

Daycare, school entry and school program immunization report

Data for school year 2015/16

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List of Abbreviations

Abbreviation Meaning

RHAs Regional Health Authorities

NB New Brunswick

CSDS Client Service Delivery System

Men-C-C Meningococcal Conjugate Group C

Men-C- ACYW-135 Meningococcal Conjugate Groups A, C, Y and W-135

MMR Measles, Mumps, Rubella

IPV Inactivated Polio

DTaP/ Tdap Diphteria, Tetanus, Acellular Pertussis

HPV Human Papillomavirus

1. Introduction

The purpose of this report is to provide a summary of daycare, school entry and school immunization program statistics in New Brunswick. This report describes immunization data for New Brunswick on children attending daycare; entering schools for the first time; and receiving vaccines through the school-based immunization programs in school year 2015/16¹. Coverage rates are important measures of the success of immunization programs, serving as indicators of the level of population-wide protection against vaccine-preventable diseases. Although this report does not provide coverage rates in part due to the lack of a provincial vaccine registry, it is an attempt to disseminate existing immunization data that will inform planning and program evaluation.

The New Brunswick Department of Health funds immunization programs that provide protection against several vaccine preventable diseases (See Appendix 1: NB immunization Schedule).

Publicly funded vaccines are delivered through a network of immunization providers including physicians, pharmacists, nurse practitioners, and nurses. Public Health in the Regional Health Authorities (RHAs) works collaboratively with the Department of Education and Early Childhood Development to ensure compliance with the legislation and provide school-based immunization clinics. New Brunswick's immunization partners work together to increase vaccine coverage levels and deliver a quality immunization program.

2. Data Source

The data summarized in this report was collected from the RHAs through a provincial reporting tool that contained aggregate-level regional data including both the numerator and denominator (e.g. number of students enrolled in the grade or assessed at daycare). This data was collected to inform regional and provincial immunization policies and programs.

For additional details on the data elements, procedures or policies please see the New Brunswick Immunization Program Guide².

Daycare Proof of Immunization Data

- Data include the total number of "infants and pre-schoolers" (i.e. children up to 4 or 5 years of age)
 who attend a licensed daycare, those meeting or not meeting requirements as per the *Public Health*Act, and the reasons why requirements are not met.
- The main indicator is a one-time estimate of the percent of infants and pre-schoolers meeting immunization requirements during a school year in licensed daycares.

¹ Data for previous school years (2012/13 to 2014/15) can be found online at http://www2.gnb.ca/content/dam/gnb/Departments/h-s/pdf/en/CDC/HealthProfessionals/Immunization Report Regional PH 2015.pdf

² http://www2.gnb.ca/content/gnb/en/departments/ocmoh/for healthprofessionals/cdc/NBImmunizationGuide.html

School Entry Immunization Requirements Data

- Data includes the total number of children entering kindergarten (i.e. 4 or 5 years of age, but would be turning 5 by December 31, of a calendar year), those meeting or not meeting requirements as per the Public Health Act, and the reasons why requirements are not met.
- The main indicator is an estimate of children entering kindergarten who met immunization requirements upon school entry.

School Immunization Data

- Data includes the total number of children in a grade in which there is a specified Public Health school immunization program, those immunized with the complete doses required, had incomplete immunization or no immunizations and the reasons why requirements are not met.
- The main indicator is the number of children in the specific grade that received a particular vaccine/vaccine series during the school year.

3. Limitations

This report does not include immunization coverage³ rates for specific vaccines, ages, and other categories. Immunization coverage statistics or their estimates would be based on accurate, complete and reasonably up-to-date immunization data from all providers for the population of interest (e.g. immunization registry). Currently New Brunswick does not have a comprehensive immunization registry and therefore accurate tracking of those who are immunized and obtaining a provincial picture of population level vaccine coverage is unavailable. Some components of immunization records are captured in a variety of systems which are not currently integrated. As a result of these inefficiencies factors the information presented in this report has been obtained from regional reporting.

Data for daycare and school entry represent children with proof of immunization, i.e. an up-to-date for age vaccination record has been submitted by the parents/guardian. Incomplete records (i.e. records not up-to-date for age) do not necessarily indicate that a vaccine was not administered but could be due to not having the updated records. In addition, the absence of a record is not evidence that a child is unvaccinated but may be due to non-submission by parents or a lost record. Lost records can be difficult to replace as there can be a cost associated to obtaining a new one and in some instances the records are no longer accessible.

