Developmental Screening and Electronic Health Records (EHRs)

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Centers for Disease Control and Prevention

The findings and conclusions in the presentation are those of the presenters and do not necessarily represent the official position of the Centers for Disease Control and Prevention.
• About **4 million babies** born in the US each year

• **1 in 4** are at moderate to high risk for developmental delays

• **1 in 6** children will have a developmental disability

• **1 in 68** with autism*

*(NSCH2011/2012; Boyle et al., 2011; CDC, 2014)*

* Autism Spectrum Disorder (ASD)
AAP recommends screening of all children for developmental, behavioral, and social delays at 9, 18, and 24 or 30 months. Less than 50% of pediatricians use valid and reliable screening tools. Children who have developmental delays are at greater risk for later emotional and behavioral problems and poor educational achievement. 1 in 4 children, age 0-5 years, are at moderate or high risk for developmental, behavioral, or social delay.

The “ONE” in the “1 in 6”
Cycle of Developmental Health

Developmental Monitoring

Screening

Assessment

Services and Supports
Well-child visits for all children should include:

- Developmental Monitoring
  - Informal probing about development and behavior at every well-child visit
- Developmental Screening
  - Use a validated screening tool at 9, 18, and 24 or 30 months
  - ASD-specific screening 18 and 24 or 30 months
- If concern identified from screening
  - Refer for evaluation
  - Refer for intervention

ASD: autism spectrum disorder

AAP Policy Statement on Developmental Screening (2006)
Steps to Successful Screening Programs

• Healthcare providers
  – Monitor development at each well-child visit
  – Use validated screening tools at established intervals, time a concern is raised
    • Use validated screening tool
  – Include developmental screening in EHR
  – “Don’t defer, refer.”

• Parents
  – Ask about your child’s development
  – Learn the signs
  – Be persistent, follow-up if concerned

• Community-wide tools
  – Birth to 5: Watch Me Thrive
  – Learn the Signs. Act Early.
• **Support of electronic information to improve early identification of children with developmental delays, linkage to services, and tracking progress and outcomes.**

• Relation to “Benchmarks” for early identification: developmental monitoring, screening, linkage to services, and monitoring outcomes.
  • EHRs may help
    • Improve clinical services
    • Improve referrals
    • Provide data for tracking progress and outcomes
Many Facets of EHRs

- Clinical Guidelines
- Quality Measures
- EHRs
- Available tools
- Public Health Reporting
- Technology and Vendors
- Laws and Policies
- Clinical Utility and Implementation
- Billing and Reimbursement
- Data Standards
Clinical Quality Measures for developmental screening: status and use
**HP2020 – Maternal, Infant, Child Health**

- **MICH-29**   Increase the proportion of young children with an autism spectrum disorder (ASD) and other developmental delays who are screened, evaluated, and enrolled in early intervention services in a timely manner

<table>
<thead>
<tr>
<th>HP2020</th>
<th>Increase the proportion of young children…</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>29.1</td>
<td>…who are screened for an Autism Spectrum Disorder (ASD) and other developmental delays by 24 months of age</td>
<td>NSCH (MMWR on dd monitoring and screening up to age 4)</td>
</tr>
<tr>
<td>29.2</td>
<td>… with an ASD with a first evaluation by 36 months</td>
<td>ADDM</td>
</tr>
<tr>
<td>29.3</td>
<td>… with an ASD enrolled in special services by 48 months</td>
<td>MADDSP (GA)</td>
</tr>
<tr>
<td>29.4</td>
<td>… with a developmental delay with a first evaluation by 36 months</td>
<td>NSCH (starting 2011/2012)</td>
</tr>
<tr>
<td>29.5</td>
<td>… with a developmental delay enrolled in special services by 48 months</td>
<td>NSCH (starting 2011/2012)</td>
</tr>
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</table>
National Quality Forum (NQF):

- Reminder:
  - Builds consensus on national priorities and goals for performance improvement and works with partners to achieve them.
  - Endorses national consensus standards (quality measures) for measuring and publicly reporting on performance
  - Often form the basis for integration into clinical practice, e-measures, EHR use (including Meaningful Use)

www.qualityforum.org
NQF Measures and LTSAE

• Do the NQF Measures match objectives LTSAE wants to support?
  • Developmental Monitoring
  • Developmental Screening
  • Access to Developmental Services
## NQF and Developmental Screening

