CREATING A HEALTHY DETROIT:

UNDERSTANDING HOW THE SYSTEMS
WE LIVE IN IMPACT OUR HEALTH

NEW DETROIT
A RACIAL JUSTICE ORGANIZATION

DETROIT FUTURE CITY

Acknowledgements

United Way
for Southeastern Michigan

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Introduction

Addressing community health is essential for creating a thriving and resilient Detroit where everyone can prosper. From neighborhoods, to schools, to workplaces, our environments shape us and lay the foundation for community health. Yet all too often, place and race have a profound impact on residents. A person's income and ability to access clean air, healthy food, good jobs, and affordable and safe housing, along with many other factors, deeply influence individual and community health outcomes. Access to these critical resources and choices is not universal, as systemic inequities, historical injustices, and individual decisions shape health outcomes differently across communities.

Many factors impact the health of Detroiters, resulting in disparities in health outcomes in the region, both by place and race. Two common indicators of overall community health are life expectancy and infant mortality.

As of 2021, Detroiters had a life expectancy at birth of 69 years, which is four years lower than that of Wayne County (73) and seven years less than the state and national average of 76.[i] Disparities exist by race, as well. Black Detroiters have a lower life expectancy than white Detroiters—68 years versus 76.[ii]

In 2022, 14 out of 1,000 babies in Detroit died before their first birthday - more than twice the rate for the state.[iii] Despite some progress, Detroit had the highest infant mortality rate in the country among the 50 most populous cities.[iv]

Race and where someone lives should not be the decisive factors that determine someone's overall health or the health care that they receive. Detroiters should not be dying prematurely because they are discriminated against and systematically denied conditions that are critical to their health. **In a thriving Detroit, the humanity and health of all Detroiters would be valued, and Detroiters would have the opportunity to fairly and fully meet their health needs.**
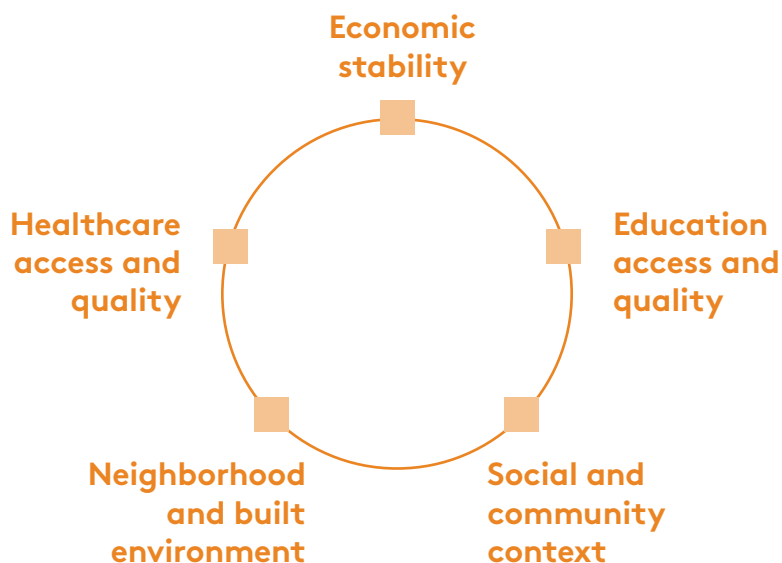
This brief explores five factors specific to Detroit that are impacting the health and well-being of Detroiters. It aims to provide insights to philanthropy, policy makers, nonprofits, and public and private sector leaders to inform decision-making and strategy development to improve public health and create a healthy future for all Detroiters.

How place and policy shape health

When people think of the causes of health, they often think of just the aspects that are medical, such as the clinical treatment people receive at medical centers and pre-existing biological characteristics. They may also think of the individual choices people make around their health. But the many environments people are in, and the systems surrounding them, play a significant role in shaping health. Thinking about the ways in which systems shape communities, and in turn, health outcomes, can reveal key insights about Detroit's public health challenges.

These non-medical determinants are called "social determinants of health" (SDOH). **SDOH refer to the conditions in which people live that ultimately affect their well-being.** For example, a determinant like poor air quality due to living next to a highway can lead to developing asthma. Lack of income can affect access to safe and affordable housing and ultimately result in exposure to lead paint in older homes.

Though there are a variety of factors that create the foundation for good health, one common way to group social determinants of health is by topic/issue area. For instance, one way is to use the five categories identified by the Office of Disease Prevention and Health Promotion's Healthy People 2030 program in the graphic below.[v]

Economic stability

Education access and quality

Social and community context

Neighborhood and built environment

Healthcare access and quality

Social determinants of health can be **systemic**. For example, the ways in which a country thinks about and ultimately produces housing is a complex system with a set of cultural norms that influence housing cost and availability for all. More narrowly, there are social determinants that take shape at a **community (neighborhood/geographic)** level. One example of this could be the physical environment of a neighborhood, where proximity to highways may cause some neighborhoods to experience more air pollution than others. Finally, there are individual choices that are influenced by community and systems. For example, a person's food choices and exercise habits, which help determine their likelihood of developing diabetes or obesity, are influenced by the food available near them and the availability of safe and healthy places to exercise in their community.
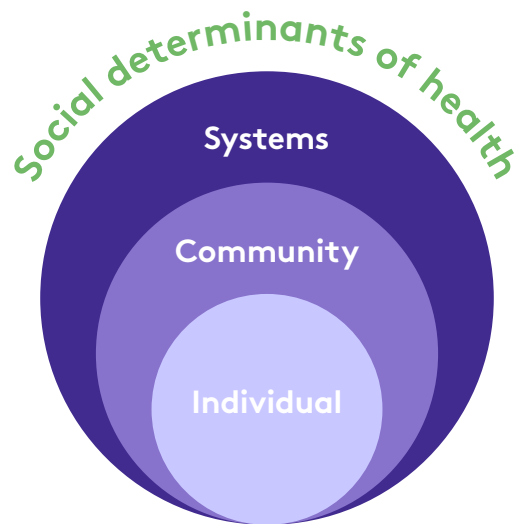
All of these factors don't exist in isolation, rather they intersect and collectively create a complex web that influences community health outcomes. Any effort to improve negative health outcomes can only succeed to the extent that it addresses the causes or determinants responsible.

