# The Opioid Crisis and the African American Population

## Introduction

he current opioid epidemic is one of the largest drug epidemics recorded in U.S. history for all racial and ethnic groups. From 1999 to 2017, there were nearly 400,000 overdose deaths involving opioids in the U.S.<sup>1</sup> In 2018, 10.3 million people misused opioids, including prescription opioids and heroin, and two million had an opioid use disorder (OUD).<sup>2</sup> In 2017, the opioid epidemic in the U.S. was declared a national public health emergency with 47,600 reported deaths from opioid-related overdoses, which accounted for the majority of overdose drug deaths.3 With approximately 130 people dying each day due to an opioid-related overdose,4 this epidemic has garnered nation-wide attention, generated significant federal and state funding for prevention, treatment, and recovery and shaped the priorities of many local communities.

Attention to this epidemic has focused primarily on White suburban and rural communities. Less attention has focused on Black/African American\* communities which are similarly experiencing dramatic increases in opioid misuse and overdose deaths. The rate of increase of Black/African American drug overdose deaths between 2015-2016 was 40 percent compared to the overall population increase at 21 percent. This exceeded all other racial and ethnic population groups in the U.S.<sup>5</sup> From 2011-2016, compared to all other populations, Black/African Americans had the highest increase in overdose death rate for opioid deaths involving synthetic opioids like fentanyl and fentanyl analogs.<sup>6</sup>

Three decades ago, when opioids and crack cocaine were devastating Black/African American communities, the national response was "The War on

Drugs." This resulted in widespread incarceration of drug users and disruption of primarily Black/African American families and communities. This population was criminalized for drug-related offenses at much higher rates than White Americans and this has had lasting effects through the present day. In 2017, though Black/African Americans represented 12 percent of the U.S. adult population they made up a third of the sentenced prison population. In 2012, they accounted for 38 percent of the sentenced prison population in the U.S. and 39 percent of the population incarcerated for drug-related offenses.

\*In this issue brief, Black/African American is used as an umbrella term to include those who identify as "African American" and/or "Black" in the U.S. When data are reported, if describing specifically the non-Hispanic Black population, "non-Hispanic Black" is used.

Today, the response to the drug epidemic is framed as an urgent public health issue. Substance use disorders (SUDs) and addiction are now viewed as a health condition, a disease that needs to be prevented and treated, and where recovery is possible with appropriate services and supports.

#### **PURPOSE OF THE ISSUE BRIEF**

As Congress, federal agencies, state health departments, and other stakeholders mobilize to address the opioid epidemic, what is happening within the Black/African American communities? This issue brief aims to convey snapshots of how this population is impacted. Specifically, it aims to do the following:

- a) Provide recent data on prevalence of opioid misuse and opioid overdose death rates in the Black/African American population in the U.S.;
- b) Discuss contextual factors that impact the opioid epidemic in these communities, including challenges to accessing early intervention and treatment;
- c) Highlight innovative outreach and engagement strategies that have the potential to connect individuals with evidence-based prevention, treatment, and recovery and;

d) Emphasize the importance of ongoing community voice and leadership in the development and implementation of solutions to this public health crisis.

#### SOURCES OF INFORMATION

This issue brief includes information compiled from a variety of sources, including interviews with key informants, federal data, and the peer-reviewed research and policy literature. Key informants were selected for their expertise and current work to reduce opioid misuse and provide treatment and other services in Black/African American communities. They represented a range of roles—including community leader, person with lived experience, peer recovery coach, peer recovery supervisor, executive director and staff of community-based programs, evaluator, researcher, addiction psychiatrist, clinical psychologist, physician, social worker, nurse, and city representative. The information they shared represents a snapshot of what is happening in selected Black/African American communities struggling with opioid misuse and is not a full comprehensive picture of this population across the country. Their direct statements, indicated by italics and quotation marks, are interspersed throughout the document.

Opioids In Black/African American Communities: Context

#### WHAT DO THE NATIONAL DATA SHOW?

National and state opioid estimates are from the Substance Abuse and Mental Health Services Administration (SAMHSA) National Survey on Drug Use and Health,<sup>10</sup> and the Centers for Disease Control and Prevention (CDC) National Vital Statistics System.<sup>11</sup> In the figures and tables below, the most recent available data are shown.

**Opioid misuse.** The opioid misuse rate among non-Hispanic Blacks is similar to the national population rate, about 4 percent.<sup>2</sup> In 2018, 1.2 million non-Hispanic Blacks and 10.3 million people nationally, aged 12 and older, were estimated to have had opioid misuse in the past year.<sup>2</sup>

Opioid-related overdose deaths and deaths involving selected drugs by race/ethnicity. The opioid-related overdose death rate for the national population increased from 2.9 deaths per 100,000 people in 1999<sup>12</sup> to 14.9 per 100,000 in 2017<sup>3</sup>—with a large increase in overdose deaths involving synthetic opioids other than methadone (synthetic opioids, i.e., fentanyl, fentanyl analogs, and tramadol) from 2013 to 2017.<sup>3</sup> In 2017, among non-Hispanic Blacks the opioid-related overdose death rate was 12.9 deaths per 100,000 people (Table 1). It was the third highest opioid-related overdose death rate compared to other race/ethnicities.<sup>13</sup>

Synthetic opioids (other than methadone). Data suggest that illicitly manufactured synthetic opioids are heavily contributing to current drug overdose deaths in the U.S.<sup>3,14</sup> The fast rise in overdose deaths involving synthetic opioids in recent years is alarming and data show that the mixing of synthetic opioids with other drugs occur across populations.<sup>15</sup>

Synthetic opioids are affecting opioid death rates among non-Hispanic Blacks more severely than other populations. <sup>3,12-13</sup> In 2017, non-Hispanic Blacks had the highest percentages of opioid-related overdose deaths and total drug deaths attributed to synthetic opioids when compared to other race/ethnicities and the national population (Table 1). <sup>13</sup> Synthetic opioids accounted for nearly 70 percent of the opioid-related

Table 1. Number and age-adjusted rates of drug overdose deaths involving selected drugs by race/ethnicity—United States, 2017

			Drug overdose deaths involving:									
	Drug overdose deaths, <sup>b</sup> overall		Any opioid <sup>c</sup>		Natural and semi-synthetic opioids <sup>d</sup>		Synthetic opioids other than methadone <sup>e</sup>		Prescription opioids <sup>f</sup>		Heroing	
Race/Ethnicity	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate
Total	70,237	21.7	47,600	14.9	14,495	4.4	28,466	9.0	17,029	5.2	15,482	4.9
non-Hispanic White	53,516	27.5	37,113	19.4	11,921	5.9	21,956	11.9	13,900	6.9	11,293	6.1
non-Hispanic Black	8,832	20.6	5,513	12.9	1,247	2.9	3,832	9.0	1,508	3.5	2,140	4.9
non-Hispanic Asian/Pacific Islander	756	3.5	348	1.6	117	0.5	189	0.8	130	0.6	119	0.5
non-Hispanic American Indian/Alaska Native	672	25.7	408	15.7	147	5.7	171	6.5	187	7.2	136	5.2
Hispanic	5,988	10.6	3,932	6.8	994	1.8	2,152	3.7	1,211	2.2	1,669	2.9

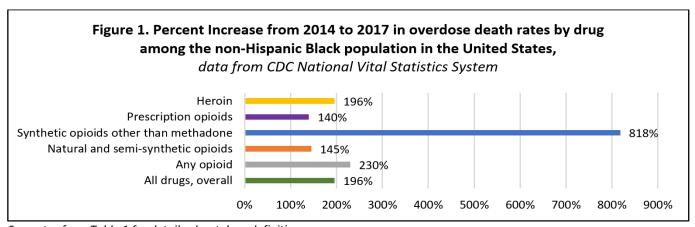
Source: National Vital Statistics System, Mortality File

<sup>a</sup> Rate per 100,000 population age-adjusted to the 2000 U.S. standard population using the vintage year population of the data year. Rates are suppressed when based on <20 deaths.

Deaths are classified using the International Classification of Diseases, Tenth Revision (ICD–10). Drug overdose deaths are identified using underlying cause-of-death codes X40–X44 (unintentional), X60–X64 (suicide), X85 (homicide), and Y10–Y14 (undetermined). Because deaths might involve more than one drug, some deaths are included in more than one category. On death certificates, the specificity of drugs involved with deaths varies over time. In 2016, approximately 15% of drug overdose deaths did not include information on the specific type of drug(s) involved.

cDrug overdose deaths, as defined using ICD-10 codes, that involve opium (T40.0), heroin (T40.1), natural and semi-synthetic opioids (T40.2), methadone (T40.3), synthetic opioids other than methadone (T40.4) and other and unspecified narcotics (T40.6).

- $_{\mbox{\tiny d}}$  Drug overdose deaths, as defined, that involve natural and semi-synthetic opioids (T40.2).
- Drug overdose deaths, as defined, that involve synthetic opioids other than methadone (T40.4).
- <sub>f</sub> Drug overdose deaths, as defined, that involve natural and semi-synthetic opioids (T40.2) and methadone (T40.3).
- Drug overdose deaths, as defined, that involve heroin (T40.1).



