

**New Brunswick Communicable Disease
2013 Annual Report**

Table of Contents

1. Introduction	3
2. Data Sources	4
3. Limitations	4
4. 2013 Highlights	5
4.1. Main Disease Trends	5
4.2. Provincial Outbreaks	5
5. Vaccine preventable diseases (VPD)	6
5.1. <i>Haemophilus influenzae type b and non type b</i> (Hib and non Hib)	7
5.2. Influenza	7
5.3. Invasive Meningococcal Disease (IMD)	7
5.4. Invasive Pneumococcal Disease (IPD)	8
5.5. Measles	10
5.6. Mumps	10
5.7. Pertussis	10
5.8. Rubella	11
5.9. Varicella	11
5.10. Other vaccine preventable diseases	11
6. Enteric, Food and Waterborne Diseases	12
6.1. Campylobacteriosis	13
6.2. Cryptosporidiosis	13
6.3. Giardiasis	14
6.4. <i>E.coli</i> 0157:H7	14
6.5. Salmonellosis	15
6.6. Other Enteric Diseases	16
7. Sexually Transmitted and Blood Borne Infections (STBBI)	17
7.1. Chlamydia	18
7.2. Gonorrhoea	19
7.3. Hepatitis B	20
7.4. Hepatitis C	21
7.5. HIV and AIDS	22
7.6. Syphilis(Infected)	24
8. Vectorborne and Zoonotic diseases	25
8.1. Lyme Disease	25
8.2. Other Vectorborne and Zoonotic diseases	25
9. Respiratory and Direct Contact Diseases	26
9.1. Legionellosis	26
9.2. Tuberculosis	26
9.3. Invasive Group A Streptococcal disease (iGAS)	26
9.4. Group B Streptococcal Infection of Newborn	27
10. Healthcare acquired infections	28
Appendix 1. List of Notifiable Diseases and Reportable Events	28
Appendix 2. Tables for Vaccine Preventable Diseases	30
Appendix 4. Tables for Sexually Transmitted and Bloodborne infections	36
Appendix 5. Tables for Vectorborne and Zoonotic Diseases	39
Appendix 6. Tables for Respiratory and Direct Contact diseases	41

1. Introduction

Reporting of notifiable diseases and reportable events in New Brunswick (NB) is governed by the New Brunswick *Public Health Act*¹ (PHA). The PHA stipulates the duties and requirements of health professionals, laboratories and institution operators with respect to reporting of notifiable diseases, communicable diseases and reportable events and requirements within regulated timeframes.

Surveillance systems, both passive and enhanced, are in place to capture information on notifiable communicable diseases and events in order to facilitate monitoring of trends, aberration and outbreak detection, reporting, guiding response strategies; and, in some cases, evaluating the effect of these strategies.

As per the Act, NB Public Health statistics are provided in 7 areas called “Health Regions”. These areas correspond to both Regional Health Authorities as follows: Horizon Health Network (Health Regions 2, 3, and 7) and Réseau de Santé Vitalité (Health Regions 1, 4, 5, and 6). See figure 1 for an overview of the Health Regions.

The purpose of this report is to provide a summary of notifiable diseases and reportable events reported in the province in 2013. It includes important trends between 2003 and 2013.

Figure 1. Map of Health Regions in New Brunswick



¹ Public Health Act (S.N.B. 1998, c. P-22.4). <http://laws.gnb.ca/en/ShowTdm/cs/P-22.4//>

2. Data Sources

- Confirmed case reports are collected from the Health Regions in New Brunswick through the Reportable Disease Surveillance System (RDSS). All diseases are classified by the reported date which is the date reported to the health authority;
- Data for enteric diseases, for years 2008 onwards, was obtained through the enteric database maintained at Communicable Disease Control Branch (CDCB) within the Office of the Chief Medical Officer of Health (OCMOH), data for prior years was obtained through RDSS;
- Data for invasive meningococcal disease, invasive pneumococcal disease, invasive group A streptococcal disease, measles, mumps, rubella and tuberculosis are collected through enhanced surveillance systems maintained at CDCB which are derived from reporting by Health Regions in New Brunswick using forms specifically designed for that disease, and reconciliation of laboratory data. There are many limitations with the current system and as a result these may not always correspond to RDSS reports;
- Data for HIV and AIDS are collected through the HIV/AIDS Case Report Surveillance System database (HACRSS);
- Data for infectious syphilis, for years 2010-2012, was obtained through the enhanced syphilis database designed for the purpose of the outbreak;
- Data for the 2012 pertussis data was obtained through the enhanced pertussis database designed for the purpose of the outbreak;
- Data for the 2007 mumps outbreak was obtained through the enhanced mumps database designed for the purpose of the outbreak;
- Counts of Healthcare Associated Infections (HAI) were obtained through the provincial HAI database which was established in 2013 which includes data provided by NB hospitals from both RHAs using a standardized form and case definitions;
- The denominators used to calculate provincial rates were population estimates from Statistics Canada, Demography Division; data received March 2014;
- The denominators used to calculate NB HAI rates were patient-days which are the number of days spent in a hospital for all patients regardless of medical condition and were provided by the Health Information Management Branch in the Department of Health on a quarterly basis; and
- National rates for the period 2002 to 2011 were provided by the Public Health Agency of Canada (PHAC) - Surveillance and Epidemiology Division. 2012 disease rates were retrieved online on the [Notifiable Diseases On-Line](#) page at PHAC website. Lyme disease was added to the list of reportable diseases in 2009. National disease data for year 2013 was not available at the time of writing of this report.

3. Limitations

It should be noted that the numbers cited in this report reflect only those confirmed cases that meet [National Case Definition](#) which are reported to Public Health. As a result, these data may under-represent the true number of cases in the population. This is particularly relevant for those diseases where cases remain asymptomatic or diseases that have a wide clinical spectrum. Persons experiencing severe illness are more likely to present to a care provider. Numbers and rates in the report are based on 2013 notifications received as of August 2014, and may be subject to minor changes in future reports.

National data provided by PHAC that are used in this report are also subject to change.

4. 2013 Highlights

4.1. Main Disease Trends

- **Vaccine Preventable Diseases:**
Three cases of measles were reported in NB, the index case had an imported infection. Higher than expected cases of mumps were reported. There was a steep decrease in the number of pertussis cases after the outbreak in 2012. All other vaccine preventable diseases rates remained low and stable.
- **Enteric, Food and Waterborne Diseases:**
Higher incidence rates of campylobacteriosis, hepatitis A and listeriosis were noted. Rates for *E.coli* O157, giardiasis, salmonellosis and other enteric diseases were comparable to previous years.
- **Sexually Transmitted and Blood Borne Diseases:**
Higher incidence rates were observed for cases of hepatitis C, infectious syphilis and gonorrhoea in 2013 compared to 2012. There was a decrease in reported *Chlamydia* infections first to be observed since 2010.
- **Vector borne and Zoonotic Diseases:**
Low incidence rates were observed for all vectorborne and zoonotic diseases. The only reported diseases were Lyme disease, malaria (all are travel related) and Q fever.
- **Respiratory and Direct Contact Diseases:**
Incidence rate of invasive group A streptococcal disease was lower than that observed over the last 4 years. Rates of tuberculosis and legionellosis were comparable to previous years.

4.2. Provincial Outbreaks

In 2013, Public Health investigated and responded to several outbreaks/clusters in New Brunswick. Some of the notable outbreaks/clusters included:

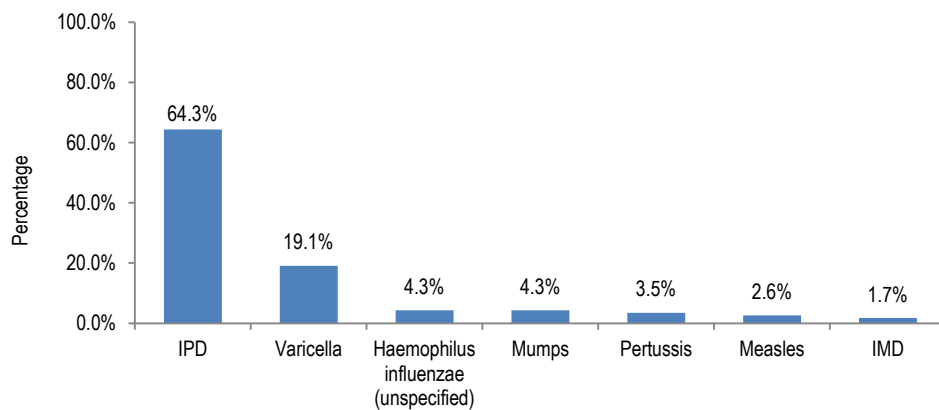
- In January 2013, Public Health continued to investigate a multi-regional cluster of *E. coli* O157 infections that started at the end of December 2012 as part of a national response. A national Outbreak Investigation Coordinating Committee (OICC) lead by PHAC was formed to coordinate efforts and cases were identified in Ontario, Nova Scotia and New Brunswick. 7 out of the 31 cases linked to this investigation were reported in NB. Consumption of shredded lettuce from a fast food chain was identified as the likely source of the illnesses and the implicated importer/processor initiated a precautionary recall. The outbreak was declared over in February 2013.
- In March 2013, Health Region 2 investigated a family cluster of 3 measles cases; the index case in NB had a travel history to a resort in Mexico where another Canadian residing in another province and who was visiting at the same period became infected. The other two NB cases were family members of the index case and were unimmunized.
- In September 2013, NB was part of a multi-jurisdictional *Listeria* investigation. 3 out of the 6 cases linked to this investigation were reported in NB. A national OICC lead by PHAC was formed to coordinate national efforts related to this outbreak. No common source was identified.
- In December 2013, provincial Public Health collaborated with Regional Public Health in the investigation of a cluster of norovirus infections related to 2 separate events held at the same setting. Individuals from all NB regions have been reported. Cross-contamination from a food handler was the source of infection.

5. Vaccine preventable diseases (VPD)

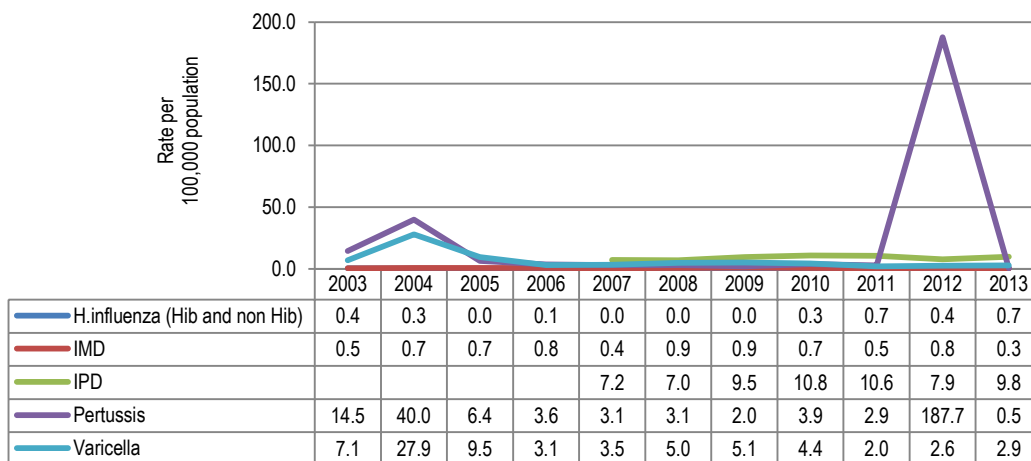
Vaccine preventable diseases (VPDs) are conditions which are preventable through vaccines available to protect against these diseases and as such their epidemiology remains mostly stable except with the occurrence of outbreaks.

For information on the New Brunswick Routine Immunization Schedule please refer to the [New Brunswick Immunization Guide](#).

Graph 1. Vaccine Preventable Diseases in New Brunswick, 2013



Graph 2. Incidence Rates per 100,000 population of Some Vaccine Preventable Diseases in New Brunswick, 2003-2013



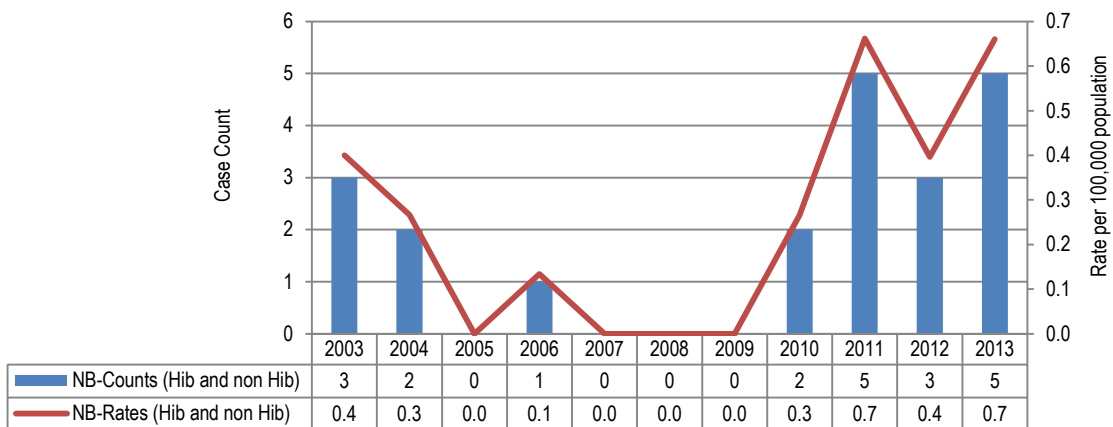
5.1. *Haemophilus influenzae* type b and non type b (Hib and non Hib)

Only *Haemophilus influenzae* type b (Hib) is prevented by vaccine.

In NB, subtype reporting is not consistently available for H.Influenzae ; as a result this report categorizes both type b and non b. Canadian rates are not presented as they account for *Haemophilus influenzae* type b only.

In 2013, the incidence rate of *Haemophilus influenzae* was 0.7 per 100,000 population which accounted for 5 cases reported to Public Health. Over the last 10 years, there was an average of 2 cases of *Haemophilus influenzae* (Hib and non Hib) per year with a 10-year average incidence rate of 0.2 cases per 100,000 population. The reported case counts of *Haemophilus influenzae* (Hib and non Hib) have been stable from 2002 to 2010, followed by an increase in 2011, mostly in Region 6 (3 cases), a slight decrease in 2012 to reach 5 cases again in 2013.

Graph 3. *Haemophilus influenzae* (Hib and non Hib) Case Counts and Rates per 100,000 for New Brunswick, 2003-2013



In 2013, 60% of the cases were in the 60 year old and above age groups. This is consistent with the overall distribution of cases in the past 10 years where the majority of cases were in these age groups.

The annual changes in the *Haemophilus influenzae* incidence rate should be interpreted with caution: the relatively low number of cases can result in major fluctuations in the rate from year to year.

