Government actions for COVID-19 control and prevention in prisons: a scoping review

Élida Lúcia Carvalho Martins (https://orcid.org/0000-0002-9447-7103) ¹ Gustavo Laine Araújo de Oliveira (https://orcid.org/0000-0003-4811-7753) ² Patrícia Constantino (https://orcid.org/0000-0001-5835-0466) ³

Abstract This is a scoping review of the literature on actions taken by countries during 2020 regarding the care for people living in the prison environment during the COVID-19 pandemic. We selected 54 publications for data mining and found data from 45 countries, which were organized into categories. Most of the literature addressed strategies adopted by countries with advanced economies. All of them mentioned some strategies to reduce viral transmission – the major ones were restricted/suspended family visits and desincarceration - and interventions to improve infrastructures in prisons, the provision of a telephone or other devices for calls or video calls being the most mentioned. Policies to mitigate the effects of the epidemic and interventions were found in publications referencing 33 countries, with the main focus on keeping family contact and reviewing the public safety policy. Concerning governance policies, measures from 11 countries were reported, and the most cited was national authority reinforcement. This study highlights the need for research on the success of each strategy and the differences among those countries.

Key words *Prisons, COVID-19, Health policy, Global health, Pandemics*

¹ Escola Nacional de Saúde Pública Sergio Arouca, Fundação Oswaldo Cruz. R. Leopoldo Bulhões 1480, Manguinhos. 21041-210 Rio de Janeiro RJ Brasil. elidacarvalhomartins@ gmail.com

gmail.com

² Vigilância das Doenças em
Eliminação, Ministério da
Saúde. Brasília DF Brasil.

³ Departamento de Estudos
de Violência e Saúde, Escola
Nacional de Saúde Pública
Sergio Arouca, Fundação
Oswaldo Cruz. Rio de
Janeiro RJ Brasil.

Introduction

More than 11 million people are incarcerated worldwide. The United States of America (U.S.), followed by China (CHN) and Brazil (BRA)¹, lead the ranking. Besides the high population density, the unsanitary facilities, the substandard access to health services, basic sanitation, education, food and nutrition, and the confinement itself make prisons epicenters of infectious diseases, with rates higher than the general population²⁻⁴.

Since the World Health Organization considered COVID-19 a global pandemic, guidelines have been released for the prevention and control of the spread of Sars-CoV-2 geared to incarcerated populations, warning that the demographic characteristics of prisons show a population that faces a more significant disease burden and worse health conditions⁴.

This paper aims to answer which emergency and non-pharmacological government actions were adopted by countries during the first year of the COVID-19 pandemic.

Methods

This scoping review of the literature comprises publications from 2020 retrieved from PubMed, Scopus, Web of Science, Portal BVS, and SciELO databases, without geographic excerpts, using the search strategies described in Chart 1.

We identified 325 papers with no duplications. Two independent researchers selected the studies by title and abstract for full-text reading, and disagreements were resolved by consensus. We included full-text works published in Portuguese, English, Spanish, and French, dealing with government actions for the care of adult inmates and workers in the face of COVID-19. The ineligible publications were excluded (Figure 1).

We extracted each publication's title, abstract, objective, method, and results. The results were retrieved in a form prepared per the categorization of strategies proposed by Peña et al.⁵ In category 2, we considered policies to improve prison infrastructure for adapting to the prison context.

The grouping of publications by countries by level of economic development was adopted for displaying the results, separating emerging and developing economies (EDE) and advanced economies (AE), as defined by the World Bank⁶. Data details are available on: https://data.scielo.org/dataset.xhtml?persistentId=doi:10.48331/scielodata.TU2NTH.

Results

Forty-six (85%) of the 54 publications analyzed were published in the second half of 2020, and 31 (67%) in October 2020. The most significant number of publications in October is due to a special edition organized by Byrne et al.⁷ Publications were found in 21 journals, ten journals in Health Sciences, five Multidisciplinary, three Human Sciences, and three Social Sciences. Data from 45 countries were found, and most publications referred to AE countries (Table 1).

Category 1 – Viral transmission reduction policies

All countries in this review have implemented some strategies to reduce viral transmission. The most mentioned strategy was isolation and quarantine of confirmed cases as case management, with a significant difference in data recurrence between the AE and EDE countries analyzed. The transfer of COVID-19 cases to health services outside the prison was a strategy found in papers referring to the U.S.⁸, Italy (ITA)⁹, Sweden (SWE)¹⁰, Australia (AUS)¹¹, Russia (RUS)¹², CHN¹³, Turkey (TUR)¹⁴, Mexico (MEX)¹⁵, and Uganda¹⁶ (Table 2).

Contact management was rarely addressed in the papers. Some reported contact screening and quarantine without explaining how it is performed. Clarke et al.¹⁷ described in detail the contact tracing center implemented in Irish prisons, comprising an IT system, protocols, and tools for contact identification. The strategy allowed tracing contacts of 230 COVID-19 cases.

Education and communication measures were the most used strategies to increase adherence to isolation and quarantine, and the provision of entertainment activities for prisoners who were in isolation was found only in one publication related to the U.S.¹⁸

The primary active interventions to identify infected individuals were isolating new admissions in prisons and establishing screening strategies by signs and symptoms, such as using thermometers with differences between AE and EDE countries. Data on the isolation of new admissions were found in ten AE countries, whereas this strategy was found in nine EDE countries. The screening of new admissions was found in 11 countries, more predominant among publications referring to the AE countries.

Asymptomatic testing was considered when the mass testing strategy was mentioned. The

Chart 1. Search strategies in the databases.

