



**MANAGEMENT OF COVID-19 IN PRISON: VARIOUS COUNTRIES AND
COMPARATION WITH INDONESIAN CASE STUDY**

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ABSTRACT

On December 2019, there was a discovery of a new strain of coronavirus originated from Wuhan, China. The Virus spreads easily inter human caused by droplets. Corona Virus enters Indonesia since March 2020. Correctional health is the essence of public health. The COVID-19 pandemic poses a great threat to the world and has shown that preventing the disease escalation in prisons integrates the Novel Corona Virus clash in society in general. Jail are epicenters for COVID-19 transmission, including to the community and in Indonesia has a lot of overcrowded of prisoners. Overcrowding until 102% and it occurred almost all over Indonesia. of this literature review is to analyze each country's management for Covid-19 in Prison, and how the Prison in Indonesia response in particular. the search for articles and journals will be conducted via web browsing, using the database such as Science direct, PubMed, and Google Scholar. The applied keywords will be *Covid-19 management in Prison and Jail*. As many as 9 related articles are match with the inclusion and exclusion criteria. Prisons and detention area are intensively vulnerable to infectious diseases because they are highly crowded places where social distancing is difficult. Several countries applied the management of Covid-19 in Prison. Through this principle, every prisoner and detainee must be treated humanely and according to dignity, based on human rights aspect. Many factors make the results different in each country, such as the speed of the enactment of policies, lack of vigor in medical protocol enforcement to the prisoners and staffs, or the lack of risk awareness by the people themselves. The study shows the management Covid-19 in Prison can be traced back to the speed of the policy enactment, the force to enforce the medical protocol, limiting access to a prison area, and finally a massive screening Covid-19 for prisoners and staffs.

Keywords: Management, Covid-19, Prison.

Introduction

On December 2019 there was found several cases similar to pneumonia in Wuhan City, Hubei Province, China. After investigation, the cause came from a virus and was named the 2019 novel coronavirus (2019-nCoV)¹. Then on February 2020, WHO announced a new name, Corona Virus Disease (COVID-19). The number of cases due to Covid-19 has been increasing and spread to various provinces in China.

At the end of February 2020 case growth until 75,891 cases occurred in China and number of death 2,835 people. In other case 106 occurred in various countries such as Taiwan, Thailand, Vietnam, Malaysia, Nepal, Sri Lanka, Cambodia, Japan, Singapore, Saudi Arabia, South Korea, the Philippines, India, Australia, Canada, Finland, France, Germany and Indonesia. Indonesia first case occur at 28 February 2020. Since then WHO has determined that

Covid-19 is not an epidemic case but a pandemic case².

The Covid-19 pandemic is currently a major worldwide public health problem. The management of preventive measures will be difficult due to overcrowding and intimate prisons and officers close with physical contact. Accordingly, prisons are particularly vulnerable to outbreaks of infection, and in addition to the likely greater risks of contagion attention must be paid to the psychological problems that the pandemic can have on the prison population^{3,4}. Prisons can become epicenter of infectious diseases, as the risk factors are higher and include the inevitable close individual contacts due to overcrowding, poor ventilation of the rooms, poor hygiene conditions and more difficult access to health and wealth care services⁵. The rapid spread of Covid-19, like most epidemics, will significantly affect the most disadvantaged people. Therefore, to mitigate the effects of prison epidemics and reduce the morbidity and mortality of the most marginalized people in society, it is essential that prisons, youth detention centers are integrated into the mainstream public health response and we need to provide protection for all human, prisoners and staff working in prisons⁶

In this condition, Prisons and Detention must be considered as areas of Public Health to decrease the risk of Virus transmission. Process of Covid-19 transmission in Prison and Detention centers in each region can be different. Prison and Detention center that has history of virus circulation could be infected by correctional officers or individual coming from out of the area of Prison and Detention without specific screening. Prison and other Detention places with a record case will have more severe risk. Without a comprehensive strategy Virus control in Prison, the Government's effort to reduce infection will be difficult. This literature review purpose to analyze each country's

management for Covid-19 in Prison, and how the Prison in Indonesia response in particular.

