



Department of Health

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Executive Deputy Commissioner

February 10, 2016

Dear Colleague,

The New York State Department of Health (NYSDOH) urges you to **strongly recommend and administer the second (booster) dose** of vaccine against meningococcal serogroups A, C, W-135 and Y (**MenACWY vaccine**; also known as Menactra, Menveo, or MCV4 vaccine) **to adolescents aged 16 years and older** in order to ensure your adolescent patients will be optimally protected and will be able to attend school in the fall.

Effective September 1, 2016, students entering grades seven and twelve in New York State (NYS) schools will be required to be fully vaccinated against meningococcal disease according to the recommendations of the Advisory Committee on Immunization Practices (ACIP). The ACIP recommends that all adolescents receive a first dose of MenACWY vaccine at 11-12 years of age and a booster dose at age 16 years in order to boost their immunity during the years at which they are at greatest risk of meningococcal disease. If the first dose was administered on or after the sixteenth birthday, a booster dose is not necessary.

The good news is, most young adolescents in NYS have received a first dose of MenACWY vaccine. The National Immunization Survey-Teen (NIS-Teen) estimates that 80% of NYS adolescents have received at least one dose of MenACWY vaccine, and that 78% of adolescents received the first dose on time, by 13 years of age.

Unfortunately, less than one in three older adolescents have received the MenACWY booster. The NIS-Teen estimates that only 29% of adolescents aged 17 years have received the booster dose of MenACWY vaccine. This means that **70% of older adolescents are not fully protected against meningococcal disease** in the years at which they are at highest risk for meningococcal disease.

The NYSDOH asks you to **think SEARCH**:

- **S**trongly recommend and administer the MenACWY booster dose to all adolescents aged 16 years and older;
- Vaccinate at **E**very **A**ppointment – including well child visits, sick visits, camp and sports physicals;
- **R**ecall adolescents aged 16 years and older who are overdue for their MenACWY booster dose; and
- **C**atch up adolescents overdue for doses of **H**PV, Tdap, and other vaccines at the same visit.

Please review the attached materials and visit <http://www.give2mcv4.org/> for tools and resources to improve MenACWY 2-dose coverage among adolescents in your practice. Should you have any questions or comments, please contact the NYSDOH Bureau of Immunization at (518) 473-4437 or by email at immunize@health.ny.gov.

Sincerely,

A handwritten signature in black ink, appearing to read 'Elizabeth Rausch-Phung', with a long horizontal flourish extending to the right.

Elizabeth Rausch-Phung, M.D., M.P.H.
Director, Bureau of Immunization
New York State Department of Health

Attachments:

Joint letter from the American Academy of Family Physicians (AAFP), American Academy of Pediatrics (AAP), American College Health Association (ACHA), Society for Adolescent Health and Medicine (SAHM), Centers for Disease Control and Prevention (CDC), and Immunization Action Coalition (IAC)

MCV4: You're Not Done If You Give Just One, IAC

Information for Healthcare Professionals about Adolescent Vaccines, CDC

MCV4: You're not done if you give just one.

Give **TWO** doses to strengthen protection.

Dear Colleague:

The American Academy of Family Physicians (AAFP), American Academy of Pediatrics (AAP), American College Health Association (ACHA), Society for Adolescent Health and Medicine (SAHM), Centers for Disease Control and Prevention (CDC), and Immunization Action Coalition (IAC) urge you and your fellow healthcare professionals to strongly recommend and administer the second (booster) dose of meningococcal ACWY vaccine (MenACWY or “MCV4”) at age 16.

MCV4 was developed to prevent meningococcal disease resulting from infection with serogroups A, C, W, or Y. Meningococcal disease is devastating and debilitating, with a staggering 10–15% case fatality rate.

ACIP Recommendations for MCV4²

Give dose #1 at age 11–12 years and a booster at age 16 years

Recommendations if dose #1 is delayed:

- If dose #1 is delayed until age 13–15 years, give a booster at age 16–18 years*
- If dose #1 is delayed until age 16 years or older†, no booster is recommended.