("COVID-19" OR "Sars-cov-2" OR "2019-nCoV" OR "Doença pelo novo coronavírus" OR "Infecções por coronavírus" OR Pandemia) AND (Detento OR Detentos OR Encarcerado OR Encarcerados OR "Pessoa Encarcerada" OR "Pessoa Privada de Liberdade" OR "Pessoas Encarceradas" OR "Pessoas Privadas de Liberdade" OR "População Privada de Liberdade" OR Preso OR Prisões OR Presídios OR Presídio OR "Centros Penais" OR "Centros de Readaptação Social" OR Cárcere OR Cárceres OR "Instituição Penal" OR "Instituições Penais" OR Penitenciária OR Penitenciárias)

("COVID-19" OR "Sars-CoV-2" OR "2019-nCoV" OR "Coronavirus disease" OR "Coronavirus infections") AND (Prisoners OR Prisoner OR Prisons OR "Penal institutions" OR "Correction Facility" OR penitentiary)

Source: Authors.

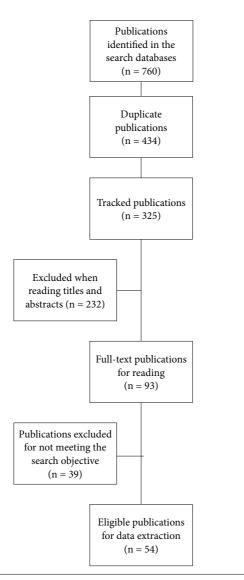


Figure 1. Publication selection flowchart.

Source: Authors.

Table 1. Number of publications analyzed and interventions found by country.

DIV	Cat!	Nº of	Nº of	D. of a
DIV	Countries	publications	interventions	References
	U.S.	17	63	2,8,18,20,24,25,35,37,39,45,46,52,58-62
	Canada	2	26	22,23
	Italy	4	30	9,26,31,47
ies	Romania	2	34	26,29
Om	Spain	2	27	26,32
con	Sweden	2	22	10,26
Advanced economies	Germany	2	18	26,42
nce	Portugal	2	21	26,32
dva	UK	2	18	21,26
Ā	France	1	10	40
	Ireland	1	19	17
	New Zealand	2	28	27,34
	Australia	2	18	11,27
	Russia	2	18	12,26
	Brazil	6	13	19,36,49-51,63
	Mexico	3	20	15,23,33
	Colombia	3	16	15,19,44
	Argentina	2	15	15,19
	Chile	2	13	15,19
	El Salvador	2	6	23,41
	Peru	1	9	19
	Cuba	1	9	23
	Guatemala	1	7	41
ies	Honduras	1	15	41
Om	Ecuador	1	5	19
Emerging and developing economies	Venezuela	1	2	19
ĕ	China	2	41	13,28
pin	South Korea	1	17	56
/elo	India	2	15	28,48
de	Philippines	1	15	38
pu	Turkey	1	14	14
ng a	Pakistan	1	2	48
rgi	Iran	1	1	28
me	Saudi Arabia	1	1	28
щ	South Africa	3	14	16,30,64
	Kenya	2	14	16,57
	Rwanda	1	5	16
	Uganda	1	9	16
	Nigeria	1	8	16
	Morocco	1	8	16
	Algeria	1	3	16
	Ethiopia	1	5	16
	Tanzania	1	3	16
	Egypt	1	2	16
	Papua New Guinea	1	2	27

Source: Authors.

strategy in prisoners was reported in Peru¹⁹, U.S.²⁰, and CHN¹³, and in professionals or visitors in four countries, namely, the same three countries plus the United Kingdom²¹. The low testing routine was explained by the unavailability^{2,12,16,19,22-28}. Hagan et al.²⁰ state that the number of known cases hiked from 642 to 8,239 after mass testing in 16 U.S. prisons.

The Personal Protective Equipment (PPE) supply stood out among the personal hygiene measures and was more recurrent among AE countries. Reports of the installation of mask manufacturing in prisons were found in some countries, such as Romania (ROM)²⁹, South Africa (RSA)³⁰, ITA³¹, RUS¹², and Spain (ESP)³². Disinfection of cells and common areas was reported in 15 countries, predominating among AE countries.

For mobility restriction, the suspension/restriction of visits by families or lawyers was found in 41 countries and was addressed as a significant issue to be managed. Some protests and rebellions against the suspension of visitation were identified^{15,16,19,31,33}. Agof et al.³³ reported that suspending visits prevents female inmates from providing resources to the family, while men are prevented from receiving family support.

Desincarceration was the most frequent social distancing strategy used in 49 countries. The criteria used were release and deportation of immigrants, replacement by house arrest or pecuniary penalty, reassessment of incarcerations without conviction, the anticipation of regime progression, and release of pregnant and postpartum women, older adults, the sick, and inmates who committed non-violent crimes.

The countries that did not opt for extrication were ROM²⁹, SWE¹⁰, New Zealand (NZL)³⁴, El Salvador (ESA)²³, and RUS¹². Except for ESA, the other countries used strategies to strengthen prison health services. Furthermore, SWE, NZL, and RUS have an occupancy rate below their installed capacity and managed to offer single cells for those incarcerated. No publication reported the construction of new dormitories, only the installation of tents in the U.S.³⁵ and an attempt to use containers in BRA³⁶.

Category 2 – Prison infrastructure improvement policies

Of the strategies aimed at improving prisons, expanding testing capacity, that is, acquisition of equipment, supplies, and strengthening of the laboratory network, was pointed out in publications referring to four countries: CHN¹³, U.S.³⁷, Philippines (PHI)³⁸, and Ethiopia¹⁶ (Table 2).

Access to communication technologies (CT) was facilitated in 17 countries, predominantly in AE countries, through the supply of telephones or increased telephone calls. Thirteen provided devices or internet access for video calls, and 15 implemented virtual hearings. Access to CT targeted family contact, preventing mental distress and providing inmates with food and medical and hygiene supplies^{11,15,21,23,26,39,40}.

