Children's Health Fund

Developmental and Mental Health Screening Instruments for Use in Pediatric Primary Care

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A. Rationale for Screening in Pediatric Primary Care

The Early Intervention Program (EI) has been available to provide screening, evaluation and intervention to infants and toddlers (birth to 36 months old) with disabilities in the 50 states and the District of Columbia since 1994. While there has been growth in EI participation over the years, the most recent (2007) administrative data show that only 2.5% of age eligible children receive EI services.[1] It is estimated, however, that approximately 13% of young children (9 to 24 months old) have developmental delays that would make them eligible for EI services, and that only one young child in ten with delays received needed intervention by 24 months of age.[2] A study of young children referred to developmental specialists by their pediatrician found a 15.5 month lag between parental concern and the child receiving a developmental evaluation.[3] Contributing to the under-identification of developmental delay in infants and young children is the fact that so few pediatricians use standardized screening tools in their primary care practice. Only 23% of respondents to an American Academy of Pediatrics (AAP) survey routinely used standardized developmental screening instruments compared to 71% who made decisions about developmental status without formal screening. This survey was conducted several years after the AAP issued guidelines recommending universal developmental screening as part of well care.[4] Far fewer pediatricians screen for autism spectrum disorders (ASD).[5] Data show that when a routine screening protocol incorporating use of a standardized instrument was introduced into pediatric practices, the EI referral rate

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1 U.S. Education Department. Office of Special Education Programs (OSEP). Infants and toddlers receiving early intervention services under IDEA, Part C, by age and state: Fall 2007. Part C Child Count. Table 8-1. Available online at: http://www.ideadata.org/arc_toc9.asp#partcCC

2 Rosenberg SA, Zhang D, Robinson CC. Prevalence of Developmental Delays and Participation in Early Intervention Services for Young Children. 2008. *Pediatrics*. 121:e1503-e1509.

3 Shevell MI, Mahnemer A, Rosenbaum P, Abrahamowicz M. Profile of Referrals for Early Childhood Developmental Delay to Ambulatory Subspecialty Clinics. 2001. *Journal of Child Neurology*. 16:645-650.

4 Sand N, Silverstein M, Glascoe FP, Gupta VB, Tonniges TP, O'Connor KG. Pediatricians' Reported Practices regarding Developmental Screening: Do Guidelines Work? Do They Help? 2005. *Pediatrics*. 116:174-179.

5 Dosreis S, Weiner CL, Johnson L, Newschaffer CJ. Autism Spectrum Disorder Screening and Management Practices Among General Pediatric Providers. 2006. Journal of Developmental and Behavioral Pediatrics. 27:88-94.

increased by 224% – and the overwhelming majority (96%) of pediatrician-referred infants and toddlers were found to be eligible for EI services.[6] This list of developmental screening tools for use in primary care is intended to serve as a resource to primary care providers who would like to integrate formal, evidence-based developmental surveillance and screening into their primary care practice. Especially for the more time consuming tests listed, a separate screening appointment may be needed. Information about billing codes for developmental screening is available online from the AAP.[7] A logic model adapted for high-risk pediatric populations from the AAP recommended screening algorithm is appended to this document. The AAP also recommends that developmental, psychosocial and mental health screening be done as a continuum throughout childhood and adolescence to facilitate early identification, evaluation and treatment.[8] Standardized screening instruments for preschool and school age children and adolescents are also listed.

B. Inclusion Criteria.

We focused on screening instruments in general use in primary pediatric care, child care, early education, and EI settings, and consulted multiple sources for lists of tests in use. Most were published online by state EI and special education programs. We assumed that children who screen positive in a primary care setting would be referred to their local EI or preschool special education program for evaluation, or to an appropriate developmental specialist, and did not include tests that are primarily used for evaluation following identification and referral. There is, however, overlap in use of tools for screening and evaluation especially with infants and young children, and some instruments we included may also be used as part of a multi-disciplinary evaluation (e.g., EI eligibility determination). We excluded instruments that were designed for special populations and those that require or recommend several hours of training before use. Because our focus was on screening in the pediatric primary care setting, we excluded tests that routinely require longer than 30 minutes to administer but did include some tests with variable administration time that may exceed 30 minutes. We included several neuromotor tests that may be used to screen premature and other infants at high risk of developmental delay. The appropriate use of any standardized screening instrument requires skill and experience in testing as well as familiarity with the specific screening tool used. The manuals supplied with test forms and materials should always be consulted before beginning use of any screening test. When tests had more stringent

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6 Hix-Small H, Marks K, Nickel R. Impact of Implementing Developmental Screening at 12 and 24 Months in a Pediatric Practice. 2007. *Pediatrics*. 120:381-389.

7 American Academy of Pediatrics. Developmental Screening/Testing Coding Fact Sheet for Primary Care Pediatricians. Available online at: http://www.cdc.gov/ncbddd/child/documents/AAP%20Coding%20Fact%20Sheet%20for%20Primary%20Care.pdf

8 Hagan, JF, Shaw, JS, Duncan, PM. *Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents. Third Edition*. 2008. Elk Grove Village, IL: American Academy of Pediatrics.

requirements as to the training and experience of professionals who would use them, we noted this in the "How Administered" column.

DEVELOPMENTAL SCREENING TOOLS FOR INFANTS, TODDLERS & YOUNG CHILDREN

Name	Use	Areas Screened	Age range	How Administered
Ages and Stages Questionnaire (ASQ)	A norm-referenced parent-report screening designed to identify developmental delays during the first 5 years of life. Different forms are used for different age groups. Each has 30 items asking whether the child performs a behavior; answers are "yes, sometimes, not yet." Recommended for use in pediatric primary care settings and for developmental surveillance of high risk infants and toddlers. Results may be used to differentiate children who should be referred for developmental assessment from children who should be monitored and re-screened. Each form takes 10-15 minutes to complete and about 5 minutes afterwards to score. Available in Spanish.	Fine motor, gross motor, communication, problem solving, personal-social, and general parent concerns.	Birth - 60 months	Parent Report
Battelle Developmental Inventory Screening Test (BDIST)	This norm-referenced screening tool is comprised of 96 items drawn from the Battelle Developmental Inventory (BDI). There are two items for each developmental domain and age level (at 6 month intervals from birth-23 months and one year intervals thereafter). Items assess attention, self-help, interactions, fine and gross motor, memory, reasoning, and expressive and receptive language skills. Administration time varies with child's age (20-30 minutes for 3-5 year olds, 10-15 minutes for under 3 and over 5 years olds).	Subtests may be scored for five domains: adaptive, motor, communication (expressive and receptive language), cognition (including attention and memory), and personal-social.	12 months – 95 months	Combination: Direct With Child and Parent Interview
Bayley III Screening Test, formerly the Bayley Infant Neurodevelopment Screen (BINS)	The Bayley Scales of Infant Development (BSID) is a norm-referenced instrument which, in its various versions, if often considered the "gold standard" in infant-toddler cognitive assessment. The Bayley III Screening Test is intended to identify infants and young children at risk of developmental delay who should be evaluated further. The Bayley III screener is especially useful in monitoring the development of premature and low birth weight infants. Takes 15-25 minutes to administer depending on age of child.	The Screener focuses on the cognitive, language, and motor domains. The motor subtest may be useful with premature and other high-risk infants.	1month - 42 months	Direct With Child. Intended to be used by a qualified health, mental health or child development professional.

