



# **DISSEMINATION AND TRANSLATION FOR POLICY CHANGE: A CASE STUDY FROM COMMUNITY ACTION TO PROMOTE HEALTHY ENVIRONMENTS (CAPHE) IN DETROIT**

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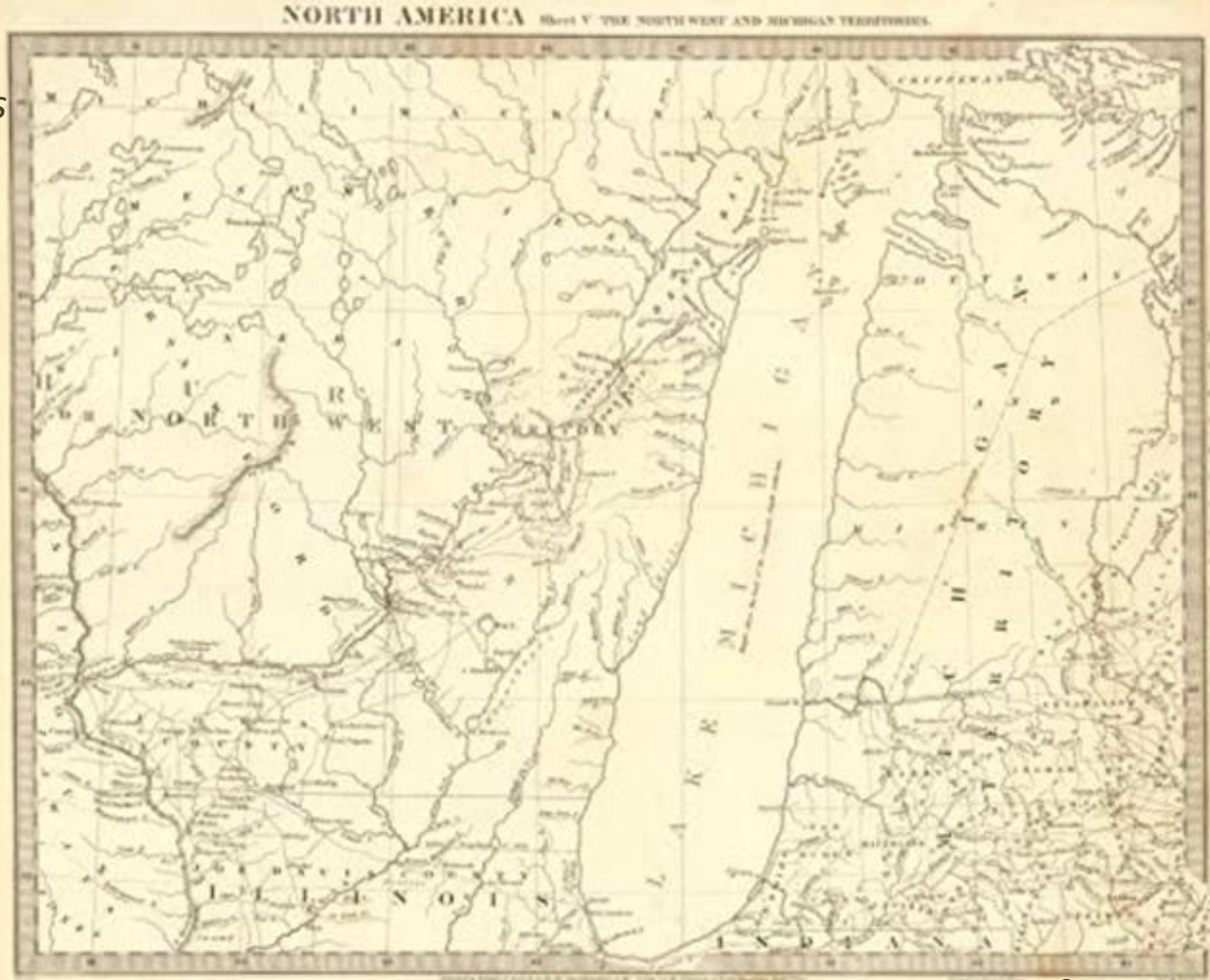
# PRESENTER DISCLOSURE

Angela G. Reyes & Amy J. Schulz

The following personal financial relationships with commercial interests relevant to this presentation existed in the past twelve (12) months:

**NO RELATIONSHIPS TO DISCLOSE**

*We acknowledge the Anishinabeg—the Three Fires Confederacy of the Ojibwe, Odawa, and Potawatomi, along with their neighbors, the Seneca, Delaware, Shawnee, and Wyandot nations—who cared for and lived on the land from which we are presenting for many generations. We acknowledge, renew and affirm the ancestral and contemporary ties of the Anishnabeg to this land and are grateful for the opportunity afforded us to present from this land.*





