
BUNKER HILL SUPERFUND SITE 2025 BLOOD LEAD SUMMARY

PANHANDLE HEALTH DISTRICT

IDAHO DEPARTMENT OF ENVIRONMENTAL QUALITY

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

MARCH 11, 2026



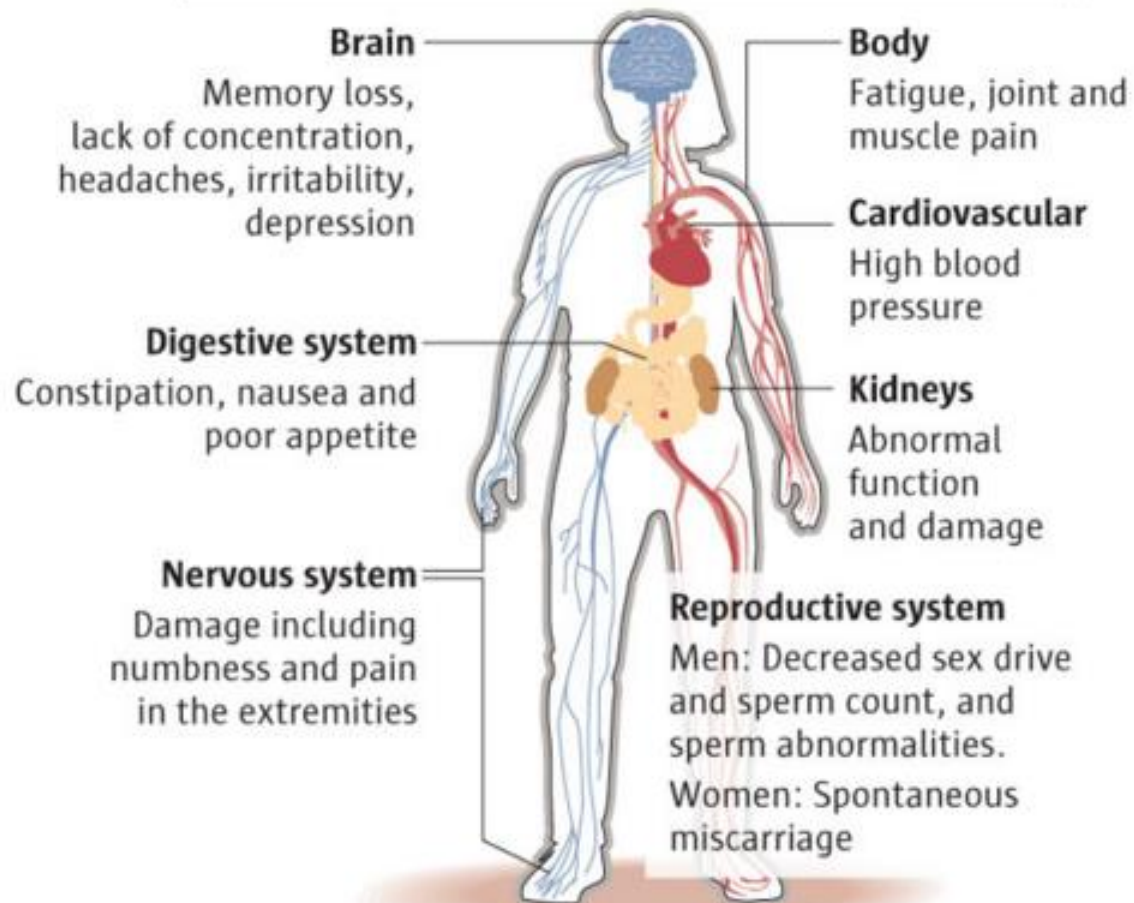


PRESENTATION OUTLINE

- HEALTH EFFECTS OF LEAD
- LEAD HEALTH INTERVENTION PROGRAM (LHIP) BACKGROUND
- 2025 LHIP APPROACH
