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Using research to build better public policy for families

Addressing Racial Health Disparities in Wisconsin

Healthy families are the cornerstone for thriving communities and a strong economy. State policymakers play a significant role in improving the health of Wisconsin families and addressing health disparities. This issue brief discusses the prevalence and causes of racial health disparities. It concludes with takeaways for state policymakers from seminar speaker Arjumand Siddiqi.

*This issue brief is one of four for the 39th Wisconsin Family Impact Seminar, **Beyond Healthcare Policy: Building the Foundation of Health for Wisconsin Families**, held January 13, 2021.*

KEY TAKEAWAYS

- In Wisconsin and across the country, some subgroups of the population experience worse health outcomes than other subgroups. These differences are called health disparities.
- Wisconsin has significant racial health disparities, many of which reveal poorer health for Black and American Indian/Alaska Native residents.
- Research suggests there are two primary drivers of racial health disparities—socioeconomic status (SES) and racism. Both can diminish a family's social and economic resources and lead to chronic stress and its detrimental effects on the body.

Does Everyone in Wisconsin Experience Good Health?

A healthy society is one in which everyone can achieve good health. In Wisconsin and across the country, some subgroups of the population experience significantly worse health than other subgroups. These differences are called health disparities and can occur by race and ethnicity, education level, income, gender, geography (e.g., rural vs. urban), and other factors.

Researchers and policymakers have focused on eliminating health disparities between racial and ethnic subgroups because of their prevalence and persistence over time. For example, Wisconsin receives a grade of "F" compared to other states for its high death rates of Black and American Indian/Alaska Native people at all ages.¹ Racial health disparities can be found in several other domains (see Figure 1).

Figure 1: Racial Health Disparities in Wisconsin

(Racial/ethnic subgroups with the poorest health in each domain are highlighted in pink)

	American Indian/ Alaska Native	Asian/ Pacific Islander	Black/ African American	Hispanic/ Latinx	White	Statewide average
Infant deaths (per 1,000) ²	13.8	7.2	15.0	5.8	4.6	6.3
Life expectancy (in years) ³	72.8	85.3	73.8	86.9	79.8	79.5
Suicide (per 100,000) ⁴	15.6	6.5	5.3	6.2	15.3	15.5
Cancer deaths (per 100,000) ⁵	213.0	112.7	234.4	103.3	167.3	169.7
Insurance coverage (past year) ⁶	88.3%	96.8%	81.2%	87.1%	93.7%	92.6%

Note: Data drawn from five reports. Racial and ethnic group names differed slightly in each report (e.g., Black vs. African American).

As shown above, American Indian/Alaska Native and Black people experience a significant number of poor health outcomes. Wisconsin’s Black infant mortality rate is the highest in the nation (15.0 per 1,000 babies born) and contributes to our higher overall infant mortality rate (6.3 per 1,000 in Wisconsin vs. 5.8 per 1,000 nationally).

The quality of healthcare received by subgroups also differs. Wisconsin ranks in the bottom quartile of states for the average differences in the quality of care received by Black, Hispanic, and Asian people compared with White people, despite ranking in the top quartile for overall healthcare quality.⁷

What Leads to Racial Health Disparities?

Researchers have found no genetic differences to explain the poorer health status and health outcomes of racial and ethnic minorities.^{8,9} Research instead points to two primary drivers of racial health disparities: differences in socioeconomic status and racism.^{10,11,12}

Race is a social construct with no underlying biological or genetic basis in which people are divided into separate groups based on nationality, ethnicity, and/or skin color.^{11,13} **Racism** results when individuals and/or institutions hold negative beliefs (stereotypes) and attitudes (prejudice) toward nondominant racial groups and treat them differently. Resources, opportunities, and power are shifted from nondominant racial group(s) to the dominant racial group(s) through institutional structures, policies, cultural norms and values, and individual behaviors.^{11,14}

Socioeconomic Status (SES)

Socioeconomic status (SES) is a combined measurement of education level, income, and/or occupational status. People with low SES tend to have less access to health-promoting factors such as healthy foods, safe spaces to play and exercise, the internet, reliable transportation to work and school, and employment opportunities. They also tend to have more exposure to crime, violence, and environmental toxins. As a result, low SES is one of the strongest predictors of disease and early death.¹⁵

People in all racial and ethnic groups can have a low SES. However, a larger proportion of people of color have low SES compared to Whites, and this contributes to disparities in health outcomes.¹⁶

Racism

Even within a given SES level, there are significant health differences between racial and ethnic subgroups. That is, people of color have worse health compared to White people with similar social and economic circumstances.^{16,17} In fact, people of color can have worse health than Whites with a lower SES.

