

Section 3 **Healthy Kids/EPSTDT Screening Components**

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A. HEALTH AND DEVELOPMENTAL HISTORY

Comprehensive Health History

Comprehensive health and family histories are key components of effective screening for high risk factors, as well as important tools for obtaining relevant health information and identifying health conditions that have a genetic component. At the initial Healthy Kids visit, obtain a complete medical, family, psychosocial, perinatal, immunization and developmental history. At each subsequent well child visit, update and document the child/family's health history. A standardized set of questions can improve the provider's ability to identify children/teens at risk of having significant health problems. The Maryland Healthy Kids Program provides the *Medical/Family History Questionnaire* for this purpose available in both English and Spanish languages (Refer to Section 7, Appendix I, for the *English* and *Spanish* versions). The parent, guardian, or patient may complete this form prior to review by the provider. Update the medical, family, and psychosocial histories annually.

In general, a comprehensive health history includes:

- Personal medical and mental health history: chronic and acute illnesses, allergies, surgeries, injuries, and nutritional conditions and concerns, (i.e., failure to thrive, anorexia/bulimia, etc.),
- Perinatal history: prenatal care, birth history, conditions and concerns in the neonatal period, etc.,
- Developmental history: attainment of developmental milestones, learning disorders/educational concerns,
- Family medical and mental health history: health of the immediate and extended family (through the first generation of grandparents, aunts, uncles, etc.) including chronic and acute illnesses (physical and mental), hereditary disorders, disabilities, family violence and substance abuse,
- Psychosocial history: family constellation (number of members and who is living in household) and family relationships and functioning or dynamics (any boyfriend/girlfriend of single parent, parental separation/divorce, foster care or adoption), housing, financial needs, assessment of support systems, exposure to family and community violence,
- Immunization history: record of previous immunizations and assessment of current immunization status,
- Adolescent history: menarche, sexual activity, substance abuse, mental health problems and current status, social functioning and academic concerns.

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Developmental Surveillance and Screening

Developmental surveillance is a longitudinal, continuous, and cumulative process of recognizing children who may be at risk of developmental delays. Developmental surveillance involves eliciting parents' concerns, obtaining a developmental history, making accurate and informed observations of the child, identifying the presence of risk and protective factors, and documenting the process and findings. **Developmental surveillance should be performed at all Healthy Kids preventive care visits.**

In contrast, *developmental screening* is the administration of a brief standardized, validated tool to aid the identification of children at risk of a developmental disorder. Periodic developmental screening of all children in addition to ongoing developmental surveillance can significantly increase the identification of children with developmental delays.

Based on the 2006 policy statement of the American Academy of Pediatrics (AAP), it is now **required** that general developmental screening be performed for all children at the 9-, 18-, and 24-30 month Healthy Kids preventive care visits, and whenever a concern is identified through developmental surveillance.¹ If the child is not seen at these recommended ages, screening should be conducted at the next preventive care visit. The AAP also **recommends** screening specifically for autism at the 18- and 24-month visits using a standardized tool.²

Both developmental surveillance and screening should address the following areas, as age-appropriate: 1) speech and language development 2) gross and fine motor development, 3) self-help and self-care skills, 4) social development, 5) cognitive development, and 6) presence of learning disabilities.

Developmental Screening Tools

Healthy Kids recommends the following standardized, validated developmental screening tools for use in general developmental screening at the intervals noted above:

- *The Ages and Stages Questionnaire* (ASQ)³
- *Parents' Evaluation of Developmental Status* (PEDS)⁴

¹AAP. (2006). Identifying Infants and Young Children with Developmental Disorders in the Medical Home: an Algorithm for Developmental Surveillance and Screening. *Pediatrics*, 118(1), 405 - 420 Retrieved on 08/08/14, from <http://pediatrics.aappublications.org/content/118/1/405.full>.

² AAP. (2007). Identification and Evaluation of Children with Autism Spectrum Disorders. *Pediatrics*, 120(5),1183-1215. Retrieved on 08/08/14 from <http://pediatrics.aappublications.org/content/120/5/1183>.

³ See the ASQ website: <http://agesandstages.com/>.

⁴ See the PEDS website: <http://www.pedstest.com/default.aspx>.

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An additional list of standardized, validated general *Developmental Screening Tools* has been approved for use in the Healthy Kids Program to screen children through age of 5 (refer to Section 3, Addendum).

Results of the developmental surveillance and screening, and the screening tool used, should be documented in the medical record. Children identified as being at risk for developmental delays should have documented counseling and referral for additional evaluation services. (Refer to Section 3, Addendum - *Additional Evaluation and Intervention for Developmental Disorders*). Refer to *Section 6* of this Manual for coding and documentation guidelines.

Screening for Autism Spectrum Disorders (ASDs)

Autism Spectrum Disorders (ASDs) are neuro-developmental conditions characterized by:

- Impairments in social interaction,
- Impairments in communication,
- Restricted repetitive and stereotyped patterns of behavior, interests, and activities.

The Centers for Disease Control and Prevention (CDC) estimated that autism affects 1 in every 68 children aged 8 years old. The rates are higher among males, among families where another sibling has ASD, and among children with certain medical conditions (including Fragile X syndrome, fetal alcohol syndrome). The exact cause of ASDs is unknown.⁵

Early identification and early intervention services are critical to optimizing educational and functional outcomes for children with ASDs. Since 2007, the AAP recommended that primary care providers (PCPs), in addition to conducting general developmental surveillance and screening, should perform autism-specific surveillance during all well child visits.⁶ Autism-specific surveillance includes:

- Ascertaining family history of ASDs, especially among older siblings,
- Eliciting parent concerns, particularly about communication, social reciprocity, and pretend play skills,
- Assessing the child's behavior and attainment of communication and social-emotional milestones.

Red flags that warrant immediate referral include:

⁵ CDC (2014). Prevalence of Autism Spectrum Disorder Among Children Aged 8 Years - Autism and Developmental Disabilities Monitoring Network, 11 Sites, United States, 2010. *CDC Surveillance Summaries*. 63(SS02), 1-21. Retrieved on 08/18/2014, from http://www.cdc.gov/mmwr/preview/mmwrhtml/ss6302a1.htm?s_cid=ss6302a1_w.

⁶ AAP. (2007). Identification and Evaluation of Children with Autism Spectrum Disorders. *Pediatrics*, 120 (5), 1183-1215. Retrieved on 08/08/14 from <http://pediatrics.aappublications.org/content/120/5/1183..>

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- No babbling or pointing or other gesture by 12 months,
- No single word by 16 months,
- No 2-word spontaneous phrases (not echolalic) by 24 months,
- Loss of language or social skills at any age,
- Failed results of an autism-specific screen of any child using a structured, standardized instrument at 18 and 24 months of age.

In addition to **requiring** general developmental screening, the MD Healthy Kids Program **recommends** autism-specific surveillance at all visits and requires structured autism-specific screening at 18 and 24-30 month well child visits. The MD Healthy Kids Program recommends the *Modified Checklist for Autism in Toddlers-Revised, with Follow up* (MCHAT-R/F) screening instrument (Refer to Section 3, Addendum).⁷

As with general developmental surveillance and screening, children with findings of concern on autism-specific surveillance or screening should be simultaneously referred for medical evaluation and to the *Maryland Infants & Toddlers Program* at **1-800-535-0182** for possible early intervention services.

The following organizations provide resources for information about general developmental screening, autism-specific screening, and early intervention:

- *AAP National Center for Medical Home Implementation*⁸
- *CDC “Learn the Signs. Act Early” campaign*⁹

Mental Health Assessment

The mental health assessment provides an overall view of the child’s personality, behavior, social interactions, affect and temperament. It is the responsibility of the PCP to conduct a mental health assessment on each Healthy Kids visit, beginning at 3 years of age, to identify risks associated with behavioral or emotional problems.

The Healthy Kids Program, in collaboration with the Mental Hygiene Administration, has developed age-specific *Mental Health Questionnaires* available in English and Spanish

⁷ The MCHAT-R/F screening instrument can be accessed and freely downloaded at http://www2.gsu.edu/~psydlr/M-CHAT/Official_M-CHAT_Website.html.

⁸ See <http://www.medicalhomeinfo.org/>.

⁹ See <http://www.cdc.gov/ncbddd/actearly/hcp/index.html>.

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languages (Refer to Section 7, Appendix II, for the *English* and *Spanish* versions) to assist providers in assessing for mental health problems.

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, 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>.

Document the result of the mental health assessment in the medical record. In some cases, when a mental health problem is identified, the primary care provider can counsel the patient and note this in the record. However, when specialty mental health services are needed, refer directly to the **Maryland Public Behavioral System** by contacting **1-800-888-1965 (consumers and providers)**. Access additional mental health information and resources on Beacon Health Options website at: Beacon Health Options Maryland. Document the referral in the medical record.

Depression in Children

Depression is often overlooked and considered to be “mood swings” that are a normal part of childhood. This is unfortunate, because the early diagnosis and treatment of depressive disorders is paramount in the healthy development of the child. Depression is occurring earlier on the developmental continuum than in the past. Children/adolescents and their parents are less likely to identify symptoms of depression. Often the PCP is in a better position to trend the behavior and suggest that the child/adolescent should see a mental health professional.

Risk Factors for Depression:

- Family history of depression,
- A parent who experienced depression at an early age,
- Teen cigarette smoking,
- Stress,
- A loss of a parent or loved one by death or divorce or other loss,
- Attention, conduct, or learning disorder,
- Chronic illness, such as diabetes,

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- Abuse or neglect,
- Other trauma, including natural disasters.

Signs That May Be Associated with Depression in Children and Adolescents:

- Frequent vague, non-specific physical complaints such as headaches, muscle aches, stomachaches or tiredness,
- Frequent absences from school or change in school performance,
- Talk of or efforts to run away,
- Outbursts of shouting, complaining, unexplained irritability or crying,
- Being bored,
- Lack of interest in playing with friends,
- Alcohol or substance abuse,
- Social isolation, poor communication,
- Fear of death,
- Extreme sensitivity to rejection or failure,
- Increased irritability, anger, or hostility,
- Reckless behavior,
- Difficulty with relationships,
- Change in sleep patterns.

