

Fall 2016 Blood Lead Results



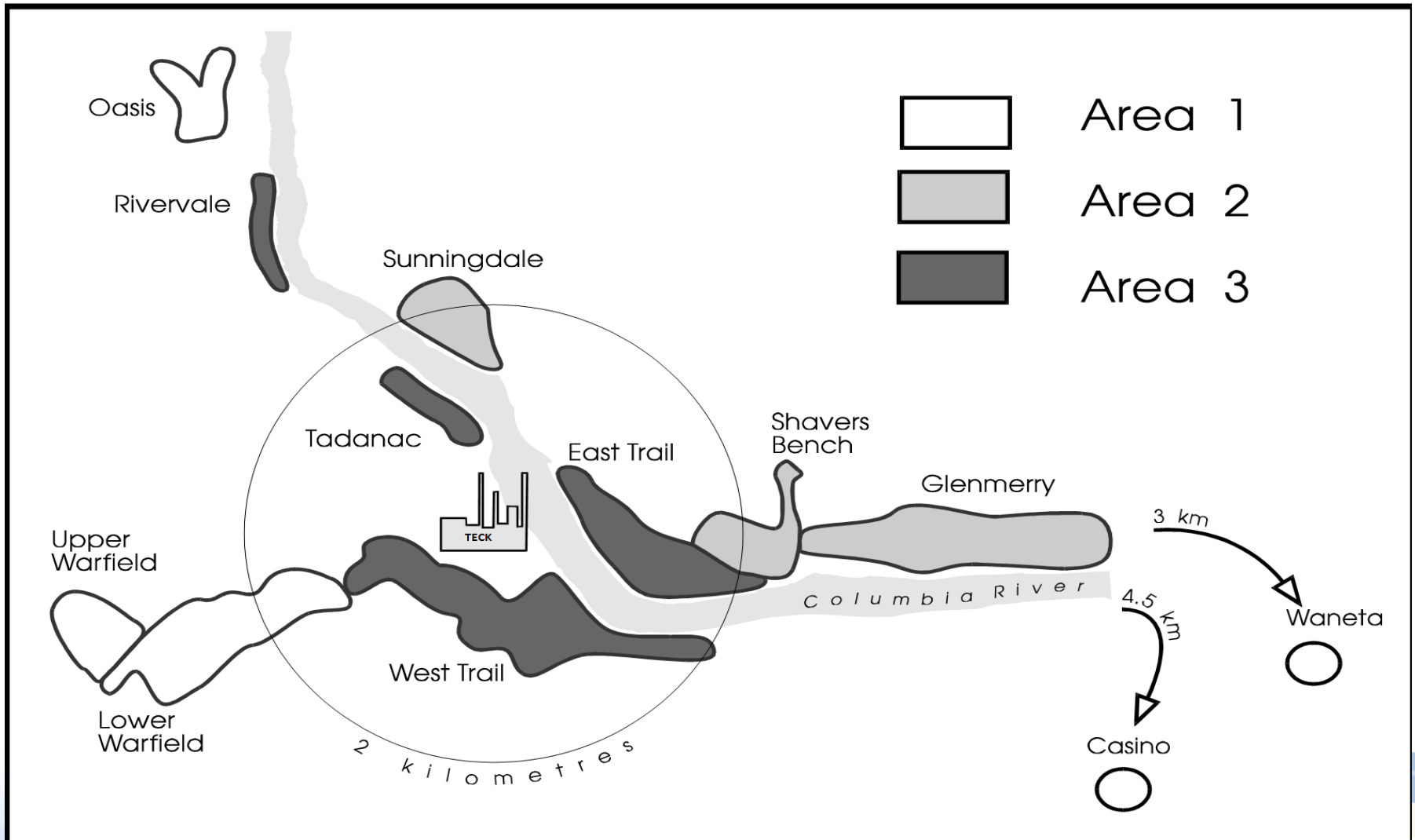
Interior Health
Every person matters

Who Was Tested in 2016?

- **Target group:**
 - Children aged 6-36 months, living in City of Trail or Rivervale (Area 2/3)
 - This is the group our results reflect
- **Also:**
 - New to area, up to age 5 years old
 - Previous case management for follow-up
 - Parents who requested testing for their child from any area



