

A stylized graphic of a person with arms raised, rendered in a dark blue color against a lighter blue background. The figure is composed of simple shapes: a circle for the head, two curved lines for the arms, and a larger curved shape for the torso. The overall impression is one of a person celebrating or reaching upwards.

# Blood lead levels in Trail Fall 2025

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# Land Acknowledgement

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We recognize and acknowledge that we are collectively gathered on the traditional, ancestral, and unceded territories of all the Interior Region First Nations. This region is also home to 15 Chartered Métis Communities. It is with humility that we continue to strengthen our relationships with First Nation, Métis, and Inuit peoples across the Interior.

*Ktunaxa, Secwépemc, Syilx, Sinixt*



# Objective

- Overview of blood lead (Pb) levels tested in fall 2025
- Comparison of mean blood Pb levels in 2025 to previous years



# Who was tested in 2025?

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- Children aged 6-36 months, living in City of Trail or Rivervale (Area 2/3)
- Children aged 6-36 months living in Warfield, Oasis, Casino and Waneta (Area 1)



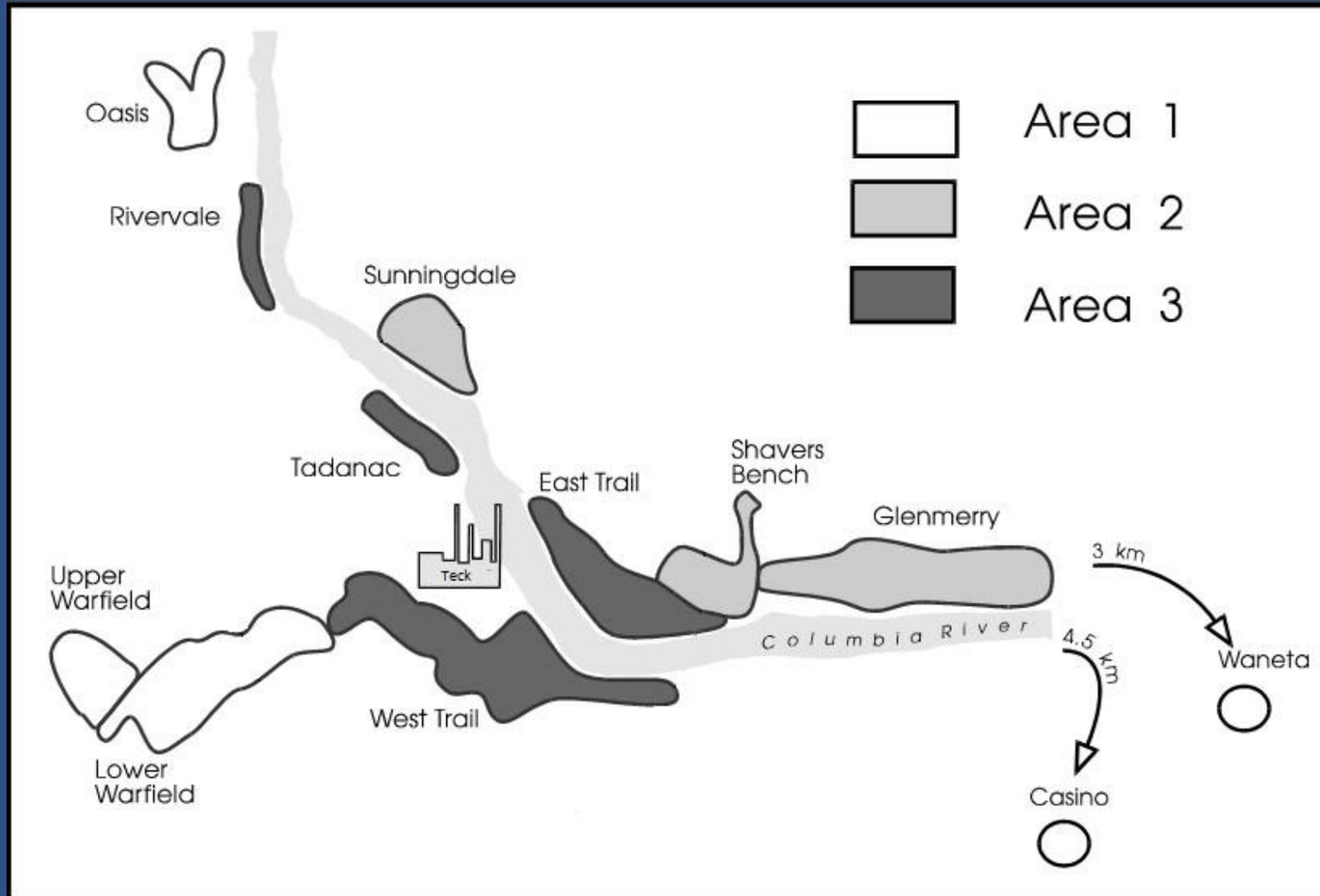
# Additional Testing

These results are not used to calculate the geomean, but we welcome these children/families to be tested to learn about their lead exposure.

