

## Developmental, Mental Health/Behavioral and Academic Screens

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The following chart is a list of measures that meet standards for screening test accuracy, meaning that they correctly identify, at all ages, at least 70% of children with disabilities while also correctly identifying at least 70% children without disabilities. All included measures were standardized on national samples, are proven to be reliable, and are validated against a range of diagnostic measures.

Measures are sorted into those that are most feasible in health care versus early childhood or other programs where there may be more time, skill, and, for educational programming purposes, a greater need to observe and directly test children during the process of screening.

General or broad-band screens are presented first. These cover the broad domains of development, i.e., cognitive/academic, language, motor, self-help). Some broad-band screens also cover social-emotional/behavioral/mental health.

A list of condition-specific or narrow-band tools follow. These measures should be administered only after problematic performance on a general screen and thus focus on only a few domains (e.g., autism spectrum disorder, developmental-behavioral/mental health status, etc.). The free evaluations and intervention services guaranteed through the Individuals with Disabilities Education Act (IDEA) are always the first best referral option. Nevertheless, narrow-band tools can help determine the need for simultaneous referrals to specialty clinics e.g., autism-specific, motor-disorders specific, etc.)

Throughout, the first column provides publication information, the cost of purchasing a specimen set, and the training options available. The “Description” column provides information on alternative ways, if available, to administer measures (e.g., waiting rooms). The “Accuracy” column shows the percentage of patients with and without problems identified correctly. The “Time Frame/Costs” column shows the costs of materials per visit along with the costs of professional time (using the an average salary of \$50 per hour) needed to administer and interpret each measure. Time/cost estimates do not include expenses associated with referring. For parent report tools, administration time reflects not only scoring of test results, but also the relationship between each test’s reading level and the average percentage of parents with less than a high school education (who may or may not be able to complete measures in waiting rooms due to literacy problems and thus will need more time-consuming interview administrations). Measures in each table are arranged according to the time required to administer them by interview or directly to children, from least to most.

Information about electronic options is included at the end of the table. Electronic applications can reduce human error, automate scoring, generate referral letters, and aggregate results which is helpful for program evaluation and quality improvement initiatives. While somewhat more costly than print, electronic options offer time-savers that offset the costs of hand-scoring, writing referral letters, etc.

*Please note:*

- 1) Not included are measures such as the Denver-II, DIAL-III, ESP, E-LAP, etc. because they fail meet standards (limited standardization, absent validation, and no proof of accuracy); measures such as the CAT-CLAMS (because they were not standardized on general populations); and/or measures of just a few developmental domains (e.g., language or motor);
- 2) Also not included are diagnostic measures such as the Vanderbilt Diagnostic ADHD Scale, because such tools should only be used after a broad-band screening test indicates the need (e.g., PSC, Connors, etc.). The rationale is that, for example, conditions that present as ADHD can actually be symptoms of other problems such as academic deficits, depression, anxiety, etc.;
- 3) In settings where there are health care providers, such professionals can and should, document carefully, both medical history and physical exam to determine whether organic conditions are contributory, a list of exam foci are described in a footnote.<sup>a</sup>
- 4) When screening test results are problematic, referrals should begin with IDEA services. See footnotes for referral options.<sup>b</sup> This allows intervention to commence even while children typically need to wait for medical specialty exams, autism focused clinics, etc. For medical professionals it may seem odd to refer for treatment before a diagnosis is finalized, but with young children (who are those who benefit most from early intervention), eligibility criteria are generally only a percentage of delay, and do not require specific nosology.

