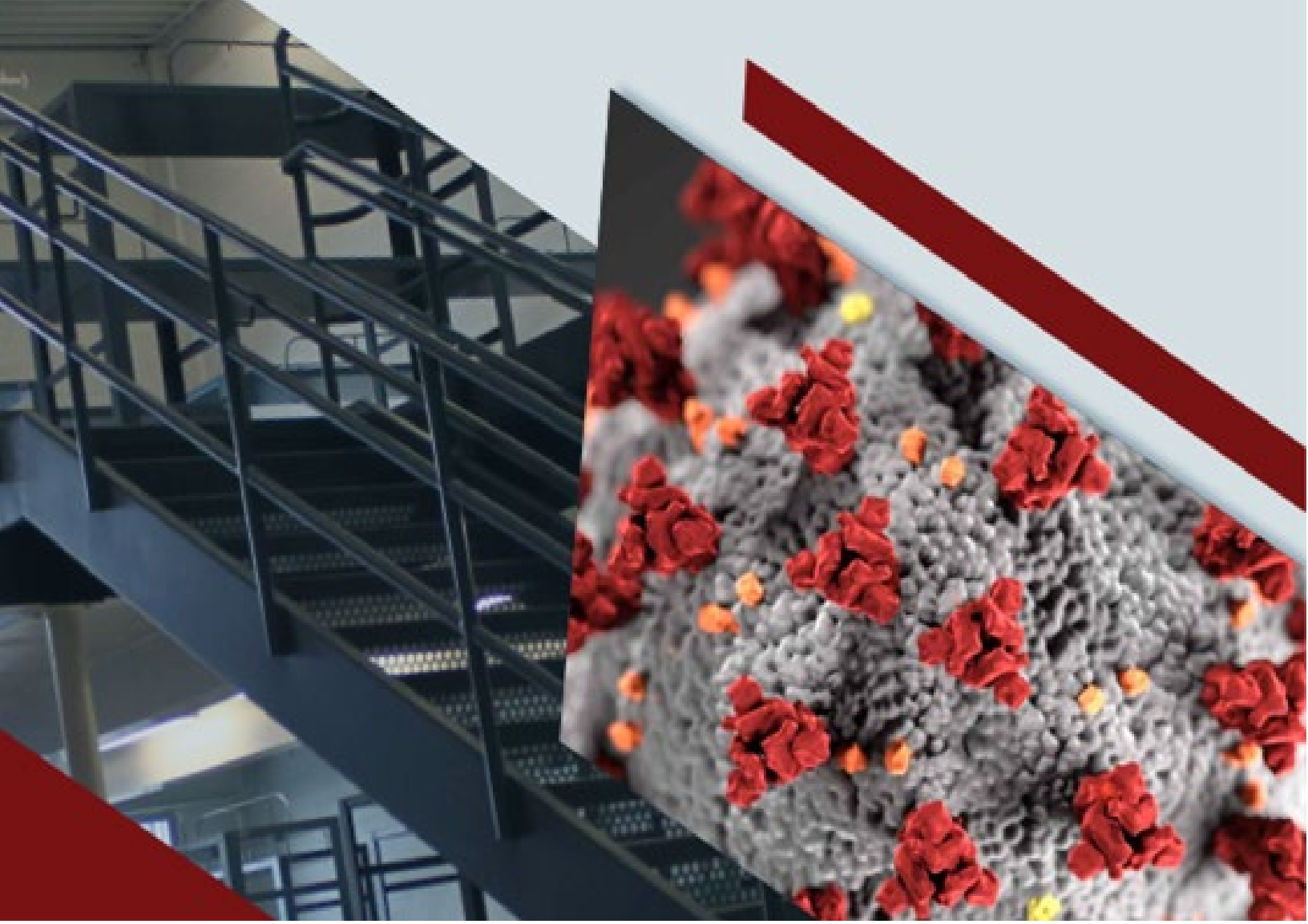

Preparing for the Next Pandemic: Lessons Learned from COVID-19 in Confinement Facilities

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Contents

Executive Summary

Coronavirus disease 2019 (COVID-19), caused by the novel SARS-CoV-2 virus, had significant impacts on people across the world and the nation, and some of its most significant impacts were on people who were incarcerated and the staff who support confinement facilities. Both staff and the people who are incarcerated are in close quarters with very limited options for self-protection. They are also, in general, at higher risk for serious disease, due to pre-existing medical conditions,[1] an aging population of people who are incarcerated, along with very limited ability for social distancing.[2] Most confinement facilities endeavored to mitigate the impacts of the pandemic, averting even worse outcomes.

According to the COVID Prison Project, which tracked data and policy across the country to monitor COVID-19 in prisons, "a majority of the largest, single-site outbreaks since the beginning of the pandemic have been in jails and prisons." As an example, almost a quarter of a million prison staff members became infected from COVID-19, as did 647,349 people who were incarcerated, leading to almost 300 staff deaths and 3,000 deaths of people who were incarcerated, between March 2020 and June 2023.[3]

This document shares the lessons learned from the impacts of the COVID-19 pandemic on correctional systems, confinement facilities,[a] staff, and people who are incarcerated. The goal of this report is to help confinement facilities prepare for and mitigate effects from the next pandemic, as well as other infectious disease outbreaks and public health crises. It was developed as part of the U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Assistance's COVID-19 Detection and Mitigation in Confinement Facilities (CDMCF) Training and Technical Assistance (TTA) Center that provided TTA to state, local, and tribal agencies the received funding through the Centers for Disease Control and Prevention's CDMCF funding program.

Methodology

The CDMCF TTA Center started researching this report with an environmental scan reviewing nearly 200 documents, including formal and informal reports, journals, periodical articles, and books. This was followed by a series of interviews, listening sessions, and interagency engagements with corrections leaders. For the interviewer to be candid, we committed to keeping their identities confidential. Additionally, the CDMCF project team gathered best practices and lessons learned from recipients of American Rescue Plan Act of 2021 (P.L. 117-2) (ARPA) funding for confinement facilities, as

[a] The term "confinement facility" is synonymous with "correctional facility," which is defined by 34 USC § 10651(l)(1) as "a jail, prison, or other detention facility used to house people who have been arrested, detained, held, or convicted by a criminal justice agency or a court."

documented in Appendix A of this report. The team then analyzed the collected data, seeking themes, best practices, innovations, and challenges.

Themes

Partnering

One universally echoed theme across the sources was that planning and coordination with key partners was essential to mitigate effects of the pandemic. The true experts in pandemic planning were most often found among public health and emergency management partners. Those confinement facilities that successfully partnered with their emergency management and public health authorities, in general, did better than other facilities who were not able to build or maintain such partnerships. In fact, we frequently heard from those who partnered with public health that their assistance was invaluable in operationalizing the Centers for Disease Control and Prevention (CDC) guidance for corrections, while those who were unable to partner with public health had challenges in being able to fully understand all the specifics of the guidance. CDC and their public health partners use different technical terms than are used within confinement facilities, even within many correctional health operations, so having partners who could translate was essential to effective mitigation. Public health authorities also provided greater access to medical and health care resources than was normally available in confinement facilities.

Those who partnered with emergency management also found greater access to resources and partners. An additional essential lesson learned was the importance and value of confinement facilities making themselves a resource to their emergency management and public health partners. It was clear that confinement facilities were able to provide logistical support, through correctional industries, to assist with the needs of their government partners. Confinement facilities as a resource provider are more likely to be involved in future planning and preparedness, training, exercises, and response efforts with their partners.

Planning

Confinement facilities that had pandemic plans prior to the outbreak of COVID-19 were able to mount a reasonably effective initial response that protected people who were incarcerated until the CDC provided more specific guidance. In general, facilities that did not have effective plans, experienced greater difficulties in addressing the initial outbreak.[4]

Plans provide facilities guidance on how to approach an infectious disease outbreak, until more specific guidance is provided by public health authorities. Each time the CDC issued new guidance, such as the need to implement mass testing, response plans should have been updated to reflect the new guidance. Confinement facilities' pandemic plans required frequent updates to address the changing guidance on COVID-19. Most agencies indicated that they were either successful in making such updates or tried very hard to

rapidly update their plans but didn't always succeed before the next set of guidance was released.

Data

Data are critical to an appropriate, proportional public health response. Initially, little was known about the virus that causes COVID-19. Data collected by confinement facilities and supporting health organizations (public health, in-facility health, and contracted healthcare support) in the initial phases of the pandemic were used to learn about the virus and develop more effective protocols. The protocols changed frequently as new data were analyzed and incorporated. As the pandemic progressed, protocols were developed to adjust mitigation efforts based on the infection levels and other related data, leading to better outcomes from the perspectives of physical health, mental health, and correctional programs.

We also heard from many confinement facilities that sharing data with stakeholders was essential to mitigating anxiety and concerns about the pandemic. Such stakeholders included not only people who are incarcerated, but also staff, family members, government partners and the public.

CDC shared the importance of confinement facilities transmitting data on COVID cases to their jurisdictional health department. One of the themes they reported that will be important for future pandemic preparedness efforts is the need to have standardized disease reporting processes that get the data from corrections to health departments quickly enough for them to respond and take mitigating actions.[5]

Testing

An effective testing program, often including mass testing and/or wastewater testing of the facilities, was essential to providing complete and up-to-date data for both disease mitigation and public information. In the early stages of the pandemic, research showed mass testing in a confinement facility was much more effective than symptom-based testing in detecting and mitigating the virus,[6] and the guidance was changed to reflect the use of mass testing protocols.[7]

Funding

Implementing these protocols requires funding and resources. Even in the best of times, correctional agencies generally do not have enough funding to fully meet their needs. Overarching state and local budget constraints during the pandemic exacerbated pre-existing budget issues for most correctional agencies.

The CDC's Epidemiology and Laboratory Capacity for Prevention and Control of Emerging Infectious Diseases (ELC) Program established the CDMCF program with funding made available through ARPA. The Bureau of Justice Assistance established the CDMCF TTA Center to support the CDMCF program[8]. This funding, as well as other funding mechanisms, such as the earlier U.S. Department of Justice (DOJ) Coronavirus Emergency Supplemental Funding (CEFS) program under the Coronavirus Aid, Relief, and

Economic Security Act (CARES Act), were instrumental in allowing confinement facilities to make many of the essential pandemic mitigation measures. However, certain restrictions to how the CDMCF funds could be used, capacity constraints in health departments who were the recipients of the funds, and limited collaboration between the recipients and confinement facilities in some states, limited the impact of these funds.

Operational Challenges

Throughout the pandemic, correctional agencies faced operational challenges and developed innovative solutions. Many of these challenges required confinement facilities to revise operational practices and procedures to support public and institutional health, including visitation, programming, medical, and mental health protocols among many other protocols to minimize the prospects of spreading infection into and throughout confinement facilities.

Communications

Marketing professionals have known that using diversified communications helps reach across populations who might learn differently (e.g., auditory learner vs visual learner). One consistent factor that many confinement facilities cited for effective communications was to provide the messaging through "trusted agents." The specific trusted agents varied by facility and population, but often included correctional advocates, chaplains, medical/public health officials, and leaders among people who are incarcerated. Messaging could be provided in person via public address systems, posters, flyers, and literature, or through videos accessible via tablets used by people who were incarcerated.

Technology

Technology was able to fill many of the gaps created by the new prophylactic protocols. Investment in technology enabled continuity of programs, including virtual visitation, remote/virtual programming, and telehealth services to replace what had formerly been in-person functions. The new technology also facilitated diversified communication methods to improve public health outcomes using videos accessible via tablets.

Balancing Mental Health and Physical Health

Another consistent lesson learned for confinement facilities is the need to strike a balance between mental and physical health impacts. Initial protocols called for many people to be isolated or quarantined by themselves. However, research has long identified social isolation as a significant challenge to mental health. People who were incarcerated also spent almost all their time in their cells, rarely seeing other people beyond their cellmate(s). This was not conducive to maintaining optimal mental health and wellbeing. As more was learned about the virus, protocols became less restrictive, allowing for more interaction between people who are incarcerated, supporting an atmosphere more conducive to better mental health. In retrospect, many correctional officials wish they would have begun cohorting for general population isolation and quarantine earlier, among other protocol changes, to better balance physical and mental health.

Decarcerating as a Mitigation Strategy

Decarcerating was found to be among the most effective mitigation measure for confinement facilities. Through decarcerating, fewer people were housed in confinement facilities to be exposed to the virus and subsequently spread the virus. It also reduced density allowing for more social distancing. Numerous methods were used to implement decarcerating, including shortening sentences, early release, compassionate release, diversion programs, alternate sentencing, home confinement and issuing summonses instead of making arrests. Some state correctional agencies considered the suspension of intake to be a method for decarcerating their facilities, but that increased the population in local jails, creating new problems.

Staffing

Just as confinement facilities are chronically underfunded, they are also chronically understaffed. The pandemic only exacerbated this problem as staff became sick or left their jobs out of fear of getting sick or due to the stressful conditions of working in facilities during this time. Compensation was a factor; correctional staff reported they could earn a better living in the "gig economy" (e.g., Uber, Door Dash, Task Rabbit, etc.). Recently, a few states have made efforts to significantly increase pay from just above minimum wage to nearly double that wage. Compensation was not the only factor in the chronic staffing shortage. We repeatedly heard that confinement facilities that built a "culture of caring" had fewer staff issues. Even small gestures like sincerely asking staff how they are doing made major differences in staff cohesion throughout the pandemic.

Keeping staff healthy was also essential to maintaining effective staffing levels throughout the pandemic. Most facilities offered Personal Protective Equipment (PPE) and vaccines to staff and people who were incarcerated. However, the use of such prophylactic measures was not universal. In fact, it was often related to the use of such measures in the surrounding communities. Participation could be increased moderately through incentives, as well as through effective messaging via trusted agents. Mandates were found to be highly effective, but also highly resented in the adoption of these measures. Many jurisdictions were unable to use mandates.

Where possible, many confinement facilities attempted to use remote work to protect those staff who were most vulnerable to the virus, and/or those staff whose jobs did not require direct contact with people who are incarcerated. However, we found that those who could work remotely faced resentment by those who could not, and some agencies stopped remote work as a result.

Innovative Actions

A few other specific actions taken by confinement facilities to protect correctional staff and people who are incarcerated are worthy of specifically highlighting for future reference, including:

- Upgrading/improving facilities heating, ventilation, and air conditioning (HVAC) systems was key to risk management. As an airborne illness, the more that the virus can be filtered or eradicated from the HVAC system, the less opportunity there is for disease to spread. The most effective tools including expensive upgrades like adding HEPA (high efficiency particle air) filtration to the HVAC system and adding UVGI (ultraviolet germicidal irradiation) to kill the virus or reverse air handlers to remove the virus from the system. However, other lower cost options included increasing outdoor air ventilation, decreasing recirculation, and replacing standard air filters with more effective filters.
- Alternate Care Sites (ACSs)[b]—temporary medical facilities—provided effective and cost-effective medical treatment to populations that are incarcerated, especially when the local hospitals were not readily available. The use of ACSs, also called "Alternate Treatment Facilities" (ATFs), "Surge Care Faculties," "Quarantine facilities," "Isolation Facilities," "Recovery Centers," or "Field Hospitals" were essential to meeting the care demands during the worst outbreaks. One agency found that they were cost effective with just a few patients, reduced the staffing strain, and were very effective in preventing the spread of COVID-19 into the community.
- Wastewater testing proved accurate, less intrusive and more cost effective than other forms of mass testing, according to multiple studies. It should be considered wherever a facility's sewage system would be conducive for it. Because wastewater testing does not require individual participation, it was also an effective strategy to address testing fatigue. Not only can it test for COVID-19, but it can be used to scan for the presence of dozens of other diseases and the prevalence of drug use within the facility, making it a sustainable option.

Conclusion

In interviews with confinement facilities staff, most observed that they "made it through the pandemic." Making it through meant that they worked harder than they ever had before, had stressors they never had before, and learned rapidly how to be anticipatory and flexible with their mitigation activities. Many interviewees suggested that outcomes could have been much worse and what they learned will make the next time better. If the lessons learned from COVID-19 can be built into plans and protocols for the next pandemic, the outcomes will likely be much better for the people who live, work, and visit confinement facilities, and the community at large.

[b] Alternate Care Site (ACS) is a broad term for any building or structure of opportunity converted for health care use. It provides additional health care capacity (e.g., beds) and capability (e.g., ventilators) for an affected community, outside the walls of a traditional, established health care institution. An ACS can serve various patient types (e.g., COVID-19 or non-COVID-19) and purposes (e.g., non-acute care, hybrid care, or acute care). It can be established in many types of buildings (e.g., hotel or arena) to meet the local community's needs. In all cases, the ACS will require significant logistical wraparound services, as well as appropriate medical staffing. (FEMA Factsheet, Alternative Care Site (ACS) Toolkit, June 2020)

Introduction

The COVID-19 pandemic was a historic event that had significant impacts on the world and the field of corrections. It highlighted the importance of the health of people who live and work in these facilities as a public health issue. There are lessons to be learned from the impacts of the COVID-19 pandemic on correctional systems, confinement facilities, staff, and people who are incarcerated. This report highlights those lessons and provides important insights for how confinement facilities can prepare for and mitigate the next pandemic.

A summary of the best practices and lessons learned can be found in Appendix A.

COVID-19 National Response

On January 21, 2020, the United States recorded the first case of COVID-19, which would become one of 22 million recorded cases during the first year of the pandemic.[9] After the declaration of a public health emergency (PHE) on January 31, 2020, the federal government began to implement public health measures to safeguard the public, including widespread closures of businesses and schools and strict social distancing guidelines.

On March 13, 2020, the President of the United States declared a national emergency for COVID-19. Commensurate with the emergency declaration, the President ordered national social distancing guidelines, effective March 15, 2020. Often referred to as the period of "lockdowns," governors ordered their constituents to stay at home, unless they were essential workers. By March 17, 2020, every state in the nation had at least one confirmed case of COVID-19.[10] By March 29, 2020, the United States had 103,321 cases of COVID-19, the highest number of confirmed cases in the world.[11] On April 3, 2020, the CDC recommended that people wear masks outside of their homes. Many governors followed with orders for mask mandates. On April 13, 2020, the President announced plans to lift the stay-at-home orders. This led to governors lifting their orders on a state-by-state basis between late April and mid-June.[12] By May 27, 2020, despite the mask mandates and stay at home orders, the U.S. death toll surpassed 100,000, with nearly 1.7 million confirmed cases.[13] Through December 2023, the United States experienced 6,593,929 hospitalizations and 1,161,602 deaths due to COVID-19.[14]

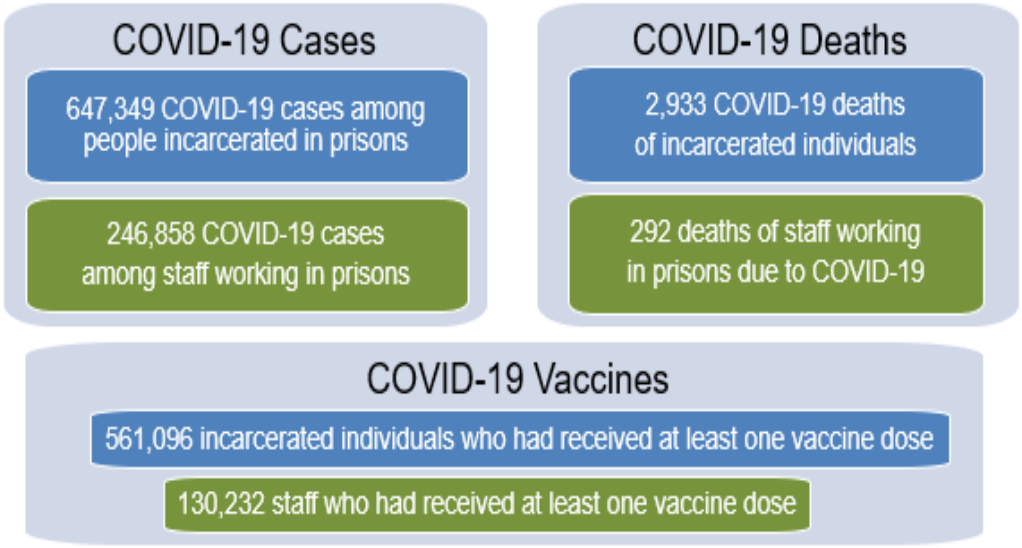
Managing the pandemic became easier by November 2020, with the emergency use authorization of Monoclonal Antibodies (MCA),[15] one of the first generally effective treatments. The ability to manage the disease was further advanced in December 2020, with the emergency use authorizations of the first vaccines from Pfizer[16] and Moderna.[17] There were 100 million doses of the vaccine administered by March 19, 2021. There were widespread infections and deaths for nearly two years, with major spikes following the introduction of new variants, especially the Delta and Omicron variants.[18]

The National Emergencies continued through 2023. On February 10, 2023, the President signed an executive order declaring the end of the national emergency for COVID-19 and the PHE, effective May 11, 2023.[19] On April 10, 2023, Congress passed and the President signed a bill to immediately end the national emergency;[20] however, the PHE would expire on May 11, 2023, per the Executive Order.[21] The end of the national emergency did not mark the eradication of COVID-19. Rather, it ended the period where COVID-19 should be managed as a pandemic emergency. COVID-19 was to be managed as an ongoing endemic, much like influenza, with annual vaccine updates and ongoing mitigation and treatment protocols.[22]

COVID-19 in Corrections

People who are incarcerated or working in confinement facilities faced significant risk. According to the *COVID Prison Project*, which tracked data and policy across the country to monitor COVID-19 in prisons, "a majority of the largest, single-site outbreaks since the beginning of the pandemic have been in jails and prisons."[23] Figure 1 provides statistics about the infection, death, and vaccine rates in confinement facilities.

Figure 1: COVID-19 statistics in corrections



Source: COVID Prison Project as of July 3, 2023, https://covidprisonproject.com/[24]

There were numerous infections and deaths from COVID-19 in confinement facilities during the first year of the pandemic. The first documented cases of COVID-19 among people who are incarcerated were on March 20, 2020, at facilities in Georgia and Massachusetts.[25] That same day, the California Department of Corrections and Rehabilitation (CDCR) reported their first two staff members diagnosed with COVID-19.[26]

As early as March 2020, national corrections organizations, such as the American Correctional Association (ACA), American Jail Association (AJA), Correctional Leaders Association (CLA), National Sheriff's Association (NSA), Council of Juvenile Justice Administrators (CJJA), National Commission on Correctional Health Care (NCCHC) and others, convened experts, held webinars, and published guidance to inform their members of the latest information available to help them mitigate the impact of the pandemic in their facilities. They all developed resource pages for their members, with an archive of their information and guidance.[27] Members of these associations attended a weekly ACA/NCCHC webinar on COVID-19 as early as March 20, 2020, one week after the National Emergency Declaration. [28] Shortly after these organizations started to convene their calls, CDC releases their initial COVID-19 guidance for corrections. [29]

Timeline for COVID-19 In Corrections

December 31, 2019—The World Health Organization (WHO) notes several cases of viral pneumonia in Wuhan, China.

January 21, 2020—First U.S. COVID-19 case confirmed in Washington State

January 31, 2020—U.S. public health emergency declared.

March 11, 2020—WHO declares COVID-19 a global pandemic.

March 15, 2020—The President establishes 15-day social distancing guidelines.

March 17, 2020—Every state in the U.S. has at least one confirmed case of COVID-19.

March 20, 2020—First COVID-19 confirmed cases in corrections in Georgia, Massachusetts, and California.

March 23, 2020— CDC releases initial COVID-19 guidance for corrections.

March 27, 2020—CARES Act becomes law.

May 9, 2020—BJA releases CESF funding from CARES Act.

December 2020—U.S. Food and Drug Administration grants emergency use authorizations for two vaccines.

August 2021—CDC releases CDMCF funding from ARPA.

Confinement facilities face greater risk from COVID-19

People who are incarcerated and corrections staff had higher rates of COVID-19 infections and deaths than the general public.[30] For example, Rikers Island had an estimated infection rate on April 4, 2020, that was five times higher than the rest of New York, at a time when New York had the highest infection rate of any state.[31,32] Corrections environments are prone to the rapid and extensive spread of infectious disease. This has historically been shown with past outbreaks of influenza, tuberculosis, and other respiratory pathogens.[33,34]

Among confinement facilities, jails may have had the biggest challenges during the pandemic, as people who are incarcerated in jails usually are only detained for a short time before being released. Some people who are incarcerated may be detained in jail multiple times per year. The phenomena known as "jail churn[c]" significantly increases the possibility that an infection from the

[c] *Jail churn* is rapid turnover in a facility's population. On average, there are approximately 767,620 people in U.S. jails on a given day; however, over the course of the year, between 12 million and 13 million people are

community can be spread throughout the jail upon intake. In addition, an infection in the jail can be spread throughout the community upon release of people who are incarcerated.

People who are incarcerated also have higher than average prevalence of chronic physical and behavioral health conditions. Women and minorities have higher rates of chronic disease than other incarcerated populations. The population of women who are incarcerated has grown by 742 percent between 1980 and 2016.[35,36] This is further compounded in prisons which have an increasingly aging population. Age and chronic diseases, including mental illness, are co-morbidities for more severe respiratory disease and death.[37] Lower levels of education and health literacy among people who are incarcerated, along with general distrust of government, make confinement facilities fertile ground for misinformation and fear.[38]

The correctional environment imposes additional risks.[39,40] Basic hygiene and sanitation supplies, such as hand sanitizer, soap, and cleaning supplies are highly controlled by facilities, as are changes of clothing and bedding. Additionally, some facilities initially charged for hygiene and sanitation supplies, as they did before the pandemic. However, many facilities waived charges for hygiene and sanitation supplies, based on CDC guidance. Such controls and costs impeded personal hygiene and potentially lead to increased disease spread.[41] [42]

Corrections health care systems also pose challenges to managing COVID-19. Service capacity is often insufficient to meet needs, and systems for tracking and sharing medical and public health information are inadequate. Medical co-pays for people who are incarcerated may also deter individuals from seeking medical attention for a potential infection, until they are very sick and have likely already spread the disease. Additionally, security requirements may impede transfer of very sick people who are incarcerated to hospitals, assuming that there is a nearby hospital with open beds to accept the patient.[43,44,45]

Corrections staff at higher risk

Corrections staff are also at higher risk for the spread of infectious disease. There are over 500,000 correctional officers and medical staff serving confinement facilities around the United States.[46] They are essential personnel every day, but especially so during a pandemic.[47] The corrections staff share the same risks as the incarcerated residents, and often find themselves at risk for exposure when enforcing protocols or providing direct medical treatment. In addition, people who are incarcerated may intentionally expose correctional staff to potentially infectious body fluids.[48,49]

detained in a jail. Accordingly, on average, each jail bed is occupied by 17 different people each year, or three people every two months. That is significant turnover with many new people introduced into the jail and then returned to the community each year. (AJA, Jail Statistics, https://www.americanjail.org/jail-statistics)

Correctional staff generally have a high rate of stress, anxiety, and frustration with their working environment, leading to rates of anxiety, depression, post-traumatic stress disorder and suicide that are higher, up to double, than other careers, including police officers. Under COVID-19, correctional employees stress was heightened. [50,51] Correctional staff expressed fear that they could catch the disease and then spread it to family and loved ones. Also, during the pandemic, people who were incarcerated experienced pandemic-related stress, making them more agitated, difficult, or stressful to work with, leading to higher levels of stress for the correctional staff. This stress level was further exacerbated by the shortage of staff, which led to longer hours, including more overtime.[52] As a result, many correctional employees requested enhanced pay or benefits to make up for the highly stressful environment, including, but not limited to, hazard pay and extra sick days, if they were to get infected. [53,54]

Methodology

To develop this Lessons Learned report, the CDMCF TTA Center collected data on the impact of COVID-19 in confinement facilities in four phases:

1. Environmental scan of relevant documents.
2. Engagement with national corrections organizations, such as the American Correctional Association (ACA), American Jail Association (AJA), Correctional Leaders Association (CLA), National Sheriff's Association (NSA), Council of Juvenile Justice Administrators (CJJA), National Commission on Correctional Health Care (NCCHC).
3. Listening sessions with corrections and public health leadership and staff.

4. Interviews with corrections officials; public health experts; medical providers; and representatives of state governments, professional organizations, and non-profit organizations.

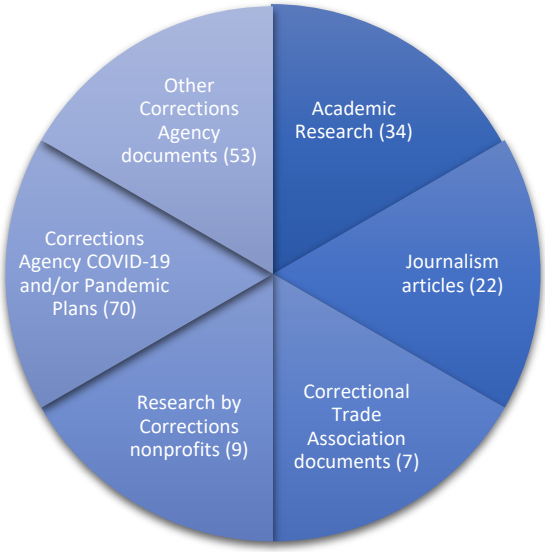
Environmental scan

The environmental scan included analysis of numerous journal articles, review of papers published by non-profit organizations and academic institutions, and newspaper articles. The CDCMF team reviewed more than 200 resources in our environmental scan, across six categories (see Figure 2). Selected documents from the literature review are cited throughout this document.

