Michigan's Path to a Prosperous Future: Health Challenges and Opportunities

Paper 3 in a Five-Part Series

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About the Series

Altarum and the Citizens Research Council of Michigan have joined forces to present a realistic, data-informed vision of Michigan's future based on current trends and trajectories across multiple dimensions – economic, demographic, workforce, infrastructure, environment, and public services. The papers are available on both organizations' websites.

Research for this project was conducted in two phases. Phase I involved a landscape scan of existing resources and expert knowledge of trends and challenges. For each domain, published and grey literature were reviewed and interviews with stakeholders were conducted to answer questions such as:

- Where is Michigan now – strengths, weaknesses, major challenges?
- What data is available to characterize the current situation and to track progress? Are there existing forecasts, either descriptive or data-driven?
- How does Michigan compare to other states, especially in the Midwest?
- What path are we on currently, and where are opportunities to shift the path through policies and investment?

Phase 2, as represented in an Executive Summary and a series of five papers, built on Phase 1 to include data and context.

Altarum (altarum.org) is a nonprofit organization focused on improving the health of individuals with fewer financial resources and populations disenfranchised by the health care system.

The Citizens Research Council (crcmich.org) works to improve government in Michigan by providing factual, unbiased, independent information concerning significant issues of state and local government organization, policy, and finance.

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Report Highlights

This report examines the health of Michigan's population, factors that influence health, and challenges and opportunities for improving health. Key findings of the report include:

- Michigan's population is less healthy than the national average and health outcomes have been declining relative to the rest of the nation. Michigan ranks below most states and most Midwestern neighbors in life expectancy, self-reported health status, and numbers of days impacted by poor physical or poor mental health.[1] Michiganders also experience higher rates of disability[2] and chronic disease.[3] According to American's Health Rankings' compositive measure of health outcomes, Michigan ranked 32nd out of 50 states in 2008 and 39th in 2022.[4]

- Beneath overall health outcomes are persistent disparities in health by race and ethnicity, socioeconomic status, and geography. For example, Black infant mortality rates in Michigan are 2.7 times White rates[5] and life expectancy by neighborhood varies by as much as 29 years.[6]

- Michigan compares favorably to other states in the traditional health care sector, with low rates of uninsured, lower-than-average health care costs, and higher-than-average numbers of physicians per capita, although resources are not distributed equally across the state.

- Michigan's public health system is less well funded compared to other states and has experienced a loss in experienced workforce coming out of the pandemic. Michigan consistently ranks in the bottom ten states for per capita public health spending, currently ranking 40th.[7]

- Population and demographic trends present challenges and opportunities for Michigan's health. The projected growth in older populations accompanied by projected declines in younger populations are trends that will challenge the availability of resources, workforce, and family caregivers to meet the health care and social support needs of an aging population. Efforts to retain and attract young people as well as long-term planning for these demographic shifts will be important in meeting these challenges. It also will be increasingly important to the overall health of the state to make significant progress in reducing disparities in health outcomes and in drivers of health, as populations of color are driving population growth.

[1] Authors' analysis of health outcomes measure data as published in America's Health Rankings 2022 Annual Report and State Summaries, available at https://www.americashealthrankings.org/.
[2] U.S. Census American Community Survey (2021, 1-year estimates), state-level aggregate data available at: https://data.census.gov
[3] Authors' analysis of America's Health Rankings 2022 Annual Report data.
[4] America's Health Rankings, Annual Report data, Michigan ranking on Health Outcomes for 2022 and 2008.
[5] University of Wisconsin Population Health Institute. County Health Rankings & Roadmaps 2023, available at www.countyhealthrankings.org.
[6] MacDonald C, Rahal S, and J Barnes, "Life Expectancy Swings Wildly between Michigan Neighborhoods," The Detroit News, December 18, 2018. https://www.detroitnews.com/story/news/local/michigan/2018/12/18/life-expectancy-michigan-neighborhoods/2305048002/
[7] America's Health Rankings 2022 Annual Report State Summary for Michigan.

Introduction

Health is critical to Michiganders' quality of life, and to the state's workforce productivity and overall competitiveness. Poor health is a barrier to children's educational outcomes and to adults being able to live and work to their fullest potential. Improving population health can not only improve overall population wellness, but also help bring current residents back into the labor force by reducing the prevalence of physical disease, disability, and poor mental health in the state.[8] Moreover, since an individual's poor health also can impact the work and educational outcomes of family and community members who bear the time and financial burdens of informal caregiving, improving overall health can indirectly benefit the workforce through this pathway as well.[9] Improving population health over the long run also has the potential to save the state expenditures that would otherwise be required to respond to poor health outcomes, liberating resources that could be further invested in quality of life services such as education, environment, and infrastructure needs.[10]

Measuring progress on health outcomes can be a useful indicator of progress in other areas. As health is driven by social, environmental, and economic factors such as education, employment, community safety, environmental quality, nutrition, and social supports[11], the overall health of the population can be an indicator of progress on a wide variety of investments in the state.

In the coming decades, given a projected 30 percent increase in Michigan's retirement age population and declines in younger age groups,[12] efforts to improve Michigan's health must also plan for the challenges that an aging population presents to health outcomes, the capacity of the health care and social service systems, and the health and caregiver workforce.

Health Outcomes in Michigan

Michiganders today are experiencing poorer physical and mental health and higher rates of chronic conditions and disability than the national average, and these gaps have grown in recent years. There are also significant disparities in health outcomes and health care access by race and ethnicity, socioeconomic status, and geography.

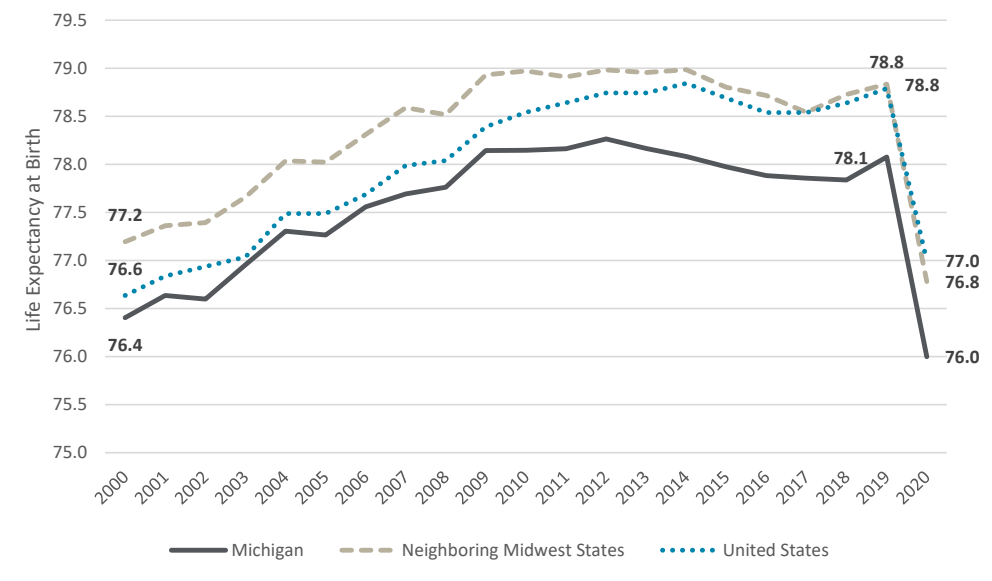
Mortality and Life Expectancy

Michigan's health outcomes have declined relative to national benchmarks over the last 20 years. Looking at the broadest possible health outcome measure of overall life expectancy at birth, Michigan has historically performed worse than the rest of the U.S. and the gap has widened over time, particularly in the aftermath of the Great Recession (Figure 1). While Michigan's average life expectancy increased from 76.4 years in 2000 to 78.1 years in 2019, this value consistently lagged behind the U.S. average (78.8 in 2019) and the average of other neighboring Midwest states of Illinois, Indiana, Minnesota, Ohio, and Wisconsin (78.8 in 2019). The gap in life expectancy at birth between Michigan and the rest of the country increased from 0.2 years in 2000 to a 0.7 years in 2019, the year prior to the COVID-19 pandemic.

Incorporating 2020 data from the first year of the pandemic shows that life expectancy declined significantly for all geographies and that Michigan's average life expectancy fell even further behind the U.S. average to a full year (76.0 versus 77.0). This greater decline in 2020 life expectancy for Michigan was primarily a result of the COVID-19 pandemic and the over 12,000 deaths in Michigan in that year as the state was hit particularly hard by the first waves of COVID-19. As a result of the pandemic and related factors, life expectancy at birth in Michigan in 2020 was 0.4 years less than it was in 2000, erasing almost two decades worth of improvement.

[8] Currie, J., & Madrian, B. C. (1999). Health, health insurance and the labor market. Handbook of labor economics, 3, 3309-3416.
[9] Chari, A. V., Engberg, J., Ray, K. N., & Mehrotra, A. (2015). The opportunity costs of informal elder-care in the United States: new estimates from the American Time Use Survey. Health services research, 50(3), 871.
[10] Roehrig, C. (2016). Health Spending Growth: Still Facing A Triangle Of Painful Choices. Health Affairs Forefront. https://www.healthaffairs.org/do/10.1377/forefront.20160623.055558.
[11] National Academies of Sciences, Engineering, and Medicine. 2017. Communities in Action: Pathways to Health Equity. Washington, DC: The National Academies Press. https://doi.org/10.17226/24624.
[12] See Altarum and Citizens Research Council of Michigan, Michigan's Path to a Prosperous Future: Population and Demographic Challenges and Opportunities, Paper 1 in a Five-Part Series, May 2023 https://crcmich.org/PUBLICAT/2020s/2023/prosperous-future-popul.pdf.

Figure 1: Life Expectancy at Birth, 2000-2020, Michigan, Other Midwest States, and U.S. Average



Sources: Centers for Disease Control National Center for Health Statistics, U.S. State Life Expectancy at Birth, https://data.cdc.gov/NCHS/U-S-State-Life-Expectancy-by-Sex-2020/ss2j-8ajj; Institute for Health Metrics and Evaluation, United States Mortality Rates and Life Expectancy by State, Race, and Ethnicity 1990-2019, https://ghdx.healthdata.org/us-data. Note: Y scale axis does not start at zero to highlight trends.

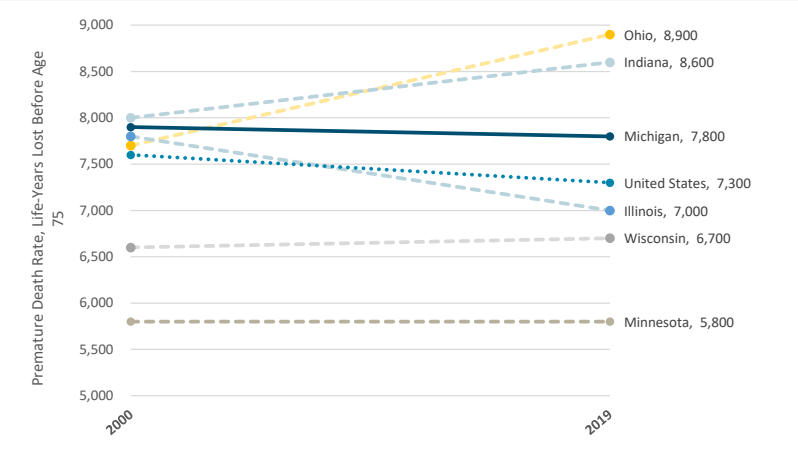
Another measure of life expectancy and health outcomes, Michigan's rate of premature death (defined as loss of life prior to the age 75) has experienced a similar trend. Adjusted for population size, Michigan's rate of premature death in 2019 is nearly seven percent greater than the national average (7,800 versus 7,300) (Figure 2), a gap that has also widened slightly over time. Looking at the set of neighboring Midwestern states over this period, we see that in 2000, four of the six states in the region (Michigan, Ohio, Indiana, and Illinois) had very similar premature death rates per 100,000 population, while Minnesota and Wisconsin had more favorable outcomes. As of 2019, Minnesota and Wisconsin continued to have much better outcomes than Michigan and the national average, while Ohio and Indiana premature death rates have increased significantly, exceeding Michigan's rate in the final year prior to the COVID-19 pandemic. All these rates increased significantly in 2020 with the onset of the pandemic (data not shown),[13] but the overall trend in Michigan's relatively greater premature death rate compared to national and Midwest averages stayed the same.