For example:

- The risk of death for middle-aged Black men is 1.28 times greater than for White men and the risk of death for Black women is 1.35 times greater than for White women, even when they have similar employment status, income, education, and other factors.¹⁸
- Black people with at least a college degree have a *lower* life expectancy at age 25 than White and Hispanic people with only a high school diploma.¹⁹
- The rate of pregnancy-related deaths for Black and American Indian/Alaska Native women is two to three times higher than for White women.²⁰ The mortality rate for Black women with a college education is 1.6 times *greater* than for White women with less than a high school education.

Research suggests these differences are due to interpersonal and institutional racism. Racism diminishes the social and economic resources of nondominant racial groups through school segregation, unequal educational and employment opportunities, incarceration, and other policies and practices.¹⁰ Racism also can affect the quality of and access to healthcare. For example, according to researchers at the U.S. Centers for Disease Control and Prevention, the racial disparities seen in pregnancy-related deaths might be due in part to bias and structural racism in the healthcare system and community.²⁰

One prominent example of how racism diverts social and economic resources from people of color began in the early 20th century. Policies and practices at the federal, state, and local level and in the private sector created segregated neighborhoods and prevented people of color from obtaining mortgages.^{11,21} In the 1930s, the federal government rated neighborhoods on their risk level for housing loans. Neighborhoods with Black and immigrant families were routinely given the lowest rating (“hazardous”) and shaded in red on maps in a practice called “redlining.” These families were unable to purchase homes and build wealth.

The effects of these policies and practices persisted even after passage of the Fair Housing Act of 1968. Today, formerly redlined neighborhoods are more likely to have concentrated poverty, poorer schools, fewer employment opportunities, limited access to healthcare, fewer trees and parks, and more physical and chemical hazards.¹¹ Fewer Black families currently own homes (40% compared to 73% for White families) and their homes appreciate more slowly.²²

In sum, low SES and racism *indirectly* influence health and result in racial health disparities. The effect of both is the same: individuals and families are less likely to have the social and economic resources needed to achieve good health and well-being.

Low SES and racism, as chronic stressors, also can *directly* affect health in detrimental ways.

COVID-19: An Example of Racial Health Disparities

COVID-19 has affected proportionally more people of color at every point on the continuum of care. Research conducted eight months into the pandemic has shown that, compared to White people, people of color are more likely to contract COVID-19, require greater medical intervention when they test positive, be hospitalized, and die from the virus.^{23,24} For example, American Indian/Alaska Native and Hispanic/Latinx patients experience hospitalization at rates four times that of White patients.²⁴

Experts believe people of color make up a larger portion of cases because they are more likely to work in low-income jobs that cannot be done remotely, live in larger households situated in denser neighborhoods, and use public transportation.²⁵ These work, living, and travel situations increase the risk of exposure to COVID-19, but this risk has not translated to higher testing rates for people of color.

Consistent with national data, Black and American Indian people in Wisconsin are dying of COVID-19 at a much higher rate than White people (see Figure 2).²⁶

Figure 2: Rates of Death from COVID-19 in Wisconsin
(Per 100,000 people)

American Indian	113.2
Black	84.7
White	68.7
Latinx	64.4
Asian	42.4

Note: As of December 8, 2020

The higher hospitalization and death rates for people of color reflect the higher infection rate (for the reasons outlined above) as well as underlying health conditions. People of color are more likely to have certain health conditions such as diabetes and asthma compared to Whites, which increases their risk of serious COVID-19-related illness.²⁵ People of color also face more challenges in accessing testing and treatment than Whites because they are more likely to be uninsured, or they avoid or delay care due to cost, discrimination in the healthcare system, or other reasons.

How Does Chronic Stress Harm a Person's Health?

Stress experienced over a long period of time can negatively influence a person's physiology and health behaviors, which ultimately affects their physical and mental health. People can experience chronic stress from one or more of the following situations: low SES (e.g., having poor employment opportunities, low income), low-quality or insufficient medical care, and racism (e.g., experiencing discrimination in healthcare or workplace settings).²⁷

Early life stress is particularly impactful on later health because children's brains and bodies are in a sensitive period of development (see the 2019 Family Impact Seminar, *Building Strong Wisconsin Families: Evidence-based Approaches to Address Toxic Stress in Children*). Early life stressors include exposure to discrimination, child abuse and neglect, and poor caregiver mental health, which can lead to a higher allostatic load score into adulthood.