In addition, the results from two directly relevant National Institute of Corrections (NIC) surveys are prominently referenced in this report:

- Effects of COVID-19 on Prison Operations, 2022[55]
- Effects of COVID-19 on Jail Operations, 2022[56]

Figure 2: Types of resources reviewed in the environmental scan



The literature search provided general background on how correctional agencies handled the pandemic showed that, in most cases, correctional agencies did their best to mitigate the impacts of the pandemic but felt that they neither had the guidance, nor resources, to do everything necessary to maximize the level of mitigation. The literature review encompassed multiple studies that indicated critical mitigation measures within corrections. Topics included:

- Mitigation strategies of corrections officials to prevent the spread of COVID-19, where guidance frequently changed, caused some issues with understanding and compliance.[57]
- Controlled decarceration reduced infection rates by eight times in overcrowded facilities; and visitation bans, reducing inter-facility transfers, single cell housing, and use of masks all helped in reducing the risk of infection as well.[58]
- Quantitative surveys of leadership of state departments of corrections and local correctional agencies generally indicated that correctional agencies did the best they could, given the constraints they had.[59,60]
- Staffing shortages hindered corrections operations.[61]

- Nationwide staffing reductions occurred across custodial staff, security personnel, and non-security personnel. Many agencies indicated that hiring new staff and employee retention were "major problems."[62,63]

Listening sessions

More than 18 interviews and 25 listening sessions were conducted with jail, prison, juvenile facility, and public health officials. This included sessions at the conferences of all the major correctional organizations, as detailed in Table 1, below.

Table 1: CDMCF Outreach at Conferences and Events

Conference	Date	CDMCF Outreach Activity
American Correctional Association (ACA) Winter Conference 2023	January 26-30, 2023	Roundtable: Lessons Learned with Coalition of Correctional Health Authorities: COVID-19 response
American Jail Association (AJA) 42nd Conference & Jail Expo	May 18-24, 2023	Presentation: Lessons Learned
National Sheriff's Association (NSA) Annual Conference 2023	June 26-29, 2023	Presentation: COVID-19 in Confinement Facilities – Successful Management Strategies TTA Coach Outreach/Exhibit Booth
National Association of County and City Health Officials (NACCHO 360)	July 10-13, 2023	TTA Coach Outreach/Exhibit Booth
Correctional Leaders Association Western Region Director's meeting	July 10, 2023	Briefing: CDMCF TTA Center
National Association of Counties	July 21-24, 2023	TTA Coach Outreach/Exhibit Booth
ACA 153rd Congress of Correction	August 8-13, 2023	Presentation: Lessons Learned – COVID-19 Preparing for the Future
Council of Juvenile Justice Administrators Summer Meeting	August 12, 2023	Presentation: Lessons Learned in Juvenile Facilities

We also conducted listening sessions at the CDMCF peer group meetings. The CDMCF Peer Group meetings were an important source of contacts for facilities and organizations across the country. The CDMCF peer groups include:

- State Prisons
- Small Jails
- Medium sized jails
- Large Jails
- Juvenile Confinement facilities
- Public Health Officials

Interviews

The CDMCF TTA Center team conducted more than 30 targeted interviews with corrections officials, public health experts, medical providers, representatives of state governments, professional organizations, and non-profit organizations. The interviews included adult and juvenile corrections and detention agencies, community corrections agencies, and representatives from the CDC. These interviews focused on what went well, what did not go well, and what can be improved upon in the future. The interviews, listening sessions and interagency engagements are cited throughout the document, and some are highlighted in each section under "Voices from the Field." The citations are coded to ensure the anonymity promised to the participants, which allowed them to speak freely.

TTA engagement

The CDMCF TTA Center provided technical assistance to 53 of the 64 health departments who received ARPA funding through under the CDMCF award to support confinement facilities in their jurisdiction.[64] Through interactions with CDMCF-funded recipients, which include state, local, and territorial health departments, we received significant feedback on the CDMCF award and management of COVID-19 in confinement facilities from the perspective of public health. This information was extremely useful in the data gathering for this report.

Findings and Innovative Approaches

The CMDCF TTA Center team identified 15 themes within three areas to protect people who are incarcerated and corrections staff (see Figure 3).

Figure 3: Lessons Learned Findings

Planning and Coordination	Operational Challenges and Solutions	Specific Action Taken
• Including corrections in government-wide planning and response efforts improved outcomes • Partnering with local and state public health organizations helped corrections respond to COVID-19 • Managing data was critical to an appropriate, proportional public health response • Changing guidance on COVID-19 required frequent updating of correctional facilities' pandemic plans • Allocating funds to confinement facilities improved public health outcomes, but the funding mechanism limited spending and impacted the program	• Revising operational practices and procedures supported public and institutional health • Striking a balance between the mental and physical health impacts of operational practices was important • Investing in technology enabled communications and continuity of programs and services. • Diversifying communication methods improved public health outcomes • Reducing the incarcerated population decreased overcrowding in facilities and improved public health outcomes • Addressing staffing-related issues impacted operations	• Upgrading/improving facilities and HVAC systems was key to risk management • Providing needed medical treatment to incarcerated populations in Alternate Care Sites prevented the spread of COVID-19 into the community • Testing wastewater proved accurate, less intrusive and cost effective • Providing incentives increased personal protective equipment compliance and vaccine uptake among people who are incarcerated and staff

Planning and Coordination	Operational Challenges and Solutions	Specific Action Taken
• Including corrections in government-wide planning and response efforts improved outcomes • Partnering with local and state public health organizations helped corrections respond to COVID-19 • Managing data was critical to an appropriate, proportional public health response • Changing guidance on COVID-19 required frequent updating of correctional facilities' pandemic plans • Allocating funds to confinement facilities improved public health outcomes, but the funding mechanism limited spending and impacted the program	• Revising operational practices and procedures supported public and institutional health • Striking a balance between the mental and physical health impacts of operational practices was important • Investing in technology enabled communications and continuity of programs and services • Diversifying communication methods improved public health outcomes • Reducing the incarcerated population decreased overcrowding in facilities and improved public health outcomes • Addressing staffing-related issues impacted operations	• Upgrading/improving facilities and HVAC systems was key to risk management • Providing needed medical treatment to incarcerated populations in Alternate Care Sites prevented the spread of COVID-19 into the community • Testing wastewater proved accurate, less intrusive and cost effective • Providing incentives increased personal protective equipment compliance and vaccine uptake among people who are incarcerated and staff

Planning and Coordination

Orleans Parish Prison during Hurricane Katrina, 2005
During Hurricane Katrina, the Orleans Parish Prison, which also served as New Orleans' jail, was excluded from the mandatory evacuation, forcing the people who were incarcerated, most of whom were in pre-trial detention, to ride out the storm in jail. As the storm surge flooded the jail, they were forced to remain in place with little food or water. When evacuated, they were then staged on an overpass of a flooded highway for days. Once finally relocated to other Louisiana jails, the people who were incarcerated had lengthy pre-trial detention because the Orleans Parish judicial system remained shut down in the aftermath of the storm.

Confinement facilities are responsible for their residents and their staff. It is essential they develop and maintain a comprehensive plan to address infectious diseases, including pandemics. The plans should consider the following: screening and treatment of people who are incarcerated and staff; quarantine and isolation; staffing concerns; mental health of staff and people who are incarcerated; decarcerating; sanitation; hygiene; and social distancing, among many other topics.[65,66] To be effective, these plans must also be coordinated with emergency management and public health agencies. Associated with planning is the collection and sharing of data to understand risk, and allocation of funding to support response and mitigation programs.

Including Corrections In Government-Wide Emergency Planning and Response Efforts Improves Outcomes

Despite being well documented with Hurricane Katrina,[67] the H1N1 pandemic,[68] [69] and other major disasters, many of the confinement facilities we spoke to confirmed that, at the time of their interview, they are still not part of the emergency planning efforts in their jurisdictions. The biggest consequence of not being at the table for the planning efforts was that confinement facilities were overlooked in the response efforts.

When the H1N1 pandemic occurred in 2009, many confinement facilities were excluded from the vaccination efforts, despite the vaccine being plentiful. The virus spread rapidly with people who are incarcerated in close quarters, with poor ventilation and very little opportunity to socially distance. This contrasted with the general population, where the widespread vaccination efforts made the 2009-2010 flu season one of the mildest on record.[70,71] COVID-19 evolved in a very similar way. Many state and local confinement facilities offered that they had little, if any, contact with their jurisdiction's emergency management organization. These agencies had much more difficulty in getting needed supplies, equipment, vaccines, medications, and other resources.

While we don't have precise data as to how many confinement facilities effectively coordinated with emergency management, the fact that emergency management

operates under National Incident Management System (NIMS),[d] allows the use of agencies which operated under NIMS for the pandemic as a proxy for coordination with emergency management. It is not precise, but it is indicative.

- 64% of 28 state Departments of Corrections (DOCs) that responded to the survey indicated that they implemented NIMS.[72]
- 16% of 217 jails that responded said that they had implemented NIMS.[73]

These statistics are relatively consistent with the data from our interviews as to the collaboration between emergency management and corrections at the state and local levels. The case study on Maryland's coordinated approach demonstrated the positive impact on health outcomes in the state's confinement facilities (see text box.)

Promising Practice Highlight:

Maryland corrections coordinated with emergency management & public health

While confinement facilities across the country were having difficulty controlling the spread of the virus within their walls, Maryland had the 10th lowest number of deaths per 100,000 people who were incarcerated, compared to other states. Maryland's success can be attributed to several factors. The executive leadership within the state government recognized the significant risk COVID-19 posed to confinement facilities because of their congregate setting, which in turn posed significant risk to the communities around those facilities. Maryland's leadership prioritized the state's correctional facilities in its response to the pandemic. The Maryland Department of Public Safety and Correctional Services (DPSCS) also operated as a full partner in the state-wide response, not only as resource claimant but also as a resource provider. (See Appendix C for more detail from the full case study.)

A fundamental principle of emergency management is the concept of "whole community" preparedness and response. The whole community includes all relevant local, state, and federal government agencies, individuals, businesses, and nonprofit non-governmental organizations (NGOs). According to FEMA, "Preparedness is a shared responsibility. By working together, everyone can help keep the nation safe from harm and help keep it resilient when struck by hazards, such as natural disasters, acts of terrorism, and pandemics."[74] The construct of "whole community" and the implementation of NIMS and the federal response and recovery frameworks provides a way for corrections to overcome historical issues of lack of inclusion, communications, and coordination.

It is also essential to recognize that planning is not just a one-time effort to complete a template, but an ongoing process of review, planning, training, exercising, and evaluation.[75]

[d] National Incident Management System (NIMS) is a systematic, proactive approach to guide all levels of government, nonprofit organizations, and the private sector in a consistent way, to work together to prevent, protect against, mitigate, respond to, and recover from the effects of incidents.

Lessons Learned and Best Practices

- Confinement facilities should ensure that they are part of their jurisdiction's emergency planning efforts, coordinating with their local emergency management office. The Federal Emergency Management Agency's (FEMA's) whole community approach is a way to promote and sustain communications and collaboration among and between corrections, public health, and emergency management.[76]
- Confinement facilities should ensure that they are recognized a resource to emergency management, providing mutual benefit.
- Confinement facilities should coordinate early with state or local emergency management agencies (EMA). The EMAs can assist with planning and resources. They can also coordinate with the appropriate parties (USACE, National Guard, Vendors) to quickly stand-up tent hospitals with ventilators, oxygen generators, and generating plants.
- A best practice for emergency management is to ensure that each agency has a liaison to emergency management, trained in emergency management. These liaisons should be highly visible to both emergency management leadership and agency leadership, to ensure that they are empowered to assist both agencies, when needed.
- BJA can partner with FEMA and organizations such as the National Emergency Management Association (NEMA) and the International Association of Emergency Managers (IAEM) to ensure that corrections are part of the community response process and are incorporated into the relevant standards (Emergency Management Accreditation Program, ACA) and plans (National Response Framework, state, and local emergency operation plans).

Voices from the Field

One state's Emergency Management Agency (EMA) requires every agency to have an EMA liaison, who is trained in emergency planning, and is responsible for that agency's continuity of operations plan and other emergency plans. That state's head of juvenile justice had previously served in that liaison position and had an excellent relationship with EMA throughout the pandemic. As a result, that agency had ample access to most of the resources they needed through EMA.

Another state's DOC said that the emergency management team met seven days a week for many months. They also said that they learned that EMA had a regular meeting with health and medical providers to plan ahead. "We've now joined those meetings to meet with community health systems to identify resources and planning. We now have a quarterly EMA meeting."

Partnerships With Local and State Public Health Organizations Helped Corrections Manage COVID-19

Partnerships between corrections agencies and their jurisdiction's' public health agency proved to be essential to managing the pandemic. Those who formed a partnership found significant benefits, including:[77,78]

- Receiving the latest public health information available, to provide direction to medical staff with management, operations.
- Accessing additional capacity with testing and vaccinations.
- Receiving help in translating complicated information regarding the latest guidance information and other emerging pandemic knowledge.
- Receiving assistance in procurement and obtaining PPE and supplies.
- Receiving guidance on day-to-day operations.
- Accessing state and federal funding.
- Receiving assistance in communicating complex public health information to people who are incarcerated, staff, and the public from a trusted source in an understandable manner.
- Aiding facilities in implementing evidence-based mitigation practices.
- Providing training to corrections staff in public health issues relevant to corrections.

Facilities that had preexisting relationships with public health organizations were able to better manage and mitigate COVID-19, had a more coordinated message to their population, and could take further advantage of resources available to them from public health agencies.[79] The promising practice highlight on Indiana's centralized purchasing system is an example of a successful partnership between confinement facilities and public health (see text box).

Promising Practice Highlight:

Indiana Centralized Procurement System

The Indiana Department of Health (IDOH) identified a key challenge during the pandemic. Every confinement facility in the state was ordering their own health and medical cleaning supplies. Not only was it a significant administrative burden to identify and maintain vendor relationships, take orders, and pay invoices, but all of these facilities and agencies were competing against each other to obtain essential but scarce resources. IDOH recognized the need for a centralized procurement strategy to efficiently distribute supplies to the state's confinement facilities.

IDOH pursued a partnership with a vendor and awarded a Quantity Purchase Agreement (QPA). Through this system, confinement facilities could choose from 18 different cleaning supplies options, including gloves, various cleaning materials, and surgical masks. By maintaining control over the ordering process and monitoring the requests through the Indiana Correctional Cleaning Supplies Request Survey, IDOH was able to track the aggregate number of orders of each item, monitor the availability of the supplies, ensure quality assurance, and align purchases with funding guidance.

IDOH also partnered with the Indiana Sheriffs' Association to provide outreach to local facilities, which resulted in a robust response from confinement facilities interested in additional cleaning supplies. Between July and November 2023, IDOH distributed over 5,220 cases of items worth over $516,000. While this was set up to streamline procurements associated with COVID-19 Detection and Mitigation in Confinement Facilities (CDMCF) funding, IDOH recognizes that this process is beneficial for all relevant procurement and will continue operating the new system in Indiana in collaboration with confinement facilities.

Most state DOCs and many jails were able to maintain helpful relationships with their local health agencies during the pandemic. NIC survey data shows:

- 97% of 28 responding state DOCs were in communication with their public health authority during the pandemic.[80]
- 64% of the 28 respondents in regular communication with public health engaged with their public health partners daily or weekly. [81]
- 91% of 217 responding jails were in communication with their public health authority during the pandemic.[82]
- 64% of the 217 respondents in regular communication with public health engaged with their public health partners daily or weekly. [83]
- 36% of the 217 respondents communicated with their public health partners at least once or twice a month.[84]

We frequently heard from those who partnered with public health that their assistance was invaluable in operationalizing the CDC guidance for corrections, while those who were unable to partner with public health had challenges in being able to fully understand all the specifics of the guidance. CDC and their public health partners use different technical terms than are used within correctional agencies, even within many correctional health

operations, so having partners who could "translate" was essential to effective mitigation.[85]

The CDMCF TTA Center team has identified a few strategies that have been successful for sustaining relationships between corrections and their public health partners:[86]

- Establish a working group that meets quarterly, and not just during times of crisis.
- Identify a position within facility/agency that serves as the public health liaison.
- Support health department's assignment of a correctional health expert in-house.
- Conduct cross-training between corrections and public health.
- Be a resource to public health, providing mutual benefit.
- Execute a centralized procurement strategy.[87]

Voices from the Field

Many agencies said that their relationships with their jurisdiction's public health agencies were essential to understanding the corrections guidance coming from CDC. They said that the guidance contained technical public health language that was unfamiliar to the corrections personnel. They couldn't operationalize the guidance without assistance from public health. Many corrections and public health agencies also said that they gained significant mutual benefit by embedding public health personnel within the corrections agency, providing for consistent and ongoing support. Most said that they would continue this practice post COVID-19.

Lessons Learned and Best Practices:

- Confinement facilities should establish and maintain ongoing relationships with their jurisdiction's public health agency. Embedding a public health professional within their organization for continual and ongoing support may be a best practice.
- Confinement facilities should maintain ongoing partnerships with public health, via one or more, of the following strategies:
  - Establish working group that meets quarterly, and not just during times of crisis.
  - Identify a position within facility/agency that serves as the public health liaison.
  - Support health department's assignment of a correctional health expert in-house.
  - Conduct cross-training between corrections and public health.
  - Be a resource to public health, providing mutual benefit.
  - Execute a centralized procurement strategy.

Data Are Critical to Appropriate, Proportional Public Health Response

From the start of the pandemic, CDC has been collecting data from corrections through state and local public health agencies. CDC's *Interim Considerations for SARS-CoV-2 Testing in Correctional and Detention facilities*, stated confinement facilities are required

by law to report positive cases to state and local health authorities, who then reported that data up to the CDC.[88]

However, CDC reported difficulties in parsing the data from state and local health departments to isolate corrections data. Initially, when state health departments reported case data to CDC, it typically did not indicate when cases were identified in confinement facilities. Initially there was a data field in the case report form that indicated a case was an incarcerated person – but it was not a required data field, it was most often not filled out, and then the data field was later eliminated from the case report form in order to shorten it and reduce reporting burden for health departments. Their lesson learned was that there is a need for better public health surveillance data reporting practices, including information about housing status on case reports, with incarceration as an option. [89] This information can then be used to inform updates to CDC guidance.

In April 2020, one of the first CDC guidance documents on contract tracing for COVID-19 accompanied CDC's introduction of the COVID Tracer Tool, which allows users to explore the impact of up to three user-defined contact tracing strategies in their own jurisdictions and to assess the personnel and time that will be needed to effectively execute the strategies.[90] Contact tracing is used to identify potential exposure in people who are incarcerated and staff to identify individuals for quarantine, before they could potentially spread disease to others, curtailing spread. Contact tracing could also help identify how the virus was introduced and can be used to help prevent future introduction of disease by the same manner. [91] Accordingly, contact tracing was one of the first opportunities for data to directly impact management of COVID-19 within corrections.

Guidance for contact tracing was initially included in the July 7, 2020, update to *Interim Considerations for SARS-CoV-2 Testing in Correctional and Detention Facilities*. This guidance was followed by most correctional agencies. In response to a survey, 93% of state departments of correction said they conducted contact tracing,[92] while 71% of jails did.[93]

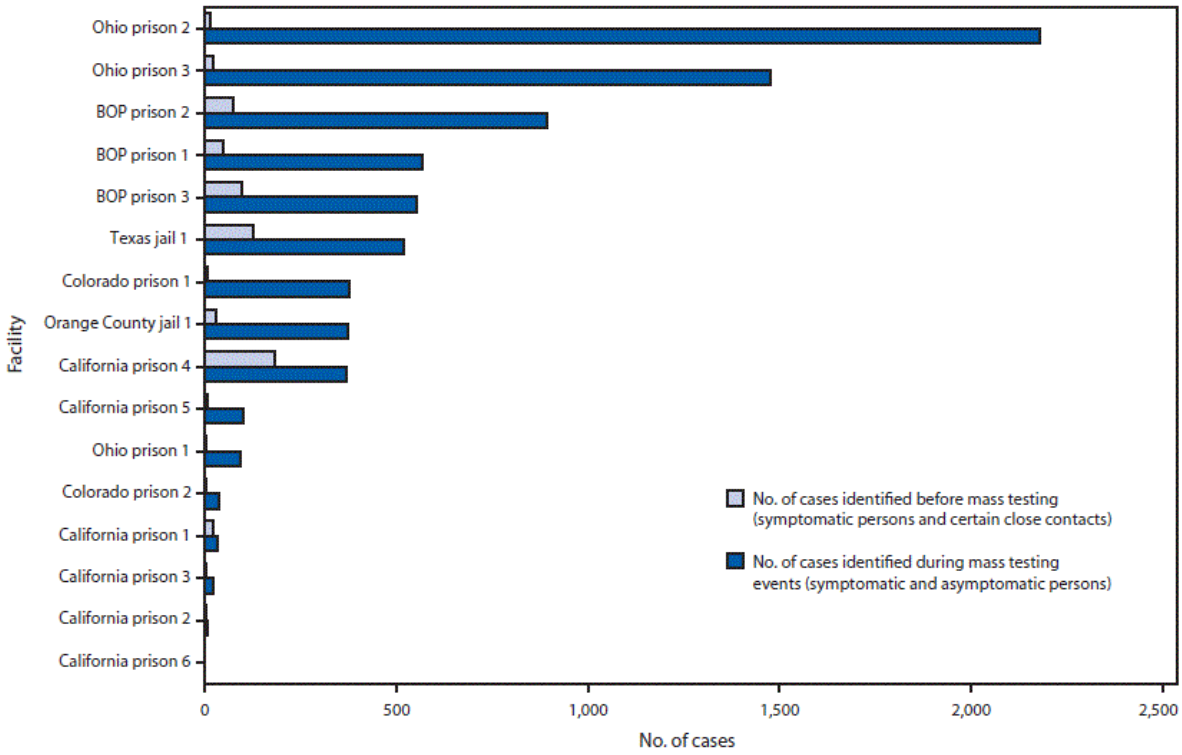
In August 2020, CDC published research indicating that mass testing can be an essential tool to understanding the extent of COVID-19 infections within a confinement facility, and therefore allow better management of mitigation and treatment measures than only testing symptomatic personnel (see Figure 4).[94]

Figure 4: CDC infographic on the value of mass testing

Source: Hagan LM, Williams SP, Spaulding AC, et al. Mass Testing for SARS-CoV-2 in 16 Prisons and Jails — Six Jurisdictions, United States, April–May 2020. [95]

The study found that mass testing in 16 prisons and jails found an average of 12 times the number of infected people as identified by earlier symptom-based testing alone. Median prevalence was three times higher in dormitory-based than in cell-based housing. Accordingly, mass testing gives a more accurate assessment of infection than just symptomatic testing (see Figure 5). The testing and resulting data can be used to potentially help control transmission.[96]

Figure 5: COVID-19 cases identified among incarcerated or detained persons through mass testing events (April–May) compared with symptom-based testing (January–April) in 16 prisons and jails in six jurisdictions, United States, 2020



Source: Hagan LM, Williams SP, Spaulding AC, et al. Mass Testing for SARS-CoV-2 in 16 Prisons and Jails — Six Jurisdictions, United States, April–May 2020. [97]

By mid-2021, when vaccinations were readily available, CDC specifically recommended data-based management of COVID-19 mitigation measures. The promising practice highlight on Illinois' data management system explains how one state used data and technology to manage their response to COVID-19 (see text box).

Promising Practice Highlight:

Illinois data management tracking system (IRIS system/IL)

While infectious diseases are not new problems for correctional settings, the COVID-19 pandemic presented a new challenge for confinement facilities in Illinois to maintain visibility of infectious diseases throughout their facilities and to share data related to testing. Prior to the pandemic, the Illinois Department of Public Health (DPH) had no centralized way to collect health information from local jails, especially due to the large number of jail management system providers in the state. Using CDMCF funding, Illinois DPH partnered with the Illinois Sheriffs' Assocaition (ISA) and a third-party technology company to implement a biometric tracking system to collect health information from jails during the COVID-19 pandemic.

The biometric tracking system, developed as part of a partnership between the CDC, National Sheriffs Association, and the third-party technology compnay, is a non-invasive technology which can be used to positively identify people who are incarcerated by scanning the iris in the eye. Due to the unique nature of the iris as a biometric identifier, correctional and public health stakeholders remain confident that the data provided by the biometric tracking system is accurate. Using the system's medical verification functionality, Illinois is able to track COVID-19 and other communicable diseases, as well as track a number of practical applications related to day-to-day jail operations, such as new arrests, intake/booking, and release. The new system can also integrate with electronic health records (EHR) and electronic medical records (EMR) systems for a comprehensive view of the history of a person who is incarcerated.

As of November 2023, over one-third of Illinois' 92 jails have opted into using the new program, including 16 jails that are reporting live data. IDPH, ISA, and Illinois county sheriffs automatically receive reports and dashboards detailing COVID-19 test results, in addition to other operational details tied to the system related to confined population admissions, releases, transfers, etc. The collected data is being reported in a more rapid and reliable form than previous reporting methods.

With the June 9, 2021, update to CDC's *Interim Guidance on Management of Coronavirus Disease 2019 (COVID-19) in Correctional and Detention Facilities*, CDC provided guidance for "Modifying COVID-19 prevention measures in correctional and detention facilities in response to declining community transmission." CDC modified its recommendation from blanket recommendations to a recommendation that facilities manage COVID-19 precautions and protocols based on infection levels within a confinement facility and the surrounding community. This was direct management of the pandemic through data.[98]

Another way that data was critical to managing the pandemic was to inform correctional stakeholders. Sharing data about the impacts of COVID-19 in confinement facilities was essential to building trust with staff, people who are incarcerated, and the community. [99] Most of the state departments of corrections (49 of the 50) launched websites with data and information about the impacts of COVID-19 on the agency, along with information about protocols implemented to prevent disease transmission within the agency.[100]

Confinement facilities experienced greater public attention and criticism regarding how they were handling the pandemic. The distrust was partly driven by general public distrust towards the criminal justice system, but survey respondents discussed how the constantly changing circumstances of the pandemic worsened this distrust.

Compounding the issue, people who are incarcerated residents have limited abilities to access real-time information from outside the prison walls. This matters because limited abilities to research CDC guidelines and access other resources about COVID-19 could increase anxieties about the pandemic among incarcerated residents. This is especially the case in prisons where trust in security and medical staff may already be low among patients relative to community settings. Because people were worried about their loved ones who were incarcerated during the pandemic, demand for regular and transparent updates about prison conditions were desired. One respondent explained how the demands for information from the public put a strain on staff as they were navigating a new situation.[101]

Lessons Learned and Best Practices

- Data collection and analysis is essential to managing any infectious disease outbreaks, especially during an epidemic or pandemic.
- Mass testing can be far more effective than symptomatic testing in assessing the extent of disease and risk in a confinement facility.
- Wastewater testing can be a highly cost-effective method of mass testing, which does not require active participation by people who are incarcerated or staff and can provide significant information about health issues in a confinement facility, far beyond individual testing.
- Sharing data can be essential to building trust with people who are incarcerated, staff, and the community.

Voices from the Field

"I think for the agency a big challenge was just the external interest in what was happening. For me, it was about data…but it was really about people wanting to understand what was happening and they wanted [information] quick and fast. We had no standards for what we were capturing…our staff did a tremendous job in building a database so we could start capturing who was tested, when they were tested, was it a retest, was it a first positive, a second positive, when were they vaccinated, what kind of vaccination they [had]. Those kinds of systems did not exist, yet that was the information people wanted. They wanted to know what was happening, they wanted to know how many people were sick, they wanted to know how many people were hospitalized. There was that added external pressure that we don't see on a normal basis to really put a microscope on our operations at the same time we were trying to figure it out. For us, [that] was a huge challenge."

One state began conducting facility-wide testing rather than just symptomatic testing, which revealed how widespread asymptomatic COVID-19 was in the facilities. In response, staff instituted protocols to group COVID-19 positive people who were incarcerated into cohorts to reduce the risk of spreading the disease.

