

New Brunswick Communicable Diseases 2012 Annual Report

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1. Introduction

Reporting of notifiable diseases and reportable events in New Brunswick is governed by the New Brunswick Public Health Act¹. The Public Health Act 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 Public Health Act, New Brunswick 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 New Brunswick in 2012. It includes important trends between 2002 and 2012.

Figure 1. Map of Health Regions in New Brunswick



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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 Branch 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 Communicable Disease Branch within the Office of the Chief Medical Officer of Health (OCMOH) which are derived from reporting by Health Regions in New Brunswick using forms specifically designed for that disease, and reconciliation of laboratory data. 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.
- The denominators used to calculate New Brunswick rates were population estimates from Statistics Canada, Demography Division; release date February 4 2013.
- National rates for the period 2002 to 2011 were provided by the Public Health Agency of Canada -Surveillance and Epidemiology Division. Lyme disease was added to the list of reportable diseases in 2009.
 2012 disease rates were 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 Services. 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 2012 notifications received as of July 2013, 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. 2012 Highlights

4.1. Main Disease Trends

Vaccine Preventable Diseases:

Apart from the pertussis outbreak in 2012, all other vaccine preventable diseases rates remained low and stable.

- Enteric, Food and Waterborne Diseases:

Increased activity of *E.coli* 0157:H7 was observed due to multiple outbreaks/clusters occurring within the province. Higher incidence rate of giardiasis was also noted. Rates for campylobacteriosis, salmonellosis and other enteric diseases were comparable to previous years.

Sexually Transmitted and Blood Borne Diseases:

There was an increased trend in reported Chlamydia infections since 2007 and continued in 2012. Higher incidence rates were observed for Chronic Hepatitis B and Hepatitis C infections in 2012 compared to 2011. A huge decrease in incidence rate of infectious Syphilis cases was shown in 2012 compared to 2010 and 2011, but was still above non-outbreak average years. Lower incidence rate was observed for Gonorrhea in 2012 compared to 2011. Rate of HIV infection was lower than the previous 2 years.

Vector borne and Zoonotic Diseases:

Low incidence rates were observed for all vectorborne and zoonotic diseases. The only reported diseases were Lyme disease, Malaria and Q fever.

- Respiratory and Direct Contact Diseases:

Rates of invasive Group A streptococcal disease, tuberculosis and legionellosis were comparable to previous years.

4.2. Provincial Outbreaks

In 2012 Public Health investigated and responded to several outbreaks in New Brunswick. Some of the notable outbreaks included:

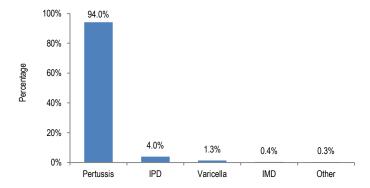
- From November 2010 until December 2012, New Brunswick experienced an outbreak of infectious syphilis. Over this time period 122 cases of infectious syphilis were reported to Public Health. 112 of the cases were male and sustained transmission among males was observed.
- An outbreak of pertussis in 2012 with 1421 cases reported to Public Health. The majority of cases were seen in the 10-14 year old age group. The outbreak was declared in February 2012 and a decrease in activity was observed in the 4th quarter of 2012.
- In the spring of 2012, a multi-regional outbreak of *E.coli* 0157:H7 was investigated with 12 cases occurring in Regions 1, 6 and 7. Most of the cases were reported in Region 7 (67%) and were related to an exposure in a food service establishment. An analytical study was conducted and the romaine lettuce was identified as the source of the illnesses.

5. Vaccine preventable diseases (VPD)

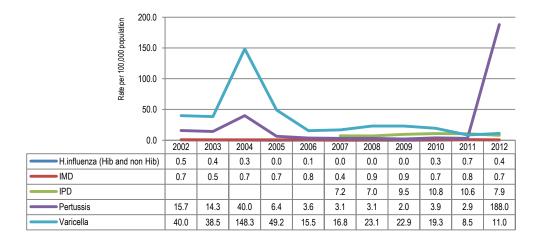
The majority of respiratory diseases are vaccine preventable and as such their epidemiology remains mostly stable except with the occurrence of outbreaks.

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, 2012



Graph 2. Incidence Rates per 100,000 population of Some Vaccine Preventable Diseases in New Brunswick, 2002-2012

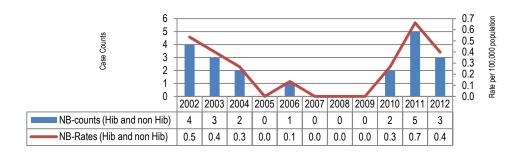


5.1. Haemophilus influenza type b and non type b (Hib and non Hib)

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

In 2012, the incidence rate of *Haemophilus influenzae* was 0.4 per 100,000 population which accounted for 3 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 0.3 cases per 100,000 population. Canadian rates are not presented here as they account for Haemophilus *influenza* type b only. The reported case counts of *Haemophilus influenzae* (Hib and non Hib) have been stable from 2002 to 2010; but in 2011 there was an increase, mostly in Region 6 (3 cases).

Graph 3. Haemophilus Influenza (Hib and non Hib) Case Counts and Rates per 100,000 for New Brunswick, 2002-2012



In 2012, the cases were in the 40-59 and 60+ year old 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.

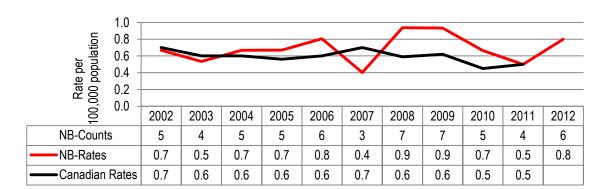
The annual changes in the *Haemophilus influenza* incidence rate should be interpreted with caution: the relatively low number of cases can result in major fluctuations in the rate from year to year.

5.2. Influenza

Influenza activity in New Brunswick is monitored throughout the year. <u>Influenza surveillance reports</u> can be accessed at the Office of the Chief Medical Officer of Health's webpage.

5.3. Invasive Meningococcal Disease (IMD)

In 2012, the incidence rate for IMD was 0.7 per 100,000 population with 6 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.

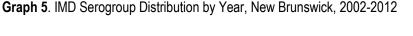


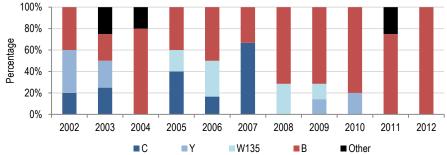
Graph 4. IMD Case Counts and Rates per 100,000 for New Brunswick and Canada, 2002-2012

The age groups affected differ by year. In 2012, most cases were seen in the adults 20 years and above age group and half of the cases occurred in Region 3 and 1.

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 2002 to 2012, is the non-vaccine preventable 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.

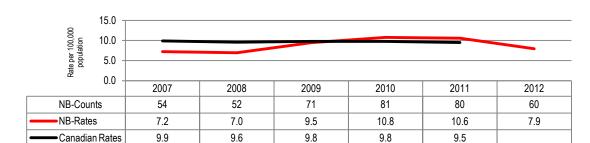




Publicly funded IMD immunization is offered at 12 months (Meningococcal conjugate C) and in grade 9 (Meningococcal conjugate ACYW 135).

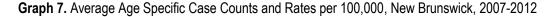
5.4. Invasive Pneumococcal Disease (IPD)

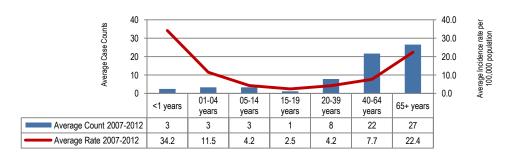
In 2012, the rate of IPD was 7.9 per 100,000 population with 60 cases reported to Public Health. Over the past 6 years, the highest IPD rates were observed during the period from 2009 to 2011 (9.9 up to 10.9 per 100,000) and then returned to rates similar to those observed in 2007 and 2008. Over all, 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, 2007-2012

Whereas the majority of cases (about 73%) are observed in adults older than 40 years during 2007-2012, it is noted that there was an increase in the incidence rate in the extreme ages: the average 6-year incidence was 34.2 cases per 100,000 population for the under 1 year old infants and 22.4 cases per 100,000 population for those who are 65 years and older.