| <b>Screens for Primary Care*</b> (all rely on information from parents due to enhanced efficiency under time constraints. All cover development in all domains. Some also cover social-emotional, behavioral and mental health issues. Some can be administered by interview while others depend on parents, and optionally clinicians, to elicit skills). All also over at least some degree of compliance with the American Academy of Pediatrics, 2006 Statement on developmental-behavioral screening and surveillance. |                  |  |   |  |   |
|---|------------------|--|---|--|---|
| <b>BEHAVIORAL and/or DEVELOPMENTAL SCREENS RELYING ON INFORMATION FROM PARENTS</b>  | <b>Age range</b> | <b>Description</b>   | <b>Scoring</b>  | <b>Accuracy</b>  | <b>Time Frame/Costs</b>   |
| <b>Parents' Evaluations of Developmental Status (PEDS).</b> (2006) Ellsworth & Vandermeer Press, Ltd. 1013 Austin Court, Nolensville, TN 37135<br>Phone: 615-776-4121; fax: 615-776-4119<br><a href="http://www.pedstest.com">http://www.pedstest.com</a> (\$30.00)<br>See electronic options below.<br><b>Training Options:</b> downloadable slide shows with notes, case examples, and handouts, website discussion list (covering all screens), short videos coming soon) some live training.                            | Birth to 8 years | 10 questions eliciting parents' concerns in English, Spanish, Vietnamese and many other languages. Written at the 4 <sup>th</sup> - 5 <sup>th</sup> grade level. Determines when to refer, provide a second screen, provide patient education, or monitor development, behavior/emotional, and academic progress. Provides longitudinal surveillance and triage. | Identifies children as low, moderate or high risk for various kinds of disabilities and delays                      | Sensitivity ranging from 74% to 79% and specificity ranging from 70% to 80% across age levels.   | About 2 minutes (if interview needed)<br>Print Materials ~\$.31<br>Admin. ~\$.88<br>Total = ~\$1.19 |
| <b>PEDS: Developmental Milestones (Screening Version)</b> Ellsworth & Vandermeer Press, Ltd. 1013 Austin Court, Nolensville, TN 37135<br>Phone: 615-776-4121; fax: 615-776-4119<br><a href="http://www.pedstest.com">http://www.pedstest.com</a> (\$275.00).<br>Electronic options coming soon.<br><b>Training Options:</b> 2 minute movie on   | 0 – 8 years      | PEDS-DM consists of 6 – 8 items at each age level (spanning the well visit schedule). Each item taps a different domain (fine/gross motor, self-help, academics, expressive/receptive language, social-emotional). Items are administered by parents or professionals. Forms are laminated and marked with a   | Cutoffs tied to performance above and below the 16 <sup>th</sup> percentile for each item and its domain.<br>On the | Sensitivity (.75 - .87); specificity (.71 - .88 to performance in each domain. Sensitivity (.70 - .94); specificity (.77 - .93) across age | About 3 - 5 minutes<br>Materials ~\$.02<br>Admin. ~\$1.00<br>Total ~\$1.02                          |

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| <p>website, plus slide shows with notes, case examples, handouts, some live training, and a discussion list.</p>   |                       | <p>grease pencil. It can be used to complement PEDS or stand alone. Written at the 2<sup>nd</sup> grade level. A longitudinal score form tracks performance. Supplemental surveillance measures focused on the AAP 2006 statement are included (see descriptions below): the M-CHAT, Family Psychosocial Screen, Pictorial PSC-17, the SWILS, the Vanderbilt ADHD scale, and the Brigance Parent-Child Interactions Scale. In English, Spanish and Taiwanese.</p> | <p>Assessment Level, age equivalent scores are produced and enable users to compute percentage of delays.</p> |   |   |
| <p><b>Ages and Stages Questionnaire-3</b> (2009). Paul H. Brookes Publishing, Inc., PO Box 10624, Baltimore, MD 21285 (1-800-638-3775). (\$249.95 each for English or Spanish) <a href="http://www.agesandstages.com">www.agesandstages.com</a>. See electronic options below.<br/><b>Training Options:</b> purchasable videos, case examples, and live training</p> | <p>4 to 60 months</p> | <p>Parents indicate children's developmental skills on 25 – 35 items (4 – 5 pages) using a different form for each well visit. Reading level varies across items from 3rd to 12th grade. Can be used in mass mail-outs for child-find programs. In English, Spanish, French</p>   | <p>Single pass/fail score for developmental status</p>  | <p>Sensitivity ranged 70% to 90% at all ages except the 4 month level. Specificity ranged from 76% to 91%</p> | <p>about 15 minutes (if interview needed)<br/>Materials ~\$.40<br/>Admin. ~\$4.20<br/>Total = ~\$4.60</p> |

