Social Determinants of Health and Health Disparities: Commentary on Influence of COVID-19 Exposures and Mortality among African Americans in the United States

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Abstract:
The 2020 COVID-19 pandemic highlights existing and exacerbated health disparities in African American communities and how these disparities are influenced by systemic racism and Social Determinants of Health.
Although data regarding racial and ethnic health disparities related to COVID-19 infections and deaths are not complete, this timely topic reflects a multitude of health conditions in which African American communities suffer higher rates of morbidity and mortality.
We call for change among the underlying correlates of health disparities; and increased understanding of how systemic racism gives rise to differences in Social Determinants of Health which impact health outcomes, including COVID-19.
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Introduction

As the COVID-19 pandemic continues in the U.S., we are provided with yet another example of the enduring and pernicious impact of social determinants of health (SDOH) on African American communities. SDOH, as defined by the Healthy People 2020 SDOH framework include domains of Economic Stability, Education, Social and Community Context, Health and Healthcare, and Neighborhood and Built Environment.1 Within each domain, key areas represent elements of focus for the decade (Table 1). As of this writing, the inequitable burden of the COVID-19 pandemic on African Americans is becoming increasingly apparent.2-4 Although the pandemic is still ongoing, it is not premature to call attention to the root causes of health inequity in our country that have persisted for decades and are being highlighted in the current crisis.

The disparities in case fatality rates between African Americans and Whites have been referred to as a ‘perfect storm’.5 Such a comparison obfuscates the larger social and political circumstances that structure poor health. Unlike a ‘storm,’ which is a natural phenomenon that cannot be prevented, the unequal burden of COVID-19 deaths were predictable and preventable due to ongoing racial injustice. Predictable due to the long history of health inequities in the United States and preventable through systemic changes to eliminate systemic racism and improve SDOH. The social and political will needed to correct these injustices historically have been, and continue to be, lacking. SDOH underlie health disparities that increase the potential for exposures and higher death rates among African Americans from COVID-19 across the U.S.2-4 The aim of this commentary is a framework-based explanation and call for change on how systemic racism gives rise to differences in Social Determinants of Health which impact differences in health outcomes, including COVID-19.

[Insert Table 1 Here]

Social Determinants of Health and Underlying Systemic Racism

We begin by outlining how systemic racism influences SDOH using the Healthy People 2020 Social Determinants of Health Framework.1 SDOH have been shown to contribute to a wide range of health disparities in the U.S. and are interrelated with systemic racism. We define systemic racism as the exploitative and discriminatory practices, unjustly gained resources and
power, and maintenance of major resource inequalities by white-controlled ideological and institutional mechanisms. Systemic racism underlies many aspects of Social Determinants of Health.

**Education**

Although the racist practice of educational segregation formally ended in public schools in 1954, the residual effects are still found in our current educational system. Race, class, and neighborhood are highly interrelated in terms of where children in the U.S. attend school and school quality. African American children on average attend schools where they are of the majority race, yet also disproportionately attend schools with the highest poverty concentrations and lower test scores. Data from fall 2015 indicates that 58% of public school attending African American students attend a school in which the combined enrollment of minority students was at least 75% of all enrollment, in comparison with 5% of white students. Education disparities persist into adulthood as fewer African Americans enroll and complete bachelor’s degree programs (26.1%) compared to White counterparts (40.1%), structuring income inequalities across the lifecourse.

**Economic Status**

Economic status is an area of SDOH in which African Americans have been disproportionately affected through practices of systemic racism that have made it difficult to accumulate wealth over generations. Wealth is the total market value of all the assets available to an individual or family. It is created over time and has inter-generational effects that perpetuate, providing opportunities, allowing for the pursuit of education and increased choice in employment. Creating wealth is particularly challenging for African Americans for multiple reasons; including systemic racism that in employment, hiring practices, pay, housing discrimination, and the justice system. African Americans are more likely to be unemployed (11.8% males, 10.1% females) than non-Hispanic Whites (5.1% males, 4.6% females) even when controlling for differences in education, age and experience (data averaged from 1994-2016).