<table>
<thead>
<tr>
<th>Measure</th>
<th>NQF #</th>
<th>Steward</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developmental screening using a parent completed screening tool (Parent report, Children 0-5)</td>
<td>1385</td>
<td>Maternal and Child Health Bureau, Health Resources &amp; Services Administration</td>
</tr>
<tr>
<td>Developmental Screening by 2 Years of Age (Updated 01/04/13 to include the First Three Years of Life (now similar to 1448))</td>
<td>1399</td>
<td>NCQA</td>
</tr>
<tr>
<td>Developmental Screening in the First Three Years of Life</td>
<td>1448</td>
<td>NCQA and CAHMI</td>
</tr>
<tr>
<td>Promoting Healthy Development Survey (PHDS)</td>
<td>0011</td>
<td>Oregon Health &amp; Science University</td>
</tr>
<tr>
<td>Well-Child Visits in the First 15 Months of Life</td>
<td>1392</td>
<td>National Committee for Quality Assurance</td>
</tr>
<tr>
<td>Well-Child Visits in the Third, Fourth, Fifth and Sixth Years of Life</td>
<td>1516</td>
<td>National Committee for Quality Assurance</td>
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</tbody>
</table>
## NQF #1385 Developmental screening using a parent completed screening tool (Parent report, children 0-5)

<table>
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<tr>
<th>Description</th>
<th>Population</th>
<th>Data Source/ Type of Measure</th>
<th>LTSAE Objectives (Monitoring, Screening, Access to Services)</th>
<th>Can this help us monitor systems changes or LTSAE-specific?</th>
</tr>
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<tr>
<td>Developmental screening using a parented completed screening tool (Parent report, children 0-5). Assesses whether the parent or caregiver completed a developmental screening tool meant to identify children at risk for developmental, behavioral or social delays.</td>
<td>National, regional, state</td>
<td>National Survey on Children’s Health (NSCH) - Patient Reported/Survey Process measure</td>
<td>Monitoring, Screening (basis for MMWR on NSCH Screening pre-ACA; reported ages to align with HP2020)</td>
<td>Possible connection to system level changes. Cannot attribute directly to LTSAE without specific survey questions re: LTSAE</td>
</tr>
</tbody>
</table>
## NQF #1399: Developmental Screening in the First Three years of Life

<table>
<thead>
<tr>
<th>Description</th>
<th>Population</th>
<th>Data Source/Type of measure</th>
<th>How is it Used?</th>
<th>LTSAE Objectives (Monitoring, Screening, Access to Services)</th>
<th>Can this help us monitor systems changes or LTSAE-specific?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developmental screening in the first 3 years of life. Children who had documentation in their medical record who had developmental screening performed by 1(^{st}), 2(^{nd}) and 3(^{rd}) birthdays.</td>
<td>National, regional or individual clinical level</td>
<td>Clinical Data/Claims data Process measure</td>
<td>Corresponds with HP2020 MICH 29.1, but no national measure</td>
<td>Screening</td>
<td>Systems</td>
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<td>Developmental screening in the First Three Years of Life.</td>
<td>Regional, state, individual systems</td>
<td>Overlaps with HP2020 MICH 29.1, but no national measure</td>
<td>Screening/Monitoring, but will miss children who might be coded only for additional screens</td>
<td>Systems change</td>
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<td>Percentage of children screened for the risk of developmental, behavioral and social delays using a standardized screening tool in the first 3 years of life.</td>
<td></td>
<td>Claims data. Only coded as developmental screening*Does not account for modified or additional screens such as ASQ-SE or autism screening</td>
<td></td>
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<tr>
<td>Since updated in Jan 2013, similar to 1399. Guess that 1399 replacing 1448.</td>
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# NQF #0011 Promoting Healthy Development Survey

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<th>Can this help us monitor systems changes or LTSAE-specific?</th>
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<td>Promoting Healthy Development Survey (PHDS)</td>
<td>Clinician or individual practice, but can be implemented at regional or national levels</td>
<td>Patient reported data-Survey</td>
<td>Access to developmental screening/monitoring. Access to services questionable.</td>
<td>Could be implemented in the context of a demonstration project or other process to determine LTSAE specific change or monitoring system change.</td>
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### NQF Developmental Screening and LTSAE

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How NQF-Endorsed Measures Get Implemented in Clinical Practice...

