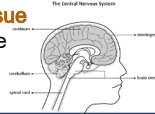


Lead in the Drinking Water in Public Schools of Seattle, WA

Team 1: Eileen Choi, Gabriel Loza Ramirez, Georgina Velasco, Joshua Costa, & Wentao Ouyang

Introduction

- **Seattle Public Schools (SPS)** has consisted of galvanized pipes coated with an interior zinc covering
- These coatings have peeled away over time, causing mass lead contamination
- The smallest consumption of lead by children can harm their peripheral and central nervous systems
- This is considered a **sustainability issue**
- Addressing this issue should be of the highest priority of SPS systems and local governments.



Flint Findings:

Based on the the events that have occurred within Flint, Michigan, **since 2014** we were able to note the different steps Seattle should take according to their experience.

We did so by focusing in areas such as:

- **How lead got in the water?**
- **What interventions were implemented?**
- **How were low SES individuals affected?**

Seattle Findings:

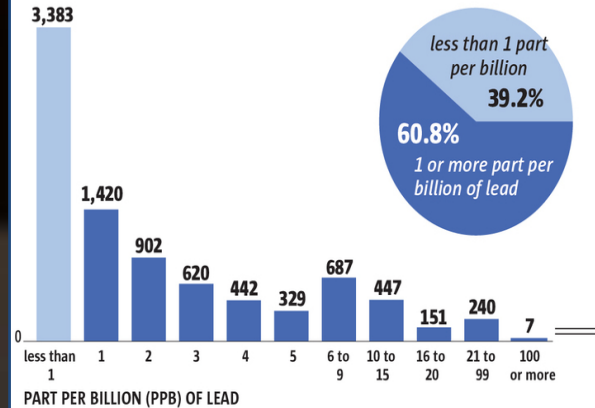
The House Bill 1139 was submitted as a result of the lead in SPS since **1991**.

- As of **2021** this bill was passed and Seattle will begin testing and replacing contaminated water fixtures in schools.
- The clean water provided by **Seattle Public Utilities (SPU)** has been found to be lead -free when leaving SPU facilities.
- The actual contamination of such water happens when the water enters the SPS.

Lead in school drinking water

Since early 2018, the state Department of Health has tested the drinking water at 199 preschools and schools across Washington. More than 8,600 school water taps were tested and 60.8 percent had lead levels of 1 part per billion (PPB) or higher.

LEVEL OF LEAD IN EACH TAP TESTED



Source: "Lead in the Water: Statewide Data Reveals Elevated Levels of Lead in School Drinking Water in Washington," by Bruce Speight and John Rumpler, Environment Washington

Cost and benefit:

- \$9.25 million for water fixtures
- \$33 million for the water pipes
- \$500,000 for the NOAH filter system
- **Estimated total cost: \$42.75 million**



Conclusion:

Ultimately, it is much more beneficial to replace pipes and provide new water fixtures, rather than to pay for extensive health care. Our solutions have discovered that it is **much more feasible to replace the pipes** that are bringing forth such lead contamination, than to fund any lead poisoning health concerns these children may obtain long -term. We also call on everyone to **pay more attention to the rights of minorities and water safety.**

Proposed Solution:

Our proposal consists of 3 main steps:

- **Testing and replacing water fixtures**
- **Water pipe testing and replacement** for sinks with water above 1 ppb lead.
- **NOAH program** installed to flush out water for 3 minutes when lead concentration levels are too high.

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