- 2025 LHIP RESULTS

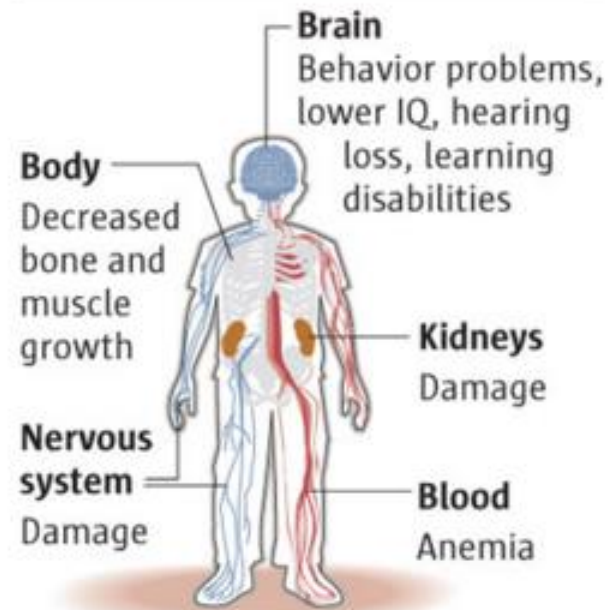
HEALTH EFFECTS OF LEAD

ADULTS



Most common exposure route:
incidental ingestion

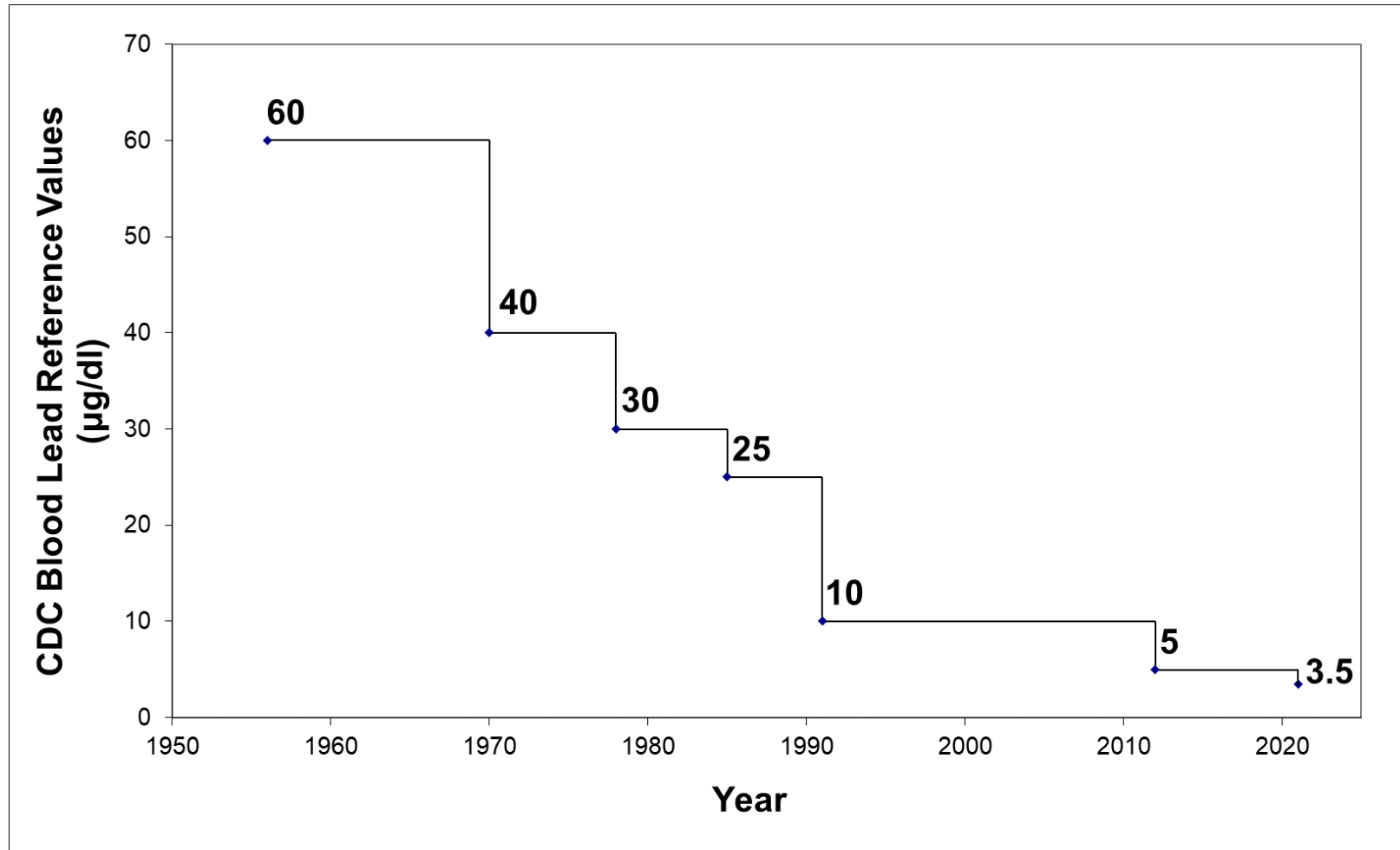
CHILDREN





AT RISK POPULATIONS

DECREASING “ELEVATED” BLOOD LEAD LEVELS



Blood Lead Concentrations Considered to be Elevated by the Centers for Disease Control and Prevention.

