Reportable Infectious Diseases in Maine

2019

Department of Health and Human Services

Reportable Infectious Diseases in Maine 2019 Summary

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2020 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 of 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.

We appreciate and encourage your vigilance in the effort to protect the people of Maine through timely, complete, and accurate notifiable infectious disease reporting. It is through these collaborative efforts that we are able to 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 (Page 70) of this report, visit our website at www.maine.gov/idepi or call 1-800-821-5821.

Ann Farmer, MS

Associate Director, Division of Disease Surveillance

Maine Center for Disease Control and Prevention

Table of Contents

2019 Infectious Disease Surveillance Highlights

5,196
Disease reports investigated by Maine CDC staff including STD cases.

3,857
Met a probable or confirmed case definition.

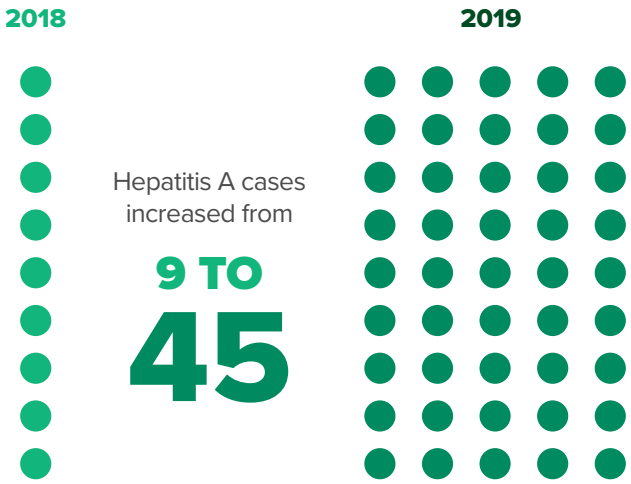
311
Potential outbreaks investigated by Maine CDC staff.

225
Classified as outbreaks.

10,652
Disease reports handled without a full investigation by staff.*

8,248
Met a probable or confirmed case definition.

*Handled either through passive surveillance or laboratory reports. The main diseases include chlamydia, hepatitis C, Lyme disease, rabies post-exposure prophylaxis, and some varicella and invasive MRSA cases.



Hepatitis A cases increased from

9 TO 45

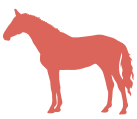
Maine CDC sponsored vaccine clinics at the Portland Expo Center, which served as a temporary shelter for asylum-seekers.

216
Total patients received vaccine.

942
Total vaccines given.

1500+

MOSQUITO POOLS TESTED FOR WEST NILE VIRUS (WNV) AND EASTERN EQUINE ENCEPHALITIS (EEE)



1 EEE positive horse

2 EEE positive mosquito pools

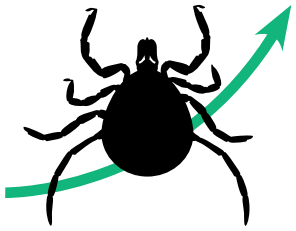
80+

Influenza-related outbreaks during the 2019-2020 flu season.

10,100+
Positive influenza reports

500+
Influenza-related hospitalizations

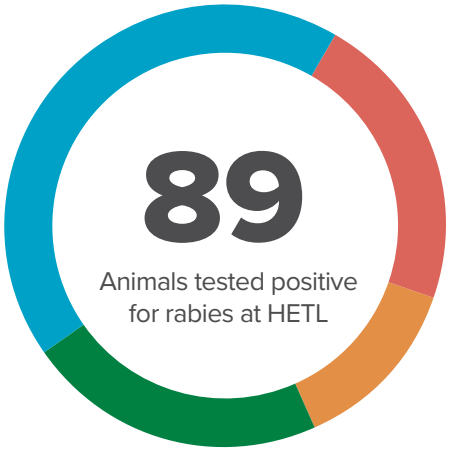
40+
Influenza-related deaths (including a pediatric death)



In 2019, Maine reported record numbers of anaplasma, babesia, and Lyme disease.

43%
RACCOONS

22%
FOXES



22%
SKUNKS

13%
OTHER

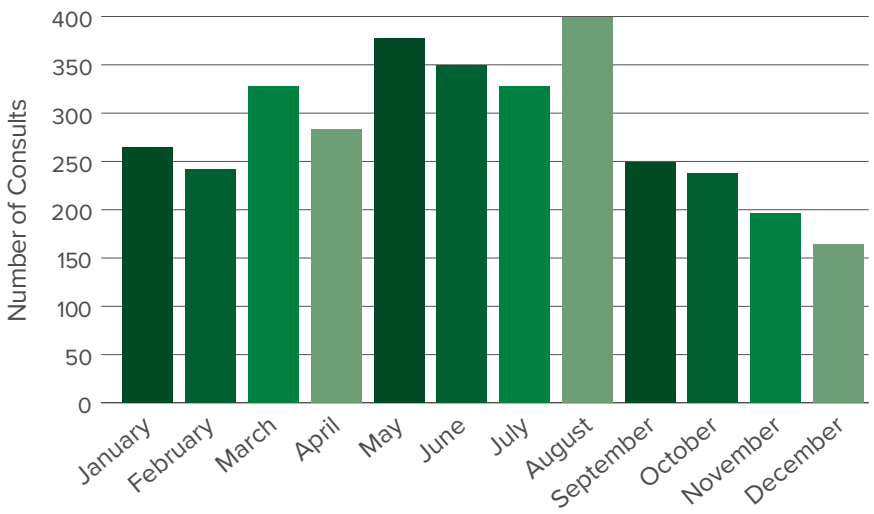
3,420

2019 Maine CDC Infectious Disease Program consults

TOP 5

Rabies (31%), tuberculosis, pertussis, influenza, measles

2019 MAINE CDC INFECTIOUS DISEASE PROGRAM CONSULTS



Counts of Selected* Reportable Diseases by Year

MAINE, 2010-2019**

CONDITION	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Anaplasma phagocytophilum	17	26	52	94	191	185	372	663	476	**685**
Babesiosis	5	9	10	36	42	55	82	118	101	**138**
Brucellosis	2	0	0	0	0	0	0	1	0	**0**
Campylobacteriosis	148	195	189	229	225	221	255	234	247	**191**
Carbapenem-resistant *Enterobacteriaceae* (CRE)***	NR	NR	NR	NR	NR	12	51	58	92	**155**
Chikungunya Virus	NA	0	0	1	6	2	0	1	2	**0**
Chlamydia trachomatis infection	2588	3101	3413	3440	3491	3851	4152	4555	4345	**3989**
Creutzfeldt-Jakob Disease (CJD)	0	0	0	1	1	1	0	0	0	**0**
Cryptosporidiosis	93	51	58	35	51	34	55	45	60	**71**
Cyclosporiasis	1	0	0	0	7	1	3	0	0	**0**
Dengue	6	0	0	1	1	5	2	0	3	**1**
Eastern Equine Encephalitis	0	0	0	0	1	1	0	0	0	**0**
Ehrlichiosis, chaffeensis	4	1	3	3	8	5	7	10	19	**13**
Giardiasis	223	171	169	218	154	116	137	129	163	**142**
Gonorrhea	163	273	456	246	236	422	444	577	686	**547**
Group A *Streptococcus*, invasive	47	43	37	37	53	56	60	56	85	**114**
Haemophilus influenzae, invasive	13	26	23	25	21	39	29	34	24	**38**
Hantavirus	0	1	0	0	0	0	0	0	0	**0**
Hemolytic uremic syndrome	1	2	2	2	1	7	2	2	0	**1**
Hepatitis A, acute	7	6	9	10	8	8	8	7	9	**45**
Hepatitis B, acute	13	8	9	11	12	9	53	77	52	**58**
Hepatitis B, chronic	102	105	105	106	108	107	159	179	201	**165**
Hepatitis C, acute	2	12	12	9	31	29	37	32	39	**59**
Hepatitis C, chronic	1017	1085	1151	1236	1413	1447	1649	1879	1871	**1917**
Hepatitis D, acute	1	1	0	0	0	0	0	0	0	**0**
Hepatitis E, acute	0	1	0	0	0	0	1	0	0	**2**
HIV Infection	57	51	46	33	61	48	53	29	30	**29**
Influenza Associated Pediatric Mortality	0	0	0	0	1	0	1	0	0	**1**
Invasive Pneumococcal Disease	151	136	102	121	137	135	133	141	132	**169**
Jamestown Canyon	0	0	0	0	0	0	0	2	1	**0**
Legionellosis	12	18	18	23	19	16	16	16	34	**30**

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

CONDITION	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Listeriosis	1	4	5	4	8	7	11	5	7	**5**
Lyme disease	752	1013	1113	1384	1412	1215	1498	1858	1410	**2167**
Malaria	6	6	5	10	7	7	10	18	9	**15**
Measles (Rubeola)	0	0	0	0	0	0	0	1	0	**2**
Mumps	2	2	0	1	0	0	34	1	4	**5**
Neisseria meningitidis, invasive (Mening. disease)	5	5	3	4	2	4	1	1	1	**5**
Novel Influenza A virus Infections	17	3	0	0	0	0	0	0	0	**0**
Pertussis	53	205	737	332	557	281	259	411	446	**383**
Powassan	0	0	0	1	0	1	1	3	0	**2**
Q fever	0	2	0	0	0	0	0	0	1	**0**
Rabies PEP	77	145	190	128	107	112	131	108	152	**147**
Rabies, animal	67	66	91	50	44	28	66	61	76	**89**
S. aureus, methicillin resistant (MRSA), invasive	90	121	116	130	143	191	178	180	244	**241**
S. aureus, vancomycin intermediate resistance (VISA)	0	0	0	0	1	2	1	0	0	**0**
Salmonellosis	135	134	161	131	127	123	123	102	119	**142**
Shiga toxin-producing *Escherichia coli* (STEC)	21	28	20	27	33	29	37	34	37	**27**
Shigellosis	8	32	7	5	29	4	2	13	7	**12**
Spotted Fever Rickettsiosis	2	1	3	2	3	1	4	3	10	**5**
Syphilis	40	19	20	17	15	49	48	83	104	**108**
Tetanus	0	0	0	1	0	0	1	1	0	**0**
Trichinosis (Trichinellosis)	1	1	0	0	0	0	0	0	0	**0**
Tuberculosis	8	9	17	15	14	18	23	14	14	**18**
Tularemia	0	0	0	0	0	0	0	0	0	**1**
Varicella (Chickenpox)	247	226	258	140	207	233	228	198	250	**93**
Vibriosis	5	4	10	9	9	6	7	7	14	**9**
West Nile	0	0	1	0	0	1	0	0	2	**0**

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

- Anthrax
- Botulism
- Chancroid
- Coronavirus, novel
- Diphtheria
- Hepatitis D, chronic
- Leptospirosis
- Plague
- Polio
- Psittacosis
- Rabies, human
- Ricin
- Rubella
- Smallpox
- Saint Louis Encephalitis
- Shellfish Poisoning
- Viral Hemorrhagic Fever
- Western Equine Encephalitis
- Yellow Fever

**** Counts are updated annually. Data as of 8/15/2020.**

***** 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, 2010-2019**
(PER 100,000 PERSONS)

CONDITION	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Anaplasma phagocytophilum	1.3	2.0	3.9	7.1	14.4	13.9	27.9	49.6	35.6	**51.0**
Babesiosis	0.4	0.7	0.8	2.7	3.2	4.1	6.2	8.8	7.5	**10.3**
Brucellosis	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	**0.0**
Campylobacteriosis	11.1	14.7	14.2	17.2	16.9	16.6	19.2	17.5	18.5	**14.2**
Carbapenem-resistant *Enterobacteriaceae* (CRE)***	NR	NR	NR	NR	NR	0.9	3.8	4.3	6.9	**11.5**
Chikungunya Virus	NA	0.0	0.0	0.1	0.5	0.2	0.0	0.1	0.1	**0.0**
Chlamydia trachomatis infection	194.9	233.5	256.8	258.8	262.3	289.7	311.8	341.0	324.6	**296.8**
Creutzfeldt-Jakob Disease (CJD)	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	**0.0**
Cryptosporidiosis	7.0	3.8	4.4	2.6	3.8	2.6	4.1	3.4	4.5	**5.3**
Cyclosporiasis	0.1	0.0	0.0	0.0	0.5	0.1	0.2	0.0	0.0	**0.0**
Dengue	0.5	0.0	0.0	0.1	0.1	0.4	0.2	0.0	0.2	**0.1**
Eastern Equine Encephalitis	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	**0.0**
Ehrlichiosis, chaffeensis	0.3	0.1	0.2	0.2	0.6	0.4	0.5	0.7	1.4	**1.0**
Giardiasis	16.8	12.9	12.7	16.4	11.6	8.7	10.3	9.7	12.2	**10.6**
Gonorrhea	12.3	20.6	34.3	18.5	17.7	31.7	33.3	43.2	51.3	**40.7**
Group A *Streptococcus*, invasive	3.5	3.2	2.8	2.8	4.0	4.2	4.5	4.2	6.4	**8.5**
Haemophilus influenzae, invasive	1.0	2.0	1.7	1.9	1.6	2.9	2.2	2.5	1.8	**2.8**
Hantavirus	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**
Hemolytic uremic syndrome	0.1	0.2	0.2	0.2	0.1	0.5	0.2	0.1	0.0	**0.1**
Hepatitis A, acute	0.5	0.5	0.7	0.8	0.6	0.6	0.6	0.5	0.7	**3.3**
Hepatitis B, acute	1.0	0.6	0.7	0.8	0.9	0.7	4.0	5.8	3.9	**4.3**
Hepatitis B, chronic	7.7	7.9	7.9	8.0	8.1	8.0	11.9	13.4	15.0	**12.3**
Hepatitis C, acute	0.2	0.9	0.9	0.7	2.3	2.2	2.8	2.4	2.9	**4.4**
Hepatitis C, chronic	76.6	81.7	86.6	93.0	106.2	108.8	123.8	140.7	139.8	**142.6**
Hepatitis D, acute	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**
Hepatitis E, acute	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	**0.1**
HIV Infection	4.3	3.8	3.5	2.5	4.6	3.6	4.0	2.2	2.2	**2.2**
Influenza Associated Pediatric Mortality	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	**0.1**
Invasive Pneumococcal Disease	11.4	10.2	7.7	9.1	10.3	10.2	10.0	10.6	9.9	**12.6**
Jamestown Canyon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	**0.0**
Legionellosis	0.9	1.4	1.4	1.7	1.4	1.2	1.2	1.2	2.5	**2.2**

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

CONDITION	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Listeriosis	0.1	0.3	0.4	0.3	0.6	0.5	0.8	0.4	0.5	**0.4**
Lyme disease	56.6	76.3	83.8	104.1	106.1	91.4	112.5	139.1	105.3	**161.2**
Malaria	0.5	0.5	0.4	0.8	0.5	0.5	0.8	1.3	0.7	**1.1**
Measles (Rubeola)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	**0.1**
Mumps	0.2	0.2	0.0	0.1	0.0	0.0	2.6	0.1	0.3	**0.4**
Neisseria meningitidis, invasive (Mening. disease)	0.4	0.4	0.2	0.3	0.2	0.3	0.1	0.1	0.1	**0.4**
Novel Influenza A virus Infections	1.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**
Pertussis	4.0	15.4	55.5	25.0	41.9	21.1	19.5	30.8	33.3	**28.5**
Powassan	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.2	0.0	**0.1**
Q fever	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1	**0.0**
Rabies PEP	5.8	10.9	14.3	9.6	8.0	8.4	9.8	8.1	11.4	**10.9**
Rabies, animal	NA	NA	NA	NA	NA	NA	NA	NA	NA	**NA**
S. aureus, methicillin resistant (MRSA), invasive	6.8	9.1	8.7	9.8	10.7	14.4	13.4	13.5	18.2	**17.9**
S. aureus, vancomycin intermediate resistance (VISA)	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.0	0.0	**0.0**
Salmonellosis	10.2	10.1	12.1	9.9	9.5	9.3	9.2	7.6	8.9	**10.6**
Shiga toxin-producing *Escherichia coli* (STEC)	1.6	2.1	1.5	2.0	2.5	2.2	2.8	2.5	2.8	**2.0**
Shigellosis	0.6	2.4	0.5	0.4	2.2	0.3	0.2	1.0	0.5	**0.9**
Spotted Fever Rickettsiosis	0.2	0.1	0.2	0.2	0.2	0.1	0.3	0.2	0.7	**0.4**
Syphilis	3.0	1.4	1.5	1.3	1.1	3.7	3.6	6.2	7.8	**8.0**
Tetanus	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.0	**0.0**
Trichinosis (Trichinellosis)	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**
Tuberculosis	0.6	0.7	1.3	1.1	1.1	1.4	1.7	1.0	1.0	**1.3**
Tularemia	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.1**
Varicella (Chickenpox)	18.6	17.0	19.4	10.5	15.6	17.5	17.1	14.8	18.7	**6.9**
Vibriosis	0.4	0.3	0.8	0.7	0.7	0.5	0.5	0.5	1.0	**0.7**
West Nile	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.1	**0.0**

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

- Anthrax
- Botulism
- Chancroid
- Coronavirus, novel
- Diphtheria
- Hepatitis D, chronic
- Leptospirosis
- Plague
- Polio
- Psittacosis
- Rabies, human
- Ricin
- Rubella
- Smallpox
- Saint Louis Encephalitis
- Shellfish Poisoning
- Viral Hemorrhagic Fever
- Western Equine Encephalitis
- Yellow Fever

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Cases of Reported Diseases by Age and Gender

