GOBIERNO DE PUERTO RICO
ADMINISTRACIÓN DE SEGUROS DE SALUD

CARTA NORMATIVA 24-0517

17 de mayo de 2024

A: **Organizaciones de Manejo Coordinado de Salud (MCOs) y Proveedores Participantes del Plan de Salud del Gobierno - Plan Vital**

ASUNTO: **VERSIÓN ACTUALIZADA DE LA POLÍTICA DE ASES PARA EL PROGRAMA EARLY AND PERIODIC SCREENING DIAGNOSIS AND TREATMENT (EPSDT)**

Se incluye la política de la ASES **#16-1102** para el Programa de Detección, Diagnóstico y Tratamiento Temprano, EPSDT, por sus siglas en inglés, la cual fue revisada recientemente. Esta versión de la política entrará en vigor el **20 de mayo de 2024**.

El propósito de revisar esta política es integrar las recomendaciones más recientes de la Asociación Americana de Pediatría *Bright Futures*, para atemperar varios de los anejos que forman parte del documento. Todas las entidades contratadas deberán actualizar los protocolos de los servicios concernientes a esta población mediante sus respectivas políticas y procedimientos para cumplir con la Política de ASES sobre el Programa EPSDT.

Entre los anejos incluimos para su referencia las versiones más recientes de las hojas para gráficas de crecimiento (Growth Charts, BMI), itinerario de vacunación, recomendaciones de periodicidad para servicios preventivos pediátricos en salud general y en salud oral.

Se le requiere a cada aseguradora contratada bajo Plan Vital enviar a la ASES política EPSDT revisada, depositándolas en el share file de Operaciones Clínicas (en el archivo Ad-hoc), no más tarde del próximo **20 de mayo de 2024**.

Es posible que esta política requiera modificarse en cualquier momento ya que está sujeta a cambios en regulaciones y guías clínicas federales y locales. Le recordamos a todas las aseguradoras que deben mantener orientados a sus proveedores contratados en cuanto al seguimiento a nuestros beneficiarios pediátricos bajo el programa EPSDT, la política de ASES y la sección 7.9 del contrato.

Esperamos su cooperación y cabal cumplimiento con lo aquí expuesto.

Cordialmente,

Roxanna K. Rosario Serrano, BHE, MS
Directora Ejecutiva

Anejos (15)

Autorizado por la Oficina del Contralor Electoral OCE-SA-2024-00267

American Academy of Pediatrics
DEDICATED TO THE HEALTH OF ALL CHILDREN®

Recommendations for Preventive Pediatric Health Care

Bright Futures/American Academy of Pediatrics

Bright Futures
prevention and health promotion for infants, children, adolescents, and their families™

Each child and family is unique; therefore, these Recommendations for Preventive Pediatric Health Care are designed for the care of children who are receiving nurturing parenting, have no manifestations of any important health problems, and are growing and developing in a satisfactory fashion. Developmental, psychosocial, and chronic disease issues for children and adolescents may require more frequent counseling and treatment visits separate from preventive care visits. Additional visits also may become necessary if circumstances suggest concerns.

These recommendations represent a consensus by the American Academy of Pediatrics (AAP) and Bright Futures. The AAP continues to emphasize the great importance of continuity of care in comprehensive health supervision and the need to avoid fragmentation of care.

Refer to the specific guidance by age as listed in the *Bright Futures Guidelines* (Hagan JF, Shaw JS, Duncan PM, eds. *Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents.* 4th ed. American Academy of Pediatrics; 2017).

The recommendations in this statement do not indicate an exclusive course of treatment or serve as a standard of medical care. Variations, taking into account individual circumstances, may be appropriate.

The Bright Futures/American Academy of Pediatrics Recommendations for Preventive Pediatric Health Care are updated annually.

	INFANCY								EARLY CHILDHOOD							MIDDLE CHILDHOOD						ADOLESCENCE										
AGE[1]	**Prenatal**[2]	**Newborn**[3]	**3-5 d**[4]	**By 1 mo**	**2 mo**	**4 mo**	**6 mo**	**9 mo**	**12 mo**	**15 mo**	**18 mo**	**24 mo**	**30 mo**	**3 y**	**4 y**	**5 y**	**6 y**	**7 y**	**8 y**	**9 y**	**10 y**	**11 y**	**12 y**	**13 y**	**14 y**	**15 y**	**16 y**	**17 y**	**18 y**	**19 y**	**20 y**	**21 y**
HISTORY Initial/Interval	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
MEASUREMENTS																																
Length/Height and Weight		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Head Circumference		●	●	●	●	●	●	●	●	●	●	●																				
Weight for Length		●	●	●	●	●	●	●	●	●	●																					
Body Mass Index[5]												●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Blood Pressure[6]		★	★	★	★	★	★	★	★	★	★	★	★	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
SENSORY SCREENING																																
Vision[7]		★	★	★	★	★	★	★	★	★	★	★	★	●	●	●	●	★	●	★	●	★	●	★	★	●	★	★	★	★	★	★
Hearing		●[8]	●[9] →	→	★	★	★	★	★	★	★	★	★	★	●	●	●	★	●	★	●	←	←	●[10] →	→	←	● →	→	←	● →	→	● →	→
DEVELOPMENTAL/SOCIAL/BEHAVIORAL/MENTAL HEALTH																																
Maternal Depression Screening[11]				●	●	●	●																									
Developmental Screening[12]								●			●		●																			
Autism Spectrum Disorder Screening[13]											●	●																				
Developmental Surveillance		●	●	●	●	●	●		●	●		●		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Behavioral/Social/Emotional Screening[14]		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Tobacco, Alcohol, or Drug Use Assessment[15]																					★	★	★	★	★	★	★	★	★	★	★	★
Depression and Suicide Risk Screening[16]																						●	●	●	●	●	●	●	●	●	●	●
PHYSICAL EXAMINATION[17]		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
PROCEDURES[18]																																
Newborn Blood		●[19]	●[20] →	→																												
Newborn Bilirubin[21]		●																														
Critical Congenital Heart Defect[22]		●																														
Immunization[23]		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Anemia[24]						★			●	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★
Lead[25]							★	★	● or ★[26]		★	● or ★[26]		★	★	★	★																
Tuberculosis[27]				★			★		★			★		★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★
Dyslipidemia[28]												★			★		★		★	←	● →	★	★	★	★	★	★	←	←	←	● →	★	★
Sexually Transmitted Infections[29]																						★	★	★	★	★	★	★	★	★	★	★	★
HIV[30]																						★	★	★	★	● →	→	→	→	→	→	→	→
Hepatitis B Virus Infection[31]		★ →	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
Hepatitis C Virus Infection[32]																													● →	→	→	→	→
Sudden Cardiac Arrest/Death[33]																						★ →	→	→	→	→	→	→	→	→	→	→	→
Cervical Dysplasia[34]																																	●
ORAL HEALTH[35]							●[36]	●[36]	★		★	★	★	★	★	★	★																
Fluoride Varnish[37]							←	←	←	←	●	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
Fluoride Supplementation[38]							★	★	★		★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★					
ANTICIPATORY GUIDANCE	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

1. If a child comes under care for the first time at any point on the schedule, or if any items are not accomplished at the suggested age, the schedule should be brought up to date at the earliest possible time.
2. A prenatal visit is recommended for parents who are at high risk, for first-time parents, and for those who request a conference. The prenatal visit should include anticipatory guidance, pertinent medical history, and a discussion of benefits of breastfeeding and planned method of feeding, per "The Prenatal Visit" (https://doi.org/10.1542/peds.2018-1218).
3. Newborns should have an evaluation after birth, and breastfeeding should be encouraged (and instruction and support should be offered).
4. Newborns should have an evaluation within 3 to 5 days of birth and within 48 to 72 hours after discharge from the hospital to include evaluation for feeding and jaundice. Breastfeeding newborns should receive formal breastfeeding evaluation, and their mothers should receive encouragement and instruction, as recommended in "Breastfeeding and the Use of Human Milk" (https://doi.org/10.1542/peds.2011-3552). Newborns discharged less than 48 hours after delivery must be examined within 48 hours of discharge, per "Hospital Stay for Healthy Term Newborn Infants" (https://doi.org/10.1542/peds.2015-0699).
5. Screen, per "Expert Committee Recommendations Regarding the Prevention, Assessment, and Treatment of Child and Adolescent Overweight and Obesity: Summary Report" (https://doi.org/10.1542/peds.2007-2329C).
6. Screening should occur per "Clinical Practice Guideline for Screening and Management of High Blood Pressure in Children and Adolescents" (https://doi.org/10.1542/peds.2017-1904). Blood pressure measurement in infants and children with specific risk conditions should be performed at visits before age 3 years.
7. A visual acuity screen is recommended at ages 4 and 5 years, as well as in cooperative 3-year-olds. Instrument-based screening may be used to assess risk at ages 12 and 24 months, in addition to the well visits at 3 through 5 years of age. See "Visual System Assessment in Infants, Children, and Young Adults by Pediatricians" (https://doi.org/10.1542/peds.2015-3596) and "Procedures for the Evaluation of the Visual System by Pediatricians" (https://doi.org/10.1542/peds.2015-3597).
8. Confirm initial screen was completed, verify results, and follow up, as appropriate. Newborns should be screened, per "Year 2007 Position Statement: Principles and Guidelines for Early Hearing Detection and Intervention Programs" (https://doi.org/10.1542/peds.2007-2333).
9. Verify results as soon as possible, and follow up, as appropriate.
10. Screen with audiometry including 6,000 and 8,000 Hz high frequencies once between 11 and 14 years, once between 15 and 17 years, and once between 18 and 21 years. See "The Sensitivity of Adolescent Hearing Screens Significantly Improves by Adding High Frequencies" (https://www.sciencedirect.com/science/article/abs/pii/S1054139X16000483).
11. Screening should occur per "Incorporating Recognition and Management of Perinatal Depression Into Pediatric Practice" (https://doi.org/10.1542/peds.2018-3259).
12. Screening should occur per "Promoting Optimal Development: Identifying Infants and Young Children With Developmental Disorders Through Developmental Surveillance and Screening" (https://doi.org/10.1542/peds.2019-3449).
13. Screening should occur per "Identification, Evaluation, and Management of Children With Autism Spectrum Disorder" (https://doi.org/10.1542/peds.2019-3447).

(continued)

KEY: ● = to be performed ★ = risk assessment to be performed with appropriate action to follow, if positive ← ★ or ● → = range during which a service may be provided

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(continued)

14. Screen for behavioral and social-emotional problems per "Promoting Optimal Development: Screening for Behavioral and Emotional Problems" (https://doi.org/10.1542/peds.2014-3716), "Mental Health Competencies for Pediatric Practice" (https://doi.org/10.1542/peds.2019-2757), "Clinical Practice Guideline for the Assessment and Treatment of Children and Adolescents With Anxiety Disorders" (https://pubmed.ncbi.nlm.nih.gov/32439401), and "Screening for Anxiety in Adolescent and Adult Women: A Recommendation From the Women's Preventive Services Initiative" (https://pubmed.ncbi.nlm.nih.gov/32510990). The screening should be family centered and may include asking about caregiver emotional and mental health concerns and social determinants of health, racism, poverty, and relational health. See "Poverty and Child Health in the United States" (https://doi.org/10.1542/peds.2016-0339), "The Impact of Racism on Child and Adolescent Health" (https://doi.org/10.1542/peds.2019-1765), and "Preventing Childhood Toxic Stress: Partnering With Families and Communities to Promote Relational Health" (https://doi.org/10.1542/peds.2021-052582).
15. A recommended assessment tool is available at http://crafft.org.
16. Screen adolescents for depression and suicide risk, making every effort to preserve confidentiality of the adolescent. See "Guidelines for Adolescent Depression in Primary Care (GLAD-PC): Part I. Practice Preparation, Identification, Assessment, and Initial Management" (https://doi.org/10.1542/peds.2017-4081), "Mental Health Competencies for Pediatric Practice" (https://doi.org/10.1542/peds.2019-2757), "Suicide and Suicide Attempts in Adolescents" (https://doi.org/10.1542/peds.2016-1420), and "The 21st Century Cures Act & Adolescent Confidentiality" (https://www.adolescenthealth.org/Advocacy/Advocacy-Activities/2019-(1)/NASPAG-SAHM-Statement.aspx).
17. At each visit, age-appropriate physical examination is essential, with infant totally unclothed and older children undressed and suitably draped. See "Use of Chaperones During the Physical Examination of the Pediatric Patient" (https://doi.org/10.1542/peds.2011-0322).
18. These may be modified, depending on entry point into schedule and individual need.
19. Confirm initial screen was accomplished, verify results, and follow up, as appropriate. The Recommended Uniform Screening Panel (https://www.hrsa.gov/advisory-committees/heritable-disorders/rusp/index.html), as determined by The Secretary's Advisory Committee on Heritable Disorders in Newborns and Children, and state newborn screening laws/regulations (https://www.babysfirsttest.org/) establish the criteria for and coverage of newborn screening procedures and programs.
20. Verify results as soon as possible, and follow up, as appropriate.
21. Confirm initial screening was accomplished, verify results, and follow up, as appropriate. See "Hyperbilirubinemia in the Newborn Infant ≥35 Weeks' Gestation: An Update With Clarifications" (https://doi.org/10.1542/peds.2009-0329).
22. Screening for critical congenital heart disease using pulse oximetry should be performed in newborns, after 24 hours of age, before discharge from the hospital, per "Endorsement of Health and Human Services Recommendation for Pulse Oximetry Screening for Critical Congenital Heart Disease" (https://doi.org/10.1542/peds.2011-3211).
23. Schedules, per the AAP Committee on Infectious Diseases, are available at https://publications.aap.org/redbook/pages/immunization-schedules. Every visit should be an opportunity to update and complete a child's immunizations.
24. Perform risk assessment or screening, as appropriate, per recommendations in the current edition of the AAP *Pediatric Nutrition: Policy of the American Academy of Pediatrics* (Iron chapter).
25. For children at risk of lead exposure, see "Prevention of Childhood Lead Toxicity" (https://doi.org/10.1542/peds.2016-1493) and "Low Level Lead Exposure Harms Children: A Renewed Call for Primary Prevention" (https://www.cdc.gov/nceh/lead/docs/final_document_030712.pdf).
26. Perform risk assessments or screenings as appropriate, based on universal screening requirements for patients with Medicaid or in high prevalence areas.
27. Tuberculosis testing per recommendations of the AAP Committee on Infectious Diseases, published in the current edition of the AAP *Red Book: Report of the Committee on Infectious Diseases.* Testing should be performed on recognition of high-risk factors.
28. See "Integrated Guidelines for Cardiovascular Health and Risk Reduction in Children and Adolescents" (http://www.nhlbi.nih.gov/guidelines/cvd_ped/index.htm).
29. Adolescents should be screened for sexually transmitted infections (STIs) per recommendations in the current edition of the AAP *Red Book: Report of the Committee on Infectious Diseases.*
30. Screen adolescents for HIV at least once between the ages of 15 and 21, making every effort to preserve confidentiality of the adolescent, as per "Human Immunodeficiency Virus (HIV) Infection: Screening" (https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/human-immunodeficiency-virus-hiv-infection-screening); after initial screening, youth at increased risk of HIV infection should be retested annually or more frequently, as per "Adolescents and Young Adults: The Pediatrician's Role in HIV Testing and Pre- and Postexposure HIV Prophylaxis" (https://doi.org/10.1542/peds.2021-055207).
31. Perform a risk assessment for hepatitis B virus (HBV) infection according to recommendations per the USPSTF (https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/hepatitis-b-virus-infection-screening) and in the 2021–2024 edition of the AAP *Red Book: Report of the Committee on Infectious Diseases*, making every effort to preserve confidentiality of the patient.
32. All individuals should be screened for hepatitis C virus (HCV) infection according to the USPSTF (https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/hepatitis-c-screening) and Centers for Disease Control and Prevention (CDC) recommendations (https://www.cdc.gov/mmwr/volumes/69/rr/rr6902a1.htm) at least once between the ages of 18 and 79. Those at increased risk of HCV infection, including those who are persons with past or current injection drug use, should be tested for HCV infection and reassessed annually.
33. Perform a risk assessment, as appropriate, per "Sudden Death in the Young: Information for the Primary Care Provider" (https://doi.org/10.1542/peds.2021-052044).
34. See USPSTF recommendations (https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/cervical-cancer-screening). Indications for pelvic examinations prior to age 21 are noted in "Gynecologic Examination for Adolescents in the Pediatric Office Setting" (https://doi.org/10.1542/peds.2010-1564).
35. Assess whether the child has a dental home. If no dental home is identified, perform a risk assessment (https://www.aap.org/en/patient-care/oral-health/oral-health-practice-tools/) and refer to a dental home. Recommend brushing with fluoride toothpaste in the proper dosage for age. See "Maintaining and Improving the Oral Health of Young Children" (https://doi.org/10.1542/peds.2014-2984).
36. Perform a risk assessment (https://www.aap.org/en/patient-care/oral-health/oral-health-practice-tools/). See "Maintaining and Improving the Oral Health of Young Children" (https://doi.org/10.1542/peds.2014-2984).
37. The USPSTF recommends that primary care clinicians apply fluoride varnish to the primary teeth of all infants and children starting at the age of primary tooth eruption (https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/prevention-of-dental-caries-in-children-younger-than-age-5-years-screening-and-interventions1). Once teeth are present, apply fluoride varnish to all children every 3 to 6 months in the primary care or dental office based on caries risk. Indications for fluoride use are noted in "Fluoride Use in Caries Prevention in the Primary Care Setting" (https://doi.org/10.1542/peds.2020-034637).
38. If primary water source is deficient in fluoride, consider oral fluoride supplementation. See "Fluoride Use in Caries Prevention in the Primary Care Setting" (https://doi.org/10.1542/peds.2020-034637).

Summary of Changes Made to the Bright Futures/AAP Recommendations for Preventive Pediatric Health Care (Periodicity Schedule)

This schedule reflects changes approved in December 2022 and published in April 2023. For updates and a list of previous changes made, visit www.aap.org/periodicityschedule.

CHANGES MADE IN DECEMBER 2022

HIV

The HIV screening recommendation has been updated to extend the upper age limit from 18 to 21 years (to account for the range in which the screening can take place) to align with recommendations of the US Preventive Services Task Force and AAP policy ("Adolescents and Young Adults: The Pediatrician's Role in HIV Testing and Pre- and Postexposure HIV Prophylaxis").

- Footnote 30 has been updated to read as follows: "Screen adolescents for HIV at least once between the ages of 15 and 21, making every effort to preserve confidentiality of the adolescent, as per 'Human Immunodeficiency Virus (HIV) Infection: Screening' (https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/human-immunodeficiency-virus-hiv-infection-screening); after initial screening, youth at increased risk of HIV infection should be retested annually or more frequently, as per 'Adolescents and Young Adults: The Pediatrician's Role in HIV Testing and Pre- and Postexposure HIV Prophylaxis' (https://doi.org/10.1542/peds.2021-055207)."

CHANGES MADE IN NOVEMBER 2021

HEPATITIS B VIRUS INFECTION

Assessing risk for HBV infection has been added to occur from newborn to 21 years (to account for the range in which the risk assessment can take place) to be consistent with recommendations of the USPSTF and the 2021–2024 edition of the AAP *Red Book-Report of the Committee on Infectious Diseases*.

- Footnote 31 has been added to read as follows: "Perform a risk assessment for hepatitis B virus (HBV) infection according to recommendations per the USPSTF (https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/hepatitis-b-virus-infection-screening) and in the 2021–2024 edition of the AAP *Red Book: Report of the Committee on Infectious Diseases*, making every effort to preserve confidentiality of the patient."

SUDDEN CARDIAC ARREST AND SUDDEN CARDIAC DEATH

Assessing risk for sudden cardiac arrest and sudden cardiac death has been added to occur from 11 to 21 years (to account for the range in which the risk assessment can take place) to be consistent with AAP policy ("Sudden Death in the Young: Information for the Primary Care Provider").

- Footnote 33 has been added to read as follows: "Perform a risk assessment, as appropriate, per 'Sudden Death in the Young: Information for the Primary Care Provider' (https://doi.org/10.1542/peds.2021-052044)."

DEPRESSION AND SUICIDE RISK

Screening for suicide risk has been added to the existing depression screening recommendation to be consistent with the GLAD-PC and AAP policy.

- Footnote 16 has been updated to read as follows: "Screen adolescents for depression and suicide risk, making every effort to preserve confidentiality of the adolescent. See 'Guidelines for Adolescent Depression in Primary Care (GLAD-PC): Part I. Practice Preparation, Identification, Assessment, and Initial Management' (https://doi.org/10.1542/peds.2017-4081), 'Mental Health Competencies for Pediatric Practice' (https://doi.org/10.1542/peds.2019-2757), 'Suicide and Suicide Attempts in Adolescents' (https://doi.org/10.1542/peds.2016-1420), and 'The 21st Century Cures Act & Adolescent Confidentiality' (https://www.adolescenthealth.org/Advocacy/Advocacy-Activities/2019-(1)/NASPAG-SAHM-Statement.aspx)."

BEHAVIORAL/SOCIAL/EMOTIONAL

The Psychosocial/Behavioral Assessment recommendation has been updated to Behavioral/Social/Emotional Screening (annually from newborn to 21 years) to align with AAP policy, the American College of Obstetricians and Gynecologists (Women's Preventive Services Initiative) recommendations, and the American Academy of Child & Adolescent Psychiatry guidelines.

- Footnote 14 has been updated to read as follows: "Screen for behavioral and social-emotional problems per 'Promoting Optimal Development: Screening for Behavioral and Emotional Problems' (https://doi.org/10.1542/peds.2014-3716), 'Mental Health Competencies for Pediatric Practice' (https://doi.org/10.1542/peds.2019-2757), 'Clinical Practice Guideline for the Assessment and Treatment of Children and Adolescents With Anxiety Disorders' (https://pubmed.ncbi.nlm.nih.gov/32439401), and 'Screening for Anxiety in Adolescent and Adult Women: A Recommendation From the Women's Preventive Services Initiative' (https://pubmed.ncbi.nlm.nih.gov/32510990/). The screening should be family centered and may include asking about caregiver emotional and mental health concerns and social determinants of health, racism, poverty, and relational health. See 'Poverty and Child Health in the United States' (https://doi.org/10.1542/peds.2016-0339), 'The Impact of Racism on Child and Adolescent Health' (https://doi.org/10.1542/peds.2019-1765), and 'Preventing Childhood Toxic Stress: Partnering With Families and Communities to Promote Relational Health' (https://doi.org/10.1542/peds.2021-052582)."

FLUORIDE VARNISH

- Footnote 37 has been updated to read as follows: "The USPSTF recommends that primary care clinicians apply fluoride varnish to the primary teeth of all infants and children starting at the age of primary tooth eruption (https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/prevention-of-dental-caries-in-children-younger-than-age-5-years-screening-and-interventions1). Once teeth are present, apply fluoride varnish to all children every 3 to 6 months in the primary care or dental office based on caries risk. Indications for fluoride use are noted in 'Fluoride Use in Caries Prevention in the Primary Care Setting' (https://doi.org/10.1542/peds.2020-034637)."

FLUORIDE SUPPLEMENTATION

- Footnote 38 has been updated to read as follows: "If primary water source is deficient in fluoride, consider oral fluoride supplementation. See 'Fluoride Use in Caries Prevention in the Primary Care Setting' (https://doi.org/10.1542/peds.2020-034637)."

