COMPREHENSIVE AND ALIGNED SYSTEM FOR EARLY CHILDHOOD SCREENING AND ASSESSMENT: WISCONSIN'S BLUEPRINT

Third Edition 2016

By the Wisconsin Early Childhood Collaborating Partners Healthy Children Committee

Comprehensive and Aligned System for Early Childhood Screening and Assessment: Wisconsin's Blueprint

Third Edition 2016

Wisconsin Early Childhood Collaborating Partners Healthy Children Committee

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COMPREHENSIVE AND ALIGNED SYSTEM FOR EARLY CHILDHOOD SCREENING AND ASSESSMENT: WISCONSIN'S BLUEPRINT

BACKGROUND

The *Wisconsin Early Childhood Collaborating Partners Healthy Children Committee* began to explore screening practices for young children (birth to age eight), with a special focus on children from birth to three. In 2010, the *Governor's Early Childhood Advisory Committee (ECAC)* asked the *Healthy Children Committee* to expand its effort and look at screening and assessment systems from the perspective of aligning the existing practices and assuring a consistent approach and access. The ECAC is interested in creating systems so that Wisconsin will have better and more consistent information about young children at key developmental milestones for use in planning early childhood policies, programs, and services. In response, the Healthy Children Committee prepared and released the first version of this Blueprint report in February 2012 (Blueprint 2012).

Screening and assessment practices continue to be defined and carried out by some of the early childhood programs and services that "touch the lives of young children and their families" including health care, education, Head Start, mental health, child care, home visiting, and Individuals with Disabilities Education Act (IDEA) disability programs. Through significant dialog and research, the members of the Healthy Children Committee discovered that the diverse programs have more basic principles in common than originally believed. Expected barriers were minimized as terms and practices were more broadly defined. Building an aligned and comprehensive screening and assessment system is complex and requires a commitment to policies and practices that promote the vision for such a system. While it continues to be true that programs do not reach all children, and terminology and practices differ across the various early childhood sectors, progress has been made toward building common terminology and a shared vision for an aligned and comprehensive system for screening and assessment of young children.

PROJECT RELATIONSHIP WITH THE WI GOVERNOR'S EARLY CHILDHOOD ADVISORY COUNCIL

During the timeframe that the Healthy Children Committee worked on this project, the committee became associated with the WI Governor's Early Childhood Advisory Council (ECAC) as one of their Project Teams. The ECAC had identified one of their system level interventions as screening and assessment.

The objective from the lens of the ECAC is that Wisconsin will have better and more consistent information about young children at key developmental milestones by creating a comprehensive screening and assessment system that is used for planning early childhood policies, programs, and services.

The 2012 ECAC Recommendations (R) and 2013 Progress (P) were to:

- (R) Implement strategies to institute the timeline recommendations in the "Blueprint for a Comprehensive and Aligned System for Screening and Assessment of Young Children."
  - (P) Extensive work to develop the best practices template based on the Blueprint including newborn blood screening, newborn critical congenital heart disease (CCHD) screening, maternal depression, hearing, vision, blood lead content, obesity, oral health, autism, and general developmental screening was completed.
- (R) Develop strategies and promote more consistent and effective cross-system screening and assessment processes within communities.
  - (P) Developed and promoted awareness of tip sheets on a community approach to developmental screening and posted online.
  - (P) Translated the tip sheets into Spanish.
  - (P) Increased connections with local efforts focused on screening and assessment.
- (R) Promote the Blueprint recommendations within the various state programs.
  - (P) The Blueprint was shared with all key departments and the ECAC, as well as receiving national attention.
  - (P) Wisconsin was asked to share the effort and Blueprint at the regional meeting sponsored by the Great Lakes Comprehensive Center, Midwest Comprehensive Center, and the Center on Enhancing Early Learning Outcomes (CEELO).
- (R) Continue to disseminate and train early childhood providers across systems in evidence-based developmental screening to increase implementation of a regular schedule of screenings and assessments for young children.

2014 Recommendations

- Continue to identify opportunities that will increase access to screening and assessment and also connect families to services.
- Continue to identify local efforts focused on screening and assessment; and strengthen connections to these efforts to share learning and best practices.
- Connect to other ECAC Committees to leverage additional opportunities to collaborate cross-sector. Explore how screening and assessment information could be integrated into EC-LDS in the future.

In 2015, the ECAC moved the work as a project team to the collaborative work of the Department of Public Instruction, Department of Children and Families, and Department of Health Services.

A COMPREHENSIVE AND ALIGNED SYSTEM OF SCREENING AND ASSESSMENT

Prevention, early intervention, and treatment are important for improving optimal child outcomes and increasing the chances that all children experience healthy families and healthy development.
A child's development begins before birth, and continues throughout childhood. Significant intellectual, emotional, and physical growth occurs during the first five years of the child's life. Children begin learning long before they enter school, and development proceeds at a rapid rate during the first few years of life. Psychologists refer to these early years as a "sensitive" period for development, in recognition of the fact that some skills are most easily acquired during these critical years. Neuroscience research has documented how complex cognitive and socio-emotional capacities are built on earlier foundational skills, and strongly shaped by interactions with caregivers and environments.

When development does not proceed along a typical trajectory, identifying the concern through developmental screening and intervening early increases the likelihood that development can get back on track and that children and families experience favorable outcomes. For example, detecting hearing loss early and providing services improves a child's communication and language skills, as well as their social skills. Across many domains of development, prevention and early intervention are more effective in both the short- and long-run than later remediation efforts.

Why are screening and assessment processes important?
Screening and assessment processes should be considered the cornerstone of informed decision making in early childhood. All parents and practitioners make many decisions about how to care for children. These decisions are best made when they are informed by knowledge about the specific child as well as accumulated evidence from practice and science. Determining whether a child is on a typical developmental trajectory or whether intervention may be necessary can be difficult. How do parents know if their child has motor, communication, cognitive, or social-emotional delays? Screening and assessment processes provide a way to gather high quality, valid, and reliable information about how a child is developing and provides a foundation for informed action to support healthy development and family functioning.

Specific aspects of screening and assessment differ across types of settings and goals, but screening and assessment can by summarized by broad definitions and purposes.
Screening is an intentional *process* that provides information about how a child is developing and learning. Some types of screening also shed light on how the family is functioning. A concerning screening result suggests that more in depth information be gathered to determine whether an intervention is warranted to address it. Best practices include using multiple sources of information and a reliable, valid, and standardized tool or procedure. Screening is distinguished from informal monitoring or observation, which is often done by caregivers.

A more in-depth assessment often follows a screening, although assessment may occur in instances when screening does not. Assessment is a *process* in which more detailed or specific information is collected to answer the question "what should come next." Assessment can serve multiple purposes depending on the context. It can determine service eligibility and also serve as a way to plan interventions and instruction,

and to provide ongoing support in these processes once an intervention or program is underway. Assessment can monitor ongoing progress during and following interventions, treatments, or instruction.

Screening and assessment processes are universal when they are provided to all children and families. These processes are targeted when they are only provided to children who are deemed to be at risk based on a priori criteria. For example, Wisconsin requires early literacy universal screening for all children in public school 4K, kindergarten (5K), first, and second grades to help teachers plan for instruction. Another example is the universal newborn screening program, which uses a few drops of blood from all newborn babies to test for 44 possible disorders. Many medical providers may also conduct targeted screening for elevated blood lead levels among children who live in communities with old housing stock or who might otherwise be exposed to known sources of lead in their environment.

It is important to improve the capacity of those who work with families and care for infants and young children and to provide timely, comprehensive, and high quality screening and assessment processes across a range of settings.

Currently in Wisconsin, developmental screening is neither universal nor thoughtfully targeted. It is often left up to chance whether a child and family receives the screening and assessments that are recommended. Whether, how, and when screening and assessment processes occur differs across individual children and families, as a result of the specific settings they experience and the practitioners with whom they interact. Because of the importance of intervening early, it is imperative that a better and more comprehensive early screening and assessment system is developed that serves all the children in the state. Such a system will cross multiple agencies and sectors, and thus should be built to promote collaboration, information sharing, and communication with partners and families to ensure positive outcomes and avoid redundancy. Building such a system will provide an important step toward ensuring that children and families receive the support and help that they need for healthy development, and that public resources are used efficiently.

Some early childhood screening and assessment efforts and infrastructure are already in place. As noted above, Wisconsin already has a system in place to conduct newborn screening for 44 disorders. In addition, “Child Find” is a continuous process of public awareness activities, screening and assessment processes designed to locate, identify, and refer as early as possible all young children with disabilities. School districts and county Birth to 3 programs are federally mandated by the Individuals with Disabilities Educational Act (IDEA) to identify and evaluate young children with disabilities within their attendance area. To assist in this “child find” process, “informed referral networks” have been created consisting of physicians, Birth to 3 programs, Head Start programs, child care programs, parents, public health, schools, social services, and others in the community that touch the life of a child.

Planning for a more comprehensive and effective cross-sector system would include working with multiple agencies to ensure that all children and families experience best practices, specifically the best timing, for universal screening and assessment. These universal processes involve multiple settings; for example, health care providers, child care providers, and home visiting programs.

GUIDING PRINCIPLES FOR SCREENING AND ASSESSMENT

A set of common principles is essential to the implementation of cross-sector screening and assessment practices, regardless of where a young child spends his time or which programs and services she accesses. The following principles offer guidance in finding commonalities in screening and assessment processes across systems.

- **The purpose of screening and assessment is to provide information about a child's development and learning, as well as to inform decision-making:** As children grow, they are always learning. A universal approach to screening and assessing ***all*** children benefits children, families, and practitioners. Parents and caregivers gain a comprehensive understanding of a young child's development, informed by data from tools, surveillance, and observations. Ongoing communication between families and practitioners provides opportunities to share information, provide assurance to parents about their child's development, and address concerns about a child's challenges and needs. Screening and assessment results inform follow up, including planning for instruction, and making referrals for additional supports and services.
- **Parents and primary caregivers are partners in screening and assessment practices:** A young child's growth and development is shaped within the context of relationships with parents and other primary caregivers. It is essential for practitioners to partner with caregivers to support their participation throughout all aspects of screening and assessment including: engaging families in discussions about typical child development, creating opportunities to provide observations about their child's development, contributing to decision-making, and guiding a child's learning and development.
- **Information for screening and assessment processes is gathered from multiple sources, including standardized, valid and reliable tools, observations of a child's development, and communication with families and practitioners:** To gain a comprehensive understanding of a child's health and development, it is important to gather information from multiple informants, tools, and settings. This includes information about the child's development as well as individual learning styles in a variety of settings (e.g., home, school, community) in which the child lives and learns.
- **The timing of screening and assessment processes matter:** Screening and assessment information is gathered at critical points in time that are aligned with our understanding of developmental processes. Screening and assessment systems that are responsive to sensitive time periods contribute to the understanding of a child and family's needs.
- **Practitioners use screening and assessment tools and processes that are culturally responsive to individual child and family circumstances:** Screening and assessment tools and processes include developmental expectations that are culturally, linguistically, and developmentally appropriate as informed by cultural wisdom and research. Results and observations are understood and interpreted within the individualized cultural and linguistic context for each child and family.

- **Screening and assessment are components of a comprehensive system of services, resources, and supports for children and families:** Each interaction with a child and family has the potential to influence the child's development and the family's education, health, and wellbeing. Screening and assessment are holistic and dynamic processes that are integral to planning and monitoring the effectiveness of interventions, treatments, and policies.
- **Screening and assessment activities occur naturally within the child and family's typical routines and experiences to the extent possible:** This includes the full array of activities in home, school, and community settings (e.g., physician office, child care center). In addition, tools, activities, and materials are relevant to the cultural experiences of the child and family.
- **Collaborative screening and assessment initiatives within communities contribute to consistency in practices and promote greater accountability on behalf of all young children**: Within communities, cross-sector screening and assessment initiatives promote optimal family and community engagement and reduce duplication of services and resources. When collaboration occurs, there are increased opportunities to reach more children and positively influence child and family outcomes.
- **Screening and assessment activities are implemented by trained and supported practitioners:** Screening and assessment requires that all practitioners have access to professional development opportunities to acquire the necessary knowledge and skills to adequately carry out screening and assessment practices.
- **Screening and assessment information provides a pathway to ensure access to equitable, high quality resources to meet the needs of all young children and families:** Effective screening and assessment processes help to ensure that all young children and their families get what they need to develop and learn. Communication among parents/caregivers and practitioners is essential to ensure that action is taken to access appropriate services, resources, and supports for each child.

References

Developmental Screening, Assessment, and Evaluation: Key Elements for Individualizing Curricula in Early Head Start Programs (Early Head Start National Resource Center, Technical Assistance Paper No. 4). http://www.zerotothree.org/child-development/mental-health-screening-assessment/thepowerofplay-1.pdf

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Screening Process and Progress Monitoring. Wisconsin RtI Center. http://www.wisconsinrticenter.org/educators/understanding-rti-a-systems-view/screening-process-progress-monitoring.html

Wisconsin Assessment Principles, Wisconsin's Children Moving Forward OSEP Child Outcomes. 2007. http://www.collaboratingpartners.com/docs/3.2Principles.pdf

Wisconsin Model Early Learning Standards: Birth to First Grade, Fourth Edition. 2013. Wisconsin Department of Children and Families and Wisconsin Department of Public Instruction. http://www.collaboratingpartners.com/wmels-about.php

Critical Time Periods for Early Childhood Screening and Assessment: Visual Chart and Narrative

A Model for a Comprehensive and Aligned Screening and Assessment (Birth to 3rd Grade)

Universal screening recommended during infancy and early childhood for the purpose of determining if further assessment is needed.

