

Manitoba's School Immunization Program

Questions & Answers for Health Care Providers

The following is a set of commonly asked questions and answers to help guide health care providers in the implementation of Manitoba's publicly-funded (i.e. free-of-charge) School Immunization Program.

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1. What is Manitoba's School Immunization Program?

Every year, regional public health nurses go into every school in the province to offer students the human papillomavirus (HPV) vaccine (Gardasil®9) and hepatitis B vaccine (Engerix®-B) in grade 6, as well as the tetanus, diphtheria and acellular pertussis (Tdap) vaccine (Adacel®) in grade 8/9 (varies by region). Immunizing students in schools is safe, effective and cost-effective and ensures high vaccine uptake.

Starting September 2019, the meningococcal vaccine will resume being offered in schools, now in grade 6 (as it was temporarily suspended since September 2017 when the vaccine was transitioning from being offered in grade 4 to 6 as part of a province-wide initiative to implement efficiencies to Manitoba's routine childhood immunization schedule). No cohort missed the opportunity to be immunized. Note: this document will be updated prior to September 2019 to reflect current recommendations for Manitoba's Meningococcal Immunization Program.

2. When did Manitoba's School Immunization Program start?

Each of the three vaccine programs offered in Manitoba's 2018/19 School Immunization Program started at different times and have gone through several changes throughout the years.

Manitoba's HPV Immunization Program launched September 2008 for girls in grade 6, born during or after 1997. In September 2015, the Program transitioned from a 3-dose program to a 2-dose program and a year later (September 2016), boys born during or after 2005 were added to the grade 6 program, and a 3-year catch-up program was launched for boys in grade 8 or 9, born between January 1st 2002 and December 31st 2004. Starting school year 2018/19, Gardasil®9 will replace Gardasil®4.

Manitoba's Hepatitis B Immunization Program was introduced September 1998 for girls and boys in grade 4, born during or after 1989. Since launch, the Program was offered as a 3-dose (0.25mL/dose), grade 4 program until September 2017 when it transitioned to a 2-dose (1.0mL/dose), grade 6 program. (While the Program was transitioning, no hepatitis B vaccine was provided in schools in 2015 or 2016 however, no child missed the opportunity to be immunized).

Since 2003, MHSAL has offered the Tdap vaccine to students in grade 8 or 9. The grade in which it is offered varies by region because the school structure in each region varies.

In 2004, MHSAL started its grade 4 Meningococcal Conjugate Immunization Program. The Program temporarily stopped in 2017 and 2018 while it is in a state of transition (from grade 4 to grade 6); the Program will resume in grade 6 starting September 2019. No child will have missed the opportunity to be immunized.

3. What is MHSAL's eligibility criteria for the vaccines provided as part of Manitoba's School Immunization Program?

Manitoba Health, Seniors and Active Living's (MHSAL's) eligibility criteria for its HPV Immunization Program is as follows:

- Healthy females born on or after January 1st 1997 are eligible to receive the HPV vaccine, routinely provided in school-based programs in grade 6.

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- Healthy males born on or after January 1st 2002 are eligible for school-based programs in Grade 6 as well as in Grade 8 or 9 (3 year catch-up program).
- For females and males under 15 years of age, 2 doses are recommended. For those who missed the school-based program, a 3-dose schedule is recommended, unless the first dose of vaccine was administered before the age of 15.
- Immunocompetent HIV-infected individuals born during or after 1997 are eligible to receive 3 doses.
- Immunocompromised individuals born during or after 1997 are eligible to receive 3 doses. Immunocompromised conditions include:
 - Congenital immune deficiencies: B cell deficiency, T cell mixed defects, phagocytic and neutrophil disorders, complement deficiency
 - Acquired immune deficiencies: hematopoietic stem cell transplant recipients, pre-solid organ transplant or post-solid organ transplants
- Females born between 1986 and 1996 with increased risk of HPV infection, who started the vaccine series before March 31st 2014 are eligible to receive 3 doses.
- Males born during or after 2000 (\leq 26 years of age) who are, or who have ever been, incarcerated are eligible to receive 3 doses. For males under 15 years of age, 2 doses are recommended.
- Individuals who are currently, or who have previously been diagnosed with, recurrent respiratory papillomatosis are eligible to receive 3 doses.
- Patients under the care of a haematologist or oncologist from CancerCare Manitoba (CCMB) who have the following conditions and have been provided a CCMB directed immunization schedule:
 1. Malignant neoplasms (solid tissue and haematological) including leukemia and lymphoma, or clonal blood disorder, and who will receive or have completed immunosuppressive therapy including chemo therapy or radiation therapy, or
 2. Patients who are hypo- or asplenic (sickle cell disease, etc.)