HRSA
Health Resources & Services Administration
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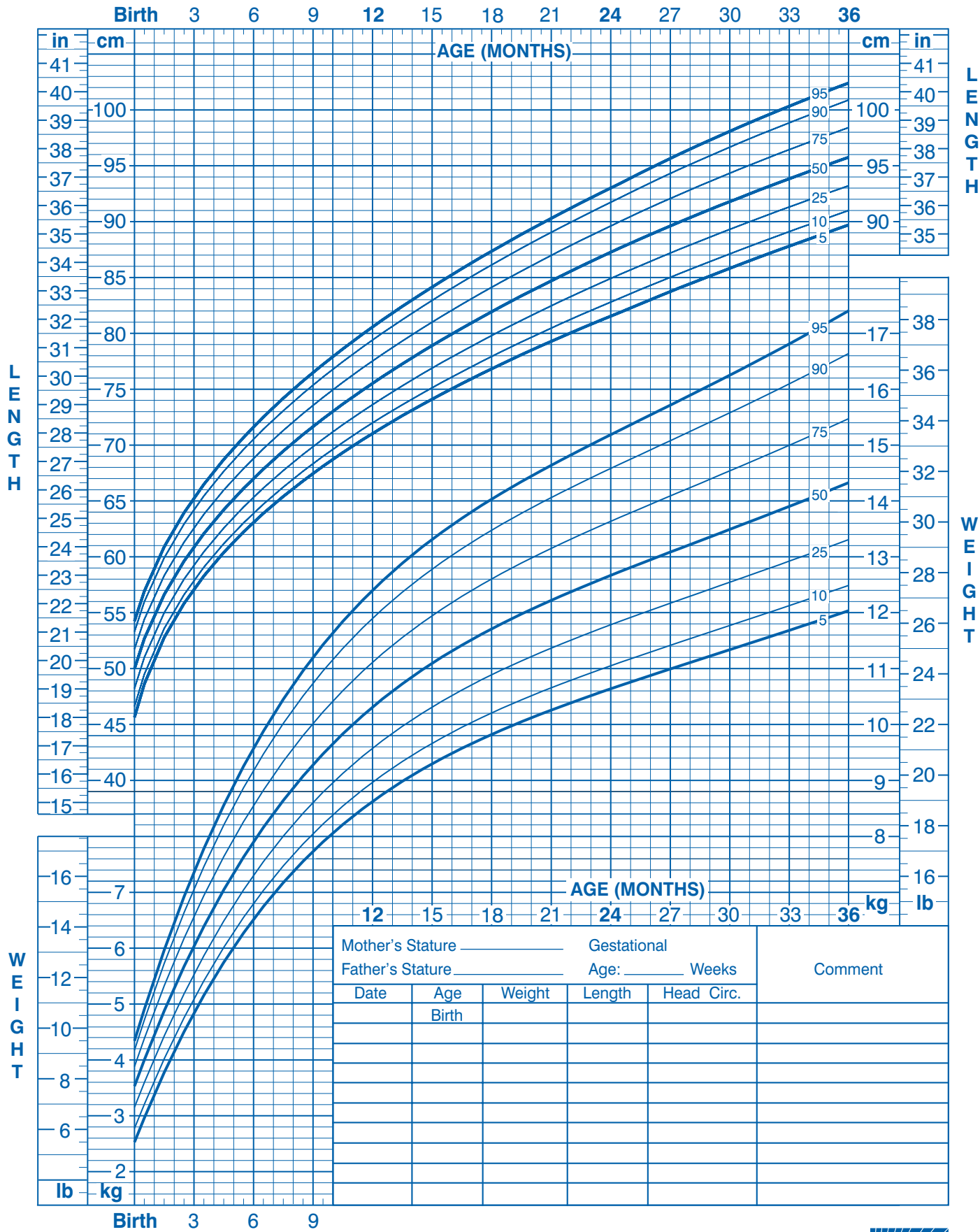
Birth to 36 months: Boys
Length-for-age and Weight-for-age percentiles

NAME _____

RECORD # _____



Published May 30, 2000 (modified 4/20/01).

SOURCE: Developed by the National Center for Health Statistics in collaboration with the National Center for Chronic Disease Prevention and Health Promotion (2000).
http://www.cdc.gov/growthcharts

CDC
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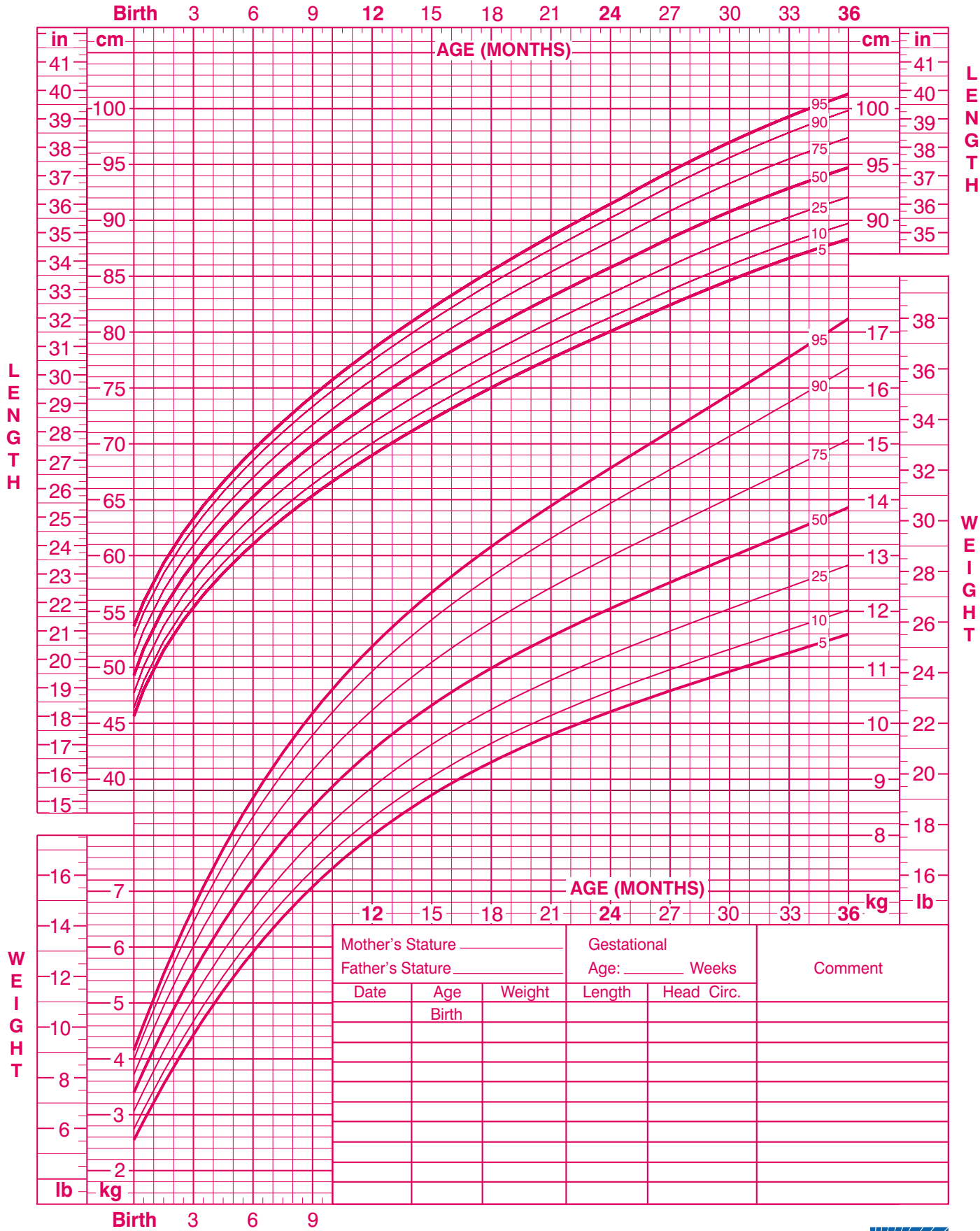
Birth to 36 months: Girls
Length-for-age and Weight-for-age percentiles

NAME _____

RECORD # _____



Published May 30, 2000 (modified 4/20/01).

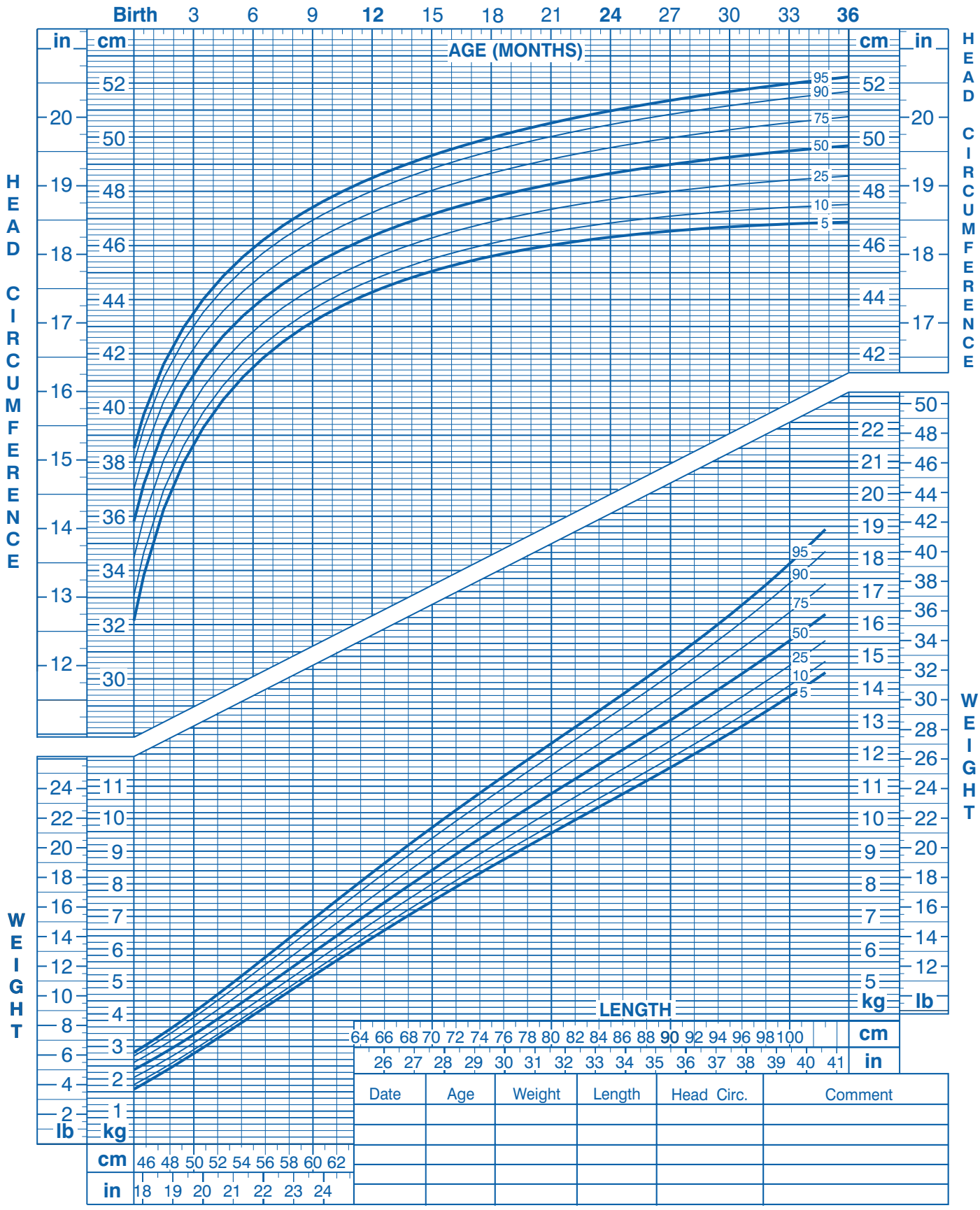
SOURCE: Developed by the National Center for Health Statistics in collaboration with the National Center for Chronic Disease Prevention and Health Promotion (2000).
http://www.cdc.gov/growthcharts

CDC
SAFER • HEALTHIER • PEOPLE™

Birth to 36 months: Boys
Head circumference-for-age and Weight-for-length percentiles

NAME _____

RECORD # _____



Published May 30, 2000 (modified 10/16/00).

SOURCE: Developed by the National Center for Health Statistics in collaboration with the National Center for Chronic Disease Prevention and Health Promotion (2000).
http://www.cdc.gov/growthcharts

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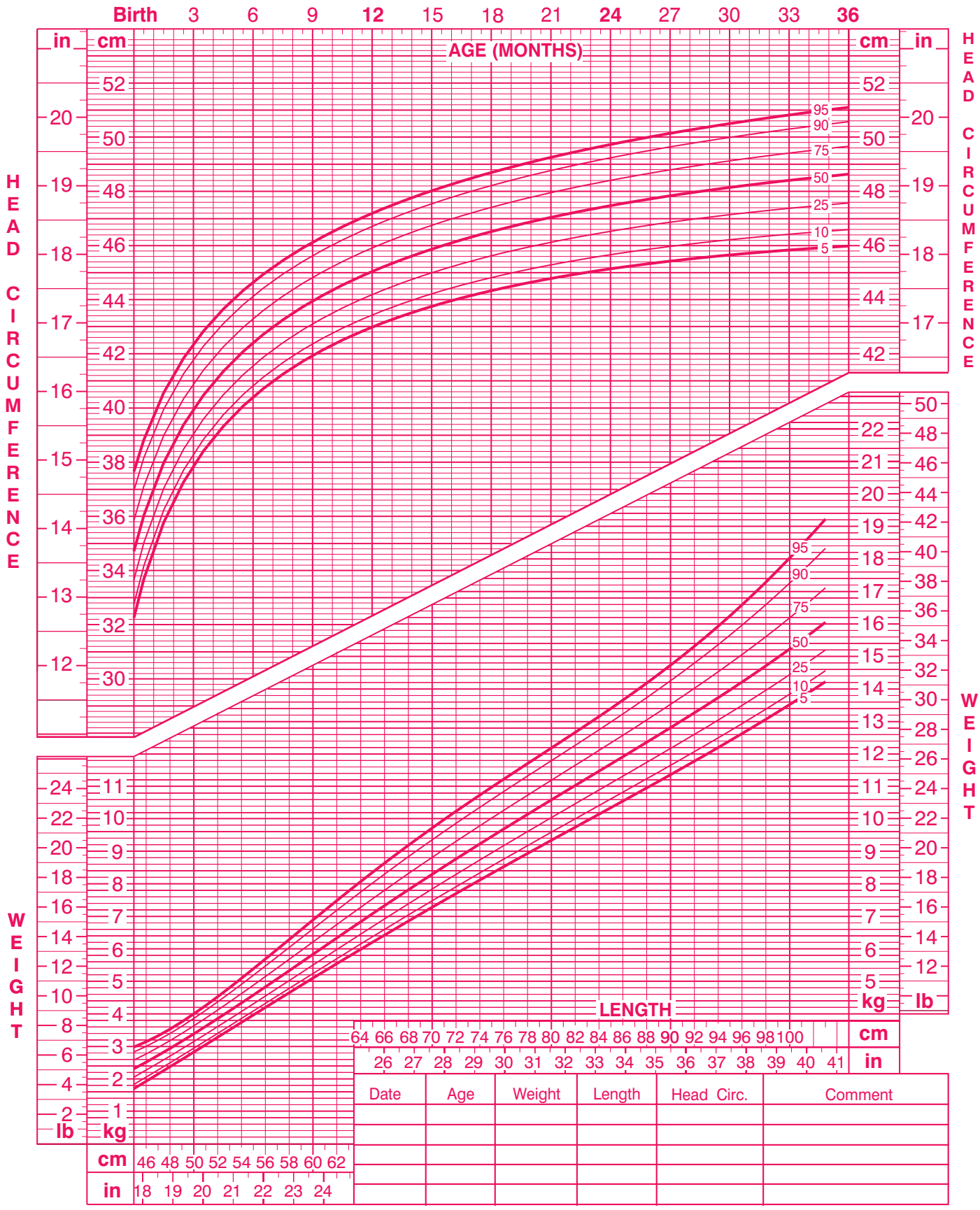
Birth to 36 months: Girls
Head circumference-for-age and Weight-for-length percentiles

NAME _____

RECORD # _____



Published May 30, 2000 (modified 10/16/00).

SOURCE: Developed by the National Center for Health Statistics in collaboration with the National Center for Chronic Disease Prevention and Health Promotion (2000).
http://www.cdc.gov/growthcharts

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2 to 20 years: Boys
Stature-for-age and Weight-for-age percentiles

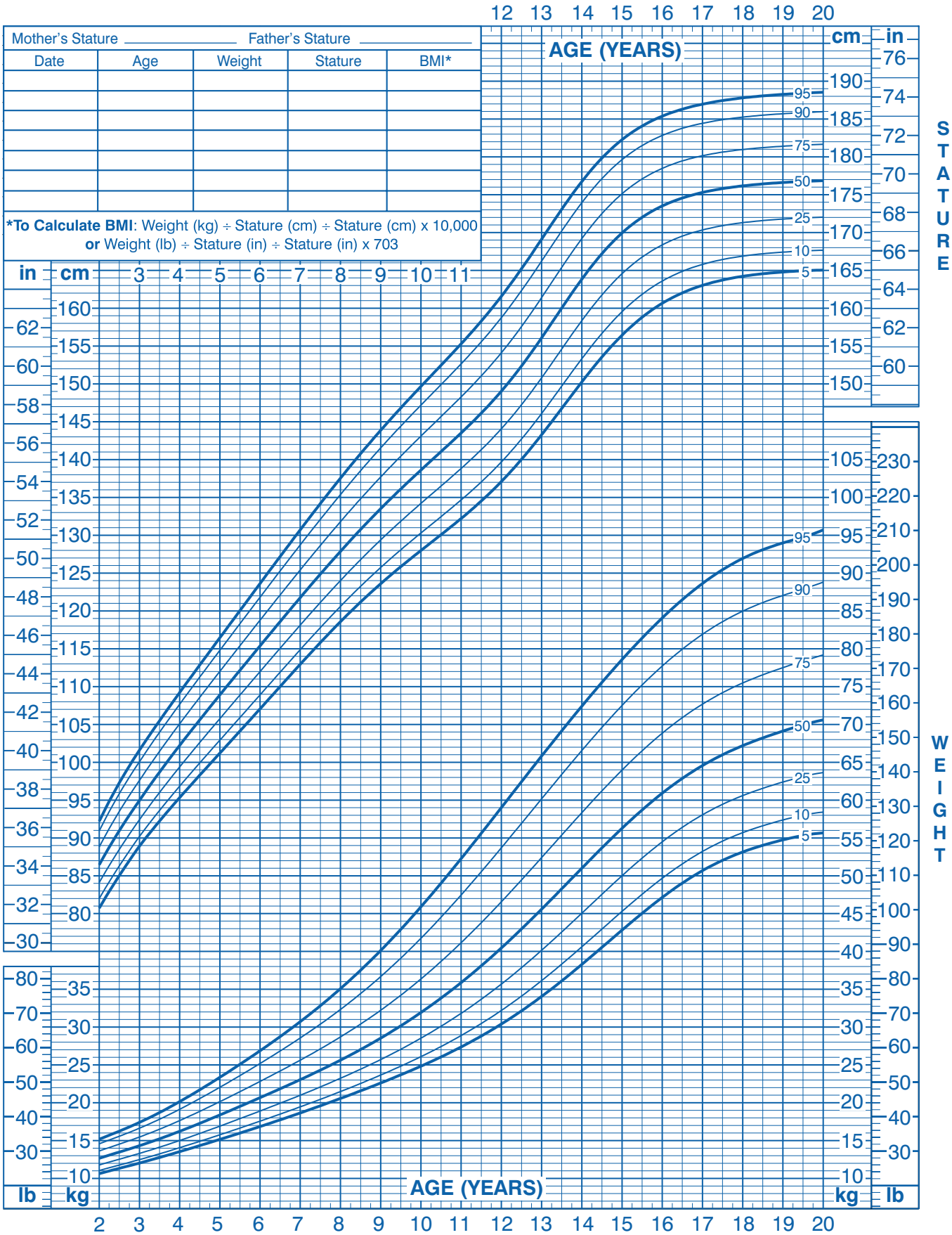
NAME _____

RECORD # _____

Mother's Stature _____ Father's Stature _____

Date	Age	Weight	Stature	BMI*

***To Calculate BMI**: Weight (kg) ÷ Stature (cm) ÷ Stature (cm) x 10,000
or Weight (lb) ÷ Stature (in) ÷ Stature (in) x 703



Published May 30, 2000 (modified 11/21/00).

SOURCE: Developed by the National Center for Health Statistics in collaboration with the National Center for Chronic Disease Prevention and Health Promotion (2000).
http://www.cdc.gov/growthcharts

CDC
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2 to 20 years: Girls
Stature-for-age and Weight-for-age percentiles

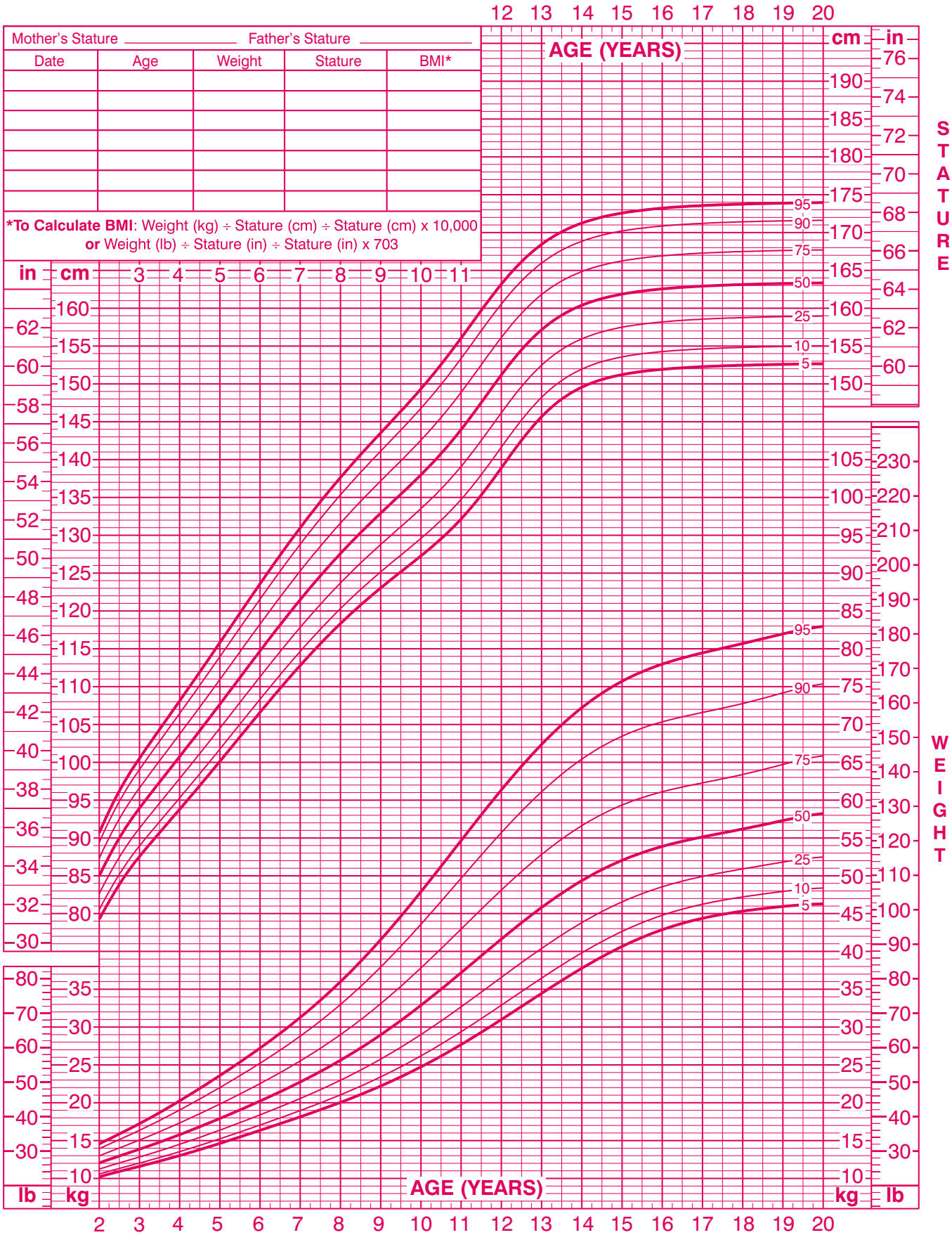
NAME _____

RECORD # _____

Mother's Stature _____ Father's Stature _____

Date	Age	Weight	Stature	BMI*

***To Calculate BMI**: Weight (kg) ÷ Stature (cm) ÷ Stature (cm) x 10,000
or Weight (lb) ÷ Stature (in) ÷ Stature (in) x 703



Published May 30, 2000 (modified 11/21/00).