Purpose	Birth	2 Months	6 Months	9 Months	12 Months	18 Months	24 or 30 Months	36 Months	4 Years 4K	5 Years 5K	8 Years 3rd Grade
Newborn Blood Screening for Inherited Conditions	•										
Critical Congenital Heart Disease Screening	•										
Hearing Screening	•								•	•	•
Maternal Depression Screening	•	One Between 2-6 months									
Childhood Risk Assessment for Obesity	H/W	H/W	H/W	H/W	H/W		BMI	BMI	BMI	BMI	
Oral Health Screening			•	•	Dental examinations should be performed every six months or as indicated by the child's risk status/susceptibility to disease.						
General Developmental Screening				•		•	•	•	•		
Blood Lead Level Testing					•		•	High risk children who have not been tested prior to their 3rd birthday should receive a test once between age 3 and 5 years.			
Autism Spectrum Disorders Screening						•	•				
Vision Screening								•	•	•	•
Early Literacy									•	•	•
Ongoing Comprehensive Assessment of General Development*	←										→

Caveats:

- Each screening date is on this chart because it is supported by research or a policy statement. The primary source supporting recommendations is Bright Futures (http://brightfutures.aap.org). Refer to Fact Sheets for further details and sources related to each area of screening and assessment.
- The Individuals with Disabilities Education Act (IDEA) requires that states have a comprehensive and continuous Child Find System that ensures all children age birth to 21 in need of special education and related services are identified, located, and evaluated.
- In addition to time periods listed, a response (screening, rescreening, or referral for evaluation, a service, or program) is recommended whenever a concern is identified.
- Coordinate with primary care provider for any concern or referral, across all areas of screening and assessment.
- Screening and assessment may occur more frequently if upon enrollment into a specific program or it is recommended or required by a specific program, or if a child has an identified medical or environmental risk for a condition (e.g., prematurity, low birth weight, living in housing built before 1978).
- Assessment may include one or more of the Wisconsin Model Early Learning Standards Domains, including physical health, socio-emotional, language, communication, approaches to learning, cognition/general knowledge.
- ***Ongoing comprehensive assessment of general development during enrollment in a program for the purpose of planning, supporting, and monitoring progress of intervention or to verify developmental outcomes.**

CRITICAL TIME PERIODS FOR EARLY CHILDHOOD SCREENING AND ASSESSMENT: VISUAL CHART NARRATIVE

This table charts the critical time periods for universal screening and ongoing assessment processes across health, family welfare, and educational programs. Recommended critical times for screening and assessment are supported by evidence. Recommendations are compiled primarily from a set of key sources that cover multiple areas of health, development, and psychosocial functioning, including Bright Futures, American Academy of Pediatrics (AAP), the National Association for the Early Education of Young Children (NAEYC), the National Research Council, and the National Institute of Early Education Research (NIEER). Recommendations from these sources are supplemented by evidence that is more specific to either Wisconsin or a particular area of screening or assessment. (See pages 11-36 in the Blueprint for a Fact Sheet on each area of screening and assessment that provides a brief description, a list of key references and sources providing the basis for the recommendation, a summary of current status of practice, and a summary of actions that could be taken to address any gap between the current status and recommendation.) As a compilation of these recommendations, the visual chart serves as the basis for a blueprint to build a comprehensive and aligned cross-sector screening and assessment system.

Recommended time periods for universal screening processes take into account the importance of critical developmental periods and of identifying potential developmental concerns and risk factors early in a child's development. It is considered important to screen for a range of risks and concerns, including inherited, genetic, developmental and other health conditions, and family psychosocial functioning including childhood trauma. It is important to screen and identify the mental wellbeing of family members, in particular maternal depression early in the child's life because of the disruptive effect on the mother-infant relationship resulting in pervasive negative effects on child development.

The IDEA requires states to have a comprehensive and continuous Child Find System that ensures all children age birth to 21 in need of special education and related services are identified, located, and evaluated. Children with disabilities must have access to a free, appropriate public education designed to meet their unique needs and prepare them for further education, employment, and independent living. In addition to screening, ongoing comprehensive assessment provides critical information about the child's functioning across all developmental domains (physical health, socio-emotional, language/communication, approaches to learning, and cognition/general knowledge).

IDEA also requires states to provide early intervention services and supports or services that assist families in caring for their child at home and in the community. When children are screened and identified with a delay, referrals are required to be made to the Birth to 3 Program. Birth to 3 is the federally mandated Early Intervention program (Part C of the IDEA) to support families of children with developmental delays or disabilities under the age of three. Wisconsin has multiple programs available for children with delays or disabilities. In addition to Birth to 3, the following programs also assist families in caring for their child at home and in the community; Children's Long-Term Support Waivers, Community Options Program (COP), and the Katie Becket Program. Families may be eligible for one or more programs based on their assessed need.

Screening and assessment often occur as part of a program's eligibility determination process and throughout program participation. For example, Head Start programs and IDEA have federal requirements for screening and assessment processes for participating children. Screening and assessment should also be implemented as part of a child's participation in a range of early childhood intervention and care and education programs. Because these occur within a given program for various, specific purposes, they cannot be easily charted to developmental time periods. Screening and assessment are important for understanding the child's comprehensive development (physical health, socio-emotional, language/ communication, approaches to learning, and cognition/general knowledge) as well as for intervention-specific purposes for children participating in early childhood interventions and programs. Intervention-specific content varies considerably; for example, assessment of motor or language skills for those in IDEA programs, assessment of maternal mental health for those in treatment, or surveillance of blood lead levels for those being treated for elevated blood lead levels.

Key Sources

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National Research Council. *Early Childhood Assessment: Why, What, and How*. The National Academies Press, Washington, DC. 2008.

CRITICAL TIME PERIODS FOR EARLY CHILDHOOD SCREENING AND ASSESSMENT: FACT SHEETS

A fact sheet is provided for each area of screening and assessment listed in order of appearance on the Critical Time Periods Visual Chart (see page 7):

- Newborn Blood Screening for Inherited Conditions
- Critical Congenital Heart Disease (CCHD) Screening
- Hearing Screening
- Maternal Depression Screening
- Childhood Risk Assessment for Obesity
- Oral Health Screening
- General Developmental Screening
- Blood Lead Level Testing
- Autism Spectrum Disorders Screening
- Vision Screening
- Early Literacy
- Ongoing Comprehensive Assessment of General Development

Newborn Blood Screening for Congenital Conditions

Fact Sheet for Critical Time Periods for Early Childhood Screening and Assessment Revised 5/2016 (see visual chart, page 7, for specific time period.)

Brief Description

Universal newborn screening is an essential public health responsibility that is critical for improving the health outcomes of affected children. Wisconsin's Newborn Screening Program (NBS) promotes a coordinated system of care based on the early detection, diagnosis, and treatment of certain conditions that may otherwise lead to a lifetime of slow growth, neurological and brain damage, and even death. Newborn blood screening not only prevents death and disability, it benefits the public through savings in health care costs associated with early identification and treatment. Early detection and treatment, often with special dietary treatment, results in normal brain development and healthy productive lives.

Wisconsin Stat. § 253.13 requires that all infants born in the state be screened for certain congenital disorders. Parents may refuse newborn screening for their baby only if it conflicts with their religious tenets and practices or with their personal convictions. Just a few drops of blood from a baby's heel are put onto a special test paper and sent to the Wisconsin State Laboratory of Hygiene (WSLH) to be tested. Wisconsin screens for 44 disorders.

The NBS Program is designed as a partnership between the Wisconsin Department of Health Services (DHS) and the WSLH, and a close collaboration with clinical consultants throughout the state of Wisconsin. The clinical consultants play an extremely important part in the Wisconsin NBS Program. They are physician sub-specialists, board certified in the appropriate area of consultation (e.g., pediatric endocrinology, pediatric hematology, immunodeficiency, biochemical genetics, pediatric pulmonology). The Wisconsin NBS Program Advisory Committee structure consists of an umbrella committee and subcommittees that focus on specific clinical areas related to the program. At present, there are eight subcommittees. Seven are clinical subcommittees: endocrine, hearing, hemoglobinopathy, immunodeficiency, metabolic, molecular/cystic fibrosis (CF), and Critical Congenital Heart Disease (CCHD). The education subcommittee promotes awareness and education about NBS and, in conjunction with the other seven clinical committees, develops and/or reviews existing educational materials suitable for parents, physicians, and the general public. Additionally, the Secretary's Advisory Committee on Newborn Screening provides recommendations to the Secretary of the Department of Health Services regarding the addition or deletion of NBS conditions to the NBS panel.

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National References and Sources

American College of Medical Genetics, Newborn Screening Expert Group. "Newborn screening: Toward a uniform screening panel and system." *Pediatrics.* 2006; 117:296-307.
http://mchb.hrsa.gov/programs/newbornscreening/screeningreportpdf.pdf

Baby's First Test is a newborn screening clearinghouse funded by the Health Resource and Service Administration (HRSA) and provides general information about newborn screening.
http://www.babysfirsttest.org

References/Sources *(continued)*

National References and Sources *(continued)*

Bright Futures. http://brightfutures.aap.org/pdfs/Guidelines_PDF/13-Rationale_and_Evidence.pdf

Discretionary Advisory Committee on Heritable Disorders in Newborns and Children (DACHDNC). The committee advises the Secretary of the U.S. Department of Health and Human Services on the most appropriate application of universal newborn screening tests, technologies, policies, guidelines, and standards. The SACHDNC website includes information on the recommended panel of tests and committee reports related to specific screening tests.
http://www.hrsa.gov/advisorycommittees/mchbadvisory/heritabledisorders

Wisconsin Specific Information

These websites provide information for both families and providers on the Wisconsin Newborn Screening Program. http://www.slh.wisc.edu/clinical/newborn/ and
https://www.dhs.wisconsin.gov/newbornscreening/index.htm

Current Status

In 2014, 66,405 infants were screened by the Wisconsin State Laboratory of Hygiene (WSLH). Newborns were confirmed to have the following conditions: Hypothyroidism (59), Phenylketonuria (7), Congenital Adrenal Hyperplasia (3), Aminoacidopathies (1), Cystic Fibrosis (20), Fatty Acid Oxidation disorders (10), Organic Acidemias (10), Hemoglobinopathies (23), Galactosemia (1), and Severe Combined Immune Deficiency (1). (Additional statistics available at http://www.slh.wisc.edu/clinical/newborn/program-information/statistics/.)

Actions to Address Existing Gaps

Outreach and Education: Outreach to parents and parents-to-be regarding the importance of newborn screening; outreach to underserved populations (such as plain clothes communities – Amish, Mennonite) to promote statewide access to newborn screening programs for all newborns; ongoing education to health care providers regarding their role to support quality and timely follow up of newborn screening (prenatal providers, hospital and laboratory staff, primary care providers, others) (short-term).

Data Evaluation Systems: Evaluate the newborn blood screening program using NewSteps quality indicators and assessment framework. Establish data collection mechanisms to monitor follow up (beyond confirmation of diagnosis) for infants identified by the newborn blood screening program.

Newborn Blood Screening for Congenital Conditions, *continued*

Actions to Address Existing Gaps *(continued)*

Cross–System Collaboration: Integrate parent and provider outreach and educational materials and activities across newborn screening programs (blood, hearing, and CCHD); integrate data collection and tracking systems across screening programs to reduce loss to follow up and establish mechanisms to measure and monitor outcomes.

Policy and Practice: Follow established policies and procedures to support the addition and deletion of newborn screening conditions as recommended by the Secretary's Advisory Committee on Newborn Screening to the Secretary of the Department of Health Services. Continue financial support through newborn screening surcharge and/or other funding mechanisms to assure that Wisconsin maintains its newborn screening program and has the capacity to expand screening and follow up services as needed.

Critical Congenital Heart Disease (CCHD) Screening

Fact Sheet for Critical Time Periods for Early Childhood Screening and Assessment Revised 5/2016 (See visual chart, page 7, for specific time period.)

Brief Description

In the United States, about 7,200 babies born every year have Critical Congenital Heart Disease (CCHD). Typically, these types of heart defects lead to low levels of oxygen in a newborn and may be identified using pulse oximetry screening at least 24 hours after birth. While many babies with CCHD may be identified by prenatal ultrasound and newborn exam, some babies born with a CCHD appear healthy at first. They may be sent home before their heart defect is detected. These babies are at risk of having serious complications within the first few days or weeks of life, and often require emergency care. Newborn screening is a tool that can identify some of these babies so they can receive prompt care and treatment. Timely care may prevent disability or death early in life.

Newborn screening for CCHD involves a simple bedside test called pulse oximetry. This test estimates the amount of oxygen in a baby's blood. Low levels of oxygen in the blood can be a sign of a CCHD. The test is done using a machine called a pulse oximeter, with sensors placed on the baby's skin. The test is painless and takes only a few minutes. Pulse oximetry screening does not replace a complete history and physical examination, which sometimes can detect a CCHD before oxygen levels in the blood become low. Pulse oximetry screening, therefore, should be used along with the physical examination.