MHSAL's eligibility criteria for its Hepatitis B Immunization Program is as follows:

- All children born on or after January 1st 2006 in grade 6 (school-based program) are eligible to receive 2 doses: Recombivax HB® 1.0mL at 0, 4-6 months OR Engerix® 1.0mL at 0, 6 months.
- Individuals born between 1989 and 2005 who missed the vaccine in grade 4 (school-based program) are eligible for up to 4 doses; 3 or 4 doses are recommended for individuals 16 years of age and older.*
- Individuals of any age with at least one of the following high-risk medical conditions are eligible to receive 3 or 4 doses:
 - Chronic liver disease from any cause, including persons infected with hepatitis C.
 - Hemophiliacs and other people receiving repeated infusions of blood or blood products.
 - Chronic renal disease or undergoing chronic dialysis (hemodialysis or peritoneal dialysis).
 - Congenital immune deficiencies (B cell deficiency, T cell mixed defects, phagocytic and neutrophil disorders, complement deficiency).
 - HIV-infection.
 - Hematopoietic stem cell transplant recipient or awaiting solid organ transplant.

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- Patients currently under the care of a haematologist or oncologist from CancerCare Manitoba (CCMB) who have the following conditions and have been provided a CCMB directed immunization schedule:
 1. Malignant neoplasms (solid tissue and haematological) including leukemia and lymphoma, or clonal blood disorder, and who will receive or have completed immunosuppressive therapy including chemo therapy or radiation therapy, or
 2. Patients who are hypo- or asplenic (sickle cell disease, etc.)
- Inmates of correctional facilities.*
- Residents of institutions for the developmentally challenged.*
- Individuals with lifestyle risks for infection, including people engaging in illicit drug use, men having sex with men (MSM) and those who engage in other risky sexual practices.*
- Premature and/or full-term infants of mothers who are hepatitis B surface antigen (HBsAg) positive or unknown HBsAg status are eligible for up to 4 doses.**

*Refer to [Table 3: Recommended Dosages and Schedules for Hepatitis B-Containing Vaccines](#) of the *Canadian Immunization Guide* for product-specific recommendations by age/medical condition.

**Refer to [Table 3: Recommended Dosages and Schedules for Hepatitis B-Containing Vaccines](#) as well as [Table 4: Hepatitis B Recommendations for Premature Infants Weighing less than 2,000 grams, by Maternal Hepatitis B Surface Antigen \(HBsAg\) Status](#) of the *Canadian Immunization Guide* for vaccine dosage, interval and schedule recommendations.

MHSAL's eligibility criteria for its Tdap Immunization Program is as follows:

- Individuals at 14 to 16 years of age (Grade 8 or 9 school-based program).
- Individuals who missed the vaccine in Grade 8 or 9 and are born on or after January 1st 1989.
- Adults who are due for a Td booster and have not previously received a pertussis-containing vaccine in adulthood.*
- Primary caregivers of a newborn infant up to 6 months of age who have not previously received a pertussis-containing vaccine in adulthood.*
- Pregnant women ≥ 26 weeks of pregnancy who have not received a dose of a pertussis-containing vaccine in adulthood;
- Patients currently under the care of a haematologist or oncologist from CancerCare Manitoba (CCMB) who have the following conditions and have been provided a CCMB directed immunization schedule:
 1. Malignant neoplasms (solid tissue and haematological) including leukemia and lymphoma, or clonal blood disorder, and who will receive or have completed immunosuppressive therapy including chemo therapy or radiation therapy, or
 2. Patients who are hypo- or asplenic (sickle cell disease, etc.)

*There is not minimum interval between the Td and Tdap vaccine.

Any future changes to MHSAL's eligibility criteria for publicly funded vaccines will be communicated online at: www.gov.mb.ca/health/publichealth/cdc/vaccineeligibility.html.

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4. What if an individual misses one or more doses of a vaccine offered as part of the School Immunization Program; will he/she still be eligible?