SOURCE: Developed by the National Center for Health Statistics in collaboration with the National Center for Chronic Disease Prevention and Health Promotion (2000).
http://www.cdc.gov/growthcharts

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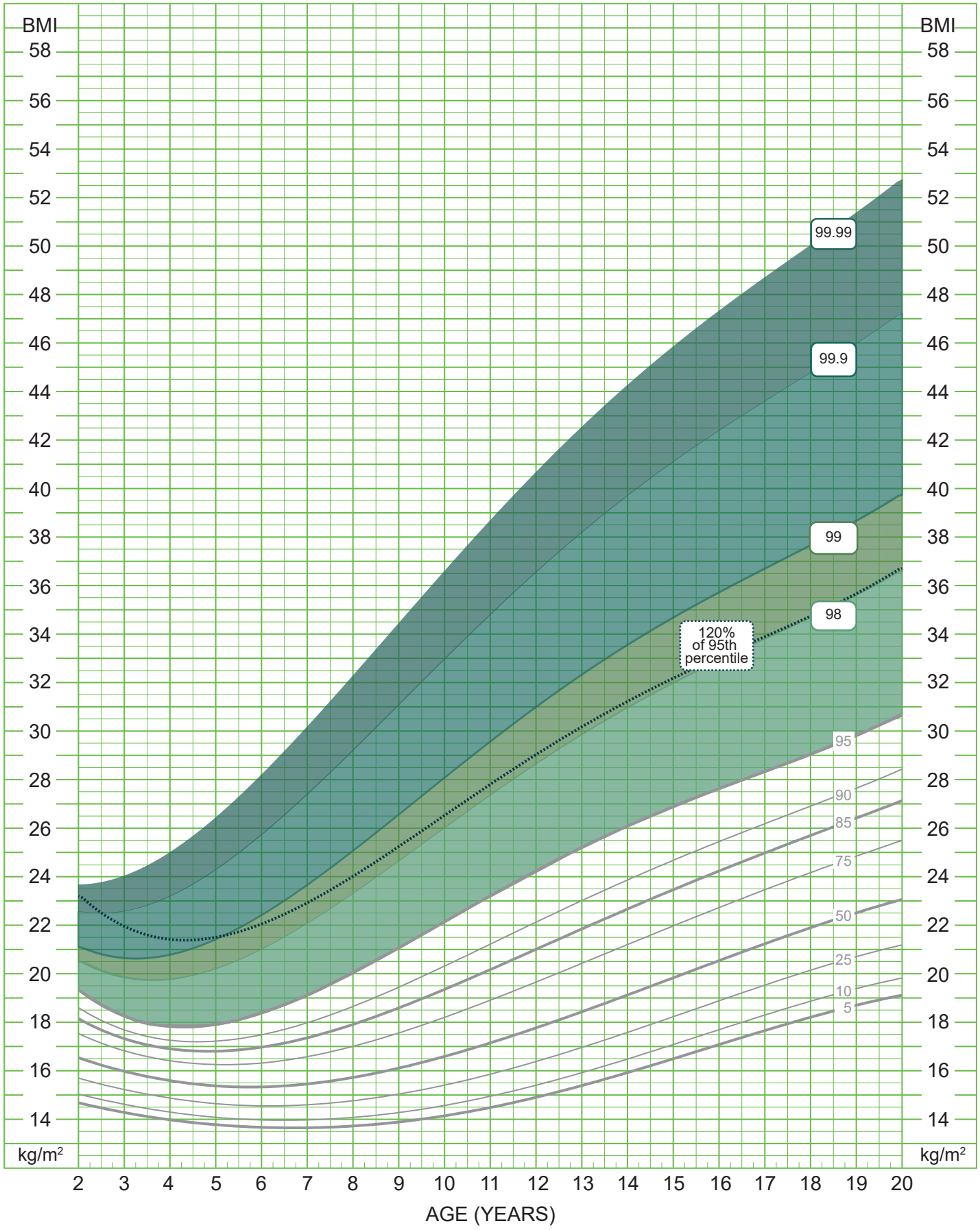
Boys: Ages 2–20 years

Body mass index-for-age percentiles

NAME _____

RECORD # _____



December 15, 2022

Data source: National Health Examination Survey and National Health and Nutrition Examination Survey.

Developed by: National Center for Health Statistics in collaboration with National Center for Chronic Disease Prevention and Health Promotion, 2022.

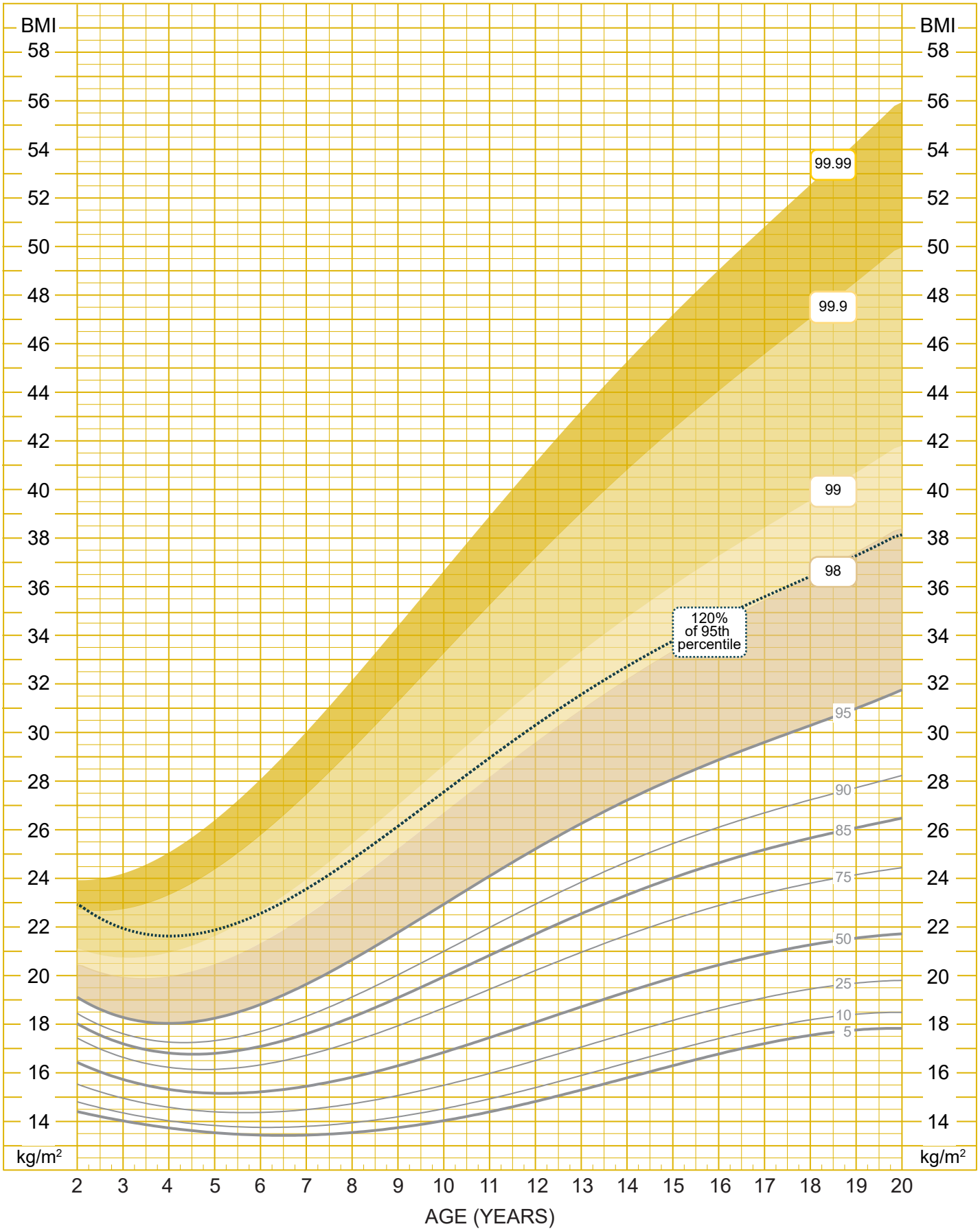
CS330334

Girls: Ages 2–20 years

Body mass index-for-age percentiles

NAME _____

RECORD # _____



December 15, 2022

Data source: National Health Examination Survey and National Health and Nutrition Examination Survey.

Developed by: National Center for Health Statistics in collaboration with National Center for Chronic Disease Prevention and Health Promotion, 2022.

CS330334

Recommended Child and Adolescent Immunization Schedule for ages 18 years or younger

UNITED STATES 2024

Vaccines and Other Immunizing Agents in the Child and Adolescent Immunization Schedule*

Monoclonal antibody	Abbreviation(s)	Trade name(s)
Respiratory syncytial virus monoclonal antibody (Nirsevimab)	**RSV-mAb**	Beyfortus™
Vaccine	**Abbreviation(s)**	**Trade name(s)**
COVID-19	**1vCOV-mRNA**	Comirnaty®/Pfizer-BioNTech COVID-19 Vaccine
		Spikevax®/Moderna COVID-19 Vaccine
	1vCOV-aPS	Novavax COVID-19 Vaccine
Dengue vaccine	**DEN4CYD**	Dengvaxia®
Diphtheria, tetanus, and acellular pertussis vaccine	**DTaP**	Daptacel® Infanrix®
Haemophilus influenzae type b vaccine	**Hib (PRP-T)**	ActHIB® Hiberix® PedvaxHIB®
	Hib (PRP-OMP)	
Hepatitis A vaccine	**HepA**	Havrix® Vaqta®
Hepatitis B vaccine	**HepB**	Engerix-B® Recombivax HB®
Human papillomavirus vaccine	**HPV**	Gardasil 9®
Influenza vaccine (inactivated)	**IIV4**	Multiple
Influenza vaccine (live, attenuated)	**LAIV4**	FluMist® Quadrivalent
Measles, mumps, and rubella vaccine	**MMR**	M-M-R II® Priorix®
Meningococcal serogroups A, C, W, Y vaccine	**MenACWY-CRM**	Menveo®
	MenACWY-TT	MenQuadfi®
Meningococcal serogroup B vaccine	**MenB-4C**	Bexsero®
	MenB-FHbp	Trumenba®
Meningococcal serogroup A, B, C, W, Y vaccine	**MenACWY-TT/ MenB-FHbp**	Penbraya™
Mpox vaccine	**Mpox**	Jynneos®
Pneumococcal conjugate vaccine	**PCV15** **PCV20**	Vaxneuvance™ Prevnar 20®
Pneumococcal polysaccharide vaccine	**PPSV23**	Pneumovax 23®
Poliovirus vaccine (inactivated)	**IPV**	Ipol®
Respiratory syncytial virus vaccine	**RSV**	Abrysvo™
Rotavirus vaccine	**RV1** **RV5**	Rotarix® RotaTeq®
Tetanus, diphtheria, and acellular pertussis vaccine	**Tdap**	Adacel® Boostrix®
Tetanus and diphtheria vaccine	**Td**	Tenivac® Tdvax™
Varicella vaccine	**VAR**	Varivax®
Combination vaccines *(use combination vaccines instead of separate injections when appropriate)*		
DTaP, hepatitis B, and inactivated poliovirus vaccine	**DTaP-HepB-IPV**	Pediarix®
DTaP, inactivated poliovirus, and *Haemophilus influenzae* type b vaccine	**DTaP-IPV/Hib**	Pentacel®
DTaP and inactivated poliovirus vaccine	**DTaP-IPV**	Kinrix® Quadracel®
DTaP, inactivated poliovirus, *Haemophilus influenzae* type b, and hepatitis B vaccine	**DTaP-IPV-Hib-HepB**	Vaxelis®
Measles, mumps, rubella, and varicella vaccine	**MMRV**	ProQuad®

*Administer recommended vaccines if immunization history is incomplete or unknown. Do not restart or add doses to vaccine series for extended intervals between doses. When a vaccine is not administered at the recommended age, administer at a subsequent visit. The use of trade names is for identification purposes only and does not imply endorsement by the ACIP or CDC.

11/16/2023

How to use the child and adolescent immunization schedule

1 Determine recommended vaccine by age **(Table 1)**

2 Determine recommended interval for catch-up vaccination **(Table 2)**

3 Assess need for additional recommended vaccines by medical condition or other indication **(Table 3)**

4 Review vaccine types, frequencies, intervals, and considerations for special situations **(Notes)**

5 Review contraindications and precautions for vaccine types **(Appendix)**

6 Review new or updated ACIP guidance **(Addendum)**

Recommended by the Advisory Committee on Immunization Practices (www.cdc.gov/vaccines/acip) and approved by the Centers for Disease Control and Prevention (www.cdc.gov), American Academy of Pediatrics (www.aap.org), American Academy of Family Physicians (www.aafp.org), American College of Obstetricians and Gynecologists (www.acog.org), American College of Nurse-Midwives (www.midwife.org), American Academy of Physician Associates (www.aapa.org), and National Association of Pediatric Nurse Practitioners (www.napnap.org).

Report

- Suspected cases of reportable vaccine-preventable diseases or outbreaks to your state or local health department
- Clinically significant adverse events to the Vaccine Adverse Event Reporting System (VAERS) at www.vaers.hhs.gov or 800-822-7967

Questions or comments

Contact www.cdc.gov/cdc-info or 800-CDC-INFO (800-232-4636), in English or Spanish, 8 a.m.–8 p.m. ET, Monday through Friday, excluding holidays

Download the CDC Vaccine Schedules app for providers at www.cdc.gov/vaccines/schedules/hcp/schedule-app.html

Helpful information

- Complete Advisory Committee on Immunization Practices (ACIP) recommendations: www.cdc.gov/vaccines/hcp/acip-recs/index.html
- ACIP Shared Clinical Decision-Making Recommendations: www.cdc.gov/vaccines/acip/acip-scdm-faqs.html
- *General Best Practice Guidelines for Immunization* (including contraindications and precautions): www.cdc.gov/vaccines/hcp/acip-recs/general-recs/index.html
- Vaccine information statements: www.cdc.gov/vaccines/hcp/vis/index.html
- Manual for the Surveillance of Vaccine-Preventable Diseases (including case identification and outbreak response): www.cdc.gov/vaccines/pubs/surv-manual

U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

Scan QR code for access to online schedule

CS310020-D

Table 1 Recommended Child and Adolescent Immunization Schedule for Ages 18 Years or Younger, United States, 2024

These recommendations must be read with the notes that follow. For those who fall behind or start late, provide catch-up vaccination at the earliest opportunity as indicated by the green bars.
To determine minimum intervals between doses, see the catch-up schedule (Table 2).

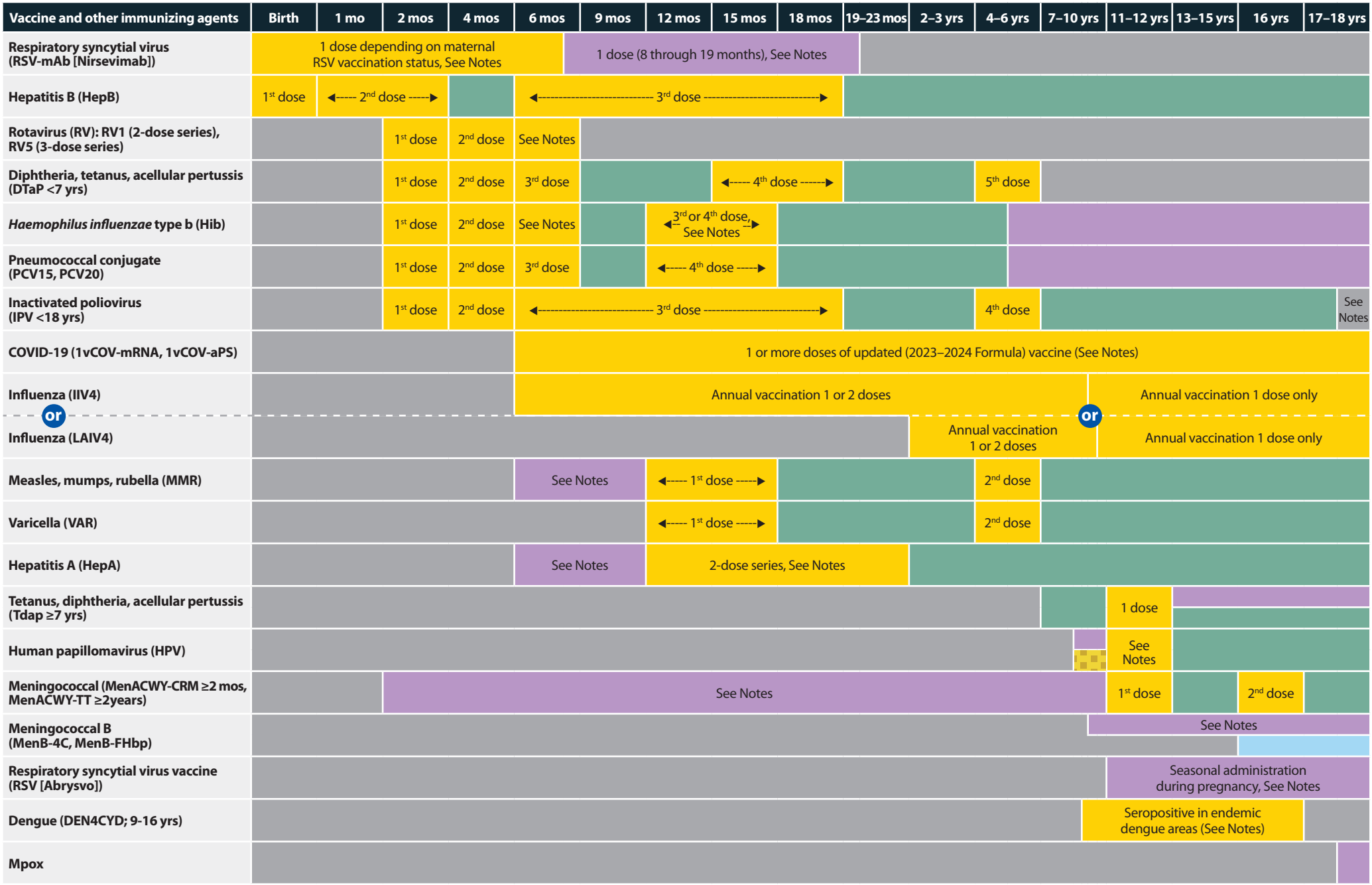


Table 2 Recommended Catch-up Immunization Schedule for Children and Adolescents Who Start Late or Who Are More than 1 Month Behind, United States, 2024

The table below provides catch-up schedules and minimum intervals between doses for children whose vaccinations have been delayed. A vaccine series does not need to be restarted, regardless of the time that has elapsed between doses. Use the section appropriate for the child's age. **Always use this table in conjunction with Table 1 and the Notes that follow.**

Vaccine	Minimum Age for Dose 1	Minimum Interval Between Doses			
		Dose 1 to Dose 2	Dose 2 to Dose 3	Dose 3 to Dose 4	Dose 4 to Dose 5
Children age 4 months through 6 years					
Hepatitis B	Birth	**4 weeks**	**8 weeks *and* at least 16 weeks after first dose** minimum age for the final dose is 24 weeks		
Rotavirus	6 weeks Maximum age for first dose is 14 weeks, 6 days.	**4 weeks**	**4 weeks** maximum age for final dose is 8 months, 0 days		
Diphtheria, tetanus, and acellular pertussis	6 weeks	**4 weeks**	**4 weeks**	**6 months**	**6 months** A fifth dose is not necessary if the fourth dose was administered at age 4 years or older ***and*** at least 6 months after dose 3
Haemophilus influenzae type b	6 weeks	**No further doses needed** if first dose was administered at age 15 months or older. **4 weeks** if first dose was administered before the 1st birthday. **8 weeks (as final dose)** if first dose was administered at age 12 through 14 months.	**No further doses needed** if previous dose was administered at age 15 months or older **4 weeks** if current age is younger than 12 months ***and*** first dose was administered at younger than age 7 months ***and*** at least 1 previous dose was PRP-T (ActHib®, Pentacel®, Hiberix®), Vaxelis® or unknown **8 weeks *and* age 12 through 59 months (as final dose)** if current age is younger than 12 months ***and*** first dose was administered at age 7 through 11 months; **OR** if current age is 12 through 59 months ***and*** first dose was administered before the 1st birthday ***and*** second dose was administered at younger than 15 months; **OR** if both doses were PedvaxHIB® and were administered before the 1st birthday	**8 weeks (as final dose)** This dose only necessary for children age 12 through 59 months who received 3 doses before the 1st birthday.	
Pneumococcal conjugate	6 weeks	**No further doses needed** for healthy children if first dose was administered at age 24 months or older **4 weeks** if first dose was administered before the 1st birthday **8 weeks (as final dose for healthy children)** if first dose was administered at the 1st birthday or after	**No further doses needed** for healthy children if previous dose was administered at age 24 months or older **4 weeks** if current age is younger than 12 months ***and*** previous dose was administered at <7 months old **8 weeks (as final dose for healthy children)** if previous dose was administered between 7–11 months (wait until at least 12 months old); **OR** if current age is 12 months or older ***and*** at least 1 dose was administered before age 12 months	**8 weeks (as final dose)** This dose is only necessary for children age 12 through 59 months regardless of risk, or age 60 through 71 months with any risk, who received 3 doses before age 12 months.	
Inactivated poliovirus	6 weeks	**4 weeks**	**4 weeks** if current age is <4 years **6 months (as final dose)** if current age is 4 years or older	**6 months (minimum age 4 years for final dose)**	
Measles, mumps, rubella	12 months	**4 weeks**			
Varicella	12 months	**3 months**			
Hepatitis A	12 months	**6 months**			
Meningococcal ACWY	2 months MenACWY-CRM 2 years MenACWY-TT	**8 weeks**	See Notes	See Notes	
Children and adolescents age 7 through 18 years					
Meningococcal ACWY	Not applicable (N/A)	**8 weeks**			
Tetanus, diphtheria; tetanus, diphtheria, and acellular pertussis	7 years	**4 weeks**	**4 weeks** if first dose of DTaP/DT was administered before the 1st birthday **6 months (as final dose)** if first dose of DTaP/DT or Tdap/Td was administered at or after the 1st birthday	**6 months** if first dose of DTaP/DT was administered before the 1st birthday	
Human papillomavirus	9 years	**Routine dosing intervals are recommended.**			
Hepatitis A	N/A	**6 months**			
Hepatitis B	N/A	**4 weeks**	**8 weeks *and* at least 16 weeks after first dose**		
Inactivated poliovirus	N/A	**4 weeks**	**6 months** A fourth dose is not necessary if the third dose was administered at age 4 years or older ***and*** at least 6 months after the previous dose.	A fourth dose of IPV is indicated if all previous doses were administered at <4 years **OR** if the third dose was administered <6 months after the second dose.	
Measles, mumps, rubella	N/A	**4 weeks**			
Varicella	N/A	**3 months** if younger than age 13 years. **4 weeks** if age 13 years or older			
Dengue	9 years	**6 months**	6 months		

Table 3 Recommended Child and Adolescent Immunization Schedule by Medical Indication, United States, 2024

Always use this table in conjunction with Table 1 and the Notes that follow. Medical conditions are often not mutually exclusive. If multiple conditions are present, refer to guidance in all relevant columns. See Notes for medical conditions not listed.

Vaccine and other immunizing agents	Pregnancy	Immunocompromised (excluding HIV infection)	HIV infection CD4 percentage and count[a]		CSF leak or cochlear implant	Asplenia or persistent complement component deficiencies	Heart disease or chronic lung disease	Kidney failure, End-stage renal disease or on Dialysis	Chronic liver disease	Diabetes
			<15% or <200mm	≥15% and ≥200mm						
RSV-mAb (nirsevimab)		2nd RSV season		1 dose depending on maternal RSV vaccination status, See Notes			2nd RSV season for chronic lung disease (See Notes)	1 dose depending on maternal RSV vaccination status, See Notes		
Hepatitis B										
Rotavirus		SCID[b]								
DTaP/Tdap	DTaP Tdap: 1 dose each pregnancy									
Hib		HSCT: 3 doses	See Notes			See Notes				
Pneumococcal										
IPV										
COVID-19		See Notes								
IIV4										
LAIV4							Asthma, wheezing: 2–4 years[c]			
MMR	*									
VAR	*									
Hepatitis A										
HPV	*	3 dose series. See Notes								
MenACWY										
MenB										
RSV (Abrysvo)	Seasonal administration, See Notes									
Dengue										
Mpox	See Notes									

- Recommended for all age-eligible children who lack documentation of a complete vaccination series
- Not recommended for all children, but is recommended for some children based on increased risk for or severe outcomes from disease
- Recommended for all age-eligible children, and additional doses may be necessary based on medical condition or other indications. See Notes.
- Precaution: Might be indicated if benefit of protection outweighs risk of adverse reaction
- Contraindicated or not recommended *Vaccinate after pregnancy, if indicated
- No Guidance/ Not Applicable

a. For additional information regarding HIV laboratory parameters and use of live vaccines, see the General Best Practice Guidelines for Immunization, "Altered Immunocompetence," at www.cdc.gov/vaccines/hcp/acip-recs/general-recs/immunocompetence.html and Table 4-1 (footnote J) at www.cdc.gov/vaccines/hcp/acip-recs/general-recs/contraindications.html.

b. Severe Combined Immunodeficiency

c. LAIV4 contraindicated for children 2–4 years of age with asthma or wheezing during the preceding 12 months

Notes

Recommended Child and Adolescent Immunization Schedule for Ages 18 Years or Younger, United States, 2024

For vaccination recommendations for persons ages 19 years or older, see the Recommended Adult Immunization Schedule, 2024.

Additional information

- For calculating intervals between doses, 4 weeks = 28 days. Intervals of ≥4 months are determined by calendar months.
- Within a number range (e.g., 12–18), a dash (–) should be read as "through."
- Vaccine doses administered ≤4 days before the minimum age or interval are considered valid. Doses of any vaccine administered ≥5 days earlier than the minimum age or minimum interval should not be counted as valid and should be repeated as age appropriate. **The repeat dose should be spaced after the invalid dose by the recommended minimum interval.** For further details, see Table 3-2, Recommended and minimum ages and intervals between vaccine doses, in *General Best Practice Guidelines for Immunization* at www.cdc.gov/vaccines/hcp/acip-recs/general-recs/timing.html.
- Information on travel vaccination requirements and recommendations is available at www.cdc.gov/travel/.
- For vaccination of persons with immunodeficiencies, see Table 8-1, Vaccination of persons with primary and secondary immunodeficiencies, in *General Best Practice Guidelines for Immunization* at www.cdc.gov/vaccines/hcp/acip-recs/general-recs/immunocompetence.html, and Immunization in Special Clinical Circumstances (In: Kimberlin DW, Barnett ED, Lynfield Ruth, Sawyer MH, eds. *Red Book: 2021–2024 Report of the Committee on Infectious Diseases*. 32nd ed. Itasca, IL: American Academy of Pediatrics; 2021:72–86).
- For information about vaccination in the setting of a vaccine-preventable disease outbreak, contact your state or local health department.
- The National Vaccine Injury Compensation Program (VICP) is a no-fault alternative to the traditional legal system for resolving vaccine injury claims. All vaccines included in the child and adolescent vaccine schedule are covered by VICP except dengue, PPSV23, RSV, Mpox and COVID-19 vaccines. Mpox and COVID-19 vaccines are covered by the Countermeasures Injury Compensation Program (CICP). For more information, see www.hrsa.gov/vaccinecompensation or www.hrsa.gov/cicp.

