

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

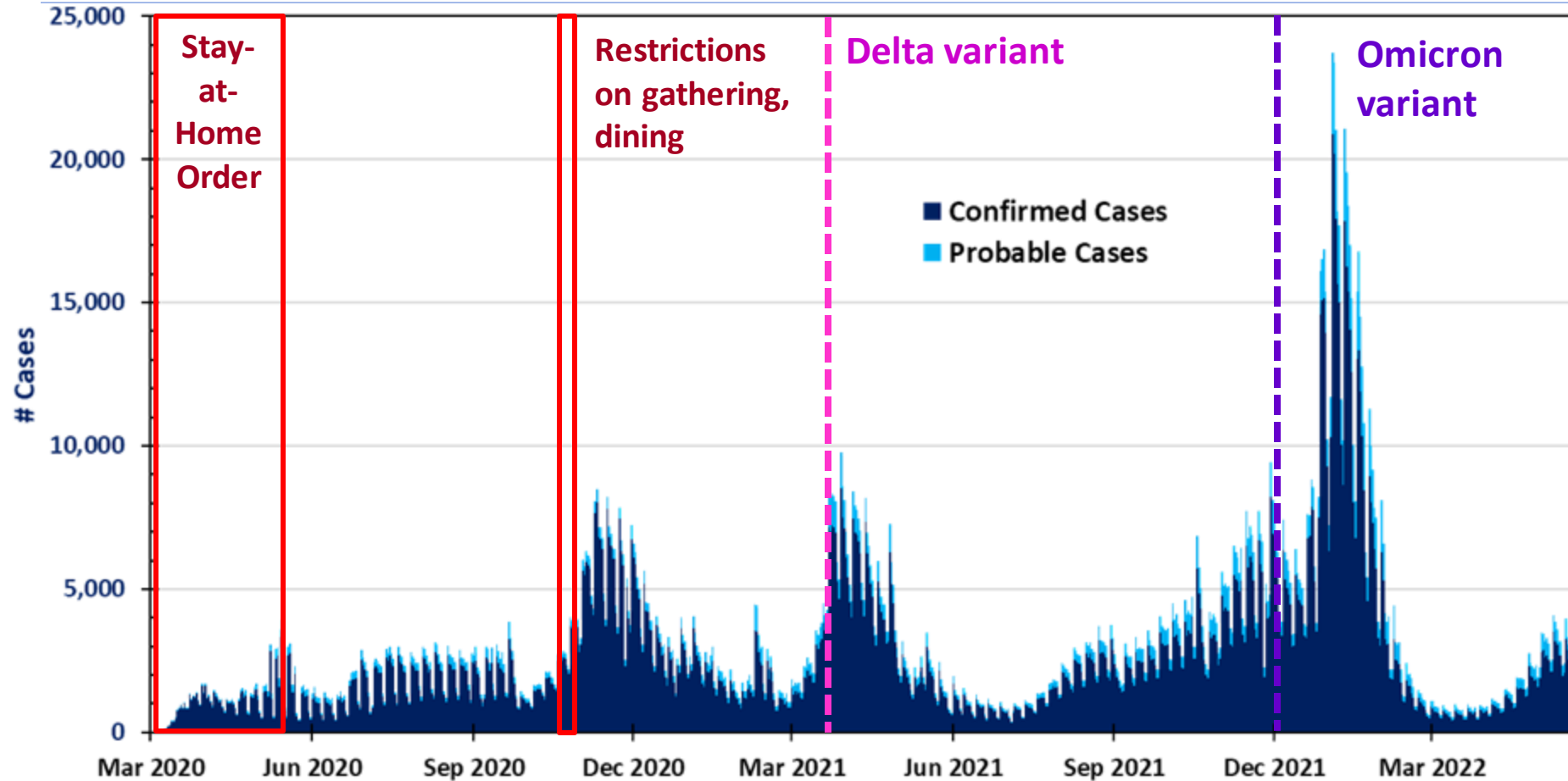
Child Lead Poisoning Prevention and the COVID-19 Pandemic

