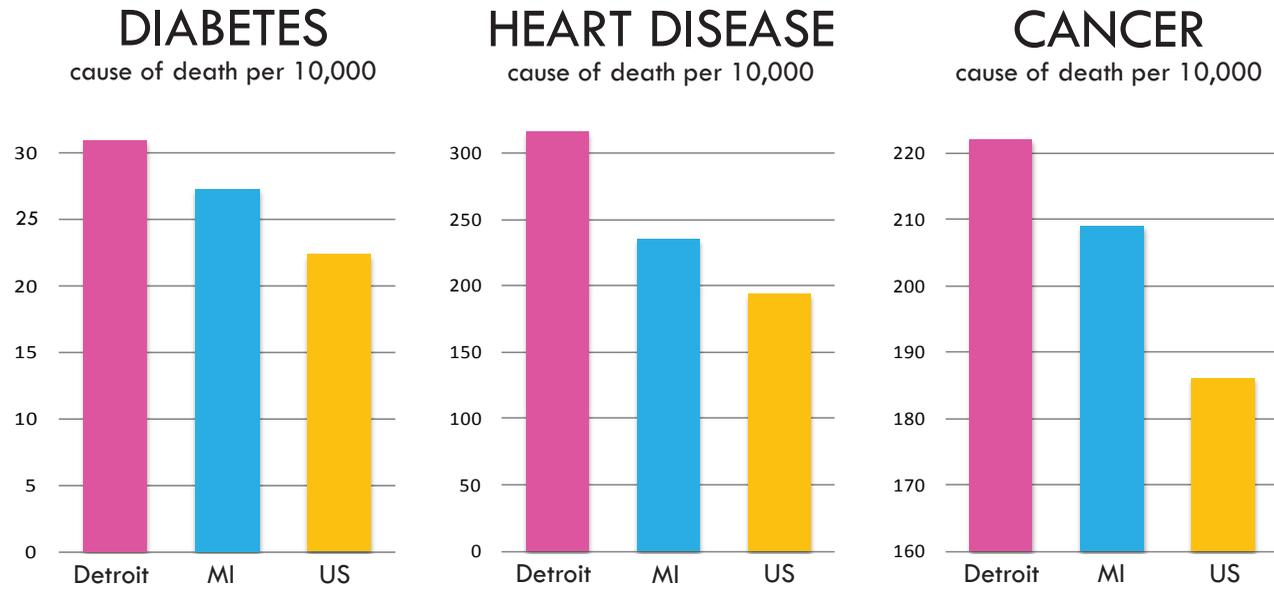


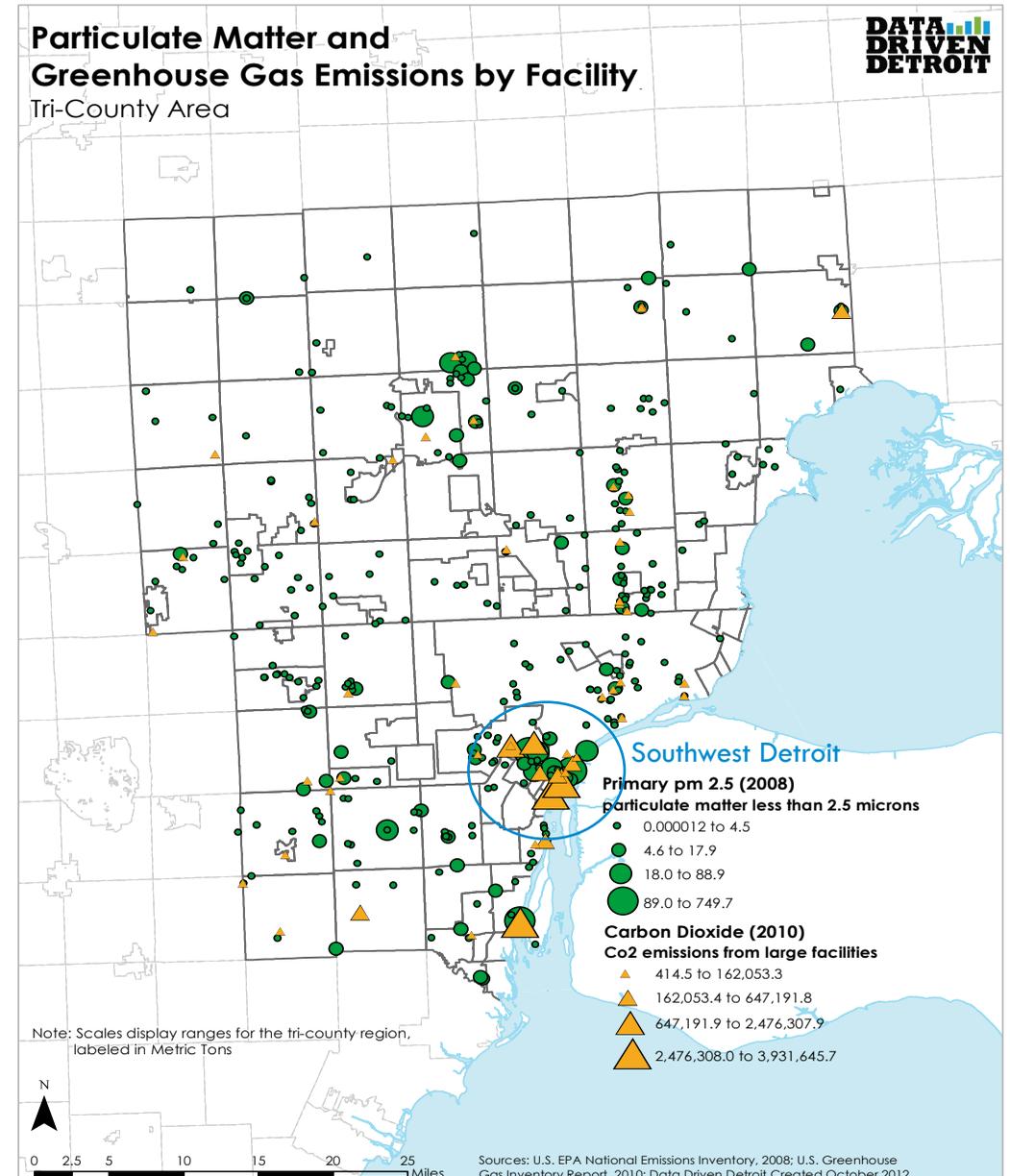
# ENVIRONMENT & PUBLIC HEALTH



Heart disease, cancer and diabetes are bigger causes of death in Detroit than they are statewide or nationally.

Source: Center for Disease Control, 2010

Health starts where we live, learn, work, and play. We know that race and income contribute to health disparities, but it works the other way, too. Poor health can impair educational attainment and job opportunities. While gender, genetics, and access to health care play a contributing role in a person's health, socioeconomic status and environmental conditions are key factors. For example, Detroit's child asthma and lead poisoning rates are several times higher than the state or national rates. Asthma is a leading chronic cause of missed days for students and workers. Even low levels of lead poisoning in children have been shown in multiple studies to lower IQs, increase aggression and ADHD, and are linked to juvenile delinquency. Air pollution called PM2.5 (which comes from vehicles, power plants, and other combustion activity) has been linked with mortality and heart problems. While we can take individual actions to reduce these health risks, it is our policy-makers' responsibility to make and enforce regulations that protect air, water, and land quality.



# Before you eat that fish...

The Detroit River, along with 42 other waterways in the Great Lakes, is considered an “Area of Concern.” Industrial pollutants such as mercury, PCBs, and dioxins land in our waterways and are absorbed by fish. When people eat the fish, they absorb the toxins in the fish; therefore, we now have restrictions on fish and wildlife consumption.

