



Victims & Offenders

An International Journal of Evidence-based Research, Policy, and Practice

ISSN: (Print) (Online) Journal homepage: <https://www.tandfonline.com/loi/uvao20>

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To cite this article: Sabrina S. Rapisarda , James Byrne & Lina Marmolejo (2020): An Examination of COVID-19 Outbreaks in Prisons and Jails in North America, Central America, and the Caribbean, Victims & Offenders, DOI: [10.1080/15564886.2020.1835766](https://doi.org/10.1080/15564886.2020.1835766)

To link to this article: <https://doi.org/10.1080/15564886.2020.1835766>



Published online: 28 Oct 2020.



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An Examination of COVID-19 Outbreaks in Prisons and Jails in North America, Central America, and the Caribbean

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ABSTRACT

This article documents the extent of COVID-19 outbreaks in the North American, Central American, and Caribbean regions, and then compares the country-specific COVID-19 mitigation strategies implemented in the largest prison systems in these regions. We offer a preliminary assessment of the short-term impact of the COVID-19 prison mitigation strategies used in these regions, within both correctional and community settings. At this time, it appears that the governments with greater success controlling COVID-19 outbreaks in these regions are the governments adopting early prison and jail population reduction strategies.

KEYWORDS

international; prisons; corrections; COVID-19; Pandemic; Alternatives to incarceration; Early release mechanisms; Prison reform

Introduction and overview

In the following review, we highlight data on the nature and extent of COVID-19 outbreaks in the largest prison systems in the above three regions,¹ and then describe the types of mitigation strategies used to respond to these outbreaks. According to World Prison Brief (2020), 5 of the 50 largest prison systems in the world are located in the regions of North America, Central America, and the Caribbean, including the United States (ranked 1st), Mexico (ranked 11th), Cuba (ranked 34th), Canada (ranked 44th), and El Salvador (ranked 47th). Our review identifies within-region differences in both the extent of the problem and how the governments in these countries responded – and continue to respond – to this ongoing crisis.

Within-region variations in COVID-19 outbreaks and the mitigation strategies used

Table 1 highlights the extent of COVID-19 outbreaks in the five largest prison systems in this (combined) region, while Table 2 provides an overview of the various front-end, in-prison, and back-end mitigation strategies used to address these outbreaks. There is variation reported in the extent of COVID-19 outbreaks in the region's five largest prison systems, and in the use of mitigation strategies, that are important to consider. Given the evidence these governments offer on the short-term impact of initial mitigation strategies, it is apparent that some strategies have been more effective than others. Not surprisingly, governments that moved quickly to reduce the size of their prison and jail populations



Figure 1. North & Central America and the Caribbean’s largest prison systems. The labeled countries in Figure 1 are among the top 50 largest prison systems globally and represent the 5 largest prison systems in the North American, Central American, & Caribbean regions. Among the 50 largest prison systems, the USA is ranked 1st, Mexico is ranked 11th, Cuba is ranked 34th, Canada is ranked 44th, and El Salvador is ranked 47th (World Prison Brief, 2020).

report the most positive results through the end of August 2020. We provide additional context on the likely reasons for these differences in reporting rates and mitigations strategies by providing the following country-specific profiles.²

COVID-19 outbreaks in prisons and jails in the United States

We begin our regional overview by describing COVID-19 outbreaks in the region’s largest prison system, the United States. The United States leads the world in the total number of individuals it incarcerates, at approximately 2.3 million individuals behind bars on any given day.³ The U.S. has just under 2.1 million inmates within its federal and state prison systems, with an incarceration rate of approximately 639 inmates per 100,000 individuals (see Table 1). The U. S. also has a large jail system. In 2018, the Bureau of Justice Statistics reported that slightly under 740,000 of U.S. inmates were confined in jail settings; on an annual basis,

Table 1. North America, Central America, & the Caribbean's largest prison systems in the world's top 50 by prison population & COVID-19 prevalence.