In 2012, about 50% of reported IPD cases (n=31) were aged 65 years and older. In this age group, only seven cases (18%) were vaccinated, 4 of which (57%) had vaccine preventable serotypes. Among those non-vaccinated (n=17), 70% had vaccine preventable serotypes. Serotypes were missing for 7 cases.

No specific regional trends were observed: In the period 2006-2012, regional rates were stable within most regions except in Region 6 which showed an increase in 2011 and Region 5 in 2010 and 2011. 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- Prevnar-13) and for persons 65 years of age and older (Pneumococcal polysaccharide- Pneumo-23).

5.5. Measles

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.

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

5.6. Mumps

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. Half (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.

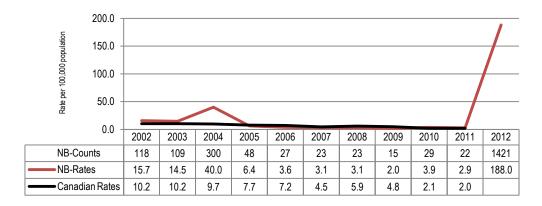
Publicly funded Mumps immunization (MMRV) is offered at 12 and 18 months of age.

5.7. Pertussis

In 2012, New Brunswick experienced an outbreak of Pertussis with 1421 cases reported to Public Health with an incidence rate of 189 per 100,000 population. From 2002 to 2011, increased activity was observed in 2004 with 300 confirmed cases. From 2005 onwards a decreasing trend was observed until 2012.

Over the last 10 years (excluding 2004), 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.

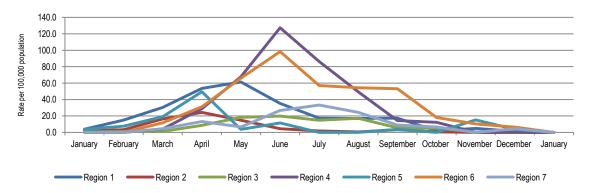
Graph 8. Pertussis Case Counts and Rates per 100,000 in New Brunswick and Canada, 2002-2012



The most affected Health Regions (based on rate) varied across the outbreak period. From January to June, the highest rates were seen in Regions 1 and 2. In mid-June activity started to decrease for these Regions and increase in Regions 4 and 6. Province-wide activity declined in the fall.

Overall Health Region 6 had the highest region-specific rate (407 per 100,000), followed by Health Region 4 (391 per 100,000).

Graph 9. Region-specific Pertussis incidence rate per 100,000 population by month during the 2012 Pertussis Outbreak, New Brunswick



During the 2012 outbreak, the highest age-specific rates were seen in the 10-14 year old age group (1337 per 100,000), followed by the 5-9 year old age group(604 per 100,000), and infants under 1 (583 per 100,000). In previous 10 years the incidence of infants under 1 has been the highest age specific rate.

Immunization of the population in general and more specifically contacts of cases and contacts of vulnerable persons was the priority during this outbreak.

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 2012. Between 2002 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 2012, there were 20 cases of varicella reported to Public Health with an incidence rate of 11 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.

250 200.0 200 Case Counts 150.0 150 100.0 100 50.0 50 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 NB-Counts 54 53 209 23 26 37 38 33 15 20 NB-Rates 40.0 38.5 148.3 49.2 15.5 16.8 23.1 22.9 19.3 8.5 11.0

Graph 10. Varicella Case Counts and Rates per 100,000 for New Brunswick², 2002-2012

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 2002 and 2012. 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.

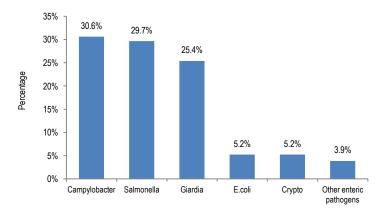
² No Canadian Rates were reported as not all provinces report varicella for all years, making the annual national rates very fluctuating

6. Enteric, Food and Waterborne Diseases

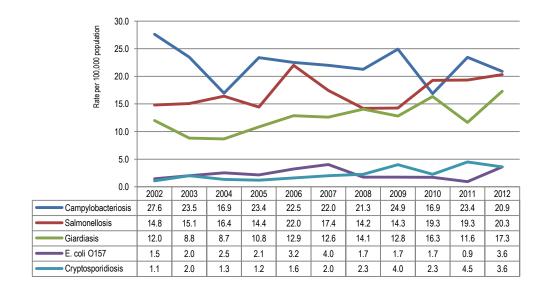
Enteric diseases are normally associated with food, however cases have been linked to contaminated water, secondary transmission from humans, and direct contacts with animals, including exotic pets.

Campylobacter, Salmonella and Giardia accounted for the highest proportion of reportable enteric, food and waterborne diseases in 2012.

Graph 11. Enteric Diseases in New Brunswick, 2012



Graph 12. Incidence Rates per 100,000 population of Some Enteric Diseases in New Brunswick, 2002-2012



6.1. Campylobacteriosis

Campylobacteriosis is the most frequently reported enteric infection.

In 2012, the incidence rate of campylobacteriosis was 20.9 per 100,000 population which accounted for 158 cases reported to Public Health. Over the last 10 years, there was an average of 166 cases per year with a 10-years average incidence rate of 22.2 per 100,000 population. Over all, the incidence rate in New Brunswick is lower than the national rate.

40.0 per 100,000 population 30.0 20.0 10.0 0.0 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 NB-Counts 207 176 127 175 168 164 159 187 127 177 158 NB-Rates 23.5 22.5 22.0 16.9 27.6 16.9 23.4 21.3 24.9 23.4 20.9 Canadian Rates 36.8 31.7 30 30.9 29.1 29.1 28.4 25.8 26.5 27.5

Graph 13. Campylobacteriosis Case Counts and Rates per 100,000 for New Brunswick and Canada, 2002-2012

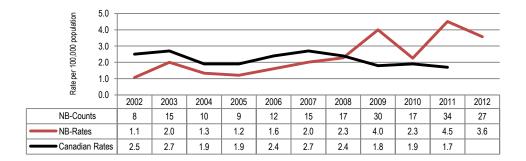
In 2012, the highest rate was seen in the 20-24 year old age group, followed by the 1-4 age group and people aged 60 and over. This is consistent with overall age-specific incidence rates seen in the period from 2002 to 2011.

A higher incidence was observed in Zones 4, 5 and 6 compared to the rest of the regions in the time period from 2002-2012.

6.2. Cryptosporidiosis

In 2012, there were 27 reported cases of Cryptosporidiosis with an incidence rate of 3.6 cases per 100,000 population. Over the last 10 years, on average 20 cases were reported to Public Health annually with a 10-years average incidence rate of 2.7 cases per 100,000 population. The incidence rate and case count of cryptosporidium has fluctuated from 2009 onwards. Up until 2009 the incidence rate and case count were fairly stable and were below the national rate.

Graph 14. Cryptosporidiosis Case Counts and Rates per 100,000 population for New Brunswick and Canada, 2002-2012



Most cases of Cryptosporidium over 2002-2011 were seen in Regions 1 and 3. In 2012 there was increase in cases in all regions, except for Region 7.

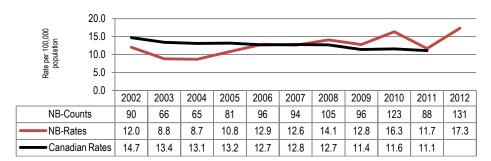
In 2012, the majority of cases (41%) was in adults aged between 25 and 39 years old, whereas the highest incidence rate was observed in children aged less than 5 years old. Over 2002-2011, the latter age group was associated with the higher age-specific incidence rates.