Birth to Three Assessment and Intervention System, Second Edition (BTAIS-2) Screening Test of Developmental Abilities	The BTAIS-2 is designed as an integrated system for screening, assessment and intervention with infants and toddlers birth to 36 months. The Screening Test of Developmental Abilities is a norm-referenced 85-item instrument which yields standardized scores that can be converted to age-equivalents indicating the child's functional level. Children who screen positive should be referred for developmental evaluation. The BTAIS-2 evaluation component (240-item criterion-referenced Comprehensive Test of Developmental Abilities) may be used. The screening takes 15 minutes to complete.	Screens functioning for motor, expressive and receptive language, nonverbal thinking, and social/personal development.	Birth – 36 months	Direct With Child
Brigance Screens, 2nd edition (Brigance-II): Infant & Toddler, Early Preschool; Preschool-II; K & 1 forms.	Nine different forms are available to accommodate different age groups (birth – 23 months; 24-30 months; 3 and 4 year olds; kindergarten and first graders). The re-designed test incorporates both criterion-referenced and norm-referenced elements. The Early Preschool and Preschool Screens may be especially useful for children in Early Head Start and Head Start Programs. The Brigance-II is also intended to identify children who are gifted and talented. Takes 15-20 minutes to administer. Available in Spanish.	Gross motor, fine motor, self-help, social-emotional, receptive and expressive language, visual-graphomotor, articulation & fluency, quantitative concepts, prereading skills, and ability to give personal information as appropriate for child's age.	Birth – 7 years 6 months	Parent Report for Infant and Toddler Form; others Direct With Child
Cognitive Abilities Scale – Second Edition (CAS-2)	Norm-referenced screening tool designed for early identification of children with cognitive delays. There are two forms, Infant (79 items) and Preschool (88 items). Can be used to assess cognitive skills of non-verbal children. Results for preschoolers correlate strongly with those of language screening tools such as the TELD-3, and for two-year olds there is a strong correlation with results of the BSID-2. Takes 20-30 minutes to administer.	The Infant Form is in three sections: exploration of objects, communication, initiation and imitation of activities. The Preschool Form is in five sections: oral language, reading, math, writing, and enabling behaviors.	3 months – 3 years 11 months	Direct With Child by a professional trained in test administration
Cognitive Adaptive Test and Clinical Linguistic and Auditory Milestone Scale (CAT/CLAMS) also called the Capute Scales	Designed for use by primary care pediatricians in the office setting to identify children with developmental delay or atypical development. The complete screening consists of 100 items. The language scale (CLAMS) has strong concurrent validity with the Mental Development Index of the Bayley Scales of Infant Development Version II (BSID-II), which suggests that it also identifies children who may have delayed cognitive development.	Consists of two tests, one for visual-motor functioning and the other for language development (expressive and receptive). This model helps distinguish children with global developmental delay from children with delays in specific area(s).	1 month - 36 months	Direct With Child and Parent Report. Was designed for use by pediatricians.

Denver Developmental Screening Test – II (Denver II)	The Denver II is frequently used by health care providers as part of EPSDT screening. It has 125 items in four categories with markings indicating the age at which 25%, 50%, 75%, and 90% of the standardization sample had met the milestone or were able to perform the skill. A subset of items is administered based on the child's age. The original Denver was criticized for low sensitivity (under-identifying children with delays); the revised version is improved relative to the original DDST. The Denver II is not designed as a test that should be scored; decisions about referral for developmental evaluation or continued monitoring require clinical judgment. Takes 10-20 minutes to administer.	The Denver II items are grouped in four categories: gross motor, fine motor-adaptive, language, and social skills.	1 month - 72 months	Direct With Child and Parent Report depending on the item
Developmental Assessment of Young Children (DAYC)	This norm-referenced screening and assessment tool is designed to meet Individuals with Disabilities Education Act/Early Intervention Program requirements to address the five developmental domains. It focuses on developmental delays and atypical development as well as on developmental strengths. Takes about 20 minutes to administer the full screening; however, specific subtests may be used based on impressions of the child's strengths and needs. Can be used with non-English speaking families through a translator.	There are five subtests: Physical Development, Adaptive Behavior, Cognition, Communication, and Social-Emotional skills.	Birth - 5 years 11 months	Direct With Child and Parent Report especially if used with infants
Early Learning Accomplishment Profile (E-LAP), Learning Accomplishment Profile, Third Edition (LAP-3)	The E-LAP is a criterion-referenced screening tool for infants and toddlers. It is considered a source of information about the young child's functioning and should be used to identify young children who need a referral for a developmental assessment, e.g., through the local Early Intervention Program. The items are drawn from a wide range of standardized screening and assessment instruments. The LAP-3 is designed to screen preschool children. Screening results are linked to specific intervention activities that facilitate individualized curriculum development and special education planning if needed. There is an emphasis on providing information to be shared with parents. The screening takes 12-15 minutes. Available in Spanish	The LAP system focuses on the five principle developmental domains: motor (gross, fine), self-help (adaptive), language (communication), cognitive, and social-emotional functioning. The LAP-3 adds pre-writing skills.	E-LAP: birth - 36 months; LAP-3: 36 - 72 months	Direct With Child
Early Screening Inventory-Revised (ESI-R)	A norm-referenced developmental screening instrument for use with preschool and young school aged children. It was originally designed for 4-6 year olds and revised to include 3 year olds. Screens for developmental delays, lags in school readiness, and possible learning problems. The normative sample included children in Head Start Programs. The screening includes a parent questionnaire for supplemental information. There are 2 versions, for preschool (ESI-P) and for kindergarten (ESI-K). It takes 15-20 minutes to administer.	The screening covers developmental, sensory, and behavioral concerns in the child's visual motor/adaptive, language cognitive, and gross motor functioning	ESI-P: 3 years – 4 years 6 months; ESI-K: 4 years 6 months - 72 months	Direct With Child and Parent Report

