

Community-Driven Health Impact Assessments to Promote Environmental Justice: A Case Study from Detroit

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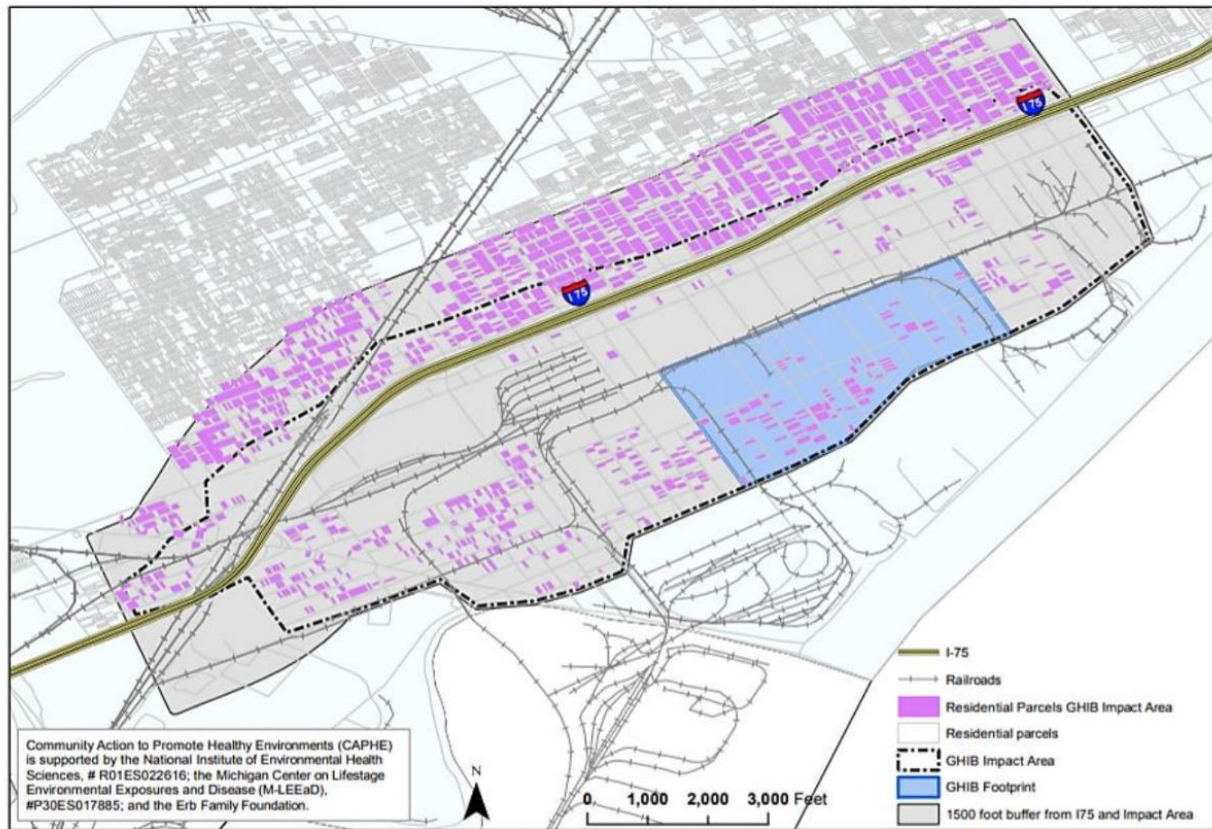


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No Conflicts of Interest to Disclose

GHIB IMPACT AREA



Population age over 17. Source: ACS 2014. Five years estimate census data. Estimated population over 17 years old living in buffer of 1500 foot is 6830

