

Section 4 Adolescent Preventive Health

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A. INTRODUCTION

Adolescence is characterized by marked physical, emotional, and intellectual changes, as well as by changes in social roles, relationships, and expectations. It is also a period of dynamic growth and presents the health care provider with many challenges and opportunities to identify, encourage, and reinforce positive health behaviors. The rapid growth and development in adolescence leads to changes in body proportions, size, weight and image, emotional changes, new sleep patterns and needs, developing sexuality and reproductive functioning, and influence from social/peer pressures. These changes represent a normal transition between childhood and adulthood, and adolescents experience these transitions in various ways. Primary Care Providers (PSPs) are required to offer comprehensive services according to the *Maryland Healthy Kids Program's Schedule of Preventive Health Care* (Refer to Section 2). The annual preventive care visit is an excellent opportunity to identify potential and actual health problems and develop a plan to maintain good health.

The Health Resources and Services Administration (HRSA), in its *Bright Futures in Practice Guide* for health supervision, defines the age range for adolescence as 11-21 years of age, subdivided into three stages: early (11-14 years); middle (15-17 years); and late (18-21 years).¹ Adolescence is a time of great resilience for many youths. During adolescence, many life-long patterns of behavior are established, including health promotion/disease prevention behaviors and care-seeking patterns. Preventable health problems in adolescence can become chronic health conditions in adulthood. Adolescent obesity, low-calcium intake, sexually transmitted diseases, smoking and substance use, for example, can all result in serious, long-term health conditions later in life.

The adolescent section addresses issues specifically related to providing comprehensive preventive care to adolescents. The *Maryland Healthy Kids Program Schedule of Preventive Health Care* summarizes the minimum standards of preventive care for all children and adolescents to 21 years of age (Refer to Section 2). For a more detailed explanation of the standards, refer to *Section 3 of the Healthy Kids Manual*. In addition, numerous other resources are used to provide clinical information in this section.

Maryland Minor Consent Law and Confidentiality

An important aspect of adolescent development is the gradual acquisition of independence from parents or guardians. Spending time alone with the adolescent during a portion of the interview is an effective way of giving the adolescent an opportunity to discuss his/her concerns. This allows the provider to assess sensitive issues and provides the opportunity to get to know the adolescent as an individual.

It is also important for the PCP to meet with the adolescent and family together to collect

¹See <http://www.brightfutures.org/mentalhealth/pdf/06BFMHAdolescence.pdf>.

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a comprehensive medical, family, and psychosocial history. Valuable information can be gathered regarding the family dynamics and relationships. Providers will gain insight about the parent's concerns during the health history. Additionally, the family needs to be a part of the solution to any identified problems, unless the adolescent considers them confidential. However, even confidential services may need to be discussed with parents under certain circumstances.

It is important to establish a sense of confidentiality with the adolescent within the confines of current Maryland law. Under the *Maryland Minor Consent Law*² adolescents are permitted to seek confidential services and information for sexually transmitted diseases (STIs), contraception, substance use, and pregnancy. The adolescent and the parents should be aware that the adolescent may choose to obtain these services without parental consent.

The *Maryland Minor Consent Law* also allows, but does not require providers to disclose information about services provided under the minor consent provision. This confidentiality provision helps providers establish and maintain trust with their adolescent patients without necessarily excluding parental involvement. Providers may have personal or professional limits to providing confidential services, and these limits should be discussed with the adolescent and his/her parent(s). For example, providers may elect to notify a parent when the adolescent's health or safety is at risk and the adolescent is not following through with the recommended treatment. Additionally, providers must disclose information regarding suicidal ideation, or whether the adolescent is a danger to self or others.

² Annotated Code of Maryland-Health General-§20-102

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B. HEALTH AND DEVELOPMENTAL HISTORY

Medical and Family History

For adolescents, the health history is an important tool for identifying health problems and risks. Both the medical and family history are important in order to obtain information relevant to health supervision, compile demographic information, and help the Primary Care Provider (PCP) develop a general understanding of the history, functioning, questions and concerns of the family. An adolescent history, in addition to history of illness, injuries, and hospitalizations, includes reproductive and gynecological history and assessments for substance use and mental health. The *Medical/Family History Questionnaire* (Refer to Section 7, Appendix I for the *English* and the *Spanish* versions) and the *Pediatric Visit Sheets* (Refer to Section 7, Appendix I) can be utilized to obtain the family and personal health histories. Updating these histories annually **is required** to help identify emerging health problems of significance to the adolescent.

On the initial visit with an adolescent, the practitioner should establish himself/herself as the adolescent's practitioner and focus on encouraging the adolescent to take responsibility for his/her personal health care. This empowers the adolescent to comply with recommendations and take responsibility for his/her personal progress.

Adolescents will often present with chief complaints that are unrepresentative of their true concerns. An adolescent presenting with mild acne or pelvic pain, in fact, may be afraid she is pregnant. An adolescent male with chest pains may be concerned about gynecomastia. Gentle but persistent exploration of the adolescent's concerns is often necessary before the true chief complaint is evident.

Psychosocial History and Developmental Surveillance

Healthy adolescent development is a complex and evolving process that requires supportive and caring families, peers, and communities; access to high quality services (health, education, social and other community services), and opportunities to engage in skill building activities to succeed in the developmental tasks of adolescence. Therefore, a comprehensive psychosocial history is required to determine the impact of the environment at home, at school, and in the community on the adolescent's physical health, development, and emotional well-being.

Significant changes in the adolescent's environment should be documented as part of the psychosocial history. The psychosocial history may include, but is not limited to new hobbies or activities, recent achievements in and out of school, separation or divorce of parents, recent death of a family member or friend, job loss of a family member, loss of a house or frequent moving, a recent birth in family, adolescent pregnancy, or exposure to violence in the home, school or community. It also should address certain environmental factors in the adolescent's household, such as smoking in the house, pets living in the house, and the general living conditions in the house.

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Adolescents are well past the age when traditional objective developmental tests of younger ages can be used. Therefore, providers need to assess the adolescent's progress toward independence and adulthood as part of the developmental surveillance. Assessment of grade level, school performance and/or job performance, extracurricular activities, peer relations and future plans are all components of adolescent developmental surveillance.

In addition, demonstrating a positive attitude toward family and community, and exhibiting a sense of self-confidence and resiliency when confronted with live stressors are important indicators of achieving developmental tasks. When problems are identified, the provider should refer the adolescent for specialty services appropriate to the problem. Referral to school counseling services may be helpful in assisting the adolescent when school related problems are identified.

Providers can use the *HEEADSSS (Home, Education/Employment, Eating, Activities, Drugs, Sexuality, Suicide/Depression, and Safety)* tool to assess the adolescent's psychosocial and developmental status (Refer to Section 4, Addendum).³ Using the *HEEADSSS* framework, providers can discuss many sensitive issues that are potential threats to good health, such as initiation of drug use. The adolescent can complete this assessment questionnaire prior to the medical interview, and the provider can use it to trigger a dialog and elicit further information during face-to-face interview.

Mental Health Assessment

During the transition to adulthood, young people experience many emotional challenges that have a significant impact on their character and personal development. Annual preventive health visits are important opportunities to identify early evidence of mental health problems that emerge during this time of growth and change. Similarly, behaviors such as eating disorders or drug/alcohol abuse often begin during adolescence.

It is the responsibility of the PCP to conduct a mental health assessment at each adolescent preventive health visit to identify risks associated with behavioral or emotional problems.

Validated screening tools, such as *PHQ-9 Modified for Teens (PHQ-Modified)* and the *Pediatric Symptom Checklist (PSC-Y)* should be used for adolescents 11 – 18 years of age. They were developed by Columbia University and are brief questionnaires that the adolescents can complete in the waiting or exam rooms (Refer to Section 4, Addendum).