Depressed children have an increased risk of suicidal ideation and gestures. Early diagnosis and treatment, accurate evaluation of suicidal ideation, and limiting access to lethal agents, including firearms and medications, may hold the greatest suicide prevention value.

Maternal Depression

Maternal depression is a serious and widespread condition that not only affects the mother, but may have a lasting, detrimental impact on the child's health. Maternal depression presents a significant early risk to proper child development, the mother-infant bond, and the family. Maternal depression screening and treatment is an important tool to protect the child from the potential adverse physical and developmental effects of maternal depression. Maternal depression is characterized by a spectrum of severity: the common "maternity blues" or "baby blues" are usually gone after a few days or one to two weeks and are helped with reassurance and support for the mother. This is distinct

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from postpartum depression and postpartum psychosis (the most serious condition), which meet specific diagnostic criteria.¹⁰

A maternal depression screening can be considered an integral part of a risk assessment for the child, in light of the evidence that maternal depression can place children at risk of adverse health consequences. There are several validated screening tools for depression which are simple to administer and can help identify maternal depression and potential risk to the child. For more information on the screening tools, see the *Billing Guidelines for Developmental and Mental Health Screening and Assessment in Primary Care* published on the Healthy Kids website.

Maternal depression can take a substantial toll on the health and well-being of both mothers and children, and can increase related health costs, impede the development of the child, and create negative social consequences. Maternal depression screening during the well-child visit is considered a pediatric best practice and is a simple way to identify mothers who may be suffering from depression and may lead to treatment for the child or referral for mothers to other appropriate treatment.

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)*.¹¹

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**. 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, contact the **Community Mental Health Unit** at **877-402-8220/410-402-8060** or visit their webpage at <http://dhmh.maryland.gov/ohcq/MH/Pages/home.aspx>.

The overall approach to diagnosing a child with ADHD involves the following:

- A comprehensive interview with the child's adult caregiver,
- A mental status examination of the child,
- A medical evaluation for general health and neurological status,

¹⁰ Earls, Marian, MD. Clinical Report – Incorporating Recognition and Management of Perinatal and Postpartum Depression into Pediatric Practice, American Academy of Pediatrics, 2010 <http://pediatrics.aappublications.org/content/early/2010/10/25/peds.2010-2348>.

¹¹ Diagnostic and Statistical Manual of Mental Disorders.(2013). 5th edition. Arlington, VA., *American Psychiatric Association*.

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- 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.

A child diagnosed with ADHD without any accompanying emotional disorders can receive care from a PCP for management of medications. However, medication is only one component in the comprehensive treatment of ADHD. Adjunctive services can significantly improve a child’s response. Teaching and reinforcing organizational skills and social skills are adjunctive interventions that can significantly improve outcomes. In addition, ongoing contact and follow-up with the parents of a child with ADHD on medication is a critical component of the medication management. According to the AAP, “If the maternal depression persists untreated and there is not intervention for the mother and the dyadic relationship, the developmental issues for the infant also persist and are likely to be less responsive to intervention over time.”

A number of psychiatric conditions frequently occur with ADHD, i.e., mood disorder, conduct disorder, oppositional defiant disorder and bipolar disorder. ADHD is classified as a specialty mental health disorder, possibly requiring multiple therapeutic approaches (Refer to Section V, *Public Mental Health System*). If the child’s behavior changes significantly, reevaluation is necessary through a mental health referral by contacting **Maryland Public Mental Health System** at **1-800-888-1965** (consumers and providers). Access additional mental health information and resources online on Beacon Health Options website at: [Beacon Health Options Maryland](#).

For more information about ADHD, refer to the [AAP Clinical Practices Guidelines for the Diagnosis, Evaluation, and Treatment of Attention-Deficit/Hyperactivity Disorder in Children and Adolescents](#).¹²

Child Abuse Assessment

Provider awareness of the physical and behavioral indicators of child abuse, neglect or mental injury is critical to identification of mistreatment in children. Child abuse tends to be repetitive and usually escalates over time. In many cases, the abuse is the result of unrealistic caretaker expectations and the abuser is not intending to hurt the child. This is particularly true with shaken baby syndrome. Multiple socioeconomic or physical factors may place children at greater risk for child abuse. It is important to be aware of the child and parent risk factors that predispose children to abuse and neglect.

Child Risk Factors for Abuse:

- Emotional/behavioral difficulties

¹² See 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 10/31/2014, from <http://pediatrics.aappublications.org/content/128/5/1007.full.pdf>.

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- Chronic illness
- Physical disabilities
- Developmental disabilities
- Preterm birth
- Unwanted child
- Unplanned pregnancy
- Younger than 3 years old.

Parent Risk Factors for Child Abuse:

- Low self-esteem
- Poor impulse control
- Substance use/alcohol use
- Young maternal or paternal age
- Parent abused as a child
- Depression or other mental illness
- Poor knowledge of child development or unrealistic expectations for child
- Negative perception of normal child behavior.

Environment (Community and Society)

- Social isolation
- Poverty
- Unemployment
- Low educational achievement
- Single parent
- Non-biologically related male living in the home
- Family or intimate partner violence.

Behavioral Indicators for Possible Abuse:

- Extremes in child behavior
- Substance abuse by child
- School problems

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- Depression
- Frequent runaway activity
- Suicide attempts
- Poor social interactions,
- Sudden changes in daily routines.

The *SEEK Questionnaire* (Refer to Section 7, Appendix II, for the *English* and *Spanish* versions) is designed to assist providers to identify and address potential risks for abuse and neglect for children younger than 3 years of age.

Child abuse and neglect is a serious problem that requires the involvement of professionals in the community for the purpose of prevention, identification, and treatment. The medical history is integral to the evaluation. The provider should obtain sufficient information to complete the physical and decide if local protective services or police are needed. When suspicions of inflicted injury occur, interview the parent and child separately. Past medical history, the child's social situation and the parent's response to the event are necessary components of the history. Not all child abuse occurs in high-risk families. Although the incidence is higher in high-risk families, the provider should thoroughly evaluate every child with a suspicious injury. For more instructions on the role of the pediatrician in indentifying abused children, refer to *2015 AAP Guidance on the Evaluation of Suspected Child Physical Abuse*.¹³

Red Flags that Signal Possible Abuse:

- Inconsistent history,
- No explanation for injury/bruises,
- Delay in seeking care,
- Incident inconsistent with child's developmental level,
- Severe injury not witnessed or corroborated,
- Scene of injury not consistent with history,
- High risk social situation,
- Previous suspicious and/or multiple injuries,
- Blaming of injury on sibling.

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

¹³ See American Academy of Pediatrics. (2015). The evaluation of Suspected Child Physical Abuse. *Pediatrics*. 135(5). Retrieved on 01/14/2016, from <http://pediatrics.aappublications.org/content/135/5/e1337>.

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workers, to report suspected child abuse or face possible professional sanctions.¹⁴ The law requires that anyone who suspects a child has been, or is being, mistreated must report the matter to the *Department of Social Services* (Refer to Section 8) or the police. Any person who, in good faith, makes a report of abuse or neglect is immune from civil liability or criminal penalty.

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,
- 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

¹⁴ 2010 Maryland Code Family Law Title 5 - Children Subtitle 7 - Child Abuse and Neglect Section 5-704

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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Alcohol and Substance Use Disorder Assessment

Performing an assessment or screening for substance use is critical, because of the increased number of adolescents and young adults using drugs and alcohol.^{17 18} Primary care providers play an important role in identifying those who abuse substances. Completion of at least an assessment for substance use at every well child visit is required annually starting at 12 years of age. Screening for substance use should be performed by using a standardized tool such as *CRAFFT* (Refer to Section 7, Appendix II, for the *English* and *Spanish* language versions of the tool).¹⁹ For availability of *CRAFFT* in other languages, refer to the *Center for Adolescent Substance Abuse Research* website at <http://www.ceasar-boston.org/>. For further guidance, refer to *2015 AAP Report of Binge Drinking*.²⁰

¹⁷ See AAP (2005). Tobacco, Alcohol, and Other Drugs: The Role of the Pediatrician in Prevention, Identification, and Management of Use. *Pediatrics*.115(3), 816–821. Reaffirmed March 2013. Retrieved on 08/18/2014, from <http://pediatrics.aappublications.org/content/115/3/816.full>.

¹⁹ See AAP (2011). Policy Statement: Substance Use Screening, Brief Intervention, and Referral to Treatment for Pediatricians. *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>.

²⁰ See AAP(2015). Binge Drinking. *Pediatrics*. 136(3). Retrieved on 01/14/2016, from <http://pediatrics.aappublications.org/content/136/3/e718>.

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B. COMPREHENSIVE PHYSICAL EXAMINATION REQUIREMENT

The comprehensive physical examination component of a Healthy Kids preventive visit must include documentation of an unclothed physical examination in a systems approach with age-appropriate assessments of vision and hearing, blood pressure measurement, growth measurements with BMI and nutritional assessment.

Unclothed Physical Examination by Systems

A licensed physician, MD or osteopath, or certified nurse practitioner must perform an unclothed physical examination.²¹ A certified physician's assistant working under a licensed MD or osteopath may also perform the exam. Documentation of a systems approach is required. A minimum of five systems constitutes a complete physical examination. Recording "PE within-normal-limits" or "PE WNL" as complete physical is not acceptable. Documentation of individual systems as "within normal limits" or "WNL" is acceptable. Document all suspect findings, discuss with the parent/child, and develop a plan of care. Monitor, treat, and/or refer the child to an appropriate specialty service for any identified problems.

The physical examination includes assessment of the following:

- General physical appearance
- Skin (evidence of scars, burns, bruises) and hair
- Head & neck (including facial features, thyroid palpation and fontanels for infants)
- Eyes and ears, including ability to see and hear
- Nose/throat
- Age appropriate growth parameters with BMI, graphing and interpretation of measurements
- Oral cavity including palate, cheeks, tongue and floor of mouth; dental ridges (including erupting teeth); gums for evidence of infection, bleeding or inflammation; malformation or decay of erupting teeth
- Blood pressure measurement (≥ 3 years of age)
- Cardiopulmonary evaluation, including pulses (palpation of femoral arteries)
- Abdomen (musculature, organs, masses)
- Urogenital evaluation
- Orthopedic evaluation, including muscle tone and scoliosis
- Neurological evaluation, including gross and fine motor coordination

²¹ American Academy of Pediatrics. (2011). Use of Chaperones during the Physical Examination of the Pediatric Patient. *Pediatrics*. 127 (5), 991-993. Retrieved on 09/04/2014, from <http://pediatrics.aappublications.org/content/127/5/991.full>

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Assessment of Hearing

An assessment of the child's ability to hear is required at each Healthy Kids preventive visit. Screen using the health history, physical examination and a gross subjective or an objective hearing assessment. The physical examination includes an external and internal (otoscopic) examination of the ears.