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

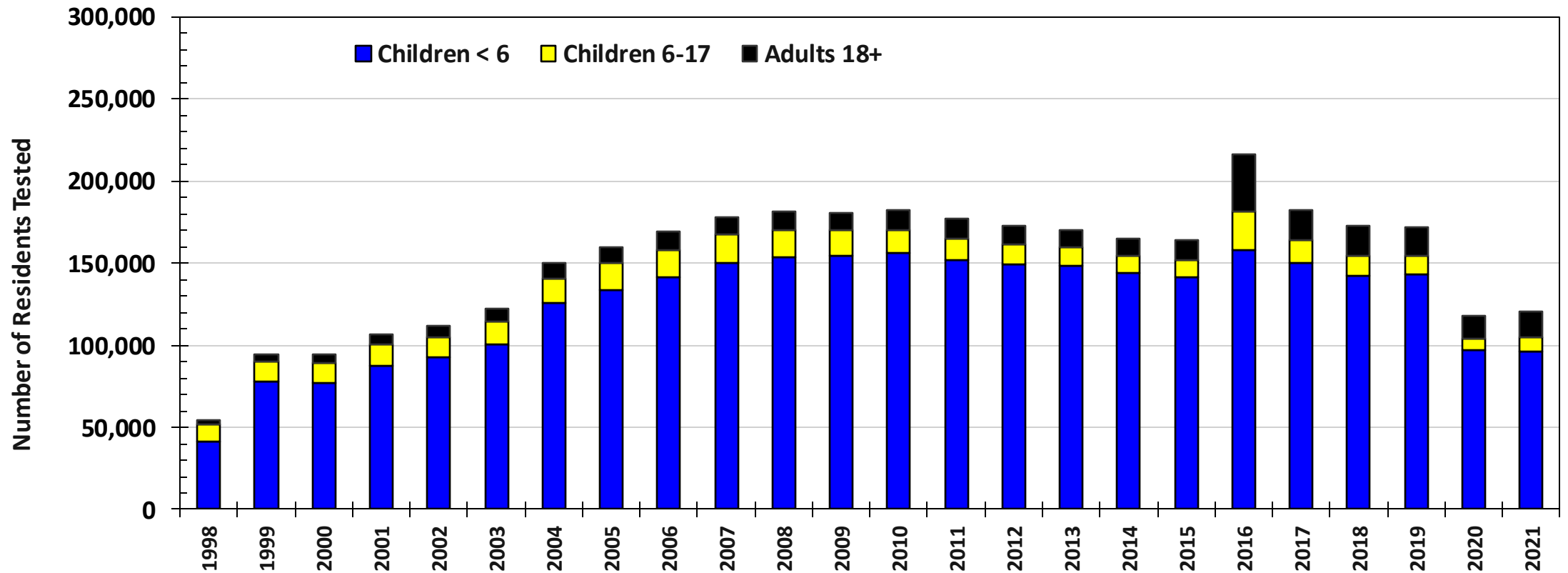
- **Nationwide**

- 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**

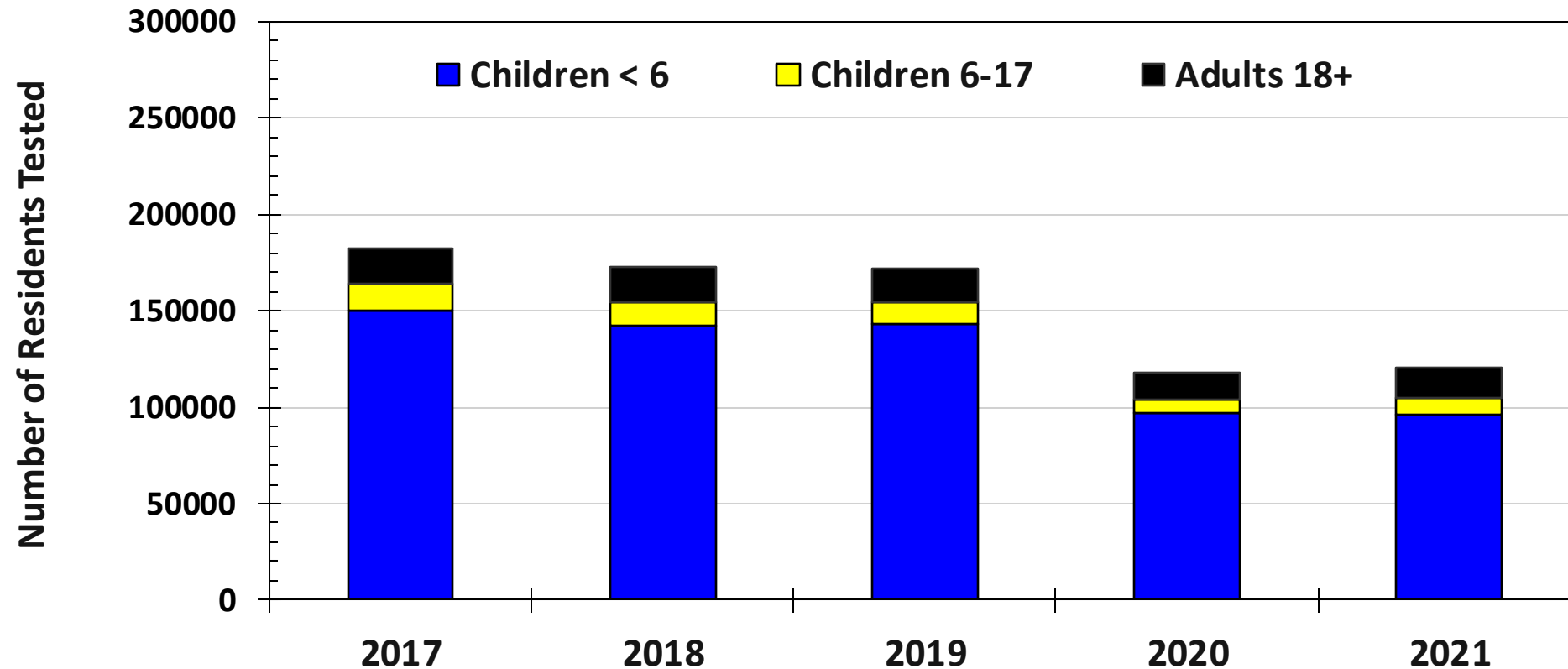
