



# HHS Public Access

Author manuscript

*J Ethn Subst Abuse*. Author manuscript; available in PMC 2025 January 01.

Published in final edited form as:

*J Ethn Subst Abuse*. 2024 ; 23(1): 95–109. doi:10.1080/15332640.2022.2068719.

## “It’s on every corner”: Assessing risk environments in Baltimore, MD using a racialized risk environment model

Bianca D. Smith, MPH<sup>1</sup>, Quiana Lewis, MPH<sup>1</sup>, Asari Offiong, MPH<sup>1</sup>, Kalai Willis, BS<sup>1</sup>, Morgan Prioleau, BS<sup>2</sup>, Terrinieka W. Powell, PhD<sup>1</sup>

<sup>1</sup>Johns Hopkins Bloomberg School of Public Health

<sup>2</sup>HeartSmiles

### Abstract

Physical, social, economic, and political environments can increase harm and risk among people who use drugs. These factors may be exacerbated in urban environments with a history of systemic inequality toward African Americans. However, racialized risk environment models have rarely been used within substance use research. To fill this gap, the current qualitative study sought to describe the racialized risk environment of an African American sample of 21 adults with a history of illicit drug use living in Baltimore, MD. Semi-structured interviews were conducted. Data were analyzed using qualitative content analysis to identify themes related to illicit drug use, neighborhood context, violence, social interactions, and income generation. Themes related to the physical (e.g., the increased visibility of drug markets), social (e.g., normalization of drug use within social networks), and economic (e.g., financial hardships) risk environments emerged from this sample. These perceptions and themes can aid in developing and refining substance use programming within racialized settings.

### Keywords

qualitative research; risk environment; substance use; African Americans

### Introduction

Illicit drug use remains a pervasive public health problem in the United States. In 2019, approximately 57.2 million people reported using an illicit drug (e.g., marijuana, heroin, cocaine, etc.) in the past year, with 57.4% being 18 years and older (Substance Abuse and Mental Health Services Administration, 2020). This trend continued into 2020, with 56.9%

---

**Corresponding Author:** Bianca D. Smith, MPH, Graduate Student, Department of Population, Family, and Reproductive Health, Johns Hopkins Bloomberg School of Public Health, 615 N Wolfe Street, Baltimore, Maryland 21205, bsmit195@jhmi.edu, Twitter: @bianca\_smith.

Additional Author information:

Quiana Lewis, MPH; Asari Offiong, MPH; Kalai Willis, BS; Graduate Students, Department of Population, Family, and Reproductive Health, Johns Hopkins Bloomberg School of Public Health, 615 N Wolfe Street, Baltimore, Maryland 21205

Morgan Prioleau, BS, Program Manager, HeartSmiles, Baltimore, Maryland 21206

Terrinieka W. Powell, PhD, Associate Professor, Department of Population, Family, and Reproductive Health, Johns Hopkins Bloomberg School of Public Health, 615 N Wolfe Street, Baltimore, Maryland 21205

**Conflict of Interest:** The authors declare that they have no conflict of interest.

of the population (age 18 and older) reporting past year illicit drug use (Substance Abuse and Mental Health Services Administration, 2021). High prevalence rates of illicit drug use have often occurred among more racially and ethnically diverse populations (Substance Abuse and Mental Health Services Administration, 2018). For example, from 2015–2019, racial and ethnic groups reported the highest estimates of past year illicit drug use, with American Indians (28.5%), Alaska Natives (25.9), and African Americans (20.8%) among the top three groups, compared to White populations whose estimates were 19.6% (Center for Behavioral Health Statistics and Quality, 2021).

While rural, southern states have shown higher rates of drug overdose, urban cities, like Baltimore, Maryland, cannot be ignored. Having held one of the highest overdose fatality rates in the nation throughout recent years, Baltimore has been devastated by the opioid epidemic (Maryland Department of Health, 2019). From 2011 to 2017, the overdose death rate in Baltimore has more than doubled from 22.7 deaths to 85.2 deaths per 100,000 people, with many of the deaths occurring among African Americans (Substance Abuse and Mental Health Services Administration, 2018). In 2018, Baltimore reported approximately 900 drug-related deaths, an estimated 2.5 times higher than any other city in Maryland (Maryland Department of Health, 2019). During the COVID-19 pandemic, drug-related deaths continued to rise with 954 deaths occurring in Baltimore, the highest reported in Maryland (Maryland Opioid Operational Command Center, 2021). Formerly referred to as the ‘heroin capital of the world,’ Baltimore has experienced an inundation of open-air drug markets and high rates of overdose deaths.