| <b>Narrow-band screens for young children</b> (for mental health, psychosocial risk, and autism spectrum disorder. These are valuable adjuncts in primary care and elsewhere but should <u>not</u> be used as the sole measure of developmental-behavioral status)  |                      |   |   |   |  |
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| <p><b>Modified Checklist for Autism in Toddlers (M-CHAT)</b> (1999). Free download at <a href="http://www2.gsu.edu/~psydlr/Diana_L._Robins_Ph.D..html">http://www2.gsu.edu/~psydlr/Diana_L._Robins_Ph.D..html</a><br/>Included in the PEDS:DM. See electronic records options below.<br/><b>Training Options:</b> none</p>                        | 18 –60 months        | Parent report of 23 questions modified for American usage at 4-6th grade reading level. Available in multiple languages. Screens for Autism Spectrum Disorder (ASD). Downloadable scoring template and .xls files for automated scoring. Requires a follow-up interview (also downloadable in English and Spanish, in response to problematic performance). | Cutoff based on 2 of 3 critical items or any 3 from checklist.  | Initial study shows sensitivity at 90%; specificity at 99%. Future studies are needed for a full picture. Promising tool. | About 5 minutes (excluding follow-up interview)<br>Print Materials ~\$.10<br>Admin. ~\$.88<br>Total = ~\$.98 |
| <p><b>Brief-Infant-Toddler Social-Emotional Assessment (BITSEA)</b>;<br/>Harcourt Assessment, Inc, 19500 Bulverde Road   San Antonio, Texas 78259  (1-800-211-8378) (\$105.00) <a href="http://pearsonassess.com/">http://pearsonassess.com/</a><br/><b>Training Options:</b> none</p>  | 12 – 36 months       | 42 item parent-report measure for identifying social-emotional/behavioral problems and delays in competence. Items were drawn from the assessment level measure, the ITSEA. Written at the 4 <sup>th</sup> – 6 <sup>th</sup> grade level. Available in Spanish, French, Dutch, Hebrew. Has a CD-ROM for ease of scoring.                                    | Cut-points based on child age and sex show present/absence of problems and competence.                    | Sensitivity (80–85%) in detecting children with socialemotional/behavioral problems and specificity 75% to 80%.           | 5–7 minutes<br>Materials ~\$1.15<br>Admin. ~\$.88<br>Total ~\$2.03   |
| <p><b>Eyberg Child Behavior Inventory/Sutter-Eyberg Student Behavior Inventory.</b> Psychological Assessment Resources, P.O. Box 998 Odessa Florida: 33556 (1-800-331-8378) (\$120.00) <a href="http://www.parinc.com/">http://www.parinc.com/</a><br/><b>Training Options:</b> Live training</p>   | 2 to 16 years of age | The ECBI/SESBI consists of 36 –38 short statements of common behavior problems. More than 16 suggests the referrals for behavioral interventions. Fewer than 16 enables the measure to function as a problems list for planning in-office counseling, selecting handouts, and monitoring progress. In English, Arabic, Finnish, Chinese, German, Swedish    | Single refer/nonrefer score for externalizing problems, --conduct, aggression, etc.                       | Sensitivity 80%, specificity 86% to disruptive behavior problems  | About 7 minutes (if interview needed)<br>Materials ~\$.30<br>Admin. ~\$2.38<br>Total = ~\$2.68               |
| <p><b>Infant-Toddler Checklist for Language and Communication</b> (1998). Paul H. Brookes Publishing, Inc., P.O. Box 10624, Baltimore, MD, 21285 (1-800-638-3775). (Part of CSBS-DP, \$ <a href="http://www.pbrookes.com">http://www.pbrookes.com</a> (\$109.95)<br/>Electronic options: CD-ROM for scoring<br/><b>Training Options:</b> live</p> | 6-24 months          | Parents complete the Checklist's 24 multiple-choice questions in English. Reading level is 6 <sup>th</sup> grade. Focuses on screening for language, social communication, and thus appears useful as an ASD screen for very young children. Does not screen for motor milestones.  | Manual table of cut-off scores at 1.25 standard deviations below the mean OR an optional scoring CD-ROM s | Sensitivity is 78%; Specificity is 84%.   | About 5 to 10 minutes<br>Materials ~\$.20<br>Admin. ~\$3.40<br>Total ~\$3.60                                 |