# Air Quality in Detroit, Michigan

## Playground next to Industrial Source in Delray, Detroit, MI



Funded by NIEHS Grant # RO1ES022616 and the Fred A and Barbara M. Erb Family Foundation with additional support from NIEHS Grant # P30ES017885

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# CAPHE'S OVERARCHING GOALS

- Develop a multilevel, scientifically-informed public health action plan to reduce air pollution and adverse health effects
- Promote implementation of components of the plan





# CAPHE'S APPROACH

- Builds on three longstanding community-based participatory research (CBPR) partnerships
- Aims to increase knowledge about factors influencing exposure to air pollution and health effects
- Translates findings into a public health action plan
- Implements innovative policy and practice solutions to reduce pollutant exposure and mitigate adverse health effects
- Evaluates process and impact

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# QUANTIFIED HEALTH IMPACTS

- **Each year** in the Detroit Metropolitan Area, air pollution is responsible for:
  - 690 deaths
  - 1800 hospitalizations and emergency room visits
  - Thousands of missed school and work days

**Total monetized cost of \$6.9 billion per year**

*These effects occur disproportionately in Detroit and surrounding areas with high concentrations of poverty, African American and Latino residents.*

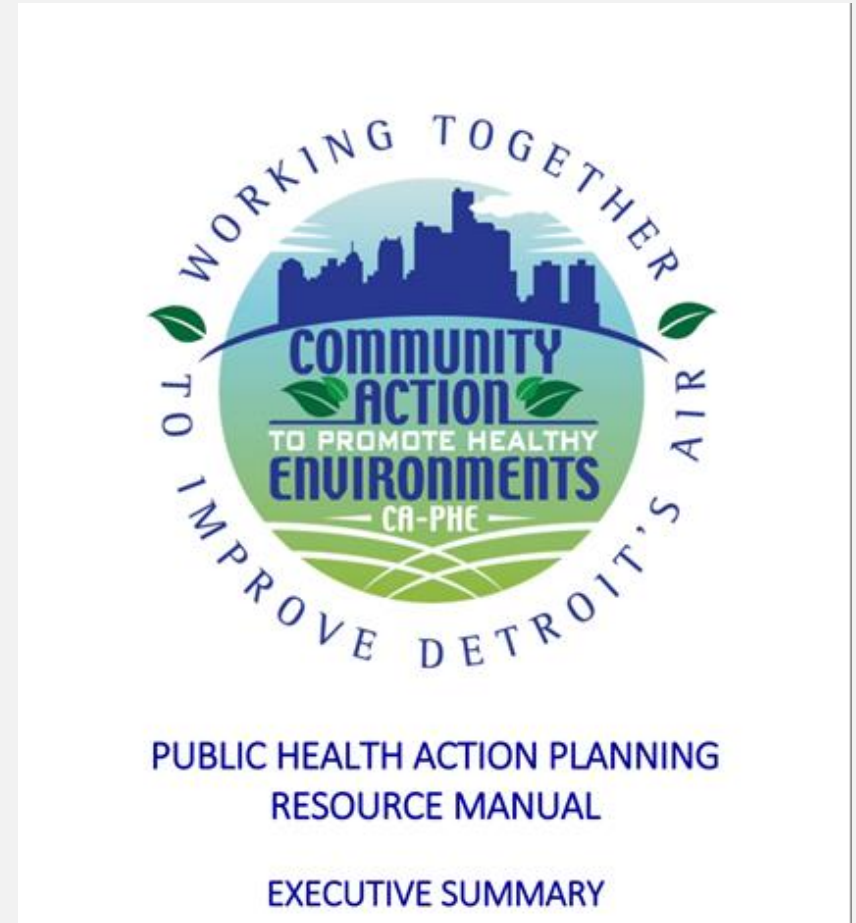
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# CAPHE RESOURCE MANUAL

Contains scientific evidence used throughout the CAPHE Public Health Action Planning Process to discuss and identify key air pollution mitigation strategies with community organizations, community members, and City, State and Federal representatives.