Mercury, which comes from coal-burning power plants and other industrial processes, damages the brain and nerves, especially in a fetus or a young child. Pregnant women, nursing mothers, young children, and women who may become pregnant should avoid eating fish high in mercury. PCBs are now banned in the U.S. for their toxicity, but remain in our environment, and cancer-causing dioxins come from diesel combustion and incineration.

Yellow perch and bluegill are the lowest in chemicals and safest to eat. Catfish and carp, which feed off the bottom where most of the chemicals are found, have more chemicals in their bodies than any other fish in the Detroit River—those fish, and whitefish larger than 22 inches, are not safe to eat.

After surveying 115 and interviewing 78 anglers along the Detroit River, a 2008 UM master’s project found that only 53% were aware of correct fish advisory content (see graphic right); 48.7% reported awareness but had incorrect or no information about the advisory. It also found that older Detroiters perceived the River to be of higher water quality and were more likely to take home fish to eat. (Source: Kalkirtz, Martinez, & Teague. “Environmental Justice and Fish Consumption Advisories on the Detroit River Area of Concern.” UM School of Natural Resources and Environment 2008)

## 1 Choose

### Going fishing?

Use the picture below to choose fish to catch that are generally safer for you and your family to eat. Be sure to check the *Michigan Fish Advisory* to find details about the lakes and rivers where you’re fishing.