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 2012, the incidence rate of Giardiasis was 17.3 per 100,000 population which accounted for 131 cases reported to Public Health. Over the last 10 years, there was a yearly average of 94 cases with an average incidence of 12.5 cases per 100,000 population. This was below the national rates till 2005 and started to increase exceeding the national rates in 2008 throughout 2011.

Graph 15. Giardiaisis Case Counts and Rates per 100,000 population for New Brunswick and Canada, 2002-2012.



In 2012 the highest rate was observed in the infants under 1 year, which accounts for 2 cases whereas the highest proportion of cases was observed in adults in the 40-49 years age group. Over the period from 2002 to 2011 the highest incidence rates were seen in the 1-4 year old age group and the 25-29 year old age group whereas the highest proportion of cases was observed in individuals aged 40 years and above.

In 2012, the highest proportion of cases (27%) was reported in Region 2 but the highest rate of infection was reported in Region 5. Over all, Region 5 has the highest incidence rate among the other Regions.

6.4. E.coli 0157:H7

In 2012, there were multiple outbreaks of *E.coli* 0157:H7 reported in New Brunswick, which accounted for the higher number of cases seen in 2012 (n=27) compared to previous years with an incidence rate of 3.6 per 100,000 population. 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 16 cases annually and a 10-years average incidence rate of 2.3 per 100,000 population. This is consistent with the national picture where rates ranged from 1.2-4 (2002-2011 data).

Rate per 100,000 population 4.0 3.0 2.0 1.0 0.0 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 **NB-Counts** 15 16 24 30 13 27 11 19 13 13 7

3.2

3.3

4.0

3.2

1.7

2.3

1.7

1.8

1.7

1.6

0.9

1.9

3.6

Graph 16. E.coli 0157 Case Counts and Rates per 100,000 population for New Brunswick and Canada, 2002-2012

In the spring of 2012, a multi-regional outbreak of *E.coli* 0157:H7 was investigated with 12 cases occurring in Regions 1, 6 and 7. Most of the cases were reported in Region 7 (67%) and were related to an exposure in a food service establishment. An analytical study was conducted and the romaine lettuce was identified as the source of the illnesses.

In the summer of 2012, 2 small clusters occurred in Regions 3 and 7, no source was found in this investigation

2.1

2.5

Cases are seen across age groups. In 2012, most cases were in the adolescents and young adults aged between 15 and 24 years old. Over the 2002-2011 time period, the case count was highest in the 40-59 and 60+ age groups, with 3 to 4 cases annually per group. The incidence rate over 2002-2011 was highest in 1-4 year old age group, followed by the 25-29 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

NB-Rates

Canadian Rates

1.5

4.0

2.0

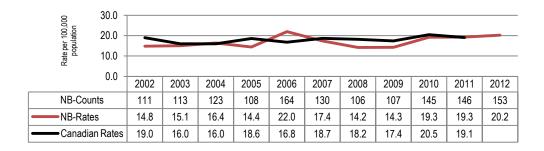
3.4

2.5

3.4

In 2012, the incidence rate of Salmonellosis was 20.2 per 100,000 population which accounted for 153 cases reported to Public Health. Over the last 10 years, there was a yearly average of 128 cases with a 10-years average incidence rate of 16.7 per 100,000 population. Over all, this is consistent with the national rates.

Graph 17. Salmonellosis Case Counts and Rates per 100,000 population for New Brunswick and Canada, 2002-2012



Rates remained highest in children under five years of age in the period 2002-2012.

In 2012, the highest proportion of cases (24%) was reported in Region 1 but the highest incidence rate was observed in Region 5. Regions 5, 6 and 7 experienced an increased case count and incidence rate in 2012 compared to the average over 2002-2011.

In 2012, the most common reported *Salmonella* serotypes were *S.*enteritidis (38%) followed by *S.*heidelberg (21%) and *S.*infantis (5%).

6.6. Other Enteric Diseases

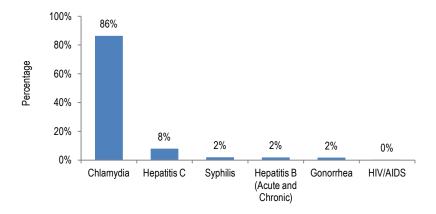
For further details on counts and rates of different enteric diseases, please refer to Appendix 3.

7. Sexually Transmitted and Blood Borne Infections (STBBI)

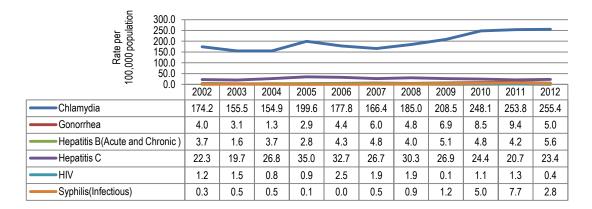
In 2012, the most commonly reported STBBIs were Chlamydia followed by Hepatitis C virus infections.

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 18. Sexually Transmitted and Blood Borne Infections (STBBI) in New Brunswick, 2012



Graph 19. Incidence Rates of Some Sexually Transmitted and Blood Borne Infections (STBBI) in New Brunswick, 2002-2012

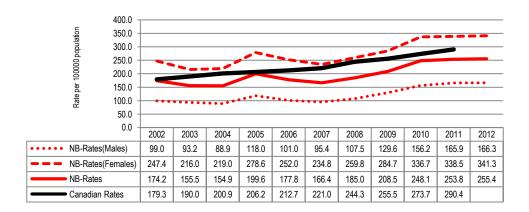


7.1. Chlamydia

Chlamydia is the most commonly reported sexually transmitted disease.

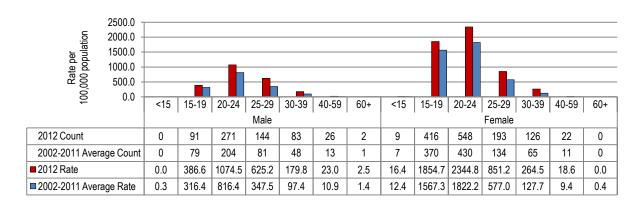
In 2012, 1931 Chlamydia cases were reported with an incidence rate of 255.4 per 100,000 population. In the past 10 years, the average case count was 1442 cases per year with a 10-years incidence rate of 192.5 per 100,000 population. The incidence of Chlamydia has been increasing since 2008. The incidence rate for New Brunswick is slightly below the Canadian rate.

Graph 20. Chlamydia Incidence Rates per 100,000 population Overall and by Sex for New Brunswick and Canada, 2002-2012



Females remain largely overrepresented among Chlamydia cases, accounting for more than two thirds of all notifications (68%) in 2012. The highest incidence was seen in Regions 1 and 3.

Graph 21. Chlamydia Case Counts and Incidence Rate per 100,000 by Sex and Age group, New Brunswick, 2002-2012

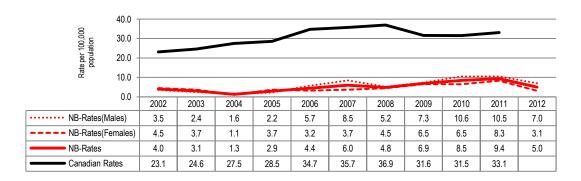


The majority of Chlamydia occurs in people aged 15 to 29. In 2012, this age group accounted for 86% of the cases. The highest incidence rate was among young adults aged 20 to 24 years old in both males and females.

7.2. Gonorrhea

In 2012, the incidence rate of Gonorrhea was 5.0 with 38 cases reported to Public Health. In the past ten years, the average case count was 39 cases per year with a 10-years incidence rate of 5.2 per 100,000 population. Since 2004, there has been an increasing trend for Gonorrhea peaking in 2011. Incidence rates for gonorrhea remain lower than the Canadian rate³.