Chronic stress activates a person's coping mechanisms in ways that can have profound effects on their health in the present and future.^{28,29,30} Chronic stress can change genetic expression; dysregulate the neuroendocrine, immunological, and metabolic systems (e.g., insulin, cortisol); and change the gut microbiome.^{31,32} These physiological changes can lead to an early deterioration in health that worsens over time in a process called weathering.

The amount of wear and tear on a person's body can be measured by an *allostatic load score*, which is derived from biomarkers such as blood pressure, triglycerides, cortisol, and C-reactive protein. An elevated allostatic load score is associated with chronic inflammation, diabetes, heart disease, cancer, psychiatric illnesses, and early death.³²

Social and economic adversities can lead to chronic stress and its detrimental effects. People with low SES are more likely to have a high allostatic load score.³³ People with the lowest SES die an average of 2.1 years earlier than people with the highest SES.³² This is similar to the early mortality due to high blood pressure or physical inactivity. People who live in poor neighborhoods, have low educational attainment, or experience racial and ethnic discrimination also have higher allostatic load scores.³³

For people of color, racial discrimination also can lead to chronic stress above and beyond any stress related to their social and economic circumstances. This stress can cause wear and tear on their bodies, accelerated aging, and early death. Research suggests that, on average, Black people have a higher allostatic load score than White people, even when accounting for poverty level, SES, and health behaviors.^{34,35} Black women tend to have the highest score, then Black men, White men, and White women. In one study, nonpoor Black people were more likely to have a high allostatic load score than poor White people.³⁴

Conclusion

A healthy Wisconsin and strong economy depend on healthy people and healthy communities. Yet not everyone has the opportunity to achieve good health. Black, American Indian/Alaska Native, and other racial and ethnic subgroups in Wisconsin have experienced persistently worse health outcomes compared to White people. By addressing socioeconomic conditions, as well as the structural factors related to racism, policymakers can build a strong foundation of health for all Wisconsin families.



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Arjumand Siddiqi's takeaways for legislators and other state policymakers:

In order to understand racial disparities in health, we have to understand what race is. Race is a type of social group that is constructed in societies. It is not a grouping of people based on genetic similarities. Building on other research, the Human Genome project confirmed that if you are given the DNA characteristics of a person and no other information, you would not be able to determine their race.

"Race-based" diseases and disparities are not based on genes. For instance, we think of sickle cell anemia as a "Black disease," but the genetic mutation associated with sickle cell anemia is found in parts of the world where malaria is highly prevalent because it protects against contracting malaria. People from the Mediterranean and parts of Africa have high levels of sickle cell disease, even though they are racially different. (This might not be common knowledge because there are more Black people than Mediterranean people in the U.S.) Another example can be found when we look at birth weights of babies born in the United States. If low birth weights were due to race, the birth weights of Black babies born to immigrant Black mothers and U.S.-born Black mothers should be similar. They are not. The birth weights of babies of immigrant Black mothers more closely resemble (the healthier) babies of U.S. born White mothers.

Racial disparities in health are the result of differences in social and economic conditions. It isn't differences in genes, but differences in social circumstances that explain racial health inequities. Social circumstances that are detrimental for health include having little income or wealth; poor housing conditions; and experiencing discrimination in the education system, the labor market, and so on.

The impact of discrimination on social and economic conditions is well documented. Job applicants with White-sounding names are 30% more likely to receive call backs for interviews than identical applications with Black-sounding names. White men with prison records are nearly twice as likely to get a job than Black men without a prison record. Discrimination also affects health directly, even the health of children. Emergency rooms have been found to work harder to resuscitate the lives of White children than of Black children.

Discrimination also has an impact on a person's physiological stress processes. The stress of experiencing chronic, "everyday" discrimination—even when it isn't severe—affects sleep, blood pressure, hormones, and other biological markers. To cope with chronic stress, people may engage in unhealthy behaviors such as eating poorly, not exercising, and smoking, thus making many health behaviors more a function of life circumstances, rather than lack of knowledge or will.

Because health behaviors are so dependent on the conditions in which people live, improving these conditions can improve health. Policies focused on better disease management or changing health behaviors (e.g., tobacco cessation), while needed on some level, are still "downstream" from the root causes of poor health and will make small progress in reducing disparities. A singular focus on these strategies may perpetuate racial health disparities because they do not address the fundamental drivers of poor health.

Policies focused on improving the social and economic conditions of disadvantaged groups lead to reductions in racial health disparities.

Social policies that go “upstream” to create better social circumstances for people of color (and, more broadly, for all people with challenging social circumstances) are more effective. To illustrate this, while racial inequities in health exist in both the U.S. and Canada, the gap in Canada is considerably smaller. This is due to Canada’s approach to social policy that provides more social and economic resources for families who are more socioeconomically disadvantaged. Key evidence-based policies to address racial health disparities and improve health for all people include income support approaches such as increasing the

minimum wage and implementing a basic income program. Basic income programs provide families at the lowest end of the socioeconomic spectrum with a minimum income that allows them to retain stable housing, purchase nutritious food, obtain preventive healthcare, and choose better schools and employment.