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| <p><b>Greenspan Social-Emotional Growth Chart</b> (2004). Pearson Assessment P.O. Box 599700, San Antonio, TX 78259 (1-800- 211-8378) (\$99.00) <a href="http://pearsonassess.com/">http://pearsonassess.com/</a><br/> <b>Training Options:</b> not known</p>   | 0 to 42 month | Completed by caregivers or examiners and covers self-regulation and interest in the world, engagement in relationships, purposeful interactive communication with emotions, emotional gestures, and emotional problem-solving via a single form of 35 items each rated on a 5 point scale. <b>Available and normed in English only.</b> | Manual table of cutoff scores at different ages. Enables a plot of growth overtime including indicators of regression | Two different ASD-focused cutoffs provide:<br>1) sensitivity of .67% for ASD, and specificity of .98%; or<br>2) sensitivity of 98% and specificity of 68% | About 10 minutes<br><b>Materials: ~ \$3.00</b><br><b>Admin: ~ \$3.00</b><br><b>Total: ~ \$6.00</b> |
| <p><b>Ages &amp; Stages Questionnaires: Social-Emotional (ASQ:SE)</b><br/> Paul H. Brookes, Publishers, PO Box 10624, Baltimore, Maryland 21285 (1-800-638-3775). (\$149) <a href="http://www.pbrookes.com/">http://www.pbrookes.com/</a><br/> <b>Training Options:</b> live training, training video</p>   | 6 – 60 months | Designed to supplement the ASQ, the ASQ SE consists of 30 item forms (4 – 5 pages long) for each of 8 visits between 6 and 60 months. Items focus on self-regulation, compliance, communication, adaptive functioning, autonomy, affect, and interaction with people  | Single cutoff score indicating when a referral is needed  | Sensitivity ranged from 71% - 85%. Specificity from 90% to 98%  | 10 – 15 minutes if interview needed.<br>Materials ~ \$.40<br>Admin. ~\$4.20<br>Total = ~ \$4.40    |
| <p><b>Family Psychosocial Screening.</b><br/> Kemper, KJ &amp; Kelleher KJ. Family psychosocial screening: instruments and techniques. downloadable at <a href="http://www.pedstest.com">http://www.pedstest.com</a> and included in PEDS: Developmental Milestones.<br/> <b>Training Options:</b> none</p> | parents       | A two-page clinic intake form that identifies psychosocial risk factors associated with developmental problems including: a four item measure of parental history of physical abuse as a child; (2) a six item measure of parental substance abuse;and (3) a three item measure of maternal depression.                                 | Refer/nonrefer scores for each risk factor. Also has guides to referring and resource lists.                          | All studies showed sensitivity and specificity to larger inventories greater than 90%   | about 15 minutes (if interview needed)<br>Materials ~\$.20<br>Admin. ~\$4.20<br>Total = ~\$4.40    |

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| <p><b>DEVELOPMENTAL SCREENS RELYING ON ELICITING SKILLS DIRECTLY FROM CHILDREN:</b> <i>these tools are recommended for early childhood, NICU follow-up, referral clinic triage, etc. All require more time and skill than is typically available in primary care--although clinics with nurse practitioners (who generally have lots of assessment skills, and who typically administer screens to a subset of general peds patients), may find any of the below helpful as a second stage screen.</i></p> |               |  |  |  |   |
| <p><b>Bayley Infant Neurodevelopmental Screen (BINS).</b> San Antonio, Texas: The Psychological Corporation, 1995. 555 Academic Court, San Antonio, TX 78204 (1-800-228-0752) (<b>\$265</b>) <a href="http://www.pearsonassessments.com">http://www.pearsonassessments.com</a><br/> <b>Training Options:</b> <i>not yet available</i></p>  | 3 - 24 months | uses 10 - 13 directly elicited items per 3 - 6 month age range assess neurological processes (reflexes, and tone); neurodevelopmental skills (movement, and symmetry) and developmental accomplishments (object permanence, imitation, and language).. | categorizes performance into low, moderate or high risk via cut scores. Provides subtest cut scores for each | specificity and sensitivity are 75% to 86% across ages | 10 - 15 minutes<br>Materials ~\$.30<br>Admin.~\$10.15<br>Total = ~\$10.45 |

