



# CHILDHOOD LEAD POISONING PREVENTION PROGRAMS

Office of Environmental Public Health  
Sciences, Heathy Homes & Communities

# Presenters

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# Overview

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- Lead 101
- Data
- DOH Lead Programming
- Future Initiatives
- Tacoma-Peirce County Health Department



# Lead 101





# Lead

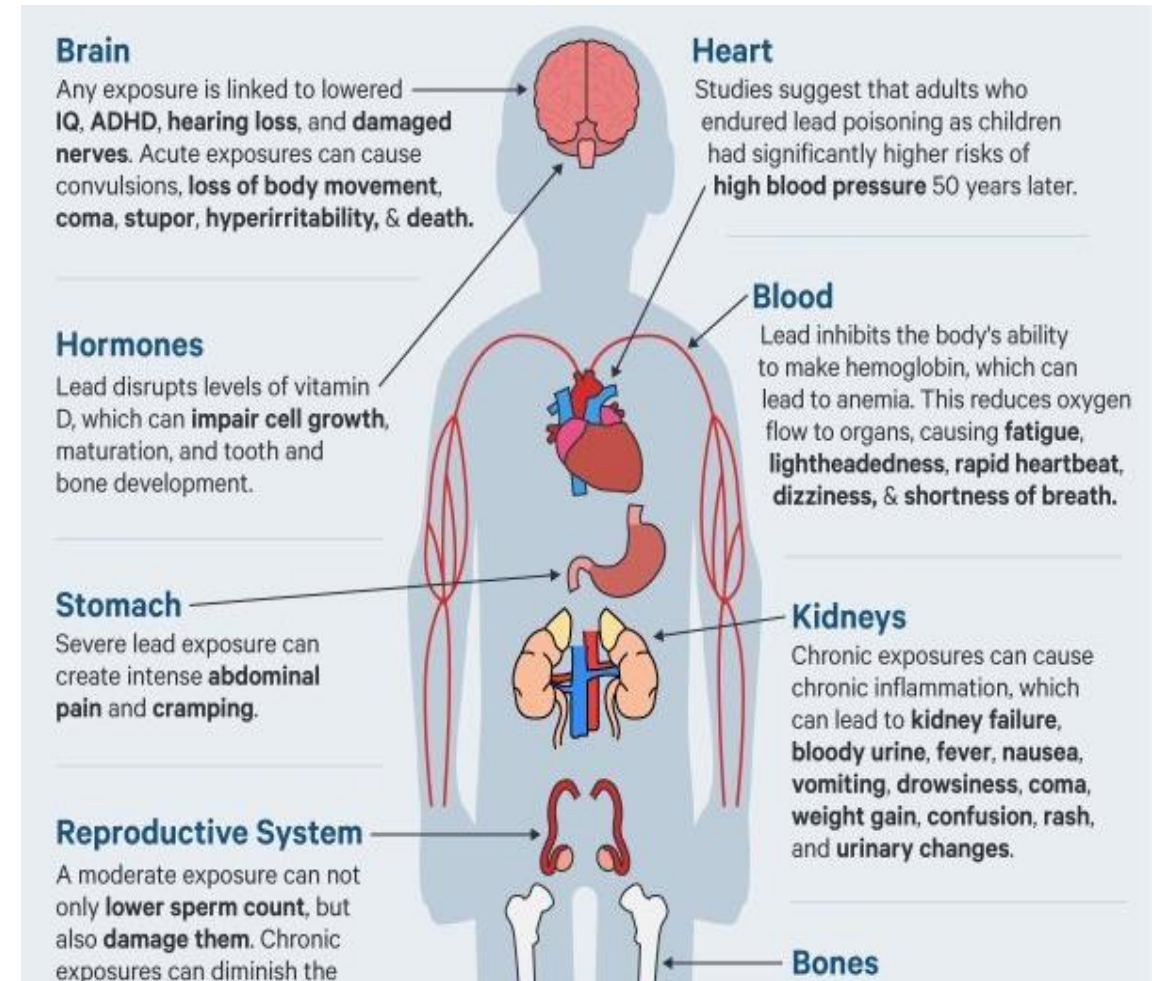
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- Soft, blue-gray heavy metal
- Occurs naturally
- Much of its environmental presence comes from past use in paint, gasoline and industry
- The most widespread source of lead exposure for children is in lead-based paint and dust that remains in older buildings



# Health Impacts

- Lead can affect nearly every system in the body
- There is no known safe exposure threshold
- Exposure is especially toxic and harmful to children, because their brains and nervous systems are still developing



