Utilizing Multisector Quality Improvement Initiative to Address Lead Poisoning

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Mission

MDHHS provides services and administers programs to improve the health, safety, and prosperity of the residents of the state of Michigan.

Objectives

- Identify how to engage partners and develop a quality improvement project to address barriers to public health outcomes.
- Identify strategies to leverage resources and collaborative efforts to expand public health activities.

Overview

- Public Health Problem to be Addressed
  - Lead exposure and lead poisoning in the City of Detroit.
- Project Description and Process
  - Partnership between MDHHS CLPPP, Detroit Health Department and Molina Health Plan.
  - Use of Quality Improvement Process and the Plan-Do-Study-Act (PDSA) Cycle with facilitator.
- Outcomes
  - Lessons Learned.
  - Unintended consequences.
  - Wins.
- Next steps

Lead Basics

- The most common source of lead exposure in children is from older homes with deteriorating lead-based paint.
- Lead exposure is best measured by measuring lead in blood.
- CDC: “No safe level of lead in blood”.
- Lead in blood is tested with venous or capillary blood.
  - Venous gold standard; capillary tests acceptable screening but can be contaminated.
- “Elevated blood lead level” (EBLL): a lead level in blood => 3.5 µg/dL.
  - Significance: Only 2.5 % US children have BLLs =>3.5µg/dL.
  - Children with venous confirmed EBLLs are eligible for services including nursing case management, Early On, assistance with identification and removal of lead in homes.

Why Focus on Lead Exposure in the City of Detroit?

Metric	Detroit	Michigan
Housing built before 1978	90.5%	63.5%
% children less than 150% poverty	66%	32%
#/% of children <6 with EBLLs: 2022*	1261 (9.4%)	4013 (3.7%)
# children with EBLL not venous confirmed: 2022	214	2456
# chelated children (BLL=>45 µg/dL)	5	2
*from MDHHS BL surveillance system, which collects/manages mandated lab reports of all blood lead test results		