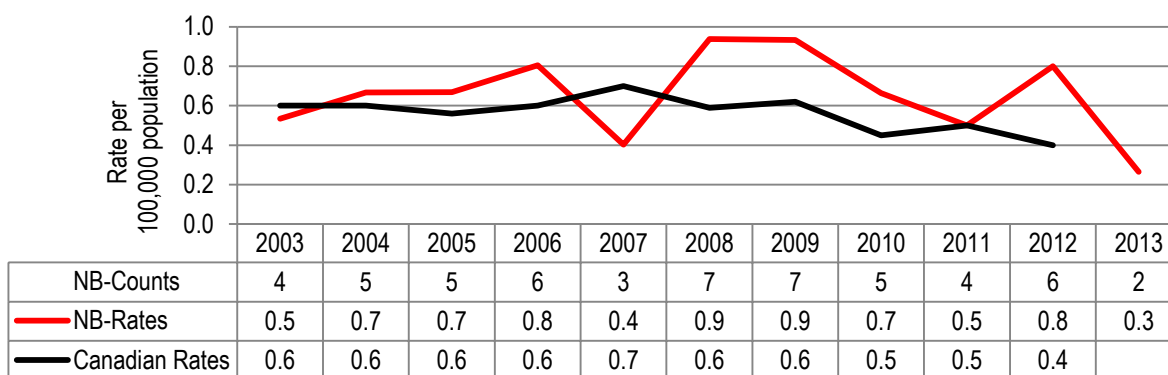
5.2. Influenza

Influenza activity in New Brunswick is monitored throughout the year however the reporting period differs from calendar reporting year. [Influenza surveillance reports](#) can be accessed at the OCMOH webpage.

5.3. Invasive Meningococcal Disease (IMD)

In 2013, the incidence rate for IMD was 0.3 per 100,000 population with 2 cases reported to Public Health. Over the last 10 years, there was an average of 5 cases of IMD per year and the 10-year average incidence rate was 0.7 cases per 100,000 population. Over all, the incidence rate in New Brunswick is higher than the national rate.

Graph 4. IMD Case Counts and Rates per 100,000 for New Brunswick and Canada, 2003-2013

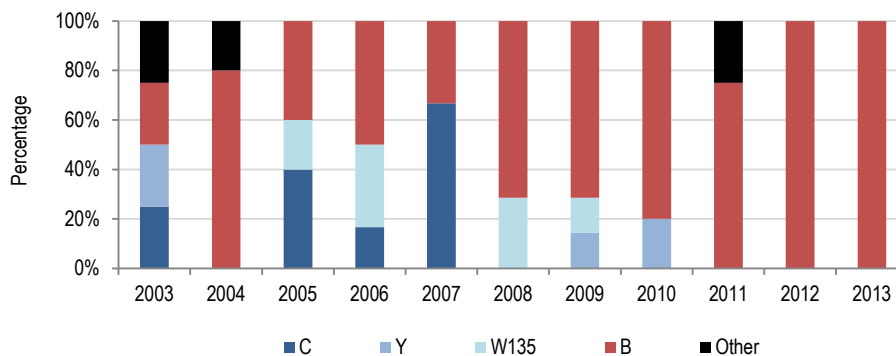


The age groups affected differ by year. In 2013, all cases were seen in the 1-4 years old age group and were from Regions 3 and 4.

The annual changes in the IMD incidence rate should be interpreted with caution: the relatively low number of cases can result in major fluctuations in the rate from year to year.

The predominant serogroup among IMD cases, in all age groups and across 2003 to 2013, is the serogroup B. Since the introduction of meningococcal C vaccine into the routine schedule at one year of age and an adolescent catch up program introduced in 2005, the incidence of serogroup C has steadily declined with no associated cases occurring since 2008. Vaccine against meningococcal type B was recently introduced in Canada but is not routinely administered as per the recommendations of the National Advisory Committee for Immunization(NACI).

Graph 5. IMD Serogroup Distribution by Year, New Brunswick, 2003-2013



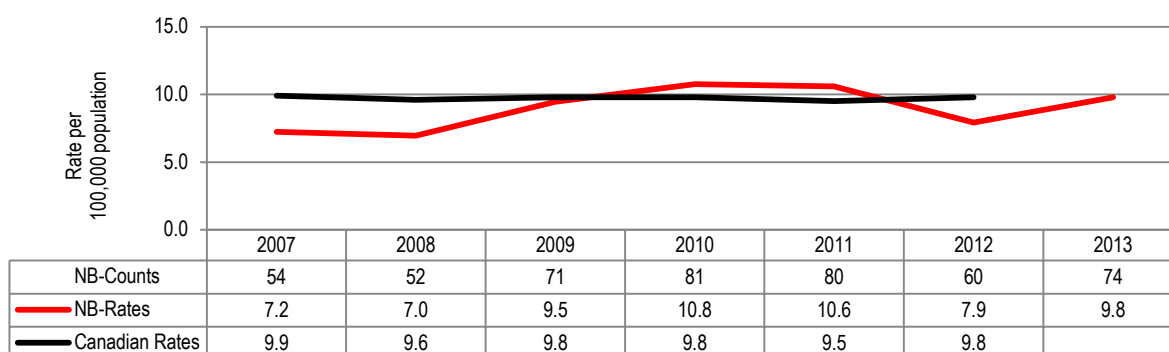
Publicly funded IMD immunization is offered at 12 months (Meningococcal conjugate C) and in grade 9 (Meningococcal conjugate ACYW 135).

5.4. Invasive Pneumococcal Disease (IPD)

In 2013, the rate of IPD was 9.8 per 100,000 population with 74 cases reported to Public Health.

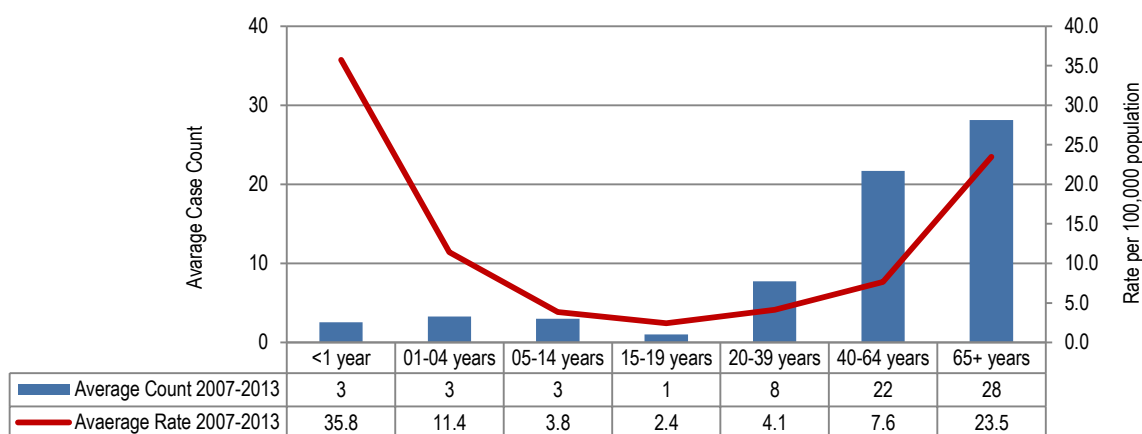
Over the last 6 years, there was an average of 66 cases of IPD per year and the 6-year average incidence rate was 9.0 cases per 100,000 population. Over all, the incidence rate in New Brunswick is similar or slightly higher than the national rate.

Graph 6. IPD Case Counts and Rates per 100,000 for New Brunswick and Canada, 2007-2013



Whereas the majority of cases (about 74%) are observed in adults older than 40 years during 2007-2013, it is noted that there was an increase in the incidence rate in the extreme ages: the average 7-year incidence was 35.8 cases per 100,000 population for the under 1 year old infants and 23.5 cases per 100,000 population for those who are 65 years and older.

Graph 7. Average Age Specific Case Counts and Rates per 100,000, New Brunswick, 2007-2013



In 2013, about 50% of reported IPD cases (n=38) were aged 65 years and older. In this age group, only seven cases (out of 26 with known vaccine status- 27%) were vaccinated. Among those non-vaccinated (n=19), 68% had vaccine preventable serotypes. Serotypes were missing for 12 cases.

No specific regional trends were observed: In the period 2006-2013, regional rates were stable within most regions except in Region 3 which showed an increase in 2013 where more than double of the average number of cases was recorded. However, regional-specific rates should be interpreted with caution: the relatively low number of cases can result in major fluctuations in the rate from year to year.

Publicly funded IPD immunization is offered at 2, 4 and 12 months of age (Pneumococcal conjugate- Pevnar-13) and for persons 65 years of age and older (Pneumococcal polysaccharide- Pneumo-23).

5.5. Measles

In 2013, 3 cases of measles were reported to Public Health: the index case was related to travel to Mexico, which infected 2 more unimmunized cases. In the last 10 years only two cases of measles have been reported in the province (in 2005 and 2011), both cases were travel-related. Sustained transmission of measles in Canada has been eliminated as a result of current immunization schedules and high coverage rates throughout the country; however some outbreaks are still being recorded.

Publicly funded measles immunization (MMRV) is offered during childhood at 12 and 18 months of age.

5.6. Mumps

In 2013, 5 cases of mumps were reported to Public Health. All cases were in the age group 20 years and above. 3 cases were related to a family cluster. 60% of cases were not vaccinated, 40% had only one dose of vaccine.

Since 2008, there were 3 confirmed cases reported in New Brunswick, 1 in 2008, 1 in 2009, and 1 in 2012.

In 2007, 124 cases were reported in New Brunswick as part of a large multi-regional outbreak that affected other provinces. 50% (62) of the reported cases in New Brunswick occurred in persons 20 to 24 years old, many of whom were college or university students. Just over half (56%) of those affected were males.

The pattern of adolescent and early adult outbreaks is common internationally, often associated with close contact living such as colleges and indigenous communities. Outbreaks are thought to reflect declining immunity from MMR vaccine in childhood.

Publicly funded mumps immunization (MMRV) is offered at 12 and 18 months of age.

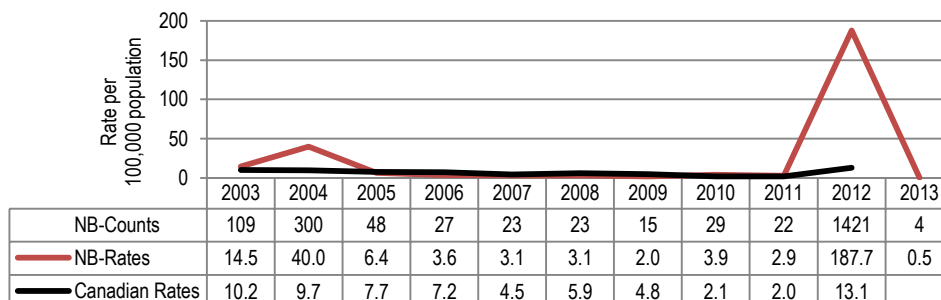
5.7. Pertussis

Following the pertussis outbreak in 2012 with 1421 cases representing an incidence rate of 189 per 100,000 population reported during that year, only 4 cases of pertussis were reported in 2013 with an incidence rate of 0.5 cases per 100,000 population.

Over the last 10 years (excluding 2004 and 2012), there was an average of 33 cases of pertussis per year with a range of 15 to 118 cases reported annually. The 10-year average incidence rate was 4.4 cases per 100,000 population. Over all, the incidence rate in New Brunswick is lower than the national rate.

In 2013, all cases were in adults 20 years and older.

Graph 8. Pertussis Case Counts and Rates per 100,000 in New Brunswick and Canada, 2003-2013



Publicly funded pertussis immunization is offered at 2, 4, 6 and 18 months (DTaP-IPV-Hib), 4 years (Tdap-IPV), grade 7 (Tdap) and adulthood (Tdap).

5.8. Rubella

No cases of rubella were reported in 2013. Between 2003 and 2012, only 1 case of rubella was reported in 2010.

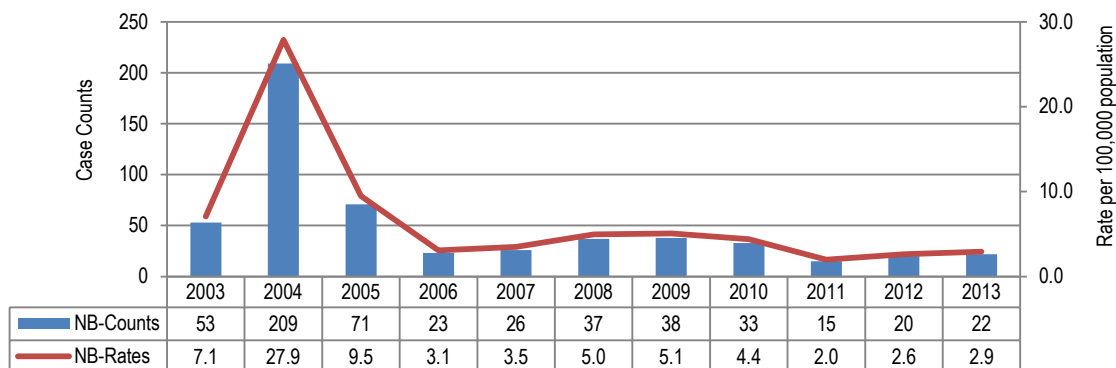
Publicly funded rubella immunization (MMRV) is offered during childhood (12 and 18 months).

5.9. Varicella

Varicella is under-reported to Public Health. Due to reporting inconsistencies across the Regions, we focus on reported varicella cases in people aged 0-49 years. In general in most cases 50 years old and over the virus presents as shingles (herpes zoster).

In 2013, there were 22 cases of varicella reported to Public Health with an incidence rate of 3 per 100,000 population. Over the past 10 years, the varicella rate has been stable with the exception of 2004, where there was a large increase observed in children less than 9 years old. Most of these cases were located in Region 7.

Graph 9. Varicella Case Counts and Rates per 100,000 for New Brunswick², 2003-2013



Publicly funded varicella immunization (MMRV) is offered in childhood at 12 and 18 months of age. New Brunswick started to a two dose varicella vaccine schedule in 2011.

5.10. Other vaccine preventable diseases

No cases of diphtheria, tetanus and poliomyelitis were reported between 2003 and 2013. Publicly funded immunizations are provided during childhood (DTaP-IPV-Hib/ Tdap-IPV/ Tdap), adolescence (Tdap) and adulthood (Tdap, Td).

For further details on counts and rates of different vaccine preventable diseases, please refer to Appendix 2.