Environmental factors have a substantial impact on health and behavior. The risk environment model provides a useful framework in understanding how different levels and aspects of the environment influence vulnerability and susceptibility of risk and harm among people who use drugs (PWUD) (Rhodes, 2002). This model focuses on the characteristics of the types of environments, which include physical, economic, political, and social environments, that intersect at various levels to create or mitigate risk and harm among PWUD (Rhodes, 2002; Cooper et al., 2016). Within this model, the risk environment separates the levels of environmental influence into two categories, micro and macro risk environments (Rhodes, 2002). Micro risk environments often focus on peer group and social network influences, social norms and rules, social settings where drugs are used, and the context of the local neighborhood where PWUD reside (Rhodes, 2002). Whereas macro risk environments can encompass larger scale social processes, such as the gender and racial inequities, that contribute to the production of risk and harm (Rhodes, 2002).

Building on risk environment models, racialized risk environment models acknowledge the ways in which geographical space can be racialized and perpetuate racial health disparities (Cooper et al., 2016). Racialization is the social process by which groups are given racial identities that are linked to the systemic systems and social structures within society (Bonilla-Silva, 2001; Murji & Solomos, 2005). Within a racialized society, physical (e.g., built environment and physical space), social (e.g., social interactions within a space and social norms), economic (employment opportunity and income generation), and political (e.g., state drug policies) risk environments can differ by race within the population of PWUD. Furthermore, a core tenet of the racialized risk environment model is that it focuses

on structural or systemic exposures that create and perpetuate racial and ethnic inequalities in health. Structural racism, a key driver in maintaining racialization, is the totality of institutions or systems (e.g., housing, media representation, health care systems, etc.) that enforce discrimination based on race (Krieger, 1999). For example, the racialization of place can be demonstrated in the racial composition in urban neighborhoods (Massey and Denton, 1993). Geographically, African American neighborhoods in urban cities are often highly segregated, under resourced, and contain many environmental health risks due to racially discriminatory housing policies and practices (Massey and Denton, 1993). Additionally, racial disparities in substance use have been framed and perpetuated by national level policies, such as the ‘War on Drugs,’ which criminalized African American PWUD and contributed to disproportionate rates of drug-related arrests among this population (Farahmand et al., 2020).

A small body of previous research supports the relationship between racialized risk environments and substance use research (Cooper et al., 2016). For example, Cooper and colleagues (2016) found that African American PWUD are more likely than White PWUD to live in geographic areas (e.g., zip codes) with more poverty and neighborhood crime, and less accessibility to substance use treatment centers (Cooper et al., 2016). Relatedly, Hansen and colleagues (2016) reported that opioid maintenance treatment rates are lower in poor, African American and Hispanic neighborhoods (Hansen et al., 2016). Likewise, drug-related media and national press coverage have protected the image and narrative of White PWUD compared to racially marginalized PWUD (Hansen, 2017). As public health interventions move toward structural interventions, there is a greater need to understand how African American PWUD living in racialized settings perceive their risk environments.

Baltimore, Maryland has experienced racialization of space, which systemically influences the spaces that racial minorities live and occupy. As one of the first cities to implement policies, such as redlining, that enforced structural racism against African Americans (Massey and Denton, 1993), the city has a long and strong history of racial residential segregation. Although historical in nature, many policies and systems continue to have present day implications that are geographically pronounced such as the Black Butterfly, the geographic pattern of African Americans living in hyper-segregated and disproportionately impoverished neighborhoods in Baltimore (Brown, 2021). Moreover, this continued racialization of space has been linked to various racial health disparities, including those related to substance use (Agar and Reisinger, 2002).

The goal of this study was to describe the racialized risk environment of African American adults with a history of illicit drug use living in Baltimore, MD. Although rural and White populations are more likely to have higher rates of substance use, systemic inequality faced by racial and ethnic populations has introduced and perpetuated multiple, undeniable environmental stressors. Using a racialized risk environment model allowed us to frame the lived experiences of our sample within an environment that has been exposed to systemic inequality. The use of qualitative methods allowed for more enriched and contextual information about how African American PWUDs see their environment, which could not be captured using quantitative data.