Method Search Strategy

The article used for literature review is a full text article published in 2020-2021. Articles are obtained through databases such as Science direct, PubMed, and Google Scholar. The keywords used in the search for articles are. "management of covid-19 in prison", "covid-19 management in Jail". The inclusion criteria for writing this literature review are full text articles, articles in accordance with PICO, articles with searches from 2020 to 2021, and articles in English or Indonesian. The exclusion criteria are systematic review articles and covid-19 articles with comorbid.

Study Selection

The articles obtained and fulfilled the criteria were 9 articles, namely 4 articles from Science Direct, 2 articles from PubMed, and 3 articles from Google Scholar. The article selection process is described in diagram 1. Screening through the title, the article can be accessed without paying. Researchers choose according to the theme of management of handling the spread of Covid-19 in Prison various countries and the selected literature can be in the form of quantitative, qualitative studies, perspective journals and general scientific articles.

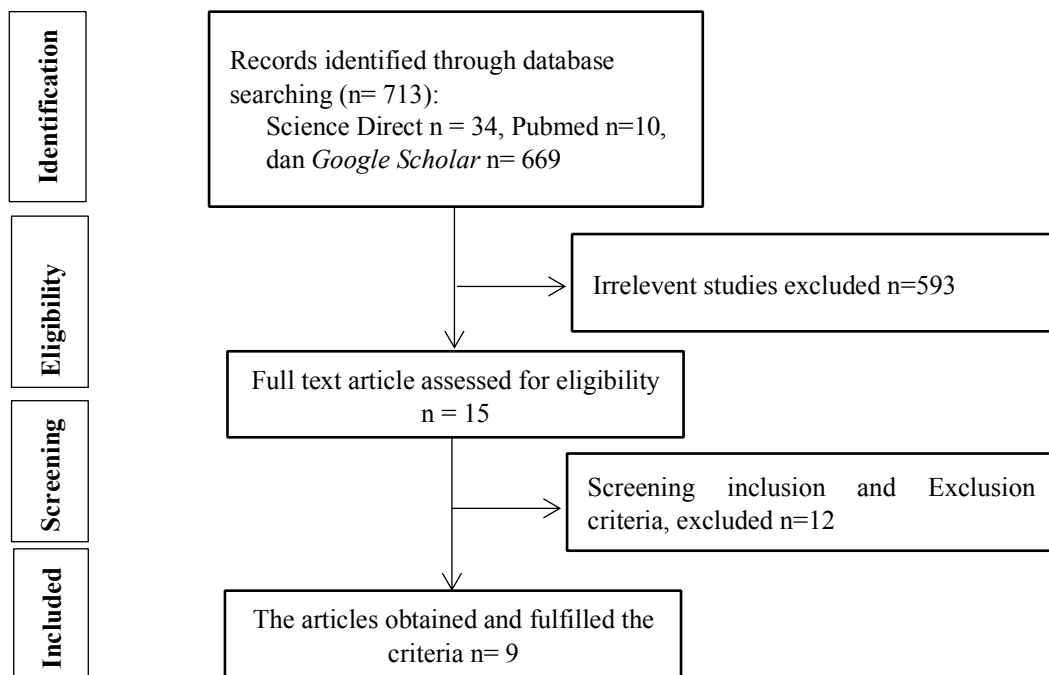


Diagram 1. The article selection process

Result and Discussion

Tabel 1. Tabel *Literature Review*

No	Author and year	Title	Design	Result
1.	Brandy F. Henry, PhD 2020	Social Distancing and Incarceration: Policy and Management Strategies to Reduce COVID-19 Transmission and Promote Health Equity Through Decarceration	Persepctive Study	<p>Policies in Response to COVID-19 in Prison Management strategies that promote harm reduction must be applied. Access to the following must be universally available free of charge:</p> <ul style="list-style-type: none"> • COVID-19 screening, testing, and health care • Soap and sanitation facilities • Space to maintain social distancing (working, sleeping, eating, and recreation locations that are at least 6 feet apart) • Appropriate personal protective equipment, such as face masks • Promote mental health, access to the outdoors, mental health care, socialization (including telephones) must also be universally available without charge. • Telehealth should be applied where appropriate • People released under prison due to COVID-19