Rank	Global Region	Country	Prison Population	Date of Most Recent Reporting	COVID-19 Case Count in Prison [^]
1	North America	USA ^{1,2}	2,094,000	2018	132,677*
11	North America	Mexico ^{1,3}	198,384	April 2019	3,200**
34	Caribbean	Cuba ^{1,4}	57,337	May 2012	8
44	North America	Canada ^{1,5}	39,579	March 2018	360***
47	Central America	El Salvador ^{1,6}	36,693	August 2020	9

Data were extracted from the World Prison Brief database¹, the U.S. Bureau of Justice Statistics², Animal Politico³, El Diario Oficial Gfranma⁴, Statistics Canada⁵, & National Prison Administration⁶

[^] Refers to the cumulative COVID-19 case count total in respective prison systems.

* Based on data provided by the Marshall Project on September 22, 2020.

** Based on data provided by ASILEGAL between April and mid-September, 2020.

⁸Cuba has not released official data pertaining to the number of inmates and prison staff afflicted by COVID-19, in terms of case or death prevalence. By late July, Cuba's National Institute of Epidemiology Director announced that Cuban prisons had 0 COVID-19 cases. One mitigation strategy used by Cuba includes early release, according to the Miami Herald.

*** Canadian prison-level data (updated on September 29, 2020) extracted from Correctional Service Canada.

⁹El Salvador has not released official data pertaining to the number of inmates and prison staff afflicted by COVID-19, in terms of case or death prevalence, to date. Various news articles provide context and the extent of suspected local outbreaks (e.g., see National Post).

nearly 11 million individuals were admitted to jail and averaged an estimated stay of 25 days (Zeng, 2020). Given the sheer magnitude of the U.S.'s incarcerated population, the documented poor quality of the prison and jail health care system, and the percentage of individuals in prisons and jails with pre-existing conditions that place them at higher risk for infection, it comes as no surprise that cases of COVID-19 have mushroomed through prisons and jails alike (Byrne, et al., this volume; Heard, 2019; Nowonty & Piquero, 2020).

After having first instituted mass testing in prison systems among states such as Michigan, Ohio, Tennessee, and Texas in late April, cases initially peaked due to increased rates of testing but appeared to have flattened by June. However, cases within prisons peaked by mid-August, with at least 102,494⁴ inmates in federal and state prisons cumulatively testing positive for COVID-19, a 7% increase from the week before (The Marshall Project, 2020). While 77,026 inmates have recovered as of mid-August, at least 889 confirmed deaths have been reported.⁵ The recent growth in cases can be largely attributed to inmates testing positive in Florida, California, and the Federal Bureau of Prisons, in addition to outbreaks in Arkansas, Hawaii and Oklahoma (The Marshall Project, 2020). The emerging implication is that COVID-19 has been circulating among asymptomatic inmates and staff in greater amounts than previously known.

We examined the relationship between the prevalence of cases within states overall and the prisons that reside within those states, and found that the prison systems in states with the highest cumulative rates of COVID-19 were located in states with the highest reported community rates. For example, Florida currently has the second largest number of COVID-19 cases in the U.S. (N = 582,407; Centers for Disease Control and Prevention [CDC], 2020), while also reporting the second largest number of cases nationwide among its prison population (N = 15,170; The Marshall Project, 2020).⁶ The rate of COVID-19 cases in Florida's prison system (1,718 per 10,000 inmates) is 536% higher than that of Florida's rate overall. California has the largest number of reported COVID-19 cases nationally (N = 644,751; CDC, 2020) and the third largest prevalence of cases in the U.S. among its prisons (N = 9,650; The Marshall Project, 2020).³ A rate of 879 positive cases per 10,000

Table 2. A comparison of mitigation strategies used in North and Central American and Caribbean prisons.