- Down 50-75% in March – April 2020

Numbers of Michigan Residents Tested for Blood Lead: 1998 – 2021



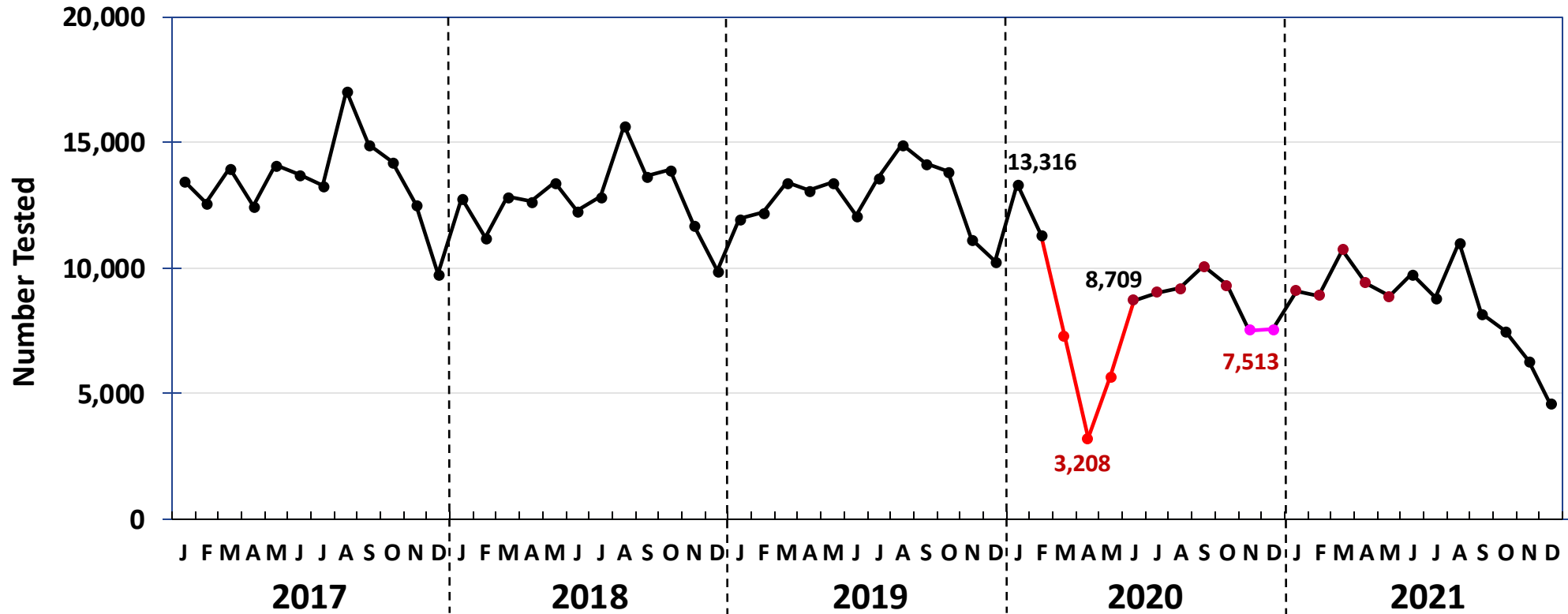
Data source: MDHHS Data Warehouse,
Data current as of 03/11/2022