Timeline

2016-2017:
Bridge to Healthy
Communities
Survey

2019: HIA
Report
Released

Community Organizing and Advocacy re GHIB Benefits and Burdens

2000

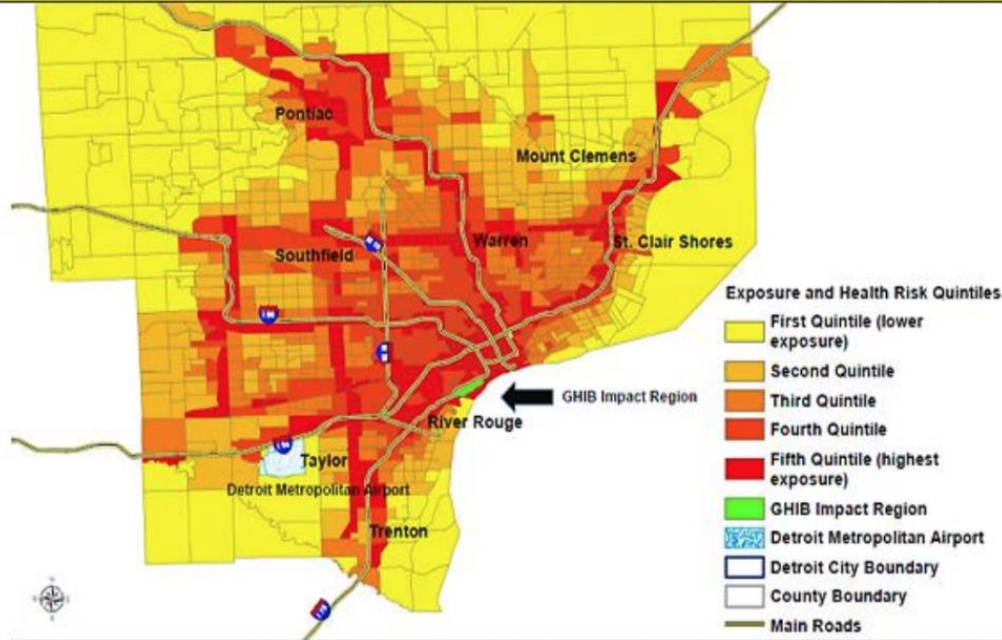
\$45million community
benefits approved

2018: Health
Impact
Assessment
Survey

2019



Figure 2: Diesel Particulate Matter (PM) exposure, cancer and respiratory risk attributable to air pollution in the Detroit Metropolitan Area (Schulz et al. 2016)



Cumulative impact polygons (CI) include: residential areas, child care facilities, health care facilities, schools and playgrounds.
Exposure and Health risk include: 2011 NATA estimates of respiratory risk, cancer risk and diesel PM (non-cancer) concentration.

WHY A HEALTH IMPACT ASSESSMENT ?

Three Phases of GHIB Health Impact Assessment



Pre-Construction/Baseline



During Construction



During Operation

- Community-driven: Conducted at the request of the Community Benefits Coalition (CBC)
- Community informed content: environmental exposures, health conditions, neighborhood perceptions, & recommendations for decision-makers
- Administered by trained and certified community residents who were bilingual
- Preliminary results discussed at community meetings
- Discussions informed recommendations to reduce adverse health impacts