- Do the NQF Measures match objectives LTSAE wants to support?
- If no, do we want to propose another measure to be reviewed and endorsed by NQF?
  - 3 year schedule for endorsement with 22 priority areas
- If yes, what is happening with the use of the NQF measure in clinical practice?
  - Has the case been made and integration started?
    - Vendors who have adopted to integrate into EHR packages
    - Clinical entities using the measure in practice (Kaiser, CHOA, etc.)
    - Programs (AAP Bright Futures, ABCD, CAHMI)
  - Does a case need to be made for integration into clinical use?
  - How is the use monitored?
Next steps...

• Define the goals and objectives of LTSAE’s interest in NQF Developmental Screening Measures
  • Vision: Using electronic information to improve early identification of children with developmental delays, linkage to services, and tracking progress and outcomes.
    • Quality measures as a way to have a Benchmark for developmental screening (what about developmental monitoring, screening, linkage to services, and monitoring outcomes?).
    • Quality measures and actual use including EHR integration
    • Can these measures and their implementation help
      • Improve clinical services
      • Improve referrals
      • Provide data for tracking progress and outcomes

• Identify key partners
  • Start with fact-finding (Christy Bethell, Oregon; Marion Earls, NC)
  • Local partnership (Marcus/CHOA; KP)
What is a HEDIS measure?

- Healthcare Effectiveness Data and Information Set
- Measures health plan performance on dimensions of care and service
  - 76 measures
  - 5 domains of care
  - Used by 90% of health plans
  - Allows for an “apples to apples” comparison
HEDIS Measures and LTSAE

• How are HEDIS measures collected?
  • Measures collected through online portal and goes directly to NCQA from health plans.
    • Health Organization Questionnaire for survey data.
    • Interactive Data Submission for non-survey data.
    • Data collection methodology described in HEDIS narrative, but usually based in billing and coding.

• How are HEDIS measures used?
  • Health Insurance Plans Rankings report.
  • Quality Compass.
  • Reporting to employers who offer health plans.
  • Quality of care/service improvement.
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<tr>
<td>CAHPS-12 Month Survey with Patient Centered Medical Home Items-Child</td>
<td></td>
<td></td>
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<tr>
<td>CAHPS-12 Month Survey 2.0</td>
<td></td>
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<tr>
<td>CAHPS- Visit Survey 2.0</td>
<td></td>
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<tr>
<td>“In the last 12 months, did you and anyone in this provider’s office talk about the kinds of behaviors that are normal for your child at this age?”</td>
<td></td>
<td></td>
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<tr>
<td>“In the last 12 months, did you and anyone in this provider’s office talk about how your child’s body is growing?”</td>
<td></td>
<td></td>
</tr>
<tr>
<td>“In the last 12 months, did you and anyone in this provider’s office talk about your child’s moods and emotions?”</td>
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<td></td>
</tr>
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<td>CAHPS-Supplemental Items for the Child Surveys</td>
<td></td>
<td></td>
</tr>
<tr>
<td>“Does your child currently need or use medicine prescribed by a provider, other than vitamins?”</td>
<td></td>
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<tr>
<td>“Is this medicine for a condition that is expected to last for at least 12 months?”</td>
<td></td>
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<tr>
<td>“Does your child need or use more medical care, more mental health services, or more educational services than is usual for most children of the same age?”</td>
<td></td>
<td></td>
</tr>
<tr>
<td>“Are these services or medical care for a condition that is expected to last for at least 12 months?”</td>
<td></td>
<td></td>
</tr>
<tr>
<td>“Is your child limited or prevented in any way in his or her ability to do the things most children of the same age can do?”</td>
<td></td>
<td></td>
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<tr>
<td>“Does your child need or get special therapy, such as physical, occupational or speech therapy?”</td>
<td></td>
<td></td>
</tr>
<tr>
<td>“Does your child have any kind of emotional, developmental or behavioral problem for which he or she needs or gets treatment or counseling?”</td>
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Partners

• Federal
  • Bright Futures (preventive health services in ACA)
    • AAP, HRSA, AHRQ

• Local
  • Marcus, CHOA
  • KP
Measures

- AHRQ Children’s Health Record Format
- CHIPRA Measures
- CMS – EPSDT Standards
IT Interoperability Standards

- IHE
  - http://ihe.net/
- HL7

- Use case and standards