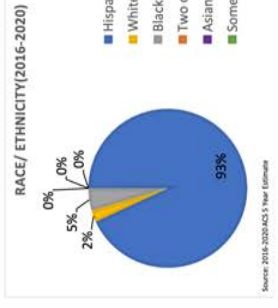
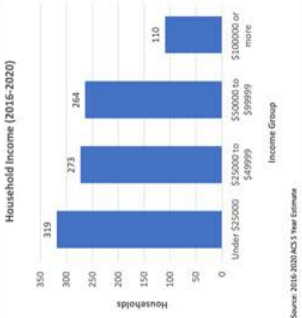
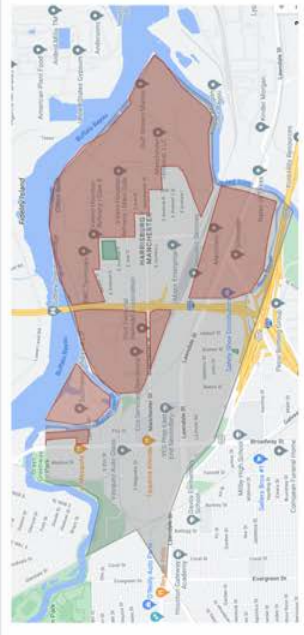


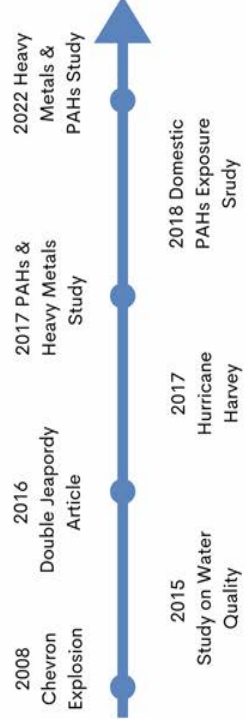
Authors: Ruby Hernandez, Rui Zhu, and Garrett Sansom

BACKGROUND

Southeast of Houston, Texas, one of the busiest seaports in the United States can be found. This 52-mile waterway, the Houston Ship Channel, offers communities like Super Neighborhood 65, also known as Manchester, an uncommon living experience. Exposure to natural and anthropogenic hazards is a risk communities like Super Neighborhood 65 or so-called fence-line communities face. Surrounded by chemical and petroleum refineries, railroad yards, and recycling facilities, amongst other industries that handle hazardous chemicals, Manchester is home to over 3,000 residents, predominantly Hispanic (88%) and with an income level under \$25,000 (46%). As chemical and petroleum industries expand into communities, the desire to understand its impacts on the environment and health has become a priority. Communities like Manchester seek to address the environmental injustices experienced due to the inequity, disparities, and proximity to industry. This presentation will (1) compile our current and ongoing research documenting heavy metals and PAHs within this community, (2) discuss community engagement practices and approaches, and (3) discuss solutions by including community members in a Citizen Science program.



TIMELINE OF EVENTS

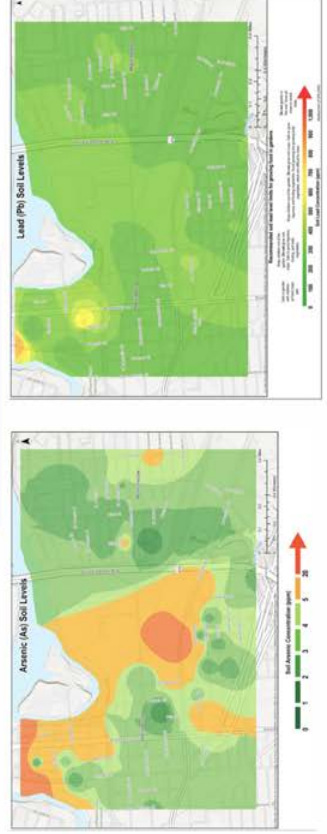


ONGOING WORK

The PAHs and heavy metals project. The project aims to collect soil samples across the community of Manchester to better understand the impacts proximity to industry has on the community.

- 50 sites sampled
- 8 RCRA metal testing
- EPA 16 PAHs Priority List
- Community Health Assessment
- Cancer Risk Based on 7 Carcinogenic PAHs and Utilizing the USEPA's Regional Screening Levels

RESULTS



SOLUTIONS

- Collaborating with local non-profit organizations
 - T.e.j.a.s has allowed Texas A&M University to actively work with community members to answer questions on how proximity to industry has affected their health and environment
- The Citizen Science Program
 - Collaboration with local high schools to train young leaders on surveying and environmental sampling (water, air, and soil)
 - Public Health Workshops
- Community-informed greenspace solutions
- Policy briefings



PLEASE SCAN FOR REFERENCES