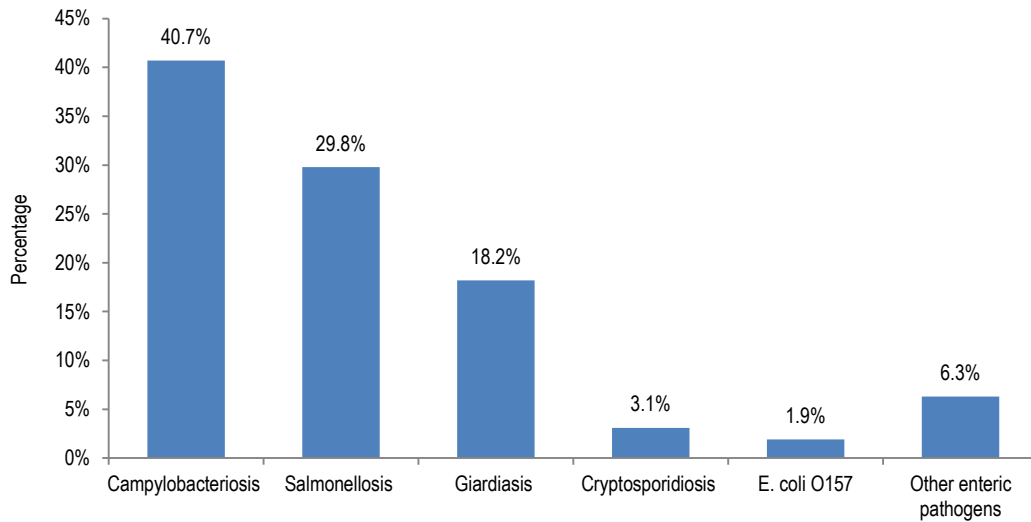
² No Canadian Rates were reported as not all provinces report varicella for all years, making the annual national rates very fluctuating

6. Enteric, Food and Waterborne Diseases

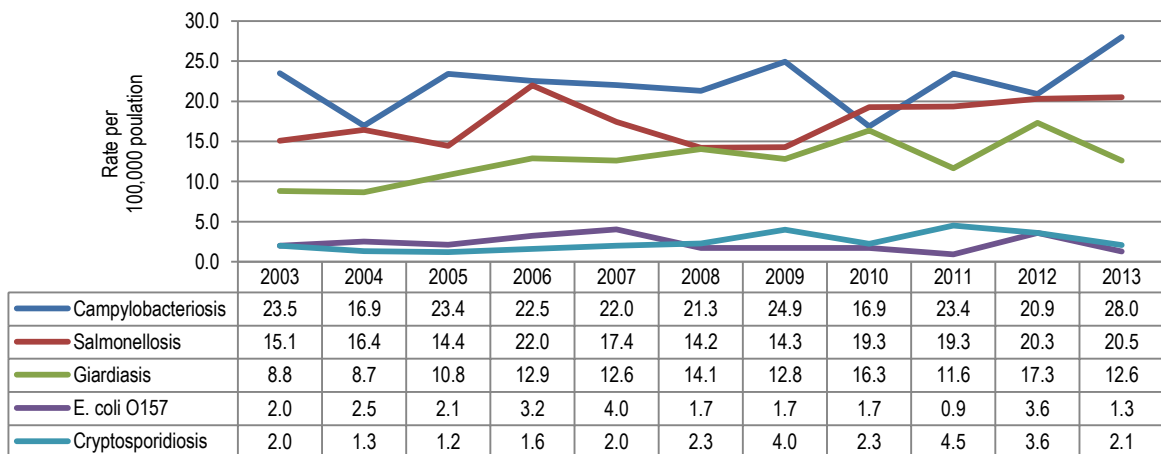
Enteric diseases are normally associated with food, however cases have been linked to contaminated water, secondary transmission from humans, and direct contacts with animals, including exotic pets.

Campylobacter, *Salmonella* and *Giardia* accounted for the highest proportion of reportable enteric, food and waterborne diseases in 2013.

Graph 10. Enteric Diseases in New Brunswick, 2013



Graph 11. Incidence Rates per 100,000 population of Some Enteric Diseases in New Brunswick, 2003-2013

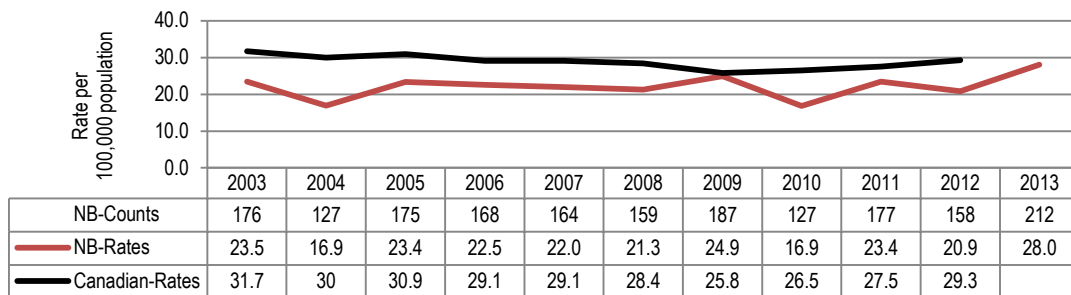


6.1. Campylobacteriosis

Campylobacteriosis is the most frequently reported enteric infection.

In 2013, there was a large increase in the number of reported cases with campylobacter infections compared to previous years. The incidence rate of campylobacteriosis was 28 per 100,000 population which accounted for 212 cases reported to Public Health. Over the last 10 years, there was an average of 162 cases per year with a 10-years average incidence rate of 22 per 100,000 population. Over all, the incidence rate in New Brunswick is lower than the national rate.

Graph 12. Campylobacteriosis Case Counts and Rates per 100,000 for New Brunswick and Canada, 2003-2013



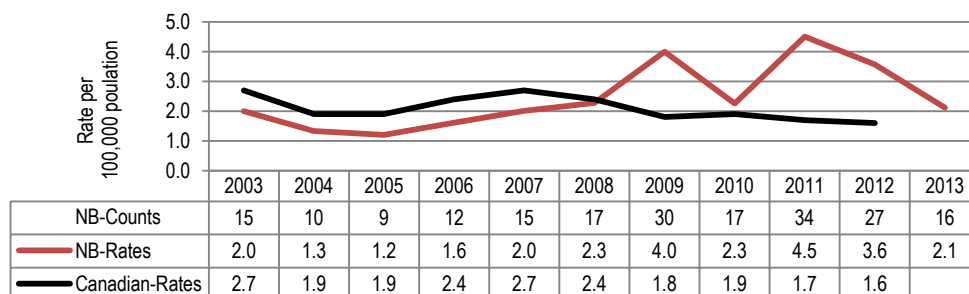
In 2013, the highest rate was seen in children aged 1 to 4 years followed by individuals 60 years and older, and those in the age group of 20-29 years. This is consistent with overall age-specific incidence rates seen in the period from 2003 to 2012, with the exception of the children aged 1 to 4 years where a higher than expected rate was recorded.

A higher incidence was observed in Zones 4 and 6 compared to the rest of the regions in the time period from 2003-2013.

6.2. Cryptosporidiosis

In 2013, there were 16 reported cases of cryptosporidiosis with an incidence rate of 2.1 cases per 100,000 population. Over the last 10 years, on average 19 cases were reported to Public Health annually with a 10-years average incidence rate of 2.5 cases per 100,000 population. The incidence rate and case count of cryptosporidium infections has fluctuated from 2009 onwards. Up until 2009 the incidence rate and case count were fairly stable and were below the national rate.

Graph 13. Cryptosporidiosis Case Counts and Rates per 100,000 population for New Brunswick and Canada, 2003-2013.



Most of the cases of cryptosporidium infections over the period between 2003 and 2012 were seen in Regions 1, 2 and 3. In 2013 there was a decrease in the number of cases in all regions.

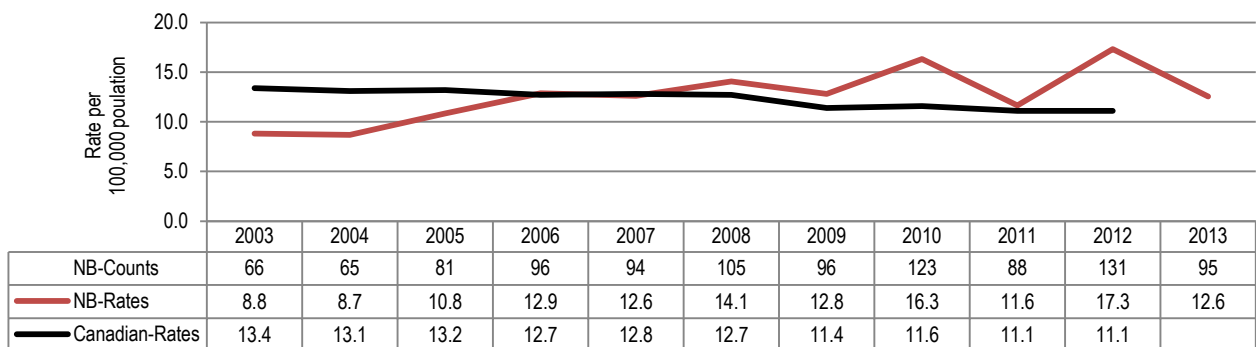
In 2013, the majority of cases (56%) occurred in adults aged between 25 and 39 years old, and the highest incidence rate was observed in 25-29 years age group. Over 2003-2012, the children aged 1 to 4 years had the higher age-specific incidence rates.

The annual changes in the incidence rate by age group should be interpreted with caution: the relatively low number of cases can result in major fluctuations in the rate from year to year.

6.3. Giardiasis

In 2013, the incidence rate of giardiasis was 12.6 per 100,000 populations which accounted for 95 cases reported to Public Health. This was similar to, the average case counts and incidence rate over the last 10 years. NB rate was below or at the national rates till 2007 after which they started to increase exceeding the national rates in 2008 throughout 2012.

Graph 14. Giardiasis Case Counts and Rates per 100,000 population for New Brunswick and Canada, 2003-2013.



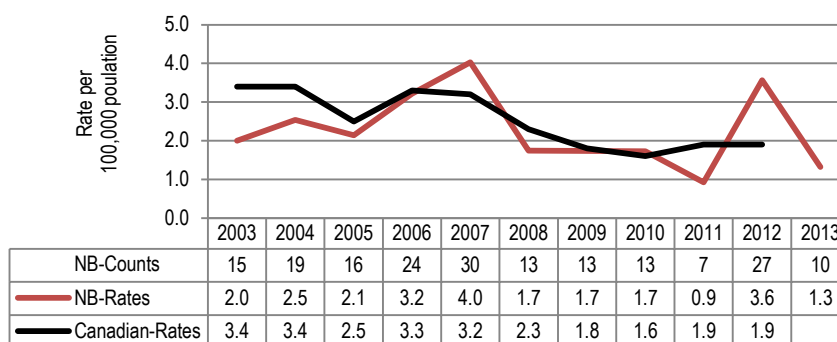
In 2013 the highest rate was observed in the children between 1 and 4 years old whereas the highest proportion of cases was observed in adults in the 40 years and older. This age trend is similar for that found over the period from 2003 to 2012.

The highest proportion of cases (50%) was reported in Region 1 and 3 but the highest rate of infection was reported in Region 5 in year 2013. Over all, Region 5 has the highest incidence rate among the other Regions.

6.4. *E.coli* 0157:H7

In 2013, the incidence rate of *E.coli* 0157:H7 infection was 1.3 per 100,000 population which accounted for 10 cases reported to Public Health. Despite significant annual fluctuations, the incidence of *E.coli* 0157:H7 has been relatively stable over the last 10 years with an average number of 18 cases annually and a 10-years average incidence rate of 2.4 per 100,000 population. Overall, NB rates have been consistent with the national rates except for year 2012 in which NB rates were higher due to the occurrence of multiple *E.coli* 0157:H7 outbreaks.

Graph 15. *E.coli* 0157 Case Counts and Rates per 100,000 population for New Brunswick and Canada, 2003-2013



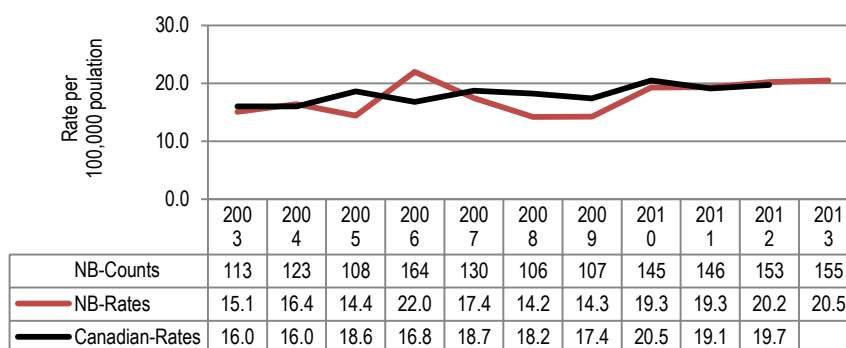
In 2013, most cases as well as the highest incidence rate were in the children aged 1 to 4 years. Over the 2003-2012 time period, the case counts were evenly distributed among all the age groups with an average of 2-3 cases annually per group. The incidence rate over 2003-2012 was highest in 1-4 year old age group, followed by the 20-24 age group.

The annual changes in the *E.coli* 0157:H7 incidence rate by age group should be interpreted with caution: the relatively low number of cases can result in major fluctuations in the rate from year to year.

6.5. Salmonellosis

In 2013, the incidence rate of salmonellosis was 20.5 per 100,000 population which accounted for 155 cases reported to Public Health. Over the last 10 years, there was a yearly average of 130 cases with a 10-years average incidence rate of 17.3 per 100,000 population. Over all, this is consistent with the national rates.

Graph 16. Salmonellosis Case Counts and Rates per 100,000 population for New Brunswick and Canada, 2003-2013



In 2013, the majority of cases (56%) occurred in adults aged 40 years and above, and the highest incidence rate was observed in children less than 5 years old. This is consistent to the trends over the last 10 years.

In 2013, the highest proportion of cases (27%) was reported in Region 1 but the highest incidence rate was observed in Region 5. Regions 4 experienced the highest increase in incidence rate in 2013 compared to the 10 year average incidence rate.

In 2013, the most common reported salmonella serotypes were *S.enteritidis* (41%) followed by *S.heidelberg* (20%) and *S.Thompson*, *Typhimurium* and *Schwarzengrund* (each 5%).

6.6. Other Enteric Diseases

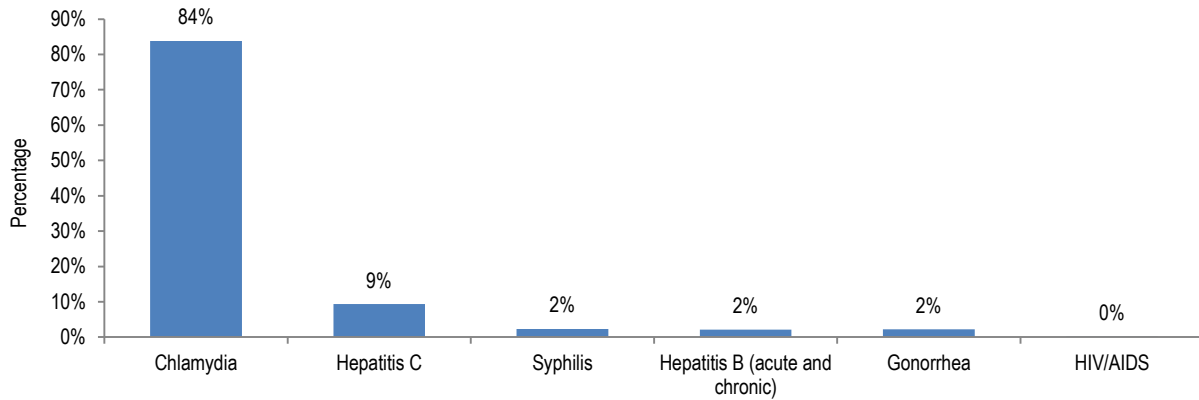
For further details on counts and rates of different enteric diseases, please refer to Appendix 3.