* The **minimum interval** between doses of MCV4 is 8 weeks. Thus, it is possible to give the primary dose at age 15 and the booster at 16, for example, as long as the minimum 8-week interval between doses is observed.

† Routine MCV4 vaccination of healthy persons who are not at increased risk for exposure to *Neisseria meningitidis* is not recommended after age 21 years.

In May 2005, CDC's Advisory Committee on Immunization Practices (ACIP) published its recommendation to vaccinate all 11–12 year olds with MCV4. In 2006, only 11.7% of adolescents 13–17 years of age had received a dose of MCV4; by 2013, **1-dose** coverage in children 13 years of age had grown to an impressive 78.0%.¹

In January 2011, ACIP recommended that a second (booster) dose of MCV4 be given at age 16 in order to enhance protection in the period of greatest vulnerability to meningococcal disease – 16 to 21 years of age.² Unfortunately, more than four years after this recommendation was published, the **2-dose coverage rate for MCV4 in 17-year-olds is only 28.5%**.¹ By vaccinating fewer than 1 in 3 eligible teens, we are leaving millions of young adults without the protection they need.

A provider's endorsement of vaccination has long been recognized as a key factor in improving immunization rates. You are therefore in a perfect position to improve coverage

by offering a strong, unequivocal recommendation for vaccination with a second dose of MCV4. We urge you to take advantage of opportunities to vaccinate during all patient encounters, including well visits, camp and sports physicals, visits for acute or chronic illness, and visits for other recommended immunizations. Additional ideas for improving your rates are available at www.Give2MCV4.org.

Why is a booster dose of MCV4 recommended at age 16?²

- ACIP found evidence of waning immunity 5 years post-vaccination to the protection provided by MCV4 against serogroups A, C, W, and Y. Therefore, many adolescents who received their primary dose at age 11 or 12 might have decreased protection from ages 16 through 21, when they are at greatest risk for meningococcal disease.
- Robust immune responses to a booster dose of MCV4 vaccine have been documented 3–5 years after the primary dose. The first dose primes the immune system to have a strong response to a booster – measurably stronger than the response to the first dose.

CONTINUED ON NEXT PAGE

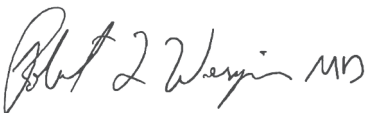
Special Considerations for College Students

ACIP recommends:

- Persons 21 years of age and younger should have documentation of receipt of MCV4 vaccine not more than 5 years prior to college enrollment.
- If the primary dose was given before the 16th birthday, a booster dose is needed before enrollment in college. The booster can be given any time after the 16th birthday.

Remember, *you're not done if you give just one*. Let's give our patients the boost they need to provide maximum protection against meningococcal (ACWY) disease.

Signed:



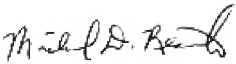
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REFERENCES

1. Centers for Disease Control and Prevention (CDC). National, regional, state, and selected local area vaccination coverage among adolescents aged 13–17 years – United States, 2014. *MMWR*. 2015;64(29):784-792.
2. Routine MCV4 vaccination of healthy persons who are not at increased risk for exposure to *Neisseria meningitidis* is not recommended after age 21 years.

MCV4 YOU'RE NOT DONE IF YOU GIVE JUST ONE

GIVE 2 DOSES to Strengthen Protection

It's serious: Meningococcal disease, though rare, can cripple or kill, often without warning.

- **Unpredictable** – most cases occur at random, not in outbreaks; transmitted in crowded settings
- **Sudden onset** – difficult to diagnose; mimics symptoms of common illnesses
- **Rapidly progresses** – can lead to shock, coma, and death within 24 hours
- Even with proper treatment of those who are infected, **10%–15% die**
- 11%–19% of survivors suffer **lifelong disability** (hearing loss, amputation of arms or legs, or brain damage)

It affects all ages, but especially adolescents and young adults.

- **16–21 years of age:** At highest risk among people older than 1 year of age

It's preventable: Safe and effective meningococcal vaccines are available and recommended.

