Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

International Journal of Drug Policy 83 (2020) 102872

Contents lists available at ScienceDirect

International Journal of Drug Policy

journal homepage: www.elsevier.com/locate/drugpo

Viewpoint

Addressing co-occurring public health emergencies: The importance of naloxone distribution in the era of COVID-19

Alexandra B. Collins[a,*], Colleen Daley Ndoye[b], Diego Arene-Morley[c], Brandon D.L. Marshall[a]

[a] Department of Epidemiology, School of Public Health, Brown University, 121 South Main Street, Providence, RI 02903, United States
[b] Project Weber/Renew, 640 Broad Street, Providence, RI 02907, United States
[c] Rhode Island Communities for Addiction Recovery Efforts, 134 Mathewson Street, Providence, RI 02903, United States

ARTICLE INFO

Keywords:
naloxone
overdose
COVID-19
public health interventions

Introduction

Until recently, the overdose crisis has been at the forefront of public health efforts in the United States (US). However, with the COVID-19 pandemic and rapid rise in cases across the country, attention has quickly shifted at the federal and state levels from overdose response to minimizing the spread of COVID-19. Rapid public health approaches have been implemented across jurisdictions, including widespread business closures, transitions to telemedicine, temporary closures of parks, and social distancing orders. While necessary to flatten the epidemiological curve of the pandemic, these public health approaches have largely failed to account for the unintended consequences such policies have on structurally vulnerable populations, including people who use drugs (PWUD).

Since 1999, there have been almost 450,000 overdose deaths in the US, with over 67,000 fatal overdoses in 2018 alone (2020). Despite the ongoing severity of the overdose crisis, relatively little attention has been afforded to the impact of the now dual public health emergencies on PWUD as state governments focus on measures to address COVID-19. This oversight of co-occurring public health crises is concerning, given the ways in which social and structural factors, such as housing and work conditions, poverty, and criminalization are driving the impacts of both the overdose crisis and the COVID-19 pandemic for PWUD (Dasgupta, Beletsky & Ciccarone, 2018; North, 2020). Structurally vulnerable PWUD are more likely to be precariously housed, face barriers to accessing health care, and are more likely to be living with underlying chronic conditions that can exacerbate the severity of a COVID-19 infection, such as chronic obstructive pulmonary disease and HIV. It is therefore imperative that the COVID-19 response happens in tandem with the overdose response rather than in lieu of.

Overlapping public health crises

Since the onset of the COVID-19 pandemic in the US, there have been surges of fatal and nonfatal overdose events reported across the country (American Medical Association, 2020). The precise causes of these spikes are unknown, but have been attributed to factors driven by the COVID-19 response, including physical distancing, stay-at-home orders, and difficulties accessing medications for opioid use disorder (Mallin, 2020). Importantly, the increase in overdose events since COVID-19 underscores the need for bolstered state and local-level support for increased naloxone distribution efforts.

The distribution of take-home naloxone (THN) has been an instrumental, evidence-based response to minimizing fatal overdoses (Bird, McAuley, Perry & Hunter, 2016; Dwyer et al., 2018; Green, Heimer & Grau, 2008). Since first being rolled out in Europe and the US during the mid-1990s, THN programs have been rapidly expanded and have significantly reduced fatal overdoses (Fairbairn, Coffin & Walley, 2017; McDonald, Campbell & Strang, 2017; Walley et al., 2013). Despite its effectiveness, the COVID-19 pandemic has led to disruptions in naloxone distribution and access parts of the US as drop-in services reduce hours (Glick et al., 2020), challenging the ability for PWUD to have it readily available. Reduced harm reduction organization's hours and social distancing practices have meant that naloxone trainings have increasingly become digital, with naloxone kits mailed to participants afterwards. Street outreach teams have also faced difficulties reaching individuals as

* Corresponding author.
E-mail address: alexandra_collins1@brown.edu (A.B. Collins).

https://doi.org/10.1016/j.drugpo.2020.102872

people have become more isolated since the pandemic. Further, harm reduction organizations have faced challenges in distribution efforts based on the closure of public areas (e.g. parks, buildings) where outreach is often conducted. These complications underscore the need for continued support in naloxone distribution across communities and amongst first responders, particularly as uptake of THN has been associated with having previously experienced an overdose, drug use injection, and being linked with harm reduction services (Farrugia et al., 2019; Goldman-Hasbun et al., 2017; O'Brien, Dabbs, Dong, Veugelers & Hyshka, 2019).