7. Sexually Transmitted and Blood Borne Infections (STBBI)

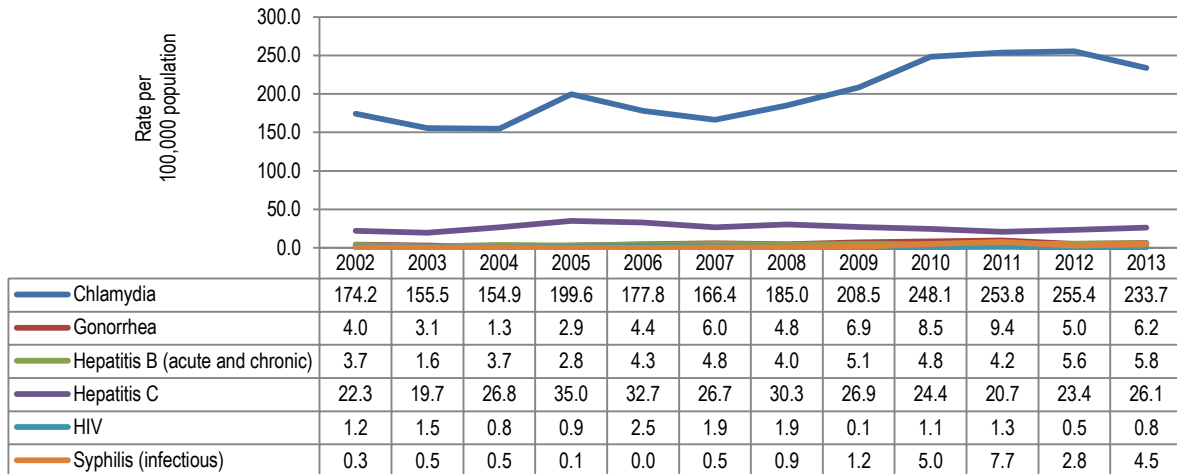
In 2013, the most commonly reported STBBIs were chlamydia followed by hepatitis C virus infections.

Sexually transmitted and bloodborne infections (STBBI) and their serious consequences can be prevented and reduced through sexual health promotion, needle exchange programs, early detection, treatment and notification of sexual and drug use partners.

Graph 17. Sexually Transmitted and Blood Borne Infections (STBBI) in New Brunswick, 2013



Graph 18. Incidence Rates of Some Sexually Transmitted and Blood Borne Infections (STBBI) in New Brunswick, 2003-2013

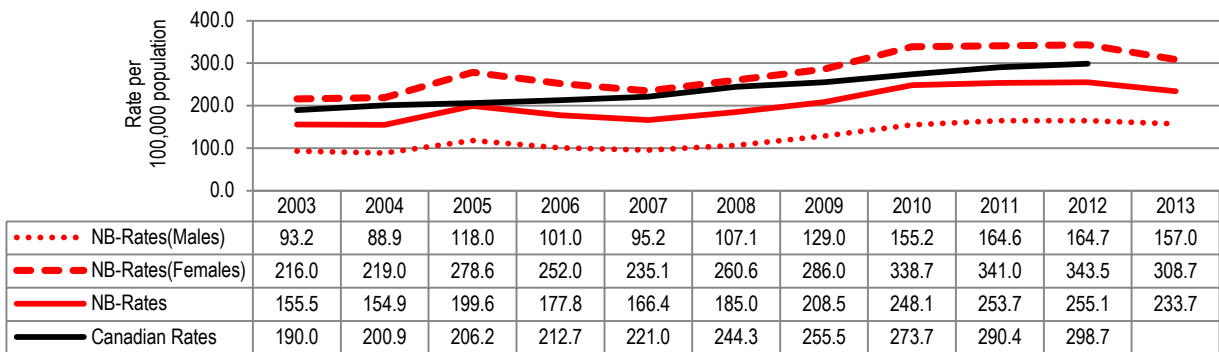


7.1. Chlamydia

Chlamydia is the most commonly reported sexually transmitted disease.

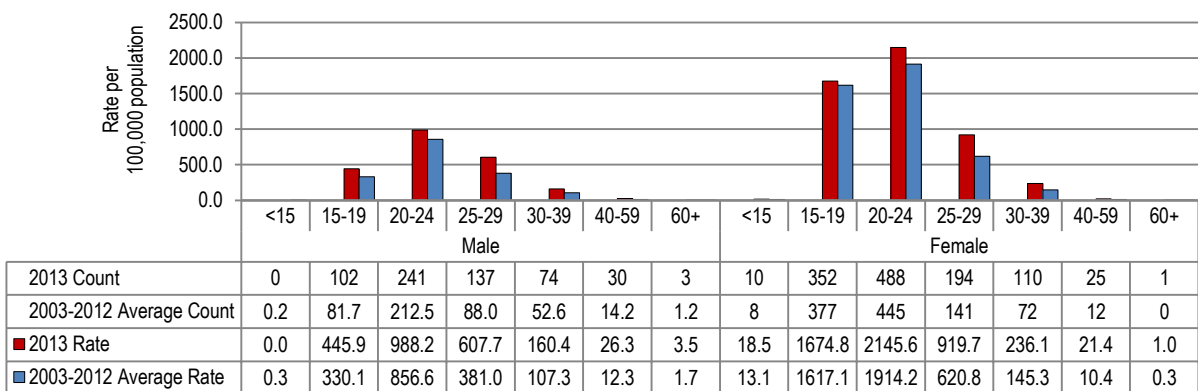
In 2013, 1767 chlamydia cases were reported with an incidence rate of 233.7 per 100,000 population. In the past 10 years, the average case count was 1505 cases per year with a 10-years incidence rate of 200.6 per 100,000 population. The incidence of chlamydia has been increasing since 2008. A slight decrease was observed in 2013. Overall, the incidence rate for New Brunswick is slightly below the Canadian rate.

Graph 19. Chlamydia Incidence Rates per 100,000 population Overall and by Sex for New Brunswick and Canada, 2003-2013



Females remain largely overrepresented among chlamydia cases, accounting for more than two thirds of all notifications (67%) in 2013. The highest incidence was seen in Regions 3 and 1.

Graph 20. Chlamydia Case Counts and Incidence Rate per 100,000 by Sex and Age group, New Brunswick, 2003-2013



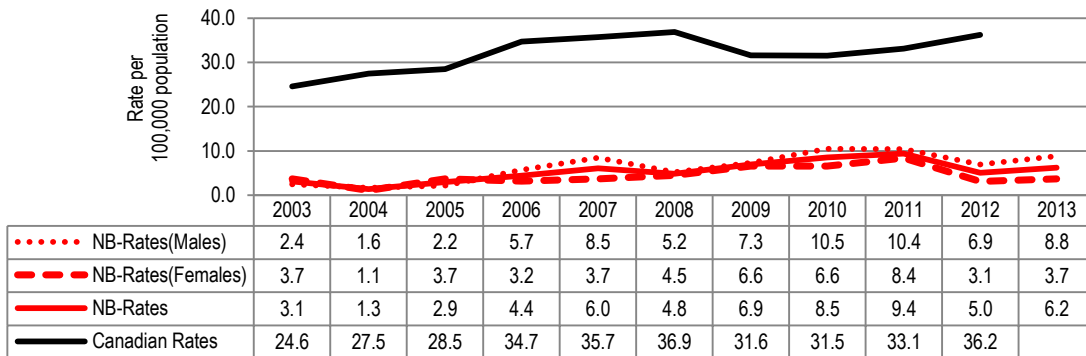
The majority of chlamydia occurs in people aged 15 to 29. In 2013, this age group accounted for 86% of the cases. The highest incidence rate was among young adults aged 20 to 24 years old in both males and females.

All regions showed a decrease in the incidence rate in 2013 compared to 2012 except for Region 2.

7.2. Gonorrhoea

In 2013, the incidence rate of gonorrhoea was 6.2 with 47 cases reported to Public Health; this was higher than in 2012. In the past ten years, the average case count was 39 cases per year with a 10-years incidence rate of 5.3 per 100,000 population. Since 2004, there has been a rising trend for Gonorrhoea peaking in 2011, with a decrease in 2012 followed by an increase in 2013. Incidence rates for gonorrhoea remain lower than the Canadian rate³.

Graph 21. Gonorrhoea Incidence Rates per 100,000 population Overall and by Sex for New Brunswick and Canada, 2003-2013

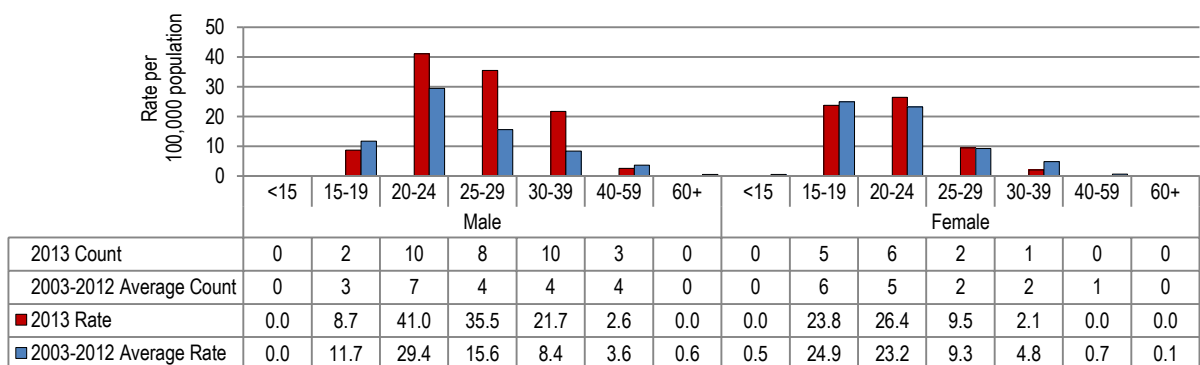


In 2013, the majority of the cases (70%) were male. The highest incidence rate was seen in Regions 1 and 5. Over the 2003-2012 time period, cases were more equally distributed between males and females.

Individuals aged from 20 to 39 years old represent the majority of the cases (79%) although some cases are seen in younger persons.

The annual changes in the gonorrhoea incidence rate by age group should be interpreted with caution: the relatively low number of cases can result in major fluctuations in the rate from year to year.

Graph 22. Gonorrhoea Case Counts and Incidence Rate per 100,000 by Sex and Age group, New Brunswick, 2003-2013

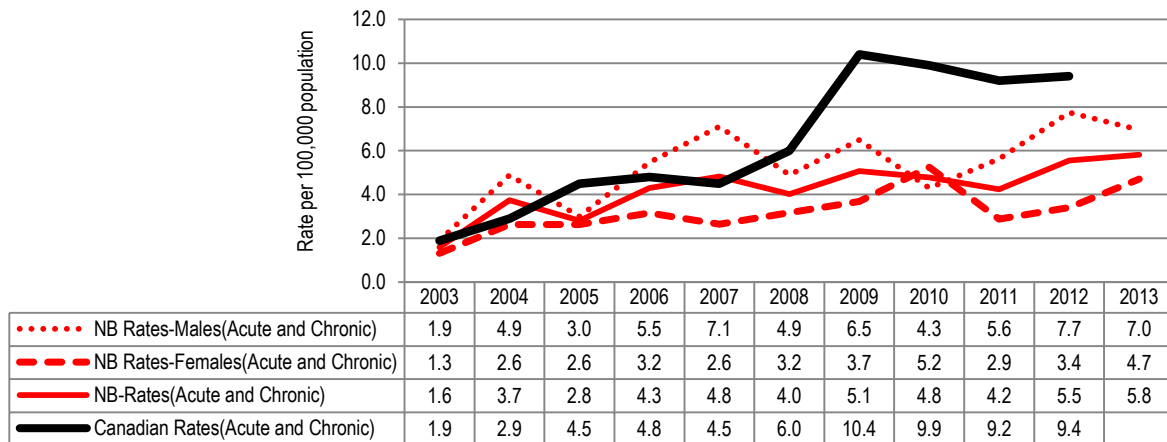


³ National data are presumably a mix of genital and extra-genital gonorrhoea cases.

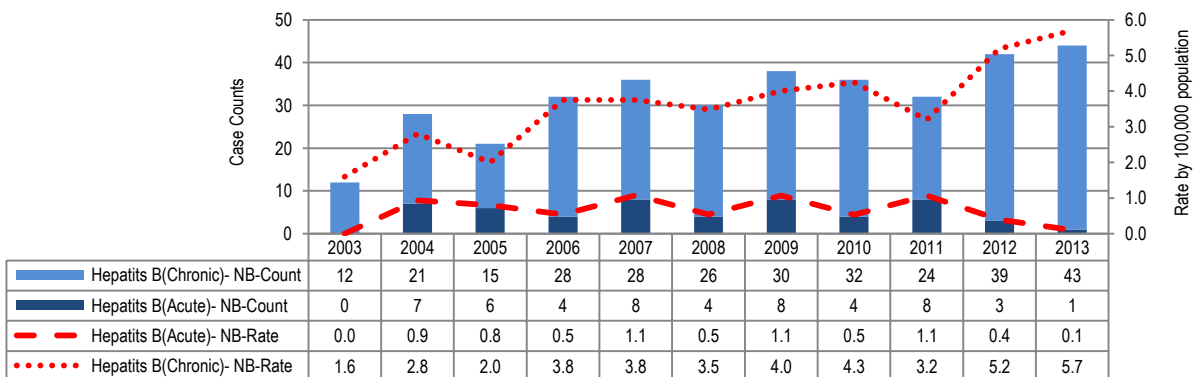
7.3. Hepatitis B

In 2013, the incidence rate for chronic hepatitis B was 5.7 per 100,000 population with 43 cases reported to Public Health whereas only 1 case of acute hepatitis B were reported with an incidence rate of 0.1 per 100,000 population. Most cases reported to Public Health from 2003-2013 were chronic hepatitis B cases, with an average count of 26 cases for chronic hepatitis B and 5 for acute hepatitis B. The case count and incidence rate for chronic hepatitis B cases have been fairly stable in the period from 2006 to 2011 but increased in 2012 and 2013. Since 2008, NB rates for hepatitis B infections (acute and chronic) are below the national rates.

Graph 23. Hepatitis B (acute and chronic) Incidence Rates per 100,000 population Overall and by Sex for New Brunswick and Canada, 2003-2013



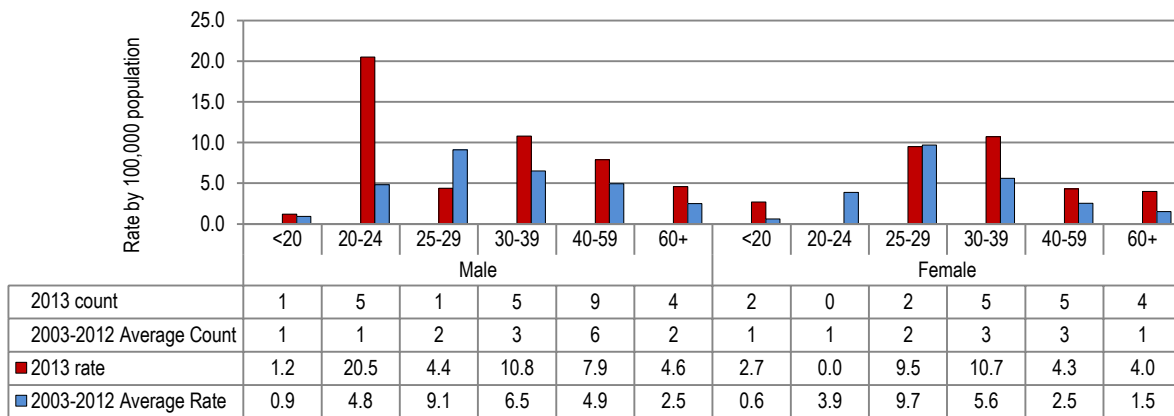
Graph 24. Chronic and Acute Hepatitis B Case Counts and Rates per 100,000 in New Brunswick, 2003-2013



Most cases of chronic hepatitis B were seen in males.