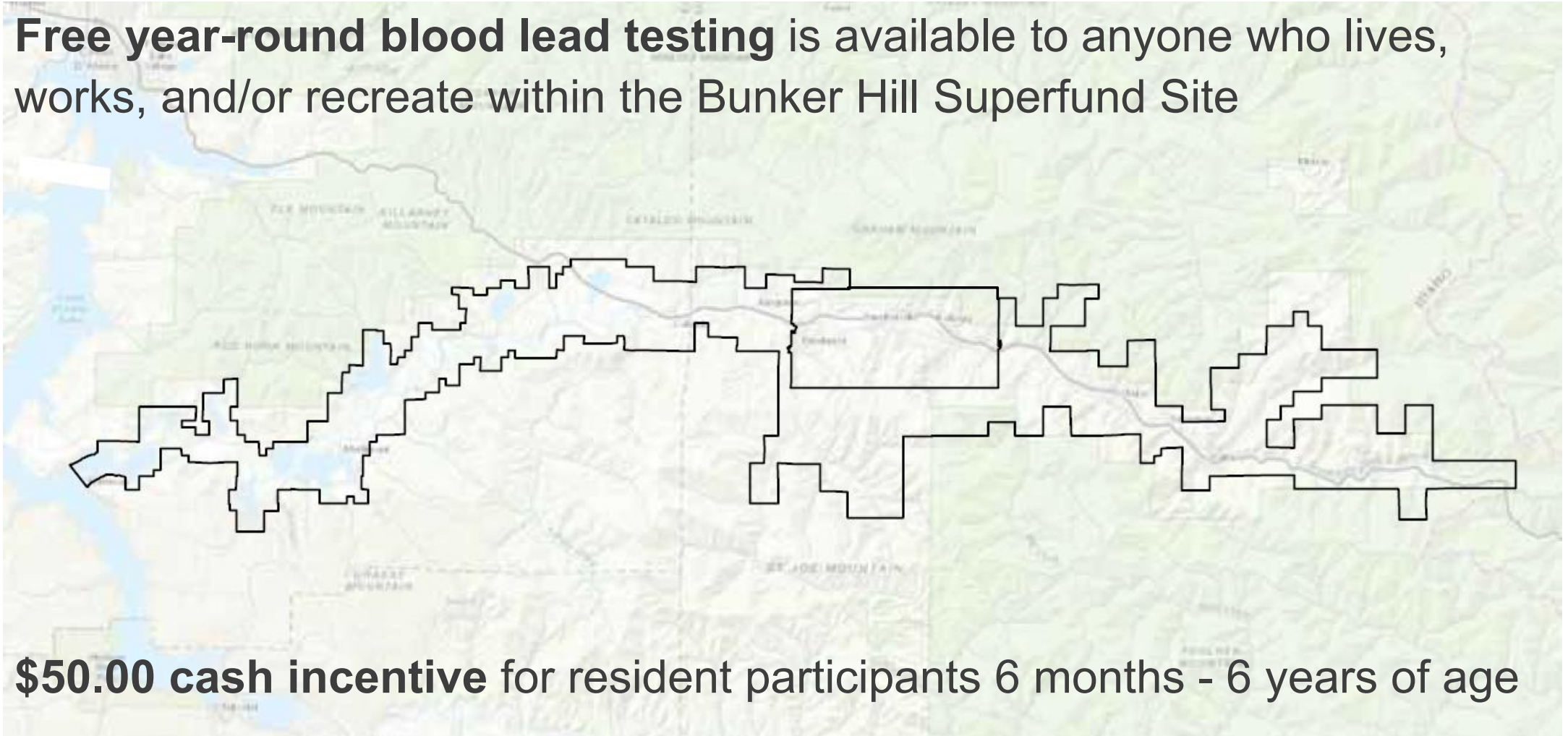
LEAD HEALTH INTERVENTION PROGRAM (LHIP)

- Public health service
- Not a study or experiment
- Box since 1974/1985
- Basin since 1996



LHIP PARTICIPANT CRITERIA & INCENTIVE

- **Free year-round blood lead testing** is available to anyone who lives, works, and/or recreate within the Bunker Hill Superfund Site