Overview of Partnership

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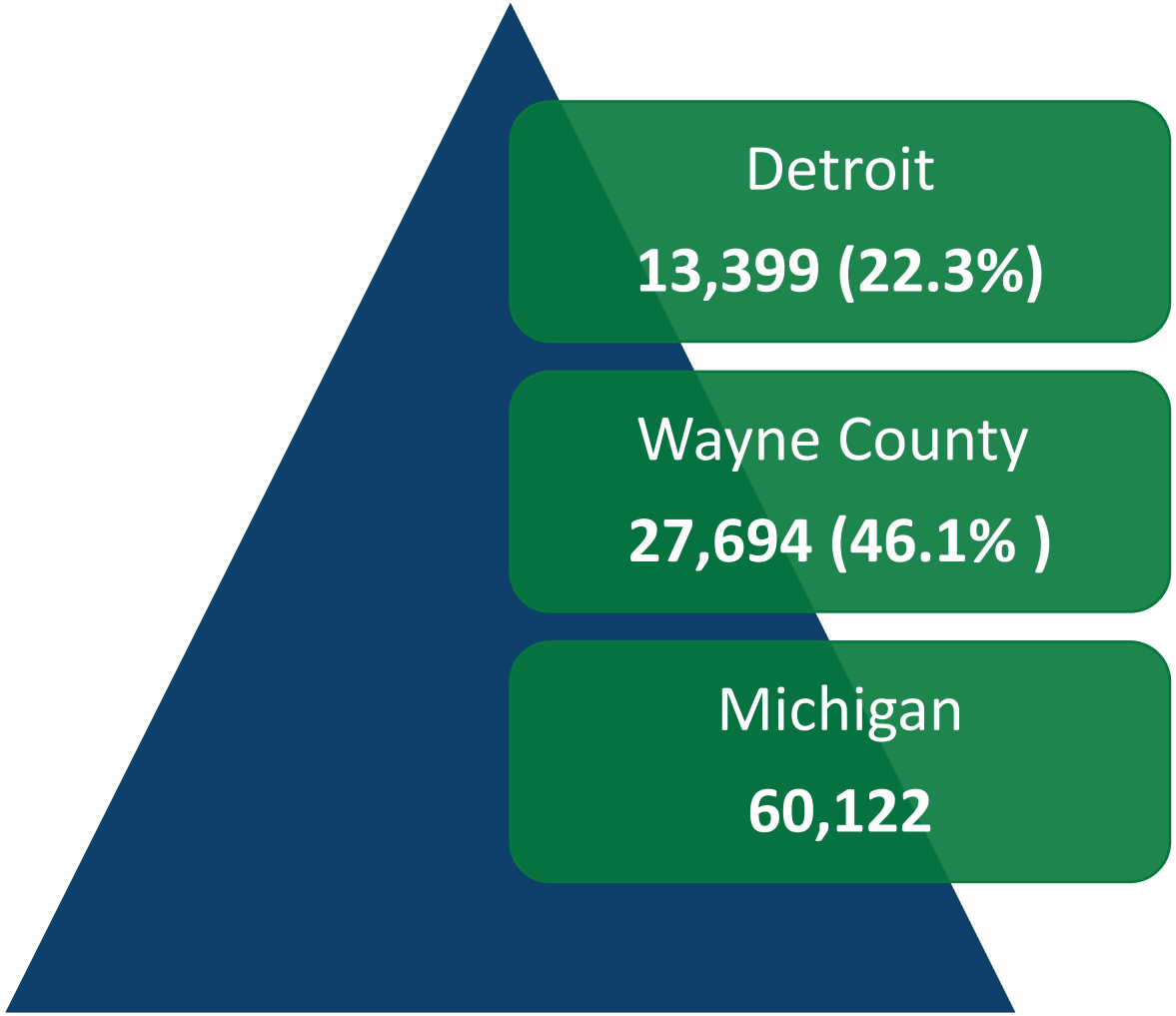
Background

- MDHHS Childhood Lead Poisoning Prevention Program (CLPPP)
  - Established in 1998 under the Public Health Code (Act 368 of 1978).
    - Surveillance.
    - Education and Outreach.
    - Nursing Case Management and Blood Lead Testing.
- Detroit Health Department (DHD)
  - Funded by CLPPP/Medicaid.
    - Provide nurse case management to children less than age 6 with venous EBLLs.
  - Funded by CLPPP through HRSA Title V funds.
    - For children less than age six.
      - Increase screening for lead exposure risk factors.
      - Increase blood lead testing.
      - Increase venous confirmatory testing
- Molina Healthcare
  - Signed care coordination agreements with local health departments including Detroit.
    - Assure service coordination and continuity of care for children receiving services related to their blood lead levels.
  - Performance in HEDIS measure for lead screening in children.

Total Number of Molina-Enrolled Children Aged 0-6



2021 Focus Studies

- Medicaid initiated the Quality Improvement and Program Development (QIPD) project to collaborate with Medicaid Health Plans (MHPs) and improve outcomes in the following areas:
  - Pharmacy.
  - Childhood Lead Poisoning Prevention Program.
  - Immunizations.
  - Postpartum Care.
- CLPPP presented priority areas to Medicaid Health Plans (MHPs).
  - Testing and Screening.
  - Provider Education.
  - Case Management and Care Coordination.
- CLPPP requested qualitative and quantitative data from each health plan to inform program activities and identify opportunities for collaboration.

