

COVID-19: Why are prisons a particular risk, and what can be done to mitigate this?

This brief provides key considerations related to COVID-19 in the context of prisons, jails and similar detention facilities (referred to collectively in this brief as “prisons”). It summarises the particular risks associated with an outbreak of COVID-19 in prisons in low-and middle-income countries (LMICs) and highlights approaches that may be used to mitigate those risks. Many of these same risks and approaches are equally applicable to other facilities, such as migration detention centres, but specific consideration of those facilities is beyond the scope of this brief.

This brief was developed for the Social Science in Humanitarian Action Platform (SSHAP) by Anthrologica (Leslie Jones). It aims to provide practical considerations for governments and response partners working on the COVID-19 response in the context of LMICs. The brief was reviewed by colleagues at Amend, University of California, San Francisco; Penal Reform International; and the UK Department for International Development. It is the responsibility of the SSHAP.

Summary considerations

- The overarching principle governing measures to address COVID-19 in the context of prisons must be to afford all individuals the rights, including access to healthcare, which they are guaranteed under international law. Restrictions on visitors must not be used to circumvent inspection procedures designed to ensure that human rights principles are observed in prisons and other detention facilities, and isolation and quarantine protocols should not be a pretext for imposition of punitive solitary confinement.
- When formulating and presenting approaches to COVID-19 in prisons, it is important to emphasise that prisons and communities are interconnected and that measures to protect prisons will protect communities as well, in that they will also reduce the likelihood of prison-to-community transmission and the potential burden on health systems of a large outbreak in prison.
- If visiting restrictions are imposed in order to limit transmission of COVID-19 between community and prison populations, alternative means of contact between incarcerated individuals and their families and other support systems should be considered to ensure that individuals still receive the safeguards against mistreatment, psychosocial support and resources (food, hygiene and other supplies) normally provided by visitors. Access to lawyers and to the courts must also be preserved through alternate means.
- If feasible, improvements to the physical prison facility should be made to enable compliance with handwashing and hygiene recommendations and distancing recommendations. Proper supplies, including soap, disinfectant and ample water should be made available to all detained persons and prison personnel, as well as Personal Protective Equipment (PPE) as necessary.
- Measures to reduce prison populations should be introduced as soon as possible. These may include early release/parole, release of pre-trial detainees and limits on new arrivals. Release measures should prioritise individuals who belong to groups at particular risk from COVID-19, including older adults and those with underlying health conditions, as well as pregnant women and mothers who have their children living with them in prison. Beyond this, focus should be on people convicted of low-level offenses, those serving short sentences, those who have served most of a longer term, and pre-trial detainees.
- Communications with the community must be open and transparent and provide information regarding the groups being released and any alternative measures being imposed. The impact of release of some individuals, including victims of crimes and women who may be subject to a risk of gender-based violence from released partners, must be taken into account and support systems implemented.
- Procedures should be put in place to ensure the safety and well-being of persons to be released and the community. Pre-release health screening of those to be released is essential. Adequate housing and health care (including psychosocial support) should be available for them and their families. Information about available resources should be provided.
- All stakeholders, particularly prison personnel and persons detained, must have access to adequate, timely and accurate information regarding the facility’s response to COVID-19 in a form that is understandable given individual literacy (including health literacy). Information should include COVID-19 prevention, symptoms and treatment (including potential isolation or quarantine measures); visiting restrictions and measures to mitigate their effects; and any release or parole measures that are available.
- Without immediate aggressive efforts to address overcrowding and poor sanitation, it can be presumed that COVID-19 will spread exponentially within and outside of prison facilities in LMICs. Experience in other countries demonstrates that there is only a very limited window in which to act; once the infection takes root inside a prison it becomes nearly impossible to contain. Urgent government action is therefore essential. Measures taken now will have long-term positive effects and will help countries to better align themselves with global principles regarding the rights of the incarcerated.

Why are prisons a priority issue in the context of COVID-19?

Prisons, particularly those in LMICs, are often overcrowded facilities¹ with high concentrations of populations vulnerable to COVID-19 infection,^{2,3,4} and limited, if any, access to health care and basic hygiene.^{5,6,7} These conditions create a perfect environment for an uncontrolled outbreak of COVID-19, and elevated rates of mortality are likely in a correctional facility.⁸ The high number of expected cases will be a significant burden on weak community health care systems.⁵ The risks are not limited to the prison population itself; visitors, guards and other daily workers are susceptible,⁹ and they in turn may carry the virus to the outside community, further stressing health care systems.

What is the current status of COVID-19 in prisons?

As the COVID-19 pandemic spreads, there is growing concern that prisons in LMICs will be particularly hard hit. At the time of writing, there is little reliable data on COVID-19 infection rates in LMIC prisons. It has been reported that there have been over 100 prison-based cases of COVID-19 in Iran and over 800 in China, although the reliability of these data is uncertain.¹⁰ Available information suggests that Syria has had over 800 cases (and 204 COVID-19 deaths) in its prisons and Pakistan has had 98.¹⁰ India, South Africa and Cameroon each reportedly have a smaller, although growing, number of cases.¹⁰ In Morocco, out of 309 incarcerated persons who were recently tested for the virus, over 180 tested positive.¹¹ Due to the lack of testing in LMICs generally, it is likely that the data grossly underestimates the actual numbers of infections in some settings.

The rates of COVID-19 infection in prisons in the US, where the pandemic took hold earlier than in most LMICs, may be instructive: at the time of writing, there are reportedly over 20,000 prison cases, with 243 deaths – again, in the context of limited testing.¹⁰ In one US facility with more widespread testing, 80% of the prison's population tested positive;¹² in another, 92% tested positive.¹³ High prison infection rates may be compounded by mortality rates that are expected to be as much as 50% higher than community rates.⁵

Prison staff are also affected. In one of the US prisons referenced above, nearly half of the 350-person staff tested positive for the virus.¹² In one South African prison, 29 workers were diagnosed with COVID-19 in the first two weeks of April;¹⁴ in another, 23 staff members were recently diagnosed.¹⁵

Why are prison populations particularly vulnerable to COVID-19?

The particular vulnerability of prisons to COVID-19 is the result of a confluence of factors: prison overcrowding; at-risk populations; lack of access to basic hygiene and health care; limited health literacy and lack of information. Each of these factors is examined below.

Prison overcrowding

Over 10.7 million people are currently incarcerated in prisons worldwide.¹⁶ Most LMIC prisons are overcrowded, with multiple occupancy of cells and with some facilities operating at two, three or more times planned capacity.¹ Out of 27 Asian countries for which data are available, two thirds are operating above capacity; Nepal is at over 150% capacity and Bangladesh at over 215%.¹ Of 46 African countries for which data are available, only six have occupancy rates below full capacity and many exceed 200%; Uganda's prisons operate at 319% of capacity on average.¹ Bukavu prison in the Democratic Republic of Congo (DRC) reportedly exceeds its capacity by 528% and Muzenze prison by over 600%.^{5,17,18} Some cells at a South African prison are occupied by more than 100 people, with new individuals still being admitted daily.¹⁸ In one Sierra Leone women's prison, an officer reported that there were 64 women living in a space designed for 18.⁵ An individual in a Uganda prison said that the cells are so crowded that people have to move en masse.¹⁹

Close and confined living conditions may contribute to the spread of any infectious disease,²⁰ and particularly one as easily-transmitted as COVID-19. Some of the worst clusters of COVID-19 infection have been in congregate and confined living facilities such as long-term care facilities²¹ and cruise ships.²² Modelling studies of virus reproduction rates on the Diamond Princess suggest rates materially higher than those in the community at large.²³ WHO guidelines for the public recommend maintaining a physical distance of at least one metre from others,²⁴ which is likely to be impossible even in uncrowded prison conditions.^{25,26}