Michigan's above average mortality occurs across nearly all age groups, meaning the state sees greater deaths per population for younger ages (such as within the first year of life and early childhood) all the way through older age groups (including middle-aged adults from 35 to 64 and adults 65 and older).[14] In 2019, the greatest absolute difference in all-cause mortality rates for Michigan compared to the national average is amongst older adults, but as a percentage difference, the difference is greatest for young adults aged 25 to 34 (data not shown).[15] These trends are broadly similar when comparing Michigan to neighboring Midwest states, where the state had above average mortality rates in most age groups.

In Michigan, the leading causes of premature death are cancers, unintentional injuries, and heart disease.[16] On an age-adjusted basis in 2019, years of life lost due to cancers were 6.4 percent greater in Michigan, life lost to heart disease was 16.0 percent greater, life lost to liver disease 8.8 percent greater, and life lost during the perinatal period 24.2 percent greater.[17]

[13] America's Health Rankings, state data available at: https://www.americashealthrankings.org/explore/annual.
[14] Authors analysis of: Institute for Health Metrics and Evaluation, United States Mortality Rates and Life Expectancy by State, Race, and Ethnicity 1990-2019, available at: https://ghdx.healthdata.org/us-data.
[15] Ibid.
[16] Centers for Disease Control and Prevention, WISQARS Years of Potential Life Lost (YPLL) Report, 1981 – 2020, available at: https://wisqars.cdc.gov/ypll.
[17] Ibid.

Figure 2: Premature Death Rate per 100,000 (before Age 75), 2000-2019, Michigan, Other Midwest States, and U.S. Average



Source: America's Health Rankings, available at https://www.americashealthrankings.org/explore/annual
Note: Y scale does not start at zero to hightlight trends.

In order to compare Michigan to the rest of the nation, we report many statistics (including the above mortality statistics) in this chapter on an "age-adjusted" basis; however, it is also important to recognize Michigan's status as a state with an older than average population and one that expected to age further in coming decades.[18] As a result, when metrics are instead assessed on an absolute, non-age adjusted basis, many of the state's health outcomes look similar or slightly worse, and if the state's average population continues to grow older on average, this would be expected to continue.

Health Status and Morbidity

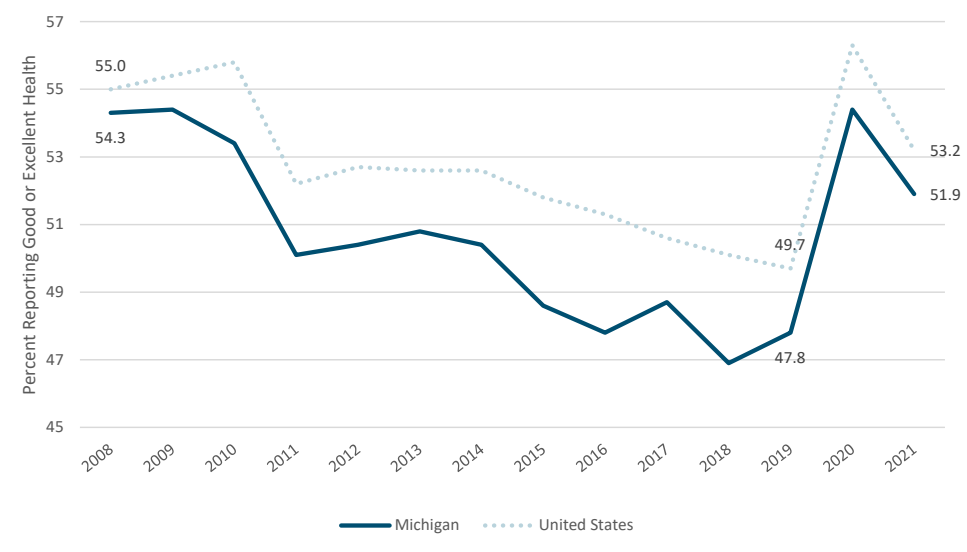
In addition to having worse outcomes in life expectancy and mortality rates compared to the nation and neighboring Midwest states, Michigan also performs more poorly in many measures of daily health status, disability rates, and overall reported healthy days per month. These morbidity measures indicate Michigan's health not only negatively contributes to the expected lifespan of its residents, but also to daily health outcomes and the overall wellness of the population.

The most general of these measures, self-reported health status, has been on a downward trajectory over the past fourteen years, as between 2008 and 2019, the percent of Michiganders reporting good or excellent health fell by 6.5 percentage points. By 2019, less than half of the population (47.8 percent) reported these overall positive health statuses, the second lowest annual value in the data series (Figure 3). While the percentage of Michiganders reporting good or excellent health was somewhat greater in 2021, it remains below the first data point available from 2008 and may again be on a downward trajectory following the one-time shock of the COVID-19 pandemic and associated effects.

Moreover, the share of Michiganders who report being in good or excellent health has been lower than the national average in each of the past 14 years, and the gap has widened slightly since 2008. As research has demonstrated positive correlations between reporting good or excellent health and measures of labor force participation and employment[19], overall life satisfaction[20], and life outcomes for family members[21], this difference demonstrates that poorer health outcomes in Michigan may have broad and substantial societal impacts, such as decreasing Michigan's economic competitiveness, educational outcomes, and overall wellbeing.

[18] See Altarum and Citizens Research Council of Michigan, Michigan's Path to a Prosperous Future: Population and Demographic Challenges and Opportunities, Paper 1 in a Five-Part Series, May 2023 https://crcmich.org/PUBLICAT/2020s/2023/prosperous-future-popul.pdf.
[19] Antonisse, L., & Garfield, R. (2018). The relationship between work and health: findings from a literature review. California: Henry J Kaiser Family Foundation.
[20] Kööts–Ausmees, L., & Realo, A. (2015). The association between life satisfaction and self–reported health status in Europe. European Journal of Personality, 29(6), 647-657.
[21] Azuine, R. E., & Singh, G. K. (2019). Father's health status and inequalities in physical and mental health of US children: A population-based study. Health Equity, 3(1), 495-503.

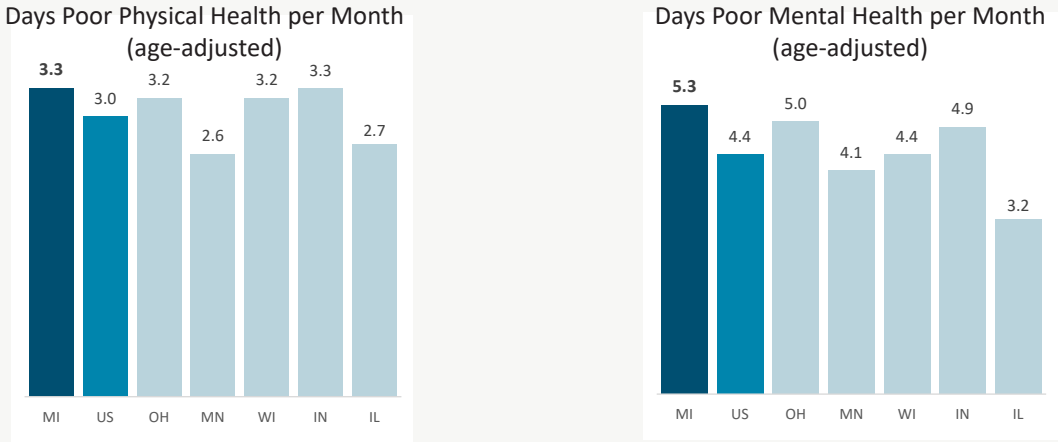
Figure 3: Self-Reported Health Status, Percent Reporting Good or Excellent Health, Michigan and U.S., 2008-2021



Source: America's Health Rankings, available at https://www.americashealthrankings.org/explore/annual
Note: Y scale axis does not start at zero to highlight trends.

While Michiganders report worse overall health statuses on average when compared to the U.S. average, they also specifically report poorer health outcomes when compared to neighboring Midwestern states. As measured by both poor physical health days reported per month and poor mental health days per month, Michigan's outcomes are worse than the average of neighboring states in age-adjusted estimates of days for 2023 based on the most recent Centers for Disease Control and Prevention Behavioral Risk Factor Surveillance System data (Figure 4). The number of mental health days contributing to poor health days are greater than physical health days for Michiganders and they also appear to be comparatively worse than the comparison to national averages of poor physical health days. This has likely contributed negatively to Michigan's labor force capacity as just as prior research has highlighted how pain, disability, substance use, and mental health challenges have contributed to "deaths of despair" in the US,[22] similar findings have been seen when assessing the impact of health outcomes on labor force participation.[23]

Figure 4: Days of Poor Physical and Mental Health per Month, Michigan, Other Midwest States, and U.S Average, 2023

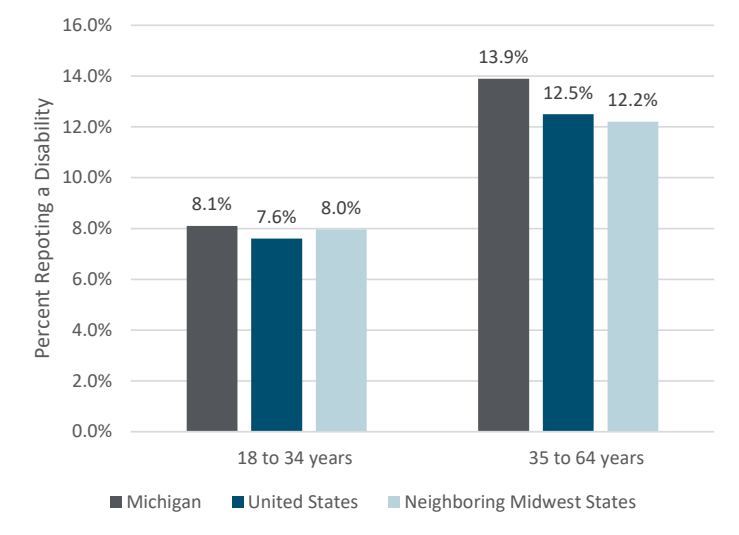


Source: County Health Rankings, available at https://www.countyhealthrankings.org/explore-health-rankings/county-health-rankings-model/health-outcomes/quality-of-life

[22] Case, A., & Deaton, A. (2020). Deaths of Despair and the Future of Capitalism. In Deaths of Despair and the Future of Capitalism. Princeton University Press.
[23] Krueger, A. B. (2017). Where have all the workers gone? An inquiry into the decline of the US labor force participation rate. Brookings papers on economic activity, 2017(2), 1.

Michiganders also appear to experience a higher rate of disability than the national average. Overall, 14.3 percent of Michiganders reported living with a disability, compared to 12.7 percent of the U.S. population in 2019 (data not shown).[24] However, as rates of disability are highly associated with age, a more specific comparison of disability among working age adults is an appropriate comparison between Michigan, the nation, and neighboring Midwest states that accounts for some of the population differences between groups. As of 2021, these analyses show that Michigan's rates of disability among working age adults are greater than both Midwest and national averages, particularly for adults aged 35 to 64 (Figure 5). As disability status is strongly negatively associated with differences in workforce status and productivity, this outcome may contribute negatively to Michigan's economic output.[25] State investments in programs that enable people with disabilities to fully participate in the labor force, and health improvements for people with chronic conditions, have the potential to benefit the quality and size of the state's labor force.