- **Not 1 shot but 2:** First dose of MCV4^a at 11–12 years of age (*recommended since 2005*) **AND**
- **A second dose at 16 years of age** (*recommended since 2010*)

Opportunities to give MCV4 are frequently missed when adolescents are already in the office.

Missed Opportunities for Administering MCV4 #1 in Age-Eligible Patients (November 2006–June 2011)¹

Reason for Visit	Eligible patients (%) who did NOT receive MCV4 during visit
Preventive care (n = 1678)	57% (n = 954)
Vaccine-only (n = 527)	86% (n = 453)
Non-preventive care (n = 2944)	96% (n = 2821)

- Unfortunately, 86% of patients who were in the office for a “vaccine-only” visit did not receive the first dose of MCV4 along with other recommended vaccines.
- Timely vaccination remains a challenge in meningococcal disease prevention. **More than 70% of those eligible for the second dose at 16 years of age had not received it by 17 years of age.**²

WHAT CAN YOU DO?

- ▶ Recognize the increased risk of meningococcal disease in your adolescent patients.
- ▶ Make sure your adolescent patients (including those who are not college-bound) are fully vaccinated against meningococcal disease.
- ▶ Give the first dose of MCV4 at 11–12 years of age **and** the second dose at 16 years of age.

^aMCV4 (Meningococcal conjugate vaccine 4-valent or Meningococcal ACWY vaccine) helps protect against meningococcal disease resulting from infection with serogroups A, C, W, or Y.

MCV4 YOU'RE NOT DONE IF YOU GIVE JUST ONE

GIVE 2 DOSES to Strengthen Protection

RECOMMEND!

- ▶ Make meningococcal disease prevention part of your anticipatory guidance for adolescent and young adult patients.

Talking points:

- Meningococcal disease is rare but can be deadly for young people your age.
 - You are at increased risk from your mid-to-late teens into your early twenties.
 - Disease comes on suddenly, without warning, and can quickly become life-threatening.
 - Meningococcal vaccine is safe and effective.
 - 2 doses are recommended for adolescents your age.
- ▶ Your strong recommendation for MCV4 **will** make a difference.

VACCINATE!

ACIP Recommendations for MCV4

Give dose #1 at 11–12 years of age AND dose #2 at 16 years of age

Recommendations if dose #1 is delayed:

- If dose #1 is delayed until 13–15 years of age, give dose #2 at 16–18 years of age.^b
- If dose #1 is delayed until 16 years of age or older,^c dose #2 is not recommended.

^b The minimum interval between doses of MCV4 is 8 weeks. Thus, it is possible to give the first dose at 15 and the second dose at 16 years of age, as long as the minimum 8-week interval between doses is observed.

^c Routine MCV4 vaccination of healthy persons who are not at increased risk for exposure to *Neisseria meningitidis* is not recommended after 21 years of age.

REVIEW!

- ▶ Establish office protocols (eg, screening tools) for identifying adolescents who need to be vaccinated.
- ▶ Make use of helpful management tools (reminder-recall systems, standing orders, immunization registries, electronic health record prompts) to track and improve your vaccination coverage.
- ▶ Don't miss opportunities! Train your staff to help identify teens who need vaccination.

Consider every patient encounter an opportunity to vaccinate:

- ✓ Acute care visits
- ✓ Well visits
- ✓ Sports and camp physicals
- ✓ Routine visits for chronic illness
- ✓ Visits for influenza vaccine

www.Give2MCV4.org

Remember: *You're not done if you give just one!*

References:

1. Wong CA, Taylor JA, Wright JA, et al. Missed opportunities for adolescent vaccination, 2006-2011. *J Adolesc Health*. 2013;53(4):492-497.
2. Centers for Disease Control and Prevention. National, regional, state, and selected local area vaccination coverage among adolescents aged 13-17 years—United States, 2013. *MMWR*. 2014;63(29):625-633.