³ Klein, D., Goldenring, D., & Adelman, W. (2014) HEEADSSS 3.0: The psychosocial interview for adolescents updated for a new century fueled by media. *Contemporary Pediatrics*. Retrieved on 10/29/2014, from http://contemporarypediatrics.modernmedicine.com/sites/default/files/images/ContemporaryPediatrics/cn_tped0114_Feature%201%20Hi-Res.pdf

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PCPs can use these screening tools to help evaluate whether an adolescent is suffering from depression, anxiety, or other conditions. When identified early, adolescents with mental illness have the best chance to lead healthy lives and reach their full potential.

Providers can also use the age-specific *Mental Health Questionnaires*, developed by the Maryland Healthy Kids Program, in collaboration with the DHMH Mental Hygiene Administration, to assist with this assessment (Refer to Section 7, Appendix II for the *English* and *Spanish* versions).

Note the results of the mental health assessment in the adolescent's medical record. In some cases, when a mental health problem is identified, the PCP can counsel the patient and note it in the record. However, when specialty mental health services are needed, refer the patient directly to the **Maryland Public Mental Health System** by contacting **1-800-888-1965 (consumers and providers)**. Access additional mental health information and resources online at: <http://www.beaconhealthoptions.com>. Document the referral in the medical record.

Maryland Behavioral Health Integration in Pediatric Primary Care (B-HIPP) is a free service for PCPs caring for patients with mental health needs from infancy through the transition to young adulthood. It provides support to PCP through four main components: telephone consultation, continuing education, resource and referral networking and social work co-location. For more information, refer to B-HIPP website at www.mdbhipp.org at or call **855-632-4477**.

Bright Futures in Practice, in a series of publications from the Maternal and Child Health Bureau and the National Center for Education in Maternal & Child Health, provides additional information regarding mental health assessment for children and adolescents. Information regarding mental health assessment can be found on the *Bright Futures* website at <http://brightfutures.aap.org>.

Depression/Suicide

A review by the National Adolescent Health Information Center found that the most common mental health disorder among adolescents is depression.⁴ Adolescents with unidentified mental health disorders have poorer physical health and engage in more risky behaviors. Both the Institute of Medicine (IOM)⁵ and United States Preventive

⁴National Adolescent Health Information Center.(2008). *The Mental Health of Adolescents: A National Profile, 2008*. Retrieved on 10/29/14, from <http://nahic.ucsf.edu/downloads/MentalHealthBrief.pdf>

⁵Institute of Medicine (2009). *Preventing Mental, Emotional and Behavioral Disorders Among Young People: Progress and Possibilities*. Retrieved on 10/29/2014, from http://www.nap.edu/catalog.php?record_id=12480

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Services Task Force (USPSTF)⁶ recommend that physicians in primary care settings screen adolescents for major depressive disorders with its associated potential for suicide. Using a validated screening tools, such as *PHQ-9 Modified for Teens (PHQ-Modified)* and the *Pediatric Symptom Checklist (PSC-Y)* will help early identification and treatment of adolescent depression (Refer to Section 4, Addendum).⁷ PCPs should also educate families about signs of depression in children and adolescents (Refer to Section 3, *Depression in Children*). For more information, review to the endorsed by *AAP Guidelines for Adolescent Depression in Primary Care (GLAD-PC) I*⁸ and *GLAD-PC II*⁹ and the *AAP Policy on Suicide and Suicide Attempts*.¹⁰

The American Medical Association's *Guidelines for Adolescent Preventive Services (GAPS)* also recommends annual screening of adolescents about behaviors or emotions that indicate recurrent or severe depression or risk of suicide. A copy of the GAPS recommendations and an algorithm for suicide and depression can be obtained from the *American Medical Association (AMA)* website at <http://www.ama-assn.org/ama>.

Eating Disorders

Concerns about weight related issues including over-eating, bingeing, and purging, and excessive dietary restriction may increase during adolescence. Eating disorders such as anorexia nervosa and bulimia nervosa are chronic illnesses that can lead to long-term medical consequences. Because eating disorders are prevalent in middle childhood and adolescence, it is important for the PCP to screen for them. For additional information on eating disorders, and how to assess them, refer to the *Bright Futures* website at <http://brightfutures.aap.org/> and the 2010 *AAP Guidelines on Identification and*

⁶USPSTF (2009) *Final Recommendation Statement: Depression in Children and Adolescents (2009)*. USPSTF Retrieved on 10/15/14, from <http://www.uspreventiveservicestaskforce.org/Page/Topic/recommendation-summary/depression-in-children-and-adolescents-screening>

⁷ National Institute for Health Care Management (NIHCM). (2010). *Improving Early Identification & Treatment of Adolescent Depression: Considerations & Strategies for Health Plans*. Retrieved on 10/29/14, from http://www.nihcm.org/pdf/Adol_MH_Issue_Brief_FINAL.pdf

⁸ American Academy of Pediatrics. (2007). Guidelines for Adolescent Depression in Primary Care (GLAD-PC):I. Identification, Assessment, and Initial Management. *Pediatrics*.120(5), 1299-1312. Retrieved on 10/29/2014, from <http://pediatrics.aappublications.org/content/120/5/e1299.abstract>.

⁹ AAP. (2007). Guidelines for Adolescent Depression in Primary Care (GLAD-PC): II. Treatment and Ongoing Management. *Pediatrics*. 120(5), 1313-1326. Retrieved on 10/29/2014, from <http://pediatrics.aappublications.org/content/120/5/e1313.full>

¹⁰ AAP. (2007). Suicide and Suicide Attempts in Adolescents. *Pediatrics*. 120 (3), 669-676. Retrieved on 10/29/2014, from <http://pediatrics.aappublications.org/content/120/3/669.full>

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Management of Eating Disorders in Children and Adolescents.¹¹ Once identified, it is important that treatment be initiated. Treatment of adolescents with eating disorders optimally takes place with the support of an interdisciplinary team, including a primary care health professional, a dietitian, a dentist and mental health professional. Contact the adolescent's Managed Care Organization (MCO) for assistance with referrals.

Attention Deficit Hyperactive Disorder (ADHD)

ADHD is a disorder characterized by behavior and attention difficulties exhibited in multiple settings. It begins in childhood and is identified by specific attention, hyperactivity and impulsiveness criteria found in the *American Psychiatric Association's Diagnostic and Statistical Manual (DSMIVR)*.¹² ADHD is relatively common affecting up to 11% of children/adolescents.¹³ However, some adolescents may not be diagnosed and treated early in childhood and are at risk for school failure, substance abuse, and depression. In its most recent guidelines, AAP expanded the age range for diagnosis and treatment of ADHD to include preschool-aged children and adolescents. Currently, the AAP guideline addresses the diagnosis and treatment of ADHD in children 4 through 18 years of age.¹⁴

The overall approach to diagnosing an adolescent with ADHD involves the following:

- A comprehensive interview with the adolescent's parent or guardian,
- A mental status examination of the adolescent,
- A medical evaluation for general health and neurological status,
- A cognitive assessment of ability and achievement,
- Use of ADHD-focused parent and teacher rating scales,
- School reports and other adjunctive evaluations separate from the school reports such as speech, language assessment, etc.

