



**NOTIFIABLE DISEASES IN NOVA SCOTIA  
2019 SURVEILLANCE REPORT**

# ACKNOWLEDGEMENTS

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**P**rovincial notifiable disease surveillance would not be possible without the timely and complete case reporting by health care providers, public health professionals, and laboratories within the province. The Nova Scotia Department of Health and Wellness extends its thanks to all those whose contributions have helped make this report possible.

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# INTRODUCTION

Surveillance is defined as the “systematic ongoing collection, collation, and analysis of data and the timely dissemination of information to those who need to know so that action can be taken” (1).

In Nova Scotia, surveillance of notifiable diseases is governed by the provincial *Health Protection Act*, which mandates the reporting of diseases by many partners within the public health system and the health system as a whole (2). The list of notifiable diseases in Nova Scotia can be found in Appendix A.

The purpose of this report is to provide a summary of notifiable diseases reported in Nova Scotia in 2019. Due to the resource requirements of the ongoing COVID-19 response, the report will only provide highlights of notifiable disease data for 2019, some comparisons to national data and a limited number of summary tables in Appendix B.

## METHODS

In Nova Scotia, reporting of notifiable disease cases is mandated by the *Health Protection Act* (2). As part of public health case management, public health staff document information about notifiable disease cases that can include demographic, clinical, exposure, treatment, and laboratory information.

Cases are classified based on standardized case definitions and are reported to DHW, for provincial surveillance purposes, through the electronic public health surveillance system, Panorama. Since the implementation of Panorama in December 2018, Nova Scotia has almost entirely shifted away from paper case report forms, and now relies on electronic capture of most public health information. Because Panorama was implemented towards the end of the year, the 2018 year of public health data was captured from a variety of different sources and migrated into Panorama. After the implementation of Panorama, some data quality issues have been identified with migrated historical data and the public health system adapting to a new notifiable disease system. Historical data was extracted from ANDS and ANDI, and 2018 and 2019 data was extracted from Panorama.

Further information on the case definitions, reporting procedures, and forms can be found in the Nova Scotia Surveillance Guidelines for Notifiable Diseases and Conditions (3). Information on public health case management and control measures in Nova Scotia can be found in the Nova Scotia Communicable Disease Control Manual (4).

Cases of notifiable diseases are generally reported and counted based on their place of residence at the time of their diagnosis, with some exceptions. For more information on the guidelines for reporting and counting cases, please see the Nova Scotia Surveillance Guidelines for Notifiable Diseases and Conditions (3). For chronic conditions (e.g. hepatitis C, HIV), only residents with a first-time diagnosis in Nova Scotia are included in this report. If information on previous diagnoses for a case is not available (e.g. when a case is lost to follow up), these cases are counted as Nova Scotia cases.

Dates presented in this report are based on the episode date assigned to the case. The episode date is the earliest known date, reflecting symptom onset or the closest available date (specimen collection date, clinical diagnosis date, or test result date).

Only cases meeting a confirmed case definition are included in this report, with the exception of Lyme disease, where probable cases are also included.

Data for meningitis-viral, amebiasis, hepatitis E, yersiniosis, lymphogranuloma venereum, Q fever and toxoplasmosis are reported in Appendix B, Table 1 because these diseases were reportable until 2015.

Positive cases reported to public health who tested anonymously (e.g. from anonymous HIV testing programs, special research studies) are not included in this report. Anonymous positive test results are not routinely reported to public health. For HIV, cases must be tested nominally before receiving treatment for their infection, so it is assumed that most HIV cases who first test anonymously are reported nominally to public health and in turn are included in the provincial surveillance data.

Rates were calculated using Statistics Canada population counts based on the 2016 Census (accessed July 2020). All Canadian notifiable disease data were obtained from the Public Health Agency of Canada (PHAC) and are cited where used. All comparisons in this report between Nova Scotia and Canada are based on the 2018 Notifiable Disease Online data produced by PHAC (5).

This report does not contain any influenza surveillance data as there is a separate annual report on this topic, which can be found on the DHW website (<http://novascotia.ca/dhw/populationhealth/>).

All case data are current as of September 11, 2020.

