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## Effectively Reducing Race Differences In Old Age Demands a Life Course Approach

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The unparalleled increase in life expectancy in the United States in the 20th century is a major humanitarian achievement. In just 100 years, American life expectancy from birth lengthened from 47 to 78 years. However, measuring success through average life expectancy alone paints an overly rosy portrait. The length and the quality of life varies substantially across subgroups of Americans, and this

variability is not due to luck or chance. Rather, structural and institutional practices systematically advantage some groups over others throughout life. Race is a key factor that influences who reaps and who is excluded from the benefits of longevity.

At the Stanford Center on Longevity (SCL), we maintain that a life-course approach is essential for understanding racial inequities and the impact they ultimately have on late-life outcomes. Identifying important societal influences and ways to modify them is at the core of a major initiative at the SCL that we call the “New Map of Life.” The Center commissioned nine Stanford research fellows with wide-ranging expertise to develop a multidisciplinary report on key domains of life that relate to success across the life course. These domains include early childhood, built environments, climate, education, financial security, healthcare, intergenerational relationships, lifestyles, and work.

Central to the New Map of Life project is the tenet that advances in healthy longevity must be distributed broadly in the population. As we worked this past year, the Black Lives Matter movement gained national prominence and amplified the visibility of the harms of institutionalized racism. While there are myriad ways in which race is linked to opportunity, in the following essay, we focus on disparities at three pivotal times in life when structural forces disadvantage Blacks: early-life environments and education, work, and healthcare. These disparities account for profound differences in how long and how well people live.

Also in the essay we highlight the insidiousness of institutionalized racism that begins before birth and builds across life in ways that affect the quality and even the length of life. Our aim is to illustrate the potency of structural inequities that affect healthy longevity. In doing so, we hope to direct attention to key aspects of life that must change as

we craft new maps of life that allow all Americans to age well.

### **Early-Life Environment and Education**

Longstanding generational gaps in wealth mean that Black and White children are born into worlds with starkly different resources. Even before conception, poor diet in women may predispose multiple generations to metabolic problems that are linked to obesity and diabetes.<sup>1</sup> Black women are more than twice as likely as White women to experience food insecurity during pregnancy.<sup>2</sup> Taken together, Black families are at increased risk for poor maternal and infant health that may lead to long-term problems and contribute to shorter lives. In the United States, Black newborns have a 3.5-year shorter life expectancy than White newborns.<sup>3</sup>

For many Black children, disadvantage permeates nearly every aspect of their daily lives. One in every three Black children in the United States grows up in poverty—more than three times the rate for White children.<sup>4</sup> Black children are far more likely than White children to live in neighborhoods with few health-promoting opportunities and resources such as grocery stores with fresh produce<sup>5</sup> and safe outdoor spaces.<sup>6</sup> This affects everything from the quality of food they eat to access to clean drinking water, exposure to lead paint in their homes, and access to air conditioning. Black children are more likely to grow up in neighborhoods in which the air they breathe contains 54 percent higher levels of particulate matter pollution than the overall population.<sup>7</sup> These environmental pollutants are linked to impaired learning and development in children and adolescents,<sup>8,9</sup> and dementia late in life. Disparities in access to air conditioning also impact health. Black Americans have a 5.3 percent higher heat-related mortality prevalence than White Americans in four cities in the Great Lakes region,<sup>10</sup> and this gap widens in cities with extremely hot summers such as Phoenix.<sup>11</sup>

School is another setting wherein Black children have profound disadvantages. These disadvantages begin early and have long-lasting effects, and are caused by segregation and lack of resources in the neighborhoods where Black children are most likely to grow up. For example, because U.S. schools are funded through property taxes, the American neighborhoods with the poorest residents are also those with the most underfunded and neglected schools. Entry-levels skill in math and reading are some of the most powerful predictors of later academic success.<sup>12</sup> However, by kindergarten, Black children are on average

nine months behind in math and seven months behind in reading compared with White children.<sup>13</sup> And once children fall behind, it is difficult to catch up. Of course, these differences are not determined by race, but rather because as a society Black children are systematically excluded from the opportunities we build for White children, including well-funded schools and neighborhoods.

### **Work**

Black children's early academic experiences place them on a trajectory of racial inequity that persists throughout life. Research has shown that educational attainment is one of the strongest predictors of life expectancy, and Black Americans consistently lag behind White Americans in the number of years of education; they drop out of high school at higher rates than White Americans and far fewer obtain college degrees. While on average Black Americans enter the workforce with fewer years of education, regardless of educational status, they experience higher unemployment and lower income and wages, and are more likely to work in jobs with poor or no benefits and greater job instability.<sup>14</sup>

These types of jobs with what are described as “harmful” workplace attributes have a negative impact on life span across all populations. However, when compared with White Americans in the same position, with similar educational backgrounds, the negative impact on Black Americans is even more profound. A study published in 2015 indicated that “harmful workplace practices” contributed to 19 percent of the annual mortality of non-Hispanic Black men, with 12 or fewer years of education, while it contributed 13 percent for similarly educated White men.<sup>15</sup> The same study estimated the loss in years of life expectancy that could be attributed to these environments and for those with 12 or fewer years of education: Black men saw a 2.77-year loss in life expectancy, while White men saw a loss of 1.72 years. The discrepancies are experienced across all education levels. Black men with 17 years or more of education saw a life expectancy decline of 1.02 years compared with 0.42 years in White men with similar education levels. These outcomes were seen for women as well.