- **\$50.00 cash incentive** for resident participants 6 months - 6 years of age

2025 LHIP APPROACH

- Informed consent
- Blood test offered by either:
 - Venous
 - Capillary (i.e., fingerstick [FS])
- If FS ≥ 3.5 $\mu\text{g}/\text{dL}$ then venous confirmation test
- Consultations and follow-up with all children ≥ 3.5 $\mu\text{g}/\text{dL}$



2025 SCREENING EVENTS

Area		Age	August ‡ (8/11-8/16)	Walk-ins Referrals
Basin	6 months through 6 yrs		126	3
	7+ yrs		67	6
Box	6 months through 6 yrs		105	5
	7+ yrs		54	8
All	6 months through 6 yrs		231	8
	7+ yrs		121	14

*An additional 13 people participated who resided outside the BHSS.

‡ “Typical” screening event

2025 RESULTS IN “THE BOX”

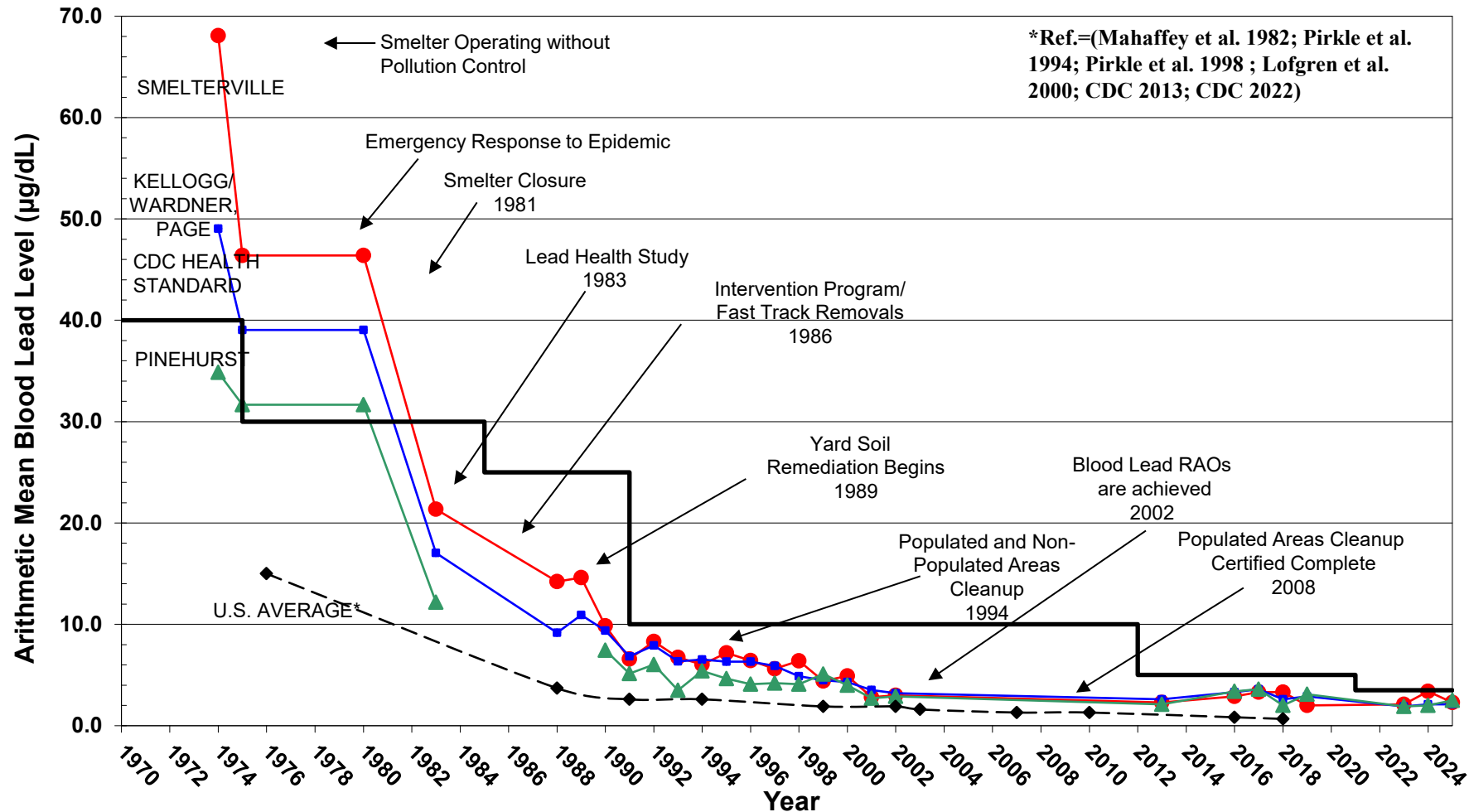
OPERABLE UNITS (OU) 1 & 2



BOX REMEDIAL ACTION OBJECTIVES

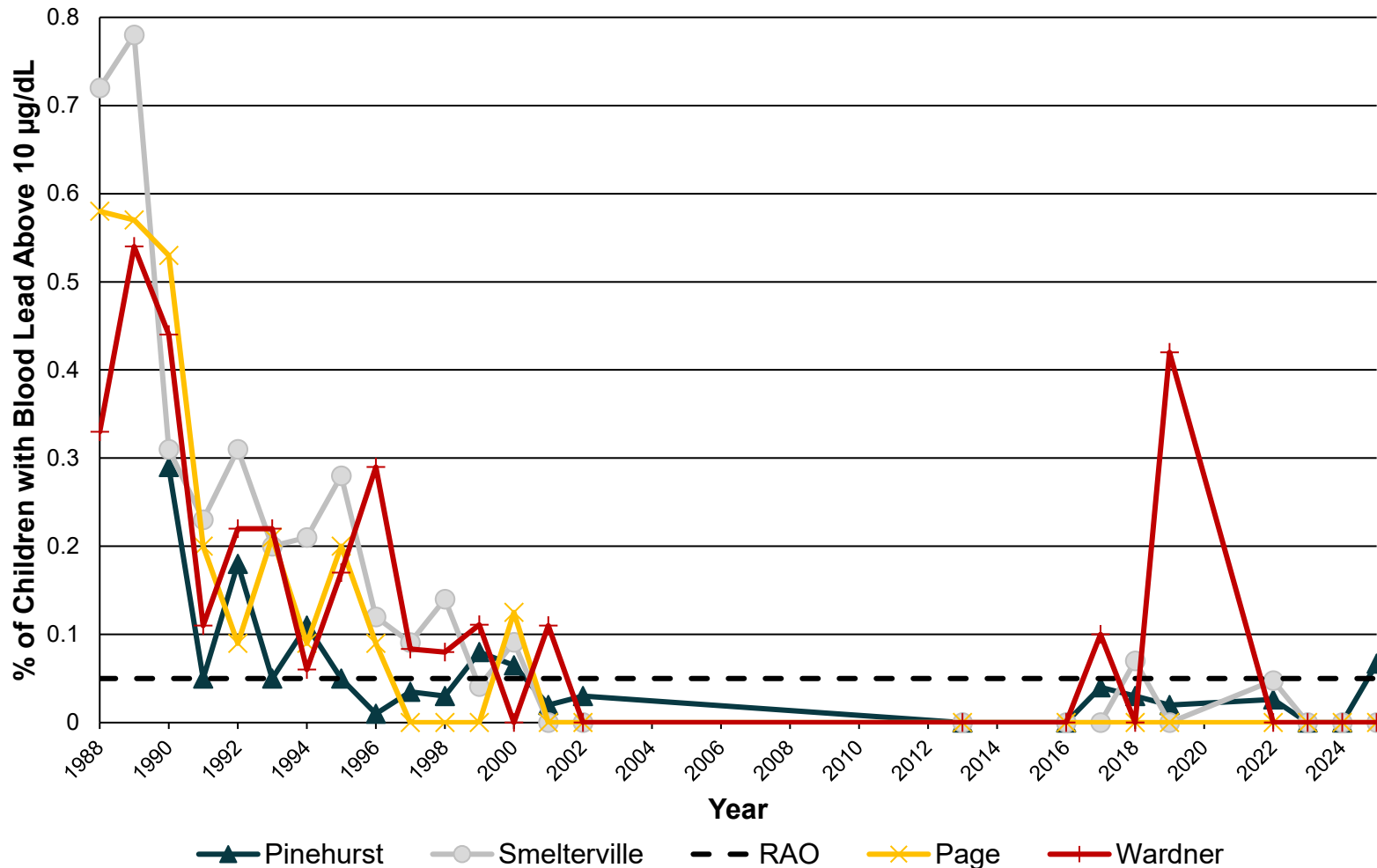
- No more than 5% of children in each community have blood lead levels ≥ 10 $\mu\text{g}/\text{dL}$
- Less than 1% with blood lead levels ≥ 15 $\mu\text{g}/\text{dL}$