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| <p><b>Brigance Screens-II.</b> Curriculum Associates, Inc. (2005) 153 Rangeway Road, N. Billerica, MA, 01862 (1-800-225-0248 (\$822.00).<br/> <a href="http://www.curriculumassociates.com/">http://www.curriculumassociates.com/</a><br/> See electronic offerings below.<br/> <b>Training Options:</b> live workshops, webcasts, videos, listserve</p>  | 0 - 90 months | nine separate forms, one for each 12 month age range. Taps speech-language, motor, readiness and general knowledge at younger ages and also reading and math at older ages. Uses a combination of direct elicitation and observation. In the 0 – 2 year age range, can be administered by parent report/interview. The measures links to more detailed tools and teaching activities. Facilitates Head Start Frameworks measurement.   | domain<br>Cutoff, quotients, percentiles, age equivalent scores in various domains and overall. | sensitivity and specificity to giftedness and to developmental and academic problems are 70% to 82% across ages   | 10 – 15 minutes<br>Materials ~\$1.53<br>Admin.~\$10.15<br>Total = ~\$11.68    |
| <p><b>PEDS: Developmental Milestones (Assessment Version)</b> Ellsworth &amp; Vandermeer Press, Ltd. 1013 Austin Court, Nolensville, TN 37135<br/> Phone: 615-776-4121; fax: 615-776-4119<br/> <a href="http://www.pedstest.com">http://www.pedstest.com</a> (\$275.00).<br/> Electronic options coming soon.<br/> <b>Training Options:</b> 2 minute movie on website, plus slide shows with notes, case examples, handouts, some live training, and a discussion list.</p> | 0 – 8 years   | PEDS:DM Assessment Version uses the same items as the Screening Version but presents more at once in each domain (about 35 total, depending on age) for: fine motor, gross motor, self-help, academics, expressive language, receptive language, and social-emotional). Items are administered by parents or professionals. Written at the 2nd grade level. The Assessment Level booklet is reusable with each child and includes a longitudinal score form to track progress. Includes the same supplementary measures (e.g., of mental health, ASD, parent-child interactions, academic measures, psychosocial risk) as the Screening Version. In English and Spanish. | age equivalent scores, percentage of delay, and cutoffs (16 <sup>th</sup> %tile).               | High correlations with performance on diagnostic measures. Sensitivity (.75 - .87); specificity (.71 - .88 to performance in each domain. Sensitivity (.70 - .94); specificity (.77 - .93) across age | About 15 – 20 minutes<br>Materials ~\$3.00<br>Admin. ~\$1.00<br>Total ~\$4.02 |

