COMMENTARY

COVID-19 During the Opioid Epidemic – Exacerbation of Stigma and Vulnerabilities

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The COVID-19 pandemic is an unprecedented event in modern American history. It has the potential to impact nearly every American community significantly regardless of its size. As of this writing (1 PM CST; 31 March 2020), the United States has had 174,467 confirmed cases and 3,461 deaths associated with COVID-19.1 A majority of the states are in some form of “lockdown” to increase social isolation in order to flatten the infection curve and forestall health care system breakdown. Although rural areas may have more geographic space per person, which may facilitate social isolation and slow the spread of COVID-19, rural contexts may sometimes facilitate its spread. For example, rural health care barriers may be more pronounced than urban ones since rurality is generally characterized by lower incomes, limited economic and educational opportunities, increased rates of alcohol and tobacco use, and health care shortages.

Further, the United States is still wrestling with the opioid epidemic, widely noted to disproportionately impact some rural areas.2 The inequalities described above are particularly pronounced for rural persons who use drugs (PWUD), who face multiple barriers to seeking and obtaining health care, including both stigma (which negatively impacts their ability to self-function and seek care) and drug-use-associated illness and injury.3,4 Before COVID-19, we saw a marked increase in opioid and amphetamine use in rural areas, and thus an increase in overdoses.5-8 Research has demonstrated that big events such as economic decline and disease outbreaks can lead to an increase in deaths, especially among disadvantaged populations, such as PWUD. Given that rural PWUD may face disproportionate negative impacts across several fronts, we should focus some efforts on PWUD, tracking how COVID-19 impacts them, and working to make...
prevention and treatment accessible. While our materials described below stem from our research and outreach in rural southern Illinois, we believe they are relevant to many other rural areas.

**Access to Credible and Actionable Information**

PWUD may be disproportionately relying upon informal sources for medical/COVID-19 information. Messaging regarding disaster risk and preparedness should be “disseminated repeatedly by a trusted and credible source through different channels and in a form that is easy to recall.” Recommended safety guidelines are more apt to be adopted when sources of information regarding risk are trusted. PWUD often lack reliable Internet service where they may access information regarding the pandemic. Furthermore, reliable trusted information may only be accessible through contact with local syringe service provider (SSP) staff. Contact with SSP staff during this time may become limited due to social distancing and due to the already limited number of SSPs available in rural communities. Thus, PWUD may be less able to comply with CDC guidelines for minimizing risk.

**Ability to Obtain Sufficient Living Resources**

PWUD may have difficulty accessing needed shelter/food/drug/equipment and other provisions necessary for sheltering in place for an extended period. Vulnerable populations, including PWUD, face barriers when preparing for and responding to crises, including pandemics. The ability of PWUD to overcome these barriers is a function of multiple factors, including: access to accurate and understandable information; sufficient material resources such as money, access to medical care, a consistent residence, and needed supplies; sufficient time or assistance to organize their personal response effectively (which the threat of withdrawal may threaten); adequate and culturally appropriate support from other people and organizations; and emotional support from family and peers.

**Disease Risks Associated with Drug Purchasing and Use**

PWUD may be at increased risk for contracting and spreading COVID-19 since drug procurement and use practices usually require social contact. Further, PWUD may be conflicted about whether to use with others, which may increase risk of exposure to COVID-19 but decrease overdose risks, or to use alone, which may decrease risk of COVID-19 exposure but increase fatal overdose risk. PWUD may also face a tradeoff between practicing social distancing and seeking harm reduction supplies like sterile syringes and injection equipment, fentanyl test strips, and naloxone. Ensuring access to these materials while social distancing may be critical to preventing increases in overdose and syringe sharing, which could facilitate greater HCV and HIV transmission.

**Local Health Care – Availability and Stigma**

PWUD may avoid seeking medical care if COVID-19 symptoms present due to stigma associated with drug use and lack of trust in health care providers. Qualitative analyses in our area have discovered substantial bias against PWUD by first responders, and multiple instances of stigmatizing behaviors (eg, enforced toxicology screens; perceived lack of respect). Even before the pandemic, rural PWUD were less likely to seek medical care (eg, urgent care, paramedics) and actively avoid others (eg, police) who are now especially prominent in the COVID-19 response. Thus, many PWUD almost always receive health care in emergency departments when they experience overdose, accidents, mental health events, or other related medical concerns. As under-resourced rural emergency departments become increasingly taxed due to COVID-19, PWUD may also experience difficulty receiving care for other medical issues in these settings. Tightening borders, loss of jobs, and social distancing may impact illicit drug availability. Few PWUD have more than a 1–2 day supply of drugs on hand—necessitating a profound drive for active drug seeking during the pandemic. Border crossing restrictions may limit drug availability, and local job losses may reduce purchasing ability. Thus, there is strong likelihood that rural areas may see an increase in opioid users entering involuntary withdrawal through lack of supply, lack of ability to purchase, and possible dilution of drugs by dealers. This presents the compounding factors of an already-stigmatized population placing an additional burden on an already-stressed local health care system. The real concern is that PWUD needing care related to their drug use may not feel capable of accessing or obtaining needed care.

