Developmental Screening: Its the Least We Can Do for Kids

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Trends in Prevalence of Developmental Disabilities

National Health Information Survey

- ADHD; cerebral palsy; autism; seizures; stammering or stuttering; intellectual disability; moderate to profound hearing loss; blindness; learning disorders; other developmental delays

Prevalence of any developmental disability increased from 12.84% to 15.04% over 12 years.

17% increase in prevalence over the 12-year period

1.8 million more children with developmental disabilities than a decade earlier
Autism Prevalence

- New CDC prevalence study
- 14 states
- 1:88 children aged 8
  - 1:54 males
  - 1:252 females
- 82% increase males, 63% females across all sites
- Largest increase seen in Hispanic children
- % of children with comprehensive evaluation by 36 months increased from 32 to 41%
Why Higher Rates?

- Better detection
- Changing definitions
- Changing landscape of America
- Increase in children in poverty
  - 2010: poverty rate single mother households with children <6 = 54%
  - 2010: Percentage of children living in poverty 22% (increase from 15.6% in 2000)
  - 1:10 of these children lived in deep or extreme poverty
  - In total, 43% of children were low income
- Poverty disproportionately affects minority children, younger children
The Basic Science Of Pediatrics.

Identifying Infants and Young Children With Developmental Disorders in the Medical Home: An Algorithm for Developmental Surveillance and Screening

Council on Children With Disabilities
Section on Developmental Behavioral Pediatrics
Bright Futures Steering Committee
Medical Home Initiatives for Children With Special Needs Project Advisory Committee
Policy Statement Recommendations

- Developmental surveillance: Every well-child visit
- Developmental screening using a standardized screening tool: 9, 18, and 30* months; When concern is expressed
- Autism screening: 18 and 24 months

* Can be done at 24 months
Developmental Surveillance

“a flexible, continuous process whereby knowledgeable professionals perform skilled observations of children during the provision of health care.”

Components:

- Eliciting and attending to parental concerns
- Obtaining a relevant developmental history
- Making accurate and informative observations
- Identifying risk and protective factors
- Maintaining an accurate record
- Sharing concerns with other relevant professionals.
Developmental Screening

“The administration of a brief standardized tool aiding the identification of children at risk of a developmental disorder”

Components

• Detecting children with unsuspected deviations from normal
• Using measures with proven reliability and validity
• Administering in standardized, uniform way
• Completing testing at specific intervals (i.e. 9, 18 or 24, 30 months)
Policy Statement Recommendations

- Use parent-report questionnaires or directly administered tools with sensitivity and specificity of at least 70-80%.
- If screening results are concerning, refer to developmental and medical evaluations and early intervention services.
- Follow up on referrals made and continually track child’s developmental status.
Algorithm: Surveillance to Screening to Referral

*Because the 30-month visit is not yet a part of the preventive care system and is often not reimbursable by third-party payers at this time, developmental screening can be performed at 24 months of age.*
Ages and Stages Questionnaire (ASQ)

- 4 months to 6 years
- 19 color-coded questionnaire
- 30 – 35 items per form describing skills
- Parent questionnaires that get longer as the child ages and some questions require the child to demonstrate a skill
- 10 to 15 minutes for parents to complete
- 3 minutes to score
- Available in many languages
- One time $200 purchase and then materials can be copied
Parents Evaluation of Developmental Status (PEDS)

- 10 questions that ask about parental concern
- Forms are not age specific, so practice uses the same form at every well child visit
- Available in many languages
- 5 minutes for parents to complete
- 1 to 2 minutes to score
- Composite scoring sheet that can be kept in the medical record
- Cost is about $1.10 per visit and questionnaires cannot be copied
M-CHAT: Modified Checklist Autism in Toddlers

- 23 items
- 6 critical items
- Failure of 2 critical items or 3 items in total warrants further evaluation
- High false positive rate
- Follow-up Interview recommended for positive screens
Sample M-Chat questions

- Does your child take an interest in other children?
- Does your child ever use his/her index finger to point, to indicate interest in something?
- Does your child ever bring objects over to you (parent) to show you something?
- Does your child imitate you? (e.g., you make a face—will your child imitate it?)
- If you point at a toy across the room, does your child look at it?
14. You reported that ________ does not respond to his/her name when you call.
(Critical)