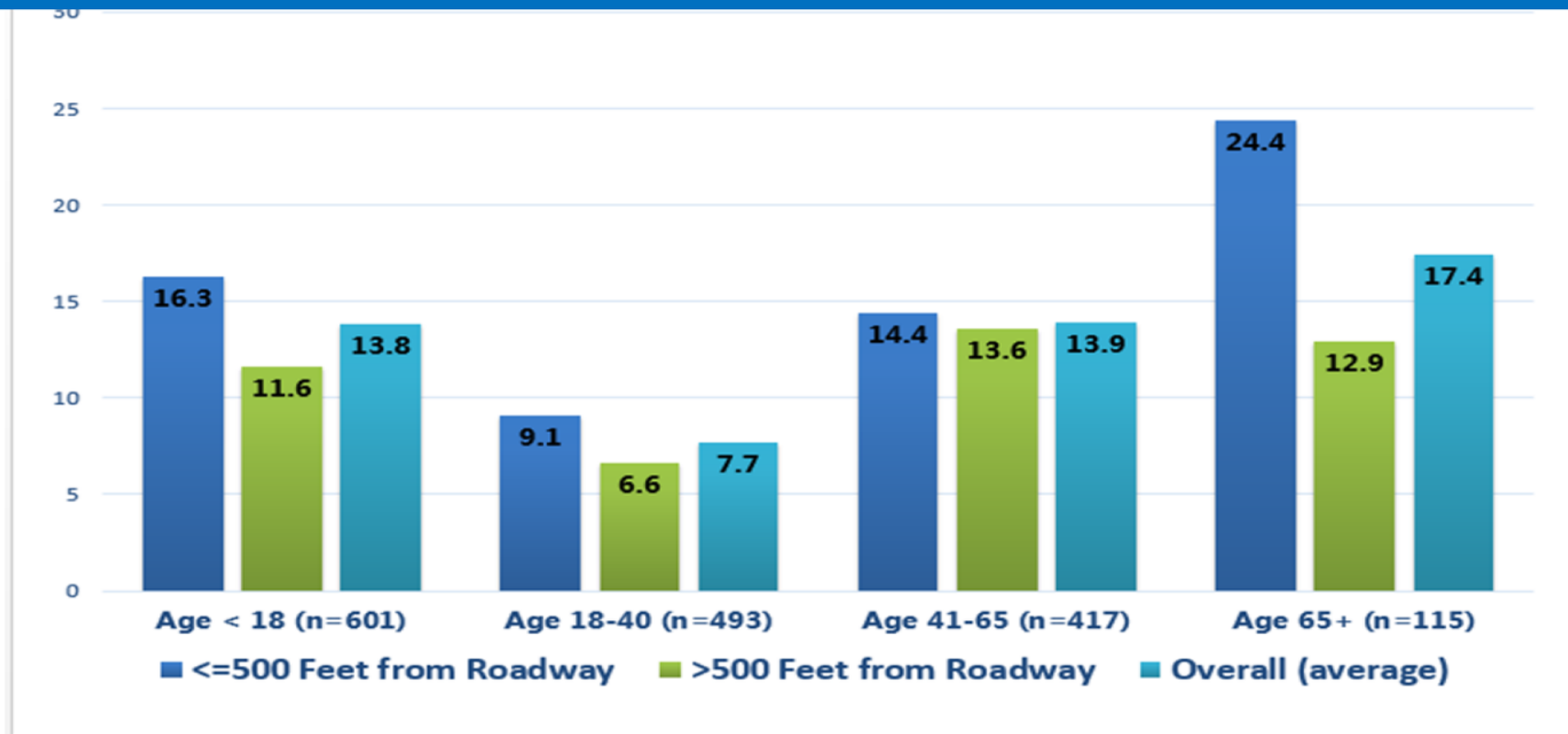
Results (Selected)

Strong sense of community

- 4 out of 5 (81%) of respondents agreed or strongly agreed that people in the neighborhood generally knew each other
- 85% agreed or strongly agreed that they feel at home in the neighborhood
- 72% agreed or strongly agreed that there are people in the neighborhood they can turn to when needed



Percent of household members in the baseline HIA survey reported to have asthma by age and distance from I-75 and trucking routes



Concerns (selected)

Concerns expressed by community residents related to the new bridge included:

- Rats (81.6%)
- Traffic congestion (76%)
- Clogged sewers, standing water in streets (75%)
- Outdoor air quality, including truck emissions (66.7%)
- Vibration from trucks damaging property (60.9%)
- Loss of property value (57%)

Participants Suggestions: How to Address Concerns [selected]

- Reduce truck emissions
- Limit truck traffic through and near neighborhoods
- Address noise, vibrations and safety hazards due to construction and operations
- Don't build the bridge
- Support home improvements to reduce outdoor air pollutants getting into homes
- Support home buyouts so residents can move
- Help residents obtain medical care for health impacts associated with the bridge (e.g. asthma exacerbations)

HIA Recommendations (selected)

- Retrofit truck engines
- Enact stronger emissions standards & enforce them
- Strengthen & enforce Detroit's anti-idling ordinance
- Develop app for residents to report idling violations
- Move truck routes away from residential areas
- Install spatial or vegetative buffers
- Extend filter availability for area homes & schools
- Expand the home swap area to 500 feet from roadway
- Expand access to health care for area residents

Concluding Comments

- Classic environmental justice issue
 - Low income community of color disproportionately affected
- Clean Air Act protections are insufficient
 - Communities forced to ask for basic mitigation in community benefits agreements
- Health Impact Assessments provide critical information to inform mitigation strategies

**Thank you.
Questions?**

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