

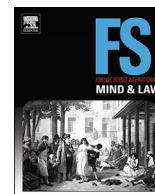


Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.

Contents lists available at [ScienceDirect](https://www.sciencedirect.com)

Forensic Science International: Mind and Law

journal homepage: www.journals.elsevier.com/forensic-science-international-mind-and-law

Prisons and Probation

Prisoner's Dilemma: Ethical questions and mental health concerns about the COVID-19 vaccination and people living in detention

M. Liebrezn^{a,*}, D. Bhugra^b, A. Buadze^c, R. Schleifer^a^a Department of Forensic Psychiatry, Institute of Forensic Medicine, University of Bern, Bern, Switzerland^b Kings College, London, SE5 8AF, United Kingdom^c Department of Psychiatry, Psychotherapy and Psychosomatics, Psychiatric Hospital, University of Zurich, Zurich, Switzerland

Like with all crises, the need to protect the most vulnerable, disadvantaged and marginalized in society becomes increasingly acute (Liebrezn, Bhugra, Buadze, & Schleifer, 2020). As the multiple COVID-19 vaccines are rolled out globally, there has been growing concern about the nature of their distribution on a supranational, national, community, group and individual level (Emanuel et al., 2020; WHO, 2020; Persad, Peek, & Emanuel, 2020). Organizations and health experts alike have called for an equitable approach to address humanitarian concerns (Foppiano Palacios & Travassos, 2020; Mukumbang, 2020), to transcend international socioeconomic boundaries (Garfinkel, Sansonetti & Pulverer, 2020; WHO, 2020) and to meet the needs of high risk individuals, such as those living in detention (American Medical Association 2020; Siva 2020).

The latter concern is especially relevant as the pandemic has reportedly taken hold and ripped through prison systems throughout the globe (Li & Liu, 2020; Montoya-Barthelemy, Lee, Cundiff, & Smith, 2020; Steinböck, 2020; Циганенко & Великодна, 2020). Overcrowding has turned prisons into “incubators” (UNODC, 2020), rendering it extremely difficult to stop the spread of COVID-19 and other communicable diseases (Beaudry et al., 2020; Puglisi, Malloy, Harvey, Brandeau, & Wang, 2020). This pattern has been reported internationally in both the developing and developed world (Gannon, 2020; Harsono, 2020; Rapisarda & Byrne, 2020).

The role of inmates during the COVID-19 crisis has become “politically charged”, with different approaches and opinions being put forward internationally; at the onset of the crisis, during earlier vaccinations trials, and more recently when planning and implementing a vaccination strategy (Mannix, 2020; Stanley-Becker, 2021). For example, in May 2020, Vladimir Zhirinovskiy of the Liberal Democratic Party of Russia suggested the coronavirus vaccine “[should be] be tested by people who are motivated to do so” (Mamontow, 2020). In the politician's opinion, prisoners who agree to try the vaccine should have their time in prison halved. According to Zhirinovskiy, thousands of inmates would respond to such a proposal. From a different perspective, the inclusion of detainees in vaccination trials was also being called for by U.S. scientists. They argued that “correctional settings present the opportunity to determine

vaccine efficacy when trials are ethically conducted and perhaps to the benefit of the health of people who live and work there” (Wang, Zenilman, & Brinkley-Rubinstein, 2020).

In the view of the authors, such proposals (although some may be well-intentioned) are problematic, as it has been widely observed that a disproportionate number of people living in detention (PLD) suffer not only with somatic but also mental illnesses (Fazel, Hayes, Bartellas, Clerici, & Trestman, 2016; Fazel & Seewald, 2012; Maccio et al., 2015; Stürup-Toft, O'Moore, & Plugge, 2018), thereby putting into question some prisoners' ability to freely consent in times of unprecedented crisis. Falconer recently emphasized the high rate of mental illness in prisons by comparing the prevalence of serious mental illness in the general U.S. population (about 4%) to the number of PLD who reported symptoms of severe mental disorder (39.8–60.5%), such as schizophrenia, affective disorders, substance use disorders, and also neurotic and stress-related disorders (Falconer, 2019).