The role of systemic racism

One of the overarching drivers of health outcomes in the United States is systemic racism. For decades, researchers have tracked and measured disparate health outcomes between white and Black and Brown Americans. Though this research has been presented and much discussed in public health and adjacent academic communities, the wider public recognition of the health impacts of racism is relatively recent. Spurred forward by the COVID-19 pandemic, as well as the public demonstration of police violence that occurred during the killing of George Floyd in 2020, and others, the state of Michigan, and many other states and municipalities, declared racism to be a public health crisis.

This declaration was a public affirmation of what researchers have known for years: Someone's race is a significant determinant of the length and quality of their life. The Social determinants of health framework is critical because it ties socioeconomic factors and race to health outcomes. One clear example of the linkage between health and race can be seen through measurable impacts of segregation. Segregation and discrimination have had well-documented impacts on the availability of quality medical care,[vi] quality of schools, access to healthy food, and more.[vii] In many research studies, high degrees of segregation have been linked to worse health outcomes for residents, particularly related to maternal health and obesity.[viii, ix]

This is of particular significance in a region like Metro Detroit. A 2021 study found that Metro Detroit is one of the 10 most segregated metropolitan areas in the country.[x] That is to say, Detroiters' health has been negatively affected by living in a segregated community. Further, segregation is just one manifestation of racism; Black and Brown Detroiters have been subject to all matters of discriminatory policies and programs, such as redlining, racial covenants, over taxation, and major infrastructure projects that decimated historically Black neighborhoods in the mid-20th century, impacting health and wealth.

Faithfully working to dismantle systemic racism across America and in Detroit is critical to an equitable society. St. Louis University's Justice Collaborative Institute summed the issue up by saying, "To achieve racial equity—to achieve, that is, a new reality where race can no longer predict life outcomes and where outcomes for all groups are improved—governments must dismantle the system of racism".[xi]

Key factors shaping health in Detroit

This section will focus on five critical issues that must be solved for when strategizing ways to improve the health outcomes of Detroiters.[1] These determinants were selected utilizing the available academic literature on social determinants of health, past research that has specifically looked at the topic of health in Detroit, and a small number of interviews with health care providers and public health experts in Detroit. Where possible, data will be disaggregated by race in order to show how different racial groups in Detroit are experiencing each determinant of health. Though these five examples are being presented as separate, they are deeply related and influenced by larger factors, such as systemic racism wrought through political and economic systems.

Income & poverty	Employment & healthcare	Environmental factors

Access to transportation	Housing stability /affordability

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[1] There are many more social determinants of health than the five presented in this brief.

INCOME & POVERTY

How income and poverty impact health

Income is a crucial social determinant of health. A variety of studies over the last 25 years have demonstrated that individuals earning lower incomes, especially those living below the poverty line, experience worse mental and physical health outcomes.[xii, xiii, xiv] Navigating persistent low income/poverty connects with health in several ways, including the stress brought on by consistent low income, the inability to afford transportation and healthy food, challenges of obtaining healthy and safe housing, and the inability to access adequate quality medical care or manage health conditions.

What this looks like in Detroit

■ Median income

There is a significant wealth gap between Detroit and Metro Detroit. The median household income in Detroit in 2022 was $36,453, compared to $71,265 for the region.[xv] Deep disparities also exist by race. Black and Latino/Hispanic Detroiters in 2022 had median household incomes at least $10,000 below those of white Detroiters.

Black Detroiters have significantly lower median household incomes than white Detroiters.

Median household income adjusted for inflation (2022$), Detroit, by race, 2010 - 2022
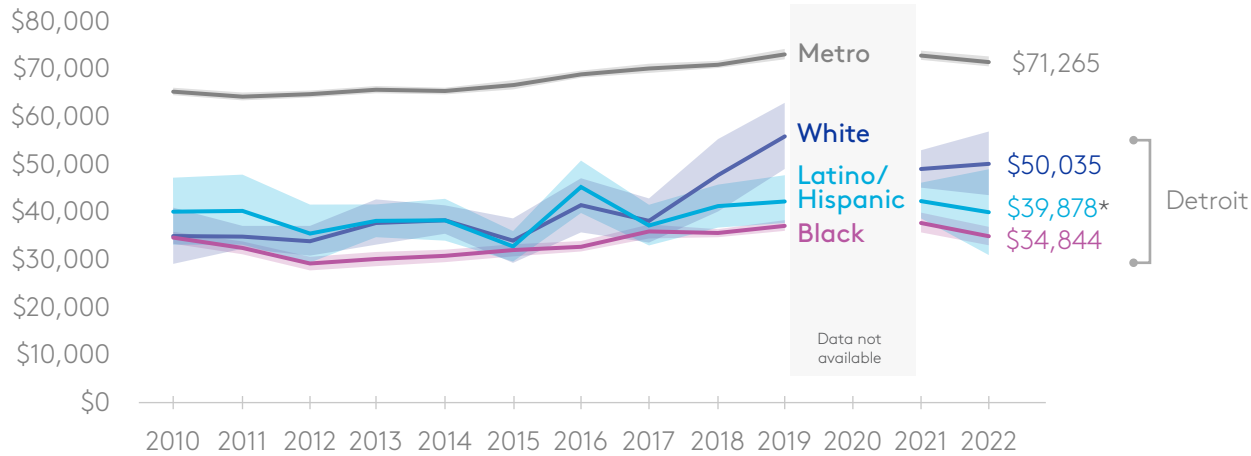
* Not statistically different from Black or white in 2022.

