



**NOTIFIABLE DISEASES IN NOVA SCOTIA
2017 SURVEILLANCE REPORT**

ACKNOWLEDGEMENTS

Provincial 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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2017 HIGHLIGHTS

A total of 6,969 cases of notifiable diseases (including influenza) were reported in Nova Scotia in 2017. Figure 1 represents the frequency of diseases reported by disease category. 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/>).

Chlamydia, a sexually transmitted infection, was the most frequently reported disease (45.9%), followed by Clostridium difficile (14.3%) and Lyme Disease (Confirmed and Probable) (9.0%) (Figure 2).

The number of cases of both mumps and measles increased in 2017 due to multiple outbreaks and clusters in the province. Both Western and Central Zones experienced measles outbreaks (Western: n=22, 11.3/100,000 population; Central: n=7, 1.5/100,000 population). These were the first measles cases to be reported in Nova Scotia since 2000. Central Zone also investigated a cluster of mumps cases in 2017 (n=21, 4.6/100,000 population).

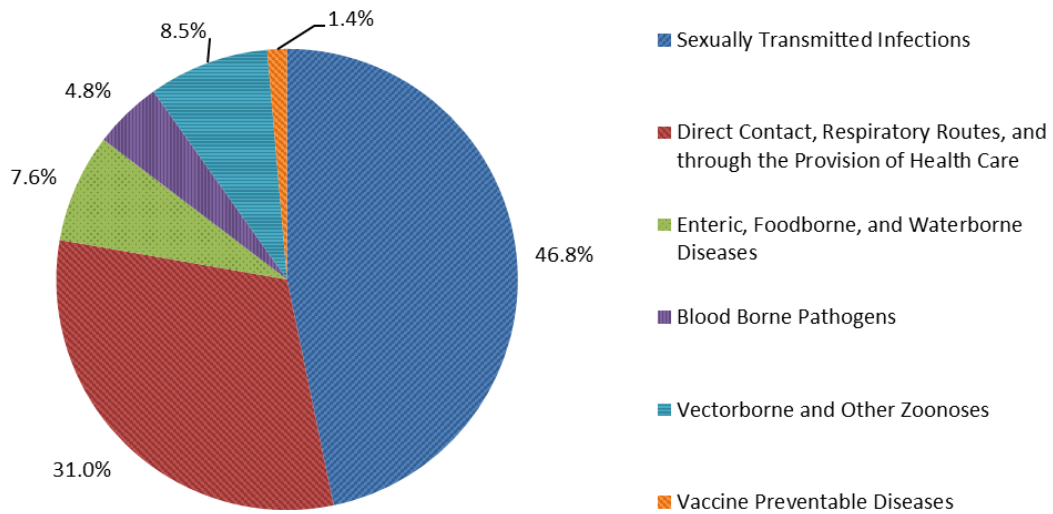
The number of cases of Vancomycin Resistant Enterococcus (VRE) increased significantly in 2017 (n=121, 12.7/100,000 population). The next highest number of cases in the last 10 years was 43 in 2013.

There was a small increase in the number and rate of infectious syphilis cases between 2016 and 2017 (2016: n=20, 2.1/100,000 population; 2017: n=26, 2.7/100,000 population). The majority of cases in the province continue to be reported in Central Zone and 96.0% are male.

In 2017, Nova Scotia made the decision to declare all of the province a risk area for Lyme Disease. Each county is now designated as a lower, moderate or higher risk area. The updated risk area map can be found here: <https://novascotia.ca/dhw/CDPC/lyme.asp>. The number of cases increased from 325 in 2016 to 586 in 2017.

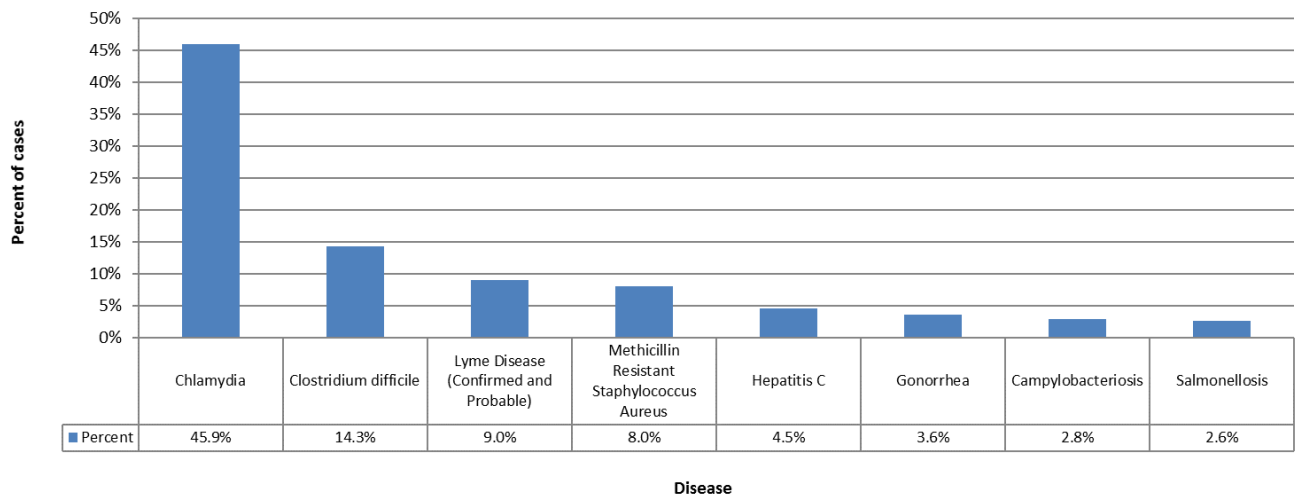
Influenza cases are not described any further in this report. Information on influenza can be obtained from the Annual Influenza Surveillance Report, which can be found on the Department of Health and Wellness website: (<http://novascotia.ca/dhw/populationhealth/>).

Figure 1: Distribution of notifiable diseases reported in Nova Scotia by disease category, 2017



Note: The “Direct Contact, Respiratory Routes, and through the Provision of Health Care” category in this figure includes influenza cases (n=465). Influenza cases are not described further in this report.

Figure 2: Summary of most frequently reported notifiable diseases in Nova Scotia, 2017



INTRODUCTION

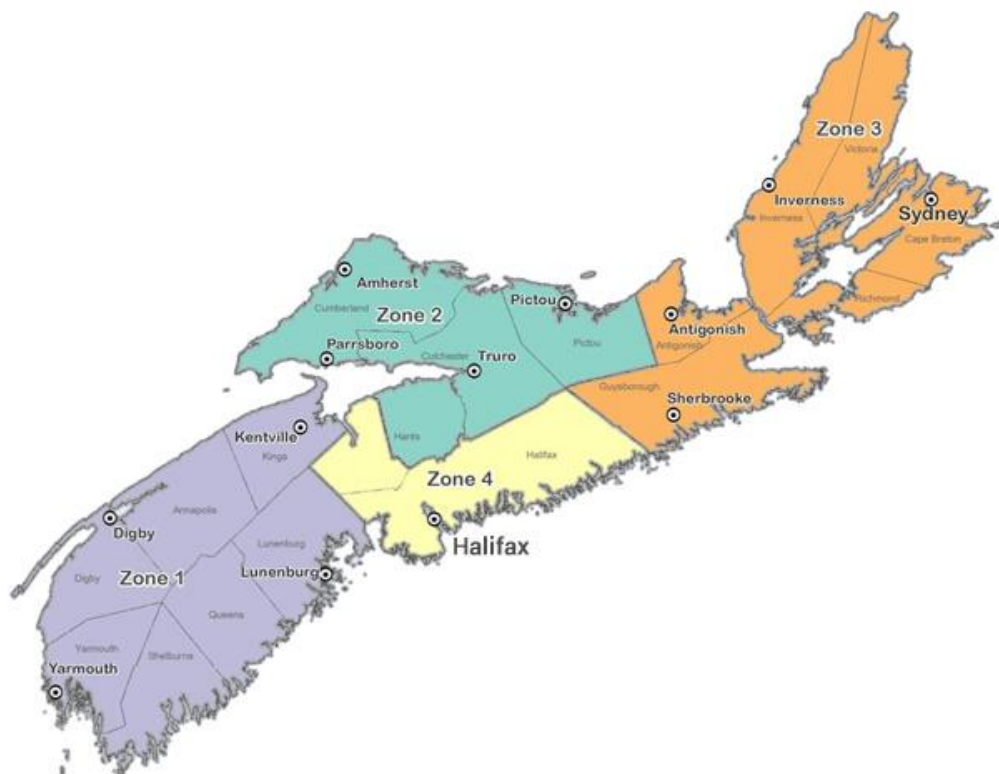
Surveillance is defined as the “systematic ongoing collection, collation, and analysis of data and the timely dissemination of information to those who need to know so that action can be taken” (1).

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 2017. The report was compiled by the Nova Scotia Department of Health and Wellness (DHW). It includes highlights of notifiable disease data for 2017, examines important trends for 2008-2017 and provides some comparisons with national data. In Appendix B, numbers and rates of notifiable diseases are presented for a 10 year period for the province.

Rates of notifiable diseases will be presented for each off the four Health Management Zones (Figure 3), sex, and age groups.

Figure 3: Map of Health Management Zone boundaries, Nova Scotia



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 Application for Notifiable Disease Surveillance (ANDS), the Application for Notifiable Disease Surveillance and Immunization (ANDI) and case report forms. 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 2018). All Canadian notifiable disease data were obtained from the Public Health Agency of Canada (PHAC) and are cited where used. The most recent year of Canadian data is for 2016. Therefore, comparisons between Nova Scotia and Canada are based on 2016 data (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 July 30th, 2018.

LIMITATIONS

The numbers cited in this report reflect only those cases that are reported to Public Health Services within the Nova Scotia Health Authority (NSHA) 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 notifications received by DHW as of July 30th, 2018. As new information is received, these numbers and rates may be subject to minor changes in future reports. National notifiable disease data from PHAC that are used in this report are also subject to change.

DISEASE REPORTS IN NOVA SCOTIA BY DISEASE GROUP

The purpose of this section is to present more detailed information on reported cases within each category of notifiable diseases in Nova Scotia. Overall case counts and rates by disease, as well as counts and rates by age, sex, and Zone can be found in Appendix B.

Bloodborne Pathogens

HIV & AIDS

There were 15 newly diagnosed cases of HIV in Nova Scotia in 2017 (rate of 1.6/100,000 population) which is a decrease from 2016 (n=21; 2.2/100,000 population). The cumulative number of new diagnoses since 1985 (when the first case was reported) is 863. The Canadian rate of reported HIV cases in 2016 was 6.5/100,000 population (5). For 2016, the reported rate of HIV in Nova Scotia was below the national rate.

