Tale of Two Cities: Strategies to Support Developmental Screening

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Detroit (Southeastern Michigan) Team: Maria DeVoogd, Donna Lackie, Lisa Sturges
Quick Reference Guide

• **Presentation Overview**
  • Current National Trends on Screening
  • Overview of Projects
    - Boston
    - Detroit
  • Data
  • Challenges
    - Boston
    - Detroit
  • Quality/Quantity
  • Questions
• Current National Trends on Screening
  - Help Me Grow National
  - Access and Quality Improvement in Early Education
  - Data Integration Systems
  - Family Engagement Practices
  - Pediatric Health and Electronic Medical Records
  - Mid-level Developmental Assessment
Project Development

Boston

- Project goals include:
  - **Child and Family Level**: Build community capacity to screen children early for potential developmental delays, and use the ASQ as an opportunity for family engagement, education, and referral to services
  - **Policy and Systems Level**: Create a universal screening system in order to gain a better understanding of the developmental progress of young children in Boston to inform funding and policy decisions
Project Development

Detroit

- Project goals include:
  - To identify *children* with developmental concerns and connect them to further evaluation and community resources
  - To support *families* to understand, document and maintain their child’s developmental history
  - To support *professionals* who work with young children to use screening as a first indicator for developmental delays
  - To build *community* data that can be used for future planning as well as advocacy efforts
Detroit: Project Successes

Overview of Data 2010 - 2014

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of ASQ: 3 screens</td>
<td>54,435</td>
</tr>
<tr>
<td>Total number of ASQ: SE screens</td>
<td>6,684</td>
</tr>
<tr>
<td>Total number of repeat ASQ: 3 screens</td>
<td>27,064</td>
</tr>
<tr>
<td>Percent increase from 2013-2014 in the total number of ASQ 3 screens</td>
<td>149%</td>
</tr>
<tr>
<td>Total number of children screened with the ASQ 3</td>
<td>33,038</td>
</tr>
<tr>
<td>Total number of children screened more than once with the ASQ 3</td>
<td>12,002</td>
</tr>
<tr>
<td>Percent of children screened more than once with the ASQ 3</td>
<td>45%</td>
</tr>
<tr>
<td>Total number of children screened routinely screened at different age intervals with the ASQ 3</td>
<td>8,119</td>
</tr>
<tr>
<td>Total number of community partners</td>
<td>270</td>
</tr>
<tr>
<td>Percent increase in the total number of community partners from 2013-2014</td>
<td>80%</td>
</tr>
</tbody>
</table>
Boston: Reaching Diverse Families

Young Children (0-5) in Boston

Children in Formal Early Education Programs

Children in Informal Care (parent, babysitter, relative)

- Early education programs
- Other community partners
- Parent Screeners in the community
- During playgroups and other family activities
Boston: Reaching Diverse Families

**Early education programs**
- Partner with 11 early education & care programs/networks in Boston
- Provide free access to ASQ Online for all partners
- Provide training/technical assistance on ASQ, ASQ:SE, ASQ Online, and screening procedures/processes

**Other community partners**
- Partner with home visiting programs in the Boston area
- Exploring an ASQ screening pilot with the state’s child welfare agency – Massachusetts Department of Children and Families
- Conduct outreach within federal WIC offices

**During playgroups and other family activities**
- Partner with 11 community-based agencies who make the ASQ available during playgroups and family activities
- Partner with Boston Public Schools’ Countdown to Kindergarten city-wide “play to learn” playgroups)
Peer to Peer Parent Screeners

Boston
• Three-seven Parent Screeners hired and trained in three Boston neighborhoods: Allston/Bright, Roxbury, and Dorchester/Mid-Dorchester
• Create connections to isolated communities and ensure screening is available to diverse families

Detroit
• Five parent screeners
• Parent screener handbook
• Parent screener URL
• Diverse Parents reaching diverse communities
• iPad tablet check-out
Boston: Parent Screeners

https://www.youtube.com/watch?v=JOj7P9vDsbk
Boston: Picture-Based Activity Handouts

Activities for 24-30 months old
- Basketball
- Make Cheerio necklace
- Read
- Identify objects
- Pretend Play
- Paint with water
- Draw

Activities for 8-12 months old
- Look in Mirror
- Bang Spoon
- Stand while playing with toys
- Look at Book
- Objects in and out of containers

Activities for 12-16 months old
- Surprise Bag
- Rattle using Beans or Rice
- Make a push and pull toy out of spools of thread
- Drawing
- Objects in and out of containers

Peek-a-boo
Boston: Early Intervention Handout

Early Intervention

Early Intervention (EI) is a statewide program for families with children from birth to 3 years old who have or are at risk for developmental delays. Children are eligible if they have developmental delays or if their development is at risk due to certain factors.