Confinement Facilities' Pandemic Plans Require Frequent Updates to Address the Changing Guidance On COVID-19

Almost every agency interviewed for this report indicated that they had an infectious disease and/or epidemic plan prior to COVID-19, and almost all were based on previous guidance for an influenza pandemic. The NIC survey data indicates that:

- At least 70% of state corrections agencies responding had pandemic management policies and/or plan prior to COVID-19.[102]
- At least 69% of jails responding had pandemic management policies and/or plans prior to COVID-19.[103]

> "No battle was ever won according to plan, but no battle was ever won without one."
>
> Dwight D. Eisenhower

However, those plans were not sufficient to manage the COVID-19 pandemic. Interviews indicated that most jails were not prepared and were not physically structured to segregate large groups of people for quarantine, isolation, and treatment.[104] Most state plans lacked considerations for managing infectious disease across the department of corrections, people who are incarcerated, and staff. [105]

Almost all agencies rewrote plans, some more frequently than others. All the agencies interviewed indicated that their prior plan was insufficient and new plans were developed for COVID-19, with those plans updated at least as frequently as the CDC guidance was updated. Most updated their plans more frequently.[106] NIC survey data indicates that:

- 93% of state corrections agencies responding updated their pandemic polices and plans to manage the pandemic.[107]
- 91% of jails responding updated their polices and/or plans to manage the pandemic.[108]

Because CDC guidance changed as more was learned about COVID-19, it is essential that the plans, and the agencies implementing them, are flexible and can adapt to changing circumstances and guidance. The one certainty of pandemics is uncertainty. Plans will need to change, strategies will need to adjust, as the evidence shows us what is effective versus ineffective. For example, early in the pandemic when data showed that the virus stayed on surfaces, everything needed to be deeply sanitized, but that guidance was loosened when it became clear that transmission from surface contamination was highly unlikely. [109]

Future Pandemic Planning

Emergency management emphasizes the importance of planning. The CDMCF TTA Center team has reviewed and analyzed more than 75 pandemic plans from state departments of correction, jails, juvenile justice facilities, federal corrections agencies, community corrections organizations, and correctional health care organizations. These reviews

identified commonalities and best practices across these plans that can be utilized by confinement facilities to build their own plans for future infectious disease outbreaks, epidemics, and pandemics (see Figure 6).

Figure 6: Pandemic planning best practices for confinement facilities

Description of key infection control activities	What actions, protocols activities, strategies, and/or policies that will be executed at designated levels of operational statuses (key actions during everyday infection control/preparedness status versus moderate or enhanced infection control status).
Guidance on assessing facility risk	Methods and protocols on how to assess the risk a facility faces to a potential infectious disease.
Decision-matrix	The decision-matrix helps the facility management to shift between infection control procedures and operational statuses. For example, identification of triggers that would activate the shift from everyday infection control to enhanced infection control protocol.
Staff roles and responsibilities	Delineation of leadership and staff members' responsibilities and roles during infection outbreak and/or enhanced infection control status, more specifically the structural organization of staff and the implementation of said structural organization.
Staffing management policy	The staffing management policy includes scheduling mechanisms, leave policies, illness accommodations, roles, and responsibilities.
Description of supply needs	Identifies the key supplies needed to manage an outbreak of an infectious disease, which could include PPE, sanitization supplies, prophylactic supplies, vaccination supplies, treatment supplies, antibiotics, anti-viral, and morgue/mortuary supplies.
List of service vendors	Includes, not only primary service vendors that would normally use for health and medical care, equipment, and supplies, but also potential backup (secondary and tertiary) vendors if primary vendors are not available.
Lockdown and evacuation protocol	Identifies events that could trigger a lockdown, partial evacuation, or full evacuation. Describes how those will be conducted, what events signal the end of the lockdown or evacuation situation, and how the lockdown or evacuation will be undone.
Communication plan (internal and external)	Outlines tools, techniques, voices, and media to be used to communicate with staff, people who are incarcerated, families, the public and other stakeholders. May include templates for some of the most important messages.
Key data elements for reporting	Identifies the data to be collected and analyzed to help manage the outbreak. Specifies how this data be collected, analyzed, tracked, shared and used.

Promising Practice Highlight:

Sheriff's Office COVID-19 Guide for Staff Safety

A Sheriff's Office in one northwestern state began to plan in January 2020 after the first COVID-19 case was reported in the United States. They developed a COVID-19 guide to help staff minimize the risk of contracting and/or spreading serious communicable diseases. Topics included in the guide are:

1. Purpose, organization, and responsibility
2. Employee and professional visitor health screenings
3. Employee work-related exposure protocol
4. Personal Protective Equipment (PPE), including donning and cleaning PPE
5. Isolation (ISO) guidelines, including operational and transport guidelines
6. General population housing and transport guidelines
7. What to do if you've tested positive, including home isolation guidelines
8. Living with and care of infected persons
9. General guidance for COVID-19 ISO/quarantine
10. COVID-19 drive-thru testing registration instructions
11. How to use the Infrared Body Thermometer
12. How to use the Electrostatic Sprayer

Preparations included lowering population, going to single cells, and shutting down dormitory units. These steps kept them from having a major outbreak, any hospitalizations, or deaths. Much of this early success was due to attention to details and attention to people. This same sheriff's office said that a key lesson learned was even if there is an existing plan, it needs to be updated at least once a year to keep it accurate.

Lessons Learned and Best Practices

- Ensure that pandemic and emergency plans are flexible, so they can be adapted to changing needs. Every plan should have a version number, effective date, next scheduled review date and a log of changes to document the changes made between each version. A best practice is to designate someone within each agency to document every policy change, community connection, and rationale for changes and connections.[110]
- Utilize pandemic planning templates when they are available. A potential best practice for a multi-site agency is for the central office to develop nearly complete plan templates for their confinement facilities, where the facilities need to only enter a limited number of facility-specific details to have a complete facility plan.
- Evaluate supply chain dependencies and resiliency as part of the planning process to mitigate risk of shortage of critical supplies such as masks, gowns, gloves, and cleaning supplies.
- Review, test, and revise the pandemic plans regularly. A best practice is to coordinate joint exercises with corrections, emergency management, and public health on an annual basis.

Allocating Funds For Confinement Facilities Improves Public Health Outcomes, But Barriers to Accessing the Funds Limit Spending and Program Success

The allocation of sufficient funding has become a crucial lesson learned in the effectiveness of mitigation of COVID-19 within confinement facilities. Jails, prisons, and juvenile detention centers are settings that pose unique challenges in disease mitigation, and resources such as PPE and rapid tests made available through additional COVID-19 funding have played a critical role in implementing preventative and mitigating measures in the battle against COVID-19. Various state and federal funding streams were provided to corrections, but most had challenges in implementation and limitations for access.

Supplemental State Funding

Corrections agencies have been underfunded for decades.[111] COVID-19 only exacerbated the chronic issue, because of additional expenses required to address the crisis.

There is not much data on supplemental state funding to cover the additional expenses confinement facilities incurred to address COVID-19. In California, the California Department of Corrections and Rehabilitation (CDCR) reported that while their state funding was tight, it was sufficient to meet most needs, unlike many other states[112]. Obtaining adequate funding to sustain the COVID-19 response, however, was a continuing challenge for the California correctional system. As of June 30, 2020, CDCR had incurred unplanned supplemental costs totaling $137.6 million related to COVID-19. These included costs of COVID-19 testing for people who are incarcerated and staff, PPE, and deployment of special tents to expand housing and health care for people who are incarcerated. At the time, CDCR anticipated additional expenditures of over $300 million for COVID-19 testing, cleaning, provision of in-cell hot meals during lockdowns, supplemental medical staffing, tents and field hospitals, reentry housing, and other measures. CDCR also incurred an additional $34.2 million in costs to reimburse local counties for housing people who are incarcerated due to the temporary stoppage of prison intake. CDCR incurred an additional $3 million in costs to support accelerated early release programs due to COVID-19. In total, CDCR reportedly incurred over $1.1 billion in additional costs through the end of FY2021 to support the COVID-19 response.

To supplement the limited state funds, some correctional agencies turned to federal grants. For example, one state's Department of Juvenile Justice applied for an Edward Byrne Memorial Justice Assistant Grant from BJA to fund Wi-Fi upgrades to support the visitation tablets, which also supported their other technology, enabled COVID-19 related programs.[113] Other states correctional agencies had to be creative. A technology vendor noted that confinement facilities have the option to receive a portion of revenue from video visitation calls. The vendor indicated that was a popular option among confinement facilities to meet some of their COVID-19 funding gaps.[114] At least one agency indicated that they were uncomfortable with this funding model of charging the visitor for the virtual visitation and were anticipating future controversy around this funding model.[115]

Coronavirus Aid, Relief, and Economic Security Act (CARES Act) and Coronavirus Emergency Supplemental Funding (CESF) Grant

On March 27, 2020, U.S. Congress passed the Coronavirus Aid, Relief, and Economic Security Act (CARES Act), which provided over $2 trillion in funding intended to address needs from the COVID-19 pandemic. There was $1.007 billion within the bill appropriated to the Department of Justice (DOJ), including $850 million (84%) for the DOJ's Office of Justice Programs (OJP) to award Coronavirus Emergency Supplemental Funding (CESF) grants.[116] To expedite the distribution of the CESF funds, the CESF awards were administered via the mechanisms used for the annual Edward Byrne Memorial Justice Assistance Grant (JAG) Program, with the CESF award allocations based proportionally on OJP's 2019 Byrne JAG program allocations.[117]

BJA distributed 60% of the CESF funds to states and territories and the remaining 40% went directly to local governments[118]. The Byrne JAG formula allocations are computed based on FBI violent crime data and U.S. Census Bureau population estimates. COVID-19 data was not part of the allocation formula. This formula meant that some local awards have gone to areas with low case rates (see Table 2).[119]

Table 2: Breakdown of counties receiving CESF awards compared to COVID-19 cases

Award Amount per Case	Number of Counties	Number of Confirmed cased	Number of Grants Peer Group Calls	Total Award Amount
<= $750 per Case	409	1,000,131	710	$94,445,669
<= $1500 per Case	67	14,737	105	$15,063,305
<= $3000 per Case	27	2,580	43	$5,305,823
<= $4500 per Case	15	938	23	$3,155,733
> $4500 per Case	20	269	27	$2,076,139

Source: CESF Award data. Johns Hopkins case data, via the DOJ Office of Inspector General [120]

The DOJ Office of Inspector General (OIG) found that OJP acted quickly to distribute CESF funding and that most recipient spending were compliant with the program. However, by March 31, 2021, a year after the first awards, CESF recipients spent or obligated just 40%of their grants. The OIG called for BJA to monitor the spending to ensure that it remains compliant. To help address the OIG's concerns, in July 2021, OJP initiated an outreach plan to provide additional assistance to CESF recipients and is coordinating with the National Criminal Justice Association to provide TTA to CESF recipients.[121]

ARPA and the ELC COVID-19 Detection and Mitigation in Confinement Facilities (CDMCF) supplemental award.

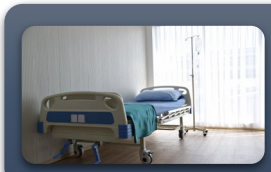
Under ARPA up to $700 million was awarded through the CDC's Epidemiology and Laboratory Capacity for Prevention and Control of Emerging Infectious Diseases (ELC) Cooperative Agreement to its existing 64 recipients. ELC recipient health departments then worked to provide support to state and local corrections programs that aligned with up to 15 activities as detailed in the notice of funding opportunity.' Of the $700,000,000

made available through the CDMCF program, $644,840840,000[122] has been awarded to the 64 ELC state, local, and territorial health department recipients to support state and local corrections programs CDC also partnered with BJA to operate the CDMCF TTA Center. The CDMCF TTA Center provides resources, training, and technical assistance to those responsible for managing COVID-19 in confinement facilities, including ELC recipients and corrections officials. The awards produced many successful endeavors,[123] including the “Promising Practice Highlights” and those presented in Figure 7.

Figure 7: CDMCF program and funding improved conditions in confinement facilities

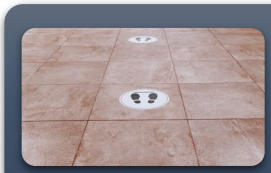
Implementation of testing and contact tracing

- Expanded availability and robust use of test kits; testing equipment, supplies and space; shipping supplies; storage spacel and PPE
- Office equipment and consumable supplies
- Electronic tracking and reporting systems



Better allowance within facilities for isolation/quarantine

- Renovation of existing space, purchase/lease of trailers or utility connections, cooperative agreements with neighboring facilities
- Supplies and other supports to ensure these spaces are operationally distinct from administrative or disciplinary segregation
- Respirators and fit testing equipment and supplies



Social distancing practices have been improved

- Use of infrared thermometers or temperature screening kiosks
- Face recognition system and software to reduce immediate staff contact at entrance points
- Renovation of existing space to improve distancing
- Resident tablets for use during outbreaks or to enhance in-person programming, education, and visitation

Transportation practices used to reduce transmission

- Enhanced transport vehicles to protect transport officers and provide separation when transporting for COVID-10 treatment
- Implementation of testing, sanitation, and other safeguard practices prior to, during, and following transport

Visitation, video-conferencing, IT services reduced virus risk

- Implementing or expanding video-visitation and/or video-conferencing equipment, software, storage, and contracts
- Renovating or adding visitation space in existing structures
- Upgrading internet, WiFi, or broadband
- Upgrading IT and tele capacity (servers, Cloud storage)

Successful implementations of expanded infection control practices

- Contracted deep-cleaning services
- Installed touchless sinks, toilets, lights, hand-sanitizer dispensers in common areas
- Replaced high-touch water fountains with touchless water dispensers for water bottles
- Use of portable handwashing stations and hand hygiene supplies

Improvements in facility preparedness and response

- Wastewater testing to remotely measure incidence rates and reduce testing fatigue
- Improved biohazard waste management practices and costs
- Use of GIS software for investigation, resource management, and analyses
- Peer-to-peer education and training support (costs, space, and supplies)
- Use of electronic dashboards and display monitors for awareness, education, and training

Mitigation of risk

- Enhanced cleaning and expanded disinfecting equipment and supplies
- Upgrades to air handling/HVAC systems to improve ventilation and air flow and quality
- Mechanical engineering services for ventilation upgrades
- HEPA machines, filters, racks, and installation

Those executing the work under CDMCF experienced some notable challenges, including:

- Funds were awarded through the 64 state, territorial, and large local health departments of the ELC program, since these were the primary ELC awardees. After awards were issued, the health departments then had to establish sub-recipient awards to state and local corrections. However, there was limited capacity of some ELC recipients to enter and monitor subrecipient agreements and limited knowledge of what confinement facilities needed.

Pushing funding through a third party, such as public health, to confinement facilities proved to be one of the largest barriers in CDMCF funding access for confinement facilities.

- State level administrative barriers, including a lack of pre-existing funding mechanisms between state health authorities and local correctional agencies, made it difficult for some CDMCF recipients to fund local confinement facilities. Accordingly, some agencies were unable to effectively access CDMCF funds.
- Resistance from some local confinement facilities and state corrections agencies to seek funding due to the requirements of the cooperative agreements—specifically the adherence to CDC guidelines, which facilities have expressed were issued late, changed frequently, and/or not well suited to their specific circumstance.
- Significant implementation delays caused by the state-level expenditure authority approvals and siloed procurement and spending processes.
- The process for recipients to start using their funds took approximately six months. Thus, while the funding was made available in August 2021, efforts to approve work plans and budgets both within jurisdictions and at CDC may have meant activities did not fully begin until January 2022.
- Facilities noted “COVID-19 fatigue” and moved onto other priorities.
- General lack of knowledge on what is or may be allowable under the cooperative agreement if a recipient needed to redirect money from the original workplan.
- A120-day freeze by ELC where no changes could be made to workplans and budgets from April 1, 2023, through July 31, 2023. This is a standard freeze that happens every year for all ELC cooperative agreements; however, it was not widely known by confinement facilities or some in the recipient agencies who managed the CDMCF awards.
- Disconnect between corrections and state public health authorities on what is needed inside the facilities. Not all ELC recipients have regular contact between those managing the cooperative agreement and those executing the workplans. This was exacerbated by staff turnover during the COVID-19 pandemic in public health departments and confinement facilities.

- Limited early technical assistance provided to the ELC recipients. Because of procurement delays, the CDMCF TTA Center was not launched until November 2022 with TTA to recipients and the field beginning in earnest in February 2023.[124]
- Some recipients found that their desired use of funds was restricted under the awards terms (e.g., vaccinations; prophylactic use of Monoclonal Antibodies; new construction; major renovations; incentives for testing; electric generators; handheld UV sanitizers; full body thermal scanners; and enhancing the ability of correctional partners to support corrections under COVID-19 operations, including courts and hospitals).[125]
- Given that 25% of CDMCF recipients only used the funds for the required category of testing and mitigation costs, BJA believes that many recipients may not have been aware of, or fully understood, the spectrum of allowable uses of funds across all 14 categories.[126] This is reinforced by the fact that some recipients requested support in identifying additional uses for the funds, once the formal testing programs under the Public Health Emergency ended in April 2023.[127] Alternatively, health departments may have simply been overwhelmed with the administrative burden of managing dozens of separate COVID-19 awards while also responding to the pandemic.
- There was a limitation on using the funds for technology and infrastructure that was not COVID-specific, even if it would have value in responding to future infectious disease outbreaks. For example, some of the states that requested to use the funds for new electronic health record (EHR) systems were denied. Additionally, some agencies were only able to get a portion of their peer education activities funded because some of the content related to other infectious diseases. CDC expressed the value of such multiuse projects, a consideration to be made when funding responses to future public health emergencies. [128]

Those challenges resulted in the following impacts:[129]

- **Reduced spending**— As of February 26, 2024, with five months remaining in the program, CDC estimated that approximately 43% of funding was still unobligated or unspent.
- **Hiring delays**—Some ELC recipients have not been able to hire for positions (Project Managers, Correctional Infection Control Specialist, Nurse Practitioners) that were approved in their original workplans. Some ELC recipients are seeking to modify their workplans to re-allocate the personnel funding to purchase supplies, such as HEPA filters, that are an easier way to spend the funds. Others are turning to temporary contracting for positions they require but will now be of short duration. These changes may not fully meet the overall goals for the ELC recipients, but still provide value to recipients from the funding.
- **System impacts**—One facility had planned to enhance their EHR systems to report to the state Department of Health and Human Services' hospital capacity tracking system. This system would be utilized as a response tool for public health in outbreak situations and allow for staffed bed capacity to be easily and

consistently reported. Contract delays have hindered their ability to build the system. Another facility wanted to improve their existing Wi-Fi system to better support telemedicine capacity. Implementation of this enhanced Wi-Fi had been delayed by lack of necessary details provided by the facility to justify the acceptability to support an approved activity. combined with a lack of responsiveness in requesting the clarifying information.

- **Adapting to program needs**—Formal testing programs under the Public Health Emergency ended in April 2023, with some ELC recipients planning a final close out to all testing and most staffing positions in June 2023. As a result, there is a significant amount of funding that remains unobligated and unspent with some ELC recipients. They are looking for ways to spend funding now that testing and staffing is winding down." [130]

Other ARPA Funding to Corrections

In addition to the CDMCF funds, the $1.9 trillion of ARPA funds included many other funding streams, including $350 billion allocated directly to state and local governments to cover COVID-19 related needs, including: replacing revenue lost to the economic impacts of COVID-19; programs to negate those impacts; public health needs related to COVID-19; infrastructure; COVID-19 premium pay; public sector capacity building; and other administrative costs.[131]

Research by the Marshall Project reported that by the first quarter of 2022, approximately $101 billion of the $350 billion had been obligated, and of that, more than half ($52.6 Billion) went to "revenue replacement" (see Figure 8). The Marshall Project's review of the data found that at least half of that $52.6 billion was allocated for law enforcement, corrections, and courts. Additional funding for justice related activities may be included in this, and other categories, but many project descriptions are too vague to identify exactly how they were allocated.[132]

Figure 8: ARPA state and local funds obligated as of first quarter of 2022

Expenditure group	Amount allocated	Total projects
Revenue replacement	$52.6 B	22,763
Negative economic impacts	$31.4 B	5,348
Public health	$7.5 B	5,759
Infrastructure	$4.8 B	5,010
Premium pay	$2.0 B	1,385
Public sector capacity*	$1.8 B	1,514
Administrative	$688.1 M	1,684

* Includes public health projects.

Source: U.S. Treasury Department data via the Marshall Project[133]

Examples of corrections projects with ARPA state and local funding, include:[134]

- Cumberland, MD, used $176,200 to remodel the patrol area of the police station to allow for an isolated holding area;
- Clay County, FL, renovated the jail;
- O'Brien County, IA, built additional incarceration housing, beds, and cameras;
- Scott County, IA, allocated $7.25 million for a new Youth Justice Rehabilitative Center;
- Greenwood County, SC, gave each current or new detention center worker a $10,000 bonus; and
- Colorado's Department of Corrections allocated $1.3 million in retention bonuses to employees of the private CoreCivic facility.

At least 87 state and local governments proposed reducing court backlogs in their ARPA project descriptions. These projects included additional staffing for prosecutors, public defenders, and court services, implementing COVID-19 safety measures to facilitate court operations, updating technology and physical infrastructure, and relocating court proceedings to larger facilities. The hope was that the improved courts could address overcrowding in jails and prisons. Some systems tried to reduce the jail population through home detention equipment. Thurston County, WA proposed ankle bracelets, while Pierce County, WA proposed other electronic home detention programs, as an alternative to jail.

Comparison of CESF Grant Versus CDMCF Supplemental Award to ELC Cooperative Agreement

The fiscal outcomes of both programs are both very similar. Both programs offered a similar amount of funding, both allocated funds based on a formula, and both programs had about half of their funds unobligated a year after the initial awards.

Both programs left open questions as to how much of the funding was received by corrections. For the CESF program, the program was open to law enforcement, corrections, and the courts. Unfortunately, the data is not clear as to how much went to law enforcement versus corrections, because most local corrections are managed by sheriff's offices and the awards do not specify how the funds were divided between patrol, corrections and/or court functions. In addition, there is incomplete transparency as to how the state awards were allocated between state police, state corrections, local law enforcement and local corrections. Some states, like California have published detailed accounting of the subawards from the state allocations.[135] The California's allocation was distributed by the Board of State and Community Corrections directly to state and local corrections. [136] This is an exception as most of the local allocations went to municipalities and law enforcement, rather than county jails.[137]

Like the CESF funding, the CDMCF funding also went through a pre-existing cooperative agreement with existing recipients, and a formula was utilized to determine funding amounts. In this case, it was CDC's ELC program, a public health cooperative agreement. The program awarded funds to its existing recipients, 64 state, local, and territorial health departments. Health departments then worked to establish appropriate mechanisms to support state and local corrections.

The access to funding would be dependent on a number of factors, including the relationships between state health departments and local health departments, relationships between state corrections and local corrections, and state procurement processes. Such relationships vary on a state-by-state basis. In some states, local health departments are part of the state health department, in others they are local agencies, and some states might not even have local health agencies in every jurisdiction.[138] The variations of relationships between state and local corrections are equally diverse.[139] Accordingly, while 91% of responding local jails had a relationship with their local health authority, it is not clear if the local health authority was looped into the state's CDMCF funding and/or if the state department of corrections (DOC) was looping the local jails into the CDMCF funding. Only six states with a combined correctional system (AK, CT, DE, HI, RI, VT)[140] could be assured that all their facilities were aware of the funding. Because this was a completely new funding stream, there were no pre-existing agreements in place in many states to allow for the flow of funding from state departments of health to state and local corrections. Pushing funding through third parties, such as public health, to corrections proved to be one of the largest barriers in COVID-19 funding access for confinement facilities. The funding that did make its way to corrections often proved to fall short of the costs that corrections incurred in their attempts to mitigate COVID-19. Many of these issues were documented in the CDMCF annual report. [141] Others were reported in peer group sessions.[142]

The flow of funds through the health departments may have had a benefit in ensuring that the projects funded would impact public health outcomes in the confinement facilities. This was in direct contrast with many of the other law enforcement and corrections

projects funded by ARPA's State and local funding, which the Marshall Projected identified as having a questionable impact on COVID-19 mitigation.[143] The inclusion of the health authority had a clear advantage, where the health authority had a strong relationship with the correctional agency. However, as documented in the CDMCF annual report, this led to delays where the public health authority did not have firsthand knowledge of the specific needs of a given correctional agency or facility.[144]

One obvious advantage of the CDMCF award over the CESF program are the extensive array of options for confinement facilities and public health authorities to access TTA as part of the program from its start. The provision of TTA as part of a grant program has been a long-standing hallmark of BJA grant programs and has been shown to significantly increase the value of such programs. The CESF program initially did not have a TTA component, until it was recommended by the DOJ OIG, over a year into the program.

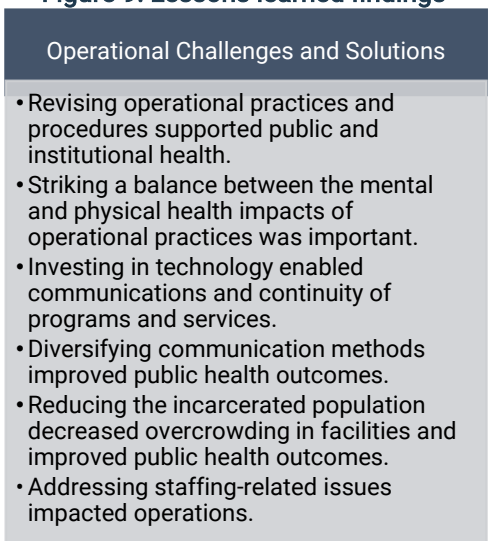
Lesson Learned and Best Practices:

- Using the mechanisms of an existing grant program to administer a new, emergency-based grant program, greatly expedites the movement of funds to the intended targets. Using a program that already funds the intended recipients will further reduce administrative delays in accessing the funding, as funding agreements are likely already in place.
- Allowing the end recipient, such as corrections agencies, to directly apply for, and administer, the funds will also allow that agency to submit and manage their own workplans based on their individual needs and budgets based on known costs.
- The partnering of confinement facilities with public health is a valuable addition to the pandemic funding, especially where there is a pre-existing relationship between the partners. The input and assistance from the health authorities is useful in identifying and implementing impactful projects.
- TTA provides added value to a grant program and recipients.
- Grant programs should include the flexibility to expand the eligible categories for allowable projects, if evidence-based research supports the expansion as meeting the overarching goals of the program.

Operational Challenges and Solutions

Implementing public health guidelines for COVID-19 in confinement facilities was challenging because of physical and cultural barriers, which impeded progress, despite correctional staff doing everything practical to implement the guidance. Barriers included: physical structures that impeded quarantine/isolation; overcrowding was a barrier to social distancing; low mask compliance and vaccination rates among staff and incarcerated residents; and tight budgets despite increased costs of various pandemic measures.[145] This section looks at operational challenges and solutions from the field of corrections during the pandemic (see Figure 9.)

Figure 9: Lessons learned findings



Revise Operational Practices and Procedures to Support Public and Institutional Health

Public health officials understood at the beginning of the pandemic when there were neither vaccines nor treatments that nonpharmaceutical interventions are effective when implemented early.[146,147] While social distancing was the initial strategy proposed for the general public to reduce transmission and reduce the burden on the health care system, social distancing is not practical in confinement facilities. However, transmission reduction measures are essential for confinement facilities, as they face risks higher than the general public. For example, half of all people who are incarcerated have at least one chronic disease, and 81,600 are over the age of 60, which are both risk factors for severe infection and poor outcomes. Given the difficulties in social distancing, people who are incarcerated are at heightened risk for severe illness. [148,149] To address these risks, confinement facilities enacted various operational practices and procedures to support public health and to reduce infection in the facilities (see Table 3).

Table 3: Confinement facilities enacted numerous changes to operational practices and procedures to mitigate COVID-19

Operational Practice and Procedure	Changes Enacted in Confinement Facilities to Mitigate COVID-19
Visitation policy changes	Access to prisons changed over the course of the pandemic. Before the pandemic, most confinement facilities allowed in-person visitation. Such visitations were stopped almost immediately after the emergency declaration. By April 2020, only 4% of confinement facilities allowed visits by family, friends, and volunteers; however, 43% still allowed in-person meetings with legal counsel.[150] As vaccines and other protective measures reduced the risks, more visitation was allowed by 2021. To compensate for visitation changes, confinement facilities increased communication services and privileges available. State DOCs reported that the number of phone calls increased as did video visitation. Jails reported similar changes in visitation policies.[151]

Operational Practice and Procedure	Changes Enacted in Confinement Facilities to Mitigate COVID-19
Programmatic changes to limit exposure and transmission	There were major curtailments to the services and privileges afforded to people who are incarcerated to limit exposure from external personnel and transmission between people who are incarcerated. Programming declined in 86% of responding state DOCs while most agencies indicated that TV time, reading materials, commissary, and tablet time remained unchanged.[152] Jails reported reduced programming as well.
Restricted movement between facilities	Movement between facilities was curtailed to minimize the opportunity for disease transmission between facilities, inter- and intra-state. This change also minimized the staffing requirements for transfers, which was beneficial when staffing was significantly impacted by the pandemic.[153]
Enhanced medical intake screening	Many confinement facilities utilized enhanced medical screening for infectious disease during the intake process to prevent those infected with COVID-19 from introducing the virus into the facility. CLA suggested offering vaccination upon intake to protect the newly incarcerated and enhance the overall vaccinated population.[154]
Quarantine of new people who are incarcerated	Quarantining people at intake was another method used by confinement facilities to prevent an outbreak in the general population. Quarantining would ensure that an asymptomatic infected person, who was too early in their case to test positive, would not infect others. Should they test positive, they could be moved to isolation for monitoring and treatment.[155] Agencies interviewed who quarantined new intakes reported that their intake quarantines lasted between 14 and 28 days, depending on the agency. However, architectural limitations and overcrowding made quarantining difficult for some facilities [156].
Quarantine and isolation of personnel	Quarantining exposed personnel who have not been diagnosed as infected and isolation of infected personnel is a long-standing public health measure. These measures were included in CDC guidance for corrections from their initial release in March 2020.[157]
Cohorting[e]	Cohorting, the practice of grouping people together to not interact with others, minimizes the potential of disease spread into or from the group. This concept was used in confinement facilities for grouping people without disease together as a separated group, to only interact with each other and a limited cadre of staff. The recommended method is to have people exit their cells in cohorts of 10 or fewer; and limit movement throughout the facility.[158] The combination of cohorting and reduced programming significantly reduced movement of people who are incarcerated and staff throughout confinement facilities, thereby greatly reducing the possibility of outbreaks spreading beyond the cohorts.[159]

Lessons Learned and Best Practices

- Implementing public health guidelines in confinement facilities was challenging because of physical and cultural barriers, which impeded progress, despite correctional staff doing everything practical to implement the guidance.
- Implementing new and often changing COVID-19 guidance required fundamental cultural shifts within corrections, including policies related to visitation and programming.
- Collaborating effectively with personnel, institutions, agencies, and community partners will improve operations during a pandemic. It is essential that such collaboration be nurtured and expanded.