Graph 22. Gonorrhea Incidence Rates per 100,000 population Overall and by Sex for New Brunswick and Canada, 2002-2012

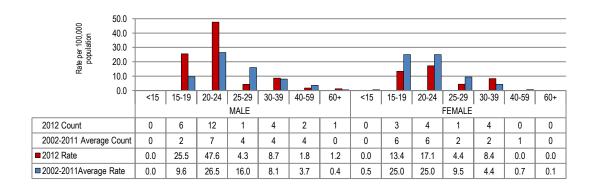


In 2012, the majority of the cases were male. The highest incidence rate was seen in Regions 1 and 3. Over the 2002-2011 time period cases were more equally distributed between males and females.

As in Chlamydia, gonorrhea particularly infects young people; those aged from 15 to 34 years old represent the majority of the cases although some cases are seen in older persons.

The annual changes in the gonorrhea 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 23. Gonorrhea Case Counts and Incidence Rate per 100,000 by Sex and Age group, New Brunswick, 2002-2012



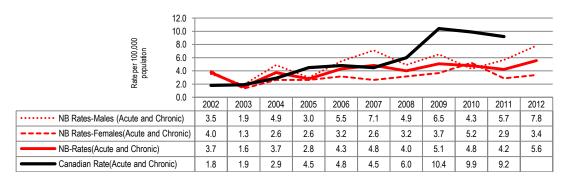
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³ National data are presumably a mix of genital and extra-genital gonorrhea cases.

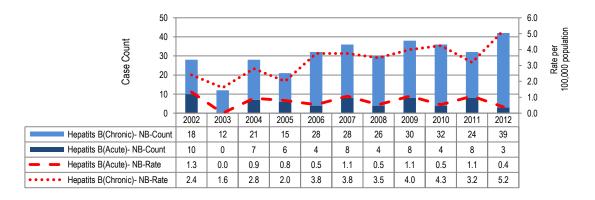
7.3. Hepatitis B

In 2012, the incidence rate for chronic hepatitis B was 5.6 per 100,000 population with 39 cases reported to Public Health whereas only 3 cases of acute hepatitis B were reported with an incidence rate of 0.4 per 100,000 population. Most cases reported to Public Health from 2002-2012 were chronic hepatitis B cases, with an average count of 30 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 over the last 5 years but increased in 2012.

Graph 24. Hepatitis B (acute and chronic) Incidence Rates per 100,000 population Overall and by Sex for New Brunswick and Canada, 2002-2012



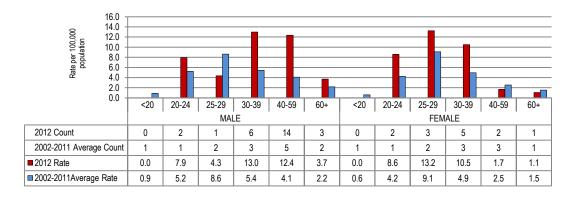
Graph 25. Chronic and Acute Hepatitis B Case Counts and Rates per 100,000 in New Brunswick, 2002-2012



Most cases of chronic Hepatitis B are seen in males.

In 2012, the majority of chronic hepatitis B cases (41%) were observed in the 40-59 year old age group whereas the highest incidence was seen in the 30-39 year old age group (11.7) in 2012. Over 2002-2011, the highest incidence rate was seen in the 25-29 year old age group.

Graph 26. Chronic Hepatitis B Case Counts and Incidence Rate per 100,000 by Sex and Age groups, New Brunswick, 2002-2012



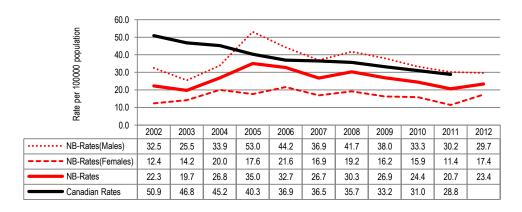
Hepatitis B is a vaccine preventable disease. Currently hepatitis B vaccine is offered at birth, 2 months and 6 months of age. Contacts (household, partner etc) of persons with acute or chronic HBV infection are eligible to receive publicly funded hepatitis B vaccine.

7.4. Hepatitis C

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

In 2012, the incidence rate of hepatitis C was 23.4 per 100,000 population with 177 cases reported to Public Health. In the last ten years, an average of 197 cases was reported annually with a 10-years average incidence rate of 26.5 per 100,000 population. A decline in incidence rates was observed in 2009, 2010 and 2011. Compared to Canadian rates the incidence rate in New Brunswick is lower than the Canadian rate.

Graph 27. Hepatitis C Incidence Rates per 100,000 population Overall and by Sex for New Brunswick and Canada, 2002-2012.



Hepatitis C is commonly associated with injection drug use including those who injected only once many years ago.

Efforts placed on risk minimization strategies such as needle syringe exchange policies, and the absence of significant HIV transmission through Intravenous drug use, (reflecting absence of this disease in this group not absence of risk behaviours), may have played a role in reduction of incidence rate within the last 3 years.

100.0 Rate per 100,000 population 80.0 60.0 40.0 20.0 0.0 15-19 20-24 25-29 30-39 40-59 60+ 25-29 <15 15-19 | 20-24 30-39 40-59 FEMALE MALE 2012 Count 14 18 25 2 42 9 0 5 11 17 12 19 3 2002-2011 Average Count 0 2 15 21 41 53 3 0 3 11 10 17 20 2 ■ 2012 Rate 0.0 8.5 55.5 78.1 54.2 37.1 11.1 0.0 22.3 47.1 75.0 25.2 16.0 3.2 ■2002-2011Average Rate 9.2 61.7 92.0 44.9 0.3 81.7 46.1 4.8 0.0 14.0 42.7 34.2 16.7 2.6

Graph 28. Hepatitis C Case Counts and Incidence Rate per 100,000 by Sex and Age groups, New Brunswick, 2002-2012

Most cases were seen in males. In 2012, the highest incidence rate was seen in the 25-29 year old age group, followed by the 20-24 year old age group. The majority of cases was seen in the 40-59 year old age group (41%), followed by the 30-39 year old age group (33%).

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

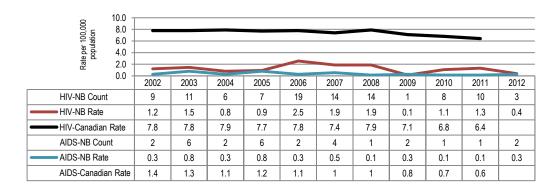
7.5. HIV and AIDS

In 2012, 3 cases of HIV were reported to Public Health with an incidence rate of 0.4 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 1.2 per 100,000 population. It is low compared to the Canadian rates where the annual incidence rate from 2002 to 2011 ranged between 6.4 and 7.9 per per 100,000 population.

With regards to the number of AIDS cases, 2 were reported to Public Health in 2012 with an incidence rate of 0.3 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.

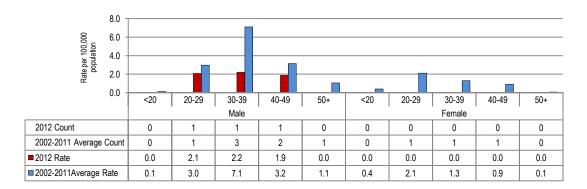
The annual changes in the HIV and AIDS incidence rates should be interpreted with caution: the relatively low number of cases can result in major fluctuations in the rate from year to year.

Graph 29. HIV and AIDS Case Counts and Incidence Rates per 100,000 population for New Brunswick and Canada, 2002-2012.



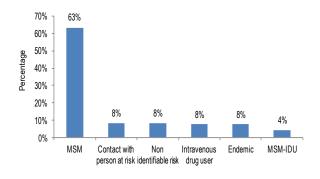
In 2012, all reported HIV cases were males. During the last ten years, the incidence of each HIV and AIDS was almost six times higher among males. Most cases were in the age category of 30 to 49 years.