The federal Advisory Committee on Heritable Disorders in Newborns and Children's Recommended Uniform Screening Panel includes CCHD. The Wisconsin Department of Health Services (DHS) added screening for CCHD by pulse oximetry to the Wisconsin Newborn Screening Program's panel of conditions in 2014. Every infant born in a hospital is required to have CCHD screening prior to discharge. Babies born out of hospital are also required to be screened.

References/Sources

Adapted from Reller, MD, MJ Strickland, TJ Riehle-Colarusso, WT Mahle, and A. Correa. Prevalence of congenital heart defects in metropolitan Atlanta, 1998-2005. J Pediatr. 2008; 153:807-13.

National Resources:

Centers for Disease Control and Prevention Congenital Heart Disease website http://www.cdc.gov/ncbddd/heartdefects/index.html provides information on congenital heart diseases, screening, statistical data, and research.

Baby's First Test website http://www.babysfirsttest.org/ provides educational and family resources about newborn screening at the local, state, and national levels and serves as the clearinghouse for newborn screening information.

Critical Congenital Heart Disease (CCHD) Screening, *continued*

References/Sources *(continued)*

Wisconsin Resources:

The Wisconsin SHINE (Screening Hearts in Newborns) Project website http://wisconsinshine.org/ includes educational materials for families and hospitals and out-of-hospital health care providers regarding screening protocols, equipment selection, data reporting, and other information to support the implementation of CCHD screening.

Current Status

Periodic reports are sent to hospitals and other birth providers who submit data on CCHD screening to the Department of Health Services. The most recent report with screening data is from July 1-December 31, 2015:

Total Newborn Screening Records	33,644	
Babies Who Passed Screening	29,898	(88.9%)
Babies Who Failed Screening	37	(0.1%)
Babies Screened—Results Unknown	30	(0.1%)
Babies Not Screened—Reason Reported	676	(2.0%)
Babies Not Screened—Reason Not Reported	3,003	(8.9%)

Valid reasons to delay screening or not screen at all include: parental refusal, baby was transferred to another health care facility, baby died, baby received a normal result echocardiogram, baby had confirmed heart disease, and "other." The most common reason reported under other is that the baby is in the Newborn Intensive Care Unit (NICU).

Actions to Address Existing Gaps

Outreach and Education: Outreach to parents and providers to promote CCHD screening by pulse oximetry for all newborns.

Data Collection and Evaluation: Establish mechanisms to report CCHD screening as part of an integrated newborn screening data collection and tracking system so that the Wisconsin Newborn Screening Program can evaluate the implementation of the CCHD screening program and hospitals and out-of-hospital screeners can monitor their programs.

Cross–System Collaboration: Integrate parent and provider outreach and educational materials and activities across newborn screening programs to include CCHD.

Policy and Practice: Establish financial support through newborn surcharge and/or other funding mechanisms to support the implementation of CCHD screening.

Hearing Screening

Fact Sheet for Critical Time Periods for Early Childhood Screening and Assessment Revised 5/2016 (See visual chart, page 7, for specific time period.)

Brief Description

The early identification of hearing loss is critical for promoting positive development of communication and language, social and emotional, and academic outcomes of identified children. At 2-3 per 1000, the incidence of congenital hearing loss is higher than all other conditions routinely screened for at birth. An additional six to seven children will be identified with late onset, fluctuating, minimal, high frequency, acquired, or progressive hearing loss. The Center for Disease Control and Prevention (CDC) 2010 National Health and Nutrition Examination Survey (NHANES) III data suggests that 14.9% of school-aged children have some degree of hearing loss (more than 7 million aged 6-19). Research indicates that early identification of hearing loss can reduce or even eliminate delays associated with hearing loss, whereas unidentified hearing loss has been documented to affect attention, learning, and social functioning.

Universal newborn hearing screening is an essential public health responsibility. The American Academy of Pediatrics promotes objective newborn hearing screening as well as periodic hearing screening for every child through adolescence. Wisconsin's Early Hearing Detection and Intervention (EHDI) Program, called Wisconsin Sound Beginnings, has devised a statewide system of universal newborn hearing screening and coordinated follow-up and monitoring of all children who do not pass the hearing screening at birth. Wisconsin Stat. § 253.115 requires that all infants born in Wisconsin are screened for hearing loss prior to discharge from a hospital or within 30 days of birth if the infant was not born in a hospital. However, not all children who are deaf or hard of hearing are currently identified through this system. Although 99% of babies received a hearing screening in 2012, only 100 (about half of the anticipated number) children went on to receive a diagnosis of permanent hearing loss. It is expected that the other half were lost to follow-up.

Research indicates that the incidence of permanent hearing loss in children doubles between the newborn period and the time at which they enter school. Beyond newborn hearing screening, Wisconsin currently does not mandate any type of hearing screening for young children. Screening practices and recommendations, however, are provided within the context of some educational supports. Annual hearing screenings have long been a part of Head Start enrollment and Early Development Days, and, several Early Head Start Programs have also begun screening babies upon enrollment and annually thereafter. The Wisconsin Department of Public Instruction also provides screening recommendations for young children in the *Wisconsin Guide to Childhood Hearing Screening* (1994). Despite the date of this document, protocols are still in alignment with federal and national recommendations for preschool (4K), kindergarten, early elementary, and early adolescence.

Hearing Screening, *continued*

Brief Description *(continued)*

Additionally, the Individuals with Disabilities Education Act (IDEA) 2004 requires school districts to identify all children with suspected disabilities. Wisconsin special education law (Wis. Stat. § 115.777 and Wis. Admin. Code ch. PI 11) states that each school board is required to identify and evaluate all students with disabilities who may need special education and related services. Wisconsin Admin. Code § PI 11.3does require the results of a hearing and vision screening as part (d) of the eligibility criteria for significant developmental delay. This includes preschool children and children who have not graduated from high school, who reside in the school district, or in a state or county residential facility located in the school district. While these rules (Wis. Stat. §155.777 and Wis. Admin. Code. ch. PI 11) do not require specific screening procedures for all disability categories, the intent to identify disabilities in children of all ages is clear. Yet, more often than not, hearing loss is not ruled out as an underlying cause or contributing factor in the identification of educational difficulties such as intellectual disabilities or speech/language impairments. Hearing screening in schools should be part of any regular physical assessment, in continuing ear health care (when appropriate), and when assessing whether a child has a disability which requires modifications and related services to fully participate in a regular or special education program.

Due to the variety of hearing conditions and variance in onset, no one screening protocol will identify 100% of children with hearing loss. Therefore, not only newborn screening, but an integrated system of continuous, objective screening will greatly increase the identification of children who are lost to follow-up to the EHDI system, and will result in the early identification of children who have later onset or progressive hearing loss.

References/Sources

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Bright Futures. http://brightfutures.aap.org/pdfs/Guidelines_PDF/13-Rationale_and_Evidence.pdf

IDEA 2004. http://idea.ed.gov/download/finalregulations.pdf

National Center for Hearing Assessment and Management. http://www.infanthearing.org

Joint Committee on Infant Hearing. Year 2007 Position Statement: Principles and Guidelines for Early Hearing Detection and Intervention Programs. Pediatrics. 2007; 120:898-921.

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Wisconsin Department of Public Instruction, School Nurse Handbook: Chapter 6. http://dpi.wi.gov/sites/default/files/imce/sspw/pdf/snhandbookch6.pdf

Hearing Screening, *continued*

Current Status

The Wisconsin Sound Beginnings (WSB) Program is entirely funded through federal grants from the Maternal Child Health Bureau (MCHB) and CDC. Newborn hearing screening results are recorded on the Newborn Blood Screening Card and entered into the Wisconsin State Laboratory of Hygiene Data System. Each night a secure file is transferred to the EHDI Information System called Wisconsin Early Hearing and Detection Identification Tracking, Referral, and Coordination (WE-TRAC). WE-TRAC is used by providers at the local level to record additional screening and follow-up information on babies that do not pass the initial hearing screening. According to WE-TRAC data, in 2011 66,803 infants were screened for hearing loss at birth. Of those screened, 664 babies born in Wisconsin did not pass their hearing screening and needed diagnostic testing. Of those, 497 children received diagnostic testing resulting in 100 children with permanent hearing loss; 167 children were not evaluated. Additional information about Early Hearing Detection and Intervention in Wisconsin can be found at http://www.improveehdi.org/wi/index.cfm.

Actions to Address Existing Gaps

- In accordance with the recommendations of the National Early Childhood Hearing Outreach (ECHO) Initiative and in addition to the Head Start Program Performance Standard and Regulation 45 CRF 1304.20(b)(1), which requires that children's hearing be screened within 45 days of enrollment into Head Start Programs; Birth to 3 or other home visitation programs, are strongly encouraged to support the provision of annual otoacoustic emissions (OAE) hearing screening for children ages birth to 3 years old.
- Typically, schools provide health and vision report forms that can be completed by the child's physician to indicate that a child is up-to-date with immunizations and vision and hearing screenings. Schools are required to develop and implement a plan to encourage compliance with state immunization laws, and schools are required to encourage parents to obtain an eye exam for their child from a licensed practitioner prior to kindergarten entrance (Wis. Stat. § 118.135). Investigate the establishment of similar requirements for hearing screening for both schools and child care programs, especially upon entry into the programs.
- Update hearing screening protocols to be in alignment with state, federal, and national recommendations including revision of *The Wisconsin Guide to Childhood Hearing Screening* (1994).
- Establish data sharing mechanisms with the home visitation programs and the Department of Public Instruction to enable ongoing surveillance and evaluation of screening programs as well as monitoring of outcomes related to early hearing loss identification, intervention, and long term follow up.

Hearing Screening, *continued*

Actions to Address Existing Gaps *(continued)*

- Explore sustainable funding support through an increase to the newborn surcharge and/or other funding mechanisms to assure that Wisconsin maintains its early hearing detection and intervention program and can build the capacity to provide ongoing coordination, support, and technical assistance to the early childhood systems of care related to hearing screening and follow-up.
- Outreach to underserved populations to assure statewide access to continuous, objective hearing screening.

Maternal Depression Screening

Fact Sheet for Critical Time Periods for Early Childhood Screening and Assessment Revised 5/2016 (See visual chart, page 7, for specific time period.)

Brief Description

A standardized screening for maternal depression is recommended using the Edinburgh Postnatal Depression Scale (EPDS) to be completed at least once after the birth of the child and between two weeks and six months postpartum. Results from the EPDS are not valid in the first two weeks after birth.

References/Sources

The basis for this recommendation to the Healthy Children's Committee has come from a strong base of evidentiary resources:

Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents. This resource from the American Academy of Pediatrics recommends screening for depression in the postpartum period to promote family support. http://brightfutures.aap.org/pdfs/Guidelines_PDF/2-BF_Promoting_Family_Support.pdf

Task Force on Women and Depression. This is a collaborative effort between the Department of Health Services, Mental Health Association, Department of Children and Families, UW-Madison, and Department of Corrections. This task force made recommendations for depression screening in Wisconsin.

Perinatal Mental Health Training Modules. This is offered by the Wisconsin Department of Health Services. A series of web-based modules providing information and guidance on identification of depression and other perinatal mental health concerns, screening with the EPDS, and in-home and community-based interventions to support perinatal mental health. https://www.dhs.wisconsin.gov/mch/pncc.htm

The Evidence-Based Work Group on Maternal Depression. This group developed their recommendations for screening using a standardized tool with UW Professor Jennifer Doering, Ph.D.

Wisconsin Association of Perinatal Care (WAPC). WAPC has developed and provided recommendations for the use of a standardized screening tool for maternal depression in their position paper on the topic. http://www.perinatalweb.org/themes/wapc/assets/docs/screening_perinatal_postpartum.pdf

Maternal Depression Screening, *continued*

Current Status

It is difficult to have a definitive grasp of the status of maternal depression screening using a standardized tool in Wisconsin, as screenings may well be done by a wide variety of professionals in a variety of practice settings. Settings that may be completing depression screenings on pregnant and postpartum clients include medical practices (e.g., pediatricians, OB/GYNs, and family practice), Medicaid Prenatal Care Coordination (PNCC) providers, home visitors, and WIC providers. Data regarding the current practice of screening for maternal depression is contained in individual health system databases, program records, and electronic health records. A limited portion of PNCC providers and home visitors report in the Secure Public Health Electronic Record Environment (SPHERE).

Family Foundations Home Visiting programs through the Department of Children and Families are currently required to complete at least one postpartum depression screening on all postpartum women served by the program. Home Visitation Outcomes Project Sites through Children's Hospital of Wisconsin have implemented depression screenings for all perinatal women beginning in 2013. The evidence-based depression screening tool was designed in the SPHERE to support provider screening for maternal depression. The PNCC benefit recommends women be screened for depression during pregnancy and again postpartum.

Actions to Address Existing Gaps

Recommendations on the best windows for screening for maternal depression using a standardized tool vary slightly from source to source, but there is complete agreement on the need to do universal screening for pregnant and postpartum women. There is agreement that if only one screening will be done; it should be done between the one month and three month marks postpartum.

Recommendations for future work/consideration:

- Assure that Pediatric Primary Care Providers are able to complete and bill for maternal depression screening through Medicaid. Periodic health exams for children provide Pediatric Primary Care Providers consistent and frequent access to parents, which increases the opportunity for depression screening.
- Increase knowledge and understanding among the community of providers who serve pregnant and postpartum women about the impact of maternal depression on child health and development and the importance of screening.
- Increase training and formative experiences to increase the capacity, knowledge, and skills of community-based providers to detect, refer, and support women experiencing maternal depression.