- Children new to the area, up to the age of 5 years old
- Children with previous enhanced support follow up who are now over 36 months old
- Children whose parents requested testing for their child from outside target area and age range



# "Areas" and Neighbourhoods

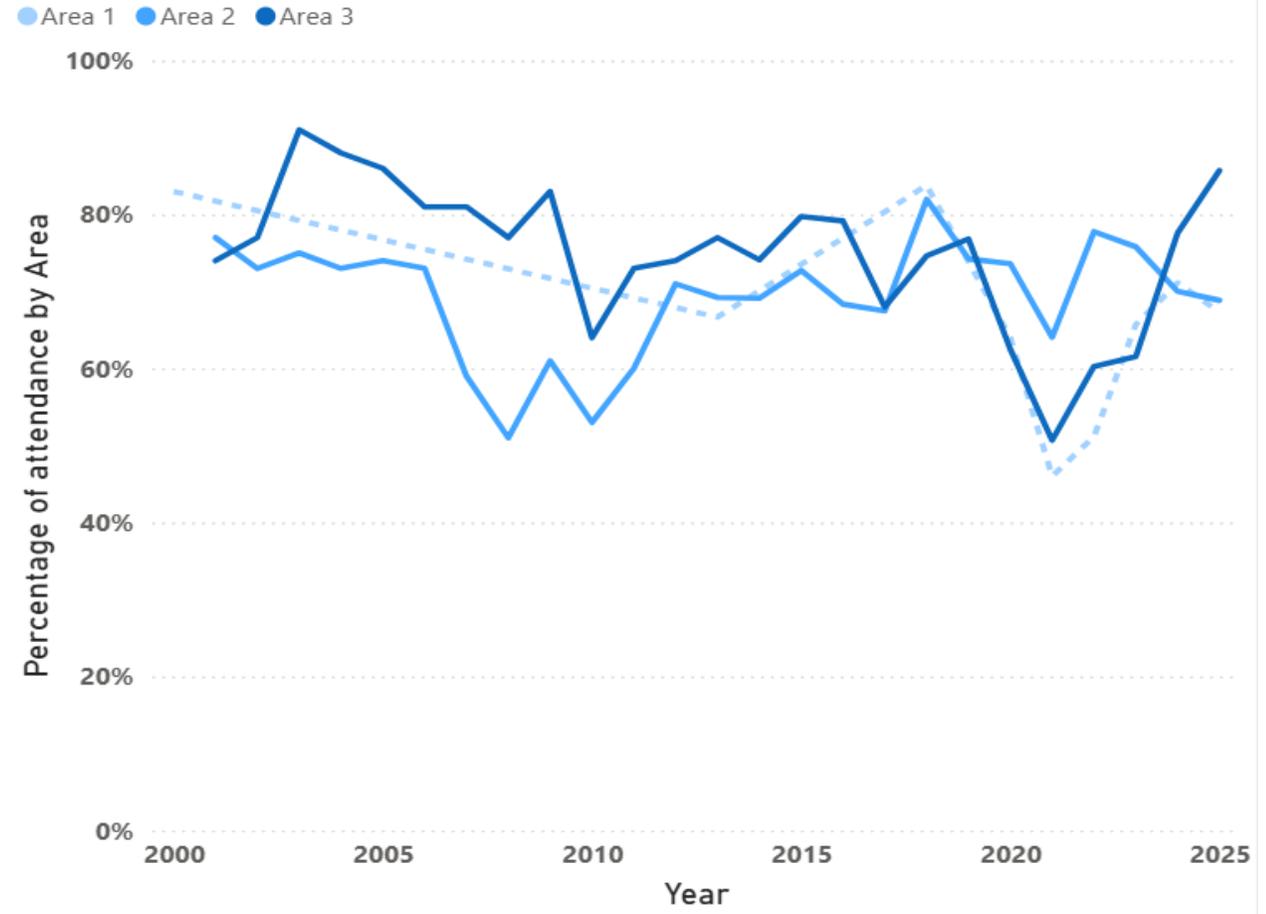


# Participation By Target Areas (6-36 months old)

- No. of samples collected: 118
- No. of children attended: 125
- No. of children in target age and areas invited: 166