Figure 5: Percent Reporting a Disability, Working-Age Adult Age Categories, Michigan, Other Midwest States, and U.S. Average, 2021



Source: U.S. Census American Community Survey (2021, 1-year estimates), state-level aggregate data available at: https://data.census.gov

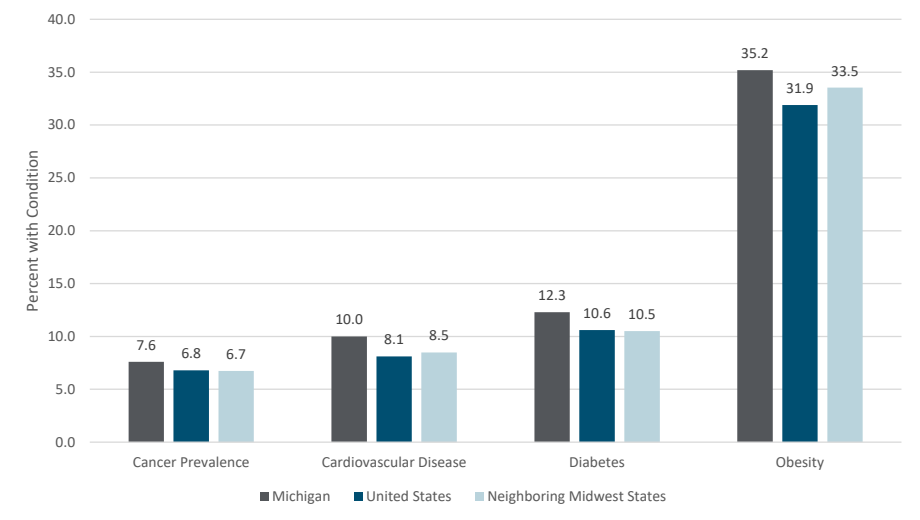
Prevalence and Trends in Physical Health Conditions

Moving from overall measures of health to measures of specific health conditions, the data show that Michiganders experience higher rates of many chronic conditions than the national and neighboring Midwest state averages, including cancer, cardiovascular disease, diabetes, and obesity (Figure 6). These chronic conditions are significant negative contributors to overall health and are costly to treat over the long run.[26] They are also likely major factors driving above average premature death rates in the state. The frequency of multiple chronic conditions is also much greater in Michigan; in 2021, 12.0 percent of the state's residents had at least three or more chronic conditions versus the U.S. average of 9.1 percent. Research has found that the health expense, impact on wellbeing, and workforce outcomes are significantly worse when individuals are challenged with managing more than one chronic condition at a time.[27]

While medical progress over time has resulted in more effective treatments available to manage chronic conditions, the underlying prevalence of some key risk factors are unfortunately becoming more common. Obesity, for example, has increased in Michigan from 28.2 percent of the state's population in 2008 to over 35 percent in 2021 (Figure 7), a rate more than four percentage points above the national average. Higher rates of obesity are likely to contribute to higher prevalence of other health conditions such as cardiovascular disease, cancer, and diabetes.

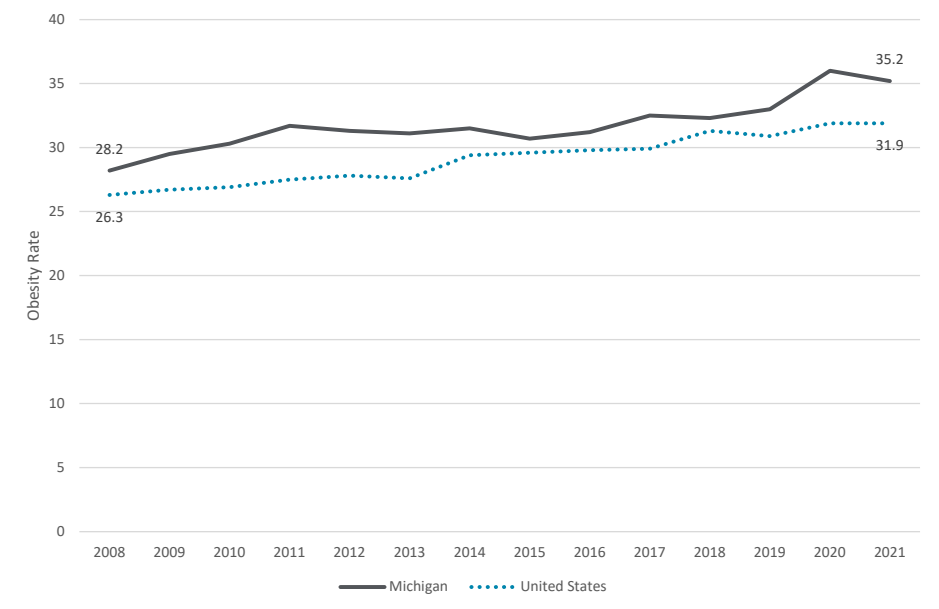
[24] America's Health Rankings, state data available at: https://www.americashealthrankings.org/explore/annual.
[25] Stern, S. (1989). Measuring the effect of disability on labor force participation. Journal of Human Resources, 361-395.
[26] Centers for Disease Control and Prevention, Health and Economic Costs of Chronic Disease, available at: https://www.cdc.gov/chronicdisease/about/costs/index.htm.
[27] Buttorff, C., Ruder, T., & Bauman, M. (2017). Multiple chronic conditions in the United States (Vol. 10). Santa Monica, CA: Rand, available at: https://www.rand.org/content/dam/rand/pubs/tools/TL200/TL221/RAND_TL221.pdf.

Figure 6: Rate of Disease Prevalence for Common Conditions, Michigan, Other Midwest States, and U.S. Average, 2020



Source: America's Health Rankings, available at https://www.americashealthrankings.org/explore/annual

Figure 7: Prevalence of Obesity, Michigan and U.S. Average, 2008 to 2021



Source: America's Health Rankings, available at https://www.americashealthrankings.org/explore/annual

Overall rates of these chronic conditions are expected to increase over the coming decades as Michigan's population ages and the retirement age population increases. Chronic condition rates are much higher among older adults[28] and this will drive a greater need for health care and non-health care services to treat and manage these conditions. Michigan's health system will require additional capacity to serve these growing needs. Also, by working to decrease growth in chronic condition prevalence among all Michiganders, the State can mitigate future health care costs and days with poor physical and mental health.

[28] Buttorff, C., Ruder, T., & Bauman, M. (2017). Multiple chronic conditions in the United States (Vol. 10). Santa Monica, CA: Rand.

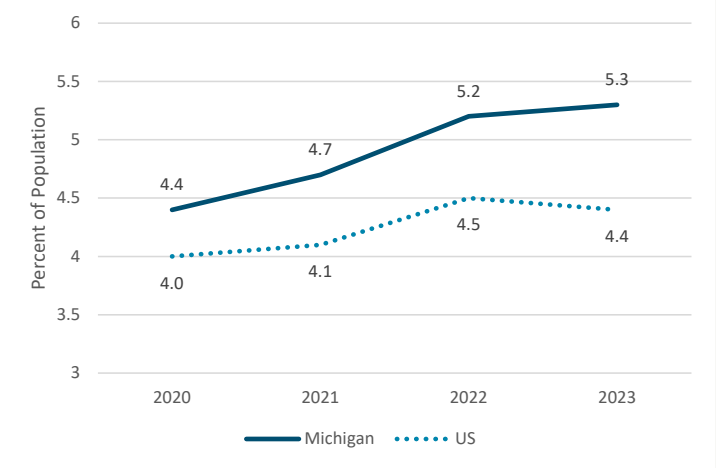
Prevalence and Trends in Behavioral Health Conditions

Critical Michigan health outcomes also include behavioral health components such as mental health and substance use disorders which are significant contributors to overall population wellbeing and, like physical health conditions, have been shown to impact employment and educational outcomes.[29] Furthermore, mental health conditions are associated with physical health outcomes, creating greater risks of adverse outcomes due to complicating physical health impacts.[30]

Children, adolescents, and young adults in particular in Michigan are facing increasing behavioral health challenges, matching a nationwide trend that began in the early 2010s and has in recent years been further exacerbated by the pandemic.[31] The share of those aged 18 to 25 with a mental illness increased from 18.3 percent in 2009 to nearly 27.9 percent in 2019, including those with depression, anxiety, stress, attention and hyperactivity disorders, and other conditions.[32] At the same time, serious mental illness prevalence among this age group in Michigan more than doubled, increasing from 3.6 percent in 2009 to 8.1 percent in 2019. Based on more current data shown in Figure 8 on the number of days per month in poor mental health between 2020 and 2023, it is likely Michigan's worsening mental health outcomes are unfortunately continuing and the gap between U.S. outcomes and Michigan is increasing.

Concerning other behavioral health conditions such as substance use disorders, Michigan has made some progress on reducing the overall prevalence since 2010, with rates falling from more than nine percent of the population to closer to seven percent.[33] As of 2019, Michigan's overall rate of substance use disorder is similar to the national average; however, in Michigan, as in most parts of the country in recent years, rates of treatment for substance use disorders remain low, with more than 70 percent of those with a condition going untreated.[34] The state has also been negatively impacted by the opioid epidemic, with over 2.0 percent of the 12 and over population suffering from opioid use disorder in 2021, just slightly above the national average.[35] In 2021, there were a total count of 2,800 opioid overdose deaths in Michigan, more than 18 times the total number seen in 1999 (versus population growth of less than one percent), and higher than the number of deaths due to car accidents in the state. It has been estimated that the cost of the opioid epidemic in Michigan exceeds $3.5 billion dollars a year in health, productivity, and government expenses.[36]

Figure 8: Number of Days per Month in Poor Mental Health, Michigan and U.S. Average, 2020-2023



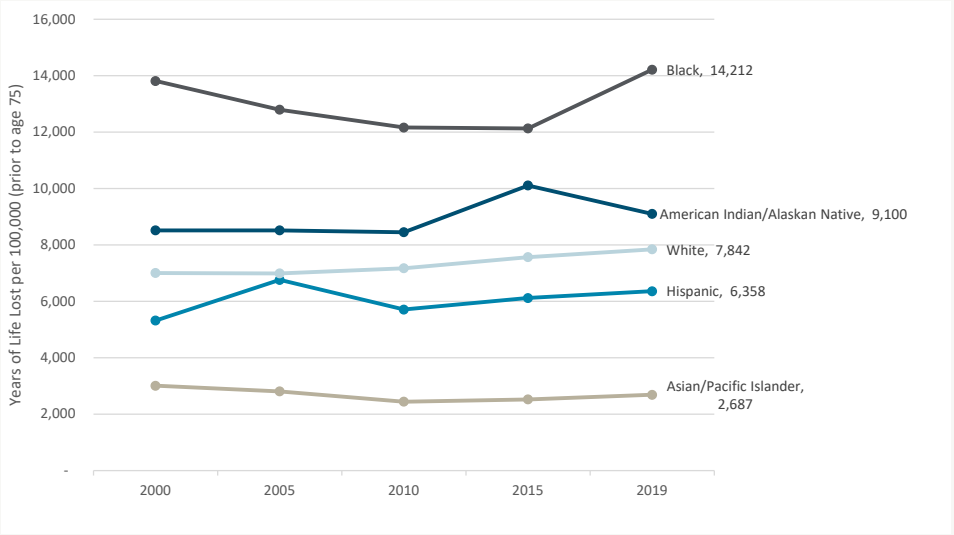
Source: County Health Rankings, available at https://www.countyhealthrankings.org/explore-health-rankings/michigan?year=2023
Note: Y scale axis does not start at zero to highlight trends.

[29] Lerner D., Henke RM. What does research tell us about depression, job performance, and work productivity? J Occup Environ Med. 2008;50(4):401–410.
[30] Ohrnberger, J., Fichera, E., & Sutton, M. (2017). The relationship between physical and mental health: A mediation analysis. Social science & medicine, 195, 42-49.
[31] World Health Organization. COVID-19 pandemic triggers 25% increase in prevalence of anxiety and depression worldwide, available at: https://www.who.int/news/item/02-03-2022-covid-19-pandemic-triggers-25-increase-in-prevalence-of-anxiety-and-depression-worldwide
[32] Author analysis of: Substance Abuse and Mental Health Services Administration, National Survey on Drug Use and Health, available at: https://pdas.samhsa.gov/saes/state.
[33] Ibid.
[34] Rhyan C., Turner A., Daly M., and Hurdle-Rabb D., "Access to Behavioral Health Care in Michigan, 2019 Data Update," Altarum Institute for the Michigan Health Endowment Fund. (2022), available at: https://mihealthfund.org/news/publications/behavioral-health-access-study.
[35] Substance Abuse and Mental Health Services Agency. 2021 National Survey on Drug Use and Health: Model-Based Prevalence Estimates (50 States and the District of Columbia). (2023), available at: https://www.samhsa.gov/data/report/2021-nsduh-state-prevalence-estimates.
[36] Rhyan, C. N. (2017). The potential societal benefit of eliminating opioid overdoses, deaths, and substance use disorders exceeds $95 billion per year. Altarum. https://altarum.org/publications/potential-societal-benefit-eliminating-opioid-crisis-exceeds-95-billion-year

Disparities in Health

Underlying the overall trends in life expectancy and health status are significant disparities in health by race and ethnicity, income, and geography. These health disparities are a major driver of the poorer overall outcomes and represent a critical focus area for policy. Across racial and ethnic groups, for example, there is over a fivefold difference in the rate of premature death, with Black/African American and American Indian/Native Alaskan outcomes looking much worse than Non-Hispanic White, Hispanic, and Asian/Pacific Islander outcomes (Figure 9). The ordinality of disparities in premature death rates across racial and ethnic groups in Michigan are broadly consistent with national trends, and in 2021 national premature death rates for Black/African American and American Indian/Native Alaskan were above the Non-Hispanic White average, while Hispanic and Asian/Pacific Islander rates were below that average.[37] This trend nationally is consistent with disparities in age-adjusted overall mortality rates,[38] and are likely driven by differences in socio-economic, health-related, education and diet factors.[39] In addition to disparities between these groups, there is significant within-group variation, with economic, geographic, and more detailed racial and ethnic categories showing further disparities in health outcomes.