The hearing of all newborns should be screened.²² Maryland hospitals test for hearing impairments in newborn infants. Contact the **DHMH Infant Hearing Helpline** at **1-800-633-1316** with questions or for assistance with follow-up of suspect or positive screens. Refer to the *Early Hearing Detection and Intervention (EHDI) Guidelines for Pediatric Medical Home Providers* (Refer to Section 3, Addendum).

Assess children through 5 years of age for hearing impairment by means of a complete health history, physical examination, and gross subjective assessment. The initial health history should include an assessment for a family history of hereditary deafness, in particular any blood relative; e.g., grandparents, aunts, uncles or cousins known to have a childhood hearing impairment. This does not include hearing impairment due to aging, ear infections, meningitis, measles, mumps, trauma, or serious complications at birth.

Subjective Hearing Assessment

A gross subjective assessment can be completed during the developmental assessment by noting response to auditory stimuli and assessing for speech and language delays. Assess school-age children and adolescents for hearing impairment by means of a health history, physical examination, and gross subjective or objective assessment. A subjective assessment is required at every well visit. Schools generally conduct hearing and vision screening in grades K, 3, 5 and 9. Results of these hearing screens suffice as a “subjective assessment.”

Objective Hearing Test Using an Audiometer/Audioscope

Objective testing is recommended at birth, 3-6 years of age, and at the following ages: 8, 10, 12, 15 and 18 years of age. Providers can bill Medical Assistance for objective hearing tests on children not enrolled in a MCO. *Objective Hearing Forms* are available to document the results (Refer to Section 7, Appendix I). The audiometer must be used according to the manufacturer's specifications and meet with ANSI 1969 standards. Yearly calibration of equipment is required. Recommended test frequencies and screening levels are 1000 HZ, 2000 HZ and 4000 HZ at 20 decibels (dB); test each ear separately.

²² AAP. (2007). Principles and Guidelines for Early Hearing Detection and Intervention Programs. *Pediatrics*. 120, (4), 898-924. Retrieved on 09/04/2014, from <http://pediatrics.aappublications.org/content/120/4/898.full>.

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Tympanometry and impedance testing are not required for a Healthy Kids preventive visit. These tests are covered if they are medically necessary for diagnosis and treatment.

Referral and Follow-up

If the child responds to all presented tones at 20 dB in each ear, the test is normal. If the child fails to respond to any one frequency in either ear at 20 dB, the test is suspect/positive. Providers may elect to re-screen the child in approximately 2 weeks or refer directly for evaluation. For assistance in locating community-based services for children with suspect or positive hearing problems, contact the appropriate MCO network or the **Division of Children’s Services** at **410-767-3998**.

Assessment of Vision

An assessment of the ability to see is required at each Healthy Kids preventive visit.²³ Screen using the health history, physical examination and a gross subjective or an objective vision assessment. Children should have age-appropriate assessments for eye problems in the newborn period and at all subsequent health supervision visits. Vision screening and eye examinations are vital for detection of conditions that distort or suppress the normal visual image that may lead to inadequate school performance or blindness in children. Retinal abnormalities, cataracts, glaucoma, retinoblastoma, eye muscle imbalances, and systemic diseases with ocular manifestations may all be identified by careful examination. Before objective testing, obtain an adequate history to elicit evidence of any visual difficulties.

The physical examination should include an ophthalmoscopic examination of the eye; response to light stimulation and direction of light; an estimate of alignment of the eyes using the monocular cover test (as early as one year of age) and the Hirschberg (corneal) reflex to observe eye movements. The examination of ocular mobility, muscle balance, and visual acuity may be performed together. The assessment of ocular alignment in the preschool and early school-age child is of considerable importance. The development of ocular muscle imbalance may occur at any age in children and may represent not only simple strabismus, but also serious orbital, intraocular, and intracranial disease. Examination of the eyelids and orbits consists of evaluating the structures for symmetry and function, such as the ability to open both eyes. External examination of the eyes consists of a penlight evaluation of the eyelids, conjunctiva, sclera, cornea, and iris. For more information, refer to 2016 AAP Clinical Report titled “Procedures for the Evaluation of the Visual System by Pediatrician”²⁴

²³ AAP.(2016). Visual System Assessment in Infants, Children, and Young Adults by Pediatricians. *Pediatrics*.37 (1). Retrieved on 09/04/2014, from <http://pediatrics.aappublications.org/content/pediatrics/early/2015/12/07/peds.2015-3596.full.pdf>.

²⁴

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Subjective Vision Assessment

Assess children through 5 years of age for vision impairment by means of a health history, physical examination, and gross subjective assessment. A gross subjective assessment can be completed during the developmental assessment by noting response to visual stimuli and assessing for delays in fine motor development. If poor binocular fixation and following behavior is noted after 3 months of age, an ocular or neurologic abnormality may be present.

For children who are old enough (typically at 4 years of age) to delineate objects on a wall-mounted or handheld eye chart, a direct measurement of visual acuity may be used.

For school-aged children and adolescents, providers may use the results of school vision screening reports in their assessment in addition to the history and complete physical examination. Schools generally conduct vision screenings in grades K, 3, 5 and 9. The Snellen eye chart can also be used for a gross vision assessment.

Objective Vision Tests

An objective vision test is recommended at birth, 3-6 years of age, and at 12, 15 and 18 years of age. Objective Vision Forms are available to document vision results (See Section 7, Appendix I). In general, the following vision screens are conducted according to Maryland standards:

<u>Screening Test</u>	<u>Age at Screening</u>
Acuity	3 through 20 years
Muscle Balance	3 through 20 years
Visual Fusion	3 through 6 years
Hyperopia	7 through 20 years

Referral and Follow-up

For assistance in locating community-based services for children with suspect or positive vision problems, contact the appropriate MCO network or the **Division of Children's Services** at **410-767-3998**.

Blood Pressure Measurements

Blood pressure (BP) measurement is a standard procedure of physical examination for all children 3 through 20 years of age. Correct measurement of BP in children requires use of a cuff that is appropriate to the size of the child's upper right arm. The right arm is preferred for consistency and comparison to the standard tables. Ideally, BP should be recorded at least twice on each occasion, and the average of each of the systolic and diastolic BP measurements should be used to estimate BP level. Automated blood pressure devices can be used if properly maintained and calibrated yearly.

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The definition of normal BP is a systolic and diastolic BP below the 90th percentile for age, sex, and height. High-normal BP is defined as average systolic or diastolic BP greater than or equal to the 90th percentile but less than the 95th percentile. The definition of hypertension is an average systolic or diastolic blood pressure greater than or equal to the 95th percentile for age and sex measured on at least three separate occasions (Refer to Section 3, *Table#2a :Girls SBP by Age and Height* & *Table #2b, Boys SBP by Age and Height*).

Introduce non-pharmacological therapy including weight reduction, exercise, and dietary intervention in the care of patients with hypertension, as well as in children with high-normal BP. Employ these strategies for non-pharmacological therapy as initial treatment maneuvers for children with BP above the 90th percentile for age, gender, and height. Additionally, ethnic groups with a higher prevalence of hypertension or individuals with a family history of high BP need to have more intense education regarding a healthy diet, exercise and weight control.

It is appropriate to consult with a physician experienced in the field of childhood hypertension for those children where further testing for underlying causes of hypertension is indicated to determine the type and extent of diagnostic testing necessary. According to the National Institute of Health, if recommendations for follow-up of the child's diastolic and systolic blood pressure differ, follow the shortest recommended time for recheck and referral.²⁵

For further guidance, refer to 2004 *Fourth Report on the Diagnosis, Evaluation, and Treatment of High Blood Pressure in Children and Adolescents* and 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.

Physical Growth Measurements

Growth parameters are important indicators of appropriate nutrition and normal physical development. Therefore, measure each child/adolescent's height and weight at all Healthy Kids visits and plot on growth charts from birth through 20 years of age. Use the *WHO & CDC Growth Charts* to monitor growth for infants and children and adolescents ages 0 to 20 years of age (Refer to Section 7, Appendix I).

²⁵ See National Heart, Lung and Blood Institute (2004). *Fourth Report on the Diagnosis, Evaluation, and Treatment of High Blood Pressure in Children and Adolescents*. Retrieved on 12/23/2014, from http://www.nhlbi.nih.gov/files/docs/resources/heart/hbp_ped.pdf.

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Guidelines for Obtaining Measurements

Head circumference is required on each visit from birth to 2 years of age. Measurement of head circumference may continue past 2 years of age for children with suspected abnormal growth patterns. Measure the occipital prominence to the brow using a non-stretchable flexible tape; measure to the nearest eighth-inch or millimeter.

Weight is required at each visit for all ages. Weigh infants and small children on a table model beam scale. Weigh older children who can stand without support on a floor model beam scale. Balance scales prior to weighing and check and adjust for accuracy according to the manufacturer's specifications.

Height is required at each visit for all ages. Use a firm surface with, when possible, a fixed headboard and footboard, for supine measurement of infants and children up to 2 years of age and those who cannot stand. Older children, who are able to stand without support, use a non-stretchable measuring tape, or ruler, fixed to a true vertical flat surface.

Body Mass Index (BMI)

Plotting weight and height for age allows comparison with all children 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 overweight 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*** at <http://nccd.cdc.gov/dnpabmi/> (Refer to Section 7, Appendix I).