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| <p><b>Battelle Developmental Inventory Screening Test –II (BDIST) –2</b> (2006). Riverside Publishing Company, 8420 Bryn Mawr Avenue, Chicago, Illinois 60631 (1-800-323-9540) (\$509) <a href="http://www.riversidepublishing.com">www.riversidepublishing.com</a><br/>See electronic options below.<br/><b>Training Options:</b> live workshops, webcasts</p> | 0 - 95 months | Items (20 per domain) use a combination of direct assessment, observation, and parental interview. A high level of examiner skill is required to manage materials, children, and parents during test. | Age equivalents and cutoffs at 1.0, 1.5, and 2.0 SDs below the mean in each of 5 domains | Sensitivity (72% to 93%) to various disabilities; Specificity (79% to 88%). Accuracy information across age ranges is not available. | 10 – 30 minutes<br><br>Materials ~\$1.65<br>Admin.~\$20.15<br>Total = ~\$21.80 |
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| <b>SCREENS FOR OLDER CHILDREN</b> (these screens focus on academic skills and mental health, including ADHD screening. The shorter ones, such as the SWILS and PSC are suitable for primary care)   |                           |   |  |   |  |
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| <p><b>Safety Word Inventory and Literacy Screener (SWILS).</b> Glascoe FP, Clinical Pediatrics, 2002. Items courtesy of Curriculum Associates, Inc. The SWILS can be freely downloaded at: <a href="http://www.pedstest.com/">http://www.pedstest.com/</a> and is included in the PEDS:DM<br/><b>Training Options:</b> none</p>   | 6 - 14                    | Children are asked to read 29 common safety words (e.g., High Voltage, Wait, Poison) aloud. The number of correctly read words is compared to a cutoff score. Results predict performance in math, written language and a range of reading skills. Test content may serve as a springboard to injury prevention counseling.   | single cutoff score indicating the need for a referral | 78% to 84% sensitivity and specificity across all ages  | about 7 minutes (if interview needed)<br>Materials ~\$.30<br>Admin. ~\$2.38<br>Total = ~\$2.68 |
| <p><b>Pediatric Symptom Checklist.</b> Jellinek MS, Murphy JM, Robinson J, et al. Pediatric Symptom Checklist: Screening school age children for academic and psychosocial dysfunction. <a href="http://psc.partners.org/">http://psc.partners.org/</a> The Pictorial PSC (PPSC) is useful with low-income Spanish speaking families and can be downloaded freely at <a href="http://www.dbpeds.org">www.dbpeds.org</a>. <i>The factorable 17 item version is included in the PEDS:DM and facilitates screening for ADHD, internalizing and externalizing disorders).</i><br/><b>Training Options:</b> none</p> | 4 - 16 years.             | 35 short statements of problem behaviors including both externalizing (conduct) and internalizing (depression, anxiety, adjustment, etc.) Ratings of never, sometimes or often are assigned a value of 0,1,or 2. Scores totaling 28 or more suggest referrals. Factor scores identify attentional, internalizing and externalizing problems. Factor scoring is available for download at: <a href="http://www.pedstest.com/links/resources.html">http://www.pedstest.com/links/resources.html</a> | Single refer/nonrefer score                            | All but one study showed high sensitivity (80% to 95%) but somewhat scattered specificity (68% - 100%). | About 7 minutes (if interview needed)<br>Materials ~\$.10<br>Admin. ~\$2.38<br>Total = ~\$2.48 |
| <p><b>Comprehensive Inventory of Basic Skills-Revised Screener (CIBS-R Screener)</b> Curriculum Associates, Inc. (1985) 153 Rangeway Road, N. Billerica, MA, 01862 (1-800-225-0248 (\$224.00).</p>  | 1 – 6 <sup>th</sup> grade | Administration involves one or more of three subtests (reading comprehension, math computation, and sentence writing). Timing performance also enables an assessment of information processing  | Computerized or hand-scoring produces percentiles,     | 70% to 80% accuracy across all grades   | Takes 10 – 15 minutes<br>Materials ~\$.53<br>Admin.~\$10.15<br>Total = ~\$10.68                |

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| <a href="http://www.curriculumassociates.com/CIBS-III">http://www.curriculumassociates.com/CIBS-III</a> coming soon (~ August, 2009)<br>Electronic options include online or CD-ROM scoring<br><b>Training Options:</b> live workshops, webcast/webinars, website discussion list, |               | skills, especially rate. Electronic scoring allows for data aggregation and program evaluation  | quotients, cutoffs                                 |   |   |
| <b>Connors Rating Scale-Revised (CRS-R)</b><br>Pearson Assessments, Inc.<br>1-800-627-7271 (\$276.00)<br><a href="http://www.pearsonassessments.com">http://www.pearsonassessments.com</a><br>Electronic options: none<br><b>Training Options:</b> none                            | 3 to 17 years | Three versions are used for diagnosis: teacher report, parent report and youth self-report. Produces 7 factor scores: Cognitive Problems/ Inattention, Hyperactivity, Oppositional, Anxious-Shy, Perfectionism, Social Problems, and, Psychosomatic. Several subscales specific to ADHD are also included: DSM-IV symptom subscales (Inattentive, Hyperactive/Impulsive, and Total); Global Indices (Restless-Impulsive, Emotional Lability, and Total), and an ADHD Index. The GI is useful for treatment monitoring. Also available in French | Cutoff tied to the 93rd percentile for each factor | Sensitivity 78% to 92%<br>Specificity: 84% to 94% | About 20 minutes<br>Materials ~\$.2.50<br>Admin. ~\$20.15<br>Total = ~\$22.65 |

**Electronic Records Options for Screening with Quality tools**  
 (including online and other digital approaches to administration and scoring).

