

New Brunswick Communicable Disease 2014 Annual Report

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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 as well as the reporting requirements within specified 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 evaluating the effect of these strategies to inform policies and programs.

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

The purpose of this report is to provide a summary of reportable diseases and reportable events reported in NB in 2014 and compare 2014 trends to those reported in the previous five years, 2009-2013.

Figure 1. Map of Health Zones in New Brunswick



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

2. Data Sources

- Confirmed case reports are collected from the Health Zones in New Brunswick through the Reportable Disease Surveillance System (RDSS). All diseases are classified by the date they were reported to the health authority.
- Data for enteric diseases, for years 2009 onwards, were obtained through the enteric database maintained at the Communicable Disease Control Branch (CDCB) within the Office of the Chief Medical Officer of Health (OCMOH).
- 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 Zones in New Brunswick using forms specifically designed for each disease.
- 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, were obtained through the enhanced syphilis database designed for the purpose of the outbreak.
- Data for the 2012 pertussis outbreak were obtained through the enhanced pertussis database designed for the purpose of the outbreak.
- Counts of Healthcare Associated Infections (HAI) were obtained through the provincial HAI database which includes data provided by hospitals from both RHAs using standardized forms and case definitions. Two infections are covered in this database; i) *Clostridium* difficile infection (CDI) and ii) Methicillin-resistant *Staphylococcus* aureus (MRSA).
- The denominators used to calculate provincial rates were population estimates from Statistics Canada, Demography Division; data received March 2015.
- 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 the medical condition and are provided by the Health Information Management Branch in the Department of Health on a quarterly basis.
- National disease rates for the period 2009 to 2011 were provided by the Public Health Agency of Canada (PHAC) - Surveillance and Epidemiology Division. 2012 to 2013 disease rates were retrieved online on the <u>Notifiable Diseases On-Line</u> page at PHAC website. National disease data for year 2014 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 of confirmed cases that meet the <u>National</u> <u>Case Definitions</u> and which are reported to Public Health. As a result, the 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 healthcare provider. Numbers and rates in the report are based on 2014 notifications received as of August 2015, and may be subject to minor changes in future reports.

Please use caution when interpreting age-specific or zone-specific annual incidence rates for some diseases: the relatively low number of cases can result in major fluctuations in the rate from year to year.

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

4. 2014 Highlights

4.1. Main Disease Trends

• Vaccine Preventable Diseases:

Higher incidence rates of *Haemophilus influenzae* were observed, as well as lower rates of IPD. All other vaccine preventable diseases rates remained low and stable.

- Enteric, Food, and Waterborne Diseases:

Higher incidence rates of campylobacteriosis and salmonellosis were noted. Rates for E.coli O157, :H7 Hepatitis A, and Listeria were lower in comparison to previous years.

- Sexually Transmitted and Blood Borne Diseases:

Higher incidence of acute hepatitis B was observed, mainly in Zone 1. However, lower incidence rates were noted for cases of hepatitis B, hepatitis C, infectious syphilis, and gonorrhea in 2014, compared to 2013. The decrease in reported *Chlamydia* infections continue in 2014.

- 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. No cases of leptospirosis, human rabies, tularemia, or yellow fever were reported this year.

- Respiratory and Direct Contact Diseases:

The incidence rates for legionellosis, tuberculosis (TB), and invasive group A streprococcal (iGAS) diseases were comparable to previous years.

4.2. Provincial Outbreaks

In December 2014, an outbreak at a community Christmas dinner took place in Central Region. The bacteria *Clostridium perfringens* and *Bacillus cereus*, from leftover turkey, were confirmed to be the causes of this outbreak. A total of 38 cases of illness and the death of a senior citizen were reported among 105 people who attended the event. Inadequate food handling practices resulted in temperature abuse of the foods served at this event.

5. Vaccine preventable diseases (VPD)

Vaccine preventable diseases (VPDs) are conditions which have vaccines available to protect against them 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 <u>New Brunswick</u> <u>Immunization Guide</u>.



Graph 1. Vaccine Preventable Diseases in New Brunswick, 2014

Graph 2. Incidence Rates per 100,000 population of Some Vaccine Preventable Diseases in New Brunswick, 2009-2014



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

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

In NB, subtype reporting is not consistently available for *Haemophilus 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 2014, the incidence rate of *Haemophilus influenzae* was 1.1 per 100,000 population which accounted for 8 cases reported to Public Health. Over the last 5 years, there was an average of 3 cases of *Haemophilus influenzae* (Hib and non Hib) per year, with a 5-year average incidence rate of 0.4 cases per 100,000 population. The reported case counts of *Haemophilus influenzae* (Hib and non Hib) are showing a steady increase over the last 2 years. In 2014, the cases were reported mostly in Zone 2 (3 cases) and Zone 1 (2 cases).

Graph 3. Haemophilus influenzae (Hib and non Hib) Case Counts and Rates per 100,000 for New Brunswick, 2009-2014



In 2014, 75% 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 5 years, where the majority of cases occured 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; however, the reporting period differs from the calendar reporting year. <u>NB Influenza activity season summary report 2014-2015</u> can be accessed at the OCMOH webpage.

5.3. Invasive Meningococcal Disease (IMD)

In 2014, the incidence rate for IMD was 0.3 per 100,000 population with 2 cases reported to Public Health. Over the last 5 years, there was an average of 5 cases of IMD per year and the 5-year average incidence rate was 0.6 cases per 100,000 population. Overall, the incidence rate in NB is higher than the national rate, with the exception of 2013 when the same incidence was recorded.



Graph 4. IMD Case Counts and Rates per 100,000 for New Brunswick and Canada, 2009-2014

The age groups affected differ by year. In 2014, 1 case was reported in the 1-4 years old age group and the other case was reported in the 60 years and above age group. The cases were from Zones 1 and 3.

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 2009 to 2014, 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).





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 2014, the rate of IPD was 6.6 per 100,000 population with 50 cases reported to Public Health. Over the last 5 years, there was an average of 73 cases of IPD per year and the 5-year average incidence rate was 9.7 cases per 100,000 population. Over all, the incidence rate in NB is similar or slightly higher than the national rate. **Graph 6.** IPD Case Counts and Rates per 100,000 for New Brunswick and Canada, 2009-2014



Whereas the majority of cases (about 78.2%) were observed in adults older than 40 years during the period from 2009 to 2014, it is noted that there was a consistently higher incidence rate in the extreme ages compared to other age groups: the average 5-year incidence was 42.3 cases per 100,000 population for the under 1 year old infants and 23.6 cases per 100,000 population for those who are 65 years and older.

In 2014, 44% of reported IPD cases (n=22) were aged 65 years and older. In this age group, only 3 cases (out of 14 with known vaccine status- 21.4%) were vaccinated with 23-valent pneumococcal vaccine. Amongst those non-vaccinated (n=11), 90.9% had vaccine preventable serotypes. Amongst those vaccinated (3 cases), all had vaccine preventable serotypes.

No specific zonal trends were observed. In the period 2009-2014, zonal rates were stable within most zones with the exception of Zone 3, which showed an increase in 2013. In 2014, most zones showed a decrease in the reported cases except Zone 1 and Zone 6, where the case counts remained stable. Zonal-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 2014, no cases of measles were reported to Public Health. 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 2014, one case of mumps was reported to Public Health in Zone 3.

Since 2009, there were 7 confirmed cases reported inNB: one in 2009, one in 2012 and five cases in 2013, of which 3 were linked to the same cluster.

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

5.7. Pertussis

In 2014, 9 cases of pertussis were reported to Public Health with an incidence rate of 1.2 per 100,000 population. Since 2013, the number of reported pertussis cases has been below the 5-year average observed before the 2012 outbreak (average of 22 cases per year).