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 percentile. 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 underweight, 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**

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

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

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. Children 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

Medical Management of Overweight and Obesity in Children and Adolescents

Consequences of overweight and obesity in youth are Type 2 diabetes, high blood pressure, high blood lipids, early maturation, orthopedic problems, and social problems related to stigmatizing and discrimination. Childhood overweight often leads to adult obesity. Obese children have a 50% probability of becoming obese adults; obese adolescents have a 70-80% probability of becoming obese adults. Establishing good eating habits and activity patterns in childhood is the key to preventing future health problems and postponing the health consequences of chronic diseases. Health care and other economic costs are rising with the increasing prevalence of childhood overweight and obesity.²⁷

²⁶ AAP. (2007). Expert Committee Recommendations Regarding the Prevention, Assessment, and Treatment of Child and Adolescent Overweight and Obesity: Summary Report. *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 *Ibid.*

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The AAP-endorsed 2007 *Expert Committee Recommendations Regarding the Assessment, Prevention, and Treatment of Child and Adolescent Overweight and Obesity* and the 2015 AAP *Clinical Report on the Role of the Pediatrician in Primary Prevention of Obesity*²⁸ provide guidance on management of weight in all children²⁹. **Primary Care Providers are urged to implement Step 1, Obesity Prevention at Well Care Visits at least once a year** that 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:

- Children with a body mass index between the 85th and 94th percentiles with no obesity-related risk factors should have a fasting lipid profile
- Children ages 10 years and older with body mass index between the 85th and 94th percentiles and obesity-related risk factors should have additional testing for liver function (ALT and AST) and fasting blood glucose
- Children ages 10 years and older with a body mass index above the 95th percentile should have measurement of blood urea nitrogen and creatinine levels added to the above tests

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

²⁸ AAP. (2015). The Role of the Pediatrician in Primary Prevention of Obesity. *Pediatrics*. 36 (1). Retrieved on 10/09/2015 from <http://pediatrics.aappublications.org/content/early/2015/06/23/peds.2015-1558.full.pdf+html>.

²⁹ AAP. (2007). Expert Committee Recommendations Regarding the Prevention, Assessment, and Treatment of Child and Adolescent Overweight and Obesity: Summary Report. *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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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*.³⁰

Additional information on obesity 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's *We Can* campaign at <http://www.nhlbi.nih.gov/health/educational/wecan/>.

Nutritional Status Assessment

Assessment of eating and physical activity habits should be part of every office visit for all children regardless of current weight. At a minimum, during a preventive care visit, the Healthy Kids Program requires review and documentation of current diet addressing all food groups, preventive dietary counseling and education, and assessment of child's physical activities. Monitor children/adolescents with nutritional risk factors and refer when appropriate to resources and/or for counseling.

Age Specific Nutrition Questionnaires are available from Bright Futures (Refer to Section 7, Appendix II).³¹ Additional nutrition and physical activity assessment tools with guidelines for interpreting responses are also available on the *Bright Futures* web site at <http://www.brightfutures.org/physicalactivity>. Refer children/adolescents enrolled in a MCO to nutrition services within the MCO network. For assistance in locating Medicaid enrolled nutritionists/dieticians who accept referrals for fee-for-service, contact the **Division of Children Services at 410-767-1903**.

Give special emphasis to referrals for the following groups:

- Children who demonstrate weight loss or no weight gain (according to age) at scheduled pediatric visits
- Overweight and obese children
- Children with other variations from expected growth, such as weight for age and height for age that are below the 5th percentile - adjust for:
 - Prematurity (at least up to 2 years of age)
 - Parental height

³⁰ See <http://www.nichq.org/>.

³¹ See http://brightfutures.aap.org/Nutrition_3rd_Edition.html.

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- Ethnic group or race
- Congenital conditions such as Down Syndrome or cerebral palsy
- Children with congenital or chronic conditions affecting ability to meet nutrient needs, for example; cleft palate, congenital heart defects, cystic fibrosis, inborn errors of metabolism and physical or mental disabilities
- Children with elevated blood lead levels, iron-deficiency anemia, food allergies or intolerances/sensitivities, high cholesterol and/or drug-nutrient interactions
- Children at risk for sub-optimal nutritional status as a result of environmental influences such as:
 - Inappropriate feeding practices including over-dilution of infant formula
 - Unhealthy feeding relationships (such as consistently using food as a reward for good behavior, etc.)
 - Inadequate financial resources in the family
 - Attitudes or behaviors of the primary caregiver and/or persons with significant influence on the primary caregiver

Nutritional Education

Provide all children or 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 infants, children, and adolescents
- Developmental readiness of the infant for complementary foods
- Transition of the older infant to table foods and the development of self-feeding skills
- Normal eating and activity habits of young children
- Development of healthful eating and activity habits in school-age children and adolescents

Use the *Dietary Guidelines for Americans*³² and the *My Plate*³³ 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

³² See <http://www.health.gov/dietaryguidelines/>.

³³ See <http://www.choosemyplate.gov/>.

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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

Nutrition Resources and Referral Information

Children up to 5 years of age may be eligible for the *Special Supplemental Nutrition Program for Women, Infants and Children (WIC) Program*.³⁴ This federal program provides nutritious food and nutrition education, including breast-feeding counseling and support. Use the *Maryland WIC Medical Documentation Form* (Refer to Section 3, Addendum), or contact **1-800-242-4942** to refer patients to a licensed dietitian or licensed nutritionist.

The WIC program provides individual breastfeeding support and assistance. The International Board Certified Lactation Consultants and peer counselors provide breastfeeding education. For more information on WIC breastfeeding support services, contact a local *WIC Agency*, or contact **1-800-242-4942**.

There is growing interest in childhood obesity prevention. The Maryland Department of Health & Mental Hygiene (DHMH) continues to address the issue of childhood overweight and obesity. For information, contact the *DHMH Maternal & Child Health Bureau* at **410-767-6713**.³⁵

³⁴ See <http://phpa.dhmh.maryland.gov/wic/Pages/Home.aspx>.

³⁵ Refer to <http://phpa.dhmh.maryland.gov/mch/Pages/Home.aspx>.

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Oral Health

Oral assessment by the PCP is a part of the physical examination and includes an oral examination, medical and dental history and parental counseling.³⁶ Refer to the tooth eruption schedules (Refer to Section 3, *Chart # 1a, Primary Tooth Eruption* & *Chart # 1b, Permanent Tooth Eruption*). An excellent reference tool is the 2014 Bright Future's *Pocket Guide of Oral Health*.³⁷

The oral screening, provided as part of a Healthy Kids preventive health visit, should include the following:

- Intraoral exam – tonsils, throat, palate, cheeks, tongue and floor of mouth
- Extraoral exam – lips, head and neck region
- Dental ridges (including gums for evidence of infection, bleeding or inflammation and erupting teeth)
- Tooth decay
- Malformation of teeth
- Need for dietary fluoride supplements (if on non-fluoridated water system and fluoride content of water is known and/or has been tested)
- Early predictor of tooth decay (white spot lesions)
- Presence of dental plaque
- Signs of orofacial trauma from accidental injury
- Signs of orofacial trauma from intentional abuse and/or neglect
- Other risk factors for oral diseases
- Tobacco use including smokeless/spit tobacco

The first visit to the dentist should occur within 6 months of the eruption of the first primary tooth and no later than 12 months of age.³⁸ A child should see the dentist once every six months beginning at 12 months of age. Advise any patient, regardless of age, to seek dental care if problems are identified in the oral assessment. Providers may contact the *Maryland Healthy Smiles Program* at **844-275-8753** for questions about dental services and assistance in locating a dentist.³⁹ The *Member Handbook* may be accessed

³⁶AAP. (2008). Preventive Oral Health Intervention for Pediatricians. *Pediatrics*.122 (6), 1387-1394.

Retrieved on 09/04/14, from <http://pediatrics.aappublications.org/content/pediatrics/122/6/1387.full.pdf>

³⁷ Refer to <http://www.mchoralhealth.org/PDFs/BFOHPocketGuide.pdf>.

³⁸ AAP. (2003). Oral Health Risk Assessment Timing and Establishment of the Dental Home. *Pediatrics*. 111 (5), 1113-1116. Reaffirmed 05/09. Retrieved on 09/04/14, from <http://pediatrics.aappublications.org/content/111/5/1113.full>.

³⁹ See <http://phpa.dhmh.maryland.gov/oralhealth/Pages/healthy-smiles.aspx>.

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online⁴⁰. Parents or caregivers can self-refer to a dentist without a referral from the primary care provider (PCP).

An additional benefit for children 9 months – 36 months old at their Healthy Kids preventive health visit is the application of fluoride varnish by an appropriate and trained medical provider. The Maryland Department of Health and Mental Hygiene implemented the *Maryland's Mouths Matter Fluoride Varnish and Oral Health Screening Program for Kids* on July 1, 2009.⁴¹ Maryland Medicaid reimburses for the application of fluoride varnish in PCP offices. Reimbursement by Medicaid is limited to EPSDT certified PCPs who:

- Participate in the Maryland Medicaid Program with an active Medicaid provider number, and
- Have successfully completed a state approved oral health screening and fluoride varnish program training program

To register for the fluoride varnish training, contact the DHMH, Office of Oral Health:

- By email at dhmfyprogram@maryland.gov
- By phone at 410-767-3081
- Access the Online Training Curriculum at: <http://www.mchoralhealth.org/flvarnish>

Refer to *Section 6* of this Manual for billing information on fluoride varnish application.

Prior to the fluoride varnish application, the EPSDT certified provider **must** conduct an oral health screening. The provider should record any notable findings in the oral cavity, preventive oral health and dietary counseling, the administration of topical fluoride varnish, and if necessary, a referral to a dentist.

A notation of “negative oral assessment” is an accepted method of documentation in the patient’s record. Record any positive findings. Advise that all children through 20 years of age see a dentist twice yearly for a comprehensive dental examination, regardless of oral health status. This exam includes a treatment plan recording the need for prophylaxis and the prevention and treatment of oral diseases including dental caries, gingival and periodontal diseases, tissue lesions, or other abnormalities. Document education given to seek dental care at each preventive health visit.

Provide oral health education, counseling and disease prevention and the need to make and keep dental appointments, stressing self-responsibility, at each visit to parents/caregivers and children. The content of these oral health education and counseling activities includes but is not limited to the following topics:

⁴⁰ To view and print a copy of the handbook, follow the link <http://phpa.dhmh.maryland.gov/oralhealth/Documents/MemberHandbook.pdf>.

