

## Section 4 Adolescent Preventive Health

### E. IMMUNIZATIONS

The immunization history is an important component of the adolescent's medical history. Most adolescents are unaware of the immunizations they have received in childhood, and their records may be incomplete. Immunization registries are useful, accurate sources of immunization information and records. Maryland has a registry known as **ImmuNet** that is an internet-based system that receives and stores childhood and adult immunizations. Providers may enroll free of cost. To obtain more information, contact an **Immunet** representative at **410-767-6606** or visit the [Immunet](https://www.mdimmunet.org/) website at <https://www.mdimmunet.org/>.

**The Baltimore City Immunization Registry Program** is a vaccine registry that may assist the Primary Care Provider (PCP) in obtaining the adolescent's immunization record when the immunization history offered by the adolescent or the parents is incomplete. If the adolescent attends a Baltimore City Public School, contact the **Baltimore Immunization Registry Program** at **410-545-3048**.

Another source of immunization records for adolescents that formerly lived in the District of Columbia is the **Washington DC Immunization Registry**. Providers can access the registry by calling **202-576-9301**.

Adolescents and young adults who have not received adequate immunizations are at significant risk for developing serious infections. Thus, the immunization history should be a priority for all adolescents at their initial preventive health care visit. Make every effort to gather all available medical information to determine whether additional immunizations are necessary. Positive titers for varicella, Hepatitis B, and polio can substitute for vaccination. Administer any vaccines needed to bring the immunization status up-to-date according to the current [Maryland Recommended Childhood Immunization Schedule](#) (Refer to Section 7, Appendix III).<sup>1</sup>

When administering combination vaccines, refer to the [Maryland Suggested Immunization Schedule Using Combination Vaccines](#) (Refer to Section 7, Appendix III).

To check the current immunization schedules for child care and school entry, follow the link: <http://phpa.dhmh.maryland.gov/OIDEOR/IMMUN/SitePages/back-to-school-immunization-requirements.aspx>.

For additional information, contact the [Center for Immunization](#)<sup>2</sup> by calling **410-767-6679** or e-mailing [DHMH.IZinfo@maryland.gov](mailto:DHMH.IZinfo@maryland.gov).

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<sup>1</sup> To access the most current schedule, follow the link: <http://www.marylandvfc.org/vfc-program-documents/>

<sup>2</sup> See <http://phpa.dhmh.maryland.gov/OIDEOR/IMMUN/SitePages/Home.aspx>.

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Assess adolescents for the following vaccines:

- **Varicella\***– Varicella virus vaccine should be administered to adolescents if they have not been vaccinated with **two** doses of the vaccine and do not have a reliable history of chicken pox. If the adolescent did not have the infection in childhood, they remain at risk for this infection. Adolescents who did not receive any previous Varicella vaccine must have two doses of Varicella vaccine. For children aged 7 through 12 years, the recommended minimum interval between doses is 3 months (if the second dose was administered at least 4 weeks after the first dose, it can be accepted as valid). For persons aged 13 and older, the recommended minimum interval between doses is 4 weeks. Adolescents who received only one prior dose of Varicella during childhood should receive another dose as an adolescent.
- **Tetanus and Diphtheria Toxoids and Acellular Pertusis (Tdap)\*** – The minimum age for Boostrix is 10 years and for Adacel is 11 years. Td boosters have long been recommended for long-lasting immunity against tetanus. Now a booster dose of Pertusis is also recommended for adolescents. Therefore, one dose of Tdap should be administered at 11-12 years of age and older, and a routine Td booster is recommended every ten years thereafter.
- **Hepatitis B\*** – The Advisory Committee on Immunization Practice (ACIP) recommends that hepatitis B vaccine be given to all adolescents who have not been previously vaccinated.<sup>3</sup> Hepatitis B may be transmitted by sexual contact and therefore all adolescents should be immunized against this infection. Assess every adolescent for the complete hepatitis B series. Adolescents, 11 to 15 years of age, may receive two doses of adult vaccine (Merck Recombivax HB only) with the 2<sup>nd</sup> dose administered 4-6 months after the first.
- **Hepatitis A\***– Immunize at risk adolescents with the hepatitis A vaccine, particularly if they live in areas where the average annual rate of hepatitis A infection is between 10 and 20 cases per 100,000. This vaccine requires two doses, separated by 6 to 18 months.
- **Influenza\*** – Influenza vaccine is recommended annually for all adolescents to 18 years of age and those 18 through 20 years of age with high-risk conditions (chronic pulmonary, cardiovascular and/or metabolic disease, renal dysfunction, hemoglobinopathies, or conditions associated with immunosuppression, including HIV infection).
- **Meningococcal conjugate vaccine\*** –Meningococcal conjugate vaccine is recommended for all adolescents at 11-12 years of age. Administer a single dose of Menactra or Monveo vaccine at age 11 through 12 years, with a booster dose at

