

Daycare, school entry and school program immunization report

Data for school year 2016/17

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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	Diphtheria, 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 2016/17¹. 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 2015/16) can be found online at

- [Immunization Report – 2015/2016](#)
- [Immunization Report – 2012/13 to 2014/15](#)

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, 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 summarizes 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.

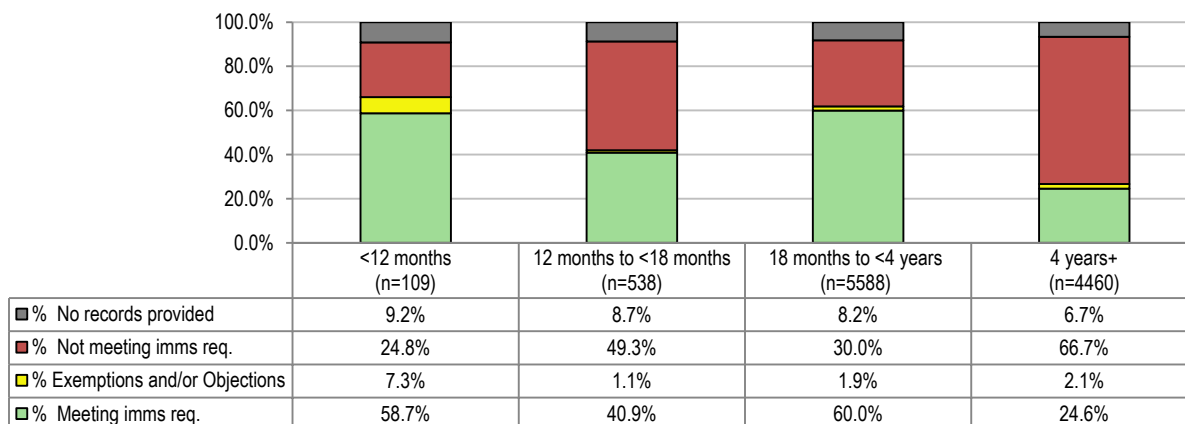
Daycare operators are responsible to ensure that children who attend the daycare center have proof of immunization against specific diseases or documented exemption or objection. The RHAs are responsible to ensure that the population in their geographic region is optimally immunized. Public Health Nurses 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, 2016/17

- In 2016/17 school year, Public Health nurses visited a total of 370 licensed daycares across the Province; 10,895 infants and preschoolers (i.e. children up to 4 or 5 years of age) were assessed for proof of immunization.
- 43.9% of children attending a licensed daycare did meet immunization requirements. An average of 2% of children had either a medical exemption or a signed parental/legal guardian objection form; 7.6% of children had no proof of immunization; and 54.1 % had no proof of being up-to date with immunizations.
- Zones with the highest to lowest proportion of children that met immunization requirements are Z5 (61.8%), Z7 (53.8%), Z4 (49.7%), Z6 (48.5%), Z1 (43.6%), Z2 (43.1%), Z3 (37.5%).
- Among different age groups, the proportion of children from 18 months to less than 4 years of age meeting immunization requirement was the highest (60%), followed by children less than 12 months of age (58.7%), then children between 12 to less than 18 months of age (40.9%) and last were the preschoolers (4 years and older) of which 24.6% were up-to-date.

Graph 1. Percentage of children meeting or not meeting immunization requirements for daycare attendance in New Brunswick, by age group, 2016/2017.



5. Children Meeting Immunization Requirements for School Entry, 2016/17

5.1 Background

Proof of immunization has been a requirement for children entering New Brunswick schools since 1982. Over the years, enhancements to the publicly funded immunization program and the *Public Health Act* have led to changes in the immunization requirements for school entry (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 RHAs 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 Officer of Health.