Early Screening Profiles (ESP)	This norm-referenced screening tool is designed to use information from multiple sources. It is comprised of 3 Profiles and 4 Surveys; the examiner chooses those that are appropriate for the individual child. Test items assess reasoning, visual organization and discrimination, receptive and expressive vocabulary, gross motor skills, tracing, and drawing shapes. The Profiles take 15-30 minutes to administer, and the Surveys require an additional 15-20 minutes. Not available in Spanish.	The test items are in three Profiles: Cognitive/Language, Motor, and Self-Help/Social. The Articulation and Behavior (observed during testing) Surveys are filled out by the examiner, and the Home and Health History Surveys are completed by the parent	24 months – 6 years 11 months	Direct With Child and Parent Report and
Infant Development Inventory (IDI) and Child Development Review (CDR)	Parent questionnaires that use open-ended questions and a "Possible Problems" Checklist to get a description of infant (IDI) or young child (CDR) functioning and elicit parental concerns about health and development. A sample CDR question is: "What has your child been doing lately?" A sample checklist item is: "Can't sit still; may be hyperactive." Takes 10 minutes to administer and 5 minutes to score. Written at the sixth grade level. Available in Spanish.	Social, self help, gross motor skills, fine motor skills and language.	IDI: Birth - 17 months; CRR: 18 months – 5 years	Parent Report
Infant Toddler Symptom Checklist	This 21 item norm-referenced screening tool is intended to identify infants and young children who may have or be at risk for developing sensory integration or attention deficit disorders, and those with emotional, behavioral, or learning difficulties.	Screens for sensory and regulatory disorders, specifically of self-regulation, self-care, communication, vision, and attachment.	7 months – 30 months	Parent Report
Parents' Evaluation of Developmental Status (PEDS)	Standardized and designed to comply with American Academy of Pediatrics policy on early developmental and behavioral screening in pediatric primary care. The PEDS is a 10 item questionnaire which elicits parent concerns based on response of "yes/no/a little." Written at fifth grade level. Available in Spanish.	Cognition, expressive and receptive language, fine-motor, gross-motor, behavior, social-emotional, self-help, and school	Birth -8 years;	Parent Report
Parents' Evaluation of Developmental Status: Developmental Milestones (PEDS:DM)	The PEDS:DM may be used as a follow-up for children identified using the PEDS or as a stand-alone screening. It was designed to facilitate early identification of developmental and behavioral problems as a validated replacement for informal developmental checklists often used in primary care. The brief screening is comprised of 6-8 items per primary care encounter; one age-appropriate item is selected for each developmental domain. This can be supplemented with additional items for an assessment-level ("level 2") screening. Normative data shared by the publishers of the Brigance Screens was used in developing the test.	The items cover expressive and receptive language, fine and gross motor, social-emotional, self-help (adaptive), and academic or pre-academic skills (cognitive) functioning.	Birth – 7 years 11 months	Parent Report and/or Direct With Child

INFANT NEUROMOTOR DEVELOPMENT SCREENING TOOLS
NOTE: These instruments should be used by professionals with training and experience assessing motor development

Alberta Infant Motor Scale (AIMS)	The AIMS is a norm-referenced assessment of gross motor maturation. It is performance-based and assesses qualitative aspects of movement. Only two of the 58 items require handling by the examiner. The parent should be present during the screening. The AIMS is useful in screening high-risk infants and differentiating among infants whose neuromotor development is within normal limits, suspect, and atypical. The AIMS is also useful in the identification of infants and toddlers who may have cerebral palsy. Takes 15 minutes to administer.	The items are organized around four physical positions: supine, prone, sitting, and standing. Each item assesses weight-bearing, posture, and anti-gravity movements.	Birth - 18 months	Direct With Child
Harris Infant Neuromotor Test (HINT)	This norm-referenced screening tool to identify early signs of motor and cognitive delay in high-risk infants was developed in Canada and subsequently demonstrated to be valid with U.S. infants. The 21-item test focuses on movement against gravity, muscle tone, behavior and cooperation, stereotypical behaviors. Head circumference is also assessed. The test design integrates parental input. Its results correlate well with those of the ASQ. Overall examiner impression should reflect the infant's muscle tone, primitive reflexes, automatic reactions and volitional movement, all of which may help predict later diagnosis of cerebral palsy. The HINT takes a total of 15 to 30 minutes to administer and score.	The items assess, by observation: behavior, cooperation, mobility, eye muscle control, positioning, locomotion and transitioning, posture. By testing: visual tracking, reflex, passive range of motion, and transitions. By parent report: background and degree of concern and specific developmental concerns.	2.5 – 12.5 months	Direct With Child and Parent Report
Milani-Comparetti Neuorodevelopmental Screening Examination	This brief neurodevelopmental screening tool is intended to be integrated into the health and developmental screening of infants and toddlers. It was developed to screen for the quality of integration of primitive reflexes and volitional movement against gravity. The screening focuses on spontaneous behavior and evoked responses. It is most useful for infants (under 13 months of age). The screening takes less than 10 minutes to administer.	Specific spontaneous behavior items include head and body postural control. Evoked responses items assess primitive reflexes and righting reactions including parachuting.	Birth – 24 months	Direct With Child

Toddler Infant Motor Evaluation (T.I.M.E.)	The TIME is a norm-referenced assessment-level standardized tool that combines neurological examination items with test items for quality of motor functioning. Movement sequences are elicited by parents and observed by the professional administering the test. The infant or toddler is assessed in five positions: supine, prone, sit, quadruped, and stand. The test identifies atypical transitions and movement sequences characteristic of delayed motor development. Also provides information regarding the relationship of motor function to adaptive skills. Takes 15 to 45 minutes to administer.	There are three principle subtests: mobility, stability, and social-emotional. Optional subtests include atypical positions, quality rating, and component analysis (used if tracking functional changes over time).	4 months – 3 years 6 months	Direct With Child

INFANT MENTAL HEALTH SCREENING TOOLS
NOTE: Some instruments may be used with preschool aged children

Ages and Stages: Social-Emotional (ASQ:SE)	Norm-referenced 30 item screening instrument that intended to identify infants, toddlers, and preschool-age children with social-emotional deficits. May be used as a supplement to the multi-domain ASQ. Reading level is below the 6th grade. There are 8 different forms for specific age groups (6, 12, 18, 24, 30, 36, 48, and 60 months). Generally takes 15 minutes or less to complete and under 5 minutes to score. Available in Spanish.	Focuses on the social-emotional domain only: self-regulation, compliance, communication, adaptive functioning, autonomy, affect, interpersonal interaction.	3 months - 66 months	Parent Report
Brief Infant Toddler Social Emotional Assessment (BITSEA)	Norm-referenced 42 item screening tool designed to identify a child's behavioral problems and competencies. Based on BITSEA results, children may be evaluated using the ITSEA, a more extensive (166 item) assessment instrument with four subscales (externalizing and internalizing behaviors, regulation, and competencies). The BITSEA takes 10 minutes or less to complete and 5 minutes to score. Written at 4th to 6th grade level. Available in Spanish.	Behavior problem scale includes activity & impulsivity, aggression & defiance, depression & withdrawal, anxiety, sleep. Competencies scale includes compliance, attention, imitation & play, mastery, motivation, empathy, relatedness.	12 months - 36 months	Parent Report and/or Child Care Provider Report

