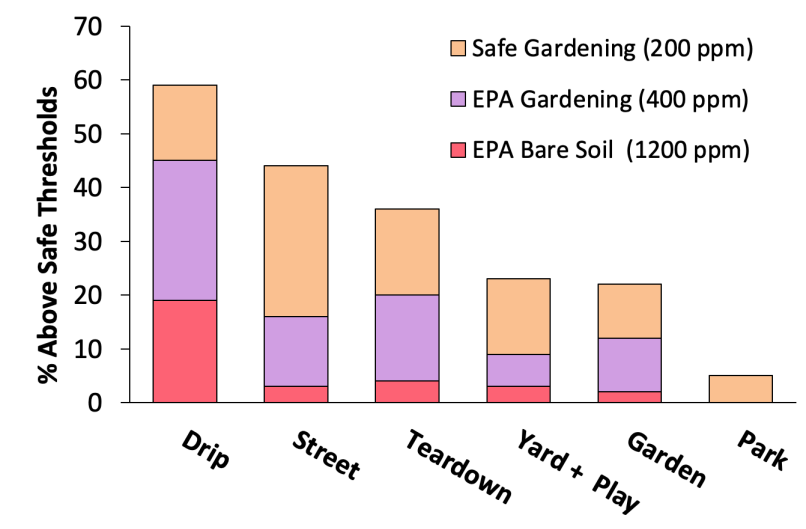
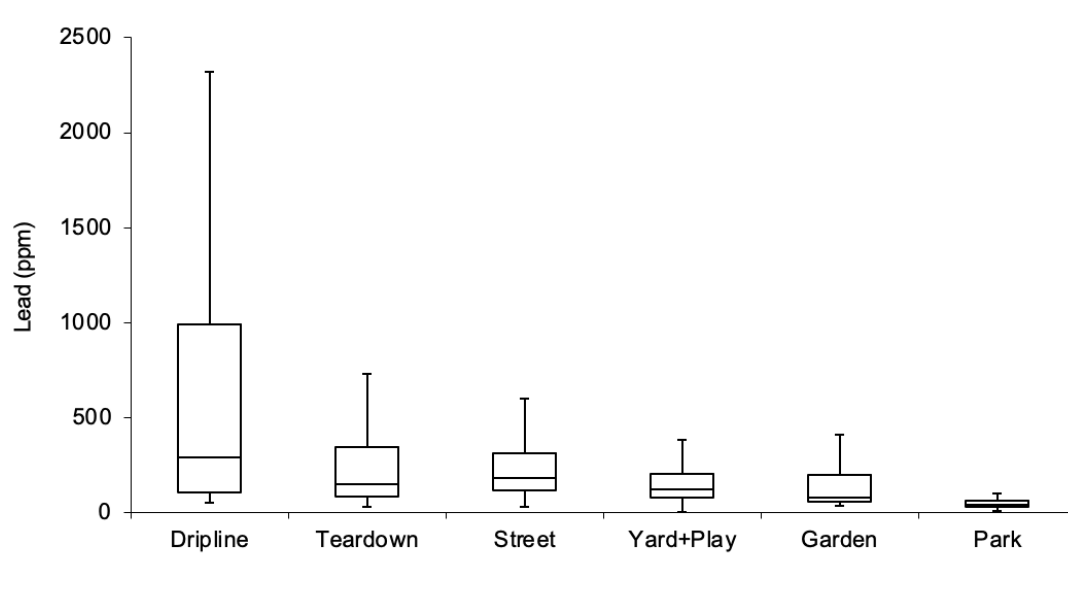


## Executive Summary: Lead in Soil in Springfield, Ohio

- Older housing stock and a legacy from gasoline contribute to lead concentrations in soil.
- Given that approximately one in three samples we tested was above safe gardening limits (200 ppm), have your soil tested before gardening. If your tests exceed safe gardening limits you may be able to install raised beds but given that the soil surrounding the garden is mobilized by wind and water we suggest avoiding gardening for concentrations above 600 ppm.
- If you have health questions related to blood lead & live in Springfield, Ohio contact the Clark County Combined Health District ([health@ccchd.com](mailto:health@ccchd.com), 937-390-5600) or reach out to your local health provider.

