



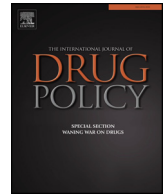
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Contents lists available at ScienceDirect

## International Journal of Drug Policy

journal homepage: [www.elsevier.com/locate/drugpo](http://www.elsevier.com/locate/drugpo)

## Commentary

## The perfect storm: COVID-19, mass incarceration and the opioid epidemic

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Overcrowding, poor hygiene, and inadequate access to medical care make correctional facilities particularly vulnerable to COVID-19. As of May 15, 2020, there have been 7671 laboratory confirmed cases, and 103 deaths among inmates and correctional staff in the United States (US) (Wallace, Hagan, & Curran, 2020), and over 56,000 cases and 987 deaths, globally (Justice Project Pakistan, 2020). In the US, jails and prisons are responsible for a large proportion of COVID-19 infections, with over 25,000 cases connected to correctional facilities to date (New York Times, 2020). People with opioid use disorders (OUDs) are disproportionately incarcerated and suffer from a number of pre-existing conditions, creating a 'perfect storm' for a COVID-19 outbreak. Furthermore, COVID-19 capitalizes on inequity (Wang & Tang, 2020), and the epidemic of mass incarceration has resulted in a number of social, economic and health inequities.

The conditions within correctional facilities make it infeasible to enact many of the World Health Organization's recommended COVID-19 prevention strategies (World Health Organization, 2020). Infection control measures like social distancing, hand washing, and quarantine are near impossible in densely populated jails and prisons, where the majority of inmates share cells and other communal spaces. Correctional facilities are also notoriously unsanitary, lack adequate ventilation or cleaning supplies, and inmates often have restricted access to soap and running water.

Over a quarter of criminal justice involved populations in the US are charged with a drug offense (Rabuy, 2016), and it is estimated that 65% of the US prison population has a substance use disorder ("Behind Bars II: Substance Abuse and America's Prison Population. New York, NY," 2010). Globally, it is estimated that one in six are serving time for drug possession (Burki, 2020), and between 10 and 60% have a substance use disorder (Carpentier, Royuela, Montanari, & Davis, 2018). Populations most vulnerable to COVID-19 include older adults and persons of any age with serious underlying medical conditions such as lung disease, heart disease, and diabetes. Among people who use drugs, COVID-19 infection may worsen the respiratory impact of opioid use and withdrawal, as opioids act in the brainstem to slow breathing, leading to respiratory depression and potential overdose (Boom et al., 2012). Those with substance use disorders also experience greater comorbidities, including cardiovascular disease (Thylstrup, Clausen & Hesse, 2015), or be immunocompromised due to HIV (Azbel & Altice,

2018). Similarly, detained populations have higher prevalence of infectious and chronic diseases, and poorer health than the general population, even at younger ages (Centers for Disease Control, 2020). Many are also immunocompromised, and the prevalence of HIV is nearly five times higher within criminal justice settings, compared to the general community (Beckwith, Zaller, Fu, Montague, & Rich, 2011). These issues are further compounded by poor access to medical care. The Federal ban on Medicaid in correctional facilities has resulted in out of pocket co-payments that are the equivalent of \$200–500 for a medical visit, making most medical care cost prohibitive (Prison Policy Initiative, 2020).

Furthermore, correctional facilities concentrate, amplify, and then transmit infectious diseases to the community after release, and will continue to do so for COVID-19. This is illustrated by a prior study examining prison to community transmission of tuberculosis (TB) in Brazil, which found high rates of within prison transmission, and subsequently found that over half (54%) of all TB strains in the community originated from former inmates (Sacchi et al., 2015). It is estimated that American jails have a 54% turnover with approximately 200,000 inmates cycling in and out every week (Flagg and Neff, 2020), in addition to the correctional staff, medical staff, visitors, lawyers and volunteers. This provides ample opportunity for the virus to both enter and exit criminal justice systems.