See notes from Table 1 for details about drug definitions

overdose deaths and 43 percent of the total drug overdose deaths for non-Hispanic Blacks in 2017.<sup>13</sup> Synthetic opioids are especially affecting the overdose death rates among older non-Hispanic Blacks.<sup>16</sup> From 2015-2017, non-Hispanic Blacks aged 45-54 and 55-64 had synthetic opioid-related overdose death rates double in large urban areas.<sup>16</sup>

Percent increase in overdose death rates by drug among the non-Hispanic Black population. From 2014-2017, among the non-Hispanic Black population drug overdose death rates involving all types of opioids increased, with the sharpest rise from synthetic opioids (Figure 1).<sup>13,17</sup> Death rates involving synthetic opioids increased by 818 percent, and was the highest for non-Hispanic Blacks compared to all other race/ethnicities (data not shown).<sup>13,17</sup>

Table 2. Opioid Overdose Death Rates (age-adjusted per 100,000), Top 5 States and District of Columbia, by Total and non-Hispanic Black Populations, 2018

	Tota		non-Hispanic Black				
1.	WV	42.4	1.	WV	58.2		
2.	DE	39.3	2.	DC	47.7		
3.	MD	33.7	3.	MO	40.5		
4.	NH	33.1	4.	MD	34.3		
5.	NJ	29.7	5.	IL	31.3		

Table 3. Number of Opioid Overdose Deaths, Top 5 States, by Total and non-Hispanic Black Populations, 2018

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	Tota	ı	non-Hispanic Black				
1.	ОН	3237	1.	MD	709		
2.	FL	3189	2.	IL	598		
3.	NY	2991	3.	NJ	459		
4.	PA	2866	4.	MI	426		
5.	NJ	2583	5.	ОН	402		

Opioid-related overdose death rates by state. 18 The picture of opioid-related overdose by state population varies depending on whether death rate or absolute number of deaths are being considered. When looking at the 2018 data using death rates, the opioid-related overdose death rates among non-Hispanic Blacks were the same or worse when compared to rates by total (all race/ethnicities combined) state population (Table 2). In 2018, the highest opioid-related overdose death rates by state were primarily in the Mid-Atlantic and Midwest regions. West Virginia (WV), and Maryland (MD) appear in the top five states with the highest opioid-related overdose death rate by both total state and non-Hispanic Black populations. Among non-Hispanic Blacks, the District of Columbia (DC) had the second highest opioid-related overdose death rate, 47.7 per 100,000 compared to all states. This death rate was higher than any total state opioid-related overdose death rate. Of DC's opioid-related overdose deaths, 89 percent were among non-Hispanic Blacks (data not shown). However, when looking at the state data by *number* of opioid-related overdose deaths instead of rates, DC does not appear in the top five states with opioid-related overdose deaths among non-Hispanic Blacks (Table 3) since DC's overall non-Hispanic Black population is smaller than many other states. Only two

states appear in the top five for both total state population and non-Hispanic Black population when looking at the data by the number of deaths (OH and NJ). Maryland has the highest number of opioid-related overdose deaths among non-Hispanic Blacks and outpaces the second highest state (IL) by over 100 deaths. Some states had insufficient data or did not report data specific to non-Hispanic Blacks and were excluded. Regardless of how the data are represented, it is clear that Black/African Americans across the U.S. are substantially affected by the opioid crisis.

# ROUTES TO OPIOID MISUSE AND OVERDOSE DEATHS: PAIN MANAGEMENT, ILLICIT DRUG USE, AND OPIOID COMORBIDITIES IN BLACK/AFRICAN AMERICAN COMMUNITIES

For Black/African Americans, the current rise in opioid misuse and overdose deaths involves multiple pathways. One route to opioid misuse and overdose death is initiated through excessive prescribing and use of prescription opioids leading to OUD. For some individuals, as dependency grows on these pain medications, this evolves into the use of heroin, a cheaper and more readily accessible illicit opioid. Yet another pathway is initiated through the use of illicit drugs, i.e. heroin and cocaine, which has a history in low-income Black/African American communities dating back to the drug epidemics of the 1960s and 1970s. What is particularly dangerous now, is that these street drugs are increasingly laced with fentanyl and fentanyl analogues leading to more opioid-related overdose deaths.7

In terms of prescription opioids, it has been proposed that Black/African Americans may be insulated from fast-rising rates of opioid misuse and overdose deaths due to lack of access to these medications. The lack of access to prescription opioids is rooted in misperceptions and biases in the health care system including the undervaluing of Black/African Americans' self-reports of pain and stereotyping by providers. A study of emergency departments found that Black/African Americans are significantly less likely to be prescribed opioid prescriptions for pain from medical providers than White patients. A recent meta-analysis found that compared to Whites,

Black/African Americans were 29 percent less likely to be prescribed opioids for pain.<sup>21</sup> Racial and ethnic minorities are more likely to experience miscommunication or misinterpretation about their pain with their medical providers.<sup>22</sup> For example, Black/African Americans have higher self-reported pain scores when compared to Whites,<sup>23</sup> yet some doctors choose to believe that pain levels are lower for Black/African Americans compared to Whites<sup>24</sup> or that Black/African Americans are drug seekers.

This lower access to prescription opioids for Black/ African Americans contributes to at least two adverse outcomes: a myth of Black/African Americans being "perversely protected" from the opioid crisis is spread<sup>7,25</sup> and the potential for severe under-treatment or mistreatment of pain for Black/African Americans with severely painful medical conditions such as sickle cell disease, certain cancers, HIV/AIDS and other autoimmune diseases.<sup>22</sup>The data show that Black/African Americans are not "protected" from this epidemic. And, under-prescribing in some cases may have life-threatening consequences for people affected with pain disorders.

#### CHALLENGES TO PREVENTION, TREATMENT AND RECOVERY

The social determinants of health and other community and system level factors cannot be ignored when discussing the contextual factors associated with any major public health issue. Described below are some of the key challenges associated with opioid misuse and OUD within the Black/African American population.

#### Negative representations, stereotyping and stigma.

Black/African Americans with SUDs are doubly stigmatized by their minority status and their SUD. Negative images of Black/African Americans with SUD contribute to mistreatment, discrimination and harsh punishment instead of treatment and recovery services. Even today, some Black/African American community leaders indicate that using words such as an "opioid epidemic" or "crisis" may be inflammatory in their communities, putting residents on high alert and triggering fears of incarceration. Mostly absent from

this narrative are opportunities for compassion, understanding, treatment and recovery.

Intergenerational substance use and polysubstance use. For many families in the U.S., substance misuse is passed on from generation to generation and opioids are not the first or only drug being used. In some cases, multi-generational households are misusing opioids and other substances together. In communities with high poverty and economic disinvestment, intergenerational and polysubstance use are not uncommon nor unique to Black/African American communities. For many in these poor and low-income communities, using and/or selling drugs is a means of survival. Opioids are not the only substances of concern and are likely not being misused in isolation. An understanding that intergenerational and polysubstance use are common among some impoverished communities, and that disentangling the behaviors of a person's social network, including their family, are challenging yet critically necessary.

**Fear of legal consequences.** Only 10 percent of people with a SUD in the general population seek treatment.<sup>2</sup> This is magnified in the Black/African American community where there is significant historical mistrust of the health care, social services, and the justice system. For men, there is the looming fear that seeking treatment will result in severe sentencing and incarceration reminiscent of the harsh policies of the past.<sup>7, 26</sup> Stricter drug policies for possession or sale of heroin in New York known as the Rockefeller Laws were put into place in 1973, and the Anti-Drug Abuse Act of 1986 enforced across the country resulted in mandatory and severe sentencing for low-level, nonviolent drug offenses, particularly related to cocaine, for a disproportionately high number of people of color compared to Whites.<sup>7</sup> These severe penalties have had lasting impacts on the current criminal justice system, where Black/African Americans represent a substantial percentage of drug offenders in federal prison<sup>9</sup> despite Whites representing the majority of illicit drug users in the U.S.<sup>2</sup> Black/African American women fear losing their children to the foster care system if they acknowledge a substance use problem and seek treatment.<sup>27</sup> These fears are a major

barrier to timely treatment and support for recovery.

Misperceptions and faulty explanations about addiction and opioids. Similar to society in general, in Black/African American communities there is a lack of understanding of SUD as a disease and the high risk for OUD from prescription opioid misuse. Within all communities, and especially Black/African American communities, as one key informant stated, people are hiding their SUD because "addiction is seen as a weakness not a disease" and another noted that solutions must discuss "how addiction is a disease, not a moral failing." Misperceptions of current treatment options also exist among Black/African Americans and their families. According to key informants, many from this population are not informed about the standard treatment options for OUD, reducing the chance that evidence-based treatments will be sought.

#### Lack of culturally responsive and respectful care.

While it can be challenging to take a holistic view of an individual and see more than the SUD, this may be even more so for the Black/African American who is subjected to the implicit biases of the health care system. Failing to bridge a racial cultural divide often contributes to premature termination of treatment among people of color. A shortage of Black/African American and Hispanic/Latino physicians, in general, and also clinicians who are waivered to prescribe buprenorphine exists.<sup>28-30</sup> Engaging in treatment is a difficult task for all populations. When the cultural context is ignored or misunderstood, respect for the patient is lacking, little hope is provided, and a lack of Black/African American practitioners who treat OUD exists, it becomes very difficult for a Black/African American with OUD to engage in treatment.

#### Separate and unequal prevention and treatment.

Universal, broad, substance prevention campaigns have limited impact in diverse communities, including Black/African communities. The expectation that general prevention efforts and messaging will be equally relevant to Black/African Americans is unrealistic. Messages about SUD as described by a key informant cannot be "easily uncoupled from disinvestment in our communities, mass incarceration, over-policing, over-traumatizing...when the messages

are devoid of the context, [they are] not effective and it feels naïve for the folks that are living it." The framing of a prevention message must be tailored to resonate with the community culture and be conveyed by a trusted messenger.

