COVID-19 surveillance and Black American substance use disorder: An examination of data and policy

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ARTICLE INFO

ABSTRACT

Research has cited structural racism as a determinate of black Americans' susceptibility to COVID-19. Using the flu surveillance system as a template, the U.S. has collected surveillance data on COVID-19. The U.S. also has rich databases on drug use and treatment. The U.S. should use data, combined with epidemiologic modeling that includes accurate proxies for structural racism, to direct policy, treatment, and COVID-19 vaccine distribution priorities. This paper provides a baseline of where we are and suggestions to consider to achieve health parity in populations of color.

1. Introduction

Emerging data show that COVID-19 has a disproportionate effect on black Americans (Baptiste et al., 2020; Essien & Venkataramani, 2020; Hooper, 2020; Van Dorn et al., 2020). In 14 states for which racial data are available, black Americans make up 30% of COVID-19 cases while making up only 13% of the population (Baptiste et al., 2020; Poteat et al., 2020). Research has shown this disparity in infection rate to be attributable to long-term structural racism (Baptiste et al., 2020). Research describes structural racism as the systemic variables that contribute to different illness/disease outcomes in different populations, despite similar treatment (Hardeman et al., 2016). Structural racism, underinsurance or lack of insurance, and increased prevalence of chronic disease conditions create a complex triad of causality, which when combined with COVID-19, potentiates a crisis of morbidity and mortality in the black American community. Research has shown that the structural racism contributing to lack of insurance or underinsurance in this population is implicitly tied to political decisions believed to be retaliation against the first Black American president (Baptiste et al., 2020). Many southern, formerly confederate, states with the highest concentration of Black Americans, failed to expand Medicaid (Poteat et al., 2020). These states have high rates of Black unemployment, high rates underinsurance or lack of insurance (Poteat et al., 2020), and onerous substance use laws and minimal substance use treatment options. By examining the most recent substance use treatment data for

Black Americans, compared to white Americans and COVID-19 tracking data, this article provides a brief examination of current data and suggestions for how accurate data modeling can improve our response to COVID-19 and future infectious disease threats that affect marginalized communities.

2. Brief summary of the data

The 2018 National Survey on Drug Use and Health (NSDUH), the most recent year available, showed that among Black Americans with substance use disorders (SUD), 47% (1 million) struggle with illicit drugs, 67.6% (1.5 million) struggle with alcohol use, and 14.8% (320,000) struggle with illicit drugs and alcohol use (Substance Abuse and Mental Health Services Administration, 2018). This same survey also cites major gaps in treatment in Black American populations. The Substance Abuse and Mental Health Services Administration (SAMHSA)'s response to these data has been to implement technical assistance and training programs that will improve states' capacity to collect more comprehensive data on mental health status, diagnoses, and SUD. Despite the disproportionate impact of SUD in the Black American population, only Native American/Alaska Native and Hispanic/Latino are specifically named as focus populations for future interventions in SAMHSA's response to the 2018 NSDUH report. In the Black American population, the report highlights a significant increase in marijuana use, no significant change in other illicit drug use, significant increases in

Table 1
Percent SUD and treatment in COVID-19 surveillance states.