Country (Rank)	Front-End	Within	Back-End
USA (1st) ^a	Suspension of visitation and prison transfers; New intakes for federal prisons only if offender being held for federal government in a state or local facility; Preventative screening for prison staff	Federal system-wide and state-level lockdowns; Widespread testing; Disbursement of masks, dispersal of hand sanitizer and other PPE among staff and inmates; Increased sanitation; Isolation of confirmed or suspected inmates; Remote legal counsel; Use of "field-ready" tents to maximize social distancing; "Stay at home" policy for prison staff manifesting COVID-like symptoms, coming in contact with individuals (including inmates) that have, or are suspected of having, COVID-19	Appx. 4.29% (N = 7,000) inmates in the federal system released to home confinement; Inmates in states such as CA, AL, CO, and MA have implemented early release (for inmates with low-level offenses or who are high-risk in terms of health)
Mexico (11th) ^b	Suspension of transfers; Reducing or eliminating visits; Suspended work-related activities that occurred outside of custody	Implementation of policies for early detection, isolation, identification of severity, and evacuation of the seriously ill; Testing of inmates and staff; Restricted movement of people and staff inside the 525 state-level prisons, as well as suspended work and/or educational activities; Use of videoconferencing to reduce inmate trips to court	Amnesty for first-time, low level inmates, and/or inmates whose crimes were driven by poverty
Cuba (34th) ^c	Prohibiting workers or visitors with feverish symptoms or without masks to enter the premises; Limiting the total number of visitors	Providing hand disinfectants at points of access to units; Requiring inmates and staff to wear masks; Placing newly incarcerated individuals in isolation for 15 days; Conducting daily investigations twice per day to identify inmates with symptoms; Disseminating preventative medicines to boost inmates' immune systems; Providing specialized attention to vulnerable groups, such as those that are HIV positive and women who are pregnant	Appx. 11.47% (N = 6,579) inmates from within Cuba's prison system were released into the community
Canada (44th) ^d	Provisional suspension of arrests and court proceedings for minor offenses; Extended parole; Preparation of protocols for the transfer and hospitalization of inmates with severe cases of COVID-19; Screening inmates for COVID-19 before taking them in to custody	Isolation of persons who are, or are suspected of being, COVID-positive; Enhanced hygiene measures and of PPE; Increased training for staff to perform their roles while COVID-19 is a threat; Suspended inter-regional transfers	Release from prison of persons with the lowest risk of recidivism, of older inmates, and of persons with either mental or general health problems; Identification of infected and recovered staff who may have acquired greater immunity and could therefore be assigned to duties related to the hygiene and care of COVID-positive inmates
El Salvador (47th) ^e	Family visitation and transfer rates to other facilities have decreased	Extensive use of lockdowns; Restriction of programming and activities; Early in the pandemic, the Salvadorian government renewed the focus on "sanitary protocols to prevent Coronavirus in the prison population"	None

^aSee USA-based articles (e.g., Hummer, Novinsky et al., and Nowonty & Piquero) in this volume for more detail regarding the USA's mitigation strategies to combat COVID-19 within federal and state prisons; ^bSee Agoff et al. and Marmolejo et al. (this volume) for more detail on Mexico's response to COVID-19 in its prison system; ^cSee Gamez Torres (2020), Index Mundi (2020), and Prensa Latina (2020) for more details regarding Cuba's response to COVID-19 in its prison system; ^dSee Murdoch (this volume) and Lemieux et al. (this volume) for more detail regarding Canada's mitigation strategies in response to COVID-19; ^eSee Pitts & Inkpen (this volume), for more information on El Salvador, Guatemala, and Honduras' response to COVID-19 in its prison systems.

inmates equates to 449% higher than California's prevalence of COVID-19 overall. Texas is ranked first domestically for the number of COVID-19 cases in its prison system (N = 18,756; The Marshall Project, 2020), while placed third overall for cases nationwide (N = 562,559; CDC).³ At a rate of 1,475 positive cases per 10,000 among Texan inmates, that is equal to a 677% higher rate than the state's prevalence of cases overall.