# Exposures Risks

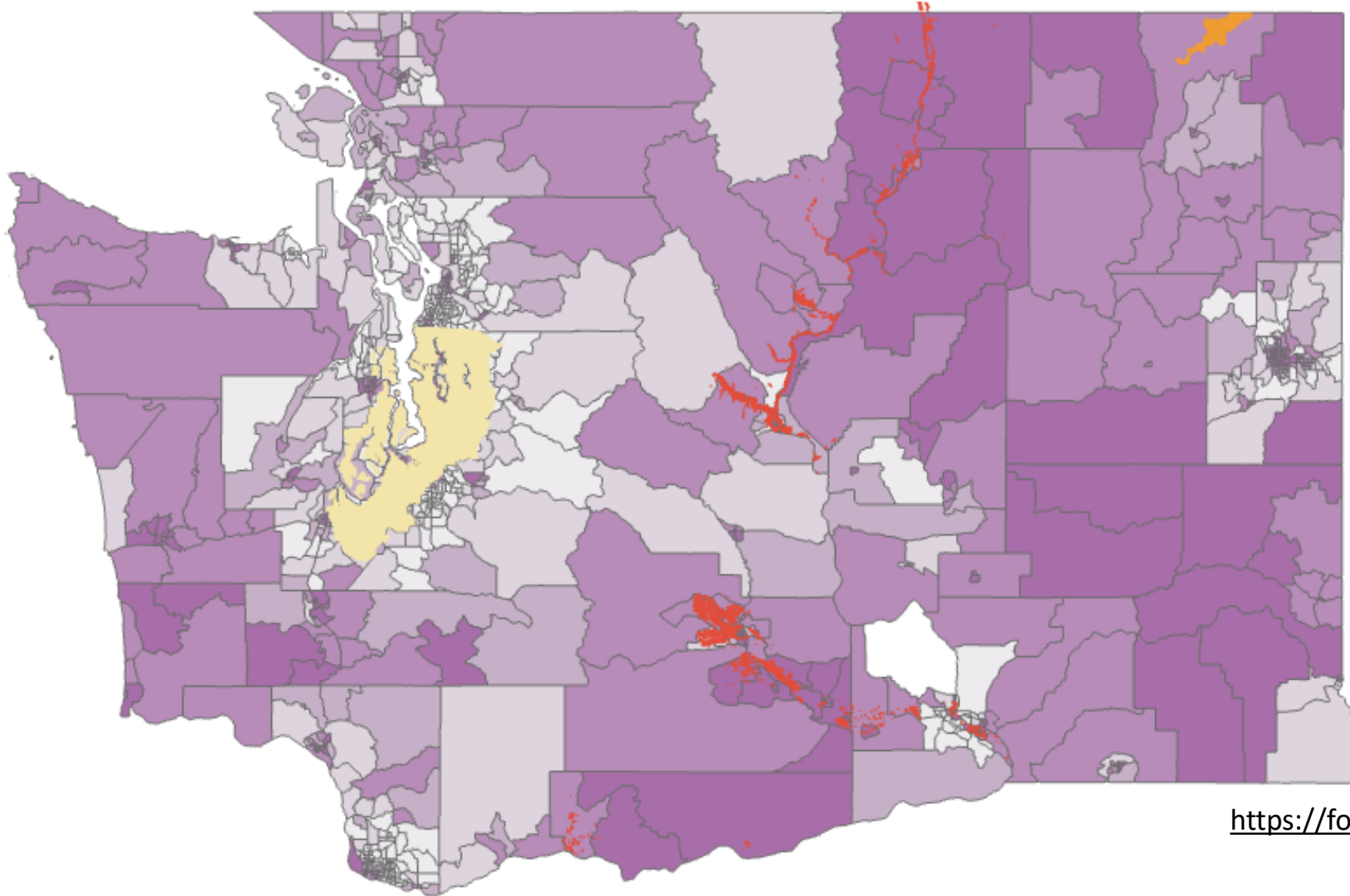
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- Paint in pre-1978 homes
- Lead dust
- Dirt / soil
- Job exposures
- Drinking water
- Hobbies / sports
- Traditional remedies
- Spices
- Traditional cosmetics
- Costume jewelry
- Recalled toys
- Imported pottery
- Imported aluminum cookware






# Lead Exposure Risk Mapping







The Washington Tracking Network (WTN) Lead Risk Indicator is calculated utilizing data on **age of homes** and **poverty** within census tracts.