The data in this report summarize the most complete, and accurate data available for public health immunization programs including proof of immunization for children attending day care, immunization requirements at school entry, and school immunization programs.

³ HPV statistics are the only exception that can approximate coverage rate if population estimates are used for the denominator for age group of interest. The numerator is likely a very good estimate to the population true value as there is a solo immunizer type (Public Health) and all the records are entered in the Client service delivery System (CSDS) and summarized in the school spreadsheets.

4. Daycare - Proof of Immunization

4.1 Background

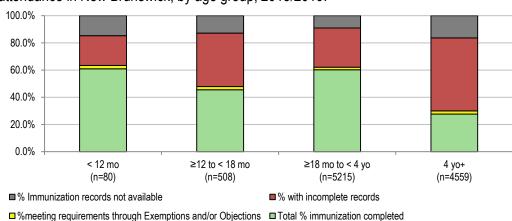
The Reporting and Diseases Regulation 2009-136, under the Public Health Act, states that all children attending a licensed daycare must demonstrate proof of immunization against the following diseases: diphtheria, tetanus, polio, pertussis, measles, rubella, mumps, varicella, meningococcal disease, Haemophilus influenza type B and pneumococcal disease.

Daycare operators are responsible to ensure that children who attend the daycare center have proof of immunization against specific diseases or documented exemption or objection. The RHAs are responsible to ensure that the population in their geographic region is optimally immunized. Public Health Nurses verify compliance with the *Public Health Act regulations* and provide catch-up opportunities for all those children not meeting age-appropriate immunization requirements.

The daycare data provides a limited amount of information on the immunization status as the daycare population is a mix of different age groups and the requirement of being up-to-date with immunization is different for each of these age groups. Therefore, this data should not be used out of this context as it does not represent a coverage rate or protection rate within the daycare.

4.2 Data Summary, 2015/16

- In 2015/2016 school year, Public Health nurses visited a total of 368 licensed daycares across the Province; 10,364 infants and preschoolers (i.e. children up to 4 or 5 years of age) were assessed for proof of immunization.
- 45.2% of children attending a licensed daycare <u>did</u> meet immunization requirements. An average of 2.1% of children had either a medical exemption or a signed parental/legal guardian objection form; 12.5% of children had no proof of immunization; and 52.7 % had no proof of being up-to date with immunizations.
- Zones with the highest to lowest proportion of children that met immunization requirements are Z4 (77.9%), Z5 (59.6%), Z6 (53.4%), Z7 (46.1%), Z1 (44.5%), Z2 (38.2%), Z3 (37.6%).
- Among different age groups, the proportion of children less than 12 months old meeting immunization requirement was the highest (61%), followed by children aged from 18 months to less than 4 years (60.2%), then children between 12 to less than 18 months old (45.5%) and last were the preschoolers (4 years and older) of which 27.6% were up-to-date.



Graph 1. Percentage of children meeting or not meeting immunization requirements for daycare attendance in New Brunswick, by age group, 2015/2016.

5. Children Meeting Immunization Requirements for School Entry, 2015/16

5.1 Background

Proof of immunization has been a requirement for children entering New Brunswick schools since 1982. Different immunization requirements were adopted through the years (Please Refer to Appendix 2. History of School Entry Immunization Requirements)

The Reporting and Diseases Regulation 2009-136 under the Public Health Act, states that all children entering NB schools must demonstrate proof of immunization against the following diseases: diphtheria, tetanus, polio, pertussis, measles, rubella, mumps, varicella and meningococcal disease, in accordance with New Brunswick immunization schedule.

The Department of Education and Early Childhood Development works with the Regional Health Authorities to ensure proof of immunization of all children entering New Brunswick schools for the first time. Although the proof of immunization is required for all children entering New Brunswick schools for the first time, currently only kindergarten statistics are submitted yearly to the Office of the Chief Medical of Health

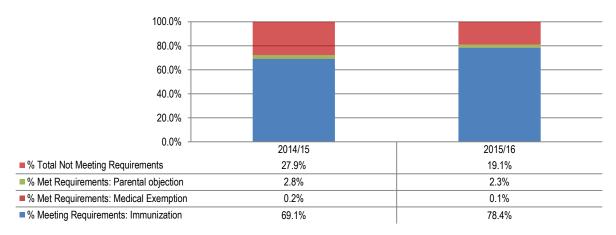
5.2 Overall Findings

- In 2015/16, 78.4% of children entering kindergarten had met immunization requirements. This was markedly higher than the previous school year when only 69.1% were deemed meeting requirement.
- Most of the zones have shown an increase in the proportion of students meeting immunization requirements when compared to the previous year. The highest percentage change was in Zone 3 (+ 23.3%), followed by Zone 1 (+11.7%).
- The overall parental objection slightly decreased in 2015/16 (2.3%) compared to 2014/15 (2.8%).
 Zone 4 has still the highest proportion among the other zones with 8.5% of parents/guardians objecting to get their children immunized.
- 4% of children entering kindergarten didn't have any immunization records submitted.