In 2017, 93.0% of HIV cases were male and 73.3% of cases were between the ages of 25 and 59. The frequency of reporting the following exposures were: men who have sex with men (MSM, 57.1%), low risk heterosexual contact (HET-LR, 25%), and injection drug use (20.0%).

There was one new case of AIDS reported in Nova Scotia in 2017 (0.1/100,000 population). This was a decrease from 2016 (0.2/100,000 population).

Hepatitis B (Acute and Chronic)

The number of reported cases of acute hepatitis B in 2017 was 6 (rate of 0.6/100,000 population). There were 18 cases of chronic hepatitis B reported in 2017 (rate of 1.9/100,000 population). The overall rate for hepatitis B (acute and chronic) in 2017 was 2.5/100,000 population which is an increase from the 2016 rate of 2.2/100,000 population.

The majority of cases were age 25 and older (87.5%) and 50.0% were male.

Nationally, the rates of hepatitis B are reported for acute and chronic cases combined. The 2016 Canadian rate of hepatitis B was 13.7/100,000 population which was higher compared to the 2016 Nova Scotia Rate (2.2/100,000 population) (5).

Hepatitis C

In 2017, 295 cases of hepatitis C were reported in Nova Scotia (rate of 30.9/100,000 population). This rate is lower compared to the 2015 and 2016 rates (Figure 4). The national rate of reported hepatitis C cases in 2016 was 31.1/100,000 population (5). For 2016, the Nova Scotia rate (31.2/100,000 population) was comparable to the national rate.

Northern Zone had the highest rate of hepatitis C compared to the other zones with a rate of 56.3/100,000 population (Figure 5). Eastern Zone had the second highest rate of hepatitis C in 2017 (52.8/100,000 population).

Figure 4: Reported rates of hepatitis C in Nova Scotia, 2008-2017

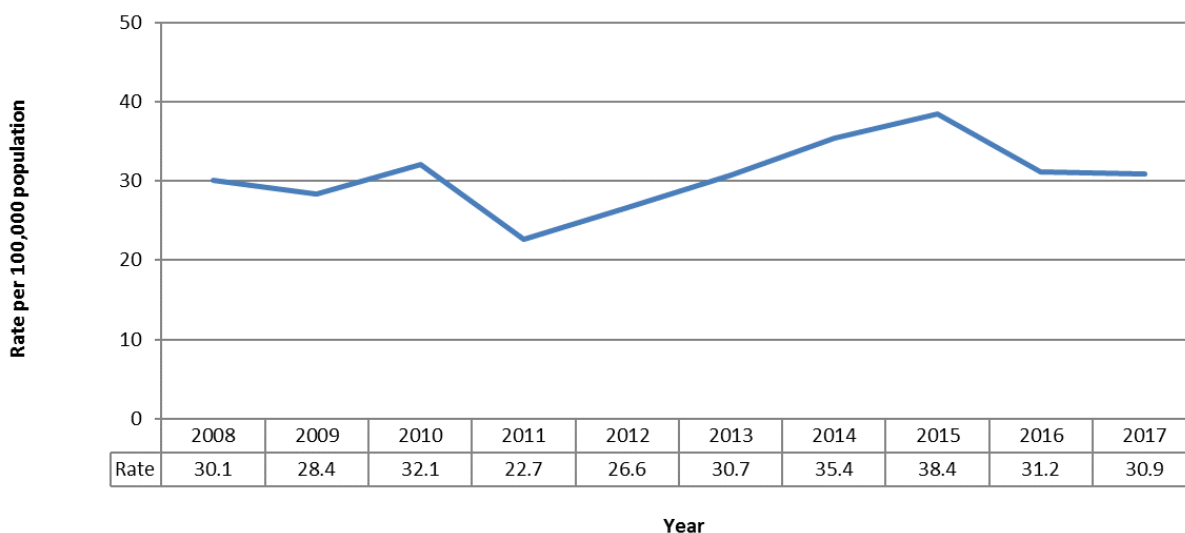
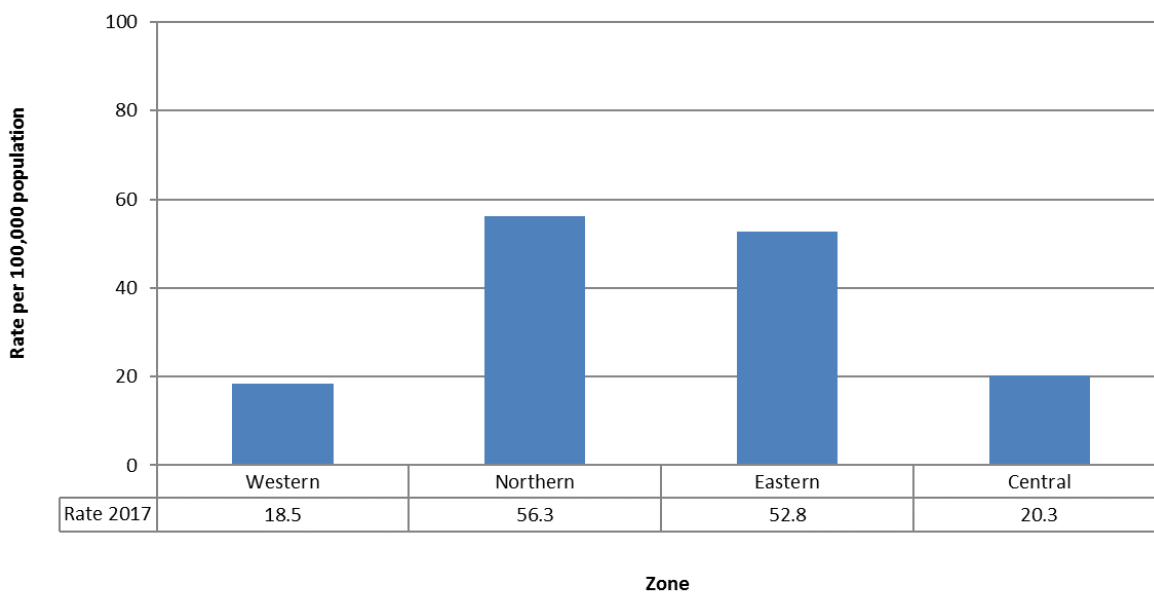


Figure 5: Reported rates of hepatitis C in Nova Scotia by Zone, 2017

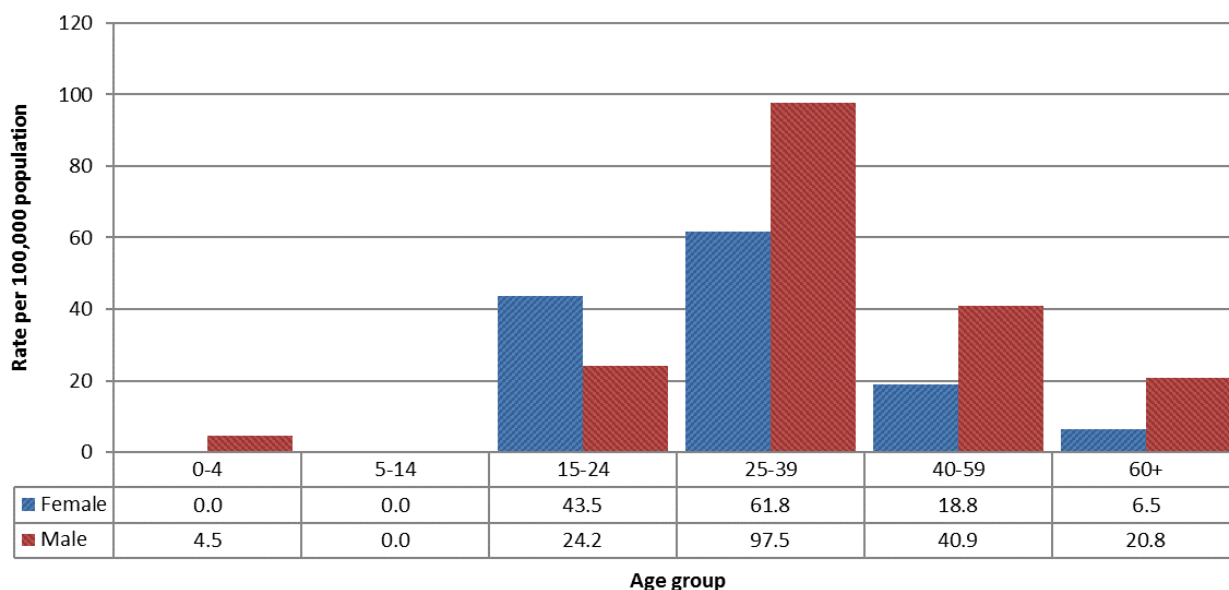


Notes: Western = Zone 1, Northern = Zone 2, Eastern = Zone 3, Central = Zone 4

The majority of reported hepatitis C cases (48.1%) were between the ages of 25-39 years and 61.3% of the cases were male. The rate was highest among males aged 25-39 at 97.5/100,000 population (Figure 6).

The Canadian hepatitis C rate for 2016 was highest among males in the 25-29 age group at 63.7/100,000 population. The rates among males are higher than females for cases 25 years and older (5).

Figure 6: Reported rates of hepatitis C in Nova Scotia by age group and sex, 2017



Direct Contact, Respiratory Routes, and Through the Provision of Health Care

There were a total of 1694 cases of respiratory, direct contact, and health care-associated infections reported in 2017 (excluding influenza, n=465).

Rates of all other direct contact/respiratory route reports are presented in Figure 7 and Appendix B, Table 1.

Health Care Associated Infections

The data presented in this report reflects the total number of provincially notifiable health care-associated infections in the province (both health care and community acquired). Not all health care associated infections are included on the notifiable disease list. The current process for reporting these infections to Public Health does not allow cases to be classified as health care or community acquired.

DHW also reports surveillance data of health care-associated *C.difficile* and MRSA in acute care hospitals within the province. These data can be found at <https://novascotia.ca/dhw/hsg/public-reporting/>.

Clostridium difficile

Clostridium difficile became a reportable disease on April 1st, 2012. The number of cases reported in 2017 was 927 (rate of 97.2/100,000 population). This is an increase from 2016 (n=879; 92.6/100,000 population). The majority of the cases were female (58.0%) and 57.5% were aged 60 years and older.

Four outbreaks of *Clostridium difficile* were reported in 2017.

Methicillin Resistant Staphylococcus Aureus (MRSA)

There were 522 reported cases of MRSA in Nova Scotia in 2017. The rate was 54.7/100,000 population which is lower compared to the rate in 2016 (59.9/100,000 population). Canadian rates are not available because MRSA is not nationally reportable. The highest rate in the province in 2017 was reported in the Northern Zone (81.1/100,000 population).

The majority of cases occurred in those aged 60 years and older (62.8%, n=28). This was a rate of 126.1/100,000 population. The rate among males was higher compared to females (57.3/100,000 vs. 52.3/100,000 population).