At-risk populations

Older adults, those with underlying chronic health conditions (e.g., diabetes, heart disease, pulmonary conditions) and those with other infections such as tuberculosis and HIV are more susceptible to COVID-19 and face greater risk of poor outcomes from the disease.^{27,28} All of these conditions disproportionately affect people in prison. Prison populations around the world are aging,² and the average 50-year-old in prison is likely to have the health problems of a 60-year-old on the outside.² Worldwide, incarcerated people tend to be from the poorest and most marginalised sections of society, putting them at greater risk for non-communicable diseases (NCDs).³ Available data, although limited in LMICs, suggest that people in prison suffer a higher burden of NCDs than those who are not incarcerated;⁴ this is particularly true of older individuals.⁴ Prison populations are also likely to have high rates of communicable disease; for example, the rate of tuberculosis in prisons has been estimated at 10 to 100 times that of the outside community.^{6,29,30} WHO has estimated that the prevalence of HIV among prison populations in some countries is 15 times higher than in the overall adult population.³¹

Nutrition is a key determinant of the body's immune response,³² and malnutrition may contribute to poor COVID-19 outcomes.³³ Malnutrition is an issue in prisons worldwide: in Madagascar, for example, nearly half of all people in prisons suffer from moderate or severe malnutrition.³⁴ Medical personnel at Bukavu Prison in the DRC recently reported 365 cases of acute malnutrition among people detained there;³⁵ in October 2019, 45 deaths due to malnutrition and lack of medical were reported at the same facility.⁵ Elsewhere in the DRC, five individuals reportedly died from lack of food in one prison in a single week; 60 died of hunger between January and February in another.³⁶ A 2015 report on prison conditions in Pakistan noted that "*inadequate food and medical care in prisons led to chronic health problems and malnutrition among inmates*".³⁷ Prison populations may also be particularly vulnerable to the expected short-term and longer-lasting effects of COVID-19 on the global food supply.³⁸

Lack of hygiene facilities and personal protective equipment

There are widespread reports of limited access to water, soap, sanitising gels and cleaning/disinfecting supplies throughout prisons in Asia and Africa.^{18,5,30} For example, one incarcerated woman at a Sierra Leone women's prison said that the well often runs dry and, with no tap, people have to manage with the little water they have.⁵ In South Africa, visiting reporters found that supposed containers of hydroalcoholic gel in one prison were in fact filled with water.¹⁸ Prison authorities in some countries have banned alcohol-based hand sanitiser because of concerns about illicit or improper use.^{39,40} These circumstances make it difficult for both those detained and their guards to comply with WHO recommendations regarding frequent handwashing and the cleaning and sanitising of frequently-used surfaces and common areas.

Guards and other personnel are in a particularly vulnerable position due to their frequent contact with potentially infected individuals. Globally, however, there is a severe shortage of personal protective equipment (PPE) such as masks, gowns and gloves.^{40,41} In Malawi, prison guards went on strike in April to demand PPE.⁴² Although some incarcerated persons in Bangladesh had been making

masks (they were given to prison staff for free but had to be purchased by detained people), that effort has been discontinued due to lack of supplies.⁴³ Persons in detention in Tunisia and Algeria have been enlisted to make face masks, and Tunisian authorities have reportedly distributed disinfectant, thermometers, masks and gloves “to protect prisoners,” though it is unclear whether those supplies were provided to staff or residents.¹⁸

Lack of health care

The UN Standard Minimum Rules for the Treatment of Prisoners (the Nelson Mandela Rules),⁴⁴ the UN Rules for the Treatment of Women Prisoners and Non-custodial Measures for Women Offenders (the Bangkok Rules)⁴⁵ and a broad range of international policies⁴⁶ guarantee adequate health care to incarcerated individuals. The Inter-Agency Standing Committee of the UN recently issued guidance emphasising that “*international standards highlight that states should ensure that persons in detention have access to the same standard of health care as is available in the community, and that this applies to all persons regardless of citizenship, nationality or migration status....The state has the obligation, according to international human rights law, to ensure the health care of people in places of detention*”.⁴⁷

Despite these policies, compliance is poor and health care in prisons remains sub-standard around the world. Even in more developed countries, “*most ‘prison hospitals’ are really just infirmaries or clinics*” without basic infection control facilities or adequate staffing (referring to the US).⁴⁸ In countries with weaker health systems, prisons are likely to have even fewer resources. In one region of Pakistan, for example, there are over 100 unfilled medical officer positions.⁵ In Bangladesh, there are just 10 doctors to serve 68 prisons; in Ghana, there are two doctors to serve 15,000 individuals in 46 prisons.⁵

Limited health literacy and lack of information

Poor health literacy has been identified as a particular problem in incarcerated individuals.⁴⁹ Thus, people held in detention facilities may not fully understand either the recommended infection prevention methods for COVID-19 or the disease’s symptoms, nor be willing or able to participate in health care if they are infected.⁵⁰ Prison health care provision may be met with suspicion or fear, as patients may suspect providers of dual loyalties – to the patient and to prison authorities.⁵¹ As discussed below, mistrust may be particularly strong if isolation measures are implemented, as these may be associated with punishment, torture and deprivation. Guards may also suffer from low health literacy and difficulty understanding and implementing recommended infection prevention and control measures.

How does COVID-19 in prisons affect the broader community?

Prisons are not completely closed environments; staff and service people, who have interactions with wider communities, enter and leave every facility on a daily (or hourly) basis, and short-term and/or released prison residents re-join communities. This movement increases the risk that a prison-based outbreak will spread beyond the prison’s walls, for example a report in the New York Times suggests US a prison is responsible for nation’s highest per capita infection rate, in a rural community in Tennessee. Based on experience with past infectious disease outbreaks, one expert has described detention facilities as “*epidemiological pumps*” with “*explosive outbreaks*” that can spur extensive spread in the outside community. As the WHO has noted, “*efforts to control COVID-19 in the community are likely to fail if strong infection prevention and control (IPC) measures, adequate testing, treatment and care are not carried out in prisons and other places of detention as well*”.⁵³

Outbreaks within prisons, and their subsequent spread beyond them, may gravely threaten local health systems – which may already be dealing with high levels of community COVID-19 cases. One prison doctor spoke recently of the potentially “*devastating effects*” a prison outbreak could have on the local community’s health system.⁵⁴ In the context of LMICs, where health systems may be weak and essential medical supplies such as ventilators may be in very short supply,⁵⁵ it is therefore in the interest of the entire community to limit the spread of COVID-19 within correctional facilities.

What are potential control measures?

The WHO has issued guidance for the prevention and control of COVID-19 in prisons; the general measures are frequent handwashing, covering coughs and sneezes, refraining from touching one’s face, and physical distancing.⁵³ Countries have attempted to implement some of these as well as other measures to try to prevent the spread of COVID-19 in prisons.

Visiting limits and suspensions

Nearly every country has restricted or suspended prison visitors and imposed some form of lockdown on their populations.^{18,56} While these measures may reduce the likelihood that COVID-19 will be introduced into a prison or transmitted from incarcerated persons back to the community, they pose the risk of serious negative effects. The WHO and other international bodies have emphasised that the COVID-19 outbreak must not be used to circumvent inspections of prisons by external observers who are tasked with preventing torture and other inhumane treatment of detained persons.^{53,57,58} Visiting restrictions may interfere with the ability of detained persons to confer with their lawyers and may impede their right of access to the courts. Family visitors provide a range of essential supports to individuals in prison, all of which may be affected by restrictions or bans. There are clear psychosocial benefits associated with family visits,⁵⁹ and interaction with family members has been recognised as an important check on abuse while in custody.⁶⁰ In many countries, limited prison budgets mean that incarcerated individuals rely on family members, NGOs and the religious community for food and other supplies, including soap and other personal hygiene products.^{5,55,26} Prison populations have understandably reacted with anger to visiting restrictions. There have been hunger strikes,¹⁸ riots⁶ and even mass escapes¹⁸ following the imposition of visitor bans.