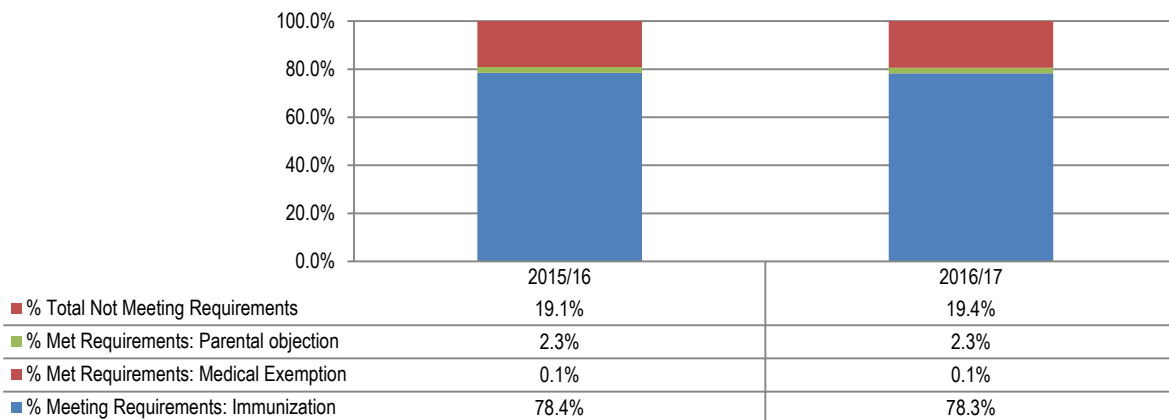
5.2 Overall Findings

- In 2016/17, 78.3% of children entering kindergarten had met immunization requirements. This was similar to the previous school year when 78.4% were deemed meeting requirements.
- Zones 2 and 4 reported an increase in the proportion of students meeting immunization requirements when compared to the previous year (+5% and +3.5% respectively). Whereas, Zones 1 and 6 have shown a slight decrease (-3% and -4% respectively) and Zones 3, 5 and 7 have shown similar proportions compared to the previous school year. .
- The overall parental objection in 2016/17 remained at 2.3%. Despite the decrease compared to previous year, Zone 4 still has the highest proportion among the other zones with 5.7% of parents/guardians objecting to get their children immunized.
- 3.1% of children entering kindergarten didn't have any immunization records submitted.

5.3 Findings by Individual Vaccine, 2016/17

- Among students with proof of immunization, the highest to lowest proportion of up-to-date immunizations (by individual vaccine) was: Men-C-C (91%), MMR (88.5%), Varicella (87.5%), DTaP (79.7%) and IPV (79.6%) .
- Among students with incomplete proof of immunization for DTaP, 63.8% of the children were only missing the 4-year old booster dose. The IPV booster dose accounted for 62.8% of all children deemed not up-to-date for this vaccine. 19.7% and 23% of children were missing the last dose of MMR and Varicella respectively.

Graph 2. Percentage of students meeting requirements for school entry through immunization, or medical exemption, objections, or not meeting requirements, New Brunswick, 2015/16 to 2016/17.



Graph 3. Percentage of students meeting requirements for school entry through immunization, by Health Zone, New Brunswick, 2015/16 to 2016/17.