Childhood Risk Assessment for Obesity

Fact Sheet for Critical Time Periods for Early Childhood Screening and Assessment Revised 5/2016 (See visual chart, page 7, for specific time period.)

Brief Description

Use of Body Mass Index (BMI) Percentiles and Family Medical History to screen and assess risk for childhood obesity during well-child visits.

As adapted from the Institute of Medicine in the publication *Early Childhood Obesity Prevention Policies – Goals, Recommendations, and Potential Actions, Recommendations 2-1 & 2-2*:

> "Healthcare providers should measure weight and length or height in a standardized way, plotted on World Health Organization growth charts (ages 0–23 months) or Centers for Disease Control and Prevention (CDC) growth charts (ages 24–59 months), as part of every well-child visit."
>
> **In *all* children**, healthcare professionals should consider: 1) Maternal BMI, 2) Paternal BMI, 3) Maternal weight gain during pregnancy, 4) Maternal smoking during pregnancy, and 5) Race/ethnicity as risk factors in assessing which young children are at highest risk of later obesity and its adverse consequences.
>
> **In children under the age of 24 months** (i.e., newborn, 5-day-old, 1 mo., 2 mo., 4 mo., 6 mo., 9 mo., 12 mo.), healthcare professionals should consider: 1) children's attained weight-for-length, and 2) children's rate of weight gain (i.e., *early rapid growth*), as risk factors in assessing which young children are at highest risk of later obesity and its adverse consequences.
>
> **In children 24 months and over** (24 mo., 30 mo., 3 years old, 4 years old, 5 years old), healthcare professionals should consider: 1) children's attained BMI percentile as plotted on a sex- and age-specific CDC BMI percentile plot, 2) children's rate of BMI percentile increase (i.e., *percentile crossing*), and 3) early adiposity rebound (defined as an increase in BMI before 5 years of age) as risk factors in assessing which young children are at highest risk of later obesity and its adverse consequences.

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Childhood Risk Assessment for Obesity, *continued*

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Current Status

Currently in Wisconsin, this information is collected across various venues, including well-child visits, home visiting programs, and Head Start and Early Head Start. Through Head Start and Early Head Start, height and weight is consistently collected and BMI may be calculated; however, Head Start and Early Head Start programs also rely on physical health exams from well-child visits. Additionally, Wisconsin's data regarding obesity rates in early childhood is collected through WIC. The limitation using solely Head Start, Early Head Start, and WIC is that it only reaches children from families eligible for this benefit and who have enrolled. Without a consistent recommendation and/or requirement, there may be disparities in the ways and frequencies that young children are screened and assessed for the risk of obesity.

While *Behavioral Risk Assessments* can occur in any setting, we pose that *BMI* be tracked in the setting of the *medical home* for three reasons: (1) Logistics of calculating BMI, (2) Parental preference, and (3) Ease of extracting population-based data from electronic medical records.

(1) Logistics of calculating BMI. Calculating BMI and plotting it on a CDC percentile curve is a time-consuming process. Research shows that when BMI percentile must be calculated by hand, it is rarely performed. However, calculation and plotting of BMI is improved when electronic tools exist to aid in this process. In many healthcare systems, electronic medical records (EMR) automatically calculate and plot BMI when a healthcare provider enters in the child's date of birth, height, and weight.

(2) Parental preference. Parents prefer that child weight status be addressed in the physician's office.

(3) Ease of extracting population-based data. Information regarding a child's date of birth, height, and weight is currently reportable upon request. Governmental agencies can request de-identified data from healthcare providers via the ONC and CDC utility *Query Health*. We recommend the following data request via *Query Health* for tracking recommended measurements from critical time periods (Table 1).

Childhood Risk Assessment for Obesity, *continued*

Current Status (*continued)*

Table 1. Recommended *Query Health* Data for Assessing the Prevalence of Children at Risk of Adult Obesity on a Population Level

	Maternal Assessment	Child Assessment
Subjects	Women (any age) who have had a live birth in the past year.	Children who have turned 6 years old in the last year (allows the capturing of data on birth to 5 years).
Demographic Variables	Zip Code of Home Address Maternal Date of Birth Date of Delivery Race/Ethnicity	Zip Code of Home Address Date of Birth Race/Ethnicity
Risk Variables	Maternal Height (most recent) All Maternal Weights within 1 Year of the Delivery (with dates of collection) Gestational Smoking (Y/N) Race/Ethnicity	All Heights (with dates of collection) All Weights (with dates of collection) ICD-9 Diagnostic Codes indicating if counseling or treatment was initiated (i.e., referral to a pediatric dietician), *codes TBD.*

Actions to Address Existing Gaps

- *Prevention* and *Prevention Plus* Promotion can occur in all settings for all children. We recommend following American Academy of Pediatrics Guidelines. These can be summarized as **5-2-1-0** (**5** servings of fruits and vegetables/day, **2** hours or less of screen time, **1** hour or more of physical activity, and **0** sugared drinks). See American Academy of Pediatrics website: http://www2.aap.org/obesity/matrix_1.html.
- *Behavioral Risk Assessment* (i.e., questionnaires assessing **5-2-1-0**) can be performed in *all* patients (after the introduction of table food) in *all* settings and is recommended to be assessed at least once a year. It is also recommended that such assessments be used to provide anticipatory guidance for parents.
- We recommend that the following activities occur in the healthcare setting at the patient's *medical home*: BMI calculation, plotting, and tracking (in those aged 24 months and older); diagnosing obesity and risk of future obesity; the ordering of laboratory tests; and referrals for specialized treatment (i.e., a Pediatric Dietician). Well-defined algorithms are available for patients aged 24 months and older and are outlined in Table 2. In patients less than 24 months, we recommend assessing patient risk using the equation published by Morandi or an estimation of risk using the following variables: 1) High Maternal BMI, 2) High Paternal BMI, 3) High maternal weight gain during pregnancy, 4) Maternal smoking during pregnancy, and 5) Race/ethnicity (i.e., Non-Hispanic whites have the lowest risk).
- We highly recommend "closing the loop" for children 5 and under via a community worker who is solely responsible for making sure that the appropriate screening, referrals, and treatment occur in patients aged 0-5. Software or web-based "dashboards," mobile technology, and EMRs can help correlate this information in a meaningful way that protects patient health information. In many cases, these systems must be designed. Within this system, should be a mechanism to provide feedback to *medical homes* and to others providing care.

Actions to Address Existing Gaps (*continued)*

Table 2. Actions to be initiated in the *Medical Home* based on age and obesity risk stratification.

Age Range	Risk	Definition of Risk	Assessment	Treatment
Newborn to 12 mo.	Low Risk	Estimation or predicted probability less than 50% based on Viva equation by Morandi.	Assess Behavioral RF Assess Family Concern	Preventive Counseling
	Medium Risk	Estimation or predicted probability 50 to 74% based on Viva equation by Morandi.	Assess Behavioral RF Assess Family Concern	Preventive Counseling
	High Risk	Estimation or predicted probability >75% based on Viva equation by Morandi.	Assess Behavioral RF Assess Family Concern	Preventive Counseling and **Referral** to an Infant Nutrition Specialist
24 mo. to 5 years	Low Risk	BMI <85th percentile (or) BMI 85th to 94.5th percentile and *no* other risk factors.*	Assess Behavioral RF Assess Family Concern	Preventive Counseling
	Medium Risk	BMI 85th to 94.5th percentile and other risk factors.*	Assess Behavioral RF Assess Family Concern	**Stage 1** Prevention Plus **Stage 2** Structured Weight Management
	High Risk	BMI ≥ 95th percentile.	Assess Behavioral RF Assess Family Concern **Lab: Fasting Lipid Profile**	**Stage 1** Prevention Plus **Stage 2** Structured Weight Management **Stage 3** Comprehensive Multidisciplinary Intervention

Risk factors: Family Medical History (i.e., parental obesity), early rapid growth, BMI percentile crossing, adiposity rebound.
Behavioral Risk Factors (RF):

- Sedentary time: TV before age 2, 2 or more hours of TV a day, TV in the bedroom.
- Physical activity: Less than 1 hour of active play a day.
- Eating: Lower than recommended fruit and vegetable intake, few (<5) family meals at home, skipping breakfast, consuming sugar sweetened beverages.

Note: Assess Family Concern (i.e., on a scale from 1 to 10 with 10 being the highest, how concerned are you about your child's risk for adult obesity?).

Distribute a standardized recommendation for collecting height and weight measurements, calculating BMI, and using percentiles to screen and assess risk for childhood obesity.

Develop consistent protocols for professionals to follow when children identified as being obese or overweight or assessed as being at risk.

Cultivate consistent practices across all early childhood systems, especially the health care sector to ensure the same standards regarding obesity screening and assessment are implemented. This could be integrated into the Early Childhood Longitudinal Data System, as well as private healthcare software systems.

Oral Health Screening

Fact Sheet for Critical Time Periods for Early Childhood Screening and Assessment Revised 5/2016

(See visual chart, page 7, for specific time period.)

Brief Description

Early Childhood Caries (ECC) is a rapid, preventable, and transmissible form of tooth decay. This infectious disease is caused primarily by the bacteria Mutans Streptococci (MS) that form plaque on the surface of the teeth. The bacteria interact with sugar in foods and beverages, turning it into acids that dissolve tooth enamel, causing decay. The pain from ECC may hinder many young children from eating, speaking, sleeping, and playing, as well as going to school and paying attention in class. It may restrain a child's physical growth and diminish development. Dental caries is the most common chronic disease in children and is five times more common than asthma.

Dental care for pregnant women and oral health education by health care professionals play a key role in reducing the risk for the development of early childhood caries in infants. It has been well documented that MS bacteria from the mouth of the mother can be transmitted to the mouth of the infant through utensil and cup sharing, "cleaning" the pacifier in the mother's mouth, and other saliva sharing activities. Before the baby's birth, parents and other caregivers should ensure their own mouths are as healthy as possible to reduce transmission of caries-causing harmful bacteria from their saliva to the newborn baby's mouth.

Dental Caries Prevention

Two key dental caries prevention strategies include tooth exposure to fluoride and dental sealant application. Fluoride plays a key role in preventing and controlling dental caries. Fluoride helps reduce loss of minerals from tooth enamel (demineralization) and promotes replacement of minerals (remineralization) in enamel that has been damaged by acids produced by bacteria in plaque. Fluoride varnish applications are recommended up to four times per year for infants and children at moderate to high-risk for dental caries. Fluoride varnish may be applied by medical or dental providers. Regular and frequent exposure to small amounts of fluoride is the best way to protect the teeth against dental caries. This exposure can be readily accomplished through drinking water that has been optimally fluoridated and brushing with fluoride toothpaste twice daily.

Dental sealants are a plastic coating that is applied to the chewing surfaces of back teeth (molars and premolars). Sealant application is considered an evidence-based dental caries prevention strategy for children. Dental sealants can be applied to primary and permanent teeth.

Brief Description *(continued)*

Dental Caries Risk Assessment

In 2003, the American Academy of Pediatrics (AAP) developed a policy statement, *Oral Health Risk Assessment Timing and Establishment of the Dental Home*. The policy statement recommended that primary care child health care professionals conduct an oral health risk assessment when a child is 6 months of age. This assessment consists of asking parents about their current oral health, their child's oral hygiene, and looking at the child's mouth to assess the risk for dental caries. Oral health risk assessments may be performed by a pediatric or general dentist or by a primary health care provider after the first 6 to 12 months of age to identify children in need of care and referral. Recommendations for oral health screenings can be found in the AAP Bright Futures Recommendations for Preventive Pediatric Health Care and the Wisconsin Health Check Visit Schedule periodicity tables.

Dental Home: 1 Year of Age or Following Eruption of First Tooth

The American Academy of Pediatric Dentistry (AAPD) recommends parents establish a dental home for infants by 12 months of age. A dental home is defined as the "ongoing relationship between the dentist and the patient, inclusive of all aspects of oral health delivered in a comprehensive, continuously accessible coordinated and family-centered way." The early dental visit to establish a dental home provides a foundation upon which a lifetime of prevention education and oral health care can be built. Anticipatory guidance and counseling are essential components of the dental visit. The periodicity of professional oral health intervention and services is based on a patient's individual needs and risk indicators. Recommendations for pediatric oral health assessment, prevention services, and anticipatory guidance/counseling by age can be found in the AAPD Pediatric Dentistry Guidelines.

The following are the guidelines recommended by the AAP and the AAPD for oral health assessment and care:

First Step(s)

Risk assessment to be performed with appropriate action to follow.

- If the child's caries risk is low, establish a dental home at 12 months of age.
- If the child with low caries risk does not have access to a dental home, dietary and hygiene counseling, and the application of a fluoride varnish are recommended at six-month intervals until the establishment of a dental home.
- If the child's caries risk is medium to high, establish a dental home at 6 to 12 months of age. Conduct dietary and hygiene counseling, review fluoride exposure, and apply fluoride varnish.
- If the child with medium to high caries risk does not have access to a dental home, the recommendations are dietary and hygiene counseling and the application of a fluoride varnish as indicated by the management of risk factors until the establishment of a dental home.

Oral Health Screening, *continued*

Brief Description *(continued)*

First Step(s) (cont.)

- Review dietary intake of sugars sources (juices, etc.) at each appointment.
- Assess oral hygiene at each appointment (plaque, inflammation).

6-Month Visit, 9-Month Visit

Risk assessment to be performed with appropriate action to follow, if positive.