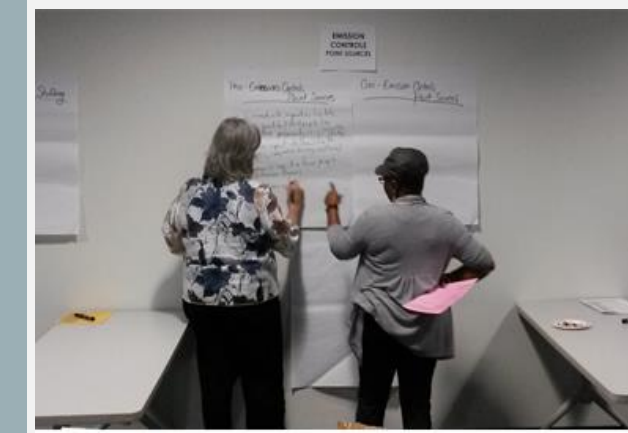
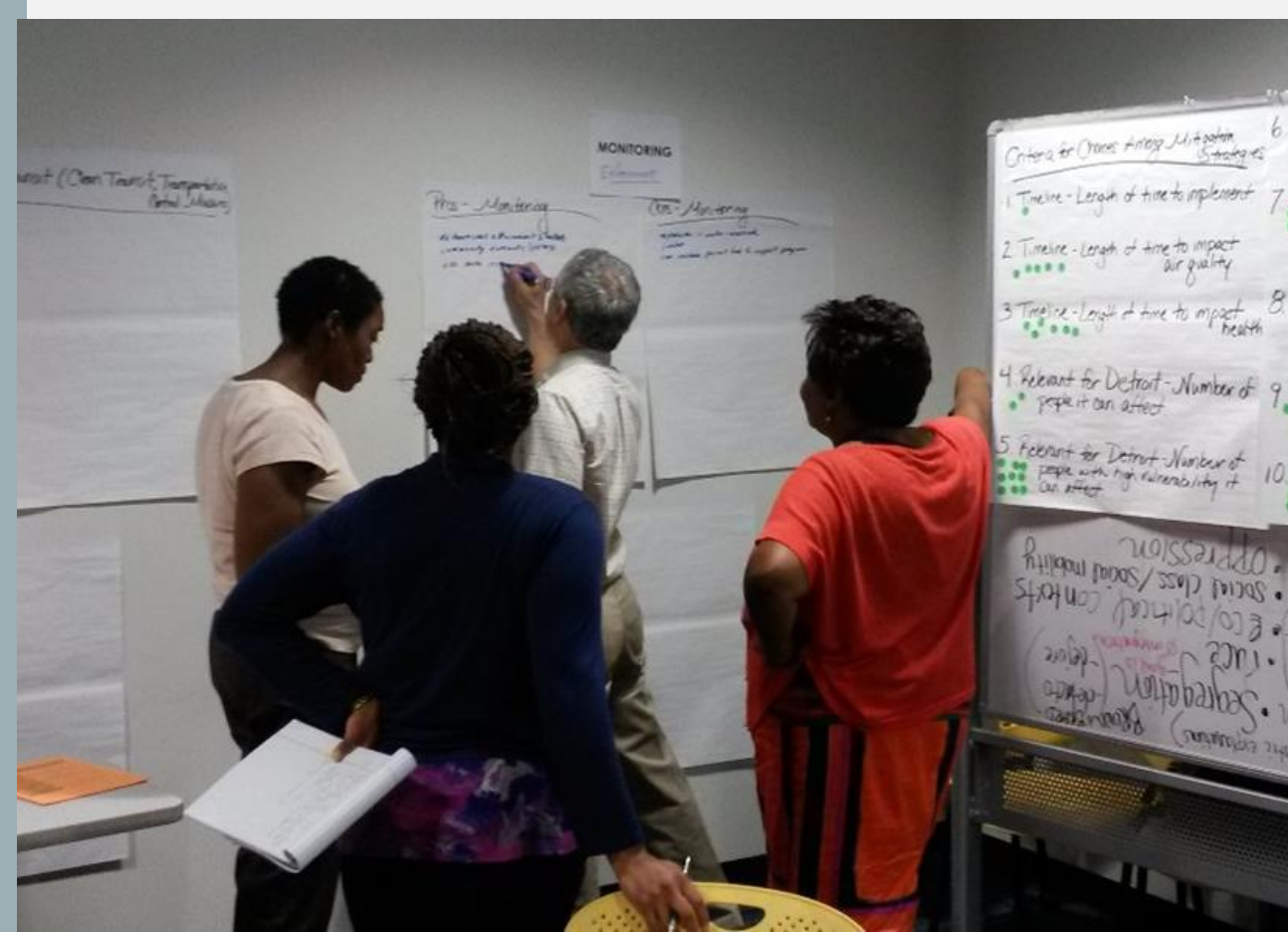
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# Phase 1: Developing the Recommendations



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# Phase 2: Engaging Broader Stakeholders & Refining the Recommendations



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# CAPHE PUBLIC HEALTH ACTION PLAN



## Evidence-Based Recommendations

- Point source controls
- Enhanced compliance & enforcement
- Diesel engine retrofits
- Anti-idling campaign
- Transportation control measures
- Buffers & barriers
- Indoor air filters
- Monitoring
- Renewable Energy

Available:

<http://caphedetroit.sph.umich.edu/>



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# POLICY BRIEFS



## Community Action to Promote Healthy Environments Diesel PM Exposure, Population Vulnerability & Mortality

### Policy Recommendations to reduce exposure to diesel PM, with a focus on vulnerable populations include:

- **Control emissions on mobile sources** such as cars, trucks & heavy equipment (e.g., through retrofitting or replacing older diesel engines, reducing idling, & using clean fuels);
- **Plant and/or install buffers & barriers** between heavily trafficked roadways & people;
- **Increase monitoring of ambient air** to better understand air pollution levels & patterns.

