ANNUAL REPORT 2021

Reportable Infectious Diseases in Maine

Reportable Infectious Diseases in Maine 2021 Summary

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2021 Maine Center for
Disease Control and Prevention
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Thank you

Maine Center for Disease Control and Prevention (Maine CDC) annually publishes a report on infectious diseases in Maine. This report is prepared by the Division of Disease Surveillance and is intended to provide an overview of notifiable infectious diseases of public health importance in Maine.

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, childcare centers, school nurses, veterinarians, and others who provide disease surveillance information. Partners spend considerable time assisting Maine 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.

The COVID-19 pandemic response during 2021 shone a spotlight on the importance of this work in protecting the people of Maine from infectious diseases. 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 67 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

2021 Infectious Disease Surveillance Highlights

69,391

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

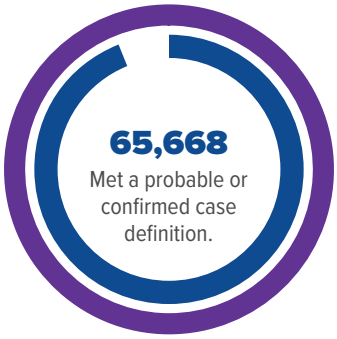
70,125

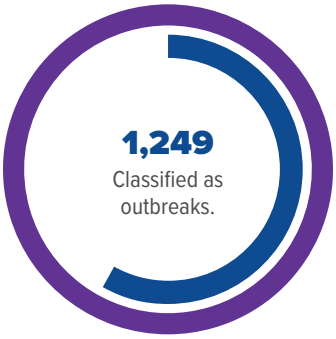
Disease reports investigated by Maine CDC staff including STD cases

1,941

Potential outbreaks investigated by Maine CDC staff

Maine had cases in **6** out-of-state or national outbreaks





*The main conditions include Campylobacteriosis, Chlamydia, Coronavirus Disease 2019 (COVID-19), Hepatitis B, Hepatitis C, Lyme Disease, and Rabies Post-Exposure Prophylaxis.

209

Maine CDC investigators investigated at least one case

61

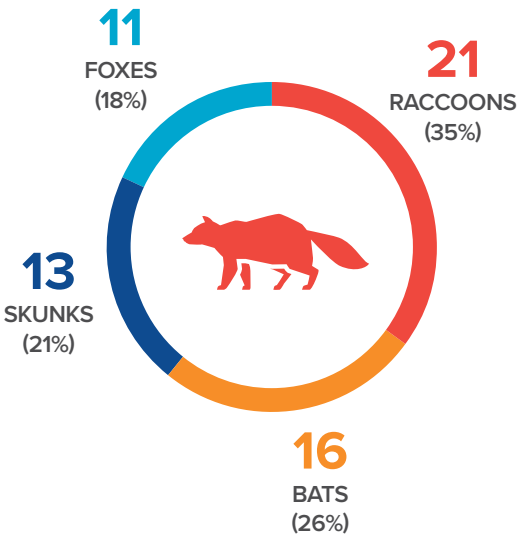
Animals tested positive for rabies at Health and Environmental Testing Laboratory (HETL)

All tickborne disease cases

INCREASED IN 2021

with record high numbers of anaplasmosis and babesiosis cases.

Investigated **3** confirmed cases of Powassan Encephalitis.



2021 MAINE CDC INFECTIOUS DISEASE PROGRAM CONSULTS:

18,445

Most Common Topics:

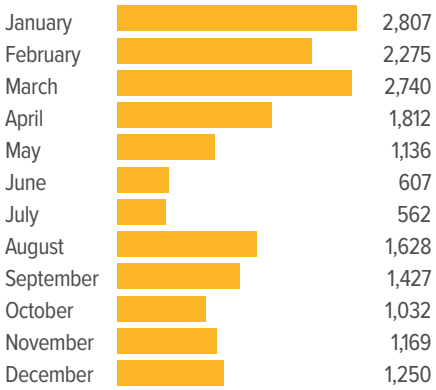
61%
Coronavirus Disease 2019 (COVID-19)

30%
COVID-19 vaccination

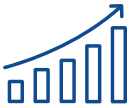
TOP 5 Non-COVID-19 Topics:

Rabies	3.3%
Lyme Disease	0.5%
Tuberculosis	0.3%
Varicella	0.3%
Foodborne Disease Complaints	0.2%

All Consults:



INFLUENZA DATA FOR 2021-2022 VS. 2020-2021 SEASON:

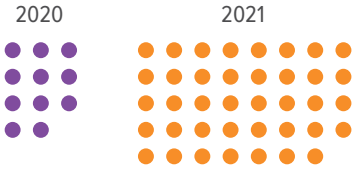


Number of reported influenza cases increased from 2020 to 2021.

This could be due to multiple factors. The relaxation of COVID-19 restrictions and standard precautions during 2021 likely contributed.

	Positive influenza reports	Influenza-related hospitalizations	Influenza-related deaths	Influenza-related outbreaks
2021-2022	5,340	198	14	35
2020-2021	215	4	0	0

Investigated the first confirmed botulism case in a decade.



39 cases of Legionellosis in 2021, up from 11 in 2020. Highest number of cases in the last 10 years with previous record 34 in 2019.

Maine had 36 confirmed and probable Campylobacteriosis cases linked to a raw milk outbreak.

Counts of Selected* Reportable Diseases by Year

Maine, 2012-2021**

CONDITION	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Acute flaccid myelitis	0	0	1	1	2	0	0	0	0	**0**
Anaplasma phagocytophilum	52	94	191	185	372	663	476	685	443	**841**
Babesiosis	10	36	42	55	82	118	101	138	66	**201**
Borrelia miyamotoi	0	0	0	0	0	6	8	13	12	**9**
Botulism	0	0	0	0	0	0	0	0	0	**1**
Brucellosis	0	0	0	0	0	1	0	0	0	**0**
Campylobacteriosis	189	229	225	221	255	234	247	191	177	**271**
Carbapenem-resistant *Enterobacteriaceae* (CRE)***	NR	NR	NR	12	51	58	92	155	149	**48**
Chikungunya	0	1	6	2	0	1	2	0	0	**0**
Chlamydia trachomatis infection	3413	3440	3491	3851	4152	4555	4345	3989	3466	**3372**
Coronavirus Disease 2019	0	0	0	0	0	0	0	0	27204	**124213**
Creutzfeldt-Jakob Disease (CJD)	0	1	1	1	0	0	0	0	0	**0**
Cryptosporidiosis	58	35	51	34	55	45	60	71	72	**59**
Cyclosporiasis	0	0	7	1	3	0	0	0	0	**2**
Dengue	0	1	1	5	2	0	3	1	0	**0**
Eastern Equine Encephalitis	0	0	1	1	0	0	0	0	0	**0**
Ehrlichiosis	3	4	8	5	7	10	19	13	2	**4**
Giardiasis	169	218	154	116	137	129	163	142	140	**140**
Gonorrhea	456	246	236	422	444	577	686	545	520	**462**
Group A *Streptococcus*, invasive	37	37	53	56	60	56	85	114	64	**57**
Haemophilus influenzae, invasive	23	25	21	39	29	34	24	38	9	**14**
Hemolytic uremic syndrome	2	2	1	7	2	2	0	1	0	**3**
Hepatitis A, acute	9	10	8	8	8	7	9	45	145	**50**
Hepatitis B, acute	9	11	12	9	53	77	52	58	40	**33**
Hepatitis B, chronic	105	106	108	107	159	178	201	164	126	**163**
Hepatitis B, perinatal infection	0	0	0	0	0	0	0	1	0	**1**
Hepatitis C, acute	12	9	31	29	37	33	39	59	207	**168**
Hepatitis C, chronic	1151	1236	1412	1448	1646	1871	1864	1909	1410	**1573**
Hepatitis C, perinatal infection	0	0	0	0	0	0	0	4	8	**2**
Hepatitis D, acute	0	0	0	0	0	0	0	0	1	**1**
Hepatitis E, acute	0	0	0	0	1	0	0	2	0	**0**
HIV Infection	46	33	61	48	53	29	30	29	16	**30**

NR = not reportable; **NA** = not available

CONDITION	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Influenza Associated Pediatric Mortality	0	0	1	0	1	0	0	1	1	**0**
Invasive Pneumococcal Disease	102	121	137	135	133	141	132	172	99	**84**
Jamestown Canyon	0	0	0	0	0	2	1	0	0	**1**
Legionellosis	18	23	19	16	16	16	34	30	11	**39**
Listeriosis	5	4	8	7	11	5	7	5	6	**6**
Lyme Disease	1113	1384	1412	1216	1498	1859	1411	2175	1129	**1510**
Malaria	5	10	7	7	10	18	9	15	2	**3**
Measles (Rubeola)	0	0	0	0	0	1	0	2	0	**0**
Mumps	0	1	0	0	34	1	4	5	2	**1**
Neisseria meningitidis, invasive (Mening. disease)	3	4	2	4	1	1	1	5	2	**2**
Pertussis	737	332	557	281	259	411	446	383	30	**14**
Powassan	0	1	0	1	1	3	0	2	1	**3**
Psittacosis (Ornithosis)	0	0	0	0	0	0	0	0	1	**0**
Q fever	0	0	0	0	0	0	1	0	1	**0**
Rabies Post-Exposure Prophylaxis (PEP)	190	128	107	112	131	108	152	147	129	**101**
Rabies, animal	91	50	44	28	66	61	76	89	71	**61**
S. aureus, vancomycin intermediate resistance (VISA)	0	0	1	2	1	0	0	0	1	**0**
Salmonellosis	161	131	127	123	123	102	119	142	111	**129**
Shiga toxin-producing *Escherichia coli* (STEC)	20	27	33	29	37	34	37	27	11	**23**
Shigellosis	7	5	29	4	2	13	7	12	4	**6**
Spotted Fever Rickettsiosis	3	2	3	1	4	3	10	5	0	**2**
Syphilis	20	17	15	49	48	83	104	108	66	**101**
Tetanus	0	1	0	0	1	1	0	0	0	**0**
Tuberculosis	17	15	14	18	23	14	14	18	17	**14**
Tularemia	0	0	0	0	0	0	0	1	0	**0**
Varicella (Chickenpox)	258	140	207	233	228	198	250	93	33	**63**
Vibriosis	10	9	9	6	7	7	14	9	12	**11**
West Nile	1	0	0	1	0	0	2	0	1	**0**
Zika virus disease	0	0	0	0	12	1	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
Leptospirosis
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 8/15/2022.**

*****CRE became reportable as of September 8, 2015 so the 2015 numbers do not represent a full year.**

Rates of Selected* Reportable Diseases by Year

Maine, 2012-2021**
(per 100,000 Persons)

CONDITION	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Acute flaccid myelitis	0.0	0.0	0.1	0.1	0.2	0.0	0.0	0.0	0.0	**0.0**
Anaplasma phagocytophilum	3.9	7.1	14.4	13.9	27.9	49.6	35.6	51.0	32.5	**61.3**
Babesiosis	0.8	2.7	3.2	4.1	6.2	8.8	7.5	10.3	4.8	**14.6**
Borrelia miyamotoi	0.0	0.0	0.0	0.0	0.0	0.4	0.6	1.0	0.9	**0.7**
Botulism	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.1**
Brucellosis	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	**0.0**
Campylobacteriosis	14.2	17.2	16.9	16.6	19.2	17.5	18.5	14.2	13.0	**19.7**
Carbapenem-resistant *Enterobacteriaceae* (CRE)***	NR	NR	NR	0.9	3.8	4.3	6.9	11.5	10.9	**3.5**
Chikungunya	0.0	0.1	0.5	0.2	0.0	0.1	0.1	0.0	0.0	**0.0**
Chlamydia trachomatis infection	256.8	258.8	262.3	289.7	311.8	341.0	324.6	296.8	254.4	**245.7**
Coronavirus Disease 2019	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1996.8	**9051.8**
Creutzfeldt-Jakob Disease (CJD)	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	**0.0**
Cryptosporidiosis	4.4	2.6	3.8	2.6	4.1	3.4	4.5	5.3	5.3	**4.3**
Cyclosporiasis	0.0	0.0	0.5	0.1	0.2	0.0	0.0	0.0	0.0	**0.1**
Dengue	0.0	0.1	0.1	0.4	0.2	0.0	0.2	0.1	0.0	**0.0**
Eastern Equine Encephalitis	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	**0.0**
Ehrlichiosis	0.2	0.3	0.6	0.4	0.5	0.7	1.4	1.0	0.1	**0.3**
Giardiasis	12.7	16.4	11.6	8.7	10.3	9.7	12.2	10.6	10.3	**10.2**
Gonorrhea	34.3	18.5	17.7	31.7	33.3	43.2	51.3	40.5	38.2	**33.7**
Group A *Streptococcus*, invasive	2.8	2.8	4.0	4.2	4.5	4.2	6.4	8.5	4.7	**4.2**
Haemophilus influenzae, invasive	1.7	1.9	1.6	2.9	2.2	2.5	1.8	2.8	0.7	**1.0**
Hemolytic uremic syndrome	0.2	0.2	0.1	0.5	0.2	0.1	0.0	0.1	0.0	**0.2**
Hepatitis A, acute	0.7	0.8	0.6	0.6	0.6	0.5	0.7	3.3	10.6	**3.6**
Hepatitis B, acute	0.7	0.8	0.9	0.7	4.0	5.8	3.9	4.3	2.9	**2.4**
Hepatitis B, chronic	7.9	8.0	8.1	8.0	11.9	13.3	15.0	12.2	9.2	**11.9**
Hepatitis B, perinatal infection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	**0.1**
Hepatitis C, acute	0.9	0.7	2.3	2.2	2.8	2.5	2.9	4.4	15.2	**12.2**
Hepatitis C, chronic	86.6	93.0	106.1	108.9	123.6	140.1	139.3	142.0	103.5	**114.6**
Hepatitis C, perinatal infection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.6	**0.1**
Hepatitis D, acute	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	**0.1**
Hepatitis E, acute	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	**0.0**
HIV Infection	3.5	2.5	4.6	3.6	4.0	2.2	2.2	2.2	1.2	**2.2**

NR = not reportable; **NA** = not available

CONDITION	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Influenza Associated Pediatric Mortality	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.1	**0.0**
Invasive Pneumococcal Disease	7.7	9.1	10.3	10.2	10.0	10.6	9.9	12.8	7.3	**6.1**
Jamestown Canyon	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	**0.1**
Legionellosis	1.4	1.7	1.4	1.2	1.2	1.2	2.5	2.2	0.8	**2.8**
Listeriosis	0.4	0.3	0.6	0.5	0.8	0.4	0.5	0.4	0.4	**0.4**
Lyme Disease	83.8	104.1	106.1	91.5	112.5	139.2	105.4	161.8	82.9	**110.0**
Malaria	0.4	0.8	0.5	0.5	0.8	1.3	0.7	1.1	0.1	**0.2**
Measles (Rubeola)	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	**0.0**
Mumps	0.0	0.1	0.0	0.0	2.6	0.1	0.3	0.4	0.1	**0.1**
Neisseria meningitidis, invasive (Mening. disease)	0.2	0.3	0.2	0.3	0.1	0.1	0.1	0.4	0.1	**0.1**
Pertussis	55.5	25.0	41.9	21.1	19.5	30.8	33.3	28.5	2.2	**1.0**
Powassan	0.0	0.1	0.0	0.1	0.1	0.2	0.0	0.1	0.1	**0.2**
Psittacosis (Ornithosis)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	**0.0**
Q fever	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	**0.0**
Rabies Post-Exposure Prophylaxis (PEP)	14.3	9.6	8.0	8.4	9.8	8.1	11.4	10.9	9.5	**7.4**
Rabies, animal	NA	NA	NA	NA	NA	NA	NA	NA	NA	**NA**
S. aureus, vancomycin intermediate resistance (VISA)	0.0	0.0	0.1	0.2	0.1	0.0	0.0	0.0	0.1	**0.0**
Salmonellosis	12.1	9.9	9.5	9.3	9.2	7.6	8.9	10.6	8.1	**9.4**
Shiga toxin-producing *Escherichia coli* (STEC)	1.5	2.0	2.5	2.2	2.8	2.5	2.8	2.0	0.8	**1.7**
Shigellosis	0.5	0.4	2.2	0.3	0.2	1.0	0.5	0.9	0.3	**0.4**
Spotted Fever Rickettsiosis	0.2	0.2	0.2	0.1	0.3	0.2	0.7	0.4	0.0	**0.1**
Syphilis	1.5	1.3	1.1	3.7	3.6	6.2	7.8	8.0	4.8	**7.4**
Tetanus	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	**0.0**
Tuberculosis	1.3	1.1	1.1	1.4	1.7	1.0	1.0	1.3	1.2	**1.0**
Tularemia	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	**0.0**
Varicella (Chickenpox)	19.4	10.5	15.6	17.5	17.1	14.8	18.7	6.9	2.4	**4.6**
Vibriosis	0.8	0.7	0.7	0.5	0.5	0.5	1.0	0.7	0.9	**0.8**
West Nile	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.1	**0.0**
Zika virus disease	0.0	0.0	0.0	0.0	0.9	0.1	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
Leptospirosis
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 8/15/2022.**

*****CRE became reportable as of September 8, 2015 so the 2015 numbers do not represent a full year.**

Cases of Reported Diseases by Age and Gender

Maine, 2021*

	GENDER		AGE GROUP							
CONDITION	F	M	0-4 years	5-14 years	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65+ years
Anaplasma phagocytophilum	320	521	6	7	10	27	69	89	191	442
Babesiosis	79	122	1	8	2	3	15	21	48	103
Borrelia miyamotoi	6	3	0	0	0	0	1	1	0	7
Botulism	1	0	0	0	0	0	0	0	0	1
Campylobacteriosis	131	140	15	11	21	39	40	30	37	78
Carbapenem-resistant *Enterobacteriaceae* (CRE)	24	24	1	1	1	5	6	6	8	20
Chlamydia trachomatis infection	2232	1140	0	15	2102	897	248	68	36	6
Coccidioidomycosis	1	1	0	0	0	0	0	0	1	1
Coronavirus Disease 2019 (COVID-19)	64140	60072	5372	17650	20028	19510	17464	15470	14376	14343
Cryptosporidiosis	31	28	7	6	11	11	9	5	4	6
Cyclosporiasis	1	1	0	0	0	0	2	0	0	0
Ehrlichiosis	1	3	0	1	0	0	0	1	1	1
Emerging Infection	0	2	0	0	0	0	2	0	0	0
Giardiasis	68	72	6	8	4	9	15	15	34	49
Gonorrhea	175	287	0	2	139	166	89	44	19	3
Group A *Streptococcus*, invasive	23	34	0	0	3	20	12	6	7	9
Haemophilus influenzae, invasive	5	9	1	0	0	0	1	2	2	8
Hemolytic uremic syndrome	0	3	2	1	0	0	0	0	0	0
Hepatitis A, acute	22	28	1	0	0	18	19	7	5	0
Hepatitis B, acute	13	20	0	0	1	3	12	9	5	3
Hepatitis B, chronic	49	114	0	2	9	24	60	32	22	14
Hepatitis B, perinatal infection	1	0	1	0	0	0	0	0	0	0
Hepatitis C, acute	53	115	0	0	15	70	53	13	10	7
Hepatitis C, chronic	687	886	6	4	85	429	398	211	212	228
Hepatitis C, perinatal infection	2	0	2	0	0	0	0	0	0	0
Hepatitis D, acute	0	1	0	0	0	1	0	0	0	0
HIV Infection	2	28	0	0	3	8	12	2	5	0