MAINE, 2019

	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	251	434	0	8	8	37	43	89	155	345
Babesiosis	42	96	1	2	3	5	8	13	36	70
Borrelia miyamotoi	5	8	0	3	1	0	0	1	3	5
Campylobacteriosis	101	90	11	7	18	24	13	27	36	55
Carbapenem-resistant *Enterobacteriaceae* (CRE)	92	63	4	4	1	2	2	11	21	110
Chlamydia trachomatis infection	2595	1394	0	8	2511	1107	266	68	23	6
Cryptosporidiosis	37	34	4	19	8	10	8	4	11	7
Dengue	0	1	1	0	0	0	0	0	0	0
EEE, Non-Human	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ehrlichia chaffeensis	6	7	0	0	1	1	4	2	1	4
Ehrlichiosis/Anaplasmosis, undetermined	1	1	0	0	1	0	0	0	1	0
Emerging Infection	3	1	0	2	1	0	1	0	0	0
Giardiasis	65	77	7	9	13	16	18	21	21	37
Gonorrhea	203	344	1	1	189	171	113	51	19	2
Group A *Streptococcus*, invasive	48	66	3	5	3	9	10	20	17	47
Haemophilus influenzae, invasive	20	18	2	0	1	2	2	7	3	21
Hemolytic uremic syndrome	0	1	0	1	0	0	0	0	0	0
Hepatitis A, acute	24	21	0	0	5	13	8	7	3	9
Hepatitis B, acute	21	37	0	0	2	10	21	15	10	0
Hepatitis B, chronic	52	113	0	1	8	33	59	27	21	16
Hepatitis B, perinatal infection	0	1	1	0	0	0	0	0	0	0
Hepatitis C, acute	28	31	0	0	4	30	12	10	2	1
Hepatitis C, chronic	853	1064	13	6	133	603	431	238	302	191
Hepatitis C, perinatal infection	2	2	4	0	0	0	0	0	0	0
Hepatitis E, acute	1	1	0	0	0	0	0	0	0	2
HIV	9	20	0	0	4	8	7	6	2	2
Influenza Associated Pediatric Mortality	1	0	0	1	0	0	0	0	0	0

	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	85	84	5	1	5	4	13	17	52	72
Legionellosis	11	19	0	0	0	3	1	7	5	14
Listeriosis	4	1	0	0	0	0	0	1	1	3
Lyme disease	963	1204	66	265	126	159	167	258	438	688
Malaria	4	11	0	6	2	1	2	2	1	1
Measles (Rubeola)	1	1	1	1	0	0	0	0	0	0
Mumps	2	3	1	0	1	0	1	0	2	0
Neisseria meningitidis, invasive (Mening. disease)	4	1	1	0	2	0	0	0	0	2
Pertussis	197	186	81	152	109	10	10	10	5	6
Powassan	1	1	0	0	0	0	0	0	0	2
Rabies PEP	75	72	11	18	17	25	18	21	22	15
Rabies, animal	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
S. aureus, methicillin resistant (MRSA), invasive	99	142	3	0	3	38	34	29	47	87
Salmonellosis	80	62	9	8	19	11	21	14	22	38
Shiga toxin-producing *Escherichia coli* (STEC)	16	11	3	4	6	7	1	2	4	0
Shigellosis	4	8	2	2	2	1	1	0	4	0
Spotted Fever Rickettsiosis	1	4	1	0	0	0	0	0	1	3
Streptococcal toxic-shock syndrome	10	10	2	1	0	1	1	3	5	7
Syphilis	12	96	0	0	23	29	19	22	15	0
Tuberculosis	7	11	0	0	3	4	3	6	2	0
Tularemia	0	1	0	0	0	0	0	0	1	0
Varicella (Chickenpox)	46	47	29	46	8	7	1	1	1	0
Vibriosis	1	8	0	1	1	0	2	1	1	3

Cases of Reported Diseases by Race and Ethnicity

MAINE, 2019

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
Anaplasma phagocytophilum	0	2	5	640	0	10	28	0	585	100
Babesiosis	1	1	1	130	0	1	4	0	123	15
Borrelia miyamotoi	0	0	0	11	0	0	2	0	11	2
Campylobacteriosis	2	0	0	177	0	0	12	4	165	22
Carbapenem-resistant *Enterobacteriaceae* (CRE)	0	0	2	86	1	1	65	1	40	114
Chlamydia trachomatis infection	18	39	220	2377	25	111	1199	60	1923	2006
Cryptosporidiosis	0	0	4	53	0	0	14	0	56	15
Dengue	0	0	0	1	0	0	0	1	0	0
EEE, Non-Human	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ehrlichia chaffeensis	0	0	0	13	0	0	0	0	13	0
Ehrlichiosis/Anaplasmosis, undetermined	0	0	0	2	0	0	0	0	2	0
Emerging Infection	0	0	3	0	0	0	1	0	4	0
Giardiasis	0	0	8	128	0	2	4	0	130	12
Gonorrhea	2	9	89	388	15	12	32	14	443	90
Group A *Streptococcus*, invasive	0	1	0	111	0	0	2	0	107	7
Haemophilus influenzae, invasive	0	0	0	38	0	0	0	0	36	2
Hemolytic uremic syndrome	0	0	0	1	0	0	0	0	1	0
Hepatitis A, acute	0	0	0	45	0	0	0	0	44	1
Hepatitis B, acute	1	0	0	54	0	1	2	0	53	5
Hepatitis B, chronic	1	20	51	82	1	0	10	1	143	21
Hepatitis B, perinatal infection	0	0	0	1	0	0	0	0	1	0
Hepatitis C, acute	1	0	0	55	0	0	3	4	48	7
Hepatitis C, chronic	6	5	26	1201	17	37	625	18	768	1131
Hepatitis C, perinatal infection	0	0	0	4	0	0	0	0	2	2
Hepatitis E, acute	0	0	0	2	0	0	0	0	2	0
HIV	0	1	10	17	1	0	0	0	29	0

CONDITION	RACE							ETHNICITY		
	American Indian or Alaska Native	Asian or Pacific Islander	Black or African American	White	Two or more	Other	Unknown	Hispanic	Non-Hispanic	Unknown
Influenza Associated Pediatric Mortality	0	0	0	1	0	0	0	0	1	0
Invasive Pneumococcal Disease	1	1	5	159	0	0	3	0	154	15
Legionellosis	0	0	0	30	0	0	0	0	28	2
Listeriosis	0	0	0	5	0	0	0	0	5	0
Lyme disease	3	6	7	1854	0	25	272	6	730	1431
Malaria	0	0	11	2	0	0	2	0	13	2
Measles (Rubeola)	0	0	0	2	0	0	0	0	2	0
Mumps	0	0	0	5	0	0	0	0	5	0
Neisseria meningitidis, invasive (Mening. disease)	0	0	0	4	0	0	1	0	5	0
Pertussis	1	3	6	357	1	0	15	3	339	41
Powassan	0	0	0	2	0	0	0	0	2	0
Rabies PEP	0	1	1	92	0	0	53	1	75	71
Rabies, animal	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
S. aureus, methicillin resistant (MRSA), invasive	3	0	2	214	0	0	22	3	120	118
Salmonellosis	0	3	2	129	0	0	8	1	123	18
Shiga toxin-producing *Escherichia coli* (STEC)	0	0	0	26	0	0	1	0	23	4
Shigellosis	0	0	2	10	0	0	0	0	11	1
Spotted Fever Rickettsiosis	0	0	0	5	0	0	0	0	4	1
Streptococcal toxic-shock syndrome	0	0	0	20	0	0	0	0	19	1
Syphilis	0	1	6	94	2	3	2	2	93	13
Tuberculosis	0	2	13	3	0	0	0	0	18	0
Tularemia	0	0	0	0	0	0	1	0	0	1
Varicella (Chickenpox)	0	1	18	70	0	0	4	2	85	6
Vibriosis	0	0	0	9	0	0	0	0	9	0

2019 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 with a field epidemiologist. 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 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, and MRSA.

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 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. The most commonly reported VPD outbreak is caused by pertussis. Pertussis was the cause of all VPD outbreaks in 2018.

Varicella: Varicella (chickenpox) outbreaks are caused by chickenpox. An outbreak is defined as three or more confirmed cases in a single setting.

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	GI	Hepatitis	ILI	Other	VPD	Varicella	Vector	**Total**
Androscoggin	0	0	1	0	12	0	0	0	0	13
Aroostook	7	2	4	1	12	4	0	0	0	30
Cumberland	0	0	16	0	32	1	6	2	1	58
Franklin	0	0	1	0	3	0	0	1	1	6
Hancock	4	0	1	0	2	1	2	0	0	10
Kennebec	3	0	11	0	10	0	0	0	0	24
Knox	0	0	1	0	5	0	0	0	0	6
Lincoln	2	0	1	0	0	0	2	0	0	5
Out of State	0	0	12	0	0	2	0	0	0	14
Oxford	4	0	2	0	3	0	0	0	0	9
Penobscot	1	2	6	0	11	1	0	0	0	21
Piscataquis	0	2	1	0	1	0	0	0	0	4
Sagadahoc	1	0	1	0	1	0	0	0	0	3
Somerset	2	0	3	0	4	0	0	1	0	10
Waldo	1	0	2	0	1	0	0	0	0	4
Washington	3	0	2	0	0	0	1	0	0	6
York	5	1	10	0	17	1	3	0	0	37
Total	33	7	75	1	114	10	14	4	2	260

* ILI outbreaks included here are for the calendar year 2019, so includes outbreaks from the 2018-2019 and 2019-2020 influenza seasons.

Any outbreak can be healthcare associated.

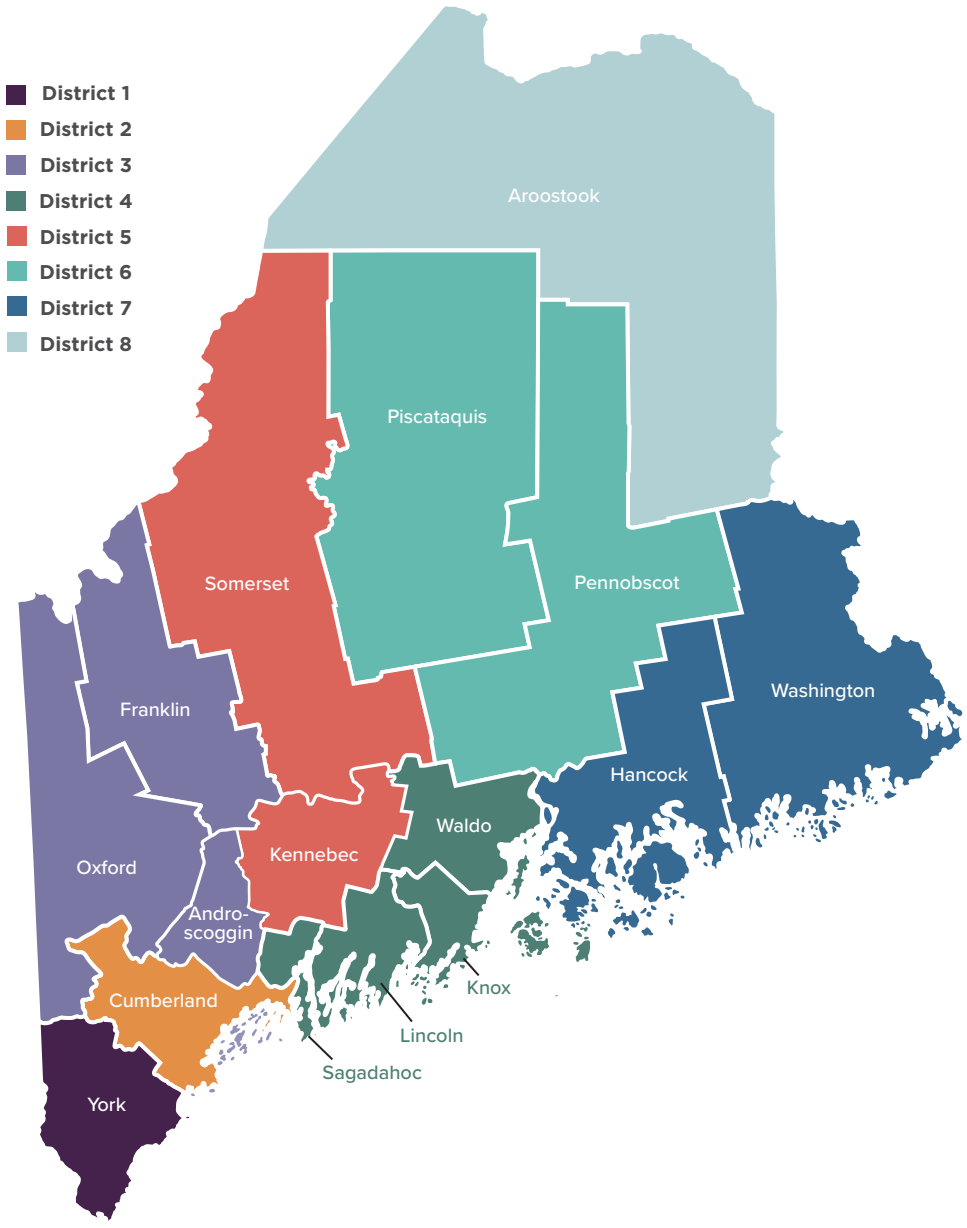
Public District Health Map

Since 2003, 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.

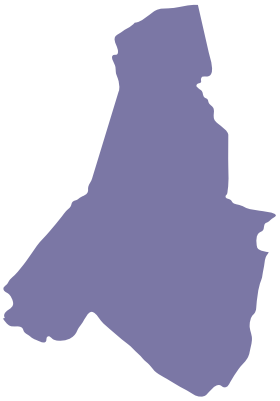
This annual report also includes information on conditions that are investigated that are not explicitly reportable but have public health significance. Examples of these conditions include *Borrelia miyamotoi*, and Zika virus. Maine also follows up on unusual conditions that may not have specific case definitions but potentially have public health significance. These conditions are indicated by "Emerging Infections." In 2019, the four emerging infections were reports of leishmaniasis. 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 is from 2019 census estimates.)

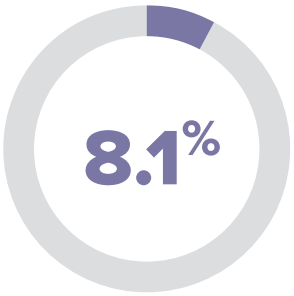


ANDROSCOGGIN COUNTY



108,277

Population



of Maine's Total Population

	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Anaplasma phagocytophilum	**66**	**61.0**	106	54.0	685	51.0
Babesiosis	**7**	**6.5**	17	8.7	138	10.3
Borrelia miyamotoi	**4**	**3.7**	5	2.5	13	1.0
Campylobacteriosis	**13**	**12.0**	27	13.7	191	14.2
Carbapenem-resistant *Enterobacteriaceae* (CRE)	**13**	**12.0**	23	11.7	155	11.5
Chlamydia trachomatis infection	**424**	**391.6**	626	318.7	3989	296.8
Cryptosporidiosis	**2**	**1.8**	3	1.5	71	5.3
Dengue	**0**	**0.0**	0	0.0	1	0.1
EEE, Non-Human	**0**	**NA**	0	NA	3	NA
Ehrlichia chaffeensis	**2**	**1.8**	2	1.0	13	1.0
Ehrlichiosis/Anaplasmosis, undetermined	**0**	**0.0**	0	0.0	2	0.1
Emerging Infection	**1**	**0.9**	1	0.5	4	0.3
Giardiasis	**13**	**12.0**	21	10.7	142	10.6
Gonorrhea	**147**	**135.8**	159	80.9	547	40.7
Group A *Streptococcus*, invasive	**3**	**2.8**	18	9.2	114	8.5
Haemophilus influenzae, invasive	**3**	**2.8**	4	2.0	38	2.8
Hemolytic uremic syndrome	**0**	**0.0**	0	0.0	1	0.1
Hepatitis A, acute	**1**	**0.9**	4	2.0	45	3.3
Hepatitis B, acute	**3**	**2.8**	5	2.5	58	4.3
Hepatitis B, chronic	**26**	**24.0**	26	13.2	165	12.3

	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Hepatitis B, perinatal infection	**0**	**0.0**	0	0.0	1	0.1
Hepatitis C, acute	**3**	**2.8**	9	4.6	59	4.4
Hepatitis C, chronic	**132**	**121.9**	234	119.1	1917	142.6
Hepatitis C, perinatal infection	**0**	**0.0**	1	0.5	4	0.3
Hepatitis E, acute	**0**	**0.0**	0	0.0	2	0.1
HIV	**4**	**3.7**	5	2.5	29	2.2
Influenza Associated Pediatric Mortality	**0**	**0.0**	0	0.0	1	0.1
Invasive Pneumococcal Disease	**18**	**16.6**	30	15.3	169	12.6
Legionellosis	**2**	**1.8**	2	1.0	30	2.2
Listeriosis	**1**	**0.9**	3	1.5	5	0.4
Lyme disease	**98**	**90.5**	225	114.5	2167	161.2
Malaria	**1**	**0.9**	1	0.5	15	1.1
Measles (Rubeola)	**0**	**0.0**	0	0.0	2	0.1
Mumps	**0**	**0.0**	0	0.0	5	0.4
Neisseria meningitidis, invasive (Mening. disease)	**1**	**0.9**	1	0.5	5	0.4
Pertussis	**14**	**12.9**	23	11.7	383	28.5
Powassan	**0**	**0.0**	0	0.0	2	0.1
Rabies PEP	**18**	**16.6**	30	15.3	147	10.9
Rabies, animal	**17**	**NA**	23	NA	89	NA
S. aureus, methicillin resistant (MRSA), invasive	**19**	**17.5**	39	19.9	241	17.9
Salmonellosis	**19**	**17.5**	32	16.3	142	10.6
Shiga toxin-producing *Escherichia coli* (STEC)	**1**	**0.9**	4	2.0	27	2.0
Shigellosis	**2**	**1.8**	2	1.0	12	0.9
Spotted Fever Rickettsiosis	**0**	**0.0**	0	0.0	5	0.4
Streptococcal toxic-shock syndrome	**0**	**0.0**	1	0.5	20	1.5
Syphilis	**14**	**12.9**	20	10.2	108	8.0
Tuberculosis	**5**	**4.6**	5	2.5	18	1.3
Tularemia	**0**	**0.0**	0	0.0	1	0.1
Varicella (Chickenpox)	**8**	**7.4**	13	6.6	93	6.9
Vibriosis	**0**	**0.0**	0	0.0	9	0.7