“Areas” & Neighbourhoods

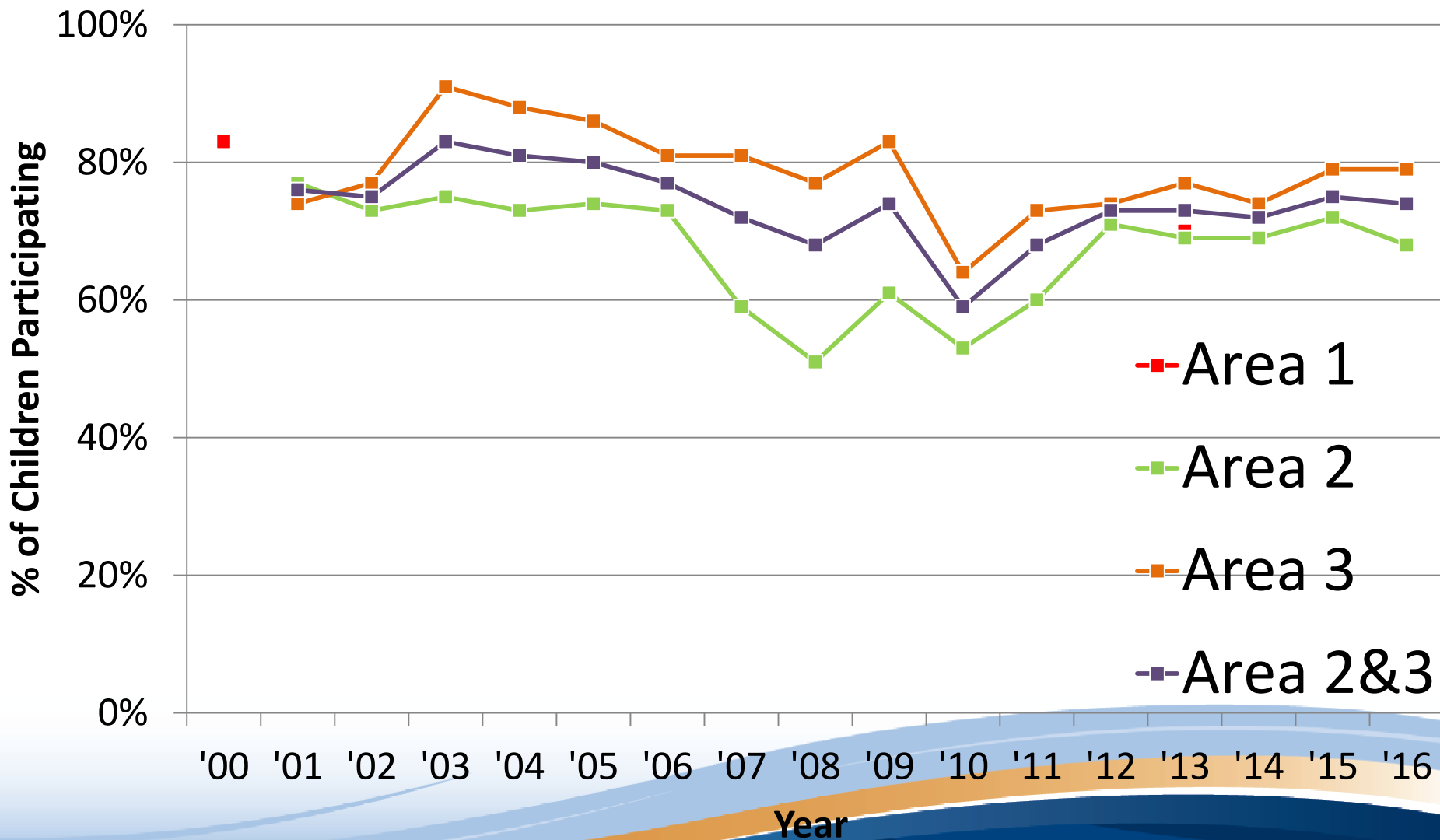


Fall 2016 Total Participation By Target Areas 6-36 Months

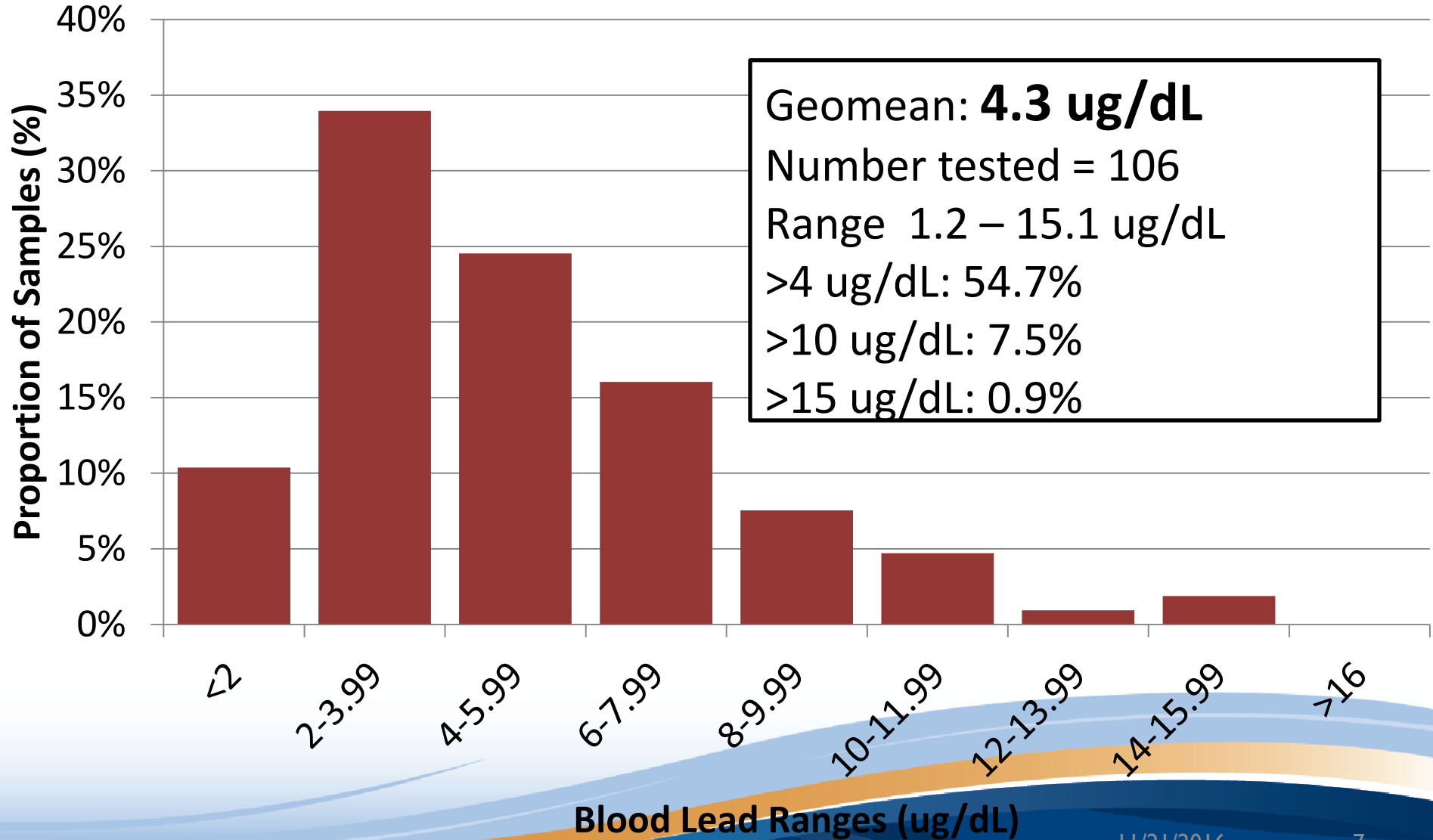
Participation Breakdown By Areas

	2016			2015
Area	# Children Contacted	# Children