Figure 9: Premature Death (before age 75) Rates, by major race categories, Michigan, 2000-2019



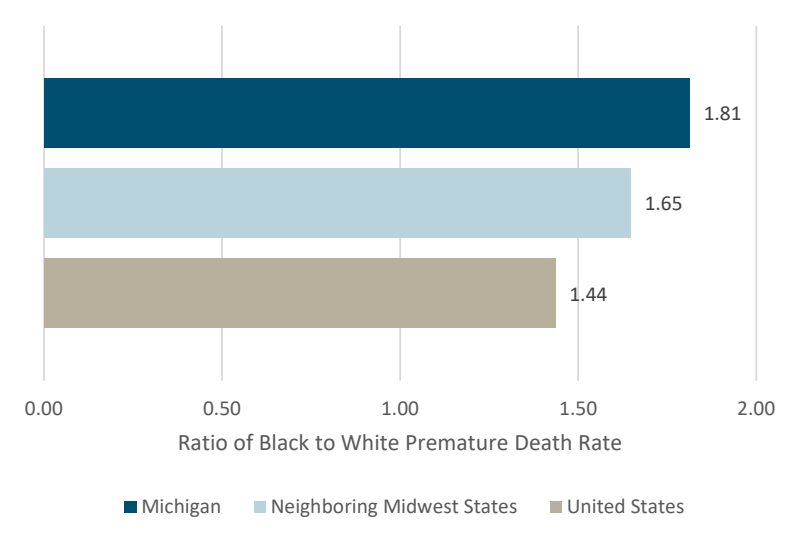
Source: America's Health Rankings, available at https://www.americashealthrankings.org/explore/annual

Health disparities are driven by current, but also historical factors, including the legacy of economic, environmental, and social racism and the way this contributes to health.[40] In Michigan, examples of environmental racism show up in health factors such as housing safety and access to clean water, where older and marginalized neighborhoods have been at greater risk of exposure to environmental toxins such as lead in water.[41] At the same time, economic drivers of health, such as wealth and access to credit have been impacted by the history of redlining and the way Michigan's cities have developed, leading to significant ongoing harms driving health and economic disparities in the state.[42]

[37] America's Health Rankings. National data available at: https://www.americashealthrankings.org/explore/measures/YPLL?population=YPLL-White
[38] Xu JQ, Murphy SL, Kochanek KD, Arias E. Mortality in the United States, 2021. NCHS Data Brief, no 456. Hyattsville, MD: National Center for Health Statistics. 2022.
[39] Beydoun, M. A., Beydoun, H. A., Mode, N., Dore, G. A., Canas, J. A., Eid, S. M., & Zonderman, A. B. (2016). Racial disparities in adult all-cause and cause-specific mortality among us adults: mediating and moderating factors. BMC public health, 16(1), 1-13.
[40] Churchwell, K., Elkind, M. S., Benjamin, R. M., Carson, A. P., Chang, E. K., Lawrence, W., & American Heart Association. (2020). Call to action: structural racism as a fundamental driver of health disparities: a presidential advisory from the American Heart Association. Circulation, 142(24), e454-e468.
[41] Egan KB, Cornwell CR, Courtney JG, Ettinger AS: Blood lead levels in U.S. children ages 1-11 years, 1976-2016. Environ Health Perspect 129: 37003, 2021
[42] Egede, L. E., Walker, R. J., Campbell, J. A., Linde, S., Hawks, L. C., & Burgess, K. M. (2023). Modern day consequences of historic redlining: finding a path forward. Journal of general internal medicine, 1-4.

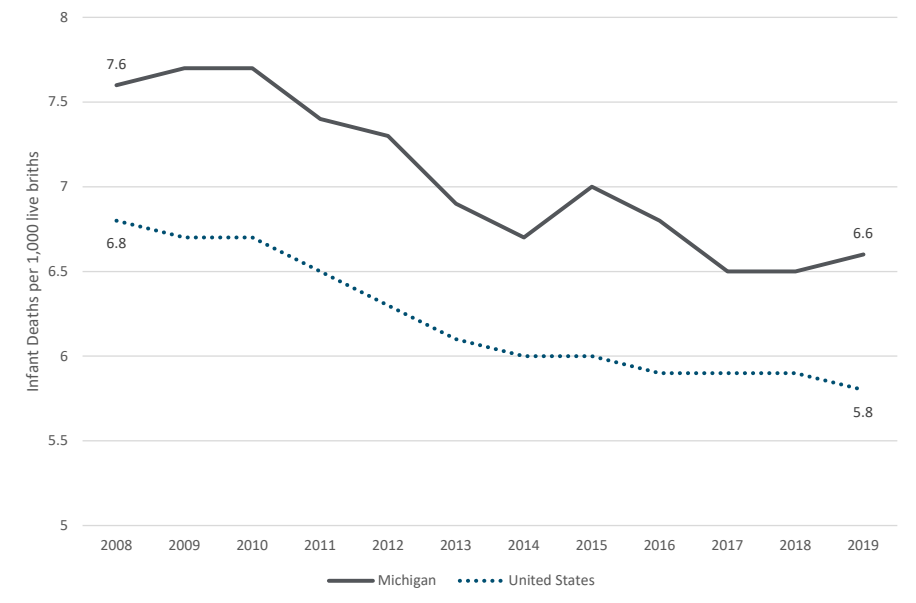
When comparing the magnitude of health disparities across a variety of measures between Michigan and the nation, Michigan's racial disparities appear greater than comparators. Using premature death rates prior to age 75 as one example, in Michigan, the ratio of years lost before age 75 between Black and White Michiganders is nearly twice as great (1.81 to 1), whereas the ratio is far less for the nation (1.44 to 1) and among neighboring Midwest states (1.65 to 1) (Figure 10). This pattern is similar for the Hispanic to White premature death rate ratios between Michigan, neighboring states, and the national average.[43]

Figure 10: Ratio of Black to White Premature Death Rate (Years lost before Age 75), Michigan, Other Midwest States, and U.S. Average, 2019



Source: America's Health Rankings, available at https://www.americashealthrankings.org/explore/annual

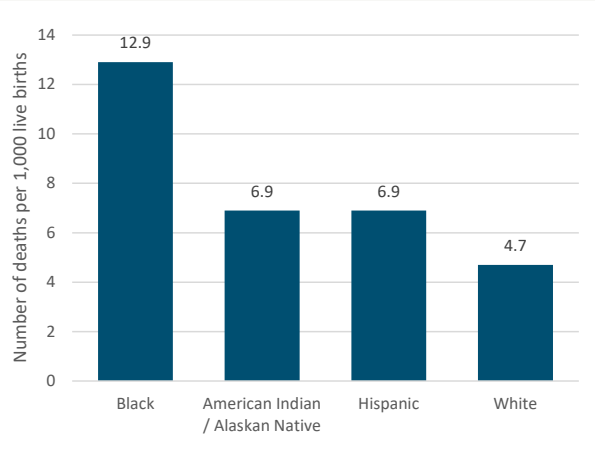
Figure 11: Infant Mortality Rate, Michigan and the U.S., 2008 to 2019



Source: America's Health Rankings, available at https://www.americashealthrankings.org/explore/annual
Note: Y scale axis does not start at zero to highlight trends.

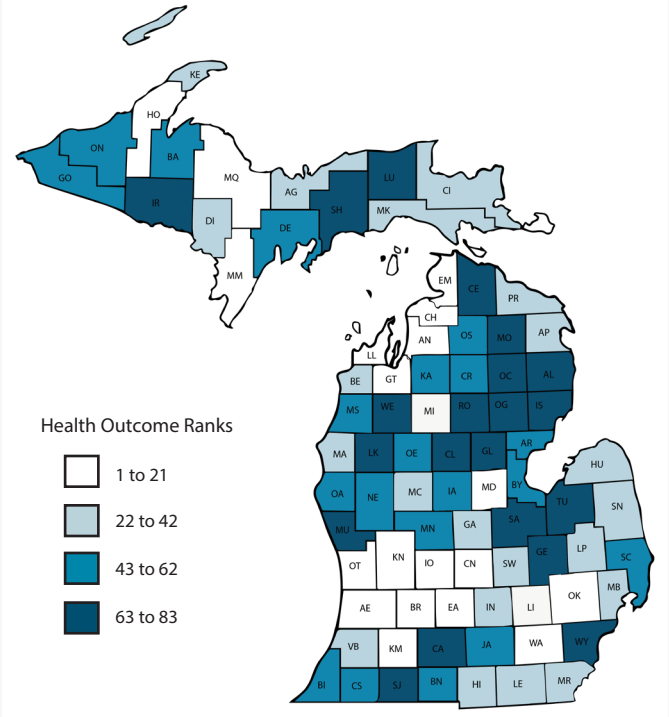
[43] America's Health Rankings, Michigan state data available at: https://www.americashealthrankings.org/explore/measures/YPLL/MI?population=YPLL-White.

Figure 12: Michigan Infant Mortality Rate by Race and Ethnicity, 2019



Source: University of Wisconsin Population Health Institute. County Health Rankings & Roadmaps 2023, available at www.countyhealthrankings.org.

Figure 13: Ranking of Michigan Counties by Composite Measure of Health Outcomes



Source: University of Wisconsin Population Health Institute. County Health Rankings & Roadmaps 2023, available at www.countyhealthrankings.org.

A frequently noted example of disparities and health inequities is seen in Michigan's rate of infant mortality, which has been traditionally above the national average (Figure 11), and is again driven by significant disparities in outcomes based on racial and economic factors. The 2019 rate of 6.6 infant deaths per 1,000 live births is 7th worst in the nation and considerably above the national average of 5.8. Infant death rates among Black births are nearly three times as frequent as they are among Whites, at 12.9 deaths per 1,000 live births compared to 4.7 in 2019 (Figure 12).

In addition to disparities by race and ethnicity, health care outcomes also vary geographically across Michigan. Figure 13 displays Michigan counties grouped according to a composite measure of health outcomes that combines measures of premature death, self-reported health status, and numbers of days in poor physical and mental health.

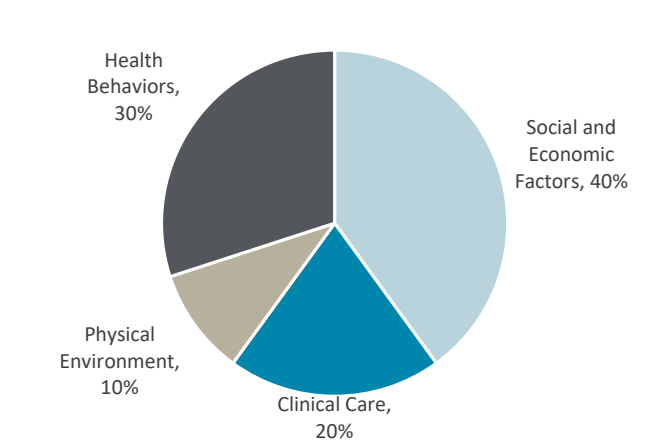
For example, life expectancy by county in Michigan varies by as much as eight years; Michiganders in Leelanau County can expect to live more than 82 years, while those in Wayne or Clare Counties have a life expectancy of 74 years.[44] Beneath the county level, even greater differences in health and longevity are experienced between communities and neighborhoods. Data from the National Center for Health Statistics shows life expectancy varied by as much as 29 years across Michigan, ranging from almost 91 years in an East Grand Rapids neighborhood to 62 years in a Detroit area neighborhood.[45]

Drivers of Health

In assessing the health of Michigan's population and strategies for improving health and reducing disparities, it is important to understand what drives health outcomes and to examine the status of these drivers and how they vary across the state. Through most of the 20th century, research on health outcomes was focused on the impact of the traditional medical system and the ability to respond to and treat disease. This meant focusing on the ability of individuals to access and afford medical care and the quality and type of care available to treat disease. Yet, over time, it became clear that an exclusive focus on the medical care system missed some of the most important factors contributing to health. In fact, much of the progress in improving life expectancy and health outcomes was unrelated to medical system progress, but instead had to do with public health and social and economic drivers.[46]

[44] University of Wisconsin Population Health Institute. County Health Rankings & Roadmaps 2023, available at: www.countyhealthrankings.org.
[45] MacDonald C, Rahal S, and J Barnes, "Life Expectancy Swings Wildly between Michigan Neighborhoods," The Detroit News, December 18, 2018. https://www.detroitnews.com/story/news/local/michigan/2018/12/18/life-expectancy-michigan-neighborhoods/2305048002/
[46] Ward, J. W., & Warren, C. (Eds.). (2006). Silent victories: the history and practice of public health in twentieth-century America. Oxford University Press.