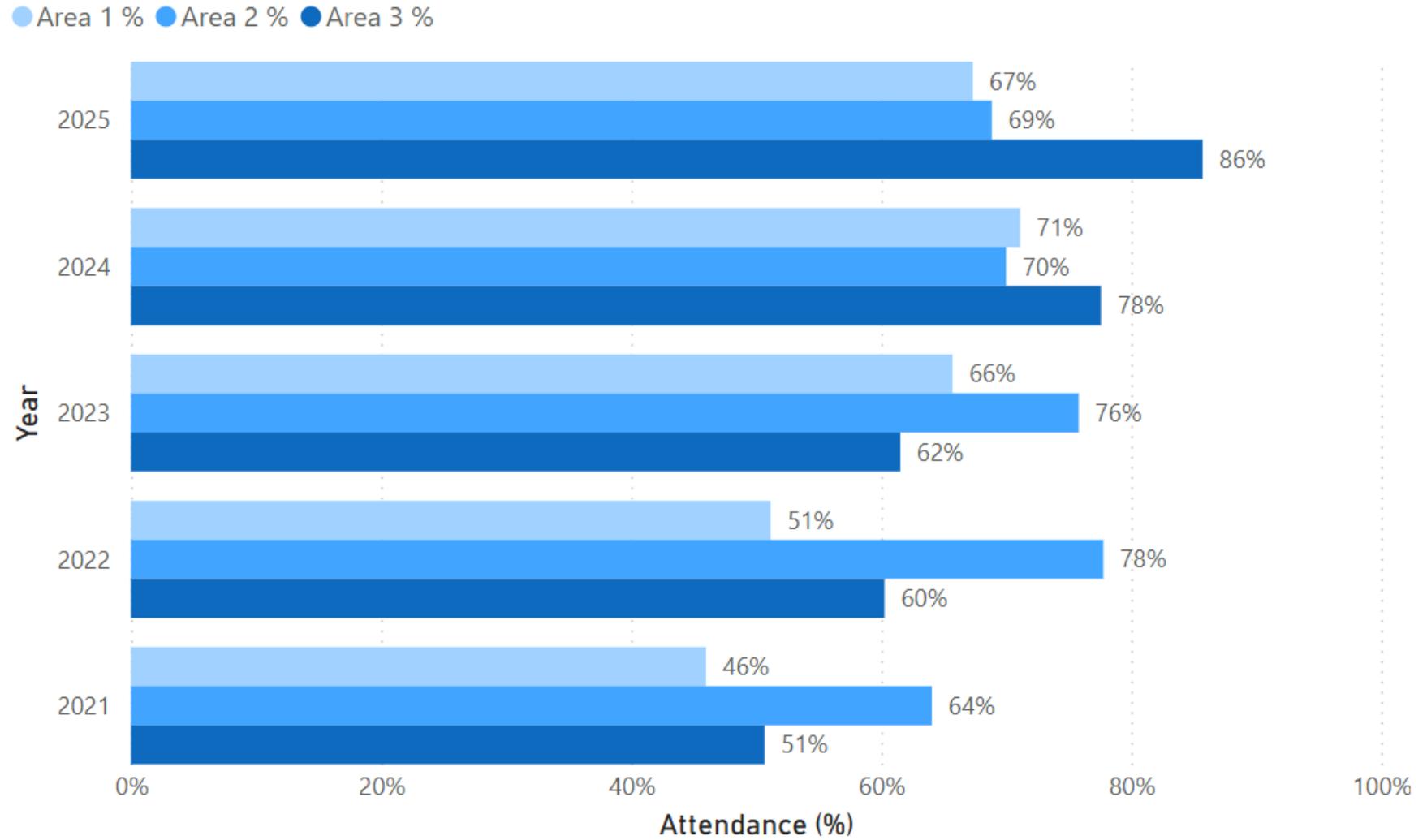
75% overall

Figure 1. Proportion of children who attended the blood lead clinics over the past year by areas



# Participation By Target Areas contd.

Figure 2. Proportion of children who attended the blood lead clinics by areas 2021-2025





## Blood Pb Level Threshold

- There is no known specific blood Pb level below which there are no identified health effects
- Canadian children 3-5 years old had geomean blood Pb levels at 0.50  $\mu\text{g}/\text{dL}$  in 2018/19 \*\*
  - \*\* note that Trail children's geomean reflects ages 6-36 months (age when higher BL is expected)
- BCCDC uses 5 $\mu\text{g}/\text{dL}$  as exposure investigation levels (EILs) for children (aged 0-18 years), and women aged 19-49.
- In BC, blood Pb levels that meet or exceed the defined EILs will prompt further follow up by public health agencies.
- The US CDC uses the term Blood Lead Reference Value. This indicates that most children's BLL are less than 3.5  $\mu\text{g}/\text{dL}$ .