- Assess fluoride source. If primary water source is deficient in fluoride, consider oral fluoride supplementation. For those at high risk, consider application of fluoride varnish for caries prevention.

Advice to parents:

- Brush with soft toothbrush/cloth.
- Use a smear (grain of rice) amount of fluoride toothpaste once a tooth erupts.
- Avoid bottle in bed, propping, "grazing."

12-Month Visit

Service provided or risk assessment to be performed with appropriate action to follow, if positive.

- Establish a dental home.

Advice to parents:

- Visit the dentist by 12 months or after first tooth.
- Brush teeth twice a day with a smear (grain of rice) of fluoride toothpaste, soft toothbrush.
- If still using bottle, offer only water.

15-Month Visit, 18-Month Visit, 24-Month Visit, 30-Month Visit, 3-Year Visit

Service provided or risk assessment to be performed with appropriate action to follow, if positive.

- Schedule first dental visit if child hasn't seen dentist yet.

Oral Health Screening, *continued*

Brief Description *(continued)*

Advice to parents:

- Brush teeth twice a day with soft brush and a smear (grain of rice) of fluoride toothpaste.
- At third birthday, increase amount of fluoride toothpaste to pea-sized.
- Prevent tooth decay by good family oral health habits (brushing, flossing), not sharing utensils or cup, and using fluoride appropriately (including drinking fluoridated water).
- If nighttime bottle, use water only.

6-Year Visit

Service provided or risk assessment to be performed with appropriate action to follow, if positive.

Advice to parents:

- Help child with brushing if needed.
- Visit dentist twice a year.
- Give fluoride supplement if dentist recommends.
- Brush teeth twice a day with fluoride toothpaste; floss once.

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Oral Health Screening, *continued*

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Current Status

The National Health and Nutrition Examination Survey (NHANES) III data revealed that children from low-income households are more likely to experience caries and have higher levels of untreated caries than their counterparts from higher-income households. In the United States, more than 40% of children have dental caries by the time they reach kindergarten. Preliminary data from the Centers for Disease Control and Prevention (CDC) reports that there is a 5% decrease (from 27 to 2%) of children ages 2 to 5 years who have caries in primary teeth.

The AAPD response to these improved numbers is: The progress in reversing the previous trend of increasing tooth decay in young children is most likely due to the increased number of pediatric dentists who care for this age group, as well as improvements in Medicaid dental programs in some states.

Oral Health Screening, *continued*

Current Status *(continued)*

The Wisconsin 2008-09 Head Start Survey found that 36% of 3- to 5-year-old Head Start children experienced dental caries, which is short of the Healthy People 2020 target of 30%. The 2012-13 Wisconsin Healthy Smiles/Healthy Growth survey found that 53% of third grade children had experienced dental caries, almost 1 in 5 children had at least one tooth with untreated decay, and 3% had an urgent dental condition causing pain and/or infection. The third-grade dental caries experience rate of 53% is short of the Healthy People 2020 target of 4%.

Approximately 90% of the population in Wisconsin on public water supplies has access to the benefits of optimal levels of fluoride. The optimal level for fluoridated systems in Wisconsin is 0.7 parts per million (ppm) of fluoride.

In the 2013-14 school year, approximately 61% of high-risk elementary and middle schools were served by the Wisconsin Seal-A-Smile school-based dental sealant program. The 2012-13 Wisconsin Healthy Smiles/Healthy Growth survey found that 61% of third grade children had a least one dental sealant.

Actions to Address Existing Gaps

1. Promote integration of oral health education and appropriate referral to a dentist among pregnant women through primary and obstetric health care.
2. Promote integration of oral health screenings, dental caries risk assessments, fluoride varnish, sealants, and appropriate referral to a dentist through child primary health care.
3. Promote compliance with the Early and Periodic Screening, Diagnosis, and Treatment (EPSDT) service within Medicaid designed to ensure children in low-income families have access to comprehensive and periodic evaluations to target health conditions, including dental diseases, for which children are at risk.
4. Increase the number of trained dental providers to treat infants and young children.
5. Increase the number of dental providers who accept Medicaid reimbursement.
6. Increase the geographic distribution of dental providers.

General Developmental Screening

FACT SHEET FOR CRITICAL TIME PERIODS FOR EARLY CHILDHOOD SCREENING AND ASSESSMENT REVISED 5/2016
(SEE VISUAL CHART, PAGE 7, FOR SPECIFIC TIME PERIOD.)

Brief Description

Children ages birth to five years are best served when developmental screenings are completed according to the *Critical Periods Recommended Screening Schedule*. Best practices for screening young children requires the use of **valid and reliable** screening tools as defined by the American Academy of Pediatrics (AAP) and with active participation on behalf of the parent(s) throughout the screening process. Wisconsin recognizes that developmental screening of all children birth to age 5 significantly increases timely identification of children with developmental delays and provides an early opportunity to connect families with the necessary community supports and services.

References/Sources

Wisconsin's Recommended Screening Tools and Supporting Evidence

The ECAC Aligned Screening and Assessment Project Team recognizes the following two screening tools as being highly rated, valid, reliable, and supporting parent participation.

- Ages and Stages Questionnaires (ASQ)
- Parents' Evaluation of Developmental Status (PEDS)

Rationale/Research Behind the Use and Importance of a Screening Tool

- Macy, Marisa. *Infants & Young Children*. 25(1):19-61, January/March 2012.
- Drotar D., T. Stancin, P.H. Dworkin, L. Sices, S. Wood. Selecting developmental surveillance and screening tools. *Pediatrics in Review*. 2008; 29.

References/Sources Supporting the Recommendation

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- http://pediatrics.aappublications.org/content/118/1/405.full.pdf
- Individuals with Disabilities Education Improvement Act of 2004. 20 U.S.C. § 1400 et seq. 2004.
- Identifying Infants and Young Children with Developmental Disorders in the Medical Home: An Algorithm for Developmental Surveillance and Screening. Council on Children With Disabilities, Section on Developmental Behavioral Pediatrics, Bright Futures Steering Committee, Medical Home Initiatives for Children With Special Needs Project Advisory Committee. Pediatrics Jul 2006, 118 (1) 405-420; DOI: 10.1542/peds.2006-1231. http://pediatrics.aappublications.org/content/118/1/405

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Current Status

The Wisconsin Medical Home Initiative, Project LAUNCH, Practice-Based Developmental Screening Initiative, Project 3D, Early Identification Initiative, Wisconsin Birth to 3 Program, Early Identification and Referral, Wisconsin Regional Centers for Children and Youth with Special Health Care Needs, and Wisconsin Surveillance of Autism and other Developmental Disabilities System have supported the training of over 180 medical clinics across the state. A survey on routine use of developmental and autism-specific screening tools by Wisconsin pediatric primary care clinicians was conducted in late 2012 by the Wisconsin Statewide Medical Home Initiative; 157 clinicians completed all or part of the survey.

- **Medical Home Initiative:** Over 55% of respondents almost always used the general developmental screening tool *Ages and Stages Questionnaire©* (*ASQ*) and the autism-specific instrument *Modified Checklist for Autism in Toddlers* (M-*CHAT)* to identify children with possible delays.
- **Easter Seals "Make the First Five Count Campaign**" has a free online ASQ:3 available which includes written feedback mailed to the family and typically within two weeks.
- **Developmental screening using the ASQ:3 and the Ages and Stages**: Social Emotional is required of all of the state funded home visiting programs and Outcomes Project Home Visiting programs. See Parents as Teachers and Healthy Families America guidance.

General Developmental Screening, *continued*

Current Status (*continued)*

- **The Individuals with Disabilities Education Act (IDEA)**: All states must identify, locate, and evaluate all children with disabilities including infants; toddlers; preschoolers; children in private, public, or tribal schools; highly mobile, homeless, or migrant children; home schooled children; and wards of the state. The IDEA is the federal regulation that requires all states to have "child find" policies and procedures in effect to ensure that all children, who are in need of early intervention or special education are identified and receive individualized services. The IDEA requires all states to have a comprehensive Child Find System that ensures that all children (birth to 21) who are in need of early intervention or special education are identified and receive services. In Wisconsin, the Department of Public Instruction has the federal mandate for child find for all children but shares responsibility for children from birth to age three with the Department of Health Services. The Department of Public Instruction is the lead agency for Part B, and school districts are responsible for services for children/students from three to 21. The Department of Health Services is the lead agency for IDEA Part C, and county administered programs are responsible for services for children from birth to three years of age.
- **School districts: Four- and/or five-year-old kindergarten**: School districts often have policies and/or practices specific to early screening and assessment, including screening practices as part of the transition into the school system. This developmental data is often used both for Child Find purposes and as one source of formative data to guide curriculum planning.
- **The YoungStar quality rating and improvement system**: There are components for curriculum alignment, tracking child outcomes by using ongoing assessment and using child portfolios, and providers being intentional in the environments, schedules, and curriculum they are providing for the child's learning. For all programs participating in YoungStar, an optional point is available when a provider uses a screening tool.

Actions to Address Existing Gaps

- Continue reaching out to support and train Wisconsin child care organizations and professionals (center, home, other) by providing the foundation/rationale regarding the importance of regularly screening all children as recommended in the Wisconsin Critical Periods Recommended Screening Schedule and the referral process when there is a concerning screen.
- Revise and update the Early and Periodic Screening, Diagnosis, and Treatment (EPSDT) handbook. The EPSDT handbook language is not consistent with this report or AAP recommendations.

General Developmental Screening, *continued*

Actions to Address Existing Gaps (*continued)*

- Encourage and support the use of screening tools recommended in Appendix A of the Blueprint for a Comprehensive and Aligned System for Screening in order to improve inter-rater reliability, interpretation, and increase consistency across physicians, clinics, agencies, and federally mandated programs such as IDEA Part C and B throughout the state.
- Create a central location in which limited screening data from sources such as SPHERE, electronic medical records, and PPS can be accessible. Limited data may include screening tools used, frequency of screenings, child's age at time of screening, referrals made based on screening results, and referral outcomes. Such data can be used to support physicians, clinics, etc., for outreach and training efforts.
- Incorporate as appropriate, Wisconsin Birth to 3 Program data, PPS screening data with definitions of what constitutes a referral source into the Longitudinal Data System (LDS) in a reciprocal manner. This will support utilizing/gathering and tracking screenings completed by various sources and agencies including physicians, child care, Birth to 3 Program, ECSE, etc. from birth forward.
- Distribute and educate pediatric primary care clinicians on the referral and joint release of the information form from physicians to county Wisconsin Birth to 3 Programs (single form for providing release of information to/from physician and Birth to 3 Programs). http://www.dhs.wisconsin.gov/children/birthto3/forms/index.asp
- Identify the availability of data and related resources for tracking screenings across agencies such as the "Passport" developed by Project Launch in 2010. PPS has limited screening information and, due to new Part C regulations, there will be less data available as Birth to 3 Programs move directly into evaluation.
- Wisconsin Early Hearing, Detection, and Intervention Tracking, Referral, and Coordination (WE-TRAC) referral information would possibly be available but provide limited information such as when a D/HH child was referred, age, and referral source.
- Children enrolled in Medicaid's Children's Health Insurance Program (CHIP) are eligible to receive periodic developmental screening under EPSDT that includes physical, mental, and dental health.
- Require the use of standardized developmental screening tools as a core measure of child health, including tools that screen for issues in social-emotional development.

Blood Lead Level Testing

Fact Sheet for Critical Time Periods for Early Childhood Screening and Assessment Revised 5/2016 (See visual chart, page 7, for specific time period.)

Brief Description

Recent research has extended the knowledge of the impact of lead exposure on cognitive deficits, to negative lifelong health effects on the cardiovascular, immunological, reproductive, and endocrine systems. The effects of lead appear to be irreversible. Lead exposure has been linked with hearing loss, speech and other developmental delays, ADHD, learning disabilities, and poor school performance and behavioral problems. It is not surprising that lead exposure also predicts rates of school suspension and high school dropout, as well as juvenile and adult criminality.

Universal screening of young children for lead exposure by health care providers results in targeted blood lead level testing of those children at highest risk. Children at highest risk include those who: 1) live in or regularly visit a home built before 1950; 2) live in or regularly visit a home built before 1978 with recent or ongoing renovations or remodeling (within 6 months); 3) have a sibling or playmate with lead poisoning; or 4) are enrolled in Medicaid or WIC. According to federal and state EPSDT policy, all children who are enrolled in Medicaid must be tested at 12 months and 24 months of age, or at least once between the ages of 3-5 years if they were not tested prior to their third birthday.

Some local jurisdictions in Wisconsin have additional lead testing recommendations based on local risk factors, e.g., housing conditions, SES, industry, cultural practices. For example: In the cities of Milwaukee and Racine, all children should be tested at 12, 18, and 24 months and high risk children (factors listed above) should also be tested annually from 3-5 years.

References/Sources

AAP Commends CDC for Recognizing That for Children, There is No Safe Level of Lead Exposure. Press release 5/16/2012. https://www.aap.org/en-us/about-the-aap/aap-press-room/Pages/AAP-Statement-CDC-Revised-Lead-Exposure-Guidelines.aspx

CDC Advisory Committee on Childhood Lead Poisoning Prevention – "Low Level Lead Exposure Harms Children: A Renewed Call for Primary Prevention." January 4, 2012. http://www.cdc.gov/nceh/lead/ACCLPP/Final_Document_030712.pdf

CDC. "Screening Young Children for Lead Poisoning: Guidance for State and Local Public Health Officials." November, 1997. http://www.cdc.gov/nceh/lead/publications/screening.htm

CMS (Centers for Medicare and Medicaid Services) State Medicaid Manual, Part 5 – Early and Periodic Screening, Diagnosis, and Treatment (EPSDT), section 5123.2, page 5-15. https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/Paper-Based-Manuals-Items/CMS021927.html

Blood Lead Level Testing, *continued*

References/Sources *(continued)*

Head Start Performance Requirements. 45 CFR Ch. XIII. 10-01-07 Edition.