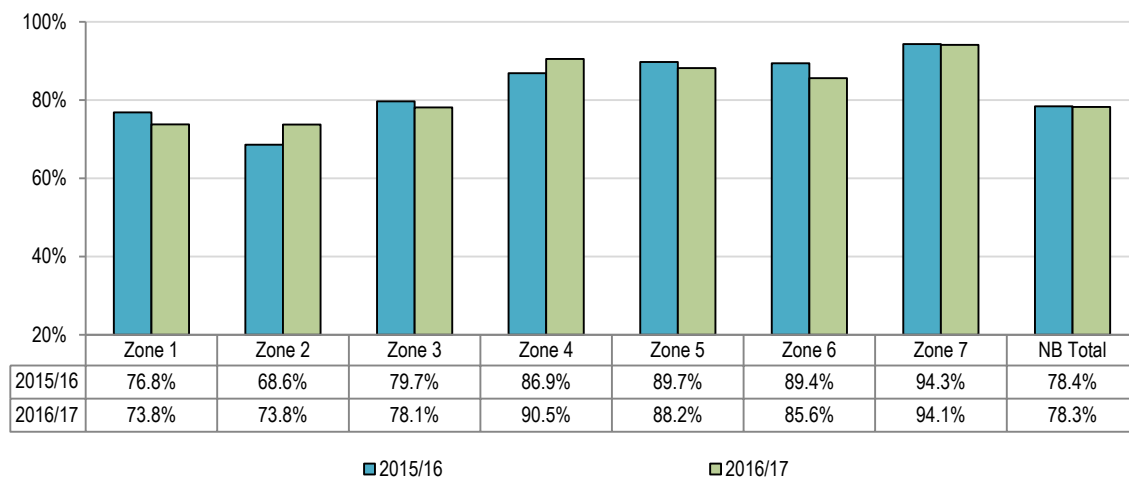
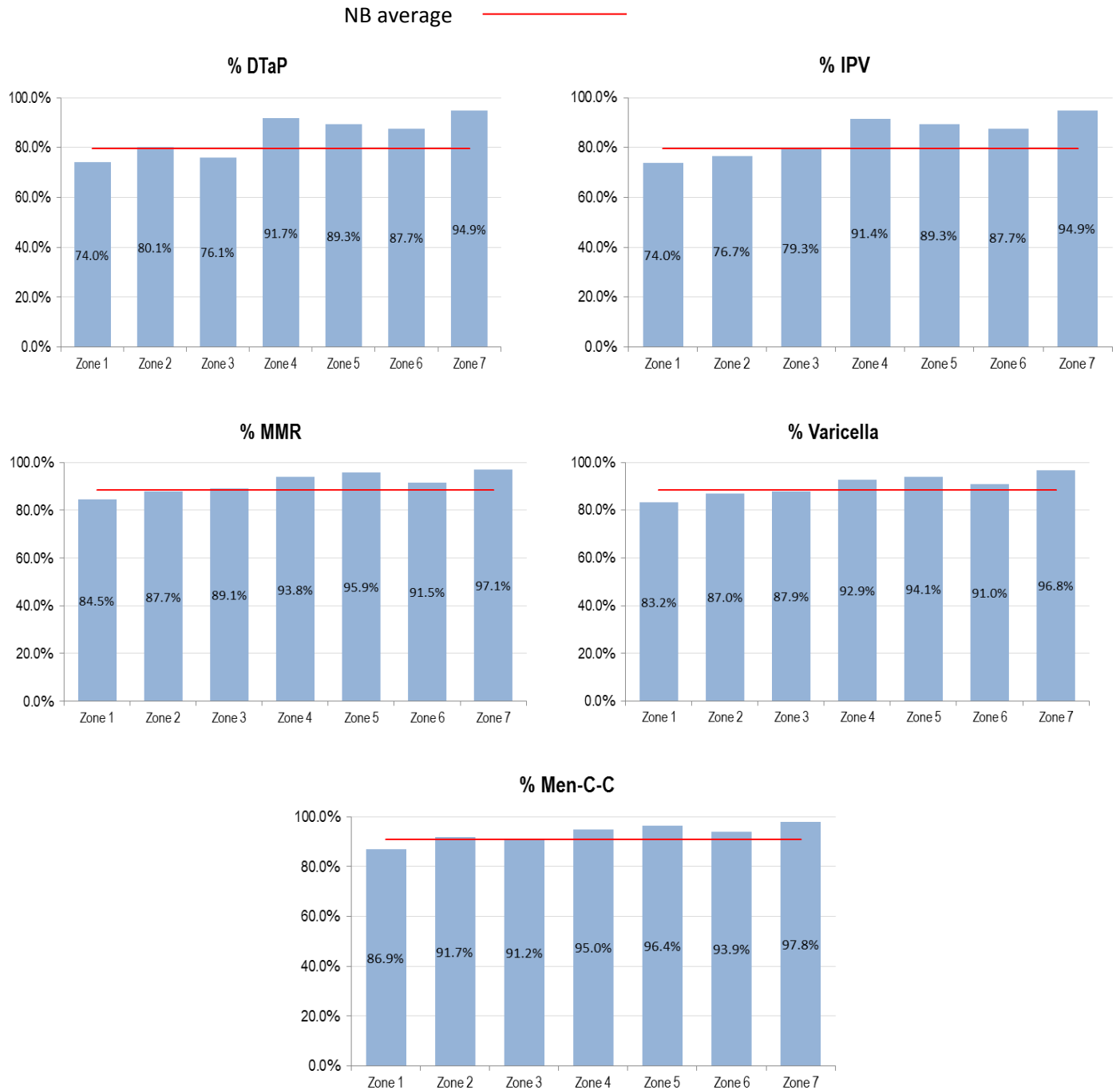


Figure 1. Proportion of students up-to-date with individual vaccine by Health Zone compared to the NB average, 2016/17



6. School Immunization Programs

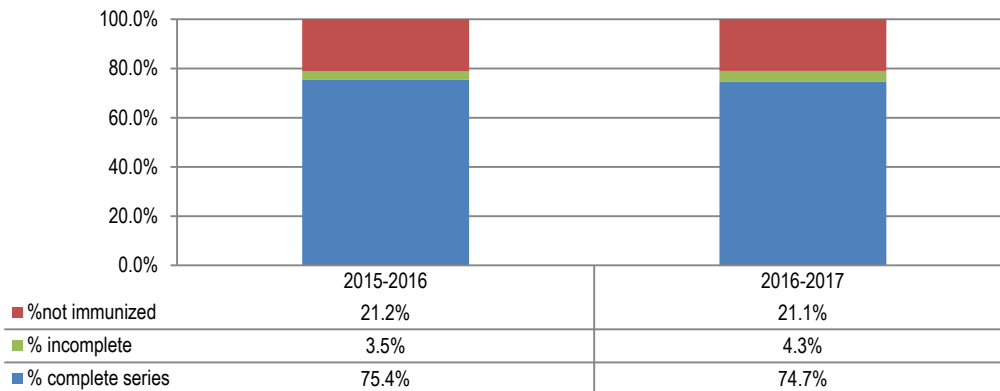
6.1 Background

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 bring their routine immunizations up to date. Please refer to the Appendix 3 for more history on School Immunization Programs in NB.