# Enhanced Support (ES) Program

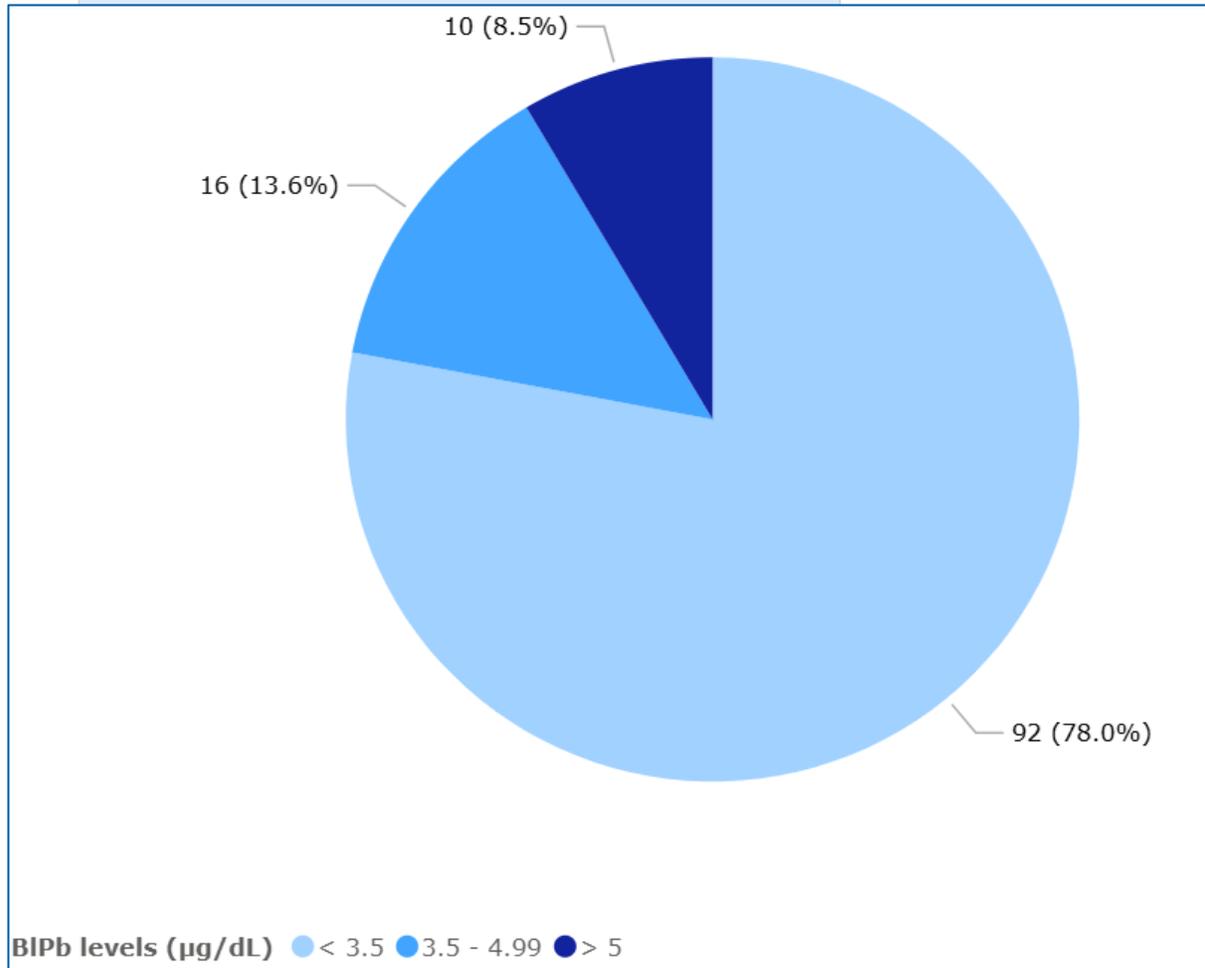
- Children with results above a blood Pb threshold are offered Enhanced Support
- The threshold for offering this program has decreased over time:
  - 2002 – 10 µg/dL
  - 2009 – 10 µg/dL for children 12 months and older;
    - 7 µg/dL for children 6-12 months
    - increase of >3 µg/dL year to year
  - 2019\* – 5 µg/dL
  - **2025 – 3.5 µg/dL** is recommended
    - This aligns with program progress and anticipated provincial changes