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

AROOSTOOK COUNTY

67,055

Population

of Maine's Total Population

	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Anaplasma phagocytophilum	**1**	**1.5**	1	1.5	685	51.0
Babesiosis	**0**	**0.0**	0	0.0	138	10.3
Borrelia miyamotoi	**1**	**1.5**	1	1.5	13	1.0
Campylobacteriosis	**13**	**19.4**	13	19.4	191	14.2
Carbapenem-resistant *Enterobacteriaceae* (CRE)	**2**	**3.0**	2	3.0	155	11.5
Chlamydia trachomatis infection	**171**	**255.0**	171	255.0	3989	296.8
Cryptosporidiosis	**3**	**4.5**	3	4.5	71	5.3
Dengue	**0**	**0.0**	0	0.0	1	0.1
EEE, Non-Human	**0**	**NA**	0	NA	3	NA
Ehrlichia chaffeensis	**0**	**0.0**	0	0.0	13	1.0
Ehrlichiosis/Anaplasmosis, undetermined	**0**	**0.0**	0	0.0	2	0.1
Emerging Infection	**0**	**0.0**	0	0.0	4	0.3
Giardiasis	**7**	**10.4**	7	10.4	142	10.6
Gonorrhea	**18**	**26.8**	18	26.8	547	40.7
Group A *Streptococcus*, invasive	**7**	**10.4**	7	10.4	114	8.5
Haemophilus influenzae, invasive	**3**	**4.5**	3	4.5	38	2.8
Hemolytic uremic syndrome	**0**	**0.0**	0	0.0	1	0.1
Hepatitis A, acute	**12**	**17.9**	12	17.9	45	3.3
Hepatitis B, acute	**0**	**0.0**	0	0.0	58	4.3
Hepatitis B, chronic	**2**	**3.0**	2	3.0	165	12.3

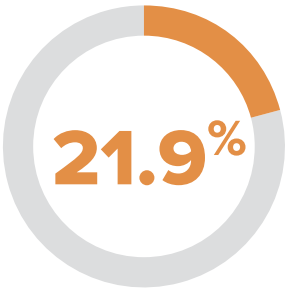
	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Hepatitis B, perinatal infection	**0**	**0.0**	0	0.0	1	0.1
Hepatitis C, acute	**3**	**4.5**	3	4.5	59	4.4
Hepatitis C, chronic	**77**	**114.8**	77	114.8	1917	142.6
Hepatitis C, perinatal infection	**0**	**0.0**	0	0.0	4	0.3
Hepatitis E, acute	**0**	**0.0**	0	0.0	2	0.1
HIV	**1**	**1.5**	1	1.5	29	2.2
Influenza Associated Pediatric Mortality	**0**	**0.0**	0	0.0	1	0.1
Invasive Pneumococcal Disease	**15**	**22.4**	15	22.4	169	12.6
Legionellosis	**2**	**3.0**	2	3.0	30	2.2
Listeriosis	**0**	**0.0**	0	0.0	5	0.4
Lyme disease	**2**	**3.0**	2	3.0	2167	161.2
Malaria	**0**	**0.0**	0	0.0	15	1.1
Measles (Rubeola)	**1**	**1.5**	1	1.5	2	0.1
Mumps	**0**	**0.0**	0	0.0	5	0.4
Neisseria meningitidis, invasive (Mening. disease)	**0**	**0.0**	0	0.0	5	0.4
Pertussis	**0**	**0.0**	0	0.0	383	28.5
Powassan	**0**	**0.0**	0	0.0	2	0.1
Rabies PEP	**3**	**4.5**	3	4.5	147	10.9
Rabies, animal	**0**	**NA**	0	NA	89	NA
S. aureus, methicillin resistant (MRSA), invasive	**13**	**19.4**	13	19.4	241	17.9
Salmonellosis	**5**	**7.5**	5	7.5	142	10.6
Shiga toxin-producing *Escherichia coli* (STEC)	**2**	**3.0**	2	3.0	27	2.0
Shigellosis	**0**	**0.0**	0	0.0	12	0.9
Spotted Fever Rickettsiosis	**0**	**0.0**	0	0.0	5	0.4
Streptococcal toxic-shock syndrome	**3**	**4.5**	3	4.5	20	1.5
Syphilis	**1**	**1.5**	1	1.5	108	8.0
Tuberculosis	**0**	**0.0**	0	0.0	18	1.3
Tularemia	**0**	**0.0**	0	0.0	1	0.1
Varicella (Chickenpox)	**2**	**3.0**	2	3.0	93	6.9
Vibriosis	**0**	**0.0**	0	0.0	9	0.7

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

CUMBERLAND COUNTY

295,003

Population



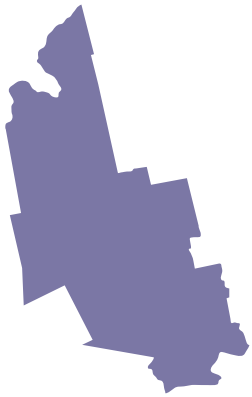
of Maine's Total Population

	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Anaplasma phagocytophilum	**118**	**40.0**	118	40.0	685	51.0
Babesiosis	**28**	**9.5**	28	9.5	138	10.3
Borrelia miyamotoi	**4**	**1.4**	4	1.4	13	1.0
Campylobacteriosis	**37**	**12.5**	37	12.5	191	14.2
Carbapenem-resistant *Enterobacteriaceae* (CRE)	**34**	**11.5**	34	11.5	155	11.5
Chlamydia trachomatis infection	**1039**	**352.2**	1039	352.2	3989	296.8
Cryptosporidiosis	**8**	**2.7**	8	2.7	71	5.3
Dengue	**1**	**0.3**	1	0.3	1	0.1
EEE, Non-Human	**0**	**NA**	0	NA	3	NA
Ehrlichia chaffeensis	**1**	**0.3**	1	0.3	13	1.0
Ehrlichiosis/Anaplasmosis, undetermined	**0**	**0.0**	0	0.0	2	0.1
Emerging Infection	**3**	**1.0**	3	1.0	4	0.3
Giardiasis	**37**	**12.5**	37	12.5	142	10.6
Gonorrhea	**174**	**59.0**	174	59.0	547	40.7
Group A *Streptococcus*, invasive	**21**	**7.1**	21	7.1	114	8.5
Haemophilus influenzae, invasive	**8**	**2.7**	8	2.7	38	2.8
Hemolytic uremic syndrome	**1**	**0.3**	1	0.3	1	0.1
Hepatitis A, acute	**4**	**1.4**	4	1.4	45	3.3
Hepatitis B, acute	**12**	**4.1**	12	4.1	58	4.3
Hepatitis B, chronic	**69**	**23.4**	69	23.4	165	12.3

	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Hepatitis B, perinatal infection	**0**	**0.0**	0	0.0	1	0.1
Hepatitis C, acute	**10**	**3.4**	10	3.4	59	4.4
Hepatitis C, chronic	**511**	**173.2**	511	173.2	1917	142.6
Hepatitis C, perinatal infection	**1**	**0.3**	1	0.3	4	0.3
Hepatitis E, acute	**0**	**0.0**	0	0.0	2	0.1
HIV	**15**	**5.1**	15	5.1	29	2.2
Influenza Associated Pediatric Mortality	**0**	**0.0**	0	0.0	1	0.1
Invasive Pneumococcal Disease	**25**	**8.5**	25	8.5	169	12.6
Legionellosis	**5**	**1.7**	5	1.7	30	2.2
Listeriosis	**0**	**0.0**	0	0.0	5	0.4
Lyme disease	**354**	**120.0**	354	120.0	2167	161.2
Malaria	**11**	**3.7**	11	3.7	15	1.1
Measles (Rubeola)	**0**	**0.0**	0	0.0	2	0.1
Mumps	**0**	**0.0**	0	0.0	5	0.4
Neisseria meningitidis, invasive (Mening. disease)	**1**	**0.3**	1	0.3	5	0.4
Pertussis	**96**	**32.5**	96	32.5	383	28.5
Powassan	**1**	**0.3**	1	0.3	2	0.1
Rabies PEP	**17**	**5.8**	17	5.8	147	10.9
Rabies, animal	**8**	**NA**	8	NA	89	NA
S. aureus, methicillin resistant (MRSA), invasive	**59**	**20.0**	59	20.0	241	17.9
Salmonellosis	**27**	**9.2**	27	9.2	142	10.6
Shiga toxin-producing *Escherichia coli* (STEC)	**12**	**4.1**	12	4.1	27	2.0
Shigellosis	**5**	**1.7**	5	1.7	12	0.9
Spotted Fever Rickettsiosis	**1**	**0.3**	1	0.3	5	0.4
Streptococcal toxic-shock syndrome	**3**	**1.0**	3	1.0	20	1.5
Syphilis	**36**	**12.2**	36	12.2	108	8.0
Tuberculosis	**11**	**3.7**	11	3.7	18	1.3
Tularemia	**0**	**0.0**	0	0.0	1	0.1
Varicella (Chickenpox)	**30**	**10.2**	30	10.2	93	6.9
Vibriosis	**4**	**1.4**	4	1.4	9	0.7

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

FRANKLIN COUNTY



30,199

Population

of Maine's Total Population

	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Anaplasma phagocytophilum	**4**	**13.2**	106	54.0	685	51.0
Babesiosis	**2**	**6.6**	17	8.7	138	10.3
Borrelia miyamotoi	**0**	**0.0**	5	2.5	13	1.0
Campylobacteriosis	**9**	**29.8**	27	13.7	191	14.2
Carbapenem-resistant *Enterobacteriaceae* (CRE)	**4**	**13.2**	23	11.7	155	11.5
Chlamydia trachomatis infection	**69**	**228.5**	626	318.7	3989	296.8
Cryptosporidiosis	**0**	**0.0**	3	1.5	71	5.3
Dengue	**0**	**0.0**	0	0.0	1	0.1
EEE, Non-Human	**0**	**NA**	0	NA	3	NA
Ehrlichia chaffeensis	**0**	**0.0**	2	1.0	13	1.0
Ehrlichiosis/Anaplasmosis, undetermined	**0**	**0.0**	0	0.0	2	0.1
Emerging Infection	**0**	**0.0**	1	0.5	4	0.3
Giardiasis	**5**	**16.6**	21	10.7	142	10.6
Gonorrhea	**5**	**16.6**	159	80.9	547	40.7
Group A *Streptococcus*, invasive	**2**	**6.6**	18	9.2	114	8.5
Haemophilus influenzae, invasive	**0**	**0.0**	4	2.0	38	2.8
Hemolytic uremic syndrome	**0**	**0.0**	0	0.0	1	0.1
Hepatitis A, acute	**1**	**3.3**	4	2.0	45	3.3
Hepatitis B, acute	**0**	**0.0**	5	2.5	58	4.3
Hepatitis B, chronic	**0**	**0.0**	26	13.2	165	12.3

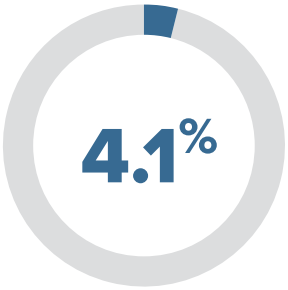
Condition	County		District		State	
	Count	Rate	Count	Rate	Count	Rate
Hepatitis B, perinatal infection	**0**	**0.0**	0	0.0	1	0.1
Hepatitis C, acute	**1**	**3.3**	9	4.6	59	4.4
Hepatitis C, chronic	**28**	**92.7**	234	119.1	1917	142.6
Hepatitis C, perinatal infection	**1**	**3.3**	1	0.5	4	0.3
Hepatitis E, acute	**0**	**0.0**	0	0.0	2	0.1
HIV	**1**	**3.3**	5	2.5	29	2.2
Influenza Associated Pediatric Mortality	**0**	**0.0**	0	0.0	1	0.1
Invasive Pneumococcal Disease	**3**	**9.9**	30	15.3	169	12.6
Legionellosis	**0**	**0.0**	2	1.0	30	2.2
Listeriosis	**1**	**3.3**	3	1.5	5	0.4
Lyme disease	**39**	**129.1**	225	114.5	2167	161.2
Malaria	**0**	**0.0**	1	0.5	15	1.1
Measles (Rubeola)	**0**	**0.0**	0	0.0	2	0.1
Mumps	**0**	**0.0**	0	0.0	5	0.4
Neisseria meningitidis, invasive (Mening. disease)	**0**	**0.0**	1	0.5	5	0.4
Pertussis	**0**	**0.0**	23	11.7	383	28.5
Powassan	**0**	**0.0**	0	0.0	2	0.1
Rabies PEP	**2**	**6.6**	30	15.3	147	10.9
Rabies, animal	**3**	**NA**	23	NA	89	NA
S. aureus, methicillin resistant (MRSA), invasive	**6**	**19.9**	39	19.9	241	17.9
Salmonellosis	**4**	**13.2**	32	16.3	142	10.6
Shiga toxin-producing *Escherichia coli* (STEC)	**2**	**6.6**	4	2.0	27	2.0
Shigellosis	**0**	**0.0**	2	1.0	12	0.9
Spotted Fever Rickettsiosis	**0**	**0.0**	0	0.0	5	0.4
Streptococcal toxic-shock syndrome	**0**	**0.0**	1	0.5	20	1.5
Syphilis	**3**	**9.9**	20	10.2	108	8.0
Tuberculosis	**0**	**0.0**	5	2.5	18	1.3
Tularemia	**0**	**0.0**	0	0.0	1	0.1
Varicella (Chickenpox)	**4**	**13.2**	13	6.6	93	6.9
Vibriosis	**0**	**0.0**	0	0.0	9	0.7

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

HANCOCK COUNTY

54,987

Population



Of Maine's Total Population

	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Anaplasma phagocytophilum	**43**	**78.2**	48	55.6	685	51.0
Babesiosis	**7**	**12.7**	7	8.1	138	10.3
Borrelia miyamotoi	**0**	**0.0**	0	0.0	13	1.0
Campylobacteriosis	**8**	**14.5**	11	12.7	191	14.2
Carbapenem-resistant *Enterobacteriaceae* (CRE)	**1**	**1.8**	3	3.5	155	11.5
Chlamydia trachomatis infection	**101**	**183.7**	206	238.5	3989	296.8
Cryptosporidiosis	**1**	**1.8**	2	2.3	71	5.3
Dengue	**0**	**0.0**	0	0.0	1	0.1
EEE, Non-Human	**0**	**NA**	0	NA	3	NA
Ehrlichia chaffeensis	**0**	**0.0**	0	0.0	13	1.0
Ehrlichiosis/Anaplasmosis, undetermined	**0**	**0.0**	0	0.0	2	0.1
Emerging Infection	**0**	**0.0**	0	0.0	4	0.3
Giardiasis	**12**	**21.8**	14	16.2	142	10.6
Gonorrhea	**18**	**32.7**	18	20.8	547	40.7
Group A *Streptococcus*, invasive	**2**	**3.6**	7	8.1	114	8.5
Haemophilus influenzae, invasive	**1**	**1.8**	2	2.3	38	2.8
Hemolytic uremic syndrome	**0**	**0.0**	0	0.0	1	0.1
Hepatitis A, acute	**0**	**0.0**	1	1.2	45	3.3
Hepatitis B, acute	**4**	**7.3**	5	5.8	58	4.3
Hepatitis B, chronic	**1**	**1.8**	9	10.4	165	12.3

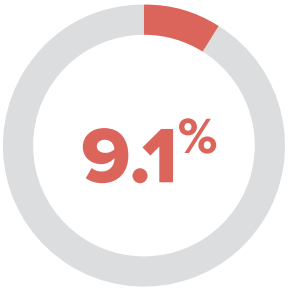
	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Hepatitis B, perinatal infection	**0**	**0.0**	1	1.2	1	0.1
Hepatitis C, acute	**2**	**3.6**	3	3.5	59	4.4
Hepatitis C, chronic	**56**	**101.8**	110	127.4	1917	142.6
Hepatitis C, perinatal infection	**0**	**0.0**	0	0.0	4	0.3
Hepatitis E, acute	**0**	**0.0**	0	0.0	2	0.1
HIV	**1**	**1.8**	1	1.2	29	2.2
Influenza Associated Pediatric Mortality	**0**	**0.0**	1	1.2	1	0.1
Invasive Pneumococcal Disease	**8**	**14.5**	14	16.2	169	12.6
Legionellosis	**0**	**0.0**	0	0.0	30	2.2
Listeriosis	**0**	**0.0**	0	0.0	5	0.4
Lyme disease	**192**	**349.2**	223	258.2	2167	161.2
Malaria	**0**	**0.0**	0	0.0	15	1.1
Measles (Rubeola)	**0**	**0.0**	0	0.0	2	0.1
Mumps	**1**	**1.8**	1	1.2	5	0.4
Neisseria meningitidis, invasive (Mening. disease)	**0**	**0.0**	0	0.0	5	0.4
Pertussis	**66**	**120.0**	80	92.6	383	28.5
Powassan	**0**	**0.0**	0	0.0	2	0.1
Rabies PEP	**3**	**5.5**	5	5.8	147	10.9
Rabies, animal	**1**	**NA**	2	NA	89	NA
S. aureus, methicillin resistant (MRSA), invasive	**6**	**10.9**	14	16.2	241	17.9
Salmonellosis	**3**	**5.5**	3	3.5	142	10.6
Shiga toxin-producing *Escherichia coli* (STEC)	**0**	**0.0**	0	0.0	27	2.0
Shigellosis	**0**	**0.0**	0	0.0	12	0.9
Spotted Fever Rickettsiosis	**2**	**3.6**	2	2.3	5	0.4
Streptococcal toxic-shock syndrome	**0**	**0.0**	1	1.2	20	1.5
Syphilis	**0**	**0.0**	2	2.3	108	8.0
Tuberculosis	**0**	**0.0**	0	0.0	18	1.3
Tularemia	**1**	**1.8**	1	1.2	1	0.1
Varicella (Chickenpox)	**6**	**10.9**	7	8.1	93	6.9
Vibriosis	**0**	**0.0**	0	0.0	9	0.7