In 2012, more than half of chronic hepatitis B cases (51%) occurred among individuals aged 40 years and older, whereas the highest incidence was seen in the 30-39 years old and the 20-24 years old age groups (10.8 and 10.6 per 100,000 population respectively) in 2013. Over 2003-2012, the highest incidence rate was seen in the 25-29 year old age group

Graph 25. Chronic Hepatitis B Case Counts and Incidence Rate per 100,000 by Sex and Age groups, New Brunswick, 2003-2013



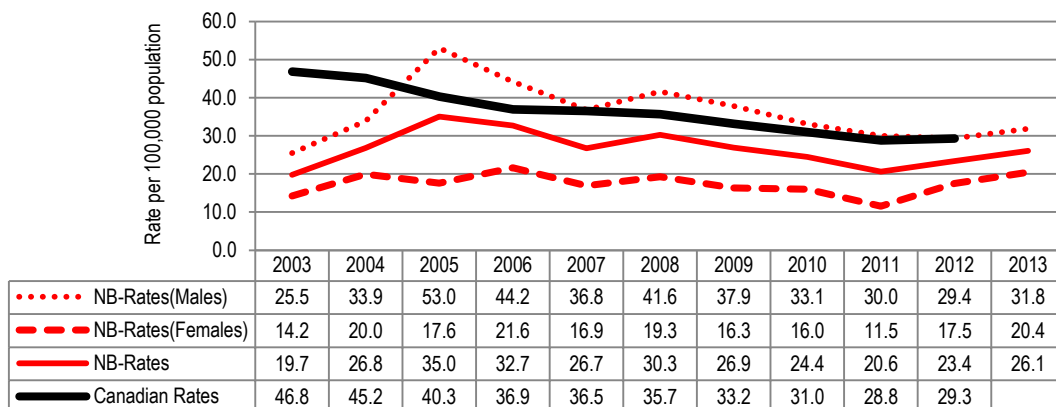
Hepatitis B is a vaccine preventable disease. Currently hepatitis B vaccine is offered at birth, 2 months and 6 months of age. Contacts (household, partner etc.) of persons with acute or chronic HBV infection are eligible to receive publicly funded hepatitis B vaccine.

7.4. Hepatitis C

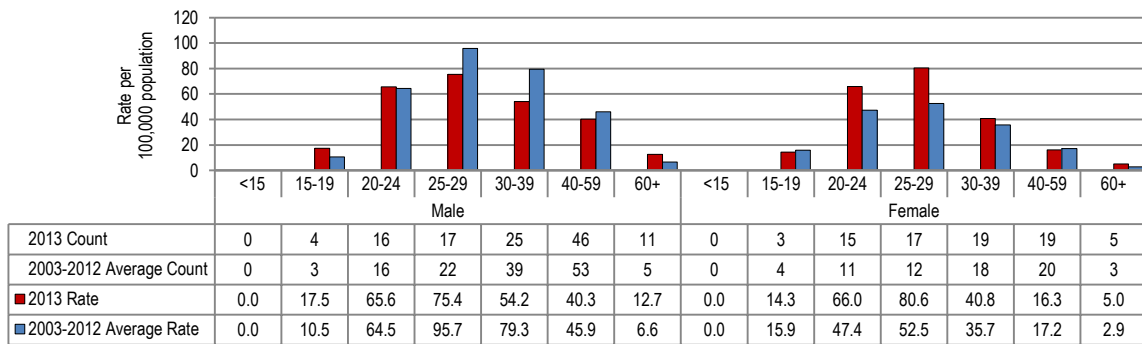
Hepatitis C is the most commonly reported blood-borne infection in New Brunswick.

In 2013, the incidence rate of hepatitis C increased to be 26.1 per 100,000 population with 197 cases reported to Public Health. In the last ten years, an average of 205 cases was reported annually with a 10-years average incidence rate of 27.3 per 100,000 population. A decline in incidence rates was observed in the period from 2009 to 2011; however an increase was observed in 2012 and 2013, but to lower estimates than those recorded prior to 2009. Compared to Canadian rates the incidence rate in New Brunswick is lower than the Canadian rate.

Graph 26. Hepatitis C Incidence Rates per 100,000 population Overall and by Sex for New Brunswick and Canada, 2003-2013.



Graph 27. Hepatitis C Case Counts and Incidence Rate per 100,000 by Sex and Age groups, New Brunswick, 2003-2013



In 2013, the highest incidence rate was seen in the 25-29 year old age group, followed by the 20-24 year old age group. Incidence rate for females aged 20 to 24 years has been observed to have an upward trend since 2012. The majority of newly diagnosed cases was seen in the below 40 years old age group (59%).

Region 1 had the highest incidence rate, followed by region 7 probably linked to the presence of correctional facilities in those 2 Regions.

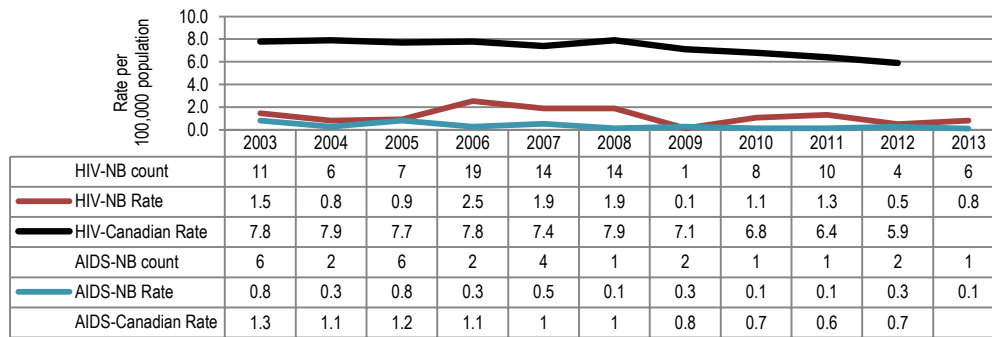
7.5. HIV and AIDS

In 2013, 6 cases of HIV were reported to Public Health with an incidence rate of 0.8 per 100,000 population. During the last ten years, the incidence rate of HIV in New Brunswick remained mostly below 2 per 100,000 population, with an average of 1.3 per 100,000 population. It is low compared to the Canadian rates where the annual incidence rate from 2003 to 2012 ranged between 5.9 and 7.9 per 100,000 population.

With regards to AIDS, only one case was reported to Public Health in 2013 with an incidence rate of 0.1 per 100,000 population. The annual number of cases of AIDS ranged from 1 to 6 cases, with an average of 3 cases per year and a 10-years average incidence rate of 0.4 per 100,000 population. The AIDS rates in New Brunswick remain lower than the Canadian rates.

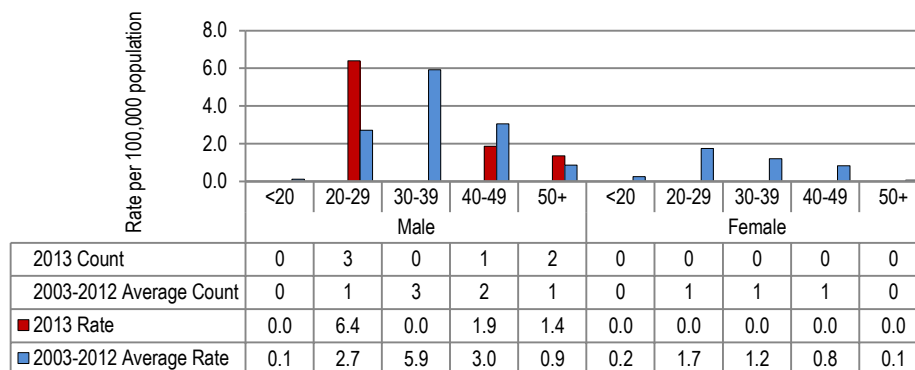
The annual changes in the HIV and AIDS incidence rates should be interpreted with caution: the relatively low number of cases can result in major fluctuations in the rate from year to year.

Graph 28. HIV and AIDS Case Counts and Incidence Rates per 100,000 population for New Brunswick and Canada, 2003-2013.



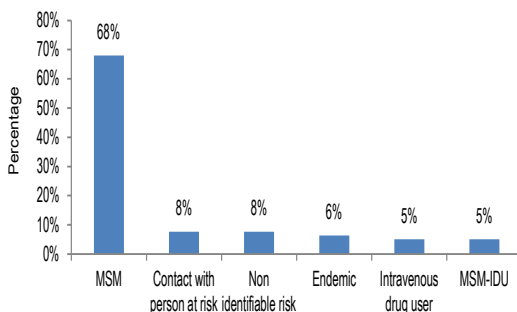
In 2013, all reported HIV cases were males. During the last ten years, the incidence of each HIV and AIDS was more than three times higher among males compared to females. Most cases were in the age category of 30 to 49 years.

Graph 29. HIV Case Counts and Incidence Rate per 100,000 by Sex and Age groups, New Brunswick, 2003-2013

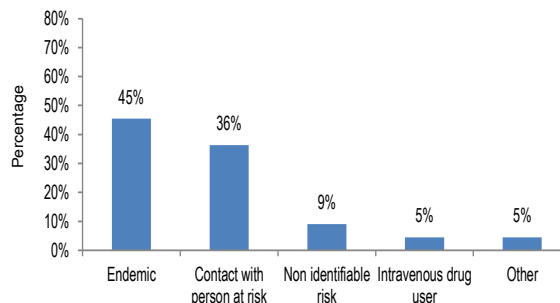


In New Brunswick, over the period from 2003 to 2013, most cases of HIV among males (68%) were seen in the populations of men having sex with men (MSM); whereas in females, the most common risk factor for infection was being from an endemic area (45%).

Graph 30. Risk factors of HIV Infection Among Males in New Brunswick, 2003-2013



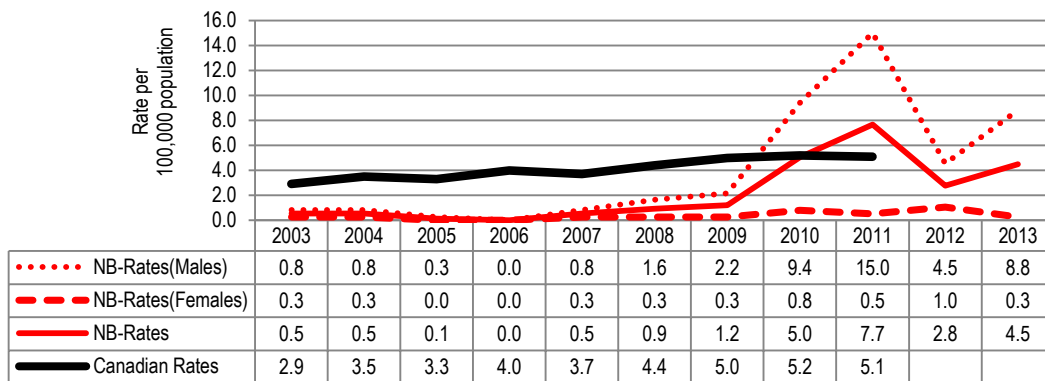
Graph 31. Risk factors of HIV Infection Among Females in New Brunswick, 2003-2013



7.6 Syphilis(Infectious)

In 2013 the incidence rate was 4.5 per 100,000 with 34 cases reported to Public Health. This was higher than the rate and the case counts reported in 2012 and was specifically related to an increase in the number of cases reported by Region 3. Since the syphilis outbreak in New Brunswick during the years 2010 to 2012, the annual case count for infectious syphilis as well as the incidence has been higher than the pre-outbreak period where the average number of cases was less than 4 cases per year. The national rate for infectious syphilis is only available up to 2011.

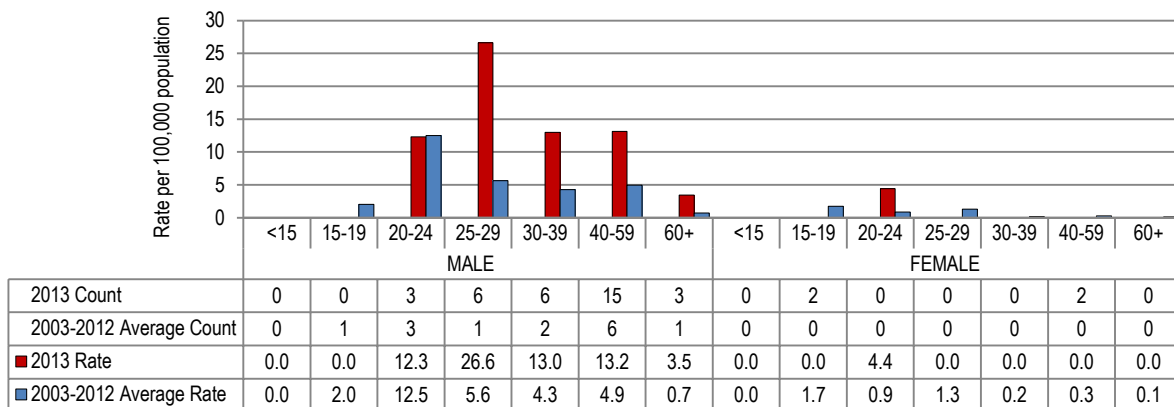
Graph 32. Infectious Syphilis Incidence Rates per 100,000 population Overall and by Sex for New Brunswick and Canada, 2003-2013.



In 2013, the increase case counts was attributed to an increase in cases in Region 3 specifically during the second half of the year. For Region 3, the incidence rate in 2013 was more than 4 folds higher than the 10-year average incidence rate and was similar to that recorded in 2011 during the peak of the outbreak.

The majority of cases are seen in males in the 40-59 year old age group, followed by those aged between 25-39 years old. The highest incidence was observed among those aged 25 to 29 years old.

Graph 33. Infectious Syphilis Case Counts and Incidence Rate per 100,000 by Sex and Age groups, New Brunswick, 2003-2013



8. Vectorborne and Zoonotic diseases

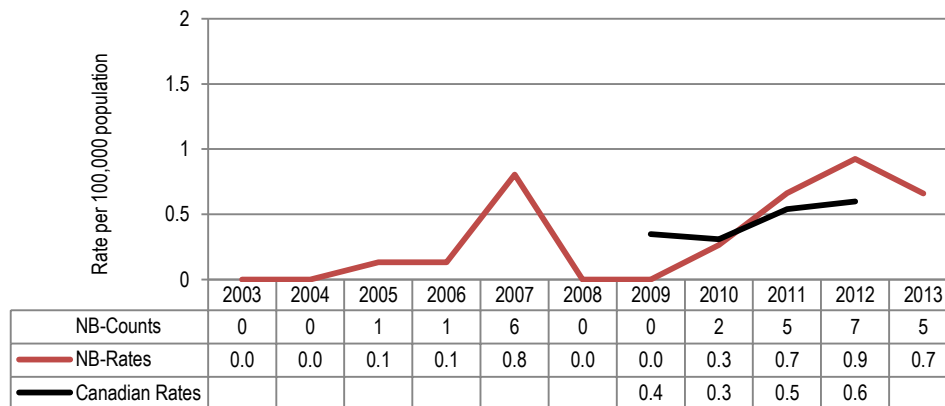
New Brunswick continues to have a low endemic risk that is reflected in the sporadic cases and low incidence rates of vectorborne and zoonotic infections.