COVID-19 vaccination

(minimum age: 6 months [Moderna and Pfizer-BioNTech COVID-19 vaccines], 12 years [Novavax COVID-19 Vaccine])

Routine vaccination

Age 6 months–4 years

- **Unvaccinated:**
  - 2-dose series of updated (2023–2024 Formula) Moderna at 0, 4-8 weeks
  - 3-dose series of updated (2023–2024 Formula) Pfizer-BioNTech at 0, 3-8, 11-16 weeks
- **Previously vaccinated* with 1 dose of any Moderna:** 1 dose of updated (2023–2024 Formula) Moderna 4-8 weeks after the most recent dose.
- **Previously vaccinated* with 2 or more doses of any Moderna:** 1 dose of updated (2023–2024 Formula) Moderna at least 8 weeks after the most recent dose.
- **Previously vaccinated* with 1 dose of any Pfizer-BioNTech:** 2-dose series of updated (2023–2024 Formula) Pfizer-BioNTech at 0, 8 weeks (minimum interval between previous Pfizer-BioNTech and dose 1: 3-8 weeks).
- **Previously vaccinated* with 2 or more doses of any Pfizer-BioNTech:** 1 dose of updated (2023–2024 Formula) Pfizer-BioNTech at least 8 weeks after the most recent dose.

Age 5–11 years

- **Unvaccinated:** 1 dose of updated (2023–2024 Formula) Moderna or Pfizer-BioNTech vaccine.
- **Previously vaccinated* with 1 or more doses of Moderna or Pfizer-BioNTech:** 1 dose of updated (2023–2024 Formula) Moderna or Pfizer-BioNTech at least 8 weeks after the most recent dose.

Age 12–18 years

- **Unvaccinated:**
  - 1 dose of updated (2023–2024 Formula) Moderna or Pfizer-BioNTech vaccine
  - 2-dose series of updated (2023–2024 Formula) Novavax at 0, 3-8 weeks
- **Previously vaccinated* with any COVID-19 vaccine(s):** 1 dose of any updated (2023–2024 Formula) COVID-19 vaccine at least 8 weeks after the most recent dose.

Special situations

Persons who are moderately or severely immunocompromised**

Age 6 months–4 years

- **Unvaccinated:**
  - 3-dose series of updated (2023–2024 Formula) Moderna at 0, 4, 8 weeks
  - 3-dose series of updated (2023–2024 Formula) Pfizer-BioNTech at 0, 3, 11 weeks.
- **Previously vaccinated* with 1 dose of any Moderna:** 2-dose series of updated (2023–2024 Formula) Moderna at 0, 4 weeks (minimum interval between previous Moderna and dose 1: 4 weeks).
- **Previously vaccinated* with 2 doses of any Moderna:** 1 dose of updated (2023–2024 Formula) Moderna at least 4 weeks after the most recent dose.
- **Previously vaccinated* with 3 or more doses of any Moderna:** 1 dose of updated (2023–2024 Formula) Moderna at least 8 weeks after the most recent dose.
- **Previously vaccinated* with 1 dose of any Pfizer-BioNTech:** 2-dose series of updated (2023–2024 Formula) Pfizer-BioNTech at 0, 8 weeks (minimum interval between previous Pfizer-BioNTech and dose 1: 3 weeks).
- **Previously vaccinated* with 2 or more doses of any Pfizer-BioNTech:** 1 dose of updated (2023–2024 Formula) Pfizer-BioNTech at least 8 weeks after the most recent dose.

Age 5–11 years

- **Unvaccinated:**
  - 3-dose series of updated (2023–2024 Formula) Moderna at 0, 4, 8 weeks
  - 3-dose series updated (2023–2024 Formula) Pfizer-BioNTech at 0, 3, 7 weeks.
- **Previously vaccinated* with 1 dose of any Moderna:** 2-dose series of updated (2023–2024 Formula) Moderna at 0, 4 weeks (minimum interval between previous Moderna and dose 1: 4 weeks).
- **Previously vaccinated* with 2 doses of any Moderna:** 1 dose of updated (2023–2024 Formula) Moderna at least 4 weeks after the most recent dose.
- **Previously vaccinated* with 1 dose of any Pfizer-BioNTech:** 2-dose series of updated (2023–2024 Formula) Pfizer-BioNTech at 0, 4 weeks (minimum interval between previous Pfizer-BioNTech and dose 1: 3 weeks)
- **Previously vaccinated* with 2 doses of any Pfizer-BioNTech:** 1 dose of 2023–2024 Pfizer-BioNTech at least 4 weeks after the most recent dose.

Notes

Recommended Child and Adolescent Immunization Schedule for Ages 18 Years or Younger, United States, 2024

- **Previously vaccinated* with 3 or more doses of any Moderna or Pfizer-BioNTech:** 1 dose of updated (2023–2024 Formula) Moderna or Pfizer-BioNTech at least 8 weeks after the most recent dose.

Age 12–18 years

- **Unvaccinated:**
  - 3-dose series of updated (2023–2024 Formula) Moderna at 0, 4, 8 weeks
  - 3-dose series of updated (2023–2024 Formula) Pfizer-BioNTech at 0, 3, 7 weeks
  - 2-dose series of updated (2023–2024 Formula) Novavax at 0, 3 weeks
- **Previously vaccinated* with 1 dose of any Moderna:** 2-dose series of updated (2023–2024 Formula) Moderna at 0, 4 weeks (minimum interval between previous Moderna dose and dose 1: 4 weeks).
- **Previously vaccinated* with 2 doses of any Moderna:** 1 dose of updated (2023–2024 Formula) Moderna at least 4 weeks after the most recent dose.
- **Previously vaccinated* with 1 dose of any Pfizer-BioNTech:** 2-dose series of updated (2023–2024 Formula) Pfizer-BioNTech at 0, 4 weeks (minimum interval between previous Pfizer-BioNTech dose and dose 1: 3 weeks).
- **Previously vaccinated* with 2 doses of any Pfizer-BioNTech:** 1 dose of updated (2023–2024 Formula) Pfizer-BioNTech at least 4 weeks after the most recent dose.
- **Previously vaccinated* with 3 or more doses of any Moderna or Pfizer-BioNTech:** 1 dose of any updated (2023–2024 Formula) COVID-19 vaccine at least 8 weeks after the most recent dose.
- **Previously vaccinated* with 1 or more doses of Janssen or Novavax or with or without dose(s) of any Original monovalent or bivalent COVID-19 vaccine:** 1 dose of any updated (2023–2024 Formula) COVID-19 vaccine at least 8 weeks after the most recent dose.

There is no preferential recommendation for the use of one COVID-19 vaccine over another when more than one recommended age-appropriate vaccine is available.

Administer an age-appropriate COVID-19 vaccine product for each dose. For information about transition from age 4 years to age 5 years or age 11 years to age 12 years during COVID-19 vaccination series, see Tables 1 and 2 at www.cdc.gov/vaccines/covid-19/clinical-considerations/interim-considerations-us.html#covid-vaccines.

Current COVID-19 schedule and dosage formulation available at www.cdc.gov/covidschedule. For more information on Emergency Use Authorization (EUA) indications for COVID-19 vaccines, see www.fda.gov/emergency-preparedness-and-response/coronavirus-disease-2019-covid-19/covid-19-vaccines

***Note:** Previously vaccinated is defined as having received any Original monovalent or bivalent COVID-19 vaccine (Janssen, Moderna, Novavax, Pfizer-BioNTech) prior to the updated 2023–2024 formulation.

****Note:** Persons who are moderately or severely immunocompromised have the option to receive one additional dose of updated (2023–2024 Formula) COVID-19 vaccine at least 2 months following the last recommended updated (2023–2024 Formula) COVID-19 vaccine dose. Further additional updated (2023–2024 Formula) COVID-19 vaccine dose(s) may be administered, informed by the clinical judgement of a healthcare provider and personal preference and circumstances. Any further additional doses should be administered at least 2 months after the last updated (2023–2024 Formula) COVID-19 vaccine dose. Moderately or severely immunocompromised children 6 months–4 years of age should receive homologous updated (2023–2024 Formula) mRNA vaccine dose(s) if they receive additional doses.

Dengue vaccination (minimum age: 9 years)

Routine vaccination

- Age 9–16 years living in areas with endemic dengue **AND** have laboratory confirmation of previous dengue infection
  - 3-dose series administered at 0, 6, and 12 months
- Endemic areas include Puerto Rico, American Samoa, US Virgin Islands, Federated States of Micronesia, Republic of Marshall Islands, and the Republic of Palau. For updated guidance on dengue endemic areas and pre-vaccination laboratory testing see www.cdc.gov/mmwr/volumes/70/rr/rr7006a1.htm?s_cid=rr7006a1_w and www.cdc.gov/dengue/vaccine/hcp/index.html
- Dengue vaccine should not be administered to children traveling to or visiting endemic dengue areas.

Diphtheria, tetanus, and pertussis (DTaP) vaccination (minimum age: 6 weeks [4 years for Kinrix® or Quadracel®])

Routine vaccination

- 5-dose series (3-dose primary series at age 2, 4, and 6 months, followed by a booster doses at ages 15–18 months and 4–6 years
  - **Prospectively:** Dose 4 may be administered as early as age 12 months if at least 6 months have elapsed since dose 3.
  - **Retrospectively:** A 4th dose that was inadvertently administered as early as age 12 months may be counted if at least 4 months have elapsed since dose 3.

Catch-up vaccination

- Dose 5 is not necessary if dose 4 was administered at age 4 years or older and at least 6 months after dose 3.
- For other catch-up guidance, see Table 2.

Special situations

- **Wound management** in children less than age 7 years with history of 3 or more doses of tetanus-toxoid-containing vaccine: For all wounds except clean and minor wounds, administer DTaP if more than 5 years since last dose of tetanus-toxoid-containing vaccine. For detailed information, see www.cdc.gov/mmwr/volumes/67/rr/rr6702a1.htm.

Haemophilus influenzae type b vaccination (minimum age: 6 weeks)

Routine vaccination

- **ActHIB®, Hiberix®, Pentacel®, or Vaxelis®:** 4-dose series (3-dose primary series at age 2, 4, and 6 months, followed by a booster dose* at age 12–15 months)
  - *Vaxelis® is not recommended for use as a booster dose. A different Hib-containing vaccine should be used for the booster dose.
- **PedvaxHIB®:** 3-dose series (2-dose primary series at age 2 and 4 months, followed by a booster dose at age 12–15 months)

Catch-up vaccination

- **Dose 1 at age 7–11 months:** Administer dose 2 at least 4 weeks later and dose 3 (final dose) at age12–15 months or 8 weeks after dose 2 (whichever is later).
- **Dose 1 at age 12–14 months:** Administer dose 2 (final dose) at least 8 weeks after dose 1.
- **Dose 1 before age 12 months and dose 2 before age 15 months:** Administer dose 3 (final dose) at least 8 weeks after dose 2.
- **2 doses of PedvaxHIB® before age 12 months:** Administer dose 3 (final dose) at age12–59 months and at least 8 weeks after dose 2.
- **1 dose administered at age 15 months or older:** No further doses needed
- **Unvaccinated at age 15–59 months:** Administer 1 dose.

Notes

- **Previously unvaccinated children age 60 months or older who are not considered high risk:** Do not require catch-up vaccination

For other catch-up guidance, see Table 2. Vaxelis® can be used for catch-up vaccination in children less than age 5 years. Follow the catch-up schedule even if Vaxelis® is used for one or more doses. For detailed information on use of Vaxelis® see www.cdc.gov/mmwr/volumes/69/wr/mm6905a5.htm.

Special situations

- **Chemotherapy or radiation treatment:**
  Age 12–59 months
  - Unvaccinated or only 1 dose before age 12 months: 2 doses, 8 weeks apart
  - 2 or more doses before age 12 months: 1 dose at least 8 weeks after previous dose

  Doses administered within 14 days of starting therapy or during therapy should be repeated at least 3 months after therapy completion.
- **Hematopoietic stem cell transplant (HSCT):**
  - 3-dose series 4 weeks apart starting 6 to 12 months after successful transplant, regardless of Hib vaccination history
- **Anatomic or functional asplenia (including sickle cell disease):**
  Age 12–59 months
  - Unvaccinated or only 1 dose before age 12 months: 2 doses, 8 weeks apart
  - 2 or more doses before age 12 months: 1 dose at least 8 weeks after previous dose

  Unvaccinated* persons age 5 years or older
  - 1 dose
- **Elective splenectomy:**
  Unvaccinated* persons age 15 months or older
  - 1 dose (preferably at least 14 days before procedure)
- **HIV infection:**
  Age 12–59 months
  - Unvaccinated or only 1 dose before age 12 months: 2 doses, 8 weeks apart
  - 2 or more doses before age 12 months: 1 dose at least 8 weeks after previous dose

  Unvaccinated* persons age 5–18 years
  - 1 dose
- **Immunoglobulin deficiency, early component complement deficiency:**
  Age 12–59 months
  - Unvaccinated or only 1 dose before age 12 months: 2 doses, 8 weeks apart
  - 2 or more doses before age 12 months: 1 dose at least 8 weeks after previous dose

Unvaccinated* = Less than routine series (through age 14 months) **OR no doses (age 15 months or older)*

Hepatitis A vaccination
(minimum age: 12 months for routine vaccination)

Routine vaccination

- 2-dose series (minimum interval: 6 months) at age 12–23 months

Catch-up vaccination

- Unvaccinated persons through age 18 years should complete a 2-dose series (minimum interval: 6 months).
- Persons who previously received 1 dose at age 12 months or older should receive dose 2 at least 6 months after dose 1.
- Adolescents age 18 years or older may receive the combined HepA and HepB vaccine, **Twinrix®**, as a 3-dose series (0, 1, and 6 months) or 4-dose series (3 doses at 0, 7, and 21–30 days, followed by a booster dose at 12 months).

International travel

- Persons traveling to or working in countries with high or intermediate endemic hepatitis A (www.cdc.gov/travel/):
  - **Infants age 6–11 months**: 1 dose before departure; revaccinate with 2 doses (separated by at least 6 months) between age 12–23 months.
  - **Unvaccinated age 12 months or older**: Administer dose 1 as soon as travel is considered.

Hepatitis B vaccination
(minimum age: birth)

Routine vaccination

- 3-dose series at age 0, 1–2, 6–18 months **(use monovalent HepB vaccine for doses administered before age 6 weeks)**
  - Birth weight ≥2,000 grams: 1 dose within 24 hours of birth if medically stable
  - Birth weight <2,000 grams: 1 dose at chronological age 1 month or hospital discharge (whichever is earlier and even if weight is still <2,000 grams).
- Infants who did not receive a birth dose should begin the series as soon as possible (see Table 2 for minimum intervals).
- Administration of 4 doses is permitted when a combination vaccine containing HepB is used after the birth dose.
- **Minimum intervals (see Table 2):** when 4 doses are administered, substitute "dose 4" for "dose 3" in these calculations
- **Final (3rd or 4th) dose:** age 6–18 months **(minimum age 24 weeks)**
- **Mother is HBsAg-positive**
  - **Birth dose (monovalent HepB vaccine only):** administer **HepB vaccine** and **hepatitis B immune globulin (HBIG)** (in separate limbs) within 12 hours of birth, regardless of birth weight.
  - **Birth weight <2000 grams:** administer 3 additional doses of HepB vaccine beginning at age 1 month (total of 4 doses)
  - **Final (3rd or 4th) dose:** administer at age 6 months **(minimum age 24 weeks)**
  - Test for HBsAg and anti-HBs at age 9–12 months. If HepB series is delayed, test 1–2 months after final dose. Do not test before age 9 months.
- **Mother is HBsAg-unknown**

  If other evidence suggestive of maternal hepatitis B infection exists (e.g., presence of HBV DNA, HBeAg-positive, or mother known to have chronic hepatitis B infection), manage infant as if mother is HBsAg-positive
  - **Birth dose (monovalent HepB vaccine only):**
    - Birth weight ≥2,000 grams: administer **HepB vaccine** within 12 hours of birth. Determine mother's HBsAg status as soon as possible. If mother is determined to be HBsAg-positive, administer **HBIG** as soon as possible (in separate limb), but no later than 7 days of age.
    - Birth weight <2,000 grams: administer **HepB vaccine** and **HBIG** (in separate limbs) within 12 hours of birth. Administer 3 additional doses of **HepB vaccine** beginning at age 1 month (total of 4 doses)
  - **Final (3rd or 4th) dose:** administer at age 6 months **(minimum age 24 weeks)**
  - If mother is determined to be HBsAg-positive or if status remains unknown, test for HBsAg and anti-HBs at age 9–12 months. If HepB series is delayed, test 1–2 months after final dose. Do not test before age 9 months.

Catch-up vaccination

- Unvaccinated persons should complete a 3-dose series at 0, 1–2, 6 months. See Table 2 for minimum intervals
- Adolescents age 11–15 years may use an alternative 2-dose schedule with at least 4 months between doses (adult formulation **Recombivax HB®** only).
- Adolescents age 18 years may receive:
  - **Heplisav-B®:** 2-dose series at least 4 weeks apart
  - **PreHevbrio®:** 3-dose series at 0, 1, and 6 months
  - Combined HepA and HepB vaccine, **Twinrix®:** 3-dose series (0, 1, and 6 months) or 4-dose series (3 doses at 0, 7, and 21–30 days, followed by a booster dose at 12 months).

Notes

Special situations

- Revaccination is not generally recommended for persons with a normal immune status who were vaccinated as infants, children, adolescents, or adults.
- **Post-vaccination serology testing and revaccination** (if anti-HBs <10mIU/mL) is recommended for certain populations, including:
  - Infants born to HBsAg-positive mothers
  - Persons who are predialysis or on maintenance dialysis
  - Other immunocompromised persons
  - For detailed revaccination recommendations, see www.cdc.gov/vaccines/hcp/acip-recs/vacc-specific/hepb.html.

Note: Heplisav-B and PreHevbrio are not recommended in pregnancy due to lack of safety data in pregnant persons

Human papillomavirus vaccination
(minimum age: 9 years)

Routine and catch-up vaccination

- HPV vaccination routinely recommended at **age 11–12 years (can start at age 9 years)** and catch-up HPV vaccination recommended for all persons through age 18 years if not adequately vaccinated
- 2- or 3-dose series depending on age at initial vaccination:
  - **Age 9–14 years at initial vaccination**: 2-dose series at 0, 6–12 months (minimum interval: 5 months; repeat dose if administered too soon)
  - **Age 15 years or older at initial vaccination**: 3-dose series at 0, 1–2 months, 6 months (minimum intervals: dose 1 to dose 2: 4 weeks / dose 2 to dose 3: 12 weeks / dose 1 to dose 3: 5 months; repeat dose if administered too soon)
- No additional dose recommended when any HPV vaccine series **of any valency** has been completed using recommended dosing intervals.

Special situations

- **Immunocompromising conditions, including HIV infection:** 3-dose series, even for those who initiate vaccination at age 9 through 14 years.
- **History of sexual abuse or assault:** Start at age 9 years
- **Pregnancy:** Pregnancy testing not needed before vaccination; HPV vaccination not recommended until after pregnancy; no intervention needed if vaccinated while pregnant

Influenza vaccination
(minimum age: 6 months [IIV], 2 years [LAIV4], 18 years [recombinant influenza vaccine, RIV4])

Routine vaccination

- Use any influenza vaccine appropriate for age and health status annually:
  - **Age 6 months–8 years** who have received **fewer** than 2 influenza vaccine doses before July 1, 2023, or whose influenza vaccination history is unknown: 2 doses, separated by at least 4 weeks. Administer dose 2 even if the child turns 9 years between receipt of dose 1 and dose 2.
  - **Age 6 months–8 years** who have received **at least** 2 influenza vaccine doses before July 1, 2023: 1 dose
  - **Age 9 years or older:** 1 dose
- For the 2023-2024 season, see www.cdc.gov/mmwr/volumes/72/rr/rr7202a1.htm.
- For the 2024–25 season, see the 2024–25 ACIP influenza vaccine recommendations.

Special situations

- **Close contacts (e.g., household contacts) of severely immunosuppressed persons who require a protected environment:** should not receive LAIV4. If LAIV4 is given, they should avoid contact with for such immunosuppressed persons for 7 days after vaccination.

Note: Persons with an egg allergy can receive any influenza vaccine (egg-based and non-egg-based) appropriate for age and health status.

Measles, mumps, and rubella vaccination
(minimum age: 12 months for routine vaccination)

Routine vaccination

- 2-dose series at age 12–15 months, age 4–6 years
- MMR or MMRV* may be administered

Note: For dose 1 in children age 12–47 months, it is recommended to administer MMR and varicella vaccines separately. MMRV* may be used if parents or caregivers express a preference.

Catch-up vaccination

- Unvaccinated children and adolescents: 2-dose series at least 4 weeks apart*
- The maximum age for use of MMRV* is 12 years.

Special situations

- **International travel**
  - **Infants age 6–11 months:** 1 dose before departure; revaccinate with 2-dose series at age 12–15 months (12 months for children in high-risk areas) and dose 2 as early as 4 weeks later.*
  - **Unvaccinated children age 12 months or older:** 2-dose series at least 4 weeks apart before departure*
- In mumps outbreak settings, for information about additional doses of MMR (including 3rd dose of MMR), see www.cdc.gov/mmwr/volumes/67/wr/mm6701a7.htm

***Note:** If MMRV is used, the minimum interval between MMRV doses is 3 months

Meningococcal serogroup A,C,W,Y vaccination
(minimum age: 2 months [MenACWY-CRM, Menveo], 2 years [MenACWY-TT, MenQuadfi]), 10 years [MenACWY-TT/MenB-FHbp, Penbraya])

Routine vaccination

- 2-dose series at age 11–12 years; 16 years

Catch-up vaccination

- Age 13–15 years: 1 dose now and booster at age 16–18 years (minimum interval: 8 weeks)
- Age 16–18 years: 1 dose

Special situations

Anatomic or functional asplenia (including sickle cell disease), HIV infection, persistent complement component deficiency, complement inhibitor (e.g., eculizumab, ravulizumab) use:

- **Menveo®***
  - Dose 1 at age 2 months: 4-dose series (additional 3 doses at age 4, 6, and 12 months)
  - Dose 1 at age 3–6 months: 3- or 4-dose series (dose 2 [and dose 3 if applicable] at least 8 weeks after previous dose until a dose is received at age 7 months or older, followed by an additional dose at least 12 weeks later and after age 12 months)
  - Dose 1 at age 7–23 months: 2-dose series (dose 2 at least 12 weeks after dose 1 and after age 12 months)
  - Dose 1 at age 24 months or older: 2-dose series at least 8 weeks apart
- **MenQuadfi®**
  - Dose 1 at age 24 months or older: 2-dose series at least 8 weeks apart

Notes

Recommended Child and Adolescent Immunization Schedule for Ages 18 Years or Younger, United States, 2024

Travel to countries with hyperendemic or epidemic meningococcal disease, including countries in the African meningitis belt or during the Hajj (www.cdc.gov/travel/)**:**

- Children less than age 24 months:
  - **Menveo®* (age 2–23 months)**
    - Dose 1 at age 2 months: 4-dose series (additional 3 doses at age 4, 6, and 12 months)
    - Dose 1 at age 3–6 months: 3- or 4-dose series (dose 2 [and dose 3 if applicable] at least 8 weeks after previous dose until a dose is received at age 7 months or older, followed by an additional dose at least 12 weeks later and after age 12 months)
    - Dose 1 at age 7–23 months: 2-dose series (dose 2 at least 12 weeks after dose 1 and after age 12 months)
- Children age 2 years or older: 1 dose Menveo®* or MenQuadfi®

First-year college students who live in residential housing (if not previously vaccinated at age 16 years or older) or military recruits:

- 1 dose **Menveo®*** or **MenQuadfi®**

Adolescent vaccination of children who received MenACWY prior to age 10 years:

- **Children for whom boosters are recommended** because of an ongoing increased risk of meningococcal disease (e.g., those with complement component deficiency, HIV, or asplenia): Follow the booster schedule for persons at increased risk.
- **Children for whom boosters are not recommended** (e.g., a healthy child who received a single dose for travel to a country where meningococcal disease is endemic): Administer MenACWY according to the recommended adolescent schedule with dose 1 at age 11–12 years and dose 2 at age 16 years.

**Menveo has two formulations: lyophilized and liquid. The liquid formulation should not be used before age 10 years. See www.cdc.gov/vaccines/vpd/mening/downloads/menveo-single-vial-presentation.pdf.*

Note: For MenACWY **booster dose recommendations** for groups listed under "Special situations" and in an outbreak setting and additional meningococcal vaccination information, see www.cdc.gov/mmwr/volumes/69/rr/rr6909a1.htm.