Unequal treatment is common in many Black/African American communities, where access to treatment options is more dependent on race, income, geography, and insurance status, rather than individual preferences, or medical or psychiatric indicators. 31-33 Research suggests that Black/African Americans with OUD have experienced limited access to the full range of medication-assisted treatment (MAT) when compared to Whites.<sup>7,34-38</sup> One study based in New York City found that the residential area with the highest proportion of Black/African American and Latino low-income individuals also had the highest methadone treatment rate, while buprenorphine and naloxone were most accessible in residential areas with the greatest proportion of White high-income patients.<sup>36</sup> Another study showed that in recent years buprenorphine treatment has increased in higherincome areas that have lower percentages of Black/ African American, Hispanic/Latino and low-income residents while methadone rates have remained stable over time and continue to cluster in urban low-income areas.34 Among individuals with OUD, Black/African Americans in the U.S. were less likely to receive buprenorphine compared to Whites, and those who self-pay or had private insurance represented nearly 74 percent of those who received buprenorphine from 2012-2015.38

This disparity in access to buprenorphine by race/ ethnicity, geography, income, and insurance status, may be related to barriers for both the patient and clinician. Buprenorphine is generally a less stigmatizing treatment for people with SUD compared to methadone. It is an office-based treatment available for general/primary care practitioners to prescribe and administer. Office-based treatment programs only work for patients with access to primary care, something that may be inaccessible to many low-income or uninsured people of color. While in general it may be difficult to get physicians waivered, incentives to obtain a buprenorphine waiver are often lacking for

providers serving the publicly insured or uninsured population due to limited or low reimbursement rates and lack of time and resources to pursue the training and acquire the mentorship to properly administer and care for buprenorphine patients.<sup>34,36</sup> In contrast, methadone must be administered in a federally regulated opioid treatment program, which has strict regulations and is often located in low-income areas. Methadone, while an effective treatment, places more burdens on the patient such as daily clinic visits, regular and random drug testing, employment disruptions, required counseling, etc. Thus, methadone -stigmatized in many Black/African American communities and as one key informant noted, "just doing one drug for another drug"—is often viewed as the default treatment for Black/African Americans and often the only treatment option. Essentially, a twotiered treatment system exists where buprenorphine is accessed by Whites, high-income, and privately insured, while methadone is accessed by people of color, low-income, and publicly insured.

Strategies to Address Opioid Misuse and OUD in Black/African American Communities Effective treatments for OUD have been developed and generally work across all adult populations.<sup>39</sup> However, access to these treatments is uneven, 34-38 with particular obstacles for minority populations. This section begins with a description of standard treatment for OUD and overdose. This is followed by innovative outreach and engagement strategies that have been used in Black/ African American communities. These strategies, illustrated by snapshots from Black/African American communities, focus on outreach and engagement efforts that facilitate prevention, treatment and recovery. Supported by community-based participatory research efforts, these strategies are implemented by case managers, partnerships with community leaders and advocates, treatment providers, and peers/people with lived experience of a SUD.

#### STANDARD TREATMENT

The evidence-based treatment for an individual with OUD is MAT administered by qualified medical personnel, while for an opioid-related overdose, it is the administration of an opioid overdose reversal drug by a trained individual.

**Medication-Assisted Treatment (MAT).** MAT is the use of an FDA-approved medication in conjunction with a psychosocial intervention. Currently, three medications are approved for MAT: methadone, buprenorphine, and naltrexone.<sup>40</sup>

**Methadone:** a medication that reduces withdrawal symptoms and cravings and blocks the euphoric effects of opioids like heroin, morphine, oxycodone, and hydrocodone. For treatment of OUD, it must be prescribed and dispensed from a federally regulated opioid treatment program (OTP). It is taken daily and orally, typically in liquid form but can also be offered as a pill or wafer. It may cause serious side-effects and can be addictive. 41-42

**Buprenorphine:** a medication that treats withdrawal symptoms and cravings and is less likely than methadone to cause intoxication or dangerous side effects such as respiratory suppression. It is commonly administered as a pill or buccal film that must be dissolved sublingually or attached to the cheek. It is also available as a monthly injection or subdermal implant that lasts for approximately 6 months. It may be prescribed and dispensed outside of a licensed OTP by physicians or qualified medical practitioners who have completed requisite training and earned a DATA-2000 waiver.<sup>42-43</sup>

**Naltrexone:** a medication that blocks the euphoric and sedative effects of opioids. It is not an opioid and is neither intoxicating nor addictive. It is administered as a daily pill or monthly injection by any licensed medical practitioner or pharmacist. An extended-release injectable form, Vivitrol, is approved for treatment of opioid and alcohol use disorders and its effects last for about 28 days. 42,44

For additional information, see SAMHSA's TIP 63: Medications for Opioid Use Disorder. 45

The second component to MAT is the psychosocial or behavioral intervention. Behavioral interventions target a broad range of problems and concerns not necessarily addressed by the medications (e.g. comorbid mental health conditions, lack of social supports, risky behaviors, unstable housing, etc.). A few behavioral interventions such as contingency management, cognitive behavioral, and structured family therapy approaches are widely accepted as effective when used in conjunction with medications. Some research has indicated that motivational interviewing may also be an effective behavioral intervention, but more research is needed.

**Opioid overdose reversal drugs.** Currently, naloxone is the one FDA-approved medication used to reverse an opioid-related overdose.

**Naloxone:** a prescription medication to prevent overdose of opioids such as heroin, morphine, and oxycodone by blocking opioid receptor sites to reverse the toxic effects of the overdose; it is given by intranasal spray, intramuscular (into the muscle), subcutaneous (under the skin), or intravenous injection.<sup>46</sup>

Efforts to expand the use and availability of naloxone nationwide through federal, state, and local initiatives is a key strategy to tackling opioid overdose. The effectiveness of naloxone (Narcan) and the critical need for it during this time prompted the U.S. Surgeon General to issue a public health advisory in April 2018.<sup>47</sup> This advisory recommends increased availability of naloxone in communities with high rates of opioid use, including administration by a wide array of health professionals, first responders, overdose survivors, and their family members.<sup>47-48</sup> Similarly, in December 2018, the U.S. Department of Health and Human Services released new guidance on coprescribing naloxone for patients at high risk for opioid overdose.<sup>49</sup>

# COMMUNITY-INFORMED STRATEGIES TO ADDRESS OPIOID MISUSE AND OUD IN BLACK/AFRICAN AMERICAN COMMUNITIES

Five key strategies with specific community examples are described below. While not universally representative of all Black/African American communities, these strategies are examples of how some communities are addressing opioid misuse in their community.

## 1. Implement a comprehensive, holistic approach —"Addiction is beyond the neuroreceptor level."

A comprehensive, multi-layered approach is necessary to address opioid misuse and addiction. Some speculate that opioids are a way of coping in the absence of healing when a community has been traumatized by decades of violence, poverty, and neglect. As one key

informant noted, "thirty percent of the black community is under poverty in the state...these stats play into the sense of hopelessness, [people are] working full-time but not making livelihood, [there is a] sense of hopelessness that is fixed by opioids...[it's] more than just getting people into treatment."

Another key informant stated: "So much evidence that addiction is beyond the neuroreceptor level—it's the criminal justice system, daily life, the neighborhood—all have an impact on outcomes in addiction treatment... Medication is essential but not a magic bullet for treating opioid use disorders, [you] need more to recover successfully... not a single med that sustains recovery on its own, especially for those living in toxic environments...Rather, a comprehensive, holistic approach tailored to the community is required. For African Americans, addiction is embedded in a community context marked by limited opportunity, economic disinvestment, violence and intergenerational trauma. Research has confirmed that strong neighborhood cohesion and social ties are correlated with lower drug rates and related consequences."

Key informants emphasized the value of community-led needs assessments and routine check-ins with the community that address the social determinants of health. Having the community's first-hand knowledge about where people live, work, learn, play, worship and age and how these places promote healthy functioning and quality of life is essential to addressing opioid misuse and OUD. Aspects of a community such as community engagement, economic stability, and neighborhood safety all have an impact on the well-being and health of its residents. These factors, often addressed by case managers, are a key component of treatment planning.

Understanding the existing assets in a community is essential. Where residents go for information, whom they trust to deliver care, and who the explicit and implicit community leaders are is critical information. In some Black/African American communities, places such as barber shops, beauty salons, and the church or faith-based community are critical for delivering prevention education and linking to treatment. 50-51

For residents reluctant to engage with the medical system, these "under the radar networks" are the essential entities to enlist in the opioid response. Using indigenous leaders, and individuals in recovery to spread education about naloxone kits, may have greater impact than the usual first responders such as police officers. Working with harm reduction networks and syringe services programs are needed to reduce harms among Black/African Americans who have an injection drug use problem, and among people who inject drugs, in general.<sup>52</sup> As noted by one key informant, "Black community needs harm reduction because we are always under assault from drug use...[we] need prevention for STI (sexually transmitted infections). To not talk about this, [you are] not connected with Black communities."

Community Snapshot: Creating safe, comprehensive healing **spaces—Bellevue Hospital.** Bellevue Hospital created a holistic addiction clinic built on the creative arts, selfcare, and a recovery network of support for Black/ African Americans. The clinic built in patient governance and established linkages with the community. The clinic created a home-like, welcoming environment, centered on a kitchen and cooking groups to foster a mindset of healthy eating. Patients and physicians in the clinic cooked together which was a way of establishing relationships in a nonhierarchical manner and building patient trust in a medical center. Therapeutic approaches incorporated both the structured cognitive behavioral therapy and patient groups based on the creative arts and spirituality, both highly valued within Black/African American culture. For some Black/African American groups, the cultural arts—visual, musical and drama were an important participatory process for emotional expression, tapping into traumatic memories, and getting a sense of meaning and resilience outside of the SUD. The clinic established relationships with the surrounding community, including collaborating with Black/African American community-based organizations for housing, employment supports, food banks, churches, church-based addiction services and other trusted entities where patients could get ongoing support. The clinic assumption was that healing rests on relationships, and as described by one key informant, "[you] can't just drop bupe into a clinic—the

tenor of outreach and community relations is critical."

#### 2. Involve the community and develop multisectoral, diverse community partnerships— "Community-based organizations are the engines managing crises before they get to the hospital."