[e] CDC defines cohorts specifically about isolating multiple laboratory-confirmed COVID-19 cases together or quarantining close contacts of a particular case together as a group to minimize transmission outside of the group.

- Adhering to the guidance is essential to stopping transmission and managing the pandemic.

Investment In Technology Enables Communications and Continuity of Programs, Services, and Medical Care

When public health measures locked facilities down, cancelling visitations, programs, and court proceedings, it was technology, especially personal tablets for people who are incarcerated, that filled the gaps and allowed confinement facilities to continue providing essential functions for their residents. The technology expanded access to video visitation, programming, telemedicine, virtual judicial and parole hearings, and COVID-19 related information.[160] Technology was essential to continuing medical services, educational programming, and legal services.

Tablets For People Who Are Incarcerated

Many facilities issued tablets to people who are incarcerated for the first time during the pandemic. The use of tablets brought tangible benefits to the people who are incarcerated and the staff, as highlighted in the promising practice from Guam (see text box).

Promising Practice Highlight:

Guam's tablets

The Guam Department of Public Health and Human Services in collaboration with the Department of Corrections (DOC), Department of Youth Affairs, and Behavioral Health and Wellness Center identified the need for improved internet capabilities, additional videoconferencing devices, and expanded computer access in confinement facilities during the pandemic. The goal of these technology enhancements was to support data collection and activities related to COVID-19 testing, expand access to virtual visitations, legal visits, education, and telehealth opportunities for people who are incarcerated, while adhering to social distancing guidelines. Working with the Office of Technology (OTECH), DOC distributed to confinement facilities: portable tablets; *d*esktop computers; printers with a supply of ink; interactive whiteboards; and MiFi units, a type of internet hotspot with a small portable router that creates a local Wi-Fi network for any internet-enabled device.

According to Guam's correctional partners, the enhanced technologies increased compliance among the individuals who are confined; improved employee satisfaction; and required fewer medical transfers due to the increased use of telehealth visits. Confinement facilities also reported improved support for virtual meetings, client meetings with attorneys, and funeral visitations. DOC is currently working toward launching a new tablet-based program for the education program.

Tablets were used to continue communications with loved ones while in-person visitation was suspended. People who are incarcerated and families were found to prefer speaking via tablet more often versus traveling to the facility less frequently. Juvenile and younger adult offenders are particularly comfortable with the virtual communications [161]

The tablets were effectively used in several facilities to educate people who are incarcerated on PPE and vaccines. Leadership attributed some of the success in increasing vaccine rates to the constant messaging and education campaigns via use of

technology. [162] Idaho DOC posted videos on YouTube using people who are incarcerated to communicate protective protocols to people who are incarcerated, family, and other stakeholders.[163]

Tablets were initially communal in many facilities; however, tablet sharing became problematic as a source of spreading illness and led to a push for individual tablets. Individual tablets proved to be better because they minimized the possibility of spreading illness and reduced the burden of cleaning and sanitization.[164]

Many of the tablets were provided at no cost to the correctional agencies by video visitation providers who make their money by charging for the video visits. Some even provided the agency a share of the tablet revenue.[165] At least one interviewed agency raised concerns about this funding stream, believing that correctional agencies may need to eventually buy their own technology to reduce the economic burden on people who are incarcerated and their families. [166]

Technology and the Courts

While some agencies had limited virtual court appearances before the pandemic, virtual court became a necessity throughout the pandemic, as in-person court hearings were not possible.[167] For example, New York courts tried to stay open for essential cases, but after three judges died from COVID-19 and 14 tested positive, along with 170 confirmed cases among court staff in New York City, the courts shut down.[168]

With the courts closed, the backlogs were tremendous, putting significant strains on jails:

> *"What truly killed all of us is that the courts shut down. The courts are at least four years behind in our state. It's going to be far worse before it gets better for us because all I really have is our violent felons right now. Two years ago, we averaged probably 40 or so people in custody for murder, today it's about 120, and some of those trials have been [delayed] for years and they still haven't started yet. People are like, 'release more people from the jail.' All I got is violent felons…that's all I got left. We kicked everybody else out…we basically, don't have a jail anymore here; we have a max [security] prison."*[169]

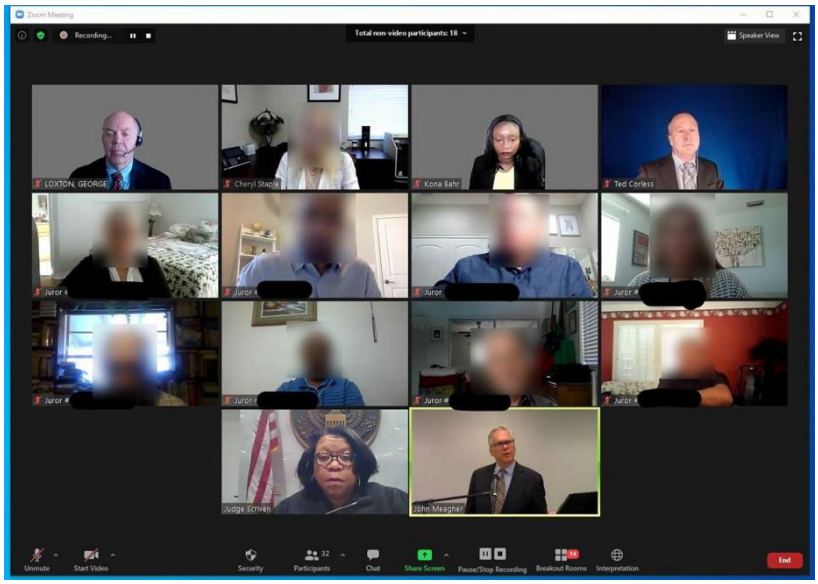
The average length of stay in a jail has increased significantly:

> "*Our average length of stay for folks we did have in jail almost doubled. And that was due to courts being shut down, trials not happening, that type of thing. Our average length of stay pre-COVID was around 18 days. Our average length of stay for this year, I'm looking at it as we speak, it's around 36 days. And I believe it's somewhere in the neighborhood of 70 that have been in our facility, our county jail, for over two years, which is significant for us. We don't generally house people who are incarcerated that long in our facility, our pre-trial process works fairly well here and fairly quickly. With COVID, we've seen that average length of stay increase significantly. Not only with our local people who are incarcerated, but the federal people who are incarcerated that we house for the [US] Marshals. I have a*

> *couple of Marshal's people who are incarcerated that have actually been in our facility now for over three years pending trial."*[170]

By mid to late 2020, court backlogs were requiring courts to reconstitute virtually.[171] With the passage of the CARES Act on March 27, 2020, federal courts were authorized through the period of national emergency to allow for virtual criminal proceedings (See Figure 10). Guidance for such proceedings was issued by the Administrative Office of the U.S. Courts on March 31, 2020.[172] Even the U.S. Supreme Court went to virtual hearings on May 4, 2020.[173] Responding to a survey, 83% of state correctional agencies reported an increase in virtual court appearances for their people who are incarcerated,[174] and 84% of jails reported an increase in virtual court appearances for their people who are incarcerated.[175]

Figure 10: A screenshot shows a recent virtual civil trial conducted by Judge Mary S. Scriven, of the Middle District of Florida. Jurors' faces are obscured.



Source: US Courts, As Pandemic Lingers, Courts Lean into Virtual Technology, 2/18/21[176]

The virtual hearings extended beyond the courts to parole boards. Many parole authorities conducted hearings, trainings, and public meetings through video conferencing technologies (VCT). Many parole authorities also moved to virtual meetings between parolees and their parole officers.[177]

Telemedicine

The ability to provide access to medical professionals through telemedicine during COVID-19 was a successful implementation of technology that was essential to solving the issues with limited medical staffing, access to the facilities by external personnel and transportation to medical appointments. The promising practice highlight on North Carolina's telehealth solution for the state's confinement facilities discusses the benefits of the use of this technology for providing health services (see text box).

Telemedicine (including mental health) remains a valued service to reach people who are incarcerated in rural jails.[178] "Many prisons are located in rural areas that either lack

adequate hospital capacity to care for ill people or are ill-equipped to handle a sudden surge of medical cases caused by a pandemic."[179] Many agencies said that they will be continuing telehealth moving forward, although some expressed concerns about regulatory barriers around licensure and payments.[180]

Promising Practice Highlight:
North Carolina Telehealth Program

During the COVID-19 pandemic, the NC Department of Adult Correction (NC DAC) needed to improve its comprehensive health care services for individuals who were incarcerated. Although NC DAC provided primary and urgent healthcare services onsite through contract health professionals and staff, the department often needed to transport patients offsite to access specialized care. New restrictions on population movement to reduce the spread of COVID-19 hindered access to those offsite healthcare services.

To address this challenge, the NC Department of Adult Correction (NC DAC) collaborated with UNC Health and the NC Department of Information Technology to launch the telehealth pilot program in June 2020 that provided comprehensive telehealth care services of 13 medical specialties, while lowering costs and maintaining the safety of staff, medical providers, and patients who were incarcerated. Today, the NC DAC telehealth program services include 62 specialty clinics and 68 providers of dermatology, dentistry, psychiatry, physical therapy, occupational therapy, and more.

The benefits from the NC DAC telehealth program include increased health care accessibility, cost savings, enhanced safety, and improved staff efficiency. As of August 2023, the telehealth program had conducted 31,000 telehealth appointments and tracked a total cost avoidance of $13.8 million. The program also helped with hiring psychiatrists and other medical professionals, which supported local confinement facilities that traditionally had difficulty attracting medical professionals, particularly in rural areas.

The transformative impacts and technical efficacy of the NC DAC telehealth program are publicly recognized. The program team received the 2021 North Carolina Governor's Award for Efficiency and Innovation. Staff and patient feedback on telehealth service provision has been overwhelmingly positive. The Journal of the American Medical Association reported high rates of satisfaction with 94% percent of the 482 patients who were incarcerated reporting a positive overall telehealth experience and 86% percent of 316 health care practitioners reporting satisfaction with the telehealth visits, as well.

Technology Infrastructure

Technology infrastructure was one of the biggest issues for confinement facilities to address. With the increased use of tablets under COVID-19, facilities needed to upgrade their Wi-Fi network to support the demand, which was difficult given the physical constrains of most facilities. The technology infrastructure required significant investment in both infrastructure and cultural change.[181]

Historically, confinement facilities worked to block their facilities from Wi-Fi and other communications technologies to prevent people who are incarcerated from communicating with outside contacts to continue their criminal activities. Some facilities were intentionally built to reduce the transmission of radio frequency (RF) signals (e.g., cellular & Wi-Fi signals). In addition, the thick concrete walls make facilities difficult to wire for Wi-Fi.

Additionally, securing the equipment and network are essential to ensuring that the network and equipment are not misused for nefarious purposes. The tablets must be restricted to limit use to approved applications. They also may need to be monitored to ensure communications are not being used for criminal activity, in the same ways that in-person visitations are monitored. The networks must be highly secured so that non-approved devices cannot access them. In addition, the network used by the people who are incarcerated must be properly secured so that if a person who is incarcerated hacks their tablet, they cannot access essential facility systems.[182]

Accordingly, significant investment in design of the physical and virtual networks are an essential aspect of building the technology infrastructure.[183]

Voices From the Field

"One of the things that saved us was the high number of tablets and the high amount of tablet-based programming we had. Our residents were occupied productively, even though we were operating in medical stay-in-place mode. But getting those in place, being able to retrofit our facilities with everything that we needed to make those work, that was all affected by supply chain. Anything that the government can do, anything that the people can do to lessen those impacts, to plan for it beforehand, and lessen those impacts will make it better," a jail administrator said.

A southern state's department of Juvenile Justice used some of their federal grant money to pay for technology for remote courts in rural jurisdictions, to reduce the court backlog impacting their residents.

Lessons Learned and Best Practices

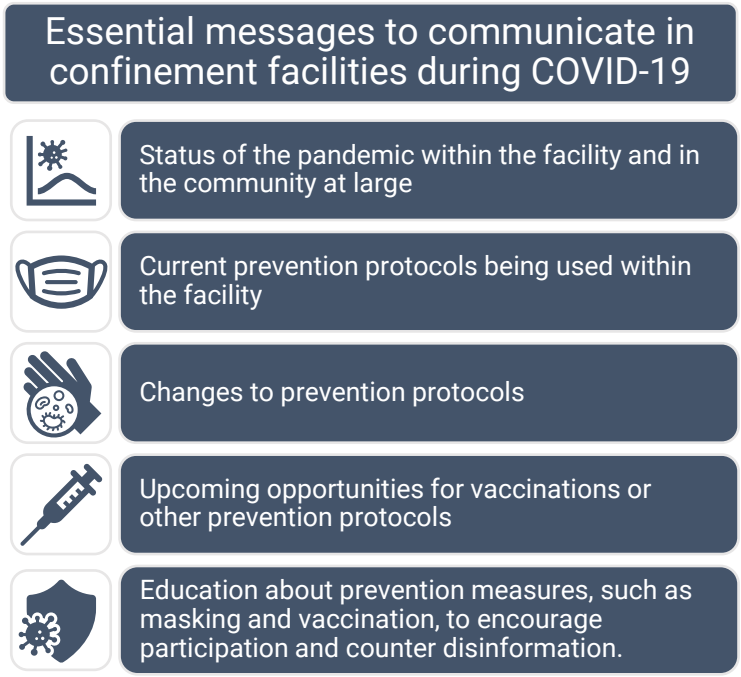
- Individual tablets are more beneficial than communal tablets to reduce the spread of infectious diseases.[184]
- Virtual visitation was essential in keeping people who are incarcerated in touch with loved ones, supporting mental health. While some preferred in-person visitation, the video visitation allowed for more frequent visits, especially from loved ones who had difficulty traveling to confinement facilities.
- Telehealth helps address the medical staffing crisis and is appreciated by people who are incarcerated and the medical providers. It also expands access to a larger number of medical specialists than may be available in some areas.[185]
- Technology aided in the education programs on PPE compliance and vaccination rates.[186]

- Virtual courts were essential to handle case backlogs throughout the pandemic emergency, and many courts are still using it on a limited basis.
- The technology infrastructure in a confinement facility required significant investment and cultural change, but the impacts proved well worth the investment.

Diversify Communication Methods to Improve Public Health Outcomes.

Communication within facilities, between colleagues, and within the larger response community provided needed support and guidance during the pandemic. Communication to the incarcerated population was essential for education and compliance. Anecdotal information from interviews indicates that effective communications about masking and vaccines might have been as effective or more effective than incentives to encourage participation.[187] Figure 11 presents the types of messages that were essential to communicate in confinement facilities during COVID-19.[188]

Figure 11: Messaging in confinement facilities



Message Delivery Is As Important As the Message Itself

Confinement facilities utilized many delivery methods to ensure important public health information was provided to the staff and people who are incarcerated:

Trusted sources are essential for impactful communications – Messaging from trusted sources was key to whether the message would be impactful (see the promising practice text box for New Mexico's approach to trusted sources). At least 20 correctional agencies mentioned that they tried to find and use trusted sources in their communications to people who are incarcerated, staff, and families. Among the parties mentioned as trusted sources were:[189] medical or public health personnel, such as the Chief Medical Officer or the State Health officer, or a particularly trusted medical care provider; trusted staff; correction system advocates; trusted peers who are incarcerated and chaplains. However, other agencies said that the people who are incarcerated did not trust staff, and in those agencies, staff were explicitly not used to convey important messages. Even where staff were not necessarily the most trusted messengers, it was important that they were kept updated on the latest messaging, so that they could convey that messaging to interested parties and answer questions about the current messaging.[190]

Voices From the Field

A sheriff's office in one southern state summed up their successful communications strategy by saying "we treated them like people." Nurses and command staff would walk through housing units to talk directly with each i individual unit. They also sent messages via tablets. People who were incarcerated were provided time to review the information, ask questions, and sign off on having been provided the information; thereby, empowering people to feel more in control of their own health.

- **Use multiple delivery methods to reinforce the message**—Many correctional agencies used multiple media and methods, including videos, posters, public address systems, and face-to-face communications, to deliver important messaging.[191] Videos were made particularly accessible using tablets. In just one example, Idaho DOC posted videos on YouTube using trusted people who are incarcerated to communicate protective protocols to other people who are incarcerated, family, and stakeholders.[192] In addition to the videos, messages were reinforced through layered communication via:
    - Trusted personnel sharing key messages as they walked through housing units.
    - The intercom system during public address announcements.
    - Flyers and posters posted throughout housing units. [193]
- **Communicate with media outlets on a proactive basis**—The public, especially the families of the incarcerated, were anxious about the conditions in confinement facilities. Many agencies said it was essential to keep the public notified on the status of the pandemic in their facilities.[194] As previous mentioned, at least 49 of the 50 state departments of corrections launched websites with data and information about the impacts of COVID-19 on the agency, along with information about protocols implemented to prevent disease transmission within the agency.[195]

Promising Practice Highlight:

New Mexico Peer Education Project

The New Mexico Peer Education Project (NMPEP) is a collaboration between Project ECHO® (Extension for Community Healthcare Outcomes) at the University of New Mexico Health Sciences Center and the New Mexico Corrections Department, which has 11 prisons.

NMPEP is an intervention using harm reduction practices and a tele-mentoring project across disciplines, for people who are incarcerated people to train as peer educators. Peer educators (PE) have credibility due to their lived experience of incarceration. They are credible role models and mentors to other individuals who are incarcerated and can be effective in reaching those individuals.

Using the ECHO method of peer health education to develop individual self-efficacy, utilizing an innovative and cost-effective peer-led model strengthened individual community connections inside and out of prison. NMPEP has successfully delivered effective health education to over 28,000 people who are incarcerated, enabling positive change in their lives and communities.

Lessons Learned and Best Practices

- Employ the proper mix of communication methods that will be effective in reaching your audience, which could include flyers, posters, videos, public address announcements, and in-person communications by trusted agents, among numerous other options.
- Deliver daily memos and constant communication with staff, so that they are aware of the messaging and can convey it to others, as necessary.
- Communicate educational messaging to people who are incarcerated about the disease developments, vaccines, and CDC guidance to combat misinformation.
- Use public health partners to communicate information with people who are incarcerated to develop trust.
- Look to external experts, i.e., health officials, prison advocacy groups, and medical personnel, to deliver public health information.[196]

Strike a Balance Between Mental and Physical Health Impacts When Allocating Protocols and Resources

At least nine interviewed confinement facilities said if they had to do everything over again, they would do a better job balancing mental versus physical health at the outset of the pandemic.[197] It has long been known that solitary confinement is hazardous to the mental health of people who are incarcerated. Time out of cells and engaging in programming and exercise is important for the mental health and well-being of people who are incarcerated. However, many of the initial COVID-19 protocols for quarantine and isolation resulted in people being housed in solitary confinement-like settings. Early protocols had people who are incarcerated confined to cells as much as 23 hours per day.[198]

The use of solitary time and lockdowns had a significant impact on the mental health of the people who are incarcerated, especially the significant number of those with preexisting mental health conditions. These impacts were exacerbated by the fact that mental health services were initially curtailed as providers could neither enter the facility

nor see patients in person.[199] One northeastern state DOC had more deaths from suicides (2) during the emergency period than they had from the disease itself (0). They said that they would be partnering with their state's department of mental health when defining future protocols. [200]

Voices From the Field

A midwestern juvenile justice agency offered grief management, peer support, therapy dogs, support teams, and made it a priority for residents to know about and utilize these services.

While early guidance encouraged solitary confinement and lockdowns, later guidance, starting in June 2021, when vaccines and treatments were readily available, struck a better balance between physical and mental health, providing for more time out of cells and putting multiple people together in isolation and quarantine. CDC said that their intention with some of the updates were focused on balancing mental health versus disease transmission as a priority.[201]

Lessons Learned and Best Practices

- Isolation, while necessary for the prevention of the spread of COVID-19, had huge impacts on the mental health of people who are incarcerated. Balancing mental health versus public and physical health in a correctional setting must be a priority. Consult mental health authorities when developing future protocols.
- Corrections should provide access to sufficient remote and inpatient mental healthcare for those who need it.
- Cohorting can be a useful tool to minimize solitary confinement in isolation, quarantine, and in the general population.
- As described in the technology section, tablets are helpful in maintaining the mental health of people who are incarcerated under social distancing guidelines, as they allow for video visitation, programming, telehealth, including remote mental health services under social distancing protocols.

Decarcerate to Decrease Overcrowding In Facilities

The need for decarcerating was identified very early in the pandemic as a potential solution to reduce overcrowding in confinement facilities and slow the spread of the virus. Some agencies began the process around the same time as the national emergency was declared and were able to release up to 25% of their population. CDC initially referenced this strategy as decompression in a May 2020 report,[202] incorporating decompression into their formal correctional guidance in July 2020.[203] The National Academies published recommendations to decarcerate as a mitigation strategy, with supporting research shortly thereafter in the late summer of 2020.[204]

Studies show that controlled decarcerating reduced infection rates by eight times in overcrowded facilities; and that visitation bans, inter-prison transfers, single cell housing, and use of masks all helped in reducing the risk of infection as well.[205] There were concerns that decarcerating would increase crime. However, studies show that adults released early during COVID-19 outperformed on-time releases, with almost 11% lower recidivism rates.[206]

Key Strategies For Decarcerating

The data clearly shows that decarcerating is one of the most effective COVID-19 mitigation strategies. States employed various methods and criteria to reduce the population (see Figure 12).

Figure 12: Early Release Target Populations Varied by State Laws and Policies[207]

Source: BJA presentation to National Sheriff's Association Winter Conference "Pandemic Response in US Jails: Adapting Lessons Learned from COVID-19", 2/3/24 Slide 30[208]

Confinement facilities that decarcerated during the pandemic primarily chose people who are considered to be low risk[f] within 100 or less days of completing their sentence. The states that chose to provide early release to those who were close to their release date might have used one or more of the following examples as their criteria for early release:[209]

- Within 90 days of their release date.
- Within 30 days of sentence completion.
- Within 180 days of parole.
- Have completed 40-50% of their sentence.

Additionally, agencies pursued Special Needs release, including those with co-morbid conditions that put them at higher risk for severe disease (e.g., 50 years old and above or with preexisting health conditions or with a disability).[210]

Prisons stopping intake may be the least effective population reduction strategy, as that method only shifted the population to local jails.[211,212] A jail administrator explained:

[f] "Low-risk offenders have been convicted of nonviolent offenses…and have no backgrounds that include an intensive prior criminal record, mental illness, violent behavior, criminal associations, or current drug abuse." Per the US DOJ OJP study entitled "I'm Not a Criminal": Working With Low-Risk Supervisees

> "*The state Department of Corrections wasn't taking state people who are incarcerated. It's not unusual for us to have 50 to 60 folks that are sentenced to a state institution in our facility at any given time. During the height of COVID-19 when [State Corrections] was not accepting people who are incarcerated, that number rose to about 250, and that's a significant issue for a county jail."*[213]

Given that the stopping of intake only shifted the population from prisons to jails, the jails eventually wanted compensation for taking on those extra people who are incarcerated. California was one of those states who stopped new intake as a population reduction measure.[214] CDCR would eventually receive funding to disperse to local jails, reimbursing them for the cost of housing people who were incarcerated in the jails while CDCR intake was deferred.[215] Iowa also reimbursed local jails for the cost of the delayed intakes.[216] Bexar County, TX. applied for $468,000 in Texas state CESF Funds from the CARES Act to cover their costs of keeping people who are incarcerated whose intake was delayed by the Texas Department of Criminal Justice.[217] The Michigan Legislature added funds to the Michigan DOC fiscal year 2023 budget to reimburse county jails for delayed intake.[218]

Decarcerating Authorities Varied By State and Locality

Some correctional agencies had pre-existing authorities to allow for the agency to decarcerate people who are incarcerated. Other agencies found that state law did not authorize their agency to release anyone without action by prosecutors or courts.[219]

Before the pandemic, early release authorities differed by state laws. Some put the authority under the governor, parole boards or courts, rather than the corrections agency. (i.e., by executive order, statute, discretion, or parole boards) as did eligibility for early release and/or alternate sentencing (i.e., by emergency, compassion, furlough, electronic monitoring, or community/home confinement). [220]

During the pandemic, some states were able to change the state law to authorize early release of people who are incarcerated.[221] However, in some jurisdictions, where the law did not directly facilitate decarcerating, corrections worked with law enforcement, prosecutors, courts and other partners to reduce populations, by lowering commitments and/or releasing appropriate people who are incarcerated.[222] Figure 13 outlines various strategies employed to decarcerate confinement facilities under COVID-19.

Figure 13: Strategies for Decarcerating under COVID-19

Promising Practice Highlight:

Boulder Colorado County Jail population reduction

To reduce overcrowding and reduce the risk of respiratory infectious disease (COVID-19) spread among people who were incarcerated and staff, the Colorado Boulder Sheriff's Office, the district attorney, and chief district judge collaborated to create a set of arrest standards aimed at reducing the jail population. Those accused of non-violent crimes such as property crimes received a summons, a court date, and no jail time leading to a reduction in the jail population. This change in policy developed by the Colorado Boulder Sheriff's office, district attorney, and chief district judge contributed to a lower incarceration rate.

In other states, correctional officials worked with courts to reduce jail and/or prison intake via diversion programs and alternate sentencing. Many states increased the thresholds for parole and probation violations so that fewer parolees are returned to prison.[223] Two commonly used methods for decarcerating jails involved:

- Issuing citations or summonses, rather than arrests for minor or non-violent offenses.[224] Boulder Colorado successfully employed this method, as described in the promising practice highlight (see text box).
- Diversion programs to sanction and monitor rather than imprison.[225]

These methods can be handled solely by local law enforcement without the involvement of the local jail. They were quite effective in decarcerating jails, when implemented. [226] However, one jail administrator pointed out, such decarcerating left their jail with only the extremely violent and the mentally ill, resulting in 80% of their population having a diagnosed mental illness.[227]

The U.S. Sentencing Commission reviewed the impact of two laws that were used to reduce the risk to people who are incarcerated at the highest risk for severe cases of COVID-19:[228]

- **The First Step Act**, passed in 2018, includes a provision for people who are incarcerated at significant medical risk to petition the courts for compassionate release, if specific conditions are met. [229] The requests increased more than twelvefold during the first six months of the pandemic, before dropping to prior rates in fiscal year 2021.While the filing was simple enough for people who are incarcerated to complete on their own, the requirements were stringent enough that only 25.7% of requests were granted (1,805 releases from 7,014 FY20 applicants). The compassionate release reduces the sentence to time already served unless the courts apply a probationary period to the release.[230]
- **The CARES Act**, signed March 27, 2020, contains a provision for the U.S. Attorney General to define provisions for the Federal Bureau of Prisons to move qualifying people who are incarcerated from prisons to home confinement, throughout the defined emergency timeframe.[231] The incarcerated individual must complete their full sentence and could be subject to return to prison after the emergency expired.

Voices From the Field

In April 2020, to reduce the population, a northeastern state department of corrections changed internal policies from requiring people who were incarcerated to complete 50% percent of their sentence to be considered for early release to requiring a lesser amount – 40%–% percent – to be eligible for early release. Another state adopted a policy prioritizing early release for those 50 years old and above with preexisting health conditions and close to their release date (typically within 90 days of release). Under this policy, a total of about 1,500 people who were incarcerated were released early during the pandemic.

"That was a good strategy for [county], the reduction in population. We did partner with our courts and a lot of our offenders, like some of those less violent offenders, we have a monitor release program. SoSo, a lot of those folks were court ordered over into the monitor release program to reduce the population. We had weekend sentences, those weekenders that would come in and start their weekend sentence, we discontinued that. And a lot of those lower-level offenses were basically diverted. They were not accepted into custody. So…if it was something that law enforcement just didn't have to arrest for, everybody was on board…we got ours [population] reduced drastically."