Yes. If a child misses one or more doses of any of the School Immunization Program vaccines, the vaccine(s) can still be provided free-of-charge at a doctor's office, public health office, nursing station/health centre or ACCESS Centre. Additionally, for any missed HPV vaccine and/or Tdap vaccine doses, a pharmacist can also immunize people 7 years of age and older (please note: as per *The Pharmaceutical Act* and accompanying *Regulation*, pharmacists are not authorized to provide publicly-funded hepatitis B or meningococcal vaccines).

5. How are decisions made to fund vaccines in Manitoba?

MHSAL gathers evidence-based information from a variety of sources, including current research and data (e.g. epidemiology, vaccine safety and effectiveness data, cost-effectiveness data, etc.), programs in other provinces and territories, and recommendations from national and provincial public health expert panels, such as Manitoba's Provincial Vaccine Advisory Committee and the National Advisory Committee on Immunization (NACI). All of these sources of evidence are taken into account to develop recommendations for new vaccine programs and expansions, and are also weighed by the Province against other health and non-health initiatives.

6. Are the vaccines that are part of the School Immunization Program safe?

Yes, all of the vaccines provided as part of Manitoba's School Immunization Program are considered safe. As with all vaccines, adverse events may occur. Information about possible side-effects of the vaccines offered as part of the School Immunization Program can be found online, in the individual vaccine factsheets, located at: <http://www.gov.mb.ca/health/publichealth/cdc/div/vaccines.html>.

Once a vaccine is approved and in use, Health Canada and the Public Health Agency of Canada (PHAC) continue to monitor its use and safety. PHAC coordinates and supports the Canadian Adverse Events Following Immunization Surveillance System (CAEFISS), which collects reports on adverse events following immunization (AEFI) either directly from health care providers or through each different jurisdiction's passive surveillance system. Canada also has an active surveillance system that is based out of 12 pediatric hospitals across Canada, called IMPACT (Immunization Monitoring Program ACTIVE) that also collects information about AEFIs. In addition, Manitoba has an expert committee that assesses reports based on various criteria, including seriousness, and determines whether the vaccine was likely to have caused the identified reaction. For more information about vaccine safety and AEFI, please go to: www.gov.mb.ca/health/publichealth/cdc/div/aefi.html.

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7. What is the recommended immunization schedule?

Manitoba's routine schedule for its School Immunization Program is as follows:

Vaccine	Grade 6	Grade 8 or 9
Hepatitis B	◆ ◆	
HPV	◆ ◆	
Meningococcal Conjugate	◆ Resuming Sept. 2019	
Tdap		◆

- Children in grade 6 or between 11 and less than 16 years of age should be given two adult (1.0mL/dose) hepatitis B vaccine doses (Engerix®-B); children under 11 years of age should receive three pediatric (0.5mL/dose) hepatitis B vaccine doses (Engerix®-B or Recombivax HB®). Monovalent hepatitis B vaccines (Engerix®-B and Recombivax HB®) may be used interchangeably, according to the recommended dosage and schedule. Children 11 to less than 16 years of age who have had one or more pediatric doses (0.5mL/dose) can finish the series with a 1.0mL Engerix®-B dose, if necessary. However, it is recommended that if available, a child finishes their pediatric hepatitis B vaccine schedule with the pediatric hepatitis B vaccine (0.5mL/dose).
- NACI recommends differing HPV vaccine schedules depending on the individual's age at first dose as well as if any immunocompromising conditions exist (www.phac-aspc.gc.ca/naci-ccni/acs-dcc/2015/hpv-vph_0215-eng.php):
 - **Healthy females and males (9 - 14 years of age):** either a 2-dose or 3-dose schedule of Gardasil®9 is recommended for immunocompetent, non-HIV infected persons 9 - 14 years of age. For a 2-dose schedule, at least 6 months between the first and second dose is recommended. If the interval between doses is shorter than 6 months, a third dose should be given at least 6 months after the first dose.
 - **Healthy females and males (≥ 15 years of age):** a 3-dose schedule of Gardasil®9 (0, 2 and 6 months) is recommended for persons 15 years of age and older, unless the first dose of HPV vaccine was administered before the age of 15 years. If the first dose was administered between 9 - 14 years of age, a 2-dose schedule is sufficient for persons ≥ 15 years of age, with the second dose administered at least 6 months after the first dose.
 - **Immunocompromised individuals and immunocompetent HIV-infected individuals (see question 8 for a list of immunocompromising conditions):** a 3-dose schedule of Gardasil®9 (0, 2 and 6 months) is recommended for individuals who are immunocompromised and immunocompetent HIV-infected individuals. There is insufficient evidence to recommend a 2-dose schedule in these populations; therefore, a 3-dose schedule continues to be recommended for individuals who are immunocompromised and for immunocompetent HIV-infected individuals.
- Every effort should be made to catch children up on any missed childhood vaccines in grade 6 as well as grade 8/9. For example: Tdap-IPV vaccine can be offered in grade 8/9 in lieu of Tdap vaccine for those individuals who missed one or more doses of polio (IPV) vaccine in childhood.

