. Up to 80% of people infected with SARS-CoV-2 shed viral genetic material (RNA) in their feces. This occurs whether they have symptoms or not. Wastewater surveillance complements case-based surveillance. Case-based surveillance requires that a person visits a health care provider and gets a test. Wastewater surveillance does not require either of these, just that people spend time in an area with a wastewater treatment plant. Wastewater surveillance can supply an early sign of changing COVID-19 trends.

To perform testing on wastewater, scientists use special methods to concentrate the pathogen in the wastewater sample. They then isolate or extract the genetic material in the sample. Scientists then measure the concentration of a genetic marker specific to the pathogen in the wastewater.

In January 2022, 16 wastewater treatment plants in 10 counties in the Maine CDC wastewater surveillance program began tracking SARS-CoV-2 RNA. This covered approximately 21% of Maine's population. Maine CDC selected wastewater treatment plants to enroll with geographic representation of the state's population. This included wastewater treatment plants that serviced small, rural, and large, urban populations throughout Maine. During 2022, wastewater treatment plants collected samples twice per week for a total of 1,382 SARS-CoV-2 wastewater samples for testing.

In January 2022, NWSS selected eight more wastewater treatment plants in Maine to measure concentrations of SARS-CoV-2 RNA. Maine added testing for mpox virus DNA in wastewater in November 2022. During 2022, wastewater treatment plants collected samples twice per week and sent 466 wastewater samples for MPox testing.

In August 2022, together with WastewaterSCAN, the East End wastewater treatment plant in Portland, Maine expanded testing to include:

- **SARS-CoV-2 and its variants**
- **Mpox**
- **Influenza A and B**
- **Respiratory syncytial virus (RSV)**
- **Human metapneumovirus (HMPV)**
- **Norovirus**



NOTIFIABLE DISEASES AND CONDITIONS LIST

24 Hours A Day, 7 Days A Week Disease Reporting:

Telephone: 1-800-821-5821 Fax: 1-800-293-7534

☎ Conditions are reportable **immediately** by telephone on recognition or strong suspicion of diseaseAll others are reportable by telephone, fax, electronic lab report, or mail within **48 hours** of recognition or strong suspicion of disease➔ ☒ Directors of laboratories are to submit isolates or clinical specimens, as well as any isolates or clinical specimens as requested by Maine CDC, to the *Maine Health and Environmental Testing Laboratory* for confirmation, typing, and/or antibiotic sensitivity

Acid-Fast Bacillus ➔ ☒	Legionellosis
Acquired Immunodeficiency Syndrome (AIDS)	Leptospirosis
Acute flaccid myelitis (AFM) ¹	Listeriosis ➔ ☒ (<i>Listeria monocytogenes</i>)
Anaplasmosis	Lyme Disease
☎ Anthrax ➔ ☒ (<i>Bacillus anthracis</i>)	Malaria
Babesiosis	☎ Measles ➔ ☒ (Rubeola virus)
☎ Botulism ➔ ☒ (<i>Clostridium botulinum</i>)	☎ Meningococcal Disease, invasive ➔ ☒ (<i>Neisseria meningitidis</i>)
<i>Borrelia miyamotoi</i>	☎ Mumps ➔ ☒
☎ Brucellosis ➔ ☒ (<i>Brucella</i> species)	☎ Pertussis
California Serogroup Viruses	☎ Plague ➔ ☒ (<i>Yersinia pestis</i>)
Campylobacteriosis	☎ Poliomyelitis ➔ ☒ (Polio virus)
☎ <i>Candida auris</i> ² ➔ ☒	Powassan Virus
☎ Carbapenamase-producing carbapenem-resistant organisms ³ ➔ ☒	Psittacosis
Carbon Monoxide Poisoning ⁴	☎ Q Fever
Chancroid	☎ Rabies (human and animal) ➔ ☒ (Rabies virus)
Chlamydia	Rabies Post-Exposure Prophylaxis
Chickenpox (Varicella)	☎ Ricin Poisoning ➔ ☒
Chikungunya	☎ Rubella (including congenital) ➔ ☒ (Rubella virus)
☎ Coronavirus, Novel, MERS, and SARS ➔ ☒	Salmonellosis ➔ ☒ (<i>Salmonella</i> species)
Creutzfeldt-Jakob disease, <55 years of age	☎ Shellfish Poisoning
Cryptosporidiosis	Shigellosis ➔ ☒ (<i>Shigella</i> species)
Cyclosporiasis	☎ Smallpox ➔ ☒ (Variola virus)
Dengue	Spotted Fever Rickettsiosis
☎ Diphtheria ➔ ☒ (<i>Corynebacterium diphtheriae</i>)	St. Louis Encephalitis
<i>E. coli</i> , Shiga toxin-producing (STEC) ➔ ☒	☎ <i>Staphylococcus aureus</i> non-susceptible to Vancomycin ⁶ ➔ ☒
Eastern Equine Encephalitis	Streptococcus Group A, invasive
Ehrlichiosis	Streptococcus pneumoniae, invasive
Giardiasis	Syphilis
Gonorrhea	☎ Tetanus ➔ ☒ (<i>Clostridium tetani</i>)
<i>Haemophilus influenzae</i> , invasive ➔ ☒	Trichinosis
Hantavirus, pulmonary and non-pulmonary syndromes	☎ Tuberculosis (active and presumptive) ➔ ☒ (<i>Mycobacterium tuberculosis</i>)
Hemolytic-uremic syndrome (post-diarrheal)	☎ Tularemia ➔ ☒ (<i>Francisella tularensis</i>)
☎ Hepatitis A, B, C, D, E (acute)	Vibrio species, including Cholera ➔ ☒ (<i>Vibrio</i> species)
Hepatitis B, C, D (chronic)	Vaping-associated pulmonary illness ⁷
Human Immunodeficiency Virus (HIV) ⁵	☎ Viral Hemorrhagic Fever
Influenza-associated pediatric death	West Nile Virus
☎ Influenza A, Novel ➔ ☒	Western Equine Encephalitis
Influenza-associated hospitalization, laboratory-confirmed	Yellow Fever
	Zika virus disease
	☎ Any Case of Unusual Illness of Infectious Cause
	☎ Any Cluster/Outbreak of Illness with Potential Public Health Significance