⁴¹ For more information, refer to http://www.mchoralhealth.org/flvarnish/mod1_0.html.

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Prevention of Infant and Early Childhood Caries (cavities)

- Assessment of systemic fluoride sources; follow the *Dietary Fluoride Supplemental Schedule* (Refer to Section 3, Table #3) and the *Guidelines on Fluoride Therapy* revised and approved by the American Academy of Pediatric Dentistry in 2014.⁴²
 - Home water content
 - Bottled water
 - Community water fluoridation
 - Dietary fluoride supplements
- Assessment of topical fluoride use
 - Monitored use and amount of fluoride dentifrices
 - Professionally applied topical fluoride application including gel and varnish
 - Self or parentally applied topical fluoride rinses
- Use of pit and fissure dental sealants
- Adequate oral hygiene practices
- Proper diet
 - Appropriate bottle and other feeding practices
 - Daily sugar intake
 - Snacking content and frequency
- Recognizing early signs of dental cavities (white spot lesions and plaque)
- Routine visits to a dentist

Prevention of Gingival and Periodontal Diseases (gum diseases)

- Role of plaque
- Plaque removal
- Tooth brushing with fluoridated toothpaste
- Flossing
- Professional prophylaxis
- Routine visits to a dentist

Prevention of Oral Cancers

- Knowledge of risk factors, early signs and symptoms
- Need for age-appropriate annual oral cancer exam
- Assessment of risk behaviors including tobacco use

⁴²See http://www.aapd.org/media/Policies_Guidelines/G_FluorideTherapy.pdf.

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Prevention of Oral and Facial Injuries (all ages)

- Use of athletic mouth guards
- Use of playground and other age-appropriate equipment
- Use of seat belts and bicycle helmets
- Knowledge, awareness and management of signs of abuse and neglect

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C. LABORATORY TESTS

Hereditary/Metabolic Screening

Maryland hospitals and birthing centers are required to offer newborn screening for hereditary/metabolic diseases. Most of the tests require that the infant have a minimum of 24 hours of milk feedings prior to the collection of the specimen. The minimum length of stay in the hospital following delivery has been extended to at least 48 hours; however, the mother may request shorter length of stay. Early maternal/infant discharge can interfere with effective screening. If the infant is discharged before having 24 hours of milk feedings, the primary care provider (PCP) should repeat the test before the infant is 2 weeks old.

The Healthy Kids Program requires a second routine hereditary/metabolic screen at 2-4 weeks of age with documentation of the results in the medical record. A *List of the Most Common Metabolic Disorders* included in the hereditary/metabolic screen is available (Refer to Section 3, Table # 4).

Obtain newborn screening results for children born in Maryland from the *DHMH Maryland's Public Health Laboratory*. A paper copy of the newborn screening report can be obtained by sending a fax using your practice coversheet to **443-681-4505**. The faxed request should include the baby's birth name, mother's name at the time of birth, the baby's birth date, and hospital of birth. Results can also be obtained by contacting **443-681-3900**. Have the information listed above when calling.⁴³

Document results in the child's medical record. A positive screening test does not establish a diagnosis, but is an indication for further evaluation. Consult the *DHMH Maryland State Newborn Screening Follow-Up Unit*⁴⁴ at **443-681-3900** for assistance with interpretation of results and arranging an appropriate evaluation. Additionally, the *DHMH Office for Genetics and People with Special Health Care Needs*⁴⁵ (OG/PSHCN) at **410-767-6730** can provide clinical information to assist in the management of a child diagnosed with sickle cell disease. Immunization records and other clinical history may also be available through the OG/PSHCN for newly established patients with a known history of sickle cell disease.

⁴³ For more information, refer to <http://dhmh.maryland.gov/laboratories/Pages/Home.aspx>

⁴⁴ See http://dhmh.maryland.gov/laboratories/Pages/nbs_provider.aspx.

⁴⁵ See <http://phpa.dhmh.maryland.gov/genetics/Pages/home.aspx>.

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Hemoglobinopathy Screening

It is important to screen all infants for hemoglobin disorders, regardless of apparent racial or ethnic group. Tests for both sickle cell disease and trait have been included in the initial newborn screen since 1985. A negative sickle cell test documented on the newborn screen for hereditary/metabolic diseases is sufficient. Screen any infant who does not have a documented negative hemoglobinopathy screen. Document attempts to get test results from prior PCPs.

If using the State Lab and the infant is under 3 months of age, use the *Hereditary Metabolic Disorders Lab Slip (DHMH 79)* for isoelectric focusing test. Be sure to mark "Hemoglobin Test" in red on the slip. After 3 months of age, use a *Hemoglobin Disorder Lab Slip (DHMH 189)*. The Maryland's Public Health Laboratory at 410-681-3900 will provide lab slips to providers who have their tests analyzed by the Maryland State lab.

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, and the child/adolescent was born in Maryland, contact the *Maryland's Public Health Laboratory* at **410-681-3900** 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.

Anemia Screening

Perform a hematocrit (Hct) or hemoglobin (Hgb) determination to screen for the presence of anemia at 12 months and 24 months of age.⁴⁶ Additionally, complete an anemia screen on the initial visit for all children up to 6 years of age unless results are available from the previous provider. Age specific hematocrit and hemoglobin values for healthy children are available (Refer to Section 3, *Table # 5, Maximum Hemoglobin Concentration and Hematocrit Values for Anemia*). Periodic anemia screens are not required for a Healthy Kids visit after 2 years of age, unless clinically indicated, or the results of a previous test are not available (Refer to Section 4, *Adolescent Anemia Screening*).⁴⁷

⁴⁶ American Academy of Pediatrics (AAP). (2010). *Diagnosis and Prevention of Iron Deficiency and Iron Deficiency Anemia in Infants and Young Children (0-3 Years of Age)*. 126(5), 1040-1050. Retrieved on 09/22/14, from <http://pediatrics.aappublications.org/content/126/5/1040.full>.

⁴⁷ CDC (1998). *Recommendations to prevent and control iron deficiency in the United States*, MMWR, 47(RR-3), 1-36. Retrieved on 12/01/14, from <http://www.cdc.gov/mmwr/preview/mmwrhtml/00051880.htm>.

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Critical Congenital Heart Disease Screening (CCHD)

CCHD is defined as a heart defect that is present at birth and can cause serious illness or even death if not detected the first few weeks of life. According to CDC CHDs are a leading cause of birth defect-associated infant illness and death.⁴⁸ Since 2012, all hospitals and birthing centers in Maryland are required to screen babies within 24-48 hours of age for CCHD.⁴⁹

Not all CCHD can be detected at birth, but some types of CCHD can be detected most of the time using pulse oximetry screening. If a newborn does not pass the pulse oximetry test, further evaluation is needed immediately to see if the newborn have a CCHD. This evaluation should be done before the newborn leaves the hospital. For more information, contact the *OG/PSHCN Critical Congenital Heart Disease Prevention Program*⁵⁰ at **410-767-6736**.

Lead Risk Assessment and Blood Lead Testing

A lead risk assessment is a series of questions used to determine if the child is at risk for high-dose lead exposure. The *Preventive Screen Questionnaire* (Refer to Section 7, Appendix II for the *English* and *Spanish* versions) can be used for this assessment. A lead risk assessment is required at each preventive health care visit starting at 6 months of age up to 6 years of age. Consider a “yes” or “I don’t know” response to any of the questions a positive risk assessment. Documented results of the lead risk assessment must be in the clinical record at each well child visit. Document the results of the lead risk assessment on either the visit sheet or the Preventive Screen Questionnaire.

Lead Risk Assessment Follow-Up

If the child is at risk, i.e., if the response to any of the lead risk assessment questions is “yes” or “don’t know” or if there is any history, symptoms, or signs that may be related to possible lead poisoning, a blood lead level must be done.

Blood Lead Level (BLL) Testing and Laboratory Information

Regardless of the results of the lead risk assessments or zip code of residence, all MA children must have a BLL at 12 months of age and again at 24 months of age. Additionally, obtain a baseline blood lead level on the initial visit for all children up to 6 years of age, if the child has not been previously tested or if results are not available. As noted above, initiate testing at any age, whenever a child is determined to be at risk for lead exposure using a lead risk assessment. The PCP must document that a blood lead

⁴⁸ CDC. *Congenital Heart Defects (CHDs): Data and Statistics*. Retrieved on 06/16/2015, from <http://www.cdc.gov/ncbddd/heartdefects/data.html>.

⁴⁹ See COMAR 10.52.15.

⁵⁰ See http://phpa.dhmh.maryland.gov/genetics/Pages/CCHD_Program.aspx.

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level was ordered. Direct any questions regarding the lead testing requirements for Medicaid children to the **Healthy Kids Program** at **410-767-1903**.

The PCP may refer the child to a CLIA (Clinical Laboratory Improvement Amendments of 1988) certified laboratory to obtain and process the blood lead specimen. All laboratories must be CLIA certified to participate in the Maryland Medical Assistance Program. The Managed Care Organizations (MCOs) have contracts with specific laboratories in your geographical area. Contact each MCO to determine which laboratory to use.

Based on MCO contracts, the PCP may have the option of collecting the blood lead specimen in his/her office. The venipuncture method for specimen collection is recommended to minimize false positive results.

State law requires that all laboratories send blood lead results to the *Childhood Lead Registry* at the *Maryland Department of the Environment, Childhood Lead Poisoning Prevention Program* (CLPPP). Laboratory slips should contain all patient demographic information: name, complete street address, and zip code. This information is used to track children exposed to lead and identify areas at risk for lead poisoning.

Maryland Targeting Plan for Childhood Lead Poisoning

In addition to the blood lead testing requirements for MA participants, there are requirements for all children, regardless of insurance coverage. To review the revised **2015 Maryland Targeting Plan**, follow the link <http://phpa.dhmh.maryland.gov/IDEHASharedDocuments/MD%202015%20Lead%20Targeting%20Plan.pdf>.

Elevated Blood Lead Level Follow-Up

Lead poisoning is a serious disease, and elevations require confirmation, assessment of increasing/decreasing trend, and prompt follow-up. The child's PCP is responsible for the child's medical case management. When children have documented blood lead levels between 1-5 mcg/dl, venous and capillary, the child's caregiver needs health education and anticipatory guidance about lead and lead poisoning. The second blood lead level at 24 months is still required, even if the blood lead level at 12 months is between 0-9 mcg/dl. Continue to conduct lead risk assessments at every visit up to 6 years of age. Perform additional testing if lead risk has increased.