Percent drug use distribution in EIP states

		Alcohol		opiates		Cocaine									
		alc. Only	alc. + other drugs	Heroin	Other opiates	Smoked	Other route	Marijuana/hashish	Meth	Tranquilizers	Sedatives	Hallucinogens	PCP	Inhalants	Others (NOS)
CA	Black	9.8	12.4	7.6	6.2	10.8	25.7	17.2	42.5	4.7	9.9	4.6	39.5	4.3	13.4
	White	52.2	47.1	57.0	64.3	73.5	23.5	21.7	7.1	63.2	52.9	63.2	7.0	36.2	45.0
CO	Black	7.0	9.1	2.1	2.3	39.9	15.9	11.1	63.2	3.4	8.1	3.3	33.3	2.9	9.6
	White	51.9	55.0	59.8	63.0	25.5	38.8	48.0	2.7	69.9	60.8	64.8	33.3	60.0	51.1
CT	Black	12.1	19.3	7.1	5.4	35.7	21.0	37.8	12.4	82.0	9.9	37.9	43.0	12.1	17.4
	White	65.5	63.2	68.0	78.4	38.8	46.3	29.0	72.7	3.5	67.3	40.1	10.4	66.7	53.7
GA	Black	No 2016 data submitted or less than a full calendar year of data submitted													
	White														
MD	Black	38.6	45.0	38.8	45.0	63.4	47.5	67.8	30.7	17.1	13.5	50.8	74.9	7.7	36.3
	White	54.9	50.6	54.9	50.6	33.6	49.2	24.9	61.4	79.2	82.7	45.9	21.4	84.6	59.0
MN	Black	7.9	12.5	10.6	4.2	65.4	39.0	18.4	2.4	5.9	5.5	10.8	62.5	0.0	7.7
	White	80.9	70.1	66.1	72.1	22.3	39.8	59.0	79.6	80.1	85.5	73.6	25.0	81.8	75.2
NM	Black	1.1	0.2	0.5	0.8	4.8	13.6	3.3	1.7	[a]	[a]	100.0	[a]	[a]	3.2
	White	11.6	22.0	22.7	39.5	19.0	25.0	20.0	39.7	22.2	100.0	[a]	[a]	[a]	34.0
NY	Black	54.4	37.9	12.2	5.1	55.1	32.1	42.8	11.5	7.2	1.4	17.4	47.3	84.5	49.9
	White	20.8	40.0	60.8	82.6	28.7	39.0	29.3	71.7	68.7	91.7	58.2	15.4	4.2	23.7
OR	Black	No 2016 data submitted or less than a full calendar year of data submitted													
	White														
TN	Black	12.5	18.8	8.0	2.9	44.6	47.1	32.1	1.2	5.6	1.6	[a]	100.0	[a]	21.4
	White	65.3	58.5	70.4	89.0	29.1	25.3	43.9	87.7	78.9	84.1	75.0	[a]	100.0	67.1

Percent drug use distribution in influenza hospitalization states (IHSP)

		Alcohol		opiates		Cocaine									
		alc. Only	alc. + other drugs	Heroin	Other opiates	Smoked	Other route	Marijuana/hashish	Meth	Tranquilizers	Sedatives	Hallucinogens	PCP	Inhalants	Others (NOS)
IA	Black	14.1	73.7	4.9	2.8	49.2	32.4	20.2	1.5	4.0	7.7	8.9	42.9	6.3	8.0
	White	69.7	13.0	87.4	86.6	42.6	55.9	65.6	89.0	85.4	92.3	77.8	57.1	87.5	83.7
MI	Black	19.4	25.1	14.9	5.5	54.5	37.9	33.0	3.4	4.8	8.6	4.3	[a]	[a]	13.6
	White	68.5	61.4	71.6	82.8	31.4	46.5	52.9	88.1	82.6	69.8	82.6	100.0	96.6	79.3
OH	Black	17.2	27.6	5.1	5.8	47.8	35.7	36.9	2.4	5.8	11.9	12.8	77.6	5.6	18.6
	White	79.9	70.1	92.4	92.0	50.3	61.9	60.1	95.6	92.6	85.7	83.0	10.3	94.4	77.7
UT	Black	2.7	3.1	2.0	2.7	19.2	8.5	2.4	2.4	[a]	[a]	[a]	[a]	20.0	2.4
	White	70.8	69.4	78.9	79.0	57.7	69.9	61.4	74.4	88.5	87.5	80.0	100.0	80.0	72.6

TEDS percent distribution admission& discharge

Percent at Distribution	alc. Only	alc. + other drugs	Heroin	Other opiates	Smoked Cocaine	Other route (Cocaine)	Marijuana/hashish	Meth	Tranquilizers	Sedatives	Hallucinogens	PCP	Inhalants	Others (NOS)
White	**63%**	**56%**	**66%**	**79%**	**35%**	**47%**	42%	64%	76.5	74.7	54.4	12.5	71.8	64.4
Black	**14%**	**22%**	**14%**	**8%**	**51%**	**31%**	31%	6%	6.9	6.2	28.1	63.0	7.2	15.8

Whites: all admissions 63% (37% male & 23% female). Increase from 59% in 2007 to 61% in 2017: A 40% discharge rate in 2017.

Blacks: all admissions 17% (12% male & 5% female). A decline from 21% of admissions in 2007 to 17% of admissions in 2017: 40% discharge rate in 2017.

[a] No data available.

serious mental illness with co-occurring substance use, polysubstance use, and a large gap in treatment.