Data regarding investments in infrastructure improvement were scarce. CHN increased the number of times windows were opened as a measure of environmental ventilation¹³. In the PHI, a basic sanitation and ventilation strategy was implemented without detailing the strategy³⁸. TUR adopted a strategy to ensure sufficient food quantity and quality¹⁴. Six countries reported installing COVID-19 centers to improve the health care infrastructure, with a predominance of AE countries, as follows: AUS¹¹, France⁴⁰, Portugal (POR)³², ROM²⁹, U.S.³⁷, and Guatemala (GUA)⁴¹.

Ten countries changed the work schedule of professionals, mainly adopting a 15-day in prison and 15-day at-home scale. Eight countries evidenced data on the recruitment of new health and safety professionals. The guarantee of flow with the municipal health service for the care of workers was reported as a strategy implemented in MEX³³.

Adopting clinical protocol and therapeutic guidelines was more prevalent in prison health services processes in AE countries. Joint coordination between the health and prison systems was implemented in nine countries, and case and death surveillance in nine countries.

Category 3 – Mitigating the consequences of the pandemic and interventions

Strategies aimed at mitigating the consequences of the pandemic and interventions were addressed in 12 AE countries and 9 EDE countries. Assistance for prisoners or workers was a strategy found in publications referring to AE countries: Germany⁴², ESP³², POR⁴³, ITA³¹, and the United Kingdom³².

Publications referring to five countries mentioned strategies for reviewing penal policy to reduce the use of prison sentences. In Colombia, house arrest was created to replace the prison sentence⁴⁴. In GUA, the National Congress analyzed six bills to review the criminal procedure⁴¹. Aiming at the population's adherence to isolation and quarantine, Chile and ITA reviewed the criminal law to include the prison sentence for crimes against public health^{15,31}.

Table 2. Strategies to reduce viral transmission and improve prison infrastructure for the control and prevention of COVID-19 implemented in countries, by economic development, in 2020.

				EDE (n = 32)		AE (n = 13)		Total (n = 45)	
AT	Level 1	Level 2	Level 3	Abso- lute	Rela- tive (%)	Abso- lute	Rela- tive (%)	Abso- lute	Rela- tive (%)
	Identifi- cation of	Case management	Transfer of cases to external health services	5	16	4	31	9	20
	exposed contacts and		Transfer of cases to another structured prison	0	0	2	15	2	4
	prevention of recurrent		Test for release from quarantine	1	3	1	8	2	4
	exposure of infected		Isolation and quarantine of confirmed cases	10	31	12	92	22	49
	patients	Contact	Professional screening	7	22	2	15	9	20
		management	Contact tracing	4	13	4	31	8	18
		8	Contact quarantine	4	13	4	31	8	18
		Interventions	Entertainment	0	0	1	8	1	2
olicies		to increase adherence to case isolation and quarantines	Education and communication measures	4	13	8	62	12	27
Category 1: Viral transmission reduction policies	Interventions to identify infected individuals	Passive identifi- cation	Testing inmates with symptoms	12	38	6	46	18	40
reduc			Testing professionals and visitors with symptoms	13	41	4	31	17	38
ission		Active identification	Isolation of new admissions	9	28	10	77	19	42
ransm			Isolation before released from prison	3	9	2	15	5	11
v 11 a 1			Screening new admissions	5	16	5	38	10	22
;or y 1.			Testing professionals or asymptomatic visitors	3	9	2	15	5	11
Carc			Testing asymptomatic inmates	3	9	1	8	4	9
			Screening strategy by signs and symptoms	7	22	8	62	15	33
	Prevention of the po-	Encourage indi- vidual hygiene	Provision of PPE for prisoners and workers	15	47	10	77	25	56
	pulation susceptible	measures	Supply of water, soap, and disinfectant	7	22	5	38	12	27
	to viral exposure		Provision of PPE for visitors	1	3	1	8	2	4
			Increased time spent outdoors	1	3	0	0	1	2
			Health education campaigns	4	13	5	38	9	20
		Prison hygiene measures	Disinfection of cells and common areas	9	28	6	46	15	33

Table 2. Strategies to reduce viral transmission and improve prison infrastructure for the control and prevention of COVID-19 implemented in countries, by economic development, in 2020.

				EDE (1	n = 32	AE (n	= 13)	Total (n = 45)	
CAT	Level 1	Level 2	Level 3	Abso- lute	Rela- tive (%)	Abso- lute	Rela- tive (%)	Abso- lute	Rela- tive (%)
		Restricted mo- bility	Restriction/suspension of transfers between prisons	8	25	7	54	15	33
		omey	Transfer of prisoners without COVID-19 to another unit	1	3	0	0	1	2
			Suspension/restriction of new admissions	5	16	5	38	10	22
			Hearing restriction	8	25	3	23	11	24
			Restriction of external queries	6	19	5	38	11	24
licies			Suspension/restriction of family or lawyer visits	29	91	12	92	41	91
ion po			Restriction/suspension of collective activities	11	34	10	77	21	47
reduct			Restriction of internal movement in prison	5	16	3	23	8	18
ission		Social distancing	Increased period of tem- porary leave granted	0	0	3	23	3	7
sm			Desincarceration	29	91	10	77	39	87
al tran			Use of alternatives to incarceration	7	22	5	38	12	27
Category 1: Viral transmission reduction policies			Destination of prison to receive people with CO-VID-19	1	3	2	15	3	7
Catego			Division of the prison into cohorts: case area, isolation area, observa- tion area, and general area	1	3	5	38	6	13
			Use of individual cells for isolation	0	0	2	15	2	4
			Increased space between beds in cells	0	0	1	8	1	2
			Adoption of individual cells	0	0	5	38	5	11
			Separation of space for quarantine and isolation	9	28	5	38	14	31

Except for CHN¹³ and NZL³⁴, no data were found on social protection for released people, such as financial aid, housing provision, social assistance, health, culture, and leisure in most countries. In CHN, Li et al.¹³ reported a coordinated action between prisons and correctional services in liberty to monitor the health conditions of the released. In NZL³⁴, in 2019, the De-

partment of Corrections started a program with the government on housing for the released. In the U.S., some states revised the rules of access to the food security program to allow the concession to released inmates⁴⁵.