- Is this still true?
  - Yes
    - If he/she is not doing anything particularly fun or absorbing, would he/she usually respond to his/her name being called?
      - No
        - What does he/she do when you call his/her name?
          - If yes only to example(s) from above
            - PASS
            - Pass response
          - If yes to examples from both
            - What is more typical?
              - FAIL
              - Fail response
      - Yes
        - PASS
        - If parent does not spontaneously respond, ask below examples
  - No
    - Then your child does respond to his/her name?
      - Yes
        - If yes to examples from both
          - FAIL
          - Fail response
      - No
        - If yes only to example(s) from above
          - PASS
          - Pass response

- Looks up
- Talks or babbles
- Stops what he/she is doing
How are we doing?
2009 Periodic Survey

- Follow-up from 2002 Survey (prior to AAP recs)
- Self-reported always/almost always using 1 screening tool increased over time
- 23.0%–47.7%
- No physician or practice characteristics were associated with use of formal screening tools
Parents asked:

“In the previous 12 months, did a doctor or other health provider have the parent/respondent fill out a questionnaire about specific concerns or observations they may have had about their child’s development, communication, or social behaviors”

- 19.5% of children received a parent completed developmental screen in the previous 12 months
- Varied from 10-47% across states
- 29 states had % lower than the national average
  - 22 states higher than national average
  - CT: 16.6%
- Prevalence of screening highest for:
  - Children <12 months
  - African-American children
  - Public insurance
- Children at high risk were 2X as likely to receive early intervention services if they had developmental screen
2012 National Survey

- Asked about:
  - Developmental screening at recommended intervals
  - Autism screening at recommended intervals
  - Screening when concerns are raised

- 6 states participated
- 17.8% of physicians compliant with all 3 recs

- Compared with 5 years ago
  - 44.8% using standardized developmental screening tools
  - 72.2% using standardized autism screening tools
<table>
<thead>
<tr>
<th>AAP recommendation</th>
<th>Pediatricians N=281</th>
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</thead>
<tbody>
<tr>
<td>Always using standardized developmental screening tool</td>
<td></td>
</tr>
<tr>
<td>at:</td>
<td>N</td>
</tr>
<tr>
<td>9 month visit</td>
<td>117</td>
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<tr>
<td>18 month visit</td>
<td>163</td>
</tr>
<tr>
<td>24 or 30 month visit</td>
<td>146</td>
</tr>
<tr>
<td>Always using standardized autism screening tool at:</td>
<td></td>
</tr>
<tr>
<td>18 month visit</td>
<td>168</td>
</tr>
<tr>
<td>24 month visit</td>
<td>141</td>
</tr>
<tr>
<td>Screen with standardized tool when significant concerns</td>
<td>150</td>
</tr>
</tbody>
</table>
Reason for change

- Desire to maintain a standard of care (65.5%)
- Collective decision of a practice (58%)
- Publication of the AAP policy statements (50.5%)
- Improved reimbursement for developmental screening (26%)
- Attended a CME or training (16.7%)
- State regulation requirements (7.1%)
Implementation of screening

- Most in exam room (72.2%), followed by waiting room (19.4)
- During the well-child visit (49.3%) or just before (42.3%)
- 48.5% of parents unassisted. When assisted, nurses and medical assistants
- Doctors and nurse practitioners scoring 82.8% of screens
Disparities in Screening

- Practices with fewer minority children, publicly insured:
  - LESS likely to screen for developmental delays or when concerns are raised
  - MORE likely to screen for autism
What are our obstacles?
Getting Paid for Screening

- 96110
- Used for any developmental screening done with a formal screening tool
- Can be billed on the same day as a well child exam or with other visit
- Can bill multiple screens
Getting Started
Developmental Screening Implementation Checklist

Prior to Implementation Decisions and Set-up

- Identify practice champions
- Introduce the idea to the practice
- Elicit ideas, concerns, and suggestions from all staff members
- Review the available tools and make choices
- Train all staff in administering, scoring and interpreting
- Consider methods of implementation
- At what visits will screening be included?
- How will tool be distributed – in the office, via mail, or posted electronically online?
- What will you do with completed screens?
Developmental Screening Implementation Checklist

Prior to Implementation Checklist
Who will:
- Purchase and reorder the tool
- Maintain supplies
- Hand out (or mail or help a parent log in) the tool and explain it to parents
- Be responsible for scoring
- Document findings and plan in the medical record
- Are supplies needed?