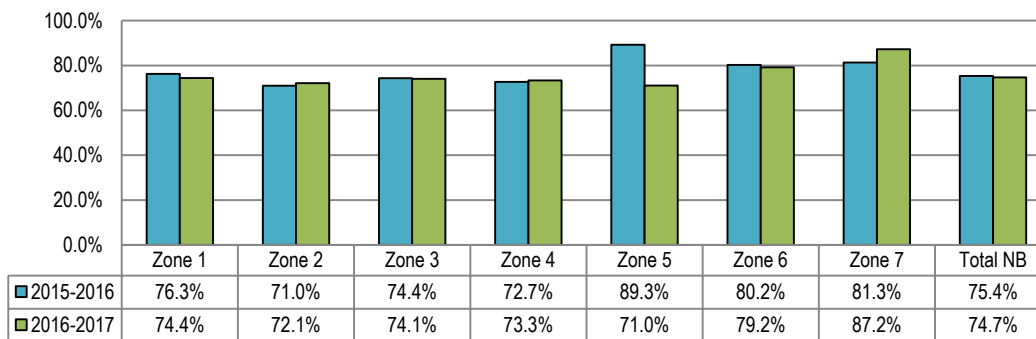
6.2 Data Summary: HPV Vaccine 2016/17

- In 2016/17, slightly fewer female students completed their HPV immunization (74.7%) compared to 75.4% in 2015/16. Most of the decrease in the proportion with complete immunization in 2016/17 was attributed to an increase in the proportion of students with incomplete series compared to 2015/16.
- Most of the zones had higher or similar proportions with complete series compared to the previous school year with the exception of Zone 5 where the proportion has dramatically decreased (-18%).
- Zones with the highest to lowest proportion with complete series were Z7 (87.2%), Z6 (79.2%), Z1 (74.4%) , Z3 (74.1%), Z4(73.3%), Z2 (72.1%) and Z5 (71.0%),
- The proportion of students not immunized was consistent with that reported in 2015/16.
- Of those children not immunized (n=733), 56% did not provide a reason either because they did not return the consent form (31%) or they submitted a consent form but did not indicate a reason (25%), 10% had safety concerns (+4% compared to previous year), 7% provided reasons of religious/conscience, 3% did not think they needed it, 4% did not show up for the appointment even with consent and 20% had “other reasons”.
- 149 students did not complete the series (had only 1 dose): 64% did not show up to the appointment even with consent (+10% compared to previous year), 34% had “other reasons”, and 2% had consent withdrawn.

Graph 4. Percentage of female students with complete or incomplete HPV vaccine series, or not immunized, New Brunswick, 2015/16 and 2016/17.

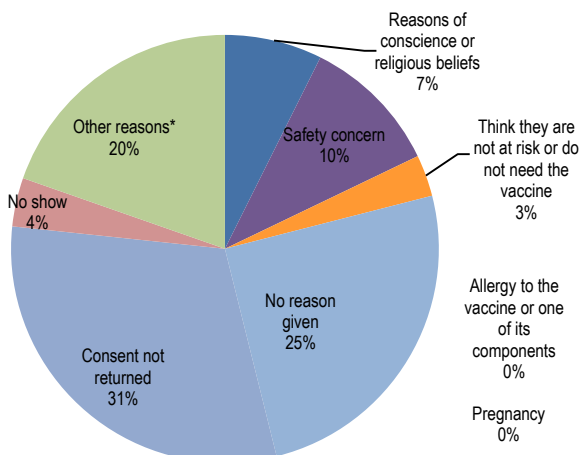


Graph 5. Percentage of female students with complete HPV vaccine series, by Health Zone, New Brunswick, 2015/16 and 2016/17.

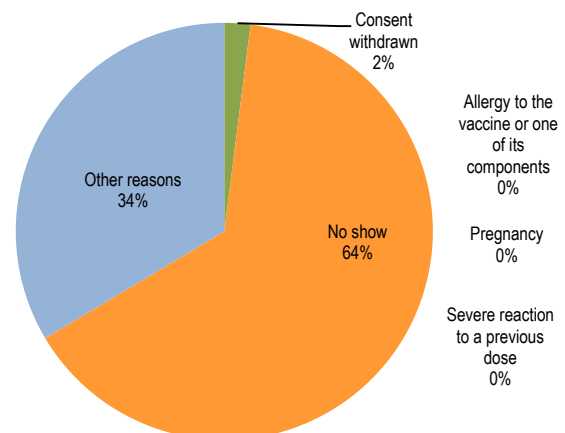


Graph 6. Reasons for incomplete or no immunization with HPV vaccine among grade 7 female students, New Brunswick, 2016/17.

A- Reasons for no immunization (N=733).