Information for Health Care Professionals about Adolescent Vaccines

The Centers for Disease Control and Prevention (CDC) recommends four vaccines for adolescents to prevent:

- Tetanus, Diphtheria, Pertussis *Note: Recommendations for catch-up dose and minimum interval*
- Meningococcal disease *Note: A booster shot for teens*
- Human papillomavirus *Note: Added indications for Gardasil; recommendation for boys*
- Influenza *Note: Universal recommendation for everyone 6 months and older*

These recommendations are supported by the American Academy of Pediatrics, the American Academy of Family Physicians, and the Society for Adolescent Health and Medicine.

What can YOU do to ensure your patients get fully vaccinated?

- *Strongly* recommend adolescent vaccines to parents of your 11 through 18 year old patients. **Parents trust your opinion more than anyone else's when it comes to immunizations.** Studies consistently show that provider recommendation is the *strongest* predictor of vaccination.
- Use every opportunity to vaccinate your adolescent patients. **Ask about vaccination status when they come in for sick visits and sports physicals.**
- Patient reminder and recall systems such as automated **postcards, phone calls and text messages are effective tools for increasing office visits.**
- **Educate parents about the diseases that can be prevented by adolescent vaccines.** Parents may know very little about pertussis, meningococcal disease, or HPV.
- **Implement standing orders policies** so that patients can receive vaccines without a physician examination or individual physician order.

Direct parents who want more information on vaccines and vaccine-preventable diseases to visit the CDC website at <http://www.cdc.gov/vaccines/teens> or to call 800-CDC-INFO.

Note about syncope: For all vaccines given during adolescence, syncope has been reported in both boys and girls. To avoid serious injury related to a syncopal episode, adolescents should always be sitting or lying down to receive vaccines, remain so for 15 minutes, AND be observed during this time.

Overview of Adolescent Vaccination Recommendations

- All 11 or 12 year olds should receive a single dose of Tdap vaccine if they have completed the recommended childhood DTP/DTaP vaccination series and have not received Tdap
- All 11 or 12 year olds should receive a single dose of meningococcal vaccine, with a booster dose at age 16 years
- All girls 11 or 12 years old should get 3 doses of either HPV vaccine to protect against cervical cancer; All boys 11 or 12 years old should get 3 doses of quadrivalent HPV vaccine to protect against genital warts and anal cancer
- All adolescents should receive a single dose of influenza vaccine every year

Age ▶	7-10 YEARS	11-12 YEARS	13-18 YEARS
▼ Vaccine			
Tdap	Childhood Catch-up	Recommended	Catch-Up
HPV		Recommended	Catch-Up
MCV4	High-Risk	Recommended	Recommended
Flu	Recommended		



Tdap (tetanus toxoid - reduced diphtheria toxoid - acellular pertussis) Vaccine

Because immunity from childhood DTaP vaccines wanes by adolescence, a booster dose is recommended. **Of the nearly 17,000 cases of pertussis reported in the United States in 2009, 4265 occurred among 10- through 19-year-olds.** Increasing immunization rates among adolescents is an important strategy for reducing disease among both adolescents and infants too young to be fully immunized. According to the 2010 National Immunization Survey-Teen (NIS-Teen), about 69% of 13- through 17-year-olds received Tdap.

Recommendations:

- **All 11- through 18-year-olds should receive a single dose of Tdap vaccine (preferably at age 11 or 12 years) if they have completed the recommended childhood DTP/DTaP vaccination series and have not received Tdap.**
- Children aged 7 through 10 years and adolescents aged 11 through 18 years who did not complete the childhood DTaP series or with unknown vaccine history should be given one dose of Tdap as part of the catch-up regimen. Td should be used for any other doses needed.
- Tdap should be administered regardless of interval since the last tetanus or diphtheria toxoid-containing vaccine. While longer intervals between Td and Tdap vaccination could decrease the occurrence of local reactions, the benefits of protection against pertussis outweigh the potential risk for adverse events.
- Tdap vaccine can be administered at the same time as other adolescent vaccines.

Vaccines licensed in the United States:

- Boostrix® (GlaxoSmithKline) is indicated for active booster immunization for the prevention of tetanus, diphtheria and pertussis as a single dose in persons 10 through 64 years of age.
- Adacel® (sanofi pasteur) is indicated for active booster immunization for the prevention of tetanus, diphtheria and pertussis as a single dose in persons 11 through 64 years of age.