There were three outbreaks of MRSA reported in 2017.

Vancomycin-Resistant Enterococcus

In 2017, 121 cases of vancomycin-resistant enterococcus (VRE) were reported in Nova Scotia (rate of 12.7/100,000 population). This is much higher compared to the 2016 rate of 1.4/100,000. The majority of cases (77.7%) were age 60 years or older and 51.2% were male.

Five outbreaks of VRE were reported in 2017.

Direct Contact and Respiratory Routes

Invasive Meningococcal Disease

Six cases of invasive meningococcal disease were reported in 2017 (rate of 0.6/100,000 population). This was an increase from 2016 (n=4; 0.4/100,000 population). In 2017, five of the cases were serogroup B and one was serogroup Y.

Legionellosis

There were nine cases of legionellosis reported in 2017 (rate of 0.9/100,000 population). This was an increase from the rate reported in 2016 (n=1, 0.1/100,000 population). Although this is the highest rate reported in the last 10 years, the cases were not linked or associated with an outbreak.

Invasive Pneumococcal Disease

In 2017, there were 49 cases of invasive pneumococcal disease reported (rate of 5.1/100,000 population). This was lower compared to the rate in 2016 (7.0/100,000). The 2016 Nova Scotia rate is lower compared to the 2016 national rate of 9.1/100,000 population (5). The majority of cases reported in 2016 were over the age of 60 (71.4%) and 61.2% were female.

Invasive Group A Streptococcal Disease

The overall rate of invasive group A streptococcal disease for 2017 was 4.8/100,000 (n=46). The number of severe cases reported in 2017 was 16 (rate of 1.7/100,000 population). The number of non-severe cases reported in 2017 was 30 (rate of 3.1/100,000 population). The overall (severe and non-severe) 2016 rate for Nova Scotia (1.9/100,000) is lower compared to the 2016 national rate (6.0/100,000) (5).

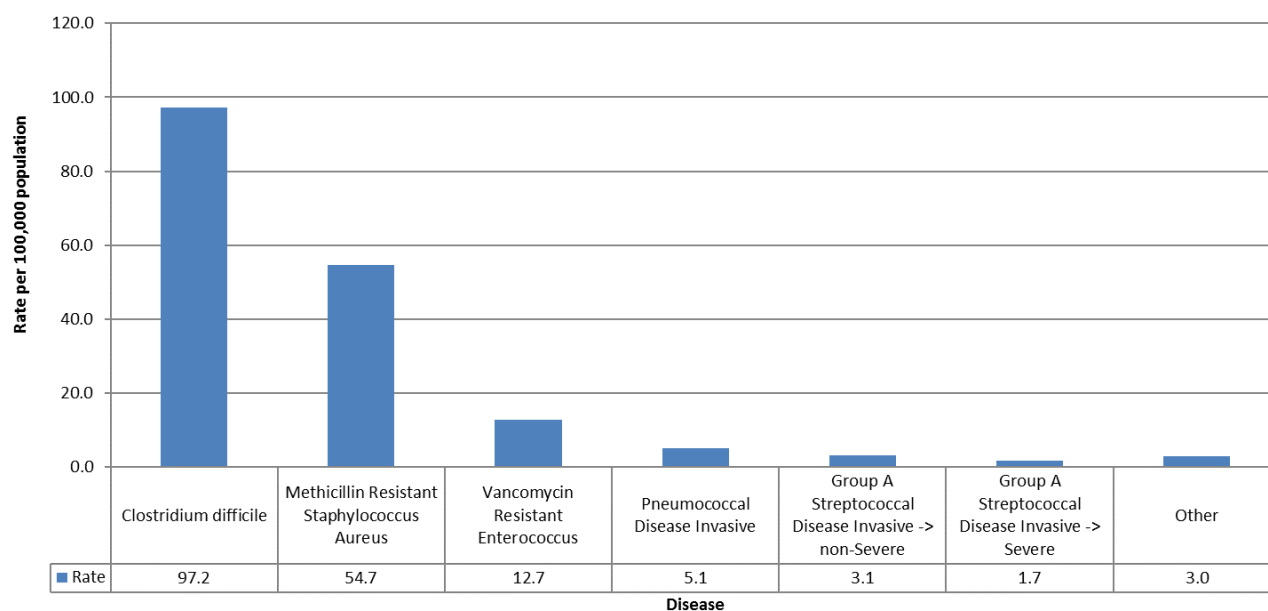
Tuberculosis

Nine cases of laboratory confirmed tuberculosis were reported in 2017 (5 pulmonary, 4 extra pulmonary). This represented a rate of 0.9/100,000 population. The cases were distributed between the 15-24, 25-39 and 60+ age groups. The majority of the cases were male (87.5%). The 2016 provincial rate is lower than the 2016 Canadian rate (0.3/100,000 vs. 4.8/100,000 population) (5).

Other Direct Contact and Respiratory Route Pathogens

Three cases of group B streptococcal of a newborn and 1 case of Creutzfeldt-Jakob Disease-Classic were reported in 2017.

Figure 7: Reported rates of diseases transmitted by direct contact, respiratory routes, and through the provision of health care in Nova Scotia, 2017



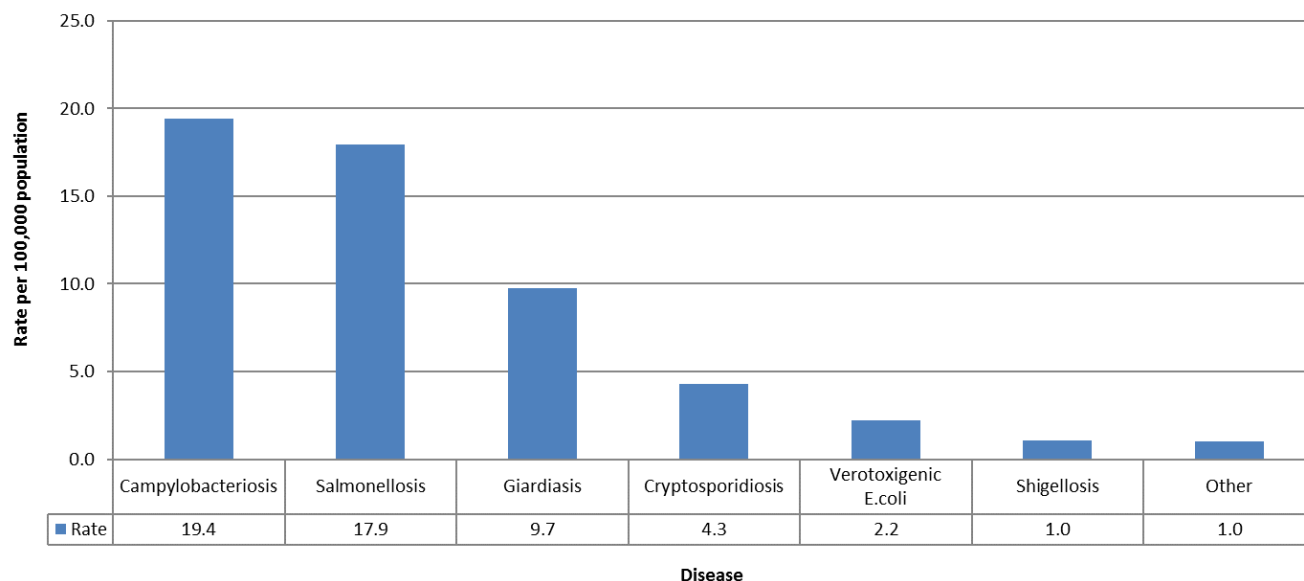
Outbreaks of Direct Contact, Respiratory Routes, and Through the Provision of Health Care Infections

There were 117 respiratory related outbreaks reported during the 2017-2018 influenza season. The Annual Influenza Surveillance report provides a more detailed summary for influenza outbreaks. The report can be found on the DHW website (<http://novascotia.ca/dhw/populationhealth/>).

Enteric, Foodborne, and Waterborne Diseases

There were 531 cases of enteric disease reported in Nova Scotia in 2017. Travel was associated with 94 (15.9%) of these reported cases. Figure 8 presents the enteric disease rates for 2017.

Figure 8: Reported rates of enteric, foodborne, and waterborne diseases in Nova Scotia, 2017



Campylobacteriosis

In 2017, campylobacteriosis was the most frequently reported enteric infection (185 cases; rate of 19.4/100,000 population). Twenty-nine (15.7%) of the cases were travel related. The Western Zone had the highest rate among zones with a rate of 32.9/100,000 population. The majority of cases were aged 40 years or older (n=121, 65.4%). The rate for campylobacteriosis continues to be higher among males than females (20.7/100,000 for males vs. 18.1/100,000 for females). The 2016 provincial rate is lower compared to the 2016 national rate (17.9/100,000 vs. 27.2/100,000) (5).

Salmonellosis

Salmonellosis was the second most frequently reported enteric infection in Nova Scotia in 2017 (171 cases; 17.9/100,000 population). Thirty-two of the reported cases were associated with travel (18.7%). The Western Zone had the highest rate among zones with a rate of 21.6/100,000 population. Fifty-five percent of cases reported in 2017 were 40 years of age and older and 55.0% were female. The rate of salmonellosis infections in Nova Scotia in 2016 (14.5/100,000 population) is lower than the 2016 Canadian rate of 21.0/100,000 population (5).

Giardiasis

A total of 93 cases of giardiasis were reported in Nova Scotia in 2017, representing a rate of 9.7/100,000 population. Of the cases reported, 16 (17.2%) were associated with travel. Fifty-six cases (60.2%) were reported in people aged 40 years and older. The rate of illness was higher among males compared to females (11.1/100,000 for males vs. 8.4/100,000 population for females).

The 2016 rate of giardiasis infections reported in Nova Scotia (10.5/100,000 population) was the same as the 2016 Canadian rate (10.5/100,000 population) (5).

Cryptosporidiosis

A total of 41 cases of cryptosporidiosis were reported in Nova Scotia in 2017, representing a rate of 4.3/100,000 population. Of the cases reported, 9 (21.9%) were associated with travel. Northern Zone had the highest rate among the zones (6.0/100,000 population). The majority of cases were between the ages of 15-39 (53.6%). The rate of illness was higher among females compared to males (4.7/100,000 for females vs. 3.8/100,000 population for males). The 2016 rate of cryptosporidiosis infections reported in Nova Scotia (4.3/100,000 population) is higher compared to the 2016 Canadian rate of 2.7/100,000 population (5).

Hepatitis A

A total of 2 cases of hepatitis A were reported in Nova Scotia in 2017, representing a rate of 0.2/100,000 population. One case was associated with travel. The 2016 rate of hepatitis A infections reported in Nova Scotia (1.2/100,000 population) is higher compared to the 2016 Canadian rate of 0.7/100,000 population (5).