**Essential definitions are:**

**Tablet PC**--approaches that typically require a stylus to select among multiple choice answers;

**Keyboards** --users can type in text-based answers to questions

**Touch-screens applications**-- (hopefully self-explanatory but these often allow parents to also listen to questions and response options, thus reducing literacy demands);

**Online** --meaning an internet connection, preferably high speed is needed;

**CD-ROM**--offline but still electronic, and requiring installation on the users' computer);

**Parent Portal** -- applications (typically web-based and thus online) where parents can complete measures but do not see results. Rather these are sent to a different office computer for inclusion in the medical record/sharing results.

**Webcasts/webinars**--Either live or constantly available on publishers' websites. LiveWebcasts are generally translated into **Webinars** (a few days after a live webcast) and thus become **videos/audios**, usually freely available on demand.

| Company  | Training/<br>Support options  | Description and Pricing  |
|--|---|--|
| <b>CHADIS</b> ( <a href="http://www.chadis.com/">http://www.chadis.com/</a> )<br><i>PEDS, ASQ, M-CHAT and other measures online for touch-screen, tablet PCs, keyboards, telephony and parent portal methods). Spanish language version coming soon.</i> | Downloadable guides, live training at exhibits, and other training services on request. | CHADIS also includes decision support for a large range of other measures, both diagnostic and parent/family focused, such as the Vanderbilt ADHD Diagnostic Rating Scale, and various parental depression inventories. CHADIS offers integration with existing EHRs. works with a range of equipment/applications, and automatically generates reports. Pricing is ~ \$2.00 per use.  |
| <b>Press/Forepath.org</b> ( <a href="http://www.pedstest.com">www.pedstest.com</a> )<br><i>(PEDS, M-CHAT online for keyboard and tablet PCs. (PEDS:DM, Spanish language and other translations coming ~ June, 2009)</i>                                  | Slide shows, website FAQs, email support, online videos, discussion list                | This site offers PEDS and the Modified Checklist in Toddlers for applications including tablet PCs, keyboards (allowing for actual comments from parents). Offers a parent portal (wherein families do not see the results), etc. Scoring is automated as are summary reports for parents, referral letters when needed, and ICD-9/procedure codes. In English and Spanish (with other languages coming soon along with the PEDS:DM). Integration with electronic records is available as is data export and aggregate views of records. \$1.00 - \$2.00 per use (depending on volume).  |
| <b>Patient Tools</b> ( <a href="http://www.patienttools.com">www.patienttools.com</a> )<br><i>(PEDS, M-CHAT, ASQ, ASQ:SE and others measures online for tablet PCs)</i>  | Webcasts/webinars, live support by phone, email   | Patient Tools offers the ASQ, ASQ:SE, MCHAT, PEDS, the Vanderbilt ADHD Scales and a wide range of behavioral/mental health measures for adolescents and adults. A parent portal approach is available via Survey Tablets. Equipment including docking stations is rented, lease-purchased, or purchased (\$74.00 - \$1320) after which \$58.00 per month is the ongoing cost of hosting, data storage, telephone technical & installation support. Copyrighted measures are licensed from their publishers and incur per use fees [e.g., ....<br><i>From <a href="http://www.pedstest.com">www.pedstest.com</a> (above) at \$1.00 - \$2.00 per use depending on volume].</i> |
| <b>Brookes Publishing</b><br>( <a href="http://www.agesandstages.com/">www.agesandstages.com/</a> )<br><i>(ASQ via CD-ROM installed on keyboard computers, web-based scoring service coming in June 2008)</i>  | Live training, online training, purchasable training videos, email listserv             | ASQ on a CD-ROM enables users to click answers and receive an automated score. The software offers aggregation of results, report writing templates, and progress tracking.  |
| <b>Curriculum Associates</b> ( <a href="http://www.cainc.com">www.cainc.com</a> )<br><i>(Brigance Screens-II online for keyboards. English only but with Spanish-language score/administration forms)</i>  | Live training, online training, email and phone support, customer suggestion box        | This service, web-based or via CD-ROM, provides clickable data sheets which automatically calculate scores including age equivalents, quotients, progress indicators, at-risk cutoff scores etc. Aggregated reports are available through the online service. \$3. 00 - \$5.00 per use, depending on volume.   |
| <b>Riverside Publishing</b><br>( <a href="http://www.riverpub.com">http://www.riverpub.com</a> ) <i>for Battelle Developmental Inventory along with the screening version (BDIST-II) online via keyboards , and/or CD-ROM</i>                            | Website FAQs, email support, live workshops, webcasts/webinars                          | Scoring services include report writing, all via web-based services. The website indicate a version for Personal Digital Assistants (PDAs) but this will be phased out shortly. In English and Spanish. Pricing, ~ \$765 per year  |