Managing Referrals:
- What is the current system? Is it in need of change?
- Who will make referrals?
- Who will follow up?
- Are resources known in the community?
Developmental Screening Implementation Checklist

**Trial run**
- Assign one staff member to be a “parent”
- Starting at the front desk, have them walk through the typical visit, with the screening steps now included
- Assign another staff member to be the “provider” and walk through the steps of interpreting, scoring, and acting on the results
- Fix any operational glitches you find

**IMPLEMENTATION!**

**Post Implementation tasks**
- Communicate consistently
  - Request regular feedback from all staff – particularly, but not only, after the trial run
  - Give staff regular feedback on their successes and the changes you believe necessary
- How will you measure success?
  - Track referrals
  - Poll parents
What Works?
Most Common Interventions

- Changes to office systems, usually part of a formal quality improvement program
- Physician and staff education, sometimes facilitated by a physician champion
- Electronic medical record enhancements (eg, prompts)
- Distribution of additional tools for physicians to use when screening or counseling patients.

- Little evidence about interventions to improve post-visit follow-up or referral completion
Findings

1. Most studies reported modest improvements quality of screening
2. No particular type or form of intervention was superior for improving screening
3. Few interventions aimed to improve follow-up of abnormal screening results,

   Successful interventions emphasized:
   - Collaborative learning
   - Office-systems changes
   - Tracking progress over time.
National and CT Resources
Educating Practices in the Community (EPIC)

- Onsite training in developmental surveillance, screening and connecting children to evaluation and intervention services
- For the whole practice
- Includes lunch, 40 minute presentation and resources to encourage implementation
- FREE
- Call Maggy Morales at CHDI 860 679-1527
What is Maintenance of Certification?

- Pediatricians and subspecialists need to complete a maintenance of certification (MOC) process every 7-10 years as prescribed by the American Board of Pediatrics (ABP)

- MOC consists of four parts:
  - Part 1: Evidence of professional standing
  - Part 2: Evidence of lifelong learning and self-assessment
  - Part 3: Evidence of cognitive expertise
  - Part 4: Evidence of satisfactory performance in practice
For MOC Part 4 credit, physicians must participate in two practice-based quality improvement (QI) activities each cycle.

QI activities must meet standards set by the ABP and receive approval from the ABP.

In April 2012, *Help Me Grow* received approval from the ABP for a chart-audit based quality improvement activity that meets Part 4 requirements.
What is the new QI project?

- Training module
  - Primary care practices receive *Help Me Grow* training on best practices for developmental surveillance, developmental screening, and connecting children to intervention services through *Help Me Grow*.

- Chart audit
  - Practices collect and enter 6 months of chart audit data using an online database. **No patient identification information is included.**

- Data review
  - Practices review monthly progress reports and participate in practice change discussions to foster quality improvement.
# Chart Audit

**Chart Audit Form**

1. Patient ID Number: ________  
2. Well-child visit:  
   - [ ] 9 month  
   - [ ] 12 month  
   - [ ] 18 month
3. Month of Visit: __________

## Developmental Surveillance

4. Can you locate documentation that the provider asked about parental concerns at the visit in the chart or EMR?
   - [ ] YES if you find documentation in the chart that the provider asked about parental concerns about learning, development, or behavior  
   - [ ] NO
   - **Otherwise, select NO.**

   **If yes to Question 4a, were any parental concerns noted?**  
   - [ ] YES  
   - [ ] NO

## Developmental Screening

5. Can you locate any of the following developmental screening tools from the visit in the chart or EMR? **If yes, please specify the outcome.**