Children age 10 years or older may receive a single dose of Penbraya™ as an alternative to separate administration of MenACWY and MenB when both vaccines would be given on the same clinic day (see "Meningococcal serogroup B vaccination" section below for more information).

Meningococcal serogroup B vaccination

(minimum age: 10 years [MenB-4C, Bexsero®; MenB-FHbp, Trumenba®; MenACWY-TT/MenB-FHbp, Penbraya™])

Shared clinical decision-making

- **Adolescents not at increased risk** age 16–23 years (preferred age 16–18 years) based on shared clinical decision-making:
  - **Bexsero®:** 2-dose series at least 1 month apart
  - **Trumenba®:** 2-dose series at least 6 months apart (if dose 2 is administered earlier than 6 months, administer a 3rd dose at least 4 months after dose 2)

For additional information on shared clinical decision-making for MenB, see www.cdc.gov/vaccines/hcp/admin/downloads/isd-job-aid-scdm-mening-b-shared-clinical-decision-making.pdf

Special situations

Anatomic or functional asplenia (including sickle cell disease), persistent complement component deficiency, complement inhibitor (e.g., eculizumab, ravulizumab) use:

- **Bexsero®:** 2-dose series at least 1 month apart
- **Trumenba®:** 3-dose series at 0, 1–2, 6 months (if dose 2 was administered at least 6 months after dose 1, dose 3 not needed; if dose 3 is administered earlier than 4 months after dose 2, a 4th dose should be administered at least 4 months after dose 3)

Note: Bexsero® and **Trumenba®** are not interchangeable; the same product should be used for all doses in a series.

For MenB **booster dose recommendations** for groups listed under "Special situations" and in an outbreak setting and additional meningococcal vaccination information, see www.cdc.gov/mmwr/volumes/69/rr/rr6909a1.htm.

Children age 10 years or older may receive a dose of Penbraya™ as an alternative to separate administration of MenACWY and MenB when both vaccines would be given on the same clinic day. For age-eligible children not at increased risk, if Penbraya™ is used for dose 1 MenB, MenB-FHbp (Trumenba) should be administered for dose 2 MenB. For age-eligible children at increased risk of meningococcal disease, Penbraya™ may be used for additional MenACWY and MenB doses (including booster doses) if both would be given on the same clinic day **and** at least 6 months have elapsed since most recent Penbraya™ dose.

Mpox vaccination

(minimum age: 18 years [Jynneos®])

Special situations

- **Age 18 years and at risk for Mpox infection:** 2-dose series, 28 days apart.

  Risk factors for Mpox infection include:
  - Persons who are gay, bisexual, and other MSM, transgender or nonbinary people who in the past 6 months have had:
    - A new diagnosis of at least 1 sexually transmitted disease
    - More than 1 sex partner
    - Sex at a commercial sex venue
    - Sex in association with a large public event in a geographic area where Mpox transmission is occurring
  - Persons who are sexual partners of the persons described above
  - Persons who anticipate experiencing any of the situations described above
- **Pregnancy:** There is currently no ACIP recommendation for Jynneos use in pregnancy due to lack of safety data in pregnant persons. Pregnant persons with any risk factor described above may receive Jynneos.

For detailed information, see: www.cdc.gov/vaccines/acip/meetings/downloads/slides-2023-10-25-26/04-MPOX-Rao-508.pdf

Pneumococcal vaccination

(minimum age: 6 weeks [PCV15], [PCV 20]; 2 years [PPSV23])

Routine vaccination with PCV

- 4-dose series at 2, 4, 6, 12–15 months

Catch-up vaccination with PCV

- Healthy children ages 2–4 years with any incomplete* PCV series: 1 dose PCV
- For other catch-up guidance, see Table 2.

Note: For children **without** risk conditions, PCV20 is not indicated if they have received 4 doses of PCV13 or PCV15 or another age appropriate complete PCV series.

Notes

Recommended Child and Adolescent Immunization Schedule for Ages 18 Years or Younger, United States, 2024

Special situations

Children and adolescents with cerebrospinal fluid leak; chronic heart disease; chronic kidney disease (excluding maintenance dialysis and nephrotic syndrome); chronic liver disease; chronic lung disease (including moderate persistent or severe persistent asthma); cochlear implant; or diabetes mellitus:

Age 2–5 years

- Any incomplete* PCV series with:
  - 3 PCV doses: 1 dose PCV (at least 8 weeks after the most recent PCV dose)
  - Less than 3 PCV doses: 2 doses PCV (at least 8 weeks after the most recent dose and administered at least 8 weeks apart)
- Completed recommended PCV series but have not received PPSV23
  - Previously received at least 1 dose of PCV20: no further PCV or PPSV23 doses needed
  - Not previously received PCV20: administer 1 dose PCV20 OR 1 dose PPSV23 administer at least 8 weeks after the most recent PCV dose.

Age 6–18 years

- Not previously received any dose of PCV13, PCV15, or PCV20: administer 1 dose of PCV15 or PCV20. If PCV15 is used and no previous receipt of PPSV23, administer 1 dose of PPSV23 at least 8 weeks after the PCV15 dose.**
- Received PCV before age 6 years but have not received PPSV23
  - Previously received at least 1 dose of PCV20: no further PCV or PPSV23 doses needed
  - Not previously received PCV20: 1 dose PCV20 OR 1 dose PPSV23 administer at least 8 weeks after the most recent PCV dose.
- Received PCV13 only at or after age 6 years: administer 1 dose PCV20 OR 1 dose PPSV23 at least 8 weeks after the most recent PCV13 dose.
- Received 1 dose PCV13 and 1 dose PPSV23 at or after age 6 years: no further doses of any PCV or PPSV23 indicated.

Children and adolescents on maintenance dialysis, or with immunocompromising conditions such as nephrotic syndrome; congenital or acquired asplenia or splenic dysfunction; congenital or acquired immunodeficiencies; diseases and conditions treated with immunosuppressive drugs or radiation therapy, including malignant neoplasms, leukemias, lymphomas, Hodgkin disease, and solid organ transplant; HIV infection; or sickle cell disease or other hemoglobinopathies:

Age 2–5 years

- Any incomplete* PCV series:
  - 3 PCV doses: 1 dose PCV (at least 8 weeks after the most recent PCV dose)
  - Less than 3 PCV doses: 2 doses PCV (at least 8 weeks after the most recent dose and administered at least 8 weeks apart)
- Completed recommended PCV series but have not received PPSV23
  - Previously received at least 1 dose of PCV20: no further PCV or PPSV23 doses needed
  - Not previously received PCV20: administer 1 dose PCV20 OR 1 dose PPSV23 at least 8 weeks after the most recent PCV dose. If PPSV23 is used, administer 1 dose of PCV20 or dose 2 PPSV23 at least 5 years after dose 1 PPSV23.

Age 6–18 years

- Not previously received any dose of PCV13, PCV15, or PCV20: administer 1 dose of PCV15 or 1 dose of PCV20. If PCV15 is used and no previous receipt of PPSV23, administer 1 dose of PPSV23 at least 8 weeks after the PCV15 dose.**
- Received PCV before age 6 years but have not received PPSV23
  - Previously received at least 1 dose of PCV20: no additional dose of PCV or PPSV23
  - Not previously received PCV20: administer 1 dose PCV20 OR 1 dose PPSV23 at least 8 weeks after the most recent PCV dose. If PPSV23 is used, administer either PCV20 or dose 2 PPSV23 at least 5 years after dose 1 PPSV23.
- Received PCV13 only at or after age 6 years: administer 1 dose PCV20 OR 1 dose PPSV23 at least 8 weeks after the most recent PCV13 dose. If PPSV23 is used, administer 1 dose of PCV20 or dose 2 PPSV23 at least 5 years after dose 1 PPSV23.
- Received 1 dose PCV13 and 1 dose PPSV23 at or after age 6 years: administer 1 dose PCV20 OR 1 dose PPSV23 at least 8 weeks after the most recent PCV13 dose and at least 5 years after dose 1 PPSV23.

**Incomplete series* = Not having received all doses in either the recommended series or an age-appropriate catch-up series. See Table 2 in ACIP pneumococcal recommendations at stacks.cdc.gov/view/cdc/133252

***When both PCV15 and PPSV23 are indicated, administer all doses of PCV15 first. PCV15 and PPSV23 should not be administered during the same visit.*

For guidance on determining which pneumococcal vaccines a patient needs and when, please refer to the mobile app, which can be downloaded here: www.cdc.gov/vaccines/vpd/pneumo/hcp/pneumoapp.html

Poliovirus vaccination
(minimum age: 6 weeks)

Routine vaccination

- 4-dose series at ages 2, 4, 6–18 months, 4–6 years; administer the final dose on or after age 4 years and at least 6 months after the previous dose.
- 4 or more doses of IPV can be administered before age 4 years when a combination vaccine containing IPV is used. However, a dose is still recommended on or after age 4 years and at least 6 months after the previous dose.

Catch-up vaccination

- In the first 6 months of life, use minimum ages and intervals only for travel to a polio-endemic region or during an outbreak.
- **Adolescents age 18 years known or suspected to be unvaccinated or incompletely vaccinated:** administer remaining doses (1, 2, or 3 IPV doses) to complete a 3-dose primary series.* Unless there are specific reasons to believe they were not vaccinated, most persons aged 18 years or older born and raised in the United States can assume they were vaccinated against polio as children.

Series containing oral poliovirus vaccine (OPV), either mixed OPV-IPV or OPV-only series:

- Total number of doses needed to complete the series is the same as that recommended for the U.S. IPV schedule. See www.cdc.gov/mmwr/volumes/66/wr/mm6601a6.htm?s_%20cid=mm6601a6_w.
- Only trivalent OPV (tOPV) counts toward the U.S. vaccination requirements.
  - Doses of OPV administered before April 1, 2016, should be counted (unless specifically noted as administered during a campaign).
  - Doses of OPV administered on or after April 1, 2016, should not be counted.
  - For guidance to assess doses documented as "OPV," see www.cdc.gov/mmwr/volumes/66/wr/mm6606a7.htm?s_cid=mm6606a7_w.
- For other catch-up guidance, see Table 2.

Notes

Recommended Child and Adolescent Immunization Schedule for Ages 18 Years or Younger, United States, 2024

Special situations

- **Adolescents aged 18 years at increased risk of exposure to poliovirus and completed primary series*:** may administer one lifetime IPV booster

***Note:** Complete primary series consist of at least 3 doses of IPV or trivalent oral poliovirus vaccine (tOPV) in any combination.

For detailed information, see:
www.cdc.gov/vaccines/vpd/polio/hcp/recommendations.html

Respiratory syncytial virus immunization
(minimum age: birth [Nirsevimab, RSV-mAb (Beyfortus™)

Routine immunization

- **Infants born October – March in most of the continental United States***
  - Mother did not receive RSV vaccine OR mother's RSV vaccination status is unknown: administer 1 dose nirsevimab within 1 week of birth in hospital or outpatient setting
  - Mother received RSV vaccine **less than 14 days** prior to delivery: administer 1 dose nirsevimab within 1 week of birth in hospital or outpatient setting
  - Mother received RSV vaccine **at least 14 days** prior to delivery: nirsevimab not needed but can be considered in rare circumstances at the discretion of healthcare providers (see special populations and situations at www.cdc.gov/vaccines/vpd/rsv/hcp/child-faqs.html)
- **Infants born April–September in most of the continental United States***
  - Mother did not receive RSV vaccine OR mother's RSV vaccination status is unknown: administer 1 dose nirsevimab shortly before start of RSV season*
  - Mother received RSV vaccine **less than 14 days** prior to delivery: administer 1 dose nirsevimab shortly before start of RSV season*
  - Mother received RSV vaccine **at least 14 days** prior to delivery: nirsevimab not needed but can be considered in rare circumstances at the discretion of healthcare providers(see special populations and situations at www.cdc.gov/vaccines/vpd/rsv/hcp/child-faqs.html)

Infants with prolonged birth hospitalization** (e.g., for prematurity) discharged October through March should be immunized shortly before or promptly after discharge.

Special situations

- **Ages 8–19 months with chronic lung disease of prematurity requiring medical support (e.g., chronic corticosteroid therapy, diuretic therapy, or supplemental oxygen) any time during the 6-month period before the start of the second RSV season; severe immunocompromise; cystic fibrosis with either weight for length <10th percentile or manifestation of severe lung disease (e.g., previous hospitalization for pulmonary exacerbation in the first year of life or abnormalities on chest imaging that persist when stable)**:**
  - 1 dose nirsevimab shortly before start of second RSV season*
- **Ages 8–19 months who are American Indian or Alaska Native:**
  - 1 dose nirsevimab shortly before start of second RSV season*
- **Age-eligible and undergoing cardiac surgery with cardiopulmonary bypass**:** 1 additional dose of nirsevimab after surgery. For additional details see special populations and situations at www.cdc.gov/vaccines/vpd/rsv/hcp/child-faqs.html

***Note:** While the timing of the onset and duration of RSV season may vary, nirsevimab may be administered October through March in most of the continental United States. Providers in jurisdictions with RSV seasonality that differs from most of the continental United States (e.g., Alaska, jurisdiction with tropical climate) should follow guidance from public health authorities (e.g., CDC, health departments) or regional medical centers on timing of administration based on local RSV seasonality. Although optimal timing of administration is just before the start of the RSV season, nirsevimab may also be administered during the RSV season to infants and children who are age-eligible.

****Note:** Nirsevimab can be administered to children who are eligible to receive palivizumab. Children who have received nirsevimab should not receive palivizumab for the same RSV season.

For further guidance, see www.cdc.gov/mmwr/volumes/72/wr/mm7234a4.htm and www.cdc.gov/vaccines/vpd/rsv/hcp/child-faqs.html

Respiratory syncytial virus vaccination
(RSV [Abrysvo™])

Routine vaccination

- **Pregnant at 32 weeks 0 days through 36 weeks and 6 days gestation from September through January in most of the continental United States*:** 1 dose RSV vaccine (Abrysvo™). Administer RSV vaccine regardless of previous RSV infection.
  - Either maternal RSV vaccination or infant immunization with nirsevimab (RSV monoclonal antibody) is recommended to prevent respiratory syncytial virus lower respiratory tract infection in infants.
- **All other pregnant persons:** RSV vaccine not recommended.

There is currently no ACIP recommendation for RSV vaccination in subsequent pregnancies. No data are available to inform whether additional doses are needed in later pregnancies.

***Note:** Providers in jurisdictions with RSV seasonality that differs from most of the continental United States (e.g., Alaska, jurisdiction with tropical climate) should follow guidance from public health authorities (e.g., CDC, health departments) or regional medical centers on timing of administration based on local RSV seasonality.

Rotavirus vaccination
(minimum age: 6 weeks)

Routine vaccination

- **Rotarix®:** 2-dose series at age 2 and 4 months
- **RotaTeq®:** 3-dose series at age 2, 4, and 6 months
- If any dose in the series is either **RotaTeq®** or unknown, default to 3-dose series.

Catch-up vaccination

- Do not start the series on or after age 15 weeks, 0 days.
- The maximum age for the final dose is 8 months, 0 days.
- For other catch-up guidance, see Table 2.

Tetanus, diphtheria, and pertussis (Tdap) vaccination
(minimum age: 11 years for routine vaccination, 7 years for catch-up vaccination)

Routine vaccination

- **Age 11–12 years:** 1 dose Tdap (adolescent booster)
- **Pregnancy:** 1 dose Tdap during each pregnancy, preferably in early part of gestational weeks 27–36.

Note: Tdap may be administered regardless of the interval since the last tetanus- and diphtheria-toxoid-containing vaccine.

Catch-up vaccination

- **Age 13–18 years who have not received Tdap:** 1 dose Tdap (adolescent booster)
- **Age 7–18 years not fully vaccinated* with DTaP:** 1 dose Tdap as part of the catch-up series (preferably the first dose); if additional doses are needed, use Td or Tdap.
- **Tdap administered at age 7–10 years:**
  - **Age 7–9 years** who receive Tdap should receive the adolescent Tdap booster dose at age 11–12 years.
  - **Age 10 years** who receive Tdap do not need the adolescent Tdap booster dose at age 11–12 years.
- **DTaP inadvertently administered on or after age 7 years**:
  - **Age 7–9 years**: DTaP may count as part of catch-up series. Administer adolescent Tdap booster dose at age 11–12 years.
  - **Age 10–18 years**: Count dose of DTaP as the adolescent Tdap booster dose.
- For other catch-up guidance, see Table 2.

Special situations

- **Wound management** in persons age 7 years or older with history of 3 or more doses of tetanus-toxoid-containing vaccine: For clean and minor wounds, administer Tdap or Td if more than 10 years since last dose of tetanus-toxoid-containing vaccine; for all other wounds, administer Tdap or Td if more than 5 years since last dose of tetanus-toxoid-containing vaccine. Tdap is preferred for persons age 11 years or older who have not previously received Tdap or whose Tdap history is unknown. If a tetanus-toxoid-containing vaccine is indicated for a pregnant adolescent, use Tdap.
- For detailed information, see www.cdc.gov/mmwr/volumes/69/wr/mm6903a5.htm.

**Fully vaccinated* = 5 valid doses of DTaP OR 4 valid doses of DTaP if dose 4 was administered at age 4 years or older

Varicella vaccination
(minimum age: 12 months)

Routine vaccination

- 2-dose series at age 12–15 months, 4–6 years
- VAR or MMRV may be administered*
- Dose 2 may be administered as early as 3 months after dose 1 (a dose inadvertently administered after at least 4 weeks may be counted as valid)

***Note:** For dose 1 in children age 12–47 months, it is recommended to administer MMR and varicella vaccines separately. MMRV may be used if parents or caregivers express a preference.

Catch-up vaccination

- Ensure persons age 7–18 years without evidence of immunity (see *MMWR* at www.cdc.gov/mmwr/pdf/rr/rr5604.pdf) have a 2-dose series:
  - **Age 7–12 years**: Routine interval: 3 months (a dose inadvertently administered after at least 4 weeks may be counted as valid)
  - **Age 13 years and older**: Routine interval: 4–8 weeks (minimum interval: 4 weeks)
  - The maximum age for use of *MMRV* is 12 years.

Appendix Recommended Child and Adolescent Immunization Schedule for Ages 18 Years or Younger, United States, 2024

Guide to Contraindications and Precautions to Commonly Used Vaccines

Adapted from Table 4-1 in Advisory Committee on Immunization Practices (ACIP) General Best Practice Guidelines for Immunization: Contraindication and Precautions, Prevention and Control of Seasonal Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices—United States, 2023–24 Influenza Season | MMWR (cdc.gov), Contraindications and Precautions for COVID-19 Vaccination, and Contraindications and Precautions for JYNNEOS Vaccination

Vaccines and other Immunizing Agents	Contraindicated or Not Recommended[1]	Precautions[2]
COVID-19 mRNA vaccines [Pfizer-BioNTech, Moderna]	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a component of an mRNA COVID-19 vaccine[4]	• Diagnosed non-severe allergy (e.g., urticaria beyond the injection site) to a component of an mRNA COVID-19 vaccine[4]; or non-severe, immediate (onset less than 4 hours) allergic reaction after administration of a previous dose of an mRNA COVID-19 vaccine • Myocarditis or pericarditis within 3 weeks after a dose of any COVID-19 vaccine • Multisystem inflammatory syndrome in children (MIS-C) or multisystem inflammatory syndrome in adults (MIS-A) • Moderate or severe acute illness, with or without fever
COVID-19 protein subunit vaccine [Novavax]	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a component of a Novavax COVID-19 vaccine[4]	• Diagnosed non-severe allergy (e.g., urticaria beyond the injection site) to a component of Novavax COVID-19 vaccine[4]; or non-severe, immediate (onset less than 4 hours) allergic reaction after administration of a previous dose of a Novavax COVID-19 vaccine • Myocarditis or pericarditis within 3 weeks after a dose of any COVID-19 vaccine • Multisystem inflammatory syndrome in children (MIS-C) or multisystem inflammatory syndrome in adults (MIS-A) • Moderate or severe acute illness, with or without fever
Influenza, egg-based, inactivated injectable (IIV4)	• Severe allergic reaction (e.g., anaphylaxis) after previous dose of any influenza vaccine (i.e., any egg-based IIV, ccIIV, RIV, or LAIV of any valency) • Severe allergic reaction (e.g., anaphylaxis) to any vaccine component[3] (excluding egg)	• Guillain-Barré syndrome (GBS) within 6 weeks after a previous dose of any type of influenza vaccine • Moderate or severe acute illness with or without fever
Influenza, cell culture-based inactivated injectable (ccIIV4) [Flucelvax Quadrivalent]	• Severe allergic reaction (e.g., anaphylaxis) to any ccIIV of any valency, or to any component[3] of ccIIV4	• Guillain-Barré syndrome (GBS) within 6 weeks after a previous dose of any type of influenza vaccine • Persons with a history of severe allergic reaction (e.g., anaphylaxis) after a previous dose of any egg-based IIV, RIV, or LAIV of any valency. If using ccIV4, administer in medical setting under supervision of health care provider who can recognize and manage severe allergic reactions. May consult an allergist. • Moderate or severe acute illness with or without fever
Influenza, recombinant injectable (RIV4) [Flublok Quadrivalent]	• Severe allergic reaction (e.g., anaphylaxis) to any RIV of any valency, or to any component[3] of RIV4	• Guillain-Barré syndrome (GBS) within 6 weeks after a previous dose of any type of influenza vaccine • Persons with a history of severe allergic reaction (e.g., anaphylaxis) after a previous dose of any egg-based IIV, ccIIV, or LAIV of any valency. If using RIV4, administer in medical setting under supervision of health care provider who can recognize and manage severe allergic reactions. May consult an allergist. • Moderate or severe acute illness with or without fever
Influenza, live attenuated (LAIV4) [Flumist Quadrivalent]	• Severe allergic reaction (e.g., anaphylaxis) after previous dose of any influenza vaccine (i.e., any egg-based IIV, ccIIV, RIV, or LAIV of any valency) • Severe allergic reaction (e.g., anaphylaxis) to any vaccine component[3] (excluding egg) • Children age 2–4 years with a history of asthma or wheezing • Anatomic or functional asplenia • Immunocompromised due to any cause including, but not limited to, medications and HIV infection • Close contacts or caregivers of severely immunosuppressed persons who require a protected environment • Pregnancy • Cochlear implant • Active communication between the cerebrospinal fluid (CSF) and the oropharynx, nasopharynx, nose, ear or any other cranial CSF leak • Children and adolescents receiving aspirin or salicylate-containing medications • Received influenza antiviral medications oseltamivir or zanamivir within the previous 48 hours, peramivir within the previous 5 days, or baloxavir within the previous 17 days	• Guillain-Barré syndrome (GBS) within 6 weeks after a previous dose of any type of influenza vaccine • Asthma in persons age 5 years old or older • Persons with underlying medical conditions other than those listed under contraindications that might predispose to complications after wild-type influenza virus infection, e.g., chronic pulmonary, cardiovascular (except isolated hypertension), renal, hepatic, neurologic, hematologic, or metabolic disorders (including diabetes mellitus) • Moderate or severe acute illness with or without fever

1. When a contraindication is present, a vaccine should **NOT** be administered. Kroger A, Bahta L, Hunter P. ACIP General Best Practice Guidelines for Immunization.
2. When a precaution is present, vaccination should generally be deferred but might be indicated if the benefit of protection from the vaccine outweighs the risk for an adverse reaction. Kroger A, Bahta L, Hunter P. ACIP General Best Practice Guidelines for Immunization.
3. Vaccination providers should check FDA-approved prescribing information for the most complete and updated information, including contraindications, warnings, and precautions. See Package inserts for U.S.-licensed vaccines.
4. See package inserts and FDA EUA fact sheets for a full list of vaccine ingredients. mRNA COVID-19 vaccines contain polyethylene glycol (PEG).