NR = not reportable; **NA** = not available

	GENDER		AGE GROUP							
CONDITION	F	M	0-4 years	5-14 years	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65+ years
Invasive Pneumococcal Disease	34	50	0	0	1	2	6	17	24	34
Jamestown Canyon	0	1	0	0	0	0	0	0	0	1
Legionellosis	9	30	0	0	0	1	7	9	5	17
Listeriosis	1	5	0	0	0	0	0	0	1	5
Lyme Disease	687	823	57	176	71	90	124	166	285	541
Malaria	1	2	0	1	0	0	1	1	0	0
Multisystem Inflammatory Syndrome (MIS)	4	5	2	5	2	0	0	0	0	0
Mumps	0	1	0	0	0	0	0	0	1	0
Neisseria meningitidis, invasive (Mening. disease)	1	1	1	0	0	0	1	0	0	0
Pertussis	8	6	9	1	1	2	0	1	0	0
Powassan	2	1	0	0	0	0	0	0	0	3
Rabies PEP	52	49	4	10	14	12	20	14	10	17
Rabies, animal	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Salmonellosis	78	51	12	6	22	20	16	14	17	22
Shiga toxin-producing *Escherichia coli* (STEC)	16	7	7	1	3	5	1	0	4	2
Shigellosis	0	6	0	0	0	1	0	1	3	1
Spotted Fever Rickettsiosis	0	2	0	0	0	0	0	0	0	2
Streptococcal toxic-shock syndrome	4	10	0	0	0	6	1	3	3	1
Syphilis	13	88	0	0	13	37	21	17	9	4
Tuberculosis	8	6	0	0	1	3	7	0	1	2
Varicella (Chickenpox)	33	30	31	27	2	1	1	1	0	0
Vibriosis	5	6	0	2	0	1	2	1	1	4

***Counts are updated annually. Data as of 8/15/2022.**

Cases of Reported Diseases by Race and Ethnicity

Maine, 2021*

	RACE							ETHNICITY		
CONDITION	**American Indian or Alaska Native**	**Asian or Pacific Islander**	**Black or African American**	**White**	**Two or more**	**Other**	**Unknown**	**Hispanic**	**Non-Hispanic**	**Unknown**
Anaplasma phagocytophilum	0	4	1	797	2	9	28	4	677	160
Babesiosis	0	0	1	194	0	2	4	1	164	36
Borrelia miyamotoi	0	0	0	9	0	0	0	0	7	2
Botulism	0	0	0	1	0	0	0	0	1	0
Campylobacteriosis	0	2	1	253	1	2	12	2	234	35
Carbapenem-resistant *Enterobacteriaceae* (CRE)	0	0	2	44	1	1	0	1	40	7
Chlamydia trachomatis infection	18	30	188	1995	16	53	1072	56	1978	1338
Coccidioidomycosis	0	0	0	2	0	0	0	0	2	0
Coronavirus Disease 2019 (COVID-19)	414	863	2723	107934	823	1598	9858	1452	79329	43432
Cryptosporidiosis	1	0	0	54	0	0	4	0	48	11
Cyclosporiasis	0	0	0	2	0	0	0	0	2	0
Ehrlichiosis	0	0	0	4	0	0	0	0	3	1
Emerging Infection	0	0	1	0	0	1	0	0	1	1
Giardiasis	0	1	2	126	1	2	8	0	122	18
Gonorrhea	3	3	74	343	18	7	14	18	427	17
Group A *Streptococcus*, invasive	0	0	0	56	1	0	0	0	56	1
Haemophilus influenzae, invasive	1	0	1	12	0	0	0	0	10	4
Hemolytic Uremic Syndrome	0	0	0	3	0	0	0	0	3	0
Hepatitis A, acute	1	0	2	44	2	0	1	0	43	7
Hepatitis B, acute	0	0	1	30	1	0	1	0	26	7
Hepatitis B, chronic	0	11	33	86	2	2	29	2	95	66
Hepatitis B, perinatal infection	0	0	0	1	0	0	0	0	1	0
Hepatitis C, acute	1	1	2	152	1	1	10	1	125	42
Hepatitis C, chronic	10	14	42	1221	19	25	242	26	935	612
Hepatitis C, perinatal infection	0	0	0	2	0	0	0	0	2	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
Hepatitis D, acute	0	0	0	1	0	0	0	0	1	0
HIV Infection	0	3	2	23	1	0	1	1	29	0
Invasive Pneumococcal Disease	3	0	0	79	0	0	2	1	80	3
Jamestown Canyon	0	0	0	1	0	0	0	0	1	0
Legionellosis	0	1	0	35	0	0	3	0	35	4
Listeriosis	0	0	0	6	0	0	0	0	6	0
Lyme Disease	3	6	3	1197	0	6	295	10	912	588
Malaria	0	0	2	1	0	0	0	0	1	2
Multisystem Inflammatory Syndrome (MIS)	0	0	1	7	0	0	1	2	7	0
Mumps	0	0	0	0	0	0	1	0	0	1
Neisseria meningitidis, invasive (Mening. disease)	0	0	0	2	0	0	0	0	2	0
Pertussis	0	0	2	10	0	0	2	1	12	1
Powassan	0	0	0	3	0	0	0	0	3	0
Rabies PEP	0	0	0	90	2	1	8	1	77	23
Rabies, animal	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Salmonellosis	0	0	6	117	0	2	4	2	113	14
Shiga toxin-producing *Escherichia coli* (STEC)	0	0	0	20	0	0	3	2	16	5
Shigellosis	0	0	1	5	0	0	0	0	6	0
Spotted Fever Rickettsiosis	0	0	0	0	0	0	2	0	0	2
Streptococcal toxic-shock syndrome	0	0	0	14	0	0	0	0	13	1
Syphilis	0	2	3	88	3	5	0	9	90	2
Tuberculosis	0	4	7	3	0	0	0	1	13	0
Varicella (Chickenpox)	1	0	0	54	2	0	6	1	49	13
Vibriosis	0	0	0	10	0	0	1	0	10	1

***Counts are updated annually. Data as of 8/15/2022.**

2021 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 ≥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, MRSA, and Coronavirus Disease 2019.

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).

Hepatitis: Hepatitis outbreaks are caused by one of the hepatitis viruses (A,B,C,D,E). An outbreak is defined as three or more confirmed cases in a single setting.

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.

Other: Outbreaks in this category are not captured in any other group. Examples include *C. difficile*, multi-drug resistant organisms, or outbreaks caused by contaminated devices.

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 Related Outbreak*	Other	VPD Outbreak	Total
Androscoggin	0	110	6	3	1	0	**120**
Aroostook	0	78	0	1	0	0	**79**
Cumberland	0	244	6	2	4	1	**257**
Franklin	0	46	1	0	0	0	**47**
Hancock	0	37	2	0	0	0	**39**
Kennebec	0	113	2	1	0	0	**116**
Knox	0	33	1	1	0	0	**35**
Lincoln	0	29	0	0	0	0	**29**
Out of State	0	0	6	0	0	0	**6**
Oxford	2	51	2	0	0	0	**55**
Penobscot	0	146	3	1	0	0	**150**
Piscataquis	0	13	0	0	0	1	**14**
Sagadahoc	0	34	0	0	0	0	**34**
Somerset	0	49	0	0	0	0	**49**
Waldo	1	35	0	0	0	0	**36**
Washington	0	19	0	0	0	0	**19**
York	1	166	3	0	0	0	**170**
Total	**4**	**1203**	**32**	**9**	**5**	**2**	**1255**

* ILI outbreaks included here are for the calendar year 2021, so includes outbreaks from the 2020-2021 and 2021-2022 influenza seasons. Any outbreak can be healthcare associated.

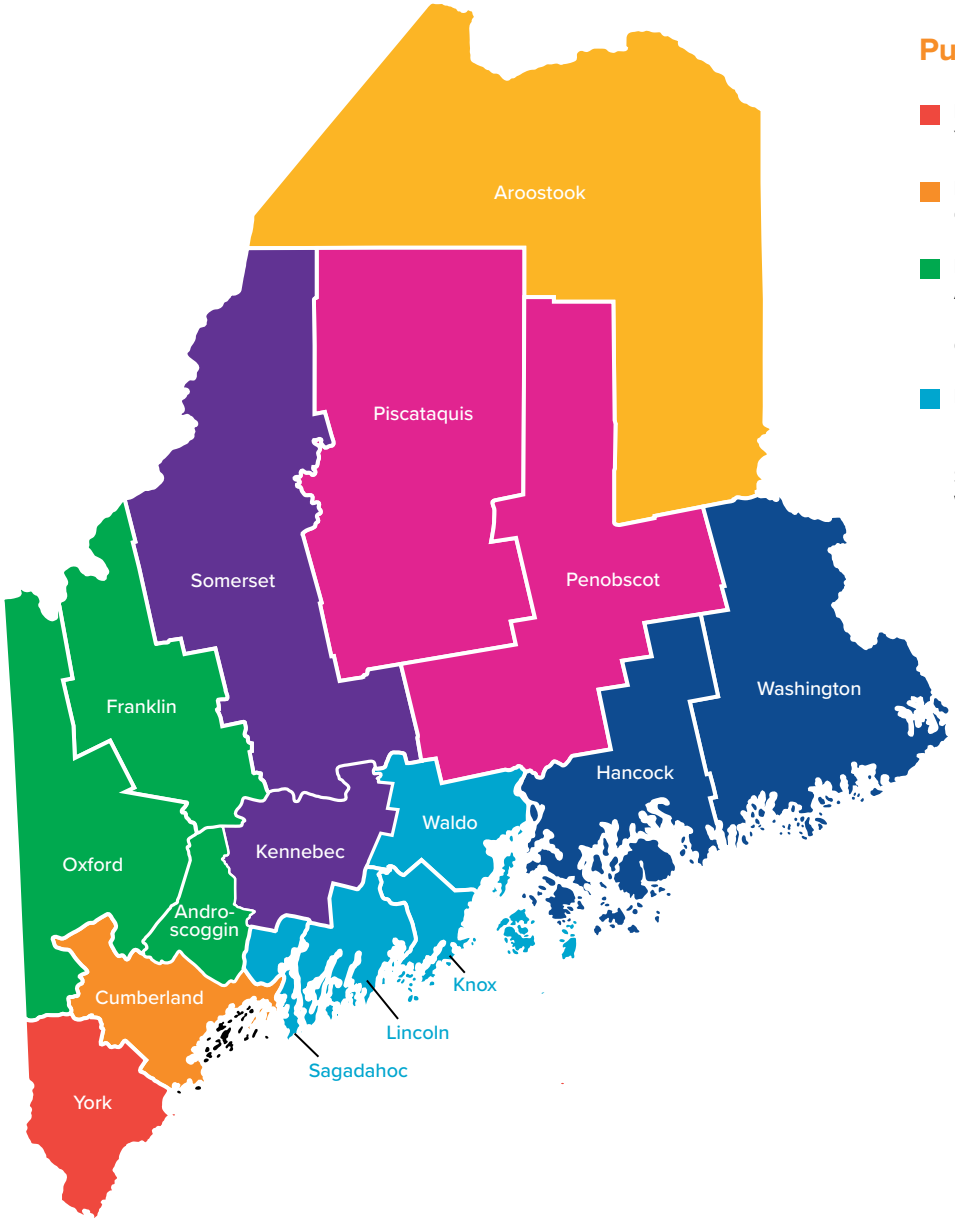
About the Data

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 2021, the two reported emerging infections were reports of leishmaniasis and Southern Tick-Associated Rash Illness (STARI). 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 2021 census estimates.)



Public Health District Map

DISTRICT 1
York

DISTRICT 2
Cumberland

DISTRICT 3
Androscoggin
Franklion
Oxford

DISTRICT 4
Knox
Lincoln
Sagadahoc
Waldo

DISTRICT 5
Kennebec
Somerset

DISTRICT 6
Penobscot
Piscataquis

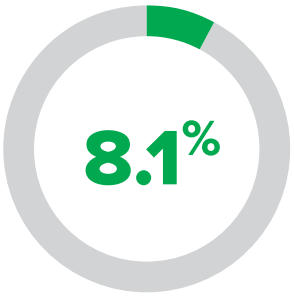
DISTRICT 7
Hancock
Washington

DISTRICT 8
Aroostook

ANDROSCOGGIN COUNTY

111,034

Population



of Maine's Total Population

	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Anaplasma phagocytophilum	38	34.2	89	44.6	841	61.3
Babesiosis	11	9.9	17	8.5	201	14.6
Borrelia miyamotoi	0	0.0	1	0.5	9	0.7
Botulism	0	0.0	0	0.0	1	0.1
Campylobacteriosis	8	7.2	27	13.5	271	19.7
Carbapenem-resistant *Enterobacteriaceae* (CRE)	5	4.5	8	4.0	48	3.5
Chlamydia trachomatis infection	351	316.1	524	262.9	3372	245.7
Coccidioidomycosis	0	0.0	0	0.0	2	0.1
Coronavirus Disease 2019 (COVID-19)	12925	11640.6	22931	11502.9	124213	9051.8
Cryptosporidiosis	0	0.0	10	5.0	59	4.3
Cyclosporiasis	0	0.0	0	0.0	2	0.1
Ehrlichiosis	0	0.0	1	0.5	4	0.3
Emerging Infection	0	0.0	0	0.0	2	0.1
Giardiasis	5	4.5	16	8.0	140	10.2
Gonorrhea	68	61.2	100	50.2	462	33.7
Group A *Streptococcus*, invasive	8	7.2	13	6.5	57	4.2
Haemophilus influenzae, invasive	2	1.8	3	1.5	14	1.0
Hemolytic uremic syndrome	0	0.0	0	0.0	3	0.2
Hepatitis A, acute	1	0.9	2	1.0	50	3.6
Hepatitis B, acute	5	4.5	10	5.0	33	2.4

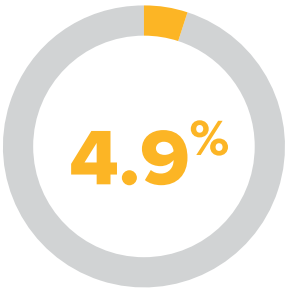
	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Hepatitis B, chronic	20	18.0	27	13.5	163	11.9
Hepatitis B, perinatal infection	0	0.0	1	0.5	1	0.1
Hepatitis C, acute	12	10.8	27	13.5	168	12.2
Hepatitis C, chronic	116	104.5	239	119.9	1573	114.6
Hepatitis C, perinatal infection	0	0.0	0	0.0	2	0.1
Hepatitis D, acute	0	0.0	0	0.0	1	0.1
HIV Infection	0	0.0	0	0.0	30	2.2
Invasive Pneumococcal Disease	9	8.1	18	9.0	84	6.1
Jamestown Canyon	0	0.0	0	0.0	1	0.1
Legionellosis	5	4.5	7	3.5	39	2.8
Listeriosis	0	0.0	1	0.5	6	0.4
Lyme Disease	64	57.6	145	72.7	1510	110.0
Malaria	2	1.8	2	1.0	3	0.2
Multisystem Inflammatory Syndrome (MIS)	2	1.8	3	1.5	9	0.7
Mumps	0	0.0	0	0.0	1	0.1
Neisseria meningitidis, invasive (Mening. disease)	0	0.0	0	0.0	2	0.1
Pertussis	2	1.8	2	1.0	14	1.0
Powassan	0	0.0	0	0.0	3	0.2
Rabies PEP	2	1.8	6	3.0	101	7.4
Rabies, animal	3	NA	11	NA	61	NA
Salmonellosis	18	16.2	23	11.5	129	9.4
Shiga toxin-producing *Escherichia coli* (STEC)	0	0.0	2	1.0	23	1.7
Shigellosis	0	0.0	0	0.0	6	0.4
Spotted Fever Rickettsiosis	0	0.0	0	0.0	2	0.1
Streptococcal toxic-shock syndrome	3	2.7	4	2.0	14	1.0
Syphilis	6	5.4	10	5.0	101	7.4
Tuberculosis	1	0.9	1	0.5	14	1.0
Varicella (Chickenpox)	4	3.6	8	4.0	63	4.6
Vibriosis	0	0.0	0	0.0	11	0.8

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

AROOSTOOK COUNTY

66,859

Population



of Maine's Total Population

	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Anaplasma phagocytophilum	3	4.5	3	4.5	841	61.3
Babesiosis	0	0.0	0	0.0	201	14.6
Borrelia miyamotoi	0	0.0	0	0.0	9	0.7
Botulism	0	0.0	0	0.0	1	0.1
Campylobacteriosis	11	16.5	11	16.5	271	19.7
Carbapenem-resistant *Enterobacteriaceae* (CRE)	1	1.5	1	1.5	48	3.5
Chlamydia trachomatis infection	149	222.9	149	222.9	3372	245.7
Coccidioidomycosis	1	1.5	1	1.5	2	0.1
Coronavirus Disease 2019 (COVID-19)	6649	9944.8	6649	9944.8	124213	9051.8
Cryptosporidiosis	3	4.5	3	4.5	59	4.3
Cyclosporiasis	0	0.0	0	0.0	2	0.1
Ehrlichiosis	0	0.0	0	0.0	4	0.3
Emerging Infection	0	0.0	0	0.0	2	0.1
Giardiasis	2	3.0	2	3.0	140	10.2
Gonorrhea	1	1.5	1	1.5	462	33.7
Group A *Streptococcus*, invasive	4	6.0	4	6.0	57	4.2
Haemophilus influenzae, invasive	1	1.5	1	1.5	14	1.0
Hemolytic uremic syndrome	3	4.5	3	4.5	3	0.2
Hepatitis A, acute	0	0.0	0	0.0	50	3.6
Hepatitis B, acute	1	1.5	1	1.5	33	2.4