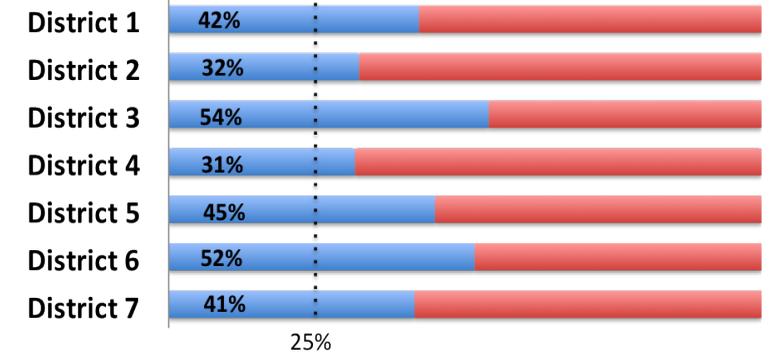
**These fish are lower in chemicals, and are better to eat.**

		
	Yellow Perch	Bluegill
		
	Rock Bass	Crappie
		
	Coho Salmon	Chinook Salmon
		
	Walleye	Northern Pike
		
	White (Silver) Bass	Largemouth or Smallmouth Bass
		
	Rainbow Trout (or Steelhead)	Brown Trout
		
	Lake Trout	Whitefish
		
Catfish	Carp	

**These fish are higher in chemicals.**

http://www.miseagrants.umich.edu/downloads/fisheries/detroitriver/Brochure-Eat-Safe-Fish-in-the-Detroit-Area.pdf