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

KENNEBEC COUNTY

122,302

Population



of Maine's Total Population

	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Anaplasma phagocytophilum	**61**	**49.9**	70	40.5	685	51.0
Babesiosis	**18**	**14.7**	20	11.6	138	10.3
Borrelia miyamotoi	**0**	**0.0**	0	0.0	13	1.0
Campylobacteriosis	**29**	**23.7**	36	20.8	191	14.2
Carbapenem-resistant *Enterobacteriaceae* (CRE)	**25**	**20.4**	31	17.9	155	11.5
Chlamydia trachomatis infection	**364**	**297.6**	485	280.7	3989	296.8
Cryptosporidiosis	**19**	**15.5**	20	11.6	71	5.3
Dengue	**0**	**0.0**	0	0.0	1	0.1
EEE, Non-Human	**0**	**NA**	0	NA	3	NA
Ehrlichia chaffeensis	**4**	**3.3**	4	2.3	13	1.0
Ehrlichiosis/Anaplasmosis, undetermined	**2**	**1.6**	2	1.2	2	0.1
Emerging Infection	**0**	**0.0**	0	0.0	4	0.3
Giardiasis	**7**	**5.7**	9	5.2	142	10.6
Gonorrhea	**47**	**38.4**	56	32.4	547	40.7
Group A *Streptococcus*, invasive	**12**	**9.8**	20	11.6	114	8.5
Haemophilus influenzae, invasive	**4**	**3.3**	5	2.9	38	2.8
Hemolytic uremic syndrome	**0**	**0.0**	0	0.0	1	0.1
Hepatitis A, acute	**12**	**9.8**	14	8.1	45	3.3
Hepatitis B, acute	**8**	**6.5**	8	4.6	58	4.3
Hepatitis B, chronic	**7**	**5.7**	7	4.1	165	12.3

	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Hepatitis B, perinatal infection	**0**	**0.0**	0	0.0	1	0.1
Hepatitis C, acute	**10**	**8.2**	14	8.1	59	4.4
Hepatitis C, chronic	**128**	**104.7**	213	123.3	1917	142.6
Hepatitis C, perinatal infection	**1**	**0.8**	1	0.6	4	0.3
Hepatitis E, acute	**0**	**0.0**	0	0.0	2	0.1
HIV	**1**	**0.8**	1	0.6	29	2.2
Influenza Associated Pediatric Mortality	**0**	**0.0**	0	0.0	1	0.1
Invasive Pneumococcal Disease	**13**	**10.6**	20	11.6	169	12.6
Legionellosis	**1**	**0.8**	2	1.2	30	2.2
Listeriosis	**0**	**0.0**	0	0.0	5	0.4
Lyme disease	**277**	**226.5**	345	199.7	2167	161.2
Malaria	**1**	**0.8**	2	1.2	15	1.1
Measles (Rubeola)	**0**	**0.0**	1	0.6	2	0.1
Mumps	**0**	**0.0**	0	0.0	5	0.4
Neisseria meningitidis, invasive (Mening. disease)	**0**	**0.0**	0	0.0	5	0.4
Pertussis	**5**	**4.1**	7	4.1	383	28.5
Powassan	**0**	**0.0**	0	0.0	2	0.1
Rabies PEP	**17**	**13.9**	24	13.9	147	10.9
Rabies, animal	**9**	**NA**	11	NA	89	NA
S. aureus, methicillin resistant (MRSA), invasive	**19**	**15.5**	25	14.5	241	17.9
Salmonellosis	**20**	**16.4**	23	13.3	142	10.6
Shiga toxin-producing *Escherichia coli* (STEC)	**3**	**2.5**	3	1.7	27	2.0
Shigellosis	**0**	**0.0**	0	0.0	12	0.9
Spotted Fever Rickettsiosis	**1**	**0.8**	1	0.6	5	0.4
Streptococcal toxic-shock syndrome	**5**	**4.1**	5	2.9	20	1.5
Syphilis	**24**	**19.6**	26	15.0	108	8.0
Tuberculosis	**0**	**0.0**	0	0.0	18	1.3
Tularemia	**0**	**0.0**	0	0.0	1	0.1
Varicella (Chickenpox)	**6**	**4.9**	15	8.7	93	6.9
Vibriosis	**1**	**0.8**	1	0.6	9	0.7

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

KNOX COUNTY

39,772

Population

of Maine's Total Population

	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Anaplasma phagocytophilum	**91**	**228.8**	221	147.4	685	51.0
Babesiosis	**17**	**42.7**	38	25.3	138	10.3
Borrelia miyamotoi	**0**	**0.0**	1	0.7	13	1.0
Campylobacteriosis	**8**	**20.1**	24	16.0	191	14.2
Carbapenem-resistant *Enterobacteriaceae* (CRE)	**9**	**22.6**	25	16.7	155	11.5
Chlamydia trachomatis infection	**82**	**206.2**	333	222.0	3989	296.8
Cryptosporidiosis	**3**	**7.5**	9	6.0	71	5.3
Dengue	**0**	**0.0**	0	0.0	1	0.1
EEE, Non-Human	**0**	**NA**	0	NA	3	NA
Ehrlichia chaffeensis	**0**	**0.0**	4	2.7	13	1.0
Ehrlichiosis/Anaplasmosis, undetermined	**0**	**0.0**	0	0.0	2	0.1
Emerging Infection	**0**	**0.0**	0	0.0	4	0.3
Giardiasis	**5**	**12.6**	15	10.0	142	10.6
Gonorrhea	**4**	**10.1**	31	20.7	547	40.7
Group A *Streptococcus*, invasive	**0**	**0.0**	10	6.7	114	8.5
Haemophilus influenzae, invasive	**1**	**2.5**	6	4.0	38	2.8
Hemolytic uremic syndrome	**0**	**0.0**	0	0.0	1	0.1
Hepatitis A, acute	**2**	**5.0**	2	1.3	45	3.3
Hepatitis B, acute	**3**	**7.5**	3	2.0	58	4.3
Hepatitis B, chronic	**7**	**17.6**	12	8.0	165	12.3

	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Hepatitis B, perinatal infection	**0**	**0.0**	0	0.0	1	0.1
Hepatitis C, acute	**1**	**2.5**	4	2.7	59	4.4
Hepatitis C, chronic	**83**	**208.7**	201	134.0	1917	142.6
Hepatitis C, perinatal infection	**0**	**0.0**	0	0.0	4	0.3
Hepatitis E, acute	**0**	**0.0**	0	0.0	2	0.1
HIV	**1**	**2.5**	1	0.7	29	2.2
Influenza Associated Pediatric Mortality	**0**	**0.0**	0	0.0	1	0.1
Invasive Pneumococcal Disease	**7**	**17.6**	21	14.0	169	12.6
Legionellosis	**0**	**0.0**	2	1.3	30	2.2
Listeriosis	**0**	**0.0**	0	0.0	5	0.4
Lyme disease	**234**	**588.4**	591	394.1	2167	161.2
Malaria	**0**	**0.0**	0	0.0	15	1.1
Measles (Rubeola)	**0**	**0.0**	0	0.0	2	0.1
Mumps	**0**	**0.0**	0	0.0	5	0.4
Neisseria meningitidis, invasive (Mening. disease)	**0**	**0.0**	2	1.3	5	0.4
Pertussis	**34**	**85.5**	100	66.7	383	28.5
Powassan	**0**	**0.0**	0	0.0	2	0.1
Rabies PEP	**4**	**10.1**	20	13.3	147	10.9
Rabies, animal	**3**	**NA**	32	NA	89	NA
S. aureus, methicillin resistant (MRSA), invasive	**9**	**22.6**	30	20.0	241	17.9
Salmonellosis	**1**	**2.5**	12	8.0	142	10.6
Shiga toxin-producing *Escherichia coli* (STEC)	**0**	**0.0**	2	1.3	27	2.0
Shigellosis	**2**	**5.0**	4	2.7	12	0.9
Spotted Fever Rickettsiosis	**0**	**0.0**	0	0.0	5	0.4
Streptococcal toxic-shock syndrome	**0**	**0.0**	2	1.3	20	1.5
Syphilis	**2**	**5.0**	5	3.3	108	8.0
Tuberculosis	**0**	**0.0**	0	0.0	18	1.3
Tularemia	**0**	**0.0**	0	0.0	1	0.1
Varicella (Chickenpox)	**0**	**0.0**	5	3.3	93	6.9
Vibriosis	**1**	**2.5**	3	2.0	9	0.7

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

LINCOLN COUNTY

34,634

Population

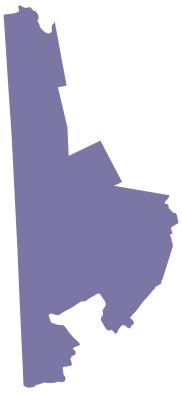
of Maine's Total Population

	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Anaplasma phagocytophilum	**60**	**173.2**	221	147.4	685	51.0
Babesiosis	**8**	**23.1**	38	25.3	138	10.3
Borrelia miyamotoi	**0**	**0.0**	1	0.7	13	1.0
Campylobacteriosis	**5**	**14.4**	24	16.0	191	14.2
Carbapenem-resistant *Enterobacteriaceae* (CRE)	**5**	**14.4**	25	16.7	155	11.5
Chlamydia trachomatis infection	**83**	**239.6**	333	222.0	3989	296.8
Cryptosporidiosis	**0**	**0.0**	9	6.0	71	5.3
Dengue	**0**	**0.0**	0	0.0	1	0.1
EEE, Non-Human	**0**	**NA**	0	NA	3	NA
Ehrlichia chaffeensis	**2**	**5.8**	4	2.7	13	1.0
Ehrlichiosis/Anaplasmosis, undetermined	**0**	**0.0**	0	0.0	2	0.1
Emerging Infection	**0**	**0.0**	0	0.0	4	0.3
Giardiasis	**3**	**8.7**	15	10.0	142	10.6
Gonorrhea	**11**	**31.8**	31	20.7	547	40.7
Group A *Streptococcus*, invasive	**1**	**2.9**	10	6.7	114	8.5
Haemophilus influenzae, invasive	**1**	**2.9**	6	4.0	38	2.8
Hemolytic uremic syndrome	**0**	**0.0**	0	0.0	1	0.1
Hepatitis A, acute	**0**	**0.0**	2	1.3	45	3.3
Hepatitis B, acute	**0**	**0.0**	3	2.0	58	4.3
Hepatitis B, chronic	**1**	**2.9**	12	8.0	165	12.3

	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Hepatitis B, perinatal infection	**0**	**0.0**	0	0.0	1	0.1
Hepatitis C, acute	**1**	**2.9**	4	2.7	59	4.4
Hepatitis C, chronic	**31**	**89.5**	201	134.0	1917	142.6
Hepatitis C, perinatal infection	**0**	**0.0**	0	0.0	4	0.3
Hepatitis E, acute	**0**	**0.0**	0	0.0	2	0.1
HIV	**0**	**0.0**	1	0.7	29	2.2
Influenza Associated Pediatric Mortality	**0**	**0.0**	0	0.0	1	0.1
Invasive Pneumococcal Disease	**3**	**8.7**	21	14.0	169	12.6
Legionellosis	**1**	**2.9**	2	1.3	30	2.2
Listeriosis	**0**	**0.0**	0	0.0	5	0.4
Lyme disease	**132**	**381.1**	591	394.1	2167	161.2
Malaria	**0**	**0.0**	0	0.0	15	1.1
Measles (Rubeola)	**0**	**0.0**	0	0.0	2	0.1
Mumps	**0**	**0.0**	0	0.0	5	0.4
Neisseria meningitidis, invasive (Mening. disease)	**2**	**5.8**	2	1.3	5	0.4
Pertussis	**14**	**40.4**	100	66.7	383	28.5
Powassan	**0**	**0.0**	0	0.0	2	0.1
Rabies PEP	**2**	**5.8**	20	13.3	147	10.9
Rabies, animal	**6**	**NA**	32	NA	89	NA
S. aureus, methicillin resistant (MRSA), invasive	**5**	**14.4**	30	20.0	241	17.9
Salmonellosis	**3**	**8.7**	12	8.0	142	10.6
Shiga toxin-producing *Escherichia coli* (STEC)	**0**	**0.0**	2	1.3	27	2.0
Shigellosis	**2**	**5.8**	4	2.7	12	0.9
Spotted Fever Rickettsiosis	**0**	**0.0**	0	0.0	5	0.4
Streptococcal toxic-shock syndrome	**0**	**0.0**	2	1.3	20	1.5
Syphilis	**2**	**5.8**	5	3.3	108	8.0
Tuberculosis	**0**	**0.0**	0	0.0	18	1.3
Tularemia	**0**	**0.0**	0	0.0	1	0.1
Varicella (Chickenpox)	**1**	**2.9**	5	3.3	93	6.9
Vibriosis	**2**	**5.8**	3	2.0	9	0.7

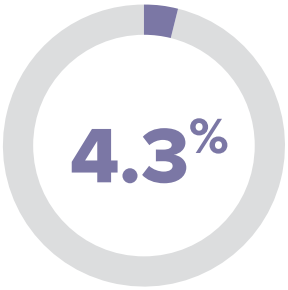
Counts of confirmed and probable cases. Rates of confirmed and probable cases per 100,000 people.

OXFORD COUNTY



57,975

Population



of Maine's Total Population

	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Anaplasma phagocytophilum	**36**	**62.1**	106	54.0	685	51.0
Babesiosis	**8**	**13.8**	17	8.7	138	10.3
Borrelia miyamotoi	**1**	**1.7**	5	2.5	13	1.0
Campylobacteriosis	**5**	**8.6**	27	13.7	191	14.2
Carbapenem-resistant *Enterobacteriaceae* (CRE)	**6**	**10.3**	23	11.7	155	11.5
Chlamydia trachomatis infection	**133**	**229.4**	626	318.7	3989	296.8
Cryptosporidiosis	**1**	**1.7**	3	1.5	71	5.3
Dengue	**0**	**0.0**	0	0.0	1	0.1
EEE, Non-Human	**0**	**NA**	0	NA	3	NA
Ehrlichia chaffeensis	**0**	**0.0**	2	1.0	13	1.0
Ehrlichiosis/Anaplasmosis, undetermined	**0**	**0.0**	0	0.0	2	0.1
Emerging Infection	**0**	**0.0**	1	0.5	4	0.3
Giardiasis	**3**	**5.2**	21	10.7	142	10.6
Gonorrhea	**7**	**12.1**	159	80.9	547	40.7
Group A *Streptococcus*, invasive	**13**	**22.4**	18	9.2	114	8.5
Haemophilus influenzae, invasive	**1**	**1.7**	4	2.0	38	2.8
Hemolytic uremic syndrome	**0**	**0.0**	0	0.0	1	0.1
Hepatitis A, acute	**2**	**3.4**	4	2.0	45	3.3
Hepatitis B, acute	**2**	**3.4**	5	2.5	58	4.3
Hepatitis B, chronic	**0**	**0.0**	26	13.2	165	12.3

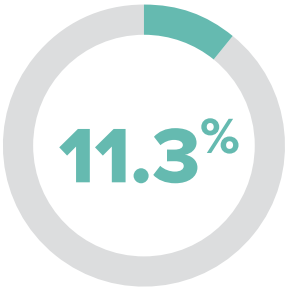
Condition	County		District		State	
	Count	Rate	Count	Rate	Count	Rate
Hepatitis B, perinatal infection	**0**	**0.0**	0	0.0	1	0.1
Hepatitis C, acute	**5**	**8.6**	9	4.6	59	4.4
Hepatitis C, chronic	**74**	**127.6**	234	119.1	1917	142.6
Hepatitis C, perinatal infection	**0**	**0.0**	1	0.5	4	0.3
Hepatitis E, acute	**0**	**0.0**	0	0.0	2	0.1
HIV	**0**	**0.0**	5	2.5	29	2.2
Influenza Associated Pediatric Mortality	**0**	**0.0**	0	0.0	1	0.1
Invasive Pneumococcal Disease	**9**	**15.5**	30	15.3	169	12.6
Legionellosis	**0**	**0.0**	2	1.0	30	2.2
Listeriosis	**1**	**1.7**	3	1.5	5	0.4
Lyme disease	**88**	**151.8**	225	114.5	2167	161.2
Malaria	**0**	**0.0**	1	0.5	15	1.1
Measles (Rubeola)	**0**	**0.0**	0	0.0	2	0.1
Mumps	**0**	**0.0**	0	0.0	5	0.4
Neisseria meningitidis, invasive (Mening. disease)	**0**	**0.0**	1	0.5	5	0.4
Pertussis	**9**	**15.5**	23	11.7	383	28.5
Powassan	**0**	**0.0**	0	0.0	2	0.1
Rabies PEP	**10**	**17.2**	30	15.3	147	10.9
Rabies, animal	**3**	**NA**	23	NA	89	NA
S. aureus, methicillin resistant (MRSA), invasive	**14**	**24.1**	39	19.9	241	17.9
Salmonellosis	**9**	**15.5**	32	16.3	142	10.6
Shiga toxin-producing *Escherichia coli* (STEC)	**1**	**1.7**	4	2.0	27	2.0
Shigellosis	**0**	**0.0**	2	1.0	12	0.9
Spotted Fever Rickettsiosis	**0**	**0.0**	0	0.0	5	0.4
Streptococcal toxic-shock syndrome	**1**	**1.7**	1	0.5	20	1.5
Syphilis	**3**	**5.2**	20	10.2	108	8.0
Tuberculosis	**0**	**0.0**	5	2.5	18	1.3
Tularemia	**0**	**0.0**	0	0.0	1	0.1
Varicella (Chickenpox)	**1**	**1.7**	13	6.6	93	6.9
Vibriosis	**0**	**0.0**	0	0.0	9	0.7

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

PENOBSCOT COUNTY

152,148

Population



of Maine's Total Population

	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Anaplasma phagocytophilum	**15**	**9.9**	15	8.9	685	51.0
Babesiosis	**4**	**2.6**	4	2.4	138	10.3
Borrelia miyamotoi	**1**	**0.7**	1	0.6	13	1.0
Campylobacteriosis	**14**	**9.2**	19	11.2	191	14.2
Carbapenem-resistant *Enterobacteriaceae* (CRE)	**5**	**3.3**	5	3.0	155	11.5
Chlamydia trachomatis infection	**557**	**366.1**	590	349.3	3989	296.8
Cryptosporidiosis	**20**	**13.1**	20	11.8	71	5.3
Dengue	**0**	**0.0**	0	0.0	1	0.1
EEE, Non-Human	**0**	**NA**	0	NA	3	NA
Ehrlichia chaffeensis	**1**	**0.7**	1	0.6	13	1.0
Ehrlichiosis/Anaplasmosis, undetermined	**0**	**0.0**	0	0.0	2	0.1
Emerging Infection	**0**	**0.0**	0	0.0	4	0.3
Giardiasis	**19**	**12.5**	23	13.6	142	10.6
Gonorrhea	**33**	**21.7**	36	21.3	547	40.7
Group A *Streptococcus*, invasive	**12**	**7.9**	12	7.1	114	8.5
Haemophilus influenzae, invasive	**4**	**2.6**	4	2.4	38	2.8
Hemolytic uremic syndrome	**0**	**0.0**	0	0.0	1	0.1
Hepatitis A, acute	**2**	**1.3**	2	1.2	45	3.3
Hepatitis B, acute	**17**	**11.2**	18	10.7	58	4.3
Hepatitis B, chronic	**19**	**12.5**	21	12.4	165	12.3