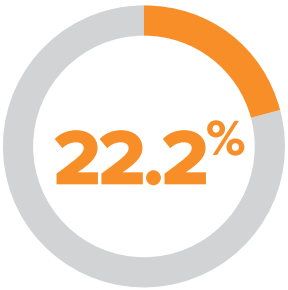
	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Hepatitis B, chronic	2	3.0	2	3.0	163	11.9
Hepatitis B, perinatal infection	0	0.0	0	0.0	1	0.1
Hepatitis C, acute	4	6.0	4	6.0	168	12.2
Hepatitis C, chronic	63	94.2	63	94.2	1573	114.6
Hepatitis C, perinatal infection	0	0.0	0	0.0	2	0.1
Hepatitis D, acute	0	0.0	0	0.0	1	0.1
HIV Infection	0	0.0	0	0.0	30	2.2
Invasive Pneumococcal Disease	7	10.5	7	10.5	84	6.1
Jamestown Canyon	0	0.0	0	0.0	1	0.1
Legionellosis	1	1.5	1	1.5	39	2.8
Listeriosis	0	0.0	0	0.0	6	0.4
Lyme Disease	3	4.5	3	4.5	1510	110.0
Malaria	0	0.0	0	0.0	3	0.2
Multisystem Inflammatory Syndrome (MIS)	0	0.0	0	0.0	9	0.7
Mumps	0	0.0	0	0.0	1	0.1
Neisseria meningitidis, invasive (Mening. disease)	0	0.0	0	0.0	2	0.1
Pertussis	0	0.0	0	0.0	14	1.0
Powassan	0	0.0	0	0.0	3	0.2
Rabies PEP	4	6.0	4	6.0	101	7.4
Rabies, animal	0	NA	0	NA	61	NA
Salmonellosis	7	10.5	7	10.5	129	9.4
Shiga toxin-producing *Escherichia coli* (STEC)	6	9.0	6	9.0	23	1.7
Shigellosis	0	0.0	0	0.0	6	0.4
Spotted Fever Rickettsiosis	0	0.0	0	0.0	2	0.1
Streptococcal toxic-shock syndrome	2	3.0	2	3.0	14	1.0
Syphilis	0	0.0	0	0.0	101	7.4
Tuberculosis	1	1.5	1	1.5	14	1.0
Varicella (Chickenpox)	3	4.5	3	4.5	63	4.6
Vibriosis	0	0.0	0	0.0	11	0.8

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

CUMBERLAND COUNTY

305, 231

Population



of Maine's Total Population

	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Anaplasma phagocytophilum	116	38.0	116	38.0	841	61.3
Babesiosis	33	10.8	33	10.8	201	14.6
Borrelia miyamotoi	1	0.3	1	0.3	9	0.7
Botulism	0	0.0	0	0.0	1	0.1
Campylobacteriosis	52	17.0	52	17.0	271	19.7
Carbapenem-resistant *Enterobacteriaceae* (CRE)	11	3.6	11	3.6	48	3.5
Chlamydia trachomatis infection	880	288.3	880	288.3	3372	245.7
Coccidioidomycosis	0	0.0	0	0.0	2	0.1
Coronavirus Disease 2019 (COVID-19)	21573	7067.8	21573	7067.8	124213	9051.8
Cryptosporidiosis	5	1.6	5	1.6	59	4.3
Cyclosporiasis	2	0.7	2	0.7	2	0.1
Ehrlichiosis	0	0.0	0	0.0	4	0.3
Emerging Infection	1	0.3	1	0.3	2	0.1
Giardiasis	31	10.2	31	10.2	140	10.2
Gonorrhea	149	48.8	149	48.8	462	33.7
Group A *Streptococcus*, invasive	13	4.3	13	4.3	57	4.2
Haemophilus influenzae, invasive	2	0.7	2	0.7	14	1.0
Hemolytic uremic syndrome	0	0.0	0	0.0	3	0.2
Hepatitis A, acute	2	0.7	2	0.7	50	3.6
Hepatitis B, acute	6	2.0	6	2.0	33	2.4

	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Hepatitis B, chronic	71	23.3	71	23.3	163	11.9
Hepatitis B, perinatal infection	0	0.0	0	0.0	1	0.1
Hepatitis C, acute	37	12.1	37	12.1	168	12.2
Hepatitis C, chronic	397	130.1	397	130.1	1573	114.6
Hepatitis C, perinatal infection	0	0.0	0	0.0	2	0.1
Hepatitis D, acute	0	0.0	0	0.0	1	0.1
HIV Infection	13	4.3	13	4.3	30	2.2
Invasive Pneumococcal Disease	10	3.3	10	3.3	84	6.1
Jamestown Canyon	0	0.0	0	0.0	1	0.1
Legionellosis	2	0.7	2	0.7	39	2.8
Listeriosis	0	0.0	0	0.0	6	0.4
Lyme Disease	226	74.0	226	74.0	1510	110.0
Malaria	0	0.0	0	0.0	3	0.2
Multisystem Inflammatory Syndrome (MIS)	2	0.7	2	0.7	9	0.7
Mumps	0	0.0	0	0.0	1	0.1
Neisseria meningitidis, invasive (Mening. disease)	0	0.0	0	0.0	2	0.1
Pertussis	2	0.7	2	0.7	14	1.0
Powassan	1	0.3	1	0.3	3	0.2
Rabies PEP	21	6.9	21	6.9	101	7.4
Rabies, animal	19	NA	19	NA	61	NA
Salmonellosis	32	10.5	32	10.5	129	9.4
Shiga toxin-producing *Escherichia coli* (STEC)	3	1.0	3	1.0	23	1.7
Shigellosis	3	1.0	3	1.0	6	0.4
Spotted Fever Rickettsiosis	0	0.0	0	0.0	2	0.1
Streptococcal toxic-shock syndrome	1	0.3	1	0.3	14	1.0
Syphilis	37	12.1	37	12.1	101	7.4
Tuberculosis	9	2.9	9	2.9	14	1.0
Varicella (Chickenpox)	16	5.2	16	5.2	63	4.6
Vibriosis	3	1.0	3	1.0	11	0.8

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

FRANKLIN COUNTY

29,687

Population

of Maine's Total Population

	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Anaplasma phagocytophilum	8	26.9	89	44.6	841	61.3
Babesiosis	2	6.7	17	8.5	201	14.6
Borrelia miyamotoi	0	0.0	1	0.5	9	0.7
Botulism	0	0.0	0	0.0	1	0.1
Campylobacteriosis	10	33.7	27	13.5	271	19.7
Carbapenem-resistant *Enterobacteriaceae* (CRE)	0	0.0	8	4.0	48	3.5
Chlamydia trachomatis infection	62	208.8	524	262.9	3372	245.7
Coccidioidomycosis	0	0.0	0	0.0	2	0.1
Coronavirus Disease 2019 (COVID-19)	3376	11372.0	22931	11502.9	124213	9051.8
Cryptosporidiosis	4	13.5	10	5.0	59	4.3
Cyclosporiasis	0	0.0	0	0.0	2	0.1
Ehrlichiosis	0	0.0	1	0.5	4	0.3
Emerging Infection	0	0.0	0	0.0	2	0.1
Giardiasis	4	13.5	16	8.0	140	10.2
Gonorrhea	15	50.5	100	50.2	462	33.7
Group A *Streptococcus*, invasive	3	10.1	13	6.5	57	4.2
Haemophilus influenzae, invasive	0	0.0	3	1.5	14	1.0
Hemolytic uremic syndrome	0	0.0	0	0.0	3	0.2
Hepatitis A, acute	1	3.4	2	1.0	50	3.6
Hepatitis B, acute	2	6.7	10	5.0	33	2.4

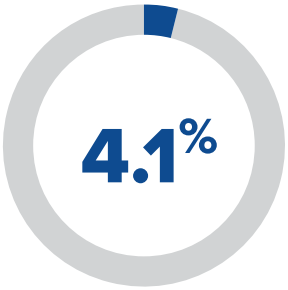
	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Hepatitis B, chronic	2	6.7	27	13.5	163	11.9
Hepatitis B, perinatal infection	0	0.0	1	0.5	1	0.1
Hepatitis C, acute	8	26.9	27	13.5	168	12.2
Hepatitis C, chronic	55	185.3	239	119.9	1573	114.6
Hepatitis C, perinatal infection	0	0.0	0	0.0	2	0.1
Hepatitis D, acute	0	0.0	0	0.0	1	0.1
HIV Infection	0	0.0	0	0.0	30	2.2
Invasive Pneumococcal Disease	1	3.4	18	9.0	84	6.1
Jamestown Canyon	0	0.0	0	0.0	1	0.1
Legionellosis	0	0.0	7	3.5	39	2.8
Listeriosis	1	3.4	1	0.5	6	0.4
Lyme Disease	24	80.8	145	72.7	1510	110.0
Malaria	0	0.0	2	1.0	3	0.2
Multisystem Inflammatory Syndrome (MIS)	0	0.0	3	1.5	9	0.7
Mumps	0	0.0	0	0.0	1	0.1
Neisseria meningitidis, invasive (Mening. disease)	0	0.0	0	0.0	2	0.1
Pertussis	0	0.0	2	1.0	14	1.0
Powassan	0	0.0	0	0.0	3	0.2
Rabies PEP	1	3.4	6	3.0	101	7.4
Rabies, animal	4	NA	11	NA	61	NA
Salmonellosis	3	10.1	23	11.5	129	9.4
Shiga toxin-producing *Escherichia coli* (STEC)	2	6.7	2	1.0	23	1.7
Shigellosis	0	0.0	0	0.0	6	0.4
Spotted Fever Rickettsiosis	0	0.0	0	0.0	2	0.1
Streptococcal toxic-shock syndrome	1	3.4	4	2.0	14	1.0
Syphilis	0	0.0	10	5.0	101	7.4
Tuberculosis	0	0.0	1	0.5	14	1.0
Varicella (Chickenpox)	2	6.7	8	4.0	63	4.6
Vibriosis	0	0.0	0	0.0	11	0.8

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

HANCOCK COUNTY

56,192

Population



Of Maine's Total Population

	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Anaplasma phagocytophilum	63	112.1	78	89.3	841	61.3
Babesiosis	18	32.0	20	22.9	201	14.6
Borrelia miyamotoi	0	0.0	0	0.0	9	0.7
Botulism	0	0.0	0	0.0	1	0.1
Campylobacteriosis	7	12.5	13	14.9	271	19.7
Carbapenem-resistant *Enterobacteriaceae* (CRE)	0	0.0	0	0.0	48	3.5
Chlamydia trachomatis infection	67	119.2	116	132.9	3372	245.7
Coccidioidomycosis	0	0.0	0	0.0	2	0.1
Coronavirus Disease 2019 (COVID-19)	4067	7237.7	6467	7406.7	124213	9051.8
Cryptosporidiosis	3	5.3	6	6.9	59	4.3
Cyclosporiasis	0	0.0	0	0.0	2	0.1
Ehrlichiosis	0	0.0	1	1.1	4	0.3
Emerging Infection	0	0.0	0	0.0	2	0.1
Giardiasis	16	28.5	18	20.6	140	10.2
Gonorrhea	9	16.0	13	14.9	462	33.7
Group A *Streptococcus*, invasive	0	0.0	0	0.0	57	4.2
Haemophilus influenzae, invasive	0	0.0	2	2.3	14	1.0
Hemolytic uremic syndrome	0	0.0	0	0.0	3	0.2
Hepatitis A, acute	0	0.0	8	9.2	50	3.6
Hepatitis B, acute	2	3.6	3	3.4	33	2.4

	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Hepatitis B, chronic	5	8.9	9	10.3	163	11.9
Hepatitis B, perinatal infection	0	0.0	0	0.0	1	0.1
Hepatitis C, acute	5	8.9	8	9.2	168	12.2
Hepatitis C, chronic	40	71.2	73	83.6	1573	114.6
Hepatitis C, perinatal infection	0	0.0	0	0.0	2	0.1
Hepatitis D, acute	0	0.0	0	0.0	1	0.1
HIV Infection	1	1.8	1	1.1	30	2.2
Invasive Pneumococcal Disease	4	7.1	5	5.7	84	6.1
Jamestown Canyon	0	0.0	0	0.0	1	0.1
Legionellosis	3	5.3	3	3.4	39	2.8
Listeriosis	0	0.0	0	0.0	6	0.4
Lyme Disease	186	331.0	224	256.5	1510	110.0
Malaria	0	0.0	0	0.0	3	0.2
Multisystem Inflammatory Syndrome (MIS)	1	1.8	1	1.1	9	0.7
Mumps	0	0.0	0	0.0	1	0.1
Neisseria meningitidis, invasive (Mening. disease)	0	0.0	0	0.0	2	0.1
Pertussis	0	0.0	0	0.0	14	1.0
Powassan	0	0.0	0	0.0	3	0.2
Rabies PEP	1	1.8	1	1.1	101	7.4
Rabies, animal	0	NA	1	NA	61	NA
Salmonellosis	1	1.8	4	4.6	129	9.4
Shiga toxin-producing *Escherichia coli* (STEC)	1	1.8	1	1.1	23	1.7
Shigellosis	0	0.0	0	0.0	6	0.4
Spotted Fever Rickettsiosis	1	1.8	1	1.1	2	0.1
Streptococcal toxic-shock syndrome	0	0.0	0	0.0	14	1.0
Syphilis	0	0.0	0	0.0	101	7.4
Tuberculosis	1	1.8	1	1.1	14	1.0
Varicella (Chickenpox)	2	3.6	4	4.6	63	4.6
Vibriosis	2	3.6	2	2.3	11	0.8

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

KENNEBEC COUNTY

124,486

Population

of Maine's Total Population

	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Anaplasma phagocytophilum	87	69.9	104	59.4	841	61.3
Babesiosis	19	15.3	21	12.0	201	14.6
Borrelia miyamotoi	2	1.6	2	1.1	9	0.7
Botulism	0	0.0	0	0.0	1	0.1
Campylobacteriosis	16	12.9	25	14.3	271	19.7
Carbapenem-resistant *Enterobacteriaceae* (CRE)	2	1.6	4	2.3	48	3.5
Chlamydia trachomatis infection	333	267.5	452	258.2	3372	245.7
Coccidioidomycosis	1	0.8	1	0.6	2	0.1
Cryptosporidiosis	5	4.0	14	8.0	59	4.3
Coronavirus Disease 2019 (COVID-19)	12669	10177.0	18466	10547.3	124213	9051.8
Cyclosporiasis	0	0.0	0	0.0	2	0.1
Ehrlichiosis	1	0.8	1	0.6	4	0.3
Emerging Infection	0	0.0	0	0.0	2	0.1
Giardiasis	10	8.0	16	9.1	140	10.2
Gonorrhea	34	27.3	44	25.1	462	33.7
Group A *Streptococcus*, invasive	4	3.2	5	2.9	57	4.2
Haemophilus influenzae, invasive	0	0.0	0	0.0	14	1.0
Hemolytic uremic syndrome	0	0.0	0	0.0	3	0.2
Hepatitis A, acute	10	8.0	14	8.0	50	3.6
Hepatitis B, acute	2	1.6	3	1.7	33	2.4

	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Hepatitis B, chronic	5	4.0	7	4.0	163	11.9
Hepatitis B, perinatal infection	0	0.0	0	0.0	1	0.1
Hepatitis C, acute	11	8.8	25	14.3	168	12.2
Hepatitis C, chronic	100	80.3	152	86.8	1573	114.6
Hepatitis C, perinatal infection	0	0.0	1	0.6	2	0.1
Hepatitis D, acute	0	0.0	0	0.0	1	0.1
HIV Infection	5	4.0	5	2.9	30	2.2
Invasive Pneumococcal Disease	8	6.4	12	6.9	84	6.1
Jamestown Canyon	0	0.0	0	0.0	1	0.1
Legionellosis	4	3.2	9	5.1	39	2.8
Listeriosis	0	0.0	0	0.0	6	0.4
Lyme Disease	167	134.2	247	141.1	1510	110.0
Malaria	0	0.0	0	0.0	3	0.2
Multisystem Inflammatory Syndrome (MIS)	1	0.8	2	1.1	9	0.7
Mumps	0	0.0	1	0.6	1	0.1
Neisseria meningitidis, invasive (Mening. disease)	1	0.8	1	0.6	2	0.1
Pertussis	0	0.0	0	0.0	14	1.0
Powassan	0	0.0	0	0.0	3	0.2
Rabies PEP	13	10.4	20	11.4	101	7.4
Rabies, animal	7	NA	11	NA	61	NA
Salmonellosis	10	8.0	13	7.4	129	9.4
Shiga toxin-producing *Escherichia coli* (STEC)	0	0.0	0	0.0	23	1.7
Shigellosis	0	0.0	1	0.6	6	0.4
Spotted Fever Rickettsiosis	0	0.0	0	0.0	2	0.1
Streptococcal toxic-shock syndrome	0	0.0	0	0.0	14	1.0
Syphilis	11	8.8	14	8.0	101	7.4
Tuberculosis	1	0.8	1	0.6	14	1.0
Varicella (Chickenpox)	8	6.4	12	6.9	63	4.6
Vibriosis	0	0.0	0	0.0	11	0.8