Within this context, the distinct and complex features of healthcare provision in the correctional system must always be taken into account, especially when developing and implementing vaccination strategies for COVID-19. Depending on the jurisdiction and societal considerations, this could result in the exclusion of vaccinations of offenders or, on the contrary, in the compulsory vaccination of inmates with sanctions for refusal. The latter may become increasingly prevalent in the following months as vaccines come to be more widely available as production is accelerated.

All these issues create the following complex concerns that must be considered in the upcoming immunization efforts within correctional systems, which have large numbers of mentally ill detainees:

- It is likely that there will be a nationalist upsurge in attitudes to get the vaccine first and clear commitments are needed to ensure that PLD are included in the vulnerable groups and offered vaccinations accordingly. Policy makers must understand that a public health risk reduction for the general population can only occur if the prison population is included in immunization programs at an early stage, which will entail a multiagency approach. Here, the first

* Corresponding author.

E-mail address: Michael.Liebrezn@fpd.unibe.ch (M. Liebrezn).

considerations are beginning to emerge. For example the US National Academy of Medicine (NAM) recommends vaccinating people in prisons, jails, detention, and similar facilities in phase 2 of their 4 phased approach to vaccine allocation, at the same time as teachers and critical workers in high-risk settings who are in industries essential to functioning of society but before young adults and children (National Academies of Sciences & Medicine, 2020). Whether this plan is implemented and followed through remains to be seen.

- Consideration should be given to the fact that the large group of mentally distressed and especially anxious prisoners may have greater reservations about vaccination than the general population (Zwanzger, 2016). For instance, a study on hepatitis B virus (HBV) vaccination in prison found that while PLD were generally willing to be vaccinated for HBV, barriers to being vaccinated during times of incarceration included distrust of correctional and prison health staff which led some inmates to “try to avoid blood tests or injections during incarceration because of concern about what their blood was being used for, what they were being injected with, and whether they were being tested for drugs” (Buck et al., 2006).
- PLD should be individually encouraged to vaccinate by the medical staff and provided with educational materials about the vaccine. Studies in forensic psychiatric settings demonstrated that such requests for action by the medical staff can significantly influence vaccination behavior (Borthwick, O'Connor, & Kennedy, 2020). Structured conversations, the use of decision aids and motivational interviewing methodology in particular is recommended, although evidence gathered among the general population remains modest so far (Borthwick et al., 2020; Brewer, Chapman, Rothman, Leask, & Kempe, 2017). In this regard, preparations need to be made now, such as the training of medical (and possibly non-medical) staff to provide education or language-independent material to help address inmates' possible reservations and fears (Dutilleul et al., 2019); such information has to be clear and targeted according to cultural norms. This is increasingly pertinent in the 2020s as disinformation proliferates (Nguyen & Catalan, 2020). In addition, it is important to remember that some incarcerated people may come from countries that do not have a robust public health system and thus may have less experience with vaccination programs (Bangura, Xiao, Qiu, Ouyang, & Chen, 2020; Lydon et al., 2017; Mipatrini, Stefanelli, Severoni, & Rezza, 2017).
- Contemporaneous reports are surfacing from countries where vaccination is not compulsory that considerable numbers of health care staff are reluctant to participate in the COVID-19 vaccination campaigns (Beer, 2021; Michel, 2021; Polke-Majewski, 2021). For now, such reports primarily stem from hospitals and nursing homes but they still raise concerns about the participation rates of health staff working in correctional facilities. In addition, data from Switzerland, for example, show that in the winter of 2019–2020, on average only 30 percent of nurses in hospitals were vaccinated against influenza. Among doctors, the figure was twice as high at 60 percent (SRF, 2021). Similar data is available from many other European countries as well, where vaccine coverage remains at rates below 30% (Lorenz, Marshall, Wright, Sutcliffe, & Sowden, 2017; To, Lai, Lee, Koh, & Lee, 2016). While a COVID vaccine may or may not be more widely adopted than an annual influenza vaccination, this raises the issue of what can be done if broad-based vaccination campaigns are not supported by individual professionals who are the first point of contact for health issues in the prison system.
- A further question arises as to how the prison system should manage those detainees who freely and consciously refuse vaccination. In contrast to extramural conditions, sanction mechanisms are available in prison that go far beyond the disadvantages that people in the general population may experience if they refuse vaccination. In Europe, for example, travel restrictions and digital health passports for the general population are currently being considered by some (Rodriguez Martinez, 2020; Walsh, 2020). Under prison conditions,

on the other hand, severe measures such as segregation or contact and visitation restrictions could quickly be raised and implemented. A similar precedent for this can be found when prisoners face solitary confinement for minor infractions (Cloud, Drucker, Browne, & Parsons, 2015). This could potentially lead to a scenario in which punitive measures could be holistically adopted to suppress personal choice regarding vaccination.

