



Community Benefits Agreements and Health Impact Assessments to Promote Environmental Justice: The Gordie Howe International Bridge

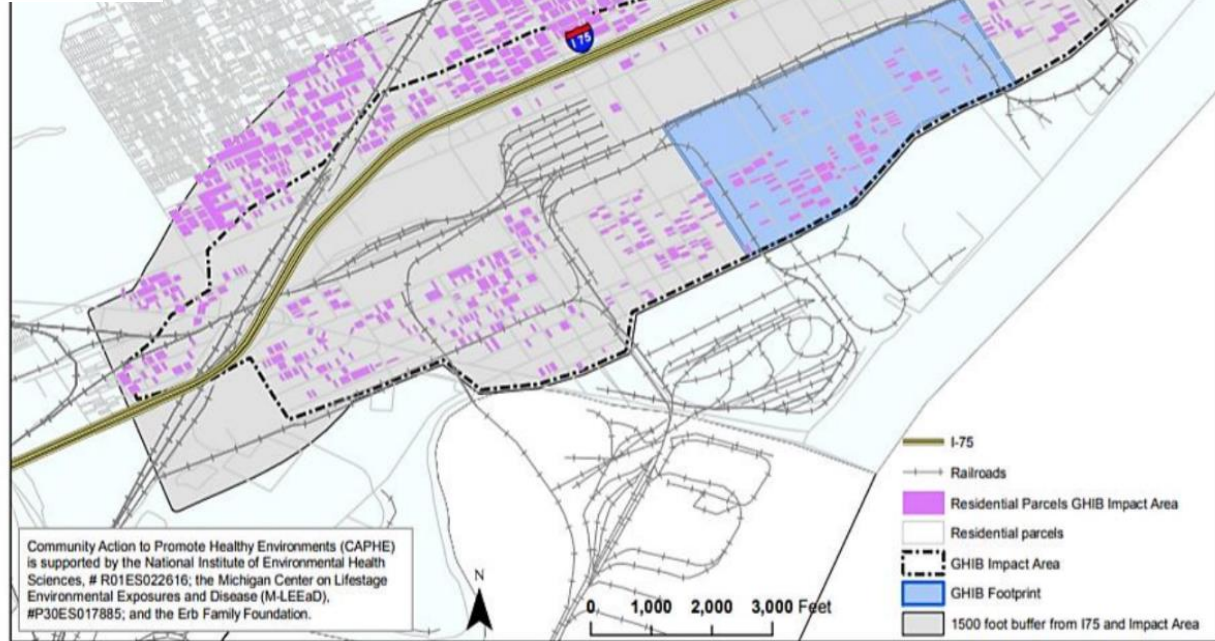
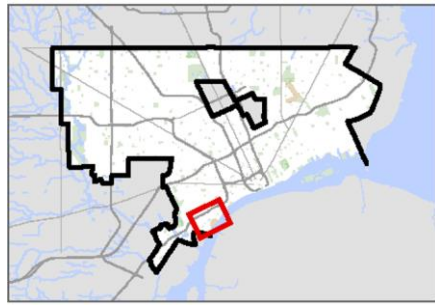
American Public Health Association Annual Meeting | November 6, 2019

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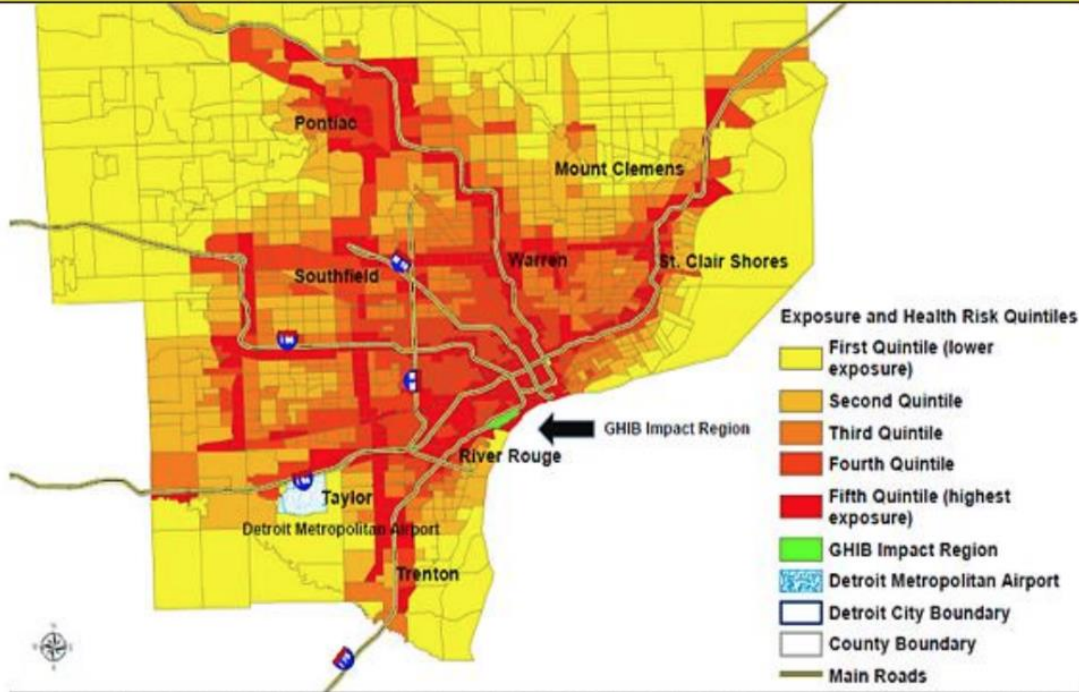
No Conflicts of Interest to Disclose

