

# Improving the Clinical Response to Elevated Blood Lead Levels

Jacqueline M. Silas, RN  
Cincinnati Health Department

# BACKGROUND



Lead can damage nearly every system in the human body. Children under the age of 36 months are at greatest risk for lead poisoning due to their hand to mouth activity.

Screening helps identify children that may have been exposed to lead. Clinical protocols are in place to ensure proper interventions are initiated to help reduce the harmful effects of lead exposure.

**There is NO safe level of lead in the blood.  
Any confirmed level is an indication that the child has been exposed.**



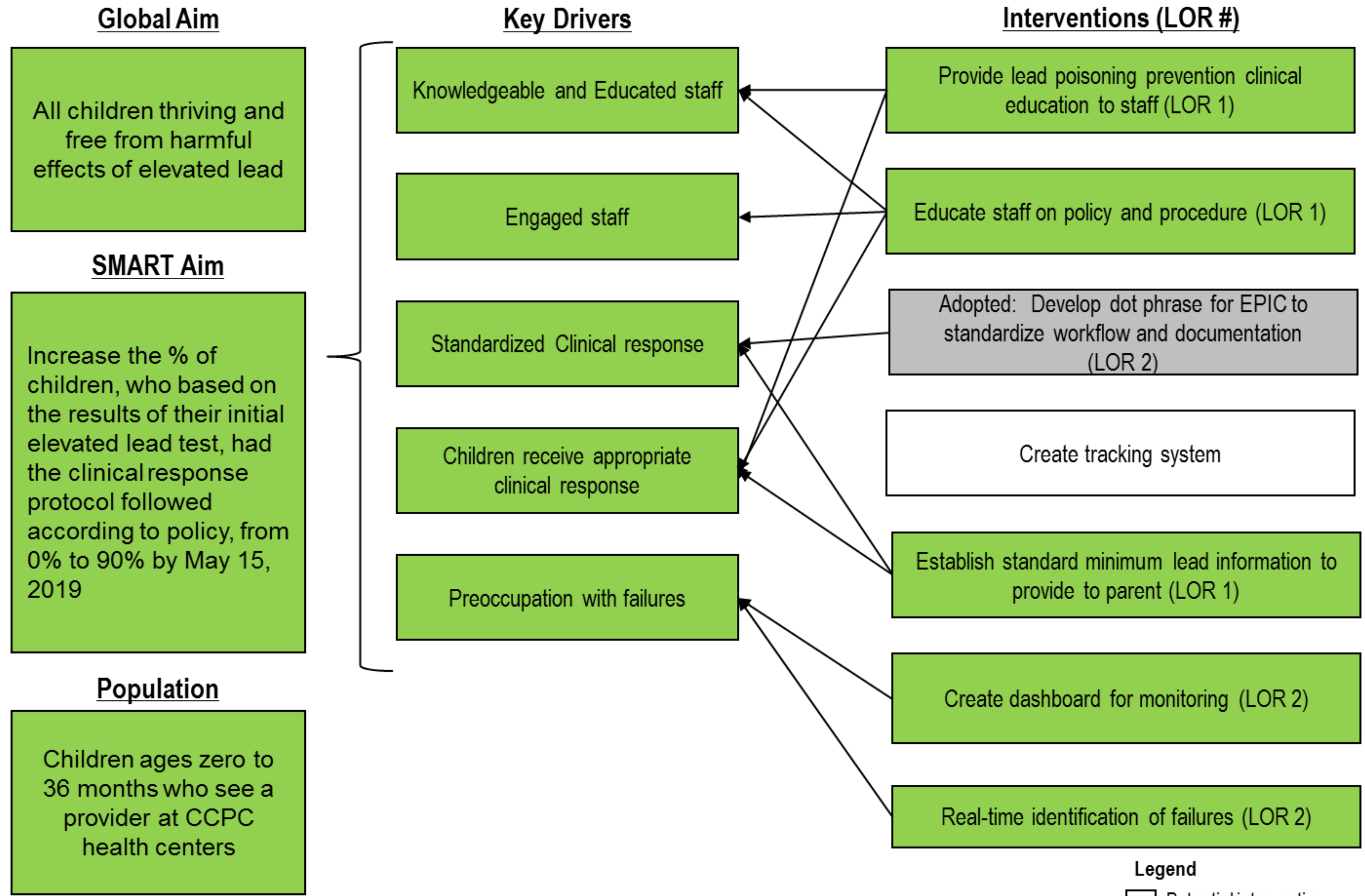
At the City of Cincinnati, our mission is to achieve **health equity** and improve the health and wellness of all who live, work, and play in Cincinnati. We further want all children to have an opportunity to reach their full potential without any lingering effects.