¹¹ AAP. (2010). Identification and Management of Eating Disorders in Children and Adolescents. *Pediatrics*, 26(6). 1240-1253. Retrieved on 10/29/2014, from <http://pediatrics.aappublications.org/content/126/6/1240.full>

¹² Diagnostic and Statistical Manual of Mental Disorders.(2013). 5th edition. Arlington, VA., *American Psychiatric Association*

¹³ Centers for Disease Control and Prevention (CDC). Key Findings: Trends in the Parent-Report of Health Care Provider-Diagnosis and Medication Treatment for ADHD: United States, 2003—2011 Retrieved on 10/30/2014 from <http://www.cdc.gov/ncbddd/adhd/features/key-findings-adhd72013.html/>

¹⁴ AAP. (2011). ADHD: Clinical Practice Guidelines for the Diagnosis, Evaluation, and Treatment of Attention-Deficit/Hyperactivity Disorder in Children and Adolescents. *Pediatrics*. 128(5), 1007-1022. Retrieved on 10/31/20014, from <http://pediatrics.aappublications.org/content/128/5/1007.full.pdf>

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A clinician with skills and knowledge in the area of mental health, developmental or behavioral pediatrics must perform the ADHD evaluation. A provider who specializes in developmental or behavioral pediatrics can become a specialty mental health provider through Maryland Medical Assistance by registering with the *Community Mental Health Unit* at the *DHMH Office of Health Care Quality* (MHA). To print the *Community Mental Health Program Application*, follow the link: http://dhmh.maryland.gov/ohcq/MH/docs/MH_Forms/mh_app.pdf. For more information, call the **Community Mental Health Unit** at **877-402-8220/410-402-8060** or visit their webpage at: <http://dhmh.maryland.gov/ohcq/MH/default.aspx>.

An adolescent diagnosed with ADHD without any accompanying emotional disorders can receive care from a primary care provider for management of medications. Medication is one component in the treatment of ADHD and does not appear to increase the likelihood of future cigarette smoking or substance abuse. Additionally, adjunctive services may improve an adolescent's outcome. Teaching and reinforcing organizational skills and social skills are interventions that can significantly improve outcomes. Ongoing contact and follow-up with the parents of an adolescent with ADHD who is on medication is a critical component of the medication management.

ADHD is classified as a mental health disorder, possibly requiring multiple therapeutic approaches. A number of psychiatric conditions frequently occur with ADHD, i.e. mood disorder, conduct disorder, oppositional defiant disorder and bipolar disorder, possibly requiring multiple therapeutic approaches (Refer to Section V, *Public Mental Health System*). If the adolescent's behavior changes significantly, reevaluation is necessary through a mental health referral by calling **Maryland Public Mental Health System** at **1-800-888-1965** (consumers and providers). Access additional mental health information and resources online at: <https://www.beaconhealthoptions.com/>

Violence

PCPs are often the first health professionals to become aware of violence in the adolescent's family, school, and/or community. A violence risk assessment is recommended annually using questions concerning violence, access to guns, and potential violence in personal relationships (sexual assault, partner violence). Advise parents and guardians to avoid the use of physical punishment as a means of resolving conflicts with children and adolescents.

Bullying and Cyber-bullying

Bullying including cyber-bullying is of increasing concern in the pediatric population. Health care providers should:

- Ask children and adolescents about their experiences, if any, regarding bullying and cyber bullying,
- Provide information in their offices for families to educate them on this topic,

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- Encourage children and adolescents to "report" if they are victims so that appropriate referrals can be initiated,
- Encourage parents to work with schools to promote awareness, prevention, and appropriate intervention.

For more information on youth violence including bullying and dating violence, review *2009 AAP Policy on the Role of Pediatrician in Youth Violence Prevention*.¹⁵ A specific assessment tool measuring bullying victimization is the *Victimization Scale* (refer to Section 7, Appendix II for the *English* and *Spanish* versions of the tool). For other assessment tools, see *Measuring Bullying Victimization, Perpetration, and Bystander Experiences: A Compendium of Assessment Tools*, published by the Centers for Disease Control and Prevention (CDC) in 2011.¹⁶

Physical and Sexual Abuse

In addition to the signs of physical abuse, noted in *Section 3 of the Manual*, be alert for signs of possible sexual abuse in both males and females and, when indicated, screen for sexually transmitted diseases by using the *Preventive Screen Questionnaire* (Refer to Section 7, Appendix II).. Possible signs of sexual abuse may include the following:

Direct Evidence

- Injury
- Infections including sexually transmitted infections
- Pregnancy

Indirect Evidence

- Behavior disorders
- Running away
- Substance use
- Physical complaints
- Depression/suicidal behavior

In Maryland, *Subtitle 7 of the Maryland Family Law Code Annotated* requires professionals, including health practitioners, police officers, educators, and social

¹⁵ See AAP. (2009). Role of Pediatrician in Youth Violence Prevention. *Pediatrics*. 124(1), 393-402. Retrieved on 06/03/2015, from <http://pediatrics.aappublications.org/content/124/1/393.full>

¹⁶ See CDC (2011). *Measuring Bullying Victimization, Perpetration, and Bystander Experiences: A Compendium of Assessment Tools*. Retrieved on 06/03/2015, from <http://www.cdc.gov/violenceprevention/pdf/bullycompendium-a.pdf>

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workers, to report suspected child abuse or face possible professional sanctions.¹⁷ The law mandates that primary care providers should report any suspected abuse or neglect to the local *Department of Social Services* (Refer to Section 8) or the police. Providers are to identify the potential conditions for abuse and make appropriate referrals for assistance (Refer to Section 3, *Child Abuse Assessment*).

A minor may disclose violent or sexually exploitive behavior such as dating violence, sexual assault, or sexual activity with a partner who is significantly older and is neither a family or household member, nor an individual with any past or present responsibility for the care or supervision of the minor. When this occurs, the client should be advised that the provider and/or staff are there to help any adolescent who requests assistance. The adolescent may need support in seeking the involvement of a parent or family member and/or in accessing community resources, including law enforcement or emergency medical facilities and shelters.

Substance Use Disorder Assessment

Because of the increased number of young adolescents and young adults using drugs and alcohol in our society, primary care providers are in a unique position to identify substance abuse during routine office visits and offer appropriate treatment.^{18, 19} The Maryland Healthy Kids Program requires that any provider seeing Medicaid children perform yearly assessment for substance abuse beginning at 12 years of age and recommends assessment at earlier ages when the provider suspects problems.

Use of a standardized tool for screening for substance abuse is strongly recommended.²⁰ The *CRAFFT* (*C*ar, *R*elax, *A*lone, *F*orget, *F*riends, *T*rouble) is a brief, self-administered, validated, adolescent substance abuse screening tool (Refer to Section 7, Appendix II for both *English* and *Spanish* language versions of the tool). For availability of CRAFFT in other languages, refer to the *Center for Adolescent Substance Abuse Research* website at

¹⁷ 2010 Maryland Code Family Law Title 5 - Children Subtitle 7 - Child Abuse and Neglect Section 5-704

¹⁸ AAP Policy on Tobacco, Alcohol, and Other Drugs: The Role of the Pediatrician in Prevention, Identification, and Management of Use. (2005) *Pediatrics*.115(3). 816–821. Reaffirmed March 2013. Retrieved on 08/18/2014, from <http://pediatrics.aappublications.org/content/115/3/816.full>

¹⁹ AAP Policy on Alcohol Use by Youth and Adolescents: A Pediatric Concern. (2010). *Pediatrics*. 125(5), 1078-1087. Retrieved on 10/31/2014, from <http://pediatrics.aappublications.org/content/125/5/1078.full>

²⁰ AAP Policy Statement: Substance Use Screening, Brief Intervention, and Referral to Treatment for Pediatricians. (2011). *Pediatrics*. 128 (5). 1330 -1340. Retrieved on 08/18/2014, from <http://pediatrics.aappublications.org/content/128/5/e1330.full?sid=f5722c8f-0064-40c2-927f-da32a3a674ef>

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<http://www.ceasar-boston.org/>. Both physicians and general clinicians may administer the tool. The *CRAFFT* can assist primary care providers to determine which adolescent patients are appropriate for brief office interventions and those that need prompt referral to substance abuse specialists.

One positive answer indicates further assessment of quantity and frequency of substance use is needed. If an incident happened only once, three years ago, then it may not be cause for great concern. However, if the substance abuse occurred several times during the past year, then the situation warrants additional follow-up.

Two or more “yes” answers on the *CRAFFT* indicate that the adolescent is at risk for substance abuse, requiring further assessment, counseling, and/or referral that should be documented in the adolescent’s record.

Access additional substance abuse health information and resources online at: <https://www.beaconhealthoptions.com/>.