Overall, the incidence rate in NB is lower than the national rate with the exception of the outbreak year 2012.

In 2014, 55% of the cases were in children 4 years old and less.

Graph 7. Pertussis Case Counts and Rates per 100,000 in NB and Canada, 2009-2014



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

5.8. Rubella

No cases of rubella were reported in 2014. Between 2009 and 2013, 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 zones, we focus on reported varicella cases in people aged 0-49 years. In general, most cases in 50 year olds and over the virus presents as shingles (herpes zoster).

In 2014, 20 cases of lab confirmed varicella were reported to Public Health with an incidence rate of 2.7 per 100,000 population. Over the past 5 years, the varicella rate showed a decrease after 2010 and continues to be stable since.



Graph 8. Varicella Case Counts and Rates per 100,000 for NB², 2009-2014

Publicly funded varicella immunization (MMRV) is offered in childhood at 12 and 18 months of age. The two dose varicella vaccine schedule started in 2011 for the 2009 birth cohort onwards. In addition, a catch-up program for the second dose was introduced in the 2015/16 school year for grade 9 and 10 students. The vaccine will continue to be offered to grade 9 students from the school years 2016/17 to 2022/23.

5.10. Other vaccine preventable diseases

No cases of diphtheria, tetanus and poliomyelitis were reported between 2009 and 2014. 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.

In 2014, *Campylobacter*, *Salmonella*, and *Giardia* accounted for the highest proportion of reportable enteric, food and waterborne diseases, which is similar to last year.





Graph 10. Incidence Rates per 100,000 population of Some Enteric Diseases in NB, 2009-2014



6.1. Campylobacteriosis

Campylobacteriosis is the most frequently reported enteric infection.

In 2014, there is a marked increase in the number of reported cases of Campylobacter (229 cases), in comparison to the previous year 2013 (212 cases) and the average of the last five years 2009-2013 (172 cases per year). The incidence rate of campylobacteriosis, in 2014, was 30.4 per 100,000 population, whereas the average was 22.8 per 100,000 population between 2009-2013. Overall, the incidence rate in NB is lower than the national rate.



Graph 11. Campylobacteriosis Case Counts and Rates per 100,000 for NB and Canada, 2009-2014

In 2014, the incidence rate was seen higher in males (33.8 per 100,000 population) than it was in females (27.0 per 100,000 population) which is consistent with the trend in the previous years; 2009-2013: 25.3 per 100,000 and 20.4 per 100,000 for males and females respectively.

The highest incidence rate in 2014, was reported in Zone 4 (148.8 per 100,000 population) and Zone 6 (34.3 per 100,000 population) which is similar to what we have seen for the period of 2009-2013: 57.9 and 37.0 per 100,000 population for Zone 4 and Zone 6 respectively.

For the most part, the incidence rate of campylobacterisis in 2014, was higher than the average incidence rate reported in the previous five years 2009-2013 at different age-goups.



Graph 12. Incidence rate of Campylobacter by age group in NB, 2009-2013 and 2014

6.2. Cryptosporidiosis

In 2014, there were 17 reported cases of cryptosporidiosis with an incidence rate of 2.3 cases per 100,000 population. Over the last 5 years, on average 25 cases were reported to Public Health annually with a 5-year average incidence rate of 3.3 cases per 100,000 population. The incidence rate showed some fluctuations since 2009, however, it remained stable in 2013 and 2014. Overall, since 2009, the incidence rate in NB was higher than the national incidence rate, with the exception of the previous year where the incidence rates were almost same.

Graph 13. Cryptosporidiosis Case Counts and Rates per 100,000 population for NB and Canada, 2009-2014.



In 2014, the highest number of reported cases of cryptosporidium infections were reported in Zone 2 and Zone 5 (6 cases each) with the highest incidence rate of 23 per 100,000 population in Zone 5.

In addition for 2014, the number of reported females were almost double the number of reported males (11F:6M), which was not the case over the past five years 2009-2013 (12F:13M). No one age group was highlighted.

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 2014, the incidence rate of giardiasis was 12.9 per 100,000 population, resulting from 97 cases reported to Public Health. This was lower than the average incidence rate and case counts reported in the previous five years 2009-2013; which were 14.1 per 100,000 population and 107 cases respectively. Since 2009, there were constant fluctuations in the incidence rate until 2012; the rate remained stable in 2013 and 2014. NB rate was consistently higher than the national rate over the period of 2009-2013.

- 0.02 - 0.01 boulation - 0.0 0.000 boulation						
ę 0.0 -	2009	2010	2011	2012	2013	2014
NB-Counts	96	123	88	131	95	97
	12.8	16.3	11.6	17.3	12.6	12.9
Canadian-Rates	11.4	11.6	11.1	11.1	10.8	

Graph 14. Giardiaisis Case Counts and Rates per 100,000 population for NB and Canada, 2009-2014

In 2014, the male incidence rate and case counts were higher than those for females, which is consistent with the average incidence rates and case counts over the past five years. The highest case counts and incidence rates were reported in Zone 1 (37 cases, 17.6 per 100,000 population) and Zone 3 (26 cases, 17.9 per 100,000 population). However, the highest rate of infection over the last five years, 2009-2013, was reported in Zone 5 (23.11 per 100,000 population).

In addition for 2014, the highest number of cases were reported in age groups of 40 and above, which is consistent with average case counts for the last five years from 2009-2013. The incidence rate was highest in age group of 40-59: 16.2 per 100,000 population. Over 2009-2013, the highest average incidence rate was reported in the age group 1-4: 22.75 per 100,000 population.

6.4. *E.coli* 0157:H7

In 2014, the incidence rate of *E.coli* 0157:H7 infection was 0.7 per 100,000 population resulting from 5 cases reported to Public Health. This is a steep decline in comparision with the previous five years, where the average incidence rate was 1.9 per 100,000 population and the average case counts were 14 cases per year. 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 NB and Canada, 2009-2014

In 2014, 2 of the 5 cases were in the age group of 5-9 years old; and male to female ratio was 2:3. Over the period of 2009-2013, most cases were distributed amongst different age groups, with a range between 0-2.2 cases. It is interesting to note that the age group <1 year have consistently zero case counts.

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 2014, the incidence rate of salmonellosis was 25.2 per 100,000 population which accounted for 190 cases reported to Public Health. This was a bit higher than the average incidence rate and case counts reported over the last five years; 18.7 per 100,000 population and 141 cases per year respectively. Overall, NB incidence rates were consistent with the national incidence rates in the last five years.



Graph 16. Salmonellosis Case Counts and Rates per 100,000 population for NB and Canada, 2009-2014

In 2014, the highest proportion of cases were reported in Zone 1 (27%). However, Zone 5 reported the highest incidence rate in 2014 (23.9 per 100,000 population) and the highest average rate over the previous five years (24.6 per 100,000 population).

For 2014, the majority of the cases (61.6%) occurred in the age group of 40 and above, and 34% of cases were in the age group of 60 and above. This was consistent with what was noticed in the previous five year period from 2009-2013, when 27% (average of 37.8 cases) of cases were reported in the 60 and above age group. However, the highest average incidence rate (44.68 per 100,000 population) in the previous five years was reported in the age group of less than 1 year, followed by age group of 1-4 years (34.47 per 100,000 population). No difference in gender counts were noted in 2014.

The most prevalent Salmonella serotypes in 2014 were *S.enteritidis* (53%), followed by *S.heidelberg* (13%), *S.Thompson, Typhimurium* (6% each), and *Newport* (5%). However, others and undetermined accounted for 17% of the reported cases. 24 different serotypes were reported under this category.