*See condition-specific footnotes on next page.

Who must report: Health Care Providers, Medical Laboratories, Health Care Facilities, Child Care Facilities, Correctional Facilities, Educational Institutions, Administrators, Health Officers, Veterinarians, Veterinary Medical Laboratories

What to report: Disease reports must include as much of the following as is known:

- Disease or condition diagnosed or suspected and symptom onset
- Name and phone number of person making the report and date
- Patient's name, date of birth, address, phone number, occupation, sex, race, and ethnicity
- Diagnostic laboratory findings and dates of test relevant to the notifiable condition
- Health care provider name, address, and phone number

Complete Rules for the Control of Notifiable Diseases and Conditions:

<http://www.maine.gov/dhhs/mecdc/infectious-disease/epi/disease-reporting/index.shtml>



Maine Center for Disease Control and Prevention

NOTIFIABLE DISEASES AND CONDITIONS LIST

24 Hours A Day, 7 Days A Week Disease Reporting:

Telephone: 1-800-821-5821 Fax: 1-800-293-7534

Footnotes

1. An illness with an onset of acute focal limb weakness and either 1) cerebrospinal fluid with an elevated white blood cell count or 2) a magnetic resonance image (MRI) showing a spinal cord lesion largely restricted to gray matter and spanning one or more spinal segments.
2. Detection of *Candida auris* in a specimen using culture or culture independent diagnostic test; or detection of an organism that commonly represents a *Candida auris* misidentification.
3. Carbapenemase-producing carbapenem-resistant organisms are:
 - Carbapenem-resistant organisms, as defined by the Clinical Laboratory Standards Institute Performance Standards for Antimicrobial Susceptibility Testing M100 (<http://www.clsi-m100.com>), that test positive for Carbapenemase-producing by a phenotype method or for a known carbapenemase resistance mechanisms by a recognized test, as defined by the U.S. Centers for Disease Control and Prevention (<https://wwwn.cdc.gov/nndss/conditions/carbapenemase-producing-carbapenem-resistant-enterobacteriaceae/case-definition/2018/>).
 - Reporting will include test method used, result, and where applicable, specific resistance mechanisms identified.
 - Isolate submission is required for all carbapenem-producing carbapenem-resistant organisms. If phenotypic or resistance mechanism test results are not available for a carbapenem-resistant organism, then isolate submission of the carbapenem-resistant organism is required to determine carbapenemase-producing status.
4. All cases with clinical signs, symptoms or known exposure consistent with diagnosis of carbon monoxide poisoning, and/or: a carboxyhemoglobin (COHb) level equal to or above 5%.
5. Any human immunodeficiency virus (HIV) test results, including:
 - All reactive/repeatedly reactive initial HIV immunoassay results and all results (e.g. positive, negative, indeterminate) from all supplemental HIV immunoassays (HIV-1/2 antibody differentiation assay, HIV-1 Western blot, HIV-2 Western blot or HIV-1 Immunofluorescent assay);
 - All HIV nucleic acid (RNA or DNA) detection tests (qualitative and quantitative), including tests on individual specimens for confirmation of nucleic acid amplification testing (NAAT) screening results;
 - All CD4 lymphocyte counts and percentages, unless known to be ordered for a condition other than HIV;
 - HIV genotypic resistance testing, nucleotide sequence results; and,
 - Positive HIV detection tests (including, but not limited to culture, P24 antigen).
6. As defined by the most current Clinical Laboratory Standards Institute Performance Standards for Antimicrobial Susceptibility Testing M100 (<http://www.clsi-m100.com>).
7. Clinicians should report cases with onset on or after May 1, 2019, that meet the criteria of (1) a significant respiratory illness of unclear etiology and (2) a history of vaping.



Department of Health and Human Services, Maine Center for Disease Control and Prevention
State House Station #11, Augusta, ME 04333-0011

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