Common Indicators of Adolescent Drug and Alcohol Abuse *

- Changes in school attendance and grades,
- Unusual flare-ups or outbreaks of temper,
- Poor physical appearance (often becomes slovenly),
- Furtive behavior regarding drugs (especially when in possession),
- Wearing of sunglasses at inappropriate times to hide dilated or constricted pupils,
- Long-sleeved shirts worn consistently to hide needle marks (if injecting drugs),
- Association with known drug abusers,
- Borrowing money from students to purchase drugs,
- Stealing small items from school or home,
- Hiding in odd places; i.e., closets, storage area, to take drugs,
- Attempting to appear inconspicuous in manner and appearance to mask usage,
- Withdrawal from responsibility,
- Change in overall attitude – depression, low self-esteem, poor social skills, and school problems.

** Note that some of these changes may occur in normal adolescents or result from other problems.*

A “diagnostic” referral for addiction treatment will either rule out a problem or identify the problem at an early stage before the adolescent reaches the disease stage of alcohol or

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substance abuse. Treatment is much more likely to succeed when the problem is identified at an early stage.

Tobacco

Tobacco use continues to be a health care concern among children and adolescents. Therefore, providers who see adolescents should screen adolescents for tobacco use, offer smoking cessation advice and interventions to both adolescents and parents, and teach the importance of decreasing exposure to second hand smoke.^{21, 22}

²¹ Tobacco, Alcohol, and Other Drugs: The Role of the Pediatrician in Prevention, Identification, and Management of Use. (2005) *Pediatrics*.115(3). 816–821. Reaffirmed March 2013. Retrieved on 08/18/2014, from <http://pediatrics.aappublications.org/content/115/3/816.full>

²² AAP Policy on Tobacco Use: A Pediatric Disease. (2009). Reaffirmed 05/2013. *Pediatrics*. 124(5), 1474-1487. Retrieved on 10/31/2014, from <http://pediatrics.aappublications.org/content/124/5/1474.full>

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C. COMPREHENSIVE PHYSICAL EXAMINATION

As with younger children, a complete physical examination that includes a minimum of five systems is required each year for all adolescents (Refer to Section 3, *Unclothed Physical Examination by Systems*). Additionally, the physical examination provides an excellent opportunity to educate the adolescent about his or her changing body. For example, the adolescent female may be taught to perform routine breast examinations, or the young adolescent male may be reassured about genital development. The adolescent may also raise concerns not mentioned during the initial interview. The true chief complaint may, in fact, be revealed during the physical examination.

The US Preventive Task Force recommends that a woman should have her first cervical cancer screening (Pap smear) at 21 years of age, no matter when she became sexually active. This recommendation is based in part on the very low incidence of invasive cancer and the potential for adverse effects of the follow-up of abnormal cytology screening results.²³

Indications for pelvic examinations prior to age 21 are noted in the 2010 AAP statement “*Gynecologic Examination for Adolescents in the Pediatric Office Setting*”.²⁴

A provider may still wish to refer a sexually active adolescent for reproductive health services including contraception. The adolescent should be given the name of the provider and a referral for services. Coordination of such services remains the responsibility of the primary care provider.

Vision and Hearing Assessments

At least a gross assessment of hearing and vision is required as part of every adolescent preventive care visit. An objective testing is required at ages of 12, 15, and 18. Document results of a gross assessment based on provider observation and questioning of the adolescent’s ability to see and hear. Objective vision and hearing results from the school can be documented in the medical record as a sufficient assessment (Refer to Section 3, *Hearing Assessment and Vision Assessment*).

²³ See U.S. Preventive Services Task Force. (2012). Cervical Cancer: Screening. Retrieved on 11/24/14, from <http://www.uspreventiveservicestaskforce.org/uspstf/uspscerv.htm>

²⁴ Gynecologic Examination for Adolescents in the Pediatric Office Setting. (2010). *Pediatrics*. 126 (3), 583-590. Retrieved on 09/05/2014, from <http://pediatrics.aappublications.org/content/pediatrics/126/3/583.full.pdf>.

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Blood Pressure Measurements

The Maryland Healthy Kids Program requires assessment of blood pressure on the yearly adolescent visit with documentation in the medical record according to recommended standards (Refer to Section 3, *Blood Pressure Measurements*).²⁵

For further guidance, refer to the 2004 *Fourth Report on the Diagnosis, Evaluation, and Treatment of High Blood Pressure in Children and Adolescents* at http://www.nhlbi.nih.gov/files/docs/resources/heart/hbp_ped.pdf and the 2011 *Expert Panel on Integrated Guidelines for Cardiovascular Health and Risk Reduction in Children and Adolescents* at http://www.nhlbi.nih.gov/files/docs/peds_guidelines_sum.pdf.

Height, Weight, and BMI Measurements

Early adolescence is a time of considerable change in body stature. Plotting weight and height for age allows comparison with all adolescents the same age and is the best initial indicator of growth problems. The use of Body Mass Index (BMI) is required to monitor changes in body weight and to consistently assess risk of underweight and obesity in children and adolescents from 2 to 20 years of age. Calculate BMI using the English or metric formula, or by using *BMI Percentile Calculator for Child and Teen* located at the following link: <http://nccd.cdc.gov/dnpabmi/>. Once BMI is calculated, plot the result on gender specific *BMI-for-Age Growth Charts*, available from the CDC, to determine the BMI-for-age and gender percentile (Refer to Section 7, Appendix I). It is important to review and interpret the results of the automatic BMI calculations provided by electronic medical records (EMR) or electronic health records (EHR) used in many practices today. Provider interpretation of results is paramount in identifying overweight and obese children and those at risk for obesity related complications.

How to Calculate Body Mass Index (BMI)

English Formula: **BMI = weight (lb) ÷ [height (in)]² x 703**

Metric Formula: **BMI = weight (kg) ÷ [height (cm)]² x 10,000**

What do BMI-for-age and gender percentiles mean?

≥99th percentile..... “Morbid” Obesity
95th to 98th percentile..... Obesity
85th to 94th percentile..... Overweight
5th to 84th percentile..... Healthy weight
<5th percentile..... Underweight

²⁵ See http://www.nhlbi.nih.gov/files/docs/bp_child_pocket.pdf

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An excellent learning module on overweight and obesity in children and adolescents and the use and interpretation of the CDC growth charts can be found on the CDC web site: http://www.cdc.gov/healthyweight/assessing/bmi/childrens_bmi/about_childrens_bmi.html.

BMI-for-age and gender is an effective screening tool, but it is not a diagnostic tool. Adolescents who fall into the following categories need further assessment.

- If BMI is below fifth percentile, assess for acute or chronic illnesses that can lead to underweight.
- If BMI is between 85th and 94th percentiles, child is overweight and needs further screening.
- If BMI is at or above 95th percentile for age and sex, the child is obese and needs in-depth medical and dietary assessment according to current guidelines.²⁶

Nutritional Assessment

As children enter adolescence, many of them become more independent with respect to food choices and food preparation. Adolescents spend less time at home; therefore, they eat more commercially prepared foods (“fast food”). Some adolescents will restrict their intake; still others will consume excessive amounts of food. As a result, many young people are at risk for health problems related to poor eating patterns such as eating disorders and obesity.

Ask questions regarding current dietary habits when taking the medical history. During the physical examination, take time to measure the patient’s weight in an examination gown to standardize the measurements. Track height, weight, and Body Mass Index (BMI) longitudinally, in order to monitor trends over time. This is essential for the early identification of eating disorders and obesity.