5.3 Findings by Individual Vaccine, 2015/2016

- Among those who provided proof of immunization, vaccines with the highest to lowest proportion of up-to-date students for the whole province were Men-C-C (91%), MMR (90.4%), Varicella (88.5%), IPV (80.8%) and DTaP (80.6%).
- Zones 3, 4, 5, 6, and 7 were higher than or similar to the provincial average for each individual vaccine while Zones 1 and 2 were lower for some vaccines.

Graph 2. Percentage of students meeting requirements through immunization, or medical exemption, objections, or not meeting requirements, New Brunswick, 2014/15 to 2015/16.



Graph 3. Percentage of students meeting requirements through immunization for school entry, by Health Zone, New Brunswick, 2014/15 and 2015/16.

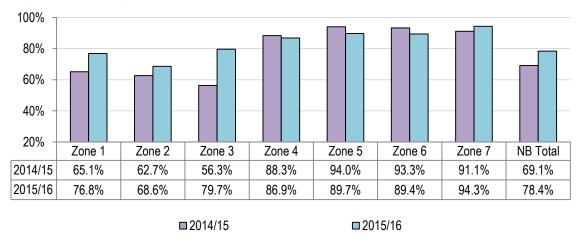
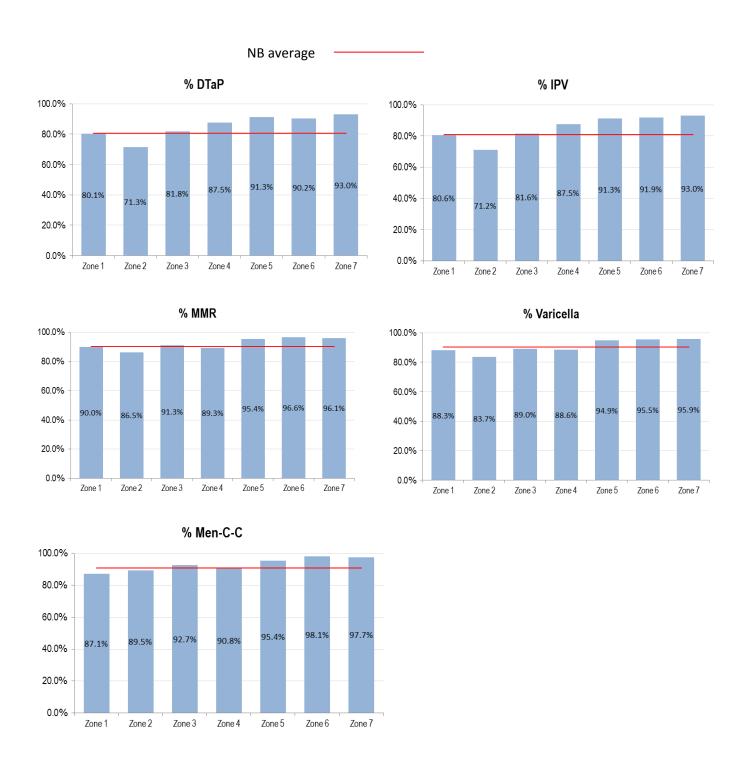


Figure 1. Proportion of students up-to-date with individual vaccine by Health Zone compared to the NB average, 2015/16



6. School Immunization Programs

6.1 Background

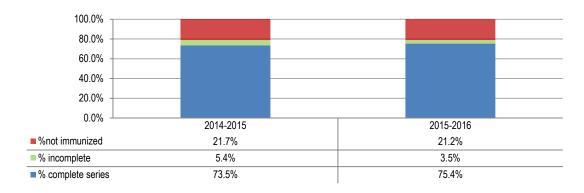
School-based immunization programs are critical to improving the duration of protection against a number of childhood diseases as well as initiating protection for other infections that can occur later in life (e.g. human papillomavirus). Immunization in the school setting can be more effective in obtaining higher coverage rates than would be achieved in other ways. Through collaboration with the Department of Education and Early Childhood Development, Public Health Nurses have successfully implemented many new school-based immunization programs throughout the province. Catch-up immunization programs have also enabled additional age groups to be immunized during these campaigns. The RHAs also provide opportunities for students to be brought up to date on their routine immunization. Please refer to the Appendix 3 for more history on School Immunization Programs in NB.