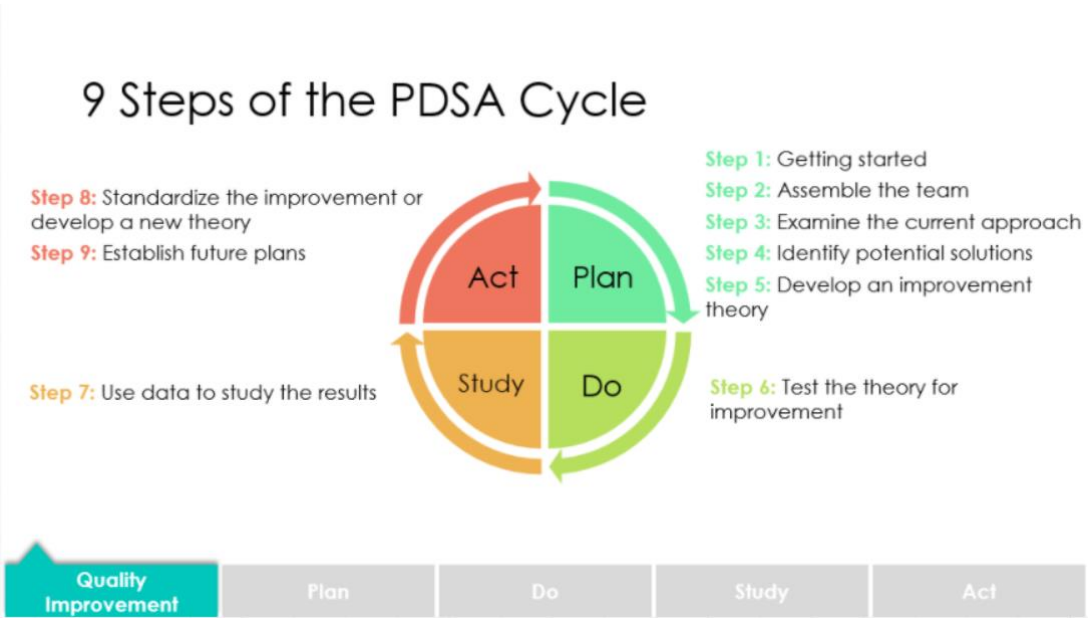
2021 Focus Studies

- Lessons learned
  - Misalignment between HEDIS measures and Michigan risk-based testing guidance for lead testing.
  - Reimbursement discrepancies:
    - Providers are not reimbursed for capillary blood draws.
    - Local health is reimbursed for capillary blood draws.
  - Identification of potential areas for collaboration on care coordination efforts.
  - Additional collaboration efforts needed to move towards best practices for lead testing and care coordination.

2022 Care Coordination Meetings

- Discussed processes to coordinate care for Molina members residing in the City of Detroit with an elevated blood lead level.
  - Lead Clean Up Kits.
  - Consistent messaging around testing.
  - Attending blood lead testing events.
  - Lead education.
- Initial conversations related to targeting blood lead interventions in zip codes with high blood lead level rates.
- Defined problem statement related to blood lead testing.

2024 Getting Started with the PDSA Cycle



2021

CLPPP began participating in QIPD focus studies.

2022

CLPPP, DHD, and Molina began meeting as a group to discuss blood lead testing.

2023

CLPPP contracted with Michigan Public Health Institute to facilitate quality improvement efforts to increase venous confirmatory blood lead testing.