During the nutritional assessment, the provider should ask open-ended questions that permit the adolescent and the parents to describe their current behaviors, their level of physical activity, and their attitudes about their weight and body appearance. Use the *Nutrition Questionnaire* (Refer to Section 7, Appendix II) as an opportunity to identify adolescents at risk for eating disorders and intervene early to prevent their onset.²⁷ Additional nutrition and physical activity assessment tools with guidelines for

²⁶ Expert Committee Recommendations Regarding the Prevention, Assessment, and Treatment of Child and Adolescent Overweight and Obesity: Summary Report. (2007). *Pediatrics*. 120 (4) 164-192. Retrieved on 08/18/2014 from http://pediatrics.aappublications.org/content/120/Supplement_4/S164.full?sid=96871aff-5e0c-4c9b-ad26-d97d2b61e47b

²⁷ See http://brightfutures.aap.org/Nutrition_3rd_Edition.html

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interpreting responses are also available on the *Bright Futures* web site at <http://www.brightfutures.org/physicalactivity>.

Nutritional Education

Provide all adolescents and their caregivers with anticipatory guidance on nutrition according to the age and developmental stage of the child. Guidance can include discussion of the following:

- Nutritional needs of adolescents
- Development of healthful eating and activity habits in school-age children and adolescents

Use the *Dietary Guidelines for Americans*²⁸ and the *My Plate*²⁹ as guides for children and adolescents to select healthy foods for meals and snacks (Refer to Section 7, Appendix IV). Further nutrition and physical activity education should include the following evidence-based messages for all children regardless of age:

- Limit sugar-sweetened beverages
- Fill half the plate with fruits and vegetables. Grains and proteins should each incorporate less than one quarter of the plate. Dairy should include fat-free or low fat milk or yogurt products.
- Eat breakfast every day
- Limit eating out, especially fast food
- Have regular family meals
- Limit portion sizes
- Engage in moderate to vigorous physical activity for at least 60 minutes a day
- Limit screen time to no more than 2 hours/day
- Remove television from children's bedrooms

²⁸ See <http://www.health.gov/dietaryguidelines/>

²⁹ See <http://www.choosemyplate.gov/>

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Obesity in Adolescence

Obesity is a pressing national health concern. Most children and adolescents who are overweight are at risk for becoming obese adults. Adolescence is a critical time to prevent the development of excess weight and reverse unhealthy weight gain. Work with adolescents to establish healthy behaviors, and undo or prevent negative behaviors before they become established. Adolescents with a genetic predisposition to gain weight are more likely to become overweight if they are sedentary and consumers of high-fat, high-calorie diets. Although some adolescents exercise, many do not. Obesity affects both the physical and mental health of the adolescent. Every overweight adolescent should have a thorough history and physical examination to rule out the less common causes of obesity. Simple nutritional recommendations from the primary care physician may be helpful or a nutritional consultation may be necessary. Contact the adolescent's MCO to refer to a licensed dietician or nutritionist within the MCO specialty network. For assistance in locating Medicaid enrolled nutritionists/dieticians who accept referrals for fee-for-service, contact the **Division of Children's Services** at **410-767-1903**.

Medical Management of Overweight and Obesity in Adolescents

The 2007 *Expert Committee Recommendations Regarding the Assessment, Prevention, and Treatment of Child and Adolescent Overweight and Obesity* provide guidance on management of weight in all children.³⁰ **Primary care physicians are urged to implement Step 1, Obesity Prevention at Well Care Visits at least once a year.** Obesity prevention includes the following:

- Assess key dietary habits (e.g., consumption of sweetened beverages)
- Assess physical activity habits
- Assess readiness to change lifestyle habits
- Conduct a focused family history of obesity and obesity-related illnesses

Laboratory testing recommendations depend on the degree of obesity and associated risk factors as follows:

- Adolescents with a body mass index between the 85th and 94th percentiles, but who have no obesity-related risk factors should receive a fasting lipid profile blood test
- Adolescents 10 years of age or older who have a body mass index between the 85th and 94th percentiles with obesity-related risk factors should have additional testing for liver function (ALT and AST) and fasting blood glucose

³⁰ Expert Committee Recommendations Regarding the Prevention, Assessment, and Treatment of Child and Adolescent Overweight and Obesity: Summary Report. (2007). *Pediatrics*. 120 (4) 164-192. Retrieved on 08/18/2014 from http://pediatrics.aappublications.org/content/120/Supplement_4/S164.full?sid=96871aff-5e0c-4c9b-ad26-d97d2b61e47b

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- Adolescents 10 years of age or older with a BMI above the 95th percentile should also have measurement of blood urea nitrogen and creatinine levels

A four-stage approach to treatment of childhood obesity is recommended and includes advising parents and adolescents to:

- Limit consumption of sweetened beverages and fast food
- Limit the amount of screen time (TV and Computers) per day
- Increase physical activity for at least 60 minutes per day
- Eat family meals on most, and preferably all, days of the week

For more details, refer to the *Implementation Guide from the Childhood Obesity Action Network* (Refer to Section 3, Addendum). It combines key aspects of the 2007 Expert Commission Recommendations and 2006 practice tools identified by the *National Institute for Children's Health Quality*.³¹

Additional information on these recommendations can be found at:

- The First Lady *Let's Move* initiative at <http://www.letsmove.gov/>
- *National Institute for Children's Health Quality* at www.nichq.org
- CDC web page on *Obesity and Overweight: Strategies and Solutions* at <http://www.cdc.gov/obesity/childhood/solutions.html>
- The National Institutes of Health *We Can* campaign at <http://www.nhlbi.nih.gov/health/educational/wecan/>.

Type 2 Diabetes Mellitus

Another emerging health issue is the growing number of adolescents and preadolescents with Type 2 Diabetes Mellitus (T2DM). As the prevalence of obesity increases, so does the incidence and prevalence of T2DM. Most adolescents with T2DM have a BMI over the 85th percentile. Many adolescents with T2DM may present with asymptomatic hyperglycemia or glycosuria. Adolescents with T2DM are usually diagnosed in middle to late adolescence. Overweight adolescents who do not develop diabetes in adolescence may develop it later as adults.

The American Diabetes Association recommends a fasting glucose test every three years for children starting at 10 years of age or at onset of puberty if puberty occurs earlier, and who have two of the following risk factors:

- Are overweight (BMI > 85th percentile for age and sex),
- Have a family history of T2DM in first and second degree relatives, or

³¹ See <http://www.nichq.org/>

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- Belong to certain ethnic groups (American Indians, African-Americans, Hispanic Americans, Asian/South Pacific Islanders)
- Have signs of insulin resistance or conditions associated with insulin resistance (acanthosis nigricans, hypertension, dyslipidemia, polycystic ovarian syndrome, or small-for-gestational-age birth weight)
- Have maternal history of diabetes or GDM during the child's gestation. ³²

For the treatment of T2DM in children and adolescents, refer to *2013 AAP Guidelines on the Management of Newly Diagnosed Type 2 Diabetes Mellitus (T2DM) in Children and Adolescents*.³³

³² American Diabetes Association. Standards of medical care in diabetes--2014. (2014). *Diabetes Care*. 37(1), 14-80. Retrieved on 11/14/2014, from http://care.diabetesjournals.org/content/37/Supplement_1/S14.full.pdf+html

³³ American Academy of Pediatrics. 2013 AAP Guidelines on the Management of Newly Diagnosed Type 2 Diabetes Mellitus (T2DM) in Children and Adolescents. (2013). *Pediatrics*. 131, 364-382. Retrieved on 11/14/2014, from <http://pediatrics.aappublications.org/content/early/2013/01/23/peds.2012-3494.full.pdf+html>

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D. LABORATORY TESTS

Health Risk Assessments

Age-appropriate health risk assessments are a required element of the laboratory component for the adolescent population and include assessment for risk of tuberculosis, elevated cholesterol and heart disease, STIs and HIV. When risk factors are identified, document counseling, and referral for testing in the medical record. If the test results are abnormal, document appropriate follow-up: counseling, further testing and/or referral to a specialist.

Tuberculosis Risk Assessment

The Maryland Healthy Kids Program requires an annual risk assessment by questionnaire instead of routine skin testing. The *Preventive Screen Questionnaire* (Refer to Section 7, Appendix II for the *English* and *Spanish* versions) may be used to assess risk for TB on every adolescent preventive care visit. Routine skin testing **is not required** and should be conducted only when a risk of exposure is determined by questionnaire. For more information refer to *Section 3, Tuberculosis Risk Assessment*).