<table>
<thead>
<tr>
<th>Yes/No</th>
<th>Name of Screening Tool</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>□</td>
<td>Ages &amp; Stages Questionnaire (ASQ)</td>
<td>PASS/FAIL/NOT SCORED</td>
</tr>
<tr>
<td>□</td>
<td>Child Development Inventories (CDI)</td>
<td>PASS/FAIL/NOT SCORED</td>
</tr>
<tr>
<td>□</td>
<td>Denver II</td>
<td>PASS/FAIL/NOT SCORED</td>
</tr>
<tr>
<td>□</td>
<td>Parents’ Evaluation of Developmental Status (Peds)</td>
<td>PASS/FAIL/NOT SCORED</td>
</tr>
<tr>
<td>□</td>
<td>Modified Checklist for Autism in Toddlers (MCHAT)</td>
<td>PASS/FAIL/NOT SCORED</td>
</tr>
<tr>
<td>□</td>
<td>Other:</td>
<td>PASS/FAIL/NOT SCORED</td>
</tr>
</tbody>
</table>
Chart Audit (cont’d)

**Connection of children to services**

If the patient *either* had a parental concern reported (Question 4b) *or* failed a developmental screening test (Question 5), please answer the following question:

6. **Was the patient referred to any of the following community resources?**

   Select YES if you find evidence that the patient was **referred** to any of the following community resources.
   Otherwise, select NO.

   **Note:** This list can be populated **based on state-specific responses**

<table>
<thead>
<tr>
<th>Resource</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Help Me Grow</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>Birth to Three</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>United Way 211</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>Connecticut Children’s Medical Center</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>Other doctor/specialist/agency</td>
<td>□</td>
<td></td>
</tr>
</tbody>
</table>
## Chart Audit Entry Form

**More Actions ▼**

### Patient ID Number:

- [ ]

### Well-Child Visit:

- [ ]

### In Which Month Did the Visit Occur?:

- [ ] 9 month
- [ ] 18 month
- [ ] 24 month

### Is There Documentation That the Provider Asked About Parental Concerns at the Visit in the Chart or EMR?:

- [ ] Yes
- [ ] No

### Were Any Parental Concerns Noted?

- [ ] Yes
- [ ] No

Please indicate whether the following developmental screening tools were completed at this visit:

- [ ] Ages & Stages Questionnaire (ASQ)
- [ ] Child Development Inventories (CDI)
- [ ] Denver II
- [ ] Parents’ Evaluation of Developmental Status (PEDS)
PCPs can review the data that they have entered
Progress reports summarize performance by month.
What are the goals of the project?

- Provide pediatric practices with information on surveillance, screening and using *Help Me Grow* to connect children to needed services
- Facilitate data collection and review among participating practices
- Help practices improve rates of developmental surveillance, developmental screening, and using *Help Me Grow* to connect young children to intervention services
- Enable participating physicians to fulfill MOC requirements
Three other reasons why the *Help Me Grow* MOC activity is important

- Increasing emphasis on the use of data for quality improvement processes:
  - NCQA Medical Home Recognition
  - Results Based Accountability
- Developmental Screening is increasingly being used as a pediatric performance measure:
  - NCQA Medical Home standards
  - CHIPRA Quality Improvement measures
- Organized linkage to services is central to medical home and primary care service delivery
How to Enroll in the QI Project

- Online registration form on Help Me Grow National website
- HMG National provides pediatrics with instructions for chart audit and using online database
- HMG National provides technical support to practices participating in the project, offers to connect with state Help Me Grow when appropriate
- HMG National provides certification to ABP after practices complete the activity

Contact:
Sara Sibley (smartel@ccmckids.org)
Help Me Grow National Center (http://helpmegrownational.org/)
What next?

- Developmental screening beyond age 3
- Psychosocial risk screening
- Behavioral health screening
  - Substance use
  - Disorder specific screening
    - ADHD
    - Depression
    - Anxiety
- AAP is developing clinical report on Behavioral Screening
Vision for Pediatrics

- Shifts in demographics, socioeconomics, health status, health care delivery, and scientific advances in US
- Early childhood is a time of great growth
- And great vulnerability
- Increasing numbers of children with short and long-term disability, threats to developmental and behavioral trajectory.
- Is pediatrics willing to be part of the solutions?