Prison health care workers face several challenges in the coming months, of which concern about the ease and breadth of delivery of a COVID-19 vaccine to detainees (with and without mental health issues) may only be the first. From our point of view, finding a balance between public health efforts on the one hand, and individual rights on the other, especially for people living under prison conditions, may become an issue of equal importance.

Unaffected by these considerations is the call for an equitable distribution of the vaccine on a global level, which the authors of this article fully endorse. Underprivileged populations especially those in prisons are stigmatized and ignored and more so in the current climate where they may be seen as deserving of infections. Public attitudes about safety and self-protection can further contribute to ignoring vulnerable groups. This health crisis with a virus that knows no “boundaries” underlines once again that “today real borders are not between nations, but between, powerful and powerless, free and fettered, privileged and humiliated” as the then Secretary-General of the United Nations Kofi Annan famously put it (United-Nations, 2002).

Declarations of competing interest

In his role as Editor-in-Chief, Michael Liebreuz had no involvement in the peer-review of this article and has no access to information regarding its peer-review.

References

- American Medical Association. (2020). AMA policy calls for more COVID-19 prevention for congregate settings. <https://www.ama-assn.org/press-center/press-releases/ama-policy-calls-more-covid-19-prevention-congregate-settings>.
- Bangura, J. B., Xiao, S., Qiu, D., Ouyang, F., & Chen, L. (2020). Barriers to childhood immunization in sub-saharan africa: A systematic review. *BMC Public Health*, *20*(1), 1–15.
- Beaudry, G., Zhong, S., Whiting, D., Javid, B., Frater, J., & Fazel, S. (2020). Managing outbreaks of highly contagious diseases in prisons: A systematic review. *BMJ Glob Health*, *5*(11), Article e003201.
- Beer, T. (2021). Large numbers of health care and frontline workers are refusing covid-19 vaccine. Retrieved from <https://www.forbes.com/sites/tommybeer/2021/01/02/large-numbers-of-health-care-and-frontline-workers-are-refusing-covid-19-vaccine/>.
- Borthwick, C., O'Connor, R., & Kennedy, L. (2020). Predicting and understanding seasonal influenza vaccination behaviour among forensic mental health inpatients. *Psychology and Health*, 1–25.
- Brewer, N. T., Chapman, G. B., Rothman, A. J., Leask, J., & Kempe, A. (2017). Increasing vaccination: Putting psychological science into action. *Psychological Science in the Public Interest*, *18*(3), 149–207.
- Buck, J. M., Morrow, K. M., Margolis, A., Eldridge, G., Sosman, J., MacGowan, R., et al. (2006). Hepatitis B vaccination in prison: The perspectives of formerly incarcerated men. *Journal of Correctional Health Care*, *12*(1), 12–23.
- Cloud, D. H., Drucker, E., Browne, A., & Parsons, J. (2015). Public health and solitary confinement in the United States. *American Journal of Public Health*, *105*(1), 18–26.
- Dutilleul, A., Morel, J., Schilte, C., Launay, O., Autran, B., Behier, J.-M., ... Courcier, S. (2019). How to improve vaccine acceptability (evaluation, pharmacovigilance, communication, public health, mandatory vaccination, fears and beliefs). *Therapie*, *74*(1), 131–140.
- Emanuel, E. J., Persad, G., Kern, A., Buchanan, A., Fabre, C., Halliday, D., ... Lemango, E. T. (2020). An ethical framework for global vaccine allocation. *Science*, *369*(6509), 1309–1312.
- Falconer, E. M. (2019). Mental illness and the criminal justice system: Issues and considerations. In *Handbook on crime and deviance* (pp. 419–436). Springer.
- Fazel, S., Hayes, A. J., Bartellas, K., Clerici, M., & Trestman, R. (2016). Mental health of prisoners: Prevalence, adverse outcomes, and interventions. *The Lancet Psychiatry*, *3*(9), 871–881.
- Fazel, S., & Seewald, K. (2012). Severe mental illness in 33 588 prisoners worldwide: Systematic review and meta-regression analysis. *British Journal of Psychiatry*, *200*(5), 364–373.
- Foppiano Palacios, C., & Travassos, M. A. (2020). Vaccinating detained migrants against SARS-CoV-2—preventing another tragedy. *New England Journal of Medicine*, e5.