Mitigation Measures: In an effort to address these negative effects, prison authorities have instituted measures that are designed to take the place, to a degree, of in-person visits – although these measures have to date been primarily employed in higher income countries. For example, prisons in Italy authorised the use of email and skype for contact between detained persons and their families.⁶¹ Measures are more limited in LMICs. In Bangladesh, authorities set up telephone boxes and allow residents a weekly five-minute call to their families.⁴³ In Rwanda, prison authorities provided a public phone that residents can use to call their families; they also allow families to send mobile money to cover purchases of food and other personal items.⁶² UN guidance specifies that family

members should be enabled to continue to provide food and other supplies to detainees,⁵⁷ although there is little evidence that prison authorities are complying with this recommendation. In some places, civil society organisations have begun to take on the role of supplying incarcerated persons with personal items that might otherwise be brought by their families.^{63,64}

Quarantine/isolation and distancing measures

Isolation is the physical separation from the general population of people who have or likely have a communicable disease for as long as they are infectious.⁶⁵ The WHO recommends that anyone infected with COVID-19 be isolated in order to limit spread of the disease.⁵³ However, isolation in the context of prison must be approached with extreme care, due to its association with solitary confinement.⁶⁶ Long-term (over 15 days) or indefinite solitary confinement in the prison context may cause profound psychological harm and is recognised by international bodies to constitute torture in certain circumstances.⁶⁷ In addition, given the limited health care facilities in most prisons, the only available isolation facilities for COVID-19 patients may in fact be a small number of solitary confinement cells, compounding the negative associations.⁶⁸ This in turn may deter individuals from seeking care if they need it.⁶⁸ Finally, isolated individuals may have more limited access to health care workers and other staff, as isolation facilities may not be frequently monitored.⁶⁸

Quarantine is the separation of people who may have been exposed to COVID-19 for the duration of the disease's incubation period.⁶⁹ WHO guidance recommends a 14-day quarantine of new prison arrivals from high-risk areas or who have had contact with a known case.⁵³ Recognising that this may be difficult in some facilities, the WHO also allows arriving individuals with similar risk factors to be housed together. Quarantine of new arrivals has already been implemented in Rwanda⁶² and a number of other countries. Emerging evidence from China indicates that centralised quarantine of symptomatic individuals and close contacts of infected patients may have contributed significantly to reduced transmission rates; this may be a feasible approach in the prison context.⁷⁰

If isolation or quarantine measures are implemented, it is essential that due care be taken to ensure that affected individuals are treated compassionately and with due regard for their rights. Medical isolation should not take the form of disciplinary solitary confinement.⁵⁷ Conditions must meet the Nelson Mandela rules⁴⁴ and time in isolation or quarantine must be limited to what is necessary to ensure the safety of those affected. The scope of time in isolation must be clearly communicated to the patient.⁷¹

Efforts to implement general physical distancing measures do not appear to be widespread in LMIC prisons, likely recognising the near-impossibility of such measures in the context of grossly overcrowded facilities. Even in countries where prisons are not operating at two or three times capacity, prison cells or dormitories are unlikely to provide sufficient space to allow people to maintain the distance recommended by health authorities.^{25,26} The population-reduction measures that some countries have already adopted are unlikely to sufficiently reduce crowding to allow meaningful physical distancing within the facilities as they are currently organised.

One measure that has been proposed in the US is to organise the population into smaller cohorts, if the physical facility allows this, each of which is kept completely separate from the others until a testing, contact tracing, and centralised quarantine infrastructure sufficient to contain infection without the use of cohorting is in place.⁷² If this is done in conjunction with other IPC efforts, including hygiene measures, limiting new admissions, screening and/or quarantining those new admissions who cannot be avoided, and screening transitory staff and providing them with adequate PPE, it may be possible to contain any infection to a single or small number of cohorts. It is important to note that this measure should be implemented before the infection has become widespread or it may risk increasing, rather than decreasing, infection rates.⁷²

To the extent that cohorting and other isolation and quarantine measures rely on testing, they may be impracticable in LMICs. Tests do not appear to be widely available and, where they are, they may be prohibitively expensive for mass use. In Uganda, for example, the cost of a single COVID-19 test is reportedly USD 65.⁷³

Population-reduction methods

As the pandemic has developed, there has been a widespread and increasingly urgent call for measures to reduce the size of prison populations.^{74,57,47} The recommended measures aim both to alleviate the substantial overcrowding in a large number of prisons and to reduce the numbers of vulnerable detainees and of those who may be unequally or unjustly subject to imprisonment. It should be noted that international law prohibits the extension of pardons or amnesties to people who have been convicted of crimes against humanity.⁷⁵

Early parole/release: Early release and early parole measures have been instituted in a large number of countries. Most early release/parole programmes are limited to persons convicted of low-level offenses, those who are near the end of their sentence, pre-trial detainees, women and/or individuals who are at particular risk from COVID-19. Some early release programmes are outright pardons;⁷⁶ others are combined with continued supervision after release. South Africa's remission programme, for example, entails continued monitoring and requires convicted persons to submit DNA and biometrics to prison authorities after release.⁷⁷ The table below highlights some of the countries that have released some number of their prison populations:

Country	Release/parole measures
Afghanistan	Pledge to release up to 10,000 individuals with serious health problems, women, children, above 55 years old. ⁷⁸
Bangladesh	Recommended release of 4,450 individuals who had served more than 20 years or were imprisoned for minor offenses. ⁷⁹
DRC	Release of over 1200 people imprisoned for non-serious crimes ⁸⁰
Ethiopia	Release of 5600, most imprisoned for petty crimes or with less than a year left on their sentences. ⁸¹
Indonesia	Release of 30,000 individuals (10% of total prison population) ³⁰
Iran	Temporary release of over 54,000 individuals ⁸²
Kenya	Release of 5000 individuals near the end of their sentences or convicted of petty crimes. ⁸³
Libya	Release of over 450, including elderly, people who have served more than half their sentences, vulnerable and pretrial detainees ⁸⁴
Morocco	Presidential pardon and pledged release of 5000, based on age, state of health, length of detention and good conduct. ⁸⁵
Myanmar	Presidential pardon and release of 25,000 individuals including 800 Rohingya refugees ⁷⁶
Nepal	Release of all incarcerated persons with less than a year or half of their total sentence remaining. ⁸⁶
Nigeria	Commitment to release more than 52,000 pre-trial detainees; 2600 have been released. ⁸⁰
Pakistan	Release in Sindh of 4000 and in Punjab of 20,000 people convicted of petty crimes, the elderly, and those with shorter sentences. ^{87,88}
Uganda	Recommended release of 2000 convicted of minor offenses with less than ¼ of their sentence remaining, breastfeeding mothers, elderly. ⁸⁹

There is some evidence that the likelihood of recidivism is reduced among those who have been released early from their sentences. For example, individuals who were released “on license” (on the condition that they did not re-offend) pursuant to the Good Friday Agreement were less likely than others to re-offend. Only 16 of 449 people released at that time had their licenses revoked.⁹⁰ Only 2.2% of over 300 prisoners released from a New York City prison in March have been rearrested.⁹¹