Participating	% Children Participating	# (%) Children Participating
Area 2	79	54	68%	56 (73%)
Area 3	72	57	79%	63 (80%)
Area 2 & 3	151	111	74%	119 (76%)

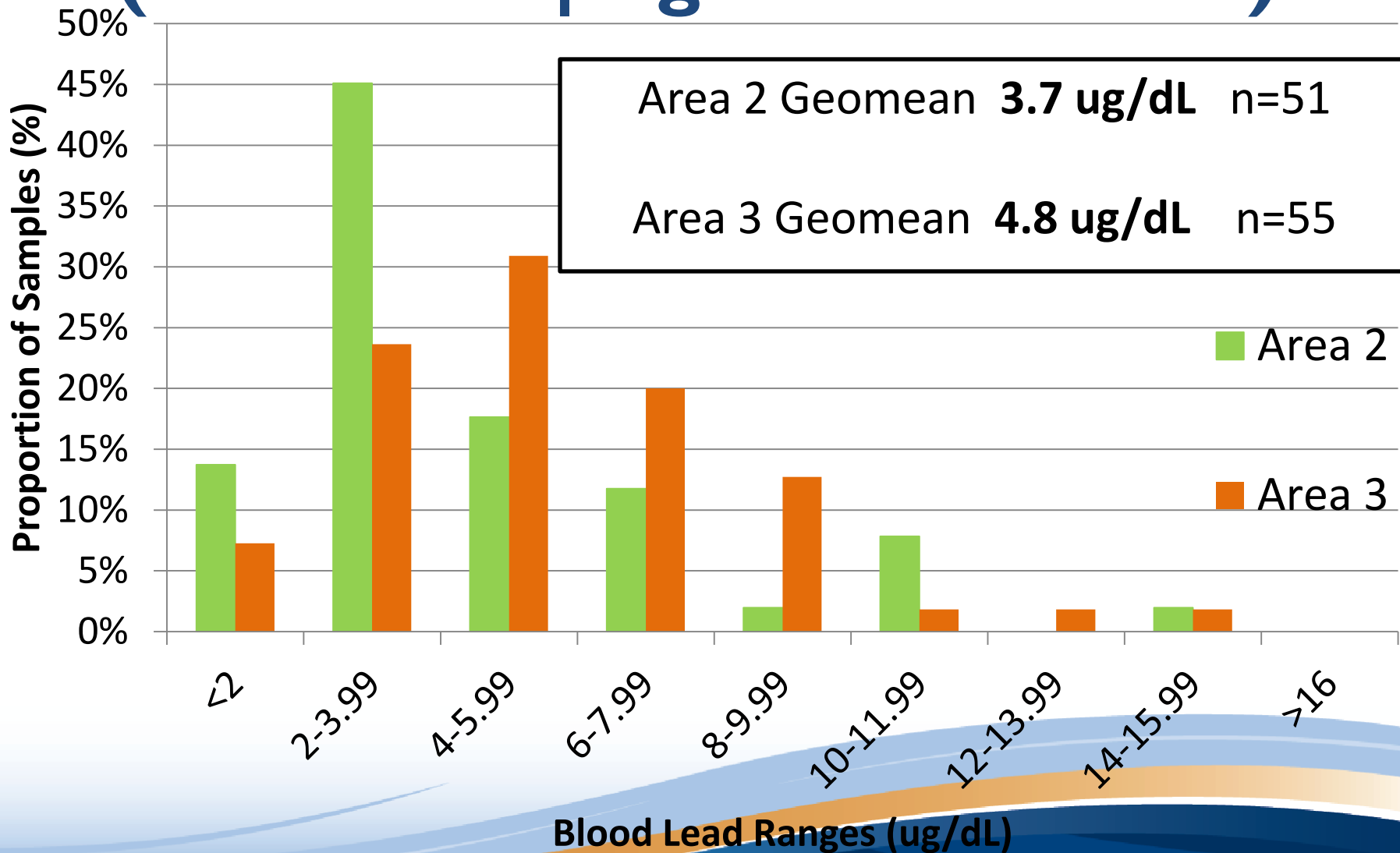
Percent Participation by Area (Year 2000 – 2016 | Age 6-36 Months)