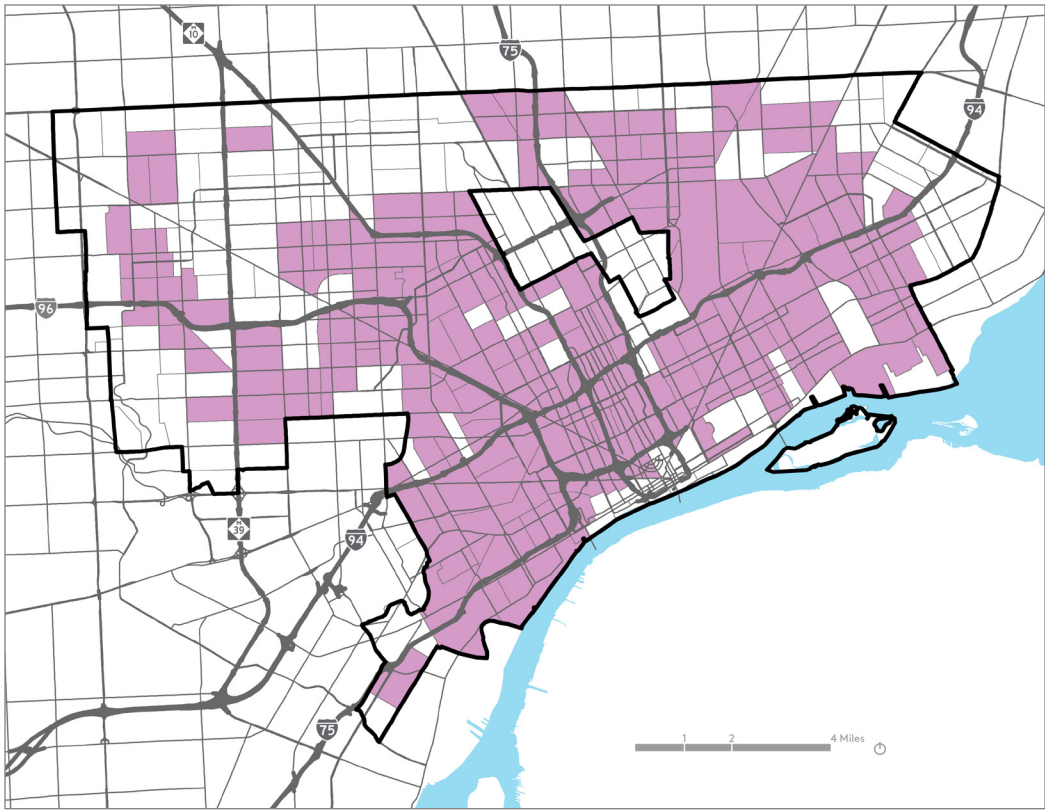Source: American Community Survey, 1-year estimates

■ Concentrated and persistent poverty

Another dimension of income that is important to consider is when there are high concentrations of poverty. A community experiences concentrated poverty when at least 20% of its households live below the federal poverty line. Communities with high rates of poverty, especially if those rates have been elevated for a long time (persistent poverty), often have lower access to crucial resources such as medical care, good schools, and good jobs.[xvi, xvii] Because of this, concentrated poverty can have an increased effect where individuals have to navigate the challenges presented by their low incomes, along with living in a community without access to important resources.[xviii]

The following maps show the concentration of poverty across census tracts in Detroit in 2022. Seventy-six percent of the city's tracts have concentrations of poverty above 20%, and 30% of the city's tracts have concentrations above 40%. Moreover, 53% of Detroiters live in persistent poverty areas, where poverty levels have been at or above 20% for at least three decades.[xix]

Poverty rate (2022)
- Less than 10%
- 10% to 20%
- 20% to 30%
- 30% to 40%
- Greater than 40%
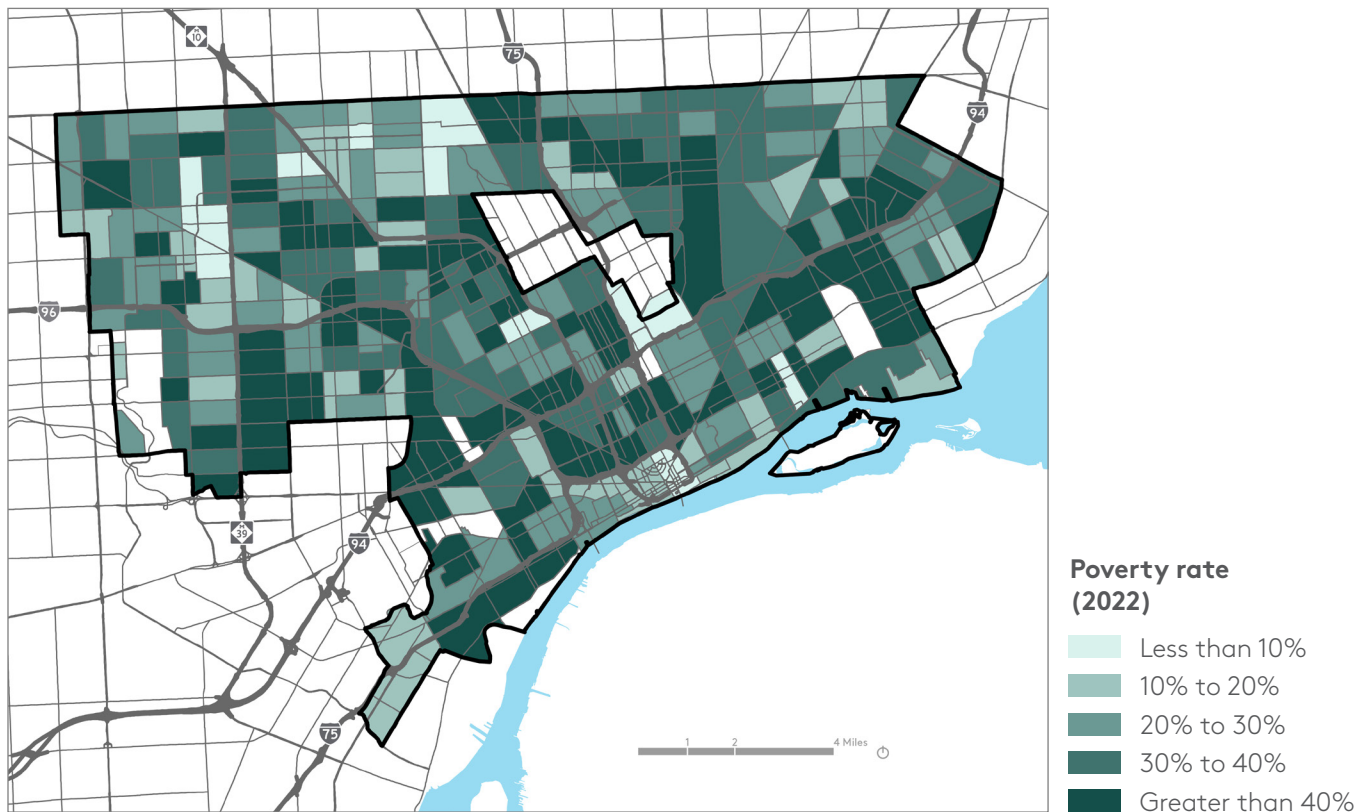
Source: American Community Survey, 5-year estimates

Source: U.S. Census Bureau

**Persistent poverty
(1989 – 2019)**

Persistent poverty

EMPLOYMENT & HEALTH CARE

How employment and health care impact health

A person's employment status affects their health in multiple ways, including its impact on their income, their ability to receive proper health care coverage, as well as the specific working conditions they are exposed to daily. Workplace stressors, such as high demand/pressure roles and poor organizational support, along with unemployment or underemployment have long been associated with negative health outcomes, such as depression, dementia, coronary disease, and higher mortality rates.[xx, xxi, xxii]

What this looks like in Detroit

■ Unemployment

Black Detroiters face several challenges when it comes to obtaining consistent and quality employment. In 2022, the unemployment rate for Black Detroiters was 14%, compared to 10% for Hispanic/Latino Detroiters, and 7% for white residents. Additionally, the labor force participation rate, which measures both those working and those actively seeking jobs, was 10% lower for Black Detroiters than white Detroiters.