6.2 Data Summary: HPV Vaccine 2015/16

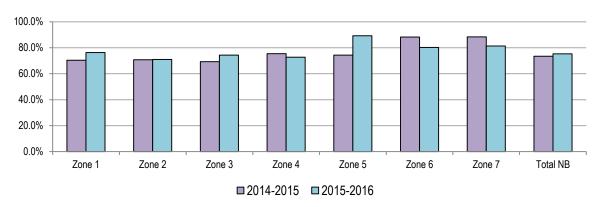
The school year 2015/16 marks the first year for the implementation of a 2-dose schedule of HPV vaccine whereas previously, a 3-dose schedule was adopted. Therefore, definition of incomplete immunization in 2015/16 (i.e. receiving one dose of vaccine) will be different compared to previous years (receiving 1 or 2 doses of vaccine).

- In 2015/16, more female students completed their HPV immunization (75.4%) compared to 73.5% in 2014/15. Most of the increase in the proportion with complete immunization in 2015/16 was attributed to the decrease in the proportion of students with incomplete series compared to 2014/15.
- Most of the zones experienced an increase in the proportion with complete series with the exception of Zones 4, 6 and 7 where the proportion decreased.
- Zones with the highest to lowest proportion with complete series were Z5 (89.3%), Z7 (81.3%), Z6 (80.2%), Z1 (76.3%), Z3 (74.4%), Z4(72.7%) and Z2 (71.0%).
- The proportion of students not immunized was consistent with that reported in 2014/15.
- Of those children not immunized (n=765), 70% did not provide a reason either because they submitted a consent form but did not note a reason (35%) or did not return the consent (35%), 6% provided reasons of religious/conscience, 6% had safety concerns, 3% did not think they needed it, 2% did not show up for the appointment even with consent and 12% had "other reasons".
- 125 students didn't complete the series (had only 1 dose): of those 54% didn't show up to the appointment even with consent, 39% had "other reasons", and 7% had consent withdrawn.

Graph 4. Percentage of female students with complete or incomplete HPV vaccine series, or not immunized, New Brunswick, 2014/15 and 2015/16.

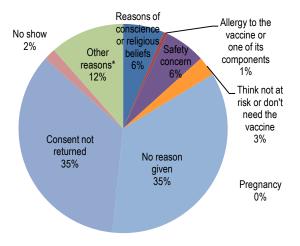


Graph 5. Percentage of female students with complete HPV vaccine series, by Health Zone, New Brunswick, 2014/15 and 2015/16.

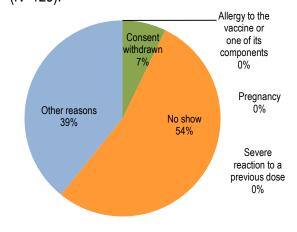


Graph 6. Reasons for no or incomplete immunization with HPV vaccine among grade 7 female students, New Brunswick, 2015/16.

A- Reasons for no immunization (N=765).



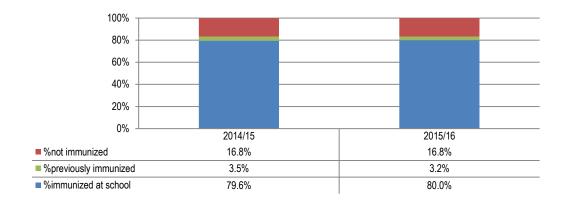
B- Reasons for incomplete series of immunization, (N=125).