Any child under 3 in Massachusetts may be eligible if:
1) They are not reaching age-appropriate milestones in one or more areas of development.
2) They have been diagnosed with a condition that may result in a delay.
3) They are at risk for a developmental delay because of factors in their home or family.

There is no minimum age requirement for Early Intervention. Any child from birth to three years old can be assessed for eligibility. Early Intervention is available to all families regardless of income or immigration status.

- The assessment and services are at no cost to the family.
- The referral consists of a short phone call to Early Intervention and is very easy.
- Services can be received in the family's home, within the community, or at an Early Intervention center.

After a child is referred, the Early Intervention team will conduct an assessment looking at 5 developmental areas:
- Cognition
- Expressive and receptive language
- Gross and fine motor
- Self-care

The assessment reviews simple activities such as stacking wooden blocks or following the sound of a bell. It will take about 2 hours.

Children without delays can also be eligible if their or their families have four or more risk factors, such as:
- More than 1 child in the household
- More than 1 child with a disability
- Parent has chronic illness or disability
- Family has low social support
- Difficulty with food, clothing or shelter, including homelessness
- Involvement in Department of Children and Families
- Substance abuse in the home
- Violence in the home
- Child has experienced multiple upsetting experiences

When in doubt, refer the child to Early Intervention.

Boston Early Intervention Providers

<table>
<thead>
<tr>
<th>Name of Program</th>
<th>Language(s)</th>
<th>Neighborhoods/ Community Served</th>
<th>Office Location</th>
<th>Phone Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ray-Care Early Intervention Program</td>
<td>English, Cape Verdean Creole, Spanish</td>
<td>Vietnamese, All neighborhoods in Boston, except for East Boston</td>
<td>185 Victory Road, Dorchester, MA 02124</td>
<td>Ph: 617-371-3010, F: 617-371-3044</td>
</tr>
<tr>
<td>South Cove Early Intervention</td>
<td>Cantonese, Mandarin</td>
<td>Chinatown</td>
<td>South Street Clinic, 145 South St, Boston, MA 02111</td>
<td>Ph: 617-531-6730, F: 617-857-6606</td>
</tr>
<tr>
<td>Boston Children’s Hospital Early Intervention Program</td>
<td>English, Spanish</td>
<td>Additional interpreter services offered by Boston Children’s Hospital</td>
<td>All neighborhoods in Boston, except for East Boston</td>
<td>75 Broadway, Jamaica Plain, MA 02130</td>
</tr>
<tr>
<td>Criterion Early Intervention Program</td>
<td>English, French, Haitian Creole, Polish</td>
<td>Spanish, All neighborhoods in Boston, except for East Boston</td>
<td>23 Willow St, West Roxbury, MA 02132</td>
<td>Ph: 617-469-3080, F: 617-469-3085</td>
</tr>
<tr>
<td>Dimock Early Intervention Services</td>
<td>English, Cape Verdean Creole, German, Spanish</td>
<td>Haitian, Creole, Portuguese</td>
<td>All neighborhoods in Boston, except for East Boston</td>
<td>1888 Columbus Ave, Roxbury, MA 02119</td>
</tr>
<tr>
<td>Harbor Area Early Intervention Program (North)</td>
<td>Arabic, English, Spanish</td>
<td>Portuguese, Spanish</td>
<td>Charlestown, East Boston, Chelsea, Revere, Winthrop</td>
<td>130 Corbin Street, East Boston, MA 02128</td>
</tr>
<tr>
<td>Thomaston Early Intervention Program</td>
<td>English, Haitian Creole, Lehtunen</td>
<td>Portuguese, Spanish</td>
<td>Portuguese, Spanish</td>
<td>All neighborhoods in Boston, except for East Boston</td>
</tr>
</tbody>
</table>
Boston

• Parent Screeners speak English, Spanish, Portuguese, Vietnamese, Cape Verdean Creole, Haitian Creole