6.6. Other Enteric Diseases

Other enteric diseases that are reportable are: shigellosis, vibrio species, listeriosis, Hepatitis A, yersiniosis, and typhoid fever. In 2014, there is a consistent number of reported cases or a decline in comparison with the previous years for all other enterics. For further details on counts and rates of other enteric diseases, please refer to Appendix 3.

7. Sexually Transmitted and Blood Borne Infections (STBBI)

In 2014, 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, harm reduction programs, early detection, treatment, and notification of sexual and drug use partners.

Graph 17. Sexually Transmitted and Blood Borne Infections (STBBI) in NB, 2014







7.1. Chlamydia

Chlamydia is the most commonly reported sexually transmitted disease.

In 2014, 1738 chlamydia cases were reported with an incidence rate of 230.5 per 100,000 population. In the past 5 years, the average case count was 1809 cases per year, with a 5-year incidence rate of 239.8 per 100,000 population. The incidence of chlamydia was increasing from 2009 to 2012, followed by a slight but steady decrease in 2013 and 2014. Overall, the incidence rate for NB is slightly below the Canadian rate.

Graph 19. Chlamydia Incidence Rates per 100,000 population Overall and by Sex for NB and Canada, 2009-2014



Females remain largely overrepresented among chlamydia cases, accounting for more than two thirds of all notifications (67.5%) in 2014.

Rate per 0,000 population	2500.0 2000.0 1500.0 1000.0 500.0											_			
100	0.0 -	<15	15-19	20-24	25-29	30-39	40-59	60+	<15	15-19	20-24	25-29	30-39	40-59	60+
					Male							Female			
2014 Count		0.0	91.0	252.0	110.0	88.0	21.0	2.0	9.0	344.0	480.0	189.0	127.0	24.0	1.0
2009-2013 Ave	rage Count	0.0	103.4	259.8	116.6	69.8	22.4	2.2	8.8	426.4	506.2	172.2	102.4	18.2	0.4
■2014 Rate		0.0	408.4	1040.8	497.1	193.0	18.7	2.2	16.8	1702.5	2127.9	916.5	278.4	20.7	1.0
2009-2013 Ave	rage Rate	0.0	434.3	1054.6	506.8	149.2	19.5	2.7	16.1	1910.3	2233.4	787.7	215.0	15.4	0.4

Graph 20. Chlamydia Case Counts and Incidence Rate per 100,000 by Sex and Age group, NB, 2009-2014

In 2014, higher incidences were reported amongst the 25-39 years age group, compared to their 5-year average. However, the highest incidence rate was observed amongst young adults aged 20 to 24 years old in both males and females.

Incidence rates in all zones have either decreased or remained stable in 2014, compared to 2013 with the highest incidence observed in Zones 3 and 1.

7.2. Gonorrhea (genital)

In 2014, the incidence rate of gonorrhea was 5.8 with 44 cases reported to Public Health; slightly lower but comparable to 2013. In the past 5 years, the average case count was 54 cases per year with a 5-year incidence rate of 7.2 per 100,000 population. Incidence rates for gonorrhea remain lower than the Canadian rate³.

ition	40.0						
ber oula	30.0 -						
tes	20.0 -						
,000	10.0 -						•••••
001	00						
、	0.0	2009	2010	2011	2012	2013	2014
····· NB Rates (M	ales)	7.3	10.5	10.4	6.9	8.8	8.6
NB Rates (Fe	emales)	6.6	6.6	8.4	3.1	3.7	3.1
		6.9	8.5	9.4	5.0	6.2	5.8
Canadian Ra	ates	31.6	31.5	33.1	36.2	39.3	

Graph 21. Gonorrhea Incidence Rates per 100,000 population Overall and by Sex for NB and Canada, 2009-2014

In 2014, the majority of the cases were male (72%) which is consistent with the 3:2 overall male to female ratio observed during the 2009-2013 time period.

Individuals aged from 20 to 39 years old represent the majority of the cases (75%) with some cases seen in younger persons. The highest incidence was observed among the 20-24 years age group.

The highest incidence rates were seen in Zones 3 and 6. Possible clustering of cases in time and age groups were observed in each of these 2 zones.

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 22. Gonorrhea Case Counts and Incidence Rate per 100,000 by Sex and Age group, NB, 2009-2014

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

7.3. Hepatitis B

A lower than average incidence rate was observed for chronic hepatitis B (4 per 100,000 population), with 30 cases reported to Public Health in 2014; the 5-year average incidence rate and case count being 4.5 per 100,000 and 34 cases respectively. In 2014, almost two thirds of chronic hepatitis B cases (73%) occurred amongst individuals in the 30 to 59 years age group, with the highest incidence seen in the 30-39 years old age groups (12.1 per 100,000 population). Over 2009-2013, the highest incidence rate was observed in the 25-29 year old age group; 60% of chronic hepatitis B cases were males.

On the other hand, a high number of acute hepatitis B cases (9 cases) was reported in 2014, with an incidence rate of 1.2 per 100,000 population, while the 5-year average count was 5 cases with an incidence rate of 0.6 per 100,000 population. 7 out of the 9 cases were reported in Zone 1. Amongst Zone 1 cases, the median age was 36 years old (range 21-46 years); 6 were males, 1 was a female and all the cases reported having unprotected sex. Amongst the male cases, 4 identified themselves as men having sex with men (MSM).

Graph 23. Hepatitis B (acute and chronic) Incidence Rates per 100,000 population Overall and by Sex for NB and Canada, 2009-2014



Graph 24. Chronic and Acute Hepatitis B Case Counts and Rates per 100,000 in NB, 2009-2014



Graph 25. Chronic Hepatitis B Case Counts and Incidence Rate per 100,000 by Sex and Age groups, NB, 2009-2014



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. As a result of the acute hepatitis B cluster in 2014, the eligibility criteria for receiving publicly funded hepatitis B vaccine was extended in 2015 to include the MSM population.

7.4. Hepatitis C

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

In 2014, the incidence rate of hepatitis C was 23.9 per 100,000 population with 180 cases reported to Public Health, a decrease from 2013. In the last 5 years, an average of 184 cases was reported annually with a 5-year average incidence rate of 24.4 per 100,000 population. Compared to Canadian rates the incidence rate in NB is lower.

Graph 26. Hepatitis C Incidence Rates per 100,000 population Overall and by Sex for NB and Canada, 2009-2014.

- 40.0 - 40.0 - 0.05 - 30.0 - 20.0 - 20.0 - 15.0 - 15.0 - 15.0	••••••					
€ 10.0 - 5.0 - 0.0 -	2009	2010	2011	2012	2013	2014
••••• NB Rates (Males)	37.9	33.1	30.0	29.6	32.4	33.0
NB Rates (Females)	16.3	16.0	11.5	17.5	20.4	15.0
	26.9	24.4	20.6	23.5	26.3	23.9
Canadian Rates	33.2	31.0	28.8	29.3	29.6	



Graph 27. Hepatitis C Case Counts and Incidence Rate per 100,000 by Sex and Age groups, NB, 2009-2014

In 2014, all age specific incidence rates have decreased except for the 30-39 age group where it has slightly increased mainly in males compared to 2013, however the highest incidence rate was seen in the 25-29 year old age group, followed by the 20-24 year old age group. 37% of the newly diagnosed cases was seen amongst the individuals in the 40-59 years age group.

Zone 1 had the highest incidence rate, followed by Zone 7, most likely due to the presence of correctional facilities in these 2 zones.