Appendix

Recommended Child and Adolescent Immunization Schedule for Ages 18 Years or Younger, United States, 2024

Vaccines and other Immunizing Agents	Contraindicated or Not Recommended[1]	Precautions[2]
Dengue (DEN4CYD)	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component[3] • Severe immunodeficiency (e.g., hematologic and solid tumors, receipt of chemotherapy, congenital immunodeficiency, long-term immunosuppressive therapy or patients with HIV infection who are severely immunocompromised) • Lack of laboratory confirmation of a previous Dengue infection	• Pregnancy • HIV infection without evidence of severe immunosuppression • Moderate or severe acute illness with or without fever
Diphtheria, tetanus, pertussis (DTaP)	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component[3] • For DTaP only: Encephalopathy (e.g., coma, decreased level of consciousness, prolonged seizures) not attributable to another identifiable cause within 7 days of administration of previous dose of DTP or DTaP	• Guillain-Barré syndrome (GBS) within 6 weeks after previous dose of tetanus-toxoid–containing vaccine • History of Arthus-type hypersensitivity reactions after a previous dose of diphtheria-toxoid–containing or tetanus-toxoid–containing vaccine; defer vaccination until at least 10 years have elapsed since the last tetanus-toxoid-containing vaccine • For DTaP only: Progressive neurologic disorder, including infantile spasms, uncontrolled epilepsy, progressive encephalopathy; defer DTaP until neurologic status clarified and stabilized • Moderate or severe acute illness with or without fever
Haemophilus influenzae type b (Hib)	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component[3] • Less than age 6 weeks	• Moderate or severe acute illness with or without fever
Hepatitis A (HepA)	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component[3] including neomycin	• Moderate or severe acute illness with or without fever
Hepatitis B (HepB)	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component[3] including yeast • *Pregnancy: Heplisav-B and PreHevbrio are not recommended due to lack of safety data in pregnant persons. Use other hepatitis B vaccines if HepB is indicated[4].*	• Moderate or severe acute illness with or without fever
Hepatitis A-Hepatitis B vaccine (HepA-HepB) [Twinrix]	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component[3] including neomycin and yeast	• Moderate or severe acute illness with or without fever
Human papillomavirus (HPV)	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component[3] • *Pregnancy: HPV vaccination not recommended.*	• Moderate or severe acute illness with or without fever
Measles, mumps, rubella (MMR) Measles, mumps, rubella, and varicella (MMRV)	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component[3] • Severe immunodeficiency (e.g., hematologic and solid tumors, receipt of chemotherapy, congenital immunodeficiency, long-term immunosuppressive therapy or patients with HIV infection who are severely immunocompromised) • Pregnancy • Family history of altered immunocompetence, unless verified clinically or by laboratory testing as immunocompetent	• Recent (≤11 months) receipt of antibody-containing blood product (specific interval depends on product) • History of thrombocytopenia or thrombocytopenic purpura • Need for tuberculin skin testing or interferon-gamma release assay (IGRA) testing • Moderate or severe acute illness with or without fever • For MMRV only: Personal or family (i.e., sibling or parent) history of seizures of any etiology
Meningococcal ACWY (MenACWY) MenACWY-CRM [Menveo] MenACWY-TT [MenQuadfi]	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component[3] • For Men ACWY-CRM only: severe allergic reaction to any diphtheria toxoid—or CRM197—containing vaccine • For MenACWY-TT only: severe allergic reaction to a tetanus toxoid-containing vaccine	• For MenACWY-CRM only: Preterm birth if less than age 9 months • Moderate or severe acute illness with or without fever
Meningococcal B (MenB) MenB-4C [Bexsero] MenB-FHbp [Trumenba]	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component[3]	• Pregnancy • For MenB-4C only: Latex sensitivity • Moderate or severe acute illness with or without fever
Meningococcal ABCWY (MenACWY-TT/MenB-FHbp) [Penbraya]	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component[3] • Severe allergic reaction to a tetanus toxoid-containing vaccine	• Moderate or severe acute illness, with or without fever
Mpox [Jynneos]	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component[3]	• Moderate or severe acute illness, with or without fever
Pneumococcal conjugate (PCV)	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component[3] • Severe allergic reaction (e.g., anaphylaxis) to any diphtheria-toxoid-containing vaccine or its component[3]	• Moderate or severe acute illness with or without fever
Pneumococcal polysaccharide (PPSV23)	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component[3]	• Moderate or severe acute illness with or without fever
Poliovirus vaccine, inactivated (IPV)	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component[3]	• Pregnancy • Moderate or severe acute illness with or without fever
RSV monoclonal antibody (RSV-mAb)	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component[5]	• Moderate or severe acute illness with or without fever
Respiratory syncytial virus vaccine (RSV)	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component[3]	• Moderate or severe acute illness with or without fever
Rotavirus (RV) RV1 [Rotarix] RV5 [RotaTeq]	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component[3] • Severe combined immunodeficiency (SCID) • History of intussusception	• Altered immunocompetence other than SCID • Chronic gastrointestinal disease • RV1 only: Spina bifida or bladder exstrophy • Moderate or severe acute illness with or without fever
Tetanus, diphtheria, and acellular pertussis (Tdap) Tetanus, diphtheria (Td)	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component[3] • For Tdap only: Encephalopathy (e.g., coma, decreased level of consciousness, prolonged seizures) not attributable to another identifiable cause within 7 days of administration of previous dose of DTP, DTaP, or Tdap	• Guillain-Barré syndrome (GBS) within 6 weeks after a previous dose of tetanus-toxoid–containing vaccine • History of Arthus-type hypersensitivity reactions after a previous dose of diphtheria-toxoid–containing or tetanus-toxoid–containing vaccine; defer vaccination until at least 10 years have elapsed since the last tetanus-toxoid–containing vaccine • For Tdap only: Progressive or unstable neurological disorder, uncontrolled seizures, or progressive encephalopathy until a treatment regimen has been established and the condition has stabilized • Moderate or severe acute illness with or without fever
Varicella (VAR)	• Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component[3] • Severe immunodeficiency (e.g., hematologic and solid tumors, receipt of chemotherapy, congenital immunodeficiency, long-term immunosuppressive therapy or patients with HIV infection who are severely immunocompromised) • Pregnancy • Family history of altered immunocompetence, unless verified clinically or by laboratory testing as immunocompetent	• Recent (≤11 months) receipt of antibody-containing blood product (specific interval depends on product) • Receipt of specific antiviral drugs (acyclovir, famciclovir, or valacyclovir) 24 hours before vaccination (avoid use of these antiviral drugs for 14 days after vaccination) • Use of aspirin or aspirin-containing products • Moderate or severe acute illness with or without fever • If using MMRV, see MMR/MMRV for additional precautions

1. When a contraindication is present, a vaccine should NOT be administered. Kroger A, Bahta L, Hunter P. ACIP General Best Practice Guidelines for Immunization. www.cdc.gov/vaccines/hcp/acip-recs/general-recs/contraindications.html
2. When a precaution is present, vaccination should generally be deferred but might be indicated if the benefit of protection from the vaccine outweighs the risk for an adverse reaction. Kroger A, Bahta L, Hunter P. ACIP General Best Practice Guidelines for Immunization. www.cdc.gov/vaccines/hcp/acip-recs/general-recs/contraindications.html
3. Vaccination providers should check FDA-approved prescribing information for the most complete and updated information, including contraindications, warnings, and precautions. Package inserts for U.S.-licensed vaccines are available at www.fda.gov/vaccines-blood-biologics/approved-products/vaccines-licensed-use-united-states.
4. For information on the pregnancy exposure registries for persons who were inadvertently vaccinated with Heplisav-B or PreHevbrio while pregnant, please visit heplisavbpregnancyregistry.com or www.prehevbrio.com/#safety.
5. Full prescribing information for BEYFORTUS (nirsevimab-alip) www.accessdata.fda.gov/drugsatfda_docs/label/2023/761328s000lbl.pdf

Addendum Recommended Child and Adolescent Immunization Schedule for Ages 18 Years or Younger, United States, 2024

In addition to the recommendations presented in the previous sections of this immunization schedule, ACIP has approved the following recommendations by majority vote since October 26, 2023. The following recommendations have been adopted by the CDC Director and are now official. Links are provided if these recommendations have been published in *Morbidity and Mortality Weekly Report (MMWR)*.

Vaccines	Recommendations	Effective Date of Recommendation*
No new vaccines or vaccine recommendations to report		

*The effective date is the date when the CDC director adopted the recommendation and when the ACIP recommendation became official.

Periodicity of Examination, Preventive Dental Services, Anticipatory Guidance/Counseling, and Oral Treatment for Infants, Children, and Adolescents

Latest Revision
2022

How to Cite: American Academy of Pediatric Dentistry. Periodicity of examination, preventive dental services, anticipatory guidance/counseling, and oral treatment for infants, children, and adolescents. The Reference Manual of Pediatric Dentistry. Chicago, Ill.: American Academy of Pediatric Dentistry; 2023:288-300.

Abstract

This best practice presents recommendations about anticipatory guidance and timing of other clinical modalities which promote oral health during infancy, childhood, and adolescence. The guidance, though modifiable to children with special health needs, focuses on healthy, normal-developing children and addresses comprehensive oral examination, assessment of caries risk, periodontal risk assessment, professional preventive procedures, fluoride supplementation, radiographic examination, anticipatory guidance, preventive counseling, sealant placement, treatment of dental disease, trauma, treatment of developing malocclusions, evaluation of third molars, and transition to adult care. These preventive recommendations may be applied for the following age groups: six to 12 months, 12 to 24 months, 24 months to six years, six to 12 years, and 12 years and older. The guidance emphasizes the importance of very early professional intervention and continuity of care based upon the individualized needs of the child.

The document was developed through a collaborative effort of the American Academy of Pediatric Dentistry Councils on Clinical Affairs and Scientific Affairs to offer updated information and recommendations regarding oral health services and counseling for pediatric dental patients.

KEYWORDS: ADOLESCENT DENTISTRY; ANTICIPATORY GUIDANCE; CARIES-RISK ASSESSMENT; DENTAL REFERRAL; FLUORIDE SUPPLEMENT; ORAL HYGIENE COUNSELING; PERIODICITY OF EXAMINATION; PREVENTIVE DENTISTRY

Purpose

The American Academy of Pediatric Dentistry (**AAPD**) intends these recommendations to help practitioners make clinical decisions concerning preventive oral health interventions, including anticipatory guidance and preventive counseling, for infants, children, and adolescents.

Methods

This document was developed by the Clinical Affairs Committee, adopted in 1991[1], and last revised by the Council on Clinical Affairs in 2018[2]. This update used electronic database and hand searches of articles in the medical and dental literature using the terms: periodicity of dental examinations, dental recall intervals, preventive dental services, anticipatory guidance and dentistry, caries-risk assessment, early childhood caries, dental caries prediction, dental care cost effectiveness and children, periodontal disease and children and adolescents United States (**U.S.**), pit-and-fissure sealants, dental sealants, fluoride supplementation and topical fluoride, dental trauma, dental fracture and tooth, nonnutritive oral habits, treatment of developing malocclusion, removal of wisdom teeth, removal of third molars; fields: all; limits: within the last 10 years, humans, English, and clinical trials; birth through age 18. From this search, 2,502 articles matched these criteria and were evaluated by title and/or abstract. When data did not appear sufficient or were inconclusive, recommendations were based upon expert and/or consensus opinion by experienced researchers and clinicians.

Background

Professional dental care is necessary to maintain oral health.[3] The AAPD emphasizes the importance of initiating professional oral health intervention in infancy and continuing through adolescence and beyond.[4] The periodicity of professional oral health intervention and services is based on a patient's individual needs and risk indicators.[5-10] Each age group, as well as each individual child, has distinct developmental needs to be addressed at specific intervals as part of a comprehensive evaluation.[4,11-13] Continuity of care is based on the assessed needs of the individual patient and assures appropriate management of all oral conditions, dental disease, and

ABBREVIATIONS
AAPD: American Academy of Pediatric Dentistry. **BMI:** Body mass index. **CRA:** Caries-risk assessment. **ECC:** Early childhood caries. **HPV:** Human papilloma virus. **PRA:** Periodontal-risk assessment. **SHCN:** Special health care needs. **U.S.:** United States.

injuries.[14-20] The early dental visit to establish a dental home provides a foundation upon which a lifetime of preventive education and oral health care can be built.[21] The early establishment of a dental home has the potential to provide more effective and less-costly dental care when compared to dental care provided in emergency care facilities or hospitals.[21-25] Anticipatory guidance and counseling are essential components of the dental visit.[4,11,12,21,24-29] The dental home also can influence general health by instituting additional practices related to general health promotion, disease prevention, and screening for non-oral health related concerns. For example, oral health professionals can calculate and monitor body mass index (**BMI**) to help identify children at risk for obesity and provide appropriate referral to pediatric or nutritional specialists.[28]

Collaborative efforts and effective communication between medical and dental homes are essential to prevent oral disease and promote oral and overall health among children. Medical professionals can play an important role in children's oral health by providing primary prevention and coordinated care. Equally, dentists can improve the overall health of children not only by treating dental disease, but also by proactively recognizing child abuse, preventing traumatic injuries through anticipatory guidance, preventing obesity by longitudinal dietary counseling, and monitoring of weight status.[30] In addition, dentists can have a significant role in assessing immunization status and developmental milestones for potential delays, as well as making appropriate referral for further neurodevelopmental evaluations and therapeutic services.[31] The unique opportunity that dentists have to help address overall health issues strengthens as children get older since frequency of well-child medical visits decreases at the same time the frequency of dental recall visits increases. Research shows that children aged six- to 12-years are, on average, four times more likely to visit a dentist than a pediatrician.[32,33]

Recommendations

This document addresses periodicity and general principles of examination, preventive dental services, anticipatory guidance/counseling, and oral treatment for children who have no contributory medical conditions and are developing normally. Accurate, comprehensive, and up-to-date medical, dental, and social histories are necessary for correct diagnosis and effective treatment planning. Recommendations may be modified to meet the unique requirements of patients with special health care needs (**SHCN**).[34]

Clinical oral examination

The first examination is recommended at the time of the eruption of the first tooth and no later than 12 months of age.[4,21,24,25] The developing dentition and occlusion should be monitored throughout eruption at regular clinical examinations.[29] Evidence-based prevention and early detection and management of caries/oral conditions can improve a child's oral and general health, well-being, and school readiness.[7,26,35-38] The number and cost of dental procedures among high-risk children is less for those seen at an earlier age versus later, confirming the fact that the sooner a child is seen by a dentist, the less treatment needs they are likely to have in the future.[39] On the other hand, delayed diagnosis of dental disease can result in exacerbated problems which lead to more extensive and costly care.[10,35,40-43] Guidance of eruption and development of the primary, mixed, and permanent dentitions contributes to a stable, esthetic, and functional occlusion.[11,29]

Components of a comprehensive clinical examination include:

- general health/growth assessment (e.g., height, weight, BMI calculation, vital signs);
- pain assessment;
- extraoral soft tissues examination;
- temporomandibular joint assessment;
- intraoral soft tissues examination;
- oral hygiene and periodontal-risk assessment;
- intraoral hard tissue examination;
- assessment of the developing occlusion;
- radiographic assessment, if indicated;
- caries-risk assessment; and
- assessment of cooperative potential/behavior of child.[44]

Based upon the visual examination, the dentist may employ additional diagnostic aids (e.g., photographs, pulp vitality testing, laboratory tests, study casts).[10,15,44-46]

The interval of examination should be based on the child's individual needs or risk status/susceptibility to disease; some patients may require examination and preventive services at more or less frequent intervals, based upon historical, clinical, and radiographic findings.[8-10,18,20,26,47-49] While the prevalence of caries has decreased in primary teeth, the prevalence of having no caries in the permanent dentition remains unchanged; caries remains a health problems facing infants, children, and adolescents in America.[37] Caries lesions are cumulative and progressive and, in the primary dentition, are highly predictive of caries occurring in the permanent dentition.[6,50] Reevaluation and reinforcement of preventive activities contribute to improved instruction for the caregiver of the child or adolescent, continuity of evaluation of the patient's health status, and potentially allaying anxiety and fear for the apprehensive child or adolescent.[51] Individuals with SHCN may require individualized preventive and treatment strategies that take into consideration the unique needs and disabilities of the patient.[34]

Caries-risk assessment (CRA)

Risk assessment is a key element of contemporary preventive care. CRA should be performed as soon as the first primary tooth erupts and be reassessed periodically by dental and medical providers.[6,27] The goal is to prevent disease by identifying patients at high risk for caries and developing individualized preventive measures and caries management, as well as determining appropriate periodicity of services.[27,52,53] Given that the etiology of dental caries is multifactorial and complex,

current caries-risk assessment models entail a combination of factors including diet, fluoride exposure, host susceptibility, and microflora analysis and consideration of how these factors interact with social, cultural, and behavioral factors. More comprehensive models that include social, political, psychological, and environmental determinants of health also are available.[54-57] CRA forms and caries management protocols aim to simplify and clarify the process.[6,27,58,59]

Sufficient evidence demonstrates certain groups of children at greater risk for development of early childhood caries (**ECC**) would benefit from infant oral health care.[60-64] Infants and young children have unique caries-risk factors such as ongoing establishment of oral flora and host defense systems, susceptibility of newly erupted teeth, and development of dietary habits. Because the etiology of ECC is multifactorial and significantly influenced by health behaviors,[65] preventive messages for expectant parents and parents of very young children should target factors known to place children at a higher risk for developing caries (e.g., early Mutans streptococci transmission, poor oral hygiene habits, nighttime feeding, high frequency of sugar consumption).[26,36,57,66] Motivational problems may develop when parents/patients are not interested in changing behaviors or feel that the changes require excessive effort. Parental attitude, self-efficacy, and intention have a strong correlation to oral hygiene practices in preschoolers.[67] Therefore, health care professionals should utilize preventive approaches based on psychological and behavioral strategies. Moreover, they should communicate their recommendations effectively so parents/patients perceive them as behaviors worth pursuing. Motivational interviewing and self-determination theory are examples of effective motivational approaches for caries prevention that share similar psychological philosophies.[68-74]

Studies have reported caries experience in the primary dentition as a predictor of future caries.[75,76] Early school-aged children are at a transitional phase from primary to mixed dentition. These children face challenges such as unsupervised toothbrushing and increased consumption of cariogenic foods and beverages while at school, placing them at a higher risk for developing caries.[77-79] Therefore, special attention should be given to school-aged children regarding their oral hygiene and dietary practices. The use of newer technology including cellular telephones (e.g., text messaging, apps) may provide an additional intervention to improve adherence to oral hygiene protocols in children and adolescents.[80]

Adolescence can be a time of heightened caries activity due to an increased number of tooth surfaces in the permanent dentition and intake of cariogenic substances, as well as low priority for oral hygiene procedures.[11,55,56] Risk assessment can assure preventive care (e.g., water fluoridation, professional and home-use fluoride and antimicrobial agents, frequency of dental visits) is tailored to each individual's needs and direct resources to those for whom preventive interventions provide the greatest benefit.[11,81,82] Because a child's risk for developing dental disease can change over time due to changes in habits (e.g., diet, home care), oral microflora, or physical condition, risk assessment must be documented and repeated regularly and frequently to maximize effectiveness.[13,27]

Periodontal-risk assessment (PRA)

Periodontal-risk assessment is an important component of the routine examination of pediatric patients. The gingival and periodontal tissues are subject to change due to normal growth and development. PRA identifies risk factors that place individuals at increased risk of developing gingival and periodontal diseases and pathologies, as well as factors that influence the progression of the disease. Risk factors for periodontal disease may be biological, environmental (social), and behavioral.[83] Probing assessments should be initiated after the eruption of the first permanent molars and incisors as tolerated by the child.[49] Probing of primary teeth may be indicated when clinical and radiographic findings indicate the presence of periodontal pathology. Bleeding on probing primary teeth during early childhood, even at a low number of sites, is indicative of high susceptibility to periodontal diseases due to the age-dependent reactivity of the gingival tissues to plaque.[84] PRA can improve clinical decision making and allow the implementation of individualized treatment planning and proactive targeted interventions.[85] Maintenance of gingival and periodontal health during childhood and adolescence can help assure periodontal health as an adult.[49]

Prophylaxis and professional topical fluoride treatment

The interval for frequency of professional preventive services is based upon assessed risk for caries and periodontal disease.[5,8-10,12,13,27,49,58-60] Prophylaxis aids in plaque, stain, and calculus removal, as well as in educating the patient on oral hygiene techniques and facilitating the clinical examination.[12] Gingivitis is common in children and adolescents and usually responds to the implementation of therapeutic measures and routine maintenance.[49] Hormonal fluctuations, including those occurring during the onset of puberty and pregnancy, can modify the gingival inflammatory response to dental plaque.[86] Therefore, recognizing modifying factors that may result in the development of periodontal disease is important.[49]

Children who exhibit higher risk of developing caries or periodontal disease would benefit from recall appointments at greater frequency than every six months (e.g., every three months).[5,8,10,12,13,27,49,59] This allows increased professional fluoride therapy application, professional assessment of oral hygiene, and opportunity to foster improvement of oral health by demonstrating proper oral hygiene techniques, in addition to microbial monitoring, antimicrobial therapy reapplication, and reevaluating behavioral changes for effectiveness.[5,12,59,87-90] An individualized preventive plan increases the probability of good oral health by demonstrating proper oral hygiene methods/techniques and removing plaque, stain, and calculus.[8,90]

Fluoride contributes to the prevention, inhibition, and reversal of caries.[91-93] Professional topical fluoride treatments should be based on caries-risk assessment.[21,27,92,94] Plaque and

the enamel pellicle are not a barrier to topical fluoride uptake.[12] Consequently, patients who receive rubber cup dental prophylaxis or a toothbrush prophylaxis before fluoride treatment exhibit no differences in caries rates.[94,95] Precautionary measures should be taken to prevent swallowing of any professionally-applied topical fluoride. Children at high caries risk should receive greater frequency of professional topical fluoride applications (e.g., every three months).[91,94,96-98] Ideally, this would occur as part of a comprehensive preventive program in a dental home.[21]

Fluoride supplementation

The AAPD encourages optimal fluoride exposure for every child, recognizing community water fluoridation as the most beneficial and cost-effective preventive intervention.[91] Fluoride supplementation should be considered for children at moderate to high caries risk when fluoride exposure is not optimal.[27] Determination of dietary fluoride sources (e.g., drinking water, toothpaste, foods, beverages) before prescribing supplements is required and can help reduce intake of excess fluoride.[91] In addition, supplementation should be in accordance with the guidelines recommended by the AAPD[91] and the American Dental Association[99,100].