	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Hepatitis B, perinatal infection	**0**	**0.0**	0	0.0	1	0.1
Hepatitis C, acute	**7**	**4.6**	7	4.1	59	4.4
Hepatitis C, chronic	**243**	**159.7**	271	160.4	1917	142.6
Hepatitis C, perinatal infection	**0**	**0.0**	0	0.0	4	0.3
Hepatitis E, acute	**2**	**1.3**	2	1.2	2	0.1
HIV	**2**	**1.3**	3	1.8	29	2.2
Influenza Associated Pediatric Mortality	**0**	**0.0**	0	0.0	1	0.1
Invasive Pneumococcal Disease	**18**	**11.8**	23	13.6	169	12.6
Legionellosis	**13**	**8.5**	13	7.7	30	2.2
Listeriosis	**0**	**0.0**	0	0.0	5	0.4
Lyme disease	**111**	**73.0**	115	68.1	2167	161.2
Malaria	**0**	**0.0**	0	0.0	15	1.1
Measles (Rubeola)	**0**	**0.0**	0	0.0	2	0.1
Mumps	**2**	**1.3**	2	1.2	5	0.4
Neisseria meningitidis, invasive (Mening. disease)	**0**	**0.0**	0	0.0	5	0.4
Pertussis	**8**	**5.3**	9	5.3	383	28.5
Powassan	**0**	**0.0**	0	0.0	2	0.1
Rabies PEP	**15**	**9.9**	18	10.7	147	10.9
Rabies, animal	**5**	**NA**	8	NA	89	NA
S. aureus, methicillin resistant (MRSA), invasive	**34**	**22.3**	35	20.7	241	17.9
Salmonellosis	**18**	**11.8**	18	10.7	142	10.6
Shiga toxin-producing *Escherichia coli* (STEC)	**0**	**0.0**	0	0.0	27	2.0
Shigellosis	**0**	**0.0**	0	0.0	12	0.9
Spotted Fever Rickettsiosis	**1**	**0.7**	1	0.6	5	0.4
Streptococcal toxic-shock syndrome	**1**	**0.7**	1	0.6	20	1.5
Syphilis	**7**	**4.6**	7	4.1	108	8.0
Tuberculosis	**2**	**1.3**	2	1.2	18	1.3
Tularemia	**0**	**0.0**	0	0.0	1	0.1
Varicella (Chickenpox)	**12**	**7.9**	12	7.1	93	6.9
Vibriosis	**0**	**0.0**	0	0.0	9	0.7

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

PISCATAQUIS COUNTY

16,785

Population

of Maine's Total Population

	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Anaplasma phagocytophilum	**0**	**0.0**	15	8.9	685	51.0
Babesiosis	**0**	**0.0**	4	2.4	138	10.3
Borrelia miyamotoi	**0**	**0.0**	1	0.6	13	1.0
Campylobacteriosis	**5**	**29.8**	19	11.2	191	14.2
Carbapenem-resistant *Enterobacteriaceae* (CRE)	**0**	**0.0**	5	3.0	155	11.5
Chlamydia trachomatis infection	**33**	**196.6**	590	349.3	3989	296.8
Cryptosporidiosis	**0**	**0.0**	20	11.8	71	5.3
Dengue	**0**	**0.0**	0	0.0	1	0.1
EEE, Non-Human	**0**	**NA**	0	NA	3	NA
Ehrlichia chaffeensis	**0**	**0.0**	1	0.6	13	1.0
Ehrlichiosis/Anaplasmosis, undetermined	**0**	**0.0**	0	0.0	2	0.1
Emerging Infection	**0**	**0.0**	0	0.0	4	0.3
Giardiasis	**4**	**23.8**	23	13.6	142	10.6
Gonorrhea	**3**	**17.9**	36	21.3	547	40.7
Group A *Streptococcus*, invasive	**0**	**0.0**	12	7.1	114	8.5
Haemophilus influenzae, invasive	**0**	**0.0**	4	2.4	38	2.8
Hemolytic uremic syndrome	**0**	**0.0**	0	0.0	1	0.1
Hepatitis A, acute	**0**	**0.0**	2	1.2	45	3.3
Hepatitis B, acute	**1**	**6.0**	18	10.7	58	4.3
Hepatitis B, chronic	**2**	**11.9**	21	12.4	165	12.3

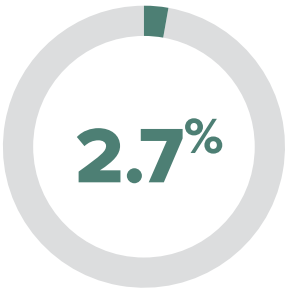
	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Hepatitis B, perinatal infection	**0**	**0.0**	0	0.0	1	0.1
Hepatitis C, acute	**0**	**0.0**	7	4.1	59	4.4
Hepatitis C, chronic	**28**	**166.8**	271	160.4	1917	142.6
Hepatitis C, perinatal infection	**0**	**0.0**	0	0.0	4	0.3
Hepatitis E, acute	**0**	**0.0**	2	1.2	2	0.1
HIV	**1**	**6.0**	3	1.8	29	2.2
Influenza Associated Pediatric Mortality	**0**	**0.0**	0	0.0	1	0.1
Invasive Pneumococcal Disease	**5**	**29.8**	23	13.6	169	12.6
Legionellosis	**0**	**0.0**	13	7.7	30	2.2
Listeriosis	**0**	**0.0**	0	0.0	5	0.4
Lyme disease	**4**	**23.8**	115	68.1	2167	161.2
Malaria	**0**	**0.0**	0	0.0	15	1.1
Measles (Rubeola)	**0**	**0.0**	0	0.0	2	0.1
Mumps	**0**	**0.0**	2	1.2	5	0.4
Neisseria meningitidis, invasive (Mening. disease)	**0**	**0.0**	0	0.0	5	0.4
Pertussis	**1**	**6.0**	9	5.3	383	28.5
Powassan	**0**	**0.0**	0	0.0	2	0.1
Rabies PEP	**3**	**17.9**	18	10.7	147	10.9
Rabies, animal	**3**	**NA**	8	NA	89	NA
S. aureus, methicillin resistant (MRSA), invasive	**1**	**6.0**	35	20.7	241	17.9
Salmonellosis	**0**	**0.0**	18	10.7	142	10.6
Shiga toxin-producing *Escherichia coli* (STEC)	**0**	**0.0**	0	0.0	27	2.0
Shigellosis	**0**	**0.0**	0	0.0	12	0.9
Spotted Fever Rickettsiosis	**0**	**0.0**	1	0.6	5	0.4
Streptococcal toxic-shock syndrome	**0**	**0.0**	1	0.6	20	1.5
Syphilis	**0**	**0.0**	7	4.1	108	8.0
Tuberculosis	**0**	**0.0**	2	1.2	18	1.3
Tularemia	**0**	**0.0**	0	0.0	1	0.1
Varicella (Chickenpox)	**0**	**0.0**	12	7.1	93	6.9
Vibriosis	**0**	**0.0**	0	0.0	9	0.7

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

SAGADAHOC COUNTY

35,856

Population



of Maine's Total Population

	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Anaplasma phagocytophilum	**30**	**83.7**	221	147.4	685	51.0
Babesiosis	**9**	**25.1**	38	25.3	138	10.3
Borrelia miyamotoi	**1**	**2.8**	1	0.7	13	1.0
Campylobacteriosis	**6**	**16.7**	24	16.0	191	14.2
Carbapenem-resistant *Enterobacteriaceae* (CRE)	**7**	**19.5**	25	16.7	155	11.5
Chlamydia trachomatis infection	**74**	**206.4**	333	222.0	3989	296.8
Cryptosporidiosis	**1**	**2.8**	9	6.0	71	5.3
Dengue	**0**	**0.0**	0	0.0	1	0.1
EEE, Non-Human	**0**	**NA**	0	NA	3	NA
Ehrlichia chaffeensis	**0**	**0.0**	4	2.7	13	1.0
Ehrlichiosis/Anaplasmosis, undetermined	**0**	**0.0**	0	0.0	2	0.1
Emerging Infection	**0**	**0.0**	0	0.0	4	0.3
Giardiasis	**1**	**2.8**	15	10.0	142	10.6
Gonorrhea	**7**	**19.5**	31	20.7	547	40.7
Group A *Streptococcus*, invasive	**5**	**13.9**	10	6.7	114	8.5
Haemophilus influenzae, invasive	**0**	**0.0**	6	4.0	38	2.8
Hemolytic uremic syndrome	**0**	**0.0**	0	0.0	1	0.1
Hepatitis A, acute	**0**	**0.0**	2	1.3	45	3.3
Hepatitis B, acute	**0**	**0.0**	3	2.0	58	4.3
Hepatitis B, chronic	**1**	**2.8**	12	8.0	165	12.3

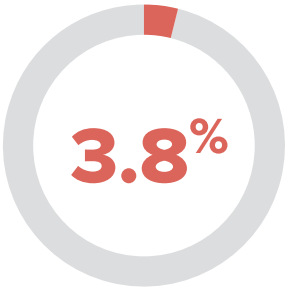
	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Hepatitis B, perinatal infection	**0**	**0.0**	0	0.0	1	0.1
Hepatitis C, acute	**1**	**2.8**	4	2.7	59	4.4
Hepatitis C, chronic	**19**	**53.0**	201	134.0	1917	142.6
Hepatitis C, perinatal infection	**0**	**0.0**	0	0.0	4	0.3
Hepatitis E, acute	**0**	**0.0**	0	0.0	2	0.1
HIV	**0**	**0.0**	1	0.7	29	2.2
Influenza Associated Pediatric Mortality	**0**	**0.0**	0	0.0	1	0.1
Invasive Pneumococcal Disease	**2**	**5.6**	21	14.0	169	12.6
Legionellosis	**1**	**2.8**	2	1.3	30	2.2
Listeriosis	**0**	**0.0**	0	0.0	5	0.4
Lyme disease	**83**	**231.5**	591	394.1	2167	161.2
Malaria	**0**	**0.0**	0	0.0	15	1.1
Measles (Rubeola)	**0**	**0.0**	0	0.0	2	0.1
Mumps	**0**	**0.0**	0	0.0	5	0.4
Neisseria meningitidis, invasive (Mening. disease)	**0**	**0.0**	2	1.3	5	0.4
Pertussis	**1**	**2.8**	100	66.7	383	28.5
Powassan	**0**	**0.0**	0	0.0	2	0.1
Rabies PEP	**13**	**36.3**	20	13.3	147	10.9
Rabies, animal	**21**	**NA**	32	NA	89	NA
S. aureus, methicillin resistant (MRSA), invasive	**7**	**19.5**	30	20.0	241	17.9
Salmonellosis	**2**	**5.6**	12	8.0	142	10.6
Shiga toxin-producing *Escherichia coli* (STEC)	**1**	**2.8**	2	1.3	27	2.0
Shigellosis	**0**	**0.0**	4	2.7	12	0.9
Spotted Fever Rickettsiosis	**0**	**0.0**	0	0.0	5	0.4
Streptococcal toxic-shock syndrome	**1**	**2.8**	2	1.3	20	1.5
Syphilis	**1**	**2.8**	5	3.3	108	8.0
Tuberculosis	**0**	**0.0**	0	0.0	18	1.3
Tularemia	**0**	**0.0**	0	0.0	1	0.1
Varicella (Chickenpox)	**3**	**8.4**	5	3.3	93	6.9
Vibriosis	**0**	**0.0**	3	2.0	9	0.7

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

SOMERSET COUNTY

50,484

Population



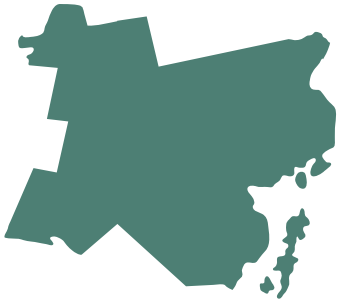
of Maine's Total Population

	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Anaplasma phagocytophilum	**9**	**17.8**	70	40.5	685	51.0
Babesiosis	**2**	**4.0**	20	11.6	138	10.3
Borrelia miyamotoi	**0**	**0.0**	0	0.0	13	1.0
Campylobacteriosis	**7**	**13.9**	36	20.8	191	14.2
Carbapenem-resistant *Enterobacteriaceae* (CRE)	**6**	**11.9**	31	17.9	155	11.5
Chlamydia trachomatis infection	**121**	**239.7**	485	280.7	3989	296.8
Cryptosporidiosis	**1**	**2.0**	20	11.6	71	5.3
Dengue	**0**	**0.0**	0	0.0	1	0.1
EEE, Non-Human	**0**	**NA**	0	NA	3	NA
Ehrlichia chaffeensis	**0**	**0.0**	4	2.3	13	1.0
Ehrlichiosis/Anaplasmosis, undetermined	**0**	**0.0**	2	1.2	2	0.1
Emerging Infection	**0**	**0.0**	0	0.0	4	0.3
Giardiasis	**2**	**4.0**	9	5.2	142	10.6
Gonorrhea	**9**	**17.8**	56	32.4	547	40.7
Group A *Streptococcus*, invasive	**8**	**15.8**	20	11.6	114	8.5
Haemophilus influenzae, invasive	**1**	**2.0**	5	2.9	38	2.8
Hemolytic uremic syndrome	**0**	**0.0**	0	0.0	1	0.1
Hepatitis A, acute	**2**	**4.0**	14	8.1	45	3.3
Hepatitis B, acute	**0**	**0.0**	8	4.6	58	4.3
Hepatitis B, chronic	**0**	**0.0**	7	4.1	165	12.3

	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Hepatitis B, perinatal infection	**0**	**0.0**	0	0.0	1	0.1
Hepatitis C, acute	**4**	**7.9**	14	8.1	59	4.4
Hepatitis C, chronic	**85**	**168.4**	213	123.3	1917	142.6
Hepatitis C, perinatal infection	**0**	**0.0**	1	0.6	4	0.3
Hepatitis E, acute	**0**	**0.0**	0	0.0	2	0.1
HIV	**0**	**0.0**	1	0.6	29	2.2
Influenza Associated Pediatric Mortality	**0**	**0.0**	0	0.0	1	0.1
Invasive Pneumococcal Disease	**7**	**13.9**	20	11.6	169	12.6
Legionellosis	**1**	**2.0**	2	1.2	30	2.2
Listeriosis	**0**	**0.0**	0	0.0	5	0.4
Lyme disease	**68**	**134.7**	345	199.7	2167	161.2
Malaria	**1**	**2.0**	2	1.2	15	1.1
Measles (Rubeola)	**1**	**2.0**	1	0.6	2	0.1
Mumps	**0**	**0.0**	0	0.0	5	0.4
Neisseria meningitidis, invasive (Mening. disease)	**0**	**0.0**	0	0.0	5	0.4
Pertussis	**2**	**4.0**	7	4.1	383	28.5
Powassan	**0**	**0.0**	0	0.0	2	0.1
Rabies PEP	**7**	**13.9**	24	13.9	147	10.9
Rabies, animal	**2**	**NA**	11	NA	89	NA
S. aureus, methicillin resistant (MRSA), invasive	**6**	**11.9**	25	14.5	241	17.9
Salmonellosis	**3**	**5.9**	23	13.3	142	10.6
Shiga toxin-producing *Escherichia coli* (STEC)	**0**	**0.0**	3	1.7	27	2.0
Shigellosis	**0**	**0.0**	0	0.0	12	0.9
Spotted Fever Rickettsiosis	**0**	**0.0**	1	0.6	5	0.4
Streptococcal toxic-shock syndrome	**0**	**0.0**	5	2.9	20	1.5
Syphilis	**2**	**4.0**	26	15.0	108	8.0
Tuberculosis	**0**	**0.0**	0	0.0	18	1.3
Tularemia	**0**	**0.0**	0	0.0	1	0.1
Varicella (Chickenpox)	**9**	**17.8**	15	8.7	93	6.9
Vibriosis	**0**	**0.0**	1	0.6	9	0.7

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

WALDO COUNTY



39,715

Population

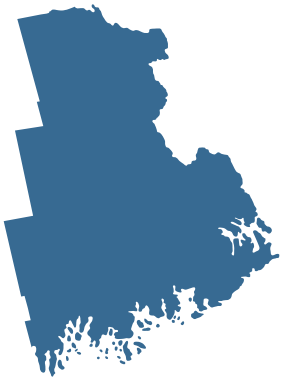
of Maine's Total Population

	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Anaplasma phagocytophilum	**40**	**100.7**	221	147.4	685	51.0
Babesiosis	**4**	**10.1**	38	25.3	138	10.3
Borrelia miyamotoi	**0**	**0.0**	1	0.7	13	1.0
Campylobacteriosis	**5**	**12.6**	24	16.0	191	14.2
Carbapenem-resistant *Enterobacteriaceae* (CRE)	**4**	**10.1**	25	16.7	155	11.5
Chlamydia trachomatis infection	**94**	**236.7**	333	222.0	3989	296.8
Cryptosporidiosis	**5**	**12.6**	9	6.0	71	5.3
Dengue	**0**	**0.0**	0	0.0	1	0.1
EEE, Non-Human	**0**	**NA**	0	NA	3	NA
Ehrlichia chaffeensis	**2**	**5.0**	4	2.7	13	1.0
Ehrlichiosis/Anaplasmosis, undetermined	**0**	**0.0**	0	0.0	2	0.1
Emerging Infection	**0**	**0.0**	0	0.0	4	0.3
Giardiasis	**6**	**15.1**	15	10.0	142	10.6
Gonorrhea	**9**	**22.7**	31	20.7	547	40.7
Group A *Streptococcus*, invasive	**4**	**10.1**	10	6.7	114	8.5
Haemophilus influenzae, invasive	**4**	**10.1**	6	4.0	38	2.8
Hemolytic uremic syndrome	**0**	**0.0**	0	0.0	1	0.1
Hepatitis A, acute	**0**	**0.0**	2	1.3	45	3.3
Hepatitis B, acute	**0**	**0.0**	3	2.0	58	4.3
Hepatitis B, chronic	**3**	**7.6**	12	8.0	165	12.3