Regarding mental health care of people imprisoned during the blockade of prisons, we found data referring to CHN¹³, with increased

Table 2. Strategies to reduce viral transmission and improve prison infrastructure for the control and prevention of COVID-19 implemented in countries, by economic development, in 2020.

				EDE (r	1 = 32	AE (n	= 13)	Total (1	n = 45
CAT	Level 1	Level 2	Level 3	Abso- lute	Rela- tive (%)	Abso- lute	Rela- tive (%)	Abso- lute	Rela- tive (%)
	Infrastructu- re and tech-	Expanding testing capacity	Acquisition of equipment, reagents, and tests	3	10	1	7	4	9
	nology	Access to	Teleconsulting	2	7	4	27	6	13
		communication technologies	Remote educational and leisure activities	1	3	4	27	5	11
			IT system installation	0	0	1	7	1	2
			Availability of telephone or calls	5	17	12	80	17	38
			Virtual hearing	6	20	9	60	15	33
icies			Availability of device or internet	4	13	9	60	13	29
pol			Prison basic sanitation	1	3	0	0	1	2
ä			Increased cell ventilation	2	7	0	0	2	4
oveme			Food quantity and quality assurance	1	3	0	0	1	2
e impr	Health care infras- tructure		COVID-19 center facility in the prison	1	3	5	33	6	13
ructur			Ensuring free access to health services	1	3	1	7	2	4
Category 2: Prison infrastructure improvement policies			Expanded operating time of the prison health service	0	0	1	7	1	2
2: Prisc			Equip the units' health centers	1	3	1	7	2	4
ry		Increased avai-	Vaccine	1	3	0	0	1	2
ego		lability of health	Medicines	1	3	1	7	2	4
Cat		technologies	Medical devices	1	3	0	0	1	2
	Human Resources	Increased number of professionals	Recruitment of new workers	3	10	5	33	8	18
			Change in work schedule	5	17	5	33	10	22
		Professional training	Permanent education for workers	1	3	2	13	3	7
			Prison inspection team	0	0	2	13	2	4
			Flows with municipal health services for the care of workers	1	3	0	0	1	2

physical and mental health promotion services. France⁴⁰ reorganized to attend psychiatric emergencies. Catalonia³² drew up an action plan to prevent the use of psychoactive drugs and overdose.

In California (U.S.), in partnership with health professionals, community organizations conducted a public awareness campaign about the risks of mass incarceration to awaken positive attitudes towards inmates. Civil society organizations also led the discussion on healthy communities to push for a penal policy reform⁴⁶.

Category 4 – Governance

Among the four categories of policy strategies for the prevention and care of incarcerated people during the COVID-19 pandemic, aspects

Table 2. Strategies to reduce viral transmission and improve prison infrastructure for the control and prevention of COVID-19 implemented in countries, by economic development, in 2020.

				EDE $(n = 32)$		AE (n = 13)		Total (n = 45)	
CAT	Level 1	Level 2	Level 3	Abso- lute	Rela- tive (%)	Abso- lute	Rela- tive (%)	Abso- lute	Rela- tive (%)
Category 2: Prison infrastructure improvement policies	Guidelines Joint coordinati tween the local health system, ju		tocol and Therapeutic	5	17	6	40	11	24
			Joint coordination be- tween the local public health system, justice system, and prison	3	10	6	40	9	20
improve			Sharing information and physical resources between prisons	1	3	3	20	4	9
structure		Health surveillance	Training and use of epi- demiological surveillance tool	1	3	3	20	4	9
n infra			Detailed record of movement inside the prison	2	7	1	7	3	7
: Priso			Inmate training for contact tracing	1	3	0	0	1	2
gory 2			Monitoring viral RNA in wastewater	0	0	1	7	1	2
Cate			Case and death surveillance	4	13	3	20	7	16
			Establishing a contact tracing center	0	0	1	7	1	2

Source: Authors.

related to governance were the least mentioned, although desincarceration was the second most used strategy in the countries (Table 3).

Regarding strengthening national authority to decide on desincarceration and strategies adopted among AE countries, the U.S. expanded the powers of the *Bureau of Prisons* through *Congress in the Coronavirus, Aid, Relief and Economic Security Act.* Abraham et al.² reported that using this attribution was confusing when establishing the criteria for release. Furthermore, the government allocated US\$ 100 million to control and prevent COVID-19 in the federal prison system^{2,18,35}.

The decree "Cura Italia" (Heal Italy) provided house detention for people serving a residual sentence of up to 18 months. However, the measure was criticized for not being sufficient to reduce the occupancy rate of Italian prisons⁹. The government established a crisis unit under the

General Direction for Prisoners and Treatment for monitoring and decision-making⁴⁷.

In POR, through the "Exceptional regime for easing the execution of sentences and freedom measures in the context of the COVID-19 disease pandemic", a partial pardon was granted to some sentenced to prison, in addition to a special compensation regime to inmates over 65 with comorbidities or with a level of autonomy incompatible with life imprisonment³².

We found strategies to strengthen the national authority and establish decision-making processes and health surveillance (HS) in Ireland. In a partnership between the National Infection Control Team of the Irish Prison Service, the National Quality Improvement, and Health Service Executive, the contact tracing and isolation program was built in all prisons in the country¹⁷.