Venous Blood Lead Range (Year 2016 | Area 2/3 | Age 6-36 months)

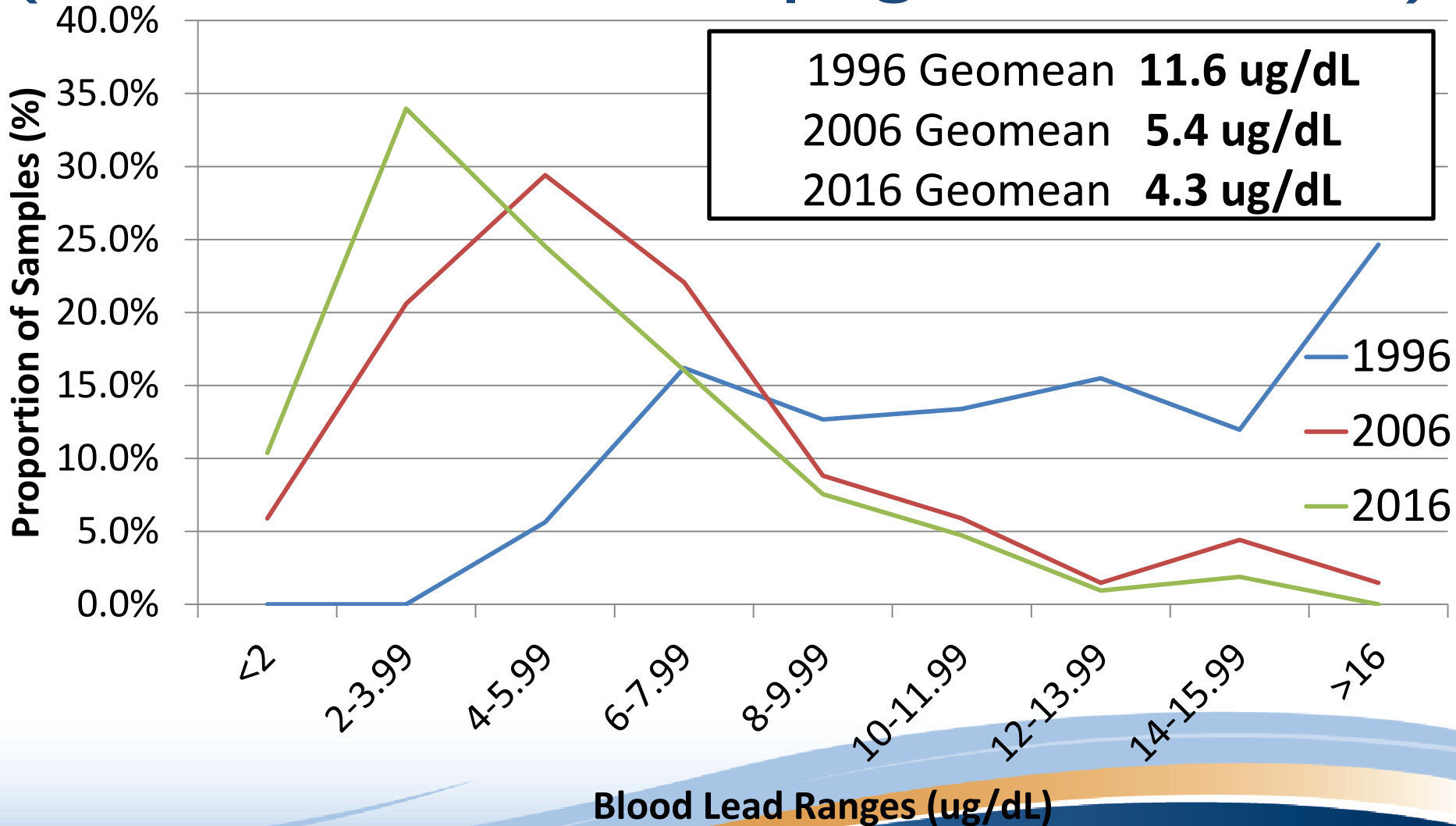


Venous Blood Lead Range by Area (Year 2016 | Age 6-36 Months)