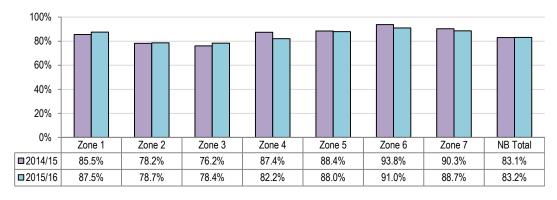
6.3 Data Summary: Tdap Vaccine 2015/16

- The proportion of students immunized with Tdap was similar to the previous school year at 83.2%.
 Most of the students were immunized during the school year, and the rest were previously immunized.
- The proportion immunized increased in Z1, Z2 and Z3, remained stable in Z5 and decreased in Z4, Z6 and Z7 in 2015/16 compared to 2014/15.
- Zones with the highest to lowest proportion immunized: Z6 (91%), Z7 (88.7%), Z5 (88%), Z1 (87.5%), Z4 (82.2%), Z2 (78.7%) and Z3 (78.4%).
- Of those students not immunized (n=1243), 73.7% did not provide a reason either because they submitted a consent form but did not note a reason (21%) or did not return the consent (52.7%), 6.1% did not show at the appointment, 3.8% didn't think they needed the vaccine because they had enough doses (most had their last dose before the age of 11 years which is considered an invalid adolescent dose), 2.6% provided reasons of religion/conscience and the remaining 13.1% had "other reasons" including safety concerns.

Graph 7. Percentage of students immunized with Tdap vaccine at school, previously immunized, or not immunized, New Brunswick, 2014/15 and 2015/16.

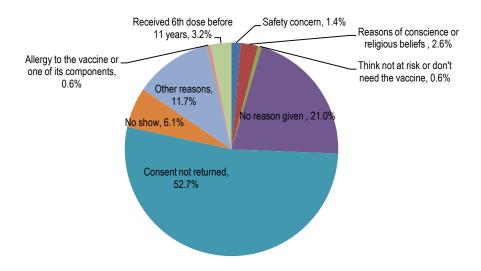


Graph 8. Percentage of students immunized with Tdap vaccine (both at school or previously immunized), by Health Zone, New Brunswick, 2014/15 and 2015/16.



□2014/15 □2015/16

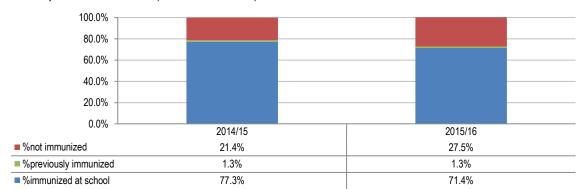
Graph 9. Reasons for no immunization with Tdap vaccine among grade 7 students, New Brunswick, 2014/15 (N=1318).



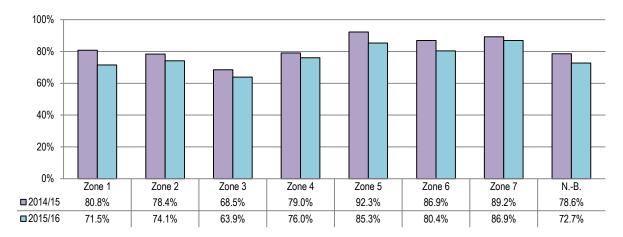
6.4 Data Summary: Men-C-ACYW-135 Vaccines, 2015/16

- The proportion of students immunized decreased in 2015/16 compared to the previous school year with 72.7% receiving the Men-C-ACYW-135. Most of the students were immunized during the school year and the rest were immunized previously.
- Zones with the highest to lowest proportion of students immunized are Z7 (86.9%), Z5 (85.3%), Z6 (80.4%), Z4 (76%), Z2 (74.1%), Z1 (71.5%) and Z3 (63.9%).
- Of those students not immunized (n=2123), 82% did not provide a reason either because they submitted a consent form but did not note a reason (11%) or did not return the consent (71%), 10% did not show at the appointment, 2% provided reasons of religion/conscience, and the remaining 6.2% had "other reasons" including safety concerns.

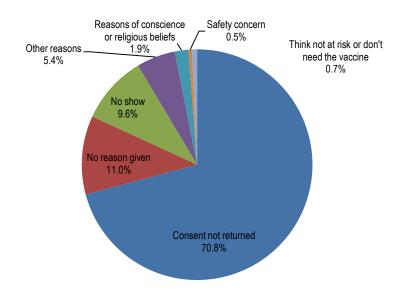
Graph 10. Percentage of students immunized with Men-C-ACYW-135 vaccines at school, previously immunized, or not immunized, New Brunswick, 2014/15 and 2015/2016.



Graph 11. Percentage of students immunized with Men-C-ACYW-135 vaccines at school, or previously immunized, by Health Zone, New Brunswick, 2014/15 and 2015/2016.



Graph 12. Reasons for no immunization with Men-C-ACYW-135 vaccines among grade 9 students, New Brunswick, 2015/16 (N=2123).