## Methods

### Participants

Data analyzed for this study were drawn from a larger study, *Better Together. Better Together* was designed to partner with communities to prevent early substance use among Black adolescents in Baltimore, MD. The inclusion criteria were as follows: (1) be 18 years or older, (2) live in Baltimore, (3) be or have a parent with a history of illicit drug use (e.g., heroin, crack or cocaine), and (4) report current or previous use of illicit drugs. To determine eligibility, a screening tool was used. This study relied on snowball and network-based strategies to effectively recruit hard to reach populations (Boneyeski et al., 2014; Sadler et al., 2010). Our team partnered with recovery centers, employment programs and social service organizations. All research protocols were approved by the university's institutional review board.

### Data Collection

Data were collected between November 2018 and July 2019. In-depth interviews were scheduled at a time, date, and location convenient for participants. Round-trip transportation was offered for each participant. Each participant was provided written, informed consent before participation. After a review of the consent form, the interviewer answered participant questions about the project. Once consent was obtained, all participants completed a brief demographic questionnaire, which included information about age, gender, race, and highest education level, prior to their interview.

All interviews were conducted by a trained member of the research team, which included the principal investigator, two graduate students, and one research assistant. A unique study identification number was assigned to each participant to protect their privacy. Participants talked through a semi-structured interview guide with 16 primary questions that were categorized into four sections (i.e., personal history, family relationships, health, and program recommendations). Sample items included, "Tell me about your life growing up," and "Tell me about your drug use history (e.g., when started, drugs of choice, and recovery process)". Follow-up probes were used to allow for completeness of participant responses. All interviews were digitally recorded with durations that ranged between 32 to 91 minutes. Each participant was compensated \$25 for their participation in the study.

### Data Analysis

Digital recordings of the interviews were transcribed verbatim using an online transcription service. Research team members compared each of the digital recordings to the transcripts to verify the accuracy of the transcriptions. Transcripts were edited as needed by a research team member and then imported into the qualitative software program, Atlas.ti (version 8.0), to assist with data management and analysis.

Transcripts were analyzed inductively using a qualitative content analytic approach (Hsieh & Shannon, 2005). Using this approach, the study team created a coding manual to identify the basic themes in the data. Initially, nine in-depth interview transcripts were independently read and coded by the research team. The codes were then discussed and refined as a group.

Each transcript was coded by two study team members. To ensure consistent coding, team members met after coding each interview to discuss the coded material and address any discrepancies. Once all interviews were coded, comparisons were made across interviews to allow themes to emerge. The final codebook contained 58 codes categorized under 7 thematic groups. This codebook was applied to the full data set.

Three techniques were used to augment the credibility of findings: triangulation, negative case analysis, and peer debriefing. For the purposes of this study, the study team identified text that described risk environment. Specifically, codes describing illicit drug use, neighborhood context, violence, social interactions, income generation, and onset of drug use were used in the current analyses. Demographic data was analyzed using STATA (version 15).

## Results

### Participant characteristics

Twenty-one participants were interviewed for this study. Participant ages ranged between 18 and 59 years. All participants identified as African American. The majority (57%) of participants identified as female. The majority (67%) of participants had less than a high school diploma at the time of interview. Young African American adult participants (ages 18–24, n = 11) reported use of marijuana, cocaine, and a variety of drugs in pill form most frequently. Among older African American adult participants (ages 39–59, n = 10), heroin and cocaine use were most reported. Table 1 contains demographic characteristics of participants and the types of illicit drugs used during their lifetime.

### Overview of risk environments

Themes and representative quotes related to the physical, social, and economic risk environments are discussed in the following section. Themes related to the political risk environments did not emerge from this sample.