7.5. HIV and AIDS

In 2014, 3 cases of HIV were reported to Public Health with an incidence rate of 0.4 per 100,000 population. During the last five years, the incidence rate of HIV in NB remained mostly below 1.5 per 100,000 population, with an average of 0.7 per 100,000 population. It is low compared to the Canadian rates where the annual incidence rate from 2009 to 2013 ranged between 5.9 and 7.1 per 100,000 population.

With regards to AIDS, 2 cases were reported to Public Health in 2014 with an incidence rate of 0.3 per 100,000 population. The annual number of cases of AIDS ranged from 1 and 2 cases, and a 5-year average incidence rate of 0.2 per 100,000 population. The AIDS rates in NB 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.

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	2009	2010	2011	2012	2013	2014
HIV-NB Count	1	8	10	4	5	3
HIV-NB Rate	0.1	1.1	1.3	0.5	0.7	0.4
HIV-Canadian Rate	7.1	6.8	6.4	5.9	5.9	
AIDS-NB Count	2	1	1	2	1	2
AIDS-NB Rate	0.3	0.1	0.1	0.3	0.1	0.3
AIDS-Canadian Rate	0.8	0.7	0.6	0.7		

Graph 28. HIV and AIDS Case Counts and Incidence Rates per 100,000 population for NB and Canada, 2009-2014.

In the period from 2009 to 2014, 84% of the reported cases were in the age category of 20 to 49 years, and 90% of all cases were males. In 2014, 2 of the 3 HIV cases were males.

Since 2004, a total of 91 HIV cases have been reported inNB: 71 males and 19 females. Most cases of HIV among males (69%) were seen in the populations of men having sex with men (MSM); whereas in females, the most common reported risk factor for infection was being from an endemic area (53%).



Graph 30. Risk factors of HIV Infection Among Females in NB, 2004-2014 (N=19)



7.6 Syphilis(Infectious)

In 2014, the incidence rate for infectious syphilis was 3.6 per 100,000 with 27 cases reported to Public Health; a decrease from 2013. Since the syphilis outbreak in NB during the years 2010 to 2012, the annual case count for infectious syphilis as well as the incidence, have been higher than the pre-outbreak period when the average number of cases was less than 4 cases per year. Overall, the incidence rate in NB is lower than the Canadian rate, except in 2011 when the syphilis outbreak peaked.

Graph 31. Infectious Syphilis Incidence Rates per 100,000 population Overall and by Sex for NB and Canada, 2009-2014.



Zone 1 and Zone 3 accounted for 81% of all cases reported in 2014, with 10 and 12 cases respectively. Zone 3 continues to have the highest incidence of cases since the outbreak was declared over in early 2013.

All cases reported in 2014 were males but 1. Despite the decrease in the overall incidence and most of the age specific rates among males, a higher rate was observed among the 15-24 age group.



Graph 32. Infectious Syphilis Case Counts and Incidence Rate per 100,000 by Sex and Age groups, NB, 2009-2014

8. Vectorborne and Zoonotic diseases

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

8.1. Lyme Disease

Lyme disease became reportable in Canada in 2009. It is a serious illness that can be spread by the bite of infected blacklegged ticks. In NB, southern parts and Grand Manan Island are considered to be endemic areas for Lyme disease.

In 2014, 5 cases of lyme disease were reported to Public Health, with the majority of cases in Zone 2 (3 cases), accounting for an incidence rate of 0.7 per 100,000 population. An average of 4 cases was reported in the last 5 years (range 0-7 cases). In 2013, the incidence rate in NB was about half of the national rate.





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 2014, 3 cases of malaria were reported with an incidence rate of 0.4 per 100,000 population. All malaria cases were travel-related.

In addition, there were 2 cases of Q-fever reported in 2014, with an incidence rate of 0.27 per 100,000 population. Both cases were males with an age group of 60 and above. This is consistent with the range of reported cases in the previous 5 years (0 to 3).



Graph 34. Malaria Case Counts and Rates per 100,000 population for NB and Canada, 2009-2014.

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

9. Respiratory and Direct Contact Diseases

9.1. Legionellosis

In 2014, the rate of legionellosis was 0.4 per 100,000 population accounting for 3 cases reported to Public Health. The rate was stable in the last 5 years (2010-2014) and NB rate is consistently lower than the national rate. Two cases were from Zone 1, and 1 case from Zone 5.

Graph 35. Legionella Case Counts and Rates per 100,000 population for NB and Canada, 2009-2014.



9.2. Tuberculosis(active)

In 2014, the rate of tuberculosis in NB was 0.7 per 100,000, accounting for 5 cases reported to Public Health. In the previous 5 years, an average of 7 cases was reported per year with a 5-year average incidence rate of 0.9 per 100,000 population. Overall, the number of reported cases in NB is low (range 3 to 11) and is 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 NB and Canada, 2009-2014.

All 5 reported cases in 2014 were pulmonary TB, whereas for the last 6 years (2009 to 2014), the majority of TB cases were pulmonary TB (71.8%) followed by primary respiratory TB (10.3%). Out of the 5 cases reported this year, 3 (60%) were Canadian born non-Aboriginal, and 2 (40%) were foreign born which is consistent with what was noticed over the period from 2003 to 2013, in terms of the top two major categories (NB CD 2013 Annual Report). Cases at age 60 and above accounted for 60% (3 cases) of reported cases. For the three cases reported in 2013, treatment was completed.

9.3. Invasive Group A Streptococcal disease (iGAS)

In 2014, the rate of iGAS was 2.1 per 100,000 population, accounting for 16 cases reported to Public Health. 2014 rate is comparable to the range of the previous 5 years, 2009-2013 (1.7 to 3.0). NB incidence rates of iGAS are consistently lower than the Canadian rate.

Graph 37. Invasive Group A Streptococcal disease (iGAS) Case Counts and Incidence Rates per 100,000 population for NB and Canada, 2009-2014



In 2014, the majority of cases were males (69%), and mostly reported from Zone 2 (37.5%) followed by Zone 4 (19%). However, it is interesting to note that the highest incidence rate was reported in Zone 4 (6.3) which is triple the incidence rate reported in NB. However, we should keep in mind the small number of cases reported in NB which can significantly impact the fluctuation in the rate.

Cases in the age group of 60 and above were the majority of reported cases (37.5%), followed by age 30-39 (25%).

In the 16 reported cases in 2014, 15 cases (94%) were hospitalized, 8 were severe (50%), 5 were diabetic (31%), and no deaths were reported. M Type 1 serotype has the highest proportion of cases (6 cases, 37.5%) amongst other serotypes. All cases reported were unrelated to each other.

9.4. Group B Streptococcal Infection of Newborn

In 2014, only 1 case was reported to Public Health. From 2009 to 2014, the case count fluctuates between 1 and 3 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 amongst patients who have been hospitalized. Currently, the system looks at two infections: *Clostridium* difficile infection (CDI) and Methicillin-resistant *Staphylococcus aureus* (MRSA) bacteremia; the reports are done by quarter of fiscal year (April of a certain year to March of the next year). <u>Quarterly Healthcare Associated Infections Surveillance Report</u> can be accessed at the Office of the Chief Medical Officer of Health's webpage.

For fiscal year 2014/2015, the NB rate of hospital associated CDI was 2.4 per 10,000 patient days, with 208 cases reported and was comparable to the previous fiscal year rate and case count (2.7 per 10,000 patient days, 228 cases). The rate of hospital associated MRSA bacteremia was 0.1 per 10,000 patient days, with 9 cases reported in 2014/2015, which was higher than the reported rate and case previous count in the fiscal vear (0.04 per 10,000 patient days. 3 cases).