Graph 30. HIV Case Counts and Incidence Rate per 100,000 by Sex and Age groups, New Brunswick, 2002-2012

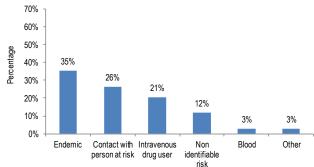


In New Brunswick, over the period from 2002 to 2012, most cases of HIV among males (63%) were seen in the populations of men having sex with men (MSM); whereas in females, the most common risk factor for infection was being from an endemic area (35%).

Graph 31. Risk factors of HIV Infection Among Males in New Brunswick, 2002-2012



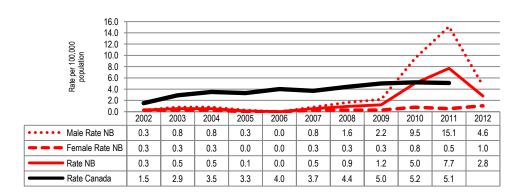
Graph 32. Risk factors of HIV Infection Among Females in New Brunswick, 2002-2012



7.6 Syphilis(Infectious)

During the years 2002 to 2010, the annual case count for infectious syphilis ranged from 0 to 9 cases. From November 2010 until December 2012, New Brunswick experienced an outbreak of infectious syphilis. Over this time period 122 cases of infectious syphilis were reported to Public Health. The annual number of cases peaked in 2011 with 58 cases of infectious syphilis. During that same year, the incidence rate in New Brunswick was higher than the Canadian rate: 7.7 and 5.1 per 100,000 persons respectively. In 2012 the incidence rate was 2.8 per 100,000 with 21 cases reported to Public Health.

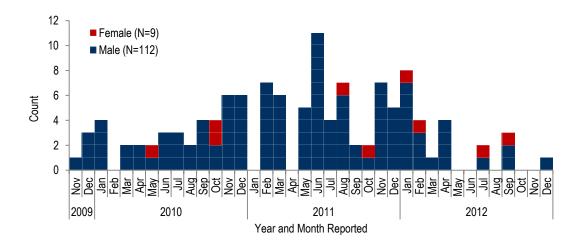
Graph 34. Infectious Syphilis Incidence Rates per 100,000 population Overall and by Sex for New Brunswick and Canada, 2002-2012.



During the Syphilis outbreak, 92% of the cases were male and sustained transmission among males was observed. The outbreak started in the Region 1 and quickly spread across New Brunswick. Regions 1, 3 and 2 were the most affected Regions, with respectively 38%, 35% and 16% of the cases.

Most cases are seen in males in the 40-59 year old age group. Men having Sex with Men (MSM) accounted for a large proportion of the cases reported during the outbreak. This increase in MSM syphilis cases mirrors similar data in other jurisdictions in recent years, where cases first appeared in the MSM community, often in HIV positive men, before spreading to other parts of the MSM community and then into the broader community.

Graph 35. Infectious Syphilis Case Distribution by Sex and Month during New Brunswick Outbreak, 2009-2012



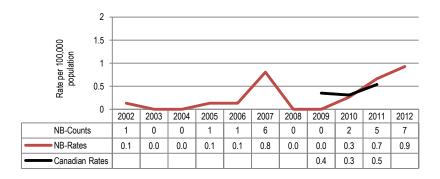
8. Vectorborne and Zoonotic diseases

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. Populations of infected ticks are established in parts of southern New Brunswick. In 2012, 7 cases of Lyme disease were reported to Public Health, mostly in Region 2 (5 cases), accounting for an incidence rate of 0.9 per 100,000 population. An average of 2 cases was reported in the last 10 years (range 0-6 cases). In 2011, the incidence rate in New Brunswick was higher than the national rate.

Graph 36. Lyme disease Case Counts and Incidence Rates per 100,000 population for New Brunswick and Canada⁴, 2002-2012.



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 2012, 4 cases of malaria were reported. Malaria is not endemic in NB and all cases were travel-related. In addition, there were 2 cases of Q-fever which was 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.

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

9. Respiratory and Direct Contact Diseases

9.1. Legionellosis

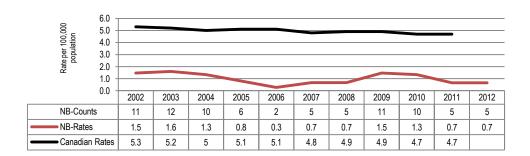
In 2012, the rate of legionellosis was 0.4 per 100,000 population accounting for 3 cases reported to Public Health. In the last ten years, an average of 2 cases was reported per year. The majority of cases were seen in males and cases are mostly reported in people aged 25 years and over.

9.2. Tuberculosis

The rate of tuberculosis in New Brunswick was 0.7 per 100,000 in 2012, accounting for 5 cases reported to Public Health. In the last ten years, an average of 8 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 36. Tuberculosis Case Counts and Incidence Rates per 100,000 population for New Brunswick and Canada, 2002-2012



Over the period from 2002-2012, most of the cases were seen among Canadian born non-Aboriginal populations (55%), followed by the foreign-born (27%). Aboriginals only represented 2% of cases.

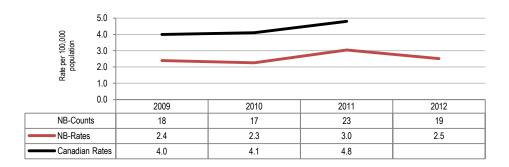
Cases aged 60 years old and above accounted for almost 45% of cases reported in the period from 2002-2012.

The most common diagnosis site from 2002-2012 was pulmonary TB (58%) followed by Genito-Urinary (10%).

9.3. Invasive Group A Streptococcal disease (iGAS)

In 2012, the rate of iGAS was 2.5 per 100,000 population, accounting for 19 cases reported to Public Health. From 2009 to 2012, the rate and case count of iGAS has been stable, with the exception of 2011 when a slight increase was observed. New Brunswick incidence rates of iGAS are consistently lower than the Canadian rates.

Graph 37. Invasive Group A Streptococcal disease (iGAS) Case Counts and Incidence Rates per 100,000 population for New Brunswick and Canada, 2009-2012



In 2012, individuals aged 60 years and above had the highest rate per 100,000. In previous years, the highest rates were observed in individuals aged 30 to 39 years old. Over the period 2009-2012, most of the cases (about 60%) were reported in Regions 1 and 2, and Region 2 had the highest incidence rate throughout this time period.

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 2012 there were 5 cases reported to Public Health. Since 2007to 2011, the case count fluctuates between 1 and 5 cases annually.

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

Appendix 1. List of Notifiable Diseases and Reportable Events

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



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Streptococcus group B beta-hemolytic (neonatal) MRSA and VRE are not repotable under the Public Health Act, however they are under				
WASH DID VICE DE INCREDITATE UNE VIE PUBLIC DE U			✓	✓
suverlance by the Department of Mealth				
Vancomycin resistant enterococi (VRE) ✓	surveilance by the Department of Health	Tetanus		-

Appendix 2. Tables for Vaccine Preventable Diseases

Table 2.1. Notifiable vaccine-preventable and respiratory diseases reported in New Brunswick in 2002-2012: counts and incidence rates per 100,000 population

		NB																				
	2	2002	20	03	20	004	2	005	20	06	20	007	2	800	2	.009	2	010	2	011	20	012
	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																						
Diphteria	0	0.0	0	0.0	0	0.0	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)	4	0.5	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
Invasive Meningococcal Disease ^Ω	5	0.7	4	0.5	5	0.7	5	0.7	6	8.0	3	0.4	7	0.9	7	0.9	5	0.7	4	0.5	6	8.0
Invasive Pneumococcall Disease §	-	-	-	-	-	-	-	-	-	-	54	7.2	52	7.0	71	9.5	81	10.8	80	10.6	60	7.9
Measles	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	0.1	0	0.0
Mumps †	0	0.0	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
Pertussis [¥]	118	15.7	108	14.4	300	40.0	48	6.4	27	3.6	23	3.1	14	1.9	9	1.2	29	3.9	21	2.8	1421	188.0
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	1	0.1	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	54	7.2	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

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 for rate calculations: OCMOH, Communicable Disease Control Branch. The denominators used were population estimates from Statistics Canada, Demography Division; release date February 4 2013.