The Treatment Episode Data Set (TEDS) collects national and state-level data on admissions to and discharges from publicly funded substance use treatment. The most recent available TEDS data (2017) for admissions and discharges reflects the dire treatment needs of Black Americans. TEDS data do not represent individuals; the data represent treatment episodes. Each admission and each discharge is counted as an episode; therefore, one individual may account for many duplicating data points. This means that relying solely on TEDS data may seriously under- or overestimate the degree of SUD. TEDS data from 2017 include 47 states. Georgia, Oregon, and West Virginia did not report sufficient data for inclusion in the 2017 dataset. States reported a total of 2,005,395 admissions and 1,801,822 discharges. Sixty three percent (63%) of all admissions were white Americans compared to 14% admissions for Black Americans. The 2017 admission rate for white Americans increased from 59% in 2007 to 61% in 2017. The admission rate for Black Americans declined from 21% in 2007 to 17% in 2017 (Substance Abuse and Mental Health Services Administration, 2019). Both Black and white Americans had a 40% treatment completion rate in 2017 (Substance Abuse and Mental Health Services Administration, 2019). Black Americans had no significant change in illicit drug use since 2007. Despite the imperfections in TEDS data, the percent of Black Americans admitted for substance use treatment is significantly lower than the percent of white Americans admitted for substance use treatment. The inequities in substance use treatment, combined with social policies including, but not limited to, past practices that continue to have long-term effects (slavery; Jim Crow; discrimination in housing, community/environmental structure, etc.) have increased Black Americans' susceptibility to COVID-19, forcing the "ethical reckoning" that Yancy (2020) described

3. Challenges

Researchers use federal, state, and local data to create models and make assertions that can lead to policy and the distribution of health care and other resources. Powerful computers analyze these data and researchers create and use epidemic models for prediction, treatment, and resource allocation; however, these models must include accurate representations of policies and features of society (Moses, 2020, June 2), which constitute the systemic racism that has led to the increased susceptibility of Black Americans to COVID-19. To be useful for prediction and resource allocation, all models must also include a coefficient that accounts for the past trauma of slavery and subsequent sequalae. Despite the seemingly positive effects of substance use prevention efforts, COVID-19 has placed a spotlight on the many challenges that are not addressed in the 2018 SAMHSA report. COVID-19 and civil unrest in America are grounded in long-term structural racism, which has the potential to destroy 300 years of scientific and social progress.

Any efforts aimed at mitigating the effect of COVID-19 on Black Americans must begin with policy change that facilitates evidence-based treatment (EBT), while decreasing punitive measures. Policy-makers should consider the decriminalization of people who use drugs (PWUD), including the suspension of arrests and sentencing of low-level drug offenses (Holloway et al., n.d.). Marijuana must immediately be removed from the federal schedule 1 drug classification. Alcohol, the most widely used substance, has seen an increase of 55% in sales since COVID-19 began (Bremner, 2020). These sales may continue to increase, as many states have relaxed alcohol rules put in place to promote public health, including, allowing alcohol delivery and declaring liquor stores as "essential" businesses (Rieper, 2020). Policy-makers must continue to monitor the effect of these relaxed alcohol rules. Marijuana is secondary only to alcohol in use by Black Americans. Black Americans are 2.5 times more likely to be arrested for marijuana possession compared to white Americans (Ramchand et al., 2006). Harm reduction and racially oriented treatment must replace a system of criminal injustice and be

adopted as the first line approach to substance use; however, all efforts are fruitless without treatment access; therefore, Medicaid and Medicare expansion and Medicare & Medicaid Alignment (Medicare-Medicaid Alignment Initiative—MMAI) must become the norm in all states. Although this article only addresses COVID-19 and substance use data among Black Americans, the health disparities that make Black Americans more susceptible to COVID-19 can also be seen in other populations of color (Tai et al., 2020).

Policy-makers should use COVID-19 surveillance platforms, such as COVID-NET, to prioritize Black Americans (and other people of color [POC]) in high risk categories for vaccination, when a vaccine becomes available. COVID-NET uses the same platform utilized for flu surveillance to tract communicable disease outbreaks and prioritize vaccine distribution (Garg et al., 2020). The catchment areas for surveillance are divided into emerging infections program (EIP) states and Influenza Hospitalization Surveillance Project (IHSP) states. The catchment area of these states has similar population density, percentage of persons at or below poverty level, age, sex, race and ethnicity (Chaves et al., 2015). A review of substance use data in COVID-19 reporting states (Table 1) shows that Black Americans exceed white Americans in substance use of smoked cocaine only in Colorado; and marijuana/hashish, tranquilizers and PCP in Connecticut and California. Black Americans exceed white Americans in the use of unspecified (NOS) drugs in New York.