Black Detroiters consistently experience higher unemployment rates than other race/ethnicity groups.

Unemployment rate, Detroit, by race, 2019, 2021 and 2022.
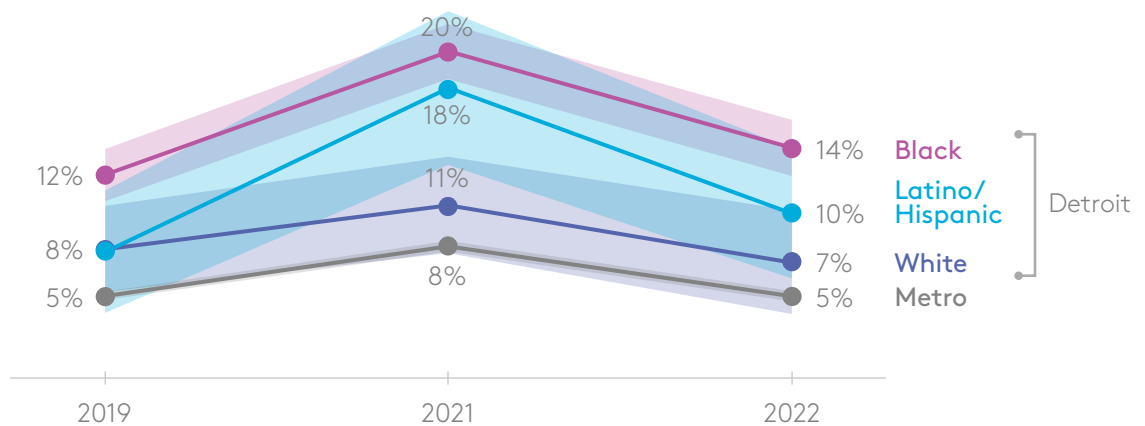
Note: Adjacent values in 2022 are not statistically different, but 2022 Black unemployment rates in Detroit are statistically different from white unemployment rates and the Metro.

Source: American Community Survey, 1-year estimates

■ Middle-wage jobs

Beyond employment status, the types of jobs people are working will also impact their health. Consistent, full-time work that earns a living wage should generally decrease financial stress while increasing access to important resources, such as healthy food and medical care. In 2021, Black Detroiters were significantly less likely than their white peers to hold middle-wage jobs (jobs that are accessible to workers without a bachelor's degree that also pay workers more than the median wage in the region) and were more likely to hold low-wage jobs.

Black workers in Detroit hold fewer middle-wage jobs than other major race groups.
Share of workers holding middle-wage jobs, Detroit, by race, 2021

Detroit — 34%
Black — 26%
White — 38%
Latino/Hispanic — 35%
Other — 34%
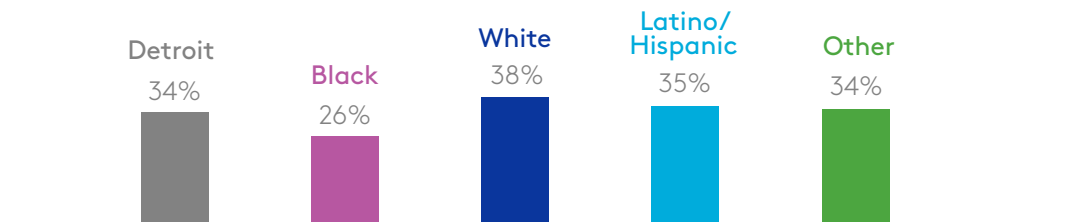
Source: Mass Economics Analysis of QCEW and QWI data, American Community Survey, IPUMS 5-year estimates

◼ Health care

One final dimension of employment to consider is health care. Many people obtain their insurance through an employer, but because of the lower labor force participation in Detroit, it is important to consider how Detroiters are affording medical care. Interestingly, a large majority of Detroiters carry some type of health insurance (93% in 2022). Public health insurance is especially important in Detroit, where 65% of residents carry either Medicare, Medicaid, or VA insurance alone or in combination with other coverage.[xxiii] This is much higher than public health insurance carriage rates for the state of Michigan, at 41%.[xxiv] Hispanic/Latino Detroiters have the lowest rate of health insurance when broken down by race. Though the overall coverage rates are encouraging in Detroit, in 2023, Wayne County (which includes Detroit) residents had a median medical debt in collections amount of $975.[xxv] Other phenomena, such as underinsurance, where someone is still at financial risk due to the cost of health care despite carrying insurance coverage, could be affecting debt and health outcomes.

Though insurance coverage in Detroit is generally high, Latino/Hispanic Detroiters tend to have lower rates of coverage.