**Housing**

Quality and stability of housing is important for human health. Systemic racism historically has manifested in segregation and housing discrimination in the form of ‘redlining’. Redlining is the systematic denial of services (banking, insurance, healthcare, and
retail) by the government and/or private sector to residents of specific neighborhoods (typically based on racial composition), either directly or through selectively raising prices for certain neighborhoods. A result of redlining is the de-facto racial segregation of neighborhoods, which shapes social conditions for individuals and communities, and underlies the health disparities between African Americans and Whites.\textsuperscript{17} Despite federal and state legislation to combat these racially motivated practices, redlining is perpetuated through the weakening of federal protections for fair financial lending, the reduction of federal funding for community investment, and current zoning practices all of which disproportionately impact communities of color.\textsuperscript{18,19} The impact of these practices are seen in the intersection of place, race, and health disparities in chronic conditions.

Former and current redlining practices continues to shape the built environment of predominantly African American neighborhoods. African American neighborhoods are more likely to be exposed to poisonous toxins and chemicals such as lead.\textsuperscript{20} One only has to look at the continued Flint, Michigan water crisis, where 54\% of the population is African American and 40\% of the total population live below the poverty line, to see that African American communities are also less likely to see such problems ameliorated.\textsuperscript{21,22} 

**Community**

Injustices rooted in systemic racism have been noted at every level of the U.S. criminal justice system, including: policing, pre-trial detention, sentencing, parole, and post-parole.\textsuperscript{23} As a result of inequitable processes across all levels of the criminal justice system, African Americans are incarcerated at more than five times the rate of Whites and receive longer sentences. In addition to injustices concomitant with the broader criminal justice system, African Americans are also more likely to encounter lethal force from law enforcement officers than their White or Hispanic counterparts.\textsuperscript{24} Further, some police practices, such as “stop and frisk” specifically target African Americans and constitute a public health problem as they perpetuate stress and trauma by translating blackness into deviance.\textsuperscript{25} In addition to the individuals within the criminal justice system, mass incarceration also impacts families and communities left behind, including family disruption, financial strains, emotional difficulties and childcare responsibilities.\textsuperscript{26}

**Access to Healthcare**

The experience of the healthcare system may further exacerbate risks for mortality among African Americans due to systemic racism. When utilizing healthcare, implicit bias on the part of
healthcare providers may impact clinical decision-making in diagnosis, treatment, pain management, and referral.\textsuperscript{27} As a result prevention and management of chronic morbidities are impacted. There are persistent and well documented inequities in access to healthcare among African Americans. African Americans are less likely to be insured\textsuperscript{28} and even with access to healthcare, are less likely to utilize healthcare services due to a long history of distrust in healthcare providers based on a history of systemic racism in healthcare.\textsuperscript{29}

**Social Determinants of Health Can Lead to Health Disparities Among African Americans**

Having described how many differences in SDOH are rooted in systemic racism, we now focus on how those differences in SDOH are responsible for persistent health disparities. When we think about limitations in access to housing, education, economic status, healthcare, and equity in the justice system, there are resulting outcomes; one of which is poor health. African Americans are significantly more likely than non-Hispanic Whites to receive a diabetes diagnosis and die as a result of diabetes, 40\% more likely to have high blood pressure, and are 8.4 times as likely to be diagnosed with HIV/AIDS.\textsuperscript{30} African American women have higher obesity rates than any other racial/ethnic group, a 20\% higher chance of having asthma than non-Hispanic White women, a 40\% higher chance of dying from liver cancer and nearly four times the death rate from breast cancer despite similar rates of diagnosis.\textsuperscript{30} African American men have on average 5 year lower survival rates for many common cancers and also experience a 60\% higher death rate from liver cancer than non-Hispanic White men.\textsuperscript{30} Overall, the life-span for African American men is 4.5 years lower than for non-Hispanic White men.\textsuperscript{31}