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

KNOX COUNTY

41,084

Population

of Maine's Total Population

	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Anaplasma phagocytophilum	88	214.2	338	219.6	841	61.3
Babesiosis	36	87.6	83	53.9	201	14.6
Borrelia miyamotoi	0	0.0	4	2.6	9	0.7
Botulism	0	0.0	0	0.0	1	0.1
Campylobacteriosis	12	29.2	37	24.0	271	19.7
Carbapenem-resistant *Enterobacteriaceae* (CRE)	3	7.3	10	6.5	48	3.5
Chlamydia trachomatis infection	68	165.5	282	183.2	3372	245.7
Coccidioidomycosis	0	0.0	0	0.0	2	0.1
Coronavirus Disease 2019 (COVID-19)	2932	7136.6	11777	7652.6	124213	9051.8
Cryptosporidiosis	0	0.0	6	3.9	59	4.3
Cyclosporiasis	0	0.0	0	0.0	2	0.1
Ehrlichiosis	0	0.0	1	0.6	4	0.3
Emerging Infection	0	0.0	0	0.0	2	0.1
Giardiasis	9	21.9	26	16.9	140	10.2
Gonorrhea	3	7.3	20	13.0	462	33.7
Group A *Streptococcus*, invasive	1	2.4	4	2.6	57	4.2
Haemophilus influenzae, invasive	1	2.4	1	0.6	14	1.0
Hemolytic uremic syndrome	0	0.0	0	0.0	3	0.2
Hepatitis A, acute	1	2.4	6	3.9	50	3.6
Hepatitis B, acute	0	0.0	5	3.2	33	2.4

	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Hepatitis B, chronic	3	7.3	12	7.8	163	11.9
Hepatitis B, perinatal infection	0	0.0	0	0.0	1	0.1
Hepatitis C, acute	4	9.7	18	11.7	168	12.2
Hepatitis C, chronic	52	126.6	170	110.5	1573	114.6
Hepatitis C, perinatal infection	0	0.0	0	0.0	2	0.1
Hepatitis D, acute	0	0.0	0	0.0	1	0.1
HIV Infection	0	0.0	2	1.3	30	2.2
Invasive Pneumococcal Disease	2	4.9	6	3.9	84	6.1
Jamestown Canyon	0	0.0	0	0.0	1	0.1
Legionellosis	0	0.0	1	0.6	39	2.8
Listeriosis	1	2.4	2	1.3	6	0.4
Lyme Disease	138	335.9	361	234.6	1510	110.0
Malaria	0	0.0	0	0.0	3	0.2
Multisystem Inflammatory Syndrome (MIS)	0	0.0	0	0.0	9	0.7
Mumps	0	0.0	0	0.0	1	0.1
Neisseria meningitidis, invasive (Mening. disease)	0	0.0	0	0.0	2	0.1
Pertussis	0	0.0	0	0.0	14	1.0
Powassan	1	2.4	2	1.3	3	0.2
Rabies PEP	1	2.4	18	11.7	101	7.4
Rabies, animal	1	NA	11	NA	61	NA
Salmonellosis	3	7.3	12	7.8	129	9.4
Shiga toxin-producing *Escherichia coli* (STEC)	2	4.9	2	1.3	23	1.7
Shigellosis	0	0.0	1	0.6	6	0.4
Spotted Fever Rickettsiosis	0	0.0	0	0.0	2	0.1
Streptococcal toxic-shock syndrome	0	0.0	1	0.6	14	1.0
Syphilis	0	0.0	3	1.9	101	7.4
Tuberculosis	0	0.0	0	0.0	14	1.0
Varicella (Chickenpox)	6	14.6	9	5.8	63	4.6
Vibriosis	0	0.0	3	1.9	11	0.8

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

LINCOLN COUNTY

35,828

Population

of Maine's Total Population

	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Anaplasma phagocytophilum	108	301.4	338	219.6	841	61.3
Babesiosis	28	78.2	83	53.9	201	14.6
Borrelia miyamotoi	2	5.6	4	2.6	9	0.7
Botulism	0	0.0	0	0.0	1	0.1
Campylobacteriosis	6	16.7	37	24.0	271	19.7
Carbapenem-resistant *Enterobacteriaceae* (CRE)	1	2.8	10	6.5	48	3.5
Chlamydia trachomatis infection	55	153.5	282	183.2	3372	245.7
Coccidioidomycosis	0	0.0	0	0.0	2	0.1
Coronavirus Disease 2019 (COVID-19)	2684	7491.3	11777	7652.6	124213	9051.8
Cryptosporidiosis	1	2.8	6	3.9	59	4.3
Cyclosporiasis	0	0.0	0	0.0	2	0.1
Ehrlichiosis	0	0.0	1	0.6	4	0.3
Emerging Infection	0	0.0	0	0.0	2	0.1
Giardiasis	4	11.2	26	16.9	140	10.2
Gonorrhea	7	19.5	20	13.0	462	33.7
Group A *Streptococcus*, invasive	0	0.0	4	2.6	57	4.2
Haemophilus influenzae, invasive	0	0.0	1	0.6	14	1.0
Hemolytic uremic syndrome	0	0.0	0	0.0	3	0.2
Hepatitis A, acute	3	8.4	6	3.9	50	3.6
Hepatitis B, acute	0	0.0	5	3.2	33	2.4

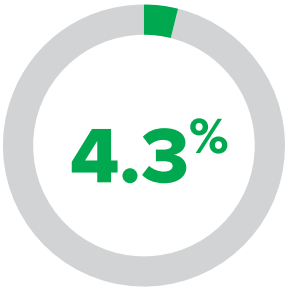
	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Hepatitis B, chronic	0	0.0	12	7.8	163	11.9
Hepatitis B, perinatal infection	0	0.0	0	0.0	1	0.1
Hepatitis C, acute	9	25.1	18	11.7	168	12.2
Hepatitis C, chronic	46	128.4	170	110.5	1573	114.6
Hepatitis C, perinatal infection	0	0.0	0	0.0	2	0.1
Hepatitis D, acute	0	0.0	0	0.0	1	0.1
HIV Infection	2	5.6	2	1.3	30	2.2
Invasive Pneumococcal Disease	1	2.8	6	3.9	84	6.1
Jamestown Canyon	0	0.0	0	0.0	1	0.1
Legionellosis	0	0.0	1	0.6	39	2.8
Listeriosis	1	2.8	2	1.3	6	0.4
Lyme Disease	65	181.4	361	234.6	1510	110.0
Malaria	0	0.0	0	0.0	3	0.2
Multisystem Inflammatory Syndrome (MIS)	0	0.0	0	0.0	9	0.7
Mumps	0	0.0	0	0.0	1	0.1
Neisseria meningitidis, invasive (Mening. disease)	0	0.0	0	0.0	2	0.1
Pertussis	0	0.0	0	0.0	14	1.0
Powassan	0	0.0	2	1.3	3	0.2
Rabies PEP	3	8.4	18	11.7	101	7.4
Rabies, animal	0	NA	11	NA	61	NA
Salmonellosis	1	2.8	12	7.8	129	9.4
Shiga toxin-producing *Escherichia coli* (STEC)	0	0.0	2	1.3	23	1.7
Shigellosis	0	0.0	1	0.6	6	0.4
Spotted Fever Rickettsiosis	0	0.0	0	0.0	2	0.1
Streptococcal toxic-shock syndrome	0	0.0	1	0.6	14	1.0
Syphilis	0	0.0	3	1.9	101	7.4
Tuberculosis	0	0.0	0	0.0	14	1.0
Varicella (Chickenpox)	0	0.0	9	5.8	63	4.6
Vibriosis	1	2.8	3	1.9	11	0.8

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

OXFORD COUNTY

58,629

Population



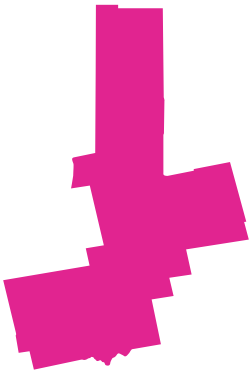
of Maine's Total Population

	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Anaplasma phagocytophilum	43	73.3	89	44.6	841	61.3
Babesiosis	4	6.8	17	8.5	201	14.6
Borrelia miyamotoi	1	1.7	1	0.5	9	0.7
Botulism	0	0.0	0	0.0	1	0.1
Campylobacteriosis	9	15.4	27	13.5	271	19.7
Carbapenem-resistant *Enterobacteriaceae* (CRE)	3	5.1	8	4.0	48	3.5
Chlamydia trachomatis infection	111	189.3	524	262.9	3372	245.7
Coccidioidomycosis	0	0.0	0	0.0	2	0.1
Coronavirus Disease 2019 (COVID-19)	6630	11308.4	22931	11502.9	124213	9051.8
Cryptosporidiosis	6	10.2	10	5.0	59	4.3
Cyclosporiasis	0	0.0	0	0.0	2	0.1
Ehrlichiosis	1	1.7	1	0.5	4	0.3
Emerging Infection	0	0.0	0	0.0	2	0.1
Giardiasis	7	11.9	16	8.0	140	10.2
Gonorrhea	17	29.0	100	50.2	462	33.7
Group A *Streptococcus*, invasive	2	3.4	13	6.5	57	4.2
Haemophilus influenzae, invasive	1	1.7	3	1.5	14	1.0
Hemolytic uremic syndrome	0	0.0	0	0.0	3	0.2
Hepatitis A, acute	0	0.0	2	1.0	50	3.6
Hepatitis B, acute	3	5.1	10	5.0	33	2.4

	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Hepatitis B, chronic	5	8.5	27	13.5	163	11.9
Hepatitis B, perinatal infection	1	1.7	1	0.5	1	0.1
Hepatitis C, acute	7	11.9	27	13.5	168	12.2
Hepatitis C, chronic	68	116.0	239	119.9	1573	114.6
Hepatitis C, perinatal infection	0	0.0	0	0.0	2	0.1
Hepatitis D, acute	0	0.0	0	0.0	1	0.1
HIV Infection	0	0.0	0	0.0	30	2.2
Invasive Pneumococcal Disease	8	13.6	18	9.0	84	6.1
Jamestown Canyon	0	0.0	0	0.0	1	0.1
Legionellosis	2	3.4	7	3.5	39	2.8
Listeriosis	0	0.0	1	0.5	6	0.4
Lyme Disease	57	97.2	145	72.7	1510	110.0
Malaria	0	0.0	2	1.0	3	0.2
Multisystem Inflammatory Syndrome (MIS)	1	1.7	3	1.5	9	0.7
Mumps	0	0.0	0	0.0	1	0.1
Neisseria meningitidis, invasive (Mening. disease)	0	0.0	0	0.0	2	0.1
Pertussis	0	0.0	2	1.0	14	1.0
Powassan	0	0.0	0	0.0	3	0.2
Rabies PEP	3	5.1	6	3.0	101	7.4
Rabies, animal	4	NA	11	NA	61	NA
Salmonellosis	2	3.4	23	11.5	129	9.4
Shiga toxin-producing *Escherichia coli* (STEC)	0	0.0	2	1.0	23	1.7
Shigellosis	0	0.0	0	0.0	6	0.4
Spotted Fever Rickettsiosis	0	0.0	0	0.0	2	0.1
Streptococcal toxic-shock syndrome	0	0.0	4	2.0	14	1.0
Syphilis	4	6.8	10	5.0	101	7.4
Tuberculosis	0	0.0	1	0.5	14	1.0
Varicella (Chickenpox)	2	3.4	8	4.0	63	4.6
Vibriosis	0	0.0	0	0.0	11	0.8

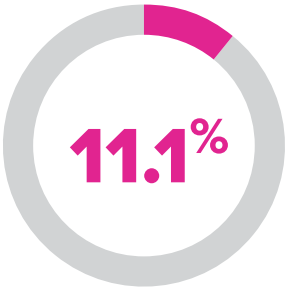
Counts of confirmed and probable cases. Rates of confirmed and probable cases per 100,000 people.

PENOBSCOT COUNTY



152,765

Population



of Maine's Total Population

	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Anaplasma phagocytophilum	32	20.9	32	18.8	841	61.3
Babesiosis	5	3.3	5	2.9	201	14.6
Borrelia miyamotoi	0	0.0	0	0.0	9	0.7
Botulism	0	0.0	0	0.0	1	0.1
Campylobacteriosis	22	14.4	23	13.5	271	19.7
Carbapenem-resistant *Enterobacteriaceae* (CRE)	2	1.3	2	1.2	48	3.5
Chlamydia trachomatis infection	498	326.0	527	310.1	3372	245.7
Coccidioidomycosis	0	0.0	0	0.0	2	0.1
Coronavirus Disease 2019 (COVID-19)	15545	10175.8	17444	10265.4	124213	9051.8
Cryptosporidiosis	4	2.6	8	4.7	59	4.3
Cyclosporiasis	0	0.0	0	0.0	2	0.1
Ehrlichiosis	0	0.0	0	0.0	4	0.3
Emerging Infection	1	0.7	1	0.6	2	0.1
Giardiasis	8	5.2	11	6.5	140	10.2
Gonorrhea	58	38.0	58	34.1	462	33.7
Group A *Streptococcus*, invasive	8	5.2	8	4.7	57	4.2
Haemophilus influenzae, invasive	3	2.0	3	1.8	14	1.0
Hemolytic uremic syndrome	0	0.0	0	0.0	3	0.2
Hepatitis A, acute	10	6.5	15	8.8	50	3.6
Hepatitis B, acute	3	2.0	4	2.4	33	2.4

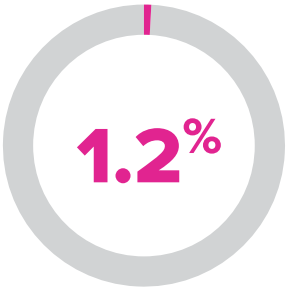
	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Hepatitis B, chronic	14	9.2	14	8.2	163	11.9
Hepatitis B, perinatal infection	0	0.0	0	0.0	1	0.1
Hepatitis C, acute	28	18.3	30	17.7	168	12.2
Hepatitis C, chronic	188	123.1	217	127.7	1573	114.6
Hepatitis C, perinatal infection	1	0.7	1	0.6	2	0.1
Hepatitis D, acute	0	0.0	0	0.0	1	0.1
HIV Infection	4	2.6	5	2.9	30	2.2
Invasive Pneumococcal Disease	18	11.8	18	10.6	84	6.1
Jamestown Canyon	0	0.0	0	0.0	1	0.1
Legionellosis	8	5.2	8	4.7	39	2.8
Listeriosis	1	0.7	1	0.6	6	0.4
Lyme Disease	126	82.5	131	77.1	1510	110.0
Malaria	1	0.7	1	0.6	3	0.2
Multisystem Inflammatory Syndrome (MIS)	0	0.0	0	0.0	9	0.7
Mumps	0	0.0	0	0.0	1	0.1
Neisseria meningitidis, invasive (Mening. disease)	0	0.0	0	0.0	2	0.1
Pertussis	2	1.3	3	1.8	14	1.0
Powassan	0	0.0	0	0.0	3	0.2
Rabies PEP	5	3.3	6	3.5	101	7.4
Rabies, animal	2	NA	2	NA	61	NA
Salmonellosis	12	7.9	15	8.8	129	9.4
Shiga toxin-producing *Escherichia coli* (STEC)	3	2.0	3	1.8	23	1.7
Shigellosis	1	0.7	1	0.6	6	0.4
Spotted Fever Rickettsiosis	0	0.0	1	0.6	2	0.1
Streptococcal toxic-shock syndrome	1	0.7	1	0.6	14	1.0
Syphilis	4	2.6	5	2.9	101	7.4
Tuberculosis	0	0.0	0	0.0	14	1.0
Varicella (Chickenpox)	3	2.0	7	4.1	63	4.6
Vibriosis	0	0.0	0	0.0	11	0.8

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

PISCATAQUIS COUNTY

17,165

Population



of Maine's Total Population

	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Anaplasma phagocytophilum	0	0.0	32	18.8	841	61.3
Babesiosis	0	0.0	5	2.9	201	14.6
Borrelia miyamotoi	0	0.0	0	0.0	9	0.7
Botulism	0	0.0	0	0.0	1	0.1
Campylobacteriosis	1	5.8	23	13.5	271	19.7
Carbapenem-resistant *Enterobacteriaceae* (CRE)	0	0.0	2	1.2	48	3.5
Chlamydia trachomatis infection	29	168.9	527	310.1	3372	245.7
Coccidioidomycosis	0	0.0	0	0.0	2	0.1
Coronavirus Disease 2019 (COVID-19)	1899	11063.2	17444	10265.4	124213	9051.8
Cryptosporidiosis	4	23.3	8	4.7	59	4.3
Cyclosporiasis	0	0.0	0	0.0	2	0.1
Ehrlichiosis	0	0.0	0	0.0	4	0.3
Emerging Infection	0	0.0	1	0.6	2	0.1
Giardiasis	3	17.5	11	6.5	140	10.2
Gonorrhea	0	0.0	58	34.1	462	33.7
Group A *Streptococcus*, invasive	0	0.0	8	4.7	57	4.2
Haemophilus influenzae, invasive	0	0.0	3	1.8	14	1.0
Hemolytic uremic syndrome	0	0.0	0	0.0	3	0.2
Hepatitis A, acute	5	29.1	15	8.8	50	3.6
Hepatitis B, acute	1	5.8	4	2.4	33	2.4

	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Hepatitis B, chronic	0	0.0	14	8.2	163	11.9
Hepatitis B, perinatal infection	0	0.0	0	0.0	1	0.1
Hepatitis C, acute	2	11.7	30	17.7	168	12.2
Hepatitis C, chronic	29	168.9	217	127.7	1573	114.6
Hepatitis C, perinatal infection	0	0.0	1	0.6	2	0.1
Hepatitis D, acute	0	0.0	0	0.0	1	0.1
HIV Infection	1	5.8	5	2.9	30	2.2
Invasive Pneumococcal Disease	0	0.0	18	10.6	84	6.1
Jamestown Canyon	0	0.0	0	0.0	1	0.1
Legionellosis	0	0.0	8	4.7	39	2.8
Listeriosis	0	0.0	1	0.6	6	0.4
Lyme Disease	5	29.1	131	77.1	1510	110.0
Malaria	0	0.0	1	0.6	3	0.2
Multisystem Inflammatory Syndrome (MIS)	0	0.0	0	0.0	9	0.7
Mumps	0	0.0	0	0.0	1	0.1
Neisseria meningitidis, invasive (Mening. disease)	0	0.0	0	0.0	2	0.1
Pertussis	1	5.8	3	1.8	14	1.0
Powassan	0	0.0	0	0.0	3	0.2
Rabies PEP	1	5.8	6	3.5	101	7.4
Rabies, animal	0	NA	2	NA	61	NA
Salmonellosis	3	17.5	15	8.8	129	9.4
Shiga toxin-producing *Escherichia coli* (STEC)	0	0.0	3	1.8	23	1.7
Shigellosis	0	0.0	1	0.6	6	0.4
Spotted Fever Rickettsiosis	1	5.8	1	0.6	2	0.1
Streptococcal toxic-shock syndrome	0	0.0	1	0.6	14	1.0
Syphilis	1	5.8	5	2.9	101	7.4
Tuberculosis	0	0.0	0	0.0	14	1.0
Varicella (Chickenpox)	4	23.3	7	4.1	63	4.6
Vibriosis	0	0.0	0	0.0	11	0.8