## LIMITATIONS

The numbers cited in this report reflect only those cases that are reported to Public Health within Nova Scotia Health (NSH) and may under-represent the true number of cases in the population. This is particularly relevant for diseases that may remain asymptomatic (i.e. chlamydia) and those that have a wide clinical spectrum (i.e. Lyme disease). For certain diseases, cases experience severe illness and are more likely to present for medical care and be diagnosed and reported to public health (e.g. invasive meningococcal disease). As a result, these diseases are likely well-captured in the surveillance information presented in this report. Additional limitations in surveillance data may also be present for specific diseases (e.g. misclassification of hepatitis B cases as acute or chronic).

Changes in case finding procedures (e.g. changes to laboratory testing methods) may result in an increase or decrease in the number of reported cases that may not be reflective of true changes in disease occurrence within the province. Any changes are noted within the report.

Numbers and rates presented in this report are based on case information in Panorama with episode dates between January 1-December 31, 2019. The data is current as of September 11, 2020. As Panorama is a real-time surveillance system, numbers and rates reported here are expected to change slightly as new information is added to Panorama. National notifiable disease data from PHAC that are used in this report are also subject to change.

## 2019 HIGHLIGHTS

On December 3, 2018, Nova Scotia launched Panorama, a communicable disease case management and surveillance system for public health professionals. Panorama provides integrated tools to assist in monitoring, managing and reporting on public health. 2019 was the first full year that all communicable disease data was input in Panorama.

A total of 7773 cases of notifiable diseases (including influenza, n=773) were reported in Nova Scotia in 2019. A summary of the diseases included in each disease category can be found in the Nova Scotia Surveillance Guidelines for Notifiable Diseases and Conditions (<http://novascotia.ca/dhw/populationhealth/surveillanceguidelines/>).

Influenza cases are not described any further in this report. Information on influenza can be obtained from the Annual Influenza Surveillance Report, which can be found on the Department of Health and Wellness website: (<http://novascotia.ca/dhw/populationhealth/>).

Chlamydia, a sexually transmitted infection (STI), was the most frequently reported disease (45.4%), followed by Clostridium difficile (13.0%) and MRSA (8.6%).

### *Syphilis*

In 2019 there were 57 cases of infectious syphilis and 26 cases of non-infectious syphilis (or stage pending) reported in Nova Scotia. The reported rate of infectious syphilis cases in Nova Scotia was 5.9/100,000 population for 2019. This is an increase from the rate in 2018 (3.4/100,000 population).

The majority of cases were male (n=51, 10.7/100,000 population), in the 25-39 year age group (n=24, 13.3/100,000 population) and occurred in Central Zone (n=35, 7.6/100,000 population). Three out of four health zones in the province experienced an increase of syphilis cases in 2019. As a result, an outbreak of syphilis was declared province-wide on January 20, 2020.

The 2019 Nova Scotia rate of infectious syphilis (5.9/100,000 population) was lower compared to the most recently available Canadian infectious syphilis rate from 2018 (17.0/100,000 population) (6). The Canadian syphilis rate has increased 151% between 2014 and 2018, with several provinces and territories experiencing outbreaks in 2019 (7). The number of congenital syphilis cases has also been increasing Canada-wide; the highest ever reported number in Canada was in 2018 and a further 3-fold increase is projected for 2019 (7).

### *HIV & AIDS*

There were 19 newly diagnosed cases of HIV in Nova Scotia in 2019 (rate: 2.0/100,000 population) which is a decrease from 2018 (rate: 3.2/100,000 population). The decrease in cases can be attributed to the end of an outbreak that began in 2018.

The Canadian rate of reported HIV cases in 2018 was 6.9/100,000 population (5). For 2018, the reported rate of HIV in Nova Scotia was below the national rate.

In 2019, 78.9% of HIV cases were male and 73.7% were between the ages of 25 and 59 years. The frequency of reporting the following exposures were: men who have sex with men (MSM, 57.1%),

heterosexual contact-sexual contact with a person at risk (21.4%), heterosexual contact-no identified risk (14.3%) and persons who use injection drugs (PWID, 7.1%).

### ***Lyme Disease***

There were 830 cases of confirmed and probable Lyme disease reported in 2019, which is an increase from 2018 (n=454). This increase in Lyme Disease cases is likely due to multiple factors including a true increase in the number of cases as well as changes to administrative processes within local public health to allow for more timely data entry of cases into Panorama.