	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Hepatitis B, perinatal infection	**0**	**0.0**	0	0.0	1	0.1
Hepatitis C, acute	**1**	**2.5**	4	2.7	59	4.4
Hepatitis C, chronic	**68**	**171.2**	201	134.0	1917	142.6
Hepatitis C, perinatal infection	**0**	**0.0**	0	0.0	4	0.3
Hepatitis E, acute	**0**	**0.0**	0	0.0	2	0.1
HIV	**0**	**0.0**	1	0.7	29	2.2
Influenza Associated Pediatric Mortality	**0**	**0.0**	0	0.0	1	0.1
Invasive Pneumococcal Disease	**9**	**22.7**	21	14.0	169	12.6
Legionellosis	**0**	**0.0**	2	1.3	30	2.2
Listeriosis	**0**	**0.0**	0	0.0	5	0.4
Lyme disease	**142**	**357.5**	591	394.1	2167	161.2
Malaria	**0**	**0.0**	0	0.0	15	1.1
Measles (Rubeola)	**0**	**0.0**	0	0.0	2	0.1
Mumps	**0**	**0.0**	0	0.0	5	0.4
Neisseria meningitidis, invasive (Mening. disease)	**0**	**0.0**	2	1.3	5	0.4
Pertussis	**51**	**128.4**	100	66.7	383	28.5
Powassan	**0**	**0.0**	0	0.0	2	0.1
Rabies PEP	**1**	**2.5**	20	13.3	147	10.9
Rabies, animal	**2**	**NA**	32	NA	89	NA
S. aureus, methicillin resistant (MRSA), invasive	**9**	**22.7**	30	20.0	241	17.9
Salmonellosis	**6**	**15.1**	12	8.0	142	10.6
Shiga toxin-producing *Escherichia coli* (STEC)	**1**	**2.5**	2	1.3	27	2.0
Shigellosis	**0**	**0.0**	4	2.7	12	0.9
Spotted Fever Rickettsiosis	**0**	**0.0**	0	0.0	5	0.4
Streptococcal toxic-shock syndrome	**1**	**2.5**	2	1.3	20	1.5
Syphilis	**0**	**0.0**	5	3.3	108	8.0
Tuberculosis	**0**	**0.0**	0	0.0	18	1.3
Tularemia	**0**	**0.0**	0	0.0	1	0.1
Varicella (Chickenpox)	**1**	**2.5**	5	3.3	93	6.9
Vibriosis	**0**	**0.0**	3	2.0	9	0.7

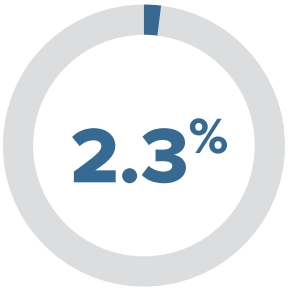
Counts of confirmed and probable cases. Rates of confirmed and probable cases per 100,000 people.

WASHINGTON COUNTY



31,379

Population



of Maine's Total Population

	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Anaplasma phagocytophilum	**5**	**15.9**	48	55.6	685	51.0
Babesiosis	**0**	**0.0**	7	8.1	138	10.3
Borrelia miyamotoi	**0**	**0.0**	0	0.0	13	1.0
Campylobacteriosis	**3**	**9.6**	11	12.7	191	14.2
Carbapenem-resistant *Enterobacteriaceae* (CRE)	**2**	**6.4**	3	3.5	155	11.5
Chlamydia trachomatis infection	**105**	**334.6**	206	238.5	3989	296.8
Cryptosporidiosis	**1**	**3.2**	2	2.3	71	5.3
Dengue	**0**	**0.0**	0	0.0	1	0.1
EEE, Non-Human	**0**	**NA**	0	NA	3	NA
Ehrlichia chaffeensis	**0**	**0.0**	0	0.0	13	1.0
Ehrlichiosis/Anaplasmosis, undetermined	**0**	**0.0**	0	0.0	2	0.1
Emerging Infection	**0**	**0.0**	0	0.0	4	0.3
Giardiasis	**2**	**6.4**	14	16.2	142	10.6
Gonorrhea	**0**	**0.0**	18	20.8	547	40.7
Group A *Streptococcus*, invasive	**5**	**15.9**	7	8.1	114	8.5
Haemophilus influenzae, invasive	**1**	**3.2**	2	2.3	38	2.8
Hemolytic uremic syndrome	**0**	**0.0**	0	0.0	1	0.1
Hepatitis A, acute	**1**	**3.2**	1	1.2	45	3.3
Hepatitis B, acute	**1**	**3.2**	5	5.8	58	4.3
Hepatitis B, chronic	**8**	**25.5**	9	10.4	165	12.3

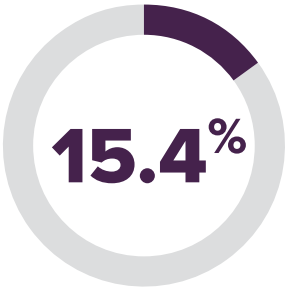
	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Hepatitis B, perinatal infection	**1**	**3.2**	1	1.2	1	0.1
Hepatitis C, acute	**1**	**3.2**	3	3.5	59	4.4
Hepatitis C, chronic	**54**	**172.1**	110	127.4	1917	142.6
Hepatitis C, perinatal infection	**0**	**0.0**	0	0.0	4	0.3
Hepatitis E, acute	**0**	**0.0**	0	0.0	2	0.1
HIV	**0**	**0.0**	1	1.2	29	2.2
Influenza Associated Pediatric Mortality	**1**	**3.2**	1	1.2	1	0.1
Invasive Pneumococcal Disease	**6**	**19.1**	14	16.2	169	12.6
Legionellosis	**0**	**0.0**	0	0.0	30	2.2
Listeriosis	**0**	**0.0**	0	0.0	5	0.4
Lyme disease	**31**	**98.8**	223	258.2	2167	161.2
Malaria	**0**	**0.0**	0	0.0	15	1.1
Measles (Rubeola)	**0**	**0.0**	0	0.0	2	0.1
Mumps	**0**	**0.0**	1	1.2	5	0.4
Neisseria meningitidis, invasive (Mening. disease)	**0**	**0.0**	0	0.0	5	0.4
Pertussis	**14**	**44.6**	80	92.6	383	28.5
Powassan	**0**	**0.0**	0	0.0	2	0.1
Rabies PEP	**2**	**6.4**	5	5.8	147	10.9
Rabies, animal	**1**	**NA**	2	NA	89	NA
S. aureus, methicillin resistant (MRSA), invasive	**8**	**25.5**	14	16.2	241	17.9
Salmonellosis	**0**	**0.0**	3	3.5	142	10.6
Shiga toxin-producing *Escherichia coli* (STEC)	**0**	**0.0**	0	0.0	27	2.0
Shigellosis	**0**	**0.0**	0	0.0	12	0.9
Spotted Fever Rickettsiosis	**0**	**0.0**	2	2.3	5	0.4
Streptococcal toxic-shock syndrome	**1**	**3.2**	1	1.2	20	1.5
Syphilis	**2**	**6.4**	2	2.3	108	8.0
Tuberculosis	**0**	**0.0**	0	0.0	18	1.3
Tularemia	**0**	**0.0**	1	1.2	1	0.1
Varicella (Chickenpox)	**1**	**3.2**	7	8.1	93	6.9
Vibriosis	**0**	**0.0**	0	0.0	9	0.7

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

YORK COUNTY

207,641

Population



of Maine's Total Population

	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Anaplasma phagocytophilum	**106**	**51.0**	106	51.0	685	51.0
Babesiosis	**24**	**11.6**	24	11.6	138	10.3
Borrelia miyamotoi	**1**	**0.5**	1	0.5	13	1.0
Campylobacteriosis	**24**	**11.6**	24	11.6	191	14.2
Carbapenem-resistant *Enterobacteriaceae* (CRE)	**32**	**15.4**	32	15.4	155	11.5
Chlamydia trachomatis infection	**539**	**259.6**	539	259.6	3989	296.8
Cryptosporidiosis	**6**	**2.9**	6	2.9	71	5.3
Dengue	**0**	**0.0**	0	0.0	1	0.1
EEE, Non-Human	**3**	**NA**	3	NA	3	NA
Ehrlichia chaffeensis	**1**	**0.5**	1	0.5	13	1.0
Ehrlichiosis/Anaplasmosis, undetermined	**0**	**0.0**	0	0.0	2	0.1
Emerging Infection	**0**	**0.0**	0	0.0	4	0.3
Giardiasis	**16**	**7.7**	16	7.7	142	10.6
Gonorrhea	**55**	**26.5**	55	26.5	547	40.7
Group A *Streptococcus*, invasive	**19**	**9.2**	19	9.2	114	8.5
Haemophilus influenzae, invasive	**6**	**2.9**	6	2.9	38	2.8
Hemolytic uremic syndrome	**0**	**0.0**	0	0.0	1	0.1
Hepatitis A, acute	**6**	**2.9**	6	2.9	45	3.3
Hepatitis B, acute	**7**	**3.4**	7	3.4	58	4.3
Hepatitis B, chronic	**19**	**9.2**	19	9.2	165	12.3

	County		District		State	
Condition	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
Hepatitis B, perinatal infection	**0**	**0.0**	0	0.0	1	0.1
Hepatitis C, acute	**9**	**4.3**	9	4.3	59	4.4
Hepatitis C, chronic	**300**	**144.5**	300	144.5	1917	142.6
Hepatitis C, perinatal infection	**1**	**0.5**	1	0.5	4	0.3
Hepatitis E, acute	**0**	**0.0**	0	0.0	2	0.1
HIV	**2**	**1.0**	2	1.0	29	2.2
Influenza Associated Pediatric Mortality	**0**	**0.0**	0	0.0	1	0.1
Invasive Pneumococcal Disease	**21**	**10.1**	21	10.1	169	12.6
Legionellosis	**4**	**1.9**	4	1.9	30	2.2
Listeriosis	**2**	**1.0**	2	1.0	5	0.4
Lyme disease	**312**	**150.3**	312	150.3	2167	161.2
Malaria	**1**	**0.5**	1	0.5	15	1.1
Measles (Rubeola)	**0**	**0.0**	0	0.0	2	0.1
Mumps	**2**	**1.0**	2	1.0	5	0.4
Neisseria meningitidis, invasive (Mening. disease)	**1**	**0.5**	1	0.5	5	0.4
Pertussis	**68**	**32.7**	68	32.7	383	28.5
Powassan	**1**	**0.5**	1	0.5	2	0.1
Rabies PEP	**30**	**14.4**	30	14.4	147	10.9
Rabies, animal	**5**	**NA**	5	NA	89	NA
S. aureus, methicillin resistant (MRSA), invasive	**26**	**12.5**	26	12.5	241	17.9
Salmonellosis	**22**	**10.6**	22	10.6	142	10.6
Shiga toxin-producing *Escherichia coli* (STEC)	**4**	**1.9**	4	1.9	27	2.0
Shigellosis	**1**	**0.5**	1	0.5	12	0.9
Spotted Fever Rickettsiosis	**0**	**0.0**	0	0.0	5	0.4
Streptococcal toxic-shock syndrome	**4**	**1.9**	4	1.9	20	1.5
Syphilis	**11**	**5.3**	11	5.3	108	8.0
Tuberculosis	**0**	**0.0**	0	0.0	18	1.3
Tularemia	**0**	**0.0**	0	0.0	1	0.1
Varicella (Chickenpox)	**9**	**4.3**	9	4.3	93	6.9
Vibriosis	**1**	**0.5**	1	0.5	9	0.7

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

Workgroup Summaries

DATA QUALITY WORKGROUP

Maine's Data Quality Workgroup meets every other week to review the data quality of laboratory reports sent to Maine Center for Disease Control and Prevention (Maine CDC) with attention paid to those facilities that only send electronic lab reports (ELR). The Workgroup is chaired by Maine CDC's Infectious Disease Informatician and the group includes the Infectious Disease Epidemiology Program Director, Informatics Epidemiologist, and Influenza Surveillance Coordinator. The workgroup checks the consistency of lab volumes to ensure data feeds are running without issues. The group also reviews documents submitted by labs looking to move to electronic reporting only. Maine CDC approved eight new facilities to move to electronic only reporting in 2019, bringing the total reporters no longer required to send paper reports to fourteen.

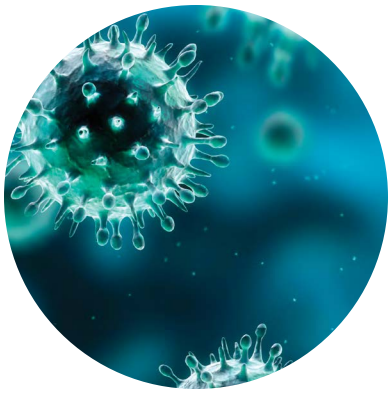
FOOD SAFETY WORKGROUP

The Maine Interagency Food Safety Workgroup is led by Maine CDC's Foodborne Disease Epidemiologist. The Workgroup includes 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 DMR), Maine Department of Agriculture, Conservation, and Forestry (Maine DACF), Maine Department of Education (Maine 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 rate of foodborne and waterborne infectious diseases in the state, respond to foodborne and waterborne outbreaks, and work together on food safety initiatives. The Workgroup 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 investigated a large cryptosporidiosis outbreak and a large scombroid poisoning outbreak in 2019. Members of the Workgroup collaborated on several other outbreak investigations over the course of the year. Workgroup members participated in various conferences and meetings throughout the year, including the Northeast Epidemiology Conference in Portland in November 2019.

HEALTH EDUCATION WORKGROUP

Maine CDC's Health Education Workgroup consists of health educators and those with similar roles within Maine CDC. The Workgroup is chaired by Maine CDC's Infectious Disease Health Educator and includes members from the Divisions of Disease Surveillance and Disease Prevention. This group works on public health education topics such as health literacy. Members held a work session in 2019 to help improve specific Maine CDC documents. This meeting also provides an opportunity to share resources and allow Maine CDC programs to be more interconnected.



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 Infectious Disease Epidemiology, Public Health Emergency Preparedness (PHEP), the Maine Immunization Program (MIP), Public Health Nursing (PHN), Maine's Health and Environmental Testing Laboratory (HETL), Maine 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 update them on new guidance, reporting requirements, and assistance available from the State. In November 2019, the Influenza Workgroup hosted an influenza functional exercise, bringing together partners in human and animal health to exercise their roles during a potential pandemic influenza event.

Workgroup Summaries

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 whose mission is to control the spread of rabies, a fatal zoonotic disease that is endemic in Maine. Agencies and organizations that participate in the Workgroup include, but are not limited to: Maine CDC, Maine DACF, 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, 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.

In 2019, the Workgroup maintained the Mail-A-Bat program at five vet clinics across the state. The program provides clinics with shipping material to mail bats to HETL for rabies testing. Having these drop off points reduces the time spent transporting bats to the state lab, which allows Maine's animal control officers and game wardens to focus on other issues. In addition, the Workgroup began discussions about a real-time rabies alert system for individuals who work with domestic animals and wildlife like veterinarians, animal control officers, and game wardens.

SYNDROMIC SURVEILLANCE USER GROUP

Maine's Syndromic Surveillance User Group meets every other month to discuss topics related to syndromic surveillance such as opioid overdose and E-cigarette related lung injury emergency department visits. The group trains members to use data tools such as the Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE). The User Group is chaired by Maine CDC's Informatics Epidemiologist and includes partners from within Maine CDC, Office of Behavioral Health, and hospitals around Maine. The group reviewed the public facing opioid dashboard that uses syndromic surveillance data before it was made live on Maine CDC's website.

VACCINE-PREVENTABLE DISEASES WORKGROUP

Maine CDC's Vaccine-Preventable Diseases Workgroup, chaired by Maine CDC's Vaccine Preventable Diseases Epidemiologist, held a measles table top exercise in June of 2019. Multiple stakeholders participated including PHN, Health Inspections Program (HIP), MIP, HETL, as well as infectious disease epidemiologists from Maine CDC and upper level management. The exercise walked participants through an ever-increasing measles outbreak threat testing programmatic communication, decision making, and capabilities at every level. The tabletop exercise presented the scenario of a measles case identified at a camp in Maine, with materials drafted and developed by Maine CDC with support from federal CDC and other jurisdictions. The exercise identified areas of limitations including public health's authority over exposed travelers and areas of strength including Maine CDC's communication plan preparedness.

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 Maine CDC's Infectious Disease Epidemiology Program Director and includes representatives from epidemiology, environmental health, HETL, Maine DACF, Maine DOE, Maine Department of Environmental Protection (Maine DEP), Maine Medical Center Research Institute, University of Maine Cooperative Extension, Maine IF&W, the Biodiversity Research Institute, pest control companies, and other relevant individuals.

Subcommittees include the Wildlife Subcommittee which works on issues like deer density, the Messaging Committee which works on creating and standardizing information for common questions, and the Education Subcommittee which works on outreach. The Workgroup coordinates mosquito and tick surveillance within the state, and supports Lyme Disease Awareness Month in May.

This year, the Workgroup added browntail moths as a regular topic of discussion to the agenda in response to the recent browntail moth infestations in Central and Mid-Coast Maine. The Messaging Committee launched a new browntail moth messaging website with commonly asked questions. This website can be viewed at www.maine.gov/dhhs/browntailmoth.

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 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 calls for viral suppression among 80 percent of all PLWH in the U.S. by 2020. In 2019, 91 percent of Part B Program enrollees were virally suppressed as of the last result reported in 2019.

