The Intersection of HIV, Covid-19 and Systemic Racism
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Abstract

ABSTRACT

The Human Immunodeficiency Virus (HIV) pandemic has taken the greatest toll on racial and ethnic minorities in the United States. Blacks and Latinxs suffer greater disease incidence, prevalence, morbidity and mortality from HIV as compared with Whites. Similarly, the Covid-19 pandemic caused by SARS-CoV-2 has disproportionately affected Blacks, Latinxs, and Native Americans causing higher rates of infection, more severe disease, and higher rates of mortality as compared with Whites. The pandemic of racism is as ubiquitous as the pandemics of HIV and Covid-19. Its sustaining forces drive wealth inequality, poverty, racially segregated and overcrowded housing, unequal employment opportunities, unequal education and mass incarceration, all of which contribute to health disparities in HIV, Covid-19 as well as other health conditions. Systemic policies that either sustain, or fail to address the unequal social conditions affecting Blacks, Latinxs and other minorities need to be addressed if health equity is to be achieved for all residents in the U.S.. Health equity is unlikely to be achieved by solely addressing disparities within the health care system alone.

Keywords

HIV; Covid-19, Health Disparities; Systemic Racism; Racial Inequity

Cover Page Footnote

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ABSTRACT
The Human Immunodeficiency Virus (HIV) pandemic has taken the greatest toll on racial and ethnic minorities in the United States. Blacks and Latinxs suffer greater disease incidence, prevalence, morbidity and mortality from HIV as compared with Whites. Similarly, the Covid-19 pandemic caused by SARS-CoV-2 has disproportionately affected Blacks, Latinxs, and Native Americans causing higher rates of infection, more severe disease, and higher rates of mortality as compared with Whites. The pandemic of racism is as ubiquitous as the pandemics of HIV and Covid-19. Its sustaining forces drive wealth inequality, poverty, racially segregated and overcrowded housing, unequal employment opportunities, unequal education and mass incarceration, all of which contribute to health disparities in HIV, Covid-19 as well as other health conditions. Systemic policies that either sustain, or fail to address the unequal social conditions affecting Blacks, Latinxs and other minorities need to be addressed if health equity is to be achieved for all residents in the U.S. Health equity is unlikely to be achieved by solely addressing disparities within the health care system alone.

Keywords: HIV; Covid-19, Health Disparities; Systemic Racism; Racial Inequity

INTRODUCTION

It is well established that the Human Immunodeficiency Virus (HIV) pandemic has taken the greatest toll on racial and ethnic minorities in the United States and world-wide (Xia et al., 2017a). Blacks and Latinxs suffer greater disease incidence, prevalence, morbidity and mortality from HIV as compared with Whites. Similarly, the Covid-19 pandemic caused by SARS-CoV-2 has disproportionately affected people of color throughout the world, and Blacks, Latinxs, and Native Americans in the U.S. have higher rates of infection, more severe disease, and higher rates of mortality as compared with Whites (Webb et al., 2020). The racial and ethnic disparities of both diseases are linked to social determinants of health (SDH), in which many societal systems, institutions and policies adversely affect the and health of racial and ethnic minorities, leading to health inequity (World Health Organization, 2020). The effects of poverty, unequal employment

opportunities, lack of access to health care, unequal education, racially segregated housing, and mass incarceration, can impact health outcomes, and all have linkage to systemic racism. The question of how racist policies, both historic and present day, lead to greater disease incidence, severity and mortality from HIV and Covid-19 (and many other conditions) in Blacks and Latinxs, as compared with Whites must be answered if health equity is to be achieved. This paper explores many of the racial and ethnic disparities of HIV and Covid-19 and their linkages to racism.

The Intersection of HIV and Racism

Blacks comprise 13.4% of the U.S. population (U.S. States and Counties, 2020) yet account for 42% of all new HIV infections in the United States, and Latinxs make up 18.5% of the population accounting for 28% of HIV incidence according to the Centers for Disease Control and Prevention (CDC) (CDC, 2018a) A modeling study of the lifetime risk of HIV infection found Black men with a lifetime risk that is 6 times higher and Latinx men with a 3 times higher risk for HIV infection compared with White men. Among men who have sex with men (MSM) the lifetime HIV risk for Blacks is 1 in 2, for Latinx 1 in 6 and 1 in 11 for Whites. Among women, the disparity was 14 times higher for Blacks and 3 times higher risk for Latinxs as compared with Whites (Hess, et al., 2017). While HIV-related mortality between 2010-2017 decreased by 36.6% in the U.S. overall, differences by race\ethnicity and region persisted. The mortality rate was still greatest among Blacks, and by region in the Southern United States (CDC, 2020b). The South is home to 55% of Blacks in the U.S, where 52% percent of all new HIV infections occur (CDC 2018c). Blacks are more likely to be poor (Creamer, 2020), and have greater need of health care services, yet all but two Southern states have refused to expand Medicaid, a health safety net program that is vital to low-income individuals. There is evidence that states with lowest Medicaid expenditures harbor more racial bias (Leitner. et al., 2018; Grogan & Park, 2017), and racial and ethnic health disparities are more pronounced in the South than in any other region of the country (Findings: State Rankings 2018 Annual Report, 2018).