Quality Improvement Process and the PDSA Cycle

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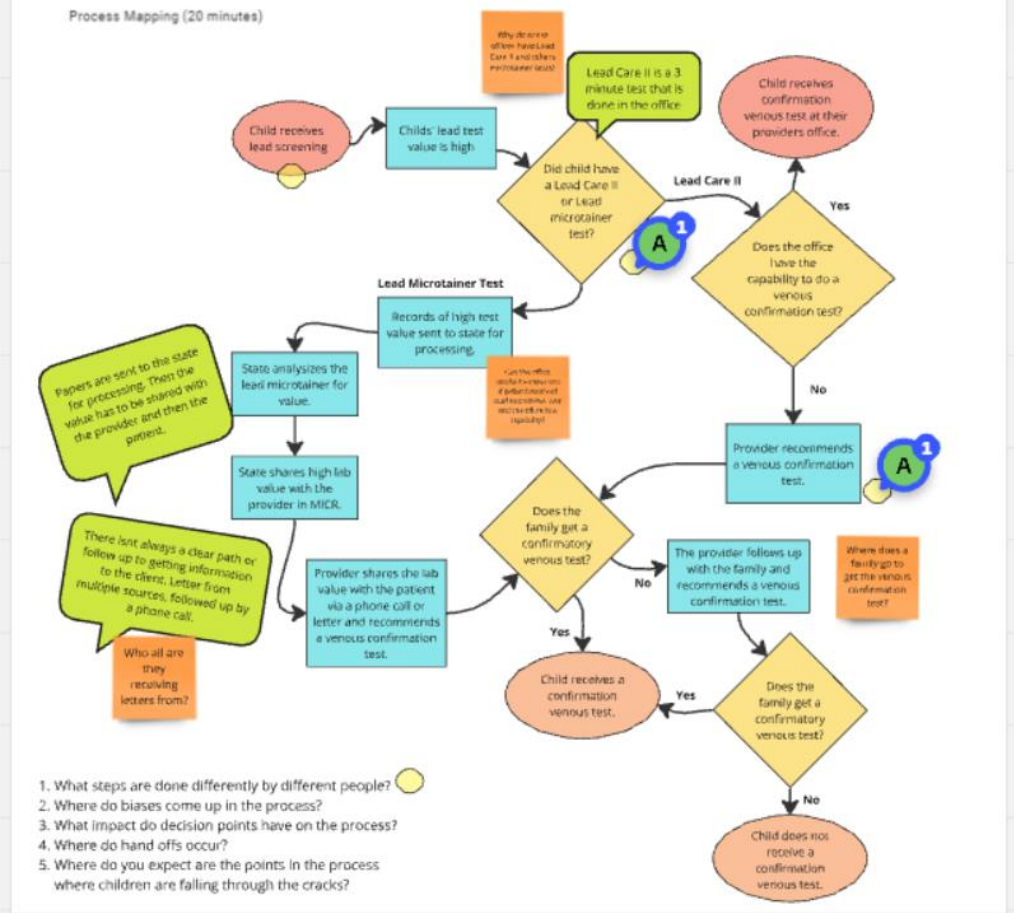
Planning