Appendix 1. List of Notifiable Diseases and Reportable Events

Notifiable Disease and Re Office of the Chief Medica	portable Events I Officer of Health	Brur	Nouveau ISW1Ck
Timeline	Notifiable diseases and events	To be re	ported by Clinicians
		Euronatony	(clinical illness)
Verbally within one hour	Anthrax	1	1
	Cholera	1	1
Please attach a label for your region that specifies the telephone number to be used	Clusters of illness thought to be food or water-borne	1	1
during and after business hours	Clusters of severe or atypical illness thought to be respiratory borne	1	1
	Diphtheria	1	1
AND	Hemorrhagic tever diseases		1
In writing by the end of the next working	day Measles	1	1
	Plague-pneumonic	1	1
specifies mailing address and fax number	Poliomyelitis	1	1
	Severe acute respiratory syndrome	1	1
	Smallpox	1	1
	Tellow lever	*	*
	Brucellosis	*	√
Verbally within 24 hours	Creptosporidiosis	1	
Please attach a label for your region that	Cvclosporiasis	1	
specifies the telephone number to be used during and after business hours	Escherichia coli (pathogenic) infection	4	1
	Exposure to a suspected rabid animal		1
AND	Giardiasis Ouilleie Danie sundame	1	
	Gulliain-Barre syndrome Hantavirus nulmonary syndrome	1	4
In writing within seven days	Haemophilus influenzae (invasive) – type B and non-B	4	4
Please attach a label for your region that	Hepatitis A	1	1
specifies mailing address and fax number	Hepatitis B	4	
	Hepatitis E	1	
	Legionellosis	4	4
	Listenosis (invasive) Meningococcal (invasive) disease	* -	· ·
	Mumps	1	1
	Paralytic shellfish poisoning		1
	Pertussis	4	1
	Plague – bubonic	4	1
	Q tever Rabies	*	*
	Rubella	1	1
	Salmonellosis	1	
	Shigellosis	4	
	Staphylococcus aureus intoxications	1	1
	Streptococcus group A beta-hemolytic (invasive)	*	4
	Tuberculosis (active)	1	1
	Typhoid	1	1
	Unusual liness 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 creasentina with unknown etiology	~	1
	Varicella	1	1
	Vibrio species	1	
	West Nile Virus infection	1	1
	Tersinosis	¥	
	Adverse reaction to a vaccine or other immunizing agent		1
In writing within seven days	Chamydial intection (genital) Clostridium difficile accociated diarrhea (CDAD)		1
Please attach a label for your region that	Creutzfeld-Jacob (CJD) disease-Classic and New Variant	•	1
specifies mailing address and fax number	Cytomegalovirus (neonatal/ congenital)	1	1
i	Gonococcal infection	1	
	Hepatitis C and G	1	
	Hernes (congenital and neonatal)		· · ·
	Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome	1	1
	Influenza (laboratory confirmed)	1	
	Leprosy	1	1
	Leptospirosis	1	1
	Lyme borreliosis Malaria	4	*
	Methicillin-resistant Staphylococcus aureus (MRSA)	1	
	Pneumococcal disease (invasive)	1	
	Psittaccosis	1	1
	Rickettsioses	1	
	Streptococcus group B beta-hemolytic (neonatal)	1	1
MRSA and VRE are not reportable under the Public Health Act, however they are under surveillance by the Department of Health	Syphilis Tetanue	1	1
	Tetalius		

Notifiable Disease and Reportable Events

Appendix 2.Tables for Vaccine Preventable Diseases

							NB					
	2	2009	2	2010	2	2011	20)12	2	2013		2014
	Ν	Rate	Ν	Rate	Ν	Rate	Ν	Rate	Ν	Rate	Ν	Rate
Vaccine-Preventable Diseases												
Diphteria	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	0.3	5	0.7	3	0.4	5	0.7	8	1.1
Invasive Meningococcal Disease ^Ω	7	0.9	5	0.7	4	0.5	6	0.8	2	0.3	3	0.4
Invasive Pneumococcall Disease §	71	9.5	81	10.8	80	10.6	60	7.9	74	9.8	50	6.6
Measles	0	0.0	0	0.0	1	0.1	0	0.0	3	0.4	0	0.0
Mumps	1	0.1	0	0.0	0	0.0	1	0.1	5	0.7	2	0.3
Pertussis [¥]	15	2.0	29	3.9	22	2.9	1421	187.7	4	0.5	9	1.2
Rubella and Congenital Rubella Syndrome	0	0.0	1	0.1	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
Varicella	38	5.1	33	4.4	15	2.0	20	2.6	22	2.9	20	2.7

Table 2.1. Notifiable vaccine-preventable and respiratory diseases reported in NB in 2009-2014: counts and incidence rates per 100,000 population

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

 $^{\Omega}$ Source: Invasive Meningococcal Disease enhanced surveillance database

§ Source: Invasive Pneumococcal Disease enhanced surveillance database * Source: Pertussis Enhanced database for year 2012.

	Re	Region 1		gion 2	Re	egion 3	Re	egion 4	Re	egion 5	Re	egion 6	Re	gion 7		NB
	Ν	Rate	Ν	Rate	Ν	Rate	Ν	Rate	Ν	Rate	Ν	Rate	Ν	Rate	Ν	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)	2	1.0	3	1.7	1	0.6	1	2.1	0	0.0	1	1.3	0	0.0	8	1.1
Invasive Meningococcal Disease $^{\Omega}$	1	0.5	0	0.0	1	0.6	0	0.0	0	0.0	1	1.3	0	0.0	3	0.4
Invasive Pneumococcall Disease §	18	8.6	13	7.5	7	4.0	2	4.2	2	7.7	6	7.9	2	4.4	50	6.6
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	0	0.0	2	1.1	0	0.0	0	0.0	0	0.0	0	0.0	2	0.3
Pertussis [¥]	8	3.8	0	0.0	1	0.6	0	0.0	0	0.0	0	0.0	0	0.0	9	1.2
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	17	8.1	2	1.2	1	0.6	0	0.0	0	0.0	0	0.0	0	0.0	20	2.7

Table 2.2. Notifiable vaccine-preventable diseases reported in New Brunswick in 2014 by region: counts and incidence rates per 100,000 population

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

 $^{\Omega}$ Source: Invasive Meningococcal Disease enhanced surveillance database

§ Source: Invasive Pneumococcal Disease enhanced surveillance database

* Source: Pertussis Enhanced database for year 2012. Source for rate calculations: OCMOH, Communicable Disease Control Branch. The denominators used were population estimates received from Statistics Canada, Demography Division; March 2015.