The goal of HIV treatment is viral suppression. Suppression of HIV to undetectable levels prevents sexual transmission of HIV to an uninfected sexual partner in addition to the clinical benefit to the HIV-infected individual (Eisinger et al., 2018) The rate of viral suppression is lower in Blacks, than in Whites (Xia et al. 2017b). Blacks are less likely to be virally suppressed and more likely to experience longer intervals with higher viremia at levels greater than 500 copies/ml, raising the risk of HIV transmission (Crepaz et al., 2014).

Pre-exposure prophylaxis (PrEP), taking an antiviral medication to prevent HIV infection reduces the risk of HIV acquisition by 99 percent and is a significant intervention to reduce racial disparities in HIV transmission and infection (Jacobs, 2020; Jenness et al., 2019). “Ending the HIV Epidemic, A Plan for the United States” places substantial importance on increasing PrEP utilization by those at highest risk for HIV infection, to reduce disparities in HIV incidence (Fauci et al., 2019). Blacks and Latinxs, however, already at highest risk for HIV infection are less likely to be offered PrEP than are higher income Whites. Among new PrEP prescription starts from 2014-2017, 66% were written for Whites, while only 24% were written for Black or Latinxs (Mayer et al., 2020) despite 69% of all new HIV infections occurring in these racial and ethnic minorities (U.S. Statistics Surveillance, 2020). A study of publicly listed PrEP-providing clinics found populations with the highest the degree of PrEP need were least likely to have access to PrEP, and the lowest PrEP coverage was in areas with the largest number of minority populations (Siegler et

al., 2018). Despite the fact that the tools to end the HIV epidemic are already in hand, Blacks and Latinxs have been least likely to benefit.

Neighborhoods can make a difference in HIV incidence. Blacks and Latinxs are more likely to live in overcrowded and racially segregated neighborhoods, circumstances that can be directly traced to past racial discriminatory policies. Racial segregation can reduce health care access, and is associated with higher rates of chronic diseases, including HIV. In a study of women with HIV, neighborhood poverty was associated with unsuppressed HIV viral load, poorly controlled hypertension, and poor control of diabetes (Cope et al., 2020). A study of over 65,000 persons living with HIV in New York City found viral suppression rates were lowest among Blacks living in impoverished neighborhoods as compared with the highest rates of viral suppression in Whites living in the least impoverished neighborhoods (Xia et al., 2017b). In Philadelphia, neighborhoods with more vacant lots, higher crime and limited health care resources had higher rates of HIV incidence as compared with those with fewer vacant lots, and lower population and decreased housing density (Brawner et al., 2017).

The Intersection of COVID-19 and Racism

Like HIV, Covid-19 disproportionately affects people of color. In the earliest days of the Covid-19 pandemic in the United States, before the CDC reported demographic data on race and ethnicity, Millet and colleagues analyzed county data from throughout the U.S. and found that counties with a high proportion of Whites had lower rates of Covid-19 than counties with higher proportions of Blacks and Latinxs. They found that lack of access to health insurance, employment status and overcrowded housing were predictors of Covid-19 infection (Millett et al., 2020a). At the start of the Covid-19 pandemic, Blacks and Latinxs living in neighborhoods of Chicago that were redlined in the 1930s, and are still racially segregated today, were the first to start dying of Covid-19 in the city, while other races were not affected (Betrocchi & Dimico, 2020). Racial and ethnic minorities are more likely to live in high density, racially segregated and crowded housing, as well as multigenerational housing, increasing the risk of Covid-19 infection (Millett et.al., 2020b).

Currently, CDC data reveal that Latinx persons and American Indians have a 2.8 times higher infection rate with Covid-19, and Blacks a 2.6 times higher rate as compared with Whites. Hospitalization for Covid-19, a marker of severe illness, shows similar disparities, with American Indians being hospitalized at a 5.3 times higher rate, Blacks at a 4.7 times higher rate, and Latinxs at a 4.6 times higher rate compared with Whites. Mortality rates are 2.1, 1.4, and 1.1 times higher for Blacks, American Indians, and Latinxs, than Whites, respectively (CDC, 2020d).