Children who have blood lead levels between 5-9 mcg/dl must be retested in 3 months. In addition, families whose children have a confirmed level of 5 mg/dl and above should receive lead and nutritional education, and be assessed for possible sources of lead exposure. Children who have blood lead levels of 10 mcg/dl and above need follow-up according to the protocols established by the Centers for Disease Control and Prevention (CDC) and the Maryland Department of the Environment, CLPPP (Refer to Section 3,

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Table # 6a Maryland Childhood Lead Poisoning Prevention Blood Lead Follow-Up for Children, and Table #6b Maryland DOE Case Coordination Guidelines for Lead Poisoned Children). For assistance in locating tertiary centers that provide chelation treatment for BLL over 40, contact the *Department of the Environment* at **1-800-776-2706/ 410-537-3000**. The *Community Health Nurses* at the local Health Departments provide environmental inspections, nursing case management and individualized health education to families with lead poisoned children (Refer to Section 8).

Additional Health Risk Assessments

Health risk assessments are used to determine risks for a variety of health-related problems. A risk assessment consists of a series of questions asked to determine if the child/adolescent needs counseling, education, testing, and/or referral to a specialty care provider. The age appropriate risk assessments are described below.

Tuberculosis Risk Assessment

Diagnosis of tuberculosis in children is difficult and poses problems that are not present in adults. Children are less likely to have obvious symptoms of tuberculosis. Tuberculosis in infants and children younger than four years of age is much more likely to spread throughout the body through the bloodstream. As a result, children are at much greater risk of developing life-threatening forms of TB disease (e.g., disseminated TB, TB meningitis).

Perform a tuberculosis risk assessment annually at the Healthy Kids preventive visit beginning at 1 month of age or on the first visit, at 6 months of age, and yearly thereafter, to determine if the child is at risk. The questions for the tuberculosis risk assessment are on the *Preventive Screen Questionnaire* (Refer to Section 7, Appendix II for the *English* and *Spanish* versions). A “yes” response to any of the questions indicates a “positive” tuberculosis risk assessment. Document the result of the tuberculosis risk assessment, “positive” or “negative”, on the questionnaire form or on the visit sheet. Be sure to date and sign off on the questionnaire after review. If a child has a “positive” tuberculosis risk assessment, perform testing. Routine Tuberculin Skin Testing (TST) is discouraged for low risk children, because of possible false-positive skin tests. If the practice is completing a pediatric health form requesting TST results for a child assessed as low risk, document “not indicated” on the form.

Current Professional Recommendations Regarding TB:

- Carefully screen for risk of tuberculosis exposure; tuberculin skin testing for low risk children is NOT recommended
- Selectively and appropriately test those at risk for tuberculosis using intra-dermal TST
- Use only trained health care providers to administer and read the results
- Implement prompt medical evaluation for anyone with positive a TST

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Targeted TB testing discourages screening of children from low risk populations and focuses on identifying children and adolescents at risk for latent tuberculosis infection (LTBI), who would benefit from drug treatment to prevent progression to TB disease.⁵¹ Children/adolescents with LTBI have inactive TB bacteria in their body. They do not have TB disease symptoms, and cannot spread TB disease to others. However, they can develop TB disease in the future and then may be capable of spreading active TB bacteria. For further clarification of LTBI vs. TB disease, refer to the *CDC's Basic TB Facts* webpage at: <http://www.cdc.gov/tb/topic/basics/default.htm>.

Testing: Determine the frequency and timing of tuberculin skin testing (Refer to Section 3, *Table #7, Priority Groups for Targeted Testing and Treatment of Latent TB Infection with TST Cut-Points and Recommended Testing Frequency*) based on individual health history and evidence of risk factors. Use only the Mantoux TST test (5 tuberculin units of purified protein derivative placed intra-dermally). Multiple puncture or Tine tests are inadequate for TST and should not be used.

A child who has received a TST must return within 48-72 hours to have the injection site inspected or “read” by a trained health care provider.

Use a ruler to measure, in millimeters, the induration (not erythema). Record the results in the medical record based on correct interpretation of skin-test reactions (Refer to Section 3, *Table #8, Tuberculin Skin Test Cut-Points by Age Low Risk Persons*). Do not allow parents or other caregivers to read the skin test. A history of BCG vaccinations is not a contraindication to tuberculin skin testing and is generally not a factor in interpretation of results. For more information about the BCG vaccination and the testing for TB in BCG vaccinated children refer to *CDC's BCG Vaccine Fact Sheet* webpage at <http://www.cdc.gov/tb/publications/factsheets/prevention/BCG.htm>.

Treatment: A positive skin test requires further assessment for tuberculosis, including a chest X-ray to rule out active disease. Children with negative chest X-rays and positive skin test are considered latently infected and should receive isoniazid prophylaxis for a minimum of nine months to prevent active disease in the future (Refer to Section 3, *Table #9, Regimens for Treatment of Latent TB Infection and Recommended Monitoring*). Treat a child/adolescent with active disease according to Maryland and national standards. Contact the *DHMH Center for Tuberculosis Control and Prevention* at **410-767-6698** for further information. Administer medications via Directly Observed Therapy (DOT). Notify the *TB Control Coordinators* at the local Health Departments (Refer to Section 8) of anyone with a positive TST and an abnormal chest x-ray, or a child with symptoms of tuberculosis.

⁵¹ Pediatric TB Collaborative Group (2004). *Targeted tuberculin skin testing and treatment of latent tuberculosis infection in children and adolescents*. Retrieved from http://pediatrics.aappublications.org/content/pediatrics/114/Supplement_4/1175.full.pdf

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Cholesterol/Heart Disease Risk Assessment

The Maryland Healthy Kids Program requires cholesterol/heart disease risk assessment by questionnaire starting at 2 years of age. Since family health history can change, the risk assessment is required annually. The *Preventive Screen Questionnaire* (Refer to Section 7, Appendix II for the *English* and *Spanish* versions) is provided to assist providers in determining risk for heart disease. A “yes” response to any question indicates a “positive” risk. Be sure to date and sign off on the questionnaire after review. Document the result of the cholesterol/heart disease risk assessment, positive or negative, on the questionnaire form or on the visit sheet.

When a child has a positive cholesterol/heart disease risk assessment, the first fasting lipid profile test (FLP) should be completed minimally at 2 years of age, but no later than 10 years of age based on the 2008 guidelines of the American Academy of Pediatrics⁵² and the 2007 Expert Committee on the Assessment, Prevention, and Treatment of Child and Adolescent Overweight and Obesity⁵³. Test children and adolescents:

- With a positive family history of dyslipidemia or premature cardiovascular disease beginning at ≤ 55 years of age for men and ≤ 65 year of age for women (this includes documented angioplasty, coronary artery bypass surgery, diagnosed coronary atherosclerosis, myocardial infarction, angina pectoris, peripheral vascular disease, or sudden cardiac death,
- Whose family history is unknown for CVD risks,
- Whose parent has $TC \geq 240$ mg/dL or known dyslipidemia,
- Who are overweight and obese-above the 85% on the BMI chart,
- With hypertension, $BMI \geq 95^{\text{th}}$ %ile, or smokes cigarettes,
- With a moderate- or high-risk medical conditions-(diabetes mellitus, chronic kidney disease/end-stage renal disease/post renal transplant, postorthotopic heart transplant, Kawasaki diseases, chronic inflammatory disease, HIV, nephritic syndrome),
- Who have FLP results in the normal range, but who continue to be at risk, every 3-5 years

⁵²AAP. (2008). Lipid Screening and Cardiovascular Health in Childhood, *Pediatrics*; 122,198-208; Retrieved on 12/22/2014, from <http://pediatrics.aappublications.org/content/122/1/198.full>.

⁵³ AAP. (2007). Expert Committee Recommendations Regarding the Prevention, Assessment, and Treatment of Child and Adolescent Overweight and Obesity: Summary Report . *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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The physician must measure the FLP on two separate occasions at least 2, but not more than 12 weeks apart and average the values.

Effective January 1, 2016, the DHMH added a new requirement of dyslipidemia lab tests. One test is required between the ages 9-11, and a second one between the ages of 18-21. For more information, refer to the AAP-endorsed *2011 Integrated Guidelines for Cardiovascular Health and Risk Reduction in Children and Adolescents* from the National Heart Blood and Lung Institute.⁵⁴

For management of hypercholesterolemia in children, refer to the AAP -endorsed *2011 Integrated Guidelines for Cardiovascular Health and Risk Reduction in Children and Adolescents* from the National Heart Blood and Lung Institute⁵⁵ (Refer to Section 3, *Table#10, Acceptable, Borderline-High and High Plasma Lipid, Lipoprotein and Apolipoprotein Concentrations (mg/dL) for Children and Adolescents*). Children with persistent elevated blood cholesterol levels should receive a referral to a nutritionist for further dietary intervention. Drug therapy should be considered in children 10 years of age and older with an:

- No CVD risk factors, but with LDL-C \geq 190 mg/dL after 6 months of lifestyle/diet changes, or
- LDL-C 160-189 mg/dL with positive family history or presence of 2 or more additional risk factors (obesity, smoking or hypertension), after 6 months of lifestyle/diet changes, or
- LDL of \geq 130 mg/dL if diabetes mellitus is present, or
- Average fasting TG level \geq 500 mg/dL or average LDL \geq 250 mg/dL.

Children younger than 10 years of age should not be treated with a medication unless they have:

- Severe primary hyperlipidemia, or
- High-risk condition associated with serious medical morbidity (LDL-C \geq 400 mg/dL; TG \geq 500 mg/dL; evident CVD; post-cardiac transplantation)

Please note: The goal of LDL-lowering therapy in childhood and adolescence is LDL-C below the 95th percentile (\geq 130 mg/dL)

⁵⁴ National Heart, Blood and Lung Institute. (2011). *Integrated Guidelines for Cardiovascular Health and Risk Reduction in Children and Adolescents*. Retrieved on 09/18/2014, from http://www.nhlbi.nih.gov/guidelines/cvd_ped/index.htm.