Possible side effects:

Pain, redness, swelling at the injection site; mild fever; headache; fatigue; nausea, vomiting, diarrhea, or stomach ache.

Contraindications and precautions:

- Tdap is contraindicated for persons with a history of serious allergic reaction (e.g., anaphylaxis) to any component of the vaccine.
- Tdap is contraindicated for adolescents with a history of encephalopathy (e.g., coma or prolonged seizures) not attributable to an identifiable cause within 7 days of administration of a vaccine with pertussis components. This contraindication is for the pertussis components and these adolescents should receive Td instead of Tdap.

Meningococcal Conjugate Vaccine (MCV4)

Although rates of meningococcal disease are the lowest they have ever been in the United States, about 1000 cases are reported each year in this country. Each case is alarming and potentially deadly. **The incidence of meningococcal disease increases in adolescence and early adulthood.** About 10-15% of adolescents who contract the disease will die, and about 20% will suffer from a long-term disability. According to the 2010 National Immunization Survey-Teen (NIS-Teen), about 63% of 13- through 17-year-olds received MCV4.

Recommendations:

- **All 11- or 12-year-olds should receive a single dose of meningococcal vaccine, with a booster dose at age 16 years.**
- For adolescents who receive the first dose at age 13 through 15 years, a one-time booster dose should be administered, preferably at age 16 through 18 years. Persons who receive their first dose of meningococcal conjugate vaccine at or after age 16 years do not need a booster dose.
- Adolescents with persistent complement component deficiencies (e.g., C5-C9, properdin, factor H, or factor D) and asplenia should receive a 2-dose primary series administered 2 months apart and then receive a booster dose every 5 years.
- Adolescents aged 11–18 years with HIV infection should be routinely vaccinated with a 2-dose primary series.
- Vaccination is also recommended for unvaccinated college freshmen who live in dormitories, and also for unvaccinated military recruits. Older adolescents, including college students, who wish to decrease their risk for meningococcal disease, may elect to receive meningococcal vaccine.
- Meningococcal vaccine can be administered at the same time as other adolescent vaccines.

Vaccines licensed in the United States:

- Menactra® (sanofi pasteur) is indicated for active immunization of persons 9 months through 55 years of age for the prevention of invasive meningococcal disease caused by *N. meningitidis* serogroups A, C, Y and W-135.
- Menveo® (Novartis) is indicated for active immunization of persons 2 through 55 years of age to prevent invasive meningococcal disease caused by *N. meningitidis* serogroups A, C, Y, and W-135.

Possible side effects:

The most commonly reported side effects are redness or pain at the injection site. A small percentage of recipients reported fever.

Contraindications and precautions:

- Meningococcal vaccine is contraindicated among persons known to have a severe allergic reaction to any component of the vaccine, including diphtheria toxoid, or to dry natural rubber latex.

Human Papillomavirus (HPV) Vaccine

Cervical cancer, caused by HPV, is one of the most common cancers in women—every year in the United States, about 12,000 women are diagnosed with cervical cancer, and about 4,000 women die from this disease. HPV types 16 and 18 are the most common high-risk types associated with cervical cancer, while HPV 6 and 11 are the most common low-risk types associated with genital and respiratory tract warts (recurrent respiratory papillomatosis or RRP). High-risk HPV types have also been associated with other, less common cancers and precancers in women, such as vulvar, vaginal, anal, oropharyngeal carcinomas and dysplasia. HPV-associated cancers in males include certain anal, penile, and oropharyngeal carcinomas and dysplasia.

According to the 2010 NIS-Teen, about 49% of 13- through 17-year-old girls have started an HPV vaccine series. However, only about 32% received all 3 doses. **Completing the 3-dose HPV vaccine series is very important to ensure protection against cervical cancer and other HPV-related disease.**

Vaccines licensed in the United States:

- Cervarix® is indicated for the prevention of cervical cancer and precancers caused by HPV types 16 and 18.
- Gardasil® is indicated for the prevention of cervical, vulvar, vaginal and anal cancers and precancers, as well as genital warts, caused by HPV types 6, 11, 16 and 18.