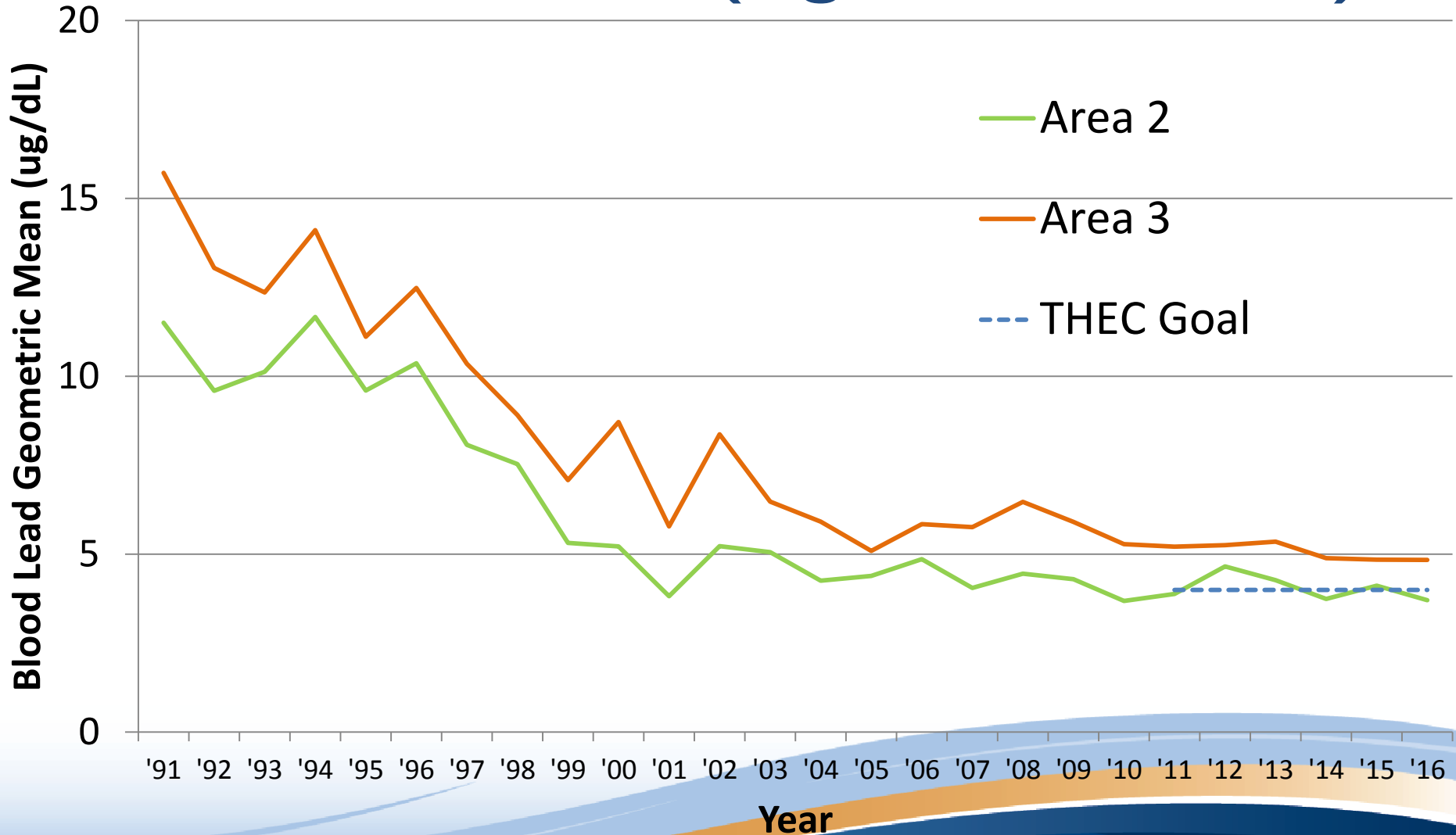


Venous Blood Lead Range

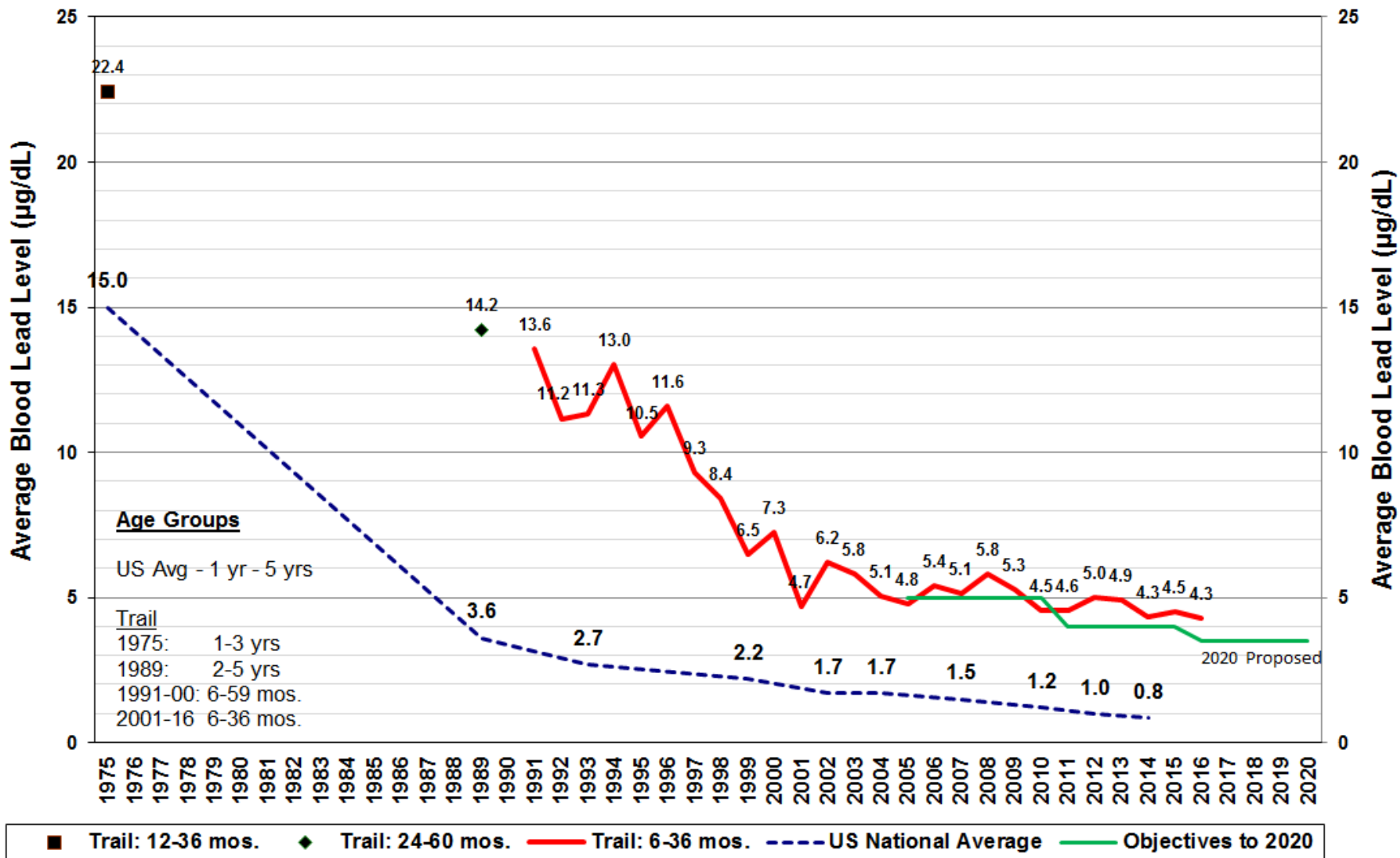
(Year 1996, 2006, 2016 | Age 6-36 Months)