				<p>have been placed in home confinement, and are required to remain at home. The World Health Organization recommends that people releasing from prisons where there is COVID-19 quarantine for 14 days, and that prison health authorities provide release planning to identify appropriate</p> <ul style="list-style-type: none"> • Quarantine locations and connect people to follow-up care
2	Fiorella C, at al. 2020	Covid-19 emergency in prison: Current management and forensic perspectives	Hypotesis Study	<ul style="list-style-type: none"> • Each country has a responsibility to increase level of preparation, to be alert and respond to identify, manage and treat new cases of Covid-19, recognising that there is no single approach for handling Covid-19 cases and outbreaks and adapt their approach to the local context. • In Italy, the Decree of 17 March 2020 introduced provisions that concern some 4000 prisoners providing for the possibility for home detention for those who have less than 18 months' sentence to serve. The measures will be applied by the supervising magistrate, not only at the request of the detainee but also by the public prosecutor or the prison governor. • Prisoners serving sentences of 7 to 18months may be able to wear an electronic bracelet to be made available according to a particular distribution program adopted by the prison governor and approved by the head of the public security department. • In light of the current safety measures being imposed around the world to deal with Covid-19, hope will control the epidemic, but such measures are probably not achievable in many jurisdictions or all prisons. In particular, there is a need for psychological support of prisoners, as deprivation of personal freedom and confined and difficult living conditions inside • prisons are generally more prone to depressive episodes and increased suicidal risk. These are factored into the stresses imposed by the emergency and their greater isolation from their family friends who would normally visit and support them, regular support from mental health workers could be fundamental in reducing episodes of violence and in preventing long-term adverse psychological consequences for many

				prisoners.
3	Des Crowley et al. 2020	Prison and opportunities for the management of COVID-19	Hypothesis study	<p>Opportunities for improved prison health care for the management of COVID-19</p> <ul style="list-style-type: none"> • Screening and prevention Prison committal provides an opportunity to screen patients for COVID-19, and should be part of any containment strategy involving increased testing and contact tracing. People entering and exiting prison are some of the most vulnerable and underserved by community health services. They experience stigma and discrimination, creating barriers to accessing health care, and incarceration could be an opportunity to address unmet health needs. These may include screening and treatment for mental health problems, communicable diseases, and substance use disorders. Incarceration also provides a window for health promotion, self-care, improving health literacy, and disease prevention. Prisons are also locations where large numbers of people can be offered vaccinations, and this will hopefully form a critical part of the long-term strategy for the management of COVID-19. • Delivery of prison health care Many prisoners have complex medical and psychosocial needs that are rarely addressed fully while incarcerated. There have been many reports of new approaches and rapid adaptation of telemedicine to manage the risks of COVID-19 transmission in community settings. General practice has been at the forefront of these changes, and GPs are the main providers of routine health care in prisons globally. There have been no reports in the published literature of such innovation in the delivery of health care in prisons. While acknowledging the challenges of adopting telemedicine in prison settings, it would seem like an appropriate and efficient way to deliver health care to large groups of prisoners. It also could have the added benefit of giving prisoners access to the opinions of medical specialists in secondary care, while reducing the requirement to attend hospital services including accident and emergency departments. This would reduce cost, free up staff, and reduce the risks of

