

Metal Air Pollution Partnership Solutions (MAPPS)

The Goal

The University of Texas Health Science Center at Houston (UTHealth) School of Public Health and their partners care about the health and well-being of people living in our local community. Therefore, the goal of the MAPPS project is to work together with the metal recycling industry and neighborhood residents to study and improve the air quality and health of Houston's communities that border metal recycling facilities. To achieve the goal of the MAPPS project, UTHealth School of Public Health and its partners received funding from the National Institute of Environmental Health Sciences (NIEHS) to support this research to action project.

The Neighborhoods

MAPPS activities are taking place in Houston neighborhoods where metal recycling facilities operate. The selected neighborhoods include: 1) South Park; 2) 5th Ward/Northside; and 3) Magnolia Park.

Phase 1: Science

- Gather information from residents about environmental health concerns in their neighborhoods
- Conduct air monitoring in selected areas
- Describe health risks (big or small) using air monitoring data



A.



B.



C.

Photos:
Mobile Ambient Air Monitoring Laboratory—MAAML (A and B) and a tripod-mounted inhalable particle air sampler (C)

Phase 2: Action

Develop and apply a Public Health Action Plan to:

- Recommend ways the metal recycling industry can reduce metal air emissions, if necessary
- Educate residents, metal recyclers, and policy makers about environmental health



Photo: Local metal recycling facility

Phase 3: Evaluation

- Conduct a second round of air monitoring in the selected neighborhoods in Houston
- Describe health risks (big or small) using air monitoring data
- Evaluate whether residents and metal recyclers have increased their knowledge of environmental health concerns after implementing the Public Health Action Plan

MAPPS Partners



Metal Air Pollution Partnership Solution (MAPPS)

The Project

Metal recycling facilities accept and process scrap metals. The benefits of metal recycling over the use of raw materials include energy savings, the conservation of resources, and job creation. Yet, some recycling plants in Houston are in close proximity to neighborhoods and concerns have been raised by residents about smoke and dust.

MAPPS is a collaborative research-to-action project of The University of Texas Health Science Center at Houston (UTHealth) School of Public Health to study and address potential health risks associated with air emissions from metal recycling facilities in Houston.

The MAPPS research-to-action project involves three phases:

Research: Conduct outdoor air monitoring, determine health risks and describe residents' environmental health concerns

Action: Develop and apply a plan to address the research findings

Evaluation: Measure the success of our action plan



Metal Air Pollution Partnership Solutions (MAPPS)

Let's work together and make your neighborhood healthier!

To Get Involved, Contact

Elaine Symanski, PhD, Principal Investigator,
713-500-9238

Maria Jimenez, Community Organizer/
Research Associate, 713-500-9284

Juan Flores, Community Organizer, Air
Alliance Houston, 713-528-3779

Email: MAPPS@uth.tmc.edu

Visit Website: <https://go.uth.edu/MAPPS>

This project is supported by NIEHS Grant No. 5R01ES023563.

UTHealth School of Public Health
The University of Texas Health Science Center at Houston
IRB NUMBER: HSC-SPH-14-0351
IRB APPROVAL DATE: 07/30/2018