The Lead Primary Prevention Pilot: An Innovative Approach

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Lead Program Manager

Michigan’s Premier Public Health Conference
The Need

• 1946 is the median house age in Detroit¹

• 9% of Detroit children have elevated blood lead levels compared with 4% statewide²
Target Area

Door to door canvassing attempt in top five zip codes in Detroit with highest rates of childhood lead poisoning, including:

• 48202
• 48204
• 48206
• 48213
• 48214

Target Population

• Families with children under six years old living in or visiting the home
• Homes with pregnant women
The Lead Pilot

Services delivered by Lead Advocates include:

- Education
- Capillary blood lead level testing
- Four lead paint swabs in home
- Visual assessment
- Lead safe cleaning kit
- Referral to home abatement program
The Lead Pilot
The Team

• Project Manager
• Field Supervisor
• Lead Advocates
• Social Worker
• Nurse Case Managers
Community Outreach

• Attend neighborhood meetings
• Attend health fairs
• Targeted mailings
Lead Safe Cleaning Kits

Included in kit:

- Instructions
- 2-pairs of disposable cleaning gloves
- 1-24oz of Simple Green all-purpose cleaner
- 1-spray bottle with measurements
- 1-rolls of Scott Shop disposable towels (55 wipes per roll)
- 1-garbage bag
Cleaning Kit Distribution

• Families are interested but hesitant
• Provide demo
• Utilize “driver method” to distribute
Intervention

Childhood Lead Poisoning Prevention Program (CLPPP)
**Program Description**: The lead program provides in-home nurse case management, assessment and follow-up, to children, living in the City of Detroit, under the age of 6, with an elevated blood lead levels. Case management includes coordination with primary care providers and Medicaid Health Plans. In addition to case management, services include education, in the home, in person, at another location, and/or by telephone, on the following: lead safe cleaning methods, temporary barriers to possible lead hazards, nutrition, visual assessment of potential lead hazards in the child’s home and help with application to the Lead Safe Home Program.
# Logic Model – Childhood Lead Prevention and Intervention

<table>
<thead>
<tr>
<th>Inputs</th>
<th>Activities</th>
<th>Outputs</th>
<th>Outcomes</th>
<th>Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partnerships:</td>
<td>Case management</td>
<td>Case Management</td>
<td>Short term</td>
<td>Reduce the prevalence of childhood lead poisoning</td>
</tr>
<tr>
<td>- Clear Corps Detroit, BSEED, HRD DWSD, WSU, MDHHS</td>
<td>o Nurse assessment - Physical assessment of child</td>
<td>o # of referrals (new and old)</td>
<td>o Awareness of lead status</td>
<td></td>
</tr>
<tr>
<td>- DHC – Detroit Housing Commission, United Health Care – health plan, Providers</td>
<td>o Education of the family</td>
<td>o # of follow-up visits</td>
<td>o Improve relationship with families in the hospital</td>
<td></td>
</tr>
<tr>
<td>- ETC (for environmental assessments)</td>
<td>o Home visits</td>
<td>o # of visits to child</td>
<td>o Achieve program compliance</td>
<td></td>
</tr>
<tr>
<td>- Wayne Metro, Children’s Hospital</td>
<td>o Visual environmental assessment/inspection</td>
<td>o # of attempted visits</td>
<td>o MHP Awareness and engagement</td>
<td></td>
</tr>
<tr>
<td>Funding:</td>
<td>o Communication with doctors and Medicaid health plans</td>
<td>o # of referrals/type</td>
<td>o Increase parental knowledge about reducing lead hazards</td>
<td></td>
</tr>
<tr>
<td>- State of Michigan, Kresge, Reimbursement</td>
<td>o Case review</td>
<td>o # of phone calls for MHPs</td>
<td>o Partnership compliance with HEDIS measures</td>
<td></td>
</tr>
<tr>
<td>Technical support:</td>
<td>o Follow-up (with partners, with providers, with family)</td>
<td>o # of hospital visits</td>
<td>o Lead abatement program compliance with requirements</td>
<td></td>
</tr>
<tr>
<td>- MDHHS, EPA, CDC</td>
<td>Outreach and Education</td>
<td>o # of applications submitted</td>
<td>o Awareness concerning landlord</td>
<td></td>
</tr>
<tr>
<td>- Other health departments</td>
<td>o Cleaning demonstrations</td>
<td>o # of cleaning demonstrations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Special Projects</td>
<td>o Distribute literature</td>
<td>o # of cleaning kits distributed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skills:</td>
<td>o Establish trust with the family</td>
<td>o # of DWSD referrals/BSEED LSHD</td>
<td></td>
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</tr>
<tr>
<td>- Nurse (RN), Community Outreach, Data Analyst</td>
<td>o Making contact with family</td>
<td>o # of children tested</td>
<td></td>
<td></td>
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<tr>
<td>- Physical and digital security</td>
<td>o Landlord education</td>
<td>o # of pregnant women tested</td>
<td></td>
<td></td>
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<tr>
<td>- Space to discuss sensitive cases</td>
<td>o Health fairs</td>
<td>o # of landlord education events</td>
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</tr>
<tr>
<td>Materials/supplies:</td>
<td>o Lead screening</td>
<td>o # of attendees at health fairs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Cleaning supplies</td>
<td>o Application review</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Lead testing kits and supplies, Literature</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data systems/resources:</td>
<td>Care Coordination</td>
<td>Care coordination</td>
<td>Mid-term</td>
<td></td>
</tr>
<tr>
<td>- HHLPSS, Data tracking system, CHAMPS, MCIR</td>
<td>o Provide referrals for additional services</td>
<td>o # of home visits needing translation</td>
<td>o Improved care coordination between providers, MHPs and partners</td>
<td></td>
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<tr>
<td></td>
<td>o Respond to legal requests</td>
<td>o # of inspections needing translation</td>
<td>o Linked to services needed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>o Translation services</td>
<td>o Translational services response time</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>o Case reviews</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>o Application support</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>o Application review</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>o Manage information</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>o Management of data</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Partnership engagement</td>
<td>Partnership engagement/coordination</td>
<td>Long term</td>
<td></td>
</tr>
<tr>
<td></td>
<td>o Quality improvement</td>
<td>o Completeness of data entry</td>
<td>o Provide nurse case management</td>
<td></td>
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<tr>
<td></td>
<td>o Weekly reporting</td>
<td>o % attendance at partnership meetings</td>
<td>o Prevention of childhood lead exposure</td>
<td></td>
</tr>
<tr>
<td></td>
<td>o Huddles</td>
<td>o New partnerships added</td>
<td>o Minimize the length of time that a child is lead poisoned</td>
<td></td>
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<tr>
<td></td>
<td>o Data tracking</td>
<td>o Changes in partnership metrics</td>
<td>o Increase the number of houses that are lead-safe</td>
<td></td>
</tr>
<tr>
<td></td>
<td>o Policy and procedure</td>
<td>o Partner satisfaction/value in partnership</td>
<td>o Increase the awareness of lead poisoning with landlords and policy makers</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>o Increase sustained program funding</td>
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</tbody>
</table>