 $^{^{\}Omega}$ 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.

Table 2.2. Notifiable vaccine-preventable diseases reported in New Brunswick in 2012 by region: counts and incidence rates per 100,000 population

	Reg	gion 1	Reg	ion 2	Reg	ion 3	Reg	ion 4	Reg	ion 5	Reg	ion 6	Reg	ion 7	N	IB
	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
Vaccine-Preventable Diseases																
Diphteria	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)	0	0.0	2	0.6	0	0.0	1	1.0	0	0.0	0	0.0	0	0.0	3	0.4
Invasive Meningococcal Disease ^Ω	1	0.2	1	0.3	2	0.6	1	1.0	0	0.0	0	0.0	1	1.1	6	8.0
Invasive Pneumococcall Disease §	21	5.0	12	3.4	11	3.1	4	4.1	6	11.5	3	2.0	3	3.4	60	7.9
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
Mumps †	0	0.0	1	0.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.1
Pertussis [¥]	537	128.6	126	35.8	165	46.9	190	196.8	31	59.6	314	205.4	58	65.5	1421	188.1
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	9	2.2	2	0.6	1	0.3	0	0.0	0	0.0	5	3.3	3	3.4	20	2.6

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: 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 February 4 2013.

^Ω Source: Invasive Meningococcal Disease enhanced surveillance database § Source: Invasive Pneumococcal Disease enhanced surveillance database

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

Table 2.3. Notifiable vaccine-preventable and respiratory diseases reported in New Brunswick in 2012 by age group and sex: counts and incidence rates per 100,000 population

•												N		3.0									
	•										A	ge gı	roups										
		<	1	1	1-4	5	i-9	10	0-14	1:	5-19	2	0-24	2	5-29	3(0-39	40)-59	6	i0+		
		N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	Total	Rate
Vaccine-Preventable Diseases																							
	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
Diphteria	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
	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	1	0.9	1	1.2	2	0.5
Haemophilus influenzae (unspecified)	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	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	0.4	2	1.1	3	0.4
	Male	0	0.0	1	6.6	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
Invasive Meningococcal Disease $^{\Omega}$	Female	1	27.4	0	0.0	0	0.0	0	0.0	1	4.6	0	0.0	1	4.5	0	0.0	0	0.0	2	2.0	5	1.3
	Total	1	13.7	1	3.3	0	0.0	0	0.0	1	2.2	0	0.0	1	2.2	0	0.0	0	0.0	2	1.1	6	0.8
	Male	1	27.3	1	6.6	1	5.3	0	0.0	0	0.0	0	0.0	1	4.4	4	8.8	7	6.2	22	26.2	37	10.0
Invasive Pneumococcal Disease §	Female	0	0.0	1	6.8	0	0.0	0	0.0	0	0.0	0	0.0	1	4.5	2	4.3	4	3.4	15	15.3	23	6.0
	Total	1	13.7	2	6.7	1	2.7	0	0.0	0	0.0	0	0.0	2	4.4	6	6.5	11	4.8	37	20.3	60	7.9
	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
Measles	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
	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
Mumps †	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	1	2.2	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.1
- v	Male	25	683.4	53	347.7	107	567.5	203	999.9	55	239.9	11	43.4	15	65.3	31	68.2	78	69.5	33	39.3	611	164.7
Pertussis [¥]	Female Total	18 43	493.7 588.7	59 112	399.8 373.3	113 220	635.8 600.6	332 535	1750.4 1362.4	62 117	286.6 262.6	18 29	76.4 59.3	15 30	67.0 66.1	84 115	179.1 124.5	76 154	64.7 67.1	33 66	33.7 36.3	810 1421	210.4 188.0
	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
Rubella and Congenital Rubella Syndrome	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
Transita and congonial reasona cyndionic	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
	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
Tetanus	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
	Male	0	0.0	2	13.1	0	0.0	1	4.9	2	8.7	3	11.8	3	13.1	2	4.4	0	0.0	1	1.2	14	3.8
Varicella	Female	0	0.0	0	0.0	2	11.3	0	0.0	2	9.2	0	0.0	0	0.0	2	4.3	0	0.0	0	0.0	6	1.6
	Total	0	0.0	2	6.7	2	5.5	1	2.5	4	9.0	3	6.1	3	6.6	4	4.3	0	0.0	1	0.5	20	2.6

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 for rate calculations: OCMOH, Communicable Disease Control Branch. The denominators used were population estimates from Statistics Canada, Demography Division; release date February 4 2013.

^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.

Appendix 3. Tables for enteric, food and waterborne diseases

Table3.1. Notifiable enteric, food and waterborne diseases reported in New Brunswick in 2002-2012: counts and incidence rates per 100,000 population

											N	IB										
	20	02	20	003	20	004	20	05	20	006	20	007	20	800	2	009	20	10	20	011	2	012
	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 Dis	seases																					
Campy lobacteriosis	207	27.6	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
Cryptosporidiosis ‡	8	1.1	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
E. coli O157	11	1.5	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
Giardiasis	90	12.0	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
Hepatitis A	1	0.1	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
Listeriosis	1	0.1	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
Salmonellosis	111	14.8	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
Shigellosis	8	1.1	4	0.5	4	0.5	11	1.5	5	0.7	4	0.5	6	8.0	10	1.3	7	0.9	6	0.8	5	0.7
Typhoid Fever	3	0.4	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
Vibrio species	0	0.0	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
Yersiniosis [‡]	5	0.7	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

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 February 4 2013.

Table3.2. Notifiable enteric, food and waterborne diseases reported in New Brunswick in 2012 by region: counts and incidence rates per 100,000 population

	Reg	ion 1	Reg	ion 2	Reg	ion 3	Reg	ion 4	Reg	ion 5	Reg	ion 6	Reg	ion 7	N	IB
	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
Enteric, Food and Waterborne Di	seases															
Campylobacteriosis	44	10.5	20	5.7	31	8.8	29	30.0	7	13.5	22	14.4	5	5.6	158	20.9
C ry ptosporidiosis ‡	7	1.7	5	1.4	7	2.0	2	2.1	2	3.8	4	2.6	0	0.0	27	3.6
E. coli O157	2	0.5	4	1.1	7	2.0	0	0.0	0	0.0	3	2.0	11	12.4	27	3.6
Giardiasis	33	7.9	35	9.9	32	9.1	6	6.2	7	13.5	16	10.5	2	2.3	131	17.3
Hepatitis A	0	0.0	0	0.0	1	0.3	0	0.0	1	1.9	1	0.7	0	0.0	3	0.4
Listeriosis	3	0.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	1.1	4	0.5
Salmonellosis	37	8.9	26	7.4	30	8.5	9	9.3	13	25.0	25	16.4	13	14.7	153	20.3
Shigellosis	1	0.2	1	0.3	0	0.0	0	0.0	1	1.9	2	1.3	0	0.0	5	0.7
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	0.7	1	0.3	0	0.0	0	0.0	0	0.0	1	0.7	0	0.0	5	0.7
Yersiniosis [‡]	2	0.5	0	0.0	0	0.0	1	1.0	0	0.0	0	0.0	0	0.0	3	0.4

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

Source for rate calculations: OCMOH, Communicable Disease Control Branch. The denominators used were population estimates from Statistics Canada, Demography Division; release date February 4 2013.