# Improving Clinical Response Protocol for Elevated Lead

Project Leader: Jacqueline M. Silas

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Note: LOR # = Level of Reliability Number, e.g., LOR 1

**Legend**  
□ Potential intervention  
■ Active intervention  
■ Adopted/Abandoned intervention

# LEARNING CYCLES



**PDSA Ramp Name: Standardize Workflow Dot Phrase**

		Test Cycle 1	Test Cycle 2	Test Cycle 3	Test Cycle 4
<b>PLAN</b>	<b>Test Description:</b>	Create DOT phrase	Adapt dot phrase	Test dot phrase at another site	
	<b>Objective:</b>	Ensure steps of protocol are completed	Ensure steps of protocol are completed	Ensure steps of protocol are completed	
	<b>Prediction:</b>	Will be successful	Will be successful	Will be successful	
	<b>How will success of the test be measured?</b>				
	<b>Plan details:</b>				
<b>DO</b>	<b>Was the test carried out as planned? Yes/No</b>				
	<b>Test Results (data &amp; observations):</b>				
<b>STUDY</b>	<b>Did results match prediction?</b>				
	<b>Learning:</b>				
<b>ACT</b>	<b>Adapt, Adopt or Abandon:</b>				

**Cincinnati Children's**  
changing the outcome together

**PDSA Worksheet – Clinical response to elevated lead level**

Ramp Name: Dot Phrase      Test Name: Dot Phrase      Test Start Date:      Test Complete Date:

Project SMART Aim: Increase the % of children, who based on the results of their lead test, had the clinical response protocol followed according to policy, from 66% to 90% by May 15, 2019

What key driver does this test impact? Engaged Staff      What is the objective of the test? To test the feasibility of dot phrase for documentation

**PLAN:**

A. Briefly describe the test:  
Create dot phrase to use in EPIC note to ensure all interventions are completed

B. What would the successful test look like?  
Staff will find the dot phrase helpful and will be motivated to use it

C. How will you measure the success of this test?  
Dot phrase coded and completed in chart

D. What do you predict will happen?  
Not used/ Resistance of staff

E. Plan for collection of data:  
Chart review

F. Tasks:

List the tasks necessary to complete this test (what)	Person responsible (who)	When	Where
Create dot phrase	Jackie	Done	EPIC
Share dot phrase	Jackie	Done	EPIC
Decide on start/end date	Jackie	2/4/2019	1 site
Choose one site	Jackie	Done	Elm St

**DO:** Test the changes.  
Was the cycle carried out as planned?  Yes or  No

Record data and observations.

What did you observe that was not part of the plan?

**STUDY:**  
Did the results match your predictions?  Yes or  No

Compare the result of your test to your previous performance:

What did you learn?