Community-based responses

Community-based harm reduction organizations have been leaders in rapidly and effectively responding to the overdose crisis and are now working to manage the compounding impacts of COVID-19 on their clients and staff. Through street outreach efforts, the widespread distribution of naloxone and fentanyl testing strips, and operating syringe service programs, harm reduction organizations have effectively reduced morbidity and mortality related to drug use and related outcomes. However, the impact of public health approaches to addressing COVID-19 have significant implications for the provision of needed health and ancillary services to PWUD and risk undermining tireless efforts of harm reduction organizations. Further, the prioritization of one public health emergency over another increases the public health gap that harm reduction organizations must fill while simultaneously applying for funding to stay afloat and seeking out innovative solutions to meet the needs of their client populations who have been overlooked in the COVID-19 public health response.

Across the country, harm reduction organizations have had to rapidly adapt their hours, outreach efforts, and programs and services so as to minimize COVID-19 exposure for both staff and clients as they manage with a dearth of personal protective equipment. A recent survey documented the impact of COVID-19 on over 150 syringe service programs across the US, with 43% reporting a reduction in services offered and 25% reporting site closures due to the pandemic (Glick et al., 2020). Such changes have meant that organizations have had to quickly find solutions to the now dual crises impacting their client populations, such as mail-based or delivery services of harm reduction supplies, including THN. While such innovative approaches are important for reaching particular populations who use drugs, they risk missing structurally vulnerable PWUD, including those who are unhoused or marginally housed or those who do not have access to internet technologies or cell phones. Some harm reduction organizations have therefore conducted home deliveries or increased street-based outreach efforts; while imperative, these efforts have been complicated by social distancing restrictions and the need to negotiate staff safety alongside that of their clients. As many harm reduction organizations are operated by people who have shared experiences with their clients, staff may be at higher risk of COVID-19 due to compromised immune systems from chronic conditions or other risk factors. This further challenges organizations' abilities to keep staff engaged in street outreach and home deliveries of needed supplies.

Expanding naloxone access and evidence-based harm reduction interventions

As overdose rates across the US have spiked during the COVID-19 pandemic, there is an urgent need to implement and scale up public health approaches aimed at minimizing fatal overdose risk. Such approaches should include removing regulatory barriers to expand naloxone access through community-based distribution (Davis & Carr, 2020). Doing so can further facilitate secondary naloxone distribution through networks of PWUD, expanding access to individuals who have limited access to harm reduction supplies. This is increasingly critically within the context of the COVID-19 pandemic as individuals are more isolated. Additionally, distributing THN in high-traffic areas, such as bus stations and transportation hubs, public washrooms, and shelters, may also reach a wider range of PWUD at risk of overdose.

Importantly, efforts to expand access to take-home naloxone must coincide with programs and policies that seek to comprehensively respond to the overdose crisis. This includes integrating low-barrier opioid agonist therapies (OAT) into existing harm reduction organizations and facilitating inductions onsite through telemedicine visits. While induction regulations in the US were expanded to include telemedicine visits within the context of COVID-19, the changes must be made permanent to make OAT more accessible to structurally vulnerable PWUD. Additionally, the provision of a safe supply of opioids (e.g. injectable hydromorphone, prescribed diacetylmorphine) should be implemented to minimize or eliminate exposure to illicitly manufactured fentanyl and related analogues. Such programs have been shown to be effective in other countries and should be expanded to the US (Haasen et al., 2007; Oviedo-Joekes et al., 2016).

Conclusions

As harm reduction organizations are critical to reducing health and drug-related harms for PWUD, the ripple effects of COVID-19 on these programs are likely to exacerbate the inequities faced by structurally vulnerable PWUD. Removing regulatory barriers that limit access to THN is an important step to addressing overdose risk amid this pandemic. Future research should examine how individuals who administer naloxone manage the unpredictability of overdose events in the context of a rapidly evolving drug supply, as well as the role of THN programs in rural and suburban communities, including how they might address drug-related discrimination and stigma.

As immediate concerns regarding surges in COVID-19 hospitalizations and deaths dissipate, governments must rapidly shift from a narrow view of the current crisis, to one that considers how social and structural inequities are exacerbating adverse health outcomes for particular populations. Doing so is critical to ethically addressing the ongoing public health emergencies and mitigating inequities for PWUD.

Funding

ABC and BDLM were partially supported by the National Institutes on Drug Abuse (R01DA047975). The funders had no role in the analysis, preparation of the manuscript, or decision to publish this work.

Declaration of Competing Interests

We have no conflicts of interest to declare.