[‡] Cryptosporidium and Yersiniosis data was extracted from enteric databases

Table3.3. Notifiable enteric, food and waterborne diseases reported in New Brunswick in 2012 by age group and sex: counts and rates per 100,000 population

													NB										
												A	ge grou	ps									
			<1		1-4		5-9	1	0-14	15	5-19	20)-24	2	5-29	30	0-39	40)-59	6	60+		
		N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	Total	Rate
Enteric, Food and Waterborne Di	seases																						
	Male	1	27.3	6	39.4	1	5.3	3	14.8	7	30.5	8	31.6	4	17.4	4	8.8	22	19.6	24	28.6	80	21.6
Campylobacteriosis	Female	0	0.0	3	20.3	1	5.6	2	10.5	3	13.9	7	29.7	3	13.4	9	19.2	27	23.0	23	23.5	78	20.3
	Total	1	13.7	9	30.0	2	5.5	5	12.7	10	22.4	15	30.7	7	15.4	13	14.1	49	21.3	47	25.8	158	20.9
	Male	1	27.3	0	0.0	1	5.3	1	4.9	5	21.8	1	3.9	3	13.1	3	6.6	2	1.8	0	0.0	17	4.6
Cryptosporidiosis [‡]	Female	0	0.0	0	0.0	1	5.6	0	0.0	0	0.0	1	4.2	2	8.9	3	6.4	2	1.7	1	1.0	10	2.6
	Total	1	13.7	0	0.0	2	5.5	1	2.5	5	11.2	2	4.1	5	11.0	6	6.5	4	1.7	1	0.5	27	3.6
	Male	0	0.0	0	0.0	0	0.0	0	0.0	4	17.4	4	15.8	0	0.0	1	2.2	2	1.8	0	0.0	11	3.0
E. coli O157	Female	0	0.0	0	0.0	0	0.0	0	0.0	3	13.9	5	21.2	1	4.5	2	4.3	3	2.6	2	2.0	16	4.2
	Total	0	0.0	0	0.0	0	0.0	0	0.0	7	15.7	9	18.4	1	2.2	3	3.2	5	2.2	2	1.1	27	3.6
	Male	1	27.3	2	13.1	4	21.2	1	4.9	4	17.4	6	23.7	8	34.8	10	22.0	33	29.4	12	14.3	81	21.8
Giardiasis	Female	1	27.4	1	6.8	1	5.6	0	0.0	3	13.9	1	4.2	2	8.9	6	12.8	20	17.0	15	15.3	50	13.0
	Total	2	27.4	3	10.0	5	13.7	1	2.5	7	15.7	7	14.3	10	22.0	16	17.3	53	23.1	27	14.8	131	17.3
	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	1	1.2	1	0.3
Hepatitis A	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	2	2.0	2	0.5
	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
	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	1	1.2	1	0.3
Listeriosis	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	1	0.4	3	1.6	4	0.5
	Male	3	82.0	6	39.4	4	21.2	4	19.7	8	34.9	6	23.7	6	26.1	11	24.2	17	15.2	17	20.2	82	22.1
Salmonellosis	Female	0	0.0	7	47.4	4	22.5	2	10.5	0	0.0	4	17.0	3	13.4	6	12.8	17	14.5	28	28.6	71	18.4
	Total	3	41.1	13	43.3	8	21.8	6	15.3	8	18.0	10	20.4	9	19.8	17	18.4	34	14.8	45	24.7	153	20.2
	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	1	0.9	1	1.2	2	0.5
Shigellosis	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	1	0.9	1	1.0	3	0.8
	Total Male	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	1.1	2	0.9	0	1.1	5	0.7
Typhoid Fever	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
Typhold Fevel	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
	Male	0	0.0	1	6.6	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
Vibrio species	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	4	3.4	0	0.0	4	1.0
	Total	0	0.0	1	3.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	4	1.7	0	0.0	5	0.7
	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
Yersiniosis [‡]	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	1	0.4	2	1.1	3	0.4

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 February 4 2013.

Appendix 4. Tables for Sexually Transmitted and Bloodborne infections

Table4.1. Notifiable sexually transmitted and bloodborne infections reported in New Brunswick in 2002-2012: counts and incidence rates per 100,000 population

												NB										
	20	002	20	003	20	04	20	005	20	006	20	07	200	08	20	009	20	010	20)11	2	012
	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 Bloodl	borne Inf	fections†																				
AIDS §	2	0.3	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
HIV §	9	1.2	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
Chlamydia (genital)	1305	174.2	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
Gonorrhea (genital)	30	4.0	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
Hepatitis B (Acute)	10	1.3	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
Hepatitis B (Chronic)	18	2.4	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
Hepatitis C	167	22.3	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
Syphilis (Infectious) ^Φ	2	0.3	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
Syphilis (All)	4	0.5	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

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 February 4 2013.

Table4.2. Notifiable sexually transmitted and bloodborne infections reported in New Brunswick in 2012 by region: counts and incidence rates per 100,000 population

	Reg	ion 1	Reg	ion 2	Reg	ion 3	Reg	ion 4	Reg	ion 5	Regi	ion 6	Reg	ion 7	ı	NB
	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
Sexually Transmitted and Blo	odborr	e Infect	ions													
Chlamydia (genital)	754	180.6	304	86.3	541	153.7	59	61.1	33	63.5	172	112.5	68	76.8	1931	255.6
Gonorrhea (genital)	15	3.6	7	2.0	8	2.3	1	1.0	2	3.8	4	2.6	1	1.1	38	5.0
Hepatitis B (Acute)	0	0.0	0	0.0	0	0.0	2	2.1	0	0.0	1	0.7	0	0.0	3	0.4
Hepatitis B (Chronic)	13	3.1	7	2.0	10	2.8	3	3.1	0	0.0	4	2.6	2	2.3	39	5.2
Hepatitis C	61	14.6	51	14.5	27	7.7	7	7.3	6	11.5	14	9.2	11	12.4	177	23.4
Syphilis (Infectious) ^Ф	8	1.9	6	1.7	6	1.7	1	1.0	0	0.0	0	0.0	0	0.0	21	2.8
Syphilis (All)	13	3.1	8	2.3	14	4.0	2	2.1	2	3.8	3	2.0	1	1.1	43	5.7

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 February 4 2013.

Table4.3. Notifiable sexually transmitted and bloodborne infections reported in New Brunswick in 2012 by age group and sex: counts and incidence rates per 100,000 population

													NB										
												Age	groups										
			<1		1-4	:	5-9	1	0-14	1	5-19	2	0-24	25	-29	30	-39	40	-59		60+		
		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 Bloods	orne Infe	ctions						•											_		_		
	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
AIDS §	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	2	0.9	0	0.0	2	0.3
	Male	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	7.9	0	0.0	1	2.2	1	0.9	0	0.0	4	1.1
HIV §	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	2	4.1	0	0.0	1	1.1	1	0.4	0	0.0	4	0.5
	Male	0	0.0	0	0.0	0	0.0	0	0.0	91	396.9	271	1069.3	144	627.1	83	182.6	26	23.2	2	2.4	617	166.3
Chlamydia (genital)	Female	0	0.0	0	0.0	0	0.0	9	47.5	416	1922.8	548	2325.2	193	861.9	126	268.7	22	18.7	0	0.0	1314	341.3
	Total	0	0.0	0	0.0	0	0.0	9	22.9	507	1137.8	819	1674.4	337	743.0	209	226.3	48	20.9	2	1.1	1931	255.4
	Male	0	0.0	0	0.0	0	0.0	0	0.0	6	26.2	12	47.3	1	4.4	4	8.8	2	1.8	1	1.2	26	7.0
Gonorrhea (genital)	Female	0	0.0	0	0.0	0	0.0	0	0.0	3	13.9	4	17.0	1	4.5	4	8.5	0	0.0	0	0.0	12	3.1
	Total	0	0.0	0	0.0	0	0.0	0	0.0	9	20.2	16	32.7	2	4.4	8	8.7	2	0.9	1	0.5	38	5.0
	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	1	1.2	3	0.8
Hepatitis B (Acute)	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	2	0.9	1	0.5	3	0.4
	Male	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	7.9	1	4.4	6	13.2	14	12.5	3	3.6	26	7.0
Hepatitis B (Chronic)	Female	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	8.5	3	13.4	5	10.7	2	1.7	1	1.0	13	3.4
	Total	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	4	8.2	4	8.8	11	11.9	16	7.0	4	2.2	39	5.2
	Male	0	0.0	0	0.0	0	0.0	0	0.0	2	8.7	14	55.2	18	78.4	25	55.0	42	37.4	9	10.7	110	29.7
Hepatitis C	Female	0	0.0	0	0.0	0	0.0	0	0.0	5	23.1	11	46.7	17	75.9	12	25.6	19	16.2	3	3.1	67	17.4
	Total	0	0.0	0	0.0	0	0.0	0	0.0	7	15.7	25	51.1	35	77.2	37	40.1	61	26.6	12	6.6	177	23.4
Φ.	Male	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	3	11.8	2	8.7	1	2.2	11	9.8	0	0.0	17	4.6
Syphilis (Infectious) ^Φ	Female	0	0.0	0	0.0	0	0.0	0	0.0	2	9.2	0	0.0	0	0.0	0	0.0	2	1.7	0	0.0	4	1.0
	Total	0	0.0	0	0.0	0	0.0	0	0.0	2	4.5	3	6.1	2	4.4	1	1.1	13	5.7	0	0.0	21	2.8
0 17 (41)	Male	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	5	19.7	3	13.1	2	4.4	17	15.2	4	4.8	31	8.4
Syphilis (All)	Female	0	0.0	0	0.0	0	0.0	0	0.0	3	13.9	0	0.0	2	8.9	1	2.1	4	3.4	2	2.0	12	3.1
	Total	0	0.0	0	0.0	0	0.0	0	0.0	3	6.7	5	10.2	5	11.0	3	3.2	21	9.1	6	3.3	43	5.7