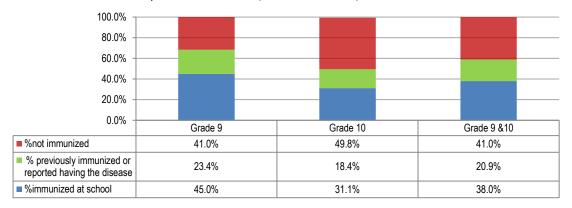


6.5 Data Summary: Varicella Vaccine, 2015/16

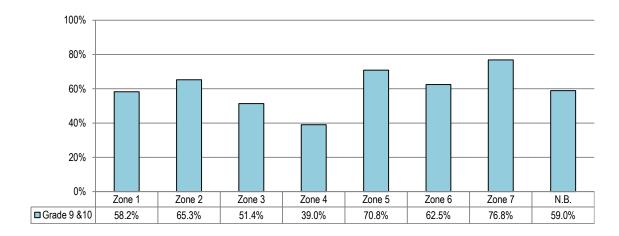
- The varicella vaccine catch-up started for grades 9 and 10 in 2015/16, and will continue for grade 9 only until 2022/23.
- 58.9% of all grade 9 and 10 students were immunized against varicella: most of these students
 were vaccinated during the school year and the rest were vaccinated previously or already had the
 disease.
- The uptake for grade 9 students was higher than for grade 10 students (45% and 31.1% respectively)

- Zones with the highest to lowest proportion of students immunized are Z7 (76.8%), Z5 (70.8%), Z2 (65.3%), Z6 (62.5%), Z1 (58.2%), Z3 (51.4%) and Z4 (39%).
- Of those students not immunized (n=6241), 83.7% did not provide a reason either because they submitted a consent form but did not note a reason (8.2%) or did not return the consent (75.5%), 5% did not show at the appointment, 0.8% provided reasons of religion/conscience, and the remaining 10.4% had "other reasons".

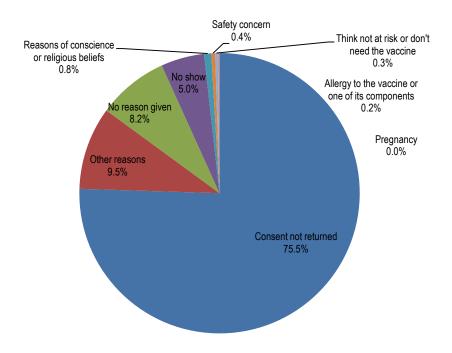
Graph 13. Percentage of grade 9 and 10 students immunized with varicella vaccine at school, previously immunized/had the infection, or not immunized, New Brunswick, 2015/2016.



Graph 14. Percentage of students (grade 9 and 10 combined) immunized with varicella vaccine at school, previously immunized/had the infection, by Health Zone, New Brunswick, 2015/2016.



Graph 15. Reasons for no immunization with varicella vaccine among grade 9 and 10 students (combined), New Brunswick, 2015/16 (N=6241).



Appendix 1: NB Routine Immunization Schedule



Routine Immunization Schedule

The New Brunswick Routine Immunization Schedule is set by the Chief Medical Officer of Health. Vaccines recommended in the Routine Immunization Schedule are provided by Public Health and other health-care providers throughout New Brunswick. "On time" and "on schedule" immunization provide the best protection against vaccine preventable diseases.

Routine Childhood Immunization Schedule	
Age/Grade	Vaccine
Birth	Hepatitis B
2 months	Hepatitis B DTaP-IPV-Hib¹ Pneumococcal conjugate
4 months	DTaP-IPV-Hib Pneumococcal conjugate
6 months	Hepatitis B DTaP-IPV-Hib
12 months	MMRV ² Meningococcal conjugate C Pneumococcal conjugate
18 months	DTaP-IPV-Hib MMRV
6 months to 18 years	Influenza (yearly)
4 years	DTaP-IPV or Tdap-IPV ³
Grade 7	HPV⁴ (girls only) + Tdap⁵
Grade 9	Meningococcal conjugate ACYW-135

Targeted / Catch-up Immunization Campaign for Adolescents born 2000-2008											
Grade	Vaccine	Start Date	End Date								
9 & 10	2nd dose Varicella	2015-16 school year	2015-16 school year								
9	2nd dose Varicella	2016-17 school year	2022-23 school year								

Routine Adult Immunization Schedule									
Age	Vaccine								
Adulthood	Td ^e should be given every 10 years. Tdap should replace one of the Td doses.								
≥65 years	Pneumococcal polysaccharide								
65 years and older	Influenza (yearly)								
Adults born after 1970 should contact ti	heir health-care provider or Public Health office for information about MMR								

immunization.