### Physical environment

Participants discussed the high visibility of drug markets and public drug use in their physical environments. Physical environments were described as having drugs on every corner and drug usage in public spaces. One participant described initially being shocked after observing an overdose behind his school, but over time became desensitized to the frequency of overdoses in his community. Public overdoses were described as usual and anticipated in Baltimore. Additionally, participants described their neighborhoods as overrun with drug dealers. Some participants felt apathetic about their physical environments because of the prevalence of public drug use. As three participants explained:

Nowadays, you don't even know your next door neighbor. When you come outside the only thing you see, "Harrison, Ric Flair" [drugs] and I know I was a part of a lot of that, you feel what I'm saying. (49-year-old male)

You can always get high because this is Baltimore City [...] (59-year-old female)

[...] it's [drugs] on every corner right where my house is right now. Right now, I'm surprised they [drug dealers] not out there, but from 6 o'clock in the morning until around 12 o'clock at night, they're out there selling drugs. They stand right up under my window sometime. When you walk out the door, it's there. (43-year-old female)

Some participants expressed how they believe the government (or institutions) influence the shaping of the neighborhood environment, with two participants expressing:

It doesn't have a face. I want to say it's more of a I would say a government. That's what I would say. I blame it on the government. Government know what they doing. Put it that way. (22-year old male)

The system ain't made [...] It's not designed to take care of you. It's designed to fail you. (24-year-old female)

Participants also noted a generational shift in who used drugs in the neighborhood, with participants observing that more youth were publicly using drugs compared to adults. Some participants attributed the increased drug use among youth to the lack of safe places available within the neighborhood. Additionally, participants believed that the omnipresence of drugs in the neighborhood resulted in low neighborhood cohesion.

Participants also expressed that their communities were inundated with violence, and noted high homicide rates, gang activity and elevated presence of gun violence. Similarly, participants expressed apathy about living in areas with high levels of violence. As three participants stated:

Baltimore is a process. It's a lot of killings, but I know it's going to get better. It's just going to take a lot of time. (19-year-old male)

It's like, there's no way to escape it, for real. It is life and it's my age bracket. We is dying. We killing and dying.[...] We going down, Baltimore war zone, period. (18-year-old male)

Where I live at, they shooting every 30 minutes to an hour around there, shooting. Every time I turn around, I got to duck, run. (24-year-old female)

Overall, physical environments of adult African American PWUD were perceived as oversaturated with drug use and activity, which co-occurred with high levels of violence. The increased visibility of illicit drug use shifted the neighborhood norms by normalizing public usage. Furthermore, participants expressed a sense of apathy that the neighborhood environment was getting worse.

### **Social environments**

Like perspectives of the physical environment, participants described the normalcy of drug use within their social networks. Participants discussed using drugs with their parents, children, other family members, romantic partners, peers, and other community members. Some young adults even noted that their drug consumption began with their parents. Given the oversaturation and easy accessibility of drugs, several participants discussed how personal drug use within the household or community served as a form of bonding.

However, many acknowledged that this was a sad and sometimes unsafe connection for families to have with drugs. Three participants explained:

Once I moved over there into the projects, like I told you, peer pressure. Everybody was over there doing their thing and that's how I got introduced to it[drugs]. I didn't know nothing about no drugs. (59-year-old female)

My father, I feel safe with him... With the smoking with him, it's like, this my homeboy, not really my father. (19-year-old female)

I ran into these girls I went to school with and they was all doing it [drugs]. I was like, "Everybody doing this shit?" "Yeah, everybody." "Let me try some." (51-year-old female)

Participants described using drug to deal with trauma from experiencing violence and manage living in a community with high exposure to violence. All participants discussed at least one family member or friend who was a victim of violence in Baltimore. Many participants had also witnessed or been a victim of interpersonal violence. Some participants discussed presence of intimate partner or sexual violence within their own households. One participant discussed her experience with sexual violence:

I've been raped throughout my life. I had bad incidents happen to me...I had a lot of stuff, throughout my drug use things happened to me. God spared me. Rapes, clothes taken off my feet, went with guys, having sex with them and they'd leave me. Give me money and take it back. Knife to my throat, gun to my head, make me give them sex, just so much. (52-year-old female)

Both witnessing and experiencing interpersonal violence for some of the older African American adults was discussed as a catalyst for personal drug use. For example, one participant described losing a child to gun violence, and how this led her to drug use:

He [my son] got shot 15... he was at a cookout shooting dice. Somebody shot him, killed him. My son, my baby. I was grieving over that too and then I really started going crazy, using drugs. (52-year-old female)

Another participant discussed how victimization of sexual violence led to her relapse:

Like I said, I've been through a whole lot. I've been abused by men. I've been through a lot. That's why I believe a lot of my addiction re-surfaced around all of that stuff that I went through and stuffed. (43-year-old female)

Overall, social environments centered around social norms of acceptability and normalization of drug use within the community and household. Adult African American PWUD noted how drug use was often a form of both bonding and coping with their neighborhood settings and experiences within the environment.