Pediatric Environmental Health Specialty Units/AAP. Recommendations on Medical Management of Childhood Lead Exposure and Poisoning. June 2013 Update. http://www.pehsu.net/

Current Status

Wisconsin Stat. § 254.13 requires health care providers and laboratories to report all blood lead level tests to the Wisconsin Childhood Lead Poisoning Prevention Program (WCLPPP), Department of Health Services (DHS). The specifications for reporting are described in Administrative Code HS 181. Higher blood lead level test results require more immediate notification so that interventions can be implemented quickly.

Blood lead level testing most often occurs during well-child visits, WIC appointments, and entrance to Head Start.

Of the approximately 88,000 children who received a blood lead test in 2014, more than 3,900 children were found to have blood lead levels at or above the CDC reference value of 5 mcg/dL, a rate of 4.5% compared to the national rate of 2.5%. Wisconsin consistently ranks in the top ten states in the nation for the number of children found to be lead poisoned.

In Wisconsin, low-income and minority children carry a disproportionate burden of lead exposure. The rate of lead poisoning among children enrolled in Medicaid or WIC consistently exceeds the rate among children not enrolled in either program by a factor of three or more. Over a five-year period (2008-2012), 89% of Wisconsin children with lead poisoning were enrolled in Medicaid or WIC. However, only one-third of these children were tested at their most vulnerable ages of one and two.

While blood lead level testing of young children is the responsibility of the child's primary care provider, in 2014, 52% of Wisconsin Medicaid-enrolled children who were tested received their test at WIC rather than at their primary care provider's office. This has provided a stop-gap solution for many families whose children may not have otherwise been tested.

For more information: https://www.dhs.wisconsin.gov/lead/index.htm.

Data Sources: Wisconsin Childhood Lead Poisoning Prevention Program Surveillance database: Systematic Tracking of Elevated Lead Levels and Remediation (STELLAR) database, Wisconsin Medicaid eligibility data, and WIC Real-time, Online, Statewide Information Environment (ROSIE) data system.

Blood Lead Level Testing, *continued*

Actions to Address Existing Gaps

Education and Outreach

Provide outreach and information to health care providers on the blood lead level screening recommendations and Medicaid EPSDT testing requirements.

Provide secure and confidential access to children's blood lead test results to health care providers and school districts through the Wisconsin Immunization Registry web portal.

Distribute monthly reports to each Medicaid managed care organization (MCO) of their tested and untested members.

Provide outreach and education to home visitors to encourage families to get their young children tested at the appropriate ages.

Cross-System Collaboration

- Assist WIC projects that want to integrate blood lead level testing into their clinic services. Work with the state WIC program, local WIC projects, Medicaid Program, and Medicaid MCOs to establish MOUs and procedures by which WIC projects can obtain third party reimbursement for lead testing.
- Maintain a statewide database of all blood lead level tests for children. Work with laboratories and clinics to assure that all blood lead level tests are reported to DHS/WCLPPP.
- Continue collaboration with the Wisconsin Immunization Program to make children's blood lead level test histories available to qualified health care providers on the Wisconsin Immunization Registry (WIR).
- Engage the education community in understanding the connection between lead exposure and reading readiness and the educational interventions that can support children affected by lead (http://www.cdc.gov/nceh/lead/publications/Educational_Interventions_Children_Affected_by_Lead.pdf). School staff, such as school nurses, are able to get access to a child's blood lead level test history via the WIR.
- Partner with local health department staff to monitor blood lead level testing in their jurisdictions and to provide education and environmental interventions to families regarding lead poisoning prevention.
- Collaborate with Department of Children and Families Home Visitation program to establish a health and safety assessment tool that includes condition of the home (i.e., old windows, chipping and peeling paint) and the appropriate anticipatory guidance about preventing lead exposure and age appropriate blood lead level testing.

Blood Lead Level Testing, *continued*

Actions to Address Existing Gaps *(continued)*

Data Evaluation/Surveillance

- Maintain data sharing agreements with state Medicaid and WIC Programs to link blood lead level records with Medicaid enrollment records and WIC records.
- Track the number and percentage of Medicaid-enrolled and WIC-enrolled children who are tested.
- Provide annual individualized blood lead level testing report cards and lists of untested children to Medicaid providers to inform them of their testing rate for Medicaid-enrolled children within their practice. These reports have not been restarted. The program is in the process of restarting them in 2016.

Autism Spectrum Disorders Screening

Fact Sheet for Critical Time Periods for Early Childhood Screening and Assessment Revised 5/2016

(See visual chart, page 7, for specific time period.)

Brief Description

Universal screening for autism spectrum disorders (ASD) is recommended for all children at 18 and 24 months of age. Recommended practice is that ASD specific screening be completed in addition to general developmental screening as developmental screening alone is not sufficient to screen for ASD. There are likely many different causes and factors that may increase the likelihood of a child having an ASD including environmental, biological, and genetic factors; however, additional screening is recommended if a child has a sister, brother, or other family member with an ASD. A child should be screened at any age whenever a caregiver *or* professional has a concern about ASD.

In Wisconsin, 1 in 92 (or 1.1%) 8-year-old children was identified with ASD by the Wisconsin Surveillance of Autism and Other Developmental Disabilities System (WISADDS) in 2012, which reflects an increase over previous surveillance years. ASD can be detected at 18 months or younger. Nonetheless, among Wisconsin children diagnosed with ASD only about half received the diagnosis by age 4 years, 2 months of age, based on surveillance by the WISADDS, (http://www.cdc.gov/ncbddd/autism/documents/community_report_autism_wisconsin_web.pdf). The median age of earliest ASD diagnosis in Wisconsin is 4 years, 2 months (or 50 months). Among those who go on to receive a diagnosis, 38.4% did not receive any comprehensive evaluation until after age 48 months, even though 89.9% had a general developmental concern noted in their record by 36 months of age. Further, 21% of 8-year-olds identified with ASD by WISADDS had no documented diagnosis by age 8 years. WISADDS findings describe Hispanic and black children as less likely to be identified with ASD than white children, which may reflect cultural or socioeconomic disparities, such as lack of access to services.

It is important to screen all children for developmental delays, including ASD, in order to identify the need for further assessment, diagnostic evaluation, and referral to appropriate early intervention services, resources, and supports. Parents should be supported when they bring concerns to the attention of their child's doctor and be informed to ask their doctor to routinely screen their child for ASD and other developmental delays. If a comprehensive evaluation is warranted, the primary care doctor might choose to refer the child and family to a specialist for further assessment and diagnosis, which may include hearing and vision screening, genetic testing, neurological testing, and other medical testing. Specialists who can do this type of evaluation include:

- Developmental Pediatricians (doctors who have special training in child development and children with special needs)
- Child Neurologists (doctors who work on the brain, spine, and nerves)
- Child Psychologists or Psychiatrists (doctors who know about the human mind)

Autism Spectrum Disorders Screening, *continued*

Brief Description (*continued)*

The universal ASD screening recommendation is supported by policy and guidance in Bright Futures (American Academy of Pediatrics), which has also been adopted by the American Academy of Family Physicians. Furthermore, the Centers for Disease Control (CDC) promote these policies through the health education campaign, *Learn the Signs. Act Early*. CDC has designated an Act Early Ambassador to Wisconsin, and Wisconsin is an active state partner in *Learn the Signs. Act Early*.

There are no policies or guidance for ASD specific screening outside of the primary health care system. However, autism screening is supported under Child Find obligations for both Part C and Part B, Section 619 of the IDEA. Other programs with screening and assessment roles (e.g., Head Start, Home Visiting, Public Health, and Child Care) may choose to conduct ASD specific screening. However, anyone conducting ASD screening should be trained in: administering, scoring, and interpreting the tool; sharing screening results; and discussing appropriate follow up with families and other caregivers.

The most commonly used ASD screening tool is the *Modified Checklist for Autism in Toddlers (M-CHAT™* – Robins, et al., 2001). The M-CHAT™ includes a parent-completed questionnaire for children ages 16-30 months and a provider follow-up interview. "The interview is designed to reduce the false positive rate…. It is highly recommended that M-CHAT™ users also incorporate the M-CHAT™ follow-up interview into the screening process, given that recent findings demonstrate that the interview greatly reduces the false positive rate, which avoids unnecessary referrals." For current guidance for administering and scoring the M-CHAT,™ visit https://m-chat.org/.

Other tools are also available to screen at earlier and later ages. These tools include:

- *Infant-Toddler Checklist* (Wetherby & Prizant, 2002): 6-24 months.
- *Pervasive Developmental Disorders Screening Test* (Siegel, 2004): 12-48 months.
- A table of additional screening tools with applicable age range is available online at http://autismpdc.fpg.unc.edu/sites/autismpdc.fpg.unc.edu/files/EI-Module-Table-1.pdf.

Some general developmental screening tools do specifically screen for the core language, social, and behavioral challenges associated with ASD. However, general developmental screening tools are not a replacement for ASD screening using an ASD-specific tool.

References/Sources

A Parent's Guide to Evidence-Based Practices in Autism. http://www.ids-wi.com/images/Natl_Autism_Center_Parent_Manual.pdf

American Academy of Family Physicians, statement on Primary Care for Children with Autism. http://www.aafp.org/afp/2010/0215/p453.html

Autism Spectrum Disorders Screening, *continued*

References/Sources *(continued)*

Autism and Developmental Disabilities Monitoring Network Surveillance Year 2008 Principal Investigators. Centers for Disease Control and Prevention. Prevalence of autism spectrum disorders—Autism and Developmental Disabilities Monitoring Network, United States. 2008. MMWR Surveillance Summary. 2012; 61(SS-3).

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National Autism Center. http://www.nationalautismcenter.org/

A Snapshot of Autism Spectrum Disorder in Wisconsin. National Center on Birth Defects and Developmental Disabilities Division of Birth Defects and Developmental Disabilities, CDC. http://www.cdc.gov/ncbddd/autism/documents/community_report_autism_wisconsin_web.pdf

Current Status

The Autism and Developmental Disabilities Monitoring (ADDM) Network is a group of programs funded by the Centers for Disease Control to estimate the number of children with ASD and other developmental disabilities living in different areas of the United States. The ADDM Network sites collect data using the same methods. Beginning in 2003, Wisconsin became a partner in the ADDM Network through a series of grants awarded to the Waisman Center, UW-Madison. Detailed information about Wisconsin and national prevalence information is available at these sites:

- http://www.cdc.gov/ncbddd/autism/addm.html
- http://www.waisman.wisc.edu/wisadds
- http://www.waisman.wisc.edu/wisadds/assets/Wisconsin.pdf

Autism Spectrum Disorders Screening, *continued*

Current Status *(continued)*

Screening information could be found in individual child medical records through their primary care physician or other related source; however, this information is not collected as it is maintained by each medical practice.

In 2015, 13 trainings were conducted for 22 primary care clinics on the use of validated developmental and autism-specific screening tools within well-child care by the Wisconsin Medical Home Initiative (www.wismhi.org). Over 160 clinicians and care team members participated in these trainings. Seven trainings were held on pediatric mental health screening tools or mental health community resources, reaching 65 clinicians and care team members at 12 primary care clinics. Outreach was conducted in collaboration with local professionals serving children with delays and their families, and was funded by the Wisconsin Department of Health Services' Title V Children and Youth with Special Health Care Needs Program and the Maternal Child Health Program. A survey on routine use of developmental and autism-specific screening tools by Wisconsin pediatric primary care clinicians was conducted in late 2012 by the Wisconsin Medical Home Initiative. Of the 157 pediatricians and family physicians who completed all or part of the survey, over 55% indicated they "almost always" used the general developmental screening tool *Ages and Stages Questionnaire© (ASQ)* and the autism-specific instrument *Modified Checklist for Autism in Toddlers (M-CHAT)* to identify children with possible delays.

Actions to Address Existing Gaps

- Increase outreach to a broader cross-sector of early childhood programs to learn more about the rationale for ASD specific screening, their potential roles in ASD Screening, and how to administer, score, analyze, and share ASD screening results with parents and caregivers.
- Consider how training on ASD specific screening fits with existing trainings on developmental screening (e.g., physician outreach, Birth to 3 training, home visiting, childcare) and may be added or enhanced. Also, further explore the role of Child Find (Part C and Part B, Section of IDEA 619) in conducting ASD specific screening in those settings.
- Consider how ASD specific screening may be recorded in SPHERE or other databases that track general developmental screening.
- Review data available from the WiSMHI about the number of health care/medical practices that have been trained on general developmental screening that includes ASD specific screening.
- Review results from the WiSMHI survey of WAAP and WAAFP members on use of a validated screening tool for general developmental and ASD specific screening.
- Utilize existing resource lists to ensure providers across systems and families know where to access autism specific resources.

Vision Screening

Fact Sheet for Critical Time Periods for Early Childhood Screening and Assessment Revised 5/2016 (See visual chart, page 7, for specific time period.)