## Legend

-  Historical Orchards
-  Upper Columbia Plume
-  Tacoma Smelter Plume

## Lead Risk - WTN

-  1-2
-  3-4
-  5-6
-  7-8
-  9-10

<https://fortress.wa.gov/doh/wtn/WTNIBL/Map/LeadRisk>



# Blood Lead Testing

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- A blood test is the only way to identify lead exposure
- Washington's approach is **focused testing**, with no state-wide universal testing requirements\*
- We test based on a child's risk factors, following [Clinical Algorithm for Targeted Childhood Lead Testing](#) guidelines developed by an expert panel
- **All** lead test results must be sent to DOH, per Notifiable Conditions Rule (Chapter 246-101 WAC)
- Methods for blood lead testing:
  - Venous
  - Capillary (needs confirmatory test)



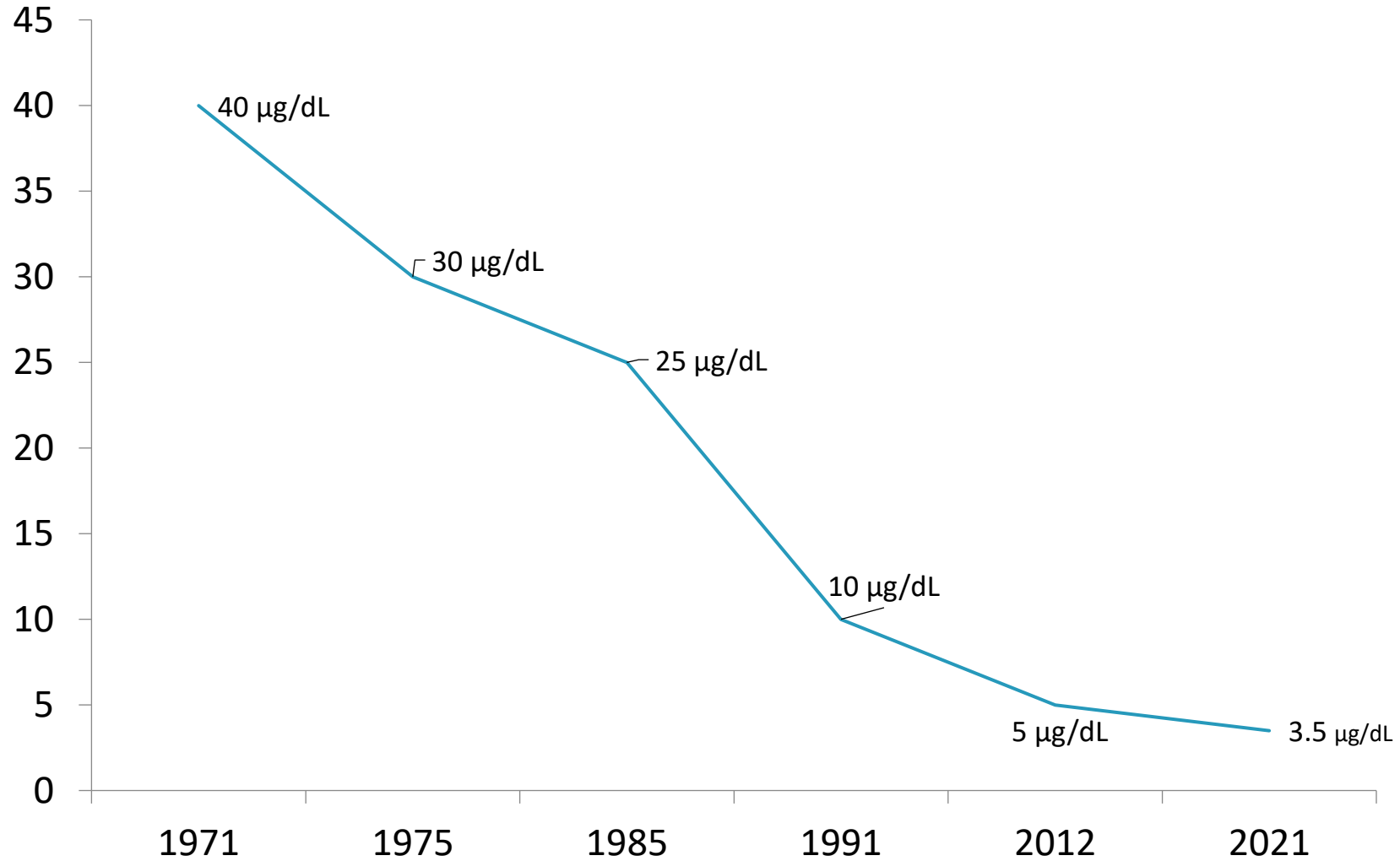
\*All children enrolled in Medicaid are required to receive blood lead testing at 12 and 24 months at well visits, or once before 72 months