Release of pre-trial detainees: This has been widely advocated as a potential measure to reduce prison overcrowding, especially when focused on people charged with low-level and non-violent offenses. Libya, India and Nigeria have included pre-trial detained persons in their planned release programmes in response to COVID-19.^{56,85} Individuals held on pretrial detention outnumber convicted people in at least 46 countries,⁹² and across Africa and Asia one-third or more of the prison populations consist of individuals on remand. In Bangladesh over 80% of imprisoned individuals are awaiting trial; in Nepal nearly two-thirds are on remand.⁹³ In DRC 71% of detained persons are awaiting trial or have not been convicted of any crime.¹⁸

Given these numbers, release of pre-trial detainees is likely to have a meaningful impact on overcrowding in many countries. Release of those who have not been convicted is also consistent with the both the Tokyo Rules and the Bangkok Rules, UN policies that encourage governments to avoid unnecessary imprisonment and instead to consider a range of noncustodial measures.^{45,94} It is important to remember that the primary purpose of pretrial detention is not to punish an individual – by definition, a person detained before trial is presumed innocent until found guilty of a crime – but rather to guarantee that the person will appear for that trial. Release of these individuals may be seen as particularly appropriate when to leave them in prison would likely subject them to life-threatening illness.

There are a range of measures other than imprisonment that have been or may be used to guarantee that the accused appears for trial. These include payment of bail or bond; restrictions on movement (home confinement and/or travel bans, including seizure of identity documents); community monitoring of the accused; if available, electronic monitoring.^{17,86} These measures, again, must be tailored to the particular community into which the accused will be released and consideration must be given to the impact to the alternative measure on the individual’s ability to earn a livelihood or to fulfil family obligations such as child or elder care.¹⁷

Beyond considerations of justice, there may be wider benefits to the reduction of pre-trial incarceration; it has, for example, been associated with a reduction in custodial sentences.¹⁷ A prison official recently remarked that the COVID-19 pandemic is “a *wakeup call for a non-custodial sentencing regime in Ghana*”.⁹⁵

Limitations on admissions: Given the likely difficulties involved in quarantining new arrivals, ways to reduce admissions have also been implemented. Throughout the US, law enforcement has significantly reduced the number of arrests in order to limit the number of pre-trial detainees.⁹⁶ For people convicted of low-level offenses, police have issued citations in lieu of arrest and have declined to prosecute some individuals accused of non-violent offenses.⁹⁶ In contrast, although Morocco released nearly 5700 individuals in April 2020, its new admissions between mid-March and early April were almost 5500 – essentially cancelling out the releases.⁹⁷ Some countries have also arrested individuals for violating curfew or quarantine regulations,⁹⁸ although UN guidance specifically recommends against this.^{57,74}

Special considerations regarding women in prison: The Bangkok Rules set forth standards applicable to the treatment of women convicted of crimes, including their right to health care.⁴⁵ Although ten years have passed since the Rules’ adoption, in most parts of the world places of confinement still do not adequately care for the needs of incarcerated women. One review of research on women in prison noted a prevalence throughout sub-Saharan Africa of “*inhumane, filthy, overcrowded, poorly ventilated [facilities] with inadequate hygiene and sanitation*”.⁷ Women in these countries are also at high risk of sexual and physical violence by guards, police and other women.⁷ Globally, the number of imprisoned women grew by 53% between 2000 and 2016; during the same period the number of men in prisons grew by only 21%.⁹⁹ Women in prison are more likely to be from socially marginalised groups, to have been involved in sex work and drug use, and to be the victims of gender-based violence.¹⁰⁰ Because there are fewer prisons for women, they are more likely to be incarcerated far from home and family.¹⁰⁰ As a whole, incarcerated women are less likely to have committed serious offenses; for example, one report from a Sierra Leone prison noted that sex workers are often incarcerated for status offenses such as loitering.¹⁰¹ In Kenya, 68% of incarcerated women were in jail for liquor-related offenses.¹⁰² The impact on women of pre-trial detention can be especially severe as they are often caregivers or primary earners for their families.¹⁰¹

In light of these factors, women may be particularly suited for inclusion in the early release and pre-trial diversion programmes implemented in response to COVID-19. Indeed, many release recommendations (e.g., Afghanistan⁷⁸ and Uganda⁸⁹) specifically include pregnant or lactating women, and/or women imprisoned with their children. As of this writing, LMICs do not appear to have instituted any other policies specifically designed to protect incarcerated women, or categories of them, from COVID-19. For example, other than including them within categories of prisoners eligible for release, governments in LMICs do not appear to have implemented measures to facilitate extreme physical distancing for pregnant women, as is recommended by the UK National Health Service and others.¹⁰³

Information and communications

WHO guidance regarding COVID-19 in prisons emphasises that detained persons, guards and other personnel and visitors must be given information about prevention, especially hand hygiene and respiratory etiquette, disease signs and symptoms, actions to take if symptoms appear, and access to health care.⁵³ Such information should be communicated in a way that addresses both language and literacy barriers, including by visual or other non-written means.⁵³ It is particularly important that individuals be given clear and understandable assurances that medical care will be provided in a non-punitive manner consistent with human rights laws and that the parameters of any quarantine, isolation, visitor bans and other restrictions on movement be fully explained.⁵³

What are the obstacles to implementation of these control measures, and how can they be addressed?

Practical constraints on the ability to comply with distancing and sanitary measures

As noted above, prison-centred measures to prevent the spread of COVID-19 face serious practical obstacles due to the very design of most prisons, and these obstacles are magnified when the prison is overcrowded. In most LMIC facilities it will be impossible to maintain physical distancing with any consistency. It may be possible to increase distribution of cleaning and hygiene supplies such as soap, hand sanitising gel and disinfectants to clean surfaces, but the availability of water is limited in many prisons.^{7,104} If resources are available, construction or improvement of WASH infrastructure should be prioritised so that WHO and CDC recommendations

regarding handwashing can be followed.¹⁰⁵ Resources permitting, governments may also wish to consider construction of additional facilities so that sick individuals can be separated from others and all people in prison have the space to remain sufficiently distant from each other. For example, the Thailand government recently announced the construction of additional sleeping space for 24,588 (at a cost of 56.3 million Baht (USD 1.7m)).¹⁰⁶ It must be recognised, however, that in many countries cost may be a significant barrier to this type of measure. As a consequence, the release of those whose continued incarceration does not serve a credible public safety purpose may be the most effective prevention measure.

Community and governmental resistance to population-reduction measures

Early release and other non-custodial options may face initial opposition from communities and the government. Government may be concerned about public reaction to the release of people from prison and may fear being seen as “soft on crime”. Many may not consider incarcerated persons to be an important constituency for whose benefit they should risk alienating their supporters. Community members may be concerned about the potential for increased criminal activity in the wake of releases and about the potential spread of COVID-19 to the community if individuals are released from prison, particularly in large numbers. Some community members may have specific concerns about the release of a given individual; victims of even a lesser offense may experience trauma if the incarcerated person is released,¹⁰⁷ and women, in particular, may be concerned about the return home from confinement of a spouse or partner who is prone to violence or abuse. Intimate partner violence has risen sharply in the context of COVID-19 quarantine measures.^{108, 109}

Mitigation strategies: It is important that release plans be managed and communicated in a way that will alleviate community and official concerns, encourage acceptance of release programmes and facilitate the successful reintegration of released persons to the community. To address political objections, reform advocates and public health officials may wish to emphasise the harm reduction and positive impact on the community that will result from reducing prison overcrowding. Factors to highlight may include reduced prevalence of disease, lowered chance of community spread, reduced potential for impact on health systems. The growing number of release programmes in prisons around the world may be highlighted in order to show that this is not a radical concept but rather is increasingly embraced by the global community as a whole. Governments can also be given examples of countries that regularly suspend certain sentences (such as for drug possession) in order to encourage implementation of similar measures.