Brief Description

One preschool-age child in 20 and 1 in 4 school-aged children have a vision problem.

According to a recent report from the Centers for Disease Control and Prevention (CDC), only one in three children in America has received eye care services before the age of six.

Only 21% of preschool-age children have their vision screened.

According to the CDC, impaired vision can affect a child's cognitive, emotional, neurologic, and physical development by limiting the range of experiences and kinds of information to which the child is exposed. Identification of vision impairment before school entry could help identify children who may benefit from early interventions to correct or to improve vision.

Screening and Assessment Recommended Practice: Children's Vision Screening

Vision Assessment: Newborn through 2 Years

Bright Futures and the American Academy of Pediatrics recommend an examination of the eyes should be performed beginning in the newborn period and at all well-child visits. For children under age three years, it is recommended that the child's primary provider (medical home):

- determine if there is a family history of early onset vision problems and ocular abnormalities, as well as maternal and neonatal infection;
- observe for proper eye alignment, pupillary reflex, the presence of nystagmus, ability to track, pupillary response to light, retinal reflex symmetry, and muscle balance; and
- examine the external parts of a child's eyes including: the lids, conjunctiva, cornea, iris, and pupils.

Finally, the parent or guardian should be asked if there are concerns about the child's vision.

According to Bright Futures, children at high risk of eye problems, such as children who are very premature; those with family histories of congenital cataracts, retinoblastoma, and metabolic or genetic diseases; those with significant developmental delay or neurological disorders; or with systematic disease associated with eye disorders should be referred for specialized eye care with an ophthalmologist specializing in treating children.

Brief Description *(continued)*

Vision Screening: Ages 3-5 Years

The U.S. Preventive Services Task Force (USPSTF) recommends that children between the ages of 3 and 5 years be screened at least once to detect the presence of amblyopia and amblyogenic risk factors such as strabismus and significant refractive error. Approximately 2 to 4% of preschool-age children have amblyopia, an alteration in the visual neural pathway in the developing brain that can lead to permanent vision loss in the affected eye. Amblyopia usually occurs unilaterally but can occur bilaterally. The USPSTF concluded that there is adequate evidence that early treatment of amblyopia resulted in improved visual outcomes. In addition, optical correction of significant refractive error may improve school readiness.

Practice guidelines advanced by Bright Futures, the American Academy of Pediatrics, and the Prevent Blindness National Center for Children's Vision and Eye Health state that vision screening should be part of a health supervision visit annually from 36 months to younger than 72 months. Children at high risk of eye problems (defined above) should be referred for specialized eye care with an ophthalmologist specializing in treating children.

The National Expert Panel of the National Center for Children's Vision and Eye Health (NCCVEH), sponsored by Prevent Blindness, and funded by the Maternal and Child Health Bureau of the Health Resources and Services Administration, U.S. Department of Health and Human Services, recommends that children aged 36 months to younger than 72 months be screened annually (best practice) or at least once (accepted minimum standard) using one of the best practice approaches. The expert panel recommends a child-based performance measure for vision care for children aged 36 months to younger than 72 months. In addition, the panel recommends a performance measure addressing the proportion of children receiving follow-up eye examinations after a screening referral.

Vision screening in schools should be part of any regular physical assessment, in continuing eye health care (when appropriate), and when assessing whether a child has a disability which requires modifications and related services to fully participate in a regular or special education program. Wisconsin special education law (Wis. Stat. § 115.777 and Wis. Admin. Code ch. PI 11) states that each school board is required to identify and evaluate all students with disabilities who may need special education and related services. Administrative code PI 11.36 does require the results of a hearing and vision screening as part (d) of the eligibility criteria for significant developmental delay. This includes preschool children and children who have not graduated from high school, who reside in the school district, or in a state or county residential facility located in the school district. While these rules do not require specific screening procedures for individual disabilities, the intent to identify disabilities in children of all ages is clear.

Healthy People 2020 specifically included the goal of increasing vision screening rates in children aged 5 years and younger, with a target of 44%.

Vision Screening, *continued*

Brief Description *(continued)*

Vision Screening: Ages 3-5 Years, *continued*

The recommended screening tests and follow-up practices are intended for use by certified lay screeners, nurses, and other personnel who screen children in educational, community, public health, or primary health care settings. Vision screening requires training and certification of screening personnel with recertification of personnel planned every 3-5 years.

Use of an Instrument(s) to Screen:

The USPSTF found adequate evidence that vision screening tools have reasonable accuracy in detecting visual impairment, including refractive errors, strabismus, and amblyopia.

The National Center for Children's Vision and Eye Health (NCCVEH) Pediatric Vision Screening Program Protocol includes the following screening components:

- **Observation** (ABCs: Appearance signs, Behavior signs, Complaint signs)
- **Distance Visual Acuity Screening**: Approved passing line for 3-year-olds is 20/50; for 4- and 5-year olds is 20/40; and for 6+ year-olds is 20/30.
- **Preschool Age (36 months to < 72 months) – Best Practice**: Monocular visual acuity testing using single HOTV letters or LEA symbols surrounded by crowding bars at a 5-foot test distance **OR** instrument-based testing using the Retinomax autorefractor or the SureSight Vision Screener with the Vision in Preschoolers Study data software installed (version 2.24 or 2.25).
- **Best Practice** methods of occlusion are to use adhesive eye patches or 2-inch wide hypoallergenic surgical tape.
- **Acceptable Practice**: HOTV letters or LEA symbols at 10 feet OR instrument-based testing using the Plusoptix Photoscreener or the SPOT Vision Screener.
- Acceptable method of occlusion is to use the specialty constructed occluder glasses.
- **School-Age – Best Practice**: Snellen or ETDRS distance visual acuity charts.
- **Follow-up:** Screening results must be recorded and communicated to the child's parents and as appropriate to the medical home/primary care provider, the school, and necessary state agency, with subsequent referral to an ophthalmologist or optometrist for examination and care when indicated.
- **Surveillance:** Specific data systems must be established to facilitate this process, and programs should monitor overall system performance at the population level to ensure that screening goals are being met.
- Vision screening referral and outcome data should be integrated with other child health data systems, such as existing state immunization information systems and EHRs. Thus a targeted protocol would include expansion of the statewide immunization systems to incorporate information on vision screenings and eye care.

Using best practice standards should be the goal for all vision screening programs.

Vision Screening, *continued*

References/Sources

American Academy of Pediatrics Policy Statement – Eye Examinations in Infants, Children, and Young Adults by Pediatricians. http://pediatrics.aappublications.org/content/111/4/902.full.pdf+html

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The American Academy of Family Physicians is updating its recommendation, which is similar to that of the USPSTF. http://www.aafp.org/afp/1998/0901/p691.html

The American Academy of Ophthalmology and the American Association for Pediatric Ophthalmology and Strabismus recommend vision screening during the preschool years. http://www.aapos.org/terms/conditions/131

The American Optometric Association recommends a comprehensive eye examination at 3 years of age. http://www.aoa.org/patients-and-public/good-vision-throughout-life/childrens-vision/preschool-vision-2-to-5-years-of-age?sso=y

The American Academy of Pediatrics recommends screening for distance visual acuity, ocular alignment, and ocular media clarity for children 3 to 6 years of age and older. http://pediatrics.aappublications.org/content/111/4/902.full.pdf+html

U.S. Preventive Services Task Force. Screening for Visual Impairment in Children Ages 1 to 5 Recommendation Statement. Rockville, MD: Agency for Healthcare Research and Quality. 2011. This recommendation statement was first published in *Pediatrics* in January 2011 (*Pediatrics* 2011; 127: e442-e479). http://www.uspreventiveservicestaskforce.org/uspstf/uspsvsch.htm

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Vision and Eye Health in Children 36 to <72 Months: Proposed Data Definitions. Optometry and Vision Sciences. Vol. 92, No. 1. January 2015.

Wisconsin Department of Public Instruction, School Nurse Handbook: Chapter 6. http://dpi.wi.gov/sites/default/files/imce/sspw/pdf/snhandbookch6.pdf

Wisconsin currently does not have a mechanism in place to systematically evaluate, track, or monitor the status of vision screening programs and their outcomes for early childhood or elementary students.

Vision Screening, *continued*

Current Status

Prevent Blindness Wisconsin currently:

- collects aggregate vision screening data from 145 schools in 58 counties statewide indicating that 169,537 children were vision screened;
- collects aggregate vision screening data from 104 Head Start sites indicating that 6,991 children were vision screened;
- collects aggregate vision screening data from 245 preschools/daycare centers indicating that 17,320 children were vision screened; and
- trains and certifies approximately 1,200 – 1,500 community volunteers, Lion/Lioness, university students, Head Start staff, school and public health nurses each year to conduct those vision screenings.

Wisconsin Stat. § 118.135 requires that schools encourage parents to obtain an eye exam for their child from a licensed practitioner prior to kindergarten entrance.

Typically, the school will provide health and vision report forms that can be completed by the child's physician to indicate that a child is up-to-date with immunizations and vision and hearing screenings. The form may also be used to indicate any special health care needs of the child – http://dpi.wi.gov/sites/default/files/imce/sspw/pdf/eyehealth.pdf (Wisconsin Department of Public Instruction).

Head Start Program Performance Standard 1304.20(b)(1) requires that all Head Start and Early Head Start children are screened for potential concerns with regard to vision within the first 45 days of entry into Head Start. To assist and support programs in their efforts to accurately screen children for vision concerns and follow up on these concerns, the Office of Head Start (OHS) and Prevent Blindness (PB) have entered into a partnership, supported in Wisconsin by a partnership between Prevent Blindness Wisconsin and the Wisconsin Head Start Association.

Actions to Address Existing Gaps

Coordinate with organizations such as Prevent Blindness Wisconsin to promote quality vision screening programming in multiple settings (early childhood, Head Start, school-age) using approved tools with trained personnel.

1. In partnership with Prevent Blindness Wisconsin, provide educational materials to the Department of Public Instruction, School Nursing, Public Health Nursing, Head Start, child care, and early childhood providers to promote children's health and safety.
2. Surveillance: Establish a statewide mechanism to determine the number of children screened and the outcomes of screening. Increase integration of child-specific vision screening and outcomes data into state health surveillance systems; utilize this data to increase screening where needed and improve vision health outcomes for children.

Early Literacy

Fact Sheet for Critical Time Periods for Early Childhood Screening and Assessment Revised 5/2016 (See visual chart, page 7, for specific time period.)

Brief Description

Wisconsin's requirement for assessing the reading readiness of all children enrolled in four-year-old kindergarten to second grade has been in place since the 2012-13 school year. Initially, the Wisconsin Department of Public Instruction selected PALS (Phonological Awareness Literacy Screening) as an appropriate, valid, and reliable assessment of literacy fundamentals (including phonemic awareness and letter sound knowledge). State statutes were then revised and beginning in the 2016-17 school year, districts can continue to use PALS or select a different assessment of reading readiness for use with each child enrolled in four-year-old kindergarten to second grade. Consult Assessment of Reading Readiness (http://dpi.wi.gov/sites/default/files/imce/reading/Assessment%20of%20Reading%20Readiness%2016-17%2010%2027%2015pdf.pdf), 2016-2017 and/or Wis. Stat. § 121.02 (https://docs.legis.wisconsin.gov/statutes/statutes/121/II/02) for further information.

References/Sources

Research demonstrates a clear link between language and literacy knowledge and skills during the preschool years and reading ability later in elementary school. Evidence also suggests that early identification of language/literacy delays that lead to teaching/interventions using evidence-based strategies, can be effective in helping children develop the early skills they need as a foundation for later reading success.

Center for Early Literacy Learning (CELL)—evidence-based early literacy learning practices, infancy through kindergarten. www.earlyliteracylearning.org

Early Literacy Joint Position Paper from the International Reading Association and the National Association for the Education of Young Children. http://www.naeyc.org/files/naeyc/file/positions/WWSSLearningToReadAndWriteEnglish.pdf

Read to Lead Task Force recommendations. http://read.wi.gov/Home

Shanahan, T. and C.J. Lonigan. *Early Childhood Literacy: The National Early Literacy Panel & Beyond.* Brookes Publishing, Baltimore, MD. 2013.

Vukelich, C. and J. Christie. *Building a Foundation for Preschool Literacy, 2nd Ed.* International Reading Association. 2009.

What Works: *An Introductory Teacher Guide for Early Language and Emergent Literacy Instruction* - A 70-page research-based booklet from the National Center for Family Literacy, based on the National Early Literacy Panel (NELP) Report. 2008. http://familieslearning.org/public/uploads/editor/files/what-works.pdf

Early Literacy, *continued*

Current Status

At the start of the 2012-13 school year, public school 5K teachers were required to use PALS to screen all students' language/literacy skills. A mid-year (benchmark) re-administration was not required but was allowable; end-of-the-year screening using PALs was required to measure students' learning (and the effectiveness of teaching curricula and strategies). Since the 2013-14 school year, the Wisconsin legislature requires all teachers of 4K and first grade students in public schools to also administer beginning and end-of-year PALS. Prior to PALS legislation, data collection and submission of literacy skills were not required; this is the beginning of a new pool of information to measure and monitor literacy learning and instruction.

Federal law requires Head Start programs to screen all children within 45 days of program entry; this is a general developmental screening but includes language/literacy as well. DPI provides training and some financial assistance for 5K and third grade screening; additional support for the newly added 4K and first grade PALS is also available.