* 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, 2015-2019

Service	2015	2016	2017	2018	2019
Dental assistance	183	180	279	293	**290**
Food assistance	497	522	579	584	**561**
Full-cost drugs	110	120	106	118	**116**
Housing assistance	168	199	257	304	**324**
Insurance premiums	208	190	240	299	**307**
Lab tests	14	20	24	25	**21**
Case management	87	90	97	101	**118**
Prescription wrap-around	626	602	544	560	**394**
Total utilizing members	**882**	**923**	**939**	**987**	**973**

VIRAL SUPPRESSION AMONG RYAN WHITE PART B ENROLLEES BY PUBLIC HEALTH DISTRICT, 2019

District	Number Virally Suppressed	Number Enrolled	% Virally Suppressed
Aroostook	26	29	90%
Central	120	126	95%
Cumberland	369	401	92%
Downeast	71	80	89%
Mid Coast	67	74	91%
Penquis	74	85	87%
Western	149	160	93%
York	138	158	87%
Overall	**1,014**	**1,113**	**91%**

Acute Hepatitis A Case in a Food Service Worker in Caribou, Maine

In May 2019, Maine Center for Disease Control and Prevention (Maine CDC) identified a case of hepatitis A, who was a food service worker in Caribou, Maine. Hepatitis A is a vaccine-preventable illness and can be caused by eating or drinking contaminated food or water. Symptoms include fever, feeling tired, loss of appetite, nausea, vomiting, and abdominal pain. Dark urine, clay-colored bowel movements, joint pain, and jaundice are also commonly reported. Symptoms usually go away on their own but in people with poor health, hepatitis A can lead to serious health problems and even death.

A Maine CDC Epidemiologist interviewed the case and learned they had worked and prepared food at a restaurant while infectious. Maine CDC also provided recommendations for potential contacts. Three Maine CDC Epidemiologists contacted the restaurant employees to determine their hepatitis A vaccine status, illness, and work dates. During the next four months, Maine CDC confirmed 11 cases in addition to the original case for a total of 12 cases. The Epidemiologists interviewed all confirmed cases to identify high risk exposures and determine the risk to other food workers and customers. Further investigation by Maine CDC's Health Inspection Program found the restaurant had several critical violations with regards to hygiene and sanitation.

After the first case, Maine CDC found that the restaurant customers might be at risk for hepatitis A and recommended hepatitis A vaccine to anyone who ate or worked at the restaurant during the original case's infectious period. A press release and health alert from Maine CDC detailed the recommendations for the public and medical providers. Maine CDC notified the hospitals, clinics, health offices, and pharmacies in Aroostook County to make them aware of the situation and the likelihood of an influx of people wanting to be vaccinated. They also encouraged the healthcare facilities to look out for more cases of hepatitis A.

Surveys of the Aroostook County medical facilities determined the number of vaccines immediately available likely would not cover everyone that would want to be vaccinated. Maine CDC's Immunization Program provided local health clinics, pharmacies, and hospitals with additional hepatitis A vaccine. In response, local area hospitals, clinics, and pharmacies opened vaccination clinics to provide hepatitis A vaccines and public health nurses traveled to Aroostook County to help local facilities administer the vaccine. Local hospitals also purchased doses of vaccine from hospitals in Southern Maine.

Health care providers administered over 1,300 hepatitis A vaccines in the following weeks.

Detecting and Responding to a Cluster of Legionella Cases

In June 2019, Maine Center for Disease Control and Prevention (Maine CDC) field staff observed an increase in legionellosis cases in Penobscot county. Upon further analysis, Maine CDC identified seven cases within the same zip code starting late 2018 and running through June 2019. Four of these cases lived within a neighborhood less than one square mile in size. Maine CDC did not find any obvious epidemiologic links between the cases. Due to the above average number of cases and lack of clear source of infection, Maine CDC conducted additional interviews using a hypothesis generating questionnaire. Maine CDC re-interviewed six of the seven cases in the zip code but could not identify any high-risk or common exposures.

In July 2019, Maine CDC began testing the local water system for residual chlorine levels, sampling several locations across the district. On July 9th, the local water district collected water samples from two locations off the mainline and found the chlorine residual to be lower than the levels recommended to prevent Legionella growth. They immediately began flushing lines to reduce water age and increase chlorine levels. On July 10th, the water district collected samples for Legionella testing from these sites. On July 12th, Maine CDC issued a health alert on the increase of legionellosis cases in the Greater Bangor Area. On July 18th, the first two samples collected on July 10th came back positive for Legionella and the local water district collected a second round of samples at these locations to be tested. The water district also boosted chlorine levels at the treatment plant and adjusted flows to further increase chlorine residuals through the system.

Results from the July 18th sample collections showed an increased presence of Legionella from collection site 1 and no Legionella from collection site 2. Maine CDC issued a second press release on July 19th about the Legionella detections and the plan to increase chlorine levels. Additional samples collected July 24th showed continued Legionella at site 1, however the water district discovered that site 1 had a compromised heated water line and mixing valve. A new sampling site and another round of testing on August 8th, showed Legionella to no longer be present. Maine CDC issued a press release on August 14th informing the public that Legionella was no longer detected in the water system.

Although the source of Legionella infection for these cases was never proven, the experience demonstrated the importance of monitoring residual chlorine levels as well as testing for the presence of Legionella bacteria in public water systems. Maine CDC did not identify any additional cases after remediation of the water system.

Late HIV Diagnoses in Maine

Tremendous progress in HIV treatment has made HIV infection a manageable chronic illness. People with HIV can live long and healthy lives. By taking their medication daily HIV patients can reduce the amount of virus in their blood. It is even possible for HIV patients in treatment to reduce the amount of virus in their body until it is no longer detectable using HIV laboratory tests. This is known as being "undetectable." It is impossible for an HIV patient who is "undetectable" to pass on the HIV virus to others through sex. Still there are many people living with HIV who are unaware they have been infected. It is estimated that one in seven people living with HIV in the United States do not know they have it.

People with untreated HIV infections will go on to develop acquired immune deficiency syndrome (AIDS). AIDS is the final stage of an HIV infection. It is the result of someone's immune system being badly damaged by the HIV virus. It can take ten years or more for an untreated person with HIV to develop AIDS. Someone who has developed AIDS will generally only live for three more years without treatment. A late diagnosis of HIV can severely harm a patient by weakening their immune system. People with untreated HIV have higher levels of virus in their bodies and are more likely to pass the virus to others.

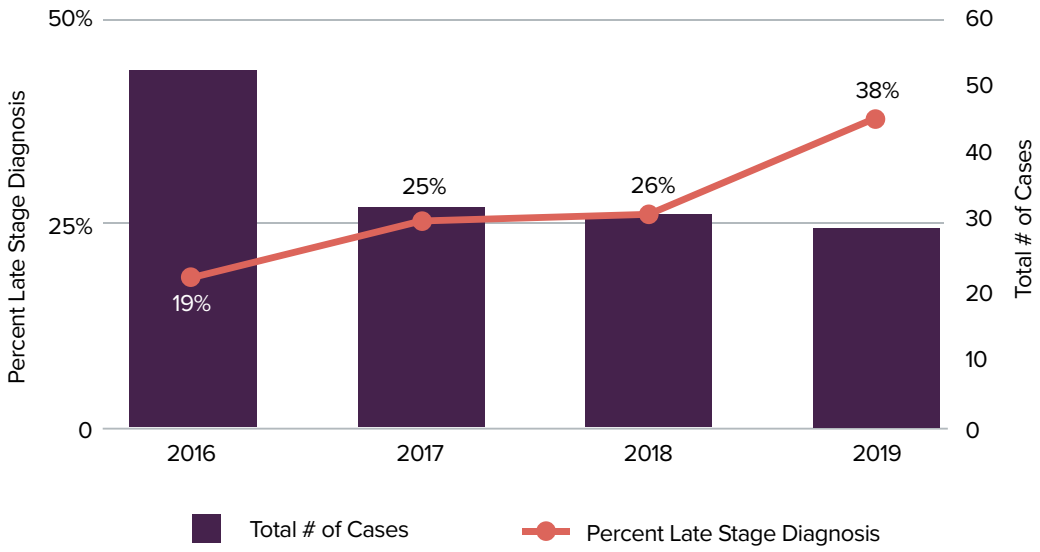
The U.S. Center for Disease Control and Prevention (U.S. CDC) recommends that people ages 13-64 get tested for HIV at least once in their life. People who are considered high risk should be tested more often.

Groups at higher risk for HIV include men who have sex with men (MSM), people who exchange sex for money, injection drug users, and others. It is important for health care providers to ask their patients about their sexual history. Providers can then determine their patient's level of risk for HIV and how often they should be tested for HIV or other sexually transmitted diseases (STDs).

The number of people who were diagnosed with AIDS at the same time they were first diagnosed with HIV has increased in Maine. In 2016, 19% of people first diagnosed with HIV were also diagnosed with AIDS at the same time. In 2019, 38% of people first diagnosed with HIV were also diagnosed with AIDS. Most HIV/AIDS diagnoses from 2018-2019 lived in Cumberland County at the time of their diagnoses. Thirty-six percent of HIV/AIDS cases were born outside of the United States, 55% were male, and 36% were non-Hispanic, Black individuals. Despite women only accounting for 31% of total cases, they accounted for 45% of all HIV/AIDS diagnosis. In 2019, the median age for individuals diagnosed with HIV/AIDS was 40.

PEOPLE FIRST DIAGNOSED WITH HIV ALSO DIAGNOSED WITH AIDS

STAGE 3 HIV, MAINE



It is the responsibility of public health workers and health care providers to help end the HIV epidemic. There are many effective steps that can be taken. The Maine CDC recommends that clinical providers take sexual health histories with all their patients. The Maine CDC urges providers to follow CDC HIV clinical screening guidelines. Patients at increased risk for HIV can be referred to a Maine CDC funded testing site. Providers should prescribe HIV Pre-Exposure Prophylaxis (PrEP) to people at high risk for HIV infection. There are clinics in Maine that have made great progress linking their patients with PrEP.

There are still many more patients that could benefit from PrEP. Providers should monitor the viral loads of HIV positive patients. Public health workers can help by educating the community about safe sex practices. They can work to create safe LGBTQ+ health care settings. Organizations can request HIV prevention trainings from the Maine CDC. Public health workers can also create policies aimed to reduce the cost barriers for testing and supporting syringe access programs. Together these steps can help end the HIV epidemic in Maine.

Wedding Reception Outbreak

LINCOLN COUNTY - SUMMER 2019

On Saturday August 31, 2019 Maine Center for Disease Control and Prevention (Maine CDC) received a report from an ambulance crew of approximately 39 individuals ill with suspected scombroid fish poisoning at a wedding reception dinner held at a hotel restaurant in Lincoln County, Maine. The attendees reported illness after eating bluefin tuna served at a wedding reception that evening. The epidemiologist on-call alerted the Foodborne Disease Epidemiologist and the Health Inspection Program Director, and an outbreak investigation began. Initial information indicated that symptoms included diarrhea, abdominal pain, and/or rash. At least one person was reported to have been transported to a local hospital's emergency department for further evaluation and treatment.

Members of the outbreak investigation team included staff from Maine CDC's Infectious Disease Epidemiology Program (ID EPI), Maine CDC Health Inspection Program (HIP), Maine's Health and Environmental Testing Laboratory (HETL), and Maine Department of Marine Resources (DMR).

A HIP inspector performed an outbreak inspection at the restaurant the following day on September 1. The inspector focused on health and sanitation violations; the process of storing, handling, cooking, and serving of the tuna; and other points of concern identified by the outbreak investigation team. The HIP inspector obtained the history of where the tuna was obtained and the steps the restaurant staff took while handling the tuna. The 260-pound bluefin tuna was caught on July 2, 2019 and delivered to the restaurant where it was cut up, and portions served to restaurant customers from July 2 through July 8. Fourteen pounds of tuna were frozen for use for the wedding reception dinner scheduled for August 31. The restaurant took the tuna out of the freezer and thawed it in a refrigerator on August 29. The tuna the chef cooked was placed in the oven on August 31. The tuna was kept warm until served to attendees that evening.

DMR Marine Patrol staff consulted with partners in the U.S. National Oceanic and Atmospheric Administration who determined proper permitting took place in regards to the catching, selling, and buying of the tuna. Outbreak investigators collected a leftover piece of that same tuna from the restaurant and sent it to a U.S. Food and Drug Administration laboratory for histamine testing. The results indicated extremely high histamine levels which could cause scombroid fish poisoning in individuals who consumed this food.

Epidemiologists designed and utilized a survey to interview a sampling of wedding attendees to better understand the epidemiology of the outbreak. The hotel restaurant provided epidemiologists with some attendees' contact information, which epidemiologists then used to interview attendees. Epidemiologists interviewed attendees who were residents from several states including Massachusetts, New Hampshire, New York, and Maine. Epidemiologists analyzed data collected using Epi Info 7 statistical software.

39
attendees ate the tuna served at the wedding reception

AT LEAST
18
became ill following the dinner

Symptoms noted during the interviews were consistent with scombroid fish poisoning and included diarrhea, vomiting, cramps, headache, nausea, facial flushing, tingling and burning of the mouth, sweating, and dizziness.

The median incubation period of the illness (time from tuna consumption to presentation of illness symptoms) was 1 hour. The median duration of illness was found to be 12 hours, and all ill individuals interviewed recovered. Thirty-nine attendees ate the tuna served at the wedding reception, and Maine CDC identified at least 18 attendees who became ill following the dinner. No individuals were hospitalized or tested. A medical provider evaluated one attendee at a local hospital and diagnosed the illness as scombroid fish poisoning. After analyzing exposures, epidemiologists determined that those who ate the tuna at that dinner on August 31 were statistically much more likely to become ill than those who did not.

Maine CDC received no additional reports of illness in food served after this meal at the restaurant. No secondary cases occurred. Upon reviewing information collected, outbreak investigators identified concerns about potential points of failure in time and temperature controls (from when the tuna was caught all the way through the end point of it being served to the reception attendees) that likely contributed to this outbreak of scombroid fish poisoning. These potential lapses likely contributed to the increase in toxins in the tuna served. HIP had the restaurant perform corrective actions in response to violations, and HIP made preventative recommendations to food service personnel at the hotel restaurant. This outbreak serves as a reminder about how proper sourcing, handling, and storing of food is important in reducing foodborne illness.

Vectorborne Collaboration with State Partners

The browntail moth is an invasive species of forest and human health concern. While browntail moths do not cause disease, their hairs can cause a skin rash and breathing problems. Maine CDC, Maine Forest Service (MFS), and Maine Board of Pesticide Control (Maine BPC), all work on browntail moth prevention and education. Maine CDC and MFS worked with 211 Maine to offer a central location for browntail moth information. A news release in May 2019 announced this new service with 211 Maine. It allows the public to speak with one person to answer a variety of browntail moth questions. This service is available by dialing 211, texting your zip code to 898-211, or emailing info@211maine.org. During 2019, 211 Maine handled 1,081 calls, 101 text messages, and 131 emails on browntail moths.

The University of Maine (UMaine) Cooperative Extension Tick Lab launched a new tick testing service in the Spring of 2019. Maine residents can have deer ticks *(Ixodes scapularis*) tested for the pathogens that can cause Lyme disease, anaplasmosis, and babesiosis. UMaine also continues to offer free tick identification. Maine CDC partners with UMaine for passive tick surveillance and infection prevalence. Passive surveillance means that ticks are submitted by the public and not all areas of the state submit samples. However, these results help guide additional surveillance and public education. The public submitted a total of 2,697 ticks for testing and identification with 44.9% of ticks carrying at least one pathogen. Visit ticks.umaine.edu for more information on UMaine's Tick Lab.

TABLE 1: TICK PATHOGEN TESTING RESULTS

Pathogen	% of infected nymphs	% of infected adults	% of infected ticks
Positive for at least 1 pathogen	33.9%	49.8%	44.9%
Borrelia burgdorferi	29.3%	43.0%	38.8%
Anaplasma phagocytophilum	6.7%	8.7%	8.1%
Babesia microti	5.3%	6.5%	6.1%
Borrelia & Anaplasma	3.1%	3.5%	3.3%
Borrelia & Babesia	2.7%	3.2%	3.0%
Anaplasma & Babesia	0.2%	0.4%	0.3%
Borrelia & Anaplasma & Babesia	0.7%	0.7%	0.7%

Vulnerability Assessment for Opioid Overdoses and Bloodborne Infections Associated with Non-Sterile Injection Drug Use

In 2019, Maine CDC released the "Vulnerability Assessment for Opioid Overdoses and Bloodborne Infections Associated with Non-Sterile Injection Drug Use in Maine." Consultants completed an assessment from February to July of 2019. A 15-member Stakeholder Group representing 13 organizations throughout Maine guided the assessment. This report shows the geographic areas where residents are at highest risk of opioid overdoses and bloodborne infections from injection drug use. The most vulnerable areas are Kennebec County, Penobscot County, the Portland area of Cumberland County, Somerset County, and Washington County.

In 2017, the last year federal data is available, Maine had the 2nd highest acute hepatitis B rate, the 10th highest acute hepatitis C rate, and the 6th highest opioid overdose death rate in the United States. The highest risk factor for acquiring hepatitis B and hepatitis C is injection drug use. Maine saw a sharp increase in cases of hepatitis B and hepatitis C in recent years. From 2013 to 2018, acute hepatitis B rates increased 388 percent and acute hepatitis C rates increased 314 percent. These figures reflect new, acute cases, which serve as an indicator of the rising burden of these illnesses.

The Vulnerability Assessment makes recommendations for interventions that strategically allocate resources to the highest risk areas. The recommendations are based on national best practices for prevention, harm reduction, treatment/recovery, and law enforcement/criminal justice.