In 2019, Western zone had the highest rate among the zones (n=638; 320.4/100,000 population). The majority of cases in Nova Scotia were reported in the 40-59 (n=238, 89.8/100,000 population) and 60+ (n=356; 128.7/100,000 population) age groups and 59.0% were male.

The Canadian rate of Lyme Disease in 2018 (3.2/100,000 population) was lower compared to the 2018 Nova Scotia rate (47.3/100,000 population) (5).



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## APPENDIX A – Notifiable Diseases in Nova Scotia

Acquired Immunodeficiency Syndrome (AIDS)	Measles
Acute Flaccid Paralysis (AFP)	Meningitis (bacterial)
Anthrax	Meningococcal Disease Invasive (IMD)
Botulism (Foodborne, Wound, Infant, & Colonization Botulism)	Methicillin-resistant Staphylococcus aureus (MRSA)
Brucellosis	Mumps
Campylobacteriosis	Pertussis
Chlamydia (genital, extra-genital, and perinatally acquired)	Plague
Cholera	Pneumococcal Disease, Invasive
Clostridium difficile	Poliomyelitis
Creutzfeldt-Jakob Disease – Classic (sporadic, iatrogenic, Genetic Prion Disease) and Variant	Rabies
Cryptosporidiosis	Rubella (Non-Congenital, Congenital Rubella Syndrome)
Cyclosporiasis	Salmonellosis (includes Paratyphoid)
Diphtheria	Severe Acute Respiratory Infection (SARI)
Ebola Virus Disease	Severe Acute Respiratory Syndrome (SARS)
Giardiasis	Shellfish Poisoning (Paralytic & Amnesic)
Gonorrhea (genital, extra-genital, and perinatally acquired)	Shigellosis
Group A Streptococcal Disease, Invasive	Smallpox
Group B Streptococcal Disease of Newborn	Syphilis (primary, secondary, early latent, late latent, infectious neurosyphilis, non-infectious neurosyphilis, tertiary other than neurosyphilis, and early congenital)
Haemophilus Influenzae type b (Hib) Invasive Disease	Tetanus
Hantavirus Pulmonary Syndrome (HPS)	Tuberculosis
Hepatitis A	Tularemia
Hepatitis B (Acute Case and Chronic Carrier)	Typhoid
Hepatitis C	Vancomycin Resistant Enterococcus (VRE)
Human Immunodeficiency Virus (HIV)	Verotoxigenic Escherichia coli
Influenza (laboratory confirmed)	Viral Hemorrhagic Fevers (Lassa, Marburg, Crimean-Congo, Other)
Invasive Listeriosis	West Nile Virus (WNV) (West Nile Asymptomatic Infection, West Nile Neurological Syndrome, West Nile Non-Neurological Syndrome)
Legionellosis	Yellow Fever
Leprosy (Hansen’s Disease)	
Lyme Disease	
Malaria (Plasmodium falciparum, Plasmodium malariae, Plasmodium ovale, Plasmodium vivax)	

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**TABLE 2: Notifiable diseases reported in Nova Scotia in 2019 by Health Management Zone: Number of reports and crude rates per 100,000 population**