• Development of picture-based activity handouts

• Development of parent-friendly handout explaining Early Intervention services

Detroit

• Low-income: Detroit, Pontiac and Warren

• Racial/Ethnic: African-America, Hispanic, Arabic

• Arabic translation and pilot project
Destination Coordinates

Overview of data systems and analyses
Boston: Map of Children Screened
Boston: Child Demographics

N=1,463 children
Collected between May 2013 to mid-January 2015

Children Screened by Gender (n=1,382)
- Male: 701 (50%)
- Female: 681 (49%)

Type of Childcare among Children Screened (n=1,463)
- Formal (356) 24%
- Informal (1,107) 76%

Racial Composition of Children Screened (n=538)
- Asian: 32%
- White: 20%
- Black: 19%
- Other: 29%
Boston: Caregiver Demographics

**Caregiver’s Educational Attainment (n=380)**
- Less than High School: 14%
- High School/GED: 61%
- College Degree/Higher: 25%

**Caregiver’s Employment Status (n=390)**
- Employed (FT/PT): 60%
- Unemployed: 40%
Boston: Outcome Transformation

- Strong Concern
- Potential Concern
- Off Track
- On Track
- On Track
Boston: Performance by Developmental Areas

<table>
<thead>
<tr>
<th>Developmental Area</th>
<th>% On Track</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
<td>84%</td>
</tr>
<tr>
<td>Gross motor</td>
<td>88%</td>
</tr>
<tr>
<td>Fine motor</td>
<td>80%</td>
</tr>
<tr>
<td>Problem-solving</td>
<td>85%</td>
</tr>
<tr>
<td>Personal-social</td>
<td>85%</td>
</tr>
</tbody>
</table>

Number of Children On Track

- Communication: 1233
- Gross Motor: 1285
- Fine Motor: 1173
- Problem Solving: 1236
- Personal-Social: 1246
### Boston: Comparison by Gender

<table>
<thead>
<tr>
<th>Child’s Gender</th>
<th>Communication</th>
<th>Gross Motor</th>
<th>Fine Motor</th>
<th>Problem Solving</th>
<th>Personal Social</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>87%*</td>
<td>88%</td>
<td>84%*</td>
<td>87%</td>
<td>88%*</td>
</tr>
<tr>
<td>Male</td>
<td>81%*</td>
<td>87%</td>
<td>78%*</td>
<td>83%</td>
<td>82%*</td>
</tr>
</tbody>
</table>

*Note: for all analyses, level of significance is 0.05
Boston:
Comparison by Childcare Type

<table>
<thead>
<tr>
<th>Childcare Type</th>
<th>Communication</th>
<th>Gross Motor</th>
<th>Fine Motor</th>
<th>Problem Solving</th>
<th>Personal Social</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal Childcare</td>
<td>81%*</td>
<td>85%</td>
<td>72%*</td>
<td>79%*</td>
<td>86%</td>
</tr>
<tr>
<td>Informal Childcare</td>
<td>85%*</td>
<td>89%</td>
<td>83%*</td>
<td>86%*</td>
<td>85%</td>
</tr>
</tbody>
</table>

*Note: for all analyses, level of significance is 0.05
Boston: Next Steps in Data System and Analysis

- Continuing analysis by demographic variables
- Referrals and follow-up
- Creating back-end user database for data aggregation, more immediate reporting
Detroit: Help Me Grow Evaluation
Process Ecological Framework

Year 1
- Development phase
- Collaborative partnership
- Administration and implementation

Year 2
- Service delivery
- Screening domains
- Short-term outcomes
- Growth and expansion

Years 3 & 4
- Service delivery
- Screening domains
- Referral follow-up (STAR data system)
- Short-term outcomes, long-term outcomes
- Partner experience
- Growth and expansion
Detroit: Types of Evaluations

• **Process Evaluation**: capacity, infrastructure, leadership and implementation

• **Community Partner Evaluation**: technical assistance, implementation, usage and benefits

• **Parent Survey**: services, referrals, usage and benefits

• **Outcome Evaluation**: ASQ 3, change overtime and regional and county level.