Figure 14: The Drivers of Health Outcomes



Source: "The Relative Contribution of Multiple Determinants to Health" Health Affairs Health Policy Brief, 2014.

Further, looking at disparities in health outcomes, it was found that the most important factors driving life expectancy were geographic and social factors, and that the combined social, economic, and physical environment likely drove at least half of an individual's observed health outcomes (Figure 14).[47] Health behaviors such as tobacco and alcohol use, illicit drug use, diet, exercise, and sexual health were estimated to account for another 30 percent of health outcomes, meaning that the traditional medical system, or clinical care, was estimated to account for only about 20 percent of health outcomes.

With increased recognition of the importance of factors outside of health care, policymakers and health system leaders have renewed focus on public health and a holistic perspective on prevention and social determinants of health.[48] In assessing the results of Michigan's health drivers, Michigan's health behaviors and social factors are found to be likely large contributors to the current below average health outcomes.[49]

Acknowledging the importance of social, economic, and behavioral factors, the challenge for leaders and policymakers becomes determining where and how to invest in and foster progress on non-medical contributors to overall health outcomes. On one hand, there has been a push towards greater integration of "treating" social needs in medical settings, using physicians and hospitals to prescribe food, housing, or transportation as solutions to improving an individual's health.[50] On the other, it could also be said that conflating and combining public health investments and social change with the medical sector may undermine the potential to make community-level investments and overstep the otherwise already established public health and social service system that is better aligned to manage these needs.[51] These tradeoffs represent challenges for policymakers and those investing in health in Michigan and throughout the U.S. and present further opportunities for public health and health care to work together to improve the health of Michiganders.

We highlight key findings and comparisons between Michigan and the nation for the major drivers of health outcomes, beginning with clinical care.

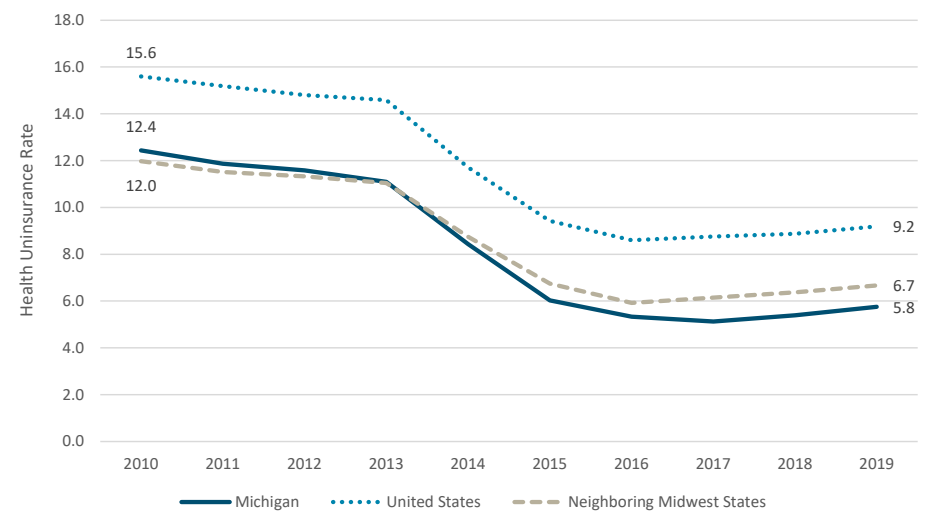
Health Care in Michigan

While Michigan's health outcomes and life expectancy are below national averages, the quality, availability, and affordability of traditional medical care in the state rank favorably compared to the rest of the country.

Michigan ranks highly on the rate of health care coverage. This is due to both a strong history of robust employer insurance in the state as well as the expansion of Medicaid as part of the Affordable Care Act. Figure 15 shows how Michigan's uninsured rate fell between 2013 and 2015 after Medicaid expansion, and how, as of 2019, the rate was over three percentage points lower than the national average.[52] Compared to neighboring Midwest states, Michigan's uninsured rate is more similar, but by 2019 was nearly a full percentage point below the other nearby Midwest average.

[47] McGovern, L., Miller, G., & Hughes-Cromwick, P. (2014). The relative contribution of multiple determinants to health. Health Affairs Health Policy Brief, 10.
[48] U.S. Department of Health and Human Services. Healthy People 2030, Social Determinants of Health. Available at: https://health.gov/healthypeople/priority-areas/social-determinants-health
[49] America's Health Rankings. Michigan state data available at: https://www.americashealthrankings.org/explore/measures/Overall/MI
[50] Sandhu, S., Sharma, A., Cholera, R., & Bettger, J. P. (2021). Integrated health and social care in the United States: a decade of policy progress. International Journal of Integrated Care, 21(4).
[51] Lantz, P. M. (2019). The medicalization of population health: who will stay upstream?. The Milbank Quarterly, 97(1), 36. Available at: https://www.milbank.org/quarterly/articles/the-medicalization-of-population-health-who-will-stay-upstream/.
[52] 2019 is the latest information available. 2020 estimates from ACS were not released due to COVID disruptions in the data. Early data for 2021 show that there was a 5.1 percent uninsured rate in Michigan and 8.6 percent in U.S.

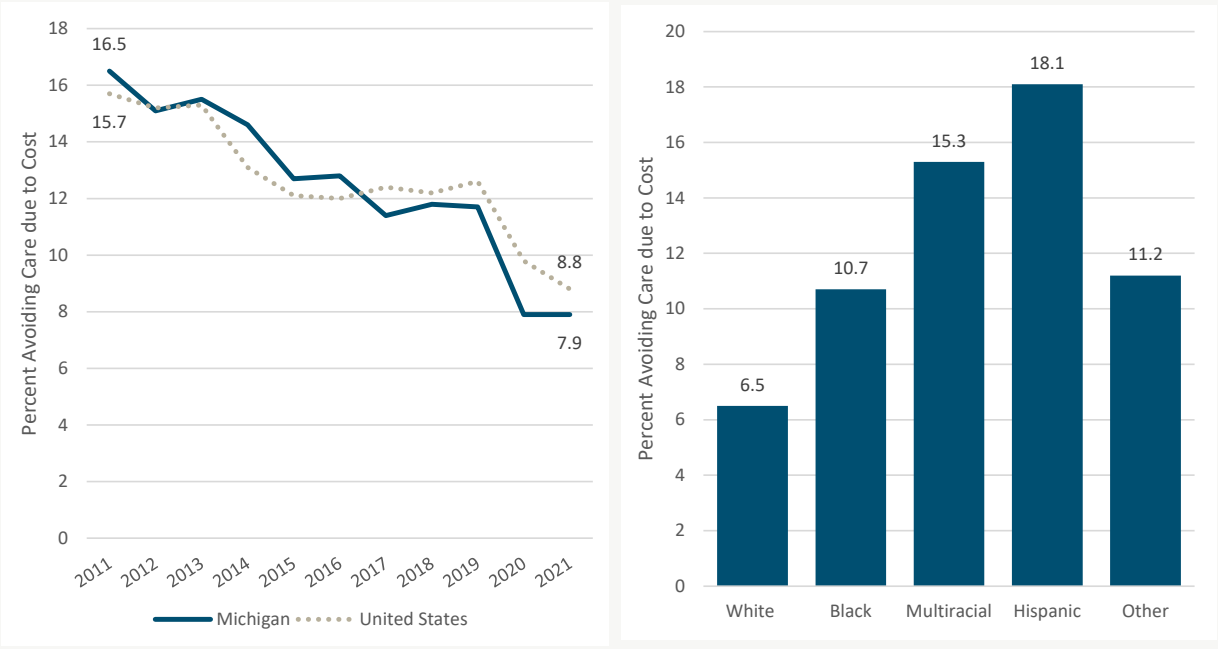
Figure 15: Health Uninsurance Rate, Michigan, Other Midwest States, and U.S. Average, 2010 to 2019



Source: Kaiser Family Foundation, State Health Facts, available at https://www.kff.org/state-category/health-coverage-uninsured/

Looking at measures of access to and affordability of health care services, Michigan has also seen improvements over time, with 7.9 percent reporting at any point in 2021 that they avoided getting medical care due to cost, down from over 16.5 percent in 2012 and less than the national average in 2021 of 9.8 percent (Figure 16). However, financial access to care varies considerably by race and ethnicity. More than 18 percent of Hispanic/Latino and nearly 11 percent of Black Michiganders reported avoiding care due to cost, compared to 6.5 percent of Whites (Figure 16).

Figure 16: Rates of those not receiving care due to cost, Michigan and the U.S., 2011 to 2021 and Disparities in rates not receiving care due to cost in Michigan by race and ethnicity (2021)

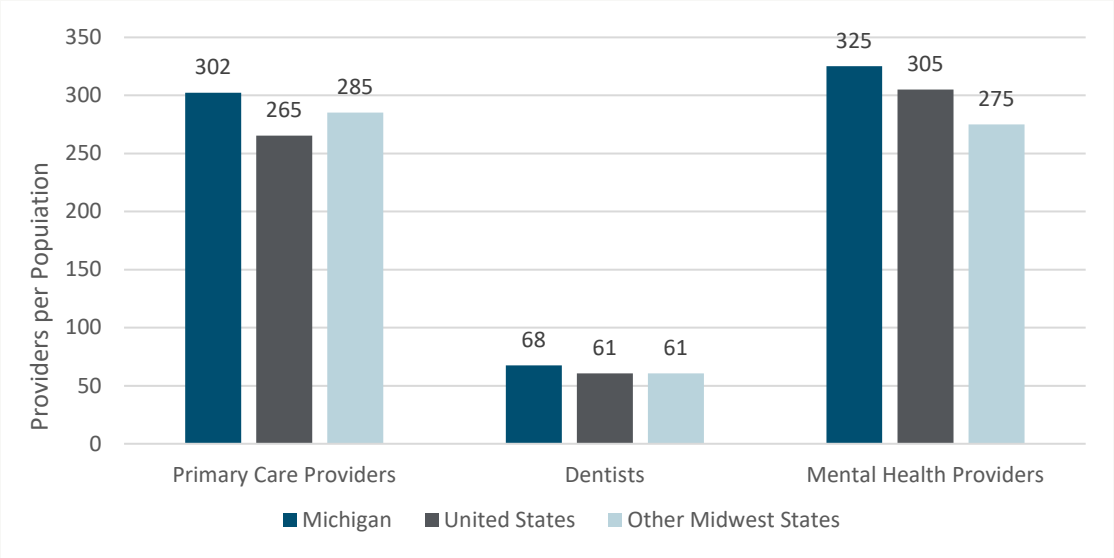


Source: America's Health Rankings, available at https://www.americashealthrankings.org/explore/annual

Incorporating other measures of health care affordability, Michigan's annual average family premiums for those either purchasing or receiving private medical insurance in the state were 5.8 percent less expensive than the national average ($20,100 in 2021 versus $21,400 nationally).[53] The legacy of a large employer health insurance presence and strong private insurance negotiating power for many years likely contributed to lower commercial prices and medical costs in Michigan relative to many of Michigan's neighbors.[54] When translated into per-capita health care annual costs, this strong insurance presence and lower than average health care prices results in lower average health spending for Michigan compared to the national average, 2.9 percent lower than the U.S. average in 2020.[55]

Supported by decades of robust employer-sponsored health insurance, Michigan has a greater supply of health care providers per capita than many other states (Figure 17). This is especially true in parts of the state with higher population density and population growth including Southeast Michigan and the Lansing and Grand Rapids areas.