Certain types of employment carry higher risk of Covid-19 infection. Racial and ethnic minorities are more likely to be classified as essential workers and to have jobs that cannot be conducted remotely. They are also less likely to have paid sick leave, making them more likely to keep working when sick CDC, 2020e). The economic impact of Covid-19 has been worse for Blacks and Latinxs, who are over-represented in employment in restaurants, hotels, and other service industries that are more likely to have been shuttered during the pandemic (Selfen & Berdahl, 2020). Workers in those jobs are also lower wage, making these employees more adversely affected by loss of income (Lee, 2020).

Racism as a Precipitator of Health Inequity

The biologic theory that genetic differences may cause racial disparities in health outcomes has been proven to be false, including by the National Human Genome Research Institute, which

demonstrated that most genetic variation exists not between racial groups, but *within* them (National Human Genome Project, 2020). Racial groups themselves are socially constructed and lack distinct, unifying genetic identities (Chou, 2017). Yet studies of implicit bias have found that some health care providers erroneously believe that Blacks do not feel pain the same way as Whites, or that Black skin is thicker than white skin (Hall et al., 2015). And when calculating renal function between Blacks and Whites, a racial coefficient creates a higher disease threshold to diagnose kidney disease in Blacks versus Whites. This can delay referrals to specialty care or offering of renal dialysis to Blacks (Eneanya et al., 2019).

A behavioral theory of racial and ethnic health disparities attributes poor behavioral choices as cause for health inequity positing that if behavior changed, disparities would disappear. Genetic and behavioral theories fail to recognize the pervasiveness of systematic, institutional, and structural policies that broadly disadvantage racial and ethnic minorities and widely contribute to poorer health outcomes.

Structural racism, systemic racism and institutional racism are all terms used to describe how societal practices, institutions, and policies maintain white advantage over Blacks and dark-skinned people. The scholar on racism, Ibram X. Kendi, offered a clear definition to explain and incorporate these various terms by stating: "Racism is a marriage of racist policies and racist ideas that produces and normalizes racial inequities, and that racial inequity is when two or more racial groups are not standing on approximately equal footing. A racist policy is any measure that produces or sustains racial inequity between racial groups" (Kendi, 2019). Racism in health care access, housing, employment, education, income, and criminal justice, can each negatively affect health.

Racial Segregation as a Precipitator of Health Inequity

The Federal Housing Administration (FHA) was created in 1934 to stimulate home ownership for Whites. FHA created maps of urban areas throughout the U.S. to identify the areas of perceived risk of loan default, highlighting in red those neighborhoods considered to be "hazardous." Banks used these maps to exclude home loans to residents of redlined areas, which were occupied largely by Blacks. Home builders receiving loans to develop housing in the suburbs had to comply with the FHA requirement that homes could not be sold to Blacks (Rothstein, 2017). Although the practice of redlining was made illegal in 1968, its impact excluded a generation of Blacks from home ownership, which is one of the greatest generators of household wealth. The effects of this reverberate today. Whites have a 10 times greater household wealth than Black households, and an 8 times greater wealth than Latinx households (Shambaugh et al., 2020).Today's racially segregated neighborhoods are the legacy of FHA's redlining of years past. They are associated not only with higher rates of Covid-19, but also higher mortality from breast cancer (Collin et al., 2020), higher rates of colorectal cancer deaths (Zhou et al.,2017), and higher rates of pre-term births (Degue et al., 2016).

The Criminal Justice System and Public Health

The Black Lives Matter movement, reignited after the killing of George Floyd while in the custody of the Minneapolis police, has called attention to systemic racism in the criminal justice system, with Blacks being killed while in police custody 2.8 times more often than Whites (U.S. Sentencing Commission, 2017). Blacks receive 19.1% lengthier sentences in federal courts for identical crimes as Whites and are incarcerated at a 5.1 times higher rate (Carson, 2014). While Blacks make up 13.4% of the U.S. population, and Latinxs 18.5%, the Bureau of Justice Statistics

reports that 35% of state prisoners are White, 38% are Black, and 21% are Hispanic (Massoglia, 2018). Incarceration is associated with poorer health and shorter life expectancy (Saloner et al., 2020).