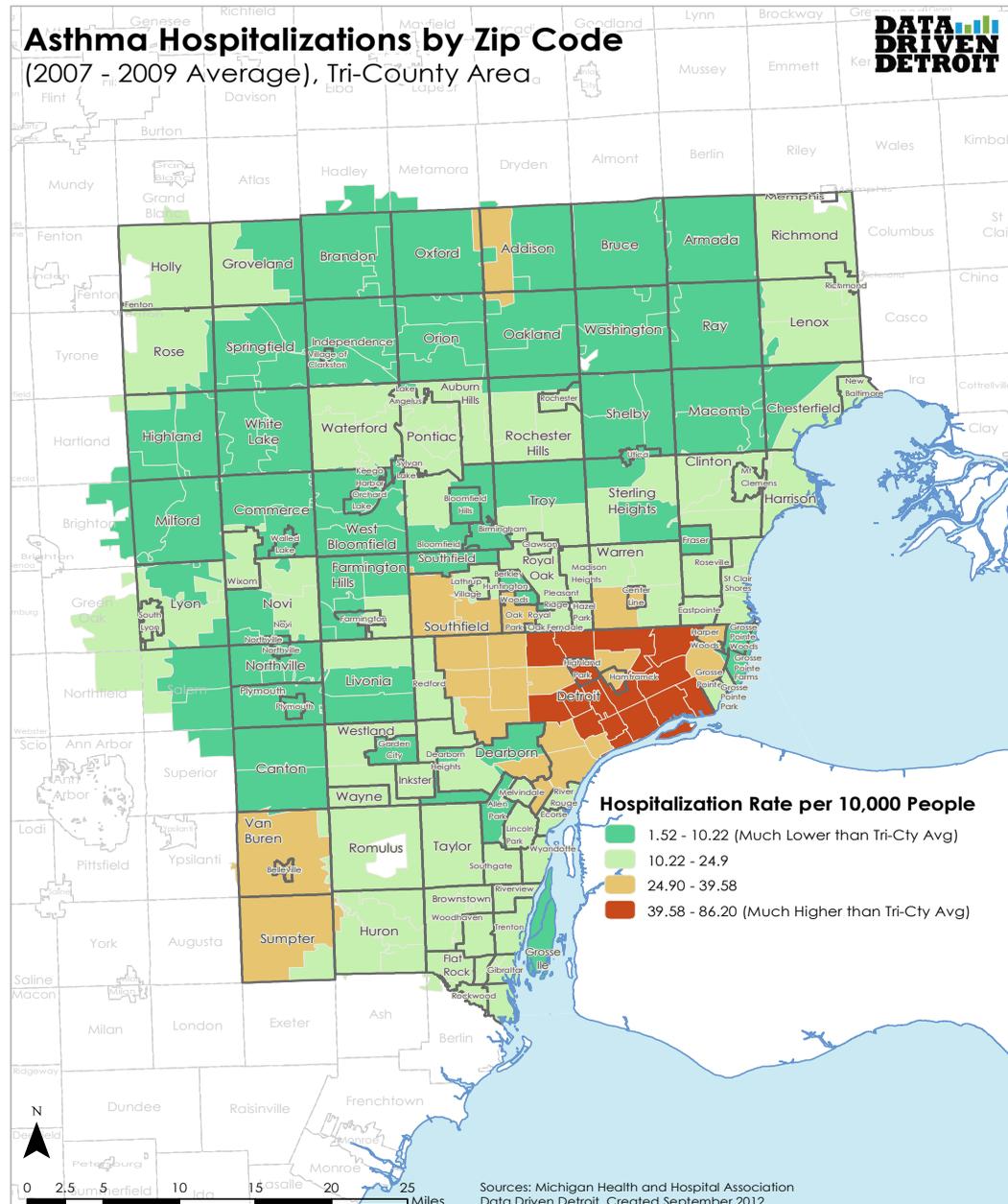
### Contaminated Fish



Although lack of clarity in the question may have contributed to the survey’s highest percentage of “I don’t know” responses (32% overall), over 1/4 of survey respondents in all 7 districts were unsure of the seriousness of contaminated fish.

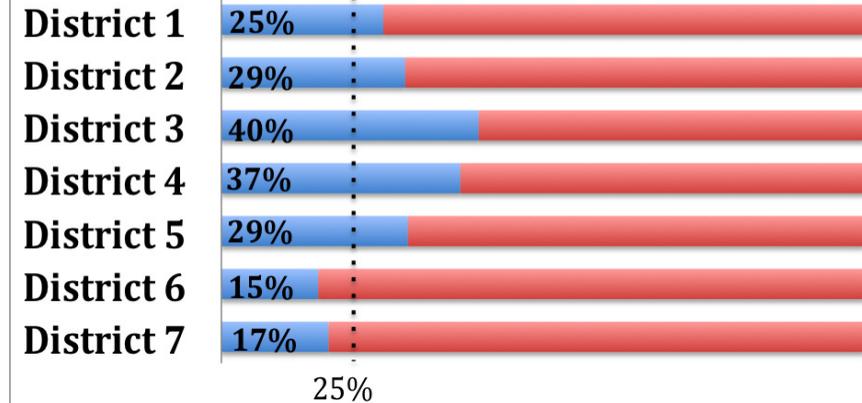
**For more information about fish safety, request a free copy of the Eat Safe Fish Guide from the Michigan Department of Community Health (800-648-6942).**

# ENVIRONMENT & PUBLIC HEALTH



**DATA DRIVEN DETROIT**

## Asthma



In every district but District 6 and District 7, which identified asthma as a top 10 environmental problem, more than a quarter of survey respondents did not know the seriousness of asthma in their neighborhood.

The tri-county Asthma Hospitalizations by Zip Code map to the left shows that asthma rates are significantly higher in Detroit compared to the rest of the region, and the areas of highest rates cover nearly all of Districts 3 and 5. District 6 may not show up as high in hospitalizations if the population there does not go to the hospital for asthma attacks.

2011 Michigan Behavior Risk Factor Survey data below show that Detroit's adult asthma rates are much higher than the state rate. The Michigan Department of Community Health is currently in the process of updating the 2010 report on "Detroit, the Epicenter of the Asthma Burden," which will include child asthma prevalence.

Adults who were ever told they had asthma	Adults who currently have asthma
City of Detroit: 22%	City of Detroit: 17%
Michigan: 15%	Michigan: 10%

## AIR POLLUTION FROM FACILITIES

Detroit is home to 55 facilities that have to get special state permission to operate because of their air emissions (2008 National Emissions Inventory). Two of them are considered “high priority violators,” including Marathon Oil Refinery, which was approved for a 20-year \$176 million tax exemption and \$10 million in brownfield tax credits by our local elected officials.

Exposure to these air toxins affect developmental, cardiovascular, respiratory, and neurological health, contributing to Detroit’s high rates of cancer, asthma, and heart disease.

A University of Michigan study analyzed all reported chemical air emissions for their toxicity to human health and nearby exposures to those chemicals. Their study found that Detroit is home to five of the top 25 most polluted zip codes in the state, including 48217 at #1.