Figure 17: Providers per 100,000 population, by Type, Michigan, Other Midwest States, and U.S. Average, September 2022 (higher values mean more providers)



Source: America's Health Rankings, available at https://www.americashealthrankings.org/explore/annual. Primary care providers include physicians, nurse practitioners, and physician assistants. Mental health providers include psychiatrists, psychologists, social workers, counselors, and therapists.

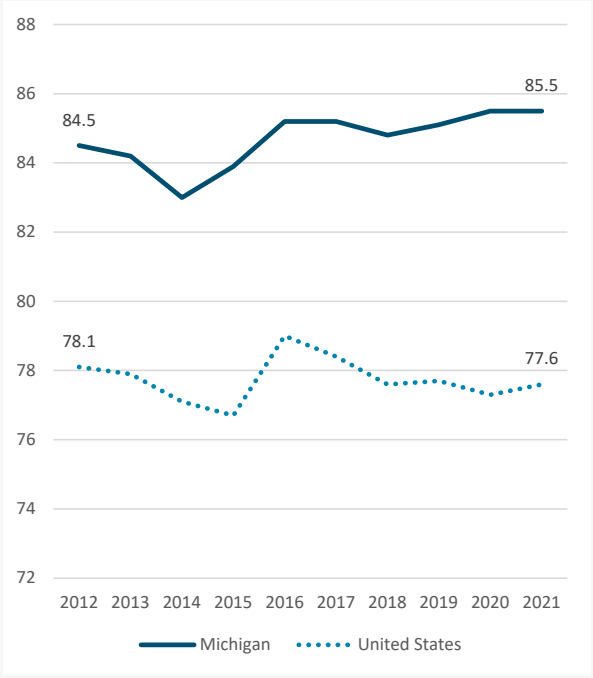
Consistent with more providers per capita, a higher share of Michiganders report having a dedicated health care provider compared to the national average, and this finding has been consistent over many years (Figure 18). Disparities do remain by race and ethnicity, as more than 90 percent of White Michiganders report having a dedicated health care provider compared to 81 percent for American Indians/Alaskan Native Michiganders, 86 percent for Black Michiganders and 87 percent for Hispanics Michiganders.

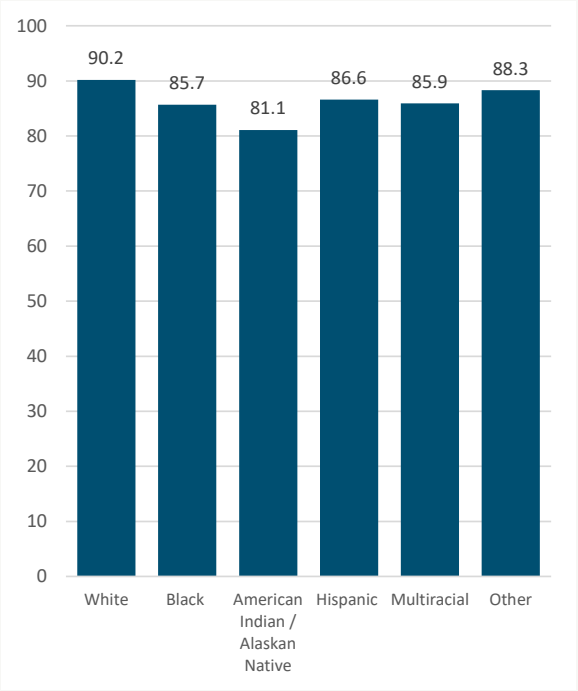
[53] Agency for Healthcare Research and Quality. Medical Expenditure Panel Survey-Insurance Component, 2021 data available from: https://datatools.ahrq.gov/meps-ic.

[54] White C. Private Health Plans Pay Hospitals Much Higher Prices in Indiana than in Michigan: Explanations and Implications. (May 2020), Research Brief for the National Institute for Health Care Reform, available at: https://www.nihcr.org/analysis/private-health-plans-pay-hospitals-much-higher-prices-in-indiana-than-in-michigan-explanations-and-implications/

[55] Centers for Medicare and Medicaid Services. National Health Expenditure Data by State of Residence, available at: https://www.cms.gov/research-statistics-data-and-systems/statistics-trends-and-reports/nationalhealthexpenddata.

Figure 18: Percent with a Dedicated Health Care Provider, Michigan and the U.S. Average (2012 – 2021) and Disparities in Percent with a Dedicated Health Provider by Race in Michigan, 2021





Source: America's Health Rankings, available at https://www.americashealthrankings.org/explore/annual.
Note: Y scale axis does not start at zero to highlight trends.

There are also disparities in provider supply by geography, with large, less-populated areas of the state such as parts of the norther Lower Peninsula and much of the Upper Peninsula having little to no provider supply to meet important health care needs such as primary care, maternity and prenatal care, and behavioral health care.[56] For example, the number of primary care physicians for every 100,000 people ranges from less than 10 in a number of Michigan counties to a high of 176,[57] while the number of mental health providers per 100,000 people ranges from less than 50 in a number of counties to a high of 652.[58]

In addition to expanding numbers of providers in rural and underserved areas, improving access to care can be supported by fully leveraging the existing health care workforce. For providers such as nurse practitioners and physician assistants, scopes of practice vary widely under state-specific licensure law and regulations. Michigan's practice environment for physician assistants is rated "advanced," comparing favorably with neighboring states.[59] On the other hand, Michigan's practice environment for nurse practitioners is the most restrictive in the Midwest, and more restrictive than 40 other states.[60]

[56] Wendling A, Taglione V, Rezmer R, Lwin P, Frost J, Terhune J, Kerver J. Access to maternity and prenatal care services in rural Michigan. Birth. 2021 Dec;48(4):566-573. doi: 10.1111/birt.12563. Epub 2021 Jun 18. PMID: 34145616. and Turner A, Rhyan C, Ehrlich E, and C Stanik, "Access to Behavioral Health Care in Michigan: Results for the Total Michigan Population," Altarum Institute for the Michigan Health Endowment Fund, July 2019. Available at: https://altarum.org/sites/default/files/uploaded-publication-files/Altarum_Behavioral-Health-Access_Brief-All-MI.pdf

[57] Note that this comparison of primary care physicians by county includes physicians only whereas the previous data comparing provider supply to other states and the nation also included non-physician providers.

[58] University of Wisconsin Population Health Institute. County Health Rankings & Roadmaps 2023. Ranked Measure Data, www.countyhealthrankings.org.

[59] American Academy of Physician Associates, PA State Practice Environment (2023), available at: https://www.aapa.org/advocacy-central/state-advocacy/state-maps/pa-state-practice-environment/.

[60] American Association of Nurse Practitioners, State Practice Environment (2023), available at: https://www.aanp.org/advocacy/state/state-practice-environment.

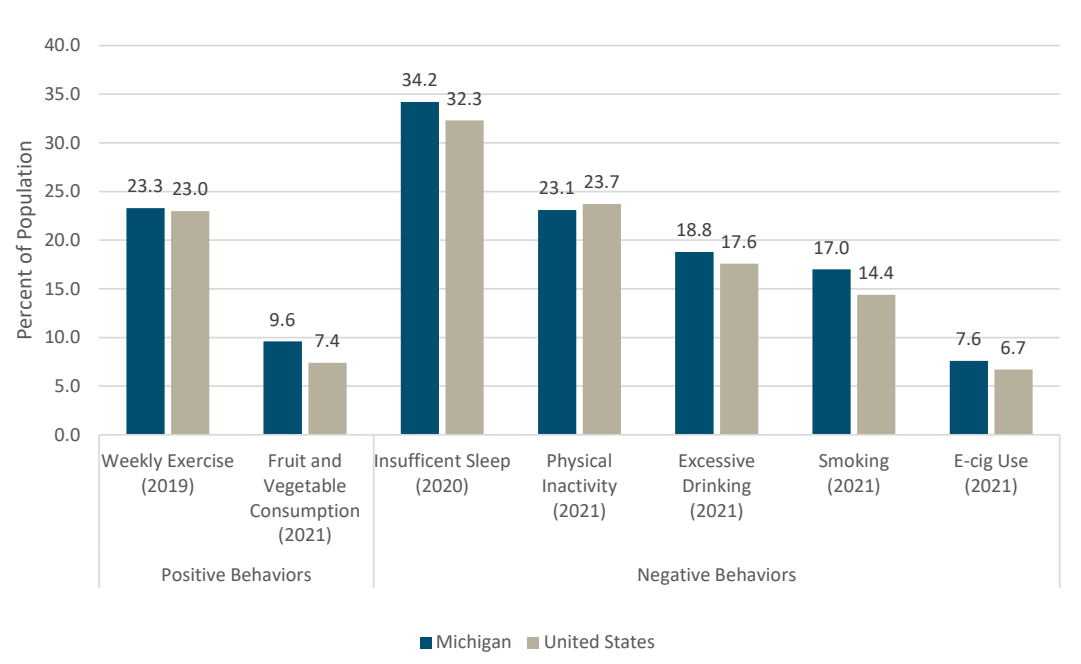
In the coming decades, the supply and distribution of health care resources will be increasingly challenged as Michigan's population ages and requires more health care and other supports. By 2050, there will be almost as many people aged 75 and older as there are school aged children in the state.[61] There are already shortages of direct care workers in Michigan that are reducing access to services, and these shortages have been exacerbated by the pandemic and overall labor market shortages.[62] The health of Michigan's population will benefit from comprehensive long-term planning for health care and caregiver needs and strategies to support the appropriate supply and distribution of providers to meet those needs.

Health Behaviors in Michigan

On some measures of health-related behaviors, Michiganders are on par with or better than the national average. For example, Michigan residents report greater rates of weekly exercise and lower rates of physical inactivity than the U.S. average. On other measures, however, Michiganders report less healthy behaviors, with more frequent smoking and binge drinking, and less frequent fruit and vegetable consumption than the U.S. average (Figure 19). These factors are direct contributors to overall health and life expectancy, and also indirectly impact the risk of developing many chronic conditions. Even in cases when Michigan looks better than average, there remains room for improvement (e.g., only 23.3 percent reporting meeting the federal weekly guidelines for exercise in the past 30 days).

Improving performance on these modifiable behaviors will require coordinated investments in public health and community social services. While the traditional medical system may contribute to assisting and guiding patients towards better health decisions, it is likely permanent changes in health beliefs and behaviors led by Michigan's public health expertise that will be the key to fostering improvements in these health outcomes.

Figure 19: Prevalence of Select Health-Related Behaviors, Michigan and U.S. Average (various years)



Source: America's Health Rankings, available at https://www.americashealthrankings.org/explore/annual

[61] See Altarum and Citizens Research Council of Michigan, Michigan's Path to a Prosperous Future: Population and Demographic Challenges and Opportunities, Paper 1 in a Five-Part Series, May 2023, https://crcmich.org/PUBLICAT/2020s/2023/prosperous-future-popul.pdf.
[62] Turner A, Slocum S, Campbell S and K Scales," Michigan's Long-term Care Workforce: Needs, Strengths, and Challenges," Altarum and PHI, June 26, 2020. Available at: https://altarum.org/publications/michigans-long-term-care-workforce-needs-strengths-and-challenges

Environmental Factors

Michigan has physical assets to support good health in a variety of ways. The state has abundant fresh water and more than 3,000 miles of coastline along four of the five Great Lakes. State, county, and city parks, and acres of forests, hills, sand dunes, lakes, and rivers offer year-round recreational opportunities to improve physical and mental health. Michigan has a strong and diverse agricultural scene and ranks 3rd in the nation for the number of farmer's markets,[63] including a growing urban farming movement in cities such as Detroit, giving residents access to a variety of fresh produce and farm products.