# Response to Elevated Blood Lead

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- Qualifying test results (5  $\mu\text{g}/\text{dL}$ ) are sent to LHJs for response, pursuant to Washington's Notifiable Conditions Rule
- Local response varies, but can include case investigation and case management or home lead assessment
- DOH provides centralized data system, guidance, technical assistance, and tools, as well as case management upon request by LHJ
- There is no stable state-wide funding source to provide services to affected families

# CDC Lead Reference Levels



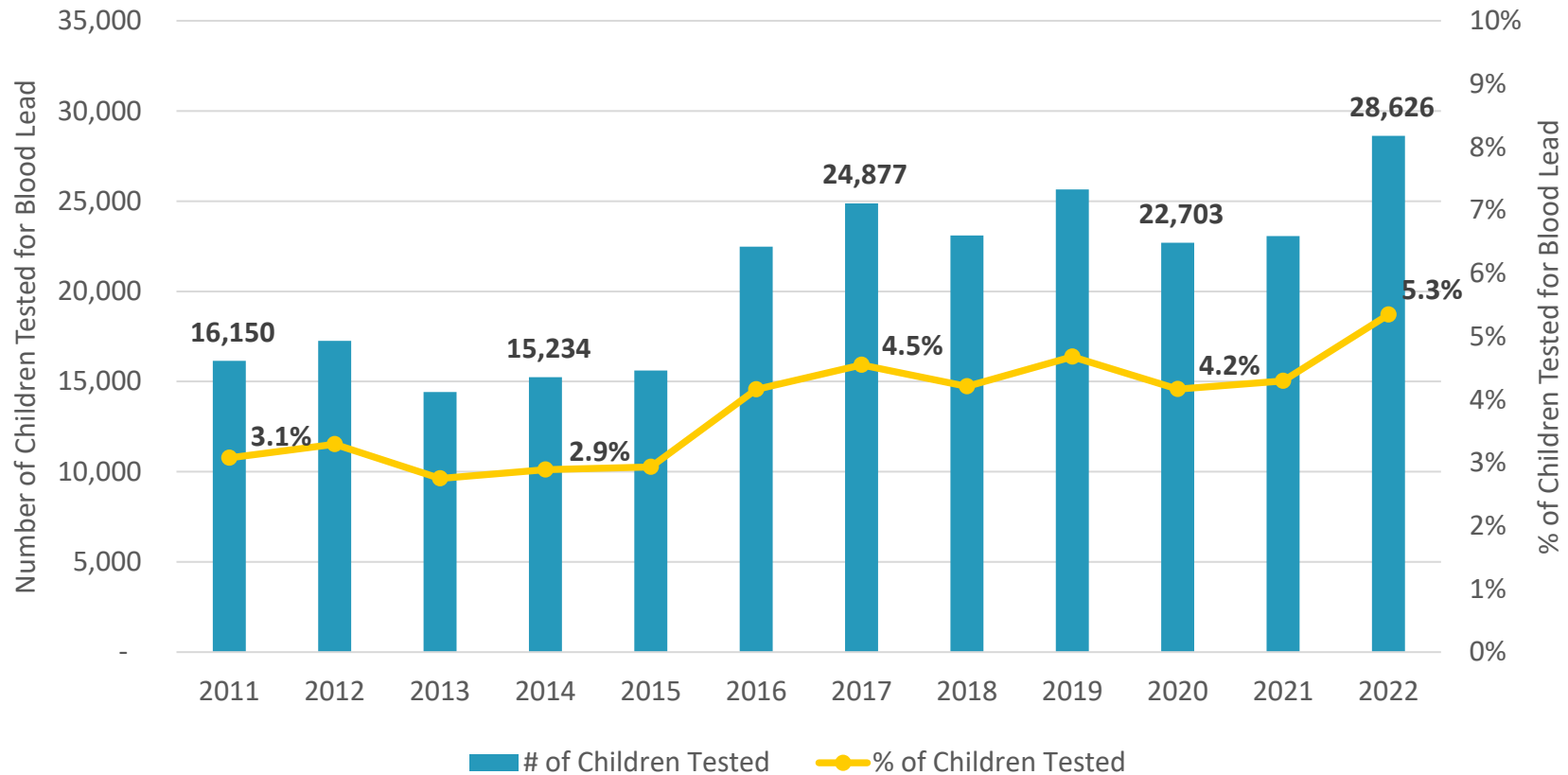


# Data



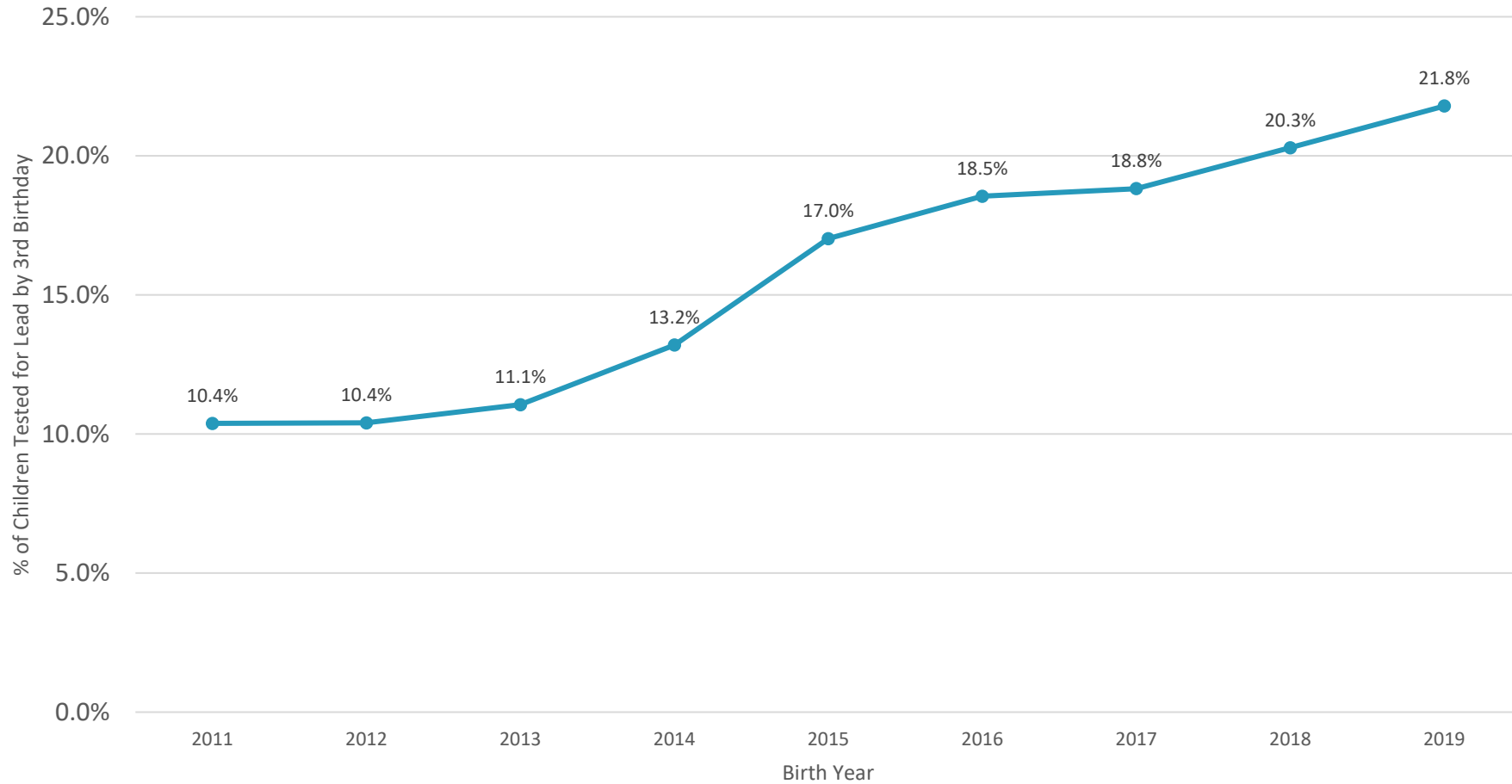
# Lead Testing in Washington

Number and Percent of Children 0-5 Years Old Tested for Lead Annually in Washington State, 2011-2022