8.1. Lyme Disease

Lyme disease is an emerging tick-borne disease. Since 2003 there have been an increasing number of areas where blacklegged ticks have become established in southern Canada. The risk of contracting Lyme disease is higher in areas with established tick populations and circulating *Borrelia* bacteria, otherwise known as endemic areas. Populations of infected ticks are established in parts of southern New Brunswick. It is likely that blacklegged ticks will spread to adjacent areas and other areas in the province. It is important to note that Lyme Disease can be contracted anywhere in the province and not all endemic areas can be able to be identified in a timely manner, therefore public messaging is aimed at prevention in all areas of the province and not focused on endemic areas. The DH is working with other partners to better understand what is occurring in the province regarding tick habitats.

In 2013, 5 cases of lyme disease were reported to Public Health, mostly in Region 2 (3 cases), accounting for an incidence rate of 0.7 per 100,000 population. An average of 2 cases was reported in the last 10 years (range 0-7 cases). In 2012, the incidence rate in New Brunswick was higher than the national rate.

Graph 34. Lyme disease Case Counts and Incidence Rates per 100,000 population for New Brunswick and Canada⁴, 2003-2013.



The annual changes in the lyme disease incidence rates should be interpreted with caution: the relatively low number of cases can result in major fluctuations in the rate from year to year.

8.2 Other Vectorborne and Zoonotic diseases

In 2013, 10 cases of malaria were reported. Malaria is not endemic in NB and all cases were travel-related. In addition, there was 1 case of Q-fever; this is consistent to the expected 10-years average case count.

For further details on counts and rates of different vectorborne and zoonotic diseases, please refer to Appendix 5.

⁴ Lyme disease was added to the national notifiable disease list in 2009.

9. Respiratory and Direct Contact Diseases

9.1. Legionellosis

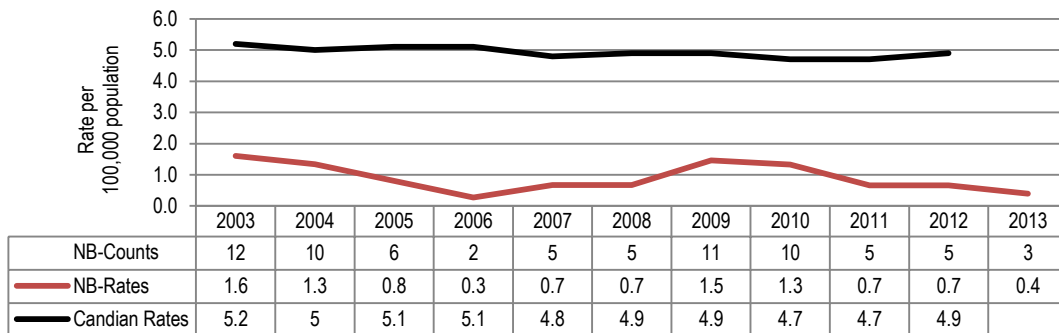
In 2013, the rate of legionellosis was 0.4 per 100,000 population accounting for 3 cases reported to Public Health. All cases were seen in males aged 60 years and above. In the last ten years, an average of 2 cases was reported per year.

9.2. Tuberculosis(active)

The rate of tuberculosis in New Brunswick was 0.4 per 100,000 in 2013, accounting for 3 cases reported to Public Health. In the last ten years, an average of 7 cases was reported per year with a 10-years average incidence rate of 1.0 per 100,000 population. Over all, the rates in New Brunswick are consistently lower than the Canadian rates

The annual changes in tuberculosis incidence rate should be interpreted with caution: the relatively low number of cases can result in major fluctuations in the rate from year to year. .

Graph 35. Tuberculosis Case Counts and Incidence Rates per 100,000 population for New Brunswick and Canada, 2003-2013

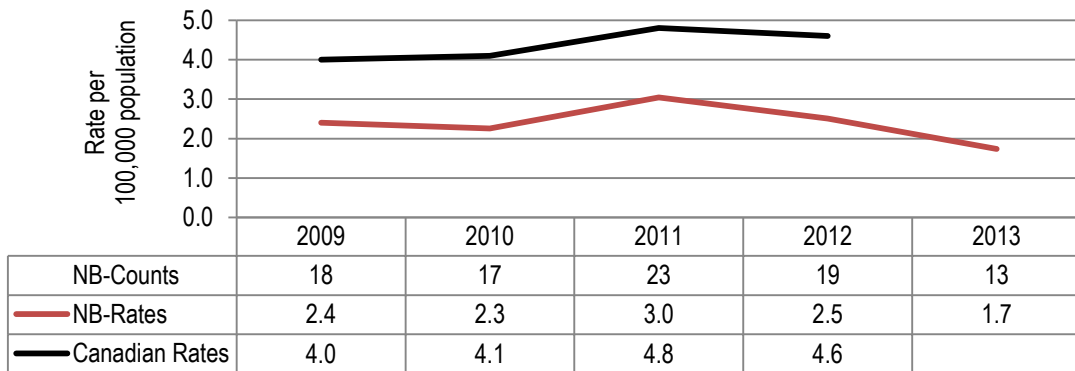


Over the period from 2003-2013, most of the cases were seen among Canadian born non-Aboriginal populations (56%), followed by the foreign-born (27%). Aboriginals only represented 1% of cases. Individuals aged 60 years old and above accounted for almost 46% of reported cases. And, the most common diagnosis site for secondary tuberculosis was pulmonary TB (68%) followed by genito-urinary (9%).

9.3. Invasive Group A Streptococcal disease (iGAS)

In 2013, the rate of iGAS was 1.7 per 100,000 population, accounting for 13 cases reported to Public Health. 2013 rates are the lowest since the disease has been under enhanced surveillance. New Brunswick incidence rates of iGAS are consistently lower than the Canadian rates.

Graph 36. Invasive Group A Streptococcal disease (iGAS) Case Counts and Incidence Rates per 100,000 population for New Brunswick and Canada, 2009-2013



In 2013, individuals aged 60 years and above had the highest age-specific rate, followed by those aged between 20 and 29 years. This is similar to the picture observed in 2012. In years prior to 2012, the highest rates were observed in individuals aged 30 to 39 years old.

The majority of the cases (53%) were reported in Region 3 in which the highest incidence rate was recorded for 2013. Throughout the period between 2009 and 2012, Region 2 had the highest incidence rate.

The annual changes in the iGAS age-specific and Region-specific incidence rate should be interpreted with caution: the relatively low number of cases can result in major fluctuations in the rate from year to year. .

9.4. Group B Streptococcal Infection of Newborn

In 2013, there were 3 cases reported to Public Health. Since 2007 to 2013, the case count fluctuates between 1 and 5 cases annually.

For further details regarding respiratory and direct contact diseases please refer to Appendix 6.

10. Healthcare associated infections

The provincial healthcare associated infections (HAI) surveillance system was established in April 2013 to monitor the incidence and trends of healthcare associated infections among patients who have been hospitalized. Currently, the system looks at two infections: *Clostridium difficile* infection (CDI) and Methicillin-resistant *Staphylococcus aureus* (MRSA) bacteremia, and the reports are done by quarter of fiscal year (April of a certain year to March of the next year). [Quarterly Healthcare Associated Infections Surveillance Report](#) can be accessed at the Office of the Chief Medical Officer of Health's webpage.

For fiscal year 2013/2014, the New Brunswick rate of hospital associated CDI was 2.7 per 10,000 patient days and the rate of hospital associated MRSA bacteremia was 0.04 per 10,000 patient days.

Appendix 1. List of Notifiable Diseases and Reportable Events

Notifiable Disease and Reportable Events Office of the Chief Medical Officer of Health



Timeline	Notifiable diseases and events	To be reported by	
		Laboratory	Clinicians (clinical illness)
Verbally within one hour Please attach a label for your region that specifies the telephone number to be used during and after business hours AND In writing by the end of the next working day Please attach a label for your region that specifies mailing address and fax number	Anthrax	✓	✓
	Botulism	✓	✓
	Cholera	✓	✓
	Clusters of illness thought to be food or water-borne	✓	✓
	Clusters of severe or atypical illness thought to be respiratory borne	✓	✓
	Diphtheria	✓	✓
	Hemorrhagic fever diseases	✓	✓
	Influenza caused by a new subtype	✓	✓
	Measles	✓	✓
	Plague-pneumonic	✓	✓
	Poliomyelitis	✓	✓
	Severe acute respiratory syndrome	✓	✓
	Smallpox	✓	✓
	Yellow fever	✓	✓
Verbally within 24 hours Please attach a label for your region that specifies the telephone number to be used during and after business hours AND In writing within seven days Please attach a label for your region that specifies mailing address and fax number	Brucellosis	✓	✓
	Campylobacteriosis	✓	
	Cryptosporidiosis	✓	
	Cyclosporiasis	✓	
	Escherichia coli (pathogenic) infection	✓	✓
	Exposure to a suspected rabid animal	✓	✓
	Giardiasis	✓	
	Guillain-Barré syndrome	✓	✓
	Hantavirus pulmonary syndrome	✓	✓
	Haemophilus influenzae (invasive) – type B and non-B	✓	✓
	Hepatitis A	✓	✓
	Hepatitis B	✓	✓
	Hepatitis E	✓	✓
	Legionellosis	✓	✓
	Listeriosis (invasive)	✓	✓
	Meningococcal (invasive) disease	✓	✓
	Mumps	✓	✓
	Paralytic shellfish poisoning	✓	✓
	Pertussis	✓	✓
	Plague – bubonic	✓	✓
	Q fever	✓	✓
	Rabies	✓	✓
	Rubella	✓	✓
	Salmonellosis	✓	✓
	Shigellosis	✓	✓
	Staphylococcus aureus intoxications	✓	✓
	Streptococcus group A beta-hemolytic (invasive)	✓	✓
	Tularemia	✓	✓
	Tuberculosis (active)	✓	✓
	Typhoid	✓	✓
	Unusual illness as per one of the following criteria: - presence of symptoms that do not fit any recognizable clinical picture - known etiology but not expected to occur in New Brunswick - known etiology that does not behave as expected - clusters presenting with unknown etiology	✓	✓
	Vaccinia	✓	✓
Vibrio species	✓	✓	
West Nile Virus infection	✓	✓	
Yersiniosis	✓	✓	
In writing within seven days Please attach a label for your region that specifies mailing address and fax number <small>MRSA and VRE are not reportable under the Public Health Act, however they are under surveillance by the Department of Health</small>	Adverse reaction to a vaccine or other immunizing agent	✓	✓
	Chlamydial infection (genital)	✓	✓
	Clostridium difficile associated diarrhea (CDAD)	✓	✓
	Creutzfeld-Jacob (CJD) disease-Classic and New Variant	✓	✓
	Cytomegalovirus (neonatal/ congenital)	✓	✓
	Gonococcal infection	✓	✓
	Hepatitis C and G	✓	✓
	Hepatitis - other viral	✓	✓
	Herpes (congenital and neonatal)	✓	✓
	Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome	✓	✓
	Influenza (laboratory confirmed)	✓	✓
	Leprosy	✓	✓
	Leptospirosis	✓	✓
	Lyme borreliosis	✓	✓
	Malaria	✓	✓
	Methicillin-resistant Staphylococcus aureus (MRSA)	✓	✓
Pneumococcal disease (invasive)	✓	✓	
Psittacosis	✓	✓	
Rickettsiosis	✓	✓	
Streptococcus group B beta-hemolytic (neonatal)	✓	✓	
Syphilis	✓	✓	
Tetanus	✓	✓	
Vancomycin resistant enterococci (VRE)	✓	✓	

Appendix 2. Tables for Vaccine Preventable Diseases

Table 2.1. Notifiable vaccine-preventable and respiratory diseases reported in New Brunswick in 2003-2013: counts and incidence rates per 100,000 population

	NB																					
	2003		2004		2005		2006		2007		2008		2009		2010		2011		2012		2013	
	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
Vaccine-Preventable Diseases																						
Diphtheria	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	0	0.0	0	0.0
Haemophilus influenzae (unspecified)	3	0.4	2	0.3	0	0.0	1	0.1	0	0.0	0	0.0	0	0.0	2	0.3	5	0.7	3	0.4	5	0.7
Invasive Meningococcal Disease ^Ω	4	0.5	5	0.7	5	0.7	6	0.8	3	0.4	7	0.9	7	0.9	5	0.7	4	0.5	6	0.8	2	0.3
Invasive Pneumococcal Disease [§]	-	-	-	-	-	-	-	-	54	7.2	52	7.0	71	9.5	81	10.8	80	10.6	60	7.9	74	9.8
Measles	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	0.1	0	0.0	3	0.4
Mumps [†]	0	0.0	0	0.0	0	0.0	0	0.0	124	16.6	1	0.1	1	0.1	0	0.0	0	0.0	1	0.1	5	0.7
Pertussis [*]	109	14.5	300	40.0	48	6.4	27	3.6	23	3.1	23	3.1	15	2.0	29	3.9	22	2.9	1421	187.7	4	0.5
Rubella and Congenital Rubella Syndrome	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	0	0.0
Tetanus	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	0	0.0	0	0.0
Varicella	53	7.1	209	27.9	71	9.5	23	3.1	26	3.5	37	5.0	38	5.1	33	4.4	15	2.0	20	2.6	22	2.9

Source: RDSS (Reportable Disease Surveillance System) database for all vaccine preventable and respiratory diseases, except Invasive Meningococcal Disease, Invasive Pneumococcal Disease, Mumps for 2007 and Pertussis for 2012

^Ω Source: Invasive Meningococcal Disease enhanced surveillance database

[§] Source: Invasive Pneumococcal Disease enhanced surveillance database

[†] Source: Mumps Enhanced database for year 2007.

^{*} Source: Pertussis Enhanced database for year 2012.

Source for rate calculations: OCMOH, Communicable Disease Control Branch. The denominators used were population estimates from Statistics Canada, Demography Division; release date March 2014.

Table 2.2. Notifiable vaccine-preventable diseases reported in New Brunswick in 2013 by region: counts and incidence rates per 100,000 population

	Region 1		Region 2		Region 3		Region 4		Region 5		Region 6		Region 7		NB	
	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
Vaccine-Preventable Diseases																
Diphtheria	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Haemophilus influenzae (unspecified)	1	0.5	1	0.6	2	1.2	0	0.0	0	0.0	1	1.3	0	0.0	5	0.7
Invasive Meningococcal Disease ^Ω	0	0.0	0	0.0	1	0.6	1	2.1	0	0.0	0	0.0	0	0.0	2	0.3
Invasive Pneumococcal Disease [§]	18	8.6	18	10.3	22	12.7	5	10.3	4	15.3	5	6.5	2	4.3	74	9.8
Measles	0	0.0	3	1.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	3	0.4
Mumps [†]	1	0.5	4	2.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	5	0.7
Pertussis [¥]	1	0.5	1	0.6	1	0.6	0	0.0	0	0.0	1	1.3	0	0.0	4	0.5
Rubella and Congenital Rubella Syndrome	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Tetanus	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Varicella	13	6.2	2	1.1	5	2.9	1	2.1	1	3.8	0	0.0	0	0.0	22	2.9

Source: RDSS (Reportable Disease Surveillance System) database for all vaccine preventable and respiratory diseases, except Invasive Meningococcal Disease, Invasive Pneumococcal Disease, Mumps for 2007 and Pertussis for 2012

^Ω Source: Invasive Meningococcal Disease enhanced surveillance database

[§] Source: Invasive Pneumococcal Disease enhanced surveillance database

[†] Source: Mumps Enhanced database for year 2007.