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

SAGADAHOC COUNTY

37,071

Population

of Maine's Total Population

	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Anaplasma phagocytophilum	60	161.9	338	219.6	841	61.3
Babesiosis	10	27.0	83	53.9	201	14.6
Borrelia miyamotoi	1	2.7	4	2.6	9	0.7
Botulism	0	0.0	0	0.0	1	0.1
Campylobacteriosis	8	21.6	37	24.0	271	19.7
Carbapenem-resistant *Enterobacteriaceae* (CRE)	3	8.1	10	6.5	48	3.5
Chlamydia trachomatis infection	83	223.9	282	183.2	3372	245.7
Coccidioidomycosis	0	0.0	0	0.0	2	0.1
Coronavirus Disease 2019 (COVID-19)	2748	7412.8	11777	7652.6	124213	9051.8
Cryptosporidiosis	0	0.0	6	3.9	59	4.3
Cyclosporiasis	0	0.0	0	0.0	2	0.1
Ehrlichiosis	0	0.0	1	0.6	4	0.3
Emerging Infection	0	0.0	0	0.0	2	0.1
Giardiasis	8	21.6	26	16.9	140	10.2
Gonorrhea	6	16.2	20	13.0	462	33.7
Group A *Streptococcus*, invasive	2	5.4	4	2.6	57	4.2
Haemophilus influenzae, invasive	0	0.0	1	0.6	14	1.0
Hemolytic uremic syndrome	0	0.0	0	0.0	3	0.2
Hepatitis A, acute	0	0.0	6	3.9	50	3.6
Hepatitis B, acute	1	2.7	5	3.2	33	2.4

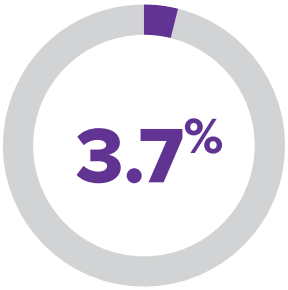
	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Hepatitis B, chronic	3	8.1	12	7.8	163	11.9
Hepatitis B, perinatal infection	0	0.0	0	0.0	1	0.1
Hepatitis C, acute	0	0.0	18	11.7	168	12.2
Hepatitis C, chronic	24	64.7	170	110.5	1573	114.6
Hepatitis C, perinatal infection	0	0.0	0	0.0	2	0.1
Hepatitis D, acute	0	0.0	0	0.0	1	0.1
HIV Infection	0	0.0	2	1.3	30	2.2
Invasive Pneumococcal Disease	0	0.0	6	3.9	84	6.1
Jamestown Canyon	0	0.0	0	0.0	1	0.1
Legionellosis	1	2.7	1	0.6	39	2.8
Listeriosis	0	0.0	2	1.3	6	0.4
Lyme Disease	45	121.4	361	234.6	1510	110.0
Malaria	0	0.0	0	0.0	3	0.2
Multisystem Inflammatory Syndrome (MIS)	0	0.0	0	0.0	9	0.7
Mumps	0	0.0	0	0.0	1	0.1
Neisseria meningitidis, invasive (Mening. disease)	0	0.0	0	0.0	2	0.1
Pertussis	0	0.0	0	0.0	14	1.0
Powassan	0	0.0	2	1.3	3	0.2
Rabies PEP	11	29.7	18	11.7	101	7.4
Rabies, animal	5	NA	11	NA	61	NA
Salmonellosis	4	10.8	12	7.8	129	9.4
Shiga toxin-producing *Escherichia coli* (STEC)	0	0.0	2	1.3	23	1.7
Shigellosis	1	2.7	1	0.6	6	0.4
Spotted Fever Rickettsiosis	0	0.0	0	0.0	2	0.1
Streptococcal toxic-shock syndrome	0	0.0	1	0.6	14	1.0
Syphilis	1	2.7	3	1.9	101	7.4
Tuberculosis	0	0.0	0	0.0	14	1.0
Varicella (Chickenpox)	2	5.4	9	5.8	63	4.6
Vibriosis	1	2.7	3	1.9	11	0.8

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

SOMERSET COUNTY

50,592

Population



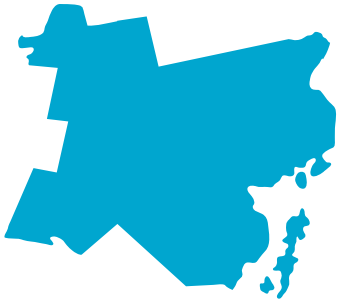
of Maine's Total Population

	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Anaplasma phagocytophilum	17	33.6	104	59.4	841	61.3
Babesiosis	2	4.0	21	12.0	201	14.6
Borrelia miyamotoi	0	0.0	2	1.1	9	0.7
Botulism	0	0.0	0	0.0	1	0.1
Campylobacteriosis	9	17.8	25	14.3	271	19.7
Carbapenem-resistant *Enterobacteriaceae* (CRE)	2	4.0	4	2.3	48	3.5
Chlamydia trachomatis infection	119	235.2	452	258.2	3372	245.7
Coccidioidomycosis	0	0.0	1	0.6	2	0.1
Coronavirus Disease 2019 (COVID-19)	5797	11458.3	18466	10547.3	124213	9051.8
Cryptosporidiosis	9	17.8	14	8.0	59	4.3
Cyclosporiasis	0	0.0	0	0.0	2	0.1
Ehrlichiosis	0	0.0	1	0.6	4	0.3
Emerging Infection	0	0.0	0	0.0	2	0.1
Giardiasis	6	11.9	16	9.1	140	10.2
Gonorrhea	10	19.8	44	25.1	462	33.7
Group A *Streptococcus*, invasive	1	2.0	5	2.9	57	4.2
Haemophilus influenzae, invasive	0	0.0	0	0.0	14	1.0
Hemolytic uremic syndrome	0	0.0	0	0.0	3	0.2
Hepatitis A, acute	4	7.9	14	8.0	50	3.6
Hepatitis B, acute	1	2.0	3	1.7	33	2.4

	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Hepatitis B, chronic	2	4.0	7	4.0	163	11.9
Hepatitis B, perinatal infection	0	0.0	0	0.0	1	0.1
Hepatitis C, acute	14	27.7	25	14.3	168	12.2
Hepatitis C, chronic	52	102.8	152	86.8	1573	114.6
Hepatitis C, perinatal infection	1	2.0	1	0.6	2	0.1
Hepatitis D, acute	0	0.0	0	0.0	1	0.1
HIV Infection	0	0.0	5	2.9	30	2.2
Invasive Pneumococcal Disease	4	7.9	12	6.9	84	6.1
Jamestown Canyon	0	0.0	0	0.0	1	0.1
Legionellosis	5	9.9	9	5.1	39	2.8
Listeriosis	0	0.0	0	0.0	6	0.4
Lyme Disease	80	158.1	247	141.1	1510	110.0
Malaria	0	0.0	0	0.0	3	0.2
Multisystem Inflammatory Syndrome (MIS)	1	2.0	2	1.1	9	0.7
Mumps	1	2.0	1	0.6	1	0.1
Neisseria meningitidis, invasive (Mening. disease)	0	0.0	1	0.6	2	0.1
Pertussis	0	0.0	0	0.0	14	1.0
Powassan	0	0.0	0	0.0	3	0.2
Rabies PEP	7	13.8	20	11.4	101	7.4
Rabies, animal	4	NA	11	NA	61	NA
Salmonellosis	3	5.9	13	7.4	129	9.4
Shiga toxin-producing *Escherichia coli* (STEC)	0	0.0	0	0.0	23	1.7
Shigellosis	1	2.0	1	0.6	6	0.4
Spotted Fever Rickettsiosis	0	0.0	0	0.0	2	0.1
Streptococcal toxic-shock syndrome	0	0.0	0	0.0	14	1.0
Syphilis	3	5.9	14	8.0	101	7.4
Tuberculosis	0	0.0	1	0.6	14	1.0
Varicella (Chickenpox)	4	7.9	12	6.9	63	4.6
Vibriosis	0	0.0	0	0.0	11	0.8

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

WALDO COUNTY



39,912

Population

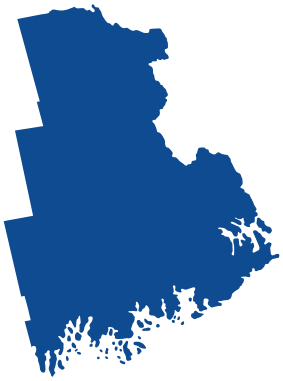
of Maine's Total Population

	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Anaplasma phagocytophilum	82	205.5	338	219.6	841	61.3
Babesiosis	9	22.5	83	53.9	201	14.6
Borrelia miyamotoi	1	2.5	4	2.6	9	0.7
Botulism	0	0.0	0	0.0	1	0.1
Campylobacteriosis	11	27.6	37	24.0	271	19.7
Carbapenem-resistant *Enterobacteriaceae* (CRE)	3	7.5	10	6.5	48	3.5
Chlamydia trachomatis infection	76	190.4	282	183.2	3372	245.7
Coccidioidomycosis	0	0.0	0	0.0	2	0.1
Coronavirus Disease 2019 (COVID-19)	3413	8551.3	11777	7652.6	124213	9051.8
Cryptosporidiosis	5	12.5	6	3.9	59	4.3
Cyclosporiasis	0	0.0	0	0.0	2	0.1
Ehrlichiosis	1	2.5	1	0.6	4	0.3
Emerging Infection	0	0.0	0	0.0	2	0.1
Giardiasis	5	12.5	26	16.9	140	10.2
Gonorrhea	4	10.0	20	13.0	462	33.7
Group A *Streptococcus*, invasive	1	2.5	4	2.6	57	4.2
Haemophilus influenzae, invasive	0	0.0	1	0.6	14	1.0
Hemolytic uremic syndrome	0	0.0	0	0.0	3	0.2
Hepatitis A, acute	2	5.0	6	3.9	50	3.6
Hepatitis B, acute	4	10.0	5	3.2	33	2.4

	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Hepatitis B, chronic	6	15.0	12	7.8	163	11.9
Hepatitis B, perinatal infection	0	0.0	0	0.0	1	0.1
Hepatitis C, acute	5	12.5	18	11.7	168	12.2
Hepatitis C, chronic	48	120.3	170	110.5	1573	114.6
Hepatitis C, perinatal infection	0	0.0	0	0.0	2	0.1
Hepatitis D, acute	0	0.0	0	0.0	1	0.1
HIV Infection	0	0.0	2	1.3	30	2.2
Invasive Pneumococcal Disease	3	7.5	6	3.9	84	6.1
Jamestown Canyon	0	0.0	0	0.0	1	0.1
Legionellosis	0	0.0	1	0.6	39	2.8
Listeriosis	0	0.0	2	1.3	6	0.4
Lyme Disease	113	283.1	361	234.6	1510	110.0
Malaria	0	0.0	0	0.0	3	0.2
Multisystem Inflammatory Syndrome (MIS)	0	0.0	0	0.0	9	0.7
Mumps	0	0.0	0	0.0	1	0.1
Neisseria meningitidis, invasive (Mening. disease)	0	0.0	0	0.0	2	0.1
Pertussis	0	0.0	0	0.0	14	1.0
Powassan	1	2.5	2	1.3	3	0.2
Rabies PEP	3	7.5	18	11.7	101	7.4
Rabies, animal	5	NA	11	NA	61	NA
Salmonellosis	4	10.0	12	7.8	129	9.4
Shiga toxin-producing *Escherichia coli* (STEC)	0	0.0	2	1.3	23	1.7
Shigellosis	0	0.0	1	0.6	6	0.4
Spotted Fever Rickettsiosis	0	0.0	0	0.0	2	0.1
Streptococcal toxic-shock syndrome	1	2.5	1	0.6	14	1.0
Syphilis	2	5.0	3	1.9	101	7.4
Tuberculosis	0	0.0	0	0.0	14	1.0
Varicella (Chickenpox)	1	2.5	9	5.8	63	4.6
Vibriosis	1	2.5	3	1.9	11	0.8

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

WASHINGTON COUNTY



31,121

Population

of Maine's Total Population

	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Anaplasma phagocytophilum	15	48.2	78	89.3	841	61.3
Babesiosis	2	6.4	20	22.9	201	14.6
Borrelia miyamotoi	0	0.0	0	0.0	9	0.7
Botulism	0	0.0	0	0.0	1	0.1
Campylobacteriosis	6	19.3	13	14.9	271	19.7
Carbapenem-resistant *Enterobacteriaceae* (CRE)	0	0.0	0	0.0	48	3.5
Chlamydia trachomatis infection	49	157.4	116	132.9	3372	245.7
Coccidioidomycosis	0	0.0	0	0.0	2	0.1
Coronavirus Disease 2019 (COVID-19)	2400	7711.8	6467	7406.7	124213	9051.8
Cryptosporidiosis	3	9.6	6	6.9	59	4.3
Cyclosporiasis	0	0.0	0	0.0	2	0.1
Ehrlichiosis	1	3.2	1	1.1	4	0.3
Emerging Infection	0	0.0	0	0.0	2	0.1
Giardiasis	2	6.4	18	20.6	140	10.2
Gonorrhea	4	12.9	13	14.9	462	33.7
Group A *Streptococcus*, invasive	0	0.0	0	0.0	57	4.2
Haemophilus influenzae, invasive	2	6.4	2	2.3	14	1.0
Hemolytic uremic syndrome	0	0.0	0	0.0	3	0.2
Hepatitis A, acute	8	25.7	8	9.2	50	3.6
Hepatitis B, acute	1	3.2	3	3.4	33	2.4

	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Hepatitis B, chronic	4	12.9	9	10.3	163	11.9
Hepatitis B, perinatal infection	0	0.0	0	0.0	1	0.1
Hepatitis C, acute	3	9.6	8	9.2	168	12.2
Hepatitis C, chronic	33	106.0	73	83.6	1573	114.6
Hepatitis C, perinatal infection	0	0.0	0	0.0	2	0.1
Hepatitis D, acute	0	0.0	0	0.0	1	0.1
HIV Infection	0	0.0	1	1.1	30	2.2
Invasive Pneumococcal Disease	1	3.2	5	5.7	84	6.1
Jamestown Canyon	0	0.0	0	0.0	1	0.1
Legionellosis	0	0.0	3	3.4	39	2.8
Listeriosis	0	0.0	0	0.0	6	0.4
Lyme Disease	38	122.1	224	256.5	1510	110.0
Malaria	0	0.0	0	0.0	3	0.2
Multisystem Inflammatory Syndrome (MIS)	0	0.0	1	1.1	9	0.7
Mumps	0	0.0	0	0.0	1	0.1
Neisseria meningitidis, invasive (Mening. disease)	0	0.0	0	0.0	2	0.1
Pertussis	0	0.0	0	0.0	14	1.0
Powassan	0	0.0	0	0.0	3	0.2
Rabies PEP	0	0.0	1	1.1	101	7.4
Rabies, animal	1	NA	1	NA	61	NA
Salmonellosis	3	9.6	4	4.6	129	9.4
Shiga toxin-producing *Escherichia coli* (STEC)	0	0.0	1	1.1	23	1.7
Shigellosis	0	0.0	0	0.0	6	0.4
Spotted Fever Rickettsiosis	0	0.0	1	1.1	2	0.1
Streptococcal toxic-shock syndrome	0	0.0	0	0.0	14	1.0
Syphilis	0	0.0	0	0.0	101	7.4
Tuberculosis	0	0.0	1	1.1	14	1.0
Varicella (Chickenpox)	2	6.4	4	4.6	63	4.6
Vibriosis	0	0.0	2	2.3	11	0.8

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

YORK COUNTY

214,591

Population

of Maine's Total Population

	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Anaplasma phagocytophilum	81	37.7	81	37.7	841	61.3
Babesiosis	22	10.3	22	10.3	201	14.6
Borrelia miyamotoi	1	0.5	1	0.5	9	0.7
Botulism	1	0.5	1	0.5	1	0.1
Campylobacteriosis	83	38.7	83	38.7	271	19.7
Carbapenem-resistant *Enterobacteriaceae* (CRE)	12	5.6	12	5.6	48	3.5
Chlamydia trachomatis infection	442s	206.0	442	206.0	3372	245.7
Coccidioidomycosis	0	0.0	0	0.0	2	0.1
Coronavirus Disease 2019 (COVID-19)	18906	8810.2	18906	8810.2	124213	9051.8
Cryptosporidiosis	7	3.3	7	3.3	59	4.3
Cyclosporiasis	0	0.0	0	0.0	2	0.1
Ehrlichiosis	0	0.0	0	0.0	4	0.3
Emerging Infection	0	0.0	0	0.0	2	0.1
Giardiasis	20	9.3	20	9.3	140	10.2
Gonorrhea	77	35.9	77	35.9	462	33.7
Group A *Streptococcus*, invasive	10	4.7	10	4.7	57	4.2
Haemophilus influenzae, invasive	2	0.9	2	0.9	14	1.0
Hemolytic uremic syndrome	0	0.0	0	0.0	3	0.2
Hepatitis A, acute	3	1.4	3	1.4	50	3.6
Hepatitis B, acute	1	0.5	1	0.5	33	2.4

	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Hepatitis B, chronic	21	9.8	21	9.8	163	11.9
Hepatitis B, perinatal infection	0	0.0	0	0.0	1	0.1
Hepatitis C, acute	19	8.9	19	8.9	168	12.2
Hepatitis C, chronic	262	122.1	262	122.1	1573	114.6
Hepatitis C, perinatal infection	0	0.0	0	0.0	2	0.1
Hepatitis D, acute	1	0.5	1	0.5	1	0.1
HIV Infection	4	1.9	4	1.9	30	2.2
Invasive Pneumococcal Disease	8	3.7	8	3.7	84	6.1
Jamestown Canyon	1	0.5	1	0.5	1	0.1
Legionellosis	8	3.7	8	3.7	39	2.8
Listeriosis	2	0.9	2	0.9	6	0.4
Lyme Disease	173	80.6	173	80.6	1510	110.0
Malaria	0	0.0	0	0.0	3	0.2
Multisystem Inflammatory Syndrome (MIS)	1	0.5	1	0.5	9	0.7
Mumps	0	0.0	0	0.0	1	0.1
Neisseria meningitidis, invasive (Mening. disease)	1	0.5	1	0.5	2	0.1
Pertussis	7	3.3	7	3.3	14	1.0
Powassan	0	0.0	0	0.0	3	0.2
Rabies PEP	25	11.7	25	11.7	101	7.4
Rabies, animal	6	NA	6	NA	61	NA
Salmonellosis	23	10.7	23	10.7	129	9.4
Shiga toxin-producing *Escherichia coli* (STEC)	6	2.8	6	2.8	23	1.7
Shigellosis	0	0.0	0	0.0	6	0.4
Spotted Fever Rickettsiosis	0	0.0	0	0.0	2	0.1
Streptococcal toxic-shock syndrome	5	2.3	5	2.3	14	1.0
Syphilis	32	14.9	32	14.9	101	7.4
Tuberculosis	1	0.5	1	0.5	14	1.0
Varicella (Chickenpox)	4	1.9	4	1.9	63	4.6
Vibriosis	3	1.4	3	1.4	11	0.8

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

COVID-19 Response Teams

In response to the COVID-19 pandemic that started in 2020, Maine CDC's Infectious Disease Epidemiology Program (ID Epi) continued to lead surveillance efforts in Maine to track and control the spread of the virus in 2021. During this response, the program grew from a small team of epidemiologists, health educators, and informaticists into a dynamic network of teams all dedicated to protecting the health of Maine people during this pandemic. The entire COVID-19 response included efforts from diverse groups across the state not included here. The COVID-19 Response Team shown here recognizes the impressive accomplishments of the dedicated individuals in the ID Epi Program and HETL.