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**\*Footnote (a):**

***Medical History and Physical Exam for Primary Care***

Health care providers should conduct, along with developmental-behavioral screening tests, a thorough physical exam, at targeted well-visits:

Take note of such potentially teratogenic exposures as radiation or medications, infectious illnesses, fever, addictive substances, or trauma, and review results of neonatal screens including phenylketonuria, hypothyroidism, and other metabolic conditions. Your review should also consider the perinatal history, including birth weight, gestational age, Apgar scores, and any medical complications. Postnatal medical factors to be considered such as chronic respiratory or allergic illness, recurrent otitis, head trauma, and sleep problems including symptoms of obstructive sleep apnea. Family risk factors should be discussed (or captured via the Family Psychosocial Screen) and noted in the child's chart. These should include parental history of depression or anxiety, family history of developmental disabilities, and substance abuse including smoking, etc.

The physical examination should include attention to growth parameters, head shape and circumference, facial and other body dysmorphism, eye findings (e.g., cataracts in various inborn errors of metabolism), vascular markings, and signs of neurocutaneous disorders (e.g., café-au-lait spots in neurofibromatosis, hypopigmented macules in tuberous sclerosis), muscle strength, tone, presence of abnormal reflexes, and disturbance of movement. For guidance in conducting a pediatric neurodevelopmental exam, the following online video is helpful: [http://library.med.utah.edu/pedineurologicexam/html/home\\_exam.html](http://library.med.utah.edu/pedineurologicexam/html/home_exam.html). Vision and hearing screening are essential. Lead screening should be provided whenever developmental problems arise, but preferably for all children and, repeated at several points during the 0 – 6 year age range.

**\*Footnote (b):**

***National Referral Resources: Links To Commonly Needed Services***

For locating state, regional and local early intervention programs under the Individuals with Disabilities Education Act, and testing services for young children with suspected or known disabilities go to **[www.nectac.org](http://www.nectac.org)**

American Academy of Pediatrics: Find a Pediatrician (**[www.aap.org/referral/](http://www.aap.org/referral/)**) to locate general as well as developmental-behavioral, neurodevelopmental, and other subspecialty pediatricians.

For help locating Head Start programs see **[www.ehsnrc.org/](http://www.ehsnrc.org/)**

For help locating quality preschool and day care programs visit **[www.childcareaware.org](http://www.childcareaware.org)**, and **[www.naeyc.org/](http://www.naeyc.org/)**

For help locating parent training programs see **www.patnc.org** and the YWCA **www.ywca.org**

For locating services for school age children, call the school psychologist or speech-language pathologist in the child's school of zone.

For help locating mental health services go to **www.mentalhealth.org**

For services and information about autistic spectrum disorders go to **www.firstsigns.org**

Social services including domestic violence, child abuse and neglect, adoption, state, and local services, etc. can be found at **www.acf.hhs.gov**

For after school programs, check with the child's school of zone, as well as these sites: the Boys and Girls Club **www.bgca.org**, and the YWCA **www.ywca.org**

*California Resources: Links To Commonly Needed Services and Information*

California Dept of Developmental Services: **www.dds.ca.gov/sp** has links to the 21 regional centers throughout the state and referral links for additional testing and requests for services

Developmental Checkups for California Kids website: **www.first5ecmh.org** for parenting information

The First 5 California Parent's Site: **www.ccfa.ca.gov/parents** also known as the California Children and Families Commission provides information for California parents on education, healthcare, childcare and other programs for young children.