\*BLL results become reportable in BC

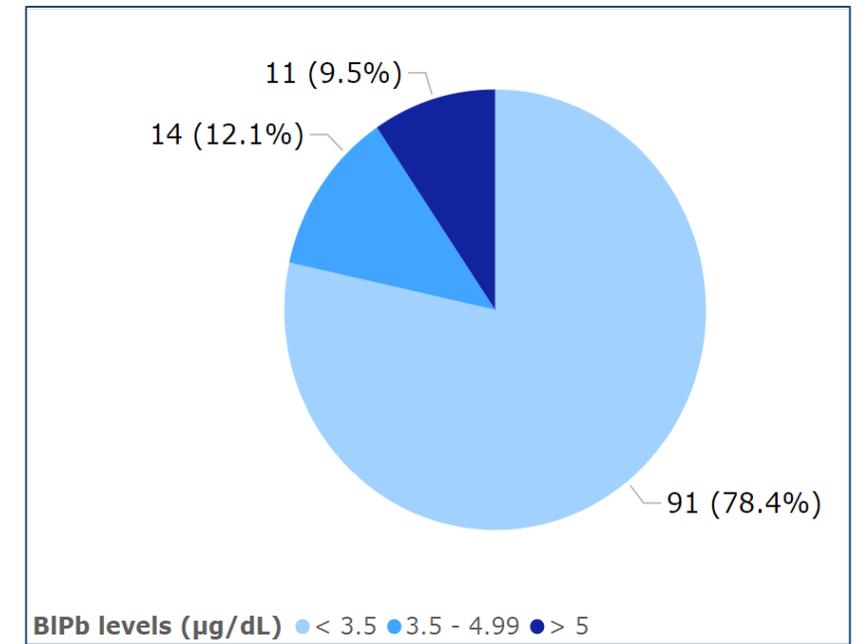


# Range of Blood Pb Levels – all areas

Figure 3. Proportion of children stratified by blood lead levels for **2025**



2024



# Blood Pb levels by area

Figure 4. Proportion of children stratified by blood lead levels for three areas in 2025