### **Healthcare Disparities Across Race**

Healthcare disparities and institutionalized racism remain leading public health concerns. Race and socioeconomic status have long been recognized to play critical roles in health-related outcomes,<sup>16</sup> impacting life expectancy,<sup>17</sup> rates of obesity,<sup>18,19</sup> and morbidity and mortality from a wide range

of chronic conditions.<sup>20</sup>

Historical narratives inaccurately ascribe poorer health outcomes among racial minorities to behavioral or genetic factors, rather than address the underlying structural racism that impacts access to healthcare resources among minorities.<sup>21</sup> Black Americans are nearly twice as likely to be uninsured: The rate of Black Americans without health insurance in the U.S. (9.3 percent) is nearly double that in non-Hispanic White populations (5.2 percent).<sup>22</sup> Black families spend almost 20 percent of household income for healthcare premiums, almost double the national average of 11 percent.<sup>23</sup>

## Conclusion

The United States is in the midst of a racial reckoning. Addressing racial inequities in old age calls for radically redesigning the social institutions and policies that shape our lives. Now is the time to act. Black Americans have the shortest life expectancies of any racial group in the United States, and while life expectancies for both White and Black men increased in the 20th century, the race gap did not decrease.<sup>24</sup> In 2020, this gap began to widen: The COVID-19 pandemic is killing Black Americans at higher rates than White Americans, in large part due to disparities in access to healthcare resources<sup>25</sup> and residential segregation.<sup>26,27</sup> However, differences in health conditions that increase risk of death from the virus had their roots decades earlier. For our society to truly thrive, it is crucial to understand how racism affects people across the life course, and what needs to change as we approach unprecedented opportunities to live long and well.

1 Saben, J. L., Boudoures, A. L., Asghar, Z., Thompson, A., Drury, A., Zhang, W., Chi, M., Cusumano, A., Scheaffer, S., & Moley, K. H. (2016). Maternal Metabolic Syndrome Programs Mitochondrial Dysfunction via Germline Changes across Three Generations. *Cell Reports*, 16(1), 1–8. <https://doi.org/10.1016/j.celrep.2016.05.065>

2 USDA ERS - Key Statistics & Graphics. (2019). United States Department of Agriculture Economic Research Service. <https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/key-statistics-graphics.aspx>

3 Arias, E., & Xu, J. (2019). United States Life Tables, 2017. National Vital Statistics Reports: From the Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System, 68(7), 66.

4 Patten, E., & Krogstad, J. M. (2015). Black child poverty rate holds steady, even as other groups see declines. Pew Research Center. <https://www.pewresearch.org/fact-tank/2015/07/14/black-child-poverty-rate-holds-steady-even-as-other-groups-see-declines/>

5 Hilmers, A., Hilmers, D. C., & Dave, J. (2012). Neighborhood Disparities in Access to Healthy Foods and Their Effects on Environmental Justice. *American Journal of Public Health*, 102(9), 1644–1654. <https://doi.org/10.2105/AJPH.2012.300865>

AJPH.2012.300865

6 Landau, V. A., McClure, M. L., & Dickson, B. G. (2020). Analysis of the Disparities in Nature Loss and Access to Nature. *Conservation Science Partners*.

7 Mikati, I., Benson, A. F., Luben, T. J., Sacks, J. D., & Richmond-Bryant, J. (2018). Disparities in Distribution of Particulate Matter Emission Sources by Race and Poverty Status. *American Journal of Public Health*, 108(4), 480–485. <https://doi.org/10.2105/AJPH.2017.304297>

8 Claus Henn, B., Schnaas, L., Ettinger, A. S., Schwartz, J., Lamadrid-Figueroa, H., Hernández-Avila, M., Amarasiriwardena, C., Hu, H., Bellinger, D. C., Wright, R. O., & Téllez-Rojo, M. M. (2012).

Associations of Early Childhood Manganese and Lead Coexposure with Neurodevelopment.

*Environmental Health Perspectives*, 120(1), 126–131. <https://doi.org/10.1289/ehp.1003300>

9 Sunyer, J., Esnaola, M., Alvarez-Pedrerol, M., Forn, J., Rivas, I., López-Vicente, M., Suades-González, E., Foraster, M., Garcia-Esteban, R., Basagaña, X., Viana, M., Cirach, M., Moreno, T., Alastuey, A., Sebastian-Galles, N., Nieuwenhuijsen, M., & Querol, X. (2015). Association between Traffic-Related Air Pollution in Schools and Cognitive Development in Primary School Children: A Prospective Cohort Study. *PLOS Medicine*, 12(3), e1001792. <https://doi.org/10.1371/journal.pmed.1001792>

10 O'Neill, M. S., Zanobetti, A., & Schwartz, J. (2005). Disparities by race in heat-related mortality in four US cities: The role of air conditioning prevalence. *Journal of Urban Health*, 82(2), 191–197. <https://doi.org/10.1093/jurban/jti043>

11 Harlan, S. L., Declet-Barreto, J. H., Stefanov, W. L., & Petitti, D. B. (2013). Neighborhood Effects on Heat Deaths: Social and Environmental Predictors of Vulnerability in Maricopa County, Arizona.