Heart Disease/Cholesterol Risk Assessment

With the increasing concern of overweight and obesity in adolescents, assessment by questionnaire for potential heart disease is warranted. The Healthy Kids Program requires assessment for risk of heart disease and hypercholesterolemia at every adolescent preventive care visit. The *Preventive Screen Questionnaire* (Refer to Section 7, Appendix II for the *English* and *Spanish* versions) is available to assist in performing this risk assessment. Document results of the screen, and if positive, obtain a baseline blood cholesterol level. Appropriate follow-up of elevated blood cholesterol levels includes further testing, counseling and/or referral for specialty services when indicated (Refer to *Section 3, Cholesterol/Heart Disease Risk Assessment*).

Effective January 1, 2016, the DHMH added a new requirement of dyslipidemia lab tests. One test is required between the ages of 9-11, and a second one between the ages of 18-21. For more information, refer to the AAP-endorsed 2011 *Expert Panel on Integrated Guidelines for Cardiovascular Health and Risk Reduction in Children and Adolescents* at http://www.nhlbi.nih.gov/files/docs/peds_guidelines_sum.pdf

STI/HIV Risk Assessment

The Maryland Healthy Kids Program currently requires that primary care providers (PCPs) conduct risk assessments for Sexually Transmitted Infections and Human Immunodeficiency Virus (STI/HIV) at each preventive health care visit beginning at 12

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years of age, or younger if the adolescent is sexually active. The *Preventive Screen Questionnaire* (Refer to Section 7, Appendix II for the *English* and *Spanish* versions) is available to assist with this assessment. Document results of the assessment in the medical record. PCPs may refer their female patients to a gynecologist but are still required to obtain a STI/HIV risk assessment.

The U.S. Preventive Services Task Force recommends that PCPs counsel adolescents regarding measures to prevent STIs based on the risk factors, needs, and intellectual abilities of each patient. PCPs should also communicate effectively with patients regarding healthy sexual behaviors and risks of STIs during the annual preventive health care visit and any other clinical encounter.³⁴

Young people (ages 15-24) are at highest risk for STIs, accounting for half (50 percent) of all new STIs, although they represent just 25 percent of the sexually experienced population. While the consequences of untreated STIs are often worse for young women (infertility, ectopic pregnancy and chronic pelvic pain), SDC surveillance data reveals that the annual number of new infections is roughly equal among young women and young men (49 percent of incident STIs occurs among young men, vs. 51 percent among young women).³⁵ Among women, adolescent females 15 to 24 years of age are at highest risk for most bacterial and viral STIs. For example, the prevalence of chlamydia in women aged 14 to 19 years is nearly 5%, the highest proportion of any age group.³⁶ Other adolescents at high risk for STIs include male homosexuals and bisexuals, adolescents with multiple sexual partners in the last three months, and adolescents with a history of drug and/or alcohol abuse. All sexually active adolescents should be counseled and tested for all STIs/HIV or referred for testing as a routine part of preventive care.³⁷

Counseling of adolescents regarding HIV prevention includes an assessment of sexual and drug-using behaviors associated with high risk of HIV infection. Both ulcerative

³⁴ See U.S Preventive Services Task Force. (2014). *Sexually Transmitted Infections: Behavioral Counseling*. Retrieved on 11/24/14, from <http://www.uspreventiveservicestaskforce.org/Page/Topic/recommendation-summary/sexually-transmitted-infections-behavioral-counseling1>.

³⁵ See Centers for Disease Control (CDC) (2013). *Fact Sheet: Incidence, Prevalence and Cost of Sexually Transmitted Infections in the United States*. Retrieved on 11/24/14, from <http://www.cdc.gov/std/stats/sti-estimates-fact-sheet-feb-2013.pdf>.

³⁶ See Knight, J., Roberts, T., Gabrielli, J., & Hook, S.(.). *Performing Preventive Services: A Bright Future Handbook*. Retrieved on 05/31/2015, from <https://brightfutures.aap.org/Bright%20Futures%20Documents/Screening.pdf#search=depression>

³⁷ See U.S Preventive Services Task Force. (2014). *Sexually Transmitted Infections: Behavioral Counseling*. Retrieved on 11/24/14, from <http://www.uspreventiveservicestaskforce.org/Page/Topic/recommendation-summary/sexually-transmitted-infections-behavioral-counseling1>.

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STIs such as chancroid, syphilis, and genital herpes, and inflammatory STIs such as gonorrhea, chlamydia infection and trichomoniasis, increase the risk of HIV infection. Early detection and treatment of STIs can have a major impact on sexual transmission of HIV.³⁸

STI and HIV Risk Reduction Messages for Sexually Active Adolescents³⁹

- Abstinence
- Mutually monogamous relationship with an uninfected partner
 - Caution: adolescents may consider a short-term monogamous relationship to be safe – regardless of the number of relationships encountered within the year
 - Explain that serial monogamy can be very dangerous
- Reduce the number of sexual partners
 - Adolescents can't tell who has the HIV virus
 - A negative HIV screen may not be an accurate reflection of the HIV status
- Consistent use of protective barriers during sex
 - Latex condoms with water-based lubricant (oil-containing lubricants weaken condoms)
 - Use of lubricants/spermicides containing nonoxynol-9

STI and HIV Risk Reduction Messages for Drug-Using Adolescents

- Abstinence
- Enter a drug treatment program
- Avoid sharing any drug-injecting paraphernalia
 - Disinfect needles and syringes using household bleach:
 - Draw bleach into syringe and expel (twice)
 - Draw clean water into syringe and expel (twice)
- Beware of injection “works” sold as clean on the streets
- Use protective barriers (latex condoms) during sex

³⁸ *Ibid.*

³⁹ See CDC. *Sexually Transmitted Diseases: Prevention* at <http://www.cdc.gov/std/prevention/default.htm>

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HIV Testing

CDC currently recommends routine HIV testing for all adults and adolescents 13-64 years of age in all healthcare settings. In addition, youth at high risk, which include injection-drug users and their sex partners, persons who exchange sex for money or drugs, sex partners of HIV-infected persons, and MSM or heterosexual persons who themselves or whose sex partners have had more than one sex partner since their most recent HIV test should be tested annually. The testing is performed without a separate written informed consent or pretest counseling.⁴⁰

The objectives of the recommendations are to:

- Increase HIV testing of patients, including pregnant women, in health-care settings
- Foster earlier detection of HIV infection
- Identify and counsel persons with unrecognized HIV infection and link them to clinical and prevention services
- Reduce sexual and perinatal transmission of HIV in the US

Opt-Out HIV Testing Recommendations⁴¹

Opt-out testing means performing an HIV test after notifying the patient

- The test will be performed, and
- The patient may elect to decline or defer testing

No one should ever be tested for HIV without his/her knowledge. HIV testing is recommended for patients in all health-care settings after the patient is notified that testing will be performed unless the patient declines.

There are many reasons a patient may decline an HIV test, including lack of perceived risk, fear of the disease, concerns about partner violence, potential stigma, concerns about the cost of treatment and/or discrimination. Providers should discuss and address reasons for declining an HIV test. If the patient still opts out, then he/she can be encouraged to be tested at a subsequent visit. The patient's decision should be respected and documented in his/her medical record.

Practice settings that have opt-out testing policies for pregnant women and for recipients of STI services have higher HIV testing rates than those that use opt-in policies (where

⁴⁰ CDC (2006). *Revised Recommendations for HIV Testing of Adults, Adolescents and Pregnant Women in Health-Care Settings*. Retrieved on 11/25/14, from <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5514a1.htm>.

⁴¹ *Ibid.*

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the patient is given the opportunity to choose the HIV test) or those that require specific counseling for testing. Patients prefer when the testing is routine and offered to everyone rather than feeling singled out for testing because they are perceived to be “at-risk.” For these reasons, CDC believes an opt-out approach provides the best opportunity for more people to know.