Involving the community—its residents, leaders and organizations—in solving community issues, particularly, opioid misuse, was underscored by the key informants. Involving the community in prevention, treatment, and recovery strategies relies on multi-sectoral partnerships and collaborations to leverage resources and expertise.

Community Snapshot: Developing a wide and diverse network of partners—Detroit Recovery Project (DRP). DRP is a multi-service agency, focusing on Black/African Americans. It is dedicated to supporting recovery, which strengthens, rebuilds, and empowers individuals, families and communities affected by SUDs. The agency provides a wide spectrum of support services to the city's recovery community, including GED preparation; twelve-step support groups; housing assistance; job readiness and employment assistance; HIV prevention, testing, counseling services; and exoffender programs. Essential to the work of DRP is its diverse collaborations and partnerships. Examples of partnerships include the University of Michigan Injury Prevention Center, which provides real-time data from emergency medical services to identify opioid-related overdose incidents in the city of Detroit that are mapped and reported to community programs. DRP partners with the Detroit Police Department, churches, local businesses and Detroit Public Schools on prevention events such as "Prescription Drug Take Back Day." DRP develops memorandum of agreements with providers for provision of MAT and partners with federally qualified community health centers to host recovery coaches in their clinics. In conjunction with community leaders, DRP facilitates regular town hall meetings to address the opioid epidemic in Detroit. These robust collaborations strengthen ongoing prevention, treatment, and recovery supports tailored to the specific Black/African American community.

## Community Snapshot: Building trust between community and law enforcement—Coffee with a Cop. 53 Efforts to address

the distrust between Black/African Americans and law enforcement are underway in communities across the nation. Community-based organizations and counties are partnering with local law enforcement to create a program in which community members can have coffee with a police officer and talk about issues and community concerns without fear of being reported or arrested.<sup>53</sup>This strategy, "Coffee with a Cop" is taking place in Albany, Georgia to build rapport and trust between police officers and the local Black/African American community. The Morehouse School of Medicine—Dougherty Alliance for the Prevention of Opioid Use Disorders and Phoebe Putney Network of Trust School Health Program partnered with the Albany Police Department to implement "Coffee with a Cop" at the ASPIRE—The Change Center. The Change Center is an addiction recovery support center, which is peer-led and based on relationships that support a person's ability to promote their own recovery. This strategy allows for law enforcement and community members to get to know each other and to identify mutual community goals and common ground.

# 3. Increase culturally relevant public awareness—"Campaigns are White-washed and make no sense in Black communities."

The declaration of the opioid "epidemic" as a national emergency generated public awareness and social media campaigns. However, public awareness campaigns should be built on the needs assessments of the community. Communities are able to identify gaps in awareness and knowledge and provide key information in developing and tailoring health communication campaigns and subsequent prevention programs. Health communication campaigns on the opioid misuse and OUD in the Black/African American community need to include messages of hope and recovery and incorporate actors and images of people that look like the intended audience. They need to utilize communication mediums that are appealing and engaging for the community. There is high value placed on

interpersonal relationships and establishing one-onone connections with someone who has had similar experiences. Ensuring opioid education campaigns include Black/African Americans that are relatable to the intended audience is key to having an impact. This establishes credibility and counteracts the common theme, "Where are all the Black people?" repeatedly shared by key informants. Using plain language and language that is culturally appropriate to the community in educational materials, awareness campaigns, and presentations is needed. There is a lack of public awareness campaigns about opioid misuse and OUD for Black/African American communities, including campaigns focused on harm reduction strategies such as syringe services programs and naloxone education and distribution.

# 4. Employ culturally specific engagement strategies—"The opposite of addiction is not abstinence, it's connection."

A key component of some Black/African American cultures is the value placed on interpersonal relationships and one-on-one connections. Entering a Black/African American community and sharing data and statistics that paint a negative picture of the population before establishing a trusted relationship is culturally inappropriate. Ignoring history and context breeds mistrust and a sense of devaluing the community. Asking to learn from the community, recognizing their assets, and acknowledging failed and successful policies is critical to engaging the community.

Connect with culturally similar support groups. For people with SUDs, support groups are often a key component of their recovery. These groups bring together people who want a drug-free life, and to learn skills to conquer cravings. They are people who need support during difficult emotional times and who share similar life experiences around substance misuse and SUD. Support groups focused on SUDs can be organized around the particular substance, or by age, gender, religion, or another affiliation. These support groups bond individuals through a cultural tie.

# Community Snapshot: Tailoring to midlife Black/African American women with OUD—Prime Time Sister Circles. The Prime Time Sister Circles® (PTSC) is a program of The Gaston & Porter Health Improvement Center, Inc., a non-profit developed by two midlife Black women health professionals. PTSC addresses the unique impact of gender, race, age and class experienced by midlife (40-75 years of age) Black/African American women. These women, continually underserved in the health care system, are at high risk for developing chronic emotional and physical health problems including opioid/heroin misuse and OUD. Even when they complete treatment programs, these women face stressors that often make it

difficult for them to remain drug-free.

PTSC is an evidenced-based, culturally competent support group intervention that is community based, socially innovative, and holistic. The PTSC meets two hours a week for 13 weeks using a cognitive-behavioral approach. It provides a safe, supportive space in which women can learn to see themselves as more than their OUD. The general PTSC curriculum was adapted to address issues relevant to midlife Black/African American women with OUD. PTSC helps them address challenges such as single parenthood, incarceration, co-existing emotional and chronic

physical health conditions (e.g. depression, hypertension, diabetes, etc.), a history of childhood abuse, guilt and anger over their families' anger and lack of trust, difficulty in transitioning to a non-addiction culture, low self-esteem, and major financial difficulties. The PTSCs are conducted by trained facilitators and licensed and/or certified experts in mental health, hypertension, nutrition and fitness, who are all midlife Black/African American women. They are trusted messengers who can help Black/African American women receive the tools, skills and motivation needed to appropriately address some of their recovery issues.

Partnerships with community-based organizations are a core component to PTSC. The sites for the PTSC are in churches, public housing, and in health, recreation and substance abuse centers. Participants receive: a weekly ten-dollar stipend for transportation or child care costs; a blood pressure cuff, monitor and pedometer which they are taught to use; and a light meal to educate about healthy snacks. Women who participated in OUD focused PTSC shared that they valued the bonds with other Black/African American women, and made positive changes in their stress management, nutrition, fitness and blood pressure levels and increased their self-esteem.

Collaborate and partner with faith-based organizations and institutions. Historically in the U.S., the Black/African American church has been a key institution for providing support and spiritual leadership in addressing unmet needs including health and social concerns in Black/African American communities. Where traditional, mainstream social services have not addressed critical needs, the Black/ African American church has stepped in. Where social justice has floundered, the church has initiated advocacy and social movements. This role continues to evolve as the Black/African American community changes over generations and the Black/African American faith-based community becomes increasingly diverse. In some communities, faith-based organizations may retain a strong leadership role and organize to address social issues and be a valuable trusted entity for the community. In other places, it may not assume such a position and may not be viewed

as a critical leader or contributor to the overall well-being of the community. In this sense, it is important to have an understanding of the potential variability of faith-based institutions in different communities. For Black/African American communities in which the residents are engaged with the faith-based organizations, leveraging these organizations as trusted messengers may facilitate public awareness and linkage to prevention and treatment.

A common theme from the key informants was the use of faith leaders as trusted messengers to link faith communities to opioid prevention, education and treatment. In such communities, faith leaders are major influencers in large social networks. They know their community and the associated health and social issues tied to the community. They have been engaged in decades of health promotion. This includes prevention of wide-ranging conditions like diabetes, hypertension, HIV, mental health and substance use. 54-55 They are well positioned to promote awareness and education about opioid misuse and OUD. Most importantly, they know how to talk to their community, how to engage them in this issue more effectively than outsiders.

## Community Snapshot: Activating faith-based organizations to be bridges to health—Bridges to Care and Recovery.

North St. Louis City and County have recognized that engaging faith-based organizations is a critical strategy to address behavioral health concerns for their predominantly Black/African American community. The Bridges to Care and Recovery is a community initiative with multisector partners including the faith community. It relies on the faith community to serve as extenders in identifying mental and SUDs and linking individuals to care. As of fall 2019, there were 65 churches engaged in the Bridges initiative and designated as "behavioral health- friendly churches." To receive this designation, church congregations completed 19 hours of training on basic behavioral health topics such as Mental Health Fist Aid, trauma awareness, and others. As part of their designation, these churches provide monthly meetings and presentations on behavioral health topics to their congregations. The Bridges initiative also has trained

220 church leaders and volunteers as Wellness Champions to reduce the stigma of mental illness. Community connectors are staff members who have established connections with the community and are able to link individuals to needed care and services. Pastors' wives, comprising the "First Ladies Network," are being trained as group facilitators and peer mentors for people with health and behavioral health conditions. The Bridges initiative is also working with the Missouri Opioid State Targeted Response Team to facilitate Opioid Crisis Management Training to churches that are interested in providing naloxone kits onsite. Church-based participants in the training learn about the signs and symptoms of OUD, the impact of trauma and OUD, access to medication-first treatment programs, and use of naloxone.

Community Snapshot: Providing support programs through the church—Imani Breakthrough Recovery Program. The Imani Breakthrough Recovery Program, supported by the Connecticut State Department of Mental Health and Addiction Services, and the Psychiatry Department of the Yale School of Medicine, is a 12-week intervention program for people with SUD that utilizes faith as a key support in recovery. Integral to the intervention is the involvement of faith-based entities like the church, which is why it is called Imani, meaning "faith" in Swahili. The intervention program seeks to get people with SUD into treatment and has two components to the program—a faith-based support group and wellness coaching.