It is no coincidence that the states with the greatest prevalence of COVID-19 cases within their communities are the same states with prison systems struggling to contain the virus. By decreasing the risk of the virus's spread in prisons and jails, the risk of spread in communities also decreases. Increased spread of the virus in prisons and jails conversely increases the risk of spread in communities. Despite how "isolated" prisons and jails are thought to be, they are – in reality – heavily enmeshed, and play an important role, in the public health response to COVID-19.

According to The Marshall Project, 2020, the actual number of prison staff members currently working and being tested in U.S. prisons is largely unknown. The release of partial data regarding prison staff is likely due to the lack of systematic testing currently taking place, where documented cases include voluntary reporting of diagnoses in the course of calling out sick. As of August 20, 2020, there have been at least 22,544 positive COVID-19 cases and only 72 publicly reported deaths among prison staff nationwide (The Marshall Project, 2020). However, the sole method by which infections can infiltrate prisons and return to the community is via prison workers or other visitors entering and leaving prisons (e.g., lawyers, clergy workers, etc.). While it is important to better monitor the health statuses of prison staff through systematic and frequent testing, the solutions to combatting and preventing the further spread of the virus cannot strictly be limited to better monitoring and restricting who enters and leaves prisons, because infections have already entered and transmitted throughout many prisons across the U.S. The cases that already exist within prison populations, especially those that are asymptomatic, must also be contained. To do so, prison population sizes must be vastly reduced to allow for effective social distancing and quarantining of infected inmates.

Earlier in the pandemic, even in the case of jail settings, staff appeared to be the source of COVID-19 outbreaks, despite that individuals are newly admitted and released at much higher rates than prisons (Ollove, 2020). High turnover rates aid in increasing the opportunities for transmission of the virus. According to a report released in April by ACLU Analytics in tandem with Washington State University, University of Pennsylvania, and University of Tennessee, it was estimated that jails could potentially contribute anywhere from 99,000 to 188,000 individuals to the U.S. death toll, depending on how effective the safety precautions were/are exercised (e.g., social distancing, wearing personal protective equipment, etc.; American Civil Liberties Union, 2020). In order to reduce spreading of the virus, jails have released inmates, law enforcement agencies have been making less arrests, and courts have ordered administrative releases (Prison Policy Initiative, 2020b). States like California have implemented statewide reductions in the cost of bail for most misdemeanor and low-level felony offenses to 0 USD. Consequently, counties such as Los Angeles and Sacramento have experienced 30% decreases in their jail populations. Other counties such as San Diego and San Mateo released hundreds of individuals held in jail pre-trial. Many states have also opted to release inmates early that were soon-to-be released and/or medically vulnerable (Prison Policy Initiative, 2020b).

COVID-19 outbreaks in prisons and jails in Mexico

In comparison to the U.S., the next largest prison system in North America, Mexico, currently houses 198,384 inmates among 300 jails/penitentiaries (World Prison Brief, 2020). Between April and mid-September, according to ASILEGAL (2020), over 3,200 inmates have tested positive for COVID-19 and at least 316 deaths were reported among Mexican prisons. The prisons experiencing the brunt of COVID-19's impact can be found within Mexico City, Puebla, Baja California, and Veracruz (Bonello, 2020).

Despite that Mexico has a much smaller prison population and prevalence of nationwide COVID-19 cases relative to the U.S., prisons within Mexico are notorious for overcrowding, being poorly resourced and unsanitary, lacking transparency, and corruption (Bonello, 2020). According to the Instituto Nacional de Estadística y Geografía (*Encuesta Nacional de Población Privada de la Libertad (ENPOL) 2016: Principales resultados, 2017*), 46% of inmates throughout Mexico's prisons share a cell with at least 5 other inmates and 13% with more than 15 inmates. These conditions are likely contributing to the transmission of COVID-19 among inmates and, consequently, back into the community through staff and/or visitors. Overcrowding is not conducive to proper isolation strategies and social distancing practices, both of which aid in combatting the spread of the virus. Positive cases and deaths due to COVID-19 among inmates are likely underreported, given Mexico's history of lacking transparency, in addition to a lack of existing testing and information/data collection systems, which can be mainly attributed to Mexico's extremely underfunded prison systems (Agoff et al., this volume; Marmolejo, et al., this volume).