Carey Temperament Scales (CTS)	The CTS is comprised of five questionnaires for use with different age groups. These are: Early Infancy Temperament Questionnaire (1-4 months); Revised Early Infancy Temperament Questionnaire (4-11 months); Behavioral Style Questionnaire (12-36 months); Behavioral Style Questionnaire (3-7 years) and Middle Childhood Questionnaire (8-12 years). Its use gives information about the child's temperament and behavioral style and their impact on the parent and other caregivers. Can facilitate counseling around parenting skills and other interventions. Each form takes 25-30 minutes to complete and should be subsequently scored by a professional.	The CTS is based on the behavioral style categories of the New York Longitudinal Study (NYLS). These are: Activity Level, Regularity, Approach-withdrawal, Adaptability, Intensity, Mood, Persistence, Distractibility, and Sensory Threshold.	1 month - 12 years 11 months	Parent Report
Devereux Early Childhood Assessment (DECA) and Devereux Infant & Toddler Assessment (DECA-I/T)	A norm-referenced 37 item strength-based assessment of Protective Factors (27 items) and Behavioral Concerns (10 items). The Protective Factors Scale was based on a "within-child" resilience model; the Behavioral Concern Scale was derived from the Devereux Scales of Mental Disorders. The screening results are intended to be used to develop strategies at home and school to strengthen the child's protective factors and foster optimal social-emotional development. Developed as a low-literacy tool. Takes 5-10 minutes to administer with subsequent scoring by a qualified professional. The DECA-I/T takes 20 minutes to complete, plus scoring time.	Protective Factors subscales: initiative, self-control, attachment. Behavioral Concerns subscales: attention, aggression, emotional control, withdrawal/depression. The Infant assessment (4 weeks -17 months) protective factors are initiative, attachment and relationships; from 18-36 months self-regulation is added.	DECA: 24 months - 5 years; DECA-I/T: 4 weeks to 36 months	DECA: Parent Report and Teacher Report; DECA-I/T: Parent Report
Greenspan Social-Emotional Growth Chart	Norm referenced 35-item questionnaire designed to identify problems in emotional functioning in infants, help establish goals for early intervention and monitor progress in early intervention programs. Uses a six stage model of functional emotional milestones. Responses are on a scale of 0 (can't tell) to 5 (all of the time). Can be used to screen for autism spectrum disorder. Takes less than 10 minutes to complete.	Focuses on six areas: self-regulation and interest in the world, relationships, communication, problem solving, and expression.	Birth-42 months	Parent Report

Temperament and Atypical Behavior Scale (TABS), TABS Screener	The TABS Screener is one of three components of the TABS System. It is a norm-referenced 15-item screening tool intended to identify infants and young children with temperamental and self-regulatory problems consistent with developmental and behavioral disorders of infancy and early childhood. Results are presented in a format consistent with Early Intervention Program eligibility criteria. May be especially useful in establishing eligibility for EI services for infants and toddlers with a primary mental health diagnosis. The TABS can be used to supplement other developmental screening tools that do not adequately address social-emotional functioning. Written at the 3rd grade reading level. Takes about 5 minutes to complete. A positive screening should be followed up with assessment using the 55 item checklist-format TABS assessment tool. Available in Spanish.	The TABS provides information about temperament, attention and activity, attachment and social behavior, neurobehavioral state, sleep, play, vocal and oral behavior, sensory and motor functioning, and self-stimulatory behavior. Its results can be used to help parents manage atypical behavior at home.	11 months - 71 months	Parent Report

EARLY CHILDHOOD SPEECH-LANGUAGE SCREENING TOOLS

Communication and Symbolic Behavior Scales Developmental Profile (CSBS DP) Infant-Toddler Checklist	A 24-item checklist organized into seven clusters and three composites (social, speech, symbolic). Screens for pre-linguistic behaviors and skill acquisition and may identify children who should be further assessed for autism spectrum disorder. Item responses are "Not Yet/Sometimes/Often." Intended to be filled out by parent (requires good reading skills). Scoring should be done by a health or early childhood professional who should also observe the child as an additional source of information to supplement parent report. Intended for use in developmental surveillance, with repeat screening at three month intervals.	The seven clusters are: motion and eye gaze, communication, gestures, sounds, words, understanding, use of objects.	6 months – 24 months	Parent Report and Observation

Early Language Milestones Scale, Revised (ELM-2)	A 43 item norm-referenced screening instrument. Responses can be recorded based on testing with child, observation of child, and/or parent report; direct testing is not feasible for some items or for infants. The scoring identifies children functioning at a level below 90% of other children their age. Not all items need to be administered, depending upon the child' age and developmental functioning. Can be scored on a point system (recommended for identification of children at risk) or pass/fail. Suitable for population-based screening at pediatric clinics and Early Head Start Programs. Takes 10 minutes or less to administer.	There are three scales: auditory expressive, auditory receptive, and visual (tracking, pointing, etc.).	Birth-36 months	Direct With Child and/or Parent Report
Fluharty Preschool Speech and Language Screening Test – Second Edition (Fluharty-2)	Norm-referenced speech and language screening test which is presented in five subtests (Articulation, Repeating Sentences, Following Directives and Answering Questions, Describing Actions, and Sequencing Events). Identifies children who should be referred for a comprehensive speech-language evaluation. Provides information about strengths and needs that could be used to design intervention strategies. Takes 10 minutes to administer.	The subtests yield scores for Receptive Language, Expressive Language, and General Language. Specifically assessed are single word articulation, short-term memory, language comprehension, syntax and pragmatics.	3 years to 6 years 11 months	Direct With Child. May be supplemented with a Teacher Questionnaire
Language Development Survey (LDS)	Norm-referenced screening tool designed to identify toddlers with early signs of delayed expressive language development. Comprised of 310 words arranged organized into 14 semantic categories (e.g., food, vehicles, people). Can be filled out by parents in the waiting room of a pediatric office. Fewer than 50 vocabulary words at 24 months should trigger a referral for developmental evaluation. Results correlate well with the longer MacArthur-Bates CDI. The LDS was designed for use in settings such as pediatric offices and takes 10 minutes to complete.	Vocabulary, word combinations, length of utterance	18 months – 35 months; best if administered at or close to 24 months	Parent Report
MacArthur-Bates Communicative Development Inventories (CDIs), Second Edition	Norm-referenced communication screening tool with two different forms for older and younger children: a "word and gestures" form for age 8-18 months and a "word and sentences" for 16-30 months. The current (revised) version reflects demographic changes in the U.S. population. Available in Spanish as the MacArthur-Bates Inventarios del Desarrollo de Habilidades Communicativas (Inventarios). Takes 20-40 minutes to administer followed by 10-15 minutes to score. Available in Spanish.	Early language and communication development including non-verbal communication (gestures), expressive and receptive language, vocabulary, syntax, length of utterance.	8 months – 37 months	Parent Report