A review of TEDS data (Table 1) shows that Black American substance use treatment is significantly lower than white American substance use treatment in all categories except smoked cocaine and PCP. Is this disparity in treatment related to a structural racism variable or do fewer Black Americans have a need for substance use treatment? Will a review of incarceration data show that black American SUD is treated within the criminal justice system instead of the health care system, which is another form of structural racism? Disparities in Black health are not new; however, COVID-19 illuminates the effects of structural racism on Black health. The United States has the tools (knowledge and financial resources) to eliminate health inequities; now we must ask the question, Does the United States have the political will to critically act on the data and allocate the funding and resources necessary to make eliminating health inequities a priority?

References

Baptiste, D.-L., Commodore-Mensah, Y., Alexander, K. A., Jacques, K., Wilson, P. R., Akomah, J., … Cooper, L. A. (2020). COVID-19: Shedding light on racial and health inequities in the United States. *Journal of Clinical Nursing.* https://doi.org/10.1111/jocn.15351. Advanced online publication.

Bremner, J. (April 1, 2020) (Producer). *U.S. alcohol sales increase 55 percent in one week amid coronavirus pandemic.* Newsweek. Retrieved from https://www.newsweek.com/us-alcohol-sales-increase-55-percent-one-week-amid-coronavirus-pandemic-1495510. (Accessed 14 June 2020).

Chaves, S., Lynfield, R., Lindegren, L., Bresee, J., & Finelli, L. (2015). The US influenza hospitalization surveillance network. *Emerging Infectious Diseases, 21*(9).

Essien, U. R., & Venkataramani, A. (2020). *Re: Data and policy solutions to address racial and ethnic disparities in the COVID-19 pandemic.*

Garg, S., Kim, L., Witaker, M., O'Halloran, A., Cummings, C., Holstein, R., … Fry, A. (2020). Hospitalization rates and characteristics of patients hospitalized with laboratory-confirmed coronavirus disease 2019–COVID-NET, 14 states, March 1–30, 2020. *Morbidity and Mortality Weekly Report, 69*(15), 458–464.

Hardeman, R. R., Medina, E. M., & Kozhimannil, K. B. (2016). Structural racism and supporting black lives–the role of health professionals. *The New England Journal of Medicine, 375*(22), 2113–2115.

Holloway, I., Spaulding, A., Miyashita, A., Randall, L., King, A., Frew, P. M., & HBOU Study Team. COVID-19 vulnerability among people who use drugs: Recommendations for global public health programs and policies. doi:https://doi.org/10.1002/jia2.25551.

Hooper, M. W. (2020). COVID-19 and racial/ethnic disparities. *JAMA*, E1–E2. https://jamanetwork.com. downloaded 06/11/2020.

Moses, M. (2020, June 2). Well-mixed models do not protect the vulnerable in segregated societies. 1-4. https://medicalxpress.com/news/2020-06-well-mixed-vulnerable-segregated-societies.html. Retrieved 6/11/2020.

Poteat, T., Millett, G., Nelson, L., & Beyrer, C. (2020). Understanding COVID-19 risks and vulnerabilities among black communities in America: The lethal forces of syndemics. *Annals of Epidemiology, 47*, 1–3.

Ramchand, R., Pacula, R. L., & Iguchi, M. Y. (2006). Racial differences in marijuana-users' risk of arrest in the United States. *Drug and Alcohol Dependence, 84*(3), 264–272.

Rieper, M. (April 28, 2020) (Producer). *States relax alcohole rules during COVID-19 pandemic*. COVID-19 Policy Tracker. Retrieved from https://www.multistate.us/insider/2020/4/28/states-relax-alcohol-rules-during-covid-19-pandemic Accessed June 14, 2020.

Substance Abuse and Mental Health Services Administration. (2018). *2018 National Survey on drug use and health: African Americans*.

Substance Abuse and Mental Health Services Administration. (2019). *Treatment episode data set (TEDS): 2017*. MD: Admissions to and Discharges from Publicly-Funded Substance Use Treatment Retrieved from Rockville.

Tai, D. B. G., Shah, A., Doubeni, C. A., Sia, I. G., & Weiland, M. L. (2020). The Disporportionate impact of COVID-19 on racial and ethnic minorities in the United States. *Clinical Infectious Diseases*, Advanced Online Publication. doi:https://doi.org/10.1093/cid/ciaa815.

Van Dorn, A., Cooney, R. E., & Sabin, M. (April 18, 2020). COVID-19 exacerbating inequalities in the US. Lancet, 395, 1243–1244.

Yancy, C. W. (2020). COVID-19 and African Americans. *JAMA, 323*(19), 1891–1892.