## Flattening the curve will require criminal justice reform

The US has the largest prison population in the world, with 2.3 million people incarcerated at any given time. Jails alone are responsible for admitting 10.6 million people every year, and over half a million inmates are not convicted, but are held in pre-trial detention because they cannot afford bail (Sawyer W, 2020). Globally, this number exceeds 3 million, and those held in pre-trial detention are particularly vulnerable to infectious diseases like COVID-19 due overcapacity and inadequate health services (Open Society Justice Initiative, 2011). The Centers for Disease Control and World Health Organization have released interim guidance for COVID-19 prevention and control within correctional facilities that include risk communication, screening, social distancing, medical isolation or quarantine, operations guidance, and the use of personal protective equipment

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(Centers for Disease Control, 2020; World Health Organization, 2020). In addition to prevention and control measures, we must implement a strategic decarceration plan that incorporates bail and drug policy reform, limit the number of new arrests, and overhaul the parole review process to reduce face-to-face visits and technical violations.

To limit the spread of the virus, jurisdictions have had varying responses that include eliminating medical co-pays, restricting visitations, reducing the cost of phone and video calls, and limiting the number of people incarcerated (Prison Policy Initiative, 2020). In the US, all but four states have suspended or reduced medical co-pays during incarceration to promote COVID-19 testing and care. In order to limit the number of people incarcerated, counties such as Baltimore, MD or King County, WA are dismissing criminal charges for anyone arrested for non-violent offenses. Some cities such as Los Angeles, Philadelphia and Denver, are using cite and release policies or delaying arrests; and several states (Oklahoma, California, Illinois) are halting all new admissions to state prisons. Several jurisdictions have also made plans to release the most vulnerable prisoners, including the elderly, and those with a history of chronic or respiratory illnesses, those held in pre-trial detention, those with limited time remaining in their sentence, and those charged with non-violent crimes. Los Angeles and New York City have managed to reduce its jail population by nearly 30%, and the governor of New York has released approximately 2% of the state prison population to limit the spread of COVID-19. The current spread of COVID-19 may outpace criminal justice reform, however; and some countries have granted temporary release of inmates, with approximately 35% of inmates in Iran and 31% in Turkey on furlough (Pakes, 2020).

### The risk of COVID-19 does not end with decarceration

Reducing the size of criminal justice populations protects inmates from acquiring COVID-19 during incarceration, however, a lack of careful discharge planning during community reentry threatens to increase the risk of COVID-19 infection, subsequent community transmission, and exacerbate existing epidemics of opioid use, HIV and inequality.

Given the high-risk environment correctional facilities pose, recently released inmates will also have to self-quarantine for a minimum of 14 days in order to limit community transmission. One solution to this is to temporarily house the homeless and former inmates in empty hotels and motels. Some states like New York and California are temporarily housing homeless people released from jails in empty hotels and motels to allow for social distancing and provide access to basic hygiene (Vansickle, 2020). In California specifically, the governor has instituted Project Roomkey to safely isolate those experiencing homelessness with aid from the Federal Emergency Management Agency (FEMA). This approach requires coordination between government officials, case managers, social workers and hotel management, and may not solve the homelessness crisis nor offers permanent housing options beyond the COVID-19 pandemic. Quarantining formerly incarcerated inmates in hotels or motels provides a safer alternative to home confinement, however, by preventing subsequent transmission of COVID-19 into the community. This solution would also allow for appropriate discharge planning that includes continuity of care and linkage to longer-term housing and harm reduction services for people with substance use disorders.

### Downstream consequences of COVID-19

People with opioid and other substance use disorders are disproportionately incarcerated, and recently released prisoners are ten times more likely to be homeless. Without adequate planning, decarceration efforts in response to COVID-19 may move people with OUDs from one risk environment to another. Upon release, the risks associated with COVID-19, as well as HIV, viral hepatitis, TB, overdose

and homelessness that often accompany incarceration must be considered. This includes re-entry services that comprise of overdose prevention, continuity of care, linkage to community-based substance use treatment, and safe housing (American Association of Addiction Medicine, 2020).

