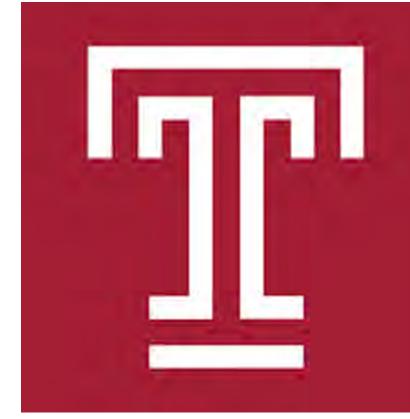
VIRGINIA DEPARTMENT OF HEALTH



Name: Laya Koder Host Site: Office of Drinking Water Cohort 3, 2025, Program Testing Drinking Water for Lead in VA Schools and Childcare



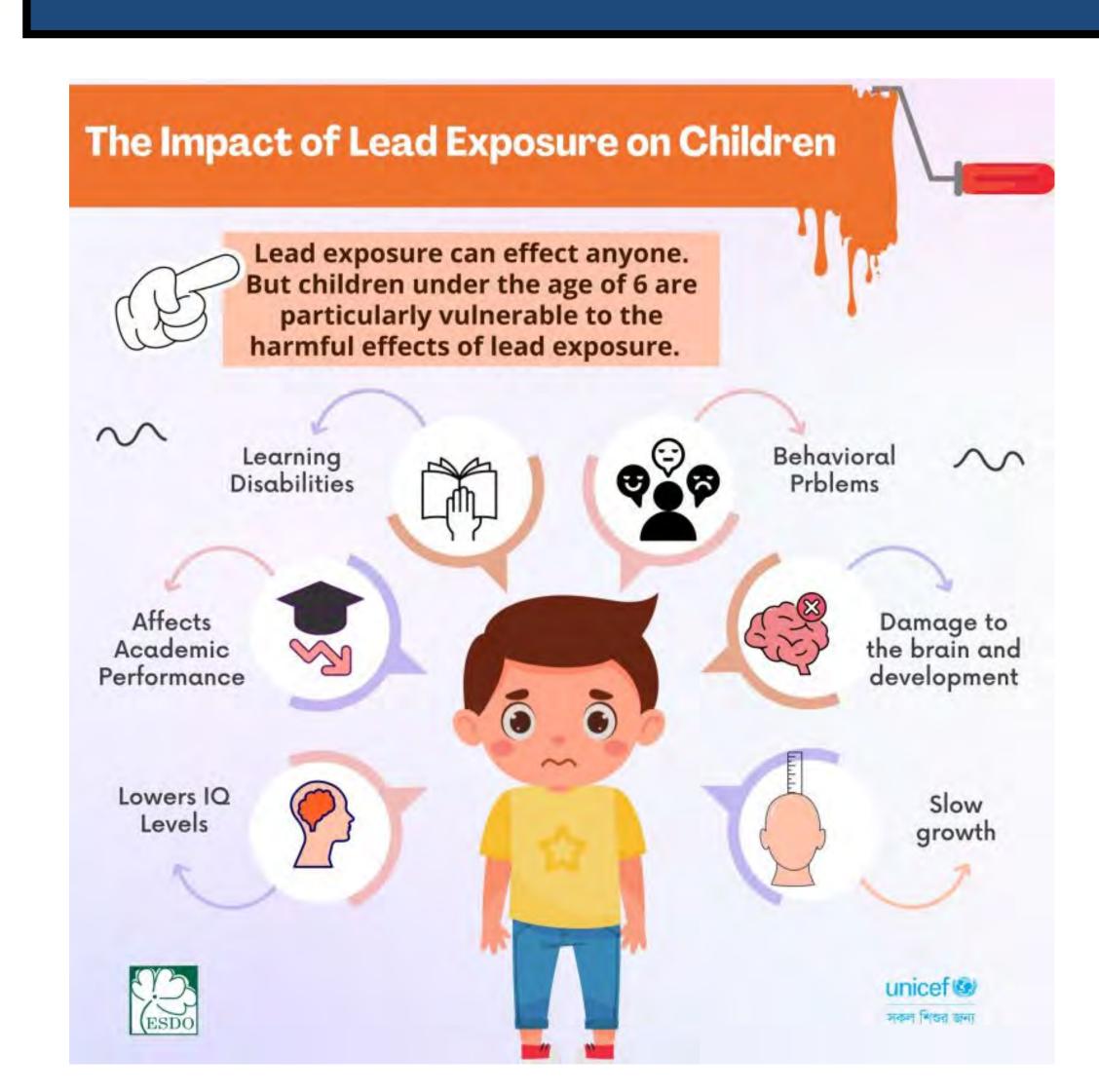






## Issue Identified

- Plumbing containing lead in childcare facilities poses risk in detrimental health effects in children.
- State regulation requiring lead testing is recent, and sampling statewide is still in progress. Data comparing lead results with risk factors is limited, but could assist targeting future sampling efforts.





- Limited data on exact age of facilities and remediation efforts
- Geocoding on Tableau
- Economic justice screening data may not always depict accurate locations
- Data is often restricted on blood lead level results due to data privacy
