



Eastside Environmental Health Survey Summary of Findings July 26, 2019

Based on community concerns about environmental health in our community, and in particular concerns about air pollution and health impacts of increased emissions from the expansion of the Fiat Chrysler Automotive (FCA), a community survey was conducted to gather information about community concerns and conditions regarding environmental health.

Surveys were completed using a combination of methods, including door to door canvassing, phone calling, distributing paper surveys to local community organizations, and surveying residents at a local grocery store. In total 161 surveys were completed. Respondents included residents of the following zip codes: 48213, 48214, 48215, 48224, which includes the FCA impact zone.

KEY FINDINGS:

Health Concerns

- 28% of respondents indicated that 1 or more person in their household has asthma.
- 57% of respondents have 1 or more person in the household with allergies
- 53% have 1 or more person in the household with respiratory illnesses such as sinus or frequent colds.

Indoor Air Quality

- 37% of households surveyed have no central air conditioning or window air conditioner.
- Of those households with some form of air conditioning, two-thirds have a window air conditioning unit.
- 73% have no air filter or air purifier in their home.

Outdoor Air Quality

- Only 37% of residents described their air quality as “good”. 42% described their air quality as “not good” or “poor”. 20 % responded “I don’t notice.”
- When respondents who described their air quality as “not good” or “poor” were asked what they thought would improve air quality, responses included “less dust and trucks from FCA,” “pollution from factories,” “fumes from factories,” “same smell in the neighborhood from past 30 years,” “close the plant or factory,” “remove factories,” “reduce truck traffic,” “provide clean air through monitoring factories” and “plant more flowers.”

Previous research which has shown high asthma rates in the City of Detroit. A 2016 Michigan Department of Community Health report found that during 2012-2014, 15.5% of Detroit adults had asthma, compared with 11.0% of Michigan adults.¹ The report also showed that 3 of the 4 eastside Detroit zip codes included in our survey (48213, 48214, 48215) were among the zipcodes with the highest asthma hospitalization rates in the City of Detroit.

Asthma, allergies and other respiratory illnesses may be caused by, or exacerbated by exposure to air pollutants. The finding of 28% of households having one or more persons with asthma indicates a vulnerable population for impacts of air pollution from emissions from Fiat Chrysler Automotive Mack Avenue Plant. The plant has been permitted for a significant increase in emissions of volatile organic compounds (VOCs).

VOCs can cause irritation of the eyes, nose and throat, as well as difficulty breathing and nausea. They can also damage the nervous system and other organs.² In the air, VOCs can react with nitrogen oxides, to produce ozone pollution, also known as smog. Ozone is associated with premature death, cardiovascular disease, respiratory illness, including increased hospitalization for asthma. Increasing evidence indicates that exposure to ozone may harm newborns; research has linked ozone levels to lower birth weight and decreased lung function. People with existing respiratory illnesses such as asthma and COPD, are particularly vulnerable to the health effects of ozone³

The large number of homes with no air conditioning indicates that many homes will have open windows in the summer, increasing resident's exposure to outdoor air pollution.

Portable air cleaners, also known as air purifiers or air sanitizers, are designed to filter the air in a single room or area. Central furnace or HVAC filters are designed to filter air throughout a home, and can reduce indoor air pollution; however, they cannot remove all pollutants from the air.⁴ Only 40% of households surveyed have central air conditioning; the majority of respondents do not have any air filter or air purifier in their home that could filter for indoor or outdoor air pollutants.

¹ Michigan Department of Health and Human Services, Detroit: The Current Status of the Asthma Burden, March 2016, https://www.michigan.gov/documents/mdhhs/Detroit-AsthmaBurden_516668_7.pdf .

² American Lung Association, VOCs can Harm Health, <https://www.lung.org/our-initiatives/healthy-air/indoor/indoor-air-pollutants/volatile-organic-compounds.htm>

³ American Lung Association, Who is at Risk from Breathing Ozone? <https://www.lung.org/our-initiatives/healthy-air/outdoor/air-pollution/ozone.html>

⁴ USEPA, Air Cleaners and Air Filters in the Home: <https://www.epa.gov/indoor-air-quality-iaq/air-cleaners-and-air-filters-home>

Taken with the findings of previous research, the survey findings indicate that the community can be considered vulnerable to negative health impacts of increased pollution, as evidenced by high rates of asthma and asthma hospitalization, and significant numbers of homes with no air conditioning. In addition, the majority of residents surveyed think their air quality is not good, citing trucks, factories, and FCA specifically, as concerns.

Recommended action/request of FCA:

1. Air quality monitoring at settings with vulnerable populations– Head Starts, K-12 schools (especially elementary schools), and senior resident buildings, in addition to monitors on the facility’s property. Prior to submitting the plan to EGLE, the locations for air quality monitoring stations should be determined with community support and buy-in through community engagement process.
2. Air filtration systems within settings with vulnerable populations– Head Starts, K-12 schools (especially elementary schools), and senior resident buildings and ensuring that these are maintained over time. The locations for air filtration systems should be determined with community support and buy-in through community engagement process.
3. Developing and supporting a community health fund. FCA should utilize the City of Detroit’s environmental health fund to house those funds. **\$5 million from FCA to support this fund is requested.**
4. Vegetative buffers - These can make an impact on pollution concentrations from emissions from the facility as well as trucks on the roads. We are not certain that the direct and immediate benefit to indoor air quality, where children spend most of their time, will be as advantageous as the two listed above.
5. Regular community meetings in partnership with local and environmental organizations, to give updates on the emissions data from the air monitors, take feedback, and engage with the community on environmental and public health issues on a quarterly or bimonthly basis.