BUNKER HILL BOX AVERAGE BLOOD LEAD: 1974-2025*



*not enough samples in 2003-2012, 2014, 2015, 2020, & 2020-2022

PERCENT OF BOX CHILDREN WITH BLOOD LEAD LEVELS ≥ 10 UG/DL, BY CITY, 1988-2025*



*not enough samples in 2003-2012, 2014, 2015, 2020, & 2021

Since 1998, ≤ 10 participants/year in Page & Wardner

Smeltonville had ≤ 10 participants/year since 2024

2025 BLOOD LEAD SUMMARY STATISTICS*: BOX (AGE 6 MONTHS THROUGH 6 YEARS)

Total Number of Children (N)*	105
Minimum (µg/dL)	<1.9
Maximum (µg/dL)	13.2
Average (µg/dL)	2.3
Standard Deviation	2.1
Geometric Mean (µg/dL)	1.9
Geometric Standard Deviation	1.7
Number / Percent Below Detection	72 (69%)

	Number*	Percentage*
Children's blood lead \geq 3.5 µg/dL	11	10.5%
Children's blood lead \geq 5 µg/dL	9	8.6%
Children's blood lead \geq 10 µg/dL	4	3.8%
Children's blood lead \geq 15 µg/dL	0	0%

*August event only.

2025 BLOOD LEAD SUMMARY STATISTICS*: BOX (OTHER NON-ELIGIBLE PARTICIPANTS*)

Total Number of Participants (N)*	54
Minimum (µg/dL)	<1.9
Maximum (µg/dL)	26
Average (µg/dL)	2.7
Standard Deviation	4.5
Geometric Mean (µg/dL)	1.8
Geometric Standard Deviation	2.0
Number / Percent Below Detection	46 (85%)

	Number *	Percentage *
Blood lead ≥ 3.5 µg/dL	5	9.3%
Blood lead ≥ 5 µg/dL	5	9.3%
Blood lead ≥ 10 µg/dL	3	5.6%
Blood lead ≥ 15 µg/dL	2	3.7%

*7+ years old, includes one pre-natal participant. August event only.



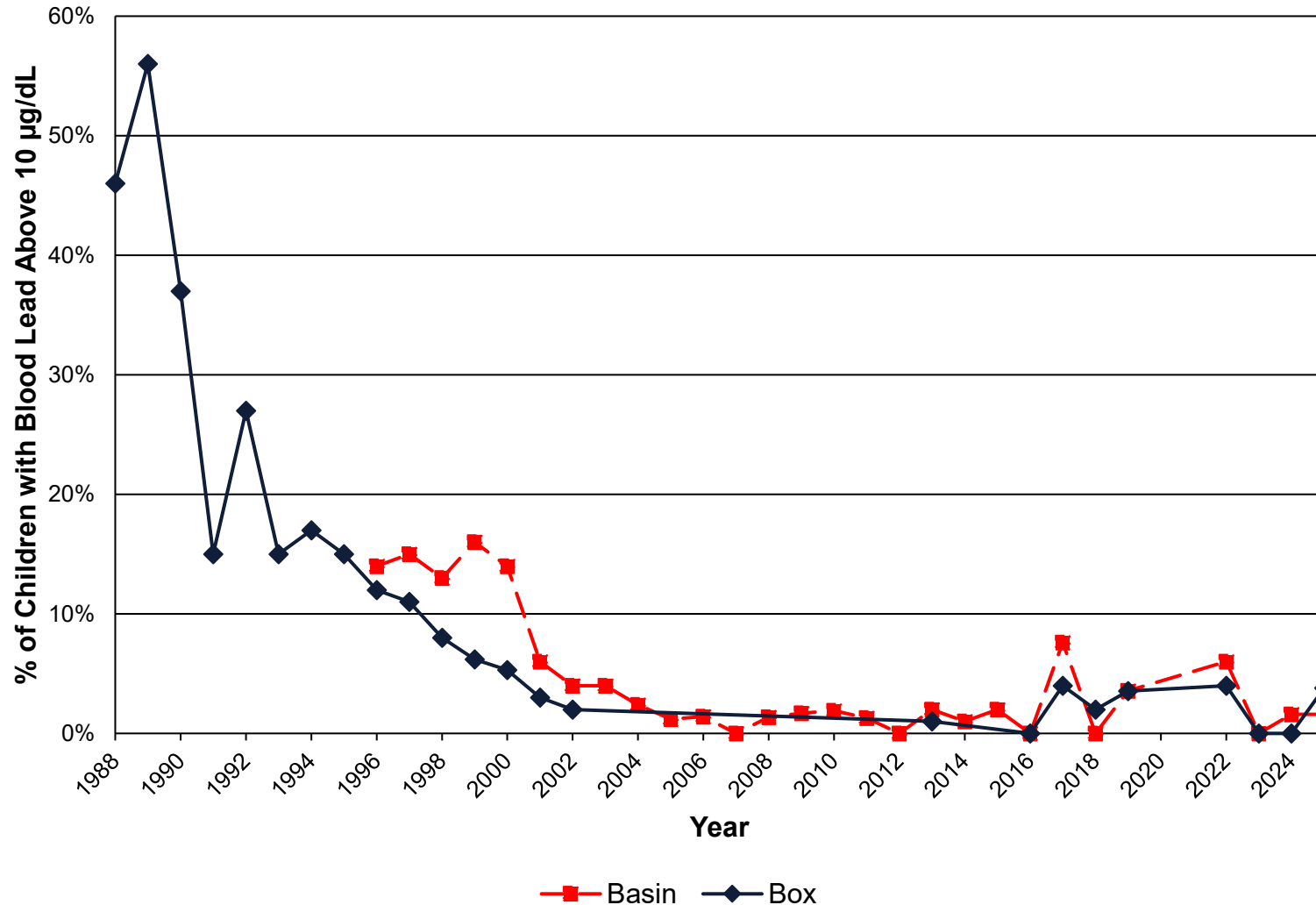
2025 RESULTS IN “THE BASIN”