Venous Blood Lead Geomean by Area 1991 – 2016 (Age 6-36 Months)



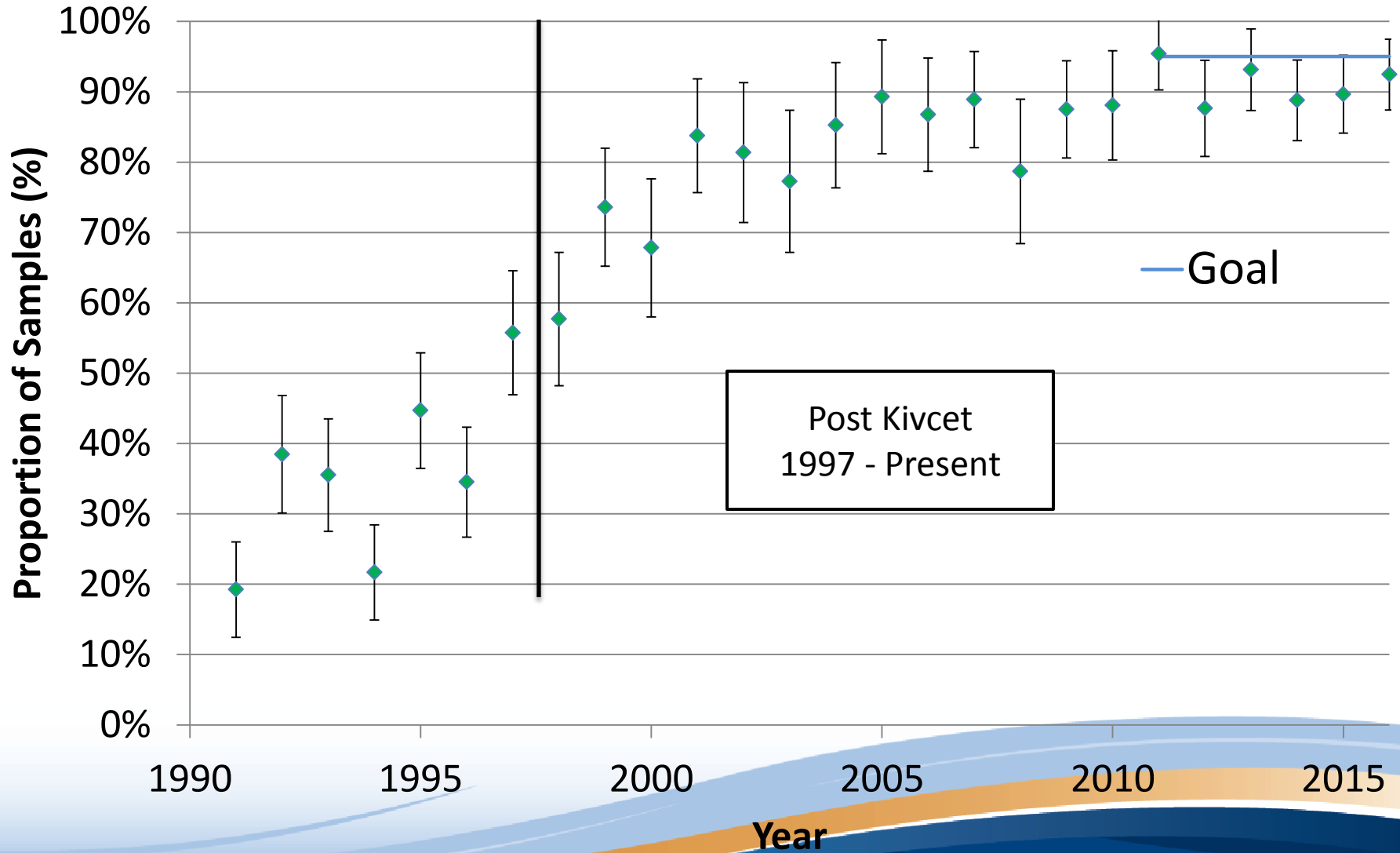
History of Children's Blood Lead Levels in Trail