Influenza vaccine is recommended for all residents of New Brunswick six months of age and older. It is provided free of charge to those at increased risk of complications from influenza, including those 65 years of age and older. Please consult your health-care provider or Public Health office for more information on others eligible for publicly funded influenza

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¹ DTaP-IPV-Hibt diphtheria, tetanus, acellular pertussis, inactivated polio, & Haemophilus influenzae type b

² MMRV: measles, mumps, rubella and varicella

² DTAP-IPV or diphtheria, tetanus, acellular pertussis, inactivated polio

⁴ IPV: human papillomavirus

⁵ IPV: human papillomavirus

⁶ Tdi tetanus and diphteria

Appendix 2: Immunization requirement for kindergarten entry in NB

Children are considered up-to-date with immunizations for school entry (kindergarten) if they have received the full number of valid and required vaccine doses according to age and against the diseases cited in the Reporting and Diseases Regulation 2009-136, *Public Health Act*.

<u>Valid dose:</u> A dose is considered valid if administered at recommended age (or acceptable minimum age for dose), recommended time interval (or acceptable minimum interval from previous dose) and recommended spacing between blood products and live attenuated vaccines.

Full number of vaccine doses required per antigen (i.e. complete series):

- Before 2010/11: measles (1 dose), mumps, (1 dose), rubella (1 dose), diphtheria (3 doses), tetanus (3 doses) and poliomyelitis (3 doses);
- From 2010/11 to 2013/14: measles (2 doses), mumps, (2 doses), rubella (2 doses), diphtheria (5 doses), pertussis (5 doses), tetanus (5 doses), poliomyelitis (4 doses), varicella (1 dose) and meningococcal (1 dose);
- **2014/15 onwards**: measles (2 doses), mumps, (2 doses), rubella (2 doses), diphtheria (5 doses), pertussis (5 doses), tetanus (5 doses); poliomyelitis (4 doses), varicella (2 doses) and meningococcal (1 dose).

Note: Children who did not start routine immunization during early infancy (i.e. later starters) follow an alternate schedule and may be considered up-to-date with less doses as per the Canadian Immunization Guide⁴. Example: If the 4th dose of DTaP is administered after the 4th birthday, the 5th dose in not necessary.

⁴ https://www.canada.ca/en/public-health/services/canadian-immunization-guide.html

Appendix 3: History of the New Brunswick School Immunization Program

Table 1. History of the New Brunswick school immunization program - Tdap vaccine, as of June 2016.

	School Year												
	2004/5	2005/6	2006/7	2007/8	2008/9	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	
Grade 6													
Grade 7													
Grade 8													
Grade 9													
Grade10													
Grade11													
Grade12													
	Routine	Immuniza	tion Sched	lule									
			Campaigr	n									
	Outbrea	k Campaig	jn										

- 2003 and earlier: A tetanus, diphtheria vaccine (Td) was offered to students in grade 11 as part of the school-based immunization program in NB.
- 2004/5: A combined tetanus, diphtheria and acellular pertussis vaccine (Tdap) replaced the Td vaccine. The Tdap booster was moved from grade 11 to 9 with a catch-up program extended to students in grades 10 to 11.
- 2005/6: Tdap vaccine was offered to students in grade 9.
- 2006/7, 2007/8 and 2008/9: Tdap vaccine was offered to students in grade 6 as part of a three year catch-up program. This vaccine was also offered to students in grade 9.
- 2009/10, 2010/11 and 2011/12: Tdap vaccine offered to students in grade 9 was on hold due to the completion of a three year catch-up program in grade 6.
- **Spring 2012**: From May to mid-June 2012, a school-based immunization campaign was implemented to prevent the continued rise of pertussis in school age children. Students in grades 6, 7 and 8 in the most affected areas (Health Zones 1 & 2) received Tdap vaccine.
- 2012/13: Students in grades 7, 8, 9 in less affected areas (Health Zones 3,4,5,6, & 7) were offered immunization in the fall of 2012. The adolescent Tdap booster was re-introduced in grade 7 (instead of Grade 9) with a catch-up program extended to students in grades 8 and 9.
- 2013/14 onwards: The adolescent Tdap booster was offered to grade 7 students only.