Condition	Zone 1		Zone 2		Zone 3		Zone 4		Nova Scotia	
	Western		Northern		Eastern		Central		n	Rate
	n	Rate	n	Rate	n	Rate	n	Rate		
<b>Bloodborne Pathogens</b>										
Acquired Immune Deficiency Syndrome (AIDS)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Hepatitis B - Acute	0	0.0	1	0.7	0	0.0	3	0.6	4	0.4
Hepatitis B - Chronic	1	0.5	1	0.7	5	3.1	15	3.2	22	2.3
Hepatitis C	38	19.1	75	50.5	100	61.7	137	29.7	350	36.0
Human Immunodeficiency Virus (HIV)	0	0.0	1	0.7	4	2.5	14	3	19	2.0
<b>Direct Contact, Respiratory Routes, and Through the Provision of Health Care</b>										
Clostridium difficile	165	82.8	129	86.9	244	150.5	369	79.9	907	93.4
Creutzfeldt-Jakob Disease - Classic	0	0.0	0	0.0	1	0.6	1	0.1	2	0.2
Group A Streptococcal Disease Invasive-Severe	6	3.0	0	0	7	4.3	5	1.1	18	1.9
Group A Streptococcal Disease Invasive-Non-Severe	9	4.5	7	4.7	13	8.0	12	2.6	41	4.2
Group B Streptococcal Disease of the Newborn	0	0.0	1	0.7	2	1.2	0	0	3	0.3
Legionellosis	1	0.5	1	0.7	0	0.0	5	1.1	7	0.7
Meningitis - Bacterial	0	0.0	0	0.0	0	0.0	1	0.2	1	0.1
Meningococcal Disease Invasive	2	1.0	0	0.0	0	0.0	4	0.9	6	0.6
Methicillin Resistant Staphylococcus Aureus (MRSA)	143	71.8	107	72.1	141	87.0	213	46.1	604	62.2
Pneumococcal Disease Invasive	16	8.0	12	8.1	42	25.9	55	11.9	125	12.9
Tuberculosis	0	0.0	0	0.0	2	1.2	3	0.6	5	0.5
Vancomycin resistant Enterococcus (VRE)	5	2.5	4	2.7	5	3.1	10	2.2	24	2.5
<b>Enteric, Foodborne, and Waterborne Diseases</b>										
Botulism	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Campylobacteriosis	73	36.7	34	22.9	18	11.1	96	20.8	221	22.8
Cryptosporidiosis	10	5.0	9	6.1	5	3.1	16	3.5	40	4.1
Cyclosporiasis	0	0.0	0	0.0	0	0.0	1	0.2	1	0.1
Giardiasis	22	11.0	13	8.8	10	6.2	61	13.2	106	10.9
Hepatitis A	0	0.0	1	0.7	1	0.6	2	0.4	4	0.4
Listeriosis - Invasive	0	0.0	0	0.0	0	0.0	2	0.4	2	0.2
Salmonellosis	25	12.6	15	10.1	19	11.7	71	15.4	130	13.4
Shigellosis	0	0.0	1	0.7	0	0.0	6	1.3	7	0.7
Typhoid	0	0.0	0	0.0	0	0.0	1	0.2	1	0.1
Verotoxigenic E. coli	1	0.5	1	0.7	0	0.0	8	1.7	10	1.0
<b>Sexually Transmitted Infections</b>										
Chlamydia	449	225.4	325	218.9	520	320.8	1884	408.1	3178	327.2
Gonorrhoea	14	7.0	14	9.4	4	2.5	205	44.4	237	24.4
Syphilis - Infectious	2	1.0	8	5.4	12	7.4	35	7.6	57	5.9
Syphilis - Non-Infectious or Stage Pending	0	0.0	2	1.3	4	2.5	20	4.3	26	2.7
<b>Vaccine Preventable Diseases</b>										
Acute Flaccid Paralysis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Haemophilus influenzae Type b Invasive Disease	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Measles	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Mumps	0	0.0	0	0.0	0	0.0	2	0.4	2	0.2
Pertussis	1	0.5	0	0.0	0	0.0	5	1.1	6	0.6
Tetanus	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
<b>Vectorborne and Other Zoonoses</b>										
Lyme Disease - Confirmed	268	134.6	83	55.9	3	1.9	80	17.3	434	44.7
Lyme Disease - Probable	370	185.8	9	6.1	1	0.6	16	3.5	396	40.8
Malaria	0	0.0	0	0.0	0	0.0	4	0.9	4	0.4
West Nile Virus	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
<b>TOTAL</b>	<b>1621</b>		<b>854</b>		<b>1163</b>		<b>3362</b>		<b>7000</b>	

**TABLE 3: Notifiable diseases reported in Nova Scotia in 2019 by age group: Number of reports and age-specific rates per 100,000 population**