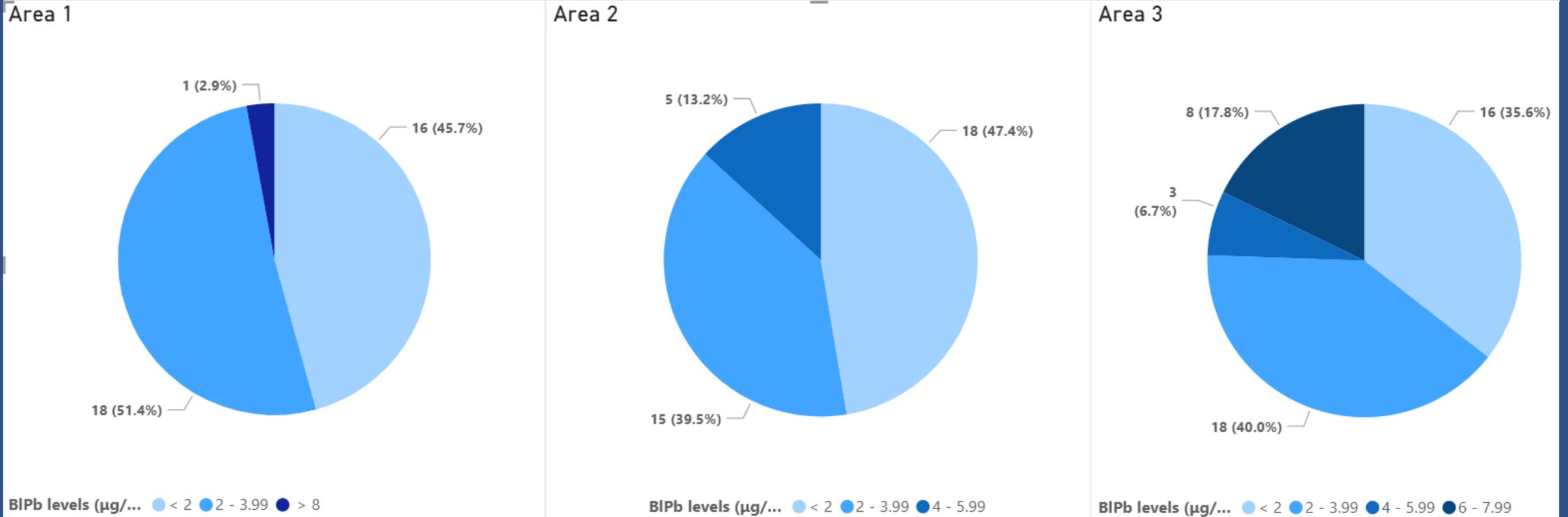
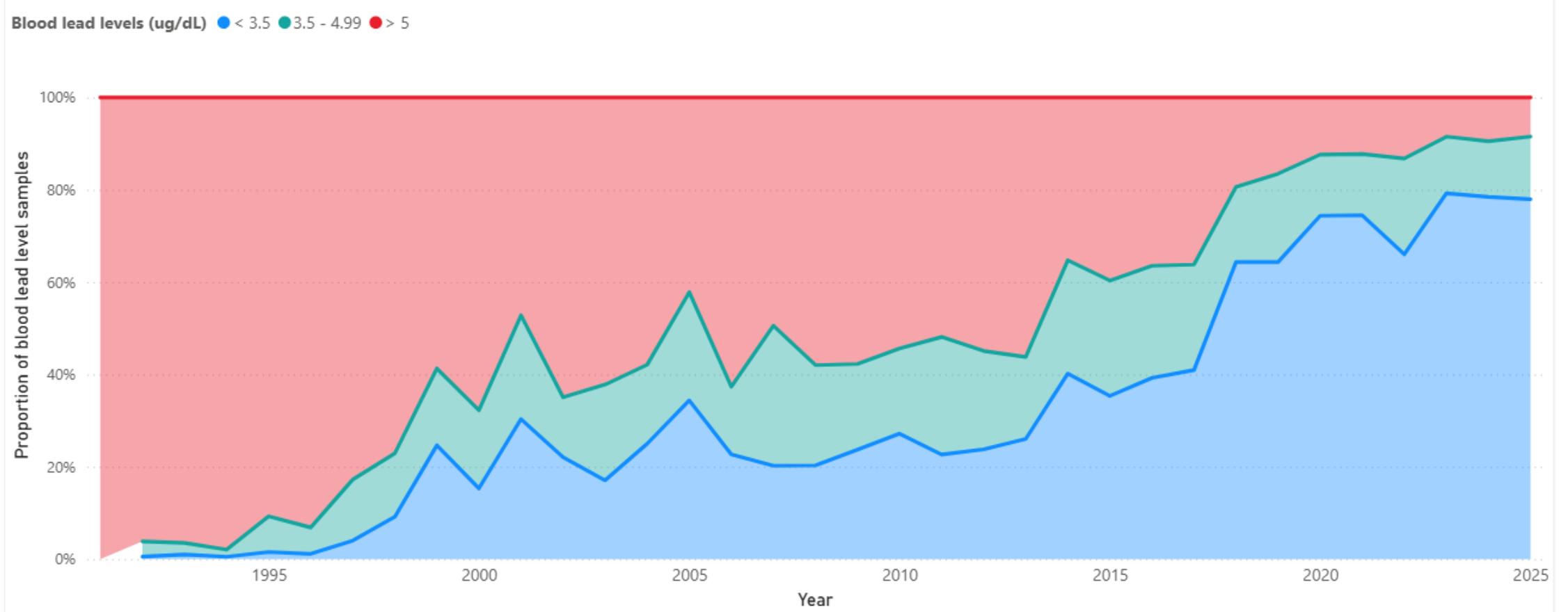