- Data taken at different times
- Analyzed limited sample of facilities due to time constraints of internship
- Eliminating sampling bias



- Recorded lead sampling results for future analysis, identified targets for future testing, and confirmed remediation efforts.
- Analyzed risk factors to determine areas of higher risk of lead contamination in drinking water.



County

✓ Norfolk City
✓ Prince William

✓ Alexandria City

✓ Chesapeake City

✓ Manassas City
✓ Manassas Park City

✓ Mecklenburg

✓ Montgomery
✓ Norfolk City

✓ Orange
✓ Page
✓ Portsmouth City

→ Prince William

Econ. Justice Screen St.

Dis., No Action Lev

Dis., No Action Lev

Not Dis. , At Least

Not Dis., No Action

At Least One Action L

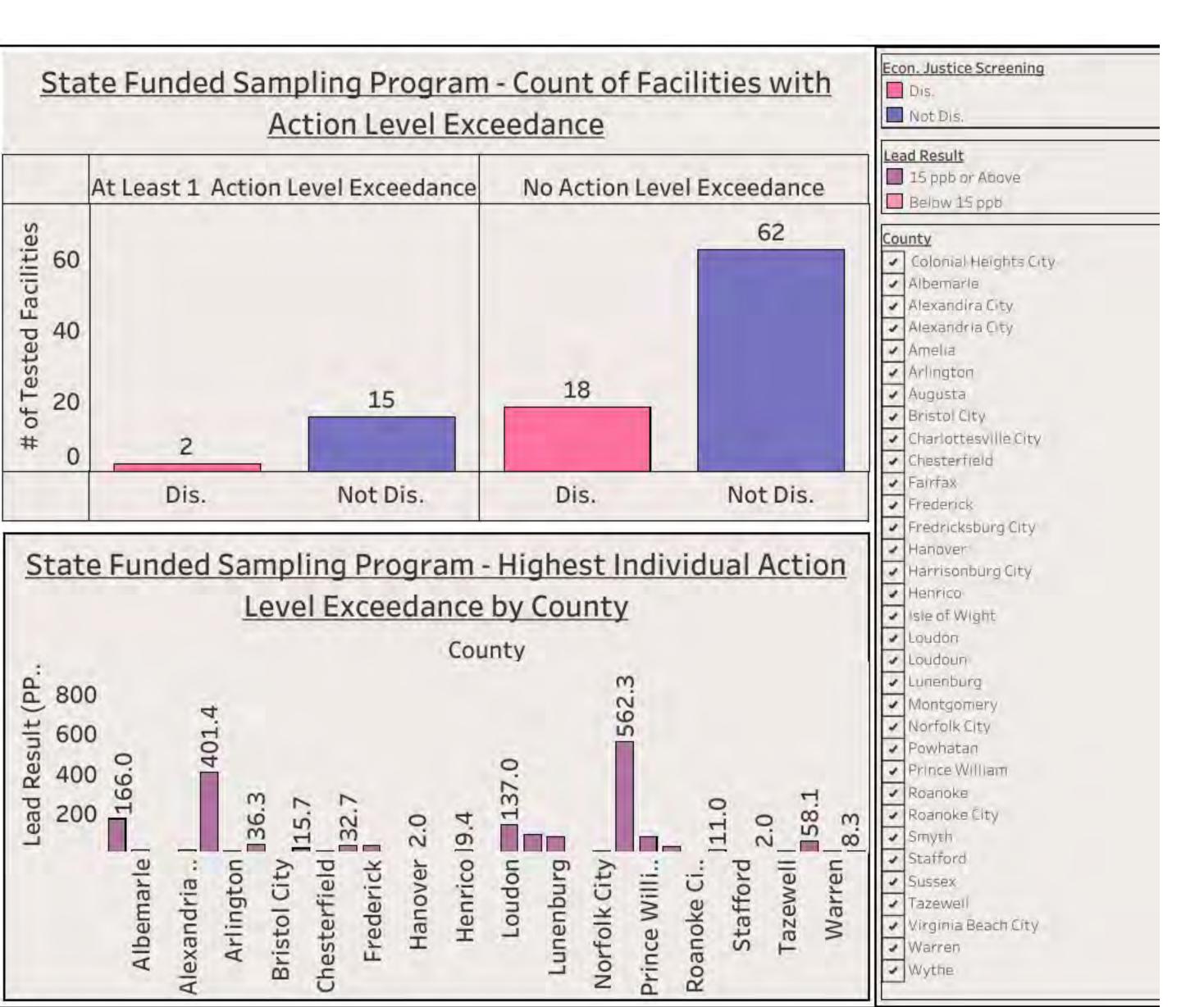
No Action Level Exce.