# Birth Cohort Test Rate

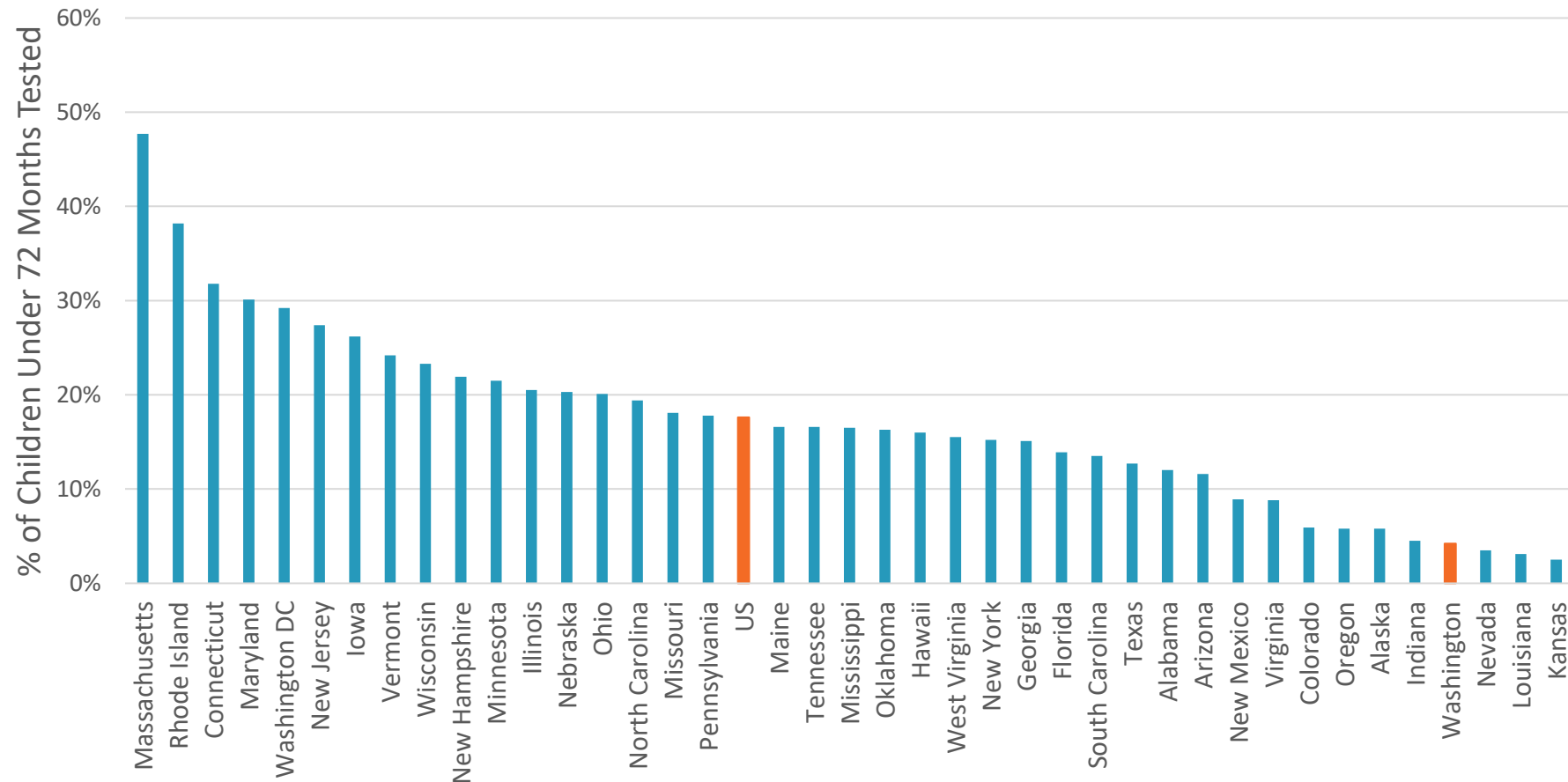
% Children Tested For Lead By 3rd Birthday, 2011-2019