Percent insured, Detroit, by race, 2022

◼ Margin of error

Detroit	Black	White	Latino/Hispanic
93%	95%	93%	79%
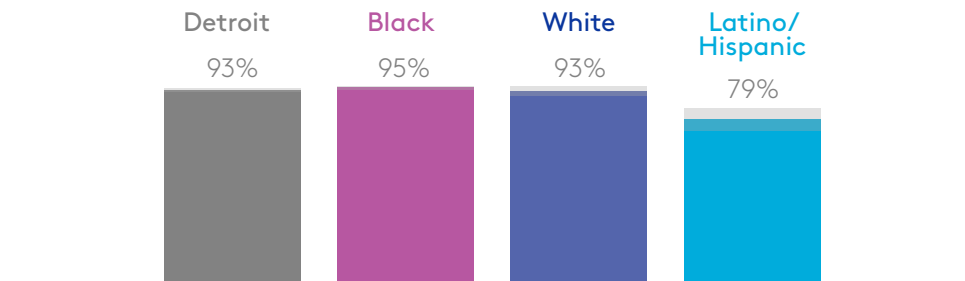
Source: American Community Survey, 1-year estimates
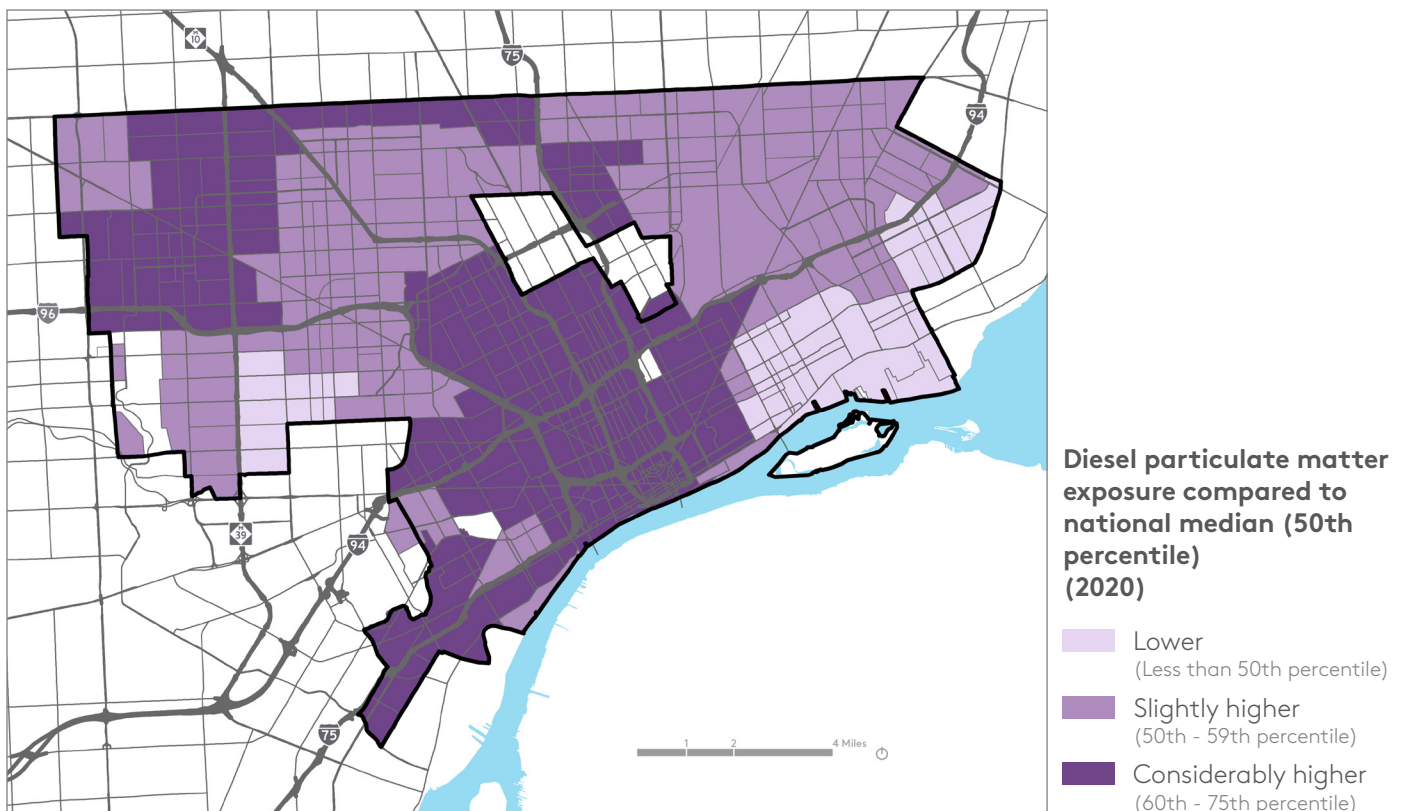
ENVIRONMENTAL FACTORS

How environmental factors impact health

Environmental challenges, especially those related to water and air quality, are also contributing to the health outcomes of Detroiters. The impact and presence of heavy industry in close proximity to residents, aging infrastructure, and pressure from climate change are directly impacting Detroiters' health on a daily basis. Environmental issues, such as air pollution, are linked with negative cardiovascular and pulmonary health outcomes,[xxvi, xxvii, xxviii] while water quality issues can often result in community members ingesting harmful substances such as lead.[xxix]

What this looks like in Detroit

■ Air quality

Ordinarily, a community's poorest residents, as well as racial and ethnic minorities (especially Black residents) experience greater exposure to environmental pollutants.[xxx] There are many ways to measure air quality, one of which is diesel particulate matter, an air pollutant. Diesel particulate matter comes from the exhaust of diesel-burning engines. The map below shows places in Detroit where diesel particulate matter measures lower, slightly higher, or considerably higher than the national median.

Diesel particulate matter exposure compared to national median (50th percentile) (2020)

Lower
(Less than 50th percentile)

Slightly higher
(50th - 59th percentile)

Considerably higher
(60th - 75th percentile)

Source: EPA's EJ Screen

Around 89% of the city's population lives in an area with diesel particulate matter exposure at or above the national median. A key reason for the high exposure across the city is the presence of heavy industry and truck traffic in close proximity to residential areas. One of the areas where diesel particulate matter measures considerably higher than the national median is in southwest Detroit, where there is a heavy presence of industry, especially truck traffic. Southwest Detroit also has the city's largest concentration of Latino/Hispanic residents. Other areas of Detroit, such as the east side, face environmental air pollutants from proximity to industrial plants and other uses.

■ Lead

Another environmental challenge in Detroit revolves around lead exposure through housing structures. Due to the older age of Detroit's housing stock, many houses in the city were built before 1978, when the use of lead-based paint and other products in housing was banned. Unfortunately, there are no complete data sets available that address housing quality. However a study done in November 2023 found through predictive modeling that 11.5% of residential parcels with a structure had a 70% chance of having a lead hazard.[xxxi] In the absence of a complete lead hazard survey/data set, housing age is often used as a proxy. Many of the city's tracts have 60% or more of their structures built before 1960, when lead products were commonly used in housing and construction.