Verotoxigenic E.coli

A total of twenty-one cases of Verotoxigenic E.coli were reported in 2017 (2.2/100,000 population). The rate among females was higher than males (2.7/100,000 vs. 1.7/100,000). The 2016 Verotoxigenic E.coli rate in Nova Scotia was lower compared to the 2016 national rate (0.5/100,000 population vs. 2.0/100,000 population)

Other Reportable Enteric Diseases

The rate of other reportable enteric diseases in Nova Scotia in 2017 remained low (See Appendix B, Table 1 for details).

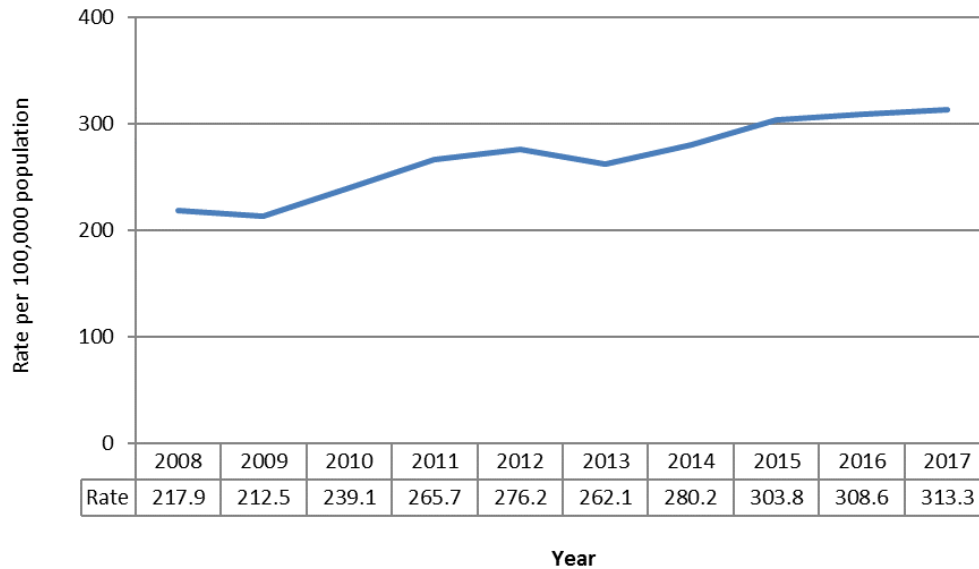
Sexually Transmitted Infections

There were 3,259 notifications of bacterial sexually transmitted infections (STI) in Nova Scotia in 2017. The rates of chlamydia, gonorrhea and infectious syphilis increased in 2017.

Chlamydia

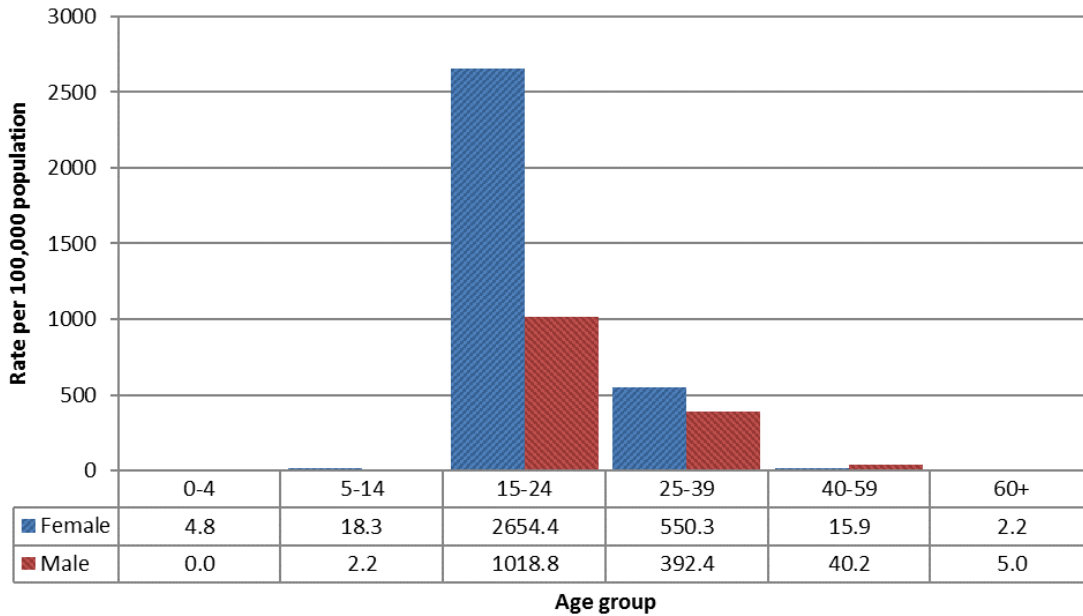
Chlamydia was the most frequently reported notifiable disease in Nova Scotia in 2017 (n=2,988, rate=313.3/100,000 population). The number of reported cases and the associated rate of chlamydia has shown an increasing trend from 2008 to 2017 (Figure 9). The 2016 Nova Scotia chlamydia rate was lower compared to the national rate (308.6/100,000 vs. 334.3/100,000 population) (5).

Figure 9: Reported rates of chlamydia in Nova Scotia, 2008-2017



Similar to the overall rate, the rates of chlamydia among females and males also increased in 2017. The 2017 rate for females is 408.8/100,000 compared to 213.5/100,000 for males. The highest rate of chlamydia in Nova Scotia for 2017 was reported among females aged 15 to 24 years (2,654.4/100,000 population) (Figure 10). Similarly, 2016 national data show the highest rates of chlamydia in females aged 15 to 19 years (1,874.2/100,000 population) and 20 to 24 years (2,314.3/100,000 population) (5).

Figure 10: Reported rates of chlamydia in Nova Scotia by age group and sex, 2017



Gonorrhoea

For 2017, 233 cases of gonorrhoea were reported in Nova Scotia (rate of 24.4/100,000 population). This is an increase from the rate of 21.3/100,000 population in 2016 but is lower compared to the 2016 Canadian rate of 65.4/100,000 population (5).

The reported rates of gonorrhoea for 2017 continued to increase among females and males compared to 2016 (females: 14.9/100,000 population in 2016 vs. 18.1/100,000 population in 2017; males: 27.9/100,000 population in 2016 vs. 31.0/100,000 population 2017). The increase in the number of male cases is partially due to enhanced contact tracing that occurred in Central Zone.

In 2017, the highest rate of gonorrhoea in Nova Scotia was reported among males aged 15 to 24 years (134.9/100,000 population) (Figure 12). The rate for both females and males in the 15-24 age group increased between 2016 and 2017 (females: 59.5/100,000 in 2016 vs. 76.2/100,000 population in 2017; males: 91.5/100,000 in 2016 vs. 134.9/100,000 population in 2017). The rate for females and males in the 24-39 age group decreased between 2016 and 2017 (females: 36.7/100,000 in 2016 vs. 4.5/100,000 population in 2017; males: 67.6/100,000 in 2016 vs. 31.4/100,000 in 2017).

Central Zone reported the highest rate of gonorrhoea for 2017 compared to the other zones (42.4/100,000 population), followed by Northern Zone (12.1/100,000 population).

Figure 11: Reported rates of gonorrhoea in Nova Scotia, 2008-2017

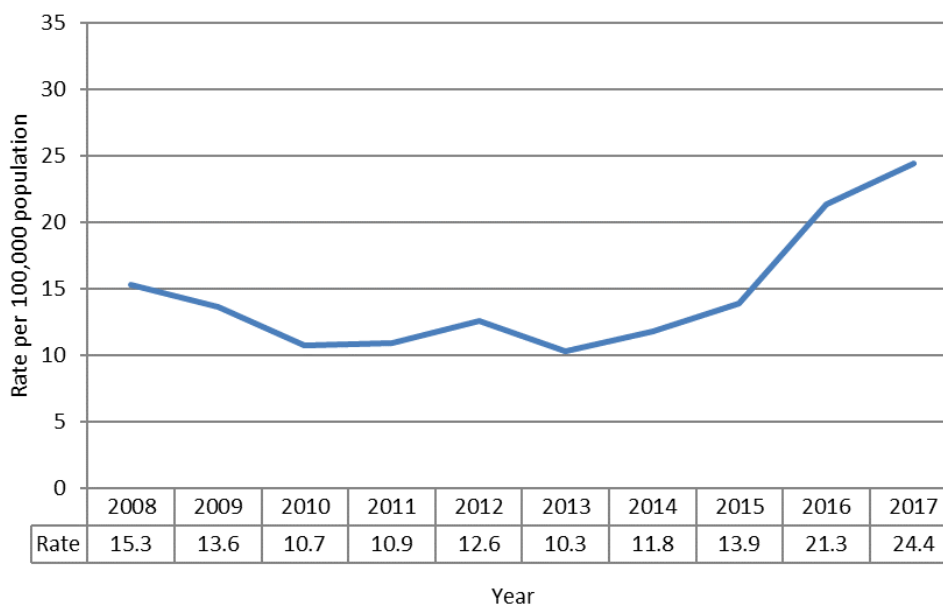
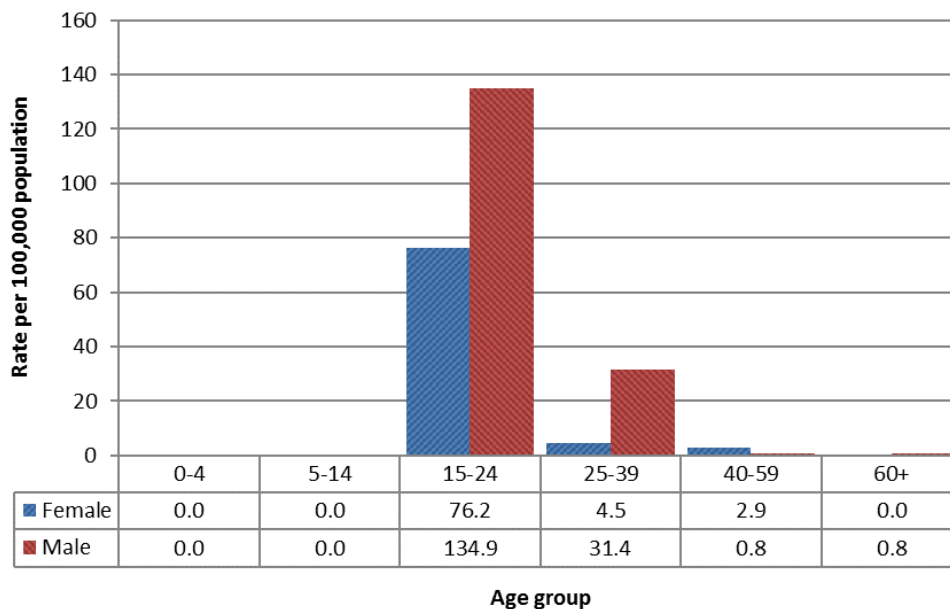