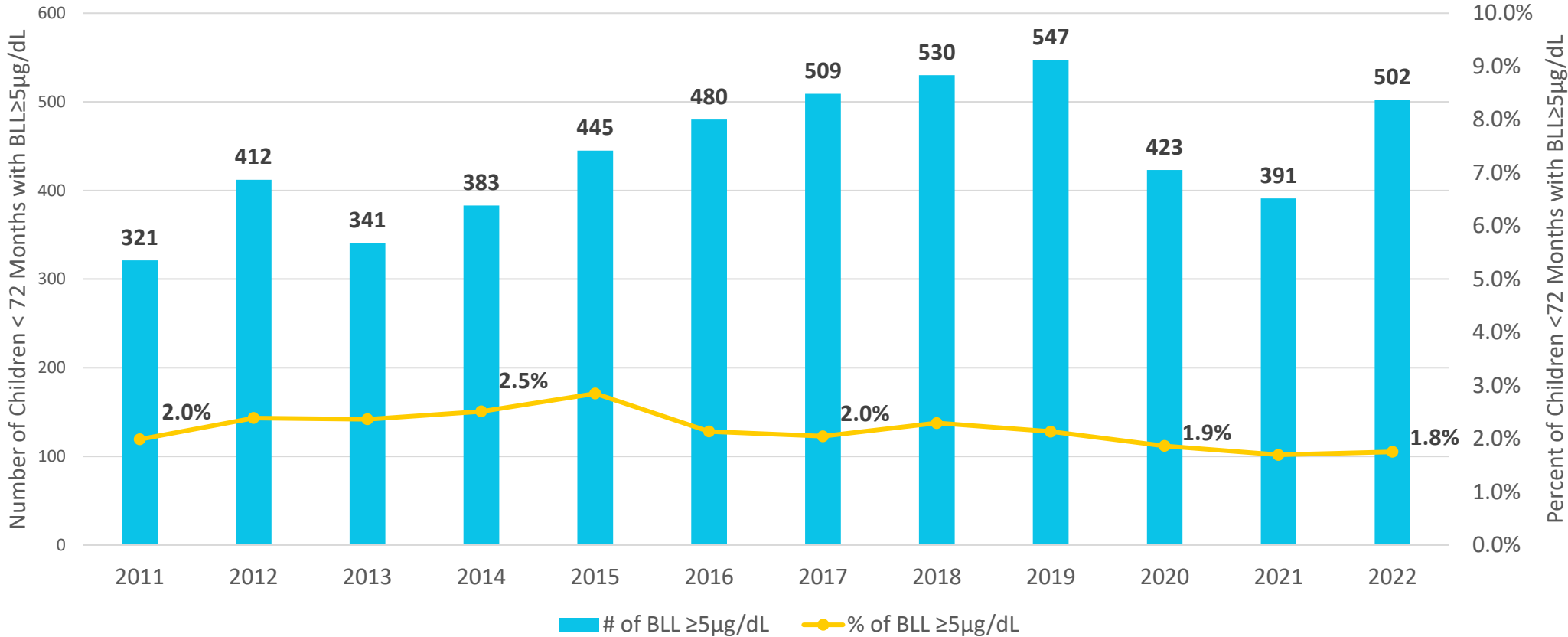
# Test Rate in US by State

Annual Testing Rate of Children Under 72 Months of Age, 2018  
in states reporting annually to CDC



# Case Rate

Elevated Blood Lead Level ( $\geq 5\mu\text{g}/\text{dL}$ ) Rates of Children <72 Months of Age in Washington, 2011-2022



# Washington Rates Compared to National Rates

Year	Annual Testing Rate		Elevated Rate	
	% of <u>WA</u> Children under 72 months tested	% of <u>US</u> Children under 72 months tested	% of <u>WA</u> tests $\geq 5 \mu\text{g/dL}$	% of <u>US</u> tests (confirmed) $\geq 5 \mu\text{g/dL}$
2012	3.3%	18.4%	2.4%	5.2%
2013	2.7%	17.1%	2.4%	4.7%
2014	2.9%	15.5%	2.5%	3.8%
2015	2.9%	17.8%	2.8%	3.6%
2016	4.2%	16.2%	2.1%	3.8%
2017	4.5%	15.7%	2.0%	3.1%
2018	4.2%	17.6%	2.3%	2.6%
2019	4.7%	NA	2.1%	NA
2020	4.2%	NA	1.9%	NA
2021	4.3%	NA	1.7%	NA
2022	5.3%	NA	1.8%	NA