												N	В										
											4	Age gi	roups										
			<1		1-4		5-9	1	0-14	1	5-19	20)-24	2	5-29	30	-39	40	0-59	6	0+	l l	
		N	Rate	Ν	Rate	Ν	Rate	Ν	Rate	Ν	Rate	Ν	Rate	Total	Rate								
Vaccine-Preventable Diseases		r																					
	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	0	0.0	2	2.2	2	0.5
Haemophilus influenzae (unspecified)	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	4	3.9	6	1.6
	Total	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	2.1	0	0.0	0	0.0	1	0.4	6	3.1	8	1.1
	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	0	0.0	1	0.3
Invasive Meningococcal Disease $^{\Omega}$	Female	0	0.0	1	7.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	1.0	2	0.5
	Total	0	0.0	1	3.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.4	1	0.5	3	0.4
	Male	1	29.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	4.4	14	12.5	12	13.4	29	7.8
Invasive Pneumococcal Disease §	Female	0	0.0	0	0.0	0	0.0	1	5.4	0	0.0	0	0.0	0	0.0	1	2.2	5	4.3	14	13.6	21	5.5
	Total	1	14.7	0	0.0	0	0.0	1	2.6	0	0.0	0	0.0	0	0.0	3	3.3	19	8.3	26	13.5	50	6.6
	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	1	4.9	0	0.0	0	0.0	0	0.0	1	0.9	0	0.0	2	0.5
	Total	0	0.0	0	0.0	0	0.0	0	0.0	1	2.4	0	0.0	0	0.0	0	0.0	1	0.4	0	0.0	2	0.3
	Male	0	0.0	2	14.2	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
Pertussis [¥]	Female	1	29.8	2	14.0	1	5.7	0	0.0	0	0.0	2	8.9	0	0.0	1	2.2	0	0.0	0	0.0	7	1.8
	Total	1	14.7	4	14.1	1	2.7	0	0.0	0	0.0	2	4.3	0	0.0	1	1.1	0	0.0	0	0.0	9	1.2
	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	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
	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
Tataana	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
letanus	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
	Iotal	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Ma 200 00	Iviale	0	0.0	1	7.1	2	10.4	5	25.4	2	9.0	1	4.1	0	0.0	2	4.4	0	0.0	0	0.0	13	3.5
varicella	⊢ emale	1	29.8	0	0.0	2	11.4	1	5.4	1	4.9	0	0.0	0	0.0	1	2.2	1	0.9	0	0.0	7	1.8
	Total	1	14.7	1	3.5	4	10.9	6	15.8	3	7.1	1	2.1	0	0.0	3	3.3	1	0.4	0	0.0	20	2.7

Table 2.3. Notifiable vaccine-preventable and respiratory diseases reported in NB in 2014 by age group and sex: counts and incidence rates per 100,000 population

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

 $^{\Omega}$ Source: Invasive Meningococcal Disease enhanced surveillance database

§ Source: Invasive Pneumococcal Disease enhanced surveillance database

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

Appendix 3. Tables for enteric, food and waterborne diseases

						NE	3					
	20	09	20)10	20)11	20	12	20)13	20)14
	Ν	Rate	Ν	Rate	Ν	Rate	Ν	Rate	Ν	Rate	Ν	Rate
Enteric, Food and Waterborne Dis	seases											
C ampy lobacteriosis	187	24.9	127	16.9	177	23.4	158	20.9	212	28.1	229	30.4
Cryptosporidiosis [‡]	30	4.0	17	2.3	34	4.5	27	3.6	16	2.1	17	2.3
E. coli 0157	13	1.7	13	1.7	7	0.9	27	3.6	10	1.3	5	0.7
Giardiasis	96	12.8	123	16.3	88	11.6	131	17.3	95	12.6	97	12.9
Hepatitis A	1	0.1	5	0.7	2	0.3	3	0.4	9	1.2	0	0.0
Listeriosis	2	0.3	5	0.7	4	0.5	4	0.5	9	1.2	2	0.3
Salmonellosis	107	14.3	145	19.3	146	19.3	153	20.2	155	20.5	190	25.2
Shigellosis	10	1.3	7	0.9	6	0.8	5	0.7	7	0.9	5	0.7
Typhoid Fever	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Vibrio species	7	0.9	6	0.8	5	0.7	5	0.7	3	0.4	3	0.4
Yersiniosis [‡]	2	0.3	4	0.5	8	1.1	3	0.4	5	0.7	5	0.7

Table 3.1. Notifiable enteric, food and waterborne diseases reported in NB in 2009-2014: counts and incidence rates per 100,000 population

Source: Enteric database

	Reg	ion 1	Reg	ion 2	Reg	ion 3	Reg	ion 4	Reg	ion 5	Reg	ion 6	Reg	ion 7	Ν	IB
	Ν	Rate	Ν	Rate	Ν	Rate	Ν	Rate	Ν	Rate	Ν	Rate	Ν	Rate	Ν	Rate
Enteric, Food and Waterborne Di	seases															
C ampy lobacteriosis	57	27.1	25	14.4	35	20.0	68	142.8	7	26.9	26	34.3	11	23.9	229	30.4
C ry ptosporidiosis [‡]	2	1.0	6	3.5	1	0.6	0	0.0	6	23.0	2	2.6	0	0.0	17	2.3
E. coli O157	1	0.5	2	1.2	0	0.0	1	2.1	0	0.0	0	0.0	1	2.2	5	0.7
Giardiasis	37	17.6	17	9.8	26	14.9	1	2.1	4	15.4	11	14.5	1	2.2	97	12.9
Hepatitis A	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Listeriosis	0	0.0	0	0.0	2	1.1	0	0.0	0	0.0	0	0.0	0	0.0	2	0.3
Salmonellosis	52	24.7	27	15.6	38	21.7	23	48.3	12	46.1	25	33.0	13	28.3	190	25.2
Shigellosis	2	1.0	1	0.6	0	0.0	1	2.1	1	3.8	0	0.0	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	2	1.0	0	0.0	0	0.0	0	0.0	0	0.0	1	1.3	0	0.0	3	0.4
Yersiniosis [‡]	4	1.9	1	0.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	5	0.7

Table 3.2. Notifiable enteric, food and waterborne diseases reported in NB in 2014 by region: counts and incidence rates per 100,000 population

Source: Enteric database

													NB										
													Age gro	ups									
			<1		1-4		5-9	1	0-14	1	5-19	2	0-24	2	5-29	3	0-39	4)-59	e	60+		
		N	Rate	N	Rate	N	Rate	Ν	Rate	Ν	Rate	N	Rate	Ν	Rate	Ν	Rate	Ν	Rate	N	Rate	Total	Rate
Enteric, Food and Waterborne Di	seases											-											
	Male	0	0.0	7	49.7	2	10.4	0	0.0	8	35.9	7	28.9	9	40.7	15	32.9	39	34.7	39	43.5	126	33.8
Campy lobacteriosis	Female	0	0.0	1	7.0	3	17.1	1	5.4	5	24.7	8	35.5	9	43.6	18	39.5	27	23.3	31	30.2	103	27.0
	Total	0	0.0	8	28.2	5	13.6	1	2.6	13	30.6	15	32.1	18	42.1	33	36.2	66	28.9	70	36.4	229	30.4
	Male	0	0.0	0	0.0	1	5.2	2	10.2	0	0.0	0	0.0	1	4.5	2	4.4	0	0.0	0	0.0	6	1.6
Cryptosporidiosis [‡]	Female	0	0.0	0	0.0	0	0.0	1	5.4	0	0.0	3	13.3	2	9.7	2	4.4	3	2.6	0	0.0	11	2.9
	Total	0	0.0	0	0.0	1	2.7	3	7.9	0	0.0	3	6.4	3	7.0	4	4.4	3	1.3	0	0.0	17	2.3
	Male	0	0.0	0	0.0	1	5.2	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	1.1	2	0.5
E. coli O157	Female	0	0.0	0	0.0	1	5.7	0	0.0	0	0.0	0	0.0	1	4.8	0	0.0	1	0.9	0	0.0	3	0.8
	Total	0	0.0	0	0.0	2	5.4	0	0.0	0	0.0	0	0.0	1	2.3	0	0.0	1	0.4	1	0.5	5	0.7
	Male	0	0.0	2	14.2	1	5.2	2	10.2	3	13.5	3	12.4	2	9.0	4	8.8	25	22.3	10	11.2	52	14.0
Giardiasis	Female	0	0.0	2	14.0	4	22.9	2	10.9	0	0.0	1	4.4	3	14.5	9	19.7	12	10.3	12	11.7	45	11.8
	Total	0	0.0	4	14.1	5	13.6	4	10.5	3	7.1	4	8.6	5	11.7	13	14.2	37	16.2	22	11.4	97	12.9
	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
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	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	1	1.1	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	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	0	0.0	2	1.0	2	0.3
	Male	1	29.1	5	35.5	4	20.8	4	20.3	8	35.9	6	24.8	4	18.1	7	15.3	21	18.7	34	37.9	94	25.2
Salmonellosis	Female	0	0.0	3	21.0	1	5.7	3	16.3	4	19.8	6	26.6	5	24.2	12	26.3	31	26.7	31	30.2	96	25.2
	Total	1	14.7	8	28.2	5	13.6	7	18.4	12	28.2	12	25.7	9	21.1	19	20.8	52	22.8	65	33.8	190	25.2
a	Male	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	4.1	0	0.0	2	4.4	1	0.9	0	0.0	4	1.1
Shigellosis	Female	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	4.8	0	0.0	0	0.0	0	0.0	1	0.3
	I otal	U	0.0	U	0.0	U	0.0	U	0.0	U	0.0	1	Z.1	1	2.3	Z	2.2	1	0.4	U	0.0	5	0.7
Typhoid Foylor	Fomalo	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Typhola 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	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	11	1	0.0
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	2	17	0	0.0	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	2	0.9	1	0.5	3	0.4
	Male	0	0.0	0	0.0	0	0.0	0	0.0	1	4.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3
Yersiniosis [‡]	Female	1	29.8	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	1.9	4	1.0
	Total	1	14.7	0	0.0	0	0.0	0	0.0	1	2.4	0	0.0	0	0.0	0	0.0	1	0.4	2	1.0	5	0.7

