


COVID-19 outbreaks in prisons

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To the Editor—In most countries worldwide, prisons are overcrowded, unsanitary places that are favorable environments for transmissible diseases like coronavirus disease 2019 (COVID-19). In fact, 59% of all countries worldwide have prison occupancy levels exceeding their officially reported capacity, which imposes high risk of infection transmission and adverse health issues.¹ In addition, the difficulty of applying preventive methods in prisons, such as practicing physical distancing, and the inability to access care for the prisoners, poor sanitation, and poor ventilation of prison rooms, contribute to prison health catastrophes.²

Historically, similar disease outbreaks in prisons have had high mortality rates in jails, such as typhoid fever in English jails. Similarly, tuberculosis outbreaks occurred in Russian prisons in 1997 and 2001, which led to public re-emergence of this highly infectious disease and subsequent deterioration of health systems worldwide.³

Unfortunately, similar concerns are emerging about COVID-19 outbreaks in prisons, which threaten the health and lives of inmates, guards, as well as the broader population, and such outbreaks could lead to global re-emergence of the pandemic.⁴ A senior Yaounde Central Prison official stated, “Of 832 samples collected from inmates released from 5 prisons in April, 358 tested positive for COVID-19, according to the unpublished government data, [which was] 16% of the national total at the beginning of May, where the infection rate of those released and tested was 58%.”⁵ In Russia, the number of confirmed cases of disease caused by COVID-19 among suspects, defendants, and convicts stands at 238, with 980 additional cases among staff and workers.⁶ These outbreaks have been linked to higher mortality rates that can reach up to one-third of a prison’s population. A report released by the Public Defender’s Office in Rio de Janeiro stated that deaths in Brazilian prisons increased by 33% during the COVID-19 pandemic compared to the same period in 2019, as noted by a *Daily Mail* report.⁷ Also, prisons are considered incubation areas that facilitate rapid viral transmission. In mid-March 2020, the first case of novel COVID-19 was diagnosed at Riker’s Island, the main jail complex in New York City. Within 2 weeks, >200 cases were diagnosed within the facility, despite efforts to curb the spread. The situation at the Cook County jail in Chicago was similar, with ~350 incarcerated persons and staff members testing positive for the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) as of early April 2020. Many other jails and prisons have reported outbreaks of COVID-19 and related deaths.⁸

Collectively, these outbreaks raise concerns about the health status of prisoners, especially their mortality rate, and awareness of this critical issue has increased worldwide. The World Health

Organization (WHO) has released guidelines, “Preparedness, Prevention and Control of COVID-19 in Prisons and Other Places of Detention,” that provide helpful tips and advice for prison staff and healthcare professionals who deal with inmates directly. These guidelines make thorough recommendations on how to prevent and manage potential outbreaks, and they focus on the importance of respecting basic human rights. Moreover, each country has a crucial role in improving the identification, management, and treatment of new cases of COVID-19. The WHO guidelines emphasize that there is no single approach or method for handling COVID-19 cases and outbreaks and that each country should adapt their approach to their local context.⁹

Current measures emerging to prevent and control outbreaks of COVID-19 will improve health conditions worldwide, but such measures may not be achievable in many jails or in all prisons. We should increase the public awareness about the risk to inmates, and we should establish strong systems to ensure their safety. Citizens held in prisons and other detention facilities must be considered part of the broader public health response to COVID-19 given their vulnerability to infection.

Take-home messages

1. We should highlight that “prison health is public health.” The inability to care for prisoners and manage prisons outbreaks correctly can affect the global health status and lead to re-emergence of the COVID-19 pandemic.
2. We must stress the need to develop strong support systems to improve hygiene in the prison population. Greater action is needed to reduce the number of prisoners because overcrowding is a well-known risk factor for disease transmission.
3. We should follow WHO/European Centers for Disease Control guidelines to prevent and control COVID-19 in prisons and other places of detention, such as developing strong health systems that protect inmate’s rights and facilitate access to health care.
4. To improve our ability to control and prevent sudden COVID-19 outbreaks in prisons, we should recommend the urgent release of many detainees who have not been convicted of any crime or who are awaiting trial as well as those newly arrested for nonviolent or minor offenses.

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Finding a needle in a haystack: The hidden costs of asymptomatic testing in a low incidence setting

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To the Editor—Early in the coronavirus disease 2019 (COVID-19) pandemic, when testing was limited and the prevalence of severe acute respiratory coronavirus virus 2 (SARS-CoV-2) was unknown, public health recommendations restricted testing for individuals at high risk for COVID-19. Risk factors included travel history, symptoms, and close contact with someone who had a history of COVID-19. As access to testing expanded and concerns for asymptomatic transmission mounted, healthcare facilities broadened COVID-19 surveillance strategies to include testing for all asymptomatic patients requiring hospital admission or aerosol-generating procedures.

Simultaneously, national and global PPE shortages amplified concerns about high risks for to healthcare providers (HCPs). Initial studies reported infection from patients as the primary mode of transmission in up to 60% of COVID-19 infections in healthcare workers before the pandemic was recognized.¹ Since that time, significant advances in testing capacity and PPE availability have been made, coupled with reassurance about the protective effects of PPE.² Rates of COVID-19 positivity among asymptomatic patients presenting for surgery have been low

throughout the pandemic: only 0.13% at an academic facility centered in one of the counties with the highest COVID-19 prevalence nationally. The total number of tests collected for asymptomatic surgical patients has exceeded 100,000 in the past 12 months.^{3,4} Data collected during this pandemic have demonstrated that healthcare workers are unlikely to become infected with COVID-19 when wearing appropriate PPE.² Even in situations in which healthcare providers were performing an aerosol-generating procedure on a COVID-19–positive patient, the risk among those wearing a surgical mask and a respirator was equivalent.⁵ As PPE supply has increased in the United States, many healthcare institutions have begun using respirators and eye protection for all aerosol-generating procedures regardless of a patient's SARS-CoV-2 status, further decreasing the risk of unanticipated SARS-CoV-2 transmission.

Furthermore, as the incidence of a disease declines, the positive predictive value (PPV) of a test for that disease necessarily drops, even for tests with a high sensitivity and specificity. At low prevalence, the positive predictive value (PPV) of a given test is expected to be more sensitive to changes in underlying rates of disease. To illustrate this, we modeled the relationship between 7-day cumulative incidence of COVID-19 in the community (x-axis) and PPV (y-axis) for a PCR test with similar performance characteristics to those used at UCLA Health (ie, 96% sensitivity and 99% specificity),

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