*逻辑模型 – 儿童铅暴露预防和干预*
SWOT: Lead Prevention and Intervention Program

**Strengths**
- Effective communication
- Years of experience
- Good rapport with the state consultant and regionally
- Strong partnerships
- Trust, great relationships, passionate team members
- Data, Structure, Quality improvement
- Transparency
- Flexible team
- Family engagement
- Leadership (team)

**Opportunities**
- Strengthening and expanding partnerships
- Cross training team members
- Increase funding
- Better efficiency (Documentation and reporting)
- Professional development/conferences, presentation
- Leadership – national, local
- Having lead classified as an essential PH service
- Screening for lead in schools
- Lead awareness/education
- October – big opportunity for lead outreach
- Collaboration with DHD Immunization Program

**Weaknesses**
- Mismatch between staff capacity and community need
- Electronic case management system
- Surveillance data for planning and evaluation
- Lack effective communication plan
- Limited housing resources
- Limited wrap-around services
- Policies to enforce/encourage lead safe housing

**Threats**
- Funding
- Fee for service structure
- Limited prevention or testing funds
- Number of children with EBLLs
- Societal cost/poisoning future generations
- Environmental cost
- Poor conditions of old houses/Blight
- Instability
- Lack of strong enforcement execution
- Safety
# Care Coordination Referrals

<table>
<thead>
<tr>
<th>BLL 4.5-9 µg/dL</th>
<th>BLL 10-19 µg/dL</th>
<th>BLL 20-39 µg/dL</th>
<th>BLL 40+ µg/dL</th>
</tr>
</thead>
<tbody>
<tr>
<td>DWSD</td>
<td>DWSD</td>
<td>ETC</td>
<td>CSHCS</td>
</tr>
<tr>
<td>BSEED (if renting only)</td>
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<td>DWSD</td>
<td>ETC</td>
</tr>
<tr>
<td>MDHHS LSHP/ City Wide</td>
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<td>BSEED (if renting only)</td>
<td>MDHHS LSHP/ City Wide</td>
</tr>
<tr>
<td>Early On/Project Find/LENA Start</td>
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<td>Early On (Hospital may have already initiated referral)/Project Find/LENA Start</td>
</tr>
<tr>
<td>WIC</td>
<td>WIC</td>
<td>WIC</td>
<td>DWSMHA Infant Mental Health</td>
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</table>

*CPS if child neglect or abuse is suspected*

**Case Conference with CHM, PCP, MHP, MDHHS or HRD, DHD**

**DWSD**

**BSEED (if renting only)**

**MDHHS LSHP/ City Wide**

**Early On/Project Find/LENA Start**

**WIC**

**DWMHA Infant Mental Health**
Prevalence of Lead Poisoning in the City of Detroit
Testing in Head Start and Early Head Start Centers

Promoting Universal Testing

Testing in Detroit Public School Community District

Prenatal Lead Testing and Education
Partners Share Data to Meet the Following Goals:
1) Describe a child & their family’s needs related to lead poisoning.
2) Intervene more effectively & efficiently through collaboration.
Partnerships

Housing and Revitalization Department

Creating Healthy Homes for Children and Families.