**Police Encounters and Criminal Justice Involvement**

As the crisis unfolds, local elected officials are increasingly calling upon law enforcement to communicate and enforce shelter-in-place orders on the ground.
PWUD already experience high rates of criminalization, incarceration, and police mistrust.\textsuperscript{19,20} Thus, PWUD may encounter negative police interactions, ticketing, and arrests due to shelter-in-place enforcement measures, particularly if they venture out to procure drugs, harm reduction supplies, or access substance use-related services, or if they are homeless. These encounters could contribute to emotional distress, financial and social vulnerability, and incarceration in crowded jail and prison facilities, all of which may make PWUD more vulnerable to COVID-19 infection.

We thus believe that the current COVID-19 crisis and the turmoil it is causing may both endanger and further marginalize an already at-risk population. As described, barriers to health and health care among rural PWUD predate COVID-19, and the current crisis has the potential to exacerbate these issues. While true solutions are likely complicated and long term, we encourage organizations and planners at all levels to consciously consider the needs of all members of their communities and seek to best meet all individuals where they are.

\section*{References}

1. Johns Hopkins University. Coronavirus Resource Center. Available at: https://coronavirus.jhu.edu/map.html. Accessed 25 Mar 2020.

2. Centers for Disease Control and Prevention. Rural America in crisis: the changing opioid overdose epidemic. Available at: https://blogs.cdc.gov/publichealthmatters/2017/11/opioids/. Accessed 27 March 2020.

3. Bolinski R, Ellis K, Zahnd WE, et al. Social norms associated with nonmedical opioid use in rural communities: a systematic review. \textit{Transl Behav Med}. 2019;9(6):1224-1232.

4. Dombrowski K, Crawford D, Khan B, Tyler K. Current rural drug use in the US midwest. \textit{J Drug Abuse}. 2016;2(3). pii: 22. Epub 2016 Aug 17.

5. Friedman SR, Sandoval M, Mateu-Gelbert P, et al. Theory, measurement and hard times: some issues for HIV/AIDS research. \textit{AIDS Behav}. 2013;17(6):1915-1925.

6. Friedman SR, Rossi D. Some musings about big events and the past and future of drug use and of HIV and other epidemics. \textit{Subst Use Misuse}. 2015;50(7):899-902.

7. Pouget ER, Sandoval M, Nikolopoulos GK, et al. Developing measures of pathways that may link macro social/structural changes with HIV epidemiology. \textit{AIDS Behav}. 2016;20(8):1808-1820.

8. Friedman SR, Pouget ER, Sandoval M, et al. New measures for research on men who have sex with men and for at-risk heterosexuals: tools to study links between structural interventions or large-scale social change and HIV risk behaviors, service use, and infection. \textit{AIDS Behav}. 2020;24(1):257-273.

9. Tierney KJ, Lindell MK, Perry RW. Facing the Unexpected: Disaster Preparedness and Response in the United States. Washington, DC: Joseph Henry Press; 2001.

10. Vaughan E, Tinker T. Effective health risk communication about pandemic influenza for vulnerable populations. \textit{Am J Pub Health}. 2009;99(S2):S324-S332.

11. Kiltz L, Fonseca da, Rodriguez C, Munoz P. Assessment of pandemic preparedness in a socially vulnerable community in south Texas. \textit{J Health Hum Serv Admin}. 2013;36(2):164-207.

12. Vlahov D, Coady M, Ompad D. Strategies for improving influenza immunization rates among hard-to-reach populations. \textit{J Urban Health}. 2007;84(4):615-631.

13. Maibach E, Holgrave DR. Advances in public health communication. \textit{Ann Rev Public Health}. 1995;16(1):219-238.

14. Baker LR, Cormier LA. \textit{Disasters and Vulnerable Populations: Evidence-Based Practice for the Helping Professions}. New York, NY: Springer Publishing Company; 2014.

15. Bucke P, Mars G, Smale S. New approaches to assessing vulnerability and resilience. \textit{Austral J Emerg Manag}. 2000;15(2):8-14.

16. Block Club Chicago. Lakefront trail, parks near lake closed indefinitely after warm day led to big crowds. Available at: https://blockclubchicago.org/2020/03/26/lakefront-trail-closed-by-cops-after-mayor-warns-of-potential-park-shutdown-due-to-crowds-stay-at-home/. Accessed 30 March 2020.

17. WFAA. Police allowed to issue tickets, make arrests for ‘shelter in place’ violations across North Texas. Available at: https://www.wfaa.com/article/news/police-allowed-to-issue-tickets-make-arrests-for-shelter-in-place-violations-across-north-texas/287-78233242-56f0-4d70-8cd9-a734717b8a3a. Accessed 30 March 2020.

18. AZCentral. Here’s the difference between shelter-in-place and quarantine, and what police can enforce. Available at: https://www.azcentral.com/story/news/local/arizona/2020/03/25/arizona-has-no-shelter-place-order-but-heres-what-police-can-enforce-gov-doug-ducey-coronavirus/2910436001/. Accessed 30 March 2020.

19. Baker P, Beletsky L, Avalos L, et al. Policing practices and HIV risk among people who inject drugs - a systematic literature review (June 10, 2019). Available at SSRN: http://doi.org/10.2139/ssrn.3401985. Accessed April 6, 2020.

20. Galea S, Vlahov D. Social determinants and the health of drug users: socioeconomic status, homelessness, and incarceration. \textit{Public Health Rep}. 2002;117(Suppl 1):S135-S145.