Great Lakes and Great Partners in Michigan
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Objectives

- Describe lost to follow up and social determinant issues/data in Michigan.
- Discuss the MI Early Hearing Detection and Intervention 1-3-6 program goals.
- Discuss PDSA and Social ecology models in EHDI.
- Identify MI Collaborative projects for implementing PDSA framework.
- Describe patient centered outcomes in Southeast Michigan collaboratives.
- Discuss SMART objectives and quality improvement work.
Infant Hearing Screening

- Early Hearing Detection and Intervention (EHDI) screenings conducted internationally, at least seven countries (Austria, Netherlands, Oman, Poland, Slovakia, UK and US, provide hearing screenings for more than 90% of their births,

- Standard of care in US with approximately three babies in 1,000 births are born deaf or hard of hearing,

- 52 states/territories are supported with funding through CDC-tracking and surveillance and HRSA-education, outreach, follow-up activities.

- Michigan- one to three babies per 1,000 births, or approximately 150 annually identified,

- Since 2003, all of Michigan’s 85 birthing hospitals perform newborn hearing screens,
Michigan Early Hearing Detection and Intervention (EHDI) 1-3-6 goals

- Better outcomes for newborns and young children with hearing loss and their families, through the 1/3/6 Goals:
  - "1" - All infants are screened for hearing loss no later than 1 month of age, preferably before hospital discharge,
  - "3" - All infants who do not pass the screening will have a diagnostic hearing evaluation no later than 3 months of age,
  - "6" - All infants with a hearing loss is enrolled in early intervention services no later than 6 months of age,

- 2013: Of 110,955 infants that were screened, 156 were diagnosed with permanent hearing loss through EHDI.
Problem overview

- Diverse population of Michigan from very rural, small to large urban population centers.
- Loss to follow up rates in Southeast Michigan have slowly declined from 77% in 2009 and 2010, 64% in 2011 and 42% in 2012, and 30% in 2013 to Wayne County providers.
- Varied strategies and stakeholders identified to address loss to follow-up issues and understanding social determinants of health equity, access, and barriers in Southeast Michigan.
Wayne/Detroit Demographics

- 1 in 3 uninsured.
- Millions in uncompensated hospital care.
- Population demographic shifts.
- Bankruptcy.

(Bureau of Labor Statistics, January 2015)
**Loss to Follow-up-It’s in the data**

<table>
<thead>
<tr>
<th>Region/County</th>
<th>Number with Permanent HL</th>
<th>Loss to Follow-Up</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Region</td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>State of Michigan</td>
<td>160</td>
<td>127</td>
<td>79.4 %</td>
</tr>
<tr>
<td>Maternal Residence</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Region 1</td>
<td>56</td>
<td>27</td>
<td>48.2 %</td>
</tr>
<tr>
<td>Macomb (50)</td>
<td>18</td>
<td>13</td>
<td>72.2 %</td>
</tr>
<tr>
<td>St Clair (74)</td>
<td>4</td>
<td>3</td>
<td>75.0 %</td>
</tr>
<tr>
<td>Wayne (82)</td>
<td>34</td>
<td>31</td>
<td>91.2 %</td>
</tr>
</tbody>
</table>

**LTF from final screen (source: CDC data survey)**

<table>
<thead>
<tr>
<th>Region</th>
<th>Births</th>
<th>2011</th>
<th>2012</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>27,459</td>
<td>541</td>
<td>276</td>
</tr>
<tr>
<td>2</td>
<td>30,695</td>
<td>118</td>
<td>93</td>
</tr>
<tr>
<td>3</td>
<td>26,515</td>
<td>76</td>
<td>35</td>
</tr>
<tr>
<td>4</td>
<td>20,326</td>
<td>56</td>
<td>55</td>
</tr>
<tr>
<td>5</td>
<td>6,915</td>
<td>15</td>
<td>34</td>
</tr>
</tbody>
</table>
Conceptual Models

- Plan-Do-Study-Act (PDSA).

- Social Ecology- interconnected framework of individual, family, community, societal factors and stakeholder collaboratives and inter-professional teams.

- Staff knowledgeable about QI process and performed routine assessment of issues.
PDSA - Fishbone assessment

**Problem Statement:**
Michigan Loss to Follow-up rates are higher than the national average for babies who do not pass their hearing screen.
Great Partners and SMART objectives

- What are we trying to accomplish?
- What changes can we make that will result in improvement?
- Implementation of specific, measurable, attainable, realistic and timely (SMART) benchmarks projects are assessed weekly and monthly for measurable progress and strategic refinement.
- Developed four work-plan aims and collaborative interprofessional partnerships with hospitals, stakeholders, universities, and the private sector.
AIM 1
Hospital Based collaborative

- Henry Ford Hospital collaborative—one of largest birthing hospitals in Detroit.
  - Problem: refer rates >15% - 30%/weekend staffing issues/no- follow-up appointments/significant no show rate.
  - Goal: refer <6% by 3/31/15.
  - Do: Bi-weekly technical assistance calls/Screener checklist and accuracy assessment/ Re- training/Screening coordinator/New equipment/Wayne State University (WSU) audiology clinic.
  - Outcome: current refer rate 9%.
Wayne Children’s Healthcare Access Program (WCHAP) pediatric medical home improvement model.

- Problem: Wayne County LTF: initial screen-14.4%, rescreen -39.3%, early intervention-91.3%.
- Goal: EHDI specialist- works with hospitals/providers on 1-3-6 goals to address barriers and decrease LTF by 5% by 3/31/15.
- Do: Job shadow with program consultant, visits to providers, conduct bi-monthly collaborative meetings and calls with families for follow-up, transportation, WSU audiology clinic referrals.
- Outcome: Data to date- oversight for 67 families with follow-up info for 28 infants, participating in EHDI PDSA activities.
AIM 3
Michigan Midwives Audiology Collaborative

- MMA- represents 72% of MI midwives serving rural MI & Amish families.
  - Problem-Limited screening success (19%) due to numerous barriers: cost, transportation, expose newborns to clinical environments. Data-out of hospital births: ~1%, missing /incomplete screens (50%).
  - Goal- Collaborative partnership with Central MI University Audiology, Michigan Coalition for Deaf, Hard of Hearing and DeafBlind People and EHDI to secure Carls Foundation funding for equipment and training. Decrease LTF for out of hospital births by 10% by 3/31/15.
  - Do-Five statewide trainings conducted for 47 midwives and 14 screeners distributed.
  - Outcome- As of September 2014: 66% homebirths are screened. Ongoing trainings/equipment/redistribution & calibration planned for 2015-2016.
AIM 4
Regional Audiology Collaborative

- Two audiologists to provide education to hospitals and providers (new)
  - Problem- LTF in regions two (40%) and three (38%).
  - Goal- Decrease LTF by 5% by 3/31/15 with consulting audiologists to identify/implement change strategies. Promote EHDI education/ best practices/on-line training modules for nursing CE/parent stories.
  - Do- Weekly contact via phone/email to hospitals with highest lost to follow-up issues.
  - Outcome- Site visits provided to six hospitals with EHDI audiologist and parent consultant-site tool rubric reviewed/screening equipment/protocols assessed/technical assistance provided.
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Questions/Comments

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