

Binghamton University

The Open Repository @ Binghamton (The ORB)

Research Days Posters 2022

Division of Research

2022

Analyzing the Awareness of the Resources Available to Protect Residents from Lead Exposure

Cianna Geni

Binghamton University--SUNY

Follow this and additional works at: https://orb.binghamton.edu/research_days_posters_2022

Recommended Citation

Geni, Cianna, "Analyzing the Awareness of the Resources Available to Protect Residents from Lead Exposure" (2022). *Research Days Posters 2022*. 28.

https://orb.binghamton.edu/research_days_posters_2022/28

This Book is brought to you for free and open access by the Division of Research at The Open Repository @ Binghamton (The ORB). It has been accepted for inclusion in Research Days Posters 2022 by an authorized administrator of The Open Repository @ Binghamton (The ORB). For more information, please contact ORB@binghamton.edu.

Lead Poisoning In Broome County and Its Relation to Income

Cianna Geni: People, Politics, and the Environment

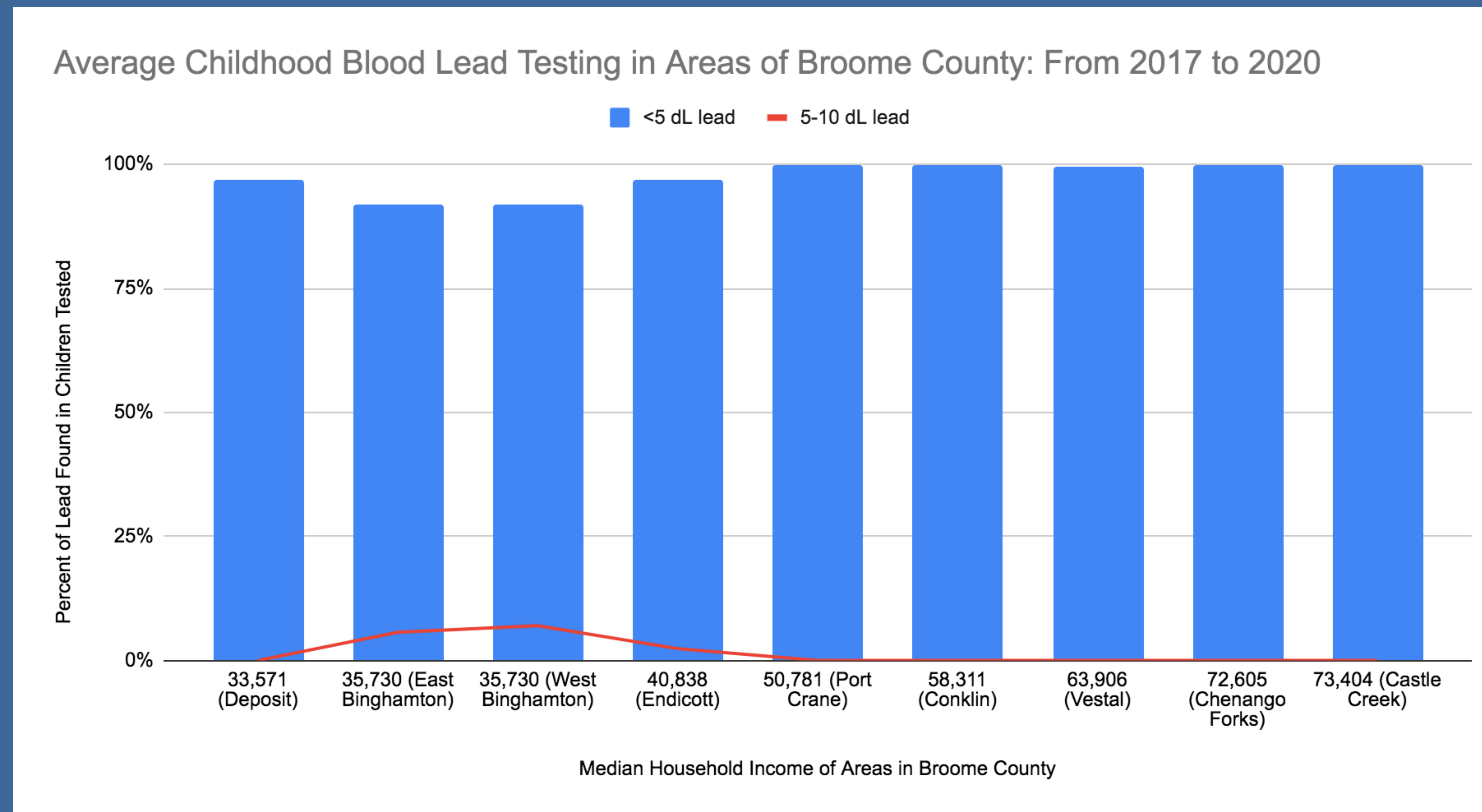
THE PROBLEM WITH LEAD PAINT

- Lead is toxic and damaging to people's health.
- According to the Journal of Public Health Management and Practice, in the US deteriorating lead paint in older homes and buildings is the most significant source of lead exposure in children.
- According to the American Healthy Homes Survey, it is estimated that 89% of homes that were built before 1978 are contaminated with lead-based

THE PROBLEM IN BROOME COUNTY

- According to the *Broome County Health Assessment*, 55.2% of housing in Broome County was built before 1960 and only 10.9% of homes were built since 1990. This increases the risk of lead based-paint in Broome County. - This project aims to understand the relationship between lead poisoning and household income in Broome County.

RESULTS



This figure shows the percentage of children that have <5 dL of lead found in their blood, and the percentage that have 5-10 dL lead found in their blood. This percentage is out of the children tested in 9 different areas of Broome County. These areas all have different median household incomes. The data is averaged from 2017 to 2020. The graph does not show that low income correlates with a high percentage of children with <5 dL of lead in their blood. However, the graph does indicate that the areas with the lowest income have the largest percentage of children with 5-10 dL of lead in their blood, with Deposit being an outlier.

METHODS

- Interviewed Mark Schuster from The Healthy Neighborhoods Program of Broome County. -Collected data on the childhood blood lead testing and elevated incidence by zip code from 2017 to 2020.
- The median household income of different zip codes in Broome County was collected.

DISCUSSION/CONCLUSION

- There is a trend between income and lead exposure in Broome County. Even though there may be some outliers, low income areas are usually associated with an increase risk of lead poisoning. -East Binghamton, West Binghamton, and Endicott, one of the three areas with the lowest income had the highest percentage of children tested found with 5-10 dL of lead in their blood.
- There may be some outliers due to programs put in place that support low income areas with environmental health issues. - Increased support and awareness of programs like the Healthy Neighborhoods Program may be able to reduce lead blood levels in more of these areas and potentially get rid of the trend between income and lead poisoning.

Quotes from The Healthy Neighborhoods Program Interview

"We use identifiers to come up with areas geographically that need the most help, so we look at graduation rates, poverty rates..."

"Between healthy neighborhoods and some of the other lead programs, we brought together groups of people and educated them on what to look for within the home to avoid health risks."

"Once people found out that it was fairly easy and straightforward, people were able and wanted to sign up for the program."

References

- 1) <https://health.data.ny.gov/Health/Childhood-Blood-Lead-Testing-and-Elevated-Incidenc/d54z-enu8>
- 2) https://www.health.ny.gov/environmental/lead/health_care_providers/
- 3) <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6522252/>
- 4) <https://www.census.gov/>
- 5) https://www.gobroomecounty.com/sites/default/files/dept/hd/pdfs/Broome%20County%20Community%20Health%20Assessment%202019-2024_All.pdf