Condition	Age Group (Years)												Total NS	
	0-4		5-14		15-24		25-39		40-59		60+			
	n	Rate	n	Rate	n	Rate	n	Rate	n	Rate	n	Rate	n	Rate
<b>Bloodborne Pathogens</b>														
Acquired Immune Deficiency Syndrome (AIDS)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Hepatitis B - Acute	0	0.0	0	0.0	0	0.0	2	1.1	2	0.7	0	0.0	4	0.4
Hepatitis B - Chronic	1	2.3	1	1.0	1	0.9	12	6.7	5	1.9	2	0.7	22	2.3
Hepatitis C	1	2.3	0	0	46	40.6	166	92.3	104	39.3	33	11.9	350	36.0
Human Immunodeficiency Virus (HIV)	0	0.0	0	0.0	4	3.5	7	3.9	7	2.6	1	0.4	19	2.0
<b>Direct Contact, Respiratory Routes, and Through the Provision of Health Care</b>														
Clostridium difficile	5	11.6	8	8.6	36	31.7	70	38.9	173	65.3	615	222.3	907	93.4
Creutzfeldt-Jakob Disease - Classic	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	0.7	2	0.2
Group A Streptococcal Disease Invasive-Severe	1	2.3	0	0.0	0	0.0	5	2.8	5	1.9	7	2.5	18	1.9
Group A Streptococcal Disease Invasive-Non-Severe	0	0.0	2	2.1	2	1.8	7	3.9	10	3.8	20	7.2	41	4.2
Group B Streptococcal Disease of the Newborn	3	6.9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	3	0.3
Legionellosis	0	0.0	0	0.0	0	0.0	0	0.0	3	1.1	4	1.4	7	0.7
Meningitis - Bacterial	0	0.0	0	0.0	0	0.0	1	0.6	0	0.0	0	0.0	1	0.1
Meningococcal Disease Invasive	0	0.0	0	0.0	2	1.8	1	0.6	1	0.4	2	0.7	6	0.6
Methicillin Resistant Staphylococcus Aureus (MRSA)	8	18.5	9	9.6	23	20.3	55	30.6	131	49.4	378	136.7	604	62.2
Pneumococcal Disease Invasive	3	6.9	2	2.1	2	1.8	1	0.6	33	12.5	84	30.4	125	12.9
Tuberculosis	0	0.0	0	0.0	1	0.9	3	1.7	0	0.0	1	0.4	5	0.5
Vancomycin resistant Enterococcus (VRE)	0	0.0	0	0.0	0	0.0	2	1.1	3	1.1	19	6.9	24	2.5
<b>Enteric, Foodborne, and Waterborne Diseases</b>														
Botulism	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Campylobacteriosis	9	20.8	5	5.3	21	18.5	38	21.1	69	26	79	28.6	221	22.8
Cryptosporidiosis	0	0.0	2	2.1	7	6.2	13	7.2	17	6.4	1	0.4	40	4.1
Cyclosporiasis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.4	1	0.1
Giardiasis	4	9.3	18	19.3	11	9.7	30	16.7	17	6.4	26	9.4	106	10.9
Hepatitis A	0	0.0	1	1.1	2	1.8	0	0.0	1	0.4	0	0.0	4	0.4
Listeriosis - Invasive	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	0.7	2	0.2
Salmonellosis	11	25.5	11	11.8	16	14.1	27	15.0	37	14	28	10.1	130	13.4
Shigellosis	1	2.3	2	2.1	0	0.0	1	0.6	2	0.8	1	0.4	7	0.7
Typhoid*	0	0.0	1	1.1	0	0.0	0	0.0	0	0.0	0	0.0	1	0.1
Verotoxigenic E. coli	3	6.9	1	1.1	1	0.9	2	1.1	2	0.8	1	0.4	10	1.0
<b>Sexually Transmitted Infections</b>														
Chlamydia	1	2.3	5	5.3	2167	1911.4	896	498.4	102	38.5	6	2.2	3178	327.2
Gonorrhea	0	0.0	0	0.0	80	70.6	128	71.2	23	8.7	6	2.2	237	24.4
Syphilis - Infectious	0	0.0	0	0.0	9	7.9	24	13.3	19	7.2	5	1.8	57	5.9
Syphilis - Non-Infectious or Stage Pending	0	0.0	0	0.0	2	1.8	8	4.4	11	4.1	5	1.8	26	2.7
<b>Vaccine Preventable Diseases</b>														
Acute Flaccid Paralysis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Haemophilus influenzae Type b Invasive Disease	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Measles	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Mumps	0	0.0	0	0.0	1	0.9	1	0.6	0	0.0	0	0.0	2	0.2
Pertussis	1	2.3	5	5.3	0	0.0	0	0.0	0	0.0	0	0.0	6	0.6
Tetanus	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
<b>Vectorborne and Other Zoonoses</b>														
Lyme Disease - Confirmed	9	20.8	62	66.4	19	16.8	42	23.3	122	46	180	65.1	434	44.7
Lyme Disease - Probable	5	11.6	34	36.4	25	22.1	40	22.2	116	43.8	176	63.6	396	40.8
Malaria	0	0	0	0.0	1	0.9	2	1.1	1	0.4	0	0.0	4	0.4
West Nile Virus	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
<b>TOTAL</b>	<b>66</b>		<b>169</b>		<b>2479</b>		<b>1584</b>		<b>1016</b>		<b>1685</b>		<b>7000</b>	