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

Source for rate calculations: OCMOH, Communicable Disease Control Branch. The denominators used were population estimates from Statistics Canada, Demography Division; release date February 4 2013.

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

Appendix 5. Tables for Vectorborne and Zoonotic Diseases

Table5.1. Notifiable vectorborne and zoonotic diseases reported in New Brunswick in 2002-2012: counts and incidence rates per 100,000 population

											ı	lB										
	20	02	2	003	2	004	2	:005	2	006	2	007	2	800	2	009	2	010	2	011	20	012
	N	Rate	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	
Vectorborne and Zoonotic dis	seases	+																				
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	1	0.1	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
Malaria	4	0.5	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
Q fever	0	0.0	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
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	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
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	0	0.0	1	0.1	0	0.0

Table 5.2. Notifiable vectorborne and zoonotic diseases reported in New Brunswick in 2012 by region: counts and incidence rates per 100,000 population

	Reg	ion 1	Reg	jion 2	Reg	jion 3	Reg	gion 4	Reg	jion 5	Reg	jion 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	1	0.2	5	1.4	1	0.3	0	0.0	0	0.0	0	0.0	0	0.0	7	0.9
Malaria	2	0.5	0	0.0	2	0.6	0	0.0	0	0.0	0	0.0	0	0.0	4	0.5
Q fever	2	0.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	0.3
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 February 4 2013.

Table5.3. Notifiable vectorborne and zoonotic diseases reported in New Brunswick in 2012 by age group and sex: counts and incidence rates per 100,000 population

													NB										
												Age	group	s									
			<1		1-4		5-9	10	-14	1	5-19	20	0-24	25-29		30-39		40-59			60+		
		N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	Total	Rate
Vectorborne and Zoonotic diseases																							
	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
Leptospirosis	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
	Male	0	0.0	0	0.0	1	5.3	0	0.0	0	0.0	1	3.9	0	0.0	1	2.2	1	0.9	1	1.2	5	1.3
Lyme Disease	Female	0	0.0	1	6.8	0	0.0	1	5.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	0.5
	Total	0	0.0	1	3.3	1	2.7	1	2.5	0	0.0	1	2.0	0	0.0	1	1.1	1	0.4	1	0.5	7	0.9
	Male	0	0.0	0	0.0	0	0.0	0	0.0	1	4.4	0	0.0	0	0.0	0	0.0	1	0.9	0	0.0	2	0.5
Malaria	Female	0	0.0	0	0.0	0	0.0	0	0.0	2	9.2	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	0.5
	Total	0	0.0	0	0.0	1	2.7	0	0.0	0	0.0	1	2.0	1	2.2	0	0.0	1	0.4	0	0.0	4	0.5
	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	2	2.4	2	0.5
Q fever	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	1	0.4	1	0.5	2	0.3
	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
Rabies	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
	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
Tularemia	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
	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
Yellow Fever	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

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 February 4 2013.

Appendix 6. Tables for Respiratory and Direct Contact diseases

Table6.1. Notifiable respiratory and direct contact diseases reported in New Brunswick in 2002-2012: counts and incidence rates per 100,000 population

	NB																					
	20	2002		2003		2004		2005		2006		2007		2008		009	2010		2	011	2	012
	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)§	-	-	•	-	-	-	-	-	-	-	ı	-	-	-	18	2.4	17	2.3	23	3.0	19	2.5
Group B Streptococcal Infection of Newborn [¥]	-	-	•	-	-	-	-	-	-	-	1	14.0	3	40.5	3	40.6	2	27.2	1	14.0	5	70.2
Legionellosis [†]	0	0.0	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
Tuberculosis [‡]	11	1.5	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

Table6.2. Notifiable respiratory and direct contact diseases reported in New Brunswick in 2012 by region: counts and incidence rates per 100,000 population

	Reg	ion 1	Reg	Region 2		gion 3	Reg	jion 4	Reg	ion 5	Reg	jion 6	Reg	ion 7	NB	
	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
Respiratory and Direct Contact diseases								1								
Invasive Group A Streptococcal disease (iGAS)§	4	1.0	9	2.6	3	0.9	0	0.0	2	3.8	0	0.0	1	1.1	19	0.5
Group B Streptococcal Infection of Newborn [¥]	2	96.1	1	58.2	2	112.6	0	0.0	0	0.0	0	0.0	0	0.0	5	70.2
Legionellosis [†]	2	0.5	0	0.0	0	0.0	1	1.0	0	0.0	0	0.0	0	0.0	3	0.3
Tuberculosis [‡]	2	0.5	2	0.6	0	0.0	0	0.0	0	0.0	1	0.7	0	0.0	5	0.3

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

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

February 4 2013.

Rates for Group B Streptococcal infection of newborn were calculated based on live birth estimates from Statistics Canada, Demography Division. Date modified September 26 2013.

[¥] Source: RDSS supplemental database

[†]Source: RDSS (Reportable Disease Surveillance System) database

[‡]Source: Active TB enhanced Database

Table6.3. Notifiable respiratory and direct contact diseases reported in New Brunswick in 2012 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		-29	30-39		40-59		60+			
		N	Rate	N	Rate	N	N Rate		Rate	N Rate		N	Rate	Total	Rate								
Respiratory and Direct Contact diseases																							
Invasive Group A Streptococcal disease (iGAS)§	Male	0	0.0	0	0.0	0	0.0	1	4.9	0	0.0	1	3.9	1	4.4	0	0.0	2	1.8	5	6.0	10	2.7
	Female	0	0.0	0	0.0	1	5.6	1	5.3	0	0.0	0	0.0	0	0.0	3	6.4	0	0.0	4	4.1	9	2.3
	Total	0	0.0	0	0.0	1	2.7	2	5.1	0	0.0	1	2.0	1	2.2	3	3.2	2	0.9	9	4.9	19	2.5
	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
Legionellosis [†]	Female	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	4.5	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	0	0.0	0	0.0	1	2.2	1	1.1	1	0.4	0	0.0	3	0.4
Tuberculosis [‡]	Male	0	0.0	1	6.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	2.4	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	1	0.9	1	1.0	2	0.5
	Total	0	0.0	1	3.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.4	3	1.6	5	0.7

[§] 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 February 4 2013.