Radiographic assessment

Radiographs are a valuable adjunct in the oral health care of infants, children, and adolescents to diagnose and monitor oral diseases and evaluate dentoalveolar trauma, as well as monitor dentofacial development and the progress of therapy.[47,48] Timing of initial radiographic examination should not be based on the patient's age, but upon each child's individual circumstances.[47,48] The need for dental radiographs can be determined only after consideration of the patient's medical and dental histories, completion of a thorough clinical examination, and assessment of the patient's vulnerability to environmental factors that affect oral health.[47] Every effort must be made to minimize the patient's radiation exposure by applying good radiological practices (e.g., use of protective aprons, thyroid collars, rectangular collimation) and by following the as low as reasonably achievable (ALARA) principle.[47,101]

Anticipatory guidance/counseling

Anticipatory guidance is the process of providing practical and developmentally-appropriate information about children's health to prepare parents for significant physical, emotional, and psychological milestones.[4,11,21,102,103] Individualized discussion and counseling should be an integral part of each visit. Topics should include oral hygiene practices, oral/dental development and growth, speech/language development, nonnutritive habits, diet and nutrition, injury prevention, tobacco/nicotine product use, substance misuse, and intraoral/perioral piercing and oral jewelry/accessories.[4,11,17,21,29,102-111]

Anticipatory guidance regarding the characteristics of a normal healthy oral cavity should commence during infant oral health visits and continue throughout follow-up dental visits. This allows parents to quantify any changes such as, but not limited to, growth delays, traumatic injuries, and poor oral hygiene or presence of caries lesions. Educating parents regarding tooth development and chronology of eruption can help them better understand the implications of delayed or accelerated tooth emergence. Parents also need to be informed about the benefits of topical fluorides for newly erupted teeth which may be at greater risk of developing caries, especially during the posteruption maturation process.[102] Assessment of each child's developmental milestones (e.g., fine/gross motor skills, language, social interactions) is crucial for early recognition of potential delays and appropriate referral to therapeutic services.[31] Speech and language are integral components of a child's early development.[108] Abnormal delays in speech and language production can be recognized early with referral made to address these concerns. Communication and coordination of appliance therapy with a speech and language professional can assist in the timely treatment of speech disorders.[108]

Oral habits (e.g., nonnutritive sucking: digital and pacifier habits; bruxism; tongue thrust swallow and abnormal tongue position; self-injurious/self-mutilating behavior) may apply forces to teeth and dentoalveolar structures. Although early use of pacifiers and digit sucking are considered normal, pacifier use beyond 18 months can influence the developing orofacial complex.[112] Increased overjet and Class II malocclusion are more strongly associated with a finger habit versus a pacifier habit.[113,114] Children having a nonnutritive sucking habit beyond age three have a higher incidence of malocclusions.[29,112] Early dental visits provide an opportunity to counsel parents to help their children stop sucking habits before malocclusion or skeletal dysplasias occur.[29,112] For school-aged and adolescent patients, counseling regarding any existing habits (e.g., fingernail biting, clenching, bruxism), including the potential immediate and long-term effects on the craniofacial complex and dentition, is appropriate.[29] Management of an oral habit can include patient/parent counseling, behavior modification techniques, appliance therapy, or referral to other providers including, but not limited to, orthodontists, psychologists, or otolaryngologists.[29]

Oral hygiene counseling involves the parent and patient. Initially, oral hygiene is the responsibility of the parent. As the child develops, home care can be performed jointly by parent and child. When a child demonstrates the understanding and ability to perform personal hygiene techniques, the health care professional should counsel the child. The effectiveness of home care should be monitored at every visit and includes a discussion on the consistency of daily oral hygiene preventive activities, including adequate fluoride exposure.[5,8,11,27,91,115]

The development of dietary habits and childhood food preferences appears to be established early and may affect the oral health as well as general health and well-being of a child.[116] The establishment of a dental home no later than 12 months of age allows dietary and nutrition counseling to occur early. This helps parents to develop proper oral health habits early in their child's life, rather than trying to change

established unhealthy habits later. During infancy, counseling should focus on breastfeeding, bottle or no-spill cup usage, concerns with nighttime feedings, frequency of in-between meal consumption of sugar-sweetened beverages (e.g., sweetened milk, soft drinks, fruit-flavored drinks, sports drinks) and snacks, as well as special diets.[28,117] Excess consumption of carbohydrates, fats, and sodium contribute to poor systemic health.[118-120] Dietary analysis and the impact of dietary choices on oral health, malnutrition, and obesity[121,122], as well as quality of life, should be addressed through nutritional and preventive oral health.[28,123] The U.S. Departments of Health and Human Services and Agriculture provide dietary guidelines for Americans two years of age and older every five years to promote a healthy diet and help prevent chronic diseases.[123]

Traumatic dental injuries in the primary and permanent dentition occur with great frequency with a prevalence of one-third of preschool children and one-fourth of school-age children.[20,124] Facial trauma that results in fractured, displaced, or lost teeth can have significant negative functional, esthetic, and psychological effects on children.[125] Practitioners should provide age-appropriate injury prevention counseling for orofacial trauma.[17,103] Initial discussions should include advice regarding play objects, pacifiers, car seats, and electrical cords. As motor coordination develops and the child grows older, the parent/patient should be counseled on additional safety and preventive measures, including use of protective equipment (e.g., athletic mouthguards, helmets with face shields) for sporting and high-speed activities (e.g., baseball, bicycling, skiing, four-wheeling). Dental injuries could have improved outcomes not only if the public were aware of first-aid measures and the need to seek immediate treatment, but also if the injured child had access to emergency care at all times. Caregivers report that, even though their children had a dental home, they have experienced barriers to care when referred outside of the dental home for emergency services.[126] Barriers faced by caregivers include availability of providers and clinics for delivery of emergency care and the distance one must travel for treatment. Therefore, primary care providers should inform parents about ways to access emergency care for dental injuries and provide telephone numbers to access a dentist, including for after-hours emergency care.[110] Teledentistry may serve as an adjunct with time-sensitive injuries or when unexpected circumstances result in difficulties accessing care.[127]

Smoking and smokeless tobacco use almost always are initiated and established in adolescence.[111,128,129] In 2020, 6.7 percent of middle school students and 23.6 percent of high school students reported current tobacco product use.[130] The most common tobacco products used by middle school and high school students were reported to be e-cigarettes, cigarettes, cigars, smokeless tobacco, hookahs, pipe tobacco, and bidis (unfiltered cigarettes from India).[130] E-cigarette decreased from 27.5 to 19.6 percent among high school students and from 5.3 to 4.7 percent among middle school students from 2019 to 2020.[130] The recent decline reversing previous trends may be attributable to multiple factors including increasing the age of sale of tobacco products from 18 to 21 years.[130] Children may be exposed to opportunities to experiment with other substances that negatively impact their health and well-being. Practitioners should provide education regarding the serious health consequences of tobacco use and exposure to secondhand smoke.[104,130] The practitioner may need to obtain information regarding tobacco use and alcohol/drug misuse confidentially from an adolescent patient.[11,107] When tobacco or substance abuse has been identified, practitioners should provide brief interventions for encouragement, support, and positive reinforcement for avoiding substance use.[104,107] If indicated, dental practitioners should provide referral to primary care providers or behavioral health/addiction specialists for assessment and/or treatment of substance use disorders.[107]

Human papilloma virus (**HPV**) is associated with several types of cancers, including oral and oropharyngeal cancers.[131,132] Seventy percent of oropharyngeal cancers in the U.S. are caused by HPV, and the number of oropharyngeal cancers is increasing annually.[132] Evidence supports the HPV vaccine as a means to lessen the risk of oral HPV infection.[131,133] The vaccine provides the greatest protection when administered at ages nine through 12.[132] As adolescent patients tend to see the dentist twice yearly and more often than their medical care provider, this is a window of opportunity for the dental professional to counsel patients and parents about HPV's link to oral cancer and the potential benefits of receiving the HPV vaccine.[134]

Complications from intraoral/perioral piercings can range from pain, infection, and tooth fracture to life-threatening conditions of bleeding, edema, and airway obstruction.[106] Education regarding pathologic conditions and sequelae associated with piercings should be initiated for the preteen child and parent and reinforced during subsequent periodic visits. The AAPD strongly opposes the practice of piercing intraoral and perioral tissues and use of jewelry on intraoral and perioral tissues due to the potential for pathological conditions and sequelae associated with these practices.[106]

Treatment of dental disease/injury

Health care providers who diagnose oral disease or trauma should either provide therapy or refer the patient to an appropriately-trained individual for treatment.[135] Immediate intervention is necessary to prevent further dental destruction, as well as more widespread health problems. Postponed treatment can result in exacerbated problems that may lead to the need for more extensive care.[24,36,37,42] Early intervention could result in savings of health care dollars for individuals, community health care programs, and third-party payors.[23,31,32,36]

Treatment of developing malocclusion

Guidance of eruption and development of the primary, mixed, and permanent dentitions is an integral component of comprehensive oral health care for all pediatric dental patients.[29] Dentists have the responsibility to recognize, diagnose, and manage or refer abnormalities in the developing dentition as dictated by the complexity of the problem and the individual

clinician's training, knowledge, and experience.[135] Early diagnosis and successful treatment of developing malocclusions can have both short-term and long-term benefits, while achieving the goals of occlusal harmony and function and dentofacial esthetics.[136] Early treatment is beneficial for many patients but is not indicated for every patient. When there is a reasonable indication that an oral habit will result in unfavorable sequelae in the developing permanent dentition, any treatment must be appropriate for the child's development, comprehension, and ability to cooperate. Use of an appliance is indicated only when the child wants to stop the habit and would benefit from a reminder.[29] At each stage of occlusal development, the objectives of intervention/treatment include: (1) managing adverse growth, (2) correcting dental and skeletal disharmonies, (3) improving esthetics of the smile and the accompanying positive effects on self-image, and (4) improving the occlusion.[29]

Sealants

A 2016 systematic review concluded sealants are effective in preventing and arresting pit-and-fissure occlusal caries lesions of primary and permanent molars in children and adolescents and can minimize the progression of noncavitated occlusal caries lesions.[137] They are indicated for primary and permanent teeth with pits and fissures.[137] At-risk pits and fissures should be sealed as soon as possible. Because caries risk may increase at any time during a patient's life due to changes in habits (e.g., dietary, home care), oral microflora, or physical condition, unsealed teeth subsequently might benefit from sealant application.[138] The need for sealant placement should be reassessed at periodic preventive care appointments. Sealants should be monitored and repaired or replaced as needed.[138-140]

Third molars

Panoramic or periapical radiographic assessment is indicated during late adolescence to assess the presence, position, and development of third molars.[47,48] Impacted third molars are potentially pathologic; a 2016 study found the incidence of cysts or tumors associated with impacted mandibular third molars to be 0.41-0.71 percent in patients younger than 30 years.[141] A decision to remove or retain third molars should be made before the middle of the third decade.[142,143] Consideration should be given to removal when there is a high probability of disease or pathology or the risks associated with early removal are less than the risks of later removal.[29, 143,144] Treatment should be provided before pathologic conditions adversely affect the patient's oral or systemic health.[142,143] Postoperative complications for removal of impacted third molars are low when performed at an early age.[145] A Cochrane review in 2012 reported no difference in late lower incisor crowding with removal or retention of asymptomatic impacted third molars.[146] When a decision is made to maintain disease-free impacted wisdom teeth, clinical and radiographic monitoring is appropriate to prevent undesirable outcomes.[147]

Referral for regular and periodic dental care

As adolescent patients approach the age of majority, educating the patient and parent on the value of transitioning to a dentist who is experienced in adult oral health can help minimize disruption of high-quality, developmentally-appropriate health care. At the time agreed upon by the patient, parent, and pediatric dentist, the patient should be referred to a specific practitioner in an environment sensitive to the adolescent's individual needs.[11,148] Until the new dental home is established, the patient should maintain a relationship with the current care provider and have access to emergency services. For the patient with SHCN, in cases where it is not possible or desired to transition to another practitioner, the dental home can remain with the pediatric dentist, and appropriate referrals for specialized dental care should be recommended when needed.[148] Proper communication and records transfer allow for consistent and continuous care for the patient.[44]

Recommendations by age

Six to 12 months

1. Complete the clinical oral examination with adjunctive diagnostic tools (e.g., radiographs as determined by child's history, clinical findings, and susceptibility to oral disease) to assess oral growth and development, pathology, and/or injuries; provide diagnosis.
2. Complete a caries-risk assessment.
3. Provide oral hygiene counseling for parents, including the implications of the oral health of the caregiver.
4. Clean teeth and remove supra- and subgingival stains or deposits as indicated.
5. Assess the child's exposure to systemic and topical fluorides (including type of infant formula used) and exposure to fluoridated toothpaste and provide counseling regarding fluoride.
6. Assess appropriateness of feeding practices, including bottle and breastfeeding, and provide counseling as indicated; provide dietary counseling related to oral health.
7. Provide age-appropriate injury prevention counseling for orofacial trauma.
8. Provide counseling for nonnutritive oral habits (e.g., digit, pacifiers).
9. Provide required treatment or appropriate referral for any oral diseases or injuries.
10. Provide anticipatory guidance.
11. Assess overall growth and development, and make appropriate referral to therapeutic services if needed.
12. Consult with the child's physician as needed.
13. Determine the interval for periodic reevaluation.

12 to 24 months

1. Repeat the procedures for ages six to 12 months every six months or as indicated by the child's individual needs or risk status/susceptibility to disease.

2. Assess appropriateness of feeding practices (including bottle, breastfeeding, and no-spill training cups) and provide counseling as indicated.
3. Review patient's fluoride status and provide parental counseling.
4. Provide topical fluoride treatments every six months or as indicated by the child's individual needs or risk status/susceptibility to caries.

Two to six years

1. Repeat the procedures for 12 to 24 months every six months or as indicated by the child's individual needs or risk status/susceptibility to disease, including periodontal conditions. Provide age-appropriate oral hygiene instructions.
2. Assess diet and body mass index to identify patterns placing patients at increased risk for dental caries or obesity. Provide counseling or appropriate referral to a pediatric or nutritional specialist as indicated.
3. Scale and clean the teeth every six months or as indicated by individual patient's needs.
4. Provide pit-and-fissure sealants for caries-susceptible anterior and posterior primary and permanent teeth.
5. Provide counseling and services (e.g., mouthguards) as needed for orofacial trauma prevention.
6. Assess developing dentition and occlusion and provide assessment/treatment or referral of malocclusion as indicated by individual patient's needs.
7. Provide required treatment or appropriate referral for any oral diseases, habits, or injuries as indicated.
8. Assess speech and language development and provide appropriate referral as indicated.

Six to 12 years

1. Repeat the procedures for ages two to six years every six months or as indicated by child's individual needs.
2. Complete a periodontal-risk assessment that may include radiographs and periodontal probing with eruption of first permanent molars.
3. Provide substance abuse counseling (e.g., smoking, smokeless tobacco) and referral to primary care providers or behavioral health/addiction specialists if indicated.
4. Provide education and counseling regarding HPV and the benefits of the HPV vaccine.
5. Provide counseling on intraoral/perioral piercing.

12 years and older

1. Repeat the procedures for ages six to 12 years every six months or as indicated by the child's individual needs or risk status/susceptibility to disease.
2. During late adolescence, assess the presence, position, and development of third molars, giving consideration to removal when there is a high probability of disease or pathology or the risks associated with early removal are less than the risks of later removal.
3. At an age determined by patient, parent, and pediatric dentist, refer the patient to a general dentist for continuing oral care.

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Recommended Dental Periodicity Schedule for Pediatric Oral Health Assessment, Preventive Services, and Anticipatory Guidance/Counseling

Since each child is unique, these recommendations are designed for the care of children who have no contributing medical conditions and are developing normally. These recommendations will need to be modified for children with special health care needs or if disease or trauma manifests variations from normal. The American Academy of Pediatric Dentistry emphasizes the importance of very early professional intervention and the continuity of care based on the individualized needs of the child. Refer to the text of this best practice for supporting information and references.

AMERICA'S PEDIATRIC DENTISTS THE BIG AUTHORITY on little teeth®	AGE				
	6 TO 12 MONTHS	12 TO 24 MONTHS	2 TO 6 YEARS	6 TO 12 YEARS	12 YEARS AND OLDER
Clinical oral examination [1]	•	•	•	•	•
Assess oral growth and development [2]	•	•	•	•	•
Caries-risk assessment [3]	•	•	•	•	•
Radiographic assessment [4]	•	•	•	•	•
Prophylaxis and topical fluoride [3,4]	•	•	•	•	•
Fluoride supplementation [5]	•	•	•	•	•
Anticipatory guidance/counseling [6]	•	•	•	•	•
Oral hygiene counseling [3,7]	Parent	Parent	Patient/parent	Patient/parent	Patient
Dietary counseling [3,8]	•	•	•	•	•
Counseling for nonnutritive habits [9]	•	•	•	•	•
Injury prevention and safety counseling [10]	•	•	•	•	•
Assess speech/language development [11]	•	•	•		
Assessment developing occlusion [12]			•	•	•
Assessment for pit and fissure sealants [13]			•	•	•
Periodontal-risk assessment [3,14]			•	•	•
Counseling for tobacco, vaping, and substance misuse				•	•
Counseling for human papilloma virus/ vaccine				•	•
Counseling for intraoral/perioral piercing				•	•
Assess third molars					•
Transition to adult dental care					•

1 First examination at the eruption of the first tooth and no later than 12 months. Repeat every six months or as indicated by child's risk status/susceptibility to disease. Includes assessment of pathology and injuries.

2 By clinical examination.

3 Must be repeated regularly and frequently to maximize effectiveness.

4 Timing, types, and frequency determined by child's history, clinical findings, and susceptibility to oral disease.

5 Consider when systemic fluoride exposure is suboptimal. Up to at least 16 years.

6 Appropriate discussion and counseling should be an integral part of each visit for care.

7 Initially, responsibility of parent; as child matures, jointly with parent; then, when indicated, only child.

8 At every appointment; initially discuss appropriate feeding practices, then the role of refined carbohydrates and frequency of snacking in caries development and childhood obesity. Monitor body mass index beginning at age two.

9 At first, discuss the need for nonnutritive sucking: digits vs. pacifiers; then the need to wean from the habit before malocclusion or deleterious effect on the dentofacial complex occurs. For school-aged children and adolescent patients, counsel regarding any existing habits such as fingernail biting, clenching, or bruxism.

10 Initially pacifiers, car seats, play objects, electric cords; secondhand smoke; when learning to walk; with sports and routine playing, including the importance of mouthguards; then motor vehicles and high-speed activities.

11 Observation for age-appropriate speech articulation and fluency as well as achieving receptive and expressive language milestones.

12 Identify: transverse, vertical, and sagittal growth patterns; asymmetry; occlusal disharmonies; functional status including temporomandibular joint dysfunction; esthetic influences on self-image and emotional development.

13 For caries-susceptible primary molars, permanent molars, premolars, and anterior teeth with deep pits and fissures; placed as soon as possible after eruption.

14 Periodontal probing should be added to the risk-assessment process after the eruption of the first permanent molars.

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Caries-risk assessment [3]	•	•	•	•	•
Radiographic assessment [4]	•	•	•	•	•
Prophylaxis and topical fluoride [3,4]	•	•	•	•	•
Fluoride supplementation [5]	•	•	•	•	•
Anticipatory guidance/counseling [6]	•	•	•	•	•
Oral hygiene counseling [3,7]	Parent	Parent	Patient/parent	Patient/parent	Patient
Dietary counseling [3,8]	•	•	•	•	•
Counseling for nonnutritive habits [9]	•	•	•	•	•
Injury prevention and safety counseling [10]	•	•	•	•	•
Assess speech/language development [11]	•	•	•		
Assessment developing occlusion [12]			•	•	•
Assessment for pit and fissure sealants [13]			•	•	•
Periodontal-risk assessment [3,14]			•	•	•
Counseling for tobacco, vaping, and substance misuse				•	•
Counseling for human papilloma virus/ vaccine				•	•
Counseling for intraoral/perioral piercing				•	•
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14 Periodontal probing should be added to the risk-assessment process after the eruption of the first permanent molars.

GOBIERNO DE PUERTO RICO
ADMINISTRACIÓN DE SEGUROS DE SALUD
Director Ejecutivo I Jorge E. Galva, JD, MHA I jgalva@asespr.org

Carta Normativa 21-0625

25 de junio de 2021

A: **ORGANIZACIONES CONTRATADAS DE MANEJO COORDINADO DE SALUD (MCO), GRUPOS MÉDICOS PRIMARIOS (GMP), Y PROVEEDORES PARTICIPANTES DEL PLAN VITAL**

ASUNTO: **APOYO OA-473 DEL DEPARTAMENTO DE SALUD PARA COMPLETAR PLAN DE ACCIÓN PARA EL MANEJO DEL ASMA A TODO PACIENTE CON ESTA CONDICIÓN Y COMPLETAR CERTIFICACIÓN MÉDICA ANUAL PARA ESTUDIANTES PACIENTES DE ASMA**

Según establece la **Orden Administrativa (OA) 473, emitida por el Departamento de Salud el 15 de diciembre de 2020**, el asma es una condición crónica que requiere tratamiento de por vida y de intervenciones médicas periódicas para manejarla adecuadamente. De acuerdo con el Sistema de Vigilancia del Programa de Asma, en Puerto Rico, existen aproximadamente **303,623 adultos** con diagnóstico de asma. Mientras que el grupo de niños y adolescentes con asma alcanza unos **84,398**. El padecimiento de asma trae gran carga a los pacientes y a sus cuidadores. Por ejemplo, esta condición puede causar ausentismo en las escuelas y provocar pérdidas económicas por ausencias en los trabajos. Por supuesto, esta carga del asma también impacta al sistema de salud en general debido a las múltiples visitas que se generan a médicos y especialistas, visitas a salas de emergencia o urgencia y hospitalizaciones.

La OA 473 del Departamento de Salud estableció que se *"extiende la obligación de completar un plan de acción para el control del asma para todos sus pacientes con esta condición"*. El **Plan de Acción para el Manejo del Asma,** conforme a esta OA, es el plan de acción aprobado por el Departamento para el control del asma donde:

- se muestra el tratamiento diario,
- describe cómo controlar el asma a largo plazo,
- así cómo manejar la condición cuando empeore o cuando la persona tenga un ataque.
- incluye los factores o provocadores externos que pueden exacerbar el asma de la persona.

Tanto la *Ley de tratamiento de estudiantes que padecen de asma, diabetes u otra enfermedad*, **Ley Núm. 56 de 1 de febrero de 2006**, como el **Reglamento Núm. 9224 de 27 de octubre de 2020** - *Reglamento para la continuidad de tratamiento a estudiantes que padecen asma*, establecen la obligación de todo médico de completar un plan de acción para el control del asma y una certificación médica para todo estudiante paciente de asma que atienda.

Tomando como base lo antes expuesto, la ASES requiere que todas las aseguradoras contratadas bajo el Plan de Salud del Gobierno – Plan Vital, se encarguen de promover entre sus redes de proveedores el

estricto cumplimiento de las siguientes instrucciones, que se desprenden de la Orden Administrativa 473, del 15 de diciembre de 2020, emitida por el Departamento de Salud de Puerto Rico:

Plan de Acción para el Control del Asma

- Todo *médico o especialista (pediatra, médico primario, médico de familia, neumólogo)* deberá completar el **Plan de Acción para el Control del Asma** (anejo) como parte del tratamiento de los pacientes con esta condición y estar debidamente evidenciado en el expediente de cada paciente con diagnóstico de asma.
    - Este plan deberá ser revisado y modificado cuando el tratamiento del paciente así lo requiera.
    - El establecer o revisar el **Plan de Acción para el Control del Asma** no deberá implicar un costo adicional para el paciente, ya que se considera parte del tratamiento del paciente.

Certificación Médica Anual (para estudiantes)

- Para todos aquellos pacientes pediátricos con diagnóstico establecido de asma que sean estudiantes y se matricularán en escuelas públicas o privadas, el *médico o especialista (pediatra, médico primario, médico de familia, neumólogo)*, deberá completar un **Certificado Anual** (anejo) el cual evidenciará que los estudiantes pacientes diagnosticados con asma y sus encargados *recibieron adiestramiento adecuado por parte de un profesional de la salud cualificado, acerca del uso correcto y responsable del medicamento recetado, tal y como lo establece la Ley 56-2006.*
    - Este certificado debe ser completado en adición al Plan de Acción para el Control del Asma, conforme se establece en el Reglamento para la continuidad de tratamiento a estudiantes que padecen asma, Reglamento Núm. 9224 de 27 de octubre de 2020.
        - Mediante este Certificado Médico, el proveedor indicará si el estudiante paciente *está o no está capacitado física y mentalmente para administrarse por cuenta propia los medicamentos de asma durante el horario escolar regular y extendido.*
        - También mediante este documento se certifica que se *ha instruido y adiestrado al paciente y/o al padre, madre, tutor o encargado sobre la manera adecuada, correcta y responsable del uso del(los) medicamento(s) incluido(s) en el Plan de Acción.* Y que este adiestramiento incluyó información sobre *el tipo de medicamento, procedimientos a seguir para administrarse por cuenta propia o con la ayuda del padre, madre, tutor o encargado (lo que aplique) los medicamentos, dosis a administrarse, vía y frecuencia de la administración, instrucciones para manejar y formas seguras de almacenar el medicamento.*
        - Esta Certificación debe ir acompañada del Plan de Acción para continuidad del tratamiento del estudiante paciente y otras instrucciones especiales en caso de emergencia.

Entendemos que la OA 473 busca reforzar el cumplimiento con la Ley Núm. 56 de 1 de febrero de 2006 y con el Reglamento Núm. 9224 de 27 de octubre de 2020, con mayor enfoque en la población estudiantil pediátrica. No obstante, en lo que corresponde a los pacientes adultos, a la ASES le interesa que se efectúen acciones proactivas e intervenciones preventivas adecuadas en todos aquellos pacientes con carga debido a su diagnóstico de asma, incluyendo la población de 18 años en adelante.

A esos efectos, las aseguradoras contratadas deben asegurar que sus proveedores también discutan el **Plan de Acción de Control del Asma** preparado por el Departamento de Salud al menos una (1) vez al año con sus pacientes de 18 años en adelante.

Claro está, es esencial que las aseguradoras refuercen el que se evidencie debidamente la discusión y revisión del Plan de Acción en los récords médicos de los pacientes diagnosticados con asma. En el caso de los pacientes adultos (18 años o más), al discutir el formulario del Plan de Acción de Control del Asma de ser necesario, colocarán las dosis adecuadas o alguna información adicional en el área provista para "otros". Igualmente, con población de 18 años o más no deberán llenar la sección que establece *"Solo para menores"* o podrán colocar N/A (no aplica).

La OA 473 es explícita en cuanto la responsabilidad del médico o especialista *(pediatra, médico primario, médico de familia, neumólogo)*, en cuanto a participar de los talleres de Manejo y Control del Asma ofrecidos por el Programa de Asma del Departamento de Salud, para *actualizar conceptos y conocer cómo completar dicho plan de acción*. Así mismo, la ASES requiere a las todas las aseguradoras que apoyen a sus redes de proveedores coordinando, de ser necesario, con el Programa de Asma del Departamento de Salud para solicitar orientación respecto al contenido del Plan de Acción para el Control del Asma. Estamos acompañando esta Carta Normativa junto con el formulario del Plan de Acción revisado en mayo de 2021, copia de la Orden Administrativa 473, copia del Reglamento Núm. 9224 de 27 de octubre de 2020, y copia del formulario de Certificación Médica para los estudiantes con diagnóstico de asma para su referencia. Además, podrán acceder estos documentos y otra información basada en evidencia relacionada en el portal Web del Programa de Asma del Departamento de Salud: www.proyectoasmapr.com.

Esperamos con su colaboración lograr un mejor control del asma en la población que servimos, favoreciendo su calidad de vida a través de un monitoreo individualizado de su condición y promoviendo la adherencia a los tratamientos prescritos. Igualmente, estarán apoyando en aliviar el impacto a nuestro sistema de salud, reduciendo las visitas a salas de emergencia y hospitalizaciones por asma descontrolada.