In response to the virus, the president and Mexican Congress passed a prisoner amnesty law in April, which was aimed at releasing nonviolent, low-level inmates as a containment measure, including those who have been convicted of robbery, small-scale drug possession, receiving abortions, and being coerced to work with criminal gangs (Felbab-Brown, 2020). The Mexican Congress approximated that 2,600 inmates would be eligible for release under this law (Felbab-Brown, 2020); however, not a single inmate has been released as of this review (Marmolejo, et al., this volume).

COVID-19 outbreaks in prisons and jails in Cuba

Cuba has the third largest prison system in the North/Central America & Caribbean regions ($N = 57,337$) and a much smaller total land mass size and population relative to countries like Canada, the U.S., and Mexico. However, they have a serious COVID-19 outbreak problem. As of August 21, 2020, 3,565 COVID-19 cases and 88 COVID-19 related deaths country-wide have been reported since the outbreak of the pandemic (Index Mundi, 2020). It appears that Cuba's prison system's response to the virus has been largely successful. At the end of July, the National Institute of Epidemiology revealed that there had been zero positive COVID-19 cases reported within Cuba's prison system.⁷

Cuba's success in abating COVID-19 within its prisons may be attributable to the government sending home 6,579 inmates – one the largest Cuban releases of inmates in decades – as part of a comprehensive prevention and control plan (Gamez Torres, 2020). By the end of April, other rigorous, preventative measures had been implemented including providing hand disinfectants at points of access to units, requiring inmates and staff to wear masks, prohibiting workers or visitors with feverish symptoms or without masks to enter

the premises, placing newly incarcerated individuals in isolation for 15 days in order to detect potentially infected inmates and contain the spread, limiting the total number of visitors, conducting daily investigations twice per day to identify inmates with symptoms, disseminating preventative medicines to boost inmates' immune systems, and providing specialized attention to vulnerable groups such as those that are HIV positive and women who are pregnant (Prensa Latina, 2020).

COVID-19 outbreaks in prisons and jails in Canada

Despite that the U.S. and Canada have similar land mass sizes, the U.S. has approximately 8.64 times as many citizens as Canada.⁸ Canada has a relatively small population in comparison to total land mass size. Moreover, Canada has less than 40,000 inmates incarcerated in its prisons, which is 53.6 times smaller than the U.S.'s prison population, despite sharing nearly the same total land mass size (World Prison Brief, 2020). Nevertheless, Canada houses the 44th largest prison system in the world (World Prison Brief, 2020). Collectively, according to the Canadian government, as of August 20, 2020, Canada has reported at least 123,873 positive COVID-19 cases and over 9000 deaths (Government of Canada, 2020). Despite the prevalence of positive COVID-19 cases and deaths among Canadian communities, by August 18, 2020, Canadian federal institutions have managed and contained the virus to a total of 360 positive cases (Correctional Service Canada [CSC], 2020).⁹