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



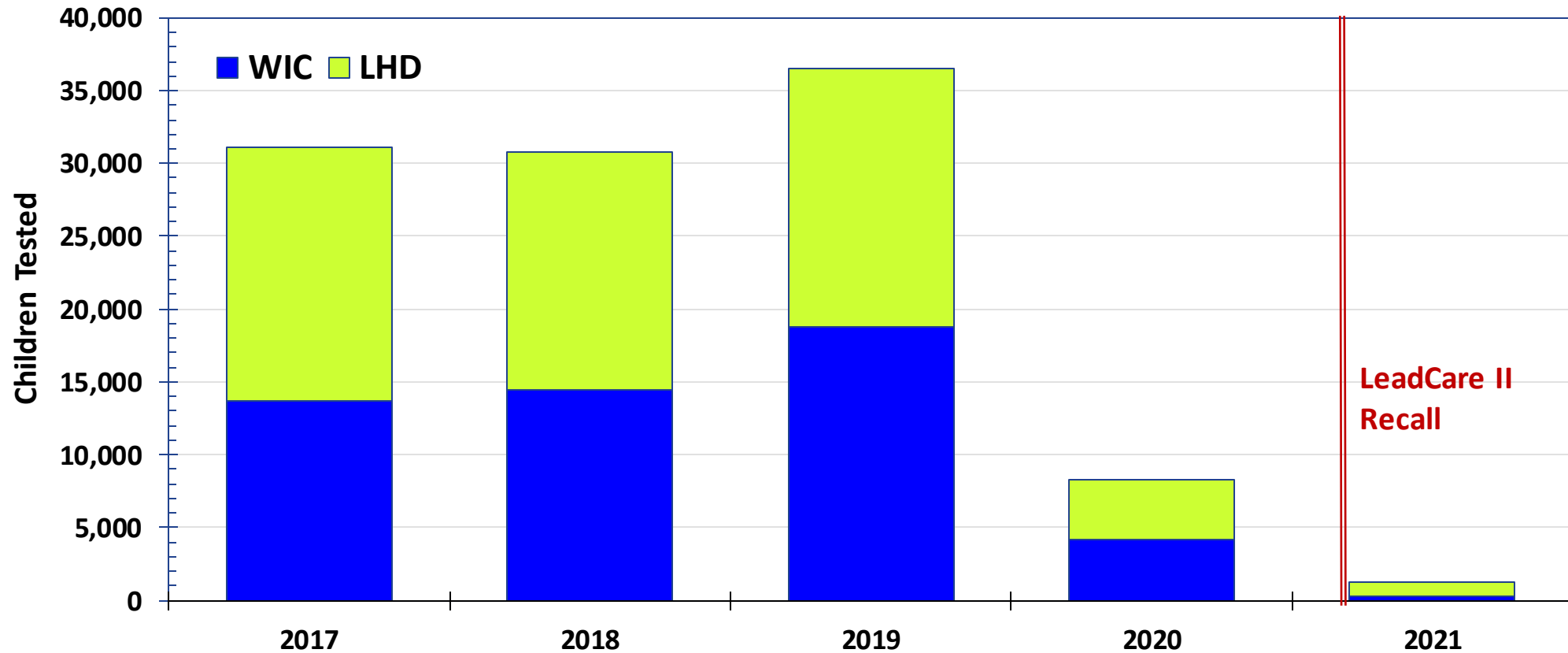
Data source: MDHHS Data Warehouse,
Data current as of 03/11/2022