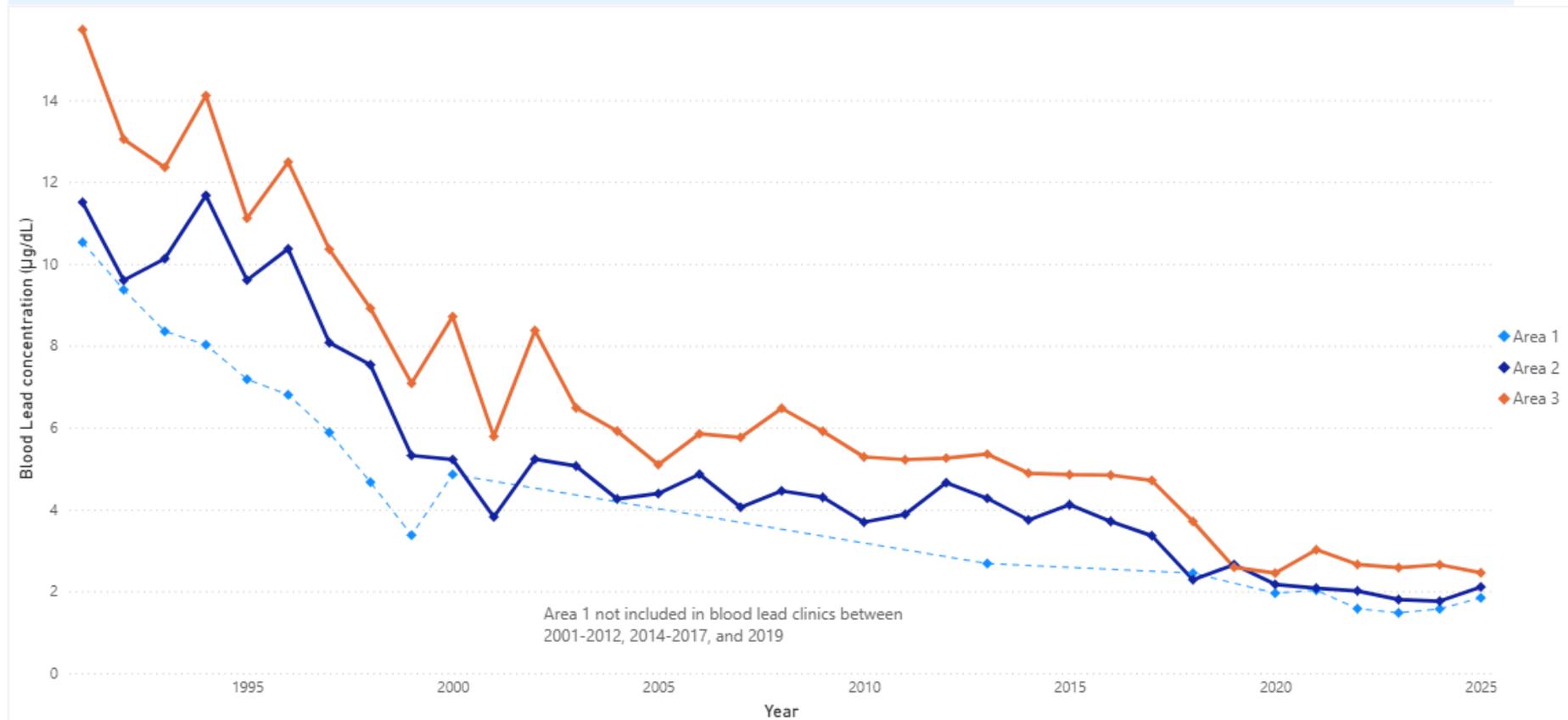