Figure 12: Reported rates of gonorrhoea in Nova Scotia by age group and sex, 2017



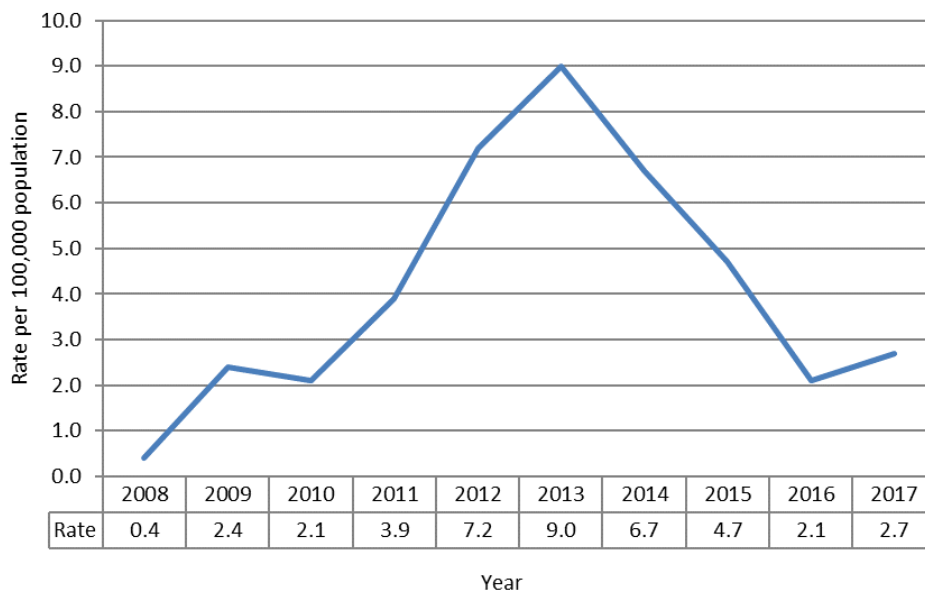
Syphilis

Syphilis cases are categorized as infectious or non-infectious syphilis. The primary, secondary, and early-latent stages of disease are considered infectious. The late latent and tertiary stages of disease are considered non-infectious (6). Infectious syphilis cases comprise those of public health significance, and will be described in more detail below.

In 2017 there were 26 cases of infectious syphilis and 12 cases of non-infectious syphilis reported in Nova Scotia. The reported rate of infectious syphilis cases in Nova Scotia was 2.7/100,000 population for 2017. This is an increase from the rate in 2016 (2.1/100,000 population) but well below the highest rate in 2013 (9.0/100,000 population) (Figure 13).

The Canadian rates for syphilis include both infectious and non-infectious cases. The 2016 Nova Scotia rate for infectious syphilis and non-infectious syphilis combined (3.9/100,000 population) was lower compared to the 2016 Canadian rate (14.8/100,000 population).

Figure 13: Reported rates of infectious syphilis in Nova Scotia, 2008-2017



Since 2008, 374 out of 388 (96.4%) infectious syphilis cases in Nova Scotia have been male. Also, 322 out of 388 (83.0%) of infectious syphilis cases in that ten year period are associated with Central Zone. All cases of infectious syphilis reported in 2017 were over the age of 15. The highest rate was reported for males in the 25-39 year age group (13.5/100,000 population) which was an increase from 2016 (10.3/100,000 population) (Figure 14).

Figure 15 presents rates of infectious syphilis among males in Central Zone and outside of Central Zone. The rates among males in Central Zone (Zone 4) and Western/Northern/Eastern Zones (Zones 1-3) have both increased between 2016 and 2017 (Zone 4: 5.9/100,000 in 2016 vs. 8.1/100,000 in 2017; Zones 1-3: 2.4/100,000 in 2016 vs. 2.9/100,000 in 2017).

Figure 14: Reported rates of infectious syphilis in Nova Scotia by age group and sex, 2017

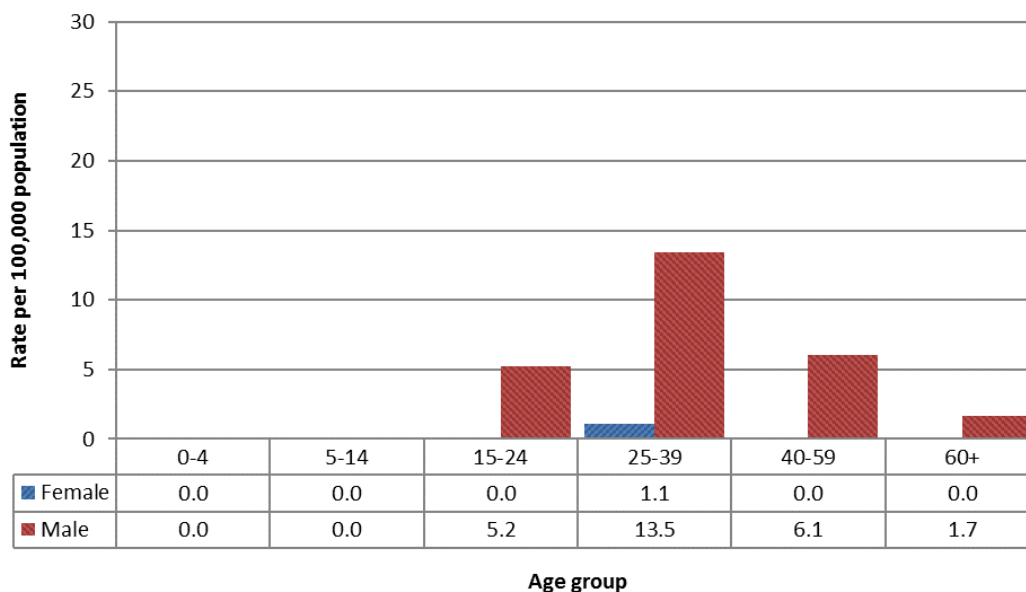
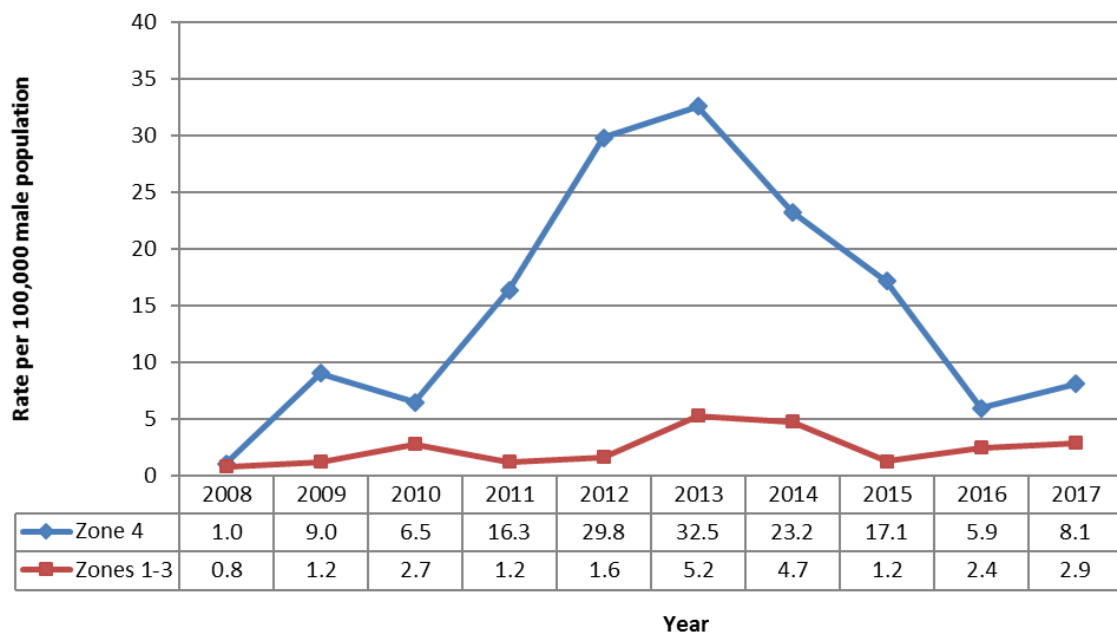


Figure 15: Reported rates of infectious syphilis among males residing in Central Zone and outside of Central Zone, 2008-2017



Vaccine Preventable Diseases

There were 96 cases of vaccine preventable diseases reported in Nova Scotia in 2017. This is an increase from 64 cases in 2016.

The vaccine preventable diseases reported in 2017 included 29 cases of measles, 21 cases of mumps, 45 cases of pertussis and 1 case of Haemophilus influenzae Type b Invasive Disease.

Measles

The 29 cases of measles reported in 2017 are the only cases reported in the last ten years. These cases were associated with two outbreaks that occurred in the province. The first outbreak happened in Central Zone (n=7, 1.5/100,000 population) and the second occurred in Western Zone (n=22, 11.3/100,000 population). The majority of cases occurred in the 25-39 age group (n=14, 7.9/100,000 population). There were almost an equal number of male (n=15) and female (n=14) cases.

Mumps

A cluster of mumps in Central Zone accounted for the 21 cases that were reported in 2017. The highest rate was reported in the 15-24 age group (n=15, 13.3/100,000 population) and 76.1% of the cases were male. The 2016 Nova Scotia rate was less than the national rate (0.1/100,000 population vs. 1.0/100,000 population).

Pertussis

Similar to 2016, pertussis was the most frequently reported vaccine preventable disease. The rate of pertussis reported in 2017 was 4.7/100,000 population. The highest rate occurred in Western Zone at 13.9/100,000 population (n=27). The majority of cases occurred in the 0-4 (n=16, 37.4/100,000 population) and 40-59 (n=11, 4.1/100,000 population) age groups. There was a higher percentage of females cases reported compared to males (60.0% vs. 40.0%). The 2016 Nova Scotia rate was less than the national rate (6.6/100,000 population vs. 10.9/100,000 population).

Vectorborne and Other Zoonoses

There were 589 cases of vectorborne and other zoonotic diseases reported in Nova Scotia in 2017:

- There were 586 cases of Lyme disease reported.
- There were three cases of malaria reported. None of these cases were acquired in Nova Scotia.

See Appendix B for tables containing numbers and rates of reported cases of vectorborne and other zoonotic diseases from 2008 to 2017.