**Notes:** Excludes 1 case of chlamydia with no reported age.

**TABLE 4: Notifiable diseases reported in Nova Scotia in 2019: Number of reports and sex-specific rates per 100,000 population**

Condition	Sex				Total NS	
	Female		Male		n	Rate
	n	Rate	n	Rate		
<b>Bloodborne Pathogens</b>						
Acquired Immune Deficiency Syndrome (AIDS)	0	0.0	0	0.0	0	0.0
Hepatitis B - Acute	1	0.2	3	0.6	4	0.4
Hepatitis B - Chronic	11	2.2	11	2.3	22	2.3
Hepatitis C	129	26.0	221	46.5	350	36.0
Human Immunodeficiency Virus (HIV)	4	0.8	15	3.2	19	2.0
<b>Direct Contact, Respiratory Routes, and Through the Provision of Health Care</b>						
Clostridium difficile	535	107.9	372	78.2	907	93.4
Creutzfeldt-Jakob Disease - Classic	2	0.4	0	0.0	2	0.2
Group A Streptococcal Disease Invasive-Severe	6	1.2	12	2.5	18	1.9
Group A Streptococcal Disease Invasive-Non-Severe	15	3	26	5.5	41	4.2
Group B Streptococcal Disease of the Newborn	1	0.2	2	0.4	3	0.3
Legionellosis	1	0.2	6	1.3	7	0.7
Meningitis - Bacterial	0	0.0	1	0.2	1	0.1
Meningococcal Disease Invasive	2	0.4	4	0.8	6	0.6
Methicillin Resistant Staphylococcus Aureus (MRSA)	296	59.7	308	64.8	604	62.2
Pneumococcal Disease Invasive	60	12.1	65	13.7	125	12.9
Tuberculosis	2	0.4	3	0.6	5	0.5
Vancomycin resistant Enterococcus (VRE)	11	2.2	13	2.7	24	2.5
<b>Enteric, Foodborne, and Waterborne Diseases</b>						
Botulism	0	0.0	0	0.0	0	0.0
Campylobacteriosis	101	20.4	120	25.2	221	22.8
Cryptosporidiosis	26	5.2	14	2.9	40	4.1
Cyclosporiasis	1	0.2	0	0.0	1	0.1
Giardiasis	42	8.5	64	13.5	106	10.9
Hepatitis A	2	0.4	2	0.4	4	0.4
Listeriosis - Invasive	1	0.2	1	0.2	2	0.2
Salmonellosis	67	13.5	63	13.2	130	13.4
Shigellosis	4	0.8	3	0.6	7	0.7
Typhoid*	1	0.2	0	0.0	1	0.1
Verotoxigenic E. coli	8	1.6	2	0.4	10	1.0
<b>Sexually Transmitted Infections</b>						
Chlamydia	2129	429.3	1048	220.4	3178	327.2
Gonorrhea	81	16.3	156	32.8	237	24.4
Syphilis - Infectious	6	1.2	51	10.7	57	5.9
Syphilis - Non-Infectious or Stage Pending	11	2.2	15	3.1	26	2.7
<b>Vaccine Preventable Diseases</b>						
Acute Flaccid Paralysis	0	0.0	0	0.0	0	0.0
Haemophilus influenzae Type b Invasive Disease	0	0.0	0	0.0	0	0.0
Measles	0	0.0	0	0.0	0	0.0
Mumps	1	0.2	1	0.2	2	0.2
Pertussis	1	0.2	5	1.1	6	0.6
Tetanus	0	0.0	0	0.0	0	0.0
<b>Vectorborne and Other Zoonoses</b>						
Lyme Disease - Confirmed	172	34.7	262	55.1	434	44.7
Lyme Disease - Probable	168	33.9	228	48	396	40.8
Malaria	0	0	4	0.8	4	0.4
West Nile Virus	0	0.0	0	0.0	0	0.0
<b>TOTAL</b>	<b>3898</b>		<b>3101</b>		<b>7000</b>	

**Notes:** Excludes 1 chlamydia case with no reported sex.