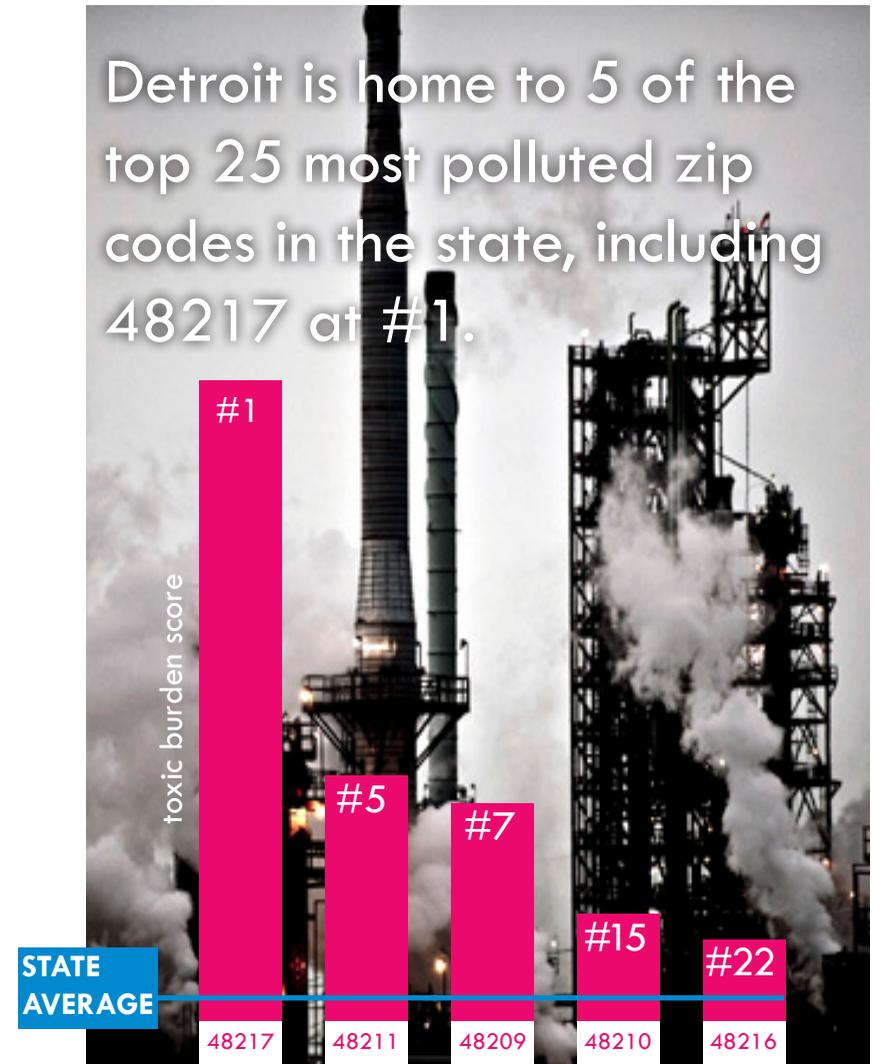
**48217 had a toxic burden score of 2576, which is 46x the state average.**

While State and Federal authorities have jurisdiction over air permits, the City can play a role in improving air quality by thinking about land use and zoning. We can decide how much land to dedicate towards land uses that involve heavy air (and other) pollution, and what kinds of mitigation measures such as minimum distances and visual, noise, and pollution buffers will be required in order to protect nearby residential areas.

According to EJView, the Environmental Protection Agency’s interactive, online mapping tool, Detroit is in “nonattainment areas” for ozone and fine particulate matter. That means Detroit’s air quality does not meet EPA standards for those two pollutants.

## AIR POLLUTION FROM TRUCKS

Diesel emissions are a likely carcinogenic, worsen asthma attacks, exacerbate allergies, and contribute to ground-level ozone. Because of Detroit’s importance as an international port, we have tens of thousands of trucks daily on our major corridors, with 70–90,000 trucks daily on I-75, I-94, I-96, 7 Mile, and M39. Michigan only regulates truck routes to protect pavement, not public health. Detroit does not have a local ordinance designating truck routes, but does have a local ordinance that prohibits trucks from driving through areas with posted signs. New diesel vehicles (post-2007 EPA standards) are 90% cleaner than older models.



Database: Detroit Free Press “Toxic ZIP code rankings.”  
Data source: University of Michigan professors Paul Mohai, Byoung-Suk Kweon, Sangyun Lee, Kerry Ard; Environmental Protection Agency