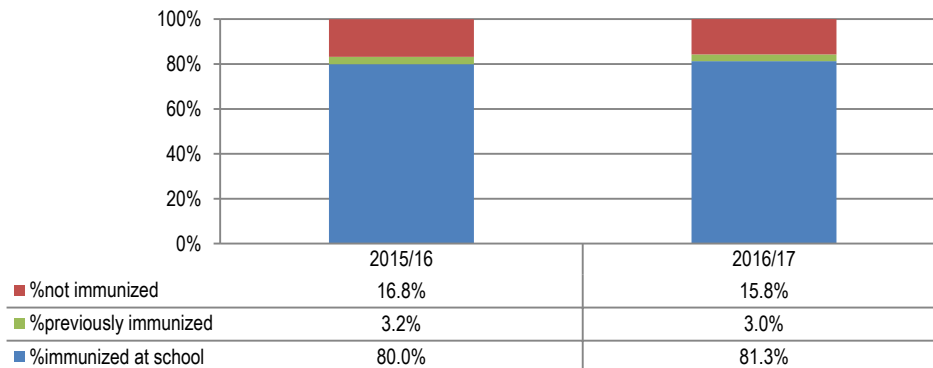
B- Reasons for incomplete series of immunization, (N=149).



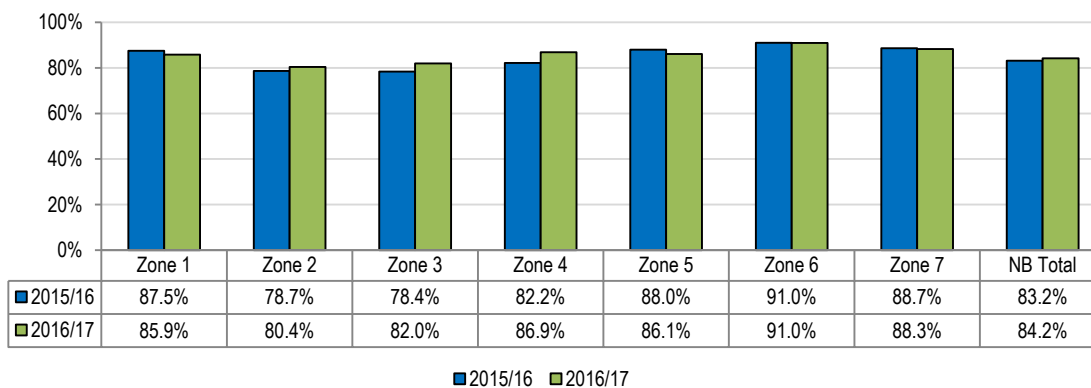
6.3 Data Summary: Tdap Vaccine 2016/17

- The proportion of students immunized with Tdap slightly increased compared to that of the previous school year (84.2% and 83.2% respectively). Most of the students were immunized during the school year, and the rest were previously immunized.
- The proportion immunized increased in Z4, Z3 and Z2, remained stable in Z6 and Z7, and decreased in Z1, Z5 in 2016/17 compared to 2015/16.
- Zones with the highest to lowest proportion immunized: Z6 (91%), Z7 (88.3%), Z4 (86.9%), Z5 (86.1%), Z1 (85.9%), Z3 (82%) and Z2 (80.4%).
- Of those students not immunized (n=1129), 64.9% did not provide a reason either because they submitted a consent form but did not indicate a reason (13.5%) or did not return the consent (51.4%), 7.3% did not show up to the appointment, 3.1% provided reasons of religion/conscience, 2.6% did not think they needed the vaccine because they had enough doses (of which most had their last dose before the age of 11 years which is considered an invalid adolescent dose), 1% had safety concerns and the remaining 21% had “other reasons”.

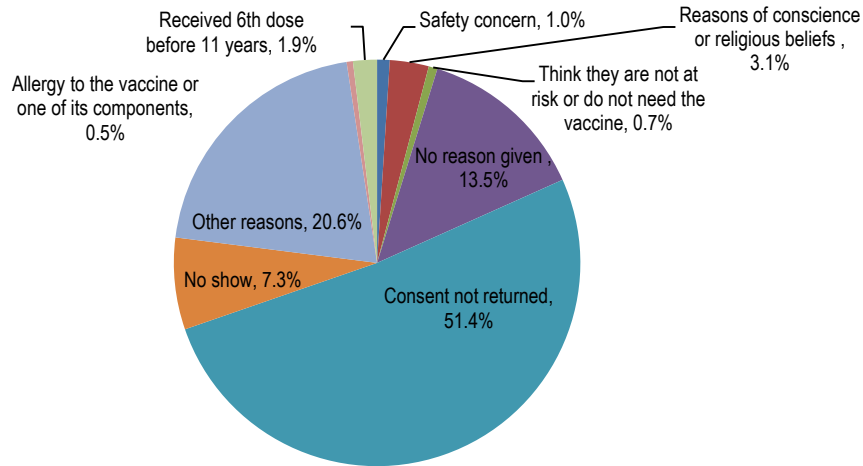
Graph 7. Percentage of students immunized with Tdap vaccine at school, previously immunized, or not immunized, New Brunswick, 2015/16 and 2016/17.



Graph 8. Percentage of students immunized with Tdap vaccine (both at school or previously immunized), by Health Zone, New Brunswick, 2015/16 and 2016/17.