				<p>spreading COVID- 19 both in prison and community settings.</p> <ul style="list-style-type: none"> • Drug use and policy Early release of certain groups of prisoners to reduce prison populations worldwide has been recommended by the World Health Organization (WHO) and other international organisations in recent months. For years, public health specialists and experts on international drug policy have called for the implementation of less punitive and more human rights- and harm reduction-based drug policies to reduce the incarceration of drug users. The concentration of communicable infections in prisons is mainly due the incarceration of people who inject drugs (PWID). PWID acquire HIV and hepatitis C virus in the community and in prison settings, and lack of access to evidence-based harm reduction measures — such as opioid agonist treatment (OAT), and needle and syringe programmes — is a major concern, particularly in prison settings. There is now an opportunity to revisit this deficit and use the present focus on COVID-19 management to advocate for increased harm reduction services and the decriminalisation of drug users as measures to reduce present and future communicable infections.
4.	Carlos Franco-Paredes et al. 2020	COVID-19 in jails and prisons: A neglected infection in a marginalized population	Experimental Study	<ul style="list-style-type: none"> • Facing the COVID-19 pandemic calls for worldwide efforts to include joint planning by public health institutions with federal, state, and local authorities to explicitly and transparently implement and monitor preventive and mitigation interventions in correctional facilities. Depopulating jails and prisons during this pandemic is the only means of achieving meaningful social distancing and protecting medically vulnerable persons. • To implement effective population management approaches such as sequestration, isolation, and quarantine practices, expanding testing of prisoners and correctional officers is critical inside these facilities.
5.	Giovanni S P Malloy et al. 2021	Effectiveness of interventions to reduce	Experimental Study	<ul style="list-style-type: none"> • Developed a stochastic dynamic transmission model describing the spread of COVID-19 in a large urban jail in the USA and calibrated the model to a moving average of the daily incident

		COVID-19 transmission in a large urban jail: a modelbased analysis		<ul style="list-style-type: none"> • cases of COVID-19 reported by the jail. Identified three major interventions—depopulation, single celling and asymptomatic testing—undertaken by the jail and quantified the reduction in transmission rate as a result of • these interventions report the estimated reduction in predicted cases, hospitalisations and deaths as a result of the jail interventions among both incarcerated people and correctional staff. • The estimated reduction in the transmission rate (80%) from these three intervention strategies is comparable with standard social distancing measures in a community setting • findings suggest that depopulation efforts should be a primary strategy for COVID-19 mitigation in jails. Reduction in detained populations to prevent disease transmission is best achieved by both decreasing the number of new intakes and increasing the number of releases.
6	Besufekad Mekonnen, et al. 2021	Preparedness and Readiness Against COVID-19 Pandemic in Prison Institutions and Detention Centers in Southwest Ethiopia	A crosssectional study design mixed with a qualitative	<ul style="list-style-type: none"> • Human Rights Based on assessment of the facilities in implementing protocols of health service accessible for people in prison facilities comparable to those in the general population; five out of 17 detention centers and three out of four prison facilities fulfill the standards. Based on observed basic living standards (space, fresh air, light, and sanitation), neither prison facilities nor detention centers provided appropriate services. • Risk Assessment and Management Regarding risk assessment and management, none of the detention centers and only two of the prison facilities had in- depth archives of people moving in and out of the facility. Again, none of the detention centers and only one of the prison facilities had risk assessment held on people entering the facility. • Referral System and Clinical Management all of the prison and detention centers reported that they did not have this. Only two of the prison facilities mentioned that laboratory-confirmed cases had access to quarantine and management.