Facilitators who are people with lived experience and members from the church lead the intervention. The developers of the intervention train the facilitators. The intervention addresses eight dimensions of wellness—emotional, health, occupational, financial, spiritual, wellness, intellectual and physical—and teaches a curriculum focused on "the five R's" (roles, resources, responsibilities, relationships and rights). The weekly meetings are held in church basements. The church provides necessities, including a shared meal, and for some individuals, a space for showering. Participants receive a ten-dollar stipend at each meeting for transportation and other needs. Each meeting has a theme and provides a safe space to share thoughts and feelings. The facilitator presents various scenarios to be

discussed, and conveys specific skills to be shared and tested. Developing self-advocacy is a major focus of the program. One participant of the program stated, "One of the things this program has done for me is being able to advocate for myself. It has also given me an opportunity to find resources in the community...to have a community of like-minded individuals." Another stated, "The program gave me the opportunity to open up to others. If you don't have a place to go where you can talk about what's going on in your life, you're subject to going out and taking drugs." 56

Community Snapshot: Educating rural pastors on opioids and leveraging technology-Morehouse School of Medicine. Churches are highly valued in Black/African American communities in rural Georgia. Morehouse School of Medicine in Atlanta has subcontracted with these churches to collaborate on addressing various public health efforts including opioid misuse and OUD. The "dual mission of the faith community to provide spiritual support as well as attend to unmet social issues and needs in the community" is the basis for this partnership. Funding has supported collaborations among social service agencies and churches, and allowed for coordinated public awareness efforts. Pastors and faith leaders are included on advisory committees for grant funding to provide guidance on working with the faith community. In these communities, it is key to recognize the status of pastors in rural communities and connecting with pastor conferences to disseminate information and enlist support.

Morehouse has partnered with churches in micropolitan and rural settings that are leveraging technology such as radio broadcasts and podcasts to provide awareness and education on substance misuse and SUD. In one community, a faith leader after attending a training on the opioid crisis in the community, included the subject in a podcast with youth. Podcasts and similar online social media such as Facebook Live are innovative, current, inexpensive, and easily accessible ways to discuss important but stigmatized health issues with a community and particularly, the younger generations. Utilizing technology in the form of online sermons quickly—and at the convenience of the listener—provides

information that is compatible with the target audience's lifestyle. Talking about stigmatized health issues such as OUD is a first step to dispelling misinformation and reducing stigma. Pastors can use this medium to convey that these are diseases and illnesses, not sins. Pastors without an online presence but who are involved in or educated on health and social issues in their communities are more likely to discuss these issues, like the opioid epidemic, in their Sunday morning sermons from the pulpit.

#### Identify community-embraced first responders.

While the Surgeon General's call to action—for the use of naloxone for people living with OUD—may be embraced by mainstream, medically engaged communities, this is not always the case for communities that have historically been marginalized and underserved by the health care system. In some Black/African American communities, naloxone has had a mixed reception. Some community members express concern that the availability of naloxone could promote substance use among Black/African Americans. They also fear that seeking naloxone from traditional first responders, such as law enforcement and emergency medical technicians (EMTs), may result in punitive consequences.

Despite the mixed reaction to naloxone from some Black/African Americans, some communities are identifying their own first responders. These include community-based organizations, community health workers, family members, and faith-based leaders, and training them to administer naloxone. More education and awareness tailored to Black/African American communities and conveyed by "trusted messengers" is essential to create support for and a sense of urgency regarding the use of naloxone as a life-saving medication. Identifying where naloxone would make the most impact in saving lives within a community is critical. Some local leaders have advocated for access to naloxone for individuals re-entering neighborhoods from incarceration, given the high risk for opioid overdose at re-entry. By providing naloxone and training the use of it in prisons and jails before an individual's release, overall opioid-related overdose deaths could be reduced. As one key informant suggested, "the best strategy is getting naloxone into incarceration."

Community Snapshot: Engaging Black Pastors in the Quick **Response Team (QRT)—City of Huntington QRT.** The City of Huntington, WV partners with Cabell County Emergency Medical Services (EMS), Marshall University, local law enforcement, treatment and recovery providers, and pastors to form and deploy the QRT to locations with a high number of drug overdoses. The QRT includes a paramedic, treatment provider, law enforcement officer, and unique to Huntington, is the inclusion of a faith leader. Although Cabell County has a low population of Black/African Americans, opioid overdose deaths in Cabell County occur at a disproportionately high rate compared to the national rate. The City of Huntington QRT's emphasis on involving the faith community, especially for Black/African American communities, has been pivotal in developing trust between people with SUD and who are at risk for opioid overdose. Initially, there was some reluctance among the faith leaders. But with the opportunity to connect one on one with people in their communities living with OUD, many faith leaders in this community have become champions of this cause and are helping engage individuals to seek treatment. Faith leaders, spearheaded by the Huntington Black Pastors Association, are being trained in understanding opioid misuse and treatment and reducing stigma. They are educating faith communities and families to be supports for people with SUDs. As one key informant noted, "With the Black community the stigma is there, even among the Black pastors. They felt individuals were replacing one drug for another (as in MAT programs), but now working on the streets [they] realize this is not the case."

# 5. Create a culturally relevant and diverse workforce—"[We] have trained Black peers, but not a Black supervisor."

and others in their community.

The QRT offers their support in assisting high-risk

individuals with OUD to not only seek treatment, but

also educating about naloxone. They are linking with

community partners to provide naloxone training and

distribution to family members, individuals with OUD,

Communities know that when people feel welcomed, understood and comfortable, they are more likely to continue treatment. In many situations, it is

important that staffing of treatment centers reflect the community being served. When Black/African Americans make the difficult decision to enter treatment, often they will not see any staff at the treatment facility that share a similar cultural background with them. Addressing the shortage of Black/African American medical personnel who are waivered to prescribe buprenorphine may reduce the inequity in access to evidence-based medications. Additionally, recruiting and training a diverse workforce and creating billable funding structures to pay for this workforce is critically needed. One key informant shared that although there is state funding allotted for peer mentoring there are policy barriers to hiring and paying Black/African American peer mentors, "[We have] access to a peer mentor, but lack access to a supervisor. [We] can't bill without peer supervisor. [We] have trained Black peers, but not a Black supervisor. [We] don't have access to the other supervisors." Adhering to the National Culturally and Linguistically Appropriate Services in Health and Health Care Standards (National CLAS Standards) can help provide a blueprint for organizations to provide quality and responsive care to diverse populations.<sup>57</sup>

Meet people where they physically are, again and **again.** To persuade someone to enter treatment for SUD is not simple. It is important to consider the context in which a person with SUD is living. It is equally important to consider the challenges that may prevent an individual with SUD from entering treatment. People are often unfamiliar with or untrusting of existing resources for SUD. They do not know who to ask for help nor what to ask for, or have a strong sense of belief that no one actually cares about them. The use of mobile outreach potentially increases the likelihood of getting people with SUD into treatment. This involves physically going to where people are, connecting with them, bringing authentic care and hope, and linking them with trusted treatment and recovery providers. Leveraging the experience and expertise of those with lived experience of having an OUD such as peer recovery coaches may be critical to getting a person into treatment.

Community Snapshot: Going into the streets—Detroit **Recovery Project Mobile Outreach Team.** DRP collaborates with local emergency departments to provide linkage to care for people with SUD in crises. The local hospital calls DRP to help get a patient with SUD into treatment. DRP responds by deploying a mobile outreach recovery van and peer recovery coach to the local site where the patient is. They provide the support and physical transportation needed to assist the patient in accessing and entering a treatment program. The DRP mobile outreach vans are customwrapped with images of Black/African Americans reflective of their community and include pictures and messages of hope and recovery. The mobile outreach team includes staff with lived experience or experience working with the population, ensuring a level of trust and understanding between the person with SUD and the outreach staff. In addition, the mobile outreach team knows the geography, neighborhoods, historical and social context of Detroit in order to know where to go to engage people on the street living with a SUD.

Community Snapshot: Engaging peer recovery coaches— **Project RECOVER.** In Boston, peer recovery coaches with ongoing supervision from a recovery coach supervisor are being used to link, engage and retain people with OUD in outpatient medication-based treatment for at least six months after completion of detoxification. Recent literature shows that the transition after completion of detoxification to be a critical touchpoint with elevated risk for opioid-related mortality.<sup>58</sup> Through a series of interventions including motivational interviewing, peer recovery supports, and strengths-based case management and development of recovery wellness plans, coaches work with individuals to address perceived barriers to one's recovery. The peer recovery coaches help link individuals to SUD focused primary care services where they can get comprehensive care (screening, treatment, and referral) for mental health disorders and injection related chronic diseases such as HIV and hepatitis B and C. Most importantly the peer recovery coaches provide overdose prevention education and naloxone distribution and training to all clients and a close member of their social network. In this model, the peer recovery coaches are from the Black/African American

or Latino community and are people with lived experience of SUD. Eligibility to be a peer recovery coach includes being in recovery for at least two years and completing an intensive five-day training that includes courses on motivational interviewing; ethical considerations; addiction 101; cultural awareness and responsiveness—knowing the "street" language used; wellness recovery plans; and linkages with community resources, such as housing and primary care to address related infectious diseases. The peer recovery coaches are required to complete 500 hours of recovery coach work with 35 hours under supervision from a peer recovery coach supervisor. Once eligibility is met, they are certified by the State and their services are billable.