- Stay-at-home order
- Restrictions on gathering, dining

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

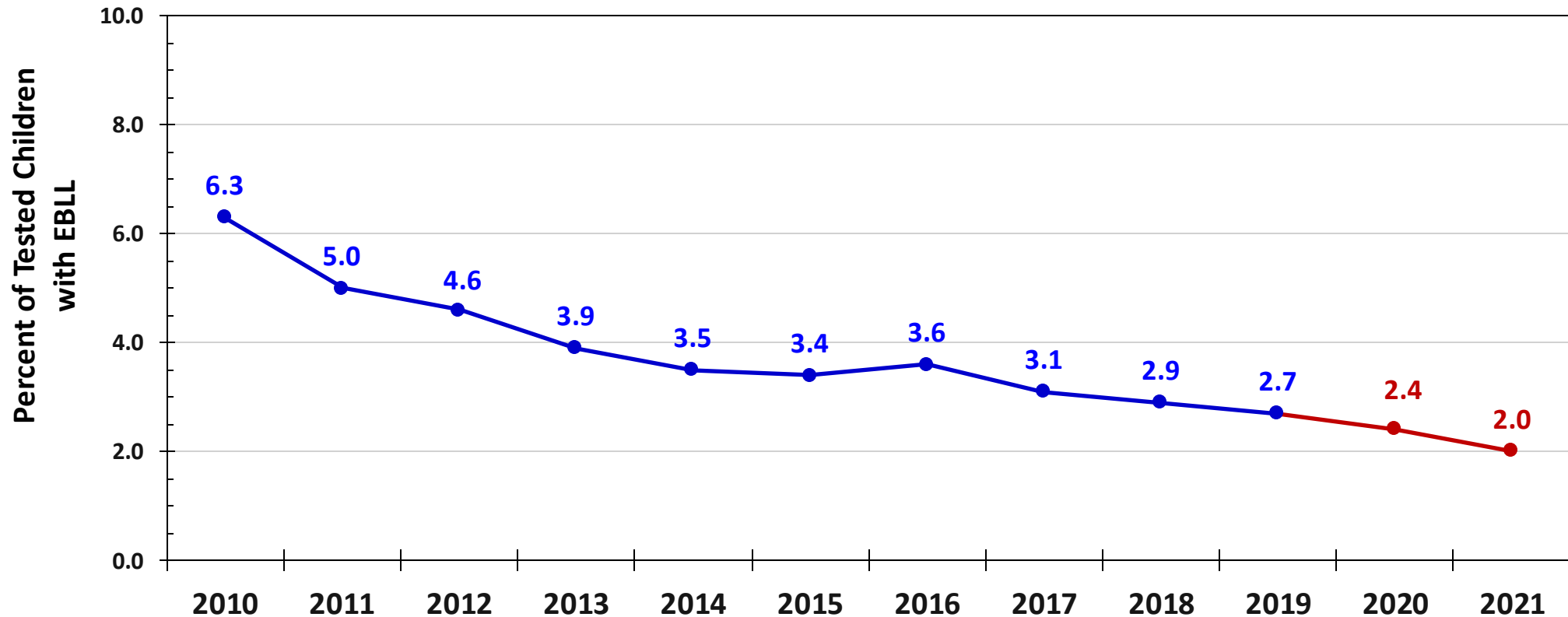


Data source: MDHHS Data Warehouse,
Data current as of 03/11/2022

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 $\mu\text{g}/\text{dL}$

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 3.5 μ g/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



WHAT ARE THE HEALTH EFFECTS OF LEAD EXPOSURE IN CHILDREN?

- Learning and behavior problems
- Difficulty with speech and hearing
- Slowed growth and development
- Damage to the brain and nervous system

WHAT ARE SOURCES OF LEAD?

- Lead-based paint chips and dust
- Imported candies, spices, and health supplements
- Jobs and hobbies that use lead
- Soil
- Plumbing

TALK TO YOUR CHILD'S HEALTH CARE PROVIDER ABOUT GETTING YOUR CHILD TESTED IF:

- Your child lives in or visits a home built before 1978
- Your child lives in or visits a home that had a water test with high lead levels
- Your child may have been exposed to any of the mentioned sources of lead
- Your child is in a special population group such as foreign adoptee, refugee, migrant, immigrant, or foster child
- You have reason to believe your child is at risk for lead exposure

For more information contact Michigan's Childhood Lead Poisoning Prevention Program:
517-335-8885
Michigan.gov/Lead



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



MICHIGAN CHAPTER
American Academy of Pediatrics

Mobile Testing Events

- Over 20 in SE Michigan
- Coordinated with Wayne Health and Local Health Departments
- Partnerships with churches, Head Starts, community organizations



FREE Blood Lead Test
May 22 Highland Park, MI

[GET DETAILS](#)

The advertisement features a photograph of a healthcare professional in a white lab coat and blue face mask, holding a clipboard and pen, interacting with a woman and a young child. The woman is also wearing a face mask. The background is a bright, clinical setting with a window.

MDHHS **WAYNE STATE UNIVERSITY** **WAYNE HEALTH**

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

Lead Services Program Map

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



Community Development Grantees Abatement Completed



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

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