The low prevalence of positive tests in Canadian prisons may be attributed to the low number of tests being administered among inmates (i.e., according to CSC, as of mid-August, a total of 1534 tests had been administered relative to the near 40,000 inmates residing in Canadian prisons). Another explanation is that the proactive decision was made to release roughly 6,000 low-risk inmates in Canadian institutions, including provincial jails, between February and April (Statistics Canada, 2020, August 12). The average Canadian jail size decreased by 25% compared to a 1% decrease in prisons during the same time frame (Statistics Canada, 2020, August 12). To maintain the decrease in rates of incarcerated individuals, Canada also extended parole and implemented alternatives to those awaiting trial or sentencing (Cousins, 2020). As previously stated, due to the higher turnover rates within jails, which likely maximize opportunity for transmission, the Canadian government's decision to target jails early on in the pandemic may have contributed to better containing the virus. In managing the remaining correctional population behind bars, institutions reportedly provided inmates with increased access to hygiene and cleaning supplies, began screening inmates for COVID-19 before taking them in to custody, suspended inter-regional transfers, and allowed for video visitation sessions with loved ones (Cousins, 2020).

COVID-19 outbreaks in prisons and jails in El Salvador

Not unlike other Central America countries, El Salvador's prison system is wrought with overcrowding (i.e., built for a capacity of 18,000 inmates, yet houses over 36,000), poor quality of food and air, inconsistent access to clean water, and broadly, for its inhumane treatment of inmates (Cady Hallett, 2020; Human Rights Watch, 2020). For example, well before the pandemic ensued (i.e., 2016), at a local level, visitors/observers were already

unable to enter Salvadorian prisons, thus entirely cutting off inmates from seeing and interacting with loved ones in-person. Even with continued “no contact” with the outside world, inmates are not capable of abiding by recommended safety guidelines such as social distancing and wearing masks. Stated simply, Salvadorian prisons are not equipped to combat the virus once it infiltrates. By late April, a total of 1,400 inmates and prison staff had tested positive for COVID-19 throughout El Salvador (Wion, 2020). Moreover, two separate outbreaks with 25 and 11 positive cases were reported among two prisons at the end of May (Reuters staff, 2020).

It has been reported that controversy unfolded in El Salvador due to the president’s declaration of a strictly enforced, national, mandatory quarantine, which resulted in the arrest and detainment of thousands of citizens for violating quarantine restrictions, in addition to infringing on their individual rights (Cady Hallett, 2020; Human Rights Watch, 2020). These actions on behalf of the government call to question the president’s intention in implementing strict lockdowns in prisons and within the community at large. In other words, is strictly enforcing lockdowns in the community via detainment counter-active to slowing the spread of the virus by failing to reduce (and thus increasing) the number of incarcerated individuals in its correctional system? Despite the pre-existing vulnerabilities within Salvadorian prisons as well as the punitive approach to addressing COVID-19 in the community, the Salvadorian prison system has implemented strategies that mainly focus on containing the virus, such as extensive lockdowns (therefore restricting the transfer of inmates to other facilities), restrictions on programming and other activities within prisons, and specific sanitary protocols (see Pitts & Inkpen, this volume).

Concluding comments

There are lessons to be learned from comparing how the governments of countries with large prison populations in these geographic regions have documented the extent of COVID-19 outbreaks in their prisons and jails, as well as how they have responded during the first several months of the pandemic. Two recommendations come immediately to mind: (1) governments need to be transparent about testing protocols, testing levels, and testing results; and (2) the most effective mitigation strategy currently used by the governments in these regions appears to be early prison and jail population reduction strategies.

Notes

1. We have combined these three geographic regions for the purpose of this review, but we recognize that the countries profiled here are from three distinct regions that need to be examined separately. See the country-specific profiles included in the special issue for more detail about the importance of regional culture and context.
2. For more detail, see the country-specific reviews included in this volume covering each of the five countries we profile here.
3. Jail population sizes fluctuate frequently. See Sawyer and Wagner (2020) and Prison Policy Initiative (2020a) for more details.
4. This total reflects the cumulative number of inmates that have tested positive for COVID-19 within U.S. prisons as of August 20, 2020. The total reflected in Table 1, has since been updated, thus reflecting a much larger cumulative total.