• **STAR data**: Care Coordination, follow-up; services, gaps and outcome data
<table>
<thead>
<tr>
<th>Inputs</th>
<th>Activities</th>
<th>Outputs</th>
<th>Short and Intermediate Outcomes</th>
<th>Long-Term Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>United Way for Southeastern Michigan</td>
<td>Increase collaboration</td>
<td>Development of a regional and state-wide plan</td>
<td>Development of a regional plan</td>
<td>Implementation of a universal regional developmental screening model</td>
</tr>
<tr>
<td>MI Office of Great Start</td>
<td>Provide training on use of ASQ-3 and ASQ: SE and technical assistance</td>
<td>300 trained community partners</td>
<td>Increased number of developmental screens</td>
<td>Increased developmental readiness</td>
</tr>
<tr>
<td>Corporation for National and Community Service – Social Innovation Fund</td>
<td>Administer ASQ-3 and ASQ: SE with parents</td>
<td>60,000 developmental screens produced</td>
<td>Increased numbers of engaged physicians</td>
<td>Strengthened policy change for developmental screening</td>
</tr>
<tr>
<td>Great Start Collaborative</td>
<td>Engage parents in child development</td>
<td>Family support events that promote development</td>
<td>Development of a regional data dashboard</td>
<td>Children enter school healthy and ready to learn</td>
</tr>
<tr>
<td>HMG Michigan county partners</td>
<td>County, regional and state level data analysis</td>
<td>Distribution of Learn &amp; Grow Together booklet, quarterly e-newsletter, and HMG Growth Chart</td>
<td>Increased numbers of engaged physicians</td>
<td>Enhanced protective factors to promote positive development</td>
</tr>
<tr>
<td>Michigan Department of Community Health</td>
<td>Provide care coordination to families</td>
<td>National partnership with HMG and national researchers</td>
<td>Development of a regional care coordination services</td>
<td></td>
</tr>
<tr>
<td>Family Support, Health and Education Partners</td>
<td>Grant writing</td>
<td>Local and state media partnerships</td>
<td>Increased promotion and awareness through multiple and segmented marketing efforts</td>
<td></td>
</tr>
<tr>
<td>Oakland University</td>
<td>Ongoing meetings with partners and key stakeholders</td>
<td>Partnership with Michigan Office of Great Start</td>
<td>Monitor utilization of data for strategic community planning</td>
<td></td>
</tr>
<tr>
<td>Parents and Children</td>
<td></td>
<td>Regional website and telephone line</td>
<td>Increase capacity and supports to ASQ partner sites</td>
<td></td>
</tr>
<tr>
<td>HMG National</td>
<td></td>
<td></td>
<td>Engaged, educated, and empowered parents</td>
<td></td>
</tr>
<tr>
<td>ASQ-3 and ASQ: SE Screening Tools (Brookes Publishing)</td>
<td></td>
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<tr>
<td>Local media</td>
<td></td>
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<tr>
<td>American Academy of Pediatrics</td>
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<tr>
<td>Infant Mental Health</td>
<td></td>
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<tr>
<td>Arabic Translation Project</td>
<td></td>
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<tr>
<td>Parent Screeners</td>
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<tr>
<td>Regional Coordinator</td>
<td></td>
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<tr>
<td>Early Learning Communities</td>
<td></td>
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</tr>
</tbody>
</table>
Detroit: Data Variables and Outcomes Using ASQ 3

**Descriptive Analysis of Screens**

- Percent increase in screens
- Percent increase in community partners
- Overall Risk of delay (age interval, zip code, high-risk zip codes, county, regionally)
- Risk of delay by developmental domain (county, high-risk zip codes)
- Routine screening by (different age interval) and repeating screening

**Impact Analysis by Child**

- Overall change from first screened to last screened (regionally, county, high-risk zip code)
- Percent change of children from risk of delay to on-track
- Percent change of children remaining on track
- Change over time by five domain areas
Detroit: Data Collection Process and Analysis

- Each county sends data to Oakland University generated in raw data format.
- Oakland University scores screenings.
- Screenings are restructured by child ID to look at risk of delay when they were first screened and compared to when they were last screened.
- Oakland University completes statistical analysis – descriptive and outcome.
- Oakland University produces report.
Detroit: Examples of Descriptive Analysis

**Overall Risk of Delay**

<table>
<thead>
<tr>
<th>County</th>
<th>Strong Risk</th>
<th>Potential Risk</th>
<th>On-track</th>
</tr>
</thead>
<tbody>
<tr>
<td>Macomb</td>
<td>15%</td>
<td>22%</td>
<td>63%</td>
</tr>
<tr>
<td>Oakland</td>
<td>17%</td>
<td>21%</td>
<td>62%</td>
</tr>
<tr>
<td>Wayne</td>
<td>22%</td>
<td>23%</td>
<td>55%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>18%</strong></td>
<td><strong>21%</strong></td>
<td><strong>61%</strong></td>
</tr>
</tbody>
</table>