OPERABLE UNIT (OU) 3

BASIN REMEDIAL ACTION OBJECTIVES

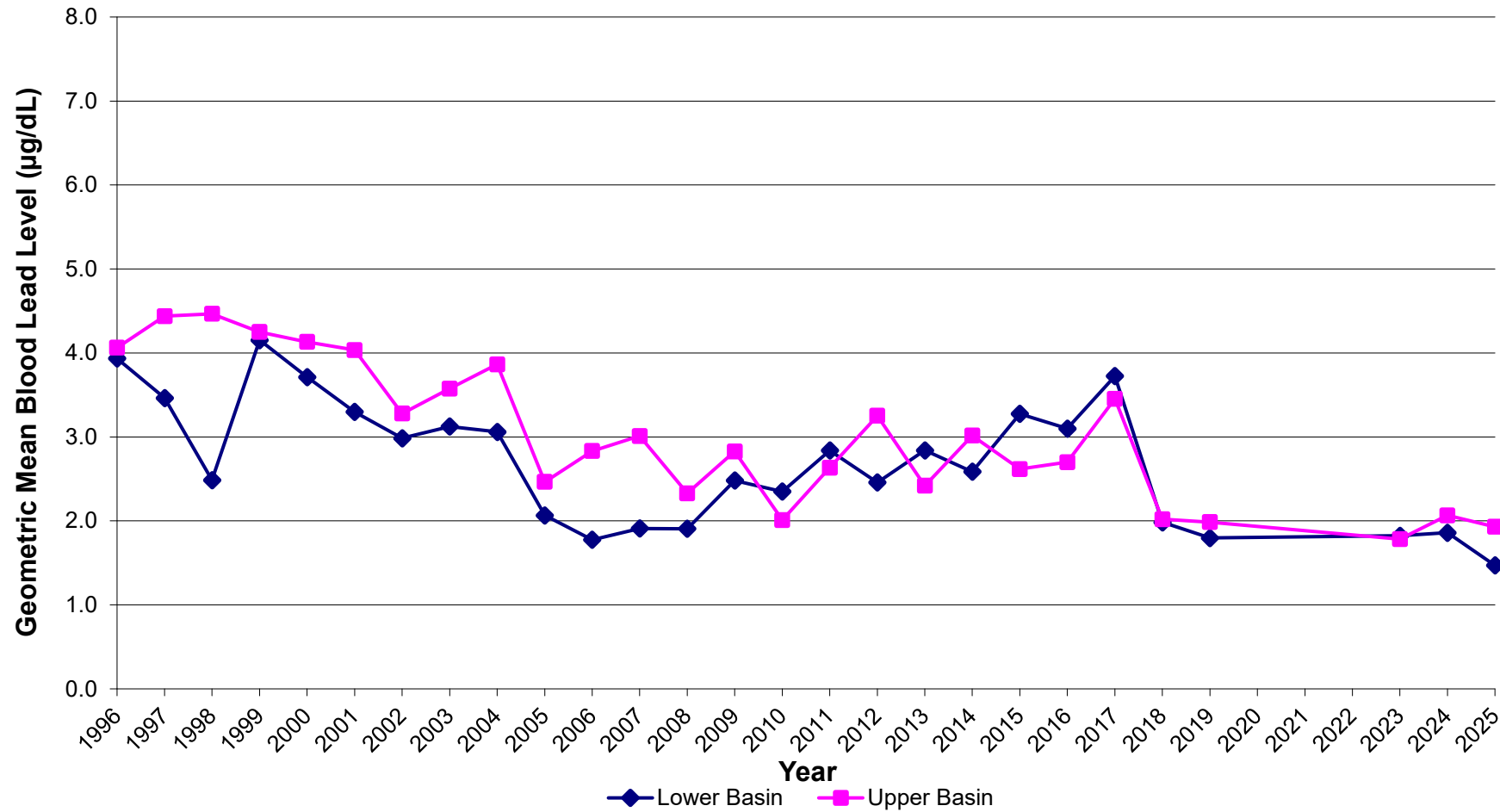
- Reduce exposures to soils with concentrations greater than:
 - Lead: ≥ 700 mg/kg
 - Arsenic: ≥ 100 mg/kg
- Reduce exposures to lead in house dust
- Cumulative exposures do not exceed USEPA's health risk goals:
 - **<5% chance that a typical child at an individual residence does not exceed 10 $\mu\text{g}/\text{dL}$**