The peer recovery coaches are critical in outreach and engagement; they know the community, know the resources, and are able to communicate effectively, and are able to draw upon their own experiences with SUD and recovery. As one key informant noted, "The key strength is that we [recovery coaches] understand addiction, we went through the same stuff. Also not going to tell you what to do, it is self-directed...we don't have a timeframe. Recovery coach is there to support and give guidance. We connect them with MAT, help with job seeking, housing applications; if relapse, recovery coach is there to help you pick up there all the time... sometimes can spend four hours in a day with getting them to appointments and assisting transportation...we can sit with you 3 hours in a courtroom. How many professionals can do that?" Recovery coaches develop a unique connection with the client and have said that the most difficult challenge is the family. Families often do not understand SUD, have seen their family member relapse repeatedly, and do not believe in the possibility of recovery. In cases where family members are using drugs, the peer recovery coach teaches refusal skills.

Community Snapshot: Building and developing a culturally sensitive and diverse workforce—Detroit Recovery Project.

DRP collaborates with local universities and Authority Health to establish DRP as a training facility for psychiatry and internal medicine interns and residents.<sup>59</sup> The partnership allows for mentoring the next generation of medical providers to be better equipped and experienced in working with low-income, Black/ African Americans with SUD.

# Moving Forward

Opioid misuse, OUD, and opioid-related overdoses have affected all population groups in the U.S. Strategies to address this issue need to be tailored to the diversity of the communities affected. Promoting a one-size-fits-all strategy may inhibit access to appropriate, quality prevention and treatment for culturally diverse populations. To reduce the impact of opioid misuse, OUD, and opioid-related overdoses on the Black/African American population, it is critical to understand the contextual issues, the treatment barriers, and the community-informed strategies that are working in these communities.

Reducing opioid misuse and overdoses in Black/ African American communities requires an interdisciplinary, multi-level team approach. Collaboration among community leaders, associations, advocates and residents with policymakers, government agencies, educators, prevention specialists, and treatment and recovery providers is urgently needed. All must mobilize to educate and engage one another and identify and implement evidence-based and community-informed strategies that work best for this population and save lives.

# Glossary

(Definitions from SAMHSA<sup>60</sup> and CDC<sup>13,61</sup>)

**Fentanyl:** a synthetic opioid, approved for treating severe pain, typically advanced cancer pain. It is 50 to 100 times more potent than morphine. However, illegally made fentanyl is sold through illicit drug markets for its heroinlike effect, and it is often mixed with heroin or other drugs, such as cocaine, or pressed in to counterfeit prescription pills.

**Heroin:** an illegal, highly addictive opioid drug processed from morphine and extracted from certain poppy plants.

**Methadone:** a synthetic opioid that can be prescribed for pain reduction or for use in MAT for opioid use disorder (OUD). For MAT, methadone is used under direct supervision of a healthcare provider.

**Natural opioids:** a group of opioids that include such drugs as morphine and codeine.

**Opioid misuse:** any misuse of prescription opioids (also called prescription pain relievers) or the use of heroin (and synthetic opioids depending on the data source). Misuse of prescription opioids is the use of a prescription opioid in any way not directed by a doctor,

including without a prescription of one's own; use in greater amounts, more often, or longer than told; or use in any other way not directed by a doctor. It is sometimes also called "nonmedical prescription opioid use" or "misuse of prescription pain relievers" dependent on the data source, and refers only to misuse of prescription opioids.

**Opioid use disorder (OUD):** having either a heroin use disorder (i.e., dependence or abuse) or pain reliever use disorder related to their misuse of prescription pain relievers in the past year, or if they had both disorders.

**Opioid use:** any use of prescription opioids, heroin, or synthetic opioids (e.g., fentanyl).

**Opioid-related overdose death:** death resulting from unintentional or intentional overdose involving an opioid.

Prescription opioids: Opioids are a group of chemically similar drugs that include prescription pain relievers such as hydrocodone (e.g., Vicodin®), oxycodone (e.g., OxyContin®), morphine, and others. They are sometimes called "prescription opioid analgesics" or "prescription pain relievers" depending on the source.

**Semi-synthetic opioids:** a group of opioids that include such drugs as oxycodone, hydrocodone, hyrdromorphone, and oxymorphone.

**Synthetic opioids other than methadone:** a group of opioids that include such drugs as fentanyl, fentanyl analogs, and tramadol.

#### Resources

Centers for Disease Control and Prevention (CDC) Reducing Harms from Injection Drug Use and Opioid Use Disorder with Syringe Services Programs (Info Sheet) | https://www.cdc.gov/hiv/pdf/risk/cdchiv-fs-syringe-services.pdf

SAMHSA Opioid Prevention Toolkit (Toolkit) | https://store.samhsa.gov/product/Opioid-Overdose-Prevention-Toolkit/SMA18-4742

SAMHSA TIP 63: Medications for Opioid Use Disorder (Treatment Improvement Protocol) I <a href="https://store.samhsa.gov/product/TIP-63-Medications-for-Opioid-Use-Disorder">https://store.samhsa.gov/product/TIP-63-Medications-for-Opioid-Use-Disorder</a>

SAMHSA Clinical Guidance for Treating
Pregnant and Parenting Women with Opioid Use
Disorder and Their Infants (Clinical Guidance)
I https://www.store.samhsa.gov/product/
Clinical-Guidance-for-Treating-Pregnant-andParenting-Women-With-Opioid-Use-Disorderand-Their-Infants/SMA18-5054

SAMHSA Use of Medication-Assisted Treatment for Opioid Use Disorder in Criminal Justice Settings (Resource Guide) | https://store.samhsa.gov/product/Use-of-Medication-Assisted-Treatment-for-Opioid-Use-

#### <u>Disorder-in-Criminal-Justice-Settings/PEP19-</u> MATUSECJS

SAMHSA Behavioral Health Barometer, Volume 5 (National Data Report) | https://store.samhsa.gov/product/Behavioral-Health-Barometer-Volume-5/sma19-Baro-17-US

SAMHSA Prevention Technology Transfer Center Network (Website) | https://pttcnetwork.org

SAMHSA Addiction Technology Transfer Center Network (Website) | https://attcnetwork.org/

SAMHSA TIP 59: Improving Cultural Competence (Treatment Improvement Protocol) | https://store.samhsa.gov/product/TIP-59-Improving-Cultural-Competence/SMA15-4849

National Standards for Culturally and Linguistically Appropriate Services in Health and Health Care (CLAS) (Webpage) | <a href="https://ttps://thinkculturalhealth.hhs.gov/clas">https://thinkculturalhealth.hhs.gov/clas</a>

U.S. Department of Health and Human Services
Office of Minority Health Improving Cultural
Competency for Behavioral Health Professionals
(Continuing Education e-Learning Program) |
https://thinkculturalhealth.hhs.gov/education/
behavioral-health

## References

- 1. Centers for Disease Control and Prevention (CDC). Opioid overdose [Internet]. Atlanta, GA: CDC National Center for Injury Prevention and Control [updated 2018 Dec 19; cited 2019 Dec 12]. Available from: https://www.cdc.gov/drugoverdose/epidemic/index.html
- 2. Substance Abuse and Mental Health Services Administration (SAMHSA). Reports and detailed tables from the 2018 National Survey on Drug Use and Health (NSDUH). [internet]. Rockville, MD: SAMHSA Center for Behavioral Health Statistics and Quality; 2019 Aug 20 [cited 2019 Dec 12]. Available from: https://www.samhsa.gov/data/nsduh/reports-detailed-tables-2018-NSDUH
- 3. Scholl L, Seth P, Kariisa M, Wilson N, Baldwin G. Drug and opioid-involved overdose deaths—United States, 2013–2017. Morbidity and Mortality Weekly Report 67(5152):1419. [internet]. Atlanta, GA: Center for Disease Control and Prevention; 2019 Jan 4 [cited 2019 Dec 12]. Available from: http://dx.doi.org/10.15585/mmwr.mm675152e1
- 4. Centers for Disease Control and Prevention (CDC). CDC WONDER [Internet]. Hyattsville, MD: CDC National Center for Health Statistics [updated 2019 Nov 19; cited 2019 Dec 12]. Available from: http://wonder.cdc.gov
- 5. Rossen LM, Bastian B, Warner M, Khan D, Chong Y. Drug poisoning mortality in the United States, 1999-2017. [internet]. Hyattsville, MD: CDC National Center for Health Statistics; 2019 [cited 2019 Dec 12]. Available from: https://www.cdc.gov/nchs/data-visualization/drug-poisoning-mortality/index.htm

- 6. Spencer MR, Warner M, Bastian BA, Trinidad JP, Hedegaard H. Drug overdose deaths involving fentanyl, 2011-2016. National Vital Statistics Reports 68(3):1-9. [internet]. Hyattsville, MD: CDC National Center for Health Statistics; 2019 Mar [cited 2019 Dec 12]. Available from: https://www.cdc.gov/nchs/data/nvsr/nvsr68 nvsr68\_03-508.pdf
- 7. James K, Jordan A. The opioid crisis in Black communities. J Law Med Ethics [Internet]. 2018 Jun [cited 2019 Dec 12];46(2):404-21. Available from: https://doi.org/10.1177/1073110518782949
- 8. Pew Research Center. Fact Tank: The gap between the number of Blacks and Whites in prison is shrinking [Internet]. Washington DC: Pew Research Center; 2019 Apr 30 [cited 2019 Dec 12]. Available from: https://www.pewresearch.org/facttank/2019/04/30/shrinking-gap-between-number-of-blacks-and-whites-in-prison/
- 9. Taxy S, Samuels J, Adams W. Drug offenders in federal prison: Estimates of characteristics based on linked data. [internet]. Washington DC: U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics; 2015 Oct [cited 2019 Dec 12]. Available from: https://www.bjs.gov/content/pub/pdf/dofp12.pdf
- 10. Substance Abuse and Mental Health Services Administration (SAMHSA). SAMHDA [Internet]. Rockville, MD: SAMHSA Center for Behavioral Health Statistics and Quality; 2019 [cited 2019 Dec 12]. Available from: https://datafiles.samhsa.gov/
- 11. Centers for Disease Control and Prevention (CDC). National Vital Statistics System [Internet]. Hyattsville, MD: CDC National Center for Health Statistics [updated 2019 Nov 27; cited 2019 Dec 12]. Available from: https://www.cdc.gov/nchs/nvss/index.htm
- 12. Centers for Disease Control and Prevention (CDC). 2018 Annual surveillance report of drug-related risks and outcomes —United States. [internet]. Atlanta, GA: CDC National Center for Injury Prevention and Control; 2018 Aug 31 [cited 2019 Dec 12]. Available from: https://www.cdc.gov/drugoverdose/pdf/pubs/2018-cdc-drug-surveillance-report.pdf
- 13. Centers for Disease Control and Prevention (CDC). 2019 Annual surveillance report of drug-related risks and outcomes —United States. [internet]. Atlanta, GA: CDC National Center for Injury Prevention and Control; 2019 Nov 1 [cited 2019 Dec 12]. Available from: https://www.cdc.gov/drugoverdose/pdf/pubs/2019-cdc-drug-surveillance-report.pdf