				But the quarantines were not adequate and not as per the national protocol. All the prison and
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				<p>detention center staffs mentioned that health-care teams dealing with the collection of biological samples had no access to the essential protective equipment as described in the WHO prison guideline</p> <ul style="list-style-type: none"> • Contingency Planning All prison facilities and detention centers had no contingency plans for managing the impact of an infectious disease outbreak in advance. In addition, national comprehensive risk assessment of the prison and detention system had not yet been assessed. Regarding personal protective equipment (PPE) • Training Staffs working in prison facilities and detention centers had not received training on basic COVID-19 disease knowledge, hand washing practices, and respiratory etiquette. In addition, they were not trained on the appropriate use of personal protective equipment (PPE) and environmental prevention measures, including cleaning and disinfection • Risk Communication Five of the prison facilities and three of the detention centers reported the presence of a contact approach to deal with public and risk communication about disease outbreaks in prison. None of the detention centers and three of the prison facilities claimed to have a mechanism to gather and integrate the risk perception of people in prison, staff, and visitors in message development. Key messages were communicated in a clear, accurate and relevant manner to people in prison facilities about preventive measures, especially hand hygiene and respiratory good manners in almost all prisons and detention centers.
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				<ul style="list-style-type: none"> • Prevention Measures Regarding prevention measures, there is no standard in place to handle officers who meet the definition of a suspected or confirmed case in all prisons and detention centers. In all facilities there are routines and facilities that allow hands to be washed with soap and water and dried using single-use towels. But there is no wall-mounted liquid-soap, paper towels, and facilities in place
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				<p>that allow appropriate physical distancing</p> <ul style="list-style-type: none"> • Case Management All detention centers and prison facilities were not integrated into the local/national epidemiological surveillance system. Besides, neither detention centers nor prison facilities had isolated and single accommodation places, facilities designated exclusively as well as health-care professionals assigned to care for suspected and identified COVID-19 cases according to national protocols
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7	Chad Zawitz, et.al 2020	Outbreak of COVID-19 and interventions in a large jail—Cook County, IL, United States, 2020	Experimental Study	<ul style="list-style-type: none"> • SARS-CoV-2 can spread rapidly in correctional and detention facilities, causing significant morbidity and mortality. Effective response to the COVID-19 outbreak at CCJ demonstrates the need for dynamic and aggressive application of intervention strategies, but also shows how timely response can reduce case counts and prevent morbidity and mortality in correctional or detention facilities. • interventions in gaining control of this outbreak; the division with the highest level of movement and most contact with individuals entering from the community experienced the earliest peak. Implementation and enforcement of social distancing of ≥ 6 feet, surgical mask use, increased access to soap and alcohol-based hand sanitizer, and enhanced cleaning and disinfection practices also likely reduce extent of spread. Later expansion of diagnostic testing, including at intake and of asymptomatic individuals, allowed for medical isolation of cases and reduction in spread. Enhanced measures including PPE accountability, including CCSO establishing a PPE Accountability Team who performed walking rounds on the compound to assess PPE compliance among CCSO staff, were likely also effective.
8	Cameron Steward, et.al	COVID-19 and Australian Prisons: Human Rights, Risks, and Responses	Perspective Study	<p>Australian Regulatory Responses to COVID-19 The combination of overcrowding and poor health means that Australian prisoners are vulnerable to the COVID-19 pandemic. All state and territory governments (there are no federal prisons in Australia) responded to the COVID-19 threat in March 2020 by introducing a mix of restrictive practices, including</p> <ul style="list-style-type: none"> • suspension of social visits, • restriction of non-essential inmate movement between centres • introduction of temperature testing for staff, • suspension of work release, • introduction of quarantine periods for new inmates, • creation of isolation hubs and field hospitals within existing centres to isolate positive inmates, and • trials of family video visitation.
				<ul style="list-style-type: none"> • suspension of social visits, • restriction of non-essential inmate movement between centres • introduction of temperature testing for staff, • suspension of work release, • introduction of quarantine periods for new inmates, • creation of isolation hubs and field hospitals within existing centres to isolate positive inmates, and • trials of family video visitation.

9	Padmono Wibowo, et al	Prisons and Detention Facilities Preparedness in Indonesia for Preventing and Control of Covid-19	Survey Design Study	<p>Strategies in Preventing and Control Covid-19 in Indonesian Prisons</p> <ul style="list-style-type: none"> • Health facilities for prisoners and detainees are not similar to those obtained by the regular people (human rights). • Need to specify the records of the correctional office people (temperature, contact history, railway at trip, symptoms, etc.) (risk management). • Provide a particular risk assessment area at the entrance/exit of the correctional office (risk management). • Detect symptoms up to seven days before arrival to the correctional office (Risk Management). • Expand the network to accelerate access to swab test for those who are positive (system referral & clinical management). • Make an emergency plan if a case occurs and inform every officer in the correctional office (contingency planning). • Provide training on basic knowledge of Covid-19 to officers, how to use PPE, and preventive measures in the environment (cleaning and disinfection). • Create a standard operating procedure to manage officers who are suspected of Covid 19. • Differentiate eating facilities (containers) and special bathrooms for suspected prisoners or detainees.
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The results of these nine articles that have been reviewed, that found all countries have carried out management of Covid-19 in prison setting transmission since the case findings in their respective countries and since the WHO announced that this outbreak is a pandemic outbreak. Many ways are taken to implement health protocols that are appropriate to the nature of the spread of the virus in order to break the chain of transmission. Each country has a responsibility to increase level of preparation, to be alert and respond to identify, manage and treat new cases of Covid-19. Prisons and jails are intensively vulnerable to infectious diseases because they are highly crowded places where social distancing is difficult⁷. Correctional