Peabody Picture Vocabulary Test – 4th Edition (PPVT-4)	Updated version of the norm-referenced PPVT-3 with more colorful and culturally appropriate pictorial stimuli. There are 228 stimulus words grouped in 19 sets of 12 items organized by increasing difficulty. The person administering the test says the stimulus word and the child picks out the picture (from four illustrations) that the word most closely represents. The PPVT-4 may be used with non-speaking children including children with autism or other developmental disorders. Only item sets consistent with the child's functional level are presented. It takes about 10-15 minutes to administer five item sets and must be administered precisely as directed. The Spanish language version does not use identical stimulus words (translated) as the English version. Norms are available for Mexican and Puerto Rican Spanish speakers.	The PPVT-4 is a test of receptive vocabulary (comprehension of spoken English or Spanish). Words cover 20 content and concept areas, e.g., actions, tools, food; and parts of speech (nouns, verbs, attributes). May identify children at risk of reading and other academic problems.	2 years 6 months and up	Direct With Child. Should be administered by a professional skilled in testing.
Preschool Language Scale, Fourth Edition (PLS-4)	Norm-referenced screening test comprised of two subscales, Auditory Comprehension and Expressive Communication, and three supplemental assessments: language sample, articulation (starting at 32 months; this assessment is criterion-referenced), and caregiver questionnaire to gather information about the child's behavior at home. It is organized in three developmental levels, infant/toddler, preschool, and young school age (5 and 6 year olds). Takes 20-40 minutes for infants, 30-40 minutes for 12-47 month olds, and 25-45 minutes for 4-6 year olds. The Spanish language version was independently standardized; however, this version has been criticized as being idiomatically oriented towards Spanish as spoken in Mexico and potentially less suitable for other primarily Spanish speaking populations.	Areas screened vary with age. Infant/toddler: attention, play with objects and other pre-linguistic markers; preschool: vocabulary, concepts, and grammatical markers; young school age: preliteracy skills (phonological awareness, sequencing, word definitions). For infants, assesses suck and swallow behavior and ability to vary pitch, timbre and length of sounds made.	Birth-6 years 11 months	Direct With Child and Parent/caregiver Report. Should be administered by a professional skilled in testing.
Test of Early Language Development – 3rd Edition (TELD-3)	Norm-referenced 38-item screening and assessment tool that focuses on language development. This version of the TELD uses new materials that are intended to be more appealing to younger children, although some of the vocabulary used has been criticized as not being consistently age-appropriate. Takes from 15 to 40 minutes to administer depending on the child's age and developmental level.	Has subtests for expressive and receptive language and identifies speech-language strengths as well as needs.	24 months – 7 years 11 months	Direct With Child

AUTISM SPECTRUM DISORDER (ASD) SCREENING TOOLS

The Childhood Autism Rating Scale (CARS)	Criterion-referenced 15 item screening tool to identify children with autistic symptoms and estimate the severity of these symptoms. Intended to differentiate autism from other developmental disabilities such as mental retardation. A 4 point scale is used to rate the child's functioning. Best used as a "level two" screener for children who screened positive on the M-CHAT or similar screening tool. The rating scale lends itself to tracking symptom severity over time for children diagnosed with autism. More flexible to use than many other autism screening and assessment tools in terms of expertise required and variety of settings in which it can be administered. Takes 15 minutes to complete.	Items are categorized as: relating to people, imitation, emotional response, body use, object use, adaptation to change, visual response, listening response, taste-smell-touch response, level and consistency of intellectual response, and general impressions.	24 months through adulthood	Completed by health-mental health professional, teacher or parent based on observation of the child
Gilliam Autism Rating Scale, Second Edition (GARS-2)	A norm-referenced screening tool designed identify, diagnose people with symptoms consistent with autism beginning at 36 months of age. The 42 items describe symptoms consistent with the American Psychiatric Association (DSM-IV) diagnostic criteria for autism. The screening uses a frequency-based rating scale for the symptoms to estimate severity. A structured parent interview form focusing on diagnostically-relevant information is included. Takes 5 to 10 minutes to complete the symptom profile.	There are three subscales: stereotypical behaviors, communication, and social interaction.	36 months - 22 years	Completed by professionals, teachers or parents based on observed child behavior
Modified Checklist for Autism in Toddlers (M-CHAT)	A 23 item screening tool with a yes/no format. Can be completed by parents or professionals by interview; direct observation of the child is not required. Items include questions like, "Does your child take an interest in other children?" and "Does your child respond to his/her name when you call?" Screening failure should trigger a comprehensive developmental evaluation and does not imply autism diagnosis. The M-CHAT is a "level one" screening tool that can be used with all children as part of developmental surveillance and screening in pediatric primary care. Takes 10 minutes to complete. It is available as a free download.	Areas include pretend play, communication (protodeclarative pointing, auditory responsiveness), eye contact, responsiveness, sensory sensitivity, and self-stimulatory behavior	16 months - 30 months. Target is 24 months.	Parent Report
Pervasive Developmental Disorders Screening Test-II (PDD-ST II)	Designed to screen for autistic spectrum disorder with 23 questions divided into two age brackets (asking about signs of a possible problem first noticed when the child was 12-18 months old and those first noticed at 18-24 months). Sample questions are, "Had anyone expressed concern that your baby might have a hearing loss?" and "At times did you feel that your baby didn't care if you were there or not?" Takes 10-15 minutes to complete and 5 minutes to score.	Questions ask about the child's awareness of and relationship to others, stereotypical and self-stimulatory behaviors, sensory responsiveness, play behavior, protodeclarative pointing, adaptation to change, communication.	12 months - 60 months	Parent Report

Social Communication Questionnaire (SCQ), formerly known as the Autism Screening Questionnaire	Screens for autism spectrum disorders by focusing on communication skills and social functioning. Consists of 40 yes/no questions and takes 10 minutes to complete. The "Lifetime" version asks about the child's developmental history; the "Current" version focuses on behavior during the previous three months. Both are filled out at the first screening. It is useful as a first level autism spectrum disorder screening tool. Takes 5-10 minutes to complete.	The screening focuses on the child's body movements, use of language or gestures, and style of interacting.	48 months and older	Parent Report

SCREENING TOOLS FOR PRESCHOOL AGE CHILDREN
NOTE: some screening tools may be with other age groups as described

Name	Use	Areas Screened	Age range	How Administered
Developmental Indicators for the Assessment of Learning , Third Edition (DIAL-3)	The DIAL-3 is a norm-referenced developmental screening instrument intended to identify preschool and young school aged children who need of further developmental assessment. Specific test items include catching, jumping, hopping, building with blocks, cutting, copying shapes and letters; answering simple questions, naming or identifying objects and actions; and pointing to named body parts, naming or identifying colors, counting. It is recommended for use in Head Start Programs. The DIAL-3 takes 20-30 minutes to administer. An abbreviated version, the Speed-DIAL, can be completed in 15-20 minutes. Available in Spanish.	Screens functioning in the motor (gross and fine), language (expressive and receptive), cognitive domains with test items, with self-help (adaptive) and social development screened with a parent questionnaire.	36 months - 6 years 11 months	Direct With Child and Parent Report
FirstSTEP Screening Test for Evaluating Preschoolers	A norm-referenced screening tool designed to identify children at risk of cognitive delay who should be referred for developmental evaluation. There are 12 subtests organized in 3 domains of 4 subtests each. Not all subtest items need be presented, item selection being based on the child's age. Administration time is 15 minutes. Available in Spanish.	Subtests cover cognitive, communication, and motor domains. Also includes a social-emotional scale and adaptive behavior functioning checklist completed by report.	2 years 9 months – 6 years 2 months	Direct With Child and Parent or Teacher Report .
Pediatric Symptom Checklist (PSC) and Youth Pediatric Symptom Checklist (Y-PSC) for age 11 and older.	Psychosocial screening instrument for cognitive, emotional and behavioral problems. Comprised of 35 items with different cut-off scores for preschool and school-age children. Intended to facilitate early intervention for identified problems. Part of the American Academy of Pediatrics Bright Futures best-practice protocols for use in pediatric primary care. Available in Spanish.	Areas screened include somatic concerns, fearfulness, mood, school problems, attention, and peer relations	48 months - 16 years	Parent Report or Self Report (age 11+)