Figure 5. Proportion of blood lead samples collected over the years for all areas by blood lead level concentration



# Trend of Blood Pb Geomean by Area

Figure 8. Geomean of blood lead concentration over the years by three areas



# Blood Pb Levels in Trail, Canada & U.S. Data

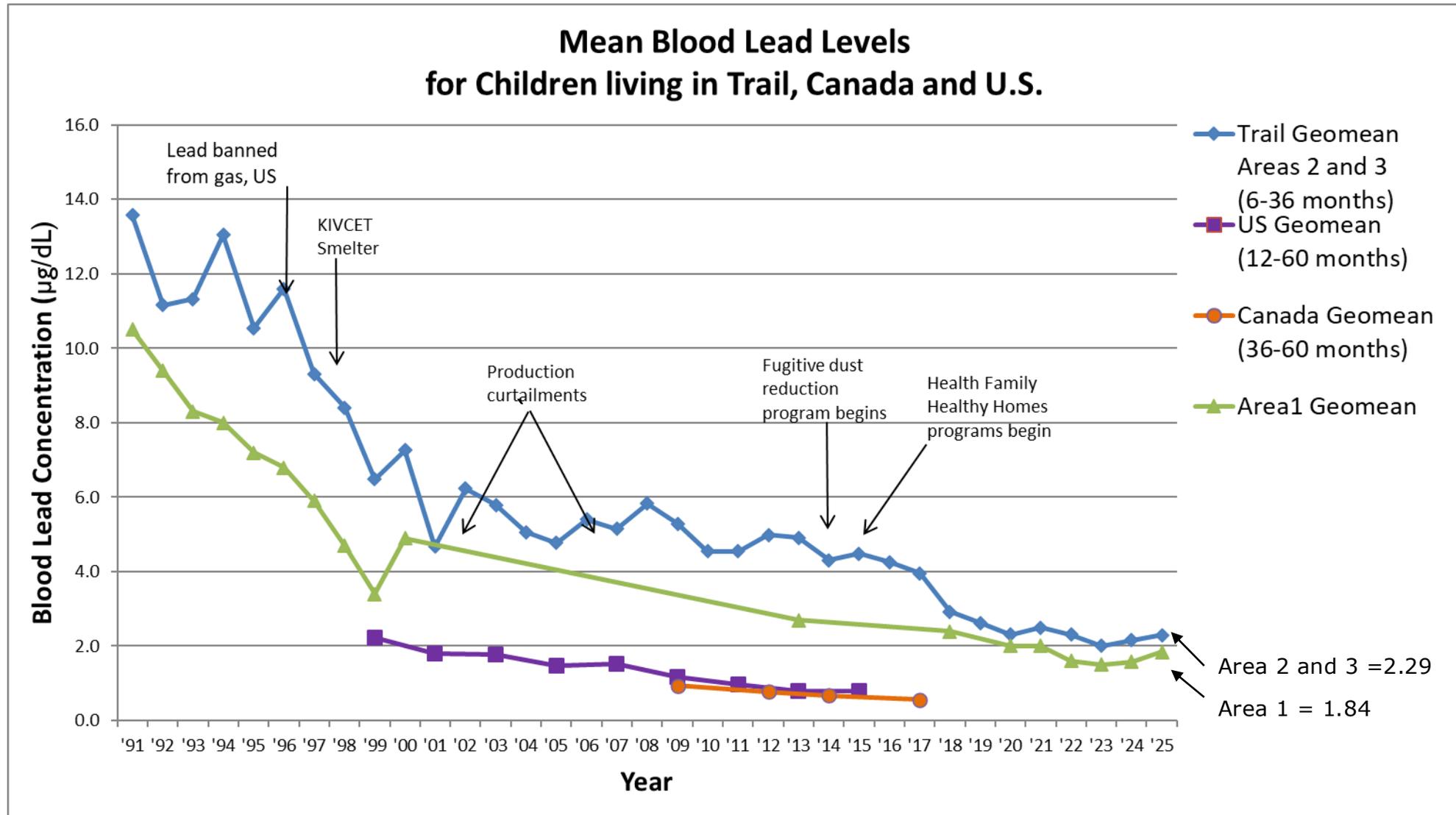
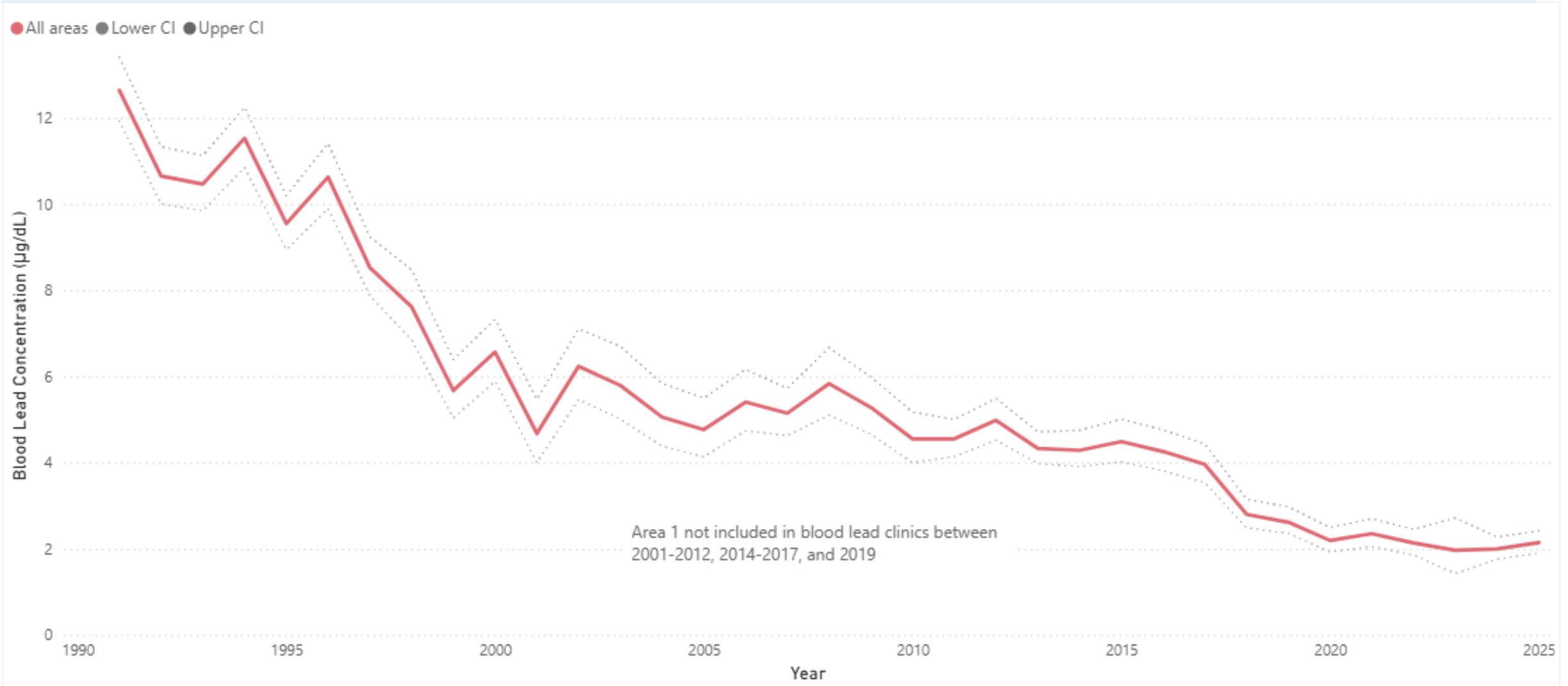


Figure 9. Blood lead concentration over the years by all areas combined along with lower confidence interval (CI), and upper CI



# Concluding messages

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Area 2&3 Geomean 2024= 2.2 **2025= 2.3**

Overall Geomean 2024= 2.0 **2025= 2.2 (2.15)**

The mean blood lead levels continue to demonstrate evidence of some exposure to lead in the environment.

**We see similar blood lead geomeans to last year.**

Overall, we continue to expect a narrowing of the gap between Trail children and other Canadian and American children of similar age.



# Thank you