Maryland law requires a health care provider to inform a person that an HIV test will be administered and that the person may decline the test without penalty. All health care providers must provide pre-test counseling to the individual prior to obtaining informed consent. If the test is administered in a health care facility, informed consent to the test must be obtained and documented in the medical record. **However, a written, signed consent to specifically perform an HIV test is not required.** If the HIV test is ordered at a location that is not a health care facility, informed consent must be in writing and signed by the individual on an *Informed Consent for HIV Testing* document (available in English and Spanish) that is approved by the Department (Refer to Section 4, Addendum)⁴². For additional guidance on HIV prevention, care services, surveillance and epidemiology, contact:

- *Maryland Center for HIV Prevention and Health Services*⁴³ at **410-767-5132**
- *Maryland Center for HIV Care Services*⁴⁴ at **410-767-6535**
- *Maryland Center for HIV Surveillance and Epidemiology*⁴⁵ at **410-767-5939**

Anemia Testing

Healthy adolescents are generally at low risk for iron deficiency anemia. The *Preventive Screen Questionnaire* (Refer to Section 7, Appendix II for the *English* and *Spanish* versions) can be used for anemia assessment. Adolescents who have an underlying disease associated with blood loss, or those who have used restrictive diets that are low in iron, especially obese adolescents should be screened annually for anemia. A hemoglobin or hematocrit is sufficient to screen adolescents for anemia.

Hemoglobinopathy Testing

Review sickle cell trait results at 12 years of age if a negative sickle cell trait result is not documented in the child’s medical record. If the child/adolescent was born in Maryland

⁴² *Maryland Code of Regulations-Health-General Article 10.18.08*

⁴³ See <http://phpa.dhmh.maryland.gov/OIDPCS/CHP/Pages/Home.aspx>

⁴⁴ See <http://phpa.dhmh.maryland.gov/OIDPCS/CHCS/Pages/Home.aspx>

⁴⁵ See <http://phpa.dhmh.maryland.gov/OIDEOR/CHSE/Pages/Home.aspx>

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contact the *Maryland's Public Health State Laboratory* at **443-681-3900** for assistance in determining the results. If results are not available or the child was not born in Maryland, a hemoglobin electrophoresis is recommended, regardless of apparent racial or ethnic group. Refer the adolescent for genetic counseling if sickle cell trait is present.

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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* 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).⁴⁶

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://www.marylandvfc.org/wp-content/uploads/2016/04/Min_Vacc_Req-16_17_Final.pdf.

⁴⁶ To access the most current schedule, follow the link: <http://www.marylandvfc.org/vfc-program-documents/>

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For additional information, contact the *Center for Immunization*⁴⁷ by calling **410-767-6679** or e-mailing DHMH.IZinfo@maryland.gov.

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.⁴⁸ 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 2nd 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.

⁴⁷ See <http://phpa.dhmh.maryland.gov/OIDEOR/IMMUN/Pages/Home.aspx>.

⁴⁸ 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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- **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 Menveo vaccine at age 11 through 12 years, with a booster dose at 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.⁴⁹
- **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 (Gardasil) 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 penile and ano-rectal warts in men. Vaccinate older

⁴⁹ *Maryland Health-General Code Ann. § 18-102 (2000).*

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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* 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, 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 IZinfo.@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*).

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F. HEALTH EDUCATION AND ANTICIPATORY GUIDANCE

Provide health education and anticipatory guidance at each preventive visit and document in the patient record. The education should focus on both adolescents and parents and it should be integrated throughout the encounter. Anticipatory guidance for the parents or guardians is essential, given the many rapid changes of adolescence. It may be an opportunity for parents to voice their concerns about the adolescent's emotional or physical well-being. It provides a vehicle for parents to establish a relationship with the provider, and it may improve their parenting skills. Parents frequently have additional questions, and providers will need to reinforce their health guidance and clarify their instructions. The adolescent patient should also participate in this experience, so that he/she clearly accepts the responsibility for good health outcomes.

Present health education and anticipatory guidance in a manner that will:

- Assist the family in understanding what to expect in terms of the adolescent's development
- Provide information about the benefits of healthy lifestyles and practices
- Promote the prevention of diseases and injuries
- Provide support to adolescents, as they become responsible for their health and lifestyle choices

Although the adolescent spends less time under the direct supervision of the parent, adults should be reminded of the need to stay involved with their teenagers. Effective parenting requires adults to set limits for their children and to provide a nurturing and supportive environment that promotes healthy lifestyles. The provider needs to remind parents about successful strategies to improve the health status of their child. Open lines of communication are necessary if these goals are to be achieved. Intentional and unintentional injuries are the principal causes of morbidity and mortality in adolescents. It is essential to evaluate the extent to which adolescents have experienced injuries. Additionally, the provider needs to determine what measures have been taken to reduce injury.

Age-specific information is included on each of the *Healthy Kids Encounter Forms* (Refer to Section 7, Appendix I). The focus of adolescent health education and anticipatory guidance should be on the adolescent's increasing responsibility in decision-making (Refer to Section 3, *Age-Specific Health Education*).

Adolescent Sexuality/Reproductive Health

Assess what the adolescent knows about the reproductive process. Adolescents will have a broad range of understanding regarding pubertal development and the

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reproductive process. Discussions of these issues should be structured to meet the needs of the patient, and they may need to be simplified for the young adolescent patient. Provide guidance based on the level of maturity and sexual activity of the individual, not on chronological age. Puberty for girls may begin as early as 8 years of age. Menstruation begins between 10 and 14 years of age. In boys, puberty usually begins about two years later than in girls. Address the risks of pregnancy and sexually transmitted diseases, including HIV, with both females and males.

Adolescents should also be given the message that force and coercion have no place in sexual relationships and may be illegal. Informational materials and referrals to community resources, including law enforcement, that deal with domestic and sexual violence should be readily available. Information is available from the following resources:

- *Maryland Network Against Domestic Violence (MNADV)*⁵⁰ at **1-800-MDHELPS**
- *Maryland Coalition Against Sexual Assault (MCASA)*⁵¹ at **301-328-7023**
- National Teen Dating Abuse at **1-866-331-9474** or online chat at www.loveisrespect.org
- *National Sexual Assault Hotline* – **1-800-656-HOPE**

For information about local domestic violence organizations offering counseling and assistance to victims of domestic violence in finding safe home and shelter, use the *Local Domestic Violence Directory* (Refer to Section 8).

Contraceptive Options

In order for the adolescent to consent to any contraception method, explain the benefits and/or risks of each method. In general, adolescents initiate sexual intercourse using no contraception, progress to methods available from pharmacies, and finally, use methods prescribed by a physician. Advise specifically against the use of withdrawal and douching as methods of contraception. Similarly, discourage unprotected extra-genital sex.

Methods of contraception currently available to adolescents:

- **Abstinence** – This is the preferred contraceptive method for use by adolescents. Support and encourage them in this decision, as it is the most

⁵⁰ See <http://mnadv.org/>

⁵¹ See <http://www.mcasa.org/>

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effective way to prevent pregnancy, STIs and HIV. However, existing data suggest that, over time, perfect adherence to abstinence is low. Therefore, do not rely on abstinence counseling alone, but provide access to comprehensive sexual health information to all adolescents.