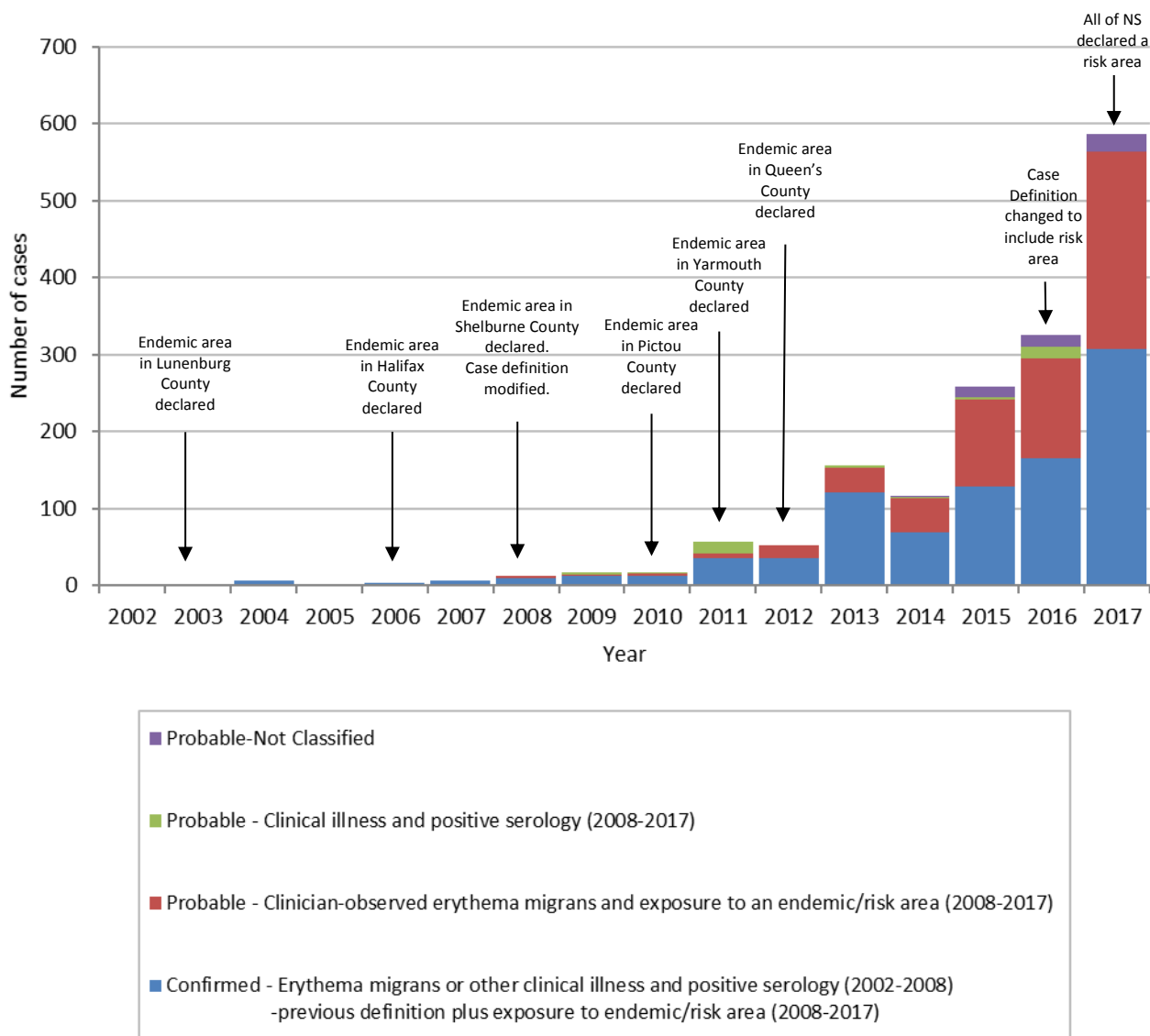
Lyme Disease

Since the first cases reported in 2002, the annual number of reported cases of Lyme disease in Nova Scotia has displayed an increasing trend (Figure 16).

There were 586 cases of confirmed and probably Lyme disease reported in 2017, which is an increase from 2016 (n=325). Figure 16 presents the number of reported cases by year, the years in which new

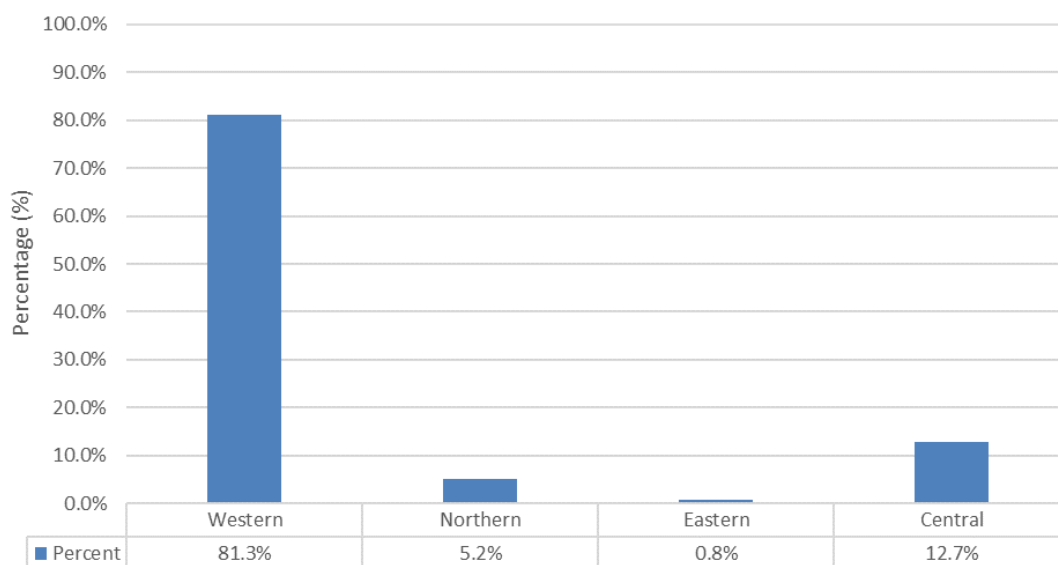
areas were added to the list of known Lyme disease endemic or risk areas, and when the surveillance case definition was modified.

Figure 16: Number of reported cases of Lyme disease by case classification and year, Nova Scotia, 2002-2017



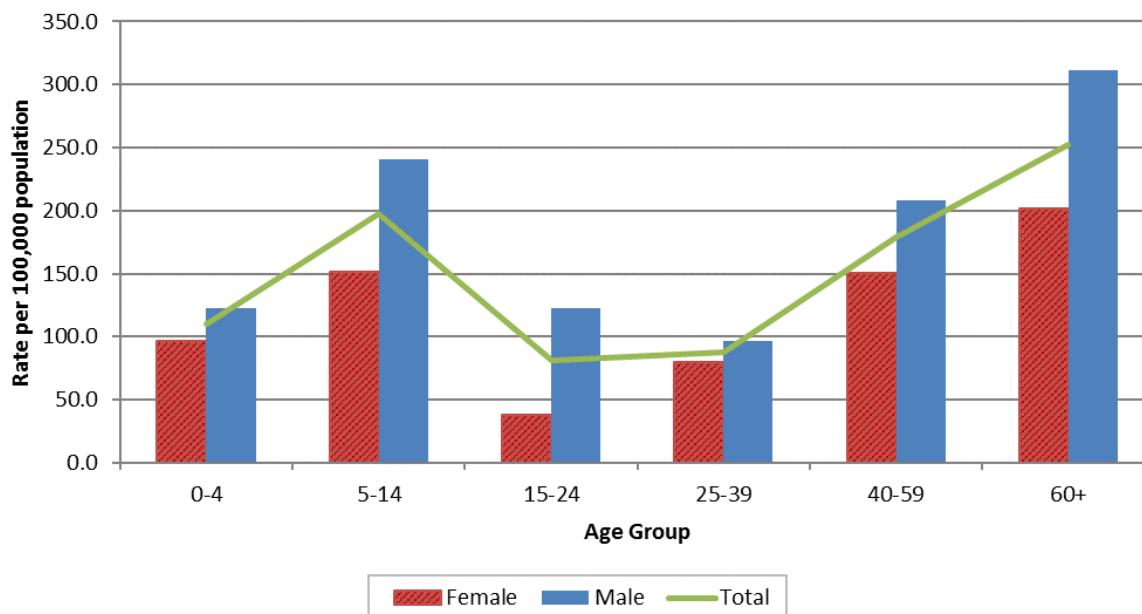
From 2002 to 2017 there have been 1617 cases of Lyme disease reported in Nova Scotia, of which 1591 (98.4%) were likely to have been acquired within the province. In 2017, Western zone had the highest rate among the zones (n=471, 241.8/100,000 population). The percentage of total cases reported by Zone is presented in Figure 17. The majority of cases were reported in the 40-59 (n=190, 70.4/100,000 population) and 60+ (n=239, 92.0/100,000 population) and 59.4% were male (Figure 18).

Figure 17: Percentage of cases reported by Zone, 2002-2017



Notes: Western = Zone 1, Northern = Zone 2, Eastern = Zone 3, Central = Zone 4

Figure 18: Rates of reported cases of Lyme disease per 100,000 population, by sex and age group, Nova Scotia, 2002-2017



Active tick surveillance was conducted in 2017 in collaboration with the Nova Scotia Department of Natural Resources. The data collected through this field work will be used to estimate the infection prevalence of blacklegged ticks in the province and support the identification of emerging infections.

For a current map of known risk areas in the province, please see the map online:

<http://novascotia.ca/hpp/cdpc/lyme-map.asp>.

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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 1: Notifiable diseases reported in Nova Scotia from 2008-2017: Number of reports and crude rates per 100,000 population