- Gannon, K. (2020). COVID-19 runs unchecked in Pakistan's overcrowded prisons, 2020-12-13 <https://apnews.com/article/pakistan-prisons-islamabad-coronavirus-pandemic-prison-overcrowding-47cd61d890b4a6d613cdd461f71e3686>.
- Garfinkel, M., Sansonetti, P., & Pulverer, B. (2020). Survival of the Wealthiest? *EMBO Journal*, 23(39), Article e107227.
- Harsono, A. (2020). Covid-19 spreads in Indonesia's overcrowded prisons. Retrieved from <https://www.hrw.org/news/2020/08/26/covid-19-spreads-indonesias-overcrowded-prisons>.
- Liebrezn, M., Bhugra, D., Buadze, A., & Schleifer, R. (2020). Caring for persons in detention suffering with mental illness during the Covid-19 outbreak. *Forensic Science International: Mind and Law*, 1.
- Li, S. D., & Liu, T.-H. (2020). Correctional system's response to the coronavirus pandemic and its implications for prison reform in China. *Victims and Offenders*, 1–11.
- Lorenc, T., Marshall, D., Wright, K., Sutcliffe, K., & Sowden, A. (2017). Seasonal influenza vaccination of healthcare workers: Systematic review of qualitative evidence. *BMC Health Services Research*, 17(1), 732.
- Lydon, P., Schreiber, B., Gasca, A., Dumolard, L., Urfer, D., & Senouci, K. (2017). Vaccine stockouts around the world: Are essential vaccines always available when needed? *Vaccine*, 35(17), 2121–2126.
- Maccio, A., Meloni, F. R., Sisti, D., Rocchi, M. B. L., Petretto, D. R., Masala, C., et al. (2015). Mental disorders in Italian prisoners: Results of the REDiMe study. *Psychiatry Research*, 225(3), 522–530.
- Mamontow, W. (2020). Жириновский предложил испытывать вакцину от коронавируса на заключенных. *Izvestia*, 2020-05-22 <https://iz.ru/1014435/2020-05-22/zhirino-vskii-predlozhit-ispytyvat-vakcinu-ot-koronavirusa-na-zakliuchennykh>.
- Mannix, L. (2020). Prisoners and the obese priority groups for COVID-19 vaccine. *The Sydney Morning Herald*, 2020-12-09 <https://www.smh.com.au/national/prisoners-and-the-obese-priority-groups-for-covid-19-vaccine-20201208-p56lj3.html>.
- Michel, P. (2021). Pflegende verweigern reihenweise Impfung, 2021-01-05 <https://www.20min.ch/story/so-gross-ist-der-impf-widerstand-in-den-altersheimen-855630950247>.
- Mipatrini, D., Stefanelli, P., Severoni, S., & Rezza, G. (2017). Vaccinations in migrants and refugees: A challenge for European health systems. A systematic review of current scientific evidence. *Pathogens and Global Health*, 111(2), 59–68.
- Montoya-Barthelemy, A., Lee, C. D., Cundiff, D., & Smith, E. (2020). COVID-19 and the correctional environment: The American prison as a focal point for public health. *American Journal of Preventive Medicine*, 58(6), 888–891. <https://doi.org/10.1016/j.amepre.2020.04.001>. ISSN: 0749-3797, 1873-2607.
- Mukumbang, F. C. (2020). Are asylum seekers, refugees and foreign migrants considered in the COVID-19 vaccine discourse? *BMJ Global Health*, 5(11), Article e004085.
- National Academies of Sciences, E., & Medicine. (2020). *Framework for equitable allocation of COVID-19 vaccine*. National Academies Press.
- Nguyen, A., & Catalan, D. (2020). Digital mis/disinformation and public engagement with health and science controversies: Fresh perspectives from covid-19. *Media and Communication*, 8(2), 323–328.
- World Health Organization. (June 18, 2020). *A Global Framework to Ensure Equitable and Fair Allocation of COVID-19 Products and Potential Implications for COVID-19 Vaccines*.