Jails and prisons are major sites of Covid-19 infection, with 5.5 times higher rates of Covid-19 than among the general population (Reinhart & Chen 2020). An analysis of incarcerations in Chicago found that zip codes with higher rates of arrest and of released jail inmates from the Cook County jail had significantly higher rates of Covid-19. It found that 37% of all Covid-19 cases in Illinois were attributed to cycling of inmates between jail and the community in April, 2020 (Gould, 2019). Incarceration contributes to both HIV transmission and acquisition, particularly among persons who inject drugs. The period immediately following release from jail or prison raises risk for HIV and Hepatitis C (HCV) transmission, as well as drug overdose. A systematic review and metanalysis of incarceration found incarceration to be associated with an 81% increase in HIV acquisition risk and 62% increase in risk of HCV infection (Stone, 2018).

Employment, Education, and Wealth Disparity

Racial and ethnic disparities in employment and education are pronounced. At every level of education, from high school dropouts to advanced degree recipients, Whites are paid more than Blacks and Latinx workers. The U.S. median household net worth by race and education reveals that a White head of household with no high school diploma has a greater net worth than a household headed by a Black college graduate (Darity et al., 2018). Employment opportunities for Blacks can be hampered by discriminatory hiring practices. In one study of hiring discrimination, identical resumes were sent out to employers, one using a traditionally Black name, and another a traditionally White name. Prospective employers called traditionally White named-applicants 50% more than traditionally Black-named applicants (Pager & Shepherd, 2008). Even the U.S. unemployment insurance program, which is controlled by individual states, finds that many Southern states have excluded from unemployment compensation many of the jobs most likely to employ racial and ethnic minorities (Edwards, 2020).

Bias in Health Care

Racial bias in the health care system hinders health equity in a range of ways. It can promote mistrust, decrease patient adherence to treatment, lead to different treatment options, or result in symptoms being ignored. Health care provider bias can be overt or implicit. In a systematic review of 15 studies looking to identify implicit bias in health care providers, 14 found more favorable attitudes towards Whites, and negative attitudes towards Blacks and Latinxs. In 4 studies, Blacks were seen as less cooperative, and less likely to follow medical advice. Latinx patients were seen as less adherent to treatment, and 2 studies found bias against darker skinned patients (Hall et al., 2015). Another systematic review and meta-analysis found that in 31 of 37 studies, White patients were seen more positively, while Black, Hispanic, and American Indian patients seen more negatively (Maina et al., 2018). Higher educational and socioeconomic status levels do not protect patients from bias in health care. A Black physician with Covid-19 who was hospitalized in an Indianapolis hospital and subsequently died, posted on social media her belief that the treatment she received by a White physician would have been different had she been White (Eligon, 2020).

CONCLUSION

In the earliest days of the Covid-19 pandemic, several researchers cited in this paper had the prescience to recognize that merely looking at maps of where people of color reside would reveal more Covid-19 infections and deaths (Millet G et al., 2020a). Similarly, researchers studying the HIV pandemic perceived that run-down segregated and impoverished neighborhoods and states with the highest concentrations of Blacks would have higher rates of HIV infection that is more poorly controlled, and more chronic illness (Cope et al, 2020; Xia et al., 2017a; Millet et al., 2020b). These investigators undoubtedly perceived that regardless of where racial and ethnic minorities reside, there would be a corresponding increase in disease incidence and morbidity. The health inequities of HIV and Covid-19 hold true for certain cancers, as well as respiratory diseases, diabetes, hypertension, and many other conditions (Kim et al., 2018; Singh & Jemal, 2017; Dransfield &Bailey, 2006). Infant mortality for Black infants is 2.5 times higher than for White infants (Ely, D.M. & Driscoll, A.K.) and Black, American Indian, and Alaska Native women are 2-3 times more likely to die from pregnancy-related causes than White women (Peterson et al., 2019). Black men live 4.4 years less than White men (CDC, 2017e) and are 30% more likely to die from heart disease, twice as likely to be diagnosed with diabetes, twice as likely to have a stroke, 40% more likely to have hypertension, but 10% less likely to have it under control (Graham, 2015).

The pandemic of racism is as ubiquitous as the pandemics of HIV and Covid-19. Its sustaining forces drive wealth inequality, poverty, racially segregated and overcrowded housing, unequal employment opportunities, unequal education and mass incarceration, all of which contribute to health disparities in HIV, Covid-19 and other conditions. To eliminate inequality in health, increasing access to health insurance, and the elimination of provider bias in our health care system are of obvious importance. However, systemic policies that either sustain, or fail to address the unequal social conditions affecting Blacks, Latinxs and other minorities need to be addressed if we are ever to achieve health equity for all residents in the U.S. Addressing health disparities only within the health care system is likely to fall short.

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