[¥] Source: Pertussis Enhanced database for year 2012.

Source for rate calculations: OCMOH, Communicable Disease Control Branch. The denominators used were population estimates from Statistics Canada, Demography Division; release date March 2014.

Table 2.3. Notifiable vaccine-preventable and respiratory diseases reported in New Brunswick in 2013 by age group and sex: counts and incidence rates per 100,000 population

		NB														Total									
		Age groups																							
		<1		1-4		5-9		10-14		15-19		20-24		25-29				30-39		40-59		60+			
	Sex	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate		Rate		
Vaccine-Preventable Diseases																									
Diphtheria	Male	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	0	0.0	0	0.0	0	0.0
	Female	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	0	0.0	0	0.0	0	0.0
	Total	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	0	0.0	0	0.0	0	0.0
Haemophilus influenzae (unspecified)	Male	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	4.1	0	0.0	0	0.0	0	0.0	0	0.0	1	1.2	2	0.5
	Female	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	2.1	0	0.0	2	2.0	3	0.8	3	0.8
	Total	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	2.1	0	0.0	1	1.1	0	0.0	3	1.6	5	0.7	5	0.7
Invasive Meningococcal Disease [□]	Male	0	0.0	2	13.7	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	2	0.5
	Female	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	0	0.0	0	0.0	0	0.0
	Total	0	0.0	2	6.9	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	2	0.3
Invasive Pneumococcal Disease [§]	Male	3	84.8	1	6.9	1	5.3	0	0.0	0	0.0	0	0.0	1	4.4	1	2.2	6	5.3	24	27.7	37	9.9	37	9.9
	Female	0	0.0	2	13.8	0	0.0	0	0.0	0	0.0	1	4.4	1	4.7	1	2.1	12	10.3	18	18.0	35	9.2	35	9.2
	Total	3	42.9	3	10.3	1	2.7	0	0.0	0	0.0	1	2.1	4*	8.8	2	2.2	18	7.8	42	22.5	74	9.8	74	9.8
Measles	Male	0	0.0	1	6.9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	2.2	0	0.0	0	0.0	0	0.0	2	0.5
	Female	0	0.0	1	6.9	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	0.3
	Total	0	0.0	2	6.9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	1.1	0	0.0	0	0.0	0	0.0	3	0.4
Mumps [†]	Male	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	4.1	0	0.0	1	2.2	1	0.9	0	0.0	3	0.8	3	0.8
	Female	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	4.3	0	0.0	0	0.0	2	0.5	2	0.5
	Total	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	2.1	0	0.0	3	3.2	1	0.4	0	0.0	5	0.7	5	0.7
Pertussis [*]	Male	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	2.2	1	0.9	0	0.0	2	0.5	2	0.5
	Female	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	4.7	0	0.0	1	0.9	0	0.0	2	0.5	2	0.5
	Total	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	2.3	1	1.1	2	0.9	0	0.0	4	0.5	4	0.5
Rubella and Congenital Rubella Syndrome	Male	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	0	0.0	0	0.0	0	0.0
	Female	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	0	0.0	0	0.0	0	0.0
	Total	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	0	0.0	0	0.0	0	0.0
Tetanus	Male	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	0	0.0	0	0.0	0	0.0
	Female	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	0	0.0	0	0.0	0	0.0
	Total	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	0	0.0	0	0.0	0	0.0
Varicella	Male	0	0.0	2	13.7	3	15.8	1	5.0	1	4.4	1	4.1	1	4.4	1	2.2	2	1.8		0.0	12	3.2	12	3.2
	Female	0	0.0	1	6.9	3	17.1	1	5.4	4	19.0	0	0.0	1	4.7	0	0.0	0	0.0		0.0	10	2.6	10	2.6
	Total	0	0.0	3	10.3	6	16.4	2	5.2	5	11.4	1	2.1	2	4.6	1	1.1	2	0.9		0.0	22	2.9	22	2.9

Source: RDSS (Reportable Disease Surveillance System) database for all vaccine preventable and respiratory diseases, except Invasive Meningococcal Disease, Invasive Pneumococcal Disease, Mumps for 2007 and Pertussis for 2012

[□] Source: Invasive Meningococcal Disease enhanced surveillance database

[§] Source: Invasive Pneumococcal Disease enhanced surveillance database

[†] Source: Mumps Enhanced database for year 2007.

^{*} Source: Pertussis Enhanced database for year 2012.

Source for rate calculations: OCMOH, Communicable Disease Control Branch. The denominators used were population estimates from Statistics Canada, Demography Division; release date March 2014..

Appendix 3. Tables for enteric, food and waterborne diseases

Table 3.1. Notifiable enteric, food and waterborne diseases reported in New Brunswick in 2003-2013: counts and incidence rates per 100,000 population

	NB																					
	2003		2004		2005		2006		2007		2008		2009		2010		2011		2012		2013	
	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
Enteric, Food and Waterborne Diseases																						
Campylobacteriosis	176	23.5	127	16.9	175	23.4	168	22.5	164	22.0	159	21.3	187	24.9	127	16.9	177	23.4	158	20.9	212	28.0
Cryptosporidiosis †	15	2.0	10	1.3	9	1.2	12	1.6	15	2.0	17	2.3	30	4.0	17	2.3	34	4.5	27	3.6	16	2.1
<i>E. coli</i> O157	15	2.0	19	2.5	16	2.1	24	3.2	30	4.0	13	1.7	13	1.7	13	1.7	7	0.9	27	3.6	10	1.3
Giardiasis	66	8.8	65	8.7	81	10.8	96	12.9	94	12.6	105	14.1	96	12.8	123	16.3	88	11.7	131	17.3	95	12.6
Hepatitis A	1	0.1	0	0.0	6	0.8	7	0.9	2	0.3	7	0.9	1	0.1	5	0.7	2	0.3	3	0.4	9	1.2
Listeriosis	0	0.0	4	0.5	1	0.1	3	0.4	2	0.3	7	0.9	2	0.3	5	0.7	4	0.5	4	0.5	9	1.2
Salmonellosis	113	15.1	123	16.4	108	14.4	164	22.0	130	17.4	106	14.2	107	14.3	145	19.3	146	19.3	153	20.2	155	20.5
Shigellosis	4	0.5	4	0.5	11	1.5	5	0.7	4	0.5	6	0.8	10	1.3	7	0.9	6	0.8	5	0.7	7	0.9
Typhoid Fever	0	0.0	3	0.4	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
Vibrio species	0	0.0	0	0.0	4	0.5	3	0.4	0	0.0	7	0.9	7	0.9	6	0.8	5	0.7	5	0.7	3	0.4
Yersiniosis ‡	11	1.5	3	0.4	3	0.4	5	0.7	5	0.7	1	0.1	2	0.3	4	0.5	8	1.1	3	0.4	5	0.7

Source: Enteric database for years 2008 onwards, and RDSS (Reportable Disease Surveillance System) database for years 2002-2007

† Cryptosporidium and Yersiniosis data was extracted from enteric databases

Source for rate calculations: OCMOH, Communicable Disease Control Branch. The denominators used were population estimates from Statistics Canada, Demography Division; release date March 2014.

Table3.2. Notifiable enteric, food and waterborne diseases reported in New Brunswick in 2013 by region: counts and incidence rates per 100,000 population

	Region 1		Region 2		Region 3		Region 4		Region 5		Region 6		Region 7		NB	
	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
Enteric, Food and Waterborne Diseases																
Campylobacteriosis	47	22.4	22	12.6	36	20.7	51	105.3	9	34.3	36	47.0	11	23.6	212	28.0
Cryptosporidiosis †	6	2.9	3	1.7	3	1.7	0	0.0	2	7.6	2	2.6	1	2.1	17	2.2
<i>E. coli</i> O157	6	2.9	1	0.6	2	1.2	0	0.0	0	0.0	0	0.0	1	2.1	10	1.3
Giardiasis	25	11.9	19	10.9	23	13.2	2	4.1	6	22.9	17	22.2	3	6.4	95	12.6
Hepatitis A	4	1.9	1	0.6	3	1.7	0	0.0	0	0.0	1	1.3	0	0.0	9	1.2
Listeriosis	0	0.0	3	1.7	4	2.3	1	2.1	0	0.0	1	1.3	0	0.0	9	1.2
Salmonellosis	42	20.0	34	19.5	32	18.4	14	28.9	9	34.3	19	24.8	5	10.7	155	20.5
Shigellosis	3	1.4	1	0.6	1	0.6	0	0.0	2	7.6	0	0.0	0	0.0	7	0.9
Typhoid Fever	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Vibrio species	3	1.4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	3	0.4
Yersiniosis †	3	1.4	0	0.0	2	1.2	0	0.0	0	0.0	0	0.0	0	0.0	5	0.7

Source: Enteric database for years 2008 onwards, and RDSS (Reportable Disease Surveillance System) database for years 2002-2007

† Cryptosporidium and Yersiniosis data was extracted from enteric databases

Source for rate calculations: OCMOH, Communicable Disease Control Branch. The denominators used were population estimates from Statistics Canada, Demography Division; release date March 2014.

Table3.3. Notifiable enteric, food and waterborne diseases reported in New Brunswick in 2013 by age group and sex: counts and rates per 100,000 population

		NB														Total		Rate					
		Age groups																					
		<1		1-4		5-9		10-14		15-19		20-24		25-29						30-39		40-59	
	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate			
Enteric, Food and Waterborne Diseases																							
Campylobacteriosis	Male	1	28.3	9	61.7	3	15.8	2	10.0	11	48.1	4	16.4	7	31.1	8	17.3	39	34.2	34	39.2	118	31.6
	Female	1	29.0	7	48.4	1	5.7	0	0.0	2	9.5	11	48.4	7	33.2	7	15.0	26	22.2	32	32.0	94	24.6
	Total	2	28.6	16	55.1	4	10.9	2	5.2	13	29.6	15	31.8	14	32.1	15	16.2	65	28.2	66	35.4	212	28.0
Cryptosporidiosis †	Male	0	0.0	0	0.0	0	0.0	1	5.0	0	0.0	0	0.0	2	8.9	2	4.3	2	1.8	0	0.0	7	1.9
	Female	0	0.0	0	0.0	0	0.0	0	0.0	1	4.8	2	8.8	4	19.0	1	2.1	0	0.0	1	1.0	9	2.4
	Total	0	0.0	0	0.0	0	0.0	1	2.6	1	2.3	2	4.2	6	13.8	3	3.2	2	0.9	1	0.5	16	2.1
E. coli O157	Male	0	0.0	2	13.7	0	0.0	0	0.0	1	4.4	0	0.0	2	8.9	0	0.0	0	0.0	1	1.2	6	1.6
	Female	0	0.0	1	6.9	1	5.7	0	0.0	0	0.0	1	4.4	0	0.0	0	0.0	1	0.9	0	0.0	4	1.0
	Total	0	0.0	3	10.3	1	2.7	0	0.0	1	2.3	1	2.1	2	4.6	0	0.0	1	0.4	1	0.5	10	1.3
Giardiasis	Male	0	0.0	5	34.3	2	10.5	2	10.0	4	17.5	2	8.2	4	17.7	6	13.0	14	12.3	20	23.0	59	15.8
	Female	0	0.0	1	6.9	0	0.0	0	0.0	1	4.8	5	22.0	2	9.5	6	12.9	11	9.4	10	10.0	36	9.4
	Total	0	0.0	6	20.6	2	5.5	2	5.2	5	11.4	7	14.9	6	13.8	12	12.9	25	10.8	30	16.1	95	12.6
Hepatitis A	Male	0	0.0	2	13.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	1.8	1	1.2	5	1.3
	Female	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	4.4	0	0.0	0	0.0	1	0.9	2	2.0	4	1.0
	Total	0	0.0	2	6.9	0	0.0	0	0.0	0	0.0	1	2.1	0	0.0	0	0.0	3	1.3	3	1.6	9	1.2
Listeriosis	Male	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	1.8	4	4.6	6	1.6
	Female	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	0.9	2	2.0	3	0.8
	Total	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	3	1.3	6	3.2	9	1.2
Salmonellosis	Male	2	56.5	3	20.6	7	36.8	4	20.0	8	35.0	3	12.3	4	17.7	5	10.8	24	21.0	20	23.0	80	21.4
	Female	1	29.0	5	34.6	3	17.1	3	16.2	4	19.0	3	13.2	5	23.7	8	17.2	19	16.3	24	24.0	75	19.6
	Total	3	42.9	8	27.5	10	27.3	7	18.2	12	27.3	6	12.7	9	20.6	13	14.0	43	18.6	44	23.6	155	20.5
Shigellosis	Male	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	1.8	0	0.0	2	0.5
	Female	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	4.4	0	0.0	2	4.3	1	0.9	1	1.0	5	1.3
	Total	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	2.1	0	0.0	2	2.2	3	1.3	1	0.5	7	0.9
Typhoid Fever	Male	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	0	0.0	0	0.0
	Female	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	0	0.0	0	0.0
	Total	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	0	0.0	0	0.0
Vibrio species	Male	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	2.2	0	0.0	2	2.3	3	0.8
	Female	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	0	0.0	0	0.0
	Total	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	1.1	0	0.0	2	1.1	3	0.4
Yersiniosis †	Male	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	4.4	0	0.0	1	0.9	0	0.0	2	0.5
	Female	0	0.0	0	0.0	0	0.0	0	0.0	1	4.8	1	4.4	0	0.0	0	0.0	1	0.9	0	0.0	3	0.8
	Total	0	0.0	0	0.0	0	0.0	0	0.0	1	2.3	1	2.1	1	2.3	0	0.0	2	0.9	0	0.0	5	0.7

Source: Enteric database for years 2008 onwards, and RDSS (Reportable Disease Surveillance System) database for years 2002-2007

† Cryptosporidium and Yersiniosis data was extracted from enteric databases

Source for rate calculations: OCMOH, Communicable Disease Control Branch. The denominators used were population estimates from Statistics Canada, Demography Division; release date March 2014.

Appendix 4. Tables for Sexually Transmitted and Bloodborne infections

Table 4.1. Notifiable sexually transmitted and bloodborne infections reported in New Brunswick in 2003-2013: counts and incidence rates per 100,000 population

	NB																					
	2003		2004		2005		2006		2007		2008		2009		2010		2011		2012		2013	
	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
Sexually Transmitted and Bloodborne Infections†																						
AIDS §	6	0.8	2	0.3	6	0.8	2	0.3	4	0.5	1	0.1	2	0.3	1	0.1	1	0.1	2	0.3	1	0.1
HIV §	11	1.5	6	0.8	7	0.9	19	2.5	14	1.9	14	1.9	1	0.1	8	1.1	10	1.3	3	0.4	6	0.8
Chlamydia (genital)	1165	155.5	1161	154.9	1493	199.6	1326	177.8	1240	166.4	1382	185.0	1564	208.5	1868	248.1	1917	253.8	1931	255.4	1767	233.7
Gonorrhea (genital)	23	3.1	10	1.3	22	2.9	33	4.4	45	6.0	36	4.8	52	6.9	64	8.5	71	9.4	38	5.0	47	6.2
Hepatitis B (Acute)	0	0.0	7	0.9	6	0.8	4	0.5	8	1.1	4	0.5	8	1.1	4	0.5	8	1.1	3	0.4	1	0.1
Hepatitis B (Chronic)	12	1.6	21	2.8	15	2.0	28	3.8	28	3.8	26	3.5	30	4.0	32	4.3	24	3.2	39	5.2	43	5.7
Hepatitis C	148	19.7	201	26.8	262	35.0	244	32.7	199	26.7	226	30.3	202	26.9	184	24.4	156	20.7	177	23.4	197	26.1
Syphilis (Infectious) ^Φ	4	0.5	4	0.5	1	0.1	0	0.0	4	0.5	7	0.9	9	1.2	38	5.0	58	7.7	21	2.8	34	4.5
Syphilis (All)	10	1.3	11	1.5	10	1.3	6	0.8	11	1.5	11	1.5	13	1.7	41	5.4	72	9.5	43	5.7	48	6.3

Source:

RDSS (Reportable Disease Surveillance System) database for all sexually transmitted and blood borne diseases data, except HIV and AIDS and Syphilis(infectious) for years 2010-2012

§ HIV/AIDS Case Report Surveillance System database

Φ Enhanced Syphilis Database for Syphilis (infectious) data for years 2010-2012

Source for rate calculations: OCMOH, Communicable Disease Control Branch. The denominators used were population estimates from Statistics Canada, Demography Division; release date March 2014.