Share of structures built before 1960 (2022)

- Less than 20%
- 20% to 35%
- 35% to 60%
- 60% to 80%
- Greater than 80%
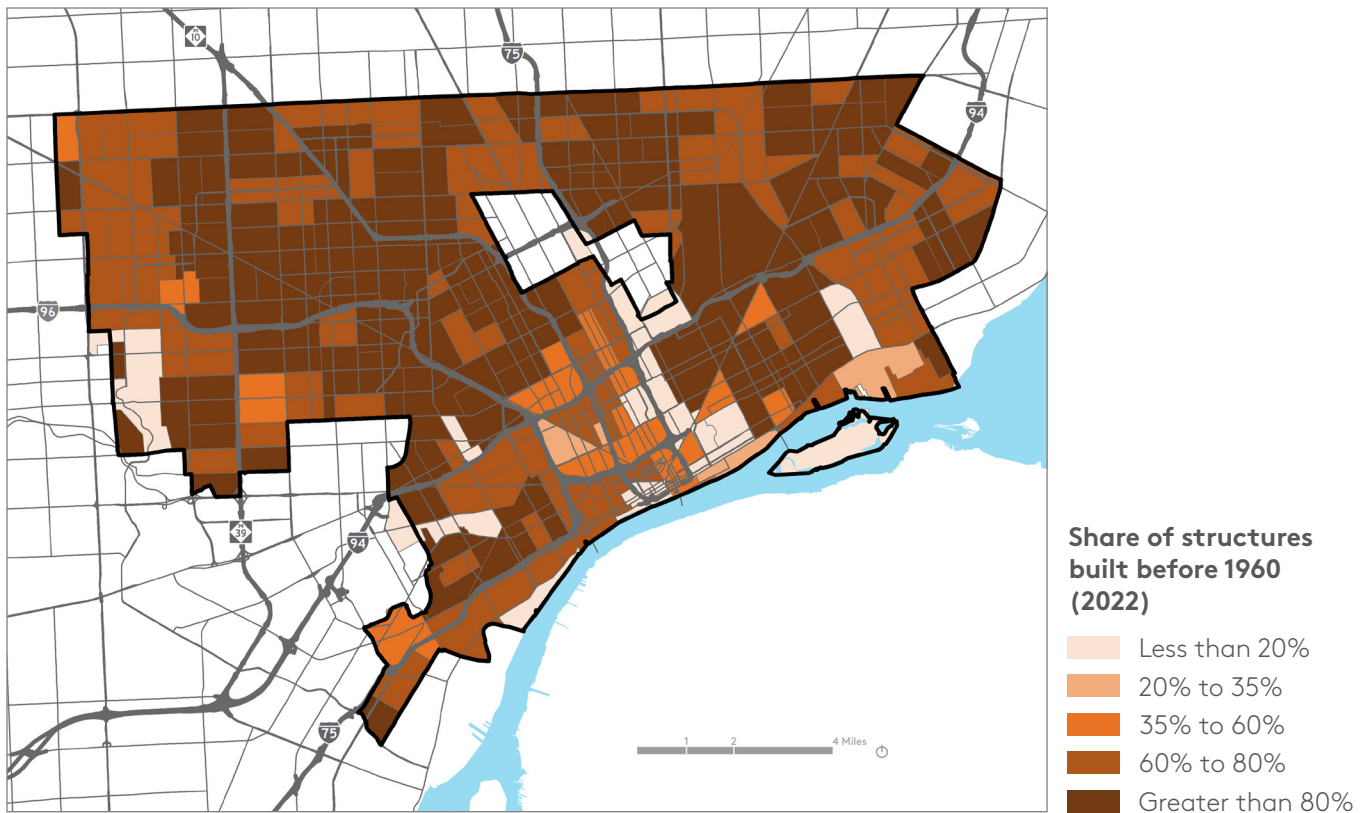
Source: EPA's EJ Screen

Water shutoffs

Another environmental challenge in Detroit is water availability. Water shutoffs over unpaid bills create serious challenges for residents at lower income levels, as they can severely limit access to clean water for drinking, cooking, and bathing. Detroit's Water and Sewerage Department (DWSD) increased residential water shutoffs in 2013, and it is estimated that 140,000 households have had water turned off between 2013 and 2020.[xxxii]

Climate change

In addition to water availability and air quality, the effects of a warming climate could impact other key areas of life for Detroiters. As temperatures rise, trees provide necessary shade and air purification throughout the city. In 2022, Detroit's tree canopy[2] was measured at 26%, lower than the tree canopy of Wayne County (33%) and Southeast Michigan[3] (39%).[xxxiii] Climate vulnerability extends to the city's infrastructure, as well. Detroit's aging gray infrastructure does not deal well with the increased rains brought on by climate change. Two rain events in 2019 and 2021 caused significant damage in Wayne County, flooding streets, businesses, and basements with combined sewage and rain floodwaters.[xxxiv] Storms can also contribute to power outages in the city, which can be dangerous to residents from both a health and economic perspective, especially in summer months when prolonged outages can leave residents exposed to high heat and unable to refrigerate perishable groceries. Analysis of a data set containing power outage information from 2014-2022 showed that Michigan was the third-highest state for outages per customer per year, and that Wayne County had 3.4 outages per year per customer, compared to 1.8 outages per year per customer for the state.[xxxv, xxxvi]

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[2] SEMCOG defines tree canopy as, "... the layer of tree leaves, needles, branches, and stems that provide tree coverage of the ground, viewed from an aerial perspective."
[3] Southeast Michigan includes Livingston, Macomb, Monroe, Oakland, St. Clair, Washtenaw, and Wayne counties.

ACCESS TO TRANSPORTATION

How transportation access impacts health

Transportation came up as a critical issue throughout the interviews conducted for this research. Underlying many of the other social determinants of health is a question of access. It is not just the ability to pay for food or quality medical care, but the ability to access it that impacts health. The ability to get to work, get to the doctor, or get to the grocery store to find food[4] are all dictated to some extent by the transportation options open to individuals. In 2022, a Centers for Disease Control and Prevention study found that 5.7% of surveyed adults in the United States lacked reliable transportation in the last 12 months.[xxxvii] Without reliable transportation, a person may struggle to access job opportunities, shop at grocery stores with nutritious options, make it to medical appointments, or get their kids to school. The data below demonstrate the overall dependence of Metro Detroiters on personal vehicles to effectively navigate the region. Not owning a vehicle or having to use Detroit's public transportation options can limit the ability of residents to get to the resources they need most.

What this looks like in Detroit

■ Access to a vehicle

In Detroit, issues around access to transportation show up in several ways. Around 10% of working age Detroiters did not have a car to commute to work. This was higher than the 3% of working age Metro Detroit residents who did not have a car in 2022.

A higher share of working Detroiters do not have access to a vehicle, compared to the Metro area.