5. The inmate totals for deaths and those who have recovered is based on data provided on August 20, 2020 (The Marshall Project, 2020).
6. Data provided by the CDC on statewide COVID-19 case rates in Florida, California, and Texas were updated on August 21, 2020. Data provided by the Marshall Project on prison systems' COVID-19 case prevalence for corresponding states were updated on August 20, 2020.
7. The citizens of Cuba can be jailed for not wearing masks, but we do not have data on how often this occurs (Gamez Torres, 2020). Moreover, since the end of July, positive cases may have emerged; however, official statistics have not been released, to our knowledge.
8. Canada consists of 3.855 million square miles (Statistics Canada, 2020, January 17) with approximately 37.97 million inhabitants (Statistics Canada, 2020, June 18) while the U.S. consists of around 3.797 million square miles with approximately 328.2 million residents (U. S. Census Bureau, 2020a, 2020b).
9. The total reflected in Table 1 has since been updated, thus reflecting a larger cumulative total.

Disclosure statement

No potential conflict of interest was reported by the author(s).

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References

- A state-by-state look at Coronavirus in prisons.* (2020, April 14). The Marshall Project. <https://www.themarshallproject.org/2020/05/01/a-state-by-state-look-at-coronavirus-in-prisons>
- ASILEGAL. (2020). *Cifras a nivel nacional al 17 de septiembre de 2020.* Asistencia Legal por los Derechos Humanos. <https://asilegal.org.mx/mapa-penitenciario-covid-19/>
- Bonello, D. (2020, August 18). *COVID may be killing hundreds of prisoners in Mexico.* Vice. https://www.vice.com/en_us/article/7kpq9g/covid-may-be-killing-hundreds-of-prisoners-in-mexico
- Cady Hallett, M. (2020, March 29). *Mass arrests and overcrowded prisons in El Salvador spark fear of coronavirus crisis.* The Conversation. <https://theconversation.com/mass-arrests-and-overcrowded-prisons-in-el-salvador-spark-fear-of-coronavirus-crisis-137673>
- Canada's population estimates, first quarter 2020. (2020, June 18). *Statistics Canada.* <https://www150.statcan.gc.ca/n1/daily-quotidien/200618/dq200618b-eng.htm?HPA=1&indid=4098-1&indgeo=0>
- Centers for Disease Control and Prevention. (2020, April 19). *United States COVID-19 cases and deaths by state: Reported to the CDC since January 21, 2020.* CDC COVID Data Tracker. <https://www.cdc.gov/covid-data-tracker/#cases>
- Changes in federal, provincial and territorial custodial populations during the COVID-19 pandemic, April 2019 to April 2020.* (2020, August 12). Statistics Canada. <https://www150.statcan.gc.ca/n1/daily-quotidien/200812/dq200812a-eng.htm?CMP=mstatcan>
- Coronavirus cases – Cuba.* (2020, August 21). Index Mundi. <https://www.indexmundi.com/coronavirus/country/cu>
- Coronavirus disease (COVID-19): Outbreak update.* (2020, August 20). Government of Canada. <https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection.html>
- Cousins, B. (2020, August 12). *Provincial jails released thousands of inmates amid calls to slow the spread of COVID-19.* CVT News. <https://www.ctvnews.ca/canada/provincial-jails-released-thousands-of-inmates-amid-calls-to-slow-the-spread-of-covid-19-1.5061829?cache=piqndqvkh%3FautoPlay%3Dtrue%3FclipId%3D89926>