*Environmental Health Perspectives*, 121(2), 8.

12 Duncan, G. J., Dowsett, C. J., Claessens, A., Magnuson, K., Huston, A. C., Klebanov, P., Pagani, L. S., Feinstein, L., Engel, M., Brooks-Gunn, J., Sexton, H., Duckworth, K., & Japel, C. (2007). School readiness and later achievement. *Developmental Psychology*, 43(6), 1428–1446. <https://doi.org/10.1037/0012-1649.43.6.1428>

13 Friedman-Krauss, A., Barnett, W. S., & Nores, M. (2016). How Much Can High-Quality Universal Pre-K Reduce Achievement Gaps? Center for American Progress. <https://www.americanprogress.org/issues/early-childhood/reports/2016/04/05/132750/how-much-can-high-quality-universal-pre-k-reduce-achievement-gaps/>

14 Kijakazi, K., Smith, K., & Runes, C. (2019). African American Economic Security and the Role of Social Security. Urban Institute. <https://www.urban.org/research/publication/african-american-economic-security-and-role-social-security>

15 Goh, J., Pfeffer, J., & Zenios, S. (2015). Exposure To Harmful Workplace Practices Could Account For Inequality In Life Spans Across Different Demographic Groups. *Health Affairs*, 34(10), 1761–1768. <https://doi.org/10.1377/hlthaff.2015.0022>

16 Egede, L. E. (2006). Race, Ethnicity, Culture, and Disparities in Healthcare. *Journal of General Internal Medicine*, 21(6), 667–669. <https://doi.org/10.1111/j.1525-1497.2006.0512.x>

17 Arias, E. (2016). Changes in Life Expectancy by Race and Hispanic Origin in the United States, 2013–2014. US Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics. <https://www.cdc.gov/nchs/products/databriefs/db244.htm>

18 McLaren, L. (2007). Socioeconomic Status and Obesity. *Epidemiologic Reviews*, 29(1), 29–48. <https://doi.org/10.1093/epirev/mxm001>

19 Cossrow, N., & Falkner, B. (2004). Race/Ethnic Issues in Obesity and Obesity-Related Comorbidities. *The Journal of Clinical Endocrinology & Metabolism*, 89(6), 2590–2594. <https://doi.org/10.1210/jc.2004-0339>

20 Cunningham, T. J., Croft, J. B., Liu, Y., Lu, H., Eke, P. I., & Giles, W. H. (2017). Vital Signs: Racial Disparities in Age-Specific Mortality Among Blacks or

African Americans—United States, 1999–2015. *MMWR. Morbidity and Mortality Weekly Report*, 66(17), 444–456. <https://doi.org/10.15585/mmwr.mm6617e1>

21 Mays, V. M., Cochran, S. D., & Barnes, N. W. (2007). Race, Race-Based Discrimination, and Health Outcomes Among African Americans. *Annual Review of Psychology*, 58(1), 201–225. <https://doi.org/10.1146/annurev.psych.57.102904.190212>

22 Berchick, E. R., Barnett, J. C., & Upton, R. D. (2019). *Health Insurance Coverage in the United States: 2018*. U.S. Government Printing Office, Washington, DC.

23 Taylor, J. (2019). *Racism, Inequality, and Healthcare for African Americans*. The Century Foundation. <https://tcf.org/content/report/racism-inequality-health-care-african-americans/>

24 Sloan, F. A., Ayyagari, P., Salm, M., & Grossman, D. (2010). The Longevity Gap Between Black and White Men in the United States at the Beginning and End of the 20th Century. *American Journal of Public Health*, 100(2), 357–363. <https://doi.org/10.2105/AJPH.2008.158188>

25 Wrigley-Field, E. (Forthcoming). U.S. Racial Inequality May Be as Deadly as Covid-19. *Proceedings of the National Academy of Sciences*.

26 Millett, G. A., Jones, A. T., Benkeser, D., Baral, S., Mercer, L., Beyrer, C., Honermann, B., Lankiewicz, E., Mena, L., Crowley, J. S., Sherwood, J., & Sullivan, P. S. (2020). Assessing differential impacts of COVID-19 on black communities. *Annals of Epidemiology*, 47, 37–44. <https://doi.org/10.1016/j.annepidem.2020.05.003>

27 Williams, D. R., & Cooper, L. A. (2020). COVID-19 and Health Equity—A New Kind of “Herd Immunity.” *JAMA*, 323(24), 2478. <https://doi.org/10.1001/jama.2020.8051>