**Social Determinants of Health and Increased Exposure to COVID-19 Among African Americans**

Now that we have outlined how systemic racism leads to differences in SDOH, which result in health inequities, we now focus on how this is playing out during the COVID-19 pandemic. An important point to highlight is that social distancing, the measure that the U.S. has taken as the largest effort to prevent the spread of COVID-19, is a Social Determinant of Health. The ability to social distance is a privilege linked to key areas of housing, community and economic status. Lower wage jobs are often jobs that cannot be translated to work from home, have been deemed essential, and may also involve increased interaction with the public (e.g. cashiers, sanitation, home health aide, food service). Though African Americans account for just
13.4% of the US population\textsuperscript{32}, they account for a larger percentage (17.1%) of the service sector, including cashiers (19.9%), bus (27.0%) and taxi drivers (29.5%), housekeeping (14.4%) janitorial staff (18.2%), and sanitation workers (18.2%).\textsuperscript{33} Such jobs are less likely to be able to be performed from home via teleworking strategies, reducing increased exposure to community acquired COVID-19. African Americans are more likely to use public transit\textsuperscript{34} where there may be greater exposure to community-acquired infection.

In addition to social distancing, a recent Centers for Disease Control and Prevention (CDC) guideline has been to wear masks when going out in public. This is also a problem for African Americans, who have expressed fear of being mistaken for criminals and is compounded by a longstanding conflation of race and criminality.\textsuperscript{35} The social determinant community factor of incarceration is linked to health disparities among African Americans, both through the disproportionate number of African Americans imprisoned, and specifically during COVID-19 the inability to social distance in a prison/jail setting. Inconsistent policies have been placed across the country in terms of protections for incarcerated individuals during COVID-19, in one example leading to an ACLU class action suit against the Dallas County Jail for its management of inmate exposure to the virus.\textsuperscript{36}

**Social Determinants of Health and Increased COVID-19 Mortality Among African Americans**

In addition to higher exposures, preliminary data indicate higher COVID-19 mortality rates among African Americans than white Americans.\textsuperscript{2-4} These deaths are likely linked to higher rates of underlying conditions such as type 2 diabetes, hypertension, and asthma, from which African Americans suffer disproportionately.\textsuperscript{30} The CDC has reported that risk factors for serious illness when contracting COVID-19 include, in addition to older adults, people of all ages with underlying medical conditions including chronic lung disease, asthma, heart conditions, immunocompromised states (i.e. a common result of treatment for cancer or treatment of HIV/AIDS), severe obesity, diabetes, chronic kidney disease, and liver disease.\textsuperscript{37} As previously described, these disparities themselves are often a result of race-based inequities among SDOH in areas of education, economic status, housing, community, and access to healthcare\textsuperscript{1}. When the risk of death from COVID-19 is higher for those with underlying conditions, it is clear that Americans already suffering disproportionately from conditions will be more at risk.
Moving Forward to Health Equity During the COVID-19 Pandemic and Beyond

Systemic racism is an aspect of public health that underlies health disparities, conditions of SDOH, and results in unequal health outcomes in society. Whether past or present, overt or covert, intentional or sub-conscious, we must as a society root out racism in all its forms. By examining relationship between systemic racism and Social Determinants of Health this manuscript calls for implement widespread, societal change that extends beyond the interpersonal to permeate the systems in which racism operates. In terms of COVID-19, this will both involve robust research that collects strong data as the pandemic continues. This information will inform government, employers, providers of social services, and society as a whole in the ways that current policies negatively influence SDOH and COVID outcomes. In addition to COVID-19, this work can inform planning for future emerging infectious diseases and highlight the ongoing need to address SDOH to reduce a multitude of health disparities in the United States that impact the quality of life and lifespan of African Americans. This commentary utilized the Healthy People 2020 Social Determinants of Health Framework; as the Healthy People 2020 goals draw to a close, SDOH should be a continued priority for the United States as in 2020 inequities in socioeconomic status and links to health outcomes persist. This pandemic and surrounding current events have underscored systemic racism and disparities that have persisted for decades, while the world is looking, now is the time to rework our government, our public health and medical systems, workplaces, our criminal justice systems, and our communities with a centering foundation of health equity for African Americans.

References


Table 1 Healthy People 2020 Social Determinants of Health Framework

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