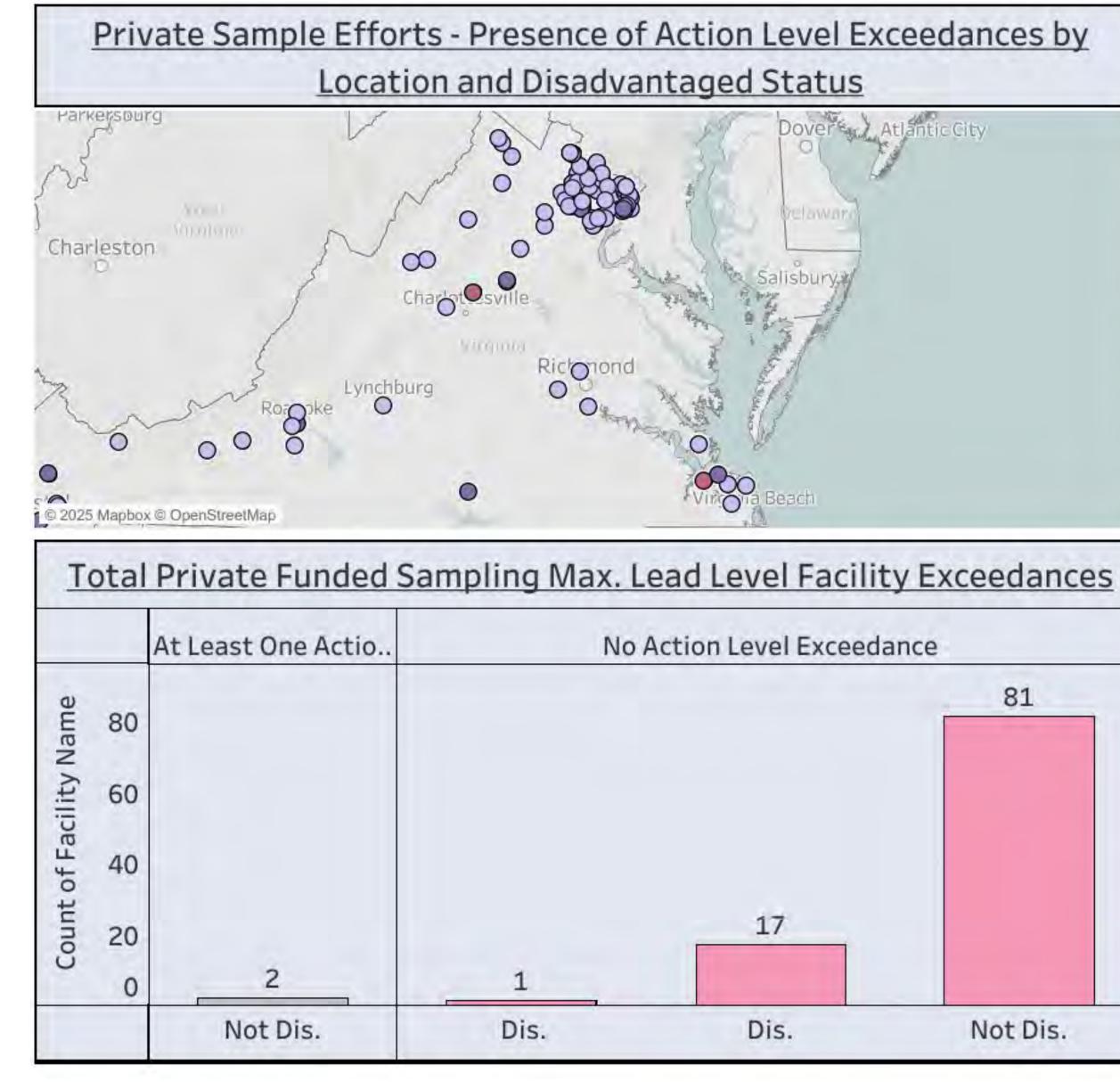
Not Dis.