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8. What is the difference between Gardasil®4 and Gardasil®9?

Effective academic year 2018/19, Manitoba transitioned from Gardasil®4 to Gardasil®9. Gardasil®9 is a 9-valent HPV vaccine that provides protection against genital warts, cervical and anogenital cancers, as well as certain cancers of the head and neck. Gardasil®4 and Gardasil®9 (both Merck) are equivalent in terms of clinical safety however, Gardasil®9 provides protection against the 4 HPV types contained in both vaccines (6, 11, 16 and 18) in addition to five more high-risk types (31, 33, 45, 52 and 58).

Almost all cervical cancers are associated with high-risk HPV types with types 16 and 18 causing approximately 70% of cervical cancers, and HPV types 31, 33, 45, 52, and 58 accounting for approximately 15-19% of cervical cancers. Infection with HPV types 16 and 18 is present in approximately 43% of vaginal cancers and 15% of vulvar cancer, while approximately 24% of vaginal cancers and 2.5% of vulvar cancer have been attributed to HPV types 31, 33, 45, 52 and 58.

9. What do I do if a vaccine schedule is interrupted?

As per the Canadian Immunization Guide, if either the HPV or hepatitis B vaccine schedule is interrupted, either vaccine series does NOT need to be restarted.

In individuals 15 years of age and older who received the first HPV vaccine dose between 9 to less than 15 years of age, a 2-dose schedule can be used, with the second dose administered at least 6 months after the first dose.

For the hepatitis B vaccine, administer the second dose as soon as possible (but no sooner than the minimum interval – see question 10).

10. Are additional doses (boosters) required?

Re-immunization with HPV vaccine is not indicated at this time, as protection lasts at least 10 years. Additionally, there is insufficient evidence at this time to recommend, at a population level, re-immunization with HPV9 (Gardasil®9) vaccine in individuals who have completed an immunization series with HPV4 (Gardasil®4) vaccine. However, re-immunization with Gardasil®9 following the Gardasil®4 vaccine (series) is safe and may provide additional protection against cervical/non-cervical cancers and their precursors. Patients should be informed that additional dose(s) above the initial HPV vaccine series is a non-insured service that requires a prescription to be filled/paid for at a pharmacy (with potential third party reimbursement).

Routine re-immunization with hepatitis B vaccine is not required. People who develop an anti-hepatitis B titre of at least 10 IU/L (adequate anti-hepatitis B titres) following the completion of a recommended schedule are considered protected for life. Routine booster doses of hepatitis B vaccine are not recommended for immunocompetent persons. Individuals at high risk of hepatitis B infection or complications who do not develop anti-hepatitis B titre of at least 10 IU/L after the initial hepatitis B vaccine series should receive a second hepatitis B vaccine series. (**NOTE: additional doses of a vaccine that are given outside of MHSAL's publicly funded, recommended immunization series are provided free-of-charge to individuals with certain high-risk medical conditions, as well as to individuals with an inadequate immune response post-immunization (one additional dose), as determined by a health care provider.**) Additional vaccine doses (up to 3) received in a

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second immunization series will produce a protective antibody response in 50% to 70% of healthy adults and children who did not initially respond to the vaccine. Individuals who fail to respond to 3 additional doses of vaccine are unlikely to benefit from further immunization and should be counselled on alternative risk reduction measures. Immunocompromised persons and persons with chronic renal disease who have responded initially to hepatitis B vaccine may require booster doses periodically if anti-hepatitis B titres fall below 10 IU/L. If a higher vaccine dose was indicated for the initial vaccine series, a higher hepatitis B vaccine dose should be used for all subsequent immunizations.