Pediatric Intake Form, also called Family Psychosocial Screen	Part of the Bright Futures protocols recommended for developmental surveillance and screening by the American Academy of Pediatrics. Intended to provide the primary care provider with information about family history, current functioning, concerns. Identifies parents who need mental health referral and children at risk of developmental delay who should be further assessed. Suitable for use in low-literacy populations.	Parental depression, substance use, history of abuse, and current domestic violence and social supports.	For incoming pediatric patients of any age	Parent Report

MENTAL HEALTH SCREENING TOOLS
NOTE: See also Adolescent Screening Tools

Achenbach System of Empirically Based Assessment (ASEBA) formerly Achenbach Child Behavior Checklist (CBCL)	Norm-referenced instrument. There are sets of forms for preschool age (18 months to 5 years) and school-age children (6-18 years). There are Child Behavior Checklists (CBCL) for each age group. The preschool set includes a caregiver-teacher report form; the school-age set includes a teacher report form and a self-report form for ages 11-18. Incorporates the Language Development Survey (LDS) for ages 18-35 months. The forms are long; for example, the parent and teacher report forms for 18 months to 5 years contains 99 items.	ASEBA forms yield results consistent with these DSM-IV diagnoses: Affective and anxiety disorders, somatic problems, attention deficit disorder; oppositional defiant disorder and conduct disorder.	18 months – 18 years	Parent Report, Teacher Report, and Self- Report depending on child's age
ADHD Rating Scale-IV	Norm-referenced item checklist based on the DSM-IV diagnostic criteria for ADHD. It measures the frequency with which symptoms were observed during the past 6 months. There are two forms (home and school) each of which is comprised of 18 items requiring response on a 4 point Likert scale. Each form takes 5 minutes to complete. Scored differently for boys and girls. Available in Spanish.	Inattention and Hyperactivity/impulsivity.	5 years - 17 years	Parent Report and/or Teacher Report
Behavioral and Emotional Screening System (BESS); Behavioral Assessment System for Children, Second Edition (BASC-2)	The BESS is a norm-referenced behavioral questionnaire comprised of items drawn from the BASC-2. It uses parent and teacher report supplemented as age and developmentally appropriate by child self-report. The BESS focuses on the child's problem behavior and strengths. The 3 forms range from 25-30 items requiring response on a 4-point Likert scale ("never-sometimes-often-almost always"). The parent and teacher forms are written at the 6th grade level and the child self-report form is at the 2nd grade level. Takes about 10 minutes to administer and subsequently must be scored by a qualified professional. Children who screen positive on the BESS may be further assessed using the BASC-2. The parent and student forms are available in Spanish.	Scales assess hyperactivity, aggressive behavior, anxiety, depression, communication and social skills, attention, learning.	3 years – 17 years	Parent, Teacher and Self-Report

Children's Depression Inventory (CDI)	A 27 item norm-referenced instrument that asks about feelings during the preceding two week period to screen for recent or current symptoms consistent with depression. Designed to be used in various settings including mental health clinics, pediatric offices and schools. Responses are given on 3-point scale. May be administered orally for children and youth unable to read it accurately. There are also parent and teacher report forms. Takes 15 minutes to complete. A 10 item short form (CDI-S) can be completed in 5 minutes. Available in Spanish.	There are scales for negative mood, interpersonal difficulties, negative self-esteem, poor self-efficacy ("ineffectiveness"), and anhedonia.	7 years – 17 years	Self-report. Should be used by a mental health professional
Conners Rating Scales-Revised (CRS-R)	Norm-referenced screening and assessment forms to identify symptoms of attention deficit hyperactivity disorder and other problem behavior. Available in long (15-20 minutes to complete) and short (5-10 minutes to complete) versions. Written at 6th to 9th grade level depending on version. The long forms correspond to the DSM-IV diagnostic criteria for ADHD.	Assessment of ADHD with subscales useful for assessment of conduct problems, cognitive problems, family problems, emotional, anger control and anxiety problems	36 months - 17 years for caregiver and teacher report, 12 years - 17 years for self-report	Parent Report, Teacher Report, Self Report
Eyberg Child Behavior Inventory	Norm-referenced screener for indicators of disruptive behavior problems at home and school. It measures the frequency of specific problematic behaviors and has a scale which reflects the impact of the problem (tolerance, stress) on the parent and/or teacher. Comprised of 36 items for response on a Likert scale. The items reflect the behaviors most frequently reported as problem by parents and teachers. Written at the 6th grade level. Takes 10 minutes to complete and score. Available in Spanish.	Has two scales: Intensity (severity of disruptive behavior) and Problem (parent perception of child's behavior) and a 3-factor structure: Inattentive, Oppositional Defiant, and Conduct Problem Behavior.	24 months - 16 years	Parent report
Multiscore Depression Inventory for Children (MDI-C)	Norm-referenced test with items reviewed and reworded by children 8-13 years old. The 79 true/false items are organized in eight scales. Reading level varies from first to third grade depending on section of the test. Items are considered to be easily understood by children. There is an answer form to gather background information on the child being screened. Administered by having the child read the instructions silently while the examiner reads the instructions to them. The scoring identifies possible depression and severity of symptoms. Takes 15-20 minutes to complete.	The eight scales are: anxiety, self-esteem, social introversion, instrumental helplessness, sad mood, pessimism, low energy, defiance	8 years to 17 years	Self Report with examiner who should be experienced in test administration

Parenting Stress Index, 3rd Edition (PSI)	A 120-item parent report test designed to screen for parent-child problems and family problems including risk of child maltreatment. The focus is on identifying family environments that are not conducive to optimal child development. Can be used with parents of children of any age, including newborns. Takes 20-30 minutes to administer.	May identify children with emotional and behavioral problems, dysfunctional family characteristics, and families that need supportive intervention.	Parents of any age child	Parent Report. Should be administered by a health or mental health professional.
Revised Children's Manifest Anxiety Scale (RCMAS-2)	Norm-referenced measure of anxiety as experienced by children. There are 37 items in four scales. Responses are "yes/no." Written at the second grade level. The full scale takes 10-15 minutes to complete. There is a 10-item short form which can be completed in less than 5 minutes.	The full scale screens for physiological anxiety, worry and over-sensitivity, social concerns and concentration (which together yield a "total anxiety score"). There is also a "lie scale" which taps into self-impression, defensiveness and denial.	6 years - 19 years	Self Report
Reynolds Child Depression Scale (RCDS)	A norm-referenced 30-item scale designed for children in the 3rd through 6th grade and written at the 2nd grade level. Items describe symptoms consistent with the American Psychiatric Association DSM-III-R diagnostic criteria for major depression and dysthymic disorder. Responses are on a 4-point Likert scale. Can be used in school settings, where it is typically self-administered in 5th and 6th grade and read aloud in 3rd and 4th grades. Takes less than 10 minutes to complete.	Measures the presence and severity of children's depressive symptoms	8 years – 12 years	Self Report
Spence Anxiety Scales	There are different scales of preschool (parent report, 28 items plus an open-ended question about potential traumatic events which may trigger 5 additional items). The children's scale (SCAS) is has two forms, self-report and parent- report, with 39 items. It may be used with adolescents as well. The literacy requirements are low (e.g., "I am scared of the dark" and "I worry about being away from my parents"). Responses are on a 4 point scale ("never, sometimes, often, always"). Forms may be downloaded for free. Available in Spanish.	The SCAS measures generalized anxiety, panic/agoraphobia, social phobia, separation anxiety, obsessive compulsive disorder and physical injury fears.	2 years 6 months - 15 years	Parent Report or Self Report