Table 3.3. Notifiable enteric, food and waterborne diseases reported in NB in 2014 by age group and sex: counts and rates per 100,000 population

Source: Enteric database

Appendix 4. Tables for Sexually Transmitted and Bloodborne infections

						N	В					
	20)09	20)10	20)11	20)12	20	13	20 ⁻	14
	Ν	Rate	Ν	Rate	Ν	Rate	Ν	Rate	Ν	Rate	Ν	Rate
Sexually Transmitted and Bloods	orne Inf	ections+										
AIDS §	2	0.3	1	0.1	1	0.1	2	0.3	1	0.1	2	0.3
HIV §	1	0.1	8	1.1	10	1.3	4	0.5	6	0.8	3	0.4
Chlamydia (genital)	1564	208.5	1868	248.1	1917	253.7	1931	255.1	1767	233.8	1738	229.6
Gonorrhea (genital)	52	6.9	64	8.5	71	9.4	38	5.0	47	6.2	44	5.8
Hepatitis B (Acute)	8	1.1	4	0.5	8	1.1	3	0.4	1	0.1	9	1.2
Hepatitis B (Chronic)	30	4.0	32	4.2	24	3.2	39	5.2	43	5.7	30	4.0
Hepatitis C	202	26.9	184	24.4	156	20.6	177	23.4	197	26.1	180	23.8
Syphilis (Infectious) $^{\Phi}$	9	1.2	38	5.0	58	7.7	21	2.8	34	4.5	27	3.6
Syphilis (All)	13	1.7	41	5.4	72	9.5	43	5.7	48	6.4	46	6.1

Table 4.1. Notifiable sexually transmitted and bloodborne infections reported in NB in 2009-2014: counts and incidence rates per 100,000 population

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 received from Statistics Canada, Demography Division; March 2015

	Reg	ion 1	Reg	ion 2	Reg	ion 3	Reg	ion 4	Reg	jion 5	Reg	ion 6	Reg	ion 7	N	IB
	Ν	Rate	Ν	Rate	Ν	Rate	Ν	Rate	Ν	Rate	Ν	Rate	Ν	Rate	Ν	Rate
Sexually Transmitted and Blo	odborr	ne Infect	ions													
Chlamydia (genital)	597	284.1	345	198.8	555	317.4	36	75.6	32	122.8	118	155.9	55	119.7	1738	230.5
Gonorrhea (genital)	7	3.3	9	5.2	17	9.7	0	0.0	1	3.8	9	11.9	1	2.2	44	5.8
Hepatitis B (Acute)	7	3.3	0	0.0	1	0.6	0	0.0	1	3.8	0	0.0	0	0.0	9	1.2
Hepatitis B (Chronic)	15	7.1	3	1.7	10	5.7	2	4.2	0	0.0	0	0.0	0	0.0	30	4.0
Hepatitis C	69	32.8	30	17.3	40	22.9	8	16.8	4	15.4	17	22.5	12	26.1	180	23.9
Syphilis (Infectious) $^{\Phi}$	10	4.8	5	2.9	12	6.9	0	0.0	0	0.0	0	0.0	0	0.0	27	3.6
Syphilis (All)	17	8.1	7	4.0	20	11.4	0	0.0	0	0.0	1	1.3	2	4.4	47	6.2

Table 4.2. Notifiable sexually transmitted and bloodborne infections reported in NB in 2014 by region: counts and incidence rates per 100,000 population

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

Note: HIV and AIDS data is not available by region

													NB										
												Ag	e groups										
			<1		1-4	ę	5-9	1	0-14	1	5-19	2	0-24	25	-29	30	-39	40)-59		60+		
		Ν	Rate	Ν	Rate	Ν	Rate	Ν	Rate	Ν	Rate	Ν	Rate	Ν	Rate	Ν	Rate	Ν	Rate	Ν	Rate	Total	Rate
Sexually Transmitted and Bloods	orne Infe	ections																					
	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	0	0.0	0	0.0	1	2.2	1	0.9	0	0.0	2	0.5
HIV §	Female	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	4.8	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	2.3	1	1.1	1	0.4	0	0.0	3	0.4
	Male	0	0.0	0	0.0	0	0.0	0	0.0	91	408.4	252	1040.8	110	497.1	88	193.0	21	18.7	2	2.2	564	151.3
Chlamy dia (genital)	Female	0	0.0	0	0.0	0	0.0	9	49.0	344	1702.5	480	2127.9	189	916.5	127	278.4	24	20.7	1	1.0	1173	307.7
	Total	0	0.0	0	0.0	0	0.0	9	23.6	435	1023.8	732	1565.1	299	699.4	215	235.7	45	19.7	3	1.6	1738	230.5
	Male	0	0.0	0	0.0	0	0.0	0	0.0	4	18.0	12	49.6	5	22.6	7	15.3	4	3.6	0	0.0	32	8.6
Gonorrhea (genital)	Female	0	0.0	0	0.0	0	0.0	0	0.0	2	9.9	5	22.2	1	4.8	3	6.6	1	0.9	0	0.0	12	3.1
	Total	0	0.0	0	0.0	0	0.0	0	0.0	6	14.1	17	36.3	6	14.0	10	11.0	5	2.2	0	0.0	44	5.8
	Male	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	4.1	1	4.5	2	4.4	3	2.7	1	1.1	8	2.1
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	1	2.2	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	1	2.1	1	2.3	3	3.3	3	1.3	1	0.5	9	1.2
	Male	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	4.1	1	4.5	7	15.3	1	0.9	2	2.2	12	3.2
Hepatitis B (Chronic)	Female	0	0.0	0	0.0	0	0.0	0	0.0	1	4.9	1	4.4	1	4.8	4	8.8	10	8.6	1	1.0	18	4.7
	Total	0	0.0	0	0.0	0	0.0	0	0.0	1	2.4	2	4.3	2	4.7	11	12.1	11	4.8	3	1.6	30	4.0
	Male	0	0.0	0	0.0	0	0.0	0	0.0	3	13.5	15	62.0	18	81.3	31	68.0	46	40.9	10	11.2	123	33.0
Hepatitis C	Female	0	0.0	1	7.0	0	0.0	0	0.0	2	9.9	9	39.9	9	43.6	13	28.5	20	17.2	3	2.9	56	14.7
	Total	0	0.0	1	3.5	0	0.0	0	0.0	5	11.8	24	51.3	27	63.2	44	48.2	66	28.9	13	6.8	179	23.7
	Male	0	0.0	0	0.0	0	0.0	0	0.0	4	18.0	9	37.2	3	13.6	2	4.4	8	7.1	0	0.0	26	7.0
Syphilis (Infectious) $^{\Phi}$	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	0	0.0	0	0.0	1	0.3
	Total	0	0.0	0	0.0	0	0.0	0	0.0	4	9.4	10	21.4	3	7.0	2	2.2	8	3.5	0	0.0	27	3.6
	Male	0	0.0	0	0.0	0	0.0	0	0.0	4	18.0	9	37.2	4	18.1	5	11.0	13	11.6	1	1.1	36	9.7
Syphilis (All)	Female	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	4.4	1	4.8	1	2.2	2	1.7	5	4.9	10	2.6
	Total	0	0.0	0	0.0	0	0.0	0	0.0	4	9.4	10	21.4	5	11.7	6	6.6	15	6.6	6	3.1	46	6.1