Intake Team

Answers the ID Epi phone line to take consults from healthcare providers and community members.

- **9** members
- Answered **11,823** calls

Administrative Team

Enters COVID-19 lab information and maintains all COVID-19 reporting paper records.

- **6** members

COVID-19 Consult Team

Answers COVID-19 questions from healthcare providers and community members

- **18** members
- Answered **11,198** consults

Vaccine Consult Team

Answers COVID-19 vaccine questions from healthcare providers and community members.

- **7** members
- Answered **5,521** consults

After Hours on Call Team

Answers urgent infectious disease questions after hours and on weekends.

- **13** members
- Answered **1,084** consults

Health Education Team

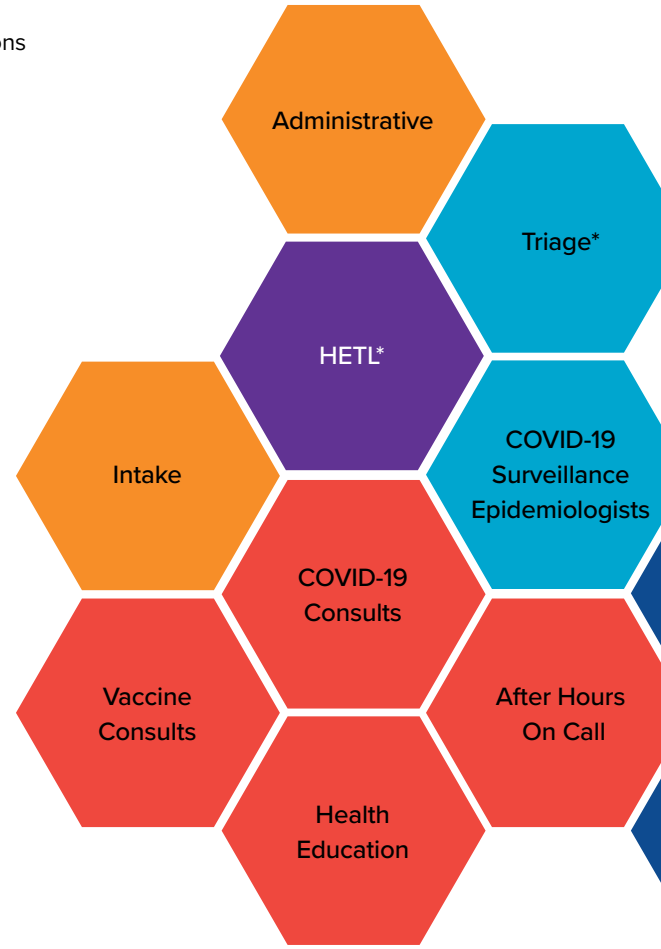
Creates educational materials and social media posts about COVID-19 and maintains the Maine CDC COVID-19 website and FAQs.

- **2** members
- Created **16** new COVID-19 educational materials
- Made **433** changes to Maine CDC COVID-19 websites (www.maine.gov/dhhs/coronavirus)

COVID-19 Surveillance Epidemiologists

Coordinates and supports COVID-19 investigation efforts, act as liaisons with other state and territorial health departments, and serve as a point of contact for COVID-19 resources with other state departments.

- **8** members



*Includes members of the Maine National Guard.

COVID Response Teams

Triage Team*

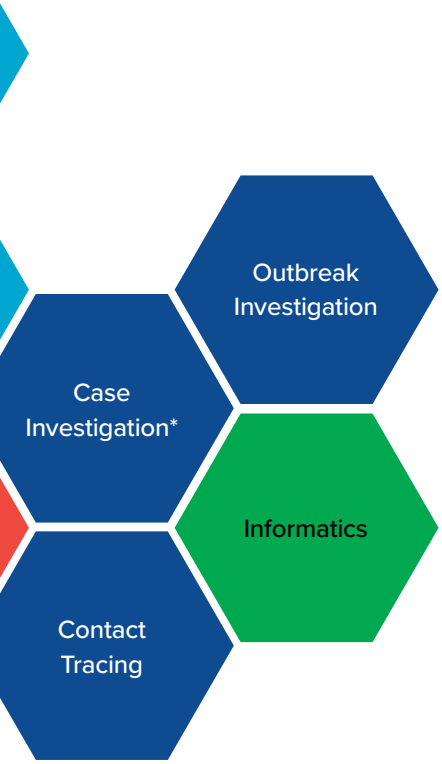
Reviews incoming COVID-19 lab reports to assign for investigation or open and close without additional follow-up.

- **64** members
- Created **125,783** COVID-19 investigations
- Opened and closed **62,188** confirmed or probable COVID-19 investigations with no follow up
- Created **1,030** suspect COVID-19 investigations

Contact Tracing Team

Follows up with individuals identified during case investigation as having close contact with a person who has COVID-19 to enroll them in symptom monitoring and provide quarantine guidance.

- **39** members
- Enrolled **157,264** close contacts in monitoring



Outbreak Investigation Team

Collects epidemiologic information for COVID-19 outbreaks in Maine, especially in certain high-risk settings. Provides guidance for infection control and follow-up testing within facilities.

- **29** members
- Investigated **1,190** confirmed and probable COVID-19 outbreaks
  - Hospital outbreaks: **35**
  - Business outbreaks: **140**
  - College/University outbreaks: **35**
  - Childcare facility outbreaks: **78**
  - Long-term care facility outbreaks: **200**
  - Military outbreaks: **3**
  - Public safety outbreaks: **2**
  - Camp outbreaks: **6**
  - Church outbreaks: **12**
  - Correctional facility outbreaks: **26**
  - Group home facility outbreaks: **65**
  - Residential treatment facility outbreaks: **2**
  - School outbreaks: **569**
  - Shelter outbreaks: **13**

Case Investigation Team*

Collects epidemiologic information for selected COVID-19 cases in Maine and provides isolation and quarantine guidance.

- **213** members
- Investigated **68,236** COVID-19 cases, of which **66,745** met confirmed or probable status

Health and Environmental Testing Laboratory (HETL)*

Conducts SARS-CoV-2 laboratory testing for the State of Maine

- **50** members
- Tested **336,943** total SARS-CoV-2 specimens

Informatics team

Ensures data systems are functioning, maintain data quality, perform data analysis, and create and maintain data visualizations.

- **10** members
- Created and maintained **11** COVID-19 data dashboards
- Total number of COVID-19 dashboard views (from 2020-August 2022): **23,667,966** views

Botulism: A Surprising Foodborne Case Investigation

Botulism is a rare but serious infection that is caused by *C. botulinum* bacteria, which produces a toxin that attacks the body's nervous system. The toxin can cause difficulty swallowing and breathing, muscle weakness, vision changes, and slurred speech. All types of botulism produce a similar clinical syndrome of symmetrical cranial nerve palsies followed by loss of muscle function, which may progress to not being able to move, respiratory failure, and death. Giving the botulism antitoxin in a timely way is an essential part of treatment. Antitoxin can keep the illness from becoming worse if given early in the course of illness and usually lets the patient recover after some time. However, it will not undo damage to muscles and organs. Initial diagnosis of botulism is based on symptoms and the start of treatment should not be delayed while waiting for lab confirmation.

During 2001-2004, Maine reported 4 cases of botulism, and in 2021 Maine had its first confirmed case of botulism in over 15 years.

In August 2021, the Massachusetts Department of Public Health (MDPH) contacted Maine CDC regarding a previously healthy, 77-year-old Maine resident, hospitalized in Massachusetts and undergoing testing for possible iatrogenic or foodborne botulism. The patient was first seen at a southern Maine hospital 12 hours after a routine eye injection for age related (wet) macular degeneration, out of concern that the treatment had caused an allergic reaction. She showed up to that hospital with eyelid and facial muscle droop, difficulty swallowing, slurred speech, nausea, and vomiting. At the Maine hospital, imaging was negative for a stroke. Her blood and cerebrospinal fluid (CSF) analysis were within normal limits and negative for infectious agents. Within 48 hours, the patient, although awake and alert, developed descending bilateral loss of muscle function, weakness, and respiratory failure. Given the patient's worsening condition, the Maine hospital team and the patient's family asked that the patient be transferred to a Boston area hospital for more specialized care.

Maine CDC, MDPH, and the Boston area hospital team contacted the United States Centers for Disease Control and Prevention (US CDC) botulism team to request antitoxin and ask about any other reports of botulism or suspect botulism that might indicate an outbreak. US CDC agreed to make antitoxin available and suggested it be given to the patient as soon as available.

The patient's testing ruled out the possibility of other neurological conditions. The antitoxin was given to the patient shortly thereafter. The New York Public Health Reference Laboratory, Wadsworth Center, conducted testing. Lab confirmation is done by showing the presence of botulinum toxin in serum, stool, or food, or by culturing botulinum neurotoxin-producing species. The stool specimen result was positive for *Clostridium botulinum* toxin gene type A by polymerase chain reaction (PCR) and positive for *C. botulinum* neurotoxin type A. Additional and repeat testing confirmed toxin genes A and B. The serum was negative for *C. botulinum toxin*. **Botulism was confirmed.**

A Maine CDC field epidemiologist worked with the patient's family to identify all foods potentially eaten during the exposure period (2 hours to 8 days before symptoms) and find out whether any remained for possible collection and testing. The patient had a history of home canning. Eating food from improperly performed home canning can be a major risk factor for botulism. The family investigated the patient's home and met with the Maine CDC epidemiologist. Much of the food had already been thrown out. No home canned goods remained. The HETL received the high risk foods. Many of the foods were expired or had been improperly stored. The high risk foods had already been consumed or discarded and the remaining collected items were not thought to be the cause of botulism. The lack of evidence of the other routes of transmission indicated foodborne botulism.

Ingestion of the toxin was likely unintentional and due to expired, improperly prepared and stored foods, and limited supervision of the patient's safe food preparation and consumption. The severity of illness and effects caused by botulism made return to home impossible. The patient left the hospital after 117 days and remains in a long-term care and rehabilitation facility.

Maine CDC advises following proper precautions with food preparation, home canning, fermenting, and preserving of food items and suggests that best practices be followed to reduce risks of foodborne botulism.

For more information on prevention of botulism please see https://www.cdc.gov/botulism/prevention.html

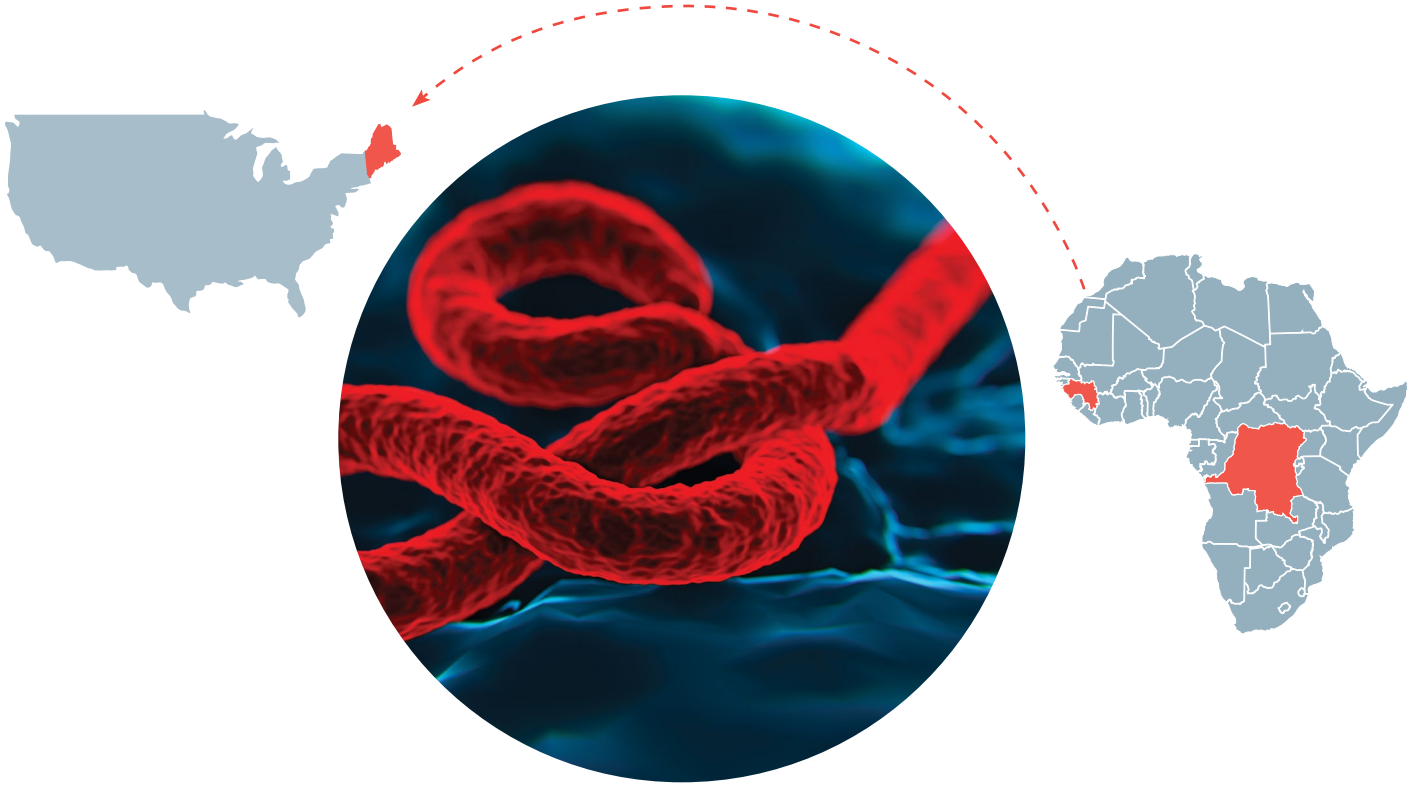
Ebola Response 2021 Summary

Ebola Monitoring

In February 2021, the Democratic Republic of the Congo (DRC) and Guinea reported an outbreak of Ebola virus disease (EVD). In response to the outbreak, Maine CDC began monitoring travelers arriving from these countries. The purpose of this monitoring was to ensure travelers were Ebola-free and manage potential cases, if and as needed. Between March and April 2021, Maine received notifications on 36 travelers arriving from the DRC and Guinea. Thirty travelers received follow-up guidance from an epidemiologist, but it was later determined that two of these individuals did not travel to either country. The remaining six travelers could not be reached during the 21-day monitoring period. No travelers were considered high-risk for EVD and none went on to develop any EVD-like symptoms. By the end of April 2021, the Ebola outbreak in Democratic Republic of Congo (DRC) and Guinea ended and Ebola monitoring was discontinued.

Ebola Tabletop Exercise

Following the 2014 Ebola outbreak in DRC and Guinea, Maine CDC prepared a state Ebola response plan. This plan outlines the responsibilities for each partner agency like how to monitor suspect cases, transport cases to the hospital, and manage close contacts. On April 5, 2021, multiple state agencies and stakeholders across Maine completed an Ebola tabletop exercise. The goal of the 2021 exercise was to ensure that if we had a suspect Ebola case, we could safely get that individual to a facility for evaluation. Participants in the tabletop exercise from Maine CDC included individuals from the Healthcare Associated Infections Program (HAI), HETL, ID Epi Program, Public Health Emergency Preparedness (PHEP), and Senior Leadership. Other agencies and stakeholders included, but were not limited to, Maine Emergency Medical Services (EMS) as well as representatives from hospitals and local EMS services. Maine CDC addressed areas for improvement in an after-action report.