Recommendations:

- **All 11 or 12 year olds should receive 3 doses of HPV vaccine to protect against HPV-related disease.**
- **All girls 11 or 12 years old should get 3 doses of HPV vaccine to protect against cervical cancer.** Girls and young women ages 13 through 26 should get all 3 doses of an HPV vaccine if they have not yet received all doses. Both brands of vaccine are highly effective for preventing cervical cancer and precancer caused by HPV types 16 and 18. Gardasil also protects against anal cancer and genital warts.
- **All boys 11 or 12 years old should get 3 doses of quadrivalent HPV vaccine (Gardasil) to protect against genital warts and anal cancer.** Boys and young men 13 through 21 years, who did not get any or all of the three recommended doses when they were younger, should also get the HPV vaccine series. MSM and immunocompromised males should receive the vaccine through age 26 years, if they did not start or complete the vaccine series when they were younger.
- HPV vaccines are administered in a 3-dose schedule. The second dose should be administered 1 to 2 months after the first dose, and the third dose should be administered 6 months after the first dose. There is no maximum interval between doses. If the HPV vaccine schedule is interrupted, the vaccine series does not need to be restarted.
- Whenever feasible, the same brand of HPV vaccine should be used for the entire vaccination series. However, if the vaccine provider does not know which brand of vaccine was previously administered or have it available, either brand of HPV vaccine can be used to complete the series.

- Individuals will get the greatest benefit from the vaccine if it is administered before they have initiated *any* type of sexual activity with another person.
- Studies demonstrate that the risk for HPV infection is high immediately following sexual debut. It is also important to note that 1 in 5 women who have only had one lifetime sex partner have been infected with a high-risk HPV type.
- Vaccination is recommended for patients with HPV-related disease and/or apparent HPV infection because the vaccine can offer protection against infection with HPV vaccine types not already acquired. However, vaccination will not have a therapeutic effect on existing HPV infection or HPV-related disease.
- HPV vaccine can be administered at the same time as other adolescent vaccines.

Possible side effects:

Pain, headache, redness or swelling at the injection site are the most commonly reported side effects.

Contraindications and precautions:

- HPV vaccines are not recommended for use in pregnancy. If a patient is found to be pregnant after initiating the vaccination series, the remainder of the 3-dose series should be delayed until completion of pregnancy. However, if a vaccine dose has been administered during pregnancy, no intervention is needed. Clinicians should report exposure to Gardasil during pregnancy to Merck at 800-986-8999, and exposure to Cervarix during pregnancy to GlaxoSmithKline at 888-452-9622.
- HPV vaccines are contraindicated for persons with a history of immediate hypersensitivity to any vaccine component. Gardasil is contraindicated for persons with a history of immediate hypersensitivity to yeast. Prefilled syringes of Cervarix have latex in the rubber stopper and should not be used in persons with anaphylactic latex allergy. Cervarix single-dose vials contain no latex.

Influenza Vaccine

CDC recommends universal annual flu vaccination for everyone aged 6 months and older. Flu can be serious, and even fatal, for healthy adolescents, but pre-teens and teens with certain medical conditions are more likely to suffer from serious flu complications. Conditions that place people at high risk include chronic lung disease (such as asthma); heart disease; endocrine disorders (such as diabetes); blood disorders; neurological and neurodevelopmental conditions; kidney, liver, and metabolic disorders; and weakened immune systems due to disease or medication. Flu seasons are unpredictable and can be severe. Each year in the United States, more than 200,000 people are hospitalized from flu-related complications.

Annual influenza vaccination is the most effective method for preventing influenza virus infection and its complications since flu viruses are constantly changing. Protective immunity generally develops in 2 weeks after being vaccinated.