Table 2. History of the New Brunswick school immunization program - HPV vaccine, as of June 2016.

	School Year											
	2004/5	2005/6	2006/7	2007/8	2008/9	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
Grade 5												
Grade 6												
Grade 7						*						
Grade 8							*					
Grade 9												
Grade10												
Grade11												
Grade12												
	Routine	lmmunizat	ion Sched	ule								
	Targeted	/Catch-up	Campaign	l								
	Outbreak	Campaig	n									

- 2008/09, 2009/10, 2010/11, 2011/12, 2012/13: A series of 3 doses of human papillomavirus quadrivalent vaccine (HPV4) was offered to female students in grade 7 as part of the school-based immunization program in NB. The vaccine was also offered to female students in grade 8 as part of a 1 year catch-up program.
- * 2009/10: The HPV4 vaccine was delayed in some areas of the province because of the H1N1 mass immunization campaign.
- * 2010/11: The HPV4 vaccine was offered to female students in grade 8 where delays occurred because of the H1N1 campaign (catch-up program).
- 2015/2016: A series of 2 doses of human papillomavirus quadrivalent vaccine (HPV4) will be offered to female students in grade 7 as part of the school-based immunization program in NB.

Table 3. History of the New Brunswick school immunization program – meningococcal vaccine, as of June 2016

	School Year											
	2004/5	2005/6	2006/7	2007/8	2008/9	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
Grade 5	*											
Grade 6	*											
Grade 7	*											
Grade 8	*											
Grade 9												
Grade 10	*											
Grade 11	*											
Grade 12	*											
	Men	C- C (200 2005/06)				Mer	C - ACYW	/-135 (200	7/08 - 2012	2/13)		
	Routine	Immuniza	tion Sche	dule								
	Targeted	d/Catch-u _l	p Campaig	n	•		•				•	
	Outbrea	k Campai	gn	•	•		•				•	

- 2004/05, 2005/06, 2006/07: A meningococcal conjugate C vaccine (Men-C-C) was offered to students in grade 9 as part of the school-based immunization program in NB.
- 2005: * A mass immunization campaign was implemented from May-June 2005 in Westmorland, Kent and Albert counties; 16,000 students in grades 5-12 and young adults up to 19 years of age were offered a meningococcal conjugate C vaccine (NeisVac C.)
- **2005/06:** The meningococcal conjugate C vaccine was offered to students in grades 10-12 in other areas of the province as part of a catch-up program.
- 2007/08 onwards: The monovalent meningococcal conjugate vaccine (Men-C-C) was replaced by the quadrivalent meningococcal vaccine (Men-C-ACW135). Men-C-ACW135 vaccine was offered to students in grade 9 as part of the school-based immunization program in NB.

Table 4. History of the New Brunswick school immunization program - MMR vaccine, as of June 2016.

	School Year												
	2004/5*	2005/6	2006/7	2007/8	2008/9	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15		
Grade 5													
Grade 6													
Grade 7													
Grade 8													
Grade 9													
Grade 10													
Grade 11													
Grade 12													
	Routine	 Immuniza	tion Sch	edule									
		l/Catch-u											
		k Campai		_									

- 2007/08: A MMR vaccine was offered to students in grade 12 as part of an outbreak response to mumps cases in New Brunswick. Students who had not previously received 2 doses of MMR vaccine were offered 1 dose of MMR vaccine.
- 2008/09- 2011/12: Students in grade 12 were offered a second dose of MMR vaccine as part of a six year catch-up campaign. In school year 2011/12, students in Grade 11-12 were offered MMR vaccine. The catch-up campaign was completed 1 year sooner than planned because of a measles outbreak in Quebec and the increasing number of cases occurring throughout Canada, United States and Europe.

*NOTE

The MMR vaccine was also offered to young adults 24 years of younger and post-secondary students born in 1970 or later who had not previously received 2 doses of MMR vaccine

Table 5. History of the New Brunswick school immunization program - varicella vaccine catch-up campaign plan, as of June 2016

	School Year												
	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23					
Grade 5													
Grade 6													
Grade 7													
Grade 8													
Grade 9													
Grade 10													
Grade 11													
Grade 12													
	Routine I	Routine Immunization Schedule											
	Targeted/Catch-up Campaign												
		Campaign											

- A catch-up program for the second dose of varicella vaccine was introduced in 2015/16 school year for grade 9 and 10 students.
- The vaccine will continue to be offered to grade 9 students in the school year 2016/17 through 2022/23