### **Economic environments**

Economic hardships, categorized as lacking basic needs, such as food, money for housing and housing-related utilities, were discussed by many of the participants. Participants felt that economic hardships led to their drug use or were the result of use. Some participants acknowledged that most of their income was being split between household utilities (e.g.,

rent, bills) and purchasing illicit drugs. Two participants discussed how they managed their income:

I'd lose my job, and a lot of times I became homeless. From that point, I just started shooting dope to oblivion. (49-year-old male)

I used to go get him [son] food, but I done spent most of the food stamps to go get high. (49-year-old male)

Those who were interested in receiving treatment for their drug use noted that these economic hardships made it difficult to obtain or continue treatment because they had to work long hours or multiple jobs. Participants described both legal and illegal forms of income generation. Because most legal positions were often low paying, many participants discussed having multiple jobs to generate income. Illegal forms of employment mainly involved selling drugs, with few discussing theft and robbery. Participants described illegal activities, such as selling drugs, as fast ways to generate income and provide for their personal and families' needs. Four participants discuss their experience with legal and illegal employment:

*When I first started hustling [selling drugs], about \$65 a day. When I first started hustling with the weed, it was probably about 65. Once I moved over to, had some other jobs, it wind up anywhere between 150 dollars a day to 800, 900 dollars a day. (21-year-old male)*

I was stripping. I was popping pills. I was selling myself. (21-year-old male)

I used to sell drugs to support myself when I was on the street. I got hooked up with these older people that weren't good influences. I personally started destroying my neighborhood because I thought that was the way to survive because that's what I learned. That went on for some time, then I ended up getting arrested. I got arrested at the age of 12, as a juvenile. I went through drug charges. (24-year-old female)

I pursued basically anything. I was warehousing. I was doing any type retail jobs I could get. Because I was so fresh and didn't have no background or anything, these jobs they were hitting me the next day. (22-year-old male)

Like physical environments, some participants discussed the influence of systemic inequalities regarding employment opportunity, with two participants explaining:

Trying to get employed, that's been one of the main problems that I have. That always been a problem, not just now, even back then. I've been trying to work since I was 15.

I actually got my first job at 15, at some day care center. It was something easy, I think it was janitorial work or something like that. Finding a job was just always...I don't know if it's me or...I don't know what it is. (24-year-old male)

Most of these males on the corner because they can't get no job, because they have a record, or just because that's the only thing that's in front of they face that they know they can sell to get some money. (19-year-old male)



Overall, economic risk environments of adult African American PWUD were shaped by both legal and illegal forms of employment and the occurrence of economic hardships. Additionally, illicit drug use was framed as a cost-of-living expense among participants.

## Discussion

The goal of this study was to describe the racialized risk environment of African American adults with a history of illicit drug use living in Baltimore, MD. This study extends existing risk environment research by describing how risk environments are perceived among a racially marginalized sample who reside in a racialized urban setting. Our findings suggest that physical, social, and economic environments continue to generate risk among African American PWUD. Our findings also highlight how racialized spaces continue to negatively influence African American PWUDs through the makings of the risk environments. Taken together, finding from this study can be used to offer additional context to the risk environment literature to help better target and refine substance use interventions for African American PWUD.

Our findings showed that neighborhoods where African American PWUD resided were flooded with both drug activity and violence. This increased drug activity created a desensitized perception to the physical risk environment. This provides context to research that has shown that neighborhoods with a high percentage of drug markets have several implications on health behavior (Boardman et al., 2001, Sunder et al., 2007). For example, the co-occurrence of high drug activity with violence may drive people to use illicit drugs to cope with their surroundings. This highlights a structural issue of how substance use interventions, such as buprenorphine treatment sites, are often placed in areas that are less racially or ethnically diverse (Hansen et al., 2016). Given the persistent racial health disparities in illicit drug use, interventions may benefit from better understanding the varying way that the physical risk environments may interact with race to decrease intervention effectiveness. Additionally, community-based substance prevention programs might also consider incorporating a multifaceted model that includes violence reduction strategies. One approach could be to deliver intergenerational substance use programs within neighborhoods in partnership with local institutions (e.g., schools, churches, libraries, and other community-based organizations) to address the range of needs residents may have.