A nationwide technical support group was established in ROM, responsible for coordinat-

Table 3. Strategies for mitigating the consequences of the pandemic and interventions and governance for the control and prevention of COVID-19 in prisons in countries, by economic development, in 2020.

				EED (n = 32)		EA (n = 13)		Total (n = 45)	
CAT	Level 1	Level 2	Level 3	Abso- lute	Rela- tive (%)	Abso- lute	Rela- tive (%)	Abso- lute	Rela- tive (%)
	Macroeconomic interventions	Financial stability	Assistance for workers or prisoners	0	0	5	33	5	11
		Public Security Policy	communities	0	0	0	0	0	0
	Increased social protection for citizens	Priority in the distri- bution of medicines and medical supplies	Penal policy review	0	0	1	7	1	2
ntions		Guarantee of social conditions for the	Housing supply and improvement	0	0	1	7	1	2
interve		released	Improving the supply of healthy food	0	0	1	7	1	2
Category 3: Mitigating the consequences of the pandemic and interventions			Increasing and improving access to education	0	0	0	0	0	0
pande			Increasing access to health services	0	0	1	7	1	2
of the		Mental health care	Increasing leisure activities	0	0	3	20	3	7
nences			Clinical follow-up of patients	1	3	4	27	5	11
conseq			Management of psy- chiatric emergencies	1	3	1	7	2	4
ng the o			Medication treat- ment guarantee	0	0	1	7	1	2
Mitigatir			Reorganization of the workload of professionals	0	0	1	7	1	2
egory 3:			Training professio- nals for mental heal- th care	1	3	0	0	1	2
Cat			Increasing the number of reception professionals	1	3	1	7	2	4
		Family	Preserve communication with families	5	17	12	80	17	38
		Reducing stigma	Communication campaigns to arouse positive attitudes in the broader community towards inmates	0	0	1	7	1	2

Table 3. Strategies for mitigating the consequences of the pandemic and interventions and governance for the control and prevention of COVID-19 in prisons in countries, by economic development, in 2020.

				EED (n = 32)		EA (n	= 13)	Total (n = 45)	
AT	Level 1	Level 2	Level 3	Abso- lute	Rela- tive (%)	Abso- lute	Rela- tive (%)	Abso- lute	Rela- tive (%)
	Delegation of powers and enforce-	Strengthening national authority		2	7	4	27	6	13
ntions	ment structures	Designating a high-level decision- making committee		0	0	5	33	5	11
c and interve		Establishing processes for informed decision-making		1	3	2	13	3	7
ot the pandemi		Establishing processes for the participation of the prison community in decision-making		1	3	1	7	2	4
nsednences	Information sharing and transparency	Establishing an emergency surveillance mechanism		0	0	2	13	2	4
ing the co		Daily reporting on the epidemiological situation		1	3	1	7	2	4
Category 3: Mitigating the consequences of the pandemic and interventions		Anonymous and detailed information is shared publicly to avoid speculation		0	0	2	13	2	4
Cat		Developing information systems and visualization tools		2	7	3	20	5	11
	Resource mobilization	Increasing the budget		1	3	3	20	4	9

Source: Authors.

ing the implementation of COVID-19 prevention measures, deciding on transfers between prisons, and mobilizing the necessary resources for purchasing PPE, disinfectants, tests, and medical supplies²⁹. In SWE, the Swedish Prison and Probation Service created a prison crisis management team that decided and coordinated the implementation of actions in all prisons. This team established surveillance and internal and external communication mechanism¹⁰.

Regarding strengthening national authority among EDE countries for decisions regarding desincarceration, the Indian judiciary system guided provisional bail for people on trial with a sentence of fewer than seven years imprisonment⁴⁸. In RSA, the judiciary system eliminated records of people for admitting crimes and reconsidered convictions concerning financial and property crimes³⁰. In MEX, the National Congress passed an amnesty law for federal prisoners,

but no amnesty was granted for state prisoners. Thus, the measure was ineffective because it impacted only 7% of the imprisoned population³³.

The Brazilian National Council of Justice (CNJ), through Recommendation nº 62/2020, guided the adoption of preventive measures, desincarceration, and restricted mobility. However, the recommendation was ineffective for not having the power of law, leaving decision-making at the discretion of state and federal judges and prison administrators⁴⁹. Moreover, the Minister of Justice and Public Security spoke against using the pandemic to justify the release of people^{50,51}. The Brazilian National Penitentiary Department (DEPEN) established the HS system for case and death monitoring¹⁹. Peer care was reported in Peru¹⁹.

Regarding forming a decision-making committee, CHN adopted a centralized and vertical strategy. Municipalities and states were responsible for funding, providing PPE, and testing the CCP emergency branches set up in each prison. Branches were responsible for establishing rules, protocols, and HS system¹³.

Discussion

This paper was restricted to analyzing 2020, when governments implemented emergency actions without extensive knowledge of the disease, and when pharmacological measures were unavailable to managers. Due to the large number of works selected and the strategies mentioned, we could not show data by publication; therefore, we chose to present the results regarding the country's economic development level.

We conclude that the two main strategies to reduce viral transmission were desincarceration and suspended/restricted family visits. Regarding the improvement of prison infrastructure, the strategy of providing telephones or telephone calls was the most frequent. Communication with family members was prioritized among the measures to mitigate the consequences of the pandemic and interventions, while the strengthening of national authority was the intervention most found in publications regarding governance. Moreover, we noticed a significant discrepancy between the AE and EDE countries.

Most publications that addressed desincarceration did not describe policies and planning in municipalities/states to support released people, nor investment in healthy community programs, pointing out the need to investigate the effectiveness of the desincarceration strategy that may have only increased turnover.