At this time, MHSAL recommends and publicly funds the Tdap vaccine for the following individuals 18 years of age and older:

- Adults who due for a Td booster and have not previously received a pertussis-containing vaccine in adulthood;
- Primary caregivers of a newborn infant up to 6 months of age who have not previously received a pertussis-containing vaccine in adulthood.
- Pregnant women \geq 26 weeks of pregnancy who have not received a dose of a pertussis-containing vaccine in adulthood.

All individuals \geq 7 years of age are recommended and eligible to receive a Td vaccine every 10 years.

11. What are the minimum intervals between HPV vaccine doses?

Every effort should be made to administer HPV vaccines at the recommended intervals. When an abbreviated schedule is required, vaccine doses should not be administered earlier than the minimum intervals. In a 3-dose schedule, the minimum interval between the first and second doses of vaccine is 4 weeks, the minimum interval between the second and third doses of vaccine is 12 weeks and the minimum interval between the first and last doses in either a 2-dose or 3-dose schedule is 24 weeks.

12. What are the minimum intervals between hepatitis B vaccine doses?

Efforts should be made to administer hepatitis B vaccine at the recommended intervals. The grade 6, 2-dose hepatitis B vaccine schedule is as follows:

- Engerix®-B (1.0 mL/dose) at 0 and 6 months
- Recombivax HB® (1.0 mL/dose) at 0 and 4 - 6 months

13. What is the minimum interval between the Td and Tdap vaccine?

There is no minimum interval between the Td and Tdap vaccine.

14. How do I report vaccine doses administered?

Immunization doses administered to Manitobans are captured in the Manitoba Immunization Registry in one of three ways:

1. Panorama data entry: health care providers that have access to Panorama can enter immunization data directly into Panorama (assuming their permissions allow for data entry). Health care providers who fall into at least one of the following categories should complete/submit *The Immunization Inputting Form for Health Care Providers*

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(www.gov.mb.ca/health/publichealth/cdc/div/docs/iifhcp.pdf) for manual entry into Panorama by regional staff:

- a. Health care providers who do not have access to Panorama and do not bill the Province for reimbursement via the Drug Program Information Network (DPIN) system or the Claims Processing System (Physician Billing).
 - b. Health care providers who are billing for doses administered to patients without a valid (or unknown) MHSAL personal health identification number (PHIN) (i.e. visitors, newcomers, etc.).
 - c. Non-publicly funded vaccines provided by fee-for-service physicians or other health care providers that shadow bill (e.g. regional nurse practitioners).
2. Electronically uploaded from DPIN when administered by pharmacists.
 3. Electronically uploaded from Physician Billing when administered by fee-for-service physicians and other health care providers that shadow bill (e.g. regional nurse practitioners).

The goal is to have all vaccine doses administered to Manitobans recorded in the Manitoba Immunization Registry.

15. How do I report an adverse event following immunization (AEFI)?

In accordance with *The Public Health Act*, health care providers are to report a reportable AEFI within seven days of becoming aware of the AEFI (as per section 59 of the Act). Health care providers are required to report a serious AEFI (see below) within one business day.

A reportable AEFI is an event that:

- a. Is temporally associated with a vaccine;
- b. Has no other clear cause as the time of reporting; and
- c. Is either serious, of special importance or is unexpected.

An AEFI is “serious” if **any one** of the following criteria is met:

- Results in death;
- Is life-threatening, that is, where the patient was at real, rather than hypothetical, risk of death at the time of the event/reaction;
- Requires in-patient hospitalization, defined as any of the following:
 - Hospital stay lasting ≥ 24 hours based on known date/time of admission and discharge; or,
 - Hospital stay involving all or part of two consecutive days (i.e. admission and discharge date are at least one day apart but specific time of admission is not specified)
- Results in prolongation of existing hospitalization;
- Results in persistent or significant disability/incapacity (if known at the time of reporting); or,
- Is a congenital anomaly/birth defect.

An AEFI is of “special importance” if it is **any one** of the following:

- Anaphylaxis
- Encephalitis (including SSPE)
- Acute disseminated encephalomyelitis
- Myelitis
- Aseptic meningitis/other meningitis (physician diagnosis)
- Guillain-Barré Syndrome (GBS)

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- Acute cerebellar ataxi
- Intussusception
- Thrombocytopenia (Brighton Collaboration diagnostic certainty level 1: platelet count < 150 AND clinical signs/symptoms of spontaneous bleeding)
- Emerging signal event

An AEFI is “unexpected” if it is:

- Not listed in the most current Health Canada-approved product monograph for vaccines marketed in Canada; or,
- Listed in the product monograph but is of a different nature, severity, frequency, specificity or outcome.