### Health Impacts, per year in Detroit, due to Near-Roadway Exposures.

- **Figure 1 shows census tracts with the highest levels of diesel PM exposure in the Detroit Metropolitan Area.**
- **Residents living in census tracts with the highest levels of exposure to diesel (levels 3-5) have a 12% increased likelihood of death due to cardiopulmonary (heart and lung) disease** compared to those living in census tracts with the lowest levels of air pollutants (levels 1-2) after controlling for individual risk factors such as education or smoking;

# PUBLIC COMMENTS



September 28, 2020

Erin Moran, Enforcement Specialist EGLE, AQD  
P.O. Box 30260  
Lansing, MI 48909-7760

RE: Marathon Consent Order and proposed Supplemental Environmental Projects (ACO#) 2020-13

Please accept these comments submitted on behalf of members of the *Community Action to Promote Healthy Environments* (CAPHE) regarding Marathon's Consent Order and proposed Supplemental Environmental Projects (SEPs).

## Background

CAPHE is a partnership among community-based organizations, community residents, health service providers and public health researchers. We have been working together since 2014 with support from the National Institutes of Environmental Health Sciences, among others. Our goal is to develop and implement components of a scientifically-based, community-led public health action plan to reduce air

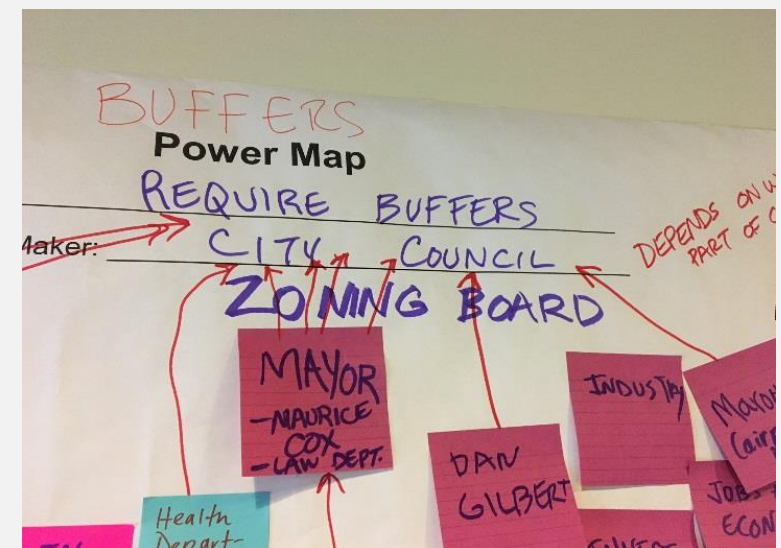


# Working with Policy Makers

Policy Advocacy Trainings for Faculty & Community Members  
Legislative Luncheons  
Press Conferences

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# HEALTH IMPACT ASSESSMENTS OF IMPACTS OF LAND USE ON AIR QUALITY AND HEALTH

- Requested by Southwest Detroit Community Benefits Coalition
- Assessed likely health impacts of new bridge located in SW Detroit
- Evidence of inequitable impact
- Disproportionate burden of asthma attributable to air pollution
- Recommendations to reduce adverse health impacts (selected)
  - Expand home buyouts to allow people to move away
  - Expand home retrofits to clean indoor air





# CONCLUSIONS

- Scientifically grounded, community informed public health action plans create opportunities for all partners to work together to disseminate and translate results to inform local, state and federal policy.
- Resources to support action based on science are critical in moving this work forward.





DETROIT  
HISPANIC  
DEVELOPMENT  
CORPORATION

greendoor  
initiative



Community Action Against Asthma



DETROITERS WORKING FOR  
ENVIRONMENTAL JUSTICE



SIERRA  
CLUB  
FOUNDED 1892



DETROIT  
Health Department

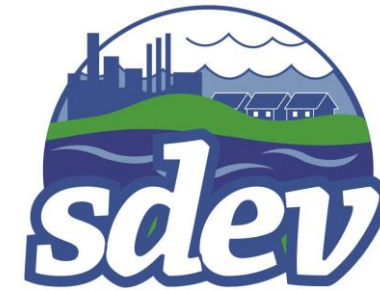


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MICHIGAN DEPARTMENT OF  
ENVIRONMENT, GREAT LAKES, AND ENERGY



WAYNE STATE  
UNIVERSITY





# THANK YOU!

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