The risk of opioid overdose death is 40 times higher in the two weeks immediately following release (Ranapurwala et al., 2018). This is attributable to forced drug abstinence during incarceration which reduces drug tolerance upon release, and a change in the potency of opioids that is primarily driven by the availability of fentanyl. Disruption of the illegal drug supply due to border restrictions as a COVID-19 control measure may lead greater use of fentanyl, and several counties are already reporting spikes in fentanyl and opioid overdose rates (American Medical Association, 2020). People who inject drugs often inject in groups to avoid fatal overdose, yet, this strategy now exposes them to COVID-19. Several studies have also noted elevated substance use after a natural disaster or mass traumatic event (Cerdá, Tracy & Galea, 2011; Richman, Wislar, Flaherty, Fendrich & Rospenda, 2004; Strathdee et al., 2006), and the COVID-19 pandemic threatens to trigger a fourth wave of opioid overdose deaths in the US.

Nearly half of all harm reduction programs in the US report reduced services due to staff shortages and lack of personal protective equipment (Glick et al., 2020). Disruption of harm reduction programs due to COVID-19 may lead to increased sharing of injection equipment, thereby increasing the risk of HIV and HCV, and of non-injection equipment like cookers, pipes and vapes, increasing the risk of COVID-19. Harm reduction programs remain essential services, and their continued accessibility during the pandemic ensures access to sterile drug use equipment, medication-assisted treatment and overdose education and naloxone distribution. These are vital for reducing the risk of COVID-19 transmission within drug using networks, managing chronic conditions such as HIV or viral hepatitis, and reducing the risk of overdose among people with OUDs, especially upon community re-entry.

### Conclusion

The COVID-19 pandemic presents an opportunity to accelerate criminal justice reform that is already underway. Urgent national response is needed as correctional staff and incarcerated populations are disproportionately infected with COVID-19, and because justice-involved populations face additional disparities that make them more vulnerable to COVID-19. First, jails and prisons must rapidly decarcerate by releasing medically vulnerable populations, expand bail and drug policy reform to release low-level offenders, those held in pre-trial detention and those with limited time remaining; and discontinue the use of out of pocket co-payments for medical care, while increasing the provision of quality healthcare within correctional facilities. Second, we must reduce new admissions by limiting the number of arrests for non-violent crimes, drug-related offenses and technical violations. Finally, accelerating the parole review process and reducing the number of in-person visits for those in community supervision reduces face-to-face contact, transportation issues, and disruptions to employment that often result in technical violations. Furthermore, many of these policy changes may have long-term implications beyond COVID-19 prevention and control, including a reduction in social, economic and health disparities that are often the result of incarceration.

Criminal justice reform alone is not enough to curb COVID-19 if prevention measures are not in place upon community re-entry. Adequate discharge planning and re-entry services will be crucial for reducing community transmission of COVID-19, as well as preventing HIV, hepatitis, TB, and overdose that often accompany incarceration. We recommend jurisdictions allocate funding and other resources to temporarily quarantine inmates in empty hotels and motels to allow for adequate discharge planning that includes insurance enrollment, linkage to harm reduction and other community services to manage substance use disorders, ensure continuity of care, and temporarily

relieve homelessness. COVID-19 threatens to exacerbate already existing epidemics of opioid use, HIV and inequality that have been created and sustained prior to the pandemic. This strategy offers a multifaceted solution to a complex problem that is mutually beneficial for former inmates, their families and the greater community at large for the duration of the pandemic, and may reduce social, economic and health disparities that result from incarceration in the long run.

## Funding

This study was supported by award number T32AI114398 from the National Institute of Allergy & Infectious Diseases of the National Institutes of Health.

## Declaration of Competing Interest

All authors declare no conflicts of interest.

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