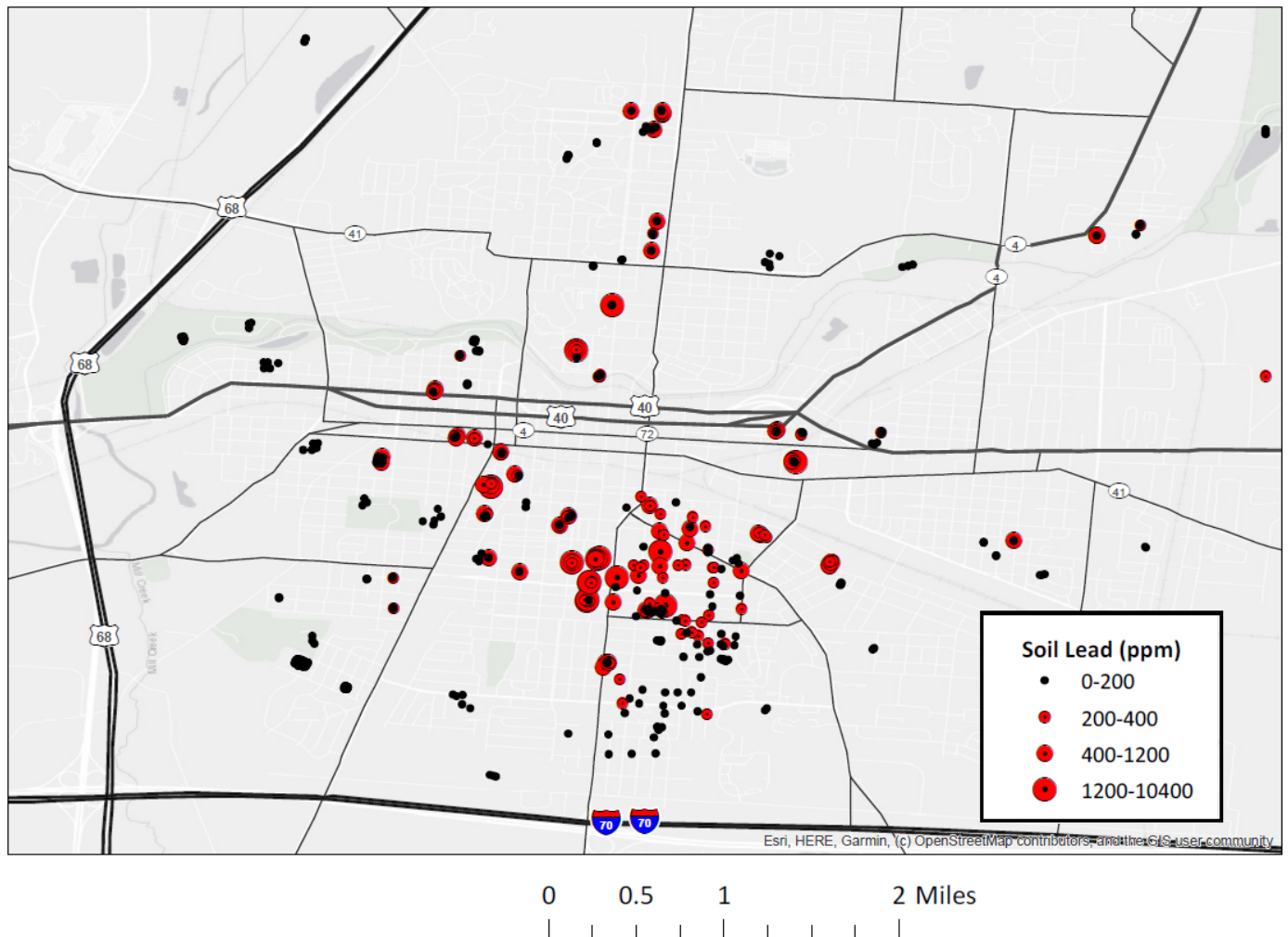


**Figure 1.** Percentage of Springfield, Ohio soil samples above lead safety recommendations soils by type: dripline (n=42), near street (n=116), housing teardown (n= 50), yard & play (n=35), garden (n=143), and park (n=82).



**Figure 2.** Boxplot of Springfield, Ohio soil lead concentrations measured by ESCI 250 students between 2014-2019) in residential drip lines (n=42), near street (m=116), yard or play areas (n=35) compared with planned or existing community gardens (n=143) and parks (n=82).

## Soil Lead concentrations in Springfield, Ohio



**Figure 3.** Springfield, Ohio soil lead concentrations. Soils with concentrations below 200 ppm are considered safe for gardening according to many research studies. The EPA recommendation for safe gardening is 400 ppm and 1200 ppm for play areas on bare soil. Soils sampled include garden, residential, and park sampling. The highest density of sampling in the south is in Springfield, Promise Neighborhood. Across our sampling effort, more than 1 in 4 samples measured was above safe gardening limits (2014-2020).

### References

1. US EPA, Growing Gardens in Urban Soils, 2014. [https://www.epa.gov/sites/production/files/2014-03/documents/urban\\_gardening\\_fina\\_fact\\_sheet.pdf](https://www.epa.gov/sites/production/files/2014-03/documents/urban_gardening_fina_fact_sheet.pdf)
2. Filippelli, G., Adamic, J., Nichols, D., Shukle, J., & Frix, E. (2018). Mapping the urban lead exposome: A detailed analysis of soil metal concentrations at the household scale using citizen science. *International journal of environmental research and public health*, 15(7), 1531.