AMONG THE KEY RECOMMENDATIONS ARE:

- **Work with community prevention organizations to incorporate overdose and bloodborne infection prevention into the services they provide;**
- **Thoroughly assess naloxone availability in the most vulnerable areas and investigate ways to expand access if needed;**
- **Support the opening of Syringe Service Programs (SSPs) in the most vulnerable areas and expand the operating hours and staff at the already existing SSP locations;**
- **Increase the number of medication-assisted treatment providers in Maine's most vulnerable areas, including via telehealth and in correctional facilities;**
- **Do more community outreach and training in the state's most vulnerable areas;**
- **Collaborate with law enforcement and other first responder agencies in the most vulnerable areas and assess what they are currently doing to address the opioid epidemic in their jurisdictions.**

Farm Camp Outbreak

KENNEBEC COUNTY, SUMMER 2019

On July 24, 2019 Maine Center for Disease Control and Prevention (Maine CDC) identified a laboratory-confirmed case of cryptosporidiosis (crypto) in a child with illness onset of July 19, 2019 who attended a farm camp in Kennebec County from July 8 – July 12, 2019. The camp is located on a working dairy farm with cows, pigs, sheep, goats, horses, chickens, rabbits, and a dog. Besides week-long summer camps, the farm hosts school visits and birthday parties and uses a food preparation and service area to bake cakes and process jams, jellies, and other food items. Previously, Maine CDC investigated two outbreaks (2006 and 2008), one cluster of cases (2016), and one individual case of crypto associated with this farm camp (2010). Maine CDC made several recommendations to the camp in 2008 to increase health and sanitation practices to aid in preventing more illnesses.

Given the camp history with many crypto cases, repeated unsafe practices, and the newly reported case, Maine CDC's Infectious Disease Epidemiology Program conducted an investigation with partners with the Health Inspections Program (HIP), Maine's Health and Environmental Testing Laboratory (HETL), Maine Department of Agriculture, Conservation and Forestry (DACF), and the Maine CDC Drinking Water Program (DWP) to determine the scope of the outbreak, observe current camp practices, and assess risk factors for disease transmission.

Staff identified a number of health violations and areas of risk during many site visits in August 2019, including drinking water quality issues and camper contact with sick calves. As a result of this and the outbreak, HIP issued an Imminent Health Hazard (IHH) notice to the camp, closing it for the 2019 season.

Maine CDC epidemiologists designed and distributed an online survey to 211 camper families (a total of 97 surveys were completed) to identify any more ill campers and collect exposure information. Maine CDC staff recommended ill campers visit their healthcare provider and be tested for crypto. Maine CDC staff provided camper families with a fact sheet and the U.S. CDC website on crypto with prevention and control recommendations.

Epidemiologists analyzed data collected using Epi Info 7 statistical software. A total of 243 campers from seven states (CO, MA, MD, ME, NH, NY, VA) registered for camp sessions between June 17, 2019 – August 16, 2019. The survey found 87% of respondents handled, touched, fed, or cared for calves. 42% of respondents reported exposure to newborn animals. Maine CDC staff identified a total of 16 crypto cases (3 confirmed, 13 probable) associated with the farm camp. Onset dates ranged from June 24 – August 4, 2019 with most cases occurring the week of July 23 – July 30, 2019. Twelve (75%) cases were female and cases ranged in age from 5 to 14 years (median 11 years). Eight cases sought medical care. One case was hospitalized, and there were no deaths. Maine CDC epidemiologists found no specific exposures to be statistically significant in leading to greater risk of illness. However, given the distribution of cases throughout the summer, a combination of water or food contamination and a breakdown in hand hygiene when transitioning from animal contact to other camp activities is likely the source.

Three cases were laboratory-confirmed. HETL confirmed two of the cases by PCR, and both cases matched as Cryptosporidium parvum subtype IIaA15G2R1 by the U.S. Centers for Disease Control and Prevention CryptoNet laboratory.

After the outbreak investigation HIP issued the camp a corrective action plan with conditions required for the IHH to be lifted. Maine CDC provided the camp owner with education, recommendations, and the corrective action plan to ensure violations and areas of concern are addressed before it can reopen.

This outbreak serves as a reminder that crypto is strongly associated with farm environments, especially those with cows. Young calves shed crypto in high concentrations, and children should not have contact with sick calves. Hand washing after contact with animals and their environment is the most important way to prevent infection.

243
campers from seven states

87%
handled, touched, fed, or cared for calves

42%
exposed to newborn animals

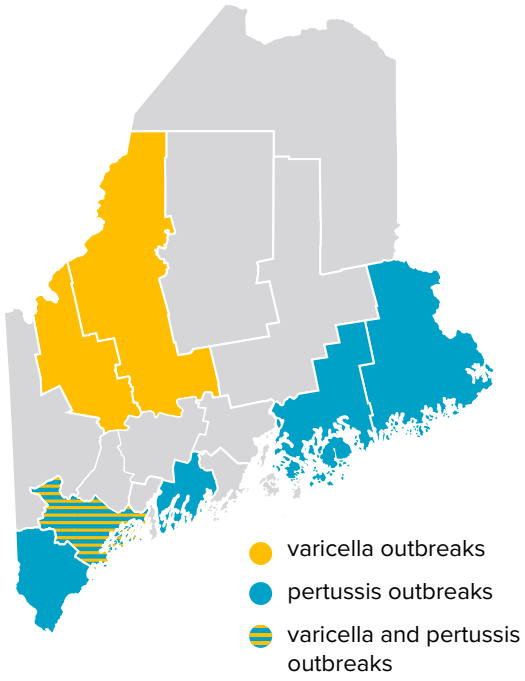
Pertussis and Varicella Outbreaks, 2019

Outbreaks for vaccine-preventable diseases like pertussis or varicella (chickenpox) are opened when a school, daycare, or other facility has at least three or more cases within one incubation period of that disease. When Maine CDC identifies an outbreak, field staff work with school nurses or administrators to ensure control measures are implemented. Common control measures include exclusion of symptomatic cases, exclusion of unvaccinated students, parent and staff education, vaccination clinics, and recommendations for prophylaxis as needed.

OUTBREAKS BY SETTING TYPE

	# varicella outbreaks	# pertussis outbreaks
Daycare	1	1
Elementary School		1
Middle School		4
High School		5
K-12 School	1	2
Camp		1
Shelter	2	

OUTBREAKS BY COUNTY



IN 2019, MAINE CDC INVESTIGATED FOUR VARICELLA OUTBREAKS AND 14 PERTUSSIS OUTBREAKS.

Pertussis Outbreaks

- Average duration: 52 days (range 23-96)
- Average population size: 477 people (range 65-1250)
- Most pertussis outbreaks occurred in middle and high schools (64%)

Varicella Outbreaks

- Average duration: 42 days (range 27-65)
- Average population size: 187 people (range 21-449)

OUTBREAKS BY FACILITY POPULATION SIZE

Facility Population Size for Outbreaks	Varicella Outbreaks	Pertussis Outbreaks	Total # facilities
< 100	2	2	4
100-199			0
200-299	1	2	3
300-399		1	1
400-499	1	1	2
500+		8	8

NUMBER OF INDIVIDUALS BY AGE RANGE INCLUDED IN OUTBREAKS"

# individuals in outbreaks by age range	<1 yr	1-4 yr	5-9 yr	10-19 yr	20+ yr	Unknown age
Varicella Outbreaks	0	9	11	4	1	
Pertussis Outbreaks	1	2	2	82	7	5

Of note, a varicella outbreak occurred within a large shelter setting with a highly unvaccinated population with no ability to appropriately isolate ill individuals, which contributed to ongoing transmission.

The outbreak data is likely an underrepresentation of disease trends within the state for a few reasons. Prompt identification and subsequent control of disease outbreaks are dependent on provider diagnosis and reporting of disease. Some infectious diseases are misdiagnosed because health care providers are not familiar with symptom presentation, especially among those who are current with their vaccination schedule. This is particularly an issue with pertussis, where almost all of those affected did not present with a classic "whoop" sound when they cough.

Other infectious conditions like varicella are often clinically diagnosed and may go unreported to Maine CDC because providers often rely on a laboratory testing process for disease reporting. Additionally, when an outbreak is ongoing within a facility, area health care providers may be more inclined to presumptively treat and less likely to test or report epi-linked cases that meet clinical criteria, and therefore may result in an incomplete representation of rates of infection within that facility. This underscores the important role that providers play in awareness and control of infectious conditions within closed populations.

Update on a Tuberculosis Outbreak Identified by Genotyping

Maine continues to be a low-incidence state for active tuberculosis (TB) cases compared to the rest of the United States. The rate of 2019 active TB cases in Maine was 1.3 per 100,000 persons compared to the 2018 U.S. active TB of 2.8 per 100,000 persons. Although TB outbreaks are rare in Maine, outbreaks can occur in high-risk populations. High-risk populations include people experiencing homelessness, residents of long-term care facilities, and inmates of correctional facilities.

IN MAINE, A CONFIRMED OUTBREAK OF TB IS DEFINED AS FOLLOWS:

- **Two or more contacts are found to have active TB disease during a contact investigation and at least three of the genotypes (any combination of contacts and/or the initial case) are identical; OR**
- **Two or more patients with active TB disease occur within 2 years of each other, are not identified during a contact investigation, but are later found to have an epidemiologic link and identical genotypes.**

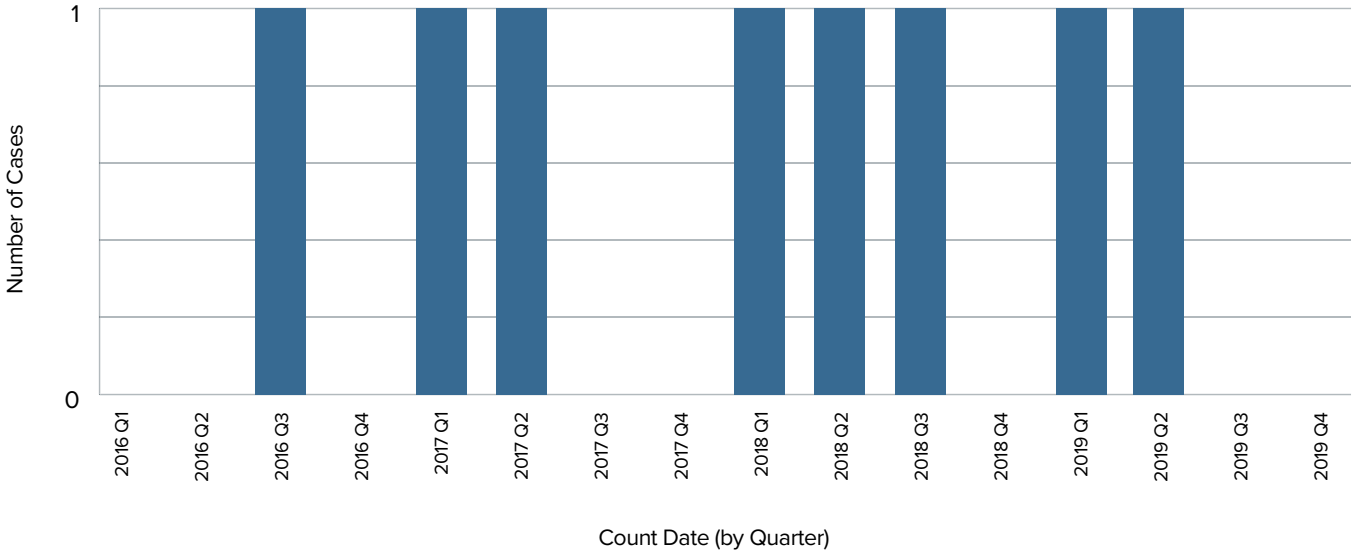
TB genotyping is the process of analyzing the genetic material of the bacterium that causes TB disease. It is a useful tool for public health investigations and can help find recent spread of TB disease. The U.S. Centers for Disease Control and Prevention (US CDC) performs genotyping on all Maine culture-positive TB cases and notifies Maine CDC of any matching TB genotypes. Beginning in 2018, US CDC started using Whole Genome Sequencing (WGS) as a new TB genotype method.

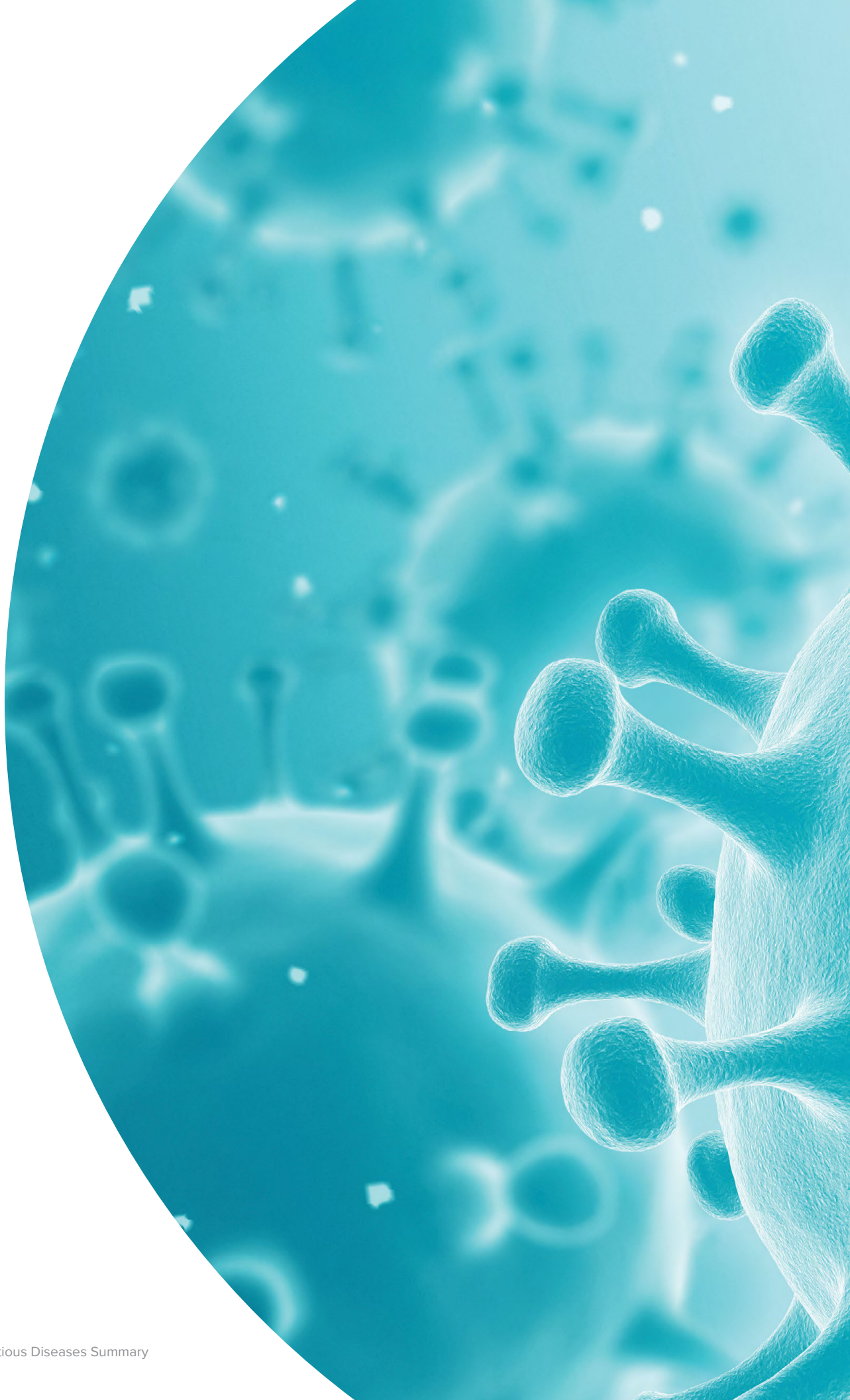
The big advantage of WGS over traditional genotyping methods is that WGS covers much more of the genetic material and can distinguish small genetic differences between samples. For example, two TB samples may be a genetic match with traditional genotyping, but WGS could show many genetic differences between the samples.

The TB Highlight in the 2017 Maine Reportable Infectious Diseases Summary described the use of traditional genotyping results to identify an outbreak with three TB cases. Maine used the results to help find a TB outbreak by linking three active cases not identified by contact investigation that were later found to have epidemiological links. The results also ruled out another active TB case thought to be linked to the other three outbreak cases.

Since the 2017 report, Maine CDC identified five more active TB cases in Maine that are genetically linked to the original three cases.

Three of the new cases were diagnosed in 2018, and the other two cases were diagnosed in 2019. US CDC performed WGS on all eight of the TB samples and found all samples to be very closely related. Although a link has not been established between the five new cases and the original three cases, all five of the new cases share an epidemiological link to a homeless shelter that was discovered after the genotypes were matched and confirmed by WGS results. None of the new cases named each other in the original contact investigations and the genotype results strengthened the epidemiological link between the cases. Following the identification of the homeless shelter linked to the new cases, the TB control program met with shelter staff and other community stakeholders to increase TB awareness and discuss prevention activities.





September 8, 2015

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)
Anaplasmosis
☎ Anthrax ➔ ✉ (*Bacillus anthracis*)
Babesiosis
☎ Botulism ➔ ✉ (*Clostridium botulinum*)
☎ Brucellosis ➔ ✉ (*Brucella* species)
California Serogroup Viruses
Campylobacteriosis
Carbapenem-resistant Enterobacteriaceae (CRE) [1]
Carbon Monoxide Poisoning [2]
Chancroid
Chlamydia
Chickenpox (Varicella)
Chikungunya
☎ Coronavirus, Novel 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) [3]
Influenza-associated pediatric death
☎ Influenza A, Novel ➔ ✉
Influenza-associated hospitalizations, 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, Methicillin-Resistant (MRSA), invasive
☎ Staphylococcus aureus with resistance to Vancomycin (VRSA) ➔ ✉
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)
☎ Viral Hemorrhagic Fever
West Nile Virus
Western Equine Encephalitis
Yellow Fever

☎ **Any Case of Unusual Illness of Infectious Cause**
☎ **Any Cluster/Outbreak of Illness with Potential Public Health Significance**

Who must report: Health Care Providers, Medical Laboratories, Health Care Facilities, Administrators, Health Officers, Veterinarians

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

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

Footnotes:

1. Carbapenem-resistant Enterobacteriaceae (CRE): See current definition as adopted by the United States Centers for Disease Control and Prevention
2. Carbon Monoxide, including clinical signs, symptoms or known exposure consistent with diagnosis of carbon monoxide poisoning and/or: a carboxyhemoglobin (COHb) level ≥5%
3. Human Immunodeficiency Virus (HIV), including:
   - Confirmed, positive antibody tests
   - Viral load tests, all results
   - CD4 lymphocyte counts, all results

Complete Rules for the Control of Notifiable Diseases and Conditions:

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

Maine Center for Disease Control and Prevention
An Office of the Department of Health and Human Services

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Maine Center for Disease Control and Prevention

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