Share of workers 16 years and older in households without a vehicle, 2022.
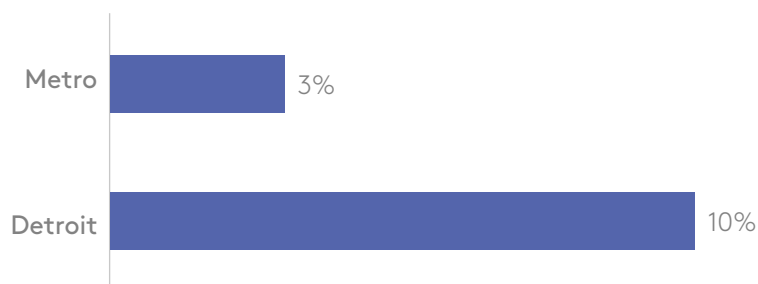
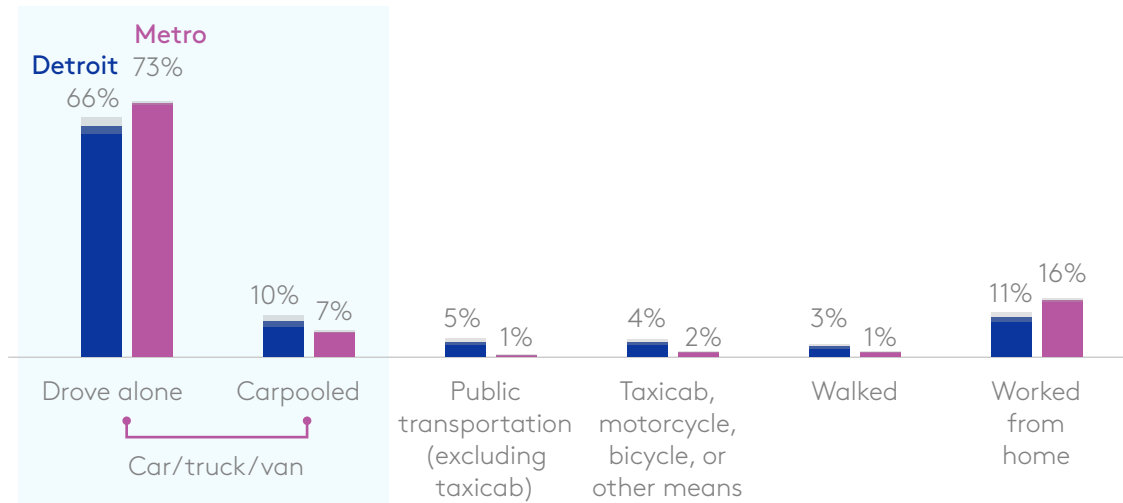Source: American Community Survey, 1-year estimates

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[4] Access to healthy food is a significant and well-known challenge in Detroit. However, due to a large gap in recent and complete data on food access in Detroit, it was not included as an example in this report.

■ Transportation to work

In both Detroit and the region, there is a heavy dependence on vehicles to get to work. Beyond that, a slightly higher share of Detroiters relied on either public transportation or walking to get to work in 2022, compared to Metro Detroiters.

A vast majority of residents in Detroit and the Metro area rely on cars to get to work.
Means of transportation to work, 2022.

■ Margin of error

Detroit 66% Metro 73%

	Drove alone	Carpooled	Public transportation (excluding taxicab)	Taxicab, motorcycle, bicycle, or other means	Walked	Worked from home
Detroit	66%	10%	5%	4%	3%	11%
Metro	73%	7%	1%	2%	1%	16%

Car/truck/van

Source: American Community Survey, 1-year estimates

■ Auto insurance

One final component to accessing transportation is the high auto insurance rates in Detroit. A study released in 2022 found that Detroit had the highest yearly insurance rates out of all cities in the country ($5,102 average annual insurance rate)[5], and that Michigan had the second highest premiums out of all states.[xxxviii] Additional analysis of that same data set found correlation between higher rates and a higher percentage of Black residents living in a ZIP code.[xxxix]

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[5] Statistic obtained from The Zebra where "they used a base driver profile representative for the average insured: a 30-year-old single male driver with a 2017 Honda Accord EX."

HOUSING STABILITY / AFFORDABILITY
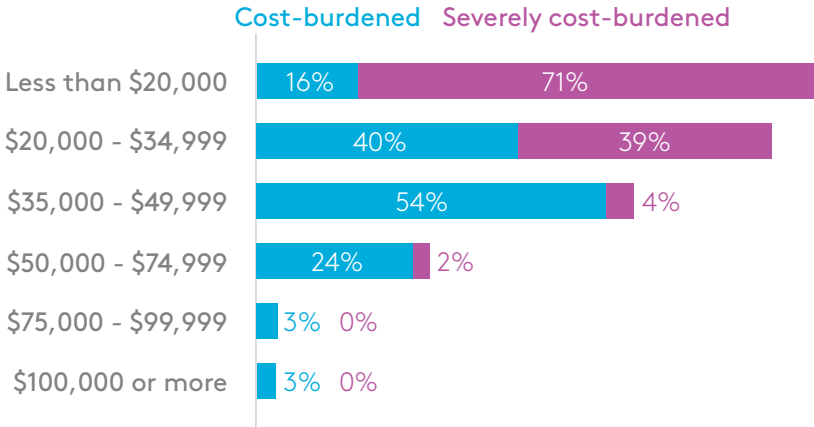
How housing instability impacts health

Housing insecurity is when a person does not have stable housing, has difficulty affording their housing, or is forced to live in substandard and/or crowded housing due to affordability issues. These forms of housing instability can have a number of impacts on health. When in an unstable housing situation due to affordability, residents may have to work multiple jobs to make ends meet, forgo critical home repairs or medical expenses, or may be forced to live in unsafe conditions. There is also an increased risk of homelessness in places where housing is difficult for the community to afford. Along with these risks, people struggling to obtain housing may be forced to move living situations frequently, which can have numerous impacts like making consistent work more difficult to find, impacting children's ability to attend the same school throughout the year,[xl] and making health care management (consistently attending appointments, seeing the same doctor, etc.) more difficult. Housing instability also has ties to mental health, usually brought on by the stress and trauma that accompanies instable housing situations.[xli, xlii] Beyond this, if a person is struggling to afford their housing, it can impact the money left over to afford medical costs.