PERCENT OF CHILDREN WITH BLOOD LEAD LEVELS ≥ 10 UG/DL, BOX AND BASIN, 1988-2025*



*not enough samples in 2020 & 2021

BASIN MEAN BLOOD LEAD LEVELS BY YEAR, 1996-2025*



*not enough samples in 2020-2022

2025 BLOOD LEAD SUMMARY STATISTICS*: BASIN (AGE 6 MONTHS THROUGH 6 YEARS)

Total Number of Children (N)*	126
Minimum (µg/dL)	<1.9
Maximum (µg/dL)	22
Average (µg/dL)	2.1
Standard Deviation	2.8
Geometric Mean (µg/dL)	1.7
Geometric Standard Deviation	1.6
Number / Percent Below Detection	101 (80%)

	Number*	Percentage*
Children's blood lead \geq 3.5 µg/dL	10	7.9%
Children's blood lead \geq 5 µg/dL	5	4.0%
Children's blood lead \geq 10 µg/dL	2	1.6%
Children's blood lead \geq 15 µg/dL	2	1.6%

* August event only. No children outside the BHSS boundary participated.

2025 BLOOD LEAD SUMMARY STATISTICS*: BASIN (OTHER NON-ELIGIBLE PARTICIPANTS*)

Total Number of Participants (N)*	68
Minimum (µg/dL)	<1.9
Maximum (µg/dL)	15
Average (µg/dL)	2.3
Standard Deviation	2.8
Geometric Mean (µg/dL)	1.7
Geometric Standard Deviation	1.8
Number / Percent Below Detection	59 (87%)

	Number *	Percentage *
Blood lead ≥ 3.5 µg/dL	7	10.3%
Blood lead ≥ 5 µg/dL	6	8.8%
Blood lead ≥ 10 µg/dL	4	5.9%
Blood lead ≥ 15 µg/dL	1	1.5%

*7+ years, includes two prenatal participants. August event only. Eight residents outside the BHSS boundary participated and are not included above.

2025 FOLLOW-UPS CONDUCTED (BOX & BASIN)

- **In-home follow ups: 4**
- **Phone consultations: 8**
- **Letters sent with more information: 20**

Identified sources:

- Recreating in un-remediated areas including child's own yard
 - Delivered clean soil to be spread over elevated yard areas
 - Additional outreach & follow safety tips to reduce exposure
- Occupational related
 - PHD will attempt to work with industries to provide education and provide tips on how to reduce exposure at work and reduce tracking
- Lead based paint
 - Provided guidance on safely sealing lead-based paints, or removing objects from home

QUESTIONS?



ESTIMATED 2025 LHIP PARTICIPATION RATES

	Basin	Box
Estimated Eligible Population ^a	501	389
Total No. of Eligible Population Providing Samples in 2025	126	105
Estimated Percentage of Population Providing Samples	25%	27%

^a Eligible population is 6 month through 6 year old children living in the Box or Basin, based on estimates from 2024.

2025 LHIP PARTICIPANTS & PROPERTY REMEDICATION STATUS

Property Remediation Status	Number of Children ^a	
	Basin	Box
No remedial action required or Remediated	117	99
Requires remediation or sampling	2	0
Not eligible for residential remediation program ^b	7	6
Total	126	105

^a Eligible population is 6 month through 6 year old children living in the Box or Basin.

^b Includes properties developed under the ICP and properties currently under development.