Harm reduction strategies should be implemented to minimise the risk that released individuals will spread COVID-19 to the broader community. Individuals on early release should be medically screened before release and should be educated about community public health measures and, where necessary, they should be provided with the resources they need to comply immediately with those measures. This may include provision of adequate housing, continued health care, monitoring and support, including psychosocial support, after release.⁴⁷

In order to address community concerns about the potential for increased crime, government or prison officials implementing release plans should inform the public about who is being released and why this is not believed to threaten public safety. As discussed above, most individuals eligible for release will be those deemed of low risk to the community: the elderly, people convicted of minor crimes, and those who have already served the majority of their sentences. Officials should make clear, if accurate, that released convicts and individuals who have not yet been tried will be subject to other non-custodial sanctions. If alternative sentences such as community service will be implemented, it may be helpful to advise the community its scope, as well as how they might benefit from it.¹⁷

Financial constraints

Prison budgets are already strained in many LMICs, and it is likely that some or all of the measures identified above will be too costly to implement without significant help from the international community. However, it should be realised that the population-reduction measures highlighted above hold the possibility of material savings for prisons and communities. Evidence suggests that non-custodial criminal justice methods are less expensive than custodial measures.¹⁷ Release of older incarcerated persons, in particular, is likely to lower health care, equipment and personnel costs associated with care for older individuals.^{17, 110}

Finally, beyond the health issues arising from COVID-19 in prisons, which are the focus of this brief, it is important to realise that COVID-19 poses wider risks to justice provision. Measures put in place to contain the infection may cause delays to trials, sentencing and evidence collection.

Contact

If you have a direct request concerning the response to COVID-19, regarding a brief, tools, additional technical expertise or remote analysis, or should you like to be considered for the network of advisers, please contact the Social Science in Humanitarian Action Platform by emailing Olivia Tulloch (oliviattulloch@anthrologica.com) and Santiago Ripoll (s.ripoli@ids.ac.uk). Key Platform liaison points include: UNICEF (nnarvi@unicef.org); IFRC (ombretta.baggio@ifrc.org); and GOARN Research Social Science Group (nina.gobat@phc.ox.ac.uk).



The Social Science in Humanitarian Action is a partnership between the Institute of Development Studies, Anthrologica and the London School of Hygiene and Tropical Medicine. Funding to support the Platform's response to COVID-19 has been provided by the Wellcome Trust and DFID

