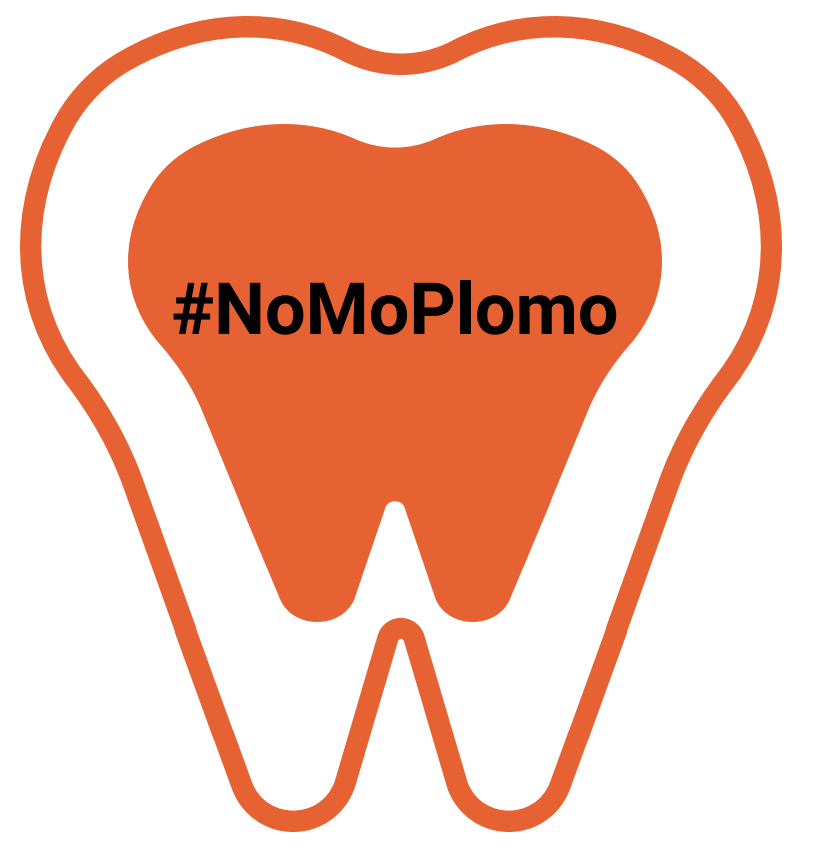


# Measuring Toxic Metal Exposure: The Truth Fairy Project

Community • History • Knowledge • Health • Justice



Environmental Health Centers

EYCEJ and USC worked together to collect baby teeth of children who lived within a 2 mile radius of Exide.