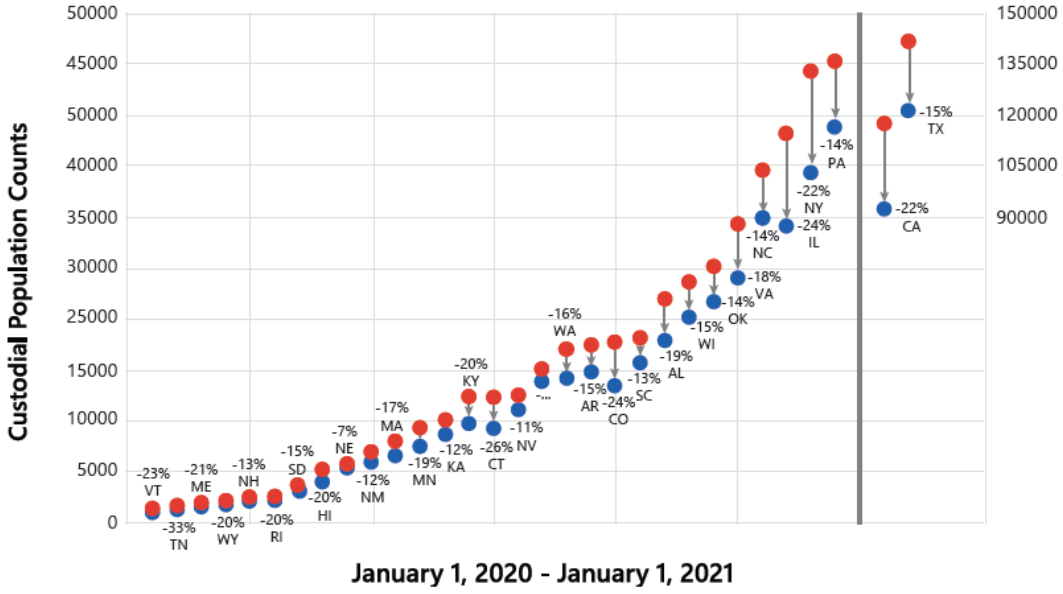
Thousands of people were transferred to home confinement under the CARES Act.[232]

These two acts provide potential models for a standing provision for allowing release of people who are incarcerated at significant medical risk and for emergency legislation to allow corrections agency to rapidly decarcerate people who are incarcerated to home confinement.

Comparing and Contrasting Decarceration Rates Between States

Overall custodial population counts across state correctional agencies declined by a total of 122,563 persons from January 1, 2020, to January 1, 2021, which is a 17%reduction. Figure 14 shows the changes in the custodial population from January 1, 2020, to January 1, 2021. The average reduction was 17.5%, but there was a fair amount of variation, with Nebraska reporting the smallest (-6.5%) and Tennessee the largest (-32.7%) year-over-year change.[233]

Figure 14: Changes in Custodial Population during COVID-19



Source: NIC report: Effects of COVID-19 on Prison Operations. [234]

Just as decarceration rates varied from state to state and locality, so has the rise in the incarcerated population since the height of the pandemic. Overall, the total national incarcerated population has returned to pre-pandemic levels, however many jurisdictions have a significantly higher incarcerated population, while others have dropped significantly below pre-pandemic levels. There are numerous reasons for this disparity.[235]

Among the reasons why the populations rose in some jurisdictions are that those jurisdictions may have embraced the trend of getting tougher on crime post-pandemic, as well as the incarceration of people who were released pre-trial during the pandemic but

convicted at trial when their case finally cleared the court backlog. Those with lower population may have embraced the justice system reforms that allowed for decarceration during the pandemic, and are continuing to promote diversion, home confinement, alternate sentencing, and other techniques to keep their lower incarceration rates. These are not the only reasons for the current incarceration trends, but they are among the most commonly cited reasons.

Lessons Learned and Best Practices

- Decarcerating was an essential and effective method of reducing disease transmission in confinement facilities. Correctional agencies should work with local officials to reassess admission requirements and identify low risk individuals for early release. Agencies can petition the courts for compassionate release for people with significant medical risk and move qualifying people who are incarcerated from prison to home confinement, throughout the defined emergency timeframe.
- Diversion programs and alternate sentencing are effective tools to keep people out of jails and prisons through sanction and monitor rather than imprison. For example, jurisdictions could issue citations or summonses, rather than make arrests for minor or non-violent offenses.
- When decarcerating, agencies and jurisdictions should develop clear eligibility requirements for early release. Review panels and population management task forces can be effective in implementing these requirements.
- The releases must be properly planned with the releasee's needs considered to ensure both the success of the release and prevent transmission from the facility to the community.
- Increasing the thresholds for parole and probation violations will result in fewer parolees being returned to prison.[236]
- The processes and authorities to facilitate decarcerating vary state by state If the state law does not give correctional agencies the authority to reduce populations, the agencies may need to work with law enforcement, courts, and prosecutors to facilitate decarcerating.
- The federal First-Step Act and CARES act may provide guidance to state and local governments on potential legislation for ongoing and emergency authorities to facilitate decarcerating, when needed.

Staffing-Related Issues Impact Operations

Staffing was one of the main resource shortages that confinement facilities faced throughout the pandemic, a challenge that has continued after the end of the public health emergency.[237] Multiple articles described nationwide reductions in custodial staff, security personnel, and non-security personnel, and that most correctional agencies indicated that hiring new staff and employee retention were "major problems."[238,239,]

Staffing Shortages

The most apparent hardship that emerged during COVID-19 was staffing shortages. Many confinement facilities reported operating at significantly reduced staffing capacities, which complicated their pandemic response efforts. Figure 15 highlights the leading drivers for staff shortages. Confinement facilities were also unable to offer competitive salaries, particularly among nursing staff, given budget constraints and pandemic-related demands for health care providers and services nationally.

Figure 15: Drivers of staffing shortages in confinement facilities

Low staff salaries were raised as an issue in staffing shortages by many interviewees. One agency said they were losing people to the "gig economy," referring to former correctional officers now driving for Uber, Lyft, Instacart or working for organizations like Task Rabbit. Some states are trying to address the wage issue, especially those states who pay less for new corrections staff than the minimum wage currently offered at some fast food and big box stores.[240] Wisconsin Department of Corrections (WDOC), for example, has doubled correctional officer pay over the last few years, from just over $16/hour to more than $30/hour. WDOC has also offered a $5/hour pay bonus to all officers in a prison where vacancies are over 40%, which includes four of 18 prisons, and does not appear to have made an impact in the staff shortages. This could indicate that while pay is one factor in recruiting and retaining officers, it may not be the strongest factor.

West Virginia is also announcing significant pay incentives for recruiting and retaining officers. New legislation will increase the starting salary for a correctional officer from $35,514 to $40,000. At the end of their second year of service, the salary will be $48,000.

Correctional officers, categories three through seven, and non-uniform staff, will begin to receive an annual increase of $250 in 2024. Current correctional staff will receive two retention incentives totaling $4,600 with the first effective increase in October and the second scheduled for March 2024.[241]

One respondent highlighted the importance of prioritizing recruitment and retention efforts for the medical field in corrections, including addressing the need for competitive salaries:[242]

> *"It's always been hard to hire nurses, there's a national shortage and particularly in the field of corrections. To ensure that we all have adequate medical staff and have the ability to recruit and retain, we need a push at the federal level to recognize corrections as an area of critical staffing when it comes to medical titles and nursing, and to run incentives, whether it's tuition forgiveness or loan forgiveness, things such as that. Because we can't move as nimbly as the community and the private sector, which giving signing bonuses and to steal nurses in that regard. You get involved in public safety because you have a commitment to public safety or public service, you're not in it for the money. But to give us a leg up in attracting those individuals as we go forward in everyday operation, but particularly when we have a health emergency, I think it's an area that gets overlooked."*[243]

Staff Burnout and Staff Wellness

Even before the pandemic, corrections personnel suffered from stress and very high burnout rates. Studies show that between 22% and 35% of correctional officers report high stress levels. The impacts of stress and burnout of staff cascades to the wider correctional institution. Staff shortages and officer absenteeism creates a cycle that is self-perpetuating which impacts safety and security.[244]

The pandemic exacerbated these factors, driving up the burnout and churn of corrections personnel. Corrections staff explained that the trauma of working through the pandemic has been multifaceted: staff have had to perform risky work, witness the deaths of colleagues and incarcerated residents, and take on new job responsibilities. They received very little recognition in the process.

Staff wellness programs are essential to preventing or mitigating staff burnout.[245,246] One jail administrator described their program:

> *"Morale was really down when you get into six, seven months. And at the beginning and through the middle, we tried to do different activities for our staff, where our management staff all chipped in and we would have different drawings… we just wanted to let the officers and the employees know that, you know, 'we understand what you're doing, and we appreciate it.' And one of the biggest things that I made sure [of] was that they knew that we had their back and that we are going through the same stuff they were.*[247]

Where possible, many correctional agencies attempted to use remote work to protect those staff who were most vulnerable to the virus, and/or those staff whose jobs did not require direct contact with people who are incarcerated. However, agencies reported that those who could work remotely faced resentment by those who could not, and, as a result some confinement facilities stopped remote work as an option.[248]

Respondents to the jail survey shared that their efforts to create a "culture of caring" included boosting morale through verbal praise, raffles, cash, and other giveaways. They generally felt that such efforts were necessary to help compensate for the lack of appreciation staff were receiving from the larger community, as well as in acknowledgment of the significant burdens imposed by the pandemic.[249] According to Congressional testimony:

> *"Research and studies done on retention show overwhelmingly that it is not the incarcerated population that drives good employees away, it is a lack of communication, recognition, and transparency, along with outdated and uninformed policies…*
>
> *Addressing the staffing crisis in corrections requires appealing to potential employees by valuing their goals and integrating them into a respected team from day one, providing empirical training, better pay, lower healthcare costs, holistic wellness programs, and attractive incentives."*[250]

Sources For Supplementing Staff

Corrections is a complex vocation, requiring significant training and discipline, posing significant challenges for replacing corrections officers when there is insufficient staffing. The primary method identified is for agency command staff and executives fill in for line workers. Interviewees pointed out that all corrections employees in their agencies are trained as corrections officers and senior staff occasionally had to walk the housing units as correctional officers when additional coverage was needed during the pandemic.[251]

Staffing shortages required creative solutions or resulted in gaps

The recruitment and retention of staff was an issue for many confinement facilities before, during and after COVID-19. One state, for example, found competition for staff was fierce, especially for nurses. One measure to try to recruit and retain nurses was to offer emergency pay increases, but basic pay for nurses in the state fell below market rates and emergency pay was not sustainable for the number of nurses required throughout the pandemic. Therefore, some facilities operated without the required number of nurses.

Fourteen of the 30 interviewed agencies, including almost every state corrections department, stated they had developed plans to call out the National Guard if assistance was needed. Some executed those plans, but many did not.[252] Nationwide, at least 20

states called out the National Guard to support corrections. In most states, the National Guard were used in logistical support roles, but according to reports, Ohio used National Guard personnel as corrections officers within their facilities and one other state paired National Guard personnel with Corrections Officers to supplement and support the officers, without having direct contact with people who are incarcerated.[253]

To fill in for health care personnel, many agencies partnered with the department of health for additional medical staff. Others partnered with state medical schools and nursing schools. Some agencies changed medical contractors during the pandemic to get access to more/better staff.[254]

Lessons Learned and Best Practices

- Address staffing shortages with recruitment and competitive pay.
- Mental health of staff should be prioritized to prevent burnout, address family loss and illness, and fear of bringing disease home.
- Develop a staffing management plan as part of your overall emergency plan. Identify sources of supplemental staffing.

Specific Actions Taken to Protect People who are Incarcerated and Corrections Staff

In addition to the policy, planning, and operational process changes in confinement facilities, there were several discrete actions taken by facilities that protected staff and people who were incarcerated from COVID-19 (see Figure 16).

Figure 16: Lessons learned findings

Specific Actions Taken to Protect Incarcerated Individual and Corrections Staff
•Upgrading/improving facilities and HVAC systems was key to risk management •Providing needed medical treatment to incarcerated populations in Alternate Care Sites prevented the spread of COVID-19 into the community •Testing wastewater proved accurate, less intrusive and cost effective •Providing incentives increased personal protective equipment compliance and vaccine uptake among people who are incarcerated and staff

Upgrading/Improving Facilities and HVAC Systems Key to Risk Management

As a respiratory illness transmitted through airborne particles, air quality, freshness, and filtration can play a major role in reducing transmission of the disease. The American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) published guidance as early as May 2020 stating that HVAC enhancements could help reduced disease transmission, based on COVID-19 data to date and prior viral epidemic data.[255] Such upgrades could include low-cost changes like:

- Increase outdoor air ventilation and decreasing recirculation.
- Increase the MERV (Minimum Efficiency Reporting Values) rating of air filters used to at least MERV 13 or the highest level the system will accept.
- Run the air circulation 24 hours a day, 7 days a week.
- Install a portable room air cleaners with HEPA filters.
- Install Ultraviolet Germicidal Irradiation (UVGI), protecting occupants from radiation,[256] in high-risk spaces such as waiting rooms, prisons, and shelters.

The earliest reference found on the CDC website to using HVAC upgrades as a disease spread reduction strategy was a reference to an update to Ventilation Guidance in March 23, 2021.[257] The CDC guidance for using HVAC as a disease spread reduction strategy, specifically for corrections, was issued in the June 9, 2021, update to CDC's Interim Guidance on Management of Coronavirus Disease 2019 (COVID-19) in Correctional and Detention Facilities, which said, "Maintain baseline infection control: Facilities should

maintain optimized ventilation, handwashing, and cleaning and disinfection for baseline prevention of infectious diseases, including COVID-19."[258]

Within in the CDCMF program, 15 of 64 project proposals included upgrades to air quality as one component within their overall proposals, including nine HVAC systems updates, while six included other air purification tools, HEPA filters for existing HVAC systems and freestanding HEPA filtration platforms or UVGI systems outside of the central HVAC systems. The promising practice highlight in the text box describes New York's efforts to improve air quality in their confinement facilities.

Promising Practice Highlight:
NY Air Purification

NY Health identified the need for an evidence-based and effective air purification system for the state's 57 county jails to replace the systems installed before or during the COVID-19 pandemic that performed below acceptable air quality standards. At the recommendation of the NY State Sheriff's Association, NY Health selected a third-party company with a system that measures the viral load of several viruses, (COVID-19, SARS, Influenza, TB, Pertussis, Norovirus, C-DIFF, MRSA, and RSV) and measures fine and large particulates and volatile organic compounds (VOCs) (smoke, soot, pollen, dust, dander, mold, and bacteria).

Montgomery County jail, with a 50-249 bed capacity, participated in a one-month pilot of the air purification system to measure performance and ensure product effectiveness. During the installation, the company linked the air purification system to the jail facility's IT system to produce performance reports for the jail administrators. The color-coded performance results provided an immediate visual analysis of the air quality in the booking area, enabling jail administrators to take rapid action, such as removing new individuals out of the booking area and administering COVID-19 testing.

The pilot air purification system performed significantly in all captured metrics, resulting in safer air quality for the Montgomery County jail facility. Prior to installation, some of the air quality assessment results in the jail exceeded the acceptable air quality levels by 750 times. After the pilot, air purification system reports showed a 61% percent overall improvement in air safety, with 90% percent improvement in viral particles, 31% percent improvement in fine particulates, 20% percent improvement in larger particulates, and 23% percent improvement in VOCs. NY Health plans to install two air purification units for all 57 county facilities, placing one unit in the booking area and the second unit in the back end of the facility.

Upgrade HVAC to Higher MERV filters

One state said, while they were unable to install or upgrade their HVAC systems, they were able to make a substantial improvement to air quality and disease spread by upgrading their HVAC filters. Upgrading HVAC filters to MERV-13 or higher filters provides a significant improvement to air quality, reducing the spread of pathogens by up to 75%, at a reasonably low level of cost or effort. The cost to upgrade to MERV-13 or higher filters is marginal to the total HVAC cost.[259]

MERV Ratings

MERV 1-4: Suitable for basic residential or minimal commercial applications. These filters capture particles like pollen and dust mites but are generally not recommended for those with respiratory issues.
MERV 5-8: Ideal for standard residential and commercial settings, these filters can capture mold spores, pet dander, and aerosol sprays.
MERV 9-12: Used in superior residential and better commercial buildings. They are effective against lead dust, legionella, and auto emissions.
MERV 13-16: Best suited for hospital inpatient care and general surgery. They can capture bacteria, tobacco smoke, and sneeze particles.
MERV 17-20: Used in specialized environments like cleanrooms. These can capture particles as small as viruses and combustion smoke.

Reverse Air Handlers For Removing Smoke and Gas

One state isolated individuals with COVID-19 in medical units with negative airflow to eliminate the risk of air exiting the medical unit and entering the rest of the facility.[260] In a different state, leaders obtained federal grants to upgrade HVAC units, cleaning all air ducts in all the prisons to kill germs and viruses that could circulate through the HVAC systems.[261] Other state legislatures allocated funds to upgrade the HVAC systems.

Voices From the Field

One facility said they installed, prior to COVID-19, a reversable air handling system designed to clear smoke from a fire or gas used to suppress violence. They found this system to be highly effective in reducing the spread of the virus, as negative air flow pulls infectious particles out of the airflow. Agencies may want to consider installing such systems for their general safety use, with the added benefit for utility in a future epidemic or pandemic.

UV Disinfection In Air Handlers/Ductwork

Studies show that using Ultraviolet Germicidal Irradiation (UVGI) systems can be effective in reducing disease transmission through HVAC systems.[262] CDC recommended use of UVGI as part of a layered approach to reduce disease transmission via HVAC systems, at least as early as April 21, 2021, if not earlier.

As mentioned above, ASHRAE began recommending UVGI with their May 2020 Guidance.[263] A 1997 study performed in an Arkansas prison found UVGI to be highly effective and cost effective in preventing transmission of Tuberculosis in prison, costing as little as $800 to install, while saving between $10,000 and $500,000 for each case prevented. During the study UVGI was one of several measures that reduced tuberculosis transmission by 67% over 3 years.[264]

Lessons Learned and Best Practices

- Consider running the air circulation 24 hours a day, seven days a week to improve air quality. HVAC is important for preventing airborne disease transmission.
- Increase outdoor air ventilation and decreasing recirculation.
- Increase the MERV rating of air filters used to at least MERV 13 or the highest level the system will accept.
- Consider portable room air cleaners with HEPA filters.
- Consider ultraviolet germicidal irradiation, protecting occupants from radiation,[265] particularly in high-risk spaces such as waiting rooms, prisons, and shelters.

Alternate Care Sites Provide Needed Medical Treatment and Prevented the Spread of COVID-19 Into the Community

Several corrections agencies cited their ability to establish surge capacity spaces, sometimes referred to as Alternate Care Sites (ACSs) were essential to meeting the care demands during the worst outbreaks. Some agencies set up these surge capacity spaces for quarantine, while others set them up for active medical treatment or recovery. They could be set up in existing facilities in areas that were not used during COVID-19, such as visitation spaces, or in tents, depending on availability and logistics. The promising practice on Maryland's ACSs highlights how risk to the surrounding community was a factor in the state's decision to build these facilities.

Promising Practice Highlight:
Maryland Alternate Care Sites

Several of Maryland's large confinement facilities with a population of more than 10,000 are in areas with limited hospital capacity. A looming concern during the pandemic was the potential for an outbreak in a confinement facility to affect the surrounding community and its access to care. Maryland leadership determined was far easier and less expensive to create an alternate care site (ASC) to treat infected and ill patients within its confinement facilities than to send patients to hospitals, many of which were already above capacity. Maryland Department of Public Safety and Correctional Services (DPSCS) worked with the Maryland Department of Emergency Management (MDEM) and the U.S. Army Corps of Engineers to build 10 ACSs to care for the patient population. Maryland's ACSs provided 1,324 in-patient days and saved the state more than $3.2 million. *(See Appendix C for the full case study.)*

Many facilities set up their own ACSs. At least one state set up an ACS to receive transfer patients from across the state.[266] Another state department of corrections created ACSs they called "quarantine zones" where COVID-19 positive people who were incarcerated were kept separate from the general population. This "zone approach" allowed the rest of the facility, and non-COVID-19 positive people who were incarcerated, to operate normally. While this practice was somewhat successful at containing the infection, officials noted some people filed grievances in response to this action.

Partnering with emergency management, public health and/or the National Guard can assist with the planning and logistics. Many emergency management plans already contain plans for such facilities, and have pre-identified resources, potentially including

National Guard, U.S, Army Corps of Engineers, nonprofit organizations, and commercial vendors.

Lessons Learned and Best Practices

- Alternate care sites, whether inside unused spaces or tent-based, can be easier and more cost effective than sending multiple patients to a community hospital during a pandemic or infectious disease outbreak.
- Coordinate with the state or local emergency management agency and health department to quickly stand-up alternate care sites, whether for isolation, quarantine, or recovery; or as full field hospitals with ventilators, oxygen generators, and generating plants.[267]

Wastewater Testing Is Accurate, Less Intrusive, and Cost Effective

A study from the University of California, released in October 2023, published the findings from a long term study on how Wastewater Based Surveillance (WBS or "Wastewater testing") was used to manage COVID-19 outbreaks in a number of communal living facilities, including colleges, nursing homes, and two prisons.[268] The prisons were San Quentin State Prison and the CDCR California Medical Facility at Vacaville, CA.[269] Key findings of the study included:

- WBS is cost effective and less intrusive versus mass testing with individual tests.[270]
- Installing a sampler at a facility cost between $4,740 - $6,100, which is a significant cost savings when compared to the cost of individual testing, which can cost $148 and $695 per sample, depending on the lab and how many diseases and drugs are being checked. [271]
- Five of the six participating facilities believed that they avoided more severe outbreaks by acting rapidly on wastewater data. They used the early warning of potential outbreaks provided by WBS to increase preventative measures, likely averting a larger outbreak.

The study reported that people became less willing to participate in mass testing over the course of the pandemic. The highest value appeared to be when the results showed infections falling, low, or non-existent, reassuring management they were doing the right things. Corrections officials also reported that when WBS showed little to no infection, they could shorten quarantine times and resume programming (e.g., educational, visits) which was beneficial for overall well-being of the people who were incarcerated.

Corrections officials also noted such results bolstered their mental health:

> *"Every night when I get [wastewater data] that says, 'no positive signal' I sleep better... [WBS] helped me maintain my mental health."*

Agencies considering installing a WBS must understand their wastewater systems and the flows from those systems. The promising practice in this section highlights the WBS monitoring of a confinement facility in the District of Columbia (see text box).

Identification of the best sampling point(s) and the population for each sample are critical to success.[272] The findings suggest that WBS may be most valuable when:[273]

- **Case rates are low or nonexistent**—WBS can cost-effectively and noninvasively confirm non-transmission and whether infections are increasing. Conversely, when case rates are high, the wastewater data did not add as much value to the decision-making process.
- **Clinical testing resources are limited—**Wastewater results can indicate when to expand clinical surveillance testing. WBS provided information about the whole population at a fraction of the price of testing each individual.
- **The population is medically fragile or the consequences of disease high**—WBS provides data to help corrections officials monitor infection rates and prepare to isolate those who are at high risk. Having data to define when to institute isolation and quarantine protocols and conversely when to lift those restrictions improves the balance between public health and mental health.
- **The resident population mixes regularly with outsiders**—When residents share spaces and have regular close contact with people from outside the facility, transmission can happen very quickly.
- **Institutions face a high level of scrutiny**—WBS may help decision makers demonstrate to internal and external stakeholders that they are acting cautiously with the responsibility they have for their residents.

Promising Practice Highlight:

DC Wastewater Testing

In the early phase of the COVID-19 pandemic, the District of Columbia Department of Health (DC Health) recognized the need for new ways to publicly monitor the virus spread and prepare for the Omicron variant. Using CDMCF funding, DC Health launched a wastewater surveillance program to collect samples using a method of Moore swabs suspended in wastewater flow during a 24-hour sampling period. DC Health then conducted polymerase chain reaction (PCR) testing of the wastewater samples. (Appendix B provides a detailed description of the wastewater surveillance process.)

Collaborating with the DC Department of Corrections (DC DOC), DC Health conduct wastewater surveillance at DOC's Central Detention Facility that houses more than 2,000 people. The testing data provided general information on COVID-19 activity at the sampled DOC manhole. Following the successful test with DC DOC, DC Health expanded the wastewater surveillance program to eight DC community sites and successfully continued to obtain a trend line on COVID-19. DC Health plans future expansion from a COVID-19 focus to include more pathogens, infectious diseases, and other diseases. For example, the wastewater surveillance program could support DC's food-borne illness initiatives on Norovirus and its immunization initiatives on Polio and Measles.

Lessons Learned and Best Practices

- Wastewater testing is a highly cost-effective method of mass testing that does not require active participation by people who are incarcerated or staff and can provide significant information about health issues in a confinement facility far beyond individual testing.

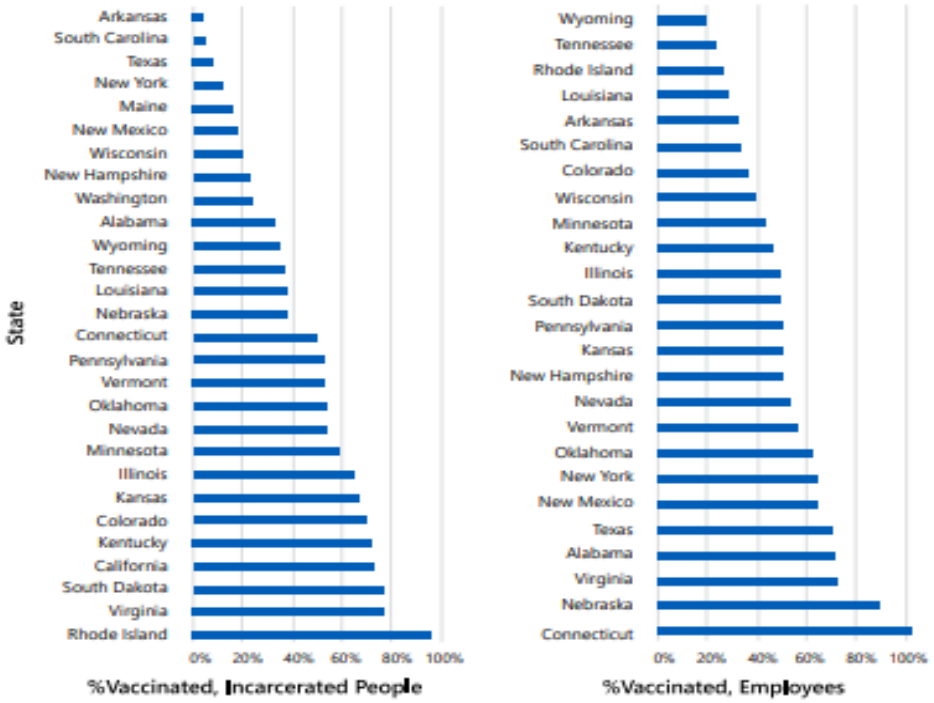
Incentives May Increase PPE Compliance and Vaccine Uptake Among People Who Are Incarcerated and Staff

As the COVID-19 pandemic continues, it is important to increase vaccine confidence in prisons, jails, and detention facilities to reduce transmission and severe health outcomes. Recent survey findings can inform the design of potential interventions to increase COVID-19 vaccine uptake in these settings.

A 2023 study of vaccination attitudes among more than 125,000 people who were incarcerated in federal facilities, conducted by CDC, U.S. Public Health Service, and the Federal Bureau of Prisons, found the most common reason given for accepting vaccination was to protect their health (76.1%). Individuals who declined vaccination cited concerns about vaccine side effects (56.6%); mistrust of the vaccine (54.6%); and vaccine safety concerns (54.4%). Among those who declined vaccination, 21.2% reported that they would choose to be vaccinated if the vaccine was offered again. Those who declined also reported that additional information from outside organizations (49.0%), receiving information regarding vaccine safety (36.5%), and/or speaking with a trusted medical advisor (24.5%) may influence their decision to be vaccinated in the future. [274]

A June 2021 survey of state corrections agencies reported mean vaccination rates of 44% among people incarcerated and 51% among employees across the 28 responding agencies. The vaccination rates across states varied considerably (see Figure 17).[275]

Figure 17: Percent of Residents and Staff Vaccinations, by State



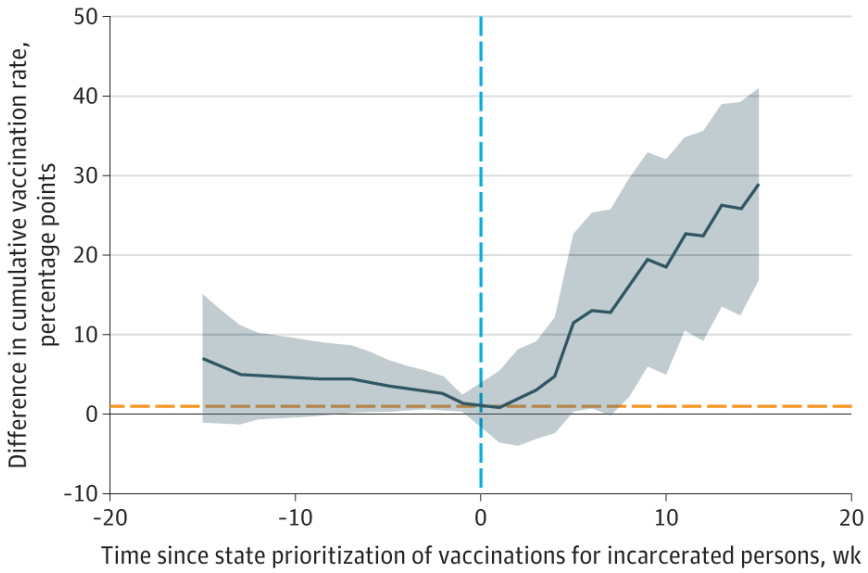
Source: NIC Report Effects of COVID 19 on Prison Operations, March 2023[276]

A similar survey of jails report that COVID-19 vaccinations were offered to people who were incarcerated in 60% of the responding agencies and to employees in 81% of the responding agencies. About 25% of people who were incarcerated, in agencies offering vaccines, were at least partially vaccinated.[277] Vaccination rates were lower than average for both sheriff's administration and people who were incarcerated, making superspreader events more likely and causing infection rates to be higher for the facility community.