What this looks like in Detroit

■ Rental affordability

Despite the cost of housing being generally below that of other major American cities, housing affordability in Detroit remains an issue for many residents. Cost burden is a measure of the stress that housing costs can put on a household's budget. If the cost of rent and utilities is more than 30% of a household's monthly gross income, they are considered cost-burdened (more than 50% is considered severe cost burden). The chart below shows that at lower income levels, a large majority of Detroit's renters were cost-burdened in 2022.

Income remains a primary driver of housing affordability.
Renter housing cost burden by income in Detroit, 2022

Cost-burdened   Severely cost-burdened

| Income	Cost-burdened	Severely cost-burdened
Less than $20,000	16%	71%
$20,000 - $34,999	40%	39%
$35,000 - $49,999	54%	4%
$50,000 - $74,999	24%	2%
$75,000 - $99,999	3%	0%
$100,000 or more	3%	0%

Source: American Community Survey, 1-year estimates

Though housing cost burden is a widely accepted and useful metric for measuring the burdensomeness of housing costs, it is important to note that the threshold is not one size fits all. For people earning less than $50,000 a year, spending 25% of their monthly income on housing may not qualify as cost burden, but leaves much less money on the table for covering all other basic needs than someone earning higher on the income scale. This is even more true for a household earning below the poverty line, where paying for housing may leave them choosing between healthy food, access to the internet, or going to the doctor for preventative care.

■ Evictions

Tracking eviction filings shows how many Detroiters are at risk of losing their rental housing. Becoming subject to an eviction makes someone immediately more housing insecure and can often make it more difficult to find housing in the future because the eviction judgement can follow them through future housing applications. As mentioned above, housing instability has long been linked with negative health outcomes, often through the chronic trauma of being unsure whether one can pay rent, or losing a rental situation all together. Housing stability is so closely linked with health, that eviction moratoriums were considered as not just a housing stability strategy, but a public health strategy to reduce the spread of disease during the COVID-19 pandemic.[xliii] In 2022, 36th District Court data showed that 13,010 eviction filings occurred for non-payment, putting a significant number of Detroiters at risk of eviction.[xliv]

13,010 eviction filings occurred in Detroit in 2022.
Eviction filings by type of case, Detroit, 2022.

13,010

Non-payment eviction filings
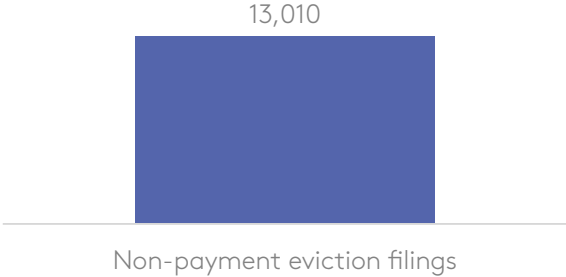
Source: 36th District Court data obtained from Data Driven Detroit's Housing Information Portal

■ Housing quality

One issue affecting homeowners in Detroit is home repair. Numerous studies and programs have documented this challenge in recent years with estimates for units in need of repair ranging between 24,000 and 38,000.[xlv, xlvi] A variety of programs exist in Detroit to address the excessive home repair need in the city. One program created in 2022 designed to assist around 1,000 homeowners had a wait list of over 14,000 people in early 2024.[xlvii] Many of the homes in need of repair have serious issues related to health and safety, like issues with roofs, electrical systems, water and heating systems, and potentially lead.

Ongoing efforts to address social determinants of health

Health institutions are increasingly recognizing the critical role played by social determinants of health. This section will outline several initiatives from across the state that in 2024 are working to improve health outcomes by addressing their social determinants.

Michigan Department of Health and Human Services (MDHHS) has a range of health equity initiatives, including "Michigan's Roadmap to Healthy Communities", released in September 2021. The project serves to "address disjointed efforts and the root causes of health inequity" with a comprehensive, robust, SDOH strategy that addresses needs such as housing stability and food security.[xlviii]

Rx Kids, a relatively new program, aims to improve health outcomes for Flint families by providing them with "cash prescriptions"—money with no strings attached— for a period before and after childbirth. The initiative operates with a range of partners and sponsors: hospitals, University of Michigan, MDHHS, nonprofits, and philanthropic organizations.[xlix] The hope is that the "cash prescriptions" can help Flint families meet their individual needs.

Detroit Health Department's Ending the HIV Epidemic (EHE) Initiative has a number of programs designed to address HIV in Detroit, including the Pull Up Project, a collaboration with MDHHS. The Pull Up Project is a multi-partner mobile health initiative working to reduce barriers to access like transportation and improve the health of individuals impacted by HIV.[l] Mobile health initiatives like the Pull Up Project address a variety of SDOH, and present a solution to individuals who cannot access health care due to transportation issues.

A range of other examples with a Detroit-region focus include Wayne State's Center for Health Equity and Community Knowledge in Urban Populations (CHECK-UP), the Promotion of Health Equity Project, Detroit Area Agency on Aging, Detroit Food Policy Council, and the Southeast Michigan Perinatal Quality Improvement Coalition, which are all working to address social determinants of health through research, programing, or both.

Conclusion

Addressing the foundational pieces that shape health in Detroit is not just an aspiration but a necessity in Detroit's path to becoming a middle-class city where all Detroiters can thrive and meet their unique needs. The examples of social determinants of health outlined in this brief, like housing stability and access to transportation, as well as larger societal factors and influences, especially race and racism, are having an impact on the health and life expectancy of Detroiters.

There is also a path forward. Both the research and interviews conducted for this project were clear that public health professionals, researchers, community educators, and medical providers recognize the importance of social determinants of health both in Detroit and across the world, especially in the aftermath of COVID-19. Further, there are numerous organizations across Detroit addressing public health in the city directly or indirectly, doing work that makes a positive impact on the health of residents. The data and people's lived experience show that the systems where people live, work, and play impact their health and these systems are often set up to disadvantage Black and Brown residents. They also shed light on the types of programs that could make positive impacts in areas like housing, transportation, and employment if they are properly nurtured, designed, scaled, and supported.

Now is the time to push for change, and more specifically, see funders push for change across these areas, with human health as one more uniting reason why community development work in Detroit is so critical. Renewed attention and collective action towards prioritizing policies, programs, and funding that actively address health outcomes will result in a healthier and more economically equitable city and region for all.

Endnotes

[i] Detroit Future City. Economic Equity Dashboard. Life expectancy at birth: 2021. Retrieved from https://detroitfuturecity.com/dashboard/health/.

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