References

1. World Prison Brief. (2020, May 2). *Highest to Lowest—Occupancy level (based on official capacity)*. World Prison Brief. https://www.prisonstudies.org/highest-to-lowest/occupancy-level?field_region_taxonomy_tid=All
2. United Nations Office on Drugs and Crime. (2009). *Handbook on prisoners with special needs*. United Nations Office on Drugs and Crime (UNODC). https://www.unodc.org/pdf/criminal_justice/Handbook_on_Prisoners_with_Special_Needs.pdf
3. Herbert, K., Plugge, E., Foster, C., & Doll, H. (2012). Prevalence of risk factors for non-communicable diseases in prison populations worldwide: A systematic review. *The Lancet*, 379(9830), 1975–1982. [https://doi.org/10.1016/S0140-6736\(12\)60319-5](https://doi.org/10.1016/S0140-6736(12)60319-5)
4. Munday, D., Leaman, J., O'Moore, É., & Plugge, E. (2019). The prevalence of non-communicable disease in older people in prison: A systematic review and meta-analysis. *Age and Ageing*, 48(2), 204–212. <https://doi.org/10.1093/ageing/afy186>
5. Summers, H. (2020, April 23). Pandemic potentially a 'death sentence' for many prison inmates, experts warn. *The Guardian*. <https://www.theguardian.com/global-development/2020/apr/23/pandemic-potentially-a-death-sentence-for-many-prison-inmates-experts-warn>
6. Summers, H. (2020, March 23). 'Everyone will be contaminated': Prisons face strict coronavirus controls. *The Guardian*. <https://www.theguardian.com/global-development/2020/mar/23/everyone-will-be-contaminated-prisons-face-strict-coronavirus-controls>
7. Van Hout, M. C., & Mhlanga-Gunda, R. (2018). Contemporary women prisoners health experiences, unique prison health care needs and health care outcomes in sub Saharan Africa: A scoping review of extant literature. *BMC International Health and Human Rights*, 18(1), 31. <https://doi.org/10.1186/s12914-018-0170-6>
8. Hawks, L., Woolhandler, S., & McCormick, D. (2020). COVID-19 in Prisons and Jails in the United States. *JAMA Internal Medicine*. <https://doi.org/10.1001/jamainternmed.2020.1856>
9. *Visualising the Occupations with the Highest COVID-19 Risk*. (n.d.). Retrieved 3 May 2020, from <https://www.visualcapitalist.com/wp-content/uploads/2020/04/covid-19-occupational-risk-scores.html>
10. Justice Project Pakistan. (2020, May 2). *COVID-19 and Prisoners*. Justice Project Pakistan. <https://www.jpp.org.pk/covid19-prisoners/>
11. Agence France Press. (2020, April 24). Moroccan prison reports sharp jump in virus cases. *Barrons.Com*. <https://www.barrons.com/news/moroccan-prison-reports-sharp-jump-in-virus-cases-01587671108>
12. NY Times Editorial Board. (2020, April 23). Opinion: No One Deserves to Die of Covid-19 in Jail. *The New York Times*. <https://www.nytimes.com/2020/04/23/opinion/coronavirus-prisons.html>
13. Folley, A. (2020, April 23). 92 percent of inmates tested for COVID-19 at Indiana prison receive positive results. *The Hill*. <https://thehill.com/homenews/state-watch/494322-92-percent-of-inmates-tested-for-covid-19-at-indiana-prison-receive>
14. Matavire, M. (2020, April 17). S.Africa Scrambles To Isolate Prison Virus Cases As Infection Spreads. *Barrons*. <https://www.barrons.com/news/s-africa-scrambles-to-isolate-prison-virus-cases-as-infection-spreads-01587139806>
15. Jordaan, N. (2020, April 12). Plans under way to remove babies of offenders from East London prison after Covid-19 outbreak. *TimesLIVE*. <https://www.timeslive.co.za/news/south-africa/2020-04-12-plans-under-way-to-remove-babies-of-offenders-from-east-london-prison-after-covid-19-outbreak/>
16. Walmsley, R. (2018). *World Prison Population List (12th Ed.)* (p. 19). Institute for Crime and Justice Policy Research. <https://www.prisonstudies.org/resources/world-prison-population-list-12th-edition>
17. Penal Reform International. (2020). *Global Prison Trends 2020*. <https://www.penalreform.org/resource/global-prison-trends-2020/>
18. *Coronavirus: Prison Fever*. (2020, April 28). Prison Insider. <https://www.prison-insider.com/en/articles/coronavirus-la-fievre-des-prisons>
19. *Business Daily—Coronavirus in confinement*. (2020, March 31). <https://www.bbc.co.uk/sounds/play/w3csz892>
20. Kak, V. (2007). Infections in Confined Spaces: Cruise Ships, Military Barracks, and College Dormitories. *Infectious Disease Clinics of North America*, 21(3), 773–784. <https://doi.org/10.1016/j.idc.2007.06.004>
21. Kluge, H. (2020, April 23). *Statement – Invest in the overlooked and unsung: Build sustainable people-centred long-term care in the wake of COVID-19*. World Health Organisation; World Health Organization. <http://www.euro.who.int/en/media-centre/sections/statements/2020/statement-invest-in-the-overlooked-and-unsung-build-sustainable-people-centred-long-term-care-in-the-wake-of-covid-19>
22. Moriarty, L. F. (2020). Public Health Responses to COVID-19 Outbreaks on Cruise Ships—Worldwide, February–March 2020. *MMWR. Morbidity and Mortality Weekly Report*, 69. <https://doi.org/10.15585/mmwr.mm6912e3>
23. Mizumoto, K., & Chowell, G. (2020). Transmission potential of the novel coronavirus (COVID-19) onboard the diamond Princess Cruises Ship, 2020. *Infectious Disease Modelling*, 5, 264–270. <https://doi.org/10.1016/j.idm.2020.02.003>
24. *Coronavirus (COVID-19) advice for the public*. (2020, April 29). World Health Organisation. <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public>
25. Kajstura, A., & Landon, J. (2020, April 3). Since you asked: Is social distancing possible behind bars? *Prison Policy Initiative*. <https://www.prisonpolicy.org/blog/2020/04/03/density/>
26. Muntingh, L. (2020, April 30). Coronavirus Spotlight Op-Ed: Prisons, overcrowding and preventing Covid-19 transmission. *Daily Maverick*. <https://www.dailymaverick.co.za/article/2020-04-30-prisons-overcrowding-and-preventing-covid-19-transmission/>
27. CDC. (2020, February 11). *Coronavirus Disease 2019 (COVID-19)*. Centers for Disease Control and Prevention. <https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-at-higher-risk.html>
28. WHO. (2020). *Coronavirus Disease 2019 (COVID-19) Situation Report 51*. World Health Organization. https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200311-sitrep-51-covid-19.pdf?sfvrsn=1ba62e57_10