BRIDGE 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

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 COMMUNITY BENEFITS?

Schulz, A., Mentz, G., Sampson, N., Ward, M., Anderson, R., deMajo, R., Israel, B., Lewis, T., Wilkins, D. (2016) Social and physical environments and the distribution of risk: A case example from Detroit. *DuBois Review*, 13(2), 285-304. doi:[10.1017/S1742058X1600016](https://doi.org/10.1017/S1742058X1600016)



2016-2017: Bridge to a Healthy Community Survey

2019: HIA Report Released

Community Organizing and Advocacy for Benefits and Reduced Burdens

2008

2016: \$48m community benefits approved

2018: Health Impact Assessment Survey

Photo: Khloe Johnson holds a sign. (Max Ortiz, The Detroit News)

\$48m Community Benefits

- 200 Optional Home relocations
- 200 Home retrofits - windows & air filtration
- Health Impact Assessments
- 3 new Air Monitor stations & 1 upgrade for Black Carbon
- Mobile Air Monitoring unit
- Indoor Air monitoring program
- Job training funds for citywide programs

Three phases of GHIB Health Impact Assessment



Pre-Construction/Baseline



During Construction



During Operation



- Survey conducted by trained bilingual community residents
- Questions on: environment, health, neighborhood & recommendations for decision-makers
- Resident input on survey
- Preliminary results discussed at community meetings



70%

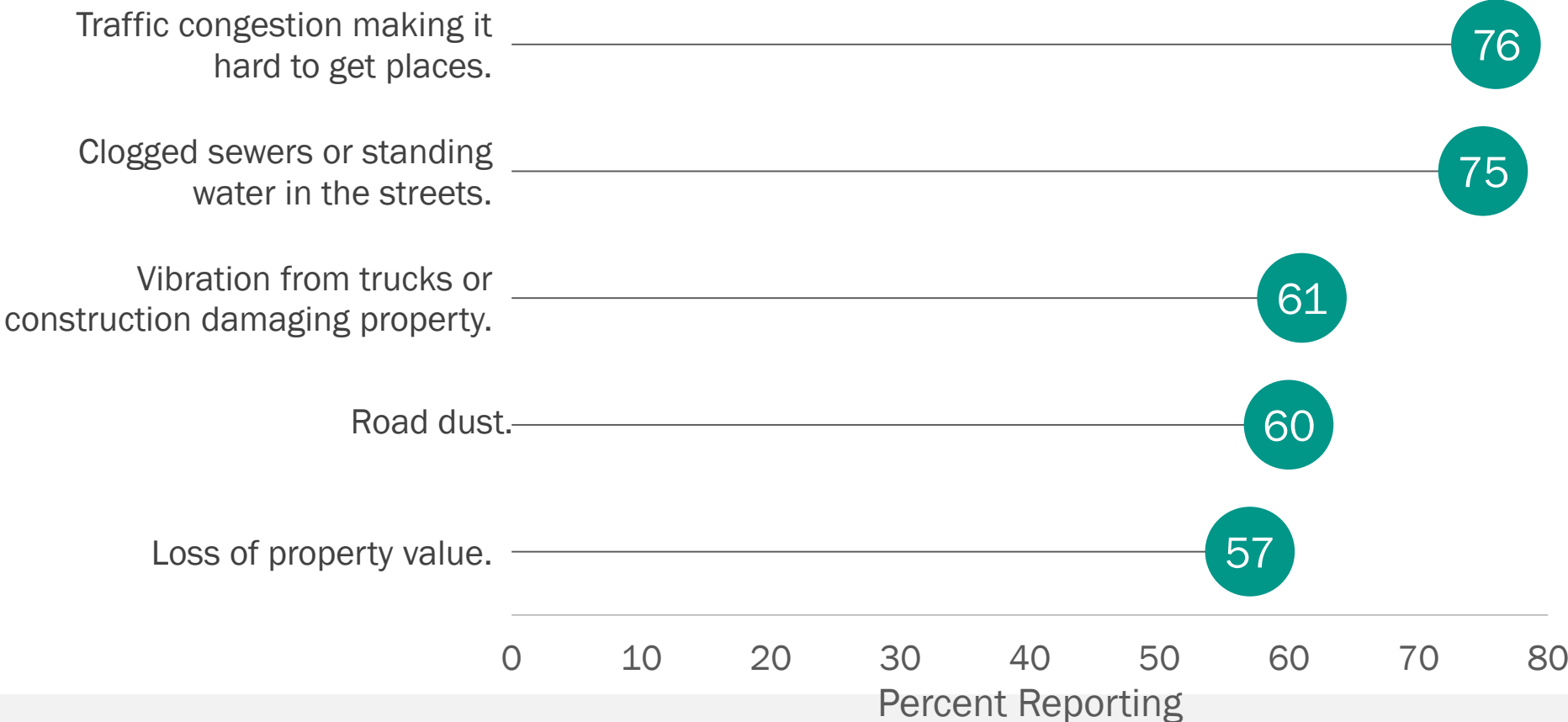
felt their
neighborhood was a
good place to live