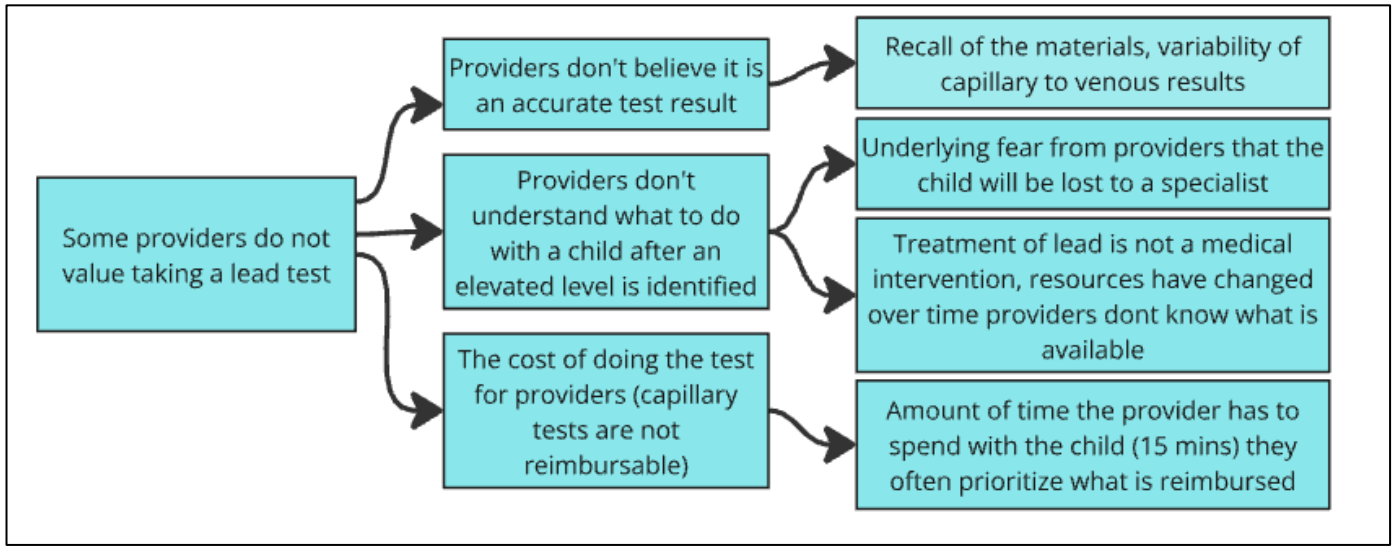


- Develop a process map.
- Identify root causes.
  - Assign threshold of influence.
- Brainstorm possible solutions for agreed upon root cause.
- Choose one solution to try first.
- Create a detailed plan.

2023 Partnership with MPHI

Problem Statement: All children who have a 3.5 µg/dL or higher capillary test are not receiving a venous test to confirm the elevated blood lead level.

- Possible root causes:
  - Resources not available.
  - Lack of education.
  - System/process is complicated.
  - Fear of the outcome and/or repercussions.
  - SDOH barriers.
  - Lack of primary prevention care.
  - Lack of trust.



Planning continued

Root Cause

- Since treatment of lead is not a medical intervention and resources are always changing, providers don't know what to do once a child has an elevated lead level.

Possible Solutions to Address the Root Cause

- Provider education guidelines for intervention based on blood level.
- A list of resources and contact information for referrals.
- Flow chart for what to do (distributed to providers).
- Packet of informational resources for the family.
- Empower parents to advocate for BLL testing.

Exploring Solutions and Planning to Act

What issue are we facing?	• All children who have a 3.5µg/dL or higher capillary test are not receiving a venous test to confirm the elevated blood lead level.
Root Cause	• Treatment of lead is not a medical intervention and resources are always changing, so providers don't know what to do once a child has an elevated lead level.
Solution to test	• Pilot the lead liaison program.

