COVID-19 Pandemic Impacts on Childhood Lead Poisoning Prevention Activities

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Objectives

• Describe the impacts of the COVID-19 pandemic on childhood lead poisoning prevention in Michigan

• Describe public health efforts to address these impacts
Outline:

• COVID-19 pandemic overview

• Childhood Lead Poisoning Prevention at MDHHS: Programs, COVID impacts, addressing COVID impacts
  • Blood Lead Testing and Surveillance
  • Individual and Community-wide Health Programs
  • Lead Services Abatement Programs
Child Lead Poisoning Prevention and the COVID-19 Pandemic
Childhood Lead Poisoning Prevention Services at MDHHS

• Blood Lead Testing and Surveillance

• Childhood Lead Poisoning Prevention Program (CLPPP)
  • Individual Child
  • Community

• Lead Services Programs
  • Lead Abatement
  • Capacity Building
Michigan COVID-19 Cases by Date

https://www.michigan.gov/coronavirus/stats

Data current as of 05/25/2022
Blood Lead Testing and Surveillance and the COVID-19 Pandemic
Blood Lead Testing and Surveillance

CLPPP Surveillance Program

• Blood Lead Testing
  • Mandatory for children enrolled in Medicaid, WIC
  • Recommended for high-risk children
  • Mandatory reporting of test results to MDHHS CLPPP as of 1998

• Use of Surveillance Data
  • Identify individuals and communities based on blood lead levels
Blood Lead Testing and Surveillance

• **Blood Lead Reference Value (BLRV)** - Elevated Blood Lead Level (EBLL)
  • Population-Based
    • NHANES study 2015-2018: top 2.5% with highest blood lead levels
    • Initiates follow-up activities to reduce lead exposure
  • Current BLRV: 3.5 µg /dL (as of May 1, 2022)
    • 2012 to May 2022: 5 µg /dL
    • Before 2012: 10 µg /dL
COVID-19 Impact on Blood Lead Testing

• **Nationwide**
  • Down by 34% from January – May 2020 – CDC (Courtney et al., 2021)
  • Testing 23% lower after initial drop of 39% in April 2020 – TX (Singh et al., 2021)
  • Monthly screening down 50% during restrictions (Loza & Doolittle, 2022)

• **Michigan**
  • Down 50-75% in March – April 2020
Numbers of Michigan Residents Tested for Blood Lead: 1998 – 2021

Data source: MDHHS Data Warehouse,
Data current as of 03/11/2022
Numbers of Michigan Residents Tested for Blood Lead: 2017 – 2021

Data source: MDHHS Data Warehouse, Data current as of 03/11/2022
Blood Lead Testing in Children < 6 in Michigan, 2017 - 2021

Data source: MDHHS Data Warehouse,
Data current as of 03/11/2022
COVID-19 Impact on Blood Lead Testing

• **Impact on Clinics, Healthcare Providers**
  - No in-person visits
  - Clinic closures - WIC testing facilities
  - Shortages of staff, supplies
    - Shift of resources to COVID-19 from other programs (Kintziger et al., 2021; Courtney et al., 2021)

• **LeadCare II Test Kit Reagent Recall** (July 2021)
  - Point-of-Care analyzer – Primary care, WIC, Local Health Department clinics
  - Result: no testing or alternative methods
Numbers of Children < 6 Tested in MI by WIC and LHDs, 2017 - 2021

- Data source: MDHHS Data Warehouse, Data current as of 03/11/2022
COVID-19 Impact on Blood Lead Levels

• Changes in percent of children with elevated blood lead levels
  • % EBLL decreased - Michigan
  • % EBLL decreased – Ohio, Minnesota, New Hampshire
  • % EBLL increased – Connecticut (Loza & Doolittle, 2022), Illinois, NYC
Percent of Tested Children < 6 with EBLL 2010 – 2021: Michigan

Data source: MDHHS Data Warehouse, Data current as of 03/11/2022

* EBLL: Elevated Blood Lead Level – test result ≥ 4.5 µg/dL
CLPPP Blood Lead Testing and Surveillance: 2021 and Beyond