A study by Reinhart et al.⁵² revealed that prison turnover is a positive predictor of COVID-19. We found that while 87% of countries chose to desincarcerate, only 22% suspended or restricted new admissions, indicating that prison turnover may have continued.

In the case of BRA, the publications pointed to the desincarceration of 30,000 people, but new admissions were not suspended/restricted and, according to DEPEN, from July to December 2020, 233,612 people entered prisons⁵³. This data is consistent with Vasconcelos et al.⁴⁹ when analyzing habeas corpus decisions at the São Paulo Court of Justice, concluding that the CNJ's recommendation was ineffective.

It is obvious that policies to improve prison infrastructure were not found in most publications, nor was the mobilization of resources, despite the worldwide recognition that the infrastructure conditions are an essential factor for prisons to be called "Petri plate" of COVID-19, compromising the guarantee of the rights of prisoners, as agreed at the international level.

The lack of tests and HS systems for people who experience the prison environment is a challenge for decision-making concerning the health policy to face COVID-19. The planning and allocation of resources for developing a health strategy that can be effective in its actions in prisons depends on an effective HS system.

It should be noted that prison systems world-wide diverge regarding administrative centralization. We have countries such as BRA, AUS, U.S., United Kingdom, South Korea, and Canada^{11,21,22,24,35,56}, in which the management of the prison system is decentralized and hybrid, with federal, regional or local administration, with public and private prisons. In other countries, such as SWE, NZL, RSA, Kenya, and CHN, the administration is centralized and under federal responsibility^{10,13,30,34,57}. Such administrative differences can cause discrepancies in the effectiveness of actions, requiring an evaluation.

Finally, most countries in the literature delegate health policies in prisons to the judiciary and public security systems, while health systems assume a supporting or consultative role. There are indications, and it is necessary to investigate whether the experiences that put health systems at the forefront of decision-making in prisons were more successful in controlling the pandemic.

Collaborations

ELC Martins: article design, data selection, extraction and analysis, text writing, and review. GLA Oliveira: article design, data selection and analysis, and text review. P Constantino: article design, data search and analysis, and text review.

References

- Institute for Crime e Justice Policy Research. World Prison Brief [Internet]. 2021. [cited 2021 ago 17]. Available from: https://www.prisonstudies.org/country/united-states-america
- Abraham LA, Brown TC, Thomas SA. How COVID-19's Disruption of the U.S. Correctional System Provides an Opportunity for Decarceration. *Am J Crim Justice* 2020; 45(4):780-792.
- Minayo M, Constantino P. Deserdados sociais: condições de vida e saúde dos presos do estado do Rio de Janeiro. Rio de Janeiro: Fiocruz; 2015.
- World Health Organization (WHO). Regional Office for Europe. Preparedness, prevention and control of COVID-19 in prisons and other places of detention: interim guidance [Internet]. 2020. [cited 2020 nov 11]. Available from: http://www.euro.who.int/__data/assets/pdf_file/0019/434026/Preparedness-preventionand-control-of-COVID-19-in-prisons.pdf?ua=1
- Peña S, Cuadrado C, Rivera-Aguirre A, Hasdell R, Nazif-Munoz JI, Yusuf M, and group. PoliMap: a taxonomy proposal for mapping and understanding the global policy response to COVID-19 [Internet]. Open Science Framework 2020. [cited 2020 nov 11]. Available from: https://osf.io/h6mvs
- World Bank. Global Economic Prospects, June 2021 [Internet]. 2021. [cited 2021 nov 14]. Available from: http://elibrary.worldbank.org/doi/book/10.1596/978-1-4648-1665-9
- Byrne J, Hummer D, Rapisarda S. Introduction to Special Issue. Vict Offenders 2020; 15(7-8):835-838.
- Irvine M, Coombs D, Skarha J, Del Pozo B, Rich J, Taxman F, Green TC. Modeling COVID-19 and Its Impacts on U.S. Immigration and Customs Enforcement (ICE) Detention Facilities, 2020. J Urban Health 2020; 97(4):439-447.
- Pagano AM, Maiese A, Izzo C, Maiese A, Ametrano M, De Matteis A, Attianese MR, Busato G, Caruso R, Cestari M, Biasi S, Chiara A, De Matteis G, Goffredi G, La Russa R. Covid-19 risk management and screening in the penitentiary facilities of the Salerno Province in Southern Italy. *Int J Environ Res Public Health* 2020; 17(21):8033.
- Lindström M, Ahlstrand E, Kärrholm J. Sweden's response to the COVID-19 outbreak. Vict Offenders 2020; 15(7-8):1203-1214.
- Payne JL, Hanley N. COVID-19 and corrections in Australia: a summary review of the available data and literature. *Vict Offenders* 2020; 15(7-8):1367-1384.
- Ovchinnikov S. The Penitentiary System of Russia during the COVID-19 pandemic: a global challenge and initial results. Vict Offenders 2020; 15(7-8):1148-1155.
- Li SD, Liu TH. Correctional system's response to the coronavirus pandemic and its implications for prison reform in China. *Vict Offenders* 2020; 15(7-8):959-969.
- Elbek O. COVID-19 pandemic threatening prison population. *Turk Thorac J* 2020; 21(6):433-437.
- Marmolejo L, Barberi D, Bergman M, Espinoza O, Fondevila G. Responding to COVID-19 in Latin American prisons: the cases of Argentina, Chile, Colombia, and Mexico. Vict Offenders 2020; 15(7-8):1062-1085.