Table 4.2. Notifiable sexually transmitted and bloodborne infections reported in New Brunswick in 2013 by region: counts and incidence rates per 100,000 population

	Region 1		Region 2		Region 3		Region 4		Region 5		Region 6		Region 7		NB	
	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
Sexually Transmitted and Bloodborne Infections																
Chlamydia (genital)	613	292.1	333	190.5	539	310.4	56	115.7	28	106.8	139	181.5	59	126.8	1767	233.7
Gonorrhea (genital)	21	10.0	10	5.7	10	5.8	0	0.0	2	7.6	4	5.2	0	0.0	47	6.2
Hepatitis B (Acute)	1	0.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.1
Hepatitis B (Chronic)	18	8.6	8	4.6	11	6.3	3	6.2	0	0.0	1	1.3	2	4.3	43	5.7
Hepatitis C	85	40.5	35	20.0	37	21.3	6	12.4	4	15.3	14	18.3	16	34.4	197	26.1
Syphilis (Infectious) ^Φ	7	3.3	4	2.3	22	12.7	0	0.0	0	0.0	1	1.3	0	0.0	34	4.5
Syphilis (All)	13	6.2	7	4.0	25	14.4	0	0.0	0	0.0	1	1.3	2	4.3	48	6.3

Source: RDSS (Reportable Disease Surveillance System) database for all sexually transmitted and blood borne diseases data, except HIV and AIDS and Syphilis(infectious) for years 2010-2012

§ HIV/AIDS Case Report Surveillance System database

Φ Enhanced Syphilis Database for Syphilis (infectious) data for years 2010-2012

Note: HIV and AIDS data is not available by region

Source for rate calculations: OCMOH, Communicable Disease Control Branch. The denominators used were population estimates from Statistics Canada, Demography Division; release date March 2014.

Table 4.3. Notifiable sexually transmitted and bloodborne infections reported in New Brunswick in 2013 by age group and sex: counts and incidence rates per 100,000 population

		NB																Total						
		Age groups																						
		<1		1-4		5-9		10-14		15-19		20-24		25-29		30-39				40-59		60+		
	Sex	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	Total	Rate	
Sexually Transmitted and Bloodborne Infections																								
AIDS §	Male	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	0	0.0	1	0.3	
	Female	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	0	0.0	0	0.0	
	Total	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	0	0.0	0	0.0	1
HIV §	Male	0	0.0	0	0.0	0	0.0	0	0.0	2	8.2	1	4.4	0	0.0	3	2.6	0	0.0	0	0.0	6	1.6	
	Female	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	0	0.0	0	0.0	
	Total	0	0.0	0	0.0	0	0.0	0	0.0	2	4.2	1	2.3	0	0.0	3	1.3	0	0.0	0	0.0	6	0.8	
Chlamydia (genital)	Male	0	0.0	0	0.0	0	0.0	102	445.9	241	988.2	137	607.7	74	160.4	30	26.3	3	3.5	587	157.0			
	Female	0	0.0	0	0.0	0	0.0	10	54.0	352	1674.8	488	2145.6	194	919.7	110	236.1	25	21.4	1179	308.5			
	Total	0	0.0	0	0.0	0	0.0	10	26.0	454	1034.3	729	1546.7	331	758.5	184	198.5	55	23.8	4	2.1	1767	233.7	
Gonorrhea (genital)	Male	0	0.0	0	0.0	0	0.0	2	8.7	10	41.0	8	35.5	10	21.7	3	2.6	0	0.0	33	8.8			
	Female	0	0.0	0	0.0	0	0.0	5	23.8	6	26.4	2	9.5	1	2.1	0	0.0	0	0.0	14	3.7			
	Total	0	0.0	0	0.0	0	0.0	7	15.9	16	33.9	10	22.9	11	11.9	3	1.3	0	0.0	47	6.2			
Hepatitis B (Acute)	Male	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.9	0	0.0	1	0.3			
	Female	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	0	0.0			
	Total	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.4	0	0.0	1	0.1			
Hepatitis B (Chronic)	Male	0	0.0	0	0.0	0	0.0	1	4.4	5	20.5	1	4.4	5	10.8	9	7.9	4	4.6	25	6.7			
	Female	0	0.0	1	6.9	0	0.0	1	4.8	0	0.0	2	9.5	5	10.7	5	4.3	4	4.0	18	4.7			
	Total	0	0.0	1	3.4	0	0.0	2	4.6	5	10.6	3	6.9	10	10.8	14	6.1	0	0.0	43	5.7			
Hepatitis C	Male	0	0.0	0	0.0	0	0.0	4	17.5	16	65.6	17	75.4	25	54.2	46	40.3	11	12.7	119	31.8			
	Female	0	0.0	0	0.0	0	0.0	3	14.3	15	66.0	17	80.6	19	40.8	19	16.3	5	5.0	78	20.4			
	Total	0	0.0	0	0.0	0	0.0	7	15.9	31	65.8	34	77.9	44	47.5	65	28.2	16	8.6	197	26.1			
Syphilis (Infectious) ^Φ	Male	0	0.0	0	0.0	0	0.0	0	0.0	3	12.3	6	26.6	6	13.0	15	13.2	3	3.5	33	8.8			
	Female	0	0.0	0	0.0	0	0.0	0	0.0	1	4.4	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3			
	Total	0	0.0	0	0.0	0	0.0	0	0.0	4	8.5	6	13.8	6	6.5	15	6.5	3	1.6	34	4.5			
Syphilis (All)	Male	0	0.0	0	0.0	0	0.0	0	0.0	3	12.3	6	26.6	7	15.2	18	15.8	6	6.9	40	10.7			
	Female	0	0.0	0	0.0	0	0.0	0	0.0	2	8.8	1	4.7	0	0.0	0	0.0	5	5.0	8	2.1			
	Total	0	0.0	0	0.0	0	0.0	0	0.0	5	10.6	7	16.0	7	7.6	18	7.8	11	5.9	48	6.3			

Source: RDSS (Reportable Disease Surveillance System) database for all sexually transmitted and blood borne diseases data, except HIV and AIDS and Syphilis (infectious) for years 2010-2012

§ HIV/AIDS Case Report Surveillance System database

Φ Enhanced Syphilis Database for Syphilis (infectious) data for years 2010-2012

Source for rate calculations: OCMOH, Communicable Disease Control Branch. The denominators used were population estimates from Statistics Canada, Demography Division; release date March 2014.

Appendix 5. Tables for Vectorborne and Zoonotic Diseases

Table 5.1. Notifiable vectorborne and zoonotic diseases reported in New Brunswick in 2003-2013: counts and incidence rates per 100,000 population

	NB																					
	2003		2004		2005		2006		2007		2008		2009		2010		2011		2012		2013	
	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
Vectorborne and Zoonotic diseases†																						
Leptospirosis	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	0	0.0	0	0.0
Lyme Disease	0	0.0	0	0.0	1	0.1	1	0.1	6	0.8	0	0.0	0	0.0	2	0.3	5	0.7	7	0.9	5	0.7
Malaria	5	0.7	1	0.1	1	0.1	3	0.4	3	0.4	2	0.3	4	0.5	3	0.4	3	0.4	4	0.5	10	1.3
Q fever	0	0.0	2	0.3	5	0.7	1	0.1	3	0.4	0	0.0	2	0.3	0	0.0	3	0.4	2	0.3	1	0.1
Rabies	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	0	0.0	0	0.0
Tularemia	0	0.0	2	0.3	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
Yellow Fever	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	0.1	0	0.0	0	0.0

Table 5.2. Notifiable vectorborne and zoonotic diseases reported in New Brunswick in 2013 by region: counts and incidence rates per 100,000 population

	Region 1		Region 2		Region 3		Region 4		Region 5		Region 6		Region 7		NB	
	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
Vectorborne and Zoonotic diseases																
Leptospirosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Lyme Disease	2	1.0	3	1.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	5	0.7
Malaria	3	1.4	0	0.0	3	1.7	0	0.0	0	0.0	2	2.6	2	4.3	10	1.3
Q fever	1	0.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.1
Rabies	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Tularemia	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Yellow Fever	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

Source: RDSS (Reportable Disease Surveillance System) database

Source for rate calculations: OCMOH, Communicable Disease Control Branch. The denominators used were population estimates from Statistics Canada, Demography Division; release date March 2014.

Table5.3. Notifiable vectorborne and zoonotic diseases reported in New Brunswick in 2013 by age group and sex: counts and incidence rates per 100,000 population

		NB												Total							
		Age groups																			
		<1		1-4		5-9		10-14		15-19		20-24				25-29		30-39		40-59	
	Sex	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
Vectorborne and Zoonotic diseases																					
Leptospirosis	Male	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	0	0.0
	Female	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	0	0.0
	Total	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	0	0.0
Lyme Disease	Male	0	0.0	0	0.0	0	0.0	1	4.4	0	0.0	0	0.0	0	0.0	3	2.6	0	0.0	4	1.1
	Female	0	0.0	0	0.0	0	0.0	1	4.8	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3
	Total	0	0.0	0	0.0	0	0.0	2	4.6	0	0.0	0	0.0	0	0.0	3	1.3	0	0.0	5	0.7
Malaria	Male	0	0.0	0	0.0	0	0.0	3	13.1	3	12.3	0	0.0	0	0.0	1	0.9	1	1.2	8	2.1
	Female	0	0.0	0	0.0	0	0.0	1	4.8	1	4.4	0	0.0	0	0.0	0	0.0	0	0.0	2	0.5
	Total	0	0.0	0	0.0	0	0.0	4	9.1	4	8.5	0	0.0	0	0.0	1	0.4	1	0.5	10	1.3
Q fever	Male	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	0	0.0
	Female	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	1.0	1	0.3
	Total	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	0.5	1	0.1
Rabies	Male	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	0	0.0
	Female	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	0	0.0
	Total	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	0	0.0
Tularemia	Male	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	0	0.0
	Female	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	0	0.0
	Total	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	0	0.0
Yellow Fever	Male	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	0	0.0
	Female	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	0	0.0
	Total	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	0	0.0

Source: RDSS (Reportable Disease Surveillance System) database

Source for rate calculations: OCMOH, Communicable Disease Control Branch. The denominators used were population estimates from Statistics Canada, Demography Division; release date March 2014.

Appendix 6. Tables for Respiratory and Direct Contact diseases

Table6.1. Notifiable respiratory and direct contact diseases reported in New Brunswick in 2003-2013: counts and incidence rates per 100,000 population

	NB																					
	2003		2004		2005		2006		2007		2008		2009		2010		2011		2012		2013	
	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
Respiratory and Direct Contact diseases																						
Invasive Group A Streptococcal disease (iGAS) [§]	-	-	-	-	-	-	-	-	-	-	-	-	18	2.4	17	2.3	23	3.0	19	2.5	13	1.7
Group B Streptococcal Infection of Newborn [¥]	-	-	-	-	-	-	-	-	1	14.0	3	40.5	3	40.6	2	27.2	1	14.0	5	70.2	3	43.3
Legionellosis [†]	0	0.0	1	0.1	1	0.1	2	0.3	4	0.5	5	0.7	1	0.1	3	0.4	3	0.4	3	0.4	3	0.4
Tuberculosis [‡]	12	1.6	10	1.3	6	0.8	2	0.3	5	0.7	5	0.7	11	1.5	10	1.3	5	0.7	5	0.7	3	0.4

Table6.2. Notifiable respiratory and direct contact diseases reported in New Brunswick in 2013 by region: counts and incidence rates per 100,000 population

	Region 1		Region 2		Region 3		Region 4		Region 5		Region 6		Region 7		NB	
	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
Respiratory and Direct Contact diseases																
Invasive Group A Streptococcal disease (iGAS) [§]	2	1.0	4	2.3	7	4.0	0	0.0	0	0.0	0	0.0	0	0.0	13	1.7
Group B Streptococcal Infection of Newborn [¥]	0	0.0	1	57.2	1	57.5	0	0.0	1	540.5	0	0.0	0	0.0	3	42.1
Legionellosis [†]	2	1.0	0	0.0	0	0.0	0	0.0	1	3.8	0	0.0	0	0.0	3	0.4
Tuberculosis [‡]	1	0.5	1	0.6	0	0.0	0	0.0	0	0.0	1	1.3	0	0.0	3	0.4

§ Source: iGas enhanced database, no data was collected before 2009

¥ Source: RDSS supplemental database

† Source: RDSS (Reportable Disease Surveillance System) database

‡ Source: Active TB enhanced Database

Source for rate calculations: OCMOH, Communicable Disease Control Branch. The denominators used were population estimates from Statistics Canada, Demography Division; release date March 2014.

Rates for Group B Streptococcal infection of newborn were calculated based on live birth estimates from Statistics Canada, Demography Division. Date modified September 26 2014.

Table 6.3. Notifiable respiratory and direct contact diseases reported in New Brunswick in 2013 by age group and sex: counts and incidence rates per 100,000 population

		NB																					
		Age groups																					
		<1		1-4		5-9		10-14		15-19		20-24		25-29		30-39		40-59		60+		Total Rate	
		N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate				
Respiratory and Direct Contact diseases																							
Invasive Group A Streptococcal disease (iGAS) [§]	Male	0	0.0	0	0.0	0	0.0	1	5.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	5	5.8	6	1.6
	Female	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	3	14.2	0	0.0	1	0.9	3	3.0	7	1.8
	Total	0	0.0	0	0.0	0	0.0	1	2.6	0	0.0	0	0.0	3	6.9	0	0.0	1	0.4	8	4.3	13	1.7
Legionellosis [†]	Male	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	3	3.5	3	0.8
	Female	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	0	0.0	0	0.0
	Total	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	3	1.6	3	0.4
Tuberculosis [‡]	Male	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	0	0.0	0	0.0
	Female	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	4.7	0	0.0	0	0.0	2	2.0	3	0.8
	Total	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	2.3	0	0.0	0	0.0	2	1.1	3	0.4

§ Source: iGas enhanced database, no data was collected before 2009

†Source: RDSS (Reportable Disease Surveillance System) database

‡Source: Active TB enhanced Database

Source for rate calculations: OCMOH, Communicable Disease Control Branch. The denominators used were population estimates from Statistics Canada, Demography Division; release date March 2014.