as the philosophy of implementing punishment in Indonesia focuses on integration as the foundation for treating prisoners and detainees in prisons and detention centers. The state has no right to make prisoners and detainees to become worse than before entering correctional institutions/detention. Through this principle, every prisoner and detainee must be treated humanely and according to dignity, based on human rights aspect. Therefore, smooth handling is expected to avoid and deal with prisoners/detainees from the threat of the Covid-19 pandemic. Based on fulfillment of basic living standards (space, fresh air, light, and sanitation) should be provided appropriate services.

Management of COVID-19 in prison at various countries found that has same aspects and meanings comparison with Indonesia case study. Findings suggest depopulating jails and have policy release earlier the prisoners be a primary strategy for Covid-19 mitigation. In Italy on March 2020 introduced provisions that concern some 4000 prisoners providing for the possibility for home detention for those who have less than 18 months³. In Indonesia there is a program for depopulating jails from *Permenkumham No.10 Tahun 2020* named *Asimilasi Rumah* which freely home detention prisoners who passed 2/3 punishment period under 5 years, around 44.876 people release per February 2021 (Dirjenpas, 2021). Reduction in detained populations to prevent disease transmission is best achieved by both decreasing the number of new intakes and increasing the number of releases.

Implementation and enforcement of social distancing of ≥ 6 feet, surgical mask use, increased access to soap and alcohol-based hand sanitizer, and enhanced cleaning and disinfection practices also likely reduce extent of spread¹³. Personal hygiene (PH) increase access of hand soap, build sinks, and have hand sanitizer in all area and Personal Protective Equipment (PPE) standard mask for all prisons and staffs should be training and applying in this pandemic situation. Training and enhance cleaning disinfect chamber of prison to all area should be done regularly. Interventions in gaining control of this outbreak, the division with the highest level of movement and most contact with individuals entering from the community experienced the earliest peak.

Restrict area from outside visitors and less social visit from outside detention area, change to doing online meeting and video call from family of prisoners. Prison committal provides an opportunity to screen patients for COVID-19 and testing.

People entering and exiting prison are some of the most vulnerable and underserved by community health services, there is must have policy that provide service for screening and doing quarantine for 14 days when prisoners enter or exit detention area⁸. Introduction temperature and hand hygiene for staff should be done daily before enter area. Create a standard procedure for cure the symptom for prisoners and staffs include quarantine, telehealth medicine, drug use policy, management emergency-firs aid, and then doing report daily case into national big data. All detention centers and prison facilities must be integrated into the local/national epidemiological surveillance system¹²

Promote mental health, prisons are generally more prone to depressive episodes and increased suicidal risk. These are factored into the stresses imposed by the emergency and their greater isolation from their family friends who would normally visit and support them, regular support from mental health workers could be fundamental in reducing episodes of violence and in preventing long-term adverse psychological consequences. Access to mental health care (doing virtual meeting), socialization (including telephones) must also be universally available without charge^{3,8,9}, because it was found fear and worry in most people caused by pandemic situation. In Indonesia mental health during the Pandemic has not been properly provided by the government.