Our findings on the social risk environments provided more context to the quantitative studies that demonstrated a relationship between social environments and illicit drug use among adults living in an urban area (Schroeder et al., 2001; Sunder et al., 2007; Linton et al., 2017;). Initiation of drug use is largely influenced by social networks and group norms (Schroeder et al., 2001). Consistently, participants reported that their social networks were primarily composed of other PWUDs, including parents, friends, and children. In addition, our sample of African American PWUD reported being in social environments that support drug use as a form of bonding and fitting in with the larger neighborhood community. Programs and services aiming to reduce substance use that do not account for social risk environments may be problematic to initiation and recovery. There is a need to consider strategies that modify the social environment, such as expanding the number of drug free network members for African American PWUD and providing alternatives for bonding. For

example, group-based therapies where all members are trying to maintain sobriety have been shown to reduce use (Harvey et al., 2020). Because these programs are often held within the community, they are accessible to residents and serves as a vehicle to build a network of peers who do not use drugs.

Our findings on economic risk environments also aligned with current quantitative research. Those living in neighborhoods considered low-income or containing a higher percentage of households experiencing financial distress have higher probabilities of individual drug use (Sunder et al., 2007). Our findings suggested that economic hardships and poor employment opportunities were common risks among African American PWUD. Furthermore, our findings suggested that many African American PWUD held low-paying jobs. Even with multiple jobs, they still experience economic hardships and barriers to recovery.

Racial disparities within substance use treatment are ongoing with African American PWUD completing treatment at significantly lower rates than White PWUD (Farahmand et al., 2020). Considering the structural inequities that shift employment opportunities by race, adult African American PWUD remain at an economic disadvantage, which has detrimental effects on their health and behavior. Heavily influenced by structural racism, African Americans have a longstanding trend of holding lower economic positions compared to White Americans which maintains economic inequalities (Nazroo, 2003). Research has shown that among PWUD, illegal activity, such as theft or selling drugs, is a way to generate income (Richardson et al., 2015). Our findings suggested that illegal forms of employment, such as selling drugs, are considered quick ways to combat financial barriers among adult African American PWUD. Within a racialized setting, this, however, disadvantages African American PWUD by making them more susceptible to being involved with law enforcement, which poses the threat of incarceration or the payment of legal fees. These economic risk environments pose an issue in dismantling the cyclic nature of substance abuse. One approach to mitigate economic risks among African American PWUD is to provide financial assistance (e.g., vouchers) for household utilities as part of a substance use intervention. This approach removes the household bill burden while reducing the need to work multiple jobs leaving little to no time for the intervention.

Although political risk environments did not emerge as a theme, we posit that policies and institutions play a significant role in generating risk among PWUD within a racialized setting. For example, police resources are geographically concentrated in areas with higher proportions of racial and ethnic PWUDs (Cooper et al., 2005; Beckett et al., 2006). This has translated into higher drug arrest rates among racial and ethnic groups, including African American PWUD (Cooper et al., 2005; Beckett et al., 2016). Media coverage of the opioid epidemic has shown a convergence between place and race, demonstrating that African American and Latino PWUD residing in urban environments are depicted more criminally compared to White PWUD residing in suburban and rural environments (Netherland and Hansen, 2016). Additional research is needed to explore the perceptions of incarceration policies related to drug use and institutional practices related to treatment services as risks among African American PWUD. Considering the role policies have played in creating inequitable geographical spaces, policies regarding illicit drug use may have similar implications.

Understanding how African American PWUD perceive their neighborhood environments is imperative to understanding how to combat the pervasive issue of illicit drug use in the nation. A strength of this investigation was the use of qualitative methods to solicit lived experiences from those who have been affected by the ongoing drug epidemic. However, we relied on the perspectives of a small sample of African American adults in Baltimore, Maryland. Future researchers might consider gathering information from a larger group of African American PWUD across urban environments with a history of racialization to capture a wider range of contextual observations. Given the continued conversations of neighborhood environments as risks among African American PWUD, understanding the message behind these processes through qualitative data allows future research to better understand the multilevel relationship between risk environments and illicit drug use. Therefore, future interventions can be intentional about addressing all aspects of the risk environment, including race.

### Acknowledgment:

This research was funded by the National Institute on Drug Abuse (1K01DA042134).