Actions to Address Existing Gaps

- Literacy screening is one part of a much larger screening and assessment system that addresses the whole child. Training and ongoing support for PALS should be provided in the context of this bigger picture and system.
- Evidence suggests early – prior to school entry – identification and language/literacy intervention can be effective in ensuring readiness for formal reading instruction in elementary school. All programs serving children prior to school entry should be aware of the importance of language/literacy screening and have access to training and resources on screening, assessment, and evidence-based practices.

Ongoing Comprehensive Assessment of General Development

Fact Sheet for Critical Time Periods for Early Childhood Screening and Assessment Revised 5/2016 (See visual chart, page 7, for specific time period.)

Brief Description

- Typically, young children develop at different rates in different domains (Jiban, 2013), even though early learning and development is multidimensional and highly interrelated across domains (WI DPI, 2011).
- Domain-specific assessments focus on a narrow range of development and learning, and ignore the wide range of interrelated skills and competencies young children must develop. Additionally, the risk is that what is assessed becomes the focus of what is taught, leaving other developmental domains underemphasized in the curriculum.
- Young children's development is episodic and unpredictable, much more so than in any other period of life. Consequently, results of "one-time snapshot" tests can be unstable. Professional judgment is a key, along with a multi-method approach to assessment that can include parent interviews, observations, checklists, rating scales, portfolios, and tests (Division for Early Childhood, 2007).
- Assessments should be age-appropriate in both content and the method of data collection. Assessments of young children should address the full range of early learning and development, including physical well-being and motor development; social and emotional development; approaches toward learning; language development; and cognition and general knowledge. Methods of assessment should recognize that children need familiar contexts in order to be able to demonstrate their abilities. Abstract paper-and-pencil tasks may make it especially difficult for young children to show what they know (National Education Goals Panel, 1998, pp. 5-6).
- Assessment data should be gathered from "realistic settings and situations that reflect children's actual performance." Authentic assessment includes observations and tasks that occur in the context of regular play or activities, in settings typical to the child (NAEYC & NAECS/SDE, 2003).
- "In addition to using assessment information to establish a descriptive picture of children's strengths and needs and to plan for instruction… teachers… need to collect ongoing assessment information to track their learning over time" (National Research Council, 2008, p. 32).
- A successful system of assessments must be coherent in a variety of ways. It should be horizontally coherent, with the curriculum, instruction, and assessment all aligned with the early learning and development standards and with the program standards, targeting the same goals for learning, and working together to support children's developing knowledge and skill across all domains (National Research Council, 2008).
- Perez-Johnson and Maynard (as quoted in Jiban, 2013), state: "… early childhood is when achievement gaps first emerge. Early childhood represents an optimal period for intervention, because gaps compound and become more costly and difficult to address as time passes by."
- Research goes on to suggest that academic problems not identified prior to 3rd grade are extremely resistant to even highly intense remedial efforts (Jiban, 2013).

Ongoing Comprehensive Assessment of General Development, *continued*

References/Sources

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Epstein, A.S., L.J. Schweinhart, et al. *Preschool Assessment: A Guide to Developing A Balanced Approach*. NIEER, Rutgers University, New Brunswick, NJ. 2004. http://nieer.org/resources/policybriefs/7.pdf

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Snow, C.E. and S.B. Van Hemel, Eds. *Early childhood assessment: Why, what, and how*. National Research Council, National Academies Press. Washington, DC. 2008.

Wisconsin Model Early Learning Standards: Birth to First Grade, Fourth Edition (2013). Wisconsin Department of Children and Families and Wisconsin Department of Public Instruction. http://www.collaboratingpartners.com/wmels-about.php

Current Status

Data collected on ongoing assessment practices across Wisconsin suggested little consistency of practice across the sectors of early care and education. While some early care and education providers report the use of published curriculum and assessment tools, collecting ongoing assessment data and recording these data on reliable assessment tools are not universal practices (Magnuson, 2011).

Ongoing Comprehensive Assessment of General Development, *continued*

Actions to Address Existing Gaps

- Develop a comprehensive plan for cross-sector professional development that addresses the following issues:
  - Efficient and effective methods for collecting, recording, and using data in a decision-making process to improve child outcomes.
  - Fundamentals of screening and ongoing assessment practices with specific training on the selection and use of valid reliable tools.
  - Collaborative team models to develop the capacity to work/share data across sectors.
- Design a child- and family-centered cross sectors assessment process that addresses every child's strengths and needs across all domains of development and learning, utilizing authentic, culturally and linguistically responsive, and developmentally appropriate methods for the purpose of maximizing child outcomes.

APPENDICES

A. *Recommendations for Selection of General Developmental Screening Tools: Guidance for Community Programs*

   This document includes guidance for community programs in selecting sensitive, valid, and reliable tools for conducting general developmental screening.

B. *Recommendations and Guidance for Selection of Published Assessment Tools*

   This document includes selection criteria when selecting a published assessment tool for use with children, birth to six. It includes statements on context and caveats.

C. *Wisconsin Response to Intervention Roadmap: A Model for Academic and Behavioral Success for All Children and Students Using Culturally Responsive Practices*

   This roadmap gives an example of how early childhood screening and assessment processes align with K-12 educational priorities for a tiered, balanced system of screening and assessment and informed decision-making about appropriate educational instruction.

D. *Screening/Early Identification Website: Wisconsin Early Childhood Collaborating Partners*

E. *Healthy Children Committee Members (2012-2014)*

F. *Healthy Children Committee Members (2014-2016)*

G. *3rd Edition Content Reviewers (2015-2016)*

APPENDIX A

RECOMMENDATIONS FOR SELECTION OF GENERAL DEVELOPMENTAL SCREENING TOOLS: GUIDANCE FOR COMMUNITY PROGRAMS

Recommendations for Selection of General Developmental Screening Tools

- *Ages and Stages Questionnaire (ASQ©)* – Brookes Publishing
- *Parents' Evaluation of Developmental Status (PEDS©)* – Ellsworth & Vandermeer Press LLC*

*Tool meets criteria but currently not widely used across sectors in Wisconsin.

Selection Criteria

The following criteria are recommended when local community programs in Wisconsin select a tool appropriate for cross-sector use for general developmental screening of young children:

- Have good psychometric properties with sensitivity and specificity of at least 70 to 80%.
- Is normed across a wide variety of cultural groups and different populations.
- Is a parent-completed instrument. It promotes parents' understanding of child development and communication with professionals caring for their child.
- Is easily and reliably used in the field by both professionals and parents – and considers affordability and availability of cross sector training.
- Allows for consistent and efficient use of best practice guidelines across organizations, supports referral, and reduces screening duplication. Ideally the tool selected is used by multiple community partners and thereby facilitates communication and timely referral of children with concerning screens to appropriate supports and services.

Recommendation Context and Caveats

- Twenty-three developmental screening tools recommended by national organizations were reviewed according to the criteria delineated above. More information about tools reviewed can be found at the following links: http://www.nectac.org/~pdfs/pubs/screening.pdf and http://pediatrics.aappublications.org/content/118/1/405.short?rss=1.
- The intent of the recommendation is to propose a process that can be uniformly applied, now and in the future, to select developmental screening tools that identify potential delay of general development of children under age six years for use across the early childhood system. None of the tools on this list identify children who exceed developmental benchmarks or determine school readiness, as this was beyond the scope and intent of our charge and work.
- Training is an important component for communities who plan to use a valid, developmental screening tool across sectors. Training to implement screening should employ strategies that cover correct tool administration, scoring, and how to talk to parents of diverse backgrounds.
- Once a reliable developmental screening tool is selected for use, how it is used, and strategies to administer it will impact cultural and linguistic competent practices.
- It is important to screen hard-to-reach populations of children including those residing in homeless shelters or in protective custody.
- Parent completion of these tools can occur with or without assistance.

APPENDIX B

RECOMMENDATIONS AND GUIDANCE FOR SELECTION OF PUBLISHED ASSESSMENT TOOLS

Selection Criteria

The following criteria are recommended when selecting a published assessment tool for use with children, birth to six:

1. The tool has good psychometric properties with sensitivity and specificity of at least 70 to 80%.
2. It is normed across a wide variety of cultural groups and different populations.
3. The purpose of the assessment should guide decisions about which tool(s) to select; use of the tool should be consistent with its intended purpose.
4. The tool can be administered by teachers/other professionals when provided basic training in its administration.
5. It is holistic in terms of the domains or areas of development and learning that are assessed.
6. The method for administration is appropriate for children in the selected age range.

Source

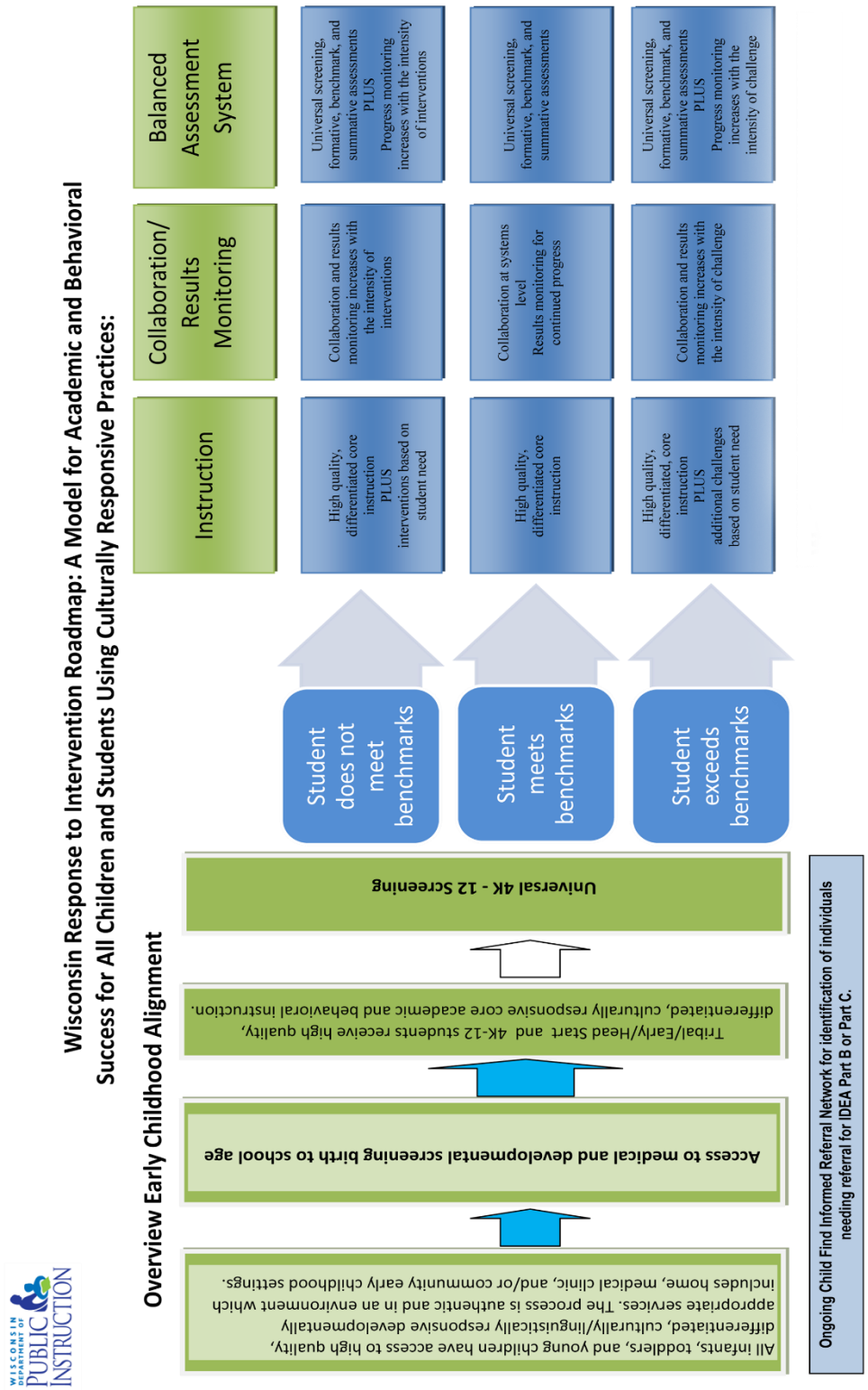
C.E. Snow and S.B. Van Hemel, Editors. *Early Childhood Assessment: Why, What, and How*. National Research Council. Committee on Developmental Outcomes and Assessments for Young Children. Washington, DC. The National Academies Press. 2008.

Recommendation Context and Caveats

1. The intent of the recommendation is to propose criteria that can be uniformly applied, now and in the future, in the selection of quality assessment tools for use across early childhood systems for children birth to six years.
2. Tools that assess multiple domains support a balanced approach, recognizing that all areas of child development are highly interrelated and serve as the foundation for later academic and social learning.
3. Professional development is essential so that teachers and other service providers can make informed decisions about how to select assessment tools; when and how to gather data; administer and score tools; use data effectively; and engage families in decision-making and the overall assessment process.
4. Cross-sector professional development is desirable because it creates a climate for partnerships and collaboration to share data about children as they move within and between service delivery systems.

APPENDIX C

WISCONSIN RESPONSE TO INTERVENTION ROADMAP



APPENDIX D

SCREENING/EARLY IDENTIFICATION WEBSITE: WISCONSIN EARLY CHILDHOOD COLLABORATING PARTNERS

APPENDIX E

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APPENDIX F

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APPENDIX G

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