Eliminating racial health disparities by improving social and economic conditions helps everybody in Wisconsin. Stronger social and economic conditions translate into a healthier and stronger workforce, fewer healthcare costs, and a society in which families have good health that allows them to meet their needs, raise healthy children, and reach their full potential.

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References

1. Hatchell, K. et al. (2016). *Health of Wisconsin report card: 2016*. University of Wisconsin Population Health Institute. <https://uwphi.pophealth.wisc.edu/wp-content/uploads/sites/316/2018/01/Report-Card-2016.pdf>
2. Wisconsin Department of Health Services, Division of Public Health, Office of Health Informatics. (2019, June). *Annual Wisconsin birth and infant mortality report, 2017* (P-01161-19). <https://www.dhs.wisconsin.gov/publications/p01161-19.pdf>
3. Wisconsin Department of Health Services, Division of Public Health, Office of Health Informatics. (2016, August). *Wisconsin life expectancy report, 2010-14* (P-01551). <https://www.dhs.wisconsin.gov/publications/p01551.pdf>
4. Wisconsin Department of Health Services, Division of Care and Treatment Services. (2020). *Wisconsin mental health and substance use needs assessment 2019* (P-00613). <https://www.dhs.wisconsin.gov/publications/p00613-19.pdf>
5. Wisconsin Department of Health Services, Division of Public Health, Office of Health Informatics. Wisconsin Cancer Reporting System. (2017, May). *Wisconsin cancer statistical fact sheet: Racial and ethnic cancer disparities* (P-01794). <https://www.dhs.wisconsin.gov/publications/p01794.pdf>
6. Wisconsin Department of Health Services. Division of Public Health. Office of Health Informatics. (2020, September). *Wisconsin Family Health Survey: Health insurance coverage over past year, Wisconsin 2019* (P-45369E). <https://www.dhs.wisconsin.gov/publications/p45369e-19.pdf>
7. Agency for Healthcare Research and Quality. (2019). *2018 national healthcare quality and disparities report* (19-0070-EF). U.S. Department of Health and Human Services. <https://www.ahrq.gov/sites/default/files/wysiwyg/research/findings/nhqrd/2018qdr.pdf>
8. Kaufman, J.S. et al. (2015). The contribution of genomic research to explaining racial disparities in cardiovascular disease: A systematic review. *American Journal of Epidemiology*, 181(7): 464-472. <https://doi.org/10.1093/aje/kwu319>
9. Batai, K. et al. (2013). Race, genetic ancestry, and health. *Race and Social Problems*, 5(2): 81-87. <https://link.springer.com/article/10.1007/s12552-013-9094-x>
10. Phelan, J.C. et al. (2015). Is racism a fundamental cause of inequalities in health? *Annual Review of Sociology*, 41: 311-330. <https://doi.org/10.1146/annurev-soc-073014-112305>
11. Williams, D.R. et al. (2019). Racism and health: Evidence and needed research. *Annual Review of Public Health*, 40: 105-125. <https://www.annualreviews.org/doi/full/10.1146/annurev-publhealth-040218-043750>
12. Shaw, G. (2020, June 24). *It's a public health crisis: How systemic racism can be neurotoxic for Black Americans*. Neurology Today. https://journals.lww.com/neurotodayonline/fulltext/2020/07090/it_s_a_public_health_crisis__how_systemic_racism.4.aspx
13. Smedley, A. (n.d.) *Racism*. Britannica. <https://www.britannica.com/topic/racism>
14. Center for the Study of Social Policy. (2019). *Key equity terms and concepts: A glossary for shared understanding*. <https://cssp.org/wp-content/uploads/2019/09/Key-Equity-Terms-and-Concepts-vol1.pdf>
15. Stringhini, S. et al. (2017). Socioeconomic status and the 25x25 risk factors as determinants of premature mortality: A multicohort study and meta-analysis of 1.7 million men and women. *The Lancet*, 389(10075): 1229-1237. [https://doi.org/10.1016/S0140-6736\(16\)32380-7](https://doi.org/10.1016/S0140-6736(16)32380-7)
16. Bell, C.N. et al. (2020). Racial non-equivalence of socioeconomic status and self-rated health among African Americans and Whites. *SSM-Population Health*, 10. <https://doi.org/10.1016/j.ssmph.2020.100561>
17. Williams, D.R. et al. (2016). Understanding associations among race, socioeconomic status, and health: Patterns and prospects. *American Psychological Association*, 35(4): 407-411. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4817358/>
18. Sorlie, P.D. et al. (1995). U.S. mortality by economic, demographic, and social characteristics: The National Longitudinal Mortality Study. *American Journal of Public Health*, 85: 949-956. <https://dx.doi.org/10.2105%2Fajph.85.7.949>