Prioritizing Vaccines For People Who Are Incarcerated Improve Vaccination Rates

Prioritizing vaccines for people who are incarcerated had a significant impact on vaccine outcomes. A 2022 study of 36 states found that states with policies to prioritize vaccinating people who were incarcerated had significant increases in vaccination rates of that population, versus other states over time (see Figure 18).[278]

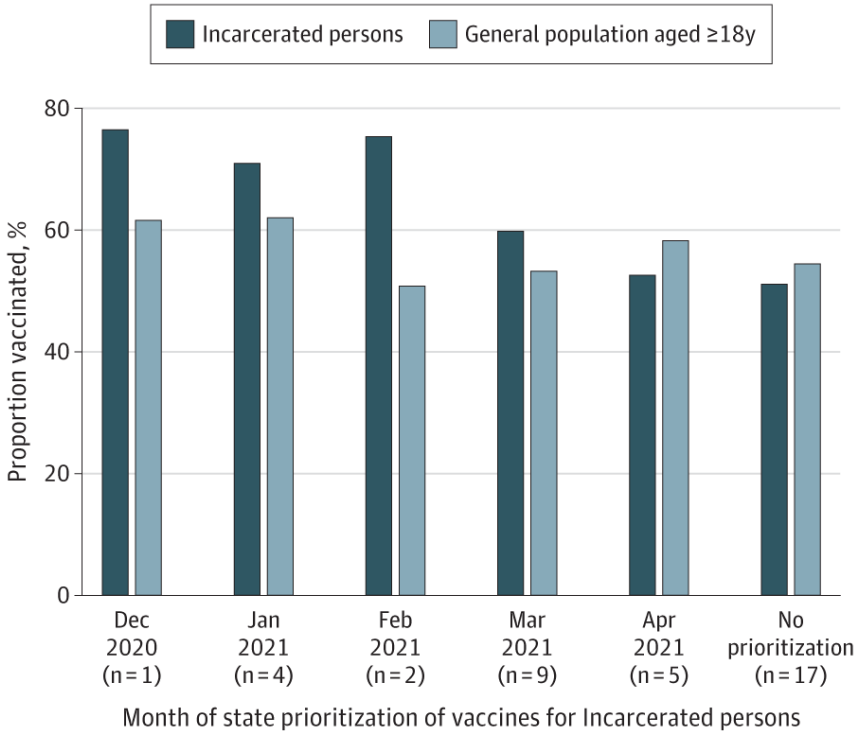
Figure 18: Associations Between State COVID-19 Vaccination Prioritization and Cumulative Vaccination Rate Among People who are incarcerated in 36 States



Source: Association of State COVID-19 Vaccination Prioritization with Vaccination Rates Among Incarcerated Persons [279]

Only 10 states vaccinated more than 70% of people incarcerated—of these, 7 prioritized vaccinations for people incarcerated. By June 2021, states prioritizing vaccinations for people incarcerated earlier in 2021 had higher vaccination rates for people incarcerated versus the vaccinations rates in the general public (see Figure 19). Even after prioritization, 42% of people incarcerated remained unvaccinated in June 2021.[280]

Figure 19: Vaccination Rates Among People who are Incarcerated and the General Population by Month of Vaccination Prioritization for People who are Incarcerated



Source: Association of State COVID-19 Vaccination Prioritization with Vaccination Rates Among Incarcerated Persons [281]

Vaccine Education and Incentives Decreases Vaccine Hesitancy

Vaccine hesitancy was found among staff and the population due to a myriad of reasons. People who are incarcerated were found to have distrust for the government and confinement facility leadership, and a fear of short- and long-term side effects of vaccines.

A NIC survey of state corrections agencies found that 26% of respondents offered vaccination incentives to people who were incarcerated and/or staff to get vaccinations.[282] The incentive efforts included commissary deposits, additional phone calls/tablet credits, co-payment coupons, events, and care packages. Facilities in several states offered rewards such as pizza or raffles which proved to be effective

Voices From the Field

Mandates worked but were very unpopular. One major city's corrections department offered a $500 incentive for vaccination, which few took advantage of. However, when the mandate deadline arrived, and there was the threat of suspension or termination, almost all staff produced their vaccination card. Unfortunately, it was too late to receive the incentive.

in increasing vaccination rates among people who were incarcerated. For the staff, facilities offered bonuses or paid time off incentives.

Education proved the most important approach to overcome vaccine hesitancy within confinement facilities. Use of medical staff, public health experts, and peers to educate the population through face-to-face conversations, town halls and educational videos on vaccines, COVID-19, and mass immunity improved vaccine acceptance. Facilities also used electronic dashboards and display monitors for continuous awareness, education, and training.

Lessons Learned and Best Practices

- Prioritize people who are incarcerated for early vaccination improves vaccination rates.
- Mandates work but are very unpopular.[283]
- Incentives are marginally effective in increasing vaccinations. [284]
- Education from trusted sources is effective at encouraging vaccinations.[285]

Conclusion

This report highlights the major lessons learned for confinement facilities during COVID-19 and actions that agencies can take now and, in the future, to minimize the impact of the next pandemic or infectious disease outbreak. These actions include planning, partnership building, and preparedness activities.

Correctional agency leaders should be actively promoting planning across the nation's confinement facilities. Planning is not just a one-time effort to complete a template, but an ongoing process of reviewing, planning, training, exercising, and evaluating.

A key aspect of these planning efforts should be the promotion of partnerships with public health and emergency management agencies, which expertise in this type of planning. They can provide input for initial planning and ongoing review and exercising of current plans. A best practice identified that proved essential to building these partnerships should involve making corrections a resource to both emergency management and public health. As a resource to these partners, the partnership will be mutually beneficial and sustainable. If corrections are an explicit part of the jurisdictions' emergency management plans and public health emergency plans, they will be invited to the table when those plans are regularly reviewed, trained, and exercised. Corrections can also ask for the resources they need. While corrections have historically operated on their own in emergencies, such partnerships can change that dynamic.

There are many examples of facility improvements made for the COVID-19 pandemic that will also improve daily operations or safety. Such improvements should be considered by confinement facilities for implementation for not only preparing for the next pandemic, but also to improve ongoing operations. Examples of such upgrades include, but are not limited to, HVAC upgrades, reverse air handles that can also be used to clear smoke from a fire or gas used in security engagements, wastewater testing for ongoing public health surveillance and drug monitoring, medical facility improvements, and electronic medical records, among many others.

Staffing has long been a chronic issue for corrections, but some actions taken during the COVID-19 Pandemic can be helpful in addressing this problem. As documented in this report, several jurisdictions are working to significantly increase pay for correctional staff. Corrections is a career that requires extensive training and discipline to operate in a stressful environment. Compensation should be commensurate with that investment. Benefits should include health and wellness programs to assist staff in coping with the long hours and stressful environment. Beyond compensation and benefits, the CDMCF TTA Center team heard that those agencies that built a "culture of caring" also built strong loyalty amongst their staff and had far fewer retention issues than those that did not promote such a culture.

Further lessons that can be gleaned from this report that confinement facilities should consider for implementation include continued decarceration and justice reform. This ensures lower population levels in prisons, reducing chronic overcrowding.

Additionally, many of the technology-enabled protocols for virtual visitation, virtual programming, telemedicine, and remote hearings should be considered for continuation under the new normal operating environment. Many agencies are now offering options for both virtual and in-person visitation. Organizations that were able to reach out for virtual programming during the pandemic are considering keeping some of the virtual programming, like virtual college courses, as they also restore in-person programs. Telemedicine greatly expands the options for specialist care and mental health care while reducing the cost and burden required for in person visits to medical specialists. Many court systems and parole boards are still using remote hearings to some extent, even as in person hearings have resumed. Having these technologies in continued use will allow for seamless transition should the need recur to again limit in-person access to facilities.

Appendix A includes the full list of recommendations, lessons learned, and best practices that should be considered. Each confinement facility should review this full report to identify those specific recommendations that best apply to them, and then proceed to implement as many as possible. History makes it clear that there will be future epidemics and pandemics. The more that can be done to prepare for the future, the better outcomes will be for confinement facilities.

Appendix A: Best Practices

This section presents the 15 findings and the respective best practices.

Planning and Coordination

1. Including corrections in government wide planning and response efforts improves outcomes

- Confinement facilities should ensure that they are part of their jurisdiction's emergency planning efforts, coordinating with their local emergency management office. The Federal Emergency Management Agency's (FEMA) whole community approach is a way to promote and sustain communications and collaboration among and between corrections, public health, and emergency management.
- Confinement facilities should ensure that they are recognized as a resource to emergency management, providing mutual benefit.
- Confinement facilities should coordinate early with state or local emergency management agency (EMA). The EMAs can assist with planning and resources. They can also coordinate with the appropriate parties (U.S. Army Corps of Engineers, National Guard, Vendors) to quickly stand-up tent hospitals with ventilators, oxygen generators, and generating plants.
- A best practice for emergency management is to ensure that each agency has a liaison to emergency management, trained in emergency management. These liaisons should be highly visible to both emergency management leadership and agency leadership, to ensure that they are empowered to assist both agencies, when needed.
- BJA can partner with FEMA and organizations such as the National Emergency Management Association (NEMA) and the International Association of Emergency Managers (IAEM) to ensure that corrections are part of community response processes and are incorporated into the relevant standards (Emergency Management Accreditation Program, American Correctional Association) and plans (National Response Framework, state, and local emergency operation plans).

2. Partnerships with local and state public health and organizations help corrections manage COVID-19

- Confinement facilities should establish and maintain ongoing relationships with their jurisdiction's public health agency. Embedding a public health professional within their organization for continual and ongoing support may be a best practice.
- Confinement facilities should maintain ongoing partnerships with public health, via one or more, of the following strategies:
    - Establish a working group that meets quarterly, and not just during times of crisis.
    - Identify a position within facility/agency that serves as the public health liaison.
    - Support health department's assignment of a correctional health expert in-house.
    - Conduct cross-training between corrections and public health.
    - Be a resource to public health, providing mutual benefit.
    - Execute a centralized procurement strategy.

3. Data are critical to an appropriate, proportional public health response

- Data collection and analysis is essential to managing any infectious disease outbreaks, especially during an epidemic or pandemic.
- Mass testing can be far more effective than symptomatic testing in assessing the extent of disease and risk in a confinement facility.
- Wastewater testing can be a highly cost-effective method of mass testing, which does not require active participation by people who are incarcerated or staff and can provide significant information about health issues in a confinement facility, far beyond individual testing.
- Sharing data can be essential to building trust with people who are incarcerated, staff and the community.

4. Confinement facilities' pandemic plans require frequent updates to address the changing guidance on COVID-19

- Ensure that pandemic and emergency plans are flexible, so they can be adapted to changing needs. Every plan should have a version number, effective date, next scheduled review date, and a log of changes to document the changes made between each version. A best practice is to designate someone within each agency to document every policy change, community connection, and rationale for changes and connections.
- Utilize pandemic planning templates when they are available. A potential best practice for a multi-site agency is for the central office to develop nearly complete plan templates for their confinement facilities, where the facilities need to only enter a limited number of facility-specific details to have a complete facility plan.
- Evaluate supply chain dependencies and resiliency as part of the planning process to mitigate risk of shortage of critical supplies such as masks, gowns, gloves, and cleaning supplies.
- Review, test, and revise the pandemic plans regularly. A best practice is to coordinate joint exercises with corrections, emergency management, and public health on an annual basis.

5. Allocating funds to confinement facilities improve public health outcomes, but barriers accessing the funds limit spending and program success

- Using the mechanisms of an existing grant program to administer a new, emergency-based grant program, greatly expedites the movement of funds to the intended targets. Using a program that already funds the intended recipients will further reduce administrative delays in accessing the funding, as funding agreements are likely already in place.
- Allowing the end recipient, such as corrections agencies, to directly apply for and administer the funds will also allow that agency to submit and manage their own workplans based on their individual needs, and budgets based on known costs.
- The partnering of confinement facilities with public health is a valuable addition to the pandemic funding, especially where there is a pre-existing relationship between the partners. The input and assistance from health authorities is useful in identifying and implementing impactful projects.
- Training and technical assistance provides added value to a grant program and recipients.
- Grant programs should include the flexibility to expand the eligible categories for allowable projects, if evidence-based research supports the expansion as meeting the overarching goals of the program.

Operational Challenges and Solutions

1. Revise operational practices and procedures to support public and institutional health

- Implementing public health guidelines in confinement facilities was challenging because of physical and cultural barriers, which impeded progress, despite correctional staff doing everything practical to implement the guidance.
- Implementing new and often changing COVID-19 guidance required fundamental cultural shifts within corrections, including policies related to visitation and programming.
- Collaborating effectively with personnel, institutions, agencies, and community partners will improve operations during a pandemic. It is essential that such collaboration be nurtured and expanded.
- Adhering to guidance is essential to stopping transmission and managing the pandemic.

2. Investment in technology enables communications and continuity of programs, services, and medical care

- Individual tablets are more beneficial than communal tablets to reduce the spread of infectious diseases.
- Virtual visitation was essential in keeping people who were incarcerated in touch with loved ones, supporting mental health. While some preferred in-person visitation, the video visitation allowed for more frequent visits, especially from loved ones who had difficulty traveling to confinement facilities.
- Telehealth helps address the medical staffing crisis and is appreciated by people who are incarcerated and the medical providers. It also expands access to a larger number of medical specialists than may be available in some areas.

- Technology aided in the education programs on personal protective equipment (PPE) compliance and vaccination rates.
- Virtual courts were essential to handle case backlogs throughout the pandemic emergency, and many courts are still using it on a limited basis.
- The technology infrastructure in a confinement facility required significant investment and cultural change, but the impacts proved well worth the investment.

3. Diversify communication methods to improve public health outcomes

- Employ the proper mix of communication methods that will be effective in reaching your audience, which could include flyers, posters, videos, public address announcements, and in-person communications by trusted agents, among numerous other options.
- Deliver daily memos and constant communication with guards, so that they are aware of the messaging and can convey it to others, as necessary.
- Communicate educational messaging to people who are incarcerated about the disease developments, vaccines, and the Centers for Disease Control and Prevention guidance to combat misinformation.
- Use public health partners to communicate information with people who are incarcerated to develop trust.
- Look to external experts, i.e., health officials, prison advocacy groups, and medical personnel, to deliver public health information.

4. Strike a balance between mental and physical health impacts when allocating protocols and resources

- Isolation, while necessary for the prevention of the spread of COVID-19, had huge impacts on the mental health of people who were incarcerated. Balancing mental health versus public and physical health in a correctional setting must be a priority. Consult mental health authorities when developing future protocols.
- Corrections should provide access to sufficient remote and inpatient mental healthcare for those who need it.
- Cohorting can be a useful tool to minimize solitary confinement in isolation, quarantine and in the general population.
- As described in the technology section, tablets are helpful in maintaining the mental health of people who are incarcerated under social distancing guidelines, as they allow for video visitation, programming, telehealth, and remote mental health services under social distancing protocols. At least one agency used televisions to provide some programming under social distancing protocols, until that agency was able to widely deploy tablets.

5. Decarcerate to decrease overcrowding in facilities

- Decarcerating was an essential and effective method of reducing disease transmission in confinement facilities. Correctional agencies should work with local officials to reassess admission requirements and identify low risk individuals for early release. Agencies can petition the courts for compassionate release for people with significant medical risk and move qualifying people who are incarcerated from prison to home confinement, throughout the defined emergency timeframe.
- Diversion programs and alternate sentencing are effective tools to keep people out of jails and prisons through sanction and monitor rather than imprison. For example, jurisdictions could issue citations or summonses, rather than make arrests for minor or non-violent offenses.
- When decarcerating, agencies and jurisdictions should develop clear eligibility requirements for early release. Review panels and population management task forces can be effective in implementing these requirements.
- The releases must be properly planned with the releasee's needs considered to ensure both the success of the release and prevent transmission from the facility to the community.
- Increasing the thresholds for parole and probation violations will result in fewer parolees being returned to prison.

- The processes and authorities to facilitate decarcerating vary state by state. If the state law does not give correctional agencies the authority to reduce populations, the agencies may need to work with law enforcement, courts, and prosecutors to facilitate decarcerating.
- The federal First-Step Act and CARES act may provide guidance to state and local governments on potential legislation for ongoing and emergency authorities to facilitate decarcerating, when needed.

6. Staffing-related issues impact operations

- Address staffing shortages with recruitment and competitive pay.
- Mental health of staff should be prioritized to prevent burnout, family loss and illness, and fear of bringing disease home.
- Develop a staffing management plan as part of your overall emergency plan. Identify sources of supplemental staffing.

Specific Actions Taken to Protect People Who Are Incarcerated and Corrections Staff

1. Upgrading/improving facilities and HVAC systems is key to risk management

- Consider running the air circulation 24 hours a day, 7 days a week to improve air quality. HVAC is important for preventing airborne disease transmission.
- Increase outdoor air ventilation and decreasing recirculation.
- Increase the MERV rating of air filters used to at least MERV 13 or the highest level the system will accept.
- Consider portable room air cleaners with HEPA filters.
- Consider ultraviolet germicidal irradiation, protecting occupants from radiation, particularly in high-risk spaces such as waiting rooms, prisons, and shelters.

2. Alternate Care Sites provide needed medical treatment and prevent the spread of COVID-19 into the community

- Make sure all the Alternate Care Sites, whether inside unused spaces or tent-based, can be easier and more cost effective than sending multiple patients to a community hospital during a pandemic or infectious disease outbreak.
- Coordinate with the state or local emergency management agency and health department to quickly stand-up alternate care sites, whether for isolation, quarantine or recovery or as full field hospital with ventilators, oxygen generators, generating plants.

3. Wastewater testing is accurate, less intrusive, and cost effective

- Wastewater testing can be a highly cost-effective method of mass testing that does not require active participation by people who are incarcerated or staff and can provide significant information about health issues in a confinement facility far beyond individual testing.

4. Incentives may increase PPE compliance and vaccine uptake among people who are incarcerated and staff

- Prioritizing people who are incarcerated for early vaccination improves vaccination rates.
- Mandates work but are very unpopular.
- Incentives are marginally effective in increasing vaccinations.
- Education from trusted sources is effective at encouraging vaccinations.

Appendix B: California Case Study and Timeline

Introduction

This timeline case study provides important insights on how the correctional system in one state, California, responded to the COVID-19 pandemic.[286] It highlights the key actions and decisions taken by two California state agencies that were collectively responsible for leading the COVID-19 response in the state correctional system. These include the California Department of Corrections and Rehabilitation (CDCR) and California Correctional Health Care Services (CCHCS). In the process, the case study focuses on six major lines of effort pursued by CDCR and CCHCS in response to the COVID-19 pandemic, including:

- COVID 19 Plans & Preparedness
- Managing the Response
- Decarceration/Population reduction
- Outbreak Mitigation & Prevention
- Medical services & Public Health measures
- Supplemental Funding Measures

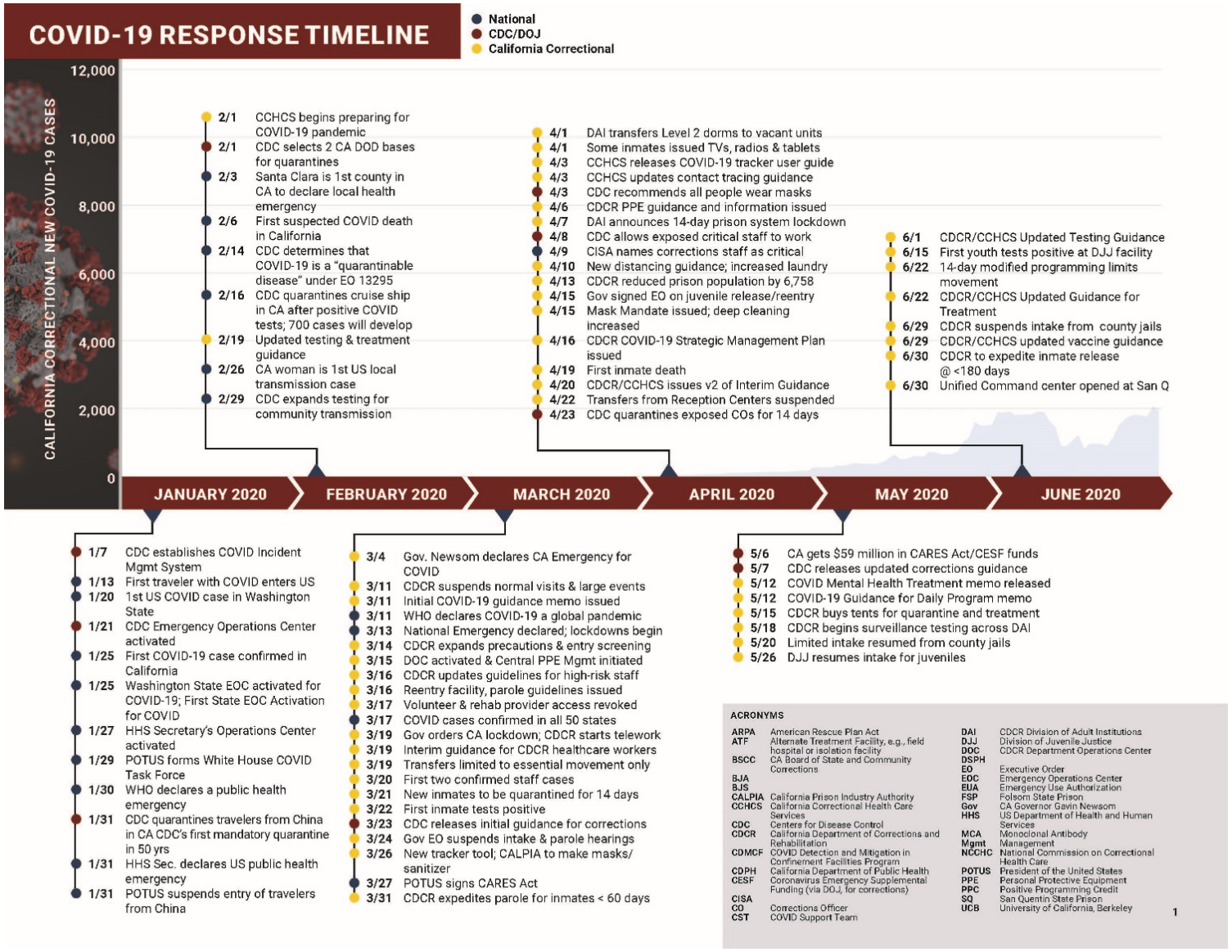
Timeline

The case study also includes a detailed graphical timeline (see Figure B1) depicting key actions and decisions (milestones) taken by these two agencies during the review period, which ran from March 1, 2020, through December 31, 2021. The timeline contains over 170 major milestones which impacted how COVID-19 affected CDCR and CCHCS, including the relevant national pandemic preparations and response actions. The milestones are divided into three categories:

- Major national and international COVID-19 milestones;
- CDC/DOJ milestones which impacted CDCR/CCHCS; and
- CDCR/CCHCS COVID-19 actions.

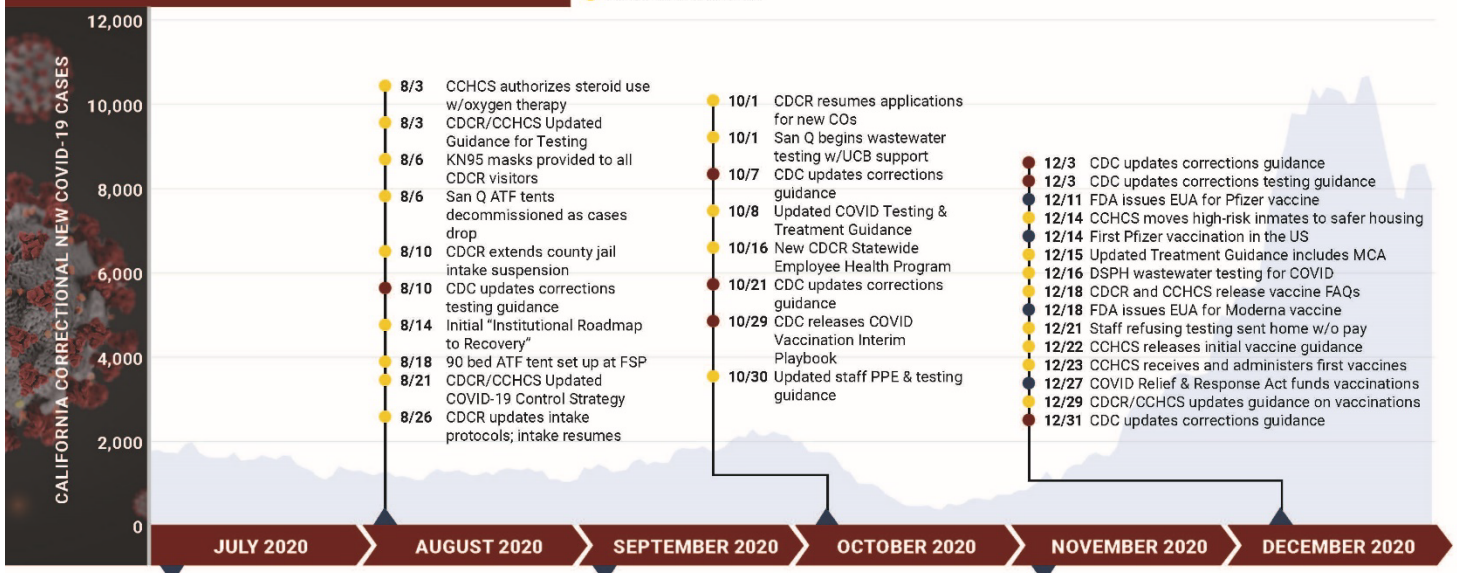
The CDCR and CCHCS milestones are described in detail throughout this case study. The background of the timeline is a graph of CDCR COVID-19 cases (see Figure B2.)