**Developmental Domains Areas of Concern**
Detroit: Examples of Measuring Impact

- **65%** of children who initially scored “strong risk” for delay scored better when assessed at a later age interval—increasing from “strong” to “potential risk” or “on-track”
- **57%** of children who initially scored “potential risk” for delay scored better when assessed later—increasing from “potential-risk” to “on-track”
- **81%** of children who initially scored “on-track” remained “on-track”
Data Driven Supports: Child / Family

• Parent Surveys
• Quarterly E-newsletters
• Learn and Grow Together Activity Book
• Help Me Grow Growth Chart
• Help Me Grow Developmental Activity Groups
• Social Emotional Groups – Incredible Years; Positive Solutions
Detroit: Geo-Mapping

Regional Screens by Zip Code

Screen Frequency:
- 2 - 123
- 124 - 455
- 456 - 787
- 788 - 1120
- 1121 - 2063
Detroit: Next Steps in Data Analysis

- Measuring ASQ:SE
- High-Risk Communities
- School Readiness Measures
- Referrals and Follow-up
Detours and Roadblocks: Financing

Boston

• Limited funding for evaluation of model, including parent screener model
• Funding technological improvements
• Parent Screeners are expensive!
  - Integrating role into existing parent leader positions
Financing

Detroit

Total investments – $914,678
State funds – Early Childhood 34%
United Way initiative – 16%
United Way – Social Innovation 44%
Private Funds – .06%
Detours and Roadblocks: Data Sharing

Boston

• Duplication among Parent Screeners
• Parental fears of sharing results with government, state child welfare agency, public school system
• Concerns about impact of screening on immigration status
• Logistical challenges of merging datasets

Detroit

• Wide access = potential duplication
  - Sharing screening summaries (permission form)
  - Transfer screening results from one program to another
Linguistic / Cultural Needs

Boston and Detroit

• Translation and interpretation capacity, especially at childcare centers
• Concerns about low literacy levels among parents, even if native language
• Limited language availability of ASQ tool
• Cultural considerations and sensitivity
• Hesitation to participating among certain cultural and immigrant groups
• Misunderstanding in communities about Early Intervention and Special Education
Boston

- Early education & care centers
  - Each have their own procedures

- Parent Screeners
  - Utilize existing care coordinator/case management services
  - ASQ Passport
  - EI Handout
    - Parent Screeners are from and of the neighborhood, know the community resources

- Care coordination is informal and disjointed
Detroit

- Families are tracked for referral outcomes
- Top five service barriers
  - Eligibility-Income
  - Cost
  - Eligibility – School criteria
  - Caregiver did not follow through
  - Transportation
- Top three service gaps
  - Social Emotional programs for 3-5 year olds
  - Programs for 3 year olds at risk for delay
  - Parent/child groups
Detours and Roadblocks: Cross Sector Collaborations

Boston and Detroit

- Screening not a major priority for most partners
- Screening information used differently at each site
  - Teachers and playgroup leaders may use to inform activities
  - Center administrators may use data for funders
- Pediatric community in Boston uses PEDS, hesitant about ASQ
- Building relationships and collaboration takes a lot of time, follow-up, and jumping through hoops!
- Screening information is used differently for different partners
  - Early care/education plan classroom activities around results
  - Home visitors provide individualized support to families
  - Pediatricians coordinate medical care with additional community supports
- Differing rules/regulations among agencies about sharing information
Coloring Sheet Activity

[Image of a butterfly to be colored]
Detours and Roadblocks: Quantity vs Quality

Boston and Detroit

• Importance of quantity
  - Funders
  - Data analysis and reporting
  - Showing impact and reach
  - Technology helps with outreach
  - Measure impact
  - Change over time
  - Community reach

• Importance of quality
  - Especially among parent screeners, want quality interactions and relationships built
  - Technology can decrease the personal connection
  - Provide data driven supports
  - Provide technical assistance
  - Follow up/support for families

• Related issue of product vs process
Asking for Directions

- Questions
- Ideas
- Comments