29. *WHO | Tuberculosis in prisons*. (n.d.). WHO; World Health Organization. Retrieved 27 April 2020, from <http://www.who.int/tb/areas-of-work/population-groups/prisons-facts/en/>
30. Zsombor, P. (2020, April 21). Southeast Asia Speeds Up Prison Releases to Stave Off Coronavirus | Voice of America—English. *VOA News*. <https://www.voanews.com/covid-19-pandemic/southeast-asia-speeds-prison-releases-stave-coronavirus>
31. *WHO | People in prisons and other closed settings*. (n.d.). WHO; World Health Organization. Retrieved 27 April 2020, from <http://www.who.int/hiv/topics/prisons/en/>
32. Chandra, R. K. (1997). Nutrition and the immune system: An introduction. *The American Journal of Clinical Nutrition*, 66(2), 460S–463S. <https://doi.org/10.1093/ajcn/66.2.460S>
33. Laviano, A., Koverech, A., & Zanetti, M. (2020). Nutrition support in the time of SARS-CoV-2 (COVID-19). *Nutrition*. <https://doi.org/10.1016/j.nut.2020.110834>
34. *Madagascar: A double sentence – prison and malnutrition (Africa/Madagascar)*. (2016, July 27). International Committee of the Red Cross. <https://www.icrc.org/en/document/madagascar-double-sentence-prison-and-malnutrition>
35. *RDC: Le personnel de la prison de Bukavu dénonce les conditions de détention*. (2019, October 17). RFI. <http://www.rfi.fr/fr/africque/20191017-rdc-le-personnel-prison-bukavu-denonce-conditions-detention>
36. Human Rights Watch. (2020, April 17). *DR Congo: Prisons Face Covid-19 Catastrophe*. Human Rights Watch. <https://www.hrw.org/news/2020/04/17/dr-congo-prisons-face-covid-19-catastrophe>
37. U.S. Department of State. (2015). *Country Reports on Human Rights Practices for 2015*. <https://2009-2017.state.gov/j/drl/rls/hrrpt/humanrightsreport/index.htm#wrapper>
38. *COVID-19 will double number of people facing food crises unless swift action is taken | World Food Programme*. (n.d.). Retrieved 4 May 2020, from <https://www.wfp.org/news/covid-19-will-double-number-people-facing-food-crises-unless-swift-action-taken>
39. Blakinger, K., & Schwartzapfel, B. (2020, March 6). *When Purell is banned, how do you contain the coronavirus?* The Marshall Project. <https://www.themarshallproject.org/2020/03/06/when-purell-is-contraband-how-do-you-contain-coronavirus>
40. Coronavirus: France extends detentions and suspends trials, raising rights concerns. (2020, April 13). *France 24*. <https://www.france24.com/en/20200413-coronavirus-france-extends-detentions-and-suspends-trials-raising-rights-concerns>
41. *Shortage of personal protective equipment endangering health workers worldwide*. (2020, March 3). World Health Organisation. <https://www.who.int/news-room/detail/03-03-2020-shortage-of-personal-protective-equipment-endangering-health-workers-worldwide>
42. Masina, L. (2020, April 24). Malawi Police Clash With Prison Guards Demanding COVID-19 Protection Equipment | Voice of America—English. *VOA News*. <https://www.voanews.com/covid-19-pandemic/malawi-police-clash-prison-guards-demanding-covid-19-protection-equipment>
43. Hussein, A. (2020, April 8). Coronavirus: Chittagong prisoners make face masks. *Dhaka Tribune*. <https://www.dhakatribune.com/bangladesh/nation/2020/04/08/covid-19-chittagong-prisoners-make-face-masks>
44. United Nations Standard Minimum Rules for the Treatment of Prisoners (the Mandela Rules), no. A/C.3/70/L.3, UN General Assembly (2015). https://www.un.org/en/events/mandeladay/mandela_rules.shtml
45. *United Nations Rules for the Treatment of Women Prisoners and Non-custodial Measures for Women Offenders (the Bangkok Rules)*, UN General Assembly, 435 (2017). <https://doi.org/10.4324/9781315089461-21>
46. *OHCHR | International standards*. (n.d.). Retrieved 3 May 2020, from <https://ohchr.org/EN/issues/health/pages/internationalstandards.aspx>
47. WHO, & UNOCHR. (2020). *IASC Interim Guidance on COVID-19-Focus on Persons Deprived of Their Liberty*. IASC_Interim_Guidance_on_COVID-19_-_Focus_on_Persons_Deprived_of_Their_Liberty.pdf
48. Neff, J., & Schwartzapfel, B. (2020, April 16). Infected, Incarcerated—And Coming to an ICU Near You? *The Marshall Project*. <https://www.themarshallproject.org/2020/04/16/infected-incarcerated-and-coming-to-an-icu-near-you>
49. Hadden, K. B., Puglisi, L., Prince, L., Aminawung, J. A., Shavit, S., Pflaum, D., Calderon, J., Wang, E. A., & Zaller, N. (2018). Health Literacy Among a Formerly Incarcerated Population Using Data from the Transitions Clinic Network. *Journal of Urban Health : Bulletin of the New York Academy of Medicine*, 95(4), 547–555. <https://doi.org/10.1007/s11524-018-0276-0>
50. Palumbo, R. (2015). Discussing the Effects of Poor Health Literacy on Patients Facing HIV: A Narrative Literature Review. *International Journal of Health Policy and Management*, 4(7), 417–430. <https://doi.org/10.15171/ijhpm.2015.95>
51. Pont, J., Stöver, H., & Wolff, H. (2012). Dual Loyalty in Prison Health Care. *American Journal of Public Health*, 102(3), 475–480. <https://doi.org/10.2105/AJPH.2011.300374>
52. Taylor, D. (2020, March 21). Home Office releases 300 from detention centres amid Covid-19 pandemic. *The Guardian*. <https://www.theguardian.com/uk-news/2020/mar/21/home-office-releases-300-from-detention-centres-amid-covid-19-pandemic>
53. World Health Organization. (2020). *Preparedness, prevention and control of COVID-19 in prisons and other places of detention (2020), Interim guidance 15 March 2020*. World Health Organization. http://www.euro.who.int/_data/assets/pdf_file/0019/434026/Preparedness-prevention-and-control-of-COVID-19-in-prisons.pdf
54. Olsen, T. (2020, April 18). Moose Lake prison a 'tinderbox' that could overwhelm local hospitals, health officials say – Twin Cities. *Twin Cities Pioneer Press*. <https://www.twincities.com/2020/04/17/coronavirus-moose-lake-prison-a-tinderbox-that-could-overwhelm-local-hospitals-entire-state/>
55. Yeung, P. (2020, April 30). Overcrowded DRC prisons 'ticking time-bomb' for COVID-19 pandemic. *Al Jazeera*. <https://www.aljazeera.com/news/2020/04/overcrowded-drc-prisons-ticking-time-bomb-covid-19-pandemic-200430133707410.html>
56. COVID-19 Containment Measures by country. (2020, March 23). *Las prisiones ante el COVID-19*. <https://covid19prisons.wordpress.com/measures/>