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<sup>3</sup> ACIP (2005). *A Comprehensive Immunization Strategy to Eliminate Transmission of Hepatitis B Virus Infection in the United States-Part I: Immunization of Infants, Children and Adolescents*. Retrieved on 12/04/14, from <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5416a1.htm>

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age of 16 years. If the first dose is administered at age of 16 years or older, a booster dose is not needed. Adolescents aged 11 through 18 years with HIV infection should receive a 2-dose primary series of Menactra or Menveo with at least 8 weeks between doses. For instructions about the vaccination of adolescents with high-risk conditions, refer to ACIP Vaccine Recommendation at <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr6202a1.htm> Maryland law requires that individuals in Maryland institutions of higher education, residing in on-campus housing, be vaccinated against meningococcal disease, or sign a waiver.<sup>4</sup>

- **Pneumococcal Polysaccharide Vaccine** – Pneumococcal Polysaccharide vaccine is recommended for adolescents who have cerebrospinal fluid leak, cochlear implant; sickle cell disease and other hemoglobinopathies; anatomical or functional asplenia; congenital or acquired immunodeficiencies; HIV infection; chronic renal failure; nephritic syndrome; diseases associated with treatment with immunosuppressive drugs or radiation therapy, including malignant neoplasms, leukemias; lymphomas, and Hodgkin disease; generalized malignancy; solid organ transplantation; or multiple myeloma. It is also recommended for adolescents with chronic heart disease (particularly cyanotic congenital heart disease and cardiac failure), chronic lung disease (including asthma if treated with high-dose oral corticosteroid therapy), diabetes mellitus, alcoholism, or chronic liver disease. For the administration and dosage guidance, refer to the ACIP Vaccine Recommendations at <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6225a3.htm>.
- **Human Papillomavirus (HPV)\*** – Either the HPV2 (Cervarix) or HPV4(Guardasil) HPV vaccine is routinely recommended for adolescent and young adult females, with the first of 3 doses at 11-12 years of age on a schedule of 0,1-2, and 6 months. Either HPV2 or HPV4 may be administered on females, and only HPV4 may be used for males. The vaccines are used to prevent infection with specific HPV virus strains that are sexually transmitted and known to increase risk of cervical cancer. HPV4 also prevents two strains of HPV responsible for causing genital warts in women and penil and ano-rectal warts in men. Vaccinate older adolescents who did not complete the series earlier. Adolescent males may be vaccinated with the HPV4 series upon parental request.

\* Vaccines available from the VFC Program through age 18 years.

For more information about administering the vaccines, refer to [ACIP Vaccine Recommendations](http://www.cdc.gov/vaccines/hcp/acip-recs/index.html) at <http://www.cdc.gov/vaccines/hcp/acip-recs/index.html>.

### The Vaccines for Children (VFC) Program

It is very important to note that adolescents, younger than 19 years of age, are eligible to receive free vaccines from this program. Healthy Kids providers serving adolescents,

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<sup>4</sup> Maryland Health-General Code Ann. § 18-102 (2000).

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less than 19 years of age, are required to enroll in the [Maryland Vaccines for Children \(VFC\) Program](#) (Refer to *Section 3, The Vaccines for Children Program*).

The [VFC Program Contact Center](#) provides a full range of support for VFC Providers including answering questions related to VFC vaccine supply, vaccine delivery, vaccine allocations, and other related issues. To improve customer service, VFC Providers in each jurisdiction have been assigned a phone number to reach the VFC Contact Center: **410-274-6240 (Baltimore County, Baltimore City, Howard and Harford counties), 410-299-5647 (Frederick, Montgomery and Prince George's counties), and 410-404-4128 (all other counties)**. The VFC Center can be also reached by e-mail at [Zinfo.@dhmh.state.md.us](mailto:Zinfo.@dhmh.state.md.us) or by fax at **410-333-5893** (Refer to Section 8).

Note: For vaccines administered to MA recipients 19 through 20 years, bill the adolescent's MCO (or straight MA if the adolescent is in Fee-For-Service) (Refer to *Section 6, Billing and Encounter Data Reporting*).