Figure B1: Timeline of California response to COVID-19 in Confinement Facilities



COVID-19 RESPONSE TIMELINE

● National
● CDC/DOJ
● California Correctional



JULY 2020

- **7/1** Staffing contingency plans activated at SQ
- **7/2** CDCR/CCHCS updates PPE guide; issues PPE
- **7/3** CDCR mandatory staff COVID testing plan
- **7/7** CDC updates corrections testing guidance
- **7/8** San Q mandates staff use of N95 masks
- **7/10** CDCR announces additional decarceration plans
- **7/14** CDC updates corrections guidance
- **7/16** BSCC awards $15M in CESF funds to CDCR
- **7/22** CDC updates Corrections Guidance
- **7/23** CDCR identifies vacant beds for isolation
- **7/30** CDCR inmate population falls below 100K

AUGUST 2020

- **8/3** CCHCS authorizes steroid use w/oxygen therapy
- **8/3** CDCR/CCHCS Updated Guidance for Testing
- **8/6** KN95 masks provided to all CDCR visitors
- **8/6** San Q ATF tents decommissioned as cases drop
- **8/10** CDCR extends county jail intake suspension
- **8/10** CDC updates corrections testing guidance
- **8/14** Initial "Institutional Roadmap to Recovery"
- **8/18** 90 bed ATF tent set up at FSP
- **8/21** CDCR/CCHCS Updated COVID-19 Control Strategy
- **8/26** CDCR updates intake protocols; intake resumes

SEPTEMBER 2020

- **9/2** Multiple health guidance documents updated
- **9/28** 12 weeks of PPC awarded to eligible jail inmates

OCTOBER 2020

- **10/1** CDCR resumes applications for new COs
- **10/1** San Q begins wastewater testing w/UCB support
- **10/7** CDC updates corrections guidance
- **10/8** Updated COVID Testing & Treatment Guidance
- **10/16** New CDCR Statewide Employee Health Program
- **10/21** CDC updates corrections guidance
- **10/29** CDC releases COVID Vaccination Interim Playbook
- **10/30** Updated staff PPE & testing guidance

NOVEMBER 2020

- **11/2** Updated Control Strategies for COVID Cases
- **11/19** Updated staff PPE guidance
- **11/21** FDA Issues EUA for first MCA treatment
- **11/25** 14-day modified programming limits movement
- **11/25** Intake & nonessential CALPIA production suspended

DECEMBER 2020

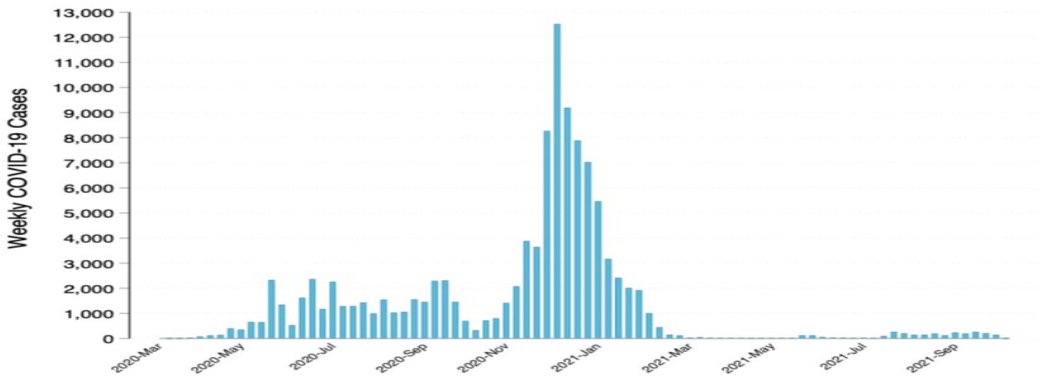
- **12/3** CDC updates corrections guidance
- **12/3** CDC updates corrections testing guidance
- **12/11** FDA issues EUA for Pfizer vaccine
- **12/14** CCHCS moves high-risk inmates to safer housing
- **12/14** First Pfizer vaccination in the US
- **12/15** Updated Treatment Guidance includes MCA
- **12/16** DSPH wastewater testing for COVID
- **12/18** CDCR and CCHCS release vaccine FAQs
- **12/18** FDA issues EUA for Moderna vaccine
- **12/21** Staff refusing testing sent home w/o pay
- **12/22** CCHCS releases initial vaccine guidance
- **12/23** CCHCS receives and administers first vaccines
- **12/27** COVID Relief & Response Act funds vaccinations
- **12/29** CDCR/CCHCS updates guidance on vaccinations
- **12/31** CDC updates corrections guidance

ACRONYMS

ARPA	American Rescue Plan Act
ATF	Alternate Treatment Facility, e.g., field hospital or isolation facility
BSCC	CA Board of State and Community Corrections
BJA	
BJS	
CALPIA	California Prison Industry Authority
CCHCS	California Correctional Health Care Services
CDC	Centers for Disease Control
CDCR	California Department of Corrections and Rehabilitation
CDMCF	COVID Detection and Mitigation in Confinement Facilities Program
CDPH	California Department of Public Health
CESF	Coronavirus Emergency Supplemental Funding (via DOJ, for corrections)
CISA	
CO	Corrections Officer
CST	COVID Support Team
DAI	CDCR Division of Adult Institutions
DJJ	Division of Juvenile Justice
DOC	CDCR Department Operations Center
DSPH	
EO	Executive Order
EOC	Emergency Operations Center
EUA	Emergency Use Authorization
FSP	Folsom State Prison
Gov	CA Governor Gavin Newsom
HHS	US Department of Health and Human Services
MCA	Monoclonal Antibody
Mgmt	Management
NCCHC	National Commission on Correctional Health Care
POTUS	President of the United States
PPE	Personal Protective Equipment
PPC	Positive Programming Credit
SQ	San Quentin State Prison
UCB	University of California, Berkeley

2

Figure B2: CDCR Cases by Week



Source: CalPROTECT Report [287]

The graph grows consistently from the first case in March 2020 through an initial peak in June 2020. The caseload then drops briefly, likely due to CDCR mitigation measures, before remaining relatively plateaued, until a drop in mid-October. Caseloads then increase rapidly through November and most of December, peaking in late December, as CCHCS introduces new treatments and vaccinations. The new interventions cause the cases to drop rapidly to nominal levels by mid-February. The levels remain nominal through October, followed by increases in November and December, as the Omicron variant became dominant.[288]

As noted in the CalPROTECT Project's 2022 study of the COVID-19 response in the California state prison system (the CalPROTECT Report), CDCR houses the second largest U.S. state prison population, and each of its 35 prisons experienced at least one outbreak of COVID-19 through the end of 2021.[289] As of October 9, 2021, 15,259 total infections had been reported among prison staff and 50,575 infections among incarcerated residents over the course of the pandemic.[290] This included multiple outbreaks from May-November 2020, and a major spike in COVID-19 cases from November 2020-March 2021.

The increase in cases during these periods created a pressing need for an effective emergency response. As the CalPROTECT report indicated, CDCR and CCHCS got a lot of things right in their COVID-19 response, and "there were many instances in which medical treatment and/or the implementation of public health recommendations within California prisons met or even exceeded the community standards in California, against the backdrop of rapidly evolving scientific knowledge."[291]

CalPROTECT

The California Prison Roadmap for Targeting Efforts to Address the Ecosystem of COVID Transmission (CalPROTECT) is a multidisciplinary initiative that includes public health experts, clinicians, and scientists in behavior, environmental engineering, and economics at Amend at UCSF, University of California, San Francisco and University of California, Berkeley. The project aims to collect information on how COVID-19 is transmitted in CDCR/CCHCS facilities and integrate into that knowledge the experiences and perspectives of correctional and facility staff, medical staff, and patients to give correctional leaders and policymakers the scientific evidence they need to optimize the health and dignity of those who live and work in CDCR facilities during the COVID-19 pandemic."

Source: https://amend.us/calprotect/

The CalPROTECT report highlights, in particular, CDCR/CCHCS':

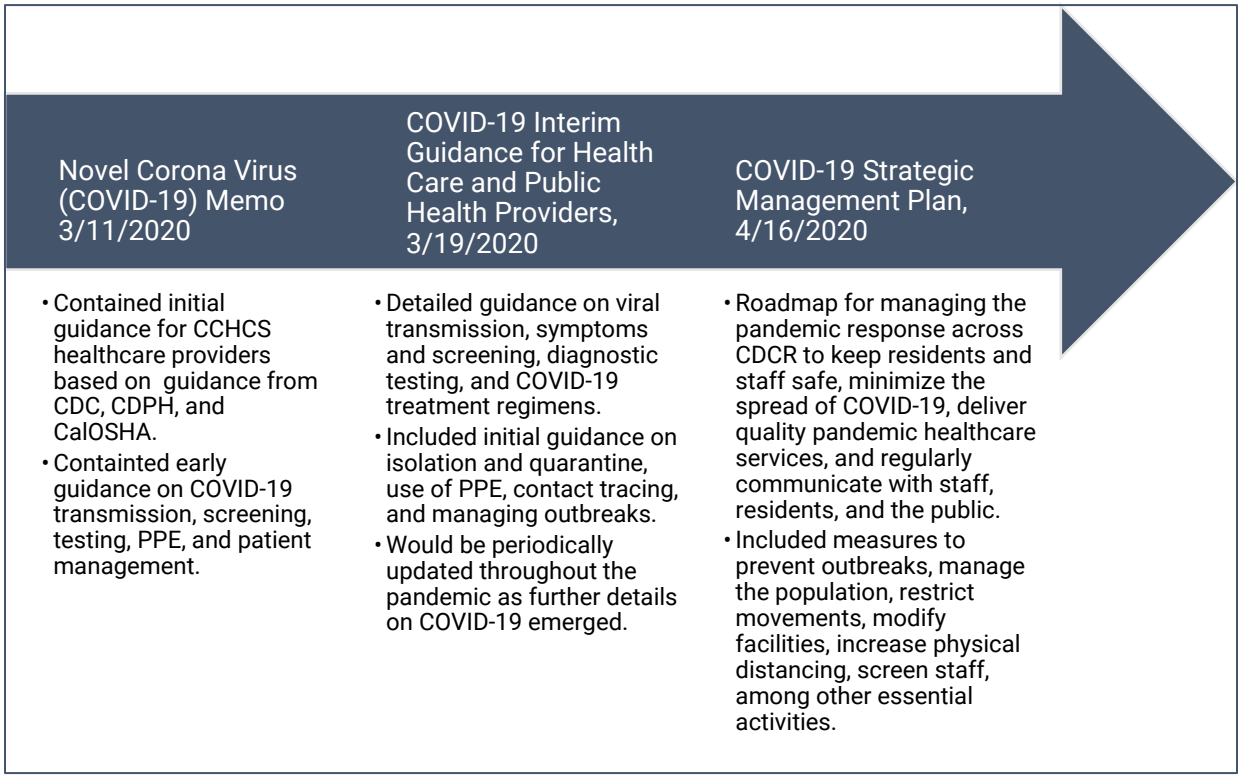
- Early and effective use of monoclonal antibodies.
- Innovative use of wastewater testing for early detection of outbreaks.
- A highly effective mass vaccination program; and
- Targeted use of system-wide healthcare data to guide policy.[292]

Nevertheless, due to prison overcrowding, shortages of personal protective equipment (PPE), delays in testing, space restrictions, the national lack of vaccines, and other problems early on, the California state prison system was unable to avert significant COVID-19 outbreaks during the first year of the pandemic. [293]

COVID-19 Plans and Reparations

CDCR/CCHCS began making detailed plans and preparations for the COVID-19 pandemic starting in February 2020 drawing upon its existing outbreak management plans for influenza, measles, mumps, norovirus, and varicella, together with preparedness plans to address other medical emergencies and natural disasters.[294]

Figure B3: Series of plans and guidance for COVID-19 response developed by CDCR/CCHCS



Source: CDCR TImeline, 3/11/20 Memo, 3/19/20 Interim Guidance & 4/16/20 Strategic Management Plan

These early planning efforts provided initial guidance to CDCR facilities as the initial cases started to develop.

Managing the COVID-19 Response

CDCR/CCHCS' approach to managing the COVID-19 emergency response evolved significantly over the course of the pandemic. Responsibility for managing the COVID-19 response fell collectively to CDCR and CCHCS with support from the California Department of Public Health and the California Department of Healthcare Services. CDCR's Emergency Planning and Management Unit (EPMU), which oversees departmental emergency planning, preparedness, response, and recovery needs, played a central role in CDCR's response effort, working with CCHCS.[295]

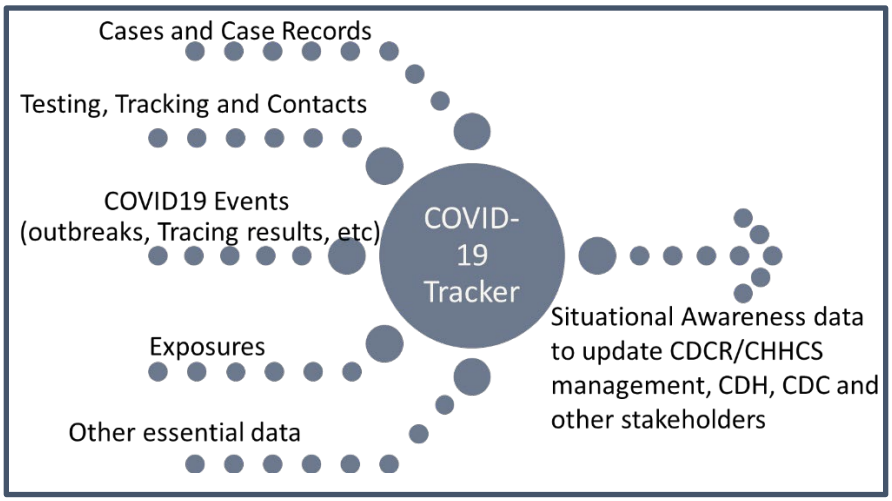
Table 3: Key milestones of CDCR Response

Date	Milestone	Milestone Description
3/15/20	CDCR Activated the Department Operations Center	The DOC is staffed by key CDCR personnel including people from the EMPU and CCHCS to ensure centralized monitoring and control of the department's response to COVID-19.[296] The DOC managed CDCR's response to significant events through the exchange of information, rapid decision-making, and sound guidance to assist institutions statewide to respond quickly to emerging events.[297] The DOC coordinated in turn with Institutional Command Posts (ICPs) established at each facility to help prevent and respond to COVID-19 outbreaks.[298]
9/2/20	"COVID-19 Operational Preparedness for Facility Leadership and Incident Command" issued by CDCR & CCHCS	"COVID-19 Operational Preparedness for Facility Leadership and Incident Command" codified lessons learned from CDCR's response management in a guide for moving forward and use in future events. This document was published as Appendix 18 to "COVID-19 and Seasonal Influenza: Interim Guidance for Health Care and Public Health Providers." [299]
3/21/21	DOC transitioned to COVID-19 Support Team (CST)	Based on reduced caseloads, CDCR and CCHCS demobilized the DOC and transitioned to the new CST to provide steady state management of the response.[300]
1/6/22	DOC re-mobilized	In response to the rapidly spreading Omicron variant, in late 2021, CDCR and CCHCS reactivated the DOC[301]

CCHCS COVID-19 Tracker

As CCHCS began to prepare for the pandemic in February 2020, they developed a central SharePoint site, the COVID-19 Tracker tool, to facilitate CDCR's pandemic data collection to maintain real-time awareness of CDCR's evolving COVID-19 situation. They also developed an online training program for this COVID-19 Tracker.

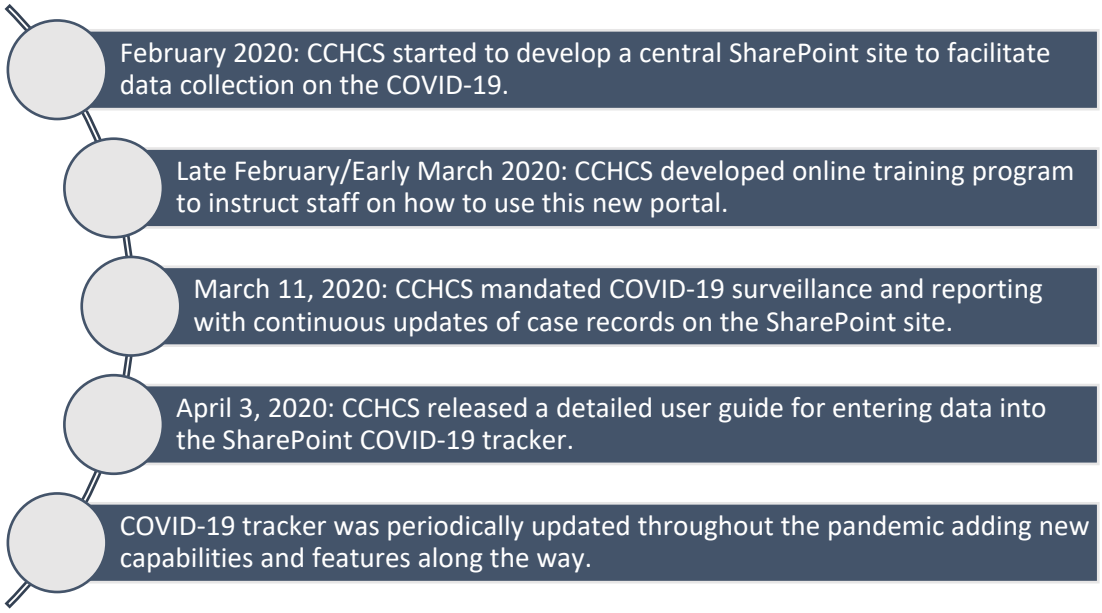
Figure B4: COVID-19 Tracker collects COVID-19 data to inform CDCR/CHHCS Management and Stakeholders



Source: March 11 Memo, Strategic Management Plan & CHHCS Archived Record of Changes

In the March 11, 2020, memo, CCHCS instructed CDCR clinical staff to use the Tracker for COVID-19 surveillance and reporting requirements. Figure B4, above, details the types of data mandated for entry/updates in the COVID-19 Tracker.[302] Per Figure B5, below, the COVID-19 tracker was updated with new capabilities and features over the course of the pandemic.[303]

Figure B5: Key Milestones in the development of the CDCR COVID-19 Tracker



Source: March 11 Memo, Strategic Management Plan & CHHCS Archived Record of Changes

Wastewater Monitoring

To aid in surveillance, CDCR and CCHCS were also early innovators in the use of wastewater monitoring to track COVID-19 tends and outbreaks within state prisons. In early October 2020, CCHCS launched a pilot wastewater testing program at San Quentin State Prison, in partnership with the Berkeley Water Center at UC Berkeley (UCB). This was part of a larger wastewater pilot program introduced throughout the Bay Area.[304] By all accounts this proved to be an important monitoring tool. CCHCS found that an increased presence of Coronavirus in the facility's wastewater provided early warning of pending infections and outbreaks. This allowed them to determine whether and when to conduct large-scale testing and quarantine.[305] The initial wastewater testing program would continue through May 2022.[306]

Figure B6: How Wastewater Based Surveillance Works

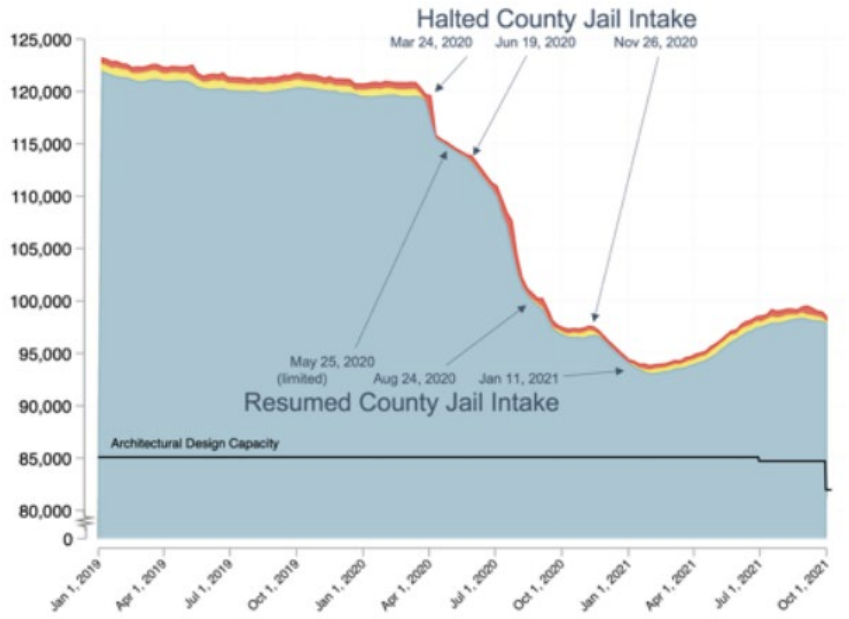
1. **Genetic material** from a wide range of pathogens (viral, bacterial, and fungal) can be detected in feces and wastewater. High-risk substances (HRS) and their metabolites, including several opioid drugs, are excreted primarily in urine and are detectable in wastewater.
2. **Wastewater is collected** from a system serving a population of interest such as a prison. 24-hour composite samples, created in an automated sample by an autosampler device, are ideal. A sample of 200-500 ml is sufficient to test for a wide range of pathogens and HRS.
3. **Systematic sampling** is performed on a regular schedule, e.g. twice per week.
4. **Laboratory analysis** quantifies specific genetic materials (as gene copies per unit of waste) or chemicals. The polymerase chain reaction (PCR) test is commonly used to test for the genetic materials of specific pathogens. PCR testing can be done at a public or private laboratory, or on-site at a treatment plant by staff who have received special training. Whole Genome Sequencing (WGS) can be performed on the genetic material from pathogens in wastewater. Liquid chromatography and mass spectrometry may be used to test wastewater for HRS and HRS metabolites.
5. **Data are analyzed and interpreted.** The strengths of WBS are the early identification of trends, detecting disease and trends regardless of clinical testing, and confirming the absence of disease in a population (within the limits of the sensitivity of the test). WBS data are commonly displayed by plotting the concentrations of the targets of interest over time, on a logarithmic scale. Algorithms can confirm trends in an automated manner.
6. **Results are communicated** to public health decision-makers and other stakeholders, e.g., data dashboards or reports emailed to distribution lists. Wastewater data may be used in policymaking and in program evaluation. It can also be part of public health messaging to the population to help people understand how their risk varies with time.

Source: Recommendations for Wastewater-Based Surveillance (WBS) at CDCR Adult Institutions, CCHCS Public Health Branch, October 9, 2023

Reductions In the Overall Prison Population

In responding to the emerging pandemic, California took measures early on, and throughout the pandemic to reduce the overall prison population. Figure B7 shows these efforts were successful in reducing the population, which led to reductions in transmission.

Figure B7: CDCR Population reduction during COVID-19



Note: Weekly new releases (red), weekly new intake (yellow) and incarcerated individuals who were residents from the previous week (blue) at all CDCR institutions between January 2019 and October 2021.

Source: CalPROTECT Report [307]

Table 4: Key milestones for population reduction

Date	Milestone
3/24/20	California Governor Gavin Newsom issued an executive order to temporarily halt all transfers from county jails to the California state prison system.[308]
3/24/20	CDCR suspended inbound transfers of out-of-state parolees and inmates from other systems into the California prison system.[309]
3/31/20	CDCR expedites parole for eligible inmates with < 60 days left in sentence.[310]
4/15/20	Governor Newsom issued executive order to expedite juvenile releases.[311]
5/25/20	CDCR temporarily resumed intake on a more limited basis.[312]
6/19/20	Jail intake halted again.[313]
7/10/20	CDCR Secretary authorizes release of up to 8000 people under special authority for early release and alternative confinement during any emergency endangering the lives of people who are incarcerated.[314] Categories included: nonviolent offenders with <180 days left; high medical risk people with <1 year left; grants of 12 weeks of Progressive Programming Credits to allow people to earn early release.
8/24/20	Jail intake resumed.[315]
11/26/20	Jail intake halted again.[316]
1/11/21	Jail intake resumed.[317]

Collectively, reductions in intake and early release helped reduce the prison population from 117,344 in March 2020 to 97,740 in October 2021, an overall reduction of more than 17%.[318] Suspension of intake from county jails accounted by far for the largest share in total reduction of the inmate population, with early release having a much lower effect.[319] CDCR would later allocate $34.2 million to reimburse local counties for housing inmates due to the temporary stoppage of prison intake. CDCR also incurred an additional $3 million in costs to support accelerated early release programs due to COVID-19.[320]

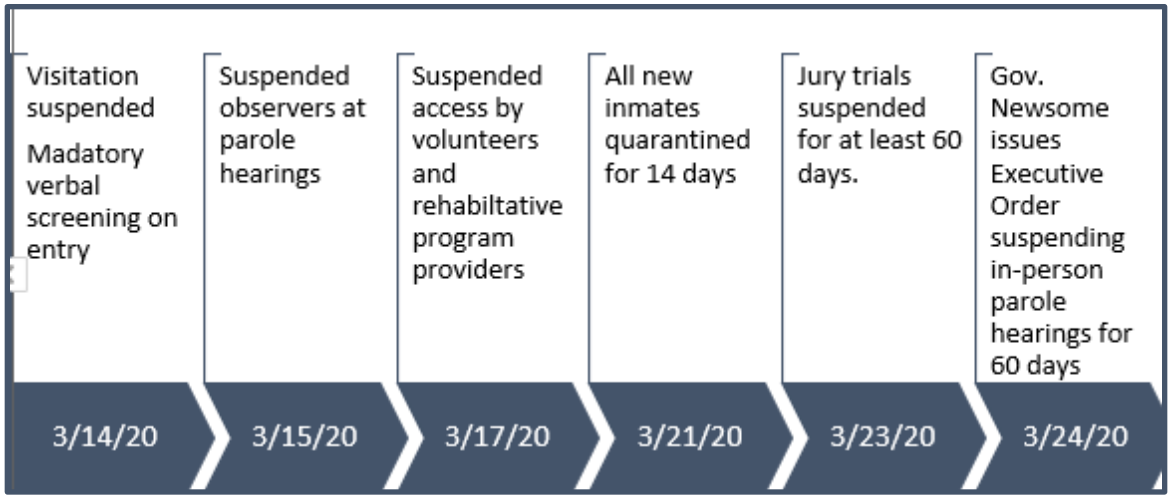
Despite these measures, California state prisons remained overcrowded, diminishing the effect of these reductions. According to the CalPROTECT report, "CDCR prisons went from being at 131% of the architectural design capacity (on average) at the outset of the pandemic, to 113% of architectural design capacity as of October of 2021."[321]

Outbreak Prevention and Mitigation Efforts

In addition to reducing the prison population, the California state prison system pursued a range of measures to reduce the risk of introducing COVID-19 into CDCR facilities and to prevent onward transmission once COVID-19 became present.[322] These measures included restricting outside access to CDCR facilities, minimizing internal movements, limiting direct contacts, and halting large gatherings.[323]

CDCR introduced a series of measures to restrict outside access to CDCR prisons early on.

Figure B8: Initial Actions to Restrict Outside Access



Source: CDCR Timeline, COVID-19 Strategic Management Plan [324] [325] [326]

After a steep decline in COVID-19 cases in February 2021, CDCR began preparing to relax COVID-19 restrictions. On February 12, 2021, CDCR announced a new Visitation Scheduling Application (VSA) for use by friends and family to arrange visits at multiple state institutions and conservation camps.[327] Finally, on March 23, 2021, CDCR announced a limited resumption of in-person visiting to begin April 10, 2021.[328]

CDCR and CCHCS also introduced measures to minimize internal movements by residents and prison staff. On March 19, 2020, CDCR restricted internal prisoner movements to essential

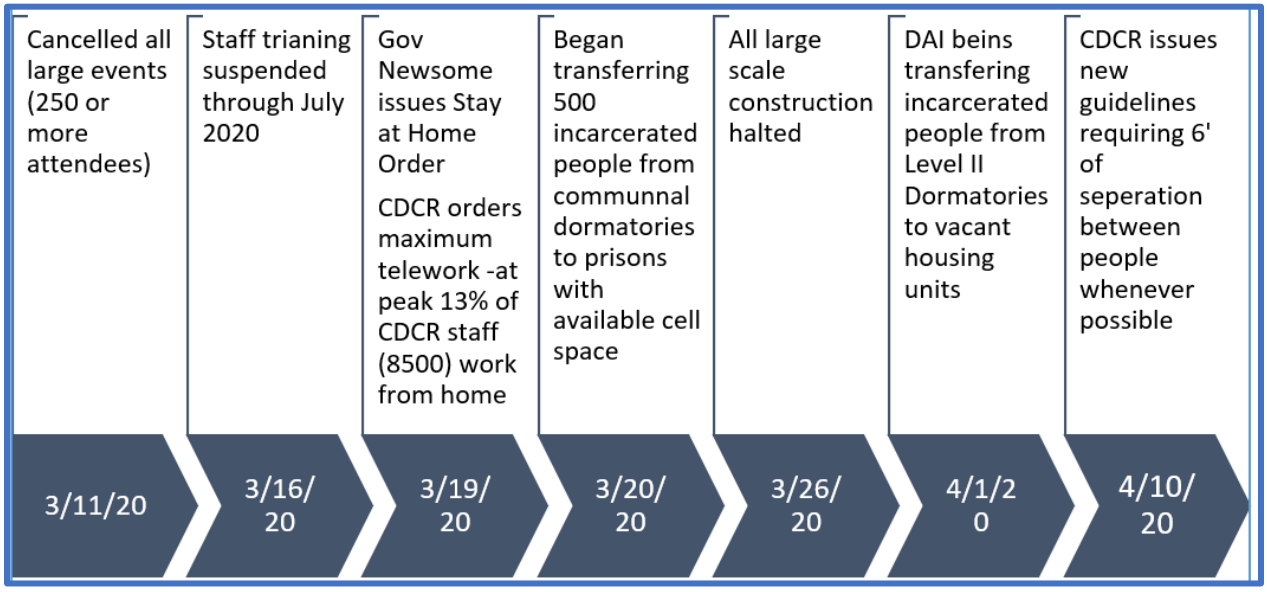
movements only. The latter included transits to/from mental health crisis units, the Male Community Reentry Program (MCRP), Custody to Community Transitional Reentry Program (CCTRP), Alternative Custody Program (ACP), and the Health Care Placement Oversight Program (HCPOP).[329] On March 24, 2020, transfers of prisoners to conservation camps were likewise suspended.[330] To improve morale for those forced to remain in their cells for extended periods, on April 1, 2020, Division of Adult Institutions (DAI) announced a plan to distribute TV sets, radios, and tablets to prisoners.[331]

On April 7, 2020, however, the DAI announced a mandatory 14-day prison system lockdown to radically limit direct contacts and to segregate inmates in different housing units. At the same time, most prisoner work activities were suspended, while meals were to be served exclusively in their cells or dormitory housing units.[332] On May 15, 2020, CDCR began acquiring portable tents and field hospitals to provide expanded housing for prisoners in quarantine and to create additional health care space for those with confirmed cases.[333]

On November 25, 2020, due to large-scale COVID-19 outbreaks across the California state corrections system, CDCR announced a second 14-day modified lockdown to severely limit movement of staff and people who were incarcerated in order to mitigate the spread of COVID-19.[334] At the same time, CDCR suspended all non-essential California Prison Industry Authority (CALPIA) activities through December 10, 2020.[335] On January 13, 2021, CCHCS issued an updated patient movement matrix with mandatory COVID-19 quarantine, testing and screening timeframes to control inadvertent spread of the disease through inmate transfers.[336]

California also took additional measures to increase social distancing, reduce direct contacts, and mitigate onward transmission inside the state prison system.