However, environmental factors such as water quality and the presence of lead continue to impact health and vary considerably across the state. The state ranks 34th out of 50 states on the risk of exposure to 600 unhealthy environmental chemicals and 33rd on exposure to air pollution.[64] Michigan ranks highly on water fluoridation (14th) and non-smoking regulations (1st). Overall, in a composite measure of environmental factors impacting health, Michigan ranks just below average at 27th, but there is wide variability across the state in exposure to unhealthy physical environments. As documented in more detail in a companion paper in this series on Michigan's environment and natural resources, cumulative effects of individual air and water pollutants over time have created neighborhoods such as areas of Southwest Detroit that suffer disproportionate health consequences of unhealthy physical environments.[65]

Exposure to lead by children has been linked to brain and nervous system damage, learning disabilities, reduced hearing, lower height, and other lifelong consequences.[66] Adult exposure to lead has been linked to cardiovascular disease and impacts on reproductive and kidney health.[67] Michigan has the third highest number of lead service lines carrying water to residents among states reporting to the National Resources Defense Council.[68] Research has estimated that more than 12,000 Michigan children born in 2019, or 11 percent of all births, have blood lead levels greater than 2ug/dL. No exposure to lead is considered safe for children. The lifetime economic burden of childhood lead exposure to the state for just this birth cohort has been estimated at $2.3 billion.[69] Again, lead exposure varies geographically across the state, with the highest exposure risks historically falling in Wayne and Genesee counties (prior to expedited lead service line replacement and lead hazard control work in Flint, Michigan following the Flint water crisis in 2014).[70]

Social and Economic Drivers of Health

Social and economic factors such as education, poverty, exposure to crime, and food insecurity strongly influence health. According to America's Health Rankings, Michigan ranks 37th out of 50 states for a combination of social and economic factors influencing health.[71] Particular challenges include the following factors:

- Violent crime. Michigan ranks 41st out of 50 states for rates of violent crime, with 478 incidents of violent crime per 100,000 people (Figure 20). Rates vary by state from 109 incidents per 100,000 in Maine to 838 in Alaska, with the U.S. average at 399.[72]
- Poverty. At 13.1 percent of households living in poverty, Michigan ranks 33rd (Figure 21). Poverty rates range from 7.6% in New Hampshire to 19.4 percent in Louisiana, with the U.S. average at 12.8 percent.[73]

[63] Michigan Economic Development Corporation. 20 Michigan Agriculture Facts You Might Not Have Known, available at: https://www.michigan.org/article/trip-idea/michigan-agriculture-facts-might-not-have-known
[64] America's Health Rankings, Michigan state data available at: https://www.americashealthrankings.org/explore/states/MI.
[65] Martenies, S. E., Milando, C. W., Williams, G. O., & Batterman, S. A. (2017). Disease and health inequalities attributable to air pollutant exposure in Detroit, Michigan. International journal of environmental research and public health, 14(10), 1243.
[66] United States Environmental Protection Agency. Basic Information about Lead in Drinking Water. (2023), available at: https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water.
[67] Lanphear, B. P., Rauch, S., Auinger, P., Allen, R. W., & Hornung, R. W. (2018). Low-level lead exposure and mortality in US adults: a population-based cohort study. The Lancet Public Health, 3(4), e177-e184.
[68] Olson E and A Stubblefield, "Lead Pipes are Widespread and Used in Every State," NRDC, July 8, 2021. https://www.nrdc.org/resources/lead-pipes-are-widespread-and-used-every-state.
[69]Preventing Childhood Lead Exposure: Costs and Benefits, available at: http://valueofleadprevention.org/.
[70] Flint Registry. Resources and Programs, available at: https://flintregistry.org/resources-programs/.
[71] America's Health Rankings, Michigan state data available at: https://www.americashealthrankings.org/explore/states/MI.
[72] America's Health Rankings, available at: https://www.americashealthrankings.org/explore/measures/Crime/MI.
[73] America's Health Rankings, available at: https://www.americashealthrankings.org/explore/measures/household_poverty/MI.

Figure 20: Rates of Violent Crime, Michigan, Other Midwestern States, and U.S. Average (2000-2020)

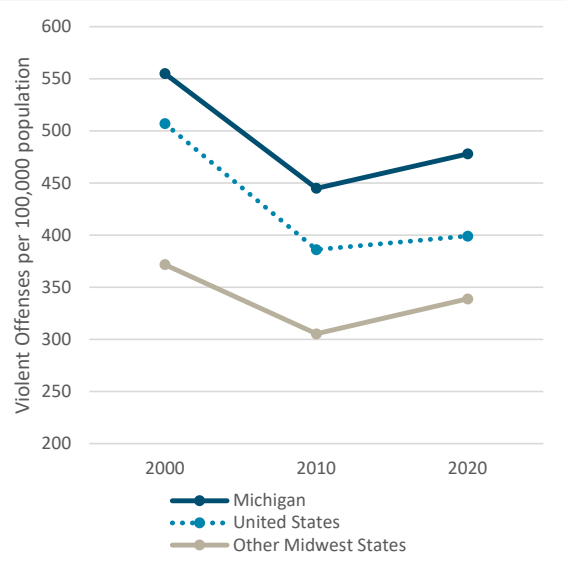
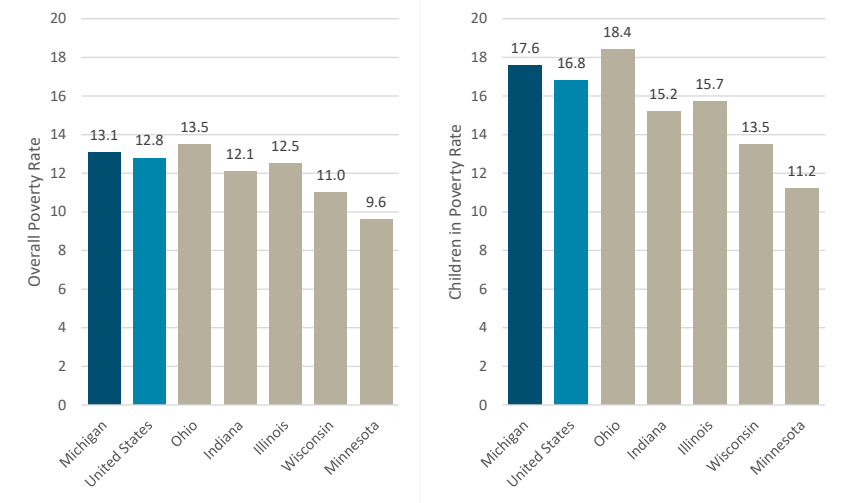


Figure 21: Rates of Overall Poverty (2021) and Poverty among Children (2019), Michigan, Other Midwest States, and U.S. Average



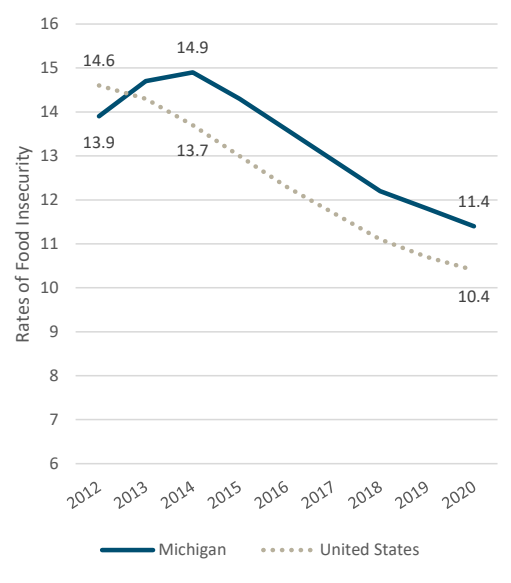
Source: America's Health Rankings, available at https://www.americashealthrankings.org/explore/annual

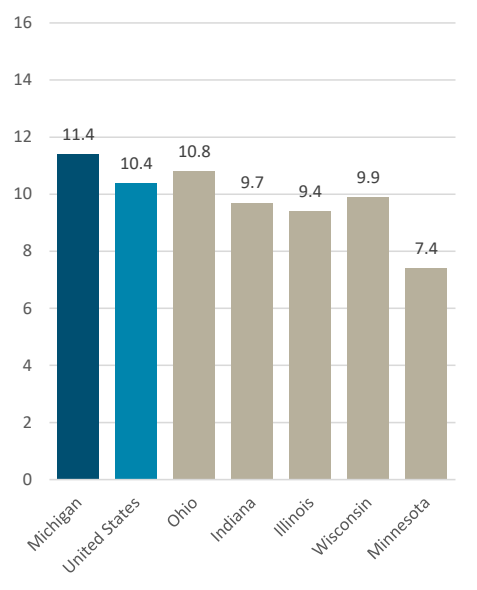
- Food insecurity. 11.4 percent of Michigan households are facing food insecurity, ranking 39th out of 50 states (Figure 22). Rates range from 5.4 percent in New Hampshire to 15.3 percent in Mississippi with the U.S. average at 10.4 percent.[74]

- Education. Education is highly correlated with health. Better health supports better educational outcomes and higher educational outcomes are associated with better health, independent of other factors.[75] Consistent with findings in the companion paper in this series on Michigan's economy, workforce and talent, Michigan ranks 42nd out of 50 states in a composite measure of educational outcomes, including 4th grade reading proficiency and high school graduation rates.

[74] America's Health Rankings, available at: https://www.americashealthrankings.org/explore/measures/food_insecurity_household/MI
[75] Raghupathi, V., Raghupathi, W. "The influence of education on health: an empirical assessment of OECD countries for the period 1995–2015." Arch Public Health 78, 20 (2020). https://doi.org/10.1186/s13690-020-00402-5

Figure 22: Rates of Food Insecurity (2012-2020), Michigan and U.S. Average and Comparisons to Other Midwest States (2020)





Source: America's Health Rankings, available at https://www.americashealthrankings.org/explore/annual

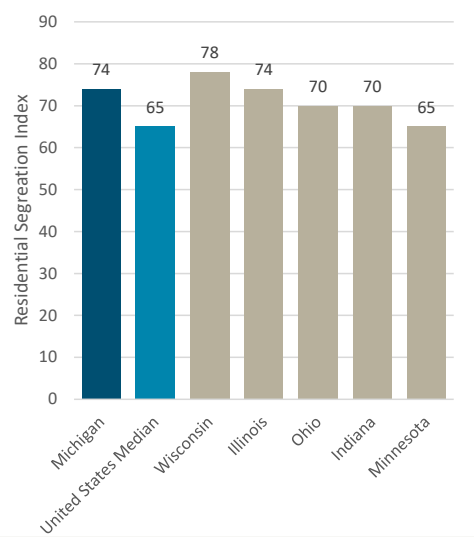
- Employment. While the 2021 to 2023 period following the COVID-19 pandemic disruptions to U.S. labor markets has been marked by significant growth in employment measures across the United States, Michigan lags behind its peers in current employment outcomes, such as the overall unemployment rate. As of June 2023, Michigan's unemployment rate is 3.7%, ranking 39th out of 51 regions (all states plus the District of Columbia) and Michigan is also behind many of its neighboring Midwest states, where its best performing neighbors such as Wisconsin (2.4%) and Minnesota (2.9%) have unemployment rates 1.3 and 0.8 percentage points lower respectively than Michigan at the time of data analysis.[76]

  Employment and employment opportunities can impact health outcomes in a variety of ways, including (in many cases) health insurance for workers and their families, as well as income that can support financial access to many types of health and non-health related needs that improves health outcomes. Stable employment and strong labor markets can also provide positive impacts on mental health and wellbeing, supporting families with stability and choice in employment options.[77]

- Residential Segregation. Consistent with racial and ethnic disparities in health and other life outcomes, especially for Black Michiganders, Michigan ranks 44th in the nation in Black/White neighborhood segregation, negatively impacting health.[78] Figure 23 shows that Michiganders experience greater residential segregation than the national average and at or greater than all neighboring Midwest states except Wisconsin.

[76] U.S. Bureau of Labor Statistics. Unemployment Rate for States. (as of June 2023), available at: https://www.bls.gov/web/laus/laumstrk.htm
[77] Stiglitz, J. E. (2002). Employment, social justice and societal well-being. International Labour Review, 141(1-2), 9-29. Available at: https://www.ilo.org/public/english/revue/download/pdf/stiglitz.pdf
[78] Egede, L. E., Walker, R. J., Campbell, J. A., Linde, S., Hawks, L. C., & Burgess, K. M. (2023). Modern day consequences of historic redlining: finding a path forward. Journal of general internal medicine, 1-4.