Conclusion

Various management efforts to handle the spread of covid-19 in Prison were carried out by each government in each country. From these various efforts, several countries succeeded in management of Covid-19 in Prison. there is no single approach for handling Covid-19 cases and outbreaks and adapt their approach to the local context. Basically, all efforts to deal

with the spread of Covid-19 in Prison are already good, but it will be effective if all those efforts are carried out together such as a disciplined community to conduct clean lifestyles, personal hygiene diligently, use masks as protect, and government provide facility easier access for health care, massive screening and testing who enter the area and also regulate of quarantine who prisoners and staffs infected. Mental health as a new view point that must have notice in Indonesia

Recommendation

To reduce the spread of Covid-19 disease in Prison, there needs to be comprehensive response from the government in the management of appropriate treatment in accordance with the conditions in the country. The basic effort that needs to be done is to conduct health education to prisoners and staffs for break the wrong information of Covid-19 while conducting an assessment of public health needs. In addition, the government can also provide promotive, preventive, curative, and rehabilitative management of Covid-19 in Prison looking for literature from other countries.

REFERENCE

- Han, Y., Yang, H. (2020). The Transmission and Diagnosis of 2019 Novel Coronavirus Infection Disease (COVID 19): A Chinese perspective. *J Med Vol.*;92(6):639–44.
- CDC. <https://covid.cdc.gov/covid-data-tracker/global-counts-rates>. Access on June 20, 2021
- Caputro, F., Graterri, S., Sacco, M, A., *et al.* (2020). Covid-19 emergency in prison: Current management and forensic perspectives. *Medico Legal Journal*. Vol. 88(4) 185–186. DOI:10.1177/0025817220923693
- Dolan, K., Wirtz, A, L, Moazen, B., *et al.* Global burden of HIV, viral hepatitis, and tuberculosis in prisoners and detainees. *Lancet* 2016; 388: 1089–1102.
- Kinner SA, Young JT, Snow K., *et al.* Prisons and custodial settings are part of a comprehensive response to Covid-19. *Lancet Public Health* Volume 5, ISSUE 4, e188-e189, April 01, 2020.
- Wibowo, P., Zubarkah, M, Z., *et al.* (2020). Prisons and Detention Facilities Preparedness in Indonesia for Preventing and Control of Covid-19. *Advances in Social Science, Education and Humanities Research*, vol. 549. Atlantis Press
- Steward, C., Tommosy, G, F., Lamont, S., *at.al.* (2020). COVID-19 and Australian Prisons: Human Rights, Risks, and Responses. *Journal of Bioethical Inquiry*. <https://doi.org/10.1007/s11673-020-10054-3>
- Henry, Brandy F, PhD, LICSW. (2020). Social Distancing and Incarceration: Policy and Management Strategies to Reduce COVID-19 Transmission and Promote Health Equity Through Decarceration. *Journal Health Education & Behavior* 1-4. [sagepub.com/journalspermissions](https://www.sagepub.com/journalspermissions) DOI: 10.1177/1090198120927318
- Crowley, D., Cullen, W., *at al.* (2020). Prison and opportunities for the management of COVID-19. DOI:10.3399/bjgpopen20X101106
- Franco-Paredes, C., Jankousky, K., Schultz, J., *at al.* (2020). COVID-19 in jails and prisons: A neglected infection in a marginalized population. *PLOS Neglected Tropical Diseases*. <https://doi.org/10.1371/journal.pntd.0008409>
- Malloy, G, S, P., Puglisi, L., Brandeau M, L, *et al.* (2021). Effectiveness of interventions to reduce COVID-19 transmission in a large urban jail: a

model-based analysis. *BMJ Open*.
doi:10.1136/bmjopen-2020-042898
Mekonnen, B., Hailemariam, S., Ejigu, A.,
et al. (2020). Preparedness and
Readiness Against COVID-19
Pandemic in Prison Institutions and
Detention Centers in Southwest
Ethiopia. *International Journal of
General Medicine*.

<http://doi.org/10.2147/IJGM.S287066>
Zawitz, C., Welbel, S., Ghinai, I., *at al.*
(2020). Outbreak of COVID-19 and
interventions in a large jail—Cook
County, IL, United States. *American
Journal of Infection Control*.
<https://doi.org/10.1016/j.ajic.2021.03.020>