## Exide 7 million lbs.

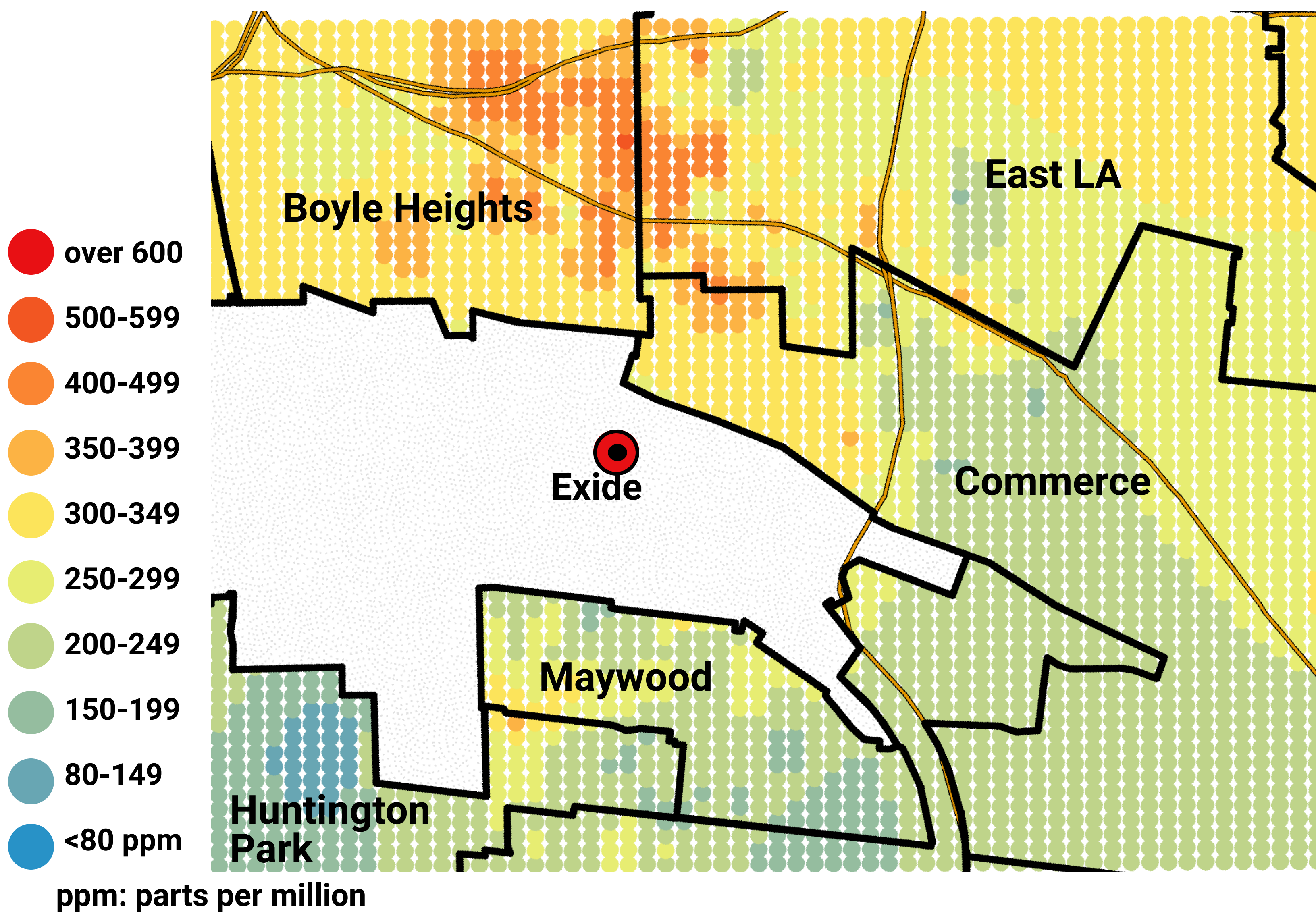
of lead that residents have been exposed to over

## 30 years



Teeth can provide "windows" into prenatal and early childhood exposures to toxic metals such as lead.

### Estimated Residential Soil Lead Levels (ppm)



## 97%

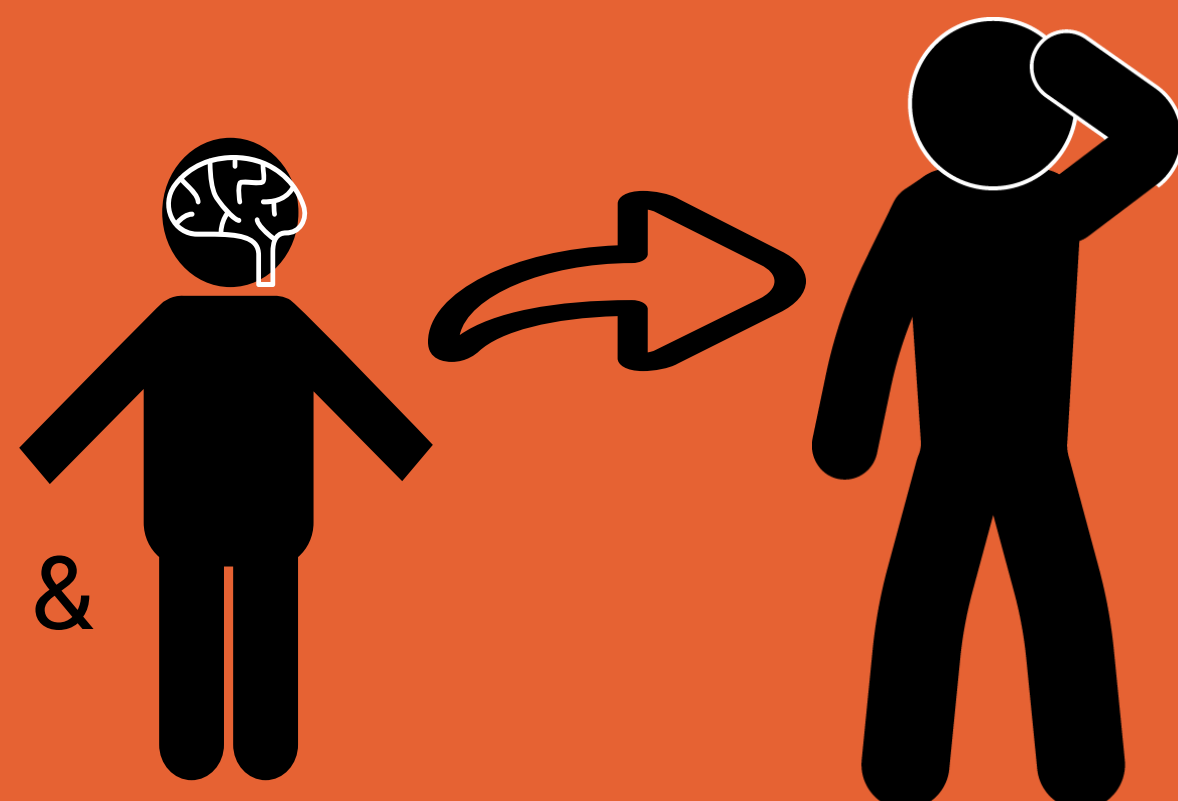
of properties tested were above the State of CA threshold of soil Lead contamination:

## 80ppm

## Health effects of lead...

### Lead exposure in childhood causes...

- Brain damage
- Decrease in IQ
- Stunted growth
- Problems with learning & behavior



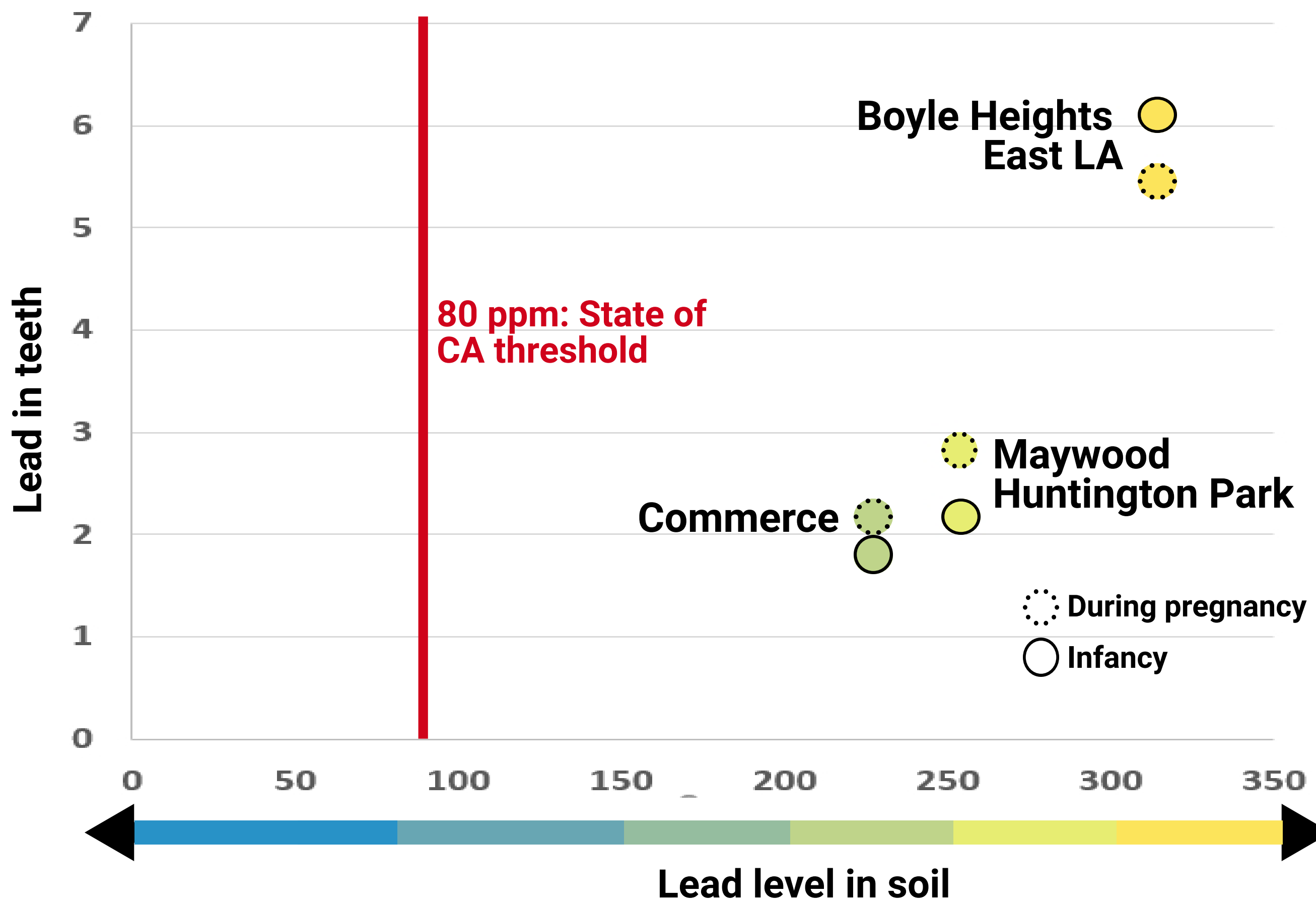
### Adults who were exposed to lead as children are at higher risk for...