Vaccines Licensed in the United States:

- Trivalent Inactivated Influenza Vaccine (TIV) is given as an injection. It can be used for people 6 months of age or older, including healthy people, those with chronic medical conditions, and pregnant women. Brands licensed in the United States include Fluarix[®], Fluvirin[®], Fluzone[®], FluLaval[®], and Afluria[®].
- Live, Intranasal Influenza Vaccine (LAIV) is given as a nasal spray. It can be used for healthy people 2 through 49 years of age who are not pregnant. FluMist[®] is the only brand licensed in the United States.

Recommendations:

- **Adolescents should receive a single dose of influenza vaccine every year.**
- Influenza vaccine can be administered at the same time as other adolescent vaccines.

Possible side effects:

TIV (injection): Soreness, redness, or swelling at the injection site; hoarseness; sore, red or itchy eyes, cough; fever, aches. If these problems occur, they begin soon after the shot and usually last 1 to 2 days. TIV contains noninfectious killed viruses and cannot cause influenza.

LAIV (nasal spray): Runny nose, nasal congestion, or cough; fever; headache and muscle aches; wheezing; abdominal pain or occasional vomiting or diarrhea. LAIV contains weakened influenza viruses that cannot replicate outside the nasal passages and cannot cause influenza.

Contraindications and precautions:

- Influenza vaccines should not be administered to people who have anaphylactic hypersensitivity to eggs, unless the recipient has been desensitized.
- Moderate or severe acute illness with or without fever is a precaution for vaccination. People who are moderately or severely ill should not be vaccinated until they recover.
- GBS within 6 weeks following a previous dose of influenza vaccine is a precaution for use of influenza vaccines.
- LAIV (nasal spray) should not be administered to pregnant adolescents, adolescents with chronic medical conditions (including asthma, metabolic disease, or hemoglobinopathy) as well as adolescents receiving aspirin or other salicylates.

Catch-Up Vaccines for Adolescents

Pre-teens and teens should receive doses of these vaccines as indicated to complete each series:

- Hepatitis B vaccine (HepB): Complete the 3-dose series if not previously completed. Note: A 2-dose series (separated by at least 4 months) of Recombivax HB[®] is licensed for children aged 11 through 15 years.

- Varicella vaccine: Complete the 2-dose series if not previously completed, with at least 3 months between doses for persons aged 12 months through 12 years. (If the second dose was administered at least 28 days after the first dose, it can be accepted as valid.) For persons aged 13 years and older, the minimum interval between doses is 28 days.
- Inactivated poliovirus vaccine (IPV): The childhood series is 4 doses. However, only 3 doses are needed for pre-teens and teens who received their third dose after 4 years of age, as well as pre-teens and teens in your care who have not received any doses. In all cases, a minimum interval of 6 months is needed between the last two doses.
- Measles-mumps-rubella vaccine (MMR): Complete the 2-dose series if not previously completed, with at least 28 days between doses.

A vaccine series does not need to be restarted, regardless of the time that has elapsed between doses. Refer to the CDC Catch-Up Immunization Schedule for more information.

Vaccine Information Statements

Vaccine Information Statements (VIS) are an excellent source of information for patients about the risks, benefits, and side effects of vaccines. **Federal law requires that VIS be given out before vaccines are administered.** To download any VIS, visit <http://www.cdc.gov/vaccines/pubs/vis/default.htm>

Vaccine Adverse Events Reporting System

Doctors and other health care professionals are encouraged to report any adverse events following administration of vaccines to the Vaccine Adverse Event Reporting System (VAERS), which is jointly administered by CDC and the U.S. Food and Drug Administration. Visit <http://vaers.hhs.gov> for more information or to file a report.

Vaccines for Children

The Vaccines for Children (VFC) program provides vaccines at no cost to professionals who serve eligible children. Children younger than 19 years of age are eligible for VFC vaccines if they are Medicaid-eligible, American Indian or Alaska Native or have no health insurance. Children who have health insurance that does not cover vaccination can receive VFC vaccines through Federally Qualified Health Centers or Rural Health Centers. VFC vaccines cannot be denied to an eligible child if a family can't afford the administration fee. For more information about participating in VFC, visit <http://www.cdc.gov/vaccines/programs/vfc/>