**ACT:** Decide to Adapt, Adopt or Abandon (shade one box).

**Adapt.** Improve the change and continue testing the plan. Plan/changes for next test:

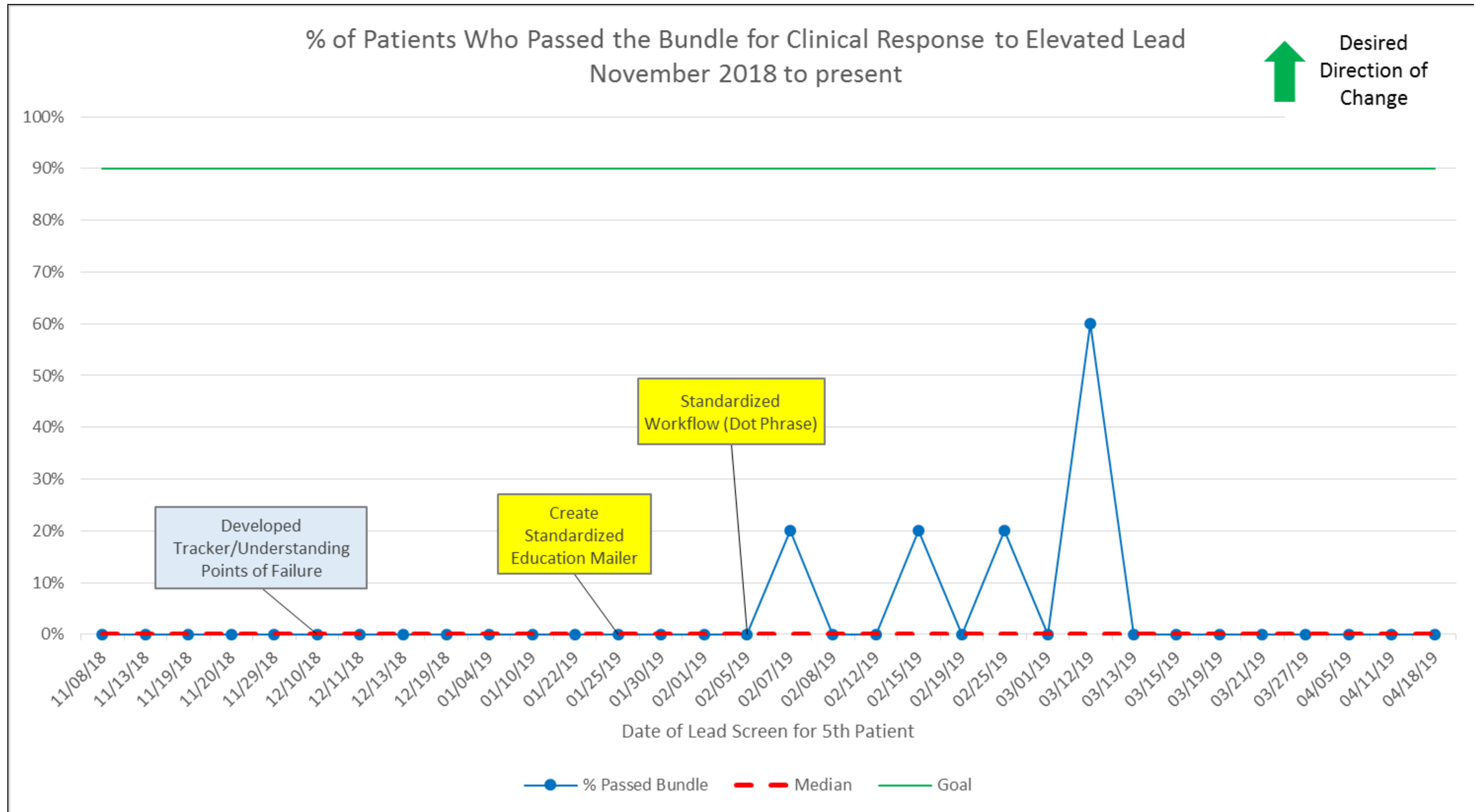
**Adopt.** Select changes to implement on a larger scale and develop an implementation plan and plan for sustainability.

**Abandon.** Discard this change idea and try a different one.

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PDSA's focused on education, standardization of documentation and patient education, and tracking failures.

# RESULTS



# MOST PROUD OF



- ❖ Being successful at engaging clinic staff
- ❖ How much I have learned about the quality improvement process!

# GREATEST CHALLENGE



- Some of the success of managing an elevated lead level is still patient/parent dependent
- Resistance to interventions
- Not familiar with details of procedure



## TEAM MEMBERS

Jackie Silas, RN ([Jacqueline.Silas@Cincinnati-oh.gov](mailto:Jacqueline.Silas@Cincinnati-oh.gov))

And the pediatric staff at the following health centers:

- Millvale Health Center
- Price Hill Health Center
- Elm Street
- Northside
- Braxton Cann
- Clement