The most current Health Canada-approved product monographs can be found online through the Drug Product Database Online Query at: <https://health-products.canada.ca/dpd-bdpp/index-eng.jsp>.

Health care providers must submit completed AEFI reports to the regional Medical Officers of Health (MOH) listed in Appendix A of the *Reporting Form for Adverse Events Following Immunization*, at: www.gov.mb.ca/health/publichealth/cdc/docs/aeifi_form.pdf.

All recommendations made by an MOH with respect to an AEFI should be recorded in the client's personal health record.

For more information, please visit: www.gov.mb.ca/health/publichealth/cdc/div/aeifi.html.

16. How do I order vaccines?

Publicly funded vaccines are to be ordered through the Provincial Distribution Warehouse only by a health care provider (or designate) who is registered with MHSAL. Health care providers order vaccines by completing *The Vaccines and Biologics Order Form* (www.gov.mb.ca/health/publichealth/cdc/protocol/vaccinebiologics.pdf).

The vaccines provided as part of MHSAL's School Immunization Program are provided to health care providers for the sole purpose of administering Manitoba's School Immunization Program.

If a client is ineligible for a publicly funded vaccine, they can obtain a prescription from a licensed health care provider, purchase the vaccine series at a pharmacy, and then make an appointment with a health care provider that provides immunization services (e.g. doctor, pharmacist, nurse practitioner, etc.) to administer the vaccine. Typically, public health nurses do NOT administer non-publicly funded vaccines.

17. What are the storage and handling requirements?

All vaccines and biologics should be stored as per the product monograph. Health care providers are to refer to the online *Cold Chain Protocol – Immunizing Agents and Biologics* and corresponding resources for all storage and handling requirements (www.gov.mb.ca/health/publichealth/cdc/coldchain.html). In the event of an exposure outside of the storage requirements, please complete the *Manitoba Health Adverse Storage Condition (ASC) Form* available at: www.gov.mb.ca/health/publichealth/cdc/docs/ccd.pdf.

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18. Does immunizing against HPV mean that screening is no longer needed?

No. All females and males regardless of immunization history should continue to seek appropriate HPV-related screening and care. The HPV vaccine has been shown to be highly effective against nine types of HPV that can cause cancer and their precursors, as well as non-cancerous genital lesions, including:

- 90% of cervical cancers
- 90% of anal cancers
- 90% of (benign) genital warts
- 65% of vaginal cancers
- 60% of penile cancers
- 15% of vulvar cancers
- An unknown percentage of head and neck cancers

Those vaccinated can still be susceptible to infection from other high-risk HPV types not covered in the vaccine.

All women should continue to participate in the currently recommended provincial cervical cancer screening programs. For more information, visit CervixCheck, CancerCare Manitoba at: www.getcheckedmanitoba.ca/cervixcheck.html.

19. Where can I find more information about the HPV, hepatitis B and Tdap vaccines?

MHSAL has information available about HPV, hepatitis B and Tdap, including factsheets, on its website at: www.gov.mb.ca/health/publichealth/cdc/div/vaccines.html. Regional public health nurses **only** can order vaccine factsheets for Manitoba's School Immunization Program free-of-charge by completing the online order form available at: www.gov.mb.ca/health/jmc/index.html.

NACI statements are available online at: www.phac-aspc.gc.ca/naci-ccni/. As well, the Canadian Immunization Guide also includes vaccine information on HPV, hepatitis B and Tdap at: www.canada.ca/en/public-health/services/publications/healthy-living/canadian-immunization-guide-part-4-active-vaccines.html.

Vaccine-specific information, including contraindications, adverse reactions, ingredients, storage and dosage, can be accessed through the vaccine-specific product monograph by searching the appropriate tradename at: <https://health-products.canada.ca/dpd-bdpp/index-eng.jsp>. For a listing of the most current vaccines that MHSAL carries (i.e. tradename), please access MHSAL's *Vaccines and Biologics Order Form* (www.gov.mb.ca/health/publichealth/cdc/protocol/vaccinebiologics.pdf).