- 14. Hedegaard H, Warner M, Miniño AM. Drug overdose deaths in the United States, 1999-2017. NCHS Data Brief No. 329 [internet]. Hyattsville, MD: CDC National Center for Health Statistics; 2018 Nov [cited 2019 Dec 12]. Available from: https://www.cdc.gov/nchs/products/databriefs/db329.htm
- 15. Jones CM, Einstein EB, Compton WM. Changes in synthetic opioid involvement in drug overdose deaths in the United States, 2010-2016. JAMA [Internet]. 2018 May 1 [cited 2019 Dec 12];319(17):1819-21. Available from: https://doi.org/10.1001/jama.2018.2844
- 16. Lippold KM, Jones CM, Olsen EO, Giroir BP. Racial/Ethnic and age group differences in opioid and synthetic opioid—involved overdose deaths among adults aged≥ 18 years in metropolitan areas—United States, 2015–2017. Morbidity and Mortality Weekly Report 68(43):967 [internet]. Atlanta: GA; Centers f or Disease Control and Prevention. 2019 Nov 1 [cited 2019 Dec 12]. Available from: https://dx.doi. org/10.15585%2Fmmwr.mm6843a3
- 17. Centers for Disease Control and Prevention (CDC). 2017 Annual surveillance report of drug-related risks and outcomes —United States. [internet]. Atlanta, GA: CDC National Center for Injury Prevention and Control; 2017 Aug 31 [cited 2019 Dec 12]. Available from: https://stacks.cdc.gov/view/cdc/47832
- 18. Kaiser Family Foundation. Opioid overdose deaths by race/ethnicity [Internet]. San Francisco, CA: Kaiser Family Foundation; 2019 [cited 2020 Feb 28]. Available from: https://www.kff.org/other/state-indicator/opioid-overdose-deaths-by-raceethnicity/
- 19. Meghani SH, Byun E, Gallagher RM. Time to take stock: A meta-analysis and systematic review of analgesic treatment disparities for pain in the United States. Pain Med [Internet]. 2012 Feb 1 [cited 2019 Dec 12];13(2):150-74. Available from: https://doi.org/10.1111/j.1526-4637.2011.01310.x
- 20. Heins JK, Heins A, Grammas M, Costello M, Huang K, Mishra S. Disparities in analgesia and opioid prescribing practices for patients with musculoskeletal pain in the emergency department. J Emerg Nurs [Internet]. 2006 Jun 1 [cited 2019 Dec 12];32(3):219-24. Available from: https://doi.org/10.1016/j.jen.2006.01.010
- 21. Pletcher MJ, Kertesz SG, Kohn MA, Gonzales R. Trends in opioid prescribing by race/ethnicity for patients seeking care in US emergency departments. JAMA [Internet]. 2008 Jan 2 [cited 2019 Dec12];299(1):70-8. Available from: https://doi.org/10.1001/jama.2007.64
- 22. Shavers VL, Bakos A, Sheppard VB. Race, ethnicity, and pain among the U.S. adult population. J Health Care Poor U [Internet]. 2010 Feb [cited 2019 Dec 12];21(1):177-220. Available from: https://doi.org/10.1353/hpu.0.0255

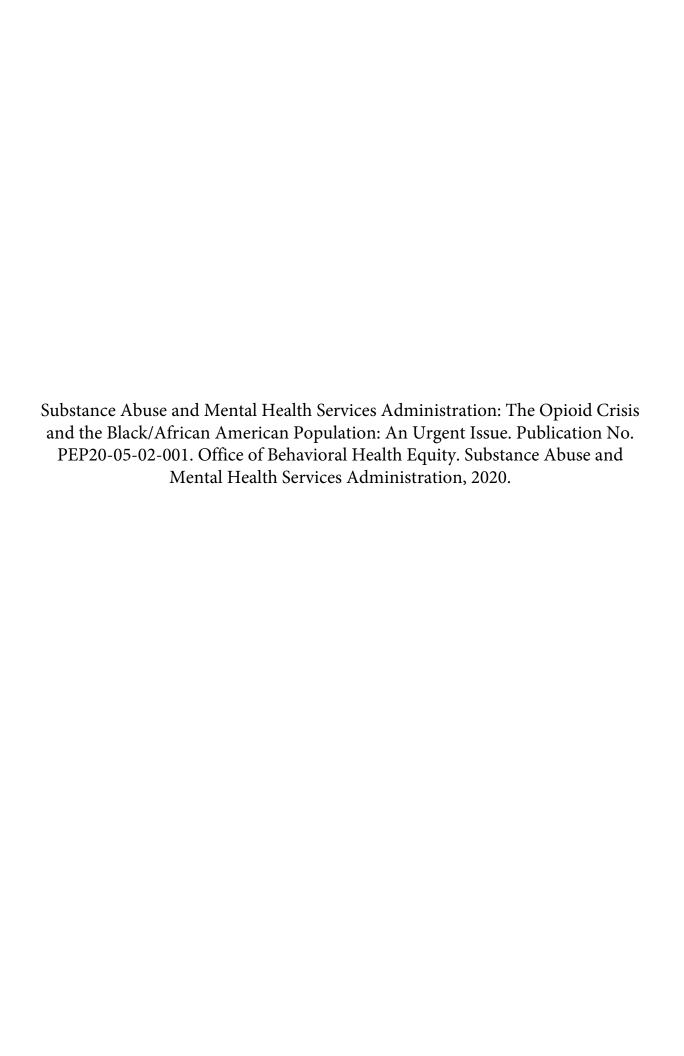
- 23. Chen I, Kurz J, Pasanen M, Faselis C, Panda M, Staton LJ, O'Rorke J, Menon M, Genao I, Wood J, Mechaber AJ. Racial differences in opioid use for chronic nonmalignant pain. J Gen Intern Med [Internet]. 2005 Jul [cited 2019 Dec 12];20(7):593-8. Available from: https://doi.org/10.1111/j.1525-1497.2005.0106.x
- 24. Staton LJ, Panda M, Chen I, Genao I, Kurz J, Pasanen M, Mechaber AJ, Menon M, O'Rorke J, Wood J, Rosenberg E. When race matters: Disagreement in pain perception between patients and their physicians in primary care. J Natl Med Assoc [Internet]. 2007 May [cited 2019 Dec 12];99(5):532. Available from: https://www.ncbi.nlm.nih.gov/pubmed/17534011
- 25. National Public Radio. Why is the opioid epidemic overwhelmingly White [Internet]. Washington DC: National Public Radio; 2017 Nov 4 [cited 2019 Dec 12]. Available from: https://www.npr. org/2017/11/04/562137082/why-is-the-opioid-epidemic-overwhelmingly-white
- 26. Hart CL, Hart MZ. Opioid crisis: Another mechanism used to perpetuate American racism. Cult Divers Ethn Min [Internet]. 2019 Jan [cited 2019 Dec 12];25(1):6. Available from: https://doi.org/10.1037/cdp0000260
- 27. Substance Abuse and Mental Health Services Administration (SAMHSA). Substance abuse treatment: Addressing the specific needs of women [Internet]. Rockville, MD: SAMHSA Center for Substance Abuse Treatment; 2015 [cited 2019 Dec 12]. Available from: https://store.samhsa.gov/product/TIP-51-Substance-Abuse-Treatment-Addressing-the-Specific-Needs-of-Women/SMA15-442
- 28. Xierali IM, Nivet MA. The racial and ethnic composition and distribution of primary care physicians. J Health Care Poor U [Internet]. 2018 [cited 2019 Dec 12];29(1):556. Available from: https://doi.org/10.1353/hpu.2018.0036
- 29. Lett LA, Murdock HM, Orji WU, Aysola J, SebroR . Trends in racial/ethnic representation among us medical students. JAMA Netw Open [Internet]. 2019 Sep 4 [cited 2019 Dec 12];2(9):e1910490. Available from: https://doi.org/10.1001/jamanetworkopen.2019.10490
- 30. Lin LA, Knudsen HK. Comparing buprenorphine-prescribing physicians across nonmetropolitan and metropolitan areas in the United States. Ann Fam Med [Internet]. 2019 May 1 [cited 2019 Dec 12];17(3):212-20. Available from: https://doi.org/10.1370/afm.2384
- 31. Smedley BD, Stith AY, Nelson AR. Unequal treatment: Confronting racial and ethnic disparities in health care. [eBook]. Washington DC; National Academies Press; 2003 [cited 2019 Dec 12]. Available from: http://dx.crossref.org/10.17226/12875