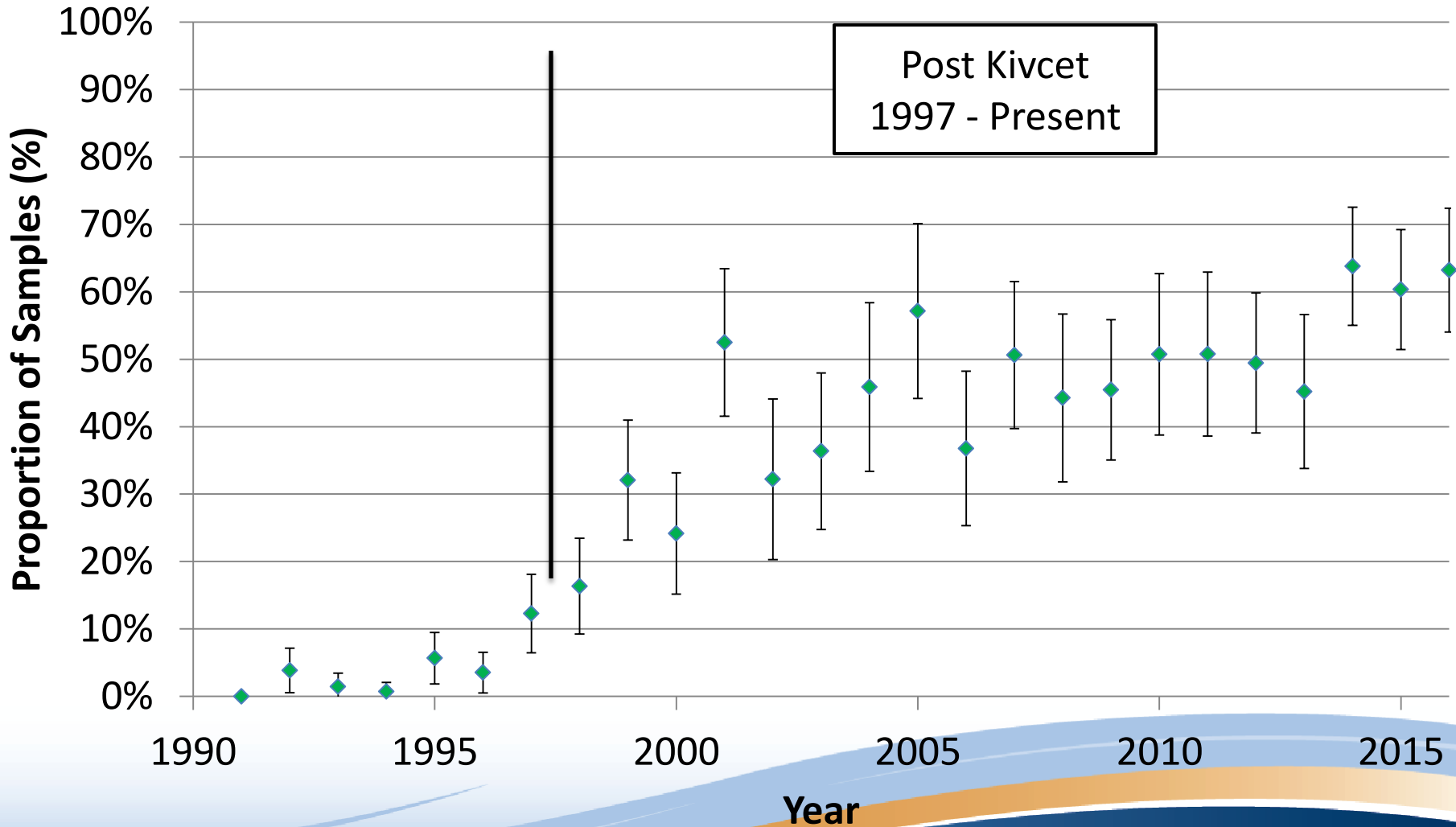
Comparison with other Smelter and Non-Smelter Communities

City/Region	Country	Nature of site	Age of kids tested	Year	Geomean Blood Lead Level ($\mu\text{g/dL}$)
La Oroya	Peru	Pb smelter closed 2009	< 6 yrs	2011	~10
Hercalaneum	U.S.A.	Primary Pb smelter -closed	< 6 yrs	2003	8.0
Hoboken (Moretusburg)	Belgium	Secondary Pb smelter	2.5-6 yrs	2016	5.2
Torreon	Mexico	Primary Pb smelter	<16 yrs	2014	5.2 avg
Rouyn-Noranda QC	Canada	Primary Cu smelter	6 mos to 5 yrs	1999	5.2
Broken Hill	Australia	Pb mining	1-4 yrs	2014	5.2
Port Pirie	Australia	Primary Pb smelter	<5 yrs	2016	4.4
Trail BC	Canada	Primary Pb smelter	0.5 to 3 yrs	2016	4.3
Belledune, NB	Canada	Pb smelter, industry	3-6 yrs	2005	3.5
Hamilton, ON	Canada	Urban/city centre	< 6 yrs	2008	3.0
Mount Isa	Australia	Primary Pb smelter/mine	1-5 yrs	2014	2.6
Flin Flon, MB	Canada	Closed Cu smelter	0.5 - 6 yrs	2011	1.4
St Johns, Nfld	Canada	Urban	1-5 yrs	2011	1.2
Nation-wide	U.S.A.	Urban/rural (NHANES)	1 to 5 yrs	2014	0.8
Nation-wide	Canada	Urban/rural (CHMS)	3-5 yrs	2013	0.8
Vancouver	Canada	Urban/city centre	2-3 years	1994	5.4
Fraser Health	Canada	Urban/city centre	0-5 years	2014	<2