- Headaches
- Memory loss
- High blood pressure
- Kidney disease
- Joint pain

# Truth Fairy Project Findings

## Lead levels in children's teeth and soil

The communities with the highest soil lead levels also found highest Lead levels in children's teeth.



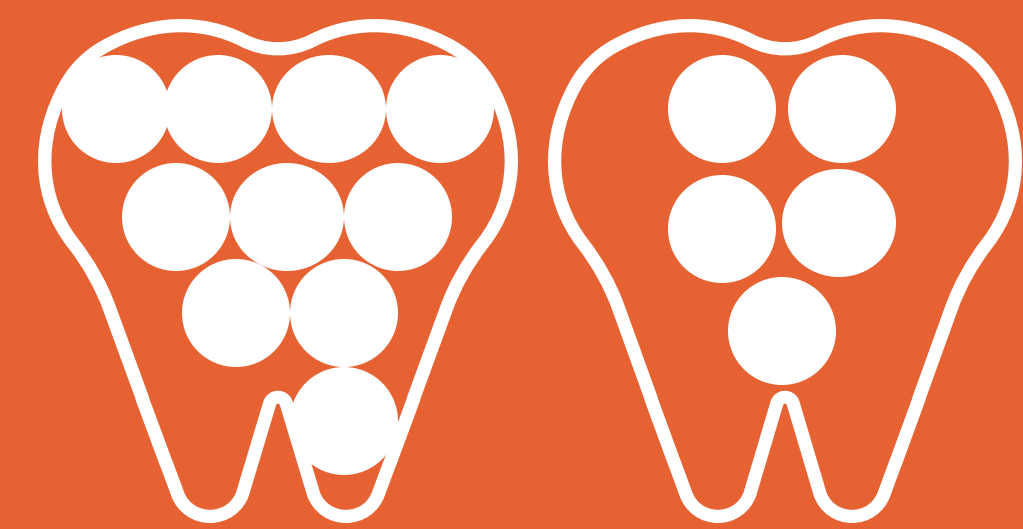
**100%** of children's teeth contained Lead

**40%** of teeth contained measurable Arsenic

**43** Kids participated in this first phase of the study

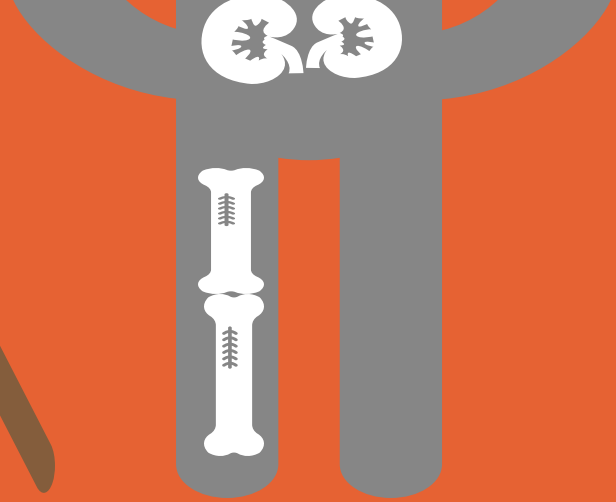
**5** Communities were represented in the study

**Communities around Exide had twice as much Lead**



in the teeth, compared to a similar urban community (Boston, MA) that did a tooth based research study.