Condition	Year																		All Years			
	2008		2009		2010		2011		2012		2013		2014		2015		2016		2017		n	Average Rate
	n	Rate	n	Rate	n	Rate	n	Rate	n	Rate	n	Rate	n	Rate	n	Rate	n	Rate				
Bloodborne Pathogens																						
Acquired Immune Deficiency Syndrome (AIDS)	6	0.6	2	0.2	5	0.5	4	0.4	2	0.2	0	0.0	4	0.4	3	0.3	2	0.2	1	0.1	29	0.3
Hepatitis B - Acute	7	0.8	5	0.5	3	0.3	4	0.4	1	0.1	2	0.2	3	0.3	9	1.0	9	0.9	6	0.6	49	0.5
Hepatitis B-Chronic*	0	0	16	1.7	15	1.6	11	1.2	9	1	13	1.4	21	2.2	10	1.1	12	1.3	18	1.9	74	1.3
Hepatitis B-Chronic or Unspecified*	14	1.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0	14	0.3
Hepatitis C	281	30.1	265	28.4	299	32.1	212	22.7	252	26.6	289	30.7	332	35.4	362	38.4	296	31.2	295	30.9	2883	30.7
Human Immunodeficiency Virus (HIV)	21	2.3	13	1.4	15	1.6	15	1.6	17	1.8	16	1.7	10	1.1	17	1.8	21	2.2	15	1.6	160	1.7
Direct Contact, Respiratory Routes, and Through the Provision of Health Care																						
Clostridium difficile	0	0.0	0	0.0	1	0.1	0	0.0	500	52.8	676	71.9	610	65.0	812	86.1	879	92.6	927	97.2	4405	94.9
Creutzfeldt-Jakob Disease - Classic	2	0.2	1	0.1	0	0.0	2	0.2	3	0.3	1	0.1	2	0.2	0	0.0	1	0.1	1	0.1	13	0.1
Encephalitis - Viral	1	0.1	2	0.2	1	0.1	2	0.2	1	0.1	0	0.0	1	0.1	2	0.2	0	0.0	0	0.0	10	0.1
Group A Streptococcal Disease Invasive*	16	1.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	16	0.2
Group A Streptococcal Disease Invasive-Severe*	0	0.0	9	1.0	3	0.3	13	1.4	11	1.2	6	0.6	8	0.9	10	1.1	6	0.6	16	1.7	82	0.9
Group A Streptococcal Disease Invasive-non-Severe*	0	0.0	7	0.8	12	1.3	11	1.2	13	1.4	15	1.6	14	1.5	15	1.6	12	1.3	30	3.1	129	1.4
Group B Streptococcal Disease of the Newborn	2	0.2	2	0.2	6	0.6	3	0.3	1	0.1	3	0.3	1	0.1	3	0.3	3	0.3	3	0.3	27	0.3
Legionellosis	0	0.0	2	0.2	1	0.1	0	0.0	0	0.0	2	0.2	3	0.3	7	0.7	1	0.1	9	0.9	25	0.3
Meningitis - Bacterial	5	0.5	2	0.2	2	0.2	2	0.2	0	0.0	0	0.0	2	0.2	0	0.0	0	0.0	1	0.1	14	0.1
Meningitis - Viral	3	0.3	6	0.6	2	0.2	11	1.2	39	4.1	20	2.1	15	1.6	17	1.8	2	0.2	0	0.0	115	1.2
Meningococcal Disease Invasive	8	0.9	3	0.3	3	0.3	3	0.3	2	0.2	0	0.0	3	0.3	7	0.7	4	0.4	6	0.6	39	0.4
Methicillin Resistant Staphylococcus Aureus (MRSA)	1013	108.6	887	95.1	912	97.8	838	89.9	835	88.2	787	83.7	644	68.6	623	66.1	569	59.9	522	54.7	7630	81.3
Pneumococcal Disease Invasive	14	1.5	20	2.1	35	3.8	51	5.5	51	5.4	65	6.9	66	7.0	52	5.5	66	7.0	49	5.1	469	5.0
Tuberculosis	4	0.4	7	0.8	10	1.1	9	1.0	8	0.8	8	0.9	7	0.7	6	0.6	3	0.3	9	0.9	71	0.8
Vancomycin resistant Enterococcus (VRE)	31	3.3	10	1.1	8	0.9	18	1.9	49	5.2	43	4.6	17	1.8	4	0.4	13	1.4	121	12.7	314	3.3
Enteric, Foodborne, and Waterborne Diseases																						
Amebiasis	9	1.0	1	0.1	7	0.8	8	0.9	4	0.4	3	0.3	3	0.3	6	0.6	0	0.0	0	0.0	41	0.4
Botulism	0	0.0	0	0.0	0	0.0	1	0.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
Campylobacteriosis	159	17.0	123	13.2	151	16.2	185	19.8	188	19.9	172	18.3	181	19.3	155	16.4	170	17.9	185	19.4	1669	17.7
Cryptosporidiosis	11	1.2	10	1.1	21	2.3	12	1.3	18	1.9	22	2.3	32	3.4	17	1.8	27	2.8	41	4.3	211	2.2
Cyclosporiasis	0	0.0	1	0.1	2	0.2	0	0.0	0	0.0	3	0.3	1	0.1	3	0.3	2	0.2	2	0.2	14	0.1
Giardiasis	107	11.5	76	8.1	68	7.3	66	7.1	96	10.1	96	10.2	91	9.7	87	9.2	100	10.5	93	9.7	880	9.3
Hepatitis A	4	0.4	2	0.2	3	0.3	4	0.4	2	0.2	2	0.2	3	0.3	1	0.1	11	1.2	2	0.2	34	0.4
Hepatitis E	1	0.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
Listeriosis - Invasive	2	0.2	3	0.3	9	1.0	6	0.6	4	0.4	8	0.9	5	0.5	8	0.8	4	0.4	4	0.4	53	0.6
Salmonellosis	137	14.7	94	10.1	145	15.5	170	18.2	150	15.8	169	18.0	204	21.7	169	17.9	138	14.5	171	17.9	1547	16.4
Shigellosis	4	0.4	11	1.2	11	1.2	13	1.4	11	1.2	1	0.1	9	1.0	5	0.5	10	1.1	10	1.0	85	0.9
Typhoid	3	0.3	0	0.0	3	0.3	1	0.1	0	0.0	1	0.1	2	0.2	0	0.0	1	0.1	2	0.2	13	0.1
Verotoxigenic E. coli	10	1.1	5	0.5	14	1.5	18	1.9	18	1.9	11	1.2	10	1.1	5	0.5	5	0.5	21	2.2	117	1.2
Yersiniosis	4	0.4	2	0.2	3	0.3	1	0.1	3	0.3	3	0.3	2	0.2	2	0.2	1	0.1	0	0.0	21	0.2
Sexually Transmitted Infections																						
Chlamydia	2033	217.9	1982	212.5	2230	239.1	2478	265.7	2614	276.2	2466	262.1	2631	280.2	2865	303.8	2930	308.6	2988	313.3	25217	267.9
Gonorrhea	143	15.3	127	13.6	100	10.7	102	10.9	119	12.6	97	10.3	111	11.8	131	13.9	202	21.3	233	24.4	1365	14.5
Lymphogranuloma Venereum	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.1	0	0.0	0	0.0	1	0.0
Syphilis - Infectious	4	0.4	22	2.4	20	2.1	36	3.9	68	7.2	85	9.0	63	6.7	44	4.7	20	2.1	26	2.7	388	4.1
Syphilis - Non-Infectious or Stage Pending	8	0.9	2	0.2	8	0.9	13	1.4	10	1.1	23	2.4	37	3.9	27	2.9	17	1.8	12	1.3	157	1.7
Vaccine Preventable Diseases																						
Acute Flaccid Paralysis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.1	0	0.0	0	0.0	0	0.0	1	0.0
Haemophilus influenzae Type b Invasive Disease	1	0.1	0	0.0	1	0.1	1	0.1	1	0.1	1	0.1	0	0.0	0	0.0	0	0.0	1	0.1	6	0.1
Measles	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	29	3.0	29	0.3
Mumps	5	0.5	1	0.1	1	0.1	0	0.0	0	0.0	2	0.2	1	0.1	6	0.6	1	0.1	21	2.2	38	0.4
Pertussis	14	1.5	18	1.9	6	0.6	3	0.3	22	2.3	4	0.4	11	1.2	110	11.7	63	6.6	45	4.7	296	3.1
Tetanus	0	0.0	0	0.0	0	0.0	0	0.0	1	0.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
Vectorborne and Other Zoonoses																						
Lyme Disease - Confirmed	9	1.0	12	1.3	13	1.4	35	3.8	35	3.7	121	12.9	69	7.3	129	13.7	165	17.4	307	32.2	895	9.5
Lyme Disease - Probable	4	0.4	5	0.5	4	0.4	22	2.4	17	1.8	35	3.7	47	5.0	129	13.7	160	16.9	279	29.2	702	7.4
Malaria	2	0.2	2	0.2	5	0.5	0	0.0	3	0.3	3	0.3	3	0.3	4	0.4	6	0.6	3	0.3	31	0.3
Q-Fever	17	1.8	2	0.2	3	0.3	2	0.2	0	0.0	0	0.0	0	0.0	3	0.3	0	0.0	0	0.0	27	0.3
Toxoplasmosis	3	0.3	3	0.3	1	0.1	2	0.2	0	0.0	1	0.1	3	0.3	1	0.1	1	0.1	0	0.0	15	0.2
West Nile Virus	1	0.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
Total Number	4123		3763		4162		4388		5178		5275		5283		5867		5933		6504		50425	

Notes: *From 2009-2017, hepatitis B cases are reported as either Chronic or Acute. In 2008, unspecified hepatitis B cases were also reported. Severe and non-Severe cases of Group A Streptococcal Disease Invasive are reported together for 2008. Notifiable diseases with no reported cases in the last 10 years and influenza cases are not included in this table.

TABLE 2: Notifiable diseases reported in Nova Scotia in 2017 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		
Bloodborne Pathogens										
Acquired Immune Deficiency Syndrome (AIDS)	0	0.0	0	0.0	1	0.6	0	0.0	1	0.1
Hepatitis B - Acute	0	0.0	1	0.7	1	0.6	4	0.9	6	0.6
Hepatitis B - Chronic	7	3.6	0	0.0	1	0.6	10	2.2	18	1.9
Hepatitis C	36	18.5	84	56.3	83	52.8	92	20.3	295	30.9
Human Immunodeficiency Virus (HIV)	3	1.5	1	0.7	1	0.6	8	1.8	15	1.6
Direct Contact, Respiratory Routes, and Through the Provision of Health Care										
Clostridium difficile	178	91.4	111	74.4	208	132.3	430	95.0	927	97.2
Creutzfeldt-Jakob Disease - Classic	0	0.0	0	0.0	0	0.0	1	0.2	1	0.1
Group A Streptococcal Disease Invasive-Severe	4	2.1	5	3.4	1	0.6	6	1.3	16	1.7
Group A Streptococcal Disease Invasive-Non-Severe	1	0.5	9	6.0	4	2.5	16	3.5	30	3.1
Group B Streptococcal Disease of the Newborn	0	0.0	1	0.7	0	0.0	2	0.4	3	0.3
Legionellosis	0	0.0	1	0.7	0	0.0	8	1.8	9	0.9
Meningitis - Bacterial	1	0.5	0	0.0	0	0.0	0	0.0	1	0.1
Meningococcal Disease Invasive	1	0.5	0	0.0	1	0.6	4	0.9	6	0.6
Methicillin Resistant Staphylococcus Aureus (MRSA)	135	69.3	121	81.1	83	52.8	183	40.4	522	54.7
Pneumococcal Disease Invasive	11	5.6	9	6.0	12	7.6	17	3.8	49	5.1
Tuberculosis	1	0.5	1	0.7	2	1.3	5	1.1	9	0.9
The	1	0.5	37	24.8	5	3.2	78	17.2	121	12.7
Enteric, Foodborne, and Waterborne Diseases										
Botulism	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Campylobacteriosis	64	32.9	21	14.1	16	10.2	84	18.6	185	19.4
Cryptosporidiosis	11	5.6	9	6.0	5	3.2	16	3.5	41	4.3
Cyclosporiasis	0	0.0	1	0.7	0	0.0	1	0.2	2	0.2
Giardiasis	22	11.3	8	5.4	17	10.8	46	10.2	93	9.7
Hepatitis A	0	0.0	0	0.0	0	0.0	2	0.4	2	0.2
Listeriosis - Invasive	0	0.0	0	0.0	0	0.0	4	0.9	4	0.4
Salmonellosis	42	21.6	22	14.7	31	19.7	76	16.8	171	17.9
Shigellosis	3	1.5	2	1.3	1	0.6	4	0.9	10	1.0
Typhoid	1	0.5	0	0.0	1	0.6	0	0.0	2	0.2
Verotoxigenic E. coli	1	0.5	0	0.0	8	5.1	12	2.7	21	2.2
Sexually Transmitted Infections										
Chlamydia	492	252.6	292	195.8	381	242.3	1823	402.7	2988	313.3
Gonorrhea	11	5.6	18	12.1	12	7.6	192	42.4	233	24.4
Syphilis - Infectious	4	2.1	0	0.0	4	2.5	18	4.0	26	2.7
Syphilis - Non-Infectious or Stage Pending	1	0.5	2	1.3	3	1.9	6	1.3	12	1.3
Vaccine Preventable Diseases										
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	1	0.2	1	0.1
Measles	22	11.3	0	0.0	0	0.0	7	1.5	29	3.0
Mumps	0	0.0	0	0.0	0	0.0	21	4.6	21	2.2
Pertussis	27	13.9	1	0.7	6	3.8	11	2.4	45	4.7
Tetanus	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Vectorborne and Other Zoonoses										
Lyme Disease - Confirmed	223	114.5	34	22.8	3	1.9	47	10.4	307	32.2
Lyme Disease - Probable	248	127.3	7	4.7	1	0.6	23	5.1	279	29.2
Malaria	2	1.0	0	0.0	0	0.0	1	0.2	3	0.3
West Nile Virus	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
TOTAL	1553		798		892		3259		6504	