Table 4.3. Notifiable sexually transmitted and bloodborne infections reported in NB in 2014 by age group and sex: counts and incidence rates per 100,000 population

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

Appendix 5. Tables for Vectorborne and Zoonotic Diseases

						Ν	В					
	20)09	2	010	2	011	2	012	2	013	2	014
	Ν	Rate	Ν	Rate	Ν	Rate	Ν	Rate	Ν	Rate	Ν	Rate
Vectorborne and Zoonotic di	seases	+										
Leptospirosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Lyme Disease	0	0.0	2	0.3	5	0.7	7	0.9	5	0.7	5	0.7
Malaria	4	0.5	3	0.4	3	0.4	4	0.5	10	1.3	3	0.4
Q fever	2	0.3	0	0.0	3	0.4	2	0.3	1	0.1	2	0.3
Rabies	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
Yellow Fever	0	0.0	0	0.0	1	0.1	0	0.0	0	0.0	0	0.0

Table 5.1. Notifiable vectorborne and zoonotic diseases reported in NB in 2009-2014: counts and incidence rates per 100,000 population

Table 5.2. Notifiable vectorborne and zoonotic diseases reported in NB in 2014 by region: counts and incidence rates per 100,000 population

	Reg	ion 1	Reg	jion 2	Reg	ion 3	Reg	jion 4	Reg	jion 5	Reg	ion 6	Reg	ion 7	١	١B
	Ν	Rate	Ν	Rate	Ν	Rate	Ν	Rate	Ν	Rate	Ν	Rate	Ν	Rate	Ν	Rate
Vectorborne and Zoonotic di	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
Lyme Disease	1	0.5	3	1.7	1	0.6	0	0.0	0	0.0	0	0.0	0	0.0	5	0.7
Malaria	3	1.4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	3	0.4
Q fever	2	1.0	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 received from Statistics Canada, Demography Division; March 2015

													NB										
												Age	groups	6									
			<1		1-4		5-9	10	-14	1	5-19	2	0-24	25	5-29	30)-39	40)-59	(60+		
		N	Rate	Ν	Rate	Ν	Rate	Ν	Rate	Ν	Rate	Ν	Rate	N	Rate	N	Rate	N	Rate	Ν	Rate	Total	Rate
Vectorborne and Zoonotic di	seases																_		_		_		
	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	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	2.2	0	0.0	1	1.1	2	0.5
Lyme Disease	Female	0	0.0	0	0.0	1	5.7	0	0.0	1	4.9	0	0.0	0	0.0	0	0.0	0	0.0	1	1.0	3	0.8
	Total	0	0.0	0	0.0	1	2.7	0	0.0	1	2.4	0	0.0	0	0.0	1	1.1	0	0.0	2	1.0	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	1	2.2	1	0.9	0	0.0	2	0.5
Malaria	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	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	1	2.1	0	0.0	1	1.1	1	0.4	0	0.0	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	2	2.2	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	0	0.0	2	1.0	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

Table 5.3. Notifiable vectorborne and zoonotic diseases reported in NB in 2014 by age group and sex: counts and incidence rates per 100,000 population

Source: RDSS (Reportable Disease Surveillance System) database Source for rate calculations: OCMOH, Communicable Disease Control Branch. The denominators used were population estimates received from Statistics Canada, Demography Division; March 2015

Appendix 6. Tables for Respiratory and Direct Contact diseases

						Ν	B					
		2009	:	2010	:	2011	:	2012	:	2013	2	2014
	Ν	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	16	2.1
Group B Streptococcal Infection of Newborn [¥]	3	40.6	2	27.2	1	14.0	5	70.2	3	43.3	1	14.5
Legionellosis ⁺	1	0.1	3	0.4	3	0.4	3	0.4	3	0.4	3	0.4
Tuberculosis [‡]	11	1.5	10	1.3	5	0.7	5	0.7	3	0.4	5	0.7

Table 6.1. Notifiable respiratory and direct contact diseases reported in NB in 2009-2014: counts and incidence rates per 100,000 population

Table 6.2. Notifiable respiratory and direct contact diseases reported in NB in 2014 by region: counts and incidence rates per 100,000 population

	Re	egion 1	Re	egion 2	R	egion 3	Re	egion 4	Re	egion 5	Re	egion 6	Re	gion 7		NB
	Ν	Rate	Ν	Rate	Ν	Rate	Ν	Rate	Ν	Rate	Ν	Rate	Ν	Rate	Ν	Rate
Respiratory and Direct Contact diseases	-		-		-		-		-		-		-			
Invasive Group A Streptococcal disease (iGAS) [§]	2	1.0	6	3.5	2	1.1	3	6.3	0	0.0	1	1.3	2	4.4	16	2.1
Group B Streptococcal Infection of Newborn [¥]	0	0.0	1	0.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	14.5
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 [‡]	2	1.0	3	1.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	5	0.7

§ Source: iGas enhanced database

 $\tilde{\mathsf{Y}}$ 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 received from Statistics Canada, Demography Division; March 2015

Rates for Group B Streptococcal infection of newborn were calculated based on live birth estimates from Statistics Canada, Demography Division. Date modified September 29 2015.

												Ν	IB										
												Age g	groups										
		•	<1		1-4	5	-9	10)-14	15	-19	20	-24	25	-29	30	-39	40	-59	6	0+		
		N	Rate	Ν	Rate	Ν	Rate	Ν	Rate	Ν	Rate	Ν	Rate	Ν	Rate	Ν	Rate	Ν	Rate	Ν	Rate	Total	Rate
Respiratory and Direct Contact diseases																-							
	Male	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	9.0	3	6.6	2	1.8	4	4.5	11	3.0
Invasive Group A Streptococcal disease (iGAS)§	Female	0	0.0	0	0.0	1	5.7	0	0.0	0	0.0	0	0.0	0	0.0	1	2.2	1	0.9	2	1.9	5	1.3
	Total	0	0.0	0	0.0	1	2.7	0	0.0	0	0.0	0	0.0	2	4.7	4	4.4	3	1.3	6	3.1	16	2.1
	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	1.1	1	0.3
Legionellosis [†]	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	1	1.0	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	1	0.4	2	1.0	3	0.4
	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	1	0.9	0	0.0	2	0.5
Tuberculosis [‡]	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	3	2.9	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	0	0.0	1	0.4	3	1.6	5	0.7

Table 6.3. Notifiable respiratory and direct contact diseases reported in NB in 2014 by age group and sex: counts and incidence rates per 100,000 population

§ Source: iGas enhanced database †Source: RDSS (Reportable Disease Surveillance System) database