• **Goal:** Return blood lead testing to pre-pandemic levels
  • Recovered to ~66% of 2019 levels in 2020 and ~67% in 2021
  • Outreach to practitioners, clinics
    • Distribution of LeadCare II blood lead analyzer resumed March 2022

• **Analyses of blood lead surveillance data**
  • Trends in blood lead levels before and after COVID-19 restrictions
    • Investigate any increases associated with exposure from the home
  • Evaluate impact on testing in Michigan, high-risk populations
Childhood Lead Poisoning Prevention Programs and the COVID-19 Pandemic
Michigan Childhood Lead Poisoning Prevention

- Mission: To prevent childhood lead poisoning across the state through surveillance, outreach, and health services
- Vision: No child in Michigan suffers from lead poisoning
CLPPP Activities: Case Management Overview

• Goals:
  • Bring child’s BLL below 3.5µg/dL
  • Ensure home is free of ongoing lead hazards
  • Ensure ongoing care coordination with primary care providers and Medicaid Health Plans

• Components:
  • Nursing Assessment
  • Plan of Care
  • Family Education
  • Services Referrals
COVID-19 Impacts on Nurse Case Management

• Staff shortages; public health nurses assigned to COVID duties
• Transition to virtual EBL case management
  • LHD nurses have had to adapt and be creative
  • Continued to complete all components of NCM
    • Pictures
    • FaceTime
    • Zoom
    • Telephone
    • Outdoors
• Delivery of materials
  • Informational packets
  • Cleaning kits
Statewide Media Campaign: 2022

- **Focus:** Encouraging families to talk to their health care providers about blood lead testing
- **Target:** Overall statewide
- **Messages:**
  - Lead is an invisible threat
  - Lead is harmful to children’s health
  - Lead can be found in various sources, including paint, dust, water, soil
- **Tactics:**
  - Cable TV, Video Streaming, Interactive Digital Video, Digital Display, Radio, Hulu, YouTube, Pandora, Paid Search, Paid Social, Doctor’s Offices, Outdoors (billboards)
Postcard Mailing

In August 2021 - 160,000 sent postcards statewide to families living in pre-1978 homes with children under age 6
Health Care Provider Resource Packet (in collaboration with MIAAP)

• Provider Resource Packet mailed to ~6,000 pediatrics providers March 2022
  • Provider Quick Reference Guide
  • Flyer: What Your Child’s Blood Lead Test Means
  • Flyer: Pregnant and Nursing Women
  • Posters
  • Local Health Department Contact List
  • Flyer: Online Provider Training Module
Mobile Testing Events

• Over 20 in SE Michigan

• Coordinated with Wayne Health and Local Health Departments

• Partnerships with churches, Head Starts, community organizations
Mobile Testing Events
COVID-19 Impacts on Childhood Lead Poisoning Prevention Activities: Lead Abatement Programs
Lead Services Abatement Programs

- Lead Safe Home Program
- Community Development Grantee Program
- Lead in Water Program
- Lead Professional Certification Program
- New: Lead Poisoning Prevention Fund
Impacts of COVID-19 on Lead Safe Home/Community Development Program

- Cost of services
- Cost of materials
- Timeframe of materials
- Reluctant homeowners
- Relocation concerns
- PPE availability
Impact of COVID - Lead professional certification program

- Lead professionals training classes
- Lead professional exam
- Online platform
Lead Safe Home Program Abatement Completed

Completed and Cleared Projects

Completed and Cleared Projects over Years

Year

- 2019: 300
- 2020: 200
- 2021: 150
- 2022: 100

Legend: Year
Community Development Grantees
Abatement Completed

Completed and Cleared Projects

<table>
<thead>
<tr>
<th>Year</th>
<th>Completed and Cleared Projects</th>
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<tr>
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Addressing Impact of COVID-19 on Lead professional workforce

- Workforce media campaign
  - https://vimeo.com/525603937/30bd3757ae
- Online refresher classes
- Online exams
- Workforce coordinator hired
Questions?
Thank you!

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• Michigan.gov/MiLeadSafe
References