Notes: Excludes 2 HIV cases with no reported zone.

TABLE 3: Notifiable diseases reported in Nova Scotia in 2017 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
Bloodborne Pathogens														
Acquired Immune Deficiency Syndrome (AIDS)	0	0.0	0	0.0	0	0.0	1	0.6	0	0.0	0	0.0	1	0.1
Hepatitis B - Acute	0	0.0	0	0.0	2	1.8	2	1.1	1	0.4	1	0.4	6	0.6
Hepatitis B - Chronic	0	0.0	0	0.0	1	0.9	11	6.2	4	1.5	2	0.8	18	1.9
Hepatitis C	1	2.3	0	0.0	38	33.6	142	79.7	80	29.6	34	13.1	295	30.9
Human Immunodeficiency Virus (HIV)	0	0.0	0	0.0	1	0.9	5	2.8	6	2.2	1	0.4	15	1.6
Direct Contact, Respiratory Routes, and Through the Provision of Health Care														
Clostridium difficile	24	56.1	18	20.0	40	35.4	86	48.2	226	83.7	533	205.2	927	97.2
Creutzfeldt-Jakob Disease - Classic	0	0.0	0	0.0	0	0.0	0	0.0	1	0.4	0	0.0	1	0.1
Group A Streptococcal Disease Invasive-Severe	1	2.3	0	0.0	1	0.9	4	2.2	3	1.1	7	2.7	16	1.7
Group A Streptococcal Disease Invasive-Non-Severe	1	2.3	2	2.2	1	0.9	7	3.9	7	2.6	12	4.6	30	3.1
Group B Streptococcal Disease of the Newborn	3	7.0	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	1	0.6	2	0.7	6	2.3	9	0.9
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	3	2.7	0	0.0	2	0.7	1	0.4	6	0.6
Methicillin Resistant Staphylococcus Aureus (MRSA)	11	25.7	9	10.0	20	17.7	55	30.9	98	36.3	328	126.2	522	54.7
Pneumococcal Disease Invasive	3	7.0	1	1.1	0	0.0	1	0.6	9	3.3	35	13.5	49	5.1
Tuberculosis	0	0.0	0	0.0	3	2.7	3	1.7	0	0.0	3	1.2	9	0.9
Vancomycin resistant Enterococcus (VRE)	0	0.0	0	0.0	1	0.9	6	3.4	20	7.4	94	36.2	121	12.7
Enteric, Foodborne, and Waterborne Diseases														
Botulism	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Campylobacteriosis	4	9.3	5	5.5	19	16.8	36	20.2	51	18.9	70	26.9	185	19.4
Cryptosporidiosis	2	4.7	2	2.2	12	10.6	10	5.6	10	3.7	5	1.9	41	4.3
Cyclosporiasis	0	0.0	0	0.0	0	0.0	1	0.6	1	0.4	0	0.0	2	0.2
Giardiasis	3	7.0	8	8.9	8	7.1	18	10.1	30	11.1	26	10.0	93	9.7
Hepatitis A	0	0.0	0	0.0	0	0.0	1	0.6	1	0.4	0	0.0	2	0.2
Listeriosis - Invasive	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	4	1.5	4	0.4
Salmonellosis	13	30.4	13	14.4	18	15.9	33	18.5	44	16.3	50	19.2	171	17.9
Shigellosis	1	2.3	0	0.0	0	0.0	3	1.7	3	1.1	2	0.8	10	1.0
Typhoid*	0	0.0	0	0.0	0	0.0	1	0.6	1	0.4	0	0.0	2	0.2
Verotoxigenic E. coli	5	11.7	4	4.4	5	4.4	5	2.8	1	0.4	1	0.4	21	2.2
Sexually Transmitted Infections														
Chlamydia	1	2.3	9	10.0	2054	1818.8	840	471.3	75	27.8	9	3.5	2988	313.3
Gonorrhea	0	0.0	0	0.0	80	70.8	120	67.3	32	11.9	1	0.4	233	24.4
Syphilis - Infectious	0	0.0	0	0.0	3	2.7	13	7.3	8	3.0	2	0.8	26	2.7
Syphilis - Non-Infectious or Stage Pending	0	0.0	0	0.0	1	0.9	4	2.2	4	1.5	3	1.2	12	1.3
Vaccine Preventable Diseases														
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	1	0.9	0	0.0	0	0.0	0	0.0	1	0.1
Measles	0	0.0	5	5.5	4	3.5	14	7.9	6	2.2	0	0.0	29	3.0
Mumps	0	0.0	0	0.0	15	13.3	5	2.8	1	0.4	0	0.0	21	2.2
Pertussis	16	37.4	6	6.7	1	0.9	8	4.5	11	4.1	3	1.2	45	4.7
Tetanus	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Vectorborne and Other Zoonoses														
Lyme Disease - Confirmed	8	18.7	46	51.0	15	13.3	27	15.1	104	38.5	107	41.2	307	32.2
Lyme Disease - Probable	7	16.4	19	21.1	9	8.0	22	12.3	86	31.9	132	50.8	279	29.2
Malaria	0	0.0	0	0.0	1	0.9	1	0.6	1	0.4	0	0.0	3	0.3
West Nile Virus	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
TOTAL	104		147		2357		1487		929		1472		6504	

Notes: Excludes 1 case of MRSA, 2 cases of HIV and 4 cases of Lyme Disease-Probable with no reported age.

TABLE 4: Notifiable diseases reported in Nova Scotia in 2017: Number of reports and sex-specific rates per 100,000 population

Condition	Sex				Total NS	
	Female		Male		n	Rate
	n	Rate	n	Rate		
Bloodborne Pathogens						
Acquired Immune Deficiency Syndrome (AIDS)	0	0	1	0.2	1	0.1
Hepatitis B - Acute	1	0.2	5	1.1	6	0.6
Hepatitis B - Chronic	11	2.3	7	1.5	18	1.9
Hepatitis C	114	23.5	181	38.7	295	30.9
Human Immunodeficiency Virus (HIV)	1	0.2	14	3.0	15	1.6
Direct Contact, Respiratory Routes, and Through the Provision of Health Care						
Clostridium difficile	538	110.7	389	83.1	927	97.2
Creutzfeldt-Jakob Disease - Classic	1	0.2	0	0.0	1	0.1
Encephalitis - Viral	7	1.4	9	1.9	16	1.7
Group A Streptococcal Disease Invasive-Non-Severe	14	2.9	16	3.4	30	3.1
Group B Streptococcal Disease of the Newborn	2	0.4	1	0.2	3	0.3
Legionellosis	2	0.4	7	1.5	9	0.9
Meningitis - Bacterial	1	0.2	0	0.0	1	0.1
Meningococcal Disease Invasive	1	0.2	5	1.1	6	0.6
Methicillin Resistant Staphylococcus Aureus (MRSA)	254	52.3	268	57.3	522	54.7
Pneumococcal Disease Invasive	30	6.2	19	4.1	49	5.1
Tuberculosis	1	0.2	8	1.7	9	0.9
Vancomycin resistant Enterococcus (VRE)	59	12.1	62	13.3	121	12.7
Enteric, Foodborne, and Waterborne Diseases						
Botulism	0	0.0	0	0.0	0	0.0
Campylobacteriosis	88	18.1	97	20.7	185	19.4
Cryptosporidiosis	23	4.7	18	3.8	41	4.3
Cyclosporiasis	1	0.2	1	0.2	2	0.2
Giardiasis	41	8.4	52	11.1	93	9.7
Hepatitis A	1	0.2	1	0.2	2	0.2
Listeriosis - Invasive	1	0.2	3	0.6	4	0.4
Salmonellosis	94	19.3	77	16.5	171	17.9
Shigellosis	5	1.0	5	1.1	10	1.0
Typhoid*	0	0.0	2	0.4	2	0.2
Verotoxigenic E. coli	13	2.7	8	1.7	21	2.2
Sexually Transmitted Infections						
Chlamydia	1987	408.8	999	213.5	2988	313.3
Gonorrhoea	88	18.1	145	31.0	233	24.4
Syphilis - Infectious	1	0.2	25	5.3	26	2.7
Syphilis - Non-Infectious or Stage Pending	1	0.2	11	2.4	12	1.3
Vaccine Preventable Diseases						
Acute Flaccid Paralysis	0	0.0	0	0.0	0	0.0
Haemophilus influenzae Type b Invasive Disease	1	0.2	0	0.0	1	0.1
Measles	15	3.1	14	3.0	29	3.0
Mumps	5	1.0	16	3.4	21	2.2
Pertussis	27	5.6	18	3.8	45	4.7
Tetanus	0	0.0	0	0.0	0	0.0
Vectorborne and Other Zoonoses						
Lyme Disease - Confirmed	116	23.9	191	40.8	307	32.2
Lyme Disease - Probable	122	25.1	157	33.6	279	29.2
Malaria	1	0.2	2	0.4	3	0.3
West Nile Virus	0	0.0	0	0.0	0	0.0
TOTAL	3668		2834		6504	

Notes: Excludes 2 chlamydia cases with no reported sex.