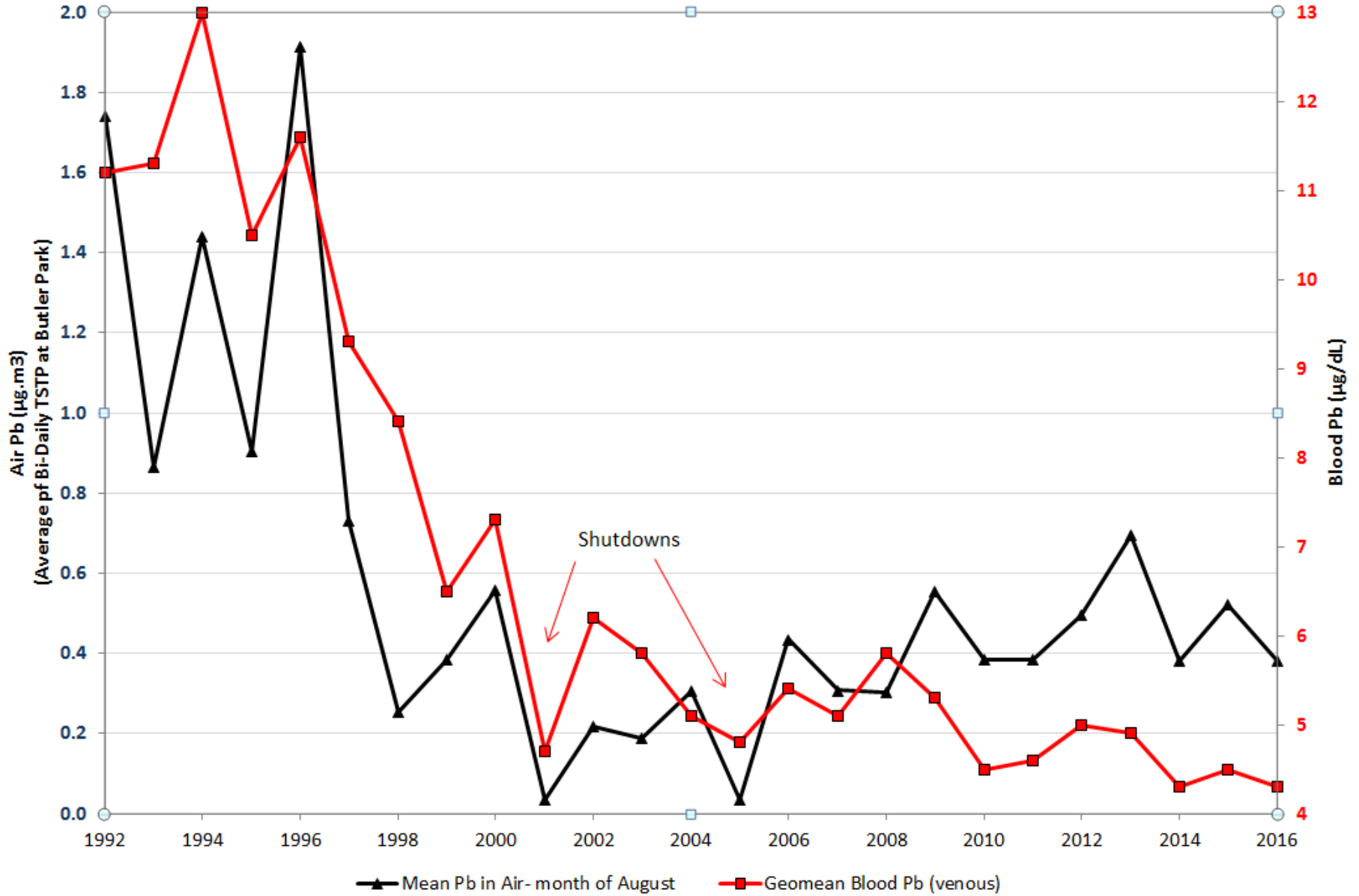
Venous Blood Lead < 10ug/dL (Year 1991-2016 | Age 6-36 Months)



Venous Blood Lead < 5ug/dL (Year 1991-2016 | Age 6-36 Months)



Geomean Lead Levels for Trail Children aged 6-36 Months and Air Pb in Month of August





Concluding Messages

- Children's blood lead results for 2016, with a geometric mean of 4.3 micrograms per decilitre, are similar to the last two years and equal to the lowest levels recorded to date.
- There is more work to be done to achieve the THEC's proposed goal of 3.5 micrograms per decilitre by 2020.
- There continues to be a high level of participation in the voluntary blood lead testing program.

Concluding Messages

- The level of lead in community air continues to have a significant influence on blood lead levels.
- The level of lead in air in August 2016 was lower than in 2015 and equal to August 2014 when the same $4.3\mu\text{g}/\text{dL}$ geomean was attained.
- Teck's Fugitive Dust Reduction Program offers the greatest opportunity to further reduce emissions to achieve the THEC's goals for children's blood lead levels and air quality.

Concluding Messages

- The greatest benefits of Teck's Fugitive Dust Reduction Program have yet to be realized.
- The smelter recycle building, recently completed, is anticipated to reduce fugitive dust by 25%.
- In combination with other THEP programs (e.g. soils program, Healthy Families Healthy Homes, home renovation support), we are on course to achieve lower blood lead goals in future.

Concluding Messages

- There has been significant improvement in children's blood lead levels over the past 20 years.
- Trail is among the world's leading smelter communities in terms of low lead emissions and blood lead levels.
- There is no known level of lead exposure that is considered safe. The lower the better.
- For more information on lead, its effects, and the supports available in the Trail area, please visit www.thep.ca