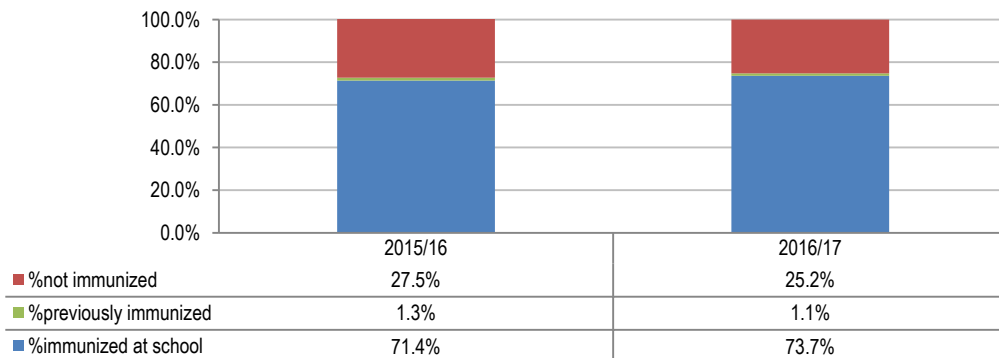
Graph 9. Reasons for no immunization with Tdap vaccine among grade 7 students, New Brunswick, 2016/17 (N=1129).



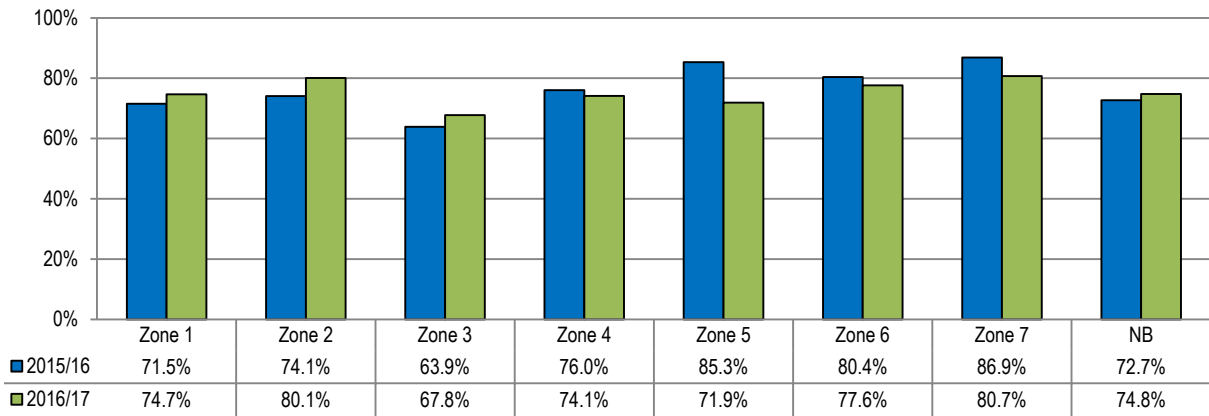
6.4 Data Summary: Men-C-ACYW-135 Vaccines, 2016/17

- The proportion of students immunized slightly increased in 2016/17 compared to the previous school year with 74.8% receiving the Men-C-ACYW-135. Most of the students were immunized during the school year and the rest were immunized previously.
- Proportions in Z1, Z2 and Z3 have increased compared to the previous year, while those in Z4, Z6 and Z7 have slightly decreased whereas the decrease was dramatic in Z5 (71.9% in 2016/17 compared to 85.3 in 2015/16).
- Zones with the highest to lowest proportion of students immunized are Z7 (80.7%), Z2 (80.1%), Z6 (77.6%), Z1 (74.7%), Z4 (74.1%), Z5 (71.9%), and Z3 (67.8%).
- Of those students not immunized (n=1891), 78.1% did not provide a reason either because they submitted a consent form but did not indicate a reason (8.4%) or did not return the consent (69.7%), 11.9% did not show up to the appointment, 1.5% provided reasons of religion/conscience, and the remaining 8.5% had “other reasons” including safety concerns.

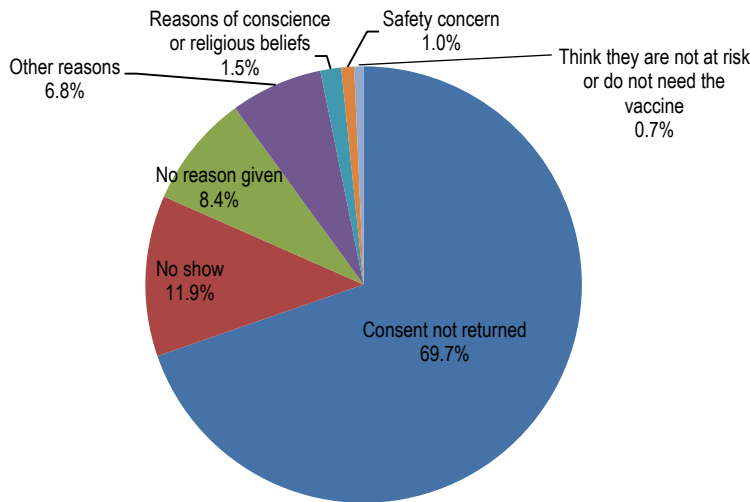
Graph 10. Percentage of students immunized with Men-C-ACYW-135 vaccines at school, previously immunized, or not immunized, New Brunswick, 2015/16 and 2016/2017.