- COVID-19 model finds nearly 100,000 more deaths than current estimates, due to failures to reduce jails.* (2020). American Civil Liberties Union. https://www.aclu.org/sites/default/files/field_document/aclu_covid19-jail-report_2020-8_1.pdf
- Encuesta Nacional de Población Privada de la Libertad (ENPOL) 2016: Principales resultados.* (2017). Instituto Nacional de Estadística y Geografía. https://www.inegi.org.mx/contenidos/programas/enpol/2016/doc/2016_enpol_presentacion_ejecutiva.pdf
- Felbab-Brown, V. (2020, May 22). *Mexico's prisons, COVID-19, and the amnesty law.* Brookings. <https://www.brookings.edu/blog/order-from-chaos/2020/05/26/mexicos-prisons-covid-19-and-the-amnesty-law/>
- Gamez Torres, N. (2020, May 1). *Cuba releases thousands of prison inmates amid coronavirus fears.* Miami Herald. <https://www.miamiherald.com/news/nation-world/world/americas/cuba/article242435511.html>
- Geography.* (2020, January 17). Statistics Canada. <https://www150.statcan.gc.ca/n1/pub/11-402-x/2011000/chap/geo/geo-eng.htm#archived>
- Heard, C. (2019). *Towards a health-informed approach to penal reform? Evidence from ten countries.* Birkbeck Institutional Research Online. <https://eprints.bbk.ac.uk/id/eprint/27743>
- Human Rights Watch (2020, April 29). *El Salvador: Inhumane prison lockdown treatment.* <https://www.hrw.org/news/2020/04/29/el-salvador-inhumane-prison-lockdown-treatment>
- Inmate COVID-19 testing in federal correctional institutions August 18, 2020.* (2020). Correctional Service Canada. <https://www.csc-scc.gc.ca/001/006/001006-1014-en.shtml>
- Inmates in El Salvador suffer as Latin American prisons breed COVID-19.* (2020, April 28). Wion News. <https://www.wionews.com/world/inmates-in-el-salvador-suffer-as-latin-american-prisons-breed-covid-19-295382>
- New report, Arrest, Release, Repeat, reveals how many people go to jail each year and how many times they go.* (2020a, August 26). Prison Policy Initiative. <https://www.prisonpolicy.org/blog/2019/08/26/arrests-report/>
- Nowonty, K. M., & Piquero, A. R. (2020). The global impact of the pandemic on institutional and community corrections: Assessing short-term crisis management and long-term change strategies. *Victims & Offenders* (this volume). <https://doi.org/10.1080/15564886.2020.1813229>
- Ollove, M. (2020, July 1). *How COVID-19 in jails and prisons threatens nearby communities.* Pew Research Institute. <https://www.pewtrusts.org/en/research-and-analysis/blogs/stateline/2020/07/01/how-covid-19-in-jails-and-prisons-threatens-nearby-communities>
- Prensa Latina. (2020, April 23). *Cuban prisons without Covid-19 cases.* Agencia de Noticias Latinoamericana. <https://www.plenglish.com/index.php?o=rn&id=54921&SEO=cuban-prisons-without-covid-19-cases>
- Responses to the COVID-19 pandemic.* (2020b, August 18). Prison Policy Initiative. <https://www.prisonpolicy.org/virus/virusresponse.html>
- Reuters staff. (2020, May 25). *Thirty-six inmates test positive for coronavirus in Salvadoran prisons.* Reuters. <https://www.reuters.com/article/us-health-coronavirus-elsalvador/thirty-six-inmates-test-positive-for-coronavirus-in-salvadoran-prisons-idUSKBN23208O>
- Sawyer, W., & Wagner, P. (2020). *Mass incarceration: The whole pie 2020.* Prison Policy Initiative. <https://www.prisonpolicy.org/reports/pie2020.html>
- State area measurements and internal point coordinates.* (2020a). United States Census Bureau. <https://www.census.gov/geographies/reference-files/2010/geo/state-area.html>
- U.S. and world population clock.* (2020b, August 21). United States Census Bureau. <https://www.census.gov/popclock/>
- World Prison Brief. (2020, August). *World prison brief data.* Institute for Crime & Justice Policy Research (ICPR). <https://www.prisonstudies.org/world-prison-brief-data>
- Zeng, Z. (2020). *Jail inmates in 2018.* U.S. Department of Justice, Bureau of Justice Statistics. <https://www.bjs.gov/content/pub/pdf/ji17.pdf>