- 32. Paradies Y, Truong M, Priest N. A systematic review of the extent and measurement of healthcare provider racism. J Gen Intern Med [Internet]. 2014 Feb 1 [cited 2019 Dec 12];29(2):364-87. Available from: https://doi.org/10.1007/s11606-013-2583-1
- 33. Williams DR, Wyatt R. Racial bias in health care and health: Challenges and opportunities. JAMA [Internet]. 2015 Aug 11 [cited 2019 Dec 12];314(6):555-6. Available from: https://doi.org/10.1001/jama.2015.9260
- 34. Hansen H, Siegel C, Wanderling J, DiRocco D. Buprenorphine and methadone treatment for opioid dependence by income, ethnicity and race of neighborhoods in New York City. Drug Alcohol Depend [Internet]. 2016 Jul 1 [cited 2019 Dec12];164:14-21. Available from: https://doi.org/10.1016/j. drugalcdep.2016.03.028
- 35. Hansen H. Sociocultural factors impacting access to MAT and care delivery, new qualitative data from buprenorphine prescribers in OTPs. Am J Addiction [Internet]. 2017 Apr 1 [cited 2019 Dec 12];26(3):236. Available from: https://doi-org.ezproxyhhs.nihlibrary. nih.gov/10.1111/ajad.12545
- 36. Hansen HB, Siegel CE, Case BG, Bertollo DN, DiRocco D, Galanter M. Variation in use of buprenorphine and methadone treatment by racial, ethnic, and income characteristics of residential social areas in New York City. J Behav Health Serv Res [Internet]. 2013 Jul 1 [cited 2019 Dec 12];40(3):367-77. Available from: https://doi.org/10.1007/s11414-013-9341-3
- 37. Saloner B, Feder KA, Krawczyk N. Closing the medication-assisted treatment gap for youth with opioid use disorder. JAMA Pediatr [Internet]. 2017 Aug 1 [cited 2019 Dec 12];171(8):729-31. Available from: https://dx.doi.org/10.1001% 2Fjamapediatrics.2017.1269
- 38. Lagisetty PA, Ross R, Bohnert A, Clay M, Maust DT. Buprenorphine treatment divide by race/ethnicity and payment. JAMA psychiatry [Internet]. 2019 May 8 [cited 2019 Dec 12];76(9):979-81. Available from: https://doi.org/10.1001/jamapsychiatry.2019.0876
- 39. National Academies of Sciences, Engineering, and Medicine. Medications for opioid use disorder save lives. [internet]. Washington DC: National Academies Press; 2019 May 16 [cited 2019 Dec 12]. Available from: https://www.ncbi.nlm.nih.gov/books/NBK538936/
- 40. Substance Abuse and Mental Health Services Administration (SAMHSA). Medication-Assisted Treatment (MAT) [Internet]. Rockville, MD: SAMHSA; 2019 Sep 9 [cited 2019 Dec 12]. Available from: https://www.samhsa.gov/medication-assisted-treatment

- 41. Substance Abuse and Mental Health Services Administration (SAMHSA). Methadone [Internet]. Rockville, MD: SAMHSA; 2019 [cited 2019 Dec 12]. Available from: https://www.samhsa.gov/medication-assisted-treatment/ treatment/methadone
- 42. Substance Abuse and Mental Health Services Administration (SAMHSA). Use of medication-assisted treatment for opioid use disorder in criminal justice settings [Internet]. Rockville, MD: SAMHSA; 2019 Jul [cited 2019 Dec 12]. Available from: https://store.samhsa.gov/product/Use-of-Medication-Assisted-Treatment-for-Opioid-Use-Disorder-in-Criminal-Justice-Settings/PEP19-MATUSECJS
- 43. Substance Abuse and Mental Health Services Administration (SAMHSA). Buprenorphine [Internet]. Rockville, MD: SAMHSA; 2019 [cited 2019 Dec 12]. Available from: https://www.samhsa.gov/medication-assisted-treatment/ treatment/buprenorphine
- 44. Substance Abuse and Mental Health Services Administration (SAMHSA). Naltrexone [Internet]. Rockville, MD: SAMHSA [updated 2019 Nov 22; cited 2019 Dec 12]. Available from: https://www.samhsa.gov/medication-assisted-treatment/treatment/naltrexone
- 45. Substance Abuse and Mental Health Services Administration (SAMHSA). TIP 63: Medications for opioid use disorder [Internet]. Rockville, MD: SAMHSA; 2019 Jun [cited 2019 Dec 12]. Available from: https://www.store. samhsa.gov/product/TIP-63-Medications-for-Opioid-Use-Disorder-Full-Document-Including-Executive-Summary-and-Parts-1-5-/SMA19-5063FULLDOC
- 46. Substance Abuse and Mental Health Services Administration (SAMHSA). Naloxone [Internet]. Rockville, MD: SAMHSA [updated 2019 Sep 27; cited 2019 Dec 12]. Available from: https://www.samhsa.gov/medication-assisted-treatment/treatment/naloxone
- 47. U.S. Department of Health and Human Services (HHS) Office of the Surgeon General. U.S. Surgeon General's advisory on naloxone and opioid overdose [Internet]. Washington DC: HHS; 2018 Apr 5 [cited 2019 Dec 12]. Available from: https://www.surgeongeneral.gov/priorities/opioid-overdose-prevention/naloxone-advisory.html
- 48. Kerensky T, Walley AY. Opioid overdose prevention and naloxone rescue kits: What we know and what we don't know. Addict Sci Clin Pract [Internet]. 2017 Jan 7 [cited 2019 Dec 12];12(1):4. Available from: https://doi.org/10.1186/s13722-016-0068-3

- 49. U.S. Department of Health and Human Services (HHS). Co-prescribing guidance for high-risk opioid overdose [Internet]. Washington DC: HHS; 2018 Dec 19 [cited 2019 Dec 12]. Available from: https://www. hhs.gov/about/news/2018/12/19/hhs-recommends-prescribing-or-co-prescribing-naloxone-to-patients-at-high-risk-for-an-opioid-overdose.html
- 50. Victor RG, Lynch K, Li N, Blyler C, Muhammad E, Handler J, Brettler J, Rashid M, Hsu B, Foxx-Drew D, Moy N. A cluster-randomized trial of blood-pressure reduction in Black barbershops. N Engl J Med [Internet]. 2018 Apr 5 [cited 2019 Dec 12];378(14):1291-301. Available from: https://doiorg.ezproxyhhs.nihlibrary. nih.gov/10.1056/NEJMoa1717250
- 51. Linnan LA, Ferguson YO. Beauty salons: A promising health promotion setting for reaching and promoting health among African American women. Health Educ Behav [Internet]. 2007 Jun [cited 2019 Dec 12];34(3):517-30. Available from: https://doi.org/10.1177/1090198106295531
- 52. Centers for Disease Control and Prevention (CDC). Reducing harms from injection drug use and opioid use disorder with syringe services programs. [internet]. Atlanta, GA: CDC National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention; 2017 Aug [cited 2019 Dec 12]. Available from: https://www.cdc.gov/hiv/pdf/risk/cdchiv-fs-syringe-services.pdf
- 53. Hawthorne Police Department. Coffee with a cop [Internet]. Hawthorne, CA: Coffee with a Cop; 2018 [cited 2019 Dec 12]. Available from: https://coffeewithacop.com/
- 54. Campbell MK, Hudson MA, Resnicow K, Blakeney N, Paxton A, Baskin M. Church-based health promotion interventions: Evidence and lessons learned. Annu RevPublic Health [Internet]. 2007 Apr 21 [cited 2019 Dec 12];28:213-34. Available from: https://doi.org/10.1146/annurev.publhealth.28.021406.144016
- 55. DeHaven MJ, Hunter IB, Wilder L, Walton JW, Berry J. Health programs in faith-based organizations: Are they effective? Am J Public Health [Internet]. 2004 Jun [cited 2019 Dec 12];94(6):1030-6. Available from: https://doi.org/10.2105/ajph.94.6.1030
- 56. Stannard E. Spiritual program brings people out of depths of addiction. New Hampshire Register [Internet] 2018 Oct 28 [cited 2019 Dec 12]. Available from: https://www.nhregister.com/news/article/Spiritual-program-brings-people-out-of-depths-of-13343417.php
- 57. U.S. Department of Health and Human Services (HHS) Office of Minority Health. National CLAS Standards [Internet]. Rockville, MD: HHS Office of Minority Health; 2018 Oct 2 [cited 2019 Dec 12]. Available from: https://minorityhealth.hhs.gov/omh/browse.aspx?lvl=2&lvlid=53

- 58. Larochelle MR, Bernstein R, Bernson D, Land T, Stopka TJ, Rose AJ, Bharel M, Liebschutz JM, Walley AY. Touchpoints—Opportunities to predict and prevent opioid overdose: A cohort study. Drug Alcohol Depend [Internet]. 2019 Nov 1 [cited 2019 Dec 12];204:107537. Available from: https://doi.org/10.1016/j. drugalcdep.2019.06.039
- 59. Authority Health. Authority Health GME [Internet]. Detroit, MI: Authority Health; 2014 Nov 26 [cited 2019 Dec 12]. Available from: http://www.authorityhealth.org/authorityhealth-gme/
- 60. Substance Abuse and Mental Health Services Administration (SAMHSA). 2017 National Survey on Drug Use and Health Public use file codebook. [internet]. Rockville, MD: SAMHSA; 2018 Oct 23 [cited 2019 Dec 12]. Available from: http://samhda.s3-us-gov-west-1. amazonaws.com/s3fs-public/field-uploads-protected/studies/NSDUH-2017/NSDUH-2017-datasets/NSDUH-2017-DS0001/NSDUH-2017-DS0001-info/NSDUH-2017-DS0001-info-codebook.pdf
- 61. Centers for Disease Control and Prevention (CDC). Opioid overdose: Commonly used terms [Internet]. Atlanta, GA: CDC National Center for Injury Prevention and Control [updated 2019 Feb 12; cited 2019 Dec 12]. Available from: https://www.cdc.gov/drugoverdose/opioids/terms.html



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