⁵⁵ *Ibid.*

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STI/HIV Risk Assessment

The Maryland Healthy Kids Program currently requires PCPs to conduct risk assessments for Sexually Transmitted Infections/Human Immunodeficiency Virus (STI/HIV) at each Healthy Kids visit beginning at 11 years of age or earlier if indicated by the child's history. The questions for the STI/HIV risk assessment are on the *Preventive Screen Questionnaire* (Refer to Section 7, Appendix II for the *English* and *Spanish* versions). Document results of the assessment on the questionnaire form or on the visit sheet. Be sure to date and sign off on the questionnaire after review. A "yes" response to any of the questions indicates a positive risk and the need for further assessment and appropriate testing with results documented in the medical record. The CDC recommendation is to screen, through opt-out testing, all patients aged 13 to 64 years in all healthcare settings.⁵⁶

Diagnosis of a STI often requires multiple specific diagnostic tests and all sexually active adolescents should be counseled and tested for sexually transmitted infections, and educated about safe sex and contraception. Effective contraceptive management is important for the sexually active adolescent but if the PCP does not perform these services, an appropriate specialty referral is indicated to a gynecologist for female adolescents or adolescent medicine specialist for males and/or females.⁵⁷ For more information about contraceptives, refer to *Contraceptive Options* subsection of Section 4 of this Manual.

The US Preventive Task Force recommends that pap smears be deferred until the female adolescent turns 21 years of age. 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.⁵⁸

Indications for pelvic examinations prior to age 21 are noted in the 2010 AAP statement "*Gynecologic Examination for Adolescents in the Pediatric Office Setting*".⁵⁹

⁵⁶ 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>.

⁵⁷ 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>.

⁵⁸ See U.S. Preventive Services Task Force. (2012). *Cervical Cancer: Screening*. Retrieved on 11/24/14, from <http://www.uspreventiveservicestaskforce.org/uspstf/uspscerv.htm>.

⁵⁹ AAP. (2010). *Gynecologic Examination for Adolescents in the Pediatric Office Setting*. *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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D. IMMUNIZATIONS

The Maryland Healthy Kids Program requires the primary care provider (PCP) to review the child/adolescent's immunization status and to administer any vaccines needed to bring the immunization status up-to-date according to the current *Maryland Department of Health and Mental Hygiene Recommended Childhood Immunization Schedule* (Refer to Section 7, Appendix III).⁶⁰ This immunization schedule provides the most current recommendations of the Public Health Service's Advisory Committee on Immunization Practices (ACIP) and the American Academy of Pediatrics (AAP) and is endorsed by the Medical and Chirurgical Faculty of Maryland (Med-Chi). Refer to the vaccine manufacturer's current guidelines and the latest ACIP and AAP recommendations for specific vaccine use. When administering combination vaccines, the physician has to refer to the *Maryland Suggested Immunization Schedule Using Combination Vaccines*. (Refer to Section 7, Appendix III).⁶¹

The immunization requirements for entry into school and childcare may be slightly different. Infants may enter a childcare center at 6 weeks if they have received their initial series of immunizations.

To check the current immunization schedules for childcare and school entry, follow the link below:

https://phpa.health.maryland.gov/OIDEOR/IMMUN/Shared%20Documents/Min_Vacc_Req_2017-18_Final.pdf.

For additional information, contact the *Center for Immunization*⁶² by phone at **410-767-6679** or by e-mail at DHMH.IZinfo@maryland.gov.

Immunization Records

Immunizations should be summarized and recorded on one immunization record, such as the *VFC Vaccine Administration Record (DHMH 4500)* (Refer to Section 7, Appendix III) in a standard location that is prominent and easily available for reference in the child/teen's medical record. Federal law requires the following information:

- The vaccine manufacturer and lot number of the vaccine used
- The date of administration
- The name and title of the person administering the vaccine as well as the address of practice site
- The edition date of the Vaccine Information Statement

⁶⁰ To access the most current schedule, follow the link: <http://www.marylandvfc.org/vfc-program-documents/>.

⁶¹ To access the suggested schedule, follow the link: <http://www.marylandvfc.org/wp-content/uploads/2017/09/VaccineSchedule2017.pdf>.

⁶² See <http://phpa.dhmmh.maryland.gov/OIDEOR/IMMUN/Pages/Home.aspx>.

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- The date these materials were provided

Baltimore City Law requires Baltimore City based pediatric, family and general providers to submit a record of immunizations administered to a preschool child (up to 5 years of age).⁶³ For more information, contact the **Baltimore Immunization Registry Program (BIRP)** at **410-545-3048**.

Review the immunization record at each visit. Instruct the parent or guardian to bring the immunization record with them on the initial visit. If the record is not available from the parent, the child's previous health care provider, school or childcare facility should be able to provide the child's immunization history. Obtain a signed medical release of information and document these efforts in the medical record.

The following Maryland area immunization registries may assist the primary care provider in obtaining a child's immunization record:

- ***ImmuNet* – Maryland's Immunization Registry**⁶⁴
 - An internet based system that receives and stores childhood and adult immunization records
 - Contact the Help Desk at **410-767-6606** to enroll
- **Baltimore Immunization Registry Program**
 - For a child/adolescent, who lived in the city or attends a Baltimore City Public School
 - Contact **410-545-3048**
- **Washington DC Immunization Registry**
 - If a child/adolescent lived in or attended school in Washington DC
 - Contact **202-576-9301**

In rare instances when records cannot be located, the DHMH Center for Immunization recommends beginning the immunizations again following the appropriate *Catch-up Schedule*, using minimum intervals between doses (Refer to Section 7, Appendix III). Continue immunizing until the child is brought up to date or the record is located. Positive titers for measles, mumps, rubella, varicella and polio can substitute for vaccination.

If parents indicate that their religious beliefs conflict with the immunization requirement, a signed waiver or objection should be placed in the medical record.

⁶³ Baltimore City Code, Subtitle 5, § 4-510

⁶⁴ For more information, visit the *Immunet* website at <https://www.mdimmunet.org/>.

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Adverse Events

Specific adverse events should be reported to the *Vaccine Adverse Event Reporting System (VAERS)* following vaccination with any vaccine. Contact **1-800-822-7967** to obtain reporting forms and other related information, or visit the VAERS web site at <http://www.vaers.hhs.gov>. In Maryland, adverse pertussis vaccine events are also reportable to the local health departments.

Vaccine Information Statements

Federal regulation under the National Childhood Vaccine Injury Act requires providers to supply, **prior to administration of each dose of vaccine**, a copy of the relevant, current edition of Vaccine Information Statements (VIS) produced by the Centers for Disease Control and Prevention (CDC) to the parent or legal representative of any child about to receive that vaccine⁶⁵. Camera-ready Vaccine Information Statements may be obtained in English, Spanish and a variety of other languages on the CDC web site by following the link <http://www.cdc.gov/vaccines/hcp/vis/current-vis.html> or contacting **Vaccines for Children Program** at **410-767-6679**.

The Vaccines for Children (VFC) Program

The Maryland Healthy Kids Program requires that providers enroll in the *Maryland VFC Program*,⁶⁶ regardless of whether the provider is participating with a MCO or fee-for-service Medical Assistance. The VFC Program is a federal initiative implemented in 1994 that provides vaccines to health care providers, at no cost, for children/adolescents from birth through 18 years of age who are:

- Eligible for Medical Assistance
- Uninsured, without health insurance
- Under-insured, covered by private insurance that does not pay for immunizations⁶⁷
- Native American Indian or Alaskan Native

The Vaccines for Children Program requires providers to submit a practice profile (e.g., MCO panels, *Log of Children Receiving VFC Vaccines*) representing populations served by the practice/facility annually (Refer to Section 7, Appendix III). Providers must also submit a *VFC Vaccine Inventory Form* (Refer to Section 7, Appendix III) six times a year (January, March, May, July, September, and November) and may need to document the

⁶⁵ See <http://www.immunize.org/catg.d/p2027.pdf>.

⁶⁶ See <http://www.marylandvfc.org/>.

⁶⁷ Underinsured children are eligible to receive VFC vaccine only through a Federally Qualified Center (FQHC), Rural Health Clinic (RHC) or Maryland Local Health Department.

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number of VFC eligible children in the practice in order to receive an adequate supply of vaccine.⁶⁸ Complete the *VFC Patient Eligibility Screening Record* (Refer to Section 7, Appendix III) for every child/adolescent who receives the free vaccines.

Providers must also maintain a privately purchased stock of vaccines to cover required immunizations not provided through the VFC Program for children and adolescents on Medical Assistance. Examples include hepatitis B, Td, varicella and meningococcal vaccines for young adults, 19 to 20 years of age. Synagis for at risk premature infants is also not available through VFC. However, it is available and covered when prior approval is obtained from infant's MCO. To print prior authorization forms for infants on Medicaid Fee-For-Service, follow the link:

[https://mmcp.dhmh.maryland.gov/pap/docs/Synagis%20Service%20PA%20Form%20\(Initial\)%20Oct%202015%20final.pdf](https://mmcp.dhmh.maryland.gov/pap/docs/Synagis%20Service%20PA%20Form%20(Initial)%20Oct%202015%20final.pdf).

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) (Refer the Section 7, Appendix III). The VFC Center can be also be reached by e-mail at IZinfo.@dhmh.state.md.us or by fax at 410-333-5893.

Per federal CDC regulations, VFC providers are required to re-enroll annually in order to receive VFC vaccine. For instructions on how to re-enroll, follow the link: <http://www.marylandvfc.org/vfc-provider-enrollment/>.

The VFC provider site visits are conducted by VFC Site Reviewers who visit each practice every other year to review records for the federally required vaccine administration documentation and adequate vaccine storage.

Proper storage of vaccines involves maintaining refrigerator temperatures at 35 to 46 degrees Fahrenheit (2 to 8 degrees Centigrade) and freezer temperatures at 5 degrees Fahrenheit or lower (-15 degrees Centigrade or lower).⁶⁹ Use the *Vaccine Storage/Temperature Record* (Refer to Section 7, Appendix III) or a similar record to record the temperatures of the refrigerator and freezer twice daily. The freezer should be a separate storage area with a separate door from the refrigerator storage area. Remove expired vaccines from the refrigerator/freezer, complete a *Vaccine Return and Wastage Form* (Refer to Section 7, Appendix III) and notify the VFC Program. The Maryland Healthy Kids nurse consultants may also check for appropriate vaccine storage and

⁶⁸ Maryland Vaccines for Children Program Vaccine Management Plan. Retrieved on 06/18/2015, from http://www.marylandvfc.org/wp-content/uploads/2015/03/MD-VFC-VACCINE-MANAGEMENT-PLAN_-Rev-March_2015.pdf.