References

American Medical Association. (2020). Issue brief: Reports of increases in opioid-related overdose and other concerns during COVID pandemic. https://www.ama-assn.org/system/files/2020-06/issue-brief-increases-in-opioid-related-overdose.pdf.

Bird, S. M., McAuley, A., Perry, S., & Hunter, C. (2016). Effectiveness of Scotland's National Naloxone Programme for reducing opioid-related deaths: A before (2006–2010) versus after (2011–2013) comparison. *Addiction, 111*(5), 883–891.

Centers for Disease Control. (2020). *Understanding the epidemic*. March 19. https://www.cdc.gov/drugoverdose/epidemic/index.html.

Dasgupta, N., Beletsky, L., & Ciccarone, D. (2018). Opioid crisis: No easy fix to its social and economic determinants. *American Journal of Public Health, 108*(2), 182–186.

Davis, C. S., & Carr, D. (2020). Over the counter naloxone needed to save lives in the United States. *Preventive Medicine, 130*, Article 105932.

Dwyer, R., Olsen, A., Fowlie, C., Gough, C., van Beek, I., Jauncey, M., et al. (2018). An overview of take-home naloxone programs in Australia. *Drug and Alcohol Review, 37*(4), 440–449.

Fairbairn, N., Coffin, P. O., & Walley, A. Y. (2017). Naloxone for heroin, prescription opioid, and illicitly made fentanyl overdoses: Challenges and innovations responding to a dynamic epidemic. *International Journal of Drug Policy, 46*, 172–179.

Farrugia, A., Fraser, S., Dwyer, R., Fomiatti, R., Neale, J., Dietze, P., et al. (2019). Take-home naloxone and the politics of care. *Sociology of Health & Illness, 41*(2), 427–443.

Glick, S. N., Prohaska, S. M., LaKosky, P. A., Juarez, A. M., Corcorran, M. A., & Des Jarlais,

D. C. (2020). The impact of COVID-19 on syringe services programs in the United States. *AIDS and Behavior*. https://doi.org/10.1007/s10461-020-02886-2.

Goldman-Hasbun, J., DeBeck, K., Buxton, J. A., Nosova, E., Wood, E., & Kerr, T. (2017). Knowledge and possession of take-home naloxone kits among street-involved youth in a Canadian setting: A cohort study. *Harm Reduction Journal, 14*, 79.

Green, T. C., Heimer, R., & Grau, L. E. (2008). Distinguishing signs of opioid overdose and indication for naloxone: An evaluation of six overdose training and naloxone distribution programs in the United States. *Addiction, 103*(6), 979–989.

Haasen, C., Verthein, U., Degkwitz, P., Berger, J., Krausz, M., & Naber, D. (2007). Heroin-assisted treatment for opioid dependence: Randomised controlled trial. *The British Journal of Psychiatry, 191*(1), 55–62.

Mallin, A. (2020). *Officials worry of potential spike in overdose deaths amid COVID-19 pandemic (April 15)*. ABC Newshttps://abcnews.go.com/US/officials-worry-potential-spike-overdose-deaths-amid-covid/story?id=70149746.

McDonald, R., Campbell, N. D., & Strang, J. (2017). Twenty years of take-home naloxone for the prevention of overdose deaths from heroin and other opioids – Conception and maturation. *Drug and Alcohol Dependence, 178*(1), 176–187.

North, A. (2020). *Every aspect of the coronavirus pandemic exposes America's devastating inequalities (April 10)*. Voxhttps://www.vox.com/2020/4/10/21207520/coronavirus-deaths-economy-layoffs-inequality-covid-pandemic.

O'Brien, D. C., Dabbs, D., Dong, K., Veugelers, P. J., & Hyshka, E. (2019). Patient characteristics associated with being offered take home naloxone in a busy, urban emergency department: A retrospective chart review. *BMC Health Services Research, 19*, 632.

Oviedo-Joekes, E., Guh, D., Brissette, S., Marchand, K., MacDonald, S., Lock, K., et al. (2016). Hydromorphone compared with diacetylmorphine for long-term opioid dependence: A randomized clinical trial. *JAMA Psychiatry, 73*(5), 447–455.

Walley, A. Y., Xuan, Z., Hackman, H. H., Quinn, E., Doe-Simkins, M., Sorensen-Alawad, A., et al. (2013). Opioid overdose rates and implementation of overdose education and nasal naloxone distribution in Massachusetts: Interrupted time series analysis. *BMJ, 346*, f174.