Figure 23: Residential Segregation Index, Michigan, Other Midwest States, and U.S. Average, 2018



Source: America's Health Rankings, available at https://www.americashealthrankings.org/explore/annual

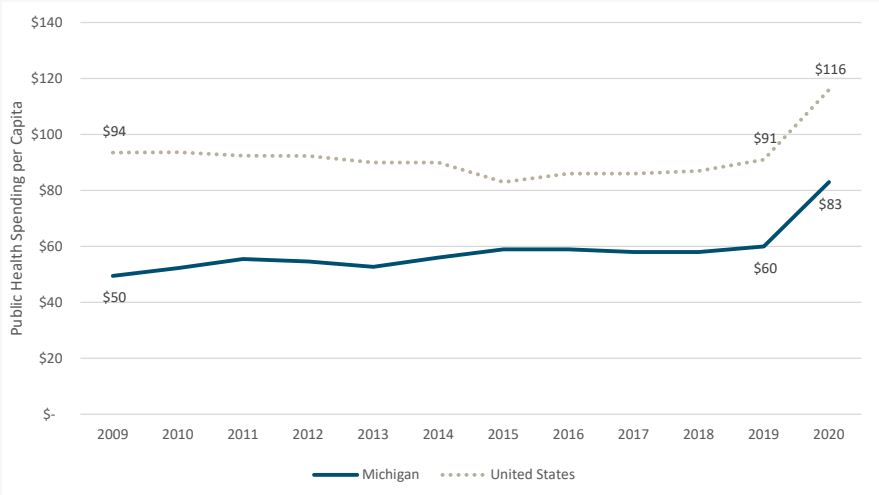
Public Health

While health care treats individual patients for disease or injury, public health seeks to promote good health and prevent disease and injury at the community and population level.[79] For example, public health research and policies may be aimed at reducing rates of obesity and heart disease, reducing rates of smoking, controlling the spread of infectious disease, monitoring the safety of food, air, or water, or improving birth outcomes in communities or the state population.

While the health care infrastructure in Michigan compares favorably to other states, the public health infrastructure is underfunded relative to other states. Michigan consistently spends less per capita on public health than the national average (Figure 24), and currently ranks 40th out of 50 states in public health spending.

The state's public health workforce and infrastructure have been further threatened by the departure of many prominent, experienced public health officials during the COVID-19 pandemic. Public health leaders in Michigan report the loss of 15, or about one-third, of the state's local public health officers over the past three years.[80]

Figure 24: Public Health Spending per Capita, Michigan and U.S. Average, 2009-2020



Source: America's Health Rankings, available at https://www.americashealthrankings.org/explore/annual

[79] Adapted from Johns Hopkins Bloomberg School of Public Health definition https://publichealth.jhu.edu/about/what-is-public-health.
[80] Janelle J. Turnover a Challenge in Public Health Jobs. Capital News Service, October 9, 2022. Available at https://www.lenconnect.com/story/news/state/2022/10/09/turnover-public-health-jobs/69548424007/.

Conclusions and Implications for the Future of Michigan

Michigan's population is experiencing poorer physical and mental health and has higher rates of disability than the national average. These findings hold true across many measures of overall health and for specific physical and mental health conditions. There are also significant disparities in health outcomes, health care access, and environmental factors that drive health by race, socioeconomic status, and geography. Rural areas of the state lack health care providers in important categories such as obstetrics and mental health, as well as primary care.

Further, Michigan consistently ranks in the bottom ten states for public health spending per capita. The state's public health workforce and infrastructure have been challenged and staff turnover has weakened institutional knowledge and capacity. However, there is still an opportunity to rebuild public health systems and practices at the state and local levels.

Michigan compares favorably to other states in overall access to and affordability of health care and a robust medical care infrastructure, particularly in the more populous areas of the state. Michigan enjoys a higher-than-average number of health care providers per capita and the presence of strong anchor institutions in many parts of the state offering world-class medical care. The influence of the automotive industry and related manufacturing with a strong union presence has contributed to a history of high rates of health care coverage compared to much of the rest of the country. The state's adoption of the Healthy Michigan program expanding Medicaid coverage to nearly 800,000 Michiganders today has also been instrumental in supporting access to health care. The strong employer bargaining power and the historical dominance of a single health care insurer has also contributed to more controlled commercial health care price growth and lower commercial prices in Michigan than elsewhere in the U.S.[81]

Michigan's population and demographic path points to increasing health challenges. The population is older than the average state, with a large concentration of Baby Boomers, and so is aging faster than much of the nation. Over the next 30 years, the population age 65 and older is projected to grow by 30 percent at the same time children and young adults are projected to decline by six percent. Challenges to workforce and caregiver availability created by an aging population are intensified in Michigan as there will be fewer younger people to take the place of those aging and retiring.

Our analysis of current challenges, opportunities, and trends in Michigan's health points to the following areas of focus for improving the health, wellbeing, and competitiveness of the state.

Maintain and Leverage Michigan's Strengths in the Health Care Sector. Michigan has great strengths in health care coverage including expanded Medicaid coverage, relatively low commercial health care prices and spending per capita, world-class medical care facilities, and higher than average rates of health care providers per capita. Reviewing scope of practice and licensure laws and regulations and supporting productive use of telemedicine are potential avenues for further leveraging the state's health care resources, both to better cover underserved regions and groups and to prepare for the growing needs of an aging population.

Michigan's strong medical care infrastructure can also continue to be leveraged to improve population health. Nonprofit hospitals are required to periodically assess community needs and invest in community health, although much community benefit funding goes to subsidizing the provision of Medicaid and/or Medicare services.[82] The state could explore the use of the levers available to ensure community benefit spending is being fully leveraged to address community needs and non-clinical prevention.[83] There is legitimate concern about whether it is efficient or appropriate for the health care system to take on social service needs. In the short run, much more public and private funding is flowing through health care and there is no doubt that there are great unmet social and environmental needs that impact the health of patients and the communities that surround major health care institutions. Based on our analysis in this paper, in the long run, strengthening social services and public health systems may be an efficient and effective path to improving population health in Michigan and across the U.S.

[81] White C. Private Health Plans Pay Hospitals Much Higher Prices in Indiana than in Michigan: Explanations and Implications. (May 2020), Research Brief for the National Institute for Health Care Reform, available at: https://www.nihcr.org/analysis/private-health-plans-pay-hospitals-much-higher-prices-in-indiana-than-in-michigan-explanations-and-implications/

[82] RTI International. Community Benefit Insight. Available at: https://www.communitybenefitinsight.org/

[83] Atkeson, A., & Higgins, E. (2021). How states can hold hospitals accountable for their community benefit expenditures. National Academy for State Health Policy. https://nashp.org/how-states-can-hold-hospitals-accountable-for-their-community-benefit-expenditures/

Strengthen Michigan's Public Health System. As we emerge from the biggest public health challenge in a century, Michigan has an opportunity to rebuild and strengthen its public health infrastructure and workforce. With a population in poorer physical and mental health than the national average, Michigan would be well-served to bring public health spending per capita investments in public health at least in line with the national average. Public health investments are investments in the wellbeing of Michiganders and in workforce development as better health supports higher workforce participation and productivity. Public health strategies are well suited to address environmental and behavioral drivers of health, significant factors in long-term population health outcomes and disparities in health.

Plan for the Needs of an Aging Population. Michigan's population is aging. Over the next three decades, the population aged 75 and older will grow by nearly 80 percent to more than 1.3 million people. Health care needs increase with age and increase significantly as people reach their 70s and 80s. The aging of Michigan's population will increase demands on the capacity of health care providers and state budgets for health care and for long-term services and supports. Caring for aging family and community members will also impact younger Michiganders, particularly as the ratio of working age to retirement age people continues to shrink, from 4.5 in 2010 to 2.5 by 2035.[84] While there will always be competition for time and resources between immediate and long-term issues, the challenges of an aging population are foreseeable, and planning can begin now to ensure Michigan has the health care and personal care workforce, facilities, and financing that will be needed in the coming decades.

Focus on Behavioral Health. The state's infrastructure for responding to behavioral health care needs is worthy of special focus. Prevalence of poor mental health is higher than average in Michigan and rising. The COVID-19 pandemic and related social and economic impacts have led to a higher prevalence of mental health conditions, substance use disorders, sedentary lifestyles, and other unhealthy behaviors. These conditions are often chronic rather than episodic, requiring lifelong management. Michiganders on average report being affected 5.5 days each month by poor mental health, a greater number of days than the national average and more than any near Midwestern neighbor. Mental health conditions and substance use disorders pose threats to educational achievement and life outcomes for the state's young people and strongly impact lifetime wellbeing as well as labor force participation and on-the-job productivity into adulthood.

Work to Reduce Health Inequities and Disparities. Efforts to improve health should aim for both overall improvements and reductions in underlying disparities so that all Michiganders have opportunities for good health. Disparities in health are relatively larger in Michigan than the national average, especially for Black and American Indian/Alaskan Native Michiganders. Advancing health equity means closing gaps in access to care, in the experience of care itself, and, importantly, in the social and environmental factors that are a major determinant of health and longevity.

Marginalized groups in Michigan initially had worse COVID-19 outcomes, but the state narrowed gaps in mortality over time, demonstrating that progress can be made to reduce health disparities with focused attention and hard work at the community level.

All of Michigan's population growth is projected to come from the populations of color.[85] Absent progress in reducing health disparities, demographic trends will lead to further declines in population health outcomes in the state, and will impact health spending, the strength of the labor force, and premature loss of life. Health disparities have been estimated to cost Michigan $4 billion per year in higher health care spending and lower productivity and 140,000 lost life years associated with premature deaths each year, figures that will continue to rise with projected demographic trends.[86] With focused efforts, there is a strong opportunity to improve Michigan's health, wellbeing, and productivity by raising up the health of those who have long experienced disparities. It is important to note that not all disparities are the same across various racial and ethnic groups and specific policy and investments should vary accordingly.

[84] See Altarum and Citizens Research Council of Michigan, Michigan's Path to a Prosperous Future: Population and Demographic Challenges and Opportunities, Paper 1 in a Five-Part Series, May 2023 https://crcmich.org/PUBLICAT/2020s/2023/prosperous-future-popul.pdf.
[85] Ibid.
[86] Turner, A and B Beaudin-Seiler,"The Business Case for Racial Equity in Michigan: A Strategy for Growth," Altarum and the W. K. Kellogg Foundation, 2018. Available at: https://altarum.org/sites/default/files/uploaded-publication-files/WKKellogg-MI-Business-Case-for-Racial-Equity-Report_2018.PDF

Recap

The health of Michiganders has been declining relative to the rest of the nation and Michigan now ranks in the bottom half of states on many aggregate measures of health such as life expectancy, premature death, and disease prevalence. While the state has many advantages in the traditional health care sector, including low rates of uninsurance, low average health spending, and greater than average physician supply, health care access and affordability remain barriers in many parts of the state. The health of Michiganders is also impacted by a relatively low investment in public health, higher rates of some unhealthy behaviors such as smoking, and challenges in the social and environmental factors that drive health, leading to poorer health and persistent health disparities.

In the last several years, a significant contributor to the state's health outcomes has been the COVID-19 pandemic, and its impacts have been emblematic of many of Michigan's ongoing health challenges. The pandemic highlighted challenges in public health coordination and investment, and how disparities in health, access to care, and life circumstances led to higher COVID prevalence and worse outcomes for some groups. Yet, the state's response to the pandemic has shown how real progress can be made through focused efforts, as coordination and outreach improved and gaps in COVID-19 outcomes were significantly narrowed over time.[87]

Improving the health of Michigan's population moving forward will require a focus not only on strengthening access to health care providers and services, but also on strengthening the state's public health system and targeting the social, economic, and environmental factors that contribute to health. It will also be important to increase coordination and connectivity between the medical system, public health, and social supports. Based on population and demographic trends and an assessment of challenges and opportunities for Michigan's health, areas of focus should include the following:

- Maintain and leverage above average health care coverage, provider supply, and affordability
- Rebuild and strengthen Michigan's public health system
- Plan for the health and social service needs of an aging population
- Focus on behavioral health
- Intensify focus and efforts to reduce health inequities and disparities

[87] Michigan Coronavirus Racial Disparities Task Force, "Recommendations for Collaborative Policy, Programming and System Change," February 2022, available at https://wdet.org/wp-content/uploads/2022/02/Racial-Disparities-Task-Force_Recommendations-for-Collaborative-Policy-Programming-and-Systemic-Change.pdf