Lead Liaison Pilot

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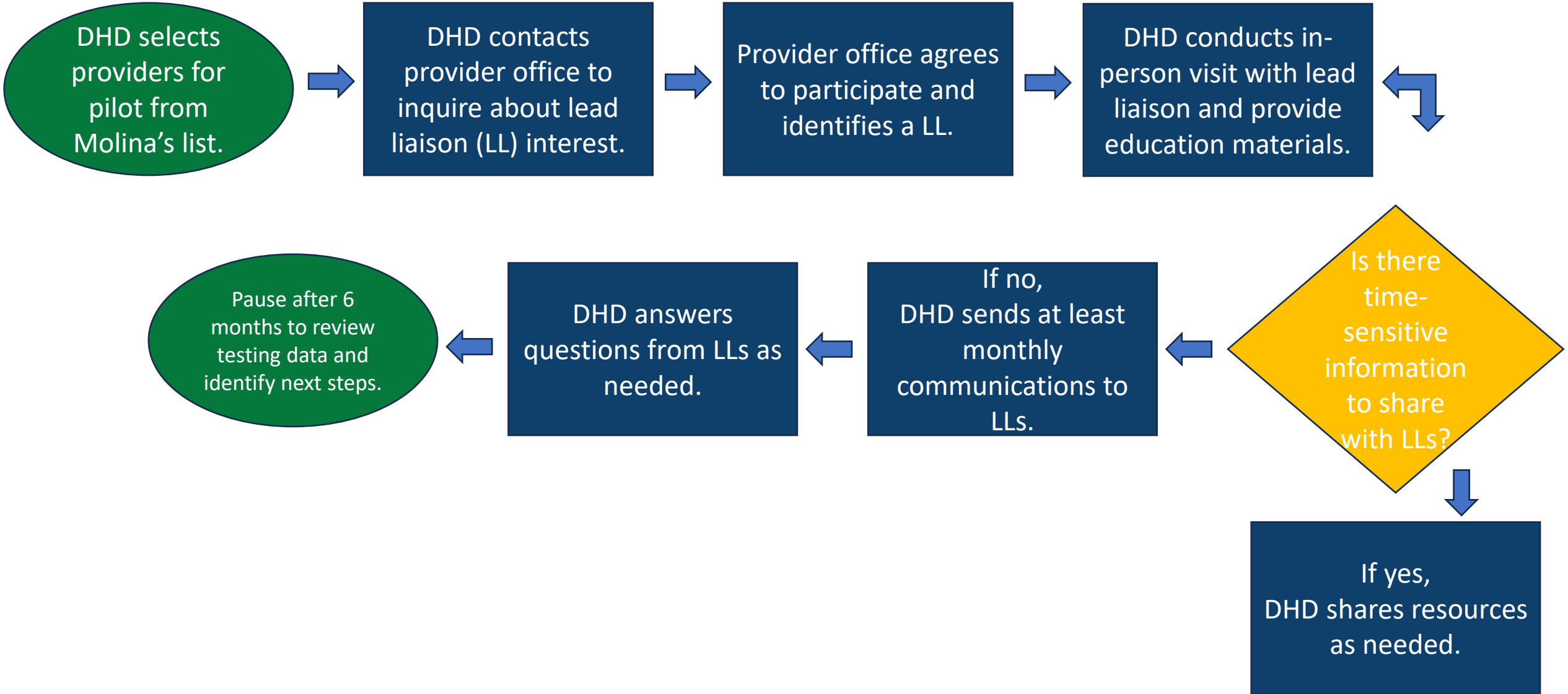
Kalamazoo Lead Liaison Program

- Lead Liaison idea developed as a solution to increase communication with primary care providers.
- Began through coordinating communication through Vaccines for Children (VFC) nurse coordinator and the providers in her network.
- Increased venous confirmatory testing was initially an unintended outcome.
- Program success includes:
  - Increased venous confirmatory testing.
  - Streamed communication regarding newly identified sources of lead exposure.
  - Coordination of care for children with elevated lead levels.
  - Increase in the number of provider offices initiating standing orders for all capillary lead tests 3.5 µg/dL and greater.

Lead Liaison

- A Lead Liaison is an identified person in a provider office or group who serves as the main contact for the lead nurse case manager.
  - Discuss blood lead testing for specific patients.
  - Identify resources available to support testing efforts.
  - Facilitate trainings related to lead testing and case management services.
  - Provide communication regarding updates to lead testing mandates and lead exposure.

Lead Liaison Pilot in Detroit



Lessons Learned

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Lessons Learned

- Each local health department has unique needs and challenges that need to be addressed individually.
- Venous testing for children requires specialized training and possible external partnerships to meet the various needs.
- Additional barriers to testing (reimbursement).
- Successful partnerships are successful because all participants are willing and invested.
- Awareness of health plans being invested in improving lead testing outcomes.
- Everyone has something to gain from a collaboration like this one.

Expected Outcomes

We can create a process or model that can be replicated; get more kids into services.

Excited about the partnership and the great things that are going to come out of it.

Set a precedent of incorporating the environment, lived experience of the community into all work.

Build a stronger and long lasting collaboration to ultimately help our children and the city of Detroit.

Strengthen the relationship and collaboration with Molina.

Want to enhance the collaboration with LHDs, improve the member experience.

Unexpected Outcomes

- Child currently enrolled as Molina member, with very high lead level referred to Detroit Health Department for case management services.
- The following needs were met within a 30-minute care coordination meeting between MDHHS CLPPP, Detroit Health Department and Molina:
  - Transportation.
  - Access to food.
  - Language barrier.
  - Childcare.
  - Housing.

Questions

Thank you!

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