Cordialmente,

Jorge E. Galva Rodríguez, JD, MHA
Director Ejecutivo

Anejos (4)

Planificación

GOBIERNO DE PUERTO RICO
ADMINISTRACIÓN DE SEGUROS DE SALUD

Clinical Operations Area Government Health Plan (GHP), Vital Health Plan			
Policy: Early and Periodic Screening, Diagnostic and Treatment Program (EPSDT) Policy			
Number: **16-1102** *Amended*	**Review Date:** 17/May/2024	**Effective Date:** 20/May/2024	**Number of Pages:** 13
Approved By: Roxanna K. Rosario Serrano, BHE, MS **Signature:** **Date:** 5/17/2024 **Executive Director** Milagros A. Soto Mejía, MHSA, MMHC **Signature:** **Date:** 5/17/2024 **Clinical Operations Director**			
Reference: Contract Section 7.9, 42 CFR 441 Subpart B			

I. PURPOSE:

The purpose of this policy is to clearly establish and define the requirements to be delegated to all MCO'S participating in the GHP- Salud Vital as it is related to the compliance with the EPSDT Programs requirements for needed services as well as member's identification, notification, education, outreach, tracking and reporting. The scope also includes the provision for providers EPSDT education with service requirements, compliance, and surveillance of quality measures.

II. PROGRAM DESCRIPTION:

EPSDT is a comprehensive child health care program of primary prevention, early diagnosis, treatment, correction, and improvement (amelioration) of physical and mental health problems for GHP- Salud Vital members under the age of 21. The purpose of EPSDT is to ensure the availability and accessibility of health care resources as well as to assist the government health plan recipients in effectively utilizing these resources. All services must be directed to prevent, treat, or ameliorate physical, mental, or developmental problems or conditions by certified providers, in sufficient amount, duration and scope based on medical necessity. **EPSDT services end on the last day of the beneficiary's twenty-first (21st) birthday month.**

EPSDT focuses on continuum of care by assessing health needs, providing preventive screening, initiating needed referrals, and completing recommended medical treatment and appropriate follow up. Its services include screening, vision, dental and hearing services as

well as all other medically necessary mandatory and optional services listed in the government health plan contract requirements to correct or ameliorate defects and physical and mental illness and conditions identified in an EPSDT screening.

III. SCOPE:

EPSDT consists of screening services in accordance with the periodicity requirements of Title 42 of the Code of Federal Regulations (42 CFR 441.58), preventive, diagnostic, treatment, and rehabilitative services. The Program include, but is not limited to, coverage of inpatient and outpatient services, laboratory and x-ray, physician services, medications, dental, rehabilitative therapy, behavioral health, medical supplies and prosthetic devices as defined below in accordance to the Government Health Plan (GHP-Salud Vital) contract with MCOs. However, EPSDT services do not include services that are experimental, that are solely for cosmetic purposes or that are not cost effective when compared to other interventions.

A well child visit is synonymous with an EPSDT visit and includes all screenings and services described in the ESPDT Schedules *(*Appendix 1*)*. The EPSDT Periodicity Schedule is based on recommendations by the guidelines of the American Academy of Pediatrics and are intended to meet reasonable and prevailing standards of medical practice and specifies screening services at each stage of the child's life. This schedule is offered to all PCP providers to document all age specific, required information related to EPSDT screenings and visits. PCP providers must ensure that members receive the required health screenings in compliance with this schedule. The service intervals represent minimum requirements, and any services determined by a primary care provider to be medically necessary must be provided, regardless of the interval. The requirements and reporting forms for an EPSDT screening service are described in another section of this Policy.

IV. DEFINITIONS:

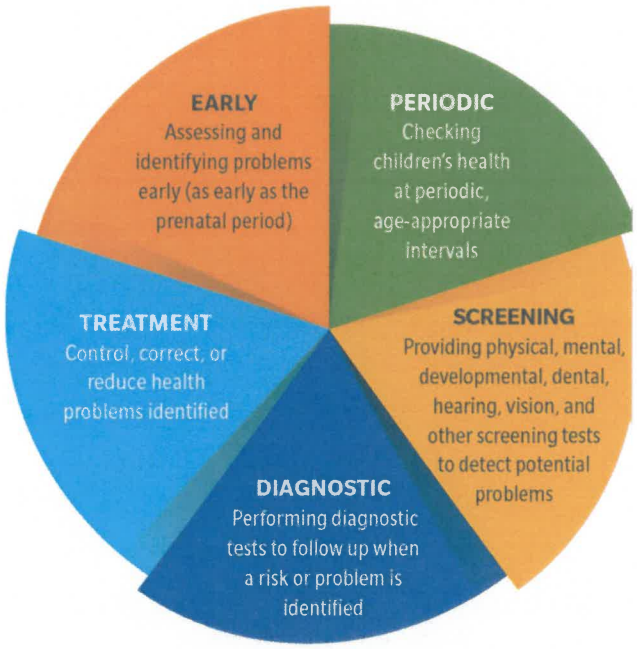
Early and Periodic Screening, Diagnosis, and Treatment (EPSDT)

1. **Early:** assessing health care in early life so that potential disease and disabilities can be prevented or detected in their preliminary states when they are most effectively treated. In the case of a child already enrolled in GHP, it means assessing as early as possible in the child's life, or as soon after the member's eligibility for the services has been established.
2. **Periodic:** assessing a child's health at regular, recommended intervals in the child's life to assure continued healthy development.

3. **Screening:** the use of tests and procedures to determine if children being examined have conditions warranting closer medical or dental attention. As such, prior authorization (PA) may not be required for any EPSDT screening services. When a screening examination indicates the need for further evaluation of a child's health, the child should be referred for diagnosis without delay. **For the EPSDT program, screening and diagnosis are not synonymous.**
4. **Diagnostic:** the determination of the nature or cause of a condition, illness, or injury through the combined use of health history, physical, developmental, and psychological examination, laboratory, test, X-rays, when appropriate.
5. **Treatment:** the provision of services needed to control, correct, or lessen health problems.

The affirmative obligation to connect children with necessary treatment makes EPSDT different from Medicaid for adults. As described by CMS, EPSDT's goal is to assure that individual children get the health care they need when they need it – the right care to the right child at the right time in the right setting.

EPSDT Key Service Entitlement



From: Meeting the Moment: Understanding-EPSDT (Velcoff-Lewis)
www.cachildrenstrust.org

V. REQUIREMENTS:

Comprehensive periodic screenings must be performed by a clinician according to the time frames identified in the EPSDT (Early and Periodic Screening, Diagnostic and Treatment) Periodicity Schedule (Appendix 1) and inter periodic screenings as appropriate for each member age group.

PMG's and PCP's must implement processes to ensure age-appropriate screening and care coordination when member needs are identified. Providers are encouraged to utilize the GHP- Salud Vital approved standard developmental screening tools and charts, and complete training in the use of those tools. MCOs are required by ASES to establish monitoring processes for PMG's and PCP's providers and implement interventions for those not on-compliance.

VI. EPSDT screenings and services must include the following:

1. A comprehensive health and developmental history including assessment of both physical and mental development, including substance abuse disorders.
2. Growth and development screening which includes physical, nutritional, and behavioral health assessments (See Appendix 2A - 2D, Body Mass index Charts).
3. Measurements (height, weight, body mass index; including head circumference for infants).
4. A comprehensive unclothed physical examination.
5. Appropriate immunizations according to age, health history and the guidance issued by the Advisory Committee on Immunization Practices (ACIP).
6. Laboratory testing, including blood lead screening assessment and serum blood lead testing, appropriate to age and identified risk factors. Anemia testing and diagnostic testing for sickle cell trait if a child has not been previously tested with sickle cell preparation or a hemoglobin solubility test.
7. Health education according to age group will be provided including anticipatory guidance for the child and caregiver.
8. Periodical Vision screening with diagnosis and treatment services for visual defects, including eyeglasses.

[1] California Children's Trust, http://cachildrenstrust.org/National Health Law Program; http://www.healthlaw.org/ National Center for Youth Law http://www.youthlaw.org/: Meeting the Moment 2020

9. Tuberculosis testing; as applicable.
10. Periodical Hearing screening including diagnostics and treatment services including devices for communication augmentation and cochlear implants.
11. Appropriate oral health screening, intended to maintain oral health and to identify oral pathology, including tooth decay and/or oral lesions, conducted by the primary care physician and dental specialists. Services will also include dental emergency services for pain relief, infection treatment, and tooth restoration.

VII. EPSDT SERVICE DESCRIPTION:

EPSDT services must be provided according to community standards of practice and the EPSDT Periodicity Schedule (See Appendix 1). The Contractors (MCOs), through their subcontracted healthcare providers, are responsible for delivering the services as described in this policy. The healthcare providers must also adhere to the following specific standards and requirements:

1. **Preventive visit**- A periodic preventive comprehensive health and developmental history including assessment of both physical and mental development. All elements of medical history, physical exam, developmental measurements, preventive laboratories, autism, and depression screening needs to be done according to member age and risk factors. Appointments according to schedule (Appendix 1) should be made, and a tracking system to assure compliance must be in place. However, newly enrollees under CHIP eligible children should be seen within the first 90 days in the ambulatory setting and within the first 24 hours in the hospital setting.

2. **Immunization** – Includes all child and adolescent immunizations as specified in the PR Department of Health Immunization Schedule. All appropriate immunizations must be provided to establish and maintain up-to-date immunization for each EPSDT member (See Appendix 3 for schedule). PMG's and PCP must coordinate with the PR Department of Health Services Vaccines for Children program in the delivery of immunization services. Immunization must be provided according to the Advisory Committee on immunization Practices (ACIP). The vaccines themselves are provided for by the Department of Health Immunization Program throughout their recognized and certified vaccination centers. MCOs will cover the cost related to vaccine administration, under the fee schedule established by the ASES contract to all MCOs. Vaccine for Non-Federal Medicaid member will be covered by the MCOs.

3. **Vision Screening** - Eye examinations as appropriate to age according to the EPSDT Periodicity Schedule and medically necessary diagnosis and treatment for defects in vision including one pair of eyeglasses every 24 months (two years). In special circumstances replacement of eyeglasses could be approved with preauthorization before the two-year benefit limit.

4. **Blood Lead Screening** - A blood lead screening risk assessment must be completed at each EPSDT visit at twelve (12) and twenty-four (24) age. Children between twenty-four (24) and seventy-two (72) months of age (up to 6 years of age) should receive a blood lead screening test if there is no record of a previous blood test.

   PMG's and PCP's must implement protocols for:

   a. Care coordination for members with elevated blood lead levels to ensure timely follow-up and retesting.
   b. Coordination and transitioning of a child who has an elevated blood level to another specialist provider, as necessary.

5. **Tuberculosis Screening** - PMG's and PCP's must implement protocols for care and coordination of members who received TB testing to ensure timely reading of the TB skin test, and treatment if medically necessary. Children at increased risk of tuberculosis (TB) include those who have contact with persons:

   a. Confirmed or suspected of having TB.
   b. In jail or prison during the last five years.
   c. Living in a household with an HIV-infected person, or the child is infected with HIV.
   d. Traveling/emigrating from or having significant contact with persons indigenous to endemic countries.

   We must consider TBST or IGRA as preferred diagnostic screening test for TB.

6. **Hearing Screening** – Including:

   a. Each hospital or birthing center screens all newborns using a physiological hearing screening method as early as clinically possible prior to initial discharge. When there is an indication that a newborn or infant may have a hearing loss or congenital disorder, the family is referred to the Pediatric Health provider/ center for appropriate assessment and early intervention.
   b. Hearing screening evaluation according to age with appropriate referral to establish a diagnosis and necessary treatment to improve any auditory deficit

that can interfere with appropriate communication with normal language development or delays in learning and social development. Hearing aids will be covered by the PSG, cochlear implants will be coordinated through the Puerto Rico Health Department Catastrophic Funds.

7. **Nutritional Assessment** - Nutritional assessment is conducted to assist EPSDT members whose health status may improve with nutrition intervention. The MCOs coordinate with the WIC Program, available to all federally qualified Medicaid participants, to get an initial comprehensive nutritional evaluation, as well as a nutritional follow-up and assistance until a child reaches 5 years of age. PMG's and PCPs are required to provide the required formulary and assessments necessary for initiation in the WIC Program to those children that requires special nutrition and supplements assistance. Also, assessment of nutritional status will be provided by the primary care provider (PCP) as part of the EPSDT screenings specified in the Periodicity Schedule (Appendix 1) and on an inter-periodic basis, as determined necessary by the member's PCP. It also covers nutritional assessments provided by a registered dietitian when ordered by the member's PCP and contracted by the MCOs. This includes EPSDT eligible members who are under or overweight. Prior authorization (PA) is not required when the assessment is ordered by the PCP.

8. **Dental and Oral Health Services** – As soon as the eruption of the first tooth and no later than 12 months of age, a dental evaluation must be done by a certified dentist or dental hygienist, working under the supervision of a certified dentist. The screening is intended to prevent dental problems or to identify gross dental or oral lesions. *Providers must comply with the Preventive Dental Periodicity Schedule (Appendixes 4A,4B). Other dental services may be covered in accordance to plan benefits and medical necessity.*

   For best practices recommendations we shall follow American Academy of Pediatric Dentistry's: Periodicity of examination, preventive dental services, anticipatory guidance/ counseling, and oral treatment for infants, children, and adolescents. *The Reference Manual of Pediatric Dentistry. Chicago, Ill.: American Academy of Pediatric Dentistry; 2020:232-42.*

9. **Health Education and Anticipatory Guidance** – MCOs, the PMG's, contracted PCPs, and other health providers must offer anticipatory guidance and health education for both the children and the caregivers in the following topics:

   - Breast feeding
   - Car Seat Safety
   - Smoke free environment.
   - Accidents and injuries preventions
   - UV protection

- Physical Activity
- Healthy Diet
- Prevention of STDs and HIV
- Clinical oral examination
- Caries risk assessment
- Dental radiographic assessment
- Prophylaxis and topical fluoride
- Fluoride supplementation

10. **Mental Health and Substance Use Services** – Treatment for mental health and substance use is available for early detection, and to provide early referral for diagnosis and treatment. Screening tools are used to detect autism, substance and alcohol abuse by adolescents and caregivers. Psychiatric and psychological treatment will be provided according to medical needs, in individualized or family therapies interventions. Inpatient mental health and substance abuse, mental health partial ambulatory, and counseling services will be available as medically necessary.

The recommended timing is:

- Developmental screening at 9 months, 18 months, and 30 months of age.
- Autism spectrum disorder screening at 18 months and 24 months of age.
- Developmental surveillance at nearly every interval from newborn to age 21.
- Psychosocial/behavioral assessment at every interval from newborn to age 21.
- Tobacco, alcohol, or drug use assessment at every interval from age 12 to 21.
- Depression screening at every interval from age 12 to 21.
- Maternal depression screening at several points during the infancy stage 42.

11. **Medically Necessary Therapies** - Medically necessary therapies are covered and includes physical therapy, occupational therapy, speech therapy necessary to correct or ameliorate physical defects, mental illnesses and other conditions discovered during the screening services.

12. **Coordination with other State Agencies** – Coordination with other state agencies is done to assure adequate referral and service feedback. Service referrals are done to WIC program for nutritional evaluations and provision of special nutritional requirement according to established diagnosis. Referrals to Early Head Start programs are coordinated to assure that children with special needs or developmental gaps could receive the appropriate early intervention services for the identified problem. In Puerto Rico, the community agency *"Fondos Unidos"* aid children with developmental and special needs. Appropriate referral for such services is coordinated with the GHP- Salud Vital medical providers or MCOs case

managers. The Puerto Rico Department of Health also provides services through the Early Interventions Programs available throughout the island.

13. **Transportation Services** – None-emergency transportation to promote access to needed preventive, diagnosis and treatment services are provided by the Medicaid office under the Puerto Rico Health department. The MCOs' Case Managers also identify other community resources, such as municipal government offices, to provide non-emergency transportation to EPSDT population to access medical or preventive services.

14. **Language Access and Culturally Appropriate Services** – In most instances, GHP-Salud Vital population receives services with health professionals that are fully bilingual, Spanish, and English. All participants enrolled, and caregivers should be able to choose a provider that fully understands and communicates the medically necessary instructions, education, and orientation effectively on both languages, English and Spanish. Physicians need to be trained to provide culturally and linguistically appropriate services, taking in account cultural beliefs, languages barriers or limitations and ethnic diversity.

15. **Family Planning Services-** Family planning services will be provided to sexually active adolescents at childbearing age. Those services include orientation and education on pregnancy and sexually transmitted diseases prevention. Access to contraceptive methods is available under the Family Planning Program established in all MCOs.

16. **Other services** - Case management service is available through the MCOs' Case Management Programs, where all children with special needs undergo special registration according to the identified medical diagnosis. The registry will provide access to necessary care, without the need of a PCP's referral, from specialized providers, clinics, surgical and medical procedure, laboratories, and all necessary tests as well as medication treatment.

17. **Medical Supplies**, including diabetes test strips, when medically necessary, for children and youth under age 21. If a child has a diagnosed condition of incontinence of bowel or bladder, EPSDT is required to cover the appropriate

[2] While federal law does not prescribe a specific periodicity schedule, CMS has highlighted, and most states have adopted, the American Academy of Pediatrics Bright Future Schedule (AAP/Bright Futures). The schedule (AAP/Bright Futures) provides recommendations for a series of screenings, assessments, and procedures at various stages of childhood (prenatal, infancy, early childhood, middle childhood, and adolescence through age 21) across several domains. In the "developmental/behavioral health" domain, AAP/Bright Futures recommends what is described above.

18. home health care treatment for this condition, which typically includes diapers or other incontinence products. Diapers and wipes are not allowed for potty training purposes. The patient doctor must provide written justification to the MCO for approval.

19. **Organ transplants** are not covered by the current benefits for the GHP- Salud Vital enrollees, except for corneal, bone and skin transplants. When such services are necessary, the MCO case management team coordinates with the Puerto Rico Health Department to access services through the Catastrophic Funds. Those catastrophic Funds are identified to cover services not currently under the scope of benefits of the GHP- Salud Vital but that could be clinically necessary, such as organ transplants, services out of Puerto Rico including any United State territory, medical equipment such as adapted car seats and nutritional supplements to compliment dietary restrictions for special conditions.

20. **Services Provided on Schools, Community base care –** MCOs are required to identify and develop necessary services coordination with all regional Community Base and School Services available to assist, complement or to provide clinical services to the EPSDT population. Current Community Base Primary Centers, or federally *qualified* and sponsor centers such as 330 - 329 and HIV treatment Center are required to be part of the contracted MCOS provider network.

21. **Member Education, Identification and Tracking -** All MCOS will provide EPSDT members education on preventive periodicity schedules including immunization, preventive tests, members benefit, preventive services access and referrals, transportations services when needed, appointment system with outreach, tracking activities and policies.

22. **Providers Education, Compliance and Quality Measures –** All MCOS will educate the PCPs providers on EPSDT policies and procedures, periodicity schedules, EPSDT benefits, preventive and evidence base practices and services guidelines, EPSDT member identification, outreach and tracking activities and policies. Quality measures and understanding and tracking of HEDIS applicable parameters should also be provided.

23. **Reporting system** – On a quarterly basis, MCOs should report to ASES all activities done to comply with the EPSDT members; at least meeting the requirements on EPSDT report to CMS. MCOs should perform random audits of EPSDT on PCPs' medical records and should report in terms of compliance percentage on such required elements. Those quality elements should be part of the physicians' incentive programs. The reports should include results of outreach and tracking

activities designed to comply with the adequate standards of ESPDT member's access to care.

24. **Telemedicine** - Centers for Medicare & Medicaid Services (CMS) has broadened access to Medicare telehealth services so that beneficiaries can receive a wider range of services without having to travel to a healthcare facility. CMS is expanding this benefit on a temporary and emergency basis under the 1135 waiver authority and Coronavirus Preparedness and Response Supplemental Appropriations Act. During the Public health emergency, recognized Preventive Medicine Services (PMS) CPT codes (99381- 99385, 99391-99395) as eligible for telemedicine and pay with parity to in-person visits, keeping with current PMS payment policies. None the less, as all children should ideally receive all comprehensive components of the PMS visit, the American Academy of Pediatrics strongly recommends a second (in-person) visit, wherever and whenever feasible, to complete components that were not able to be accomplished during the telemedicine PMS visit. Payment for this second visit will be included (bundled) in the initial full PMS payment.

The following are considered the same as in-person visits and are paid at the same rate as regular, in-person visits:

- 99421: Online digital evaluation and management service, for an established patient, for up to 7 days, cumulative time during the 7 days; 5–10 minutes
- 99422: Online digital evaluation and management service, for an established patient, for up to 7 days cumulative time during the 7 days; 11– 20 minutes
- 99423: Online digital evaluation and management service, for an established patient, for up to 7 days, cumulative time during the 7 days; 21 or more minutes.
    - The provider must use an interactive audio and video telecommunications system that permits real-time communication between the distant site and the patient at home.
- 99423: Online digital evaluation and management service, for an established patient, for up to 7 days, cumulative time during the 7 days; 21 or more minutes.
    - The provider must use an interactive audio and video telecommunications system that permits real-time communication between the distant site and the patient at home.

Reviews and Approvals

Update	Section Review	Modification and Reason
	EPSDT SERVICE DESCRIPTION	
May 7, 2024	16. Other Services	**Medical Supplies**, including diabetes test strips, when medically necessary, for children and youth under age 21. If a child has a diagnosed condition of incontinence of bowel or bladder, EPSDT is required to cover the appropriate home health care treatment for this condition, which typically includes diapers or other incontinence products. Diapers and wipes are not allowed for potty training purposes. The patient doctor must provide written justification to the MCO for approval.
Apr 22,2024	5. Tuberculosis Screening	*"We must consider TBST o IGRA as preferred diagnostic screening test for TB"* was added to this section.
Apr 22, 2024	HEADER *Page 1*	Substituted "Planning, Quality, and Clinical Affairs" with "Clinical Affairs Operations". Included current ASES policy approver, Roxanna K. Rosario Serrano, Executive Director.
	APPENDIX 1: *Periodicity_schedule Bright Futures 2023* APPENDIX 2 A: Boys_Birth to 36 mths_LxA & WxA percentiles 2021 APPENDIX 2 B: Girls_Birth to 36 mths_LxA & WxA percentiles 2021 APPENDIX 2 G: BMI-Age-percentiles-BOYS 2022 APPENDIX 2 H: BMI-Age-percentiles-GIRLS 2022 APPENDIX 3: Immunization_0-18yrs-child-combined-schedule 2024 APPENDIX 4 A: bp_periodicity_ revised 2022 APPENDIX 4 B: bp_recdentperiodschedule 2022 Form_CMS416_2023.xlsx	Updated to most recent guidelines/itineraries.
Sept 7,2021	PROGRAM DESCRIPTION	Added for clarity: *EPSDT services end on the last day of the beneficiary's twenty-first (21st) birthday month.*
Sept 7,2021	DEFINITIONS *Early* *Periodic* *Screening* *Diagnostic* *Treatment* *-Diagram*	Review and edited for clarity and alignment with CMS. Also, a diagram was included with shortened definitions.
Sept 7,2021	EPSDT SERVICE DESCRIPTION	
	Dental and Oral Health Services	AAP best practices reference was included.
	Mental Health and Substance Use Services	Recommended screening timings recommended by AAP/Bright Futures was included.
	Telemedicine	Policy changes on services based on regulatory flexibilities granted under the President's emergency declaration due COVID-19 pandemic was added.
	APPENDIX-1 *Periodicity Schedule Bright Future_2021* APPENDIX-3 *Vaccination Schedule_PRDOH.2021*	Updated to most recent guidelines.

	APPENDIX 4A *bp_dental_period_schedule* APPENDIX 4B *Examination_Prevention_ Guidance_Counseling_ Treatment*	Added to reflect most recent guidelines.
	OVERALL DOCUMENT	Substitute *GHP* with *GHP-Salud Vital* to bring document up to date with current Puerto Rico Government's Health Plan name: Salud Vital and page numbering was added.
May 14, 2019	EPSDT SERVICES DESCRIPTION	
	Nutritional Assessment (Item 7) *Dental and Oral Health Services (Item 8)* *Health Education and Anticipatory Guidance (Item 9)* *Mental Health and Substance Use Services (Item 10)* *Coordination with other State Agencies (Item 12)* *Transportation Services (Item 13)* *Language Access and Culturally (Item 14)* *Appropriate Services (Item 15)* *Family Planning Services (Item 16)* *Organ transplants (Item 17)* *Reporting system (Item 18)*	Various corrections and reviews performed on spelling, punctuation, and grammar for clarity.
May 14, 2019	APPENDIX-1 *Periodicity Schedule Bright Future_2019* APPENDIX-3 *Vaccination Schedule_PRDOH.2018*	Updated to most recent guidelines.
May 8, 2019	HEADER *Page 1*	Substituted Compliance and Clinical Affairs with "Planning, Quality, and Clinical Affairs" Substituted Government Health Plan –(*GHP)* with "Government Health Plan (GHP) – Salud Vital" to bring document up to date with current Puerto Rico Government's Health Plan name: *Salud Vital.* Included current ASES approver, *Angela Avila Marrero, Executive Director*
May 8, 2019	OVERALL DOCUMENT	Substitute *GHP* with *GHP-Salud Vital* to bring document up to date with current Puerto Rico Government's Health Plan name: Salud Vital and page numbering was added.
April 7, 2016	EPSDT SERVICES DESCRIPTION *Vision Screening (Item 3)*	Periodicity for eyeglasses coverage is corrected from "one year" to "every 24 months" in accordance to the State Plan (SPA).