PSYCHOSOCIAL AND MENTAL HEALTH SCREENING TOOLS FOR USE WITH ADOLESCENTS

Beck Anxiety Inventory (BAI)	Intended to reliably differentiate anxiety from risk of depression. Consists of 21 items, each of which describes a common anxiety symptom which is rated on a 4-point scale. Can be completed in 5-10 minutes.	Subjective, somatic, and panic-related indicators of a possible anxiety disorder	17 years and older	Self Report or Clinician Interview

Beck Depression Inventory–II (BDI–II)	A 21 item form originally designed to detect, assess, and monitor changes in depressive symptoms among diagnosed patients in a mental healthcare setting. Takes 5-10 minutes to complete. A short form (7 items) is available to screen for depressive symptoms in primary care settings. The current version reflects DSM-IV diagnostic criteria. The Spanish language version has been criticized for non-idiomatic translation which may bias screening results.	Includes: hopelessness, irritability, guilt, feelings of being punished, as well as physical symptoms such as fatigue and weight loss.	13 years and older	Self-report
Center for Epidemiological Studies Depression Scale for Children (CES-DC)	Screens for clinically significant depressive symptoms with 20 items. The literacy level is low. Part of the AAP Bright Futures tool kit. National Institute of Mental Health product available without copyright restriction for use in electronic health records. The adult form, CES-D, may be used to screen parents of pediatric patients for depression and is available in Spanish. The forms may be downloaded for free.	Symptoms consistent with possible diagnosis of depression.	12 years - 18 years	Self-report
CRAFFT Screening Tool (CRAFFT)	This behavioral health screening tool is recommended by the American Academy of Pediatrics' Committee on Substance Abuse for use with adolescents. There are 6 questions which screen for high risk alcohol and drug use disorders. Results help determine whether further discussion and counseling on substance use is warranted.	Signs of problematic use of drugs or alcohol including riding in a car with a driver who is high, forgetting while using drugs, getting into trouble.	Adolescents	Self-report
Guidelines for Adolescent Preventive Services (GAPS)	This framework for integrating preventive services into primary care for adolescents was developed by the American Medical Association. It is a comprehensive set of fourteen recommendations organized into four types of services: health care delivery, use of guidelines to promote health and well-being, screening for conditions commonly occurring among adolescents, and immunization. The GAPS includes a Suicide and Depression screening algorithm and a set of forms for younger adolescents (11-14), middle-older adolescents15-17 and 18-21), and parents-caregivers. Each form is available in English and Spanish. The GAPS materials are available on-line as free downloads.	The specific topics or health conditions include: adjustment to puberty, safety and injury prevention, depression and suicide, substance abuse, physical fitness, nutrition, and risky sexual behavior. The GAPS also addresses medical concerns and includes recommendations for physical examinations (e.g., blood pressure, BMI monitoring), lab tests (e.g., cholesterol, HIV, Pap smear), and age-appropriate immunizations.	11 years – 21 years	Self-report or interview by health care provider
HEEADSSS Assessment	A psychosocial screening done as an interview by a health professional with adolescents in the primary care setting. It gathers information about the home, school, and a variety of potential risk behaviors so that a discussion may ensue and need for counseling or mental health evaluation may be identified.	Home, education, eating behaviors, activities, sleep, signs of depression, history of abuse, drug use, suicide attempts and ideation, personal safety, and sexual behavior .	Adolescents	Primary care physician

Mood and Feelings Questionnaire (MFQ)	Series of items which may be descriptive of the subject most of the time, sometimes, or not at all in the past two weeks. The short child form consists of 33 items (long-form) or 13 items (short-form) answered “true” “sometimes” or “not true.” There are also long and short parent report forms about child and a short-form for parent self-report.	Symptoms consistent with possible diagnosis of depression	13 years - 18 years	Self Report
Patient Health Questionnaire (PHQ-9)	The PHQ-9 is a brief depression screen drawn from the longer Patient Health Questionnaire. It is intended to identify primary care patients who are experiencing current symptoms suggestive of depression (based on DSM-IV criteria) and should be referred for evaluation. Screening scores also reflect severity of depression symptoms. Can be used with a validated 2 question protocol for rapid screening of depression in adolescent patients and parents of pediatric patients. Form is available as a free download and is available in Spanish.	Symptoms consistent with a diagnosis of depression	Not specified	Self-report
Patient Health Questionnaire for Adolescents (PHQ-A)	A screening tool designed to identify possible psychiatric disorders among adolescent primary care patients.	Anxiety, eating, mood, and substance abuse disorders	Adolescent	Self-report

References. Multiple sources of information were used to identify screening tests for inclusion and to compile information for these test descriptions. As is typical when many sources are consulted, considerable contradictory information became available. We used our best judgment in sorting this out and take responsibility for any errors that may have resulted. In addition to the sources cited below, we referred to online information from test publishers and distributors, test reviews in Buros Mental Measurement Yearbooks, and articles published in peer reviewed journals describing specific tests' psychometric properties, all to the extent they were available.

The following sources were consulted and are recommended to those who would like more detailed information about these screening tools and other screening and assessment instruments:

Alfonso V, Flanagan DP. Assessment of Preschool Children. In: Mowder BA, Rubinson F, Yasik AE, editors. *Evidence-Based Practice in Infant and Early Childhood Psychology*. 2009. Hoboken NJ: John Wiley & Sons.

American Academy of Pediatrics, Council on Children with Disabilities. Policy Statement: Identifying Infants and Young Children with Developmental

Disorders in the Medical Home: An Algorithm for Developmental Surveillance and Screening. 2006. *Pediatrics*. 118:405-420.

American Speech-Language-Hearing Association (ASHA). Director of Speech-Language Pathology Assessment Instruments. XI. Test Batteries. Available online at: http://www.asha.org/NR/rdonlyres/BC5B72FF-3996-48D5-B66F-C66C782AE8FE/0/TestBatteries.pdf#search=%22language%22

Assuring Better Child Health and Development Resources Center. Developmental Screening Tool Selection Subcommittee. Powerpoint Presentation, October 2, 2007. Available online at: www.abcdresources.org/get_file.php?file_id=366

Aylward GP. *Infant and Early Childhood Neuropsychology*. 1997. New York NY: Plenum Press.

Bridges LJ, Berry DJ, Johnson R, Calkins J, Geylin M, Cochran SW, Lin TJ, Zaslow MJ. Child Trends. [No Date]. Early Childhood Measures Profiles. Available online at: http://aspe.hhs.gov/hsp/ECMeasures04/report.pdf

Carter AS, Briggs-Gowan MJ, Ornstein Davis N. Assessment of Young Children's Social-Emotional Development and Psychopathology: Recent Advances and Recommendations for Practice. 2004. *Journal of Child Psychology and Psychiatry*. 45:109-134.

Crais ER, Watson LR, Baranek GT, Reznick JS. Early Identification of Autism: How Early Can We Go? 2006. *Seminars in Speech and Language*. 27:143-160.