- Rapisarda SS, Byrne JM. An examination of COVID-19 outbreaks in African prisons and jails. Vict Offenders 2020; 15(7-8):910-920.
- Clarke M, Devlin J, Conroy E, Kelly E, Sturup-Toft S. Establishing prison-led contact tracing to prevent outbreaks of COVID-19 in prisons in Ireland. *J Public Health (Oxf)* 2020; 42(3):519-524.
- Brelje AB, Pinals DA. Provision of health care for prisoners during the COVID-19 pandemic: an ethical analysis of challenges and summary of select best practices. *Int J Prison Health* 2020; 17(3):194-205.
- Rapisarda SS, Byrne JM, Marmolejo L. An examination of COVID-19 outbreaks in South American prisons and jails. Vict Offenders 2020; 15(7-8):1009-1018.
- Hagan LM, Williams SP, Spaulding AC, Toblin RL, Figlenski J, Ocampo J, Ross T, Bauer H, Hutchinson J, Lucas KD, Zahn M, Chiang C, Collins T, Burakoff A, Bettridge J, Stringer G, Maul R, Waters K, Dewart C, Clayton J, de Fijter S, Sadacharan R, Garcia L, Lockett N, Short K, Sunder L, Handanagic S. Mass testing for SARS-CoV-2 in 16 prisons and jails – six jurisdictions, United States, April-May 2020. MMWR Morb Mortal Wkly Rep 2020; 69(33):1139-1143.
- Brennan PK. Responses taken to mitigate COVID-19 in prisons in England and Wales. *Vict Offenders* 2020; 15(7-8):1215-1233.
- Murdoch DJ. British Columbia provincial corrections' response to the COVID-19 pandemic: a case study of correctional policy and practice. *Vict Offenders* 2020; 15(7-8):1317-1336.
- Rapisarda SS, Byrne J, Marmolejo L. An examination of COVID-19 outbreaks in prisons and jails in North America, Central America, and the Caribbean. *Vict* Offenders 2020; 15(7-8):1234-1243.
- Novisky MA, Narvey CS, Semenza DC. Institutional responses to the COVID-19 pandemic in American prisons. Vict Offenders 2020; 15(7-8):1244-1261.
- Lemasters K, McCauley E, Nowotny K, Brinkley-Rubinstein L. COVID-19 cases and testing in 53 prison systems. *Health Justice* 2020; 8(1):24.
- Rapisarda SS, Byrne JM. The impact of COVID-19 outbreaks in the prisons, jails, and community corrections systems throughout Europe. *Vict Offenders* 2020; 15(7-8):1105-1112.
- Rapisarda SS, Byrne JM. An examination of COVID-19 outbreaks in prisons and jails in Oceania. Vict Offenders 2020; 15(7-8):1361-1366.
- Rapisarda SS, Byrne JM. An examination of COVID-19 outbreaks in prisons and jails throughout Asia. Vict Offenders 2020; 15(7-8):948-958.
- Durnescu I, Morar I. An examination of the Romanian Prison System during the COVID-19 pandemic. Are "zero cases" possible? *Vict Offenders* 2020; 15(7-8):1133-1147.
- Kras KR, Fitz L. The social and environmental implications of the novel coronavirus on institutional and community corrections in South Africa. Vict Offenders 2020: 15(7-8):933-947.
- Pattavina A, Palmieri MJ. Fears of COVID-19 contagion and the Italian Prison System response. Vict Offenders 2020; 15(7-8):1124-1132.

- Redondo S, Gonçalves RA, Nistal J, Soler C, Moreira JS, Andrade J, Andrés-Pueyo A. Corrections and crime in Spain and Portugal during the COVID-19 pandemic: impact, prevention and lessons for the future. Vict Offenders 2020; 15(7-8):1156-1185.
- Agoff C, Sandberg S, Fondevila G. Women providing and men free riding: work, visits and gender roles in Mexican prisons. Vict Offenders 2020; 15(7-8):1086-1104
- Murray LJ, Kras KR. "We must go hard and we must go early": how New Zealand halted coronavirus in the community and corrections. *Vict Offenders* 2020; 15(7-8):1385-1395.
- Hummer D. United States Bureau of Prisons' response to the COVID-19 pandemic. Vict Offenders 2020; 15(7-8):1262-1276.
- Costa JS, Silva JCF, Brandão ESC, Bicalho PPG. COVID-19 in the Brazilian prison system: from indifference as a policy to a death policy. *Psicol Soc* 2020;32:e020013.
- Wetzel JE, Davis JM. The response to the COVID19 crisis by the Pennsylvania Department of Corrections. Vict Offenders 2020; 15(7-8):1298-1304.
- Cahapay MB. National responses for persons deprived of liberty during the COVID-19 pandemic in the Philippines. Vict Offenders 2020; 15(7-8):988-895.
- Collica-Cox K, Molina L. A case study of the Westchester County New York's jail response to COVID-19: controlling COVID while balancing service needs for the incarcerated-a national model for jails. Vict Offenders 2020; 15(7-8):1305-1316.
- Fovet T, Lancelevée C, Eck M, Scouflaire T, Bécache E, Dandelot D. Prisons confinées: quelles conséquences pour les soins psychiatriques et la santé mentale des personnes détenues en France? *Encephale* 2020; 46(3):S60-S65.
- 41. Pitts WJ, Inkpen CS. Assessing the effects of COVID-19 in Prisons in the Northern Triangle of Central America. *Vict Offenders* 2020; 15(7-8):1044-1061
- Dünkel F. The impact of COVID-19 on prisons and penal policy in Germany. Vict Offenders 2020; 15(7-8):1113-1123.
- Cordeiro-Rodrigues L. Social justice for public health: the COVID-19 response in Portugal. *J Bioethical Inq* 2020; 17(4):669-674.
- Hernández Jiménez N. Covid-19 y decisión judicial: competencia para decidir las medidas del Decreto 546 de 2020. *Justicia* 2020; 25(37):215-226.
- Golembeski CA, Irfan A, Dong KR. Food insecurity and collateral consequences of punishment amidst the COVID-19 pandemic. World Med Health Policy 2020; 12(4):357-373.
- Minkler M, Griffin J, Wakimoto P. Seizing the moment: policy advocacy to end mass incarceration in the time of COVID-19. Health Educ Behav 2020; 47:514-518.
- Cingolani M, Caraceni L, Cannovo N, Fedeli P. The COVID-19 epidemic and the prison system in Italy. J Correct Health Care 2020; 27(1):3-7.
- Dmello JR, Ranjan S. Lock unlock: the impact of COVID-19 on health security in Pakistani and Indian prisons. Vict Offenders 2020; 15(7-8):970-987.