19. Braveman, P.A. et al. (2010). Socioeconomic disparities in health in the United States: What the patterns tell us. *American Journal of Public Health, 100*:S186-196. <https://dx.doi.org/10.2105%2FAJPH.2009.166082>
20. Petersen, E.E. et al. (2019, September 6). Racial/ethnic disparities in pregnancy-related deaths—United States, 2007-2016. *Morbidity and Mortality Weekly Report, 68*: 762-765. <http://dx.doi.org/10.15585/mmwr.mm6835a3>
21. Rothstein, R. (2017). *The color of law: A forgotten history of how our government segregated America*. Liveright Publishing.
22. Noel, N. et al. (2019, August). *The economic impact of closing the racial wealth gap*. McKinsey and Company. <https://www.mckinsey.com/industries/public-and-social-sector/our-insights/the-economic-impact-of-closing-the-racial-wealth-gap#>
23. Rubin-Miller, L. et al. (2020, September 16). *COVID-19 racial disparities in testing, infection, hospitalization and death: Analysis of Epic patient data*. Kaiser Family Foundation. <https://www.kff.org/report-section/covid-19-racial-disparities-in-testing-infection-hospitalization-and-death-analysis-of-epic-patient-data-issue-brief/>
24. Centers for Disease Control and Prevention. (2020, November 30). *COVID-19 hospitalization and death by race/ethnicity* [web page]. <https://www.cdc.gov/coronavirus/2019-ncov/covid-data/investigations-discovery/hospitalization-death-by-race-ethnicity.html>
25. Artiga, S. et al. (2020, April 7). *Communities of color at higher risk for health and economic challenges due to COVID-19* [web page]. Kaiser Family Foundation. <https://www.kff.org/coronavirus-covid-19/issue-brief/communities-of-color-at-higher-risk-for-health-and-economic-challenges-due-to-covid-19/>
26. APM Research Lab. (2020, December 8). *Rates of death from COVID-19 (per 100,000 people) in Wisconsin, June 9-December 8, 2020*. <https://www.apmresearchlab.org/covid/deaths-by-race#rates-over-time>
27. Williams, D.R. et al. (2013). Racism and health 1: Pathways and scientific evidence. *American Behavioral Scientist, 57*(8): 1152-1173. <https://doi.org/10.1177%2F0002764213487340>
28. Jones, N.L. et al. (2019). Life course approaches to causes of health disparities. *American Journal of Public Health, 109*(S1): S48-S55. <https://ajph.aphapublications.org/doi/pdf/10.2105/AJPH.2018.304738>
29. McEwen, B.S. (2017). Allostasis and the epigenetics of brain and body health over the life course: The brain on stress. *JAMA Psychiatry, 74*(6): 551-552. <https://doi.org/10.1001/jamapsychiatry.2017.0270>
30. Thoits, P.A. (2010). Stress and health: Major findings and policy implications. *Journal of Health and Social Behavior, 51*(S1): 541-553. <https://doi.org/10.1177%2F0022146510383499>
31. Berens, A.E. et al. (2017). Biological embedding of childhood adversity: From physiological mechanisms to clinical implications. *BMC Medicine, 15*(135). <https://doi.org/10.1186/s12916-017-0895-4>
32. Vineis, P. et al. (2020). Special report: The biology of inequalities in health: The Lifepath Consortium. *Frontiers in Public Health, 8*(article 118). <https://doi.org/10.3389/fpubh.2020.00118>
33. Guidi, J. et al. (2021). Allostatic load and its impact on health. *Psychotherapy and Psychosomatics, 90*(1): 11-27. <https://doi.org/10.1159/000510696>
34. Geronimus, A.T. et al. (2006). "Weathering" and age patterns of allostatic load scores among blacks and whites in the United States. *American Journal of Public Health, 96*(5): 826-833. <https://dx.doi.org/10.2105%2FAJPH.2004.060749>
35. Duru, O.K. et al. (2012). Allostatic load burden and racial disparities in mortality. *Journal of the National Medical Association, 104*(1-2): 89-95. [https://doi.org/10.1016/s0027-9684\(15\)30120-6](https://doi.org/10.1016/s0027-9684(15)30120-6)