Non-Influenza Respiratory Viruses, Maine 2021

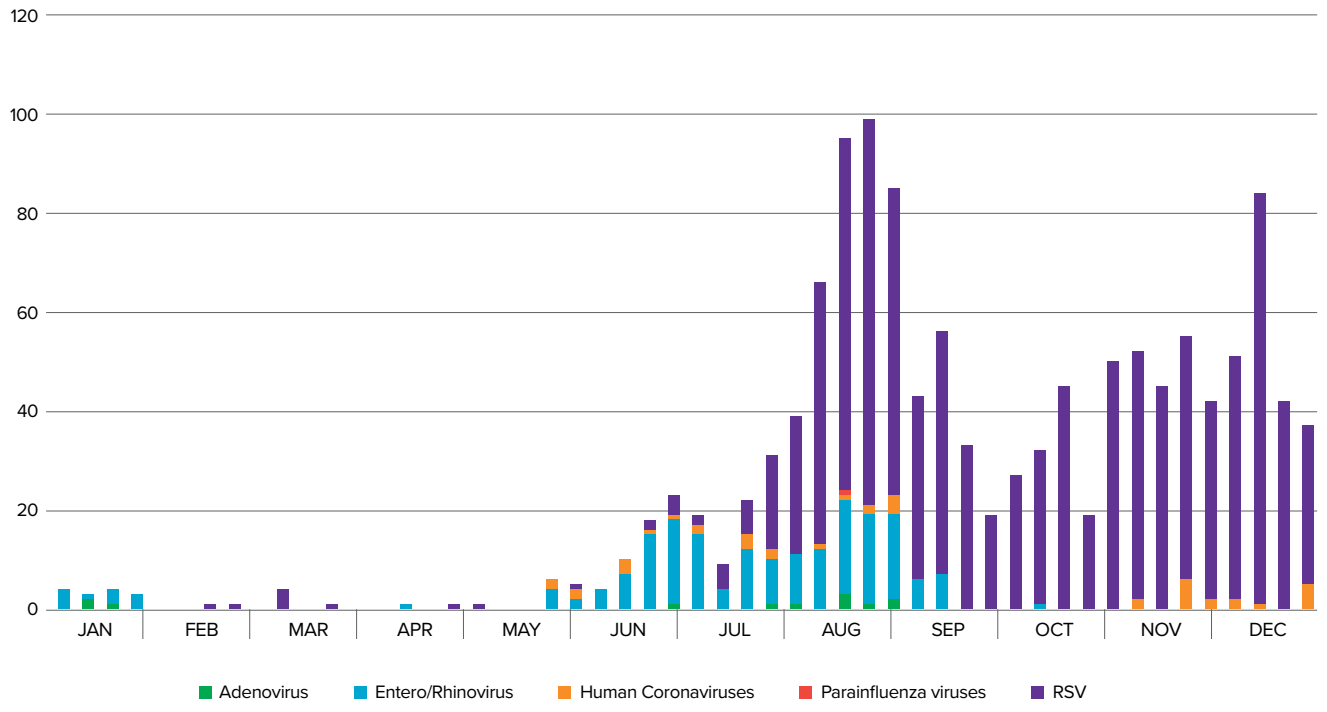
Non-influenza respiratory viruses (NIRVs) occur each year in Maine. Many of these viruses are not tested for and are not required to be reported. This leads to limited monitoring which makes it challenging to predict and respond to NIRV activity in Maine. However, this may be changing as laboratories in Maine increase NIRV testing and voluntary reporting to Maine CDC. This increase is likely due to increasing availability of NIRV testing options and the use of electronic laboratory reports (ELRs), making voluntary reporting easier.

With this new data, Maine CDC will be able to increase monitoring of NIRVs in the future, resulting in a better understanding of the circulation of NIRVs. Though there are not enough data in past seasons to allow for comparison, 2021 provided enough results to begin looking at intraseasonal trends. During 2021, the commonly tested for and reported NIRVs in Maine include:

- Respiratory Syncytial Virus (RSV),
- Enterovirus/rhinovirus (EV/RV),
- Respiratory adenovirus,
- Seasonal human coronaviruses, and
- Human parainfluenza viruses (HPIV).

RSV and EV/RV were the most reported NIRVs, accounting for more than 95% of positive reports. In 2021, labs reported a total of 37,057 results: 1,287 (3.5%) total positive with 1041 for RSV, 191 for EV/RV and 55 for other viruses. During the summer and fall months of 2021, the US observed an unexpected increase in Respiratory Syncytial Virus (RSV) throughout the country, including Maine *(Figure 1)*.

Figure 1: Reported Non-Influenza Respiratory Viruses – Maine, 2021



Viral Hepatitis in Maine

Viral Hepatitis Among Individuals Who Use Drugs

Hepatitis can be caused by a group of unrelated viruses that affect the liver causing fever, fatigue, nausea, vomiting, loss of appetite, abdominal pain, dark urine, and jaundice. The most common ones in the world are hepatitis A, which causes an acute disease, and hepatitis B and C which can cause both acute and chronic disease. Additionally, hepatitis D and E can cause disease but are much less common, especially in Maine.

Along with neighboring Vermont and New Hampshire, Maine is part of a Tri-State Hepatitis C elimination planning effort. This multi-year project aims to better describe the burden of hepatitis C in the region and ensure equitable access to testing and treatment services.

While the symptoms caused by infection with each of the hepatitis viruses are similar, each of these hepatitis viruses affects the liver differently, has different routes of transmission, and typically affects different populations *(Figure 1)*. However, hepatitis A, B, and C do share some common risk factors for infection.

Figure 1. Key Facts about hepatitis A, hepatitis B, and hepatitis C

Characteristic	Hepatitis A	Hepatitis B	Hepatitis C
Main route(s) of transmission	Fecal-oral	Blood, sexual	Blood
Incubation period	15-50 days (average: 28 days)	60-150 days (average: 90 days)	14-182 days (average range: 14-84 days+)
Symptoms of acute infection	Symptoms are similar and can include ≥1 of the following: jaundice, fever, fatigue, loss of appetite, nausea, vomiting, abdominal pain, joint pain, dark urine, clay-colored stool, diarrhea (hepatitis A only)		
Prenatal transmission	No	Yes	Yes
Vaccine available	Yes	Yes	No
Treatment	Supportive care	Yes, not curative	Yes, curative

Figure 2. Percent of individuals with acute hepatitis in Maine reporting injection drug use (IVDU) during their exposure periods, 2021

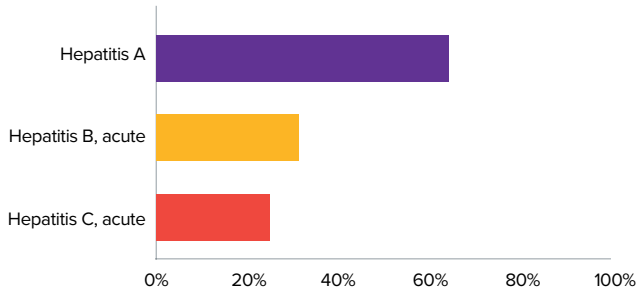


Figure 3. Percent of individuals with acute hepatitis in Maine who were hospitalized for their illness, 2021

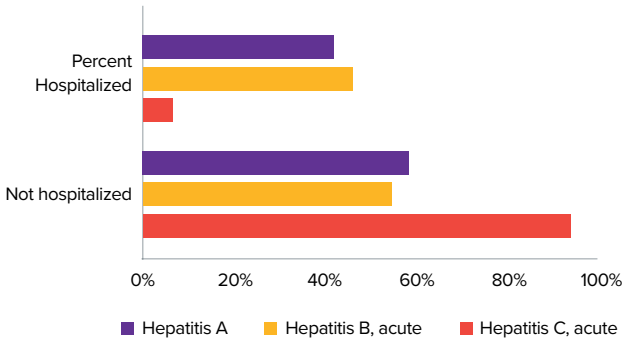
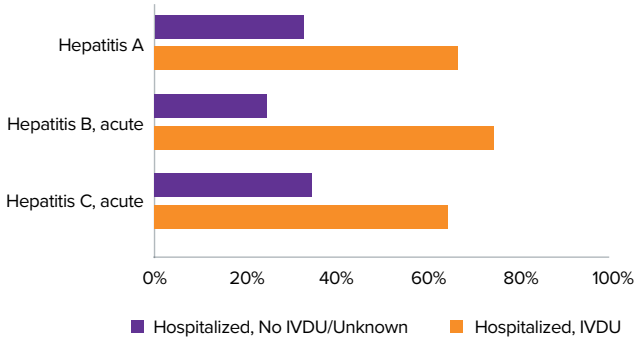


Figure 4. Percent of individuals hospitalized with acute hepatitis in Maine by injection drug use (IVDU) status during their exposure period



Injection drug use (IVDU) and non-injection drug use are significant risk factors for transmission and infection with all three of the common hepatitis viruses (A, B, and C). In Maine in 2021, 64% (n = 32) of acute hepatitis A cases, 31% (n = 11) of acute hepatitis B cases, and 25% (n = 42) of acute hepatitis C cases identified prior injection drug use during their exposure periods *(Figure 2)*.

Injection and non-injection drug use was most often reported among people aged 30-39 years (40%) across all acute viral hepatitis infections however without any significant differences by sex.

Acute viral hepatitis can result in hospitalization. Forty-two percent (n=21) of acute hepatitis A cases, 46% (n = 16) of acute hepatitis B cases, and 7% (n = 11) of acute hepatitis C cases were hospitalized due to their illness *(Figure 3)*. Outcome of infection with viral hepatitis tends to be worse among individuals reporting drug use. Among those who cited injection drug use, 67%, 75%, and 65% of acute hepatitis A, B, and C cases, respectively, were hospitalized *(Figure 4)*.

Chronic hepatitis B cases increased slightly, as did cases of chronic hepatitis C *(Figure 2)*. Rates (number of cases per 100,000 people) of all types of viral hepatitis in Maine remain higher than the national average. Ongoing surveillance of viral hepatitis in Maine is essential for reducing transmission, preventing excessive morbidity, identifying sources of transmission, and guiding prevention efforts.

Hepatitis A Among Food Workers and Congregate Settings

Contamination of food and/or water with hepatitis can be particularly challenging for identifying close contacts because many people may potentially have been exposed. Individuals are often infectious before symptoms even appear.

In 2021, Maine CDC reported two instances of hepatitis A in food workers—one in Eastport and one in Orono. In response, Maine CDC collaborated with local health facilities, Public Health Nursing (PHN), and the Maine Immunization Program to set up a pop-up vaccine clinic and vaccine outreach event in Eastport.

This resulted in more than 300 residents in the area receiving a prophylactic dose of hepatitis A vaccine.

Maine CDC also collaborated closely with local health partners, PHN, and the Department of Corrections to secure hepatitis A vaccine for residents of a correctional facility that were exposed to hepatitis A.

No secondary cases were reported as a result of close contact in either of these scenarios.

Workgroup Summaries

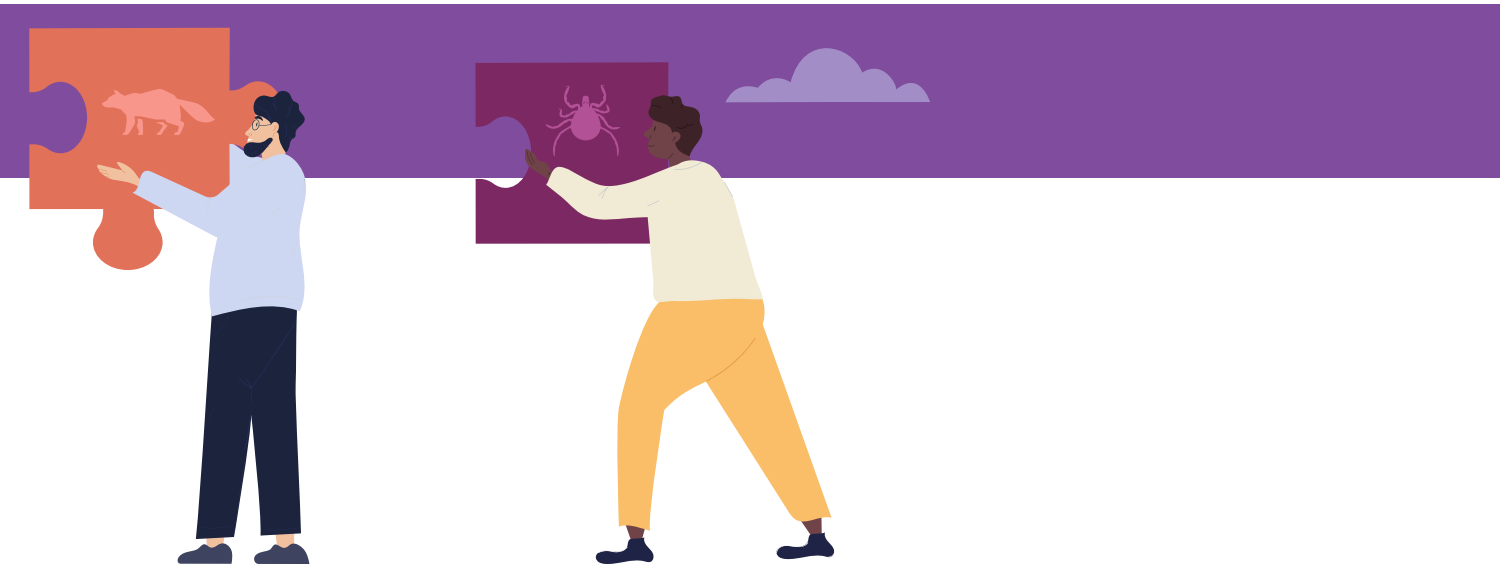
Food Safety Workgroup

The Maine Interagency Food Safety Workgroup is led by Maine CDC's Foodborne Disease Epidemiologist and is comprised of representatives from state agencies, federal agencies, and other organizations involved in improving food safety in Maine (including, but not limited to, Maine Department of Marine Resources; Maine Department of Agriculture, Conservation, and Forestry (DACF); Maine Department of Education (DOE); United States Department of Agriculture (USDA); the Food and Drug Administration (FDA); and the University of Maine Cooperative Extension). These organizations and agencies collaborate to reduce the incidence of foodborne and waterborne infectious diseases in the state, respond to foodborne and waterborne outbreaks, and work together to advance food safety initiatives. The Workgroup usually meets quarterly during the year to discuss the latest developments and cooperate to improve response and prevention. It occasionally holds trainings and exercises for its member agencies.

Members of the Workgroup and Maine CDC infectious disease epidemiologists collaborated on several outbreak investigations over the course of the year. Outbreak investigations in 2021 included a *Salmonella* college campus outbreak, a *Campylobacter* outbreak associated with raw milk, and a *Salmonella* outbreak associated with crabmeat. Members of the Workgroup also assisted with the COVID pandemic response.

Influenza Work Group

Maine's Influenza Workgroup meets quarterly to address current topics in influenza and other viral respiratory pathogens. The Workgroup is chaired by the Influenza Surveillance Coordinator and includes representatives from ID Epi, PHEP, the Maine Immunization Program (MIP), HETL, DACF, and other relevant partners. The Workgroup coordinates surveillance and response to influenza and maintains and updates the Pandemic Influenza Operations Plan. The Influenza Workgroup also sponsors a start of influenza season conference call for health care providers and laboratories to share updates on new guidance, reporting requirements, and assistance available from the State. Despite the ongoing COVID-19 response demands, the Workgroup was able to resume standard activities and met regularly throughout 2021.



Rabies Workgroup

The Maine Rabies Workgroup meets quarterly to address current topics in statewide rabies prevention and management. The Workgroup, co-chaired by the State Epidemiologist and the State Veterinarian, is comprised of animal and human health representatives from local, state, and federal agencies that work to control the spread of rabies, a fatal zoonotic disease that is endemic in Maine. Agencies and organizations that participate in the Workgroup include: Maine CDC, Maine DACF, HETL, Maine Department of Inland Fisheries and Wildlife (Maine IF&W), USDA, Maine Veterinary Medical Association, Maine Federation of Humane Societies, and the Maine Animal Control Association.

Members of the Workgroup provide training to town animal control officers and game wardens regarding rabies biology and prevention and control of the disease in Maine. The USDA's Animal and Plant Health Inspection Service distributes oral rabies vaccines in northern and eastern areas of the state with the goal to reduce the incidence of raccoon rabies.

This year, the Workgroup faced limitations in and restrictions on project collaborations due to the need for partners and stakeholders to reprioritize their efforts in response to the COVID-19 pandemic. However, the Workgroup maintained ongoing meetings to discuss rabies education, surveillance, and control activities in Maine.

Vectorborne Workgroup

Maine's Vectorborne Workgroup meets every other month to address current topics in vectorborne diseases including illnesses spread by ticks, mosquitoes, and vectors of other medical importance like browntail moths. The Workgroup is chaired by the ID Epi Director at Maine CDC and includes representatives from epidemiology, environmental health, HETL, Maine DACF, Maine DOE, Maine Department of Environmental Protection, MaineHealth Institute for Research, University of Maine Cooperative Extension, Maine IF&W, vector control companies, and other relevant individuals.

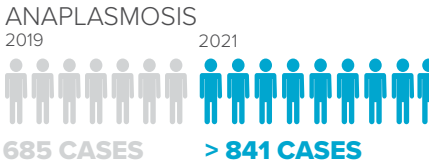
The Workgroup coordinates mosquito and tick surveillance within the state, and supports Lyme Disease Awareness Month in May. The Wildlife Subcommittee monitors and reports out on tickborne trends in wild animals like deer and turkey. The Messaging and Education Committee works on creating and standardizing information for common questions and outreach.

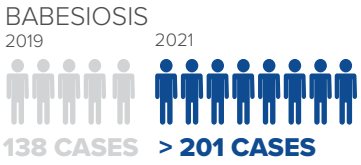
This year, the Workgroup faced limitations in and restrictions on project collaborations due to the need for partners and stakeholders to reprioritize their efforts in response to the COVID-19 pandemic. However, the Workgroup maintained ongoing meetings to discuss vectorborne disease education and surveillance activities as well as emerging vectorborne issues in Maine.

Vectorborne 2021 Snapshot

Tickborne Diseases

Tickborne diseases in Maine continued to trend upward in 2021 following a very active tick season. The number of reported cases for some diseases in 2021 even surpassed highs previously set in 2019. Cases of anaplasmosis rose from 685 in 2019 to 841 in 2021 (a 23% increase) and cases of babesiosis jumped from 138 in 2019 to 201 in 2021 (a 46% increase). This increase in tickborne illnesses is related to many factors, like climate change, land use, animal migration, and human behaviors that can all influence the abundance of ticks. While Lyme Disease cases did not reach 2019 levels, they remained high at 1,510 cases for 2021.





Browntail Moths

Maine is in its seventh year of an ongoing browntail moth outbreak that began in 2015. The browntail moth is a vector of human health concern. The moths do not spread disease, but people exposed to caterpillar hairs can experience poison ivy-like rashes and issues with breathing. Midcoastal counties currently experience the worst infestations, but the range of these moths is expanding each year. Prevention includes avoiding contact with caterpillar hairs and limiting outdoor activities in areas infested with browntail moths. One way towns can deal with infestations is by working with the state to declare a public health nuisance. This provides towns with more options for browntail moth control. In 2021, Maine CDC approved a Browntail Moth Public Health Nuisance Declaration in the towns of Sidney, Trenton, and Waterville. Maine is currently the only state experiencing an outbreak of these moths.