Graph 11. Percentage of students immunized with Men-C-ACYW-135 vaccines at school, or previously immunized, by Health Zone, New Brunswick, 2015/16 and 2016/2017.



Graph 12. Reasons for no immunization with Men-C-ACYW-135 vaccines among grade 9 students, New Brunswick, 2016/17 (N=1891).

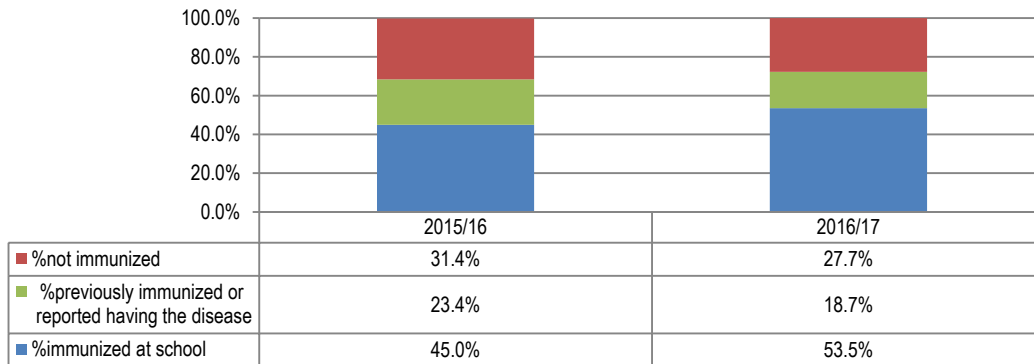


6.5 Data Summary: Varicella Vaccine, 2016/17

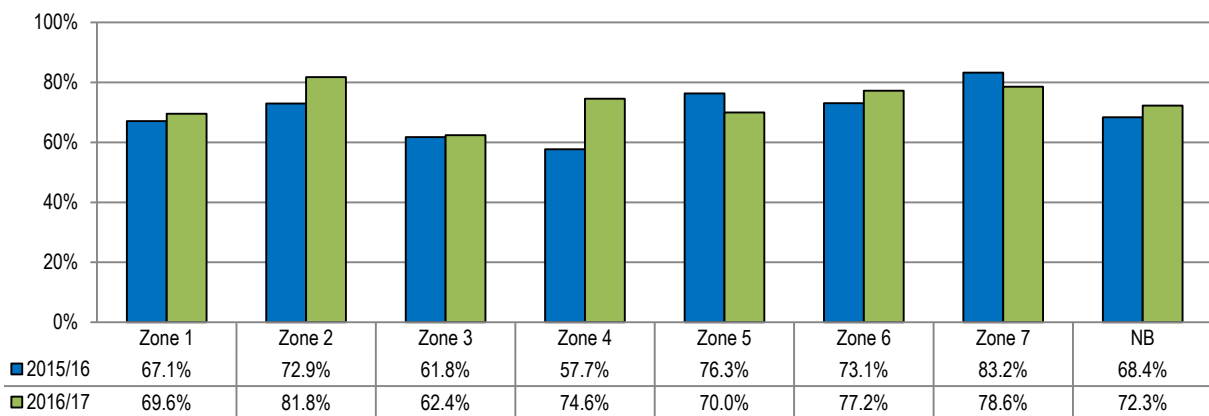
- The varicella vaccine catch-up started for grades 9 and 10 in 2015/16, and will continue for grade 9 only until 2022/23.
- 72.3% of grade 9 students were immunized against varicella: most of these students were vaccinated during the school year and the rest were vaccinated previously or already had the disease.

- Zones with the highest to lowest proportion of students immunized are Z2 (81.8%), Z7 (78.6%), Z6 (77.2%), Z4 (74.6%), Z5 (70%), Z1 (69.6%) and Z3 (62.4%).
- Of those students not immunized (n=2080), 82.3% did not provide a reason either because they submitted a consent form but did not indicate a reason (10%) or did not return the consent (72.3%), 9% did not show up to the appointment, 1% provided reasons of religion/conscience, and the remaining 7.7% had “other reasons” including safety concerns.