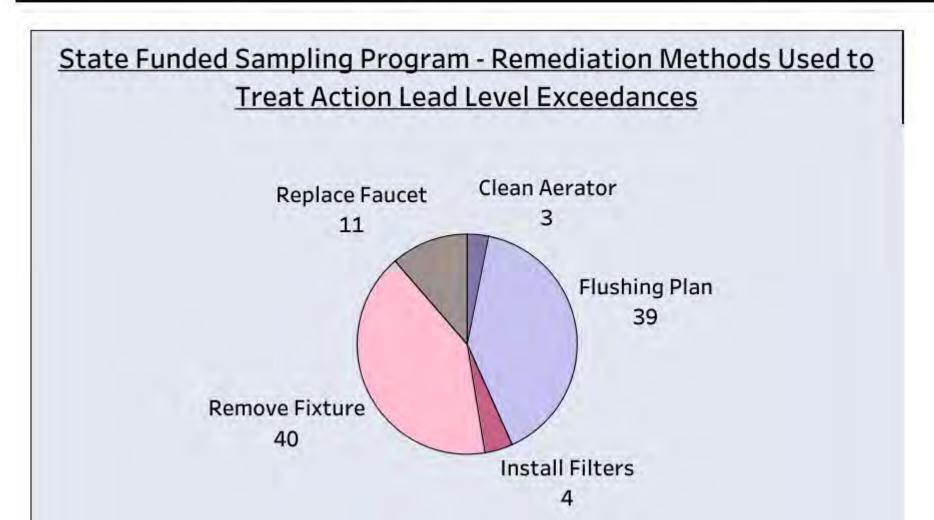


## Methods

- Input private and state sampled facilities results with name of facility, location, and economic justice screening status in excel.
- Graphed private/public sampled facilities with location and economic justice screening status on tableau, included childhood blood levels and remediation efforts
- Tools: Excel, Tableau Graphs: GIS Mapping, Bar Graphs, Pie Graphs







## Findings #1

- Compared blood level case data sampling results by location
- No correlation drinking water is not the main source



- Compared remediation efforts to lead result
- Over 50% of remediation was faucet-based implying an overall issue with faucets
- Private/state findings more non-disadvantaged results with less action Pb level exceedances
- **EPA WIIN Grant Funding used for testing**

Sources

Lead













Special thanks my mentor, Jose Garcia, as well as the Internship Academy Directors, Jeff Stover and Bridget Cochran, for making the Academy possible. I also want to thank my partnerships in this project, Ashley Koski, Janine Kerr, and Andrew Tran from the Childhood Lead Poisoning Prevention Team, Anthony Hess, and 120 Water. Lasty, I would like to thank all my Cohort 3 Peers!