### References

1. Agar M, & Reisinger HS (2002). A heroin epidemic at the intersection of histories: the 1960s epidemic among African Americans in Baltimore. *Medical Anthropology*, 21(2), 115–156. [PubMed: 12126273]
2. Beckett K, Nyrop K, & Pfingst L (2006). Race, drugs, and policing: Understanding disparities in drug delivery arrests. *Criminology*, 44(1), 105–137.
3. Boardman JD, Finch BK, Ellison CG, Williams DR, & Jackson JS (2001). Neighborhood disadvantage, stress, and drug use among adults. *Journal of Health and Social Behavior*, 42(2), 151–165. JSTOR. 10.2307/3090175 [PubMed: 11467250]
4. Bonevski B, Randell M, Paul C et al. (2014). Reaching the hard-to-reach: a systematic review of strategies for improving health and medical research with socially disadvantaged groups. *BMC Medical Research Methodology*, 42(14): 1–29. 10.1186/1471-2288-14-42
5. Bonilla-Silva E (2001). *White supremacy and racism in the post-civil rights era*. Lynne Rienner Publishers.
6. Brown LT (2021). *The black butterfly: the harmful politics of race and space in America*. JHU Press.
7. Center for Behavioral Health Statistics and Quality. (2021). *Racial/ethnic differences in substance use, substance use disorders, and substance use treatment utilization among people aged 12 or older (2015–2019)* (Publication No. PEP21-07-01-001). Rockville, MD: Substance Abuse and Mental Health Services Administration. Retrieved from <https://www.samhsa.gov/data/>
8. Cooper H, Moore L, Gruskin S, & Krieger N (2005). The impact of a police drug crackdown on drug injectors' ability to practice harm reduction: a qualitative study. *Social science & medicine*, 61(3), 673–684. [PubMed: 15899325]
9. Cooper HL, Linton S, Kelley ME, Ross Z, Wolfe ME, Chen YT, Zlotorzynska M, Hunter-Jones J, Friedman SR, Des Jarlais D, Semaan S, Tempalski B, DiNenno E, Broz D, Wejnert C, Paz-Bailey G, & National HIV Behavioral Surveillance Study Group. (2016). Racialized risk environments in a large sample of people who inject drugs in the United States. *International Journal of Drug Policy*, 27: 43–55. 10.1016/j.drugpo.2015.07.015 [PubMed: 26342272]
10. Farahmand P, Arshed A, & Bradley MV (2020). Systemic racism and substance use disorders. *Psychiatric Annals*, 50(11), 494–498.
11. Hansen H, Siegel C, Wanderling J, & DiRocco D (2016). Buprenorphine and methadone treatment for opioid dependence by income, ethnicity and race of neighborhoods in New York City. *Drug and alcohol dependence*, 164, 14–21. [PubMed: 27179822]