- Persad, G., Peek, M. E., & Emanuel, E. J. (2020). Fairly prioritizing groups for access to COVID-19 vaccines. *Journal of the American Medical Association*, 324(16), 1601–1602.
- Polke-Majewski, K. (2021). Corona-Impfskeptiker: Gefährliche Impfskeptiker in deutschen Krankenhäusern. *Die Zeit*. <https://www.zeit.de/wissen/gesundheit/2021-01/corona-impfskeptiker-pflegepersonal-klinken-krankenhaus-gefahr>.
- Puglisi, L. B., Malloy, G. S., Harvey, T. D., Brandeau, M. L., & Wang, E. A. (2020). Estimation of COVID-19 basic reproduction ratio in a large urban jail in the United States. *Annals of Epidemiology*, 53, 103–105.
- Rapisarda, S. S., & Byrne, J. M. (2020). The impact of COVID-19 outbreaks in the prisons, jails, and community corrections systems throughout Europe. *Victims and Offenders*, 1–8.
- Rodriguez Martinez, M. (2020). Will countries in Europe make the COVID-19 vaccine compulsory? 2020-12-07 <https://www.euronews.com/2020/12/07/will-any-countries-in-europe-make-the-covid-vaccine-compulsory>.
- Siva, N. (2020). Experts call to include prisons in COVID-19 vaccine plans. *The Lancet*, 396(10266), 1870.
- SRF. (2021). Weg aus der Pandemie - pflegepersonal ist skeptisch bei Corona-Impfung. <https://www.srf.ch/news/schweiz/weg-aus-der-pandemie-pflegepersonal-ist-skeptisch-bei-corona-impfung>.
- Stanley-Becker, I. (2021). Early vaccination in prisons, a public health priority, proves politically charged. *The Washington Post*, 2021-01-02 <https://www.washingtonpost.com/health/2021/01/02/covid-vaccine-prisons/>.
- Steinböck, H. (2020). Maßregelvollzug in den Zeiten der Corona-Pandemie. *Recht & Psychiatrie*, 38(3), 131–134.
- Stürup-Toft, S., O'Moore, E., & Plugge, E. (2018). Looking behind the bars: Emerging health issues for people in prison. *British Medical Bulletin*, 125(1), 15–23.
- To, K., Lai, A., Lee, K., Koh, D., & Lee, S. (2016). Increasing the coverage of influenza vaccination in healthcare workers: Review of challenges and solutions. *Journal of Hospital Infection*, 94(2), 133–142.
- United-Nations. (2002). *TODAY'S real border are not between nations, but between powerful and powerless, free and fettered, privileged and humiliated*. SECRETARY-GENERAL SAYS | Meetings Coverage and Press Releases [Press release]. Retrieved from <https://www.un.org/press/en/2002/SGSM8402.doc.htm>.
- UNODC. (2020). Prisons and Pandemic Inaction is not an Option (Advocacy Brief) Accessed 7th January 2021 https://www.unodc.org/documents/pakistan/SP2_Advocacy_Brief_1_Prison_COVID-19_Balochistan.pdf.
- Walsh, D. (2020). Do we need 'vaccine passports' to get Europe moving again?, 2020-12-11 <https://www.euronews.com/2020/12/11/do-we-need-coronavirus-vaccine-passports-to-get-the-world-moving-again-euronews-asks-the-e>.
- Wang, E. A., Zenilman, J., & Brinkley-Rubinstein, L. (2020). Ethical considerations for COVID-19 vaccine trials in correctional facilities. *Journal of the American Medical Association*, 324(11), 1031–1032.
- Zwanzger, P. (2016). Pharmakotherapie bei Angsterkrankungen. *Fortschritte der Neurologie - Psychiatrie*, 84, 306–314, 05.
- Циганенко, Г.В., & Великодна, М.я.С. (2020). Надання психологічної допомоги вразливим групам населення під час та після карантину через пандемію COVID-19. Вид. ПА Козлов.