- Vasconcelos NP, Machado MR, Wang DWL. COVID-19 in prisons: a study of habeas corpus decisions by the São Paulo Court of Justice. Rev Adm Publica 2020; 54(5):1472-1485.
- Ribeiro L, Diniz AMA. The Brazilian penitentiary system under the threat of COVID-19. Vict Offenders 2020; 15(7-8):1019-1043.
- Tavares N, Garrido R, Santoro A. Política de saúde no cárcere fluminense: impactos da pandemia de CO-VID-19. REI 2020; 6(1):277-300.
- Reinhart E, Chen DL. Incarceration and its disseminations: COVID-19 pandemic lessons from Chicago's Cook County Jail. Health Aff Proj Hope 2020; 39(8):1412-1418.
- Brasil. Ministério da Justiça e Segurança Pública. Sistema de Informação do Departamento Penitenciário Nacional [Internet]. 2021. [citado 2021 nov 18]. Disponível em: www.gov.br/depen/pt-br/sisdepen
- Braithwaite R, Warren R. The African American Petri Dish. J Health Care Poor Underserved 2020; 31(2):491-502.
- Organização das Nações Unidas (ONU). Regras mínimas das Nações Unidas para o tratamento de reclusos [Internet]. 2015. [citado 2021 nov 23]. Disponível em: https://www.unodc.org/documents/justice-and-prison-reform/Nelson_Mandela_Rules-P-ebook.pdf
- Lee CS. South Korea's responses regarding mitigating the COVID-19 crisis behind bars. *Vict Offenders* 2020; 15(7-8):996-1008.
- 57. Deche M, Bosire C. The silver lining in the COVID-19 cloud: an appraisal of accelerated prison decongestion in Kenya. *Vict Offenders* 2020; 15(7-9):921-932.
- Wallace M, Marlow M, Simonson S, Walker M, Christophe N, Dominguez O, Kleamenakis L, Orellana A, Pagan-Pena D, Singh C, Pogue M, Saucier L, Lo T, Benson K, Sokol T. Public health response to COVID-19 cases in correctional and detention facilities-Louisiana, March-April 2020. Morb Mortal Wkly Rep 2020; 69(19):594-598.
- Wallace M, Hagan L, Curran KG, Williams SP, Handanagic S, Bjork A, Davidson SL, Lawrence RT, McLaughlin J, Butterfield M, James AE, Patil N, Lucas K, Hutchinson J, Sosa L, Jara A, Griffin P, Simonson S, Brown CM, Smoyer S, Weinberg M, Pattee B, Howell M, Donahue M, Hesham S, Shelley E, Philips G, Selvage D, Staley EM, Mannell M, McCotter O, Villalobos R, Bell L, Diedhiou A, Ortbahn D, Clayton JL, Sanders K, Cranford H, Barbeau B, McCombs KG, Holsinger C, Kwit NA, Pringle JC, Kariko S, Strick L, Allord M, Tillman C, Morrison A, Rowe D, Marlow M. COVID-19 in correctional and detention facilities United States, February-April 2020. MMWR Morb Mortal Wkly Rep 2020; 69(19):587-590.
- 60. Njuguna H, Wallace M, Simonson S, Tobolowsky FA, James AE, Bordelon K, Fukunaga R, Gold JAW, Wortham J, Sokol T, Haydel D, Tran H, Kim K, Fisher KA, Marlow M, Tate JE, Doshi RH, Curran KG. Serial laboratory testing for SARS-CoV-2 infection among incarcerated and detained persons in a correctional and detention facility Louisiana, April-May 2020. MMWR Morb Mortal Wkly Rep 2020; 69(19):836-840.

- 61. Kırbıyık U, Binder AM, Ghinai I, Zawitz C, Levin R, Samala U, Smith M, Gubser J, Jones B, Varela K, Rafinski J, Fitzgerald A, Orris P, Bahls A, Welbel S, Mennella C, Black S, Armstrong P. Network characteristics and visualization of COVID-19 outbreak in a large detention facility in the United States - Cook County, Illinois, 2020. MMWR Morb Mortal Wkly Rep 2020; 69(19):1625-1630.
- 62. Pyrooz DC, Labrecque RM, Tostlebe JJ, Useem B. Views on COVID-19 from inside prison: perspectives of high-security prisoners. Justice Eval J 2020; 3(2):294-306.
- 63. Santos GDC, Simôa TC, Bispo TCF, Martins RD, Santos DSS, Almeida AOLC. Covid-19 nas prisões: efeitos da pandemia sobre a saúde mental de mulheres privadas de liberdade. Rev Baiana Enferm 2020; 34:e38235-e38235.
- 64. Muntingh LM. Africa, prisons and COVID-19. J Hum Rights Pract 2020; 12(2):284-292.

Article submitted 26/11/2021 Approved 23/06/2022 Final version submitted 25/06/2022

Chief editors: Maria Cecília de Souza Minayo, Romeu Gomes, Antônio Augusto Moura da Silva