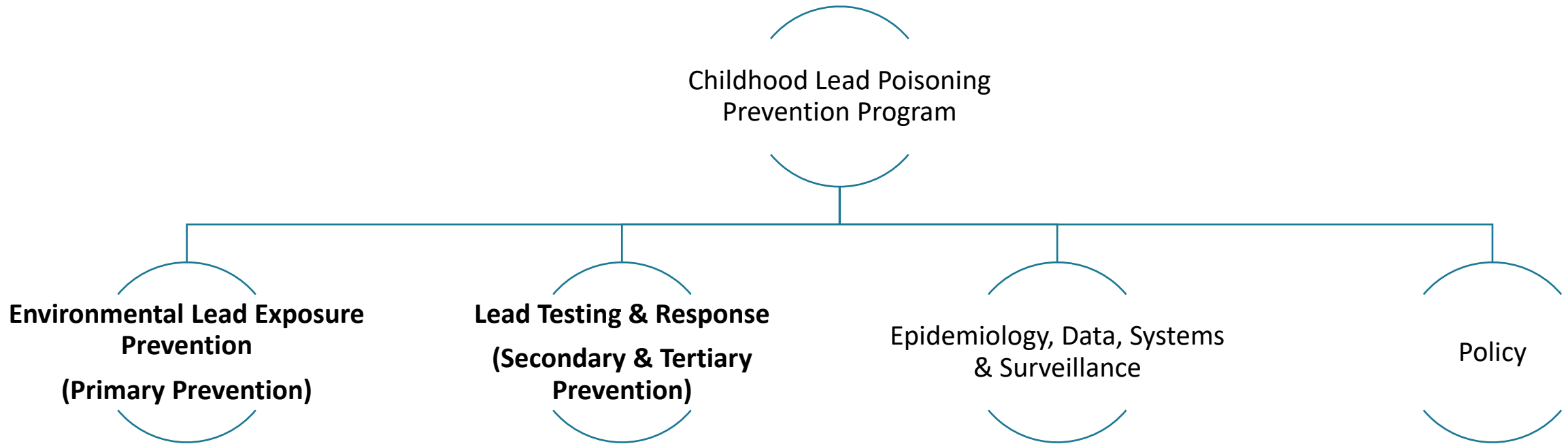


# DOH Lead Programming



# DOH Program Components

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# Environmental Lead Exposure Prevention

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Identify and eliminate environmental sources of lead exposure  
before children are impacted

# Lead in School Drinking Water

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- Engrossed 2<sup>nd</sup> Substitute House Bill 1139 passed during the 2021 legislative session
- Test lead in drinking water in all public schools built, or with plumbing replaced, before 2016
- Must test all drinking water outlets
- Initial testing completed by 2026 and then every five years
- Action level is defined at above 5ppb with immediate shut off at above 15ppb
- NOTE: the RCW is different than the delayed school rule Chapter 246-366A WAC





# Water Infrastructure Improvement for the Nation (WIIN)

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- Offers free lead and copper testing to childcare centers
  - Required for their licensing requirement
  - Every six years
  - Chapter 110-300-0235 WAC
- Funded through an EPA grant
- Remediation funding is available



# Lead Testing & Response

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- Increase testing of children - especially those that are most likely to be exposed to lead
- Ensure all children with elevated blood lead levels are connected to appropriate care, consistently across the state
- Identify sources of exposure to prevent future exposures



# Areas of Work

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1. Partnerships
2. CDC Grant Implementation
3. Health Care Authority State Plan Amendment (SPA) and an Interagency Agreement
4. Foundational Public Health Services

# Key Partnership Efforts

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- Refugee and Immigrant Health
- Women, Infants and Children (WIC)
- Lead Advisory Committee
- Local Health Jurisdictions
- Health Care Authority
- Seattle & King County Hazardous Waste





# CDC Grant

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## Long term goals:

- **Decreased disparities in blood lead levels by race/ethnicity and socioeconomic status**
- Decrease adverse health effects of lead exposure in children
- Decreased societal costs associated with childhood lead exposure

## Strategies:

- Ensure blood lead testing and reporting
- Enhance blood lead surveillance
- Improve linkages of lead exposure children to recommended services

# Health Care Authority Initiatives

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## 1. State Plan Amendment (SPA):

- Two new billable service areas:
  - Home Lead Exposure Assessments
  - Targeted Case Management
- Sustainable source of funding at state and local public health levels
- Foundational Public Health Services dollars to leverage the Medicaid dollars

## 2. Interagency Agreement (IAA):

- A 50% match on Medicaid eligible administrative activities
- Supports DOH's work aligning with HCA's goals



# Foundational Public Health Services

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- DOH receives Foundational Public Health Services (FPHS) to support statewide coordination, work with HCA/Medicaid, policy, assist with case management upon LHJ request, and work with focus populations
- Co-Lead of Lead Prevention Model Program Core Team

# Future Initiatives





# Future Initiatives

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- Review CDC's Reference level in comparison with the state's current action level to develop recommendation for next steps
- Work with HCA to submit and implement SPA and Interagency Agreement IAA
- Determine next steps around FPHS model program efforts

