



mi air mi health

AIR QUALITY AND HEALTH

IN MICHIGAN

Michigan is one of the worst states in the country when it comes to diseases linked to air quality. Air pollution puts the health of Michigan children, families, and seniors at risk. We cannot afford to continue to rely on coal and other dirty sources of energy that pollute our air. The health of all Michiganders - but particularly our most vulnerable populations - depends on it.

ASTHMA

In 2014, 10.9% of Michigan adults reported currently having asthma. In comparison to the rest of the United States, Michigan's **adult asthma rate was the 7th highest in the nation.**¹ Michigan's asthma burden is not equally distributed among our population; Asthma deaths in Michigan among Black people occur at a rate 3.2 times that of White people, and adults living in low income areas are hospitalized for asthma 4.2 times as often as adults living in high income areas.²

CANCER

In 2013, the International Agency for Research on Cancer (IARC) declared air pollution and particulate matter (PM_{2.5}) both carcinogenic, meaning that they cause cancer.⁷ Exposure to air pollution had been shown to cause lung cancer and increase your risk for bladder cancer.⁸ Michigan's lung cancer rate of 62.4 per 100,000 residents is **worse than 28 other states.**⁹

STROKE

Emerging data suggests a strong link between poor air quality and stroke; Almost 30% of the global stroke burden was attributable to air pollution, which is nearly as much as that attributed to smoking.⁶

CARDIOVASCULAR DISEASE

Michigan has the **8th highest number of heart disease deaths per 100,000 people** in comparison to the rest of the nation.³ In 2015, more than 25% of all deaths in Michigan were attributable to heart disease and stroke.⁴

COPD

Afflicting 8.1% of Michiganders, our state has the **7th highest prevalence** of COPD.⁵

DIABETES

As of 2015, 10.7% of adults, ages 18 years and older, have been diagnosed with diabetes in Michigan.¹⁰ Michigan is ranked **18th in the nation** for adults with diabetes.¹¹

Outdoor air pollution has been shown to cause or exacerbate the following conditions:

- Respiratory diseases such as asthma and COPD
- Cardiovascular disease and stroke
- Lung and bladder cancers
- Type II diabetes
- Cognitive and developmental disorders, such as autism and dementia

A Healthier and Cleaner Future is Possible

We need policies that put Michigan on track to be an industry leader in clean energy, create jobs, and give us healthier air. Transitioning to clean energy sources and being more energy efficient will improve health, lower health care costs, and save lives.

Here are two ways we can get there:

1. Tell your Michigan legislators that we can and should think of ways to increase the amount of renewable energy and energy efficiency we use in our state. After all, our energy policy can protect our health.
2. Engage with the MPSC during public comment periods to ensure:
 - Protecting Michigan's public health is a priority;
 - Michigan's utilities are maximizing all economically feasible energy efficiency opportunities; and
 - Diversifying Michigan's use of clean energy as an alternative to power generation that relies too heavily on a volatile fossil fuel market.



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The MI Air MI Health Coalition works to ensure that all Michigan communities have clean, healthy air. We organize health professionals to advocate for policies that improve outdoor air quality, improve a range of health impacts caused by unhealthy outdoor air and climate change, and reduce the healthcare costs we bear because of unhealthy outdoor air.

The learn more, visit
miairmihealth.org

AUTISM SPECTRUM DISORDER (ASD)

The Michigan Department of Education reported in the 2016-2017 school year that approximately 19,602 Michigan children were receiving services for autism spectrum disorder.¹² Recent research suggests that pregnant women exposed to particulate matter (PM_{2.5}) - particularly during the third trimester - are at an increased odds of having a child with ASD.¹³

DEMENTIA & ALZHEIMER'S

Michigan is at particular risk due to an aging population. A growing body of research suggests that exposure to air pollutants, specifically PM_{2.5}, harms the brain by accelerating cognitive aging and may also increase the risk of Alzheimer's disease and other forms of dementia.¹⁴

¹ https://www.cdc.gov/asthma/most_recent_data_states.htm

² http://www.michigan.gov/documents/mdhhs/DisparitiesMichiganAsthmaBurden_516685_7.pdf

³ <http://kff.org/state-category/health-status/heart-disease/>

⁴ http://www.michigan.gov/documents/mdch/CVH_fact_sheet_update_Final_3.4.15__483077_7.pdf

⁵ <http://www.lung.org/lung-health-and-diseases/lung-disease-lookup/copd/learn-about-copd/how-serious-is-copd.html>

⁶ [http://www.thelancet.com/journals/lanour/article/PIIS1474-4422\(16\)30073-4/fulltext](http://www.thelancet.com/journals/lanour/article/PIIS1474-4422(16)30073-4/fulltext)

⁷ <http://www.iarc.fr/en/publications/books/sp161/AirPollutionandCancer161.pdf>

⁸ <https://www.cancer.org/latest-news/world-health-organization-outdoor-air-pollution-causes-cancer.html>

⁹ <https://www.cdc.gov/cancer/lung/statistics/state.htm>

^{10, 11} <http://stateofobesity.org/diabetes/>

¹² <http://www.michigan.gov/autism/0,4848,7-294-63677---,00.html>

¹³ <https://www.ncbi.nlm.nih.gov/pubmed/25522338>

¹⁴ <http://www.sciencemag.org/news/2017/01/brain-pollution-evidence-builds-dirty-air-causes-alzheimer-s-dementia>



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