12. Hansen H (2017). Assisted technologies of social reproduction: pharmaceutical prosthesis for gender, race, and class in the white opioid “crisis”. *Contemporary Drug Problems*, 44(4), 321–338.
13. Harvey LM, Fan W, Cano MÁ, Vaughan EL, Arbona C, Essa S, Sanchez H, & de Dios MA (2020). Psychosocial intervention utilization and substance abuse treatment outcomes in a multisite sample of individuals who use opioids. *Journal of Substance Abuse Treatment*, 112, 68–75. 10.1016/j.jsat.2020.01.016 [PubMed: 32199548]
14. Hsieh HF, & Shannon SE (2005). Three approaches to qualitative content analysis. *Qualitative health research*, 15(9), 1277–1288. [PubMed: 16204405]
15. Krieger N (1999). Embodying inequality: a review of concepts, measures, and methods for studying health consequences of discrimination. *International journal of health services*, 29(2), 295–352. [PubMed: 10379455]
16. Linton SL, Haley DF, Hunter-Jones J, Ross Z, & Cooper HLF (2017). Social causation and neighborhood selection underlie associations of neighborhood factors with illicit drug-using social networks and illicit drug use among adults relocated from public housing. *Social Science & Medicine*, 185, 81–90. 10.1016/j.socscimed.2017.04.055 [PubMed: 28554162]
17. Maryland Department of Health. (2019). 2018 Annual-Related Intoxication Deaths in Maryland. Published May 2019. Accessed December 16, 2020. [https://bha.health.maryland.gov/Documents/Annual\\_2018\\_Drug\\_Intox\\_Report.pdf](https://bha.health.maryland.gov/Documents/Annual_2018_Drug_Intox_Report.pdf)
18. Maryland Opioid Operational Command Center (OOCC). (April 2021). Annual Report January 1, 2020-December 31, 2020. <https://beforeitstoolate.maryland.gov/wpcontent/uploads/sites/34/2021/04/2020-Annual-Report-Final.pdf>
19. Massey D, & Denton NA (1993). *American apartheid: Segregation and the making of the underclass*. Harvard university press.
20. Murji K, & Solomos J (Eds.). (2005). *Racialization: Studies in theory and practice*. Oxford University Press on Demand.
21. Nazroo JY (2003). The structuring of ethnic inequalities in health: economic position, racial discrimination, and racism. *American journal of public health*, 93(2), 277–284. [PubMed: 12554585]
22. Netherland J, & Hansen HB (2016). The war on drugs that wasn’t: Wasted whiteness, “dirty doctors,” and race in media coverage of prescription opioid misuse. *Culture, Medicine, and Psychiatry*, 40(4), 664–686. [PubMed: 27272904]
23. Rhodes T (2002). The ‘risk environment’: a framework for understanding and reducing drug-related harm. *International Journal of Drug Policy*, 13(2):85–94. 10.1016/S0955-3959(02)00007-5.
24. Richardson LA, Long C, DeBeck K, Nguyen P, Milloy M-JS, Wood E, & Kerr TH (2015). Socioeconomic marginalisation in the structural production of vulnerability to violence among people who use illicit drugs. *J Epidemiol Community Health*, 69(7), 686–692. 10.1136/jech-2014-205079 [PubMed: 25691275]
25. Sadler GR, Lee HC, Lim RS, Fullerton J. (2010). Recruitment of hard-to-reach population subgroups via adaptations of the snowball sampling strategy. *Nursing and Health Sciences*, 12(3):369–374. doi:10.1111/j.1442-2018.2010.00541.x [PubMed: 20727089]
26. Schroeder JR, Latkin CA, Hoover DR, Curry AD, Knowlton AR, Celentano DD. (2001). Illicit drug use in one’s social network and in one’s neighborhood predicts individual heroin and cocaine use. *Ann Epidemiol*, 11(6):389–394. doi:10.1016/s1047-2797(01)00225-3 [PubMed: 11454498]
27. Strathee SA, Hallett TB, Bobrova N, Rhodes T, Booth R, Abdool R, & Hankins CA (2010). HIV and risk environment for injecting drug users: the past, present, and future. *The Lancet*, 376(9737), 268–284.
28. Substance Abuse and Mental Health Services Administration. (2020). Key substance use and mental health indicators in the United States: Results from the 2019 National Survey on Drug Use and Health (HHS Publication No. PEP20–07–01–001, NSDUH Series H-55). Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration. Accessed December 16, 2020. <https://www.samhsa.gov/data/>
29. Substance Abuse and Mental Health Services Administration. (2021). Key substance use and mental health indicators in the United States: Results from the 2020 National Survey on Drug Use and Health (HHS Publication No. PEP21–07–01–003, NSDUH Series H-55). Rockville, MD:

Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration. <https://www.samhsa.gov/data/>

30. Sunder PK, Grady JJ, & Wu ZH (2007). Neighborhood and individual factors in marijuana and other illicit drug use in a sample of low-income women. *American Journal of Community Psychology*, 40(3), 167–180. 10.1007/s10464-007-9135-y [PubMed: 17924186]

Author Manuscript

Author Manuscript

Author Manuscript

Author Manuscript

**Table 1.**

Demographic characteristics of African American adults with a history of illicit drug use.

Characteristic	N (%)
Age (Mean, SD)	35.09 (3.38)
<b>Gender</b>	
Female	12
Male	9
<b>Race</b>	
Black/African American	21
<b>Ethnicity</b>	
Not Hispanic or Latino	21
<b>Education</b>	
Less than High School Diploma	14
High School Diploma	5
College Graduate	0
Unreported	2
<b>Type of illicit drug*</b>	
Cocaine	10
Codeine	1
Crack	3
Fentanyl	2
Heroin (includes dope)	9
Marijuana	14
Morphine	1
Pills (e.g., Percocet, Oxycodone, Ecstasy)	9
Speedballs (cocaine + heroin)	2

\* Column frequencies include multiple responses per participant