- **Progestin Implants** – Implants (Implanon and Nexplanon) are highly effective with failure rates of less than 1%. They may remain in place for 3 years. A physician who has completed the requisite training inserts the implant into the inside of the upper arm. A common reason for their discontinuity is unpredictable bleeding and spotting.
- **Intrauterine Device (IUD)** – IUDs inserted into the uterus also provide long-acting reversible contraception. Despite the low but increasing use of IUDs in the U.S.A., they are used extensively worldwide because of their safety and effectiveness (failure rates of less than 1%) The disadvantages of IUDS are increased risk of expulsion for adolescents and reported moderate to severe pain with insertion. If the Primary Care Provider (PCP) believes that this method is an option for a young patient, the patient should be referred to a gynecologist for consultation.
- **Depo-Provera** –This is an injectable, progestin-only contraceptive. It is effective for 13 weeks and well tolerated by most women who have no contraindications to its use. Depo-Provera is a favored method used by women who wish to defer child bearing for an extended period of time. In the first year of use, its failure rates are 6%. In addition, this contraceptive is easy to use and is considered to improve dysmenorrhea and protect against iron deficiency anemia and endometrial cancer. The major disadvantages of Depo-Provera include the need for an injection every 13 weeks and the menstrual cycle irregularities present for nearly all patients initially. Other possible adverse effects include headache, mastalgia, hair loss, and change in libido and weight gain. This contraceptive also causes reduction in bone mineral density. All patients should be counseled about measures promoting skeletal health, such as daily intake of 1300 mg of calcium and 600 IU of vitamin D and regular weight-bearing exercise.
- **Combined Oral Contraceptive Pills (COC)** – COCs are the most popular method of hormonal contraception for adolescents available with prescription. COCs all contain a progestin and an estrogen. The Centers for Disease Control (CDC) recommends prescribing them up to 1 year at a time to healthy non-pregnant females. Typical use failure rates are 9% in adults and may be higher in adolescents. Common adverse effects of COCs include irregular bleeding, headache, and nausea. The most serious side effect associated with their use is the increased risk of blood clots, which increases from 1 per 10 000 to 3 to 4 per 10 000 woman-years during COC use. Observational data indicate that COC use does not increase the risk of infertility or breast cancer. Their use for more than 4

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years also provides significant protection against endometrial and ovarian cancers.

- **Contraceptive Vaginal Ring** – The vaginal ring releases a combination of estrogen and progestin and therefore has the same eligibility criteria for use as COCs. The ring is inserted in the vagina and stays in place for 3 weeks, with removal for 1 week to induce withdrawal bleeding, followed by insertion of a new ring. The ring has the same efficacy, risks and benefits as other combined COCs, but provides the simplest regimen, especially for women that prefer extended use, because it contains sufficient medication to be used for up to 35 days. Adverse effects are also similar to those of COCs, with the additional vaginal symptoms of discharge, discomfort, and expulsion.
- **Transdermal Contraceptive Patch** – The contraceptive patch containing estrogen and progestin) is placed on the abdomen, upper torso, upper outer arm, or buttocks using 1 patch for each of 3 weeks in a row, followed by 1 week off the patch, during which a withdrawal bleed occurs. The failure rates are similar to those of COCs at 9%. The patch has comparable efficacy, benefits, and side effects as other COCs. Additional adverse effects include dislodged patches, and skin effects, such as hyperpigmentation, contact dermatitis, and other irritation. The FDA has identified increased estrogen exposure (1.6 times higher than with a low-dose COC) and potential increased risk of venous thromboembolism with the patch. The risk of pregnancy with correct use of the patch is slightly higher for women who weight more than 198 pounds.
- **Progestin-Only Pills** – The progestin-only pills (also known as “mini-pills”) have significantly higher failure rates than those of other combined hormonal and progestin-only methods due to the requirement for very stringent adherence. However, they provide an additional option for patients who have safety concerns about estrogen use.
- **Male Condoms** – This is the most effective contraceptive method for the prevention of STIs (latex condoms). It is also the most common contraceptive method used by adolescents. However, condom use requires commitment at every sex act, and is influenced by individual, relationship, and broader social factors. The failure rates are 18% for all users, and can be higher among adolescents. The high failure rate coupled with the condom’s high STI protection, has led to the recommendation for dual contraception: condoms plus a highly effective hormonal or other long-acting method. Instruct all sexually active adolescents in the use of condoms.
- **Emergency contraception** – This method is used after having unprotected intercourse. Adolescents may elect to use this method following sexual assault, or after contraceptive failure (e.g., when the

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condom breaks). It is available as oral levonorgestrel; an oral progesterone receptor modulator ulipristal acetate (Ella); high-dose combined estrogen-progestin oral contraceptive pills (Yuzpe regimen); and placement of copper IUD. Levonorgestrel EC is preferred to the Yuzpe regimen, because of the superior adverse effect profile and effectiveness. Levonorgestrel is available either as 2 pills or as 1 pill (Plan B One-Step). Plan B One-Step is approved by the FDA as a nonprescription product for all women of childbearing potential. Generic versions are approved as a nonprescription product for women 17 years of age older; however, proof of age is not required to purchase them. EC should be prescribed or recommended in advance for use for up to 5 days after an event or unprotected intercourse. More details on EC mechanisms and use can be found in the *AAP Policy Statement on Emergency Contraception*.⁵² For additional assistance, contact the **Emergency Contraception Hotline at 1-800-584-9911**, at the *Emergency Contraception-Princeton* at <http://ec.princeton.edu/>, the LHD Family Planning Clinic, or refer the patient to the gynecologist for immediate attention.

- **Withdrawal** – It has limited effectiveness (22% failure rate among all users) and lack of STI protection. Pediatricians should encourage adolescents to adopt methods that are more effective.
- **Other Methods** – The female condom, periodic abstinence, vaginal spermicides, the cervical cap, and the diaphragm are methods less commonly used by adolescents. .

For more guidance, refer to *2014 AAP Policy Statement on Contraception for Adolescents*.⁵³

⁵² See American Academy of Pediatrics (AAP) (2012). Policy Statement: Emergency Contraception. *Pediatrics*, 130 (6). 1174-1182. Retrieved on 12/08/14, from <http://pediatrics.aappublications.org/content/130/6/1174.full.pdf+html>.

⁵³ See AAP (2014). Policy Statement: Contraception for Adolescents. *Pediatrics*.134 (4). Retrieved on 12/08/14, from <http://pediatrics.aappublications.org/content/134/4/e1244.full.pdf+html?sid=fefca3fd-6ad5-42c1-a86f-301af422ae12>

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Dental Care

For children and adolescents the dental administrator for the dental Medicaid, *Maryland Healthy Smiles Program*,⁵⁴ *Scion Dental, Inc.*⁵⁵, at **1-888-696-9596** will assist in locating appropriate dental care within reasonable distance from the enrollees' residence to ensure adequate access to oral health care services. The *Maryland Healthy Smiles Dental Program Handbook* may be accessed online⁵⁶. Providers may contact the *Office of Oral Health*⁵⁷ at **410-767-5300** to assist children not enrolled in the Maryland Healthy Smiles Program and request the *Oral Resource List Booklet*.⁵⁸ Parents or caregivers can self-refer to a dentist, without a referral from the PCP.

Provide oral health education, counseling, and disease prevention information. Emphasize the need to make and keep dental appointments, stressing self-responsibility, at each visit to parents or caregivers and adolescents.

Scheduling the Return Preventive Care Visit

Educate the adolescent and the family regarding the need to have annual preventive care visits. Document the education and the next scheduled preventive visit in the medical record. When the adolescent presents for an initial visit, a school or sports physical, or an employment physical, all components of the well child visit have to be completed. If the last preventive visit was more than a year ago, and the adolescent presents for a "sick" or problem oriented visit, make every effort to conduct a preventive care visit.

⁵⁴ See <http://phpa.dhmh.maryland.gov/oralhealth/Pages/healthy-smiles.aspx>

⁵⁵ See provider.MDhealthysmiles.com.

⁵⁶ To view and print a copy of the handbook, follow the link <http://phpa.dhmh.maryland.gov/oralhealth/Documents/MemberHandbook.pdf>.

⁵⁷ See <http://phpa.dhmh.maryland.gov/oralhealth/Pages/mission.aspx>.

⁵⁸ For an electronic copy of the guide, follow the link <http://phpa.dhmh.maryland.gov/oralhealth/Documents/OralHealthResourceGuide.pdf>