Photo credit:
Maine DACF

Vectorborne Disease Education

In 2021, Maine CDC designed and produced a vectorborne disease property management workbook for youth in 3rd through 5th grades. “Take Back Your Yard: A Workbook for Kids to Fight the Bite” encourages children to work with their families to identify and remove tick and mosquito habitat around their homes. The workbook also teaches kids about easy everyday steps they can take to prevent tick and mosquito bites. This includes using Environmental Protection Agency (EPA) approved repellents, wearing protective clothing, and doing tick checks every day. Families and youth groups can download the workbook from Maine CDC’s website at www.maine.gov/dhhs/schoolcurricula.

Maine CDC and US CDC Tuberculosis Epi-Aid Testing Campaign:

Responding to a Tuberculosis Outbreak Among Persons Experiencing Homelessness in the Greater Portland Area

From 2016 to 2021, Maine CDC monitored an outbreak of tuberculosis (TB) in and around Portland, Maine, with two cases newly identified in 2021. Tuberculosis is an infection caused by a bacterium called *Mycobacterium tuberculosis*. It usually affects the lungs but can also affect other parts of the body like the kidneys, spine, and brain. Tuberculosis spreads when someone with TB coughs, sneezes, speaks, or sings. This spreads TB bacteria into the air. People become infected when they breath the bacteria into their lungs. People at greatest risk of becoming infected with TB are family members, friends, coworkers, or anyone who shares the same air space for a prolonged period of time with the person who has TB disease.

Maine CDC sends samples from each TB case for genotyping by whole genome sequencing (WGS). TB genotyping is a useful tool for public health investigations. Genotyping helps to find recent spread of TB disease by identifying TB organisms, or isolates, that are closely related to each other. For TB WGS, any samples that differ by 5 or fewer single nucleotide polymorphisms (SNPs), or tiny differences in the genetic sequence, are considered closely related. This could mean that the TB isolates are from the same chain of transmission and help Maine CDC trace where people with TB became infected.

From 2016 to 2021, Maine CDC identified 14 cases of TB where the TB isolates were considered to be closely related to each other (less than 4 SNPs from each other) *(Figure 1)*. Common risk factors for TB among these 14 cases included experiencing homelessness, being of non-US origin, HIV positive status, and having a substance use disorder *(Table 1)*. Of these 14 cases, ten were clients or staff at a single Greater Portland-area shelter. Given concerns of ongoing TB transmission among clients and staff at homeless shelters, the difficulty in identifying all potential close contacts in the shelter environment, and the ongoing COVID-19 pandemic, Maine CDC requested assistance from US CDC, also known as an Epi-Aid. With the help of US CDC, Maine CDC collaborated with local partners to understand TB transmission in this outbreak and coordinate TB testing among the population of people experiencing homelessness in the Greater Portland area.

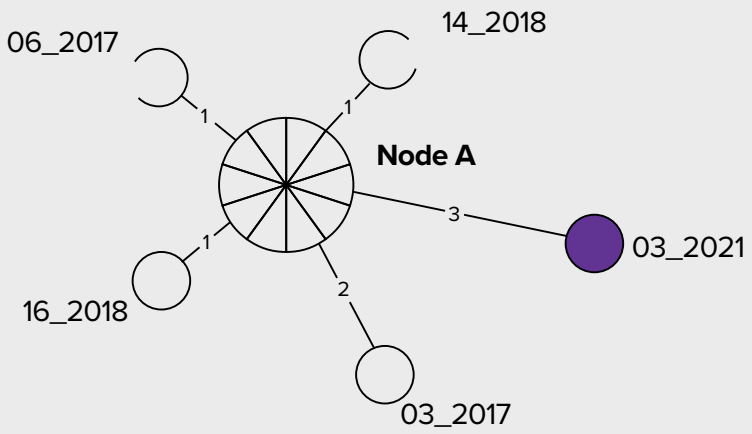


Figure 1: Family tree representing the genetic relationships between 14 related TB isolates from TB positive individuals in Maine reported to Maine CDC between 2016 and 2021. Node A represents nine TB isolates that were genetically identical. The length of the lines from Node A to individual isolates is proportional to how many SNPs, or small genetic segments, differed in the outer isolate, with the exact number of SNP differences written on the line.

Risk Factor	Percent of TB cases experiencing risk factor
Experiencing homelessness	50%
Not born in US	43%
HIV positive	33%
Experiencing substance use disorder	50%

Table 1: Common tuberculosis risk factors among 14 tuberculosis cases reported to Maine CDC in the Greater Portland area from 2016 to 2021.

During July and August 2021, the Maine CDC/US CDC Epi-Aid team organized 16 TB testing events at seven Greater Portland-area shelters catering to people experiencing homelessness in the area. Maine CDC advertised these screening events to persons who experienced homelessness or worked or stayed at a Greater Portland-area shelter since 2016, in addition to offering testing directly to individuals identified as close contacts of existing TB cases. Maine CDC and US CDC cross-referenced every individual who came to the testing event against lists of named contacts of a person with TB. This was done to make sure that as many people as possible with known exposure to a TB case got tested. Maine CDC interviewed each person who agreed to testing in order to capture recent history of any TB symptoms, TB testing history, and medical and social risk factors for TB. Maine CDC conducted standard Interferon-gamma Release Assays (IGRAs) for TB testing. Maine CDC also offered free HIV and syphilis testing at the same time as TB testing. Each participant received a small gift card to a local grocery store as an incentive for TB screening. Maine CDC partnered with a local federally qualified healthcare center (FQHC) to offer further evaluation and treatment to any individuals who tested positive at a testing event.

During the 16 TB screening events, the Epi Aid team tested a total of 185 individuals *(Table 2)*. This accounted for approximately 32% of the estimated 500 persons experiencing homelessness in Greater Portland-area shelters. Nineteen of the 185 individuals screened at these events were considered contacts of the TB cases from the Portland outbreak.

Of all the screening event participants, 20 tested positive (10%). Of these, seven could not be reached with test results. Of the other 13, four had already tested positive for latent TB infection in the past and three

had completed treatment. Latent TB infection occurs when people are exposed and become infected, but do not have active contagious TB or TB symptoms. Maine CDC collaborated with a local hospital to offer follow-up chest X-rays to the other nine participants using a mobile chest X-ray unit. None of these people had active TB, only latent TB infection. As of May 2022, one person started treatment for latent TB infection after further medical follow-up at the FQHC.

This collaboration between Maine CDC, US CDC, and local community partners fostered increased collaboration between public health and community homeless services, increased awareness of TB in the Greater Portland area, and successfully tested a portion of a population in the Greater Portland area that is at increased risk of tuberculosis. Maine CDC continues to work with Greater Portland-area shelters to reach out to other exposed contacts who did not participate in one of the screening events.

Table 2: Characteristics of participants tested for TB during all TB Epi Aid testing events in the Greater Portland area of Maine, July and August, 2021.

Characteristics	Participants tested (N=185), Number (%)	Participants who tested positive (N=20), Number (%)
Participant type		
Current clients	150 (81)	18 (90)
Former clients	10 (5)	0 (0)
Staff	21 (11)	2 (10)
Other/Unknown	4 (2)	0 (0)
Median age (range), years	41 (20–90)	40 (20–78)
Sex at birth		
Male	121 (65)	16 (80)
Female	62 (34)	4 (20)
Other/Unknown	2 (1)	0
Race/ethnicity		
Non-Hispanic White	113 (61)	5 (25)
Non-Hispanic Black	40 (22)	13 (65)
Hispanic	9 (5)	0
Others	15 (8)	2 (10)
Refused/Unknown	8 (4)	0
Country of birth		
U.S.-born	142 (77)	6 (30)
Non-U.S.–born	34 (18)	12 (60)
Missing	9 (5)	2 (10)
Previously tested for TB	124 (67)	10 (50)
Tested positive	6 (3)	4 (20)
Exposed to someone with TB	16 (9)	2 (10)
Injection drug use	36 (19)	2 (10)
Non-injection drug use	71 (38)	2 (10)
Excess alcohol intake	30 (16)	1 (5)
Incarceration	34 (18)	5 (25)
Long-Term Care Facility	20 (11)	1 (0.5)

This collaboration between Maine CDC, US CDC, and local community partners fostered increased collaboration between public health and community homeless services, increased awareness of TB in the Greater Portland area, and successfully tested a portion of a population in the Greater Portland area that is at increased risk of tuberculosis.

Maine's Ryan White Part B and AIDS Drug Assistance Program

The Ryan White Part B Program helps low-income people living with HIV (PLWH) in Maine fill gaps in care and treatment by providing a variety of services. 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.

PLWH who are virally suppressed* are less likely to develop HIV-related complications, so they lead longer, healthier lives and require less costly care. PLWH who are virally suppressed are much less likely to transmit the virus to others.

The National HIV/AIDS Strategy called for viral suppression among 80 percent of all PLWH in the U.S. by 2020. In 2021, 88 percent of Part B Program enrollees in Maine were virally suppressed as of the last result reported in 2021.

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

People Living with HIV Utilizing Ryan White Part B Services, 2015-2021

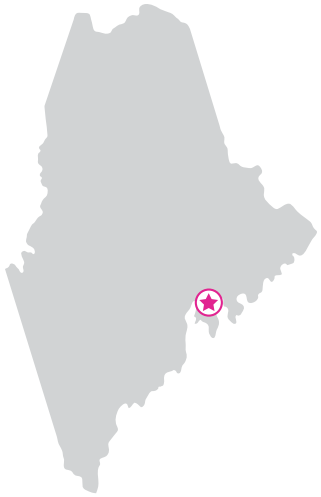
Service	2015	2016	2017	2018	2019	2020	2021
Dental assistance	183	180	279	293	290	252	**257**
Food assistance	497	522	579	584	561	512	**445**
Full-cost drugs	110	120	106	118	116	90	**59**
Housing assistance	168	199	257	304	324	274	**251**
Insurance premiums	208	190	240	299	307	248	**157**
Lab tests	14	20	24	25	21	15	**16**
Case management	87	90	97	101	118	119	**115**
Prescription wrap-around	626	602	544	560	394	369	**276**
COVID-19 emergency assistance	n/a	n/a	n/a	n/a	n/a	234	**6**
Total utilizing members	**882**	**923**	**939**	**987**	**973**	**934**	**843**

Viral Suppression Among Ryan White Part B Enrollees by Public Health District, 2021

District	Number Virally Suppressed	Number Enrolled	% Virally Suppressed
Aroostook	18	24	75%
Central	105	112	94%
Cumberland	350	403	87%
Downeast	63	70	90%
Mid Coast	76	81	94%
Penquis	76	85	89%
Western	128	152	84%
York	125	147	85%
Overall	**941**	**1,074**	**88%**

Patten Pond Gastrointestinal Illness Outbreak

On August 17, 2021, Maine CDC issued a boil water order for Patten Pond Camping Resort due to a positive *E. coli* test in the water system, resulting from a broken chlorine system. This is a large campground in Ellsworth, Maine. On August 18, Maine CDC received a report from a campground resident reporting that multiple individuals were ill with gastrointestinal symptoms. Maine CDC convened an outbreak investigation team consisting of members from the Health Inspection Program (HIP), Drinking Water Program (DWP), HETL, and ID Epi Program.



6X

more likely to have specifically brushed their teeth with the water than those not ill.

4.9X

more likely to have specifically washed their dishes using the water than those not ill.

By August 19, the field epidemiologist had performed initial interviews with campground residents and owners and received information that over 90 individuals may have been ill. Maine CDC epidemiologists used the initial information to create an online REDCap survey that was distributed via email and text message on August 20 to a list of residents and recent former residents. Maine CDC also issued a press release on that day to alert people of the outbreak, provide recommendations, and provide information on the survey being sent out. The survey sought to identify exposures, illness characteristics, whether any individuals had sought medical care or testing, and other relevant information.

Staff from Maine CDC made multiple visits to the campground as part of this outbreak investigation to collect information and to assist in ensuring the campground addressed the drinking water quality concerns.

Survey respondents included residents of Maine and more than 30 other states in addition to Canada. Overall, 91 reported feeling ill; 77/91 (85%) had diarrhea. Illness onset dates ranged from July 27 through August 26. At least two individuals presented to hospitals for their illnesses.

The survey data strongly suggested that ill people were 20.9 times more likely to have consumed or used any tap water from the water available at the campground than those who weren't ill. Other exposures of note included:

- People who were ill were 6 times more likely to have specifically brushed their teeth with the water than those not ill.
- People who were ill were 4.9 times more likely to have specifically washed their dishes using the water than those not ill.

Maine CDC's survey revealed that some surveyed individuals continued to be ill and wanted to provide specimens for testing. Epidemiologists contacted these and assisted with recommendations and logistics of specimen submission. A stool specimen collected from one exposed ill individual tested positive for norovirus genogroup II at HETL. Another individual tested positive for *Campylobacter*. There were no other positive specimens reported.

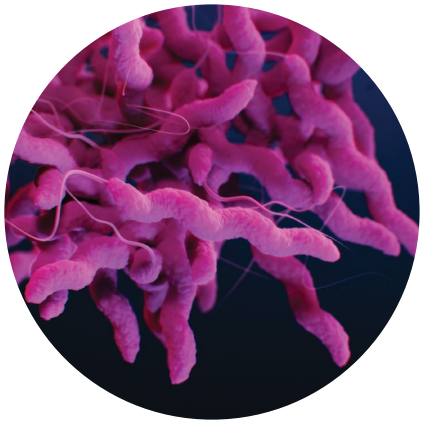


Photo credit: Alissa Eckert

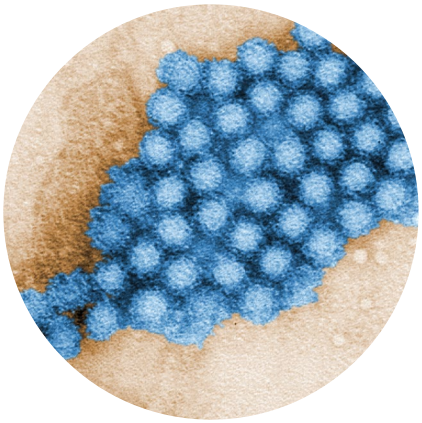


Photo credit: Charles D Humphrey PhD

Photo credit: Janice Haney Carr

The campground fixed the water treatment system in September, and the boil water order was lifted on September 16. No additional illnesses were reported, and the investigation was closed.

This gastrointestinal outbreak was likely caused by more than one organism as *Campylobacter* and norovirus were found in different people. With no more than one positive result of each and no other specific evidence, it is impossible to know which one of these was circulating more and causing more of the illnesses in individuals at the campground. The survey results strongly suggested that the tap water from the campground was the most important risk factor. This is supported by the reports about the water system's known issues. There is a strong chance that, in addition to waterborne transmission, some of the illnesses were caused by person-to-person transmission or fomite (ex. common touch surfaces) transmission. Cooperation between Maine CDC and the campground was essential and greatly assisted in the outbreak investigation.

Reported Cases of Multisystem Inflammatory Syndrome in Children (MIS-C) in Maine, 2021

Multisystem inflammatory syndrome (MIS) is a serious condition that is associated with COVID-19 infections and is characterized by fever and inflammation of organs throughout the body. MIS can affect both children (MIS-C) and adults (MIS-A).

In a health advisory[1] released on May 14, 2021, US CDC requested providers report suspected cases of MIS-C to their local, state, or territorial health departments. Following this advisory, Maine CDC began monitoring for and investigating potential cases of MIS-C in the state. In addition, Maine CDC developed online resources on MIS-C, including a toolkit for providers: www.maine.gov/dhhs/MIS-C.

In 2021, Maine CDC confirmed eight cases of MIS-C.

The affected children ranged in age from one year to 16 years (median of nine years), three were female and five were male. MIS-C cases came from six Maine counties with two cases each from Cumberland and Androscoggin counties and one case each from Kennebec, Oxford, Somerset, and York counties. Six of the eight cases were White, one was Black, and the race of one case was unknown. One case was Hispanic.

Seven of the eight cases had a known positive antigen or PCR test result for SARS-CoV-2. Four cases had positive serology results.

All eight cases reported fevers that ranged in temperature from 38.6 to 40 degrees Celsius and lasted from 1-15 days (median six days).

All eight cases were hospitalized for MIS-C. The median hospital stay was four days, ranging from 3-23 days. Three of eight cases were admitted to the intensive care unit with two cases requiring intubation. The most common treatments prescribed were steroids (6, 75%) and intravenous immunoglobulin (IVIG) (6, 75%). In 2021 Maine saw no deaths related to MIS-C and all eight cases recovered.

Table 1: Organs or body systems affected in patients with MIS-C in Maine, 2021

Organ or body system involved	Number (% of total cases)
Gastrointestinal	8 (100)
- Elevated liver enzymes/bilirubin	7 (88)
- Abdominal pain	6 (75)
- Vomiting	6 (75)
- Diarrhea	2 (25)
Hematological	7 (88)
- Elevated d-dimer	5 (63)
- Thrombocytopenia	5 (63)
Cardiac	6 (75)
- Elevated BNP	6 (75)
- Elevated troponin	4 (50)
-Shock	3 (38)
Dermatological	5 (63)
- Rash/lesions	5 (63)
Neurological	5 (63)
- Headache	5 (63)
- Altered mental status	1 (13)
Respiratory	5 (50)
- Cough	3 (38)
- Shortness of breath	2 (25)
- Chest pain	1 (13)
- Pneumonia	1 (13)
Renal	1 (13)
- Acute kidney injury	1 (13)

[1] Multisystem Inflammatory Syndrome in Children (MIS-C) Associated with Coronavirus Disease 2019 (COVID-19): https://emergency.cdc.gov/han/2020/han00432.asp

February 17, 2021

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

☎ Conditions are reportable **immediately** by telephone on recognition or strong suspicion of disease
All 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

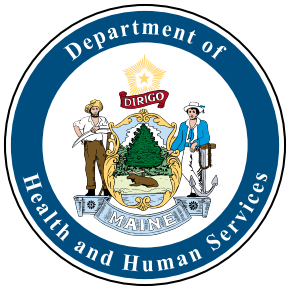
Acid-Fast Bacillus ➔ ✉
Acquired Immunodeficiency Syndrome (AIDS)
Acute flaccid myelitis (AFM)[1]
Anaplasmosis
☎ Anthrax ➔ ✉ (*Bacillus anthracis*)
Babesiosis
☎ Botulism ➔ ✉ (*Clostridium botulinum*)
Borrelia miyamotoi
☎ Brucellosis ➔ ✉ (*Brucella* species)
California Serogroup Viruses
Campylobacteriosis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



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