Filipek PA, Accardo PJ, Baranek GT, Cook EH, Dawson G, Gordon B, et al. The Screening and Diagnosis of Autistic Spectrum Disorders. 1999. *Journal of Autism and Developmental Disorders*. 29:439-484.

Florida Partnership For School Readiness. Birth to Three Screening and Assessment Resource Guide. 2004. Available online at: http://www.floridajobs.org/earlylearning/documents/resource.pdf

Glascoe FP. Developmental Screening. In: Parker S, Zuckerman B. *Behavioral and Developmental Pediatrics: A Handbook for Primary Care.* 1995. Boston MA: Little, Brown and Company.

Glascoe FP. Commonly Used Screening Tools. Developmental Behavioral Pediatrics Online. Available online at: http://www.dbpeds.org/articles/detail.cfm?textid=539

Glascoe FP, Dworkin, PH. The Role of Parents in the Detection of Developmental and Behavioral Problems. 1995. *Pediatrics*. 95:829-836.

Grant R, Nozyce M. Compendium of Assessment Instruments for Use With Infants and Toddlers (Birth to 36 Months). 2001. New York NY: New York City Department of Mental Health/Early Intervention Program.

Hamilton S. Applied Evidence: Screening for Developmental Delay; Reliable, Easy-To-Use Tools. 2006. *The Journal of Family Practice*. 55:415-422.

Heineman KR, Hadders-Algra M. Evaluation of Neuromotor Function in Infancy – A Systematic Review of Available Methods. 2008. *Journal of Developmental and Behavioral Pediatrics*. 29:315-323.

Henderson J, Strain P. Screening for Social Emotional Concerns: Considerations in the Selection of Instruments. Technical Assistance Center on Social Emotional Intervention. Available online at: http://www.challengingbehavior.org/do/resources/documents/roadmap_1.pdf

Kerr LK. Screening Tools for Depression in Primary Care. The Effects of Culture, Gender, and Somatic Symptoms on the Detection of Depression. 2001. *The Western Journal of Medicine*. 175:349-352.

Kienapple K, Lyon M, McSorley A, Morse, P, Smith, M. Commonly Used Assessment Tools for Children with Special Needs Ages Birth to Six and Their Families. Early Intervention Task Force, Mount Saint Vincent University. Available online at: http://www.coespecialneeds.ca/PDF/assessmenttools.pdf

Lidz CS. *Early Childhood Assessment*. 2003. Hoboken NJ: John Wiley & Sons.

Mesh S, Loeb J. A Practical Guide to Early Childhood Assessment: Conducting Developmental and Psychological Evaluations in the Early Intervention Program. 2003. New York NY: Los Ninos Press.

Minke K. Universal Screening for Social-Emotional and Behavioral Difficulties. Powerpoint Presentation, April 23, 2008. Delaware PBS Project. Available online at: www.udel.edu/cds/pbs/.../Universal_Screening_For_Website.ppt

Minnesota Department of Health. Developmental Screening of Young Children in Minnesota: Developmental Screening Instruments. Available online at: http://www.health.state.mn.us/divs/fh/mch/devscrn/instr/

Missouri Department of Elementary and Secondary Education. Screening and Diagnostic Assessment Instruments. Available online at: http://dese.mo.gov/divspeced/FirstSteps/pdfs/DEScreeningDiagnostic.pdf

Nelson HD, Nygren P, Walker M, Panoscha R. Screening for Speech and Language Delay in Preschool Children: Systematic Evidence Review for the US Preventive Services Task Force. 2006. *Pediatrics*. 117(2):e298-319.

Nozyce M, Grant R. Evidence-Based Practice with Young Children with Special Needs: Health Impaired. In: Mowder BA, Rubinson F, Yasik AE, editors. *Evidence-Based Practice in Infant and Early Childhood Psychology*. 2009. Hoboken NJ: John Wiley & Sons.

Romanczyk RG, Gillis JM, Noyes-Grosser DM, Holland JP, Holland CL, Lyons D. Clinical Clues, Developmental Milestones, and Early Identification / Assessment of Children With Disabilities. 2005. *Infants and Young Children*. 18:212-221.

Ringwalt S. Developmental Screening and Assessment Instruments with an Emphasis on Social and Emotional Development for Young Children Ages Birth Through Five. The National Early Childhood Technical Assistance Center (NECTAC). Available online at: http://www.nectac.org/~pdfs/pubs/screening.pdf

Robins DL. Screening for Autism Spectrum Disorders in Primary Care Settings. 2008. *Autism*. 52:537-556.

Robins DL, Dumont-Mathieu TM. Early Screening for Autism Spectrum Disorders: Update on the Modified Checklist for Autism in Toddlers and Other Measures. 2006. *Journal of Developmental and Behavioral Pediatrics*. 27:111-119.

Rosenbaum P. Screening Tests and Standardized Assessments Used to Identify and Characterize Developmental Delays. 1998. *Seminars in Pediatric Neurology*. 5:27-32.

Rydz D. Topical Review: Developmental Screening. 2005. Journal of Child Neurology. 20:4-21.
Society for Adolescent Medicine. Clinical Preventive Services for Adolescents: Position Paper. 1997. *Journal of Adolescent Health*. 21:203-214.

Shevell M. Office Evaluation of the Child With Developmental Delay. 2006. *Seminars in Pediatric Neurology*. 13:256-261.

Sices L. Developmental Screening in Primary Care: The Effectiveness of Current Practice and Recommendations for Improvement. December 2007. The Commonwealth Fund. Available online at: http://www.commonwealthfund.org/usr_doc/1082_Sices_developmental_screening_primary_care.pdf?section=4039

Sosna T, Mastergeorge A. Compendium of Screening Tools for Early Childhood Social-Emotional Development. The Infant, Preschool, Family Mental Health Initiative. Available online at: http://www.first5caspecialneeds.org/documents/IPFMHI_CompendiumofScreeningTools.pdf

Stainback-Tracy, K (editor). Social and Emotional Screening for Infants, Toddlers, and Preschoolers in Colorado. Summary of Recommendations From Colorado Workgroups. Project Bloom. Available online at: http://www.headstartmt.org/Health/S-E%20Screening%20Tools.pdf

Tieman BL, Palisano RJ, Sutlive AC. Assessment of Motor Development and Function in Preschool Children. 2005. *Mental Retardation and Developmental Disabilities Reviews*. 11: 189-196.

Washington State Department of Health. Washington State Medical Home. Neurodevelopmental Screening and Tests. Available online at: http://www.medicalhome.org/4Download/cec/A5_NeuroScreeningTests.pdf

Watson LR, Baranek GT, DiLavore PC. Toddlers With Autism: Developmental Perspectives. 2003. *Infants and Young Children*. 16:201-214.

West Virginia Department of Health and Human Resources. Assessment Instruments Approved to be Appropriate for Screening or Evaluating the Needs

of Infants and Toddlers. Available online at: http://www.wvdhhr.org/Birth23/lawandregs/wvbtt_assessment_tools_050109-final.pdf

Wisconsin Birth to 3 Program Training and Technical Assistance. Giudelines for best Practices in Determining Eligibility Based on Children's Physical Development. Available online at: http://www.waisman.wisc.edu/birthto3/Txt/finemotor.html