66%

Indicated
outdoor air
quality was a
top concern

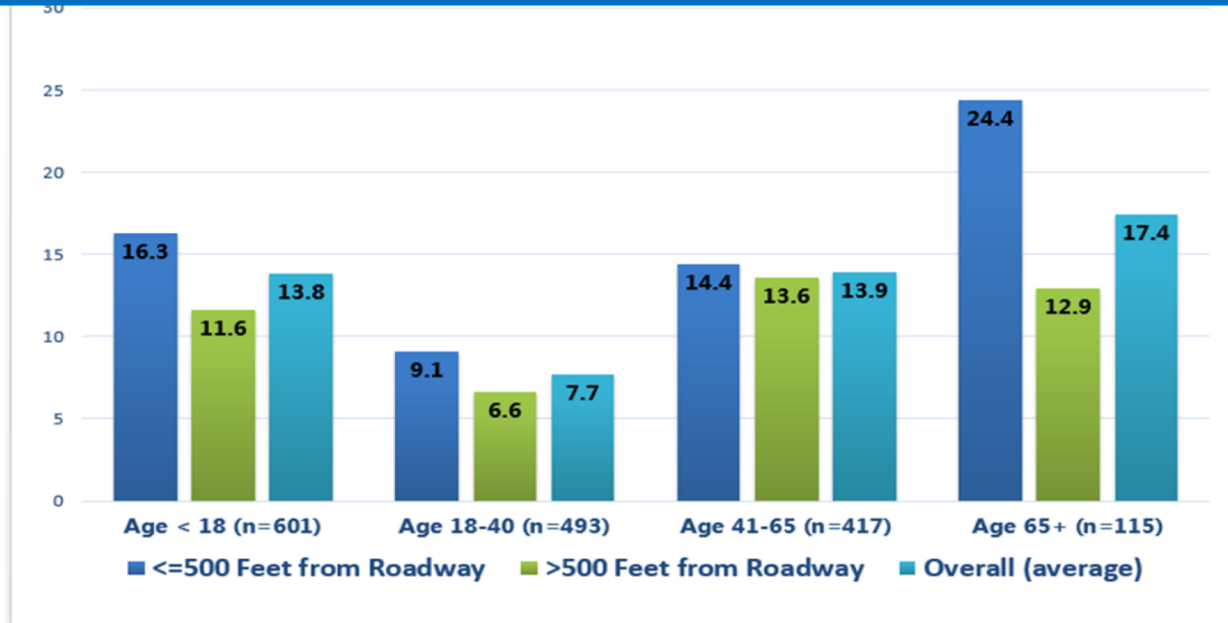


Other resident concerns



Self-reported asthma was greater for those residing near heavily trafficked roadways in all age groups.

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



Among children in our sample living ≤ 500 feet from heavily trafficked roads, **16.3%** reported to have asthma.

In U.S., estimated child asthma prevalence is **8.4%***

* 2017 National Health Interview Survey

HIA Recommendations (selected)

- Enforce anti-idling ordinance
- Move truck routes
- Spatial & vegetative buffers
- Extend home mitigation - filters, windows, relocation

BASELINE HEALTH
IMPACT ASSESSMENT
FOR THE
GORDIE HOWE
INTERNATIONAL BRIDGE
PROJECT

FULL REPORT
Health Impact Assessment
April 2019



Takeaways



- Connecting community benefits and HIAs
- Challenges and opportunities of diverse partnerships

Thank you.
Questions?

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Support for the GHIB HIA comes from:



**MICHIGAN HEALTH
ENDOWMENT FUND**



Fred A. and Barbara M.
Erb Family Foundation