⁶⁹ *Ibid.*

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monitor vaccine expiration dates when they conduct their on-site medical record review. For more information visit the **Vaccines for Children** website at <http://www.marylandvfc.org> or contact **410-767-6679**.

Direct any questions regarding immunization reimbursement to the *Healthy Kids Program Nurse Consultants* at **410-767-1903** (Refer to Section 8). For answers to questions regarding vaccine administration, contact the **Vaccines for Children Program** at **410-767-6679**.

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E. HEALTH EDUCATION/ANTICIPATORY GUIDANCE

Age-Specific Health Education

The preventive care visit is the opportune time to integrate health education and anticipatory guidance to both the parent and the child throughout the visit. Health education and anticipatory guidance should include information that will:

- Assist the family in understanding what to expect in terms of the child's development
- Provide information about the benefits of healthy lifestyles and practices
- Promote the prevention of diseases and injuries
- Age-specific information is included on each of the Healthy Kids visit sheets

Age specific Anticipatory Guidance topics are listed below. Address at least three general age specific topics below.

Infant to Preschool

Developmental tasks	Behavior/Discipline
Parenting	Sleep
Injury Prevention	Child Care
Nutrition	Toilet training
Dental Care	Self-comforting behaviors
Family planning (mother)	School Readiness

School-Age Child

Increase the involvement of child in discussion and decision-making.

Developmental tasks	School Progress
Parenting	Dental Care
Behavior/Discipline	Health habits/Self care
Sex Education (counsel parents)	Social Interactions
Injury Prevention	Nutrition

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Adolescence

Focus on the adolescent's increasing responsibility in decision-making.

Developmental tasks	Sexual activity
Health habits/Self care	Contraception
Smoking/Alcohol/Drugs	STIs and AIDS prevention
Nutrition	Injury Prevention
Dental Care	Suicide Prevention
School Progress	Violence
Social Responsibilities	Social Interactions
Respect self/others	Peer Pressure/Bullying
Safe driving/riding in car	Future Career Plans/Ideas

In addition, document health education in the medical record to address the following:

- Health problems identified by the provider, parent or child that includes needed treatments, counseling and/or referrals for additional specialty services
- Education about the scheduling of the next Healthy Kids visit following the Schedule of Preventive Health Care
- Education to seek annual dental care

Injury Prevention

According to the *Safe Kids USA*, unintentional injury is the number one killer of America's children⁷⁰. By taking simple precautions, it is estimated that almost 90 percent of these unintentional injuries can be avoided. Discuss injury prevention as part of anticipatory guidance and document topics covered. Possible topics are noted below.

Bicycle Safety

A bicycle helmet should be appropriate for the size and age of the child and meet the safety standards of the American National Standards Institute (ANSI), the Snell Memorial Foundation, or the American Society for Testing and Materials (ASTM). Have parents periodically review bicycle safety rules and traffic laws with their child. Laws that apply to motor vehicle operators also apply to cyclists. Maryland law requires helmets be worn through 16 years of age. Encourage parents to act as role models and purchase helmets to wear when they ride.

For more information, use the *Safe Kids Bike Safety Tips* handout on the Safe Kids USA website at <http://www.safekids.org> (Refer to Section 7, Appendix IV).

⁷⁰ See <http://www.safekids.org/why-it-matters>.

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Car Passenger Safety

The use of child restraint systems including infant seats, convertible seats, forward facing child safety seats, booster seats, and seat belts are effective in reducing injury.

Maryland's current law requires that children under eight years old ride in an appropriate child restraint, unless the child is 4'9" or taller.⁷¹ Every child from 8 to 16 years old who is not secured in a child restraint must be secured in the vehicle's seat belt, in every seating position in the vehicle. The law also prohibits passengers younger than 16 years of age from riding in the unenclosed bed of a pick-up truck.⁷²

Child safety advocates recommend that children under 13 years of age ride secured in the back seat of a car⁷³. More car seats guidelines for children can be found on the *Parents Central* website by following the link: <http://www.safercar.gov/parents/RightSeat.htm> (Refer to Section 7, Appendix IV).

Families who are unable to purchase a child restraint can contact the *Maryland Kids in Safety Seat (KISS) Program* at **1-800-370-7328** or e-mail dhmh.kiss@maryland.gov for a referral to a local car seat loaner program. For more information, visit the KISS Program web page at <http://phpa.dhmh.maryland.gov/ohpetup/kiss/Pages/Home.aspx> (Refer to Section 7, Appendix IV).

Fire Prevention

Ask parents if there are working smoke alarms in the family home. Since the primary job of a smoke alarm is to awaken sleeping family members, the alarms should be located as close to each bedroom as possible. Because smoke rises, smoke alarms should be located on the ceiling or on the wall between 6 and 12 inches below the ceiling.

Families should also have a fire escape plan. Have primary and alternate routes marked and everyone practice them to escape the home. Choose a location outside the home as the meeting place. Contact the office of *Maryland State Fire Marshal* by phone at **410-653-8980/1-800-525-3124**. For more information, use the *Safe Kids Fire Prevention* handout on the Safe Kids USA website at <http://www.safekids.org> (Refer to Section 7, Appendix IV).

⁷¹ Child restraint includes car seats, booster seats and other federally approved safety devices.

⁷² COMAR §22-412.2.

⁷³ See <http://www.safercar.gov/parents/RightSeat.htm>.

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Gun Safety

All children are potentially at risk of unintentional firearm injury, whether a gun is present in the home or not. To help protect children in the state, Maryland enacted The Child Access Protection Law. This law states: “No person shall store or keep any loaded firearm on any premise under their control if it is known, or reasonably should be known, that a minor, age 15 and under, is likely to gain access to the firearm without permission, unless the firearm is properly stored.” Maryland also mandates that, beginning January 1, 2003, all handguns sold in the state and manufactured after December 2002 have an integrated mechanical safety-locking device.

Even with these laws in place in Maryland, not everyone is aware of these requirements or, if there are no children in the home, may think the laws do not apply to them. Parents and caregivers need to act to protect their children.

Gun owners should:

- Store them unloaded, locked up and out of children’s reach
- Store ammunition in a separate, locked location
- Use quality gun locks, lock boxes or gun safes for every firearm
- Keep gun storage keys and lock combinations hidden in a separate location
- Take a course in using, maintaining and storing guns safely

All parents and caregivers should:

- Talk to their children about the potential dangers of guns
- Teach children never to touch or play with a gun
- Teach children to tell an adult if they find a gun or call 911 if no adult is present
- Ask neighbors, friends, relatives and adults in any homes where their children visit, if firearms are present in the home and how they are stored
- Not allow their children to visit the home if the firearms are not properly stored

For more information, use the *Gun Safety Tips* handout on the Safe Kids USA website at <http://www.safekids.org> (Refer to Section 7, Appendix IV).

Poison Safety

Many common household products can poison children; including cleaning supplies, cosmetics, art supplies, alcohol, medicines and vitamins. Parents and caregivers can protect their families by using the *Safe Kids Poison Prevention Tips* handout on the Safe Kids USA website at <http://www.safekids.org> to identify and eliminate potential hazards and prepare the home for children (Refer to Section 7, Appendix IV). In addition, parents and caregivers should:

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- Never leave potentially poisonous household products unattended when in use
- Read labels and follow the exact directions – giving medications based on the child’s weight and only with the dispenser packaged with that medication
- Know which plants in and around the home are poisonous; remove them or make them inaccessible to children
- Cover lead paint with a sealant or hire a professional to remove it in homes built before 1978
- Wash children’s hands and faces, toys and pacifiers frequently to reduce the risk of ingesting lead-contaminated dust

Advise parents to post the national toll-free poison hotline number at every telephone: **1-800-222-1222**. This same number can be used anywhere in the United States to be connected to the closest poison center. For more information about educational resources and materials from the *Maryland Poison Center*, call **410-706-7604** or visit their website at <http://www.mdpoison.com/>. For educational resources and materials in Prince George’s and Montgomery counties, contact the *National Capital Poison Center* at **202-362-3867** or visit their website at <http://www.poison.org/>.

Sun Safety

Exposure to the sun’s ultraviolet (UV) rays appears to be the most important factor in the development of skin cancer, which is largely preventable with consistent sun protection. Parents and caregivers, to protect children from the sun, should assure that they:

- Stay out of the sun between 10 a.m. and 4 p.m.
- Play in the shade whenever possible – caution: reflective surfaces (such as water) can cause sunburns even in the shade
- Wear protective, tightly woven clothing
- Wear a hat with a 4” brim all around
- Avoid reflective surfaces – they can reflect up to 85% of the sun’s rays
- Wear a broad-spectrum sunscreen with a Sun Protection Factor (SPF) of 15 or higher that protects against UVA and UVB rays – reapplied every 2 hours

For more information about ways to protect children from over exposure to the sun, contact the *Center for a Healthy Maryland* at MedChi, **410-539-0872, ext. 3340**, or visit their website at www.healthymaryland.org and click on skin cancer prevention.

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Water Safety

Children can drown or nearly drown in seconds and should never be left alone near water, at the pool, beach, or home. Drowning and near drowning typically occurs when a child is left unattended or during a brief lapse of supervision. Inside the home, water dangers include bathtubs, sinks, toilets, and buckets. While outside the home, water dangers include natural bodies of water, pools, water features, hot tubs, and wading pools.

Parents also need to be aware of the temperature of the water in the home. The National Safe Kids Campaign reports that it takes just 3 seconds for children to sustain 3rd degree burns from a water temperature of 140°F. The home hot water heater temperature should be set at 120°F. For more information about water safety, refer to the [Water Safety at Home](#) and the [Swimming Safety Tips](#) handouts on the Safe Kids USA website at <http://www.safekids.org> (Refer to Section 7, Appendix IV).