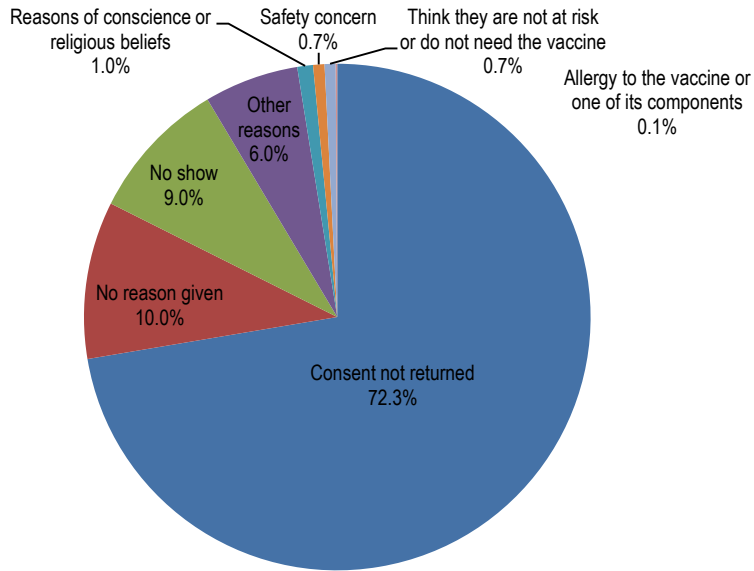
Graph 13. Percentage of students immunized with varicella vaccine at school, previously immunized/had the infection, or not immunized, New Brunswick, 2015/2016 (grade 9 and 10) and 2016/17 (Grade 9).



Graph 14. Percentage of students immunized with varicella vaccine at school, previously immunized/had the infection, by Health Zone, New Brunswick, 2015/2016 (grade 9 and 10) and 2016/2017 (grade 9).




Graph 15. Reasons for no immunization with varicella vaccine among grade 9 students, New Brunswick, 2016/17 (N=2080).



Appendices

Appendix 1: [New Brunswick Routine Immunization Schedule](#) (as of November 2017) ⁴

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-Hib ¹ Pneumococcal conjugate Rotavirus
4 months	DTaP-IPV-Hib Pneumococcal conjugate Rotavirus
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	HPV ⁴ + Tdap ⁵
Grade 9	Meningococcal conjugate ACYW-135

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

Routine Adult Immunization Schedule	
Age	Vaccine
Adulthood	Td ⁶ should be given every 10 years.
18 years of age and older	Tdap should replace one of the Td doses.
≥65 years	Pneumococcal polysaccharide
65 years and older	Influenza (yearly)
Adults born after 1970 should contact their 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 vaccine.	

¹DTaP-IPV-Hib: diphtheria, tetanus, acellular pertussis, inactivated polio, & Haemophilus influenzae type b
²MMRV: measles, mumps, rubella and varicella
³DTaP-IPV or Tdap-IPV: diphtheria, tetanus, acellular pertussis, inactivated polio
⁴HPV: human papillomavirus
⁵Tdap: diphtheria, tetanus, acellular pertussis
⁶Td: tetanus and diphtheria

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⁴ During the 2016/17 school year, the HPV was only offered to grade 7 female students. Starting the 2017/18 school year, the HPV will be offered to both males and females students in grade 7.

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*.

Valid dose: 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. late starters) follow an alternate schedule and may be considered up-to-date with less doses as per the Canadian Immunization Guide⁵. Example: If the 4th dose of DTaP is administered after the 4th birthday, the 5th dose is not necessary.

⁵ <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 2017.

	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	2016/17
Grade 6													
Grade 7													
Grade 8													
Grade 9													
Grade10													
Grade11													
Grade12													
	Routine Immunization Schedule												
	Targeted/Catch-up Campaign												
	Outbreak Campaign												

Summary

- **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 2017.

	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	2016/17
Grade 5													
Grade 6													
Grade 7						*							
Grade 8							*						
Grade 9													
Grade 10													
Grade 11													
Grade 12													
	Routine Immunization Schedule												
	Targeted/Catch-up Campaign												
	Outbreak Campaign												

Summary

- **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).
- **2015/16- 2016/17:** A series of 2 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.

Table 3. History of the New Brunswick school immunization program – meningococcal vaccine, as of June 2017

	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	2016/17
Grade 5	*												
Grade 6	*												
Grade 7	*												
Grade 8	*												
Grade 9													
Grade 10	*												
Grade 11	*												
Grade 12	*												
	Men C - C (2004/05 - 2005/06)			Men C - ACYW-135 (2007/08 - 2012/13)									
	Routine Immunization Schedule												
	Targeted/Catch-up Campaign												
	Outbreak Campaign												

Summary

- **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 2017.

	School Year							
	2004/5*	2005/6	2006/7	2007/8	2008/9	2009/10	2010/11	2011/12
Grade 5								
Grade 6								
Grade 7								
Grade 8								
Grade 9								
Grade 10								
Grade 11								
Grade 12								
	Routine Immunization Schedule							
	Targeted/Catch-up Campaign							
	Outbreak Campaign							

Summary

- **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 2017.

	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 Immunization Schedule							
	Targeted/Catch-up Campaign							
	Outbreak Campaign							

Summary

- 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