Lead in the body



Higher teeth Lead means higher Lead in the brain, kidney and bones.

Lead in teeth



Lead in soil

On average, neighborhoods with higher soil Lead levels, had higher teeth Lead levels.

## Toxic Metals in Teeth

Teeth grow in rings like trees do, starting during pregnancy through early childhood.

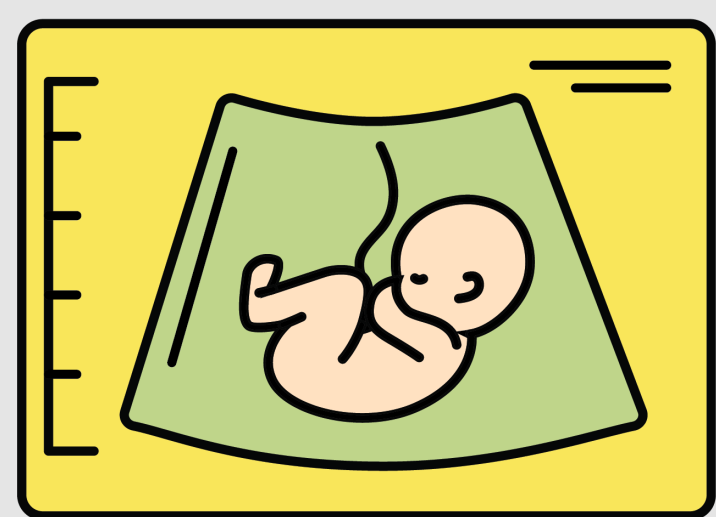


### 2nd trimester

Teeth start to form in the mother's womb beginning in the 13th week of pregnancy.

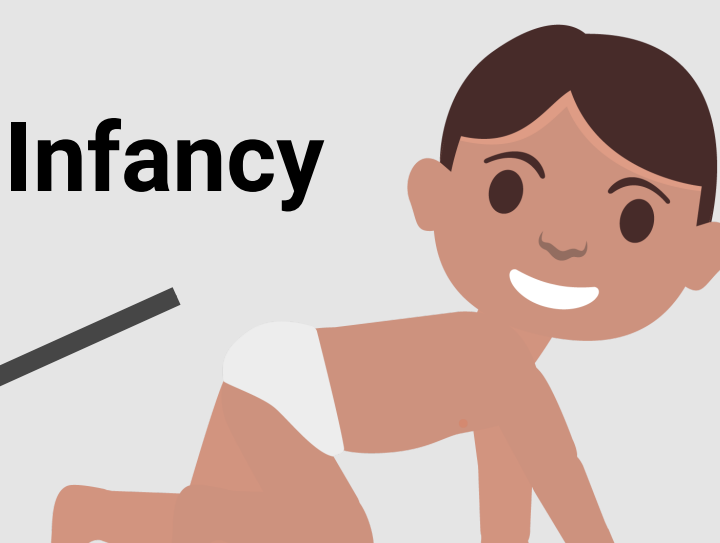
### 3rd trimester

The baby is growing rapidly & incorporates nutrients and toxins to which the mother is exposed.



### Infancy

After a child is born, they can be exposed to toxic metals in their environment. Infants are at higher risk because they crawl and put their hands and toys in their mouths.



### Birth



East Yard Communities for Environmental Justice (EYCEJ) is an environmental health and justice non-profit organization working towards a safe and healthy environment for communities that are disproportionately suffering the negative impacts of industrial pollution.

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## Find out more



## Blood lead testing

Los Angeles County, Department of Public Health Childhood Lead Poisoning Prevention Program (800) LA-4-LEAD [lead@ph.lacounty.gov](mailto:lead@ph.lacounty.gov)

Infographic: Wendy Gutschow/USC



Environmental Health Centers