57. Subcommittee on Prevention Inhuman or Degrading Treatment or Punishment of Torture and Other Cruel, (2020). *Advice of the Subcommittee on Prevention of Torture to States Parties and National Preventive Mechanisms relating to the Coronavirus Pandemic*. UNOHCHR. <https://www.ohchr.org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=25756&LangID=E>
58. European Committee for the Prevention of Torture and Inhuman or Degrading Treatment or Punishment. (2020). *Statement of principles relating to the treatment of persons deprived of their liberty in the context of the coronavirus disease (COVID-19) pandemic*. European Committee for the Prevention of Torture and Inhuman or Degrading Treatment or Punishment (CPT)
59. De Claire, K., & Dixon, L. (2017). The Effects of Prison Visits From Family Members on Prisoners' Well-Being, Prison Rule Breaking, and Recidivism: A Review of Research Since 1991. *Trauma, Violence, & Abuse*, 18(2), 185–199. <https://doi.org/10.1177/1524838015603209>
60. Association for the Prevention of Torture. (2016). *Yes, Torture Prevention Works* (p. 17). https://www.appt.ch/content/files_res/appt-briefing-paper_yes-torture-prevention-works.pdf
61. Human Rights Watch, York, 34th Floor | New, & t 1.212.290.4700, N. 10118-3299 U. | (2020, March 19). *Human Rights Dimensions of COVID-19 Response*. Human Rights Watch. <https://www.hrw.org/news/2020/03/19/human-rights-dimensions-covid-19-response>
62. Nsabimana, E. (2020, April 1). Rwanda: COVID-19 - Prisons Service Reassures on Inmates' Safety. *AllAfrica.Com*. <https://allafrica.com/stories/202004010634.html>
63. Nkeze. (2020, April 16). Buea Central Prison Receives Hand Washing Facilities. *Cameroon Tribune*. <https://www.cameroon-tribune.cm/article.html/31853/en.html/buea-central-prison-receives-hand-washing-facilities>
64. *COVID-19: ICRC response to the coronavirus in Africa - Burkina Faso*. (n.d.). ReliefWeb. Retrieved 2 May 2020, from <https://reliefweb.int/report/burkina-faso/covid-19-icrc-response-coronavirus-africa>
65. Social Science in Humanitarian Action Platform. (2020). *Key Considerations: Quarantine in the Context of COVID-19*. <https://www.epidemicresponse.net/resources/key-considerations-quarantine-in-the-context-of-covid-19-february-2020/>
66. 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*. <https://doi.org/10.1016/j.amepre.2020.04.001>
67. Shalev, S. (2017). Solitary Confinement As a Prison Health Issue. In S. Enggitt, L. Moller, G. Galea, & C. Udesen (Eds.), *WHO Guide to Prisons and Health*. World Health Organization. <https://papers.ssrn.com/abstract=3073610>
68. Cloud, D., Augustine, D., Ahalt, C., & Williams, B. (2020). *The Ethical Use of Medica Isolation—Not Solitary Confinement—To Reduce COVID-19 ransmission in Correctional Settings*. AMEND. https://amend.us/wp-content/uploads/2020/04/Medical-Isolation-vs-Solitary_Amend.pdf
69. Anthrologica. (2020). *Key considerations: Quarantine in the context of COVID-19*. Social Science in Humanitarian Action Platform. <https://opendocs.ids.ac.uk/opendocs/bitstream/handle/20.500.12413/151133/SSHAP%20COVID-19%20Key%20Considerations%20Quarantine.pdf?sequence=24&isAllowed=y>
70. Pan, A., Liu, L., Wang, C., Guo, H., Hao, X., Wang, Q., Huang, J., He, N., Yu, H., Lin, X., Wei, S., & Wu, T. (2020). Association of Public Health Interventions With the Epidemiology of the COVID-19 Outbreak in Wuhan, China. *JAMA*. <https://doi.org/10.1001/jama.2020.6130>
71. Penal Reform International. (2020). *Coronavirus: Healthcare and human rights of people in prison*.
72. AMEND, & Berkeley Public Health. (2020). *Limiting COVID-19 Transmission and Mitigating the Adverse Consequences of a COVID-19 Outbreak in Correctional Settings*. Amend at UCSF and University of California at Berkeley School of Public Health. https://amend.us/wp-content/uploads/2020/04/Cohorting-Guidance.Amend_UCB_.pdf
73. Bwire, J. (2020, March 31). Covid-19: Watoto church speaks out on choir members who tested. *Daily Monitor*. <https://www.monitor.co.ug/News/National/Uganda-s-Covid-19-cases-climb-to-44-after-11-test-positive/688334-5510348-s2n5i2/index.html>
74. *UN rights chief urges quick action by governments to prevent devastating impact of COVID-19 in places of detention*. (2020, March 25). UN News. <https://news.un.org/en/story/2020/03/1060252>
75. UNOCHR. (n.d.). *Information Note: COVID-19, prison overcrowding, and serving sentences for serious human rights violations*. Retrieved 4 May 2020, from <https://www.ohchr.org/EN/Issues/TruthJusticeReparation/Pages/infonotecovid.aspx>
76. Coronavirus: Myanmar ships 800 freed Rohingya prisoners back to Rakhine. (2020, April 20). *The Straits Times*. <https://www.straitstimes.com/asia/se-asia/coronavirus-myanmar-ships-800-freed-rohingya-prisoners-back-to-rakhine>
77. Head, T. (2019, December 17). Remissions: How cutting jail sentences for 9% of SA's prisoners will work. *The South African*. <https://www.thesouthafrican.com/news/what-is-remission-prison-sentences-pardon-criminals/>
78. *Afghanistan to release 10,000 prisoners to slow spread of coronavirus—Reuters*. (n.d.). Retrieved 3 May 2020, from <https://www.reuters.com/article/us-health-coronavirus-afghanistan-prison/afghanistan-to-release-10000-prisoners-to-slow-spread-of-coronavirus-idUSKBN21D334>
79. Moneruzzaman, M. (2020, April 2). Jail authorities recommend release of 4,450 inmates. *New Age | The Most Popular Outspoken English Daily in Bangladesh*. <https://www.newagebd.net/article/103618/jail-authorities-recommend-release-of-4450-inmates>
80. *COVID-19 Scientific and Public Health Policy Update – 14 April 2020*. (n.d.). Africa CDC. Retrieved 28 April 2020, from <https://africacdc.org/download/covid-19-scientific-and-public-health-policy-update-14-april-2020/>
81. Ethiopia to Free More Prisoners to Reduce COVID-19 Risk in Prison – Ethiopian Monitor. (2020, April 2). *Ethiopian Monitor*. <https://ethiopianmonitor.com/2020/04/02/govt-to-free-more-prisoners-to-reduce-covid-19-risk-in-prison/>
82. Iran: Temporarily frees 54,000 prisoners to combat Coronavirus spread. (2020, March 18). *Prison Insider*. <https://www.prison-insider.com/en/articles/iran-temporarily-frees-54-000-prisoners-to-combat-coronavirus-spread?referrer=%2Fen%2Farticles%3Fpage%3D1%26tag%25B0%25D%3Dcoronavirus%26tag%25B1%255D%3Dafrique%26tag%25B2%255D%3Dasie%26tag%25B3%255D%3Dmoyen-orient>
83. Kenya has freed nearly 5000 inmates via Skype court sessions. (2020, April 2). *NBC Palm Springs - News, Weather, Traffic, Breaking News*. <https://nbcpalm Springs.com/2020/04/02/kenya-has-freed-nearly-5000-inmates-via-skype-court-sessions/>
84. CTGN Africa. (2020, March 28). Libya releases 466 prisoners over COVID-19 fears. *CGTN Africa*. <https://africa.cgtn.com/2020/03/28/libya-releases-466-prisoners-over-covid-19-fears/>
85. *COVID-19 Science and Public Health Policy update—6 April 2020*. (2020). Africa CDC. <https://africacdc.org/download/covid-19-science-and-public-health-policy-update-6-april-2020/>
86. Convicts sentenced to less than year to be freed on bail or without bail. (2020, March 20). *My Republica*. <https://myrepublica.nagariknetwork.com/news/90833/>
87. *Containing corona spread in jails: Punjab govt releasing 20,000 prisoners*. (n.d.). Retrieved 3 May 2020, from <https://www.thenews.com.pk/print/635778-containing-corona-spread-in-jails-punjab-govt-releasing-20-000-prisoners>
88. Ali, I. (2020, March 30). *Move to release 4,000 convicts from Sindh prisons to stop spread of Covid-19*. DAWN.COM. <https://www.dawn.com/news/1544810>
89. Matengo, D. (n.d.). Uganda prisons identify 2,000 inmates for release amid COVID-19 outbreak. *CGTN Africa*. Retrieved 24 April 2020, from <https://africa.cgtn.com/2020/04/07/uganda-prisons-identify-2000-inmates-for-release-amid-covid-19-outbreak/>
90. Democratic Progress Institute. (2013). *The Good Friday Agreement: Prisoner Release Processes*. <https://www.democraticprogress.org/wp-content/uploads/2013/09/The-Good-Friday-Agreement-Prisoner-Release-Processes.pdf>
91. *Rikers 6-A early release program: Results after one month of operations*. (2020). New York City Criminal Justice Agency: Center for Court Innovation.
92. *Highest to Lowest—Pre-trial detainees / remand prisoners | World Prison Brief*. (n.d.). Retrieved 27 April 2020, from https://www.prisonstudies.org/highest-to-lowest/pre-trial-detainees?field_region_taxonomy_tid=All
93. *Highest to Lowest—Pre-trial detainees / remand prisoners | World Prison Brief*. (n.d.). Retrieved 28 April 2020, from <https://www.prisonstudies.org/highest-to-lowest/pre-trial-detainees>
94. *United Nations Standard Minimum Rules for Non-custodial Measures (the Tokyo Rules)*, (1990). <https://www.ohchr.org/EN/ProfessionalInterest/Pages/TokyoRules.aspx>
95. Covid-19: Prisons boss pushes for non-custodial sentencing regime to facilitate physical distancing of inmates. (2020, April 24). *MyJoyOnline.Com*. <https://www.myjoyonline.com/news/national/covid-19-prisons-boss-pushes-for-non-custodial-sentencing-regime-to-facilitate-physical-distancing-of-inmates/>
96. Prison Policy Initiative. (n.d.). *Criminal justice responses to the coronavirus pandemic*. Retrieved 30 April 2020, from <https://www.prisonpolicy.org/virus/virusresponse.html>
97. AfricaNews. (2020, April 29). *Morocco detects more than 300 Covid-19 case in prisons*. Africanews. <https://www.africanews.com/2020/04/29/morocco-detects-more-than-300-covid-19-case-in-prisons/>
98. *Covid-19: Refusing to quarantine or self-isolate could land you in jail for a decade*. (n.d.). TimesLIVE. Retrieved 4 May 2020, from <https://www.timeslive.co.za/news/south-africa/2020-03-18-covid-19-refusing-to-quarantine-or-self-isolate-could-land-you-in-jail-for-a-decade/>
99. Walmsley, R. (2018). *World Female Imprisonment List, 4th Edition*. http://fileserver.idpc.net/library/world_female_prison_4th_edn_v4_web.pdf
100. UNODC. (2008). *Women and HIV in prison settings*. United Nations Office on Drugs and Crime. https://www.unodc.org/documents/hiv-aids/Women_in_prisons.pdf
101. *Inside Sierra Leone's maximum security prison for women*. (n.d.). Retrieved 23 April 2020, from <https://www.aljazeera.com/indepth/inpictures/sierra-leone-maximum-security-prison-women-180320123948503.html>
102. Kenya Bureau of Statistics. (2019). *Kenya Economic Survey*. <https://africaopendata.org/>
103. *Staying at home and away from others (social distancing)*. (n.d.). GOV.UK. Retrieved 2 May 2020, from <https://www.gov.uk/government/publications/full-guidance-on-staying-at-home-and-away-from-others/full-guidance-on-staying-at-home-and-away-from-others>
104. Kimberley, K. (2020, March 28). St Albans prison a ticking time bomb. *DispatchLIVE*. <https://www.dispatchlive.co.za/news/2020-03-28-st-albans-prison-a-ticking-time-bomb/>
105. *WASH (Water, Sanitation & Hygiene) and COVID-19*. (n.d.). [Text/HTML]. World Bank. Retrieved 4 May 2020, from <https://www.worldbank.org/en/topic/water/brief/wash-water-sanitation-hygiene-and-covid-19>
106. The Nation. (n.d.). Prisons get Bt193m budget to prevent Covid-19 from spreading. *The Nation (Thailand)*. Retrieved 27 April 2020, from <https://www.nationthailand.com/news/30386599>
107. UNODC. (1999). *UNODC Handbook on Justice for Victims*. https://www.unodc.org/pdf/criminal_justice/UNODC_Handbook_on_Justice_for_victims.pdf
108. Nigam, S. (2020). COVID-19, Lockdown and Violence against Women in Homes. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.3587399>
109. Bradbury-Jones, C., & Isham, L. (2020). The pandemic paradox: The consequences of COVID-19 on domestic violence. *Journal of Clinical Nursing*, n/a(n/a). <https://doi.org/10.1111/jocn.15296>
110. Chettiar, I. M., Bunting, W. C., & Schotter, G. (2012). *At America's Expense: The Mass Incarceration of the Elderly* (SSRN Scholarly Paper ID 2120169). Social Science Research Network. <https://papers.ssrn.com/abstract=2120169>