Figure B9: Initial Actions to Increase Social Distancing



Source: CDCR Timeline, COVID-19 Strategic Management Plan [337] [338] [339]

Despite a system-wide lockdown in the March-April 2020 timeframe, CDCR began planning for a more sustainable approach to managing outbreaks and containing transmission. These efforts culminated in the April 2020 announcement of a 5-tiered program to adjust movement restrictions and operating parameters based on the level of COVID-19 transmission within each facility. Depending on COVID-19 conditions, the new program provided for increasing, or decreasing, restrictions on prisoner movements and programming, delivery of meals and medications, intensity of health care, and prisoner privileges as COVID-19 conditions worsened, or improved.[340] On August 14, 2020, CDCR and CCHCS released an institutional Roadmap to Reopening.[341] This Roadmap envisioned a multi-phased approach to reopening statewide prison operations, relying on CDC and CDPH guidelines. The roadmap provided for each facility to use a four-phased approach to gradually shift from the most restrictive phase to normal operations, as COVID conditions changed in that facility. In addition, movement between phases could apply to the entire institution or individual facilities within that institution, at the discretion of the Warden.[342] The Roadmap also created specific criteria for shifting to different phases, based on the rate of new COVID-19 cases. Progress toward "reopening" would be delayed however by the surge in cases starting in November 2020, but these general policies continue to govern CDCR operations.[343]

Medical Services and Public Health Measures

The California state prison system also mounted an effective, large-scale medical response to COVID-19 intended to both prevent and contain the spread of COVID-19 and to provide treatment for confirmed cases among residents and staff. CCHCS led the medical response within the California state prison system, with significant support from CDCR. Even though the first two confirmed COVID-19 cases among prison staff occurred on March 20, 2020, and the

first inmate positive test occurred two days later, on March 22, CCHCS commenced planning for the emerging pandemic in February 2020.[344]

As noted above, CCHCS' March 11 guidance contained initial guidance for healthcare workers.[345] This was followed by more detailed medical guidance contained in the Interim Guidance for Health Care and Public Health Providers released on March 19, 2020.[346]

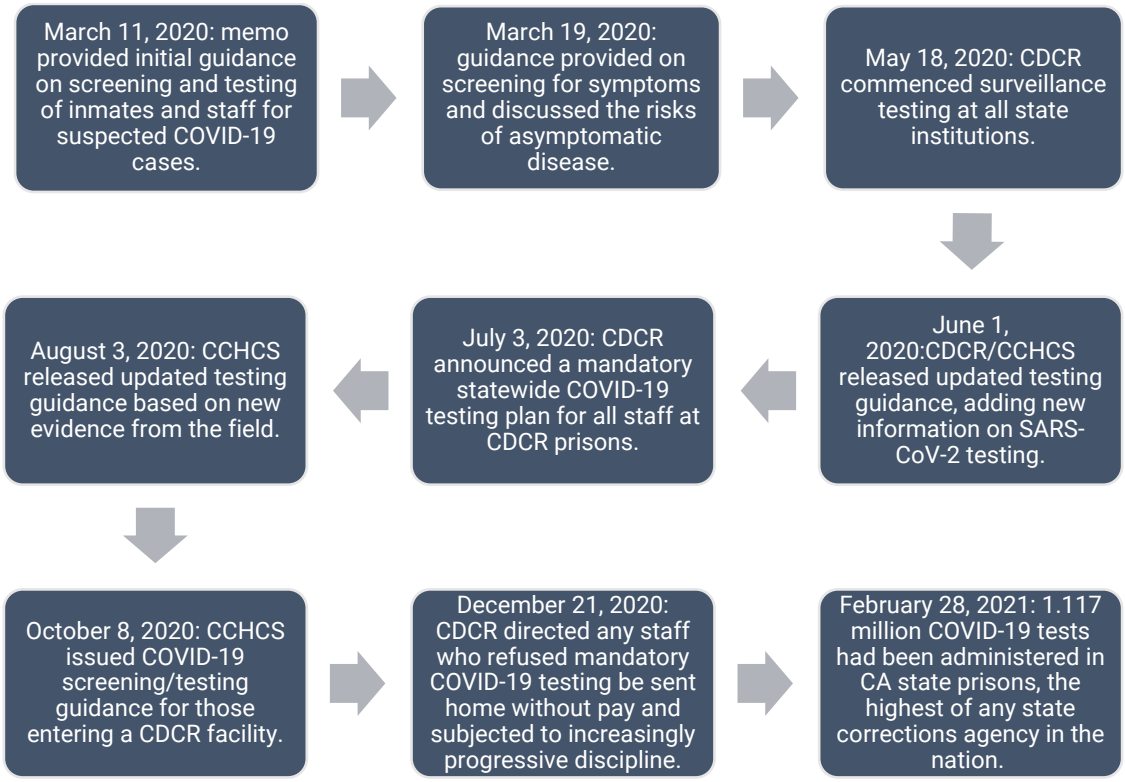
In creating these two critical documents, CCHCS relied heavily on emerging guidance from the CDC, the California Department of Public Health and the California Occupational Safety and Hazard Administration.[347] This established a pattern of close adherence to official guidance throughout the pandemic, especially from the CDC and the California Department of Public Health. In addition, starting on March 11, 2020, CDCR began issuing tailored guidance, via posters, handouts, videos, and Inmate Advisory Council Meetings, to advise inmates on physical distancing, hygiene, prevention techniques, symptoms of COVID-19, and other matters.[348] This practice would continue throughout the pandemic.

Testing and Screening

The March 11, 2020, memo also provided initial guidance on screening and testing of inmates and staff for suspected COVID-19 cases. The March 19, 2020, guidance elaborated on screening for symptoms ranging from mild to severe, while also discussing the risks of asymptomatic disease. It also discussed the importance of early diagnosis to prevent outbreaks.[349] At the same time, CDCR arranged for offsite COVID-19 RT-PCR testing in the February-March timeframe by securing a contract with Quest Diagnostics.[350] Due to scarcity of test kits, practitioners were instructed to give highest priority to testing of high-risk patients (i.e., those over 65 and/or with a higher degree of co-morbidities).[351]

Testing protocols continued to evolve, per the figure, below:

Figure B10: Evolution of CDCR Testing Protocols



Source: CDCR Timeline, CCHCS Archived Record of Changes

Masking and PPE

On March 11, 2020, CCHCS released its initial guidance on PPE, instructing those with confirmed or suspected cases wear a mask. For their part, healthcare workers were directed to use N95 masks, gloves, and gowns to the extent available when dealing with infected patients.[352] On March 15, 2020, to address a shortage of N95s, CDCR cut back on routine dental cleanings to redirect supplies of N95s to frontline healthcare workers. Concurrent with this, CDCR established a network of state-managed facilities to redirect PPE and other supplies to where they were needed most.[353] To further address the growing shortage of masks, on March 26, 2020, CDCR arranged with the California Prison Industry Authority (CALPIA) to commence production of cloth barrier masks for the state prison system and shortly thereafter began distributing them to quarantined people who were incarcerated.[354]

On March 29, 2020, CDCR released supplemental guidance on the use of PPE, providing details on their use depending on the stage of diagnosis.[355] On April 15, 2020, based on new CDC guidance, CDCR issued a mandatory mask requirement for all prisoners and staff.[356] On July 2, 2020, CDCR/CCHCS issued "Recommended Personal Protective Equipment for Staff and Inmates" along with an accompanying PPE guide book.[357] On July 8, amid a growing outbreak at San Quentin, authorities mandated use of N95 masks for all staff while performing job duties.[358]

Isolation, Quarantine, Contact Tracing, and Treatment

CCHCS' initial guidance on isolation and quarantine was included in their "2019 NOVEL CORONAVIRUS (COVID-19)" memo, released March 11, 2020 (March 11 memo). Those with suspected cases awaiting test results were to be placed in a single room with closed doors or, if such rooms were not available, in an isolation ward with other suspected cases.[359] The March 19, 2020, guidance included additional instructions on placing infected patients into negative-pressure isolation rooms while placing those in close contact with a confirmed case into quarantine[360]. This document also included initial guidance on contact tracing for those exposed to infected COVID-19 patients and on curtailing the movement of inmates with actual or suspected COVID-19 cases to help curb outbreaks.[361] On April 3, 2020, CCHCS released supplemental detailed guidance on contact tracing, including a contact tracing tool with further instructions on conducting contact investigations.[362]

On June 22, 2020, CDCR/CCHCS issued updated guidance on treatment, including National Institutes of Health (NIH) medical treatment guidelines, information on potential use of Systemic inflammatory Response Syndrome (SIRS) criteria, notes on advanced care planning, and additional medication considerations.[363] On July 23, 2020, CDCR agreed to identify 100 vacant beds at each institution to provide additional isolation areas.[364] On August 18, 2020, authorities set up a large tent with 90-bed capacity for COVID-19 patients at Folsom State Prison.[365] On December 14, 2020, CDCR and CCHCS took measures to protect medically high-risk inmates by offering to relocate them from open dormitories to facilities with individual cells having solid doors.[366]

Cleaning and Hygiene

CDCR and CCHCS also took measures early on to improve cleaning and sanitation practices. On March 11, 2020, all CDCR institutions were instructed to order CDC-approved hand sanitizer dispensers.[367] The hand sanitizers began arriving on March 29, 2020, and were placed in approved areas, under supervision, to prevent misuse, including ingestion of alcohol-based sanitizers.[368] On March 19, 2020, the CCHCS issued additional guidance on environmental infection control with further instructions on cleaning, disinfection, and waste disposal.[369] On April 15, 2020, all CDCR facilities were instructed to conduct deep-cleaning in high-traffic areas, including health care facilities.[370] To address shortages of cleaning supplies, on March 26, 2020, CDCR arranged with CALPIA to begin producing custom hand sanitizer at the state prison system at Cal State Prison-Los Angeles.[371] On April 10, 2020, CDCR ordered an increase in the scale and frequency of laundry services.[372]

Monoclonal Antibodies

The California state prison system was an early adopter of steroid and monoclonal antibody treatments for COVID-19.[373] On July 16, 2020, CCHCS authorized use of dexamethasone (steroid) treatment for patients requiring oxygen supplementation.[374] On December 15, 2020, CCHCS authorized use of Bamlanivimab, a COVID-19 specific treatment, in state facilities following FDA emergency use authorization in November 2020.[375] On January 19, 2021, CCHCS issued a toolkit containing additional instructions on ordering and administering Bamlanivimab, applicable consent forms, a resupply checklist, and other information.[376] Due to its relative abundance, CCHCS encouraged liberal use of this treatment on patients in all three tiers of

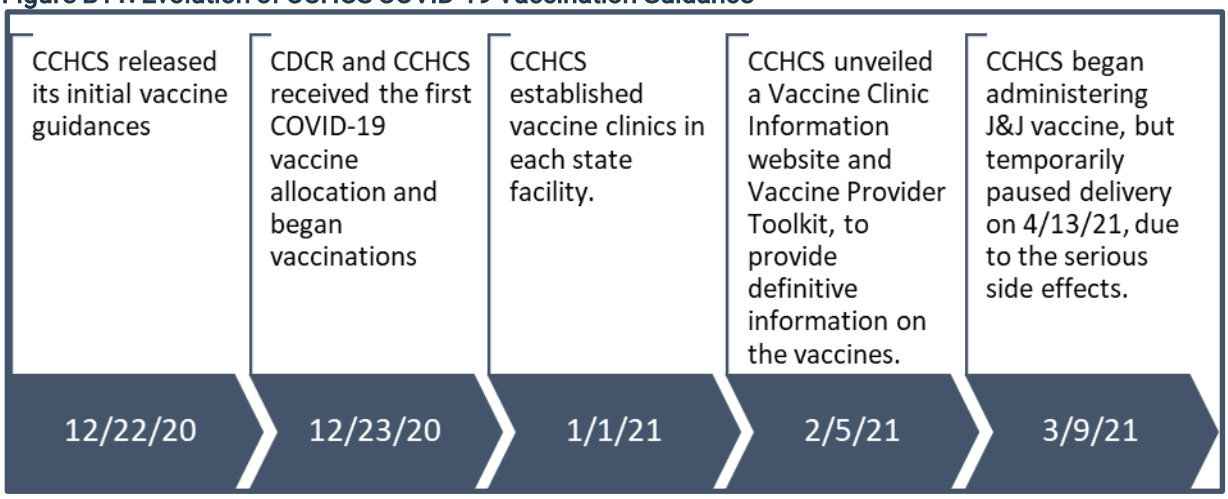
illness severity.[377] On February 17, 2021, CCHCS issued additional guidance on combined use of vaccines and monoclonal antibody treatments.[378]

From that point forward, CCHCS adopted a policy of introducing new monoclonal antibody and antiviral treatments, including the long-acting monoclonal antibody used for pre-exposure prophylaxis as soon as they became available. The antiviral drug, Remdesivir, was determined to be too difficult to administer in house.[379] According to the CalPROTECT report, CCHCS' successful rollout of monoclonal antibody treatment in state prisons exceeded that of the local community, while "early use of this treatment [helped avert] large numbers of emergency department visits and hospitalizations, while saving lives."[380] CCHCS' use of monoclonal antibody treatments was so successful that CCHCS personnel were invited to present their findings and share their protocols at the National Commission on Correctional Health Care Annual Conference, on November 17, 2021.[381]

Vaccine Administration

The California state prison system also launched and maintained a successful COVID-19 vaccine program achieving notably high levels of vaccine uptake.[382] CCHCS launched its COVID-19 vaccine program early on, releasing an initial vaccine FAQ on December 18, 2020, shortly after the FDA issued emergency use authorizations for the two mRNA vaccines.[383] Vaccine guidance was issued and updated as necessary, per the figure below:

Figure B11: Evolution of CCHCS COVID-19 Vaccination Guidance

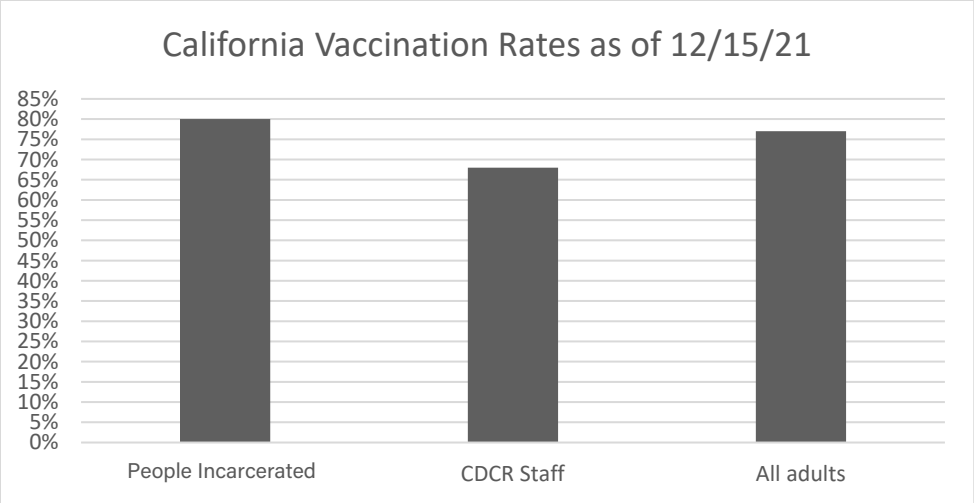


Source: CDCR Timeline, CHHCS Archived Record of Changes

According to the CalPROTECT report, the high vaccine uptake levels among residents and staff owed a great deal to dedicated efforts by the California state prison system to rely on trusted sources to provide health information to staff and residents (including CCHCS/outside healthcare professionals, community leaders, current and formerly incarcerated persons, and attorneys). In doing so, CCHCS adopted a variety of approaches, including use of public service announcements on prison television, holding vaccine health fairs, publishing articles in prison newspapers, and using people who were incarcerated to distribute vaccine information.[384]

According to the CalPROTECT report, vaccination had a dramatic impact on reducing COVID-19 case rates, hospitalizations, and deaths throughout the state prison system.[385]

Figure B12: People incarcerated in CDCR vaccinated at a higher rate than other Californians



Source: CalPROTECT Report[386]

On July 27, 2021, the US District Court for Northern California ordered mandatory vaccinations for all CDCR employees as well as people incarcerated working at offsite fire camps or receiving in-person visitors.[387] On November 26, 2021, however, the 9th Circuit Federal Court of Appeals issued a stay of the District Court's mandatory vaccine order and would eventually vacate that order on April 25, 2022.[388]

Supplemental Funding Measures

Obtaining adequate funding to sustain the COVID-19 response was a continuing challenge for the California state correctional system. Key details of the funding challenges can be found in Figure B13, below.

Figure B13: Summary of CDCR Additional costs and supplemental funding

COVID-19 Addtional Costs	COVID-19 Supplemental Funding
• $1.1B total additional costs through FY21 including: • $137.6m between March & June 2020 for testing, treatment,PPE, tents, etc • $300m estimated after June 2020 for testing, treatment, PPE, tents, adapted programs & services, etc • $34.2m to reimburse local jails for delayed intake during stoppages • $3m to support accelerated release	• $424.7m FY21 additional allocation • $205.5m FY21 supplmental allocation • $15m from CARES Act Coronavirus Emergency Supplemental Funding (CESF) initial allocation from the California Board of State and Community Corrections (BSCC) on July 16, 2020 • $8m from CESF supplemental allocation by BSCC on April 8, 2021

Source: COVID-19 Fiscal Update: CDCR, CA FY22-23 Budget, CA State Auditor Report BSCC[389] [390] [391]

Overall, however, the COVID-19 pandemic placed great strain on the California state prison system, resulting in massive unbudgeted expenditures, and covering these funding shortfalls would prove to be a continuing challenge.

Appendix C: Maryland Case Study

Maryland's Response to COVID-19 In Confinement Facilities

A Case Study On Statewide Collaboration

The State of Maryland's pandemic response strategy recognized the potential for high demand on state resources if the individuals who were incarcerated and staff contracted coronavirus disease 2019 (COVID-19). To minimize that risk, state government leadership placed the needs of the people who were incarcerated high on the state's priority list. Because of this understanding and shared commitment, the state made key decisions that saved lives, such as implementing a prison population reduction program; building medical treatment facilities within confinement facilities to relieve the burden on community hospitals and to conserve staff resources; and increasing the use of technology within confinement facilities to maintain social distancing while permitting access to the judicial system, programs, and visitation.

Pandemic Background

On January 21, 2020, the United States recorded the first case of COVID-19, caused by the novel SARS-CoV-2 virus, which would become one of 22 million recorded cases during the first year of the pandemic.[392] After the declaration of a public health emergency on January 31, 2020, the federal government began to implement public health measures to safeguard the public, including widespread closures of businesses and schools and strict social distancing guidelines. By December 2023, the U.S. would experience 6,593,929 hospitalizations and 1,161,602 deaths because of COVID-19, as reported by the U.S. Centers for Disease Control and Prevention (CDC).[393]

COVID-19 PANDEMIC SIGNIFICANT EVENTS

December 31, 2019—The World Health Organization (WHO) notes several cases of viral pneumonia in Wuhan, China

January 21, 2020—First confirmed U.S. case of the novel coronavirus identified in Washington State

January 30, 2020—WHO declares a Public Health Emergency of International Concern

January 31, 2020—U.S. public health emergency declared nationwide

March 11, 2020—WHO characterizes the COVID-19 virus as a global pandemic

March 13, 2020—The President declares an unprecedented nationwide emergency declaration under the Robert T. Stafford Disaster Relief and Emergency Assistance Act

March 15, 2020—The President establishes 15-day social distancing guidelines

March 29, 2020—United States has highest number of confirmed cases in the world, with 103,321 (WHO)

May 27, 2020—U.S. death toll surpasses 100,000, with nearly 1.7 million confirmed cases (CDC)

December 2020—U.S. Food and Drug Administration grants emergency use authorizations for two vaccines

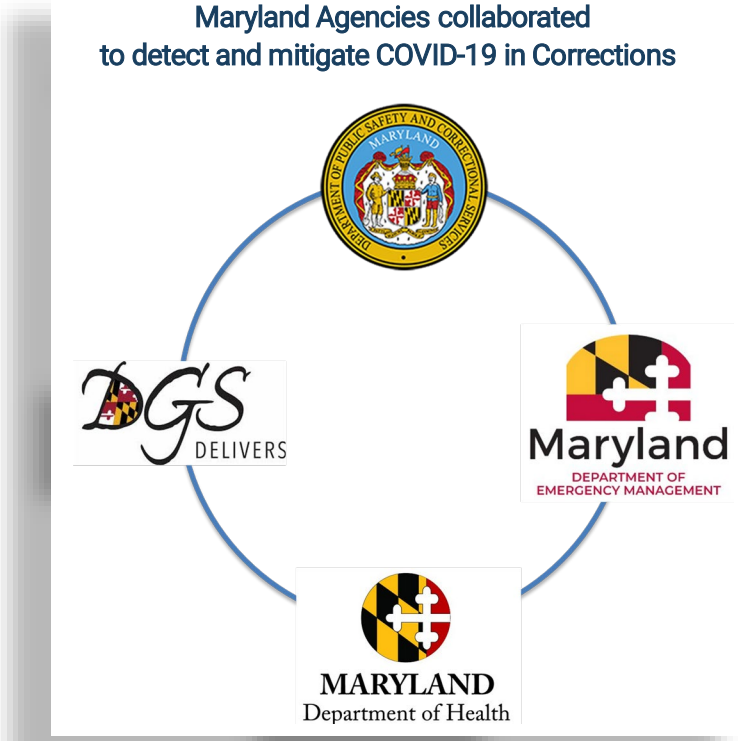
March 19, 2021—United States administers 100 million vaccine doses

People who were incarcerated or working in correctional settings were not immune to the pandemic; on the contrary, they faced significant risk. According to *The COVID Prison Project*, "A majority of the largest, single-site outbreaks have been in jails and prisons."[394]

This case study was developed through interviews with Maryland state government senior leadership, who were integral to the COVID-19 response efforts in the state:

- ***Atif T. Chaudhry,*** *Secretary, Maryland Department of General Services*
- ***Robert Green,*** *President, American Correctional Association*
- ***Johnathan Medlock,*** *Assistant Secretary of External Affairs, Maryland Department of General Services*
- ***Clifford S. Mitchell, MS, MD, MPH,*** *Director, Environmental Health Bureau, Maryland Department of Health*
- ***Bryan Mroz, Deputy Secretary,*** *Maryland Department of Health Healthcare System and Operations*
- ***Carolyn Scruggs, Secretary,*** *Maryland Department of Public Safety and Correctional Services*
- ***Russ Strickland, Secretary,*** *Maryland Department of Emergency Management*

At the beginning of the pandemic in 2020, 2.1 million adults were housed within approximately 5,000 U.S. correctional and detention facilities.[395] These facilities faced many challenges during the pandemic, including: "crowded dormitories, shared lavatories, limited medical and isolation resources, daily entry and exit of staff members and visitors, continual introduction of people newly incarcerated or detained, and transport of people incarcerated or detained in multi-person vehicles for court-related, medical, or security reasons," according to the CDC's report, *COVID-19 in Correctional and Detention Facilities*.[396]Despite the risks posed by COVID-19 and the difficulty many correctional facilities across the country had controlling the spread of the virus within their walls, Maryland achieved a different outcome. Through March 20, 2022, Maryland recorded 35 deaths of people who were incarcerated caused by COVID-19, the 10th lowest rate of deaths of all 50 state corrections agencies. [397] This death rate was similar to Maryland's overall COVID-19 death rate of approximately 1 in 655.[398]

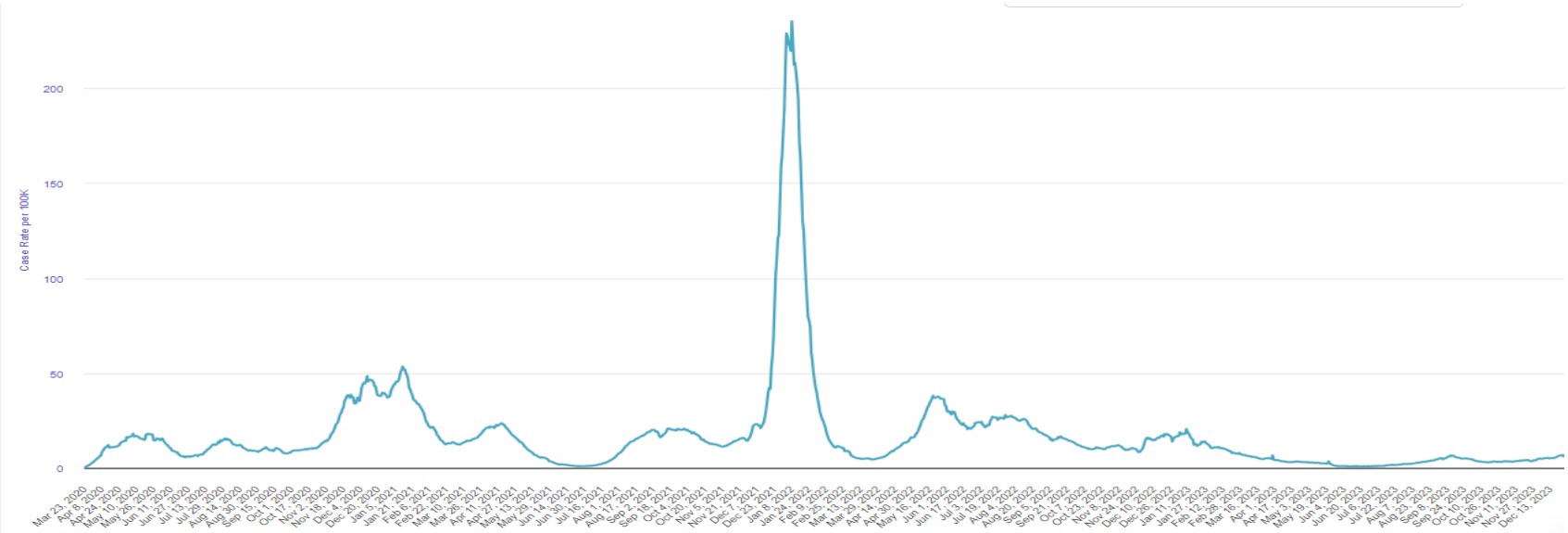


Maryland's success can be attributed to several factors. The executive leadership within the state government recognized the significant risk COVID-19 posed to confinement facilities because of their congregate setting, which posed significant risk to the communities near those facilities. Thus, leadership prioritized Maryland's correctional facilities in its statewide response to the pandemic. Further, the Maryland Department of Public Safety and Correctional Services (DPSCS) operated as a full partner in the state-wide response, not only as a resource claimant but also as a resource provider.

Maryland's Pandemic Story

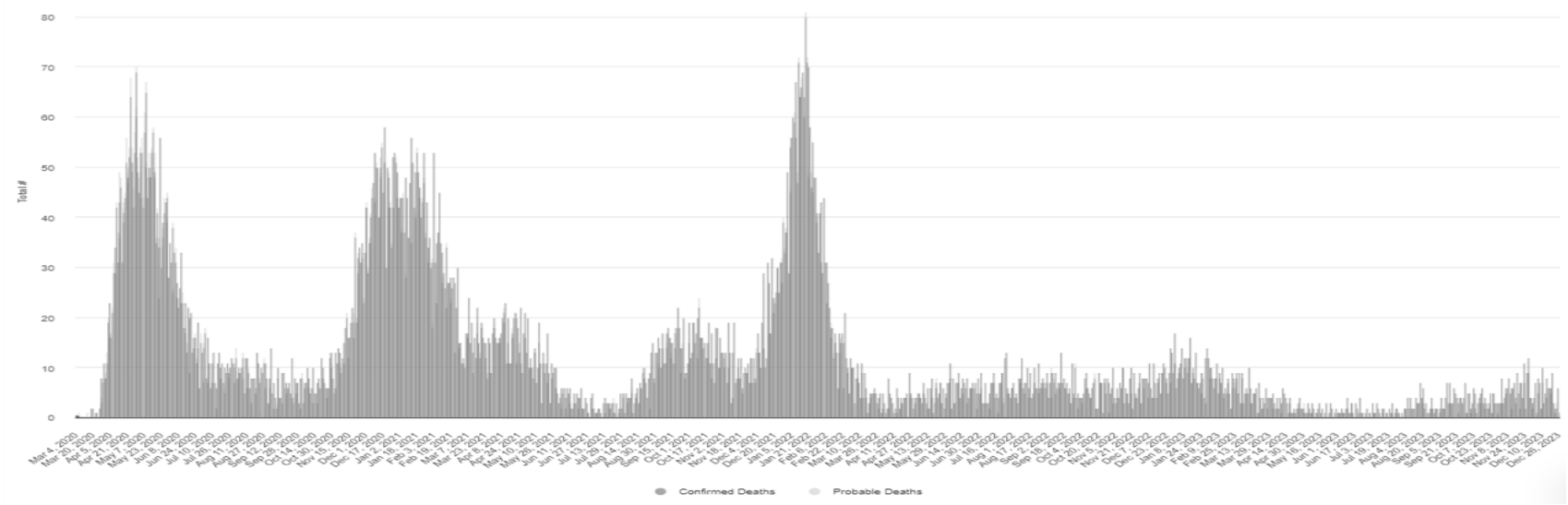
On March 5, 2020, in response to the state's first three positive cases of COVID-19, Governor Larry Hogan declared a state of emergency for Maryland. On March 22, 2020, the state confirmed its first COVID-19 death. By the time the public health emergency had officially ended in 2023, Maryland had 1,424,488 confirmed COVID-19 cases and 17,132 deaths (see Figure C1 for COVID-19 case rates and Figure C2 for COVID-19 deaths in Maryland).[399] Through the tireless efforts of many, the state also saw the full vaccination of 4,8321,895 people or 80 percent of the state's population.

Figure C1: Maryland's COVID-19 pandemic case rate per 100,000 (March 23, 2020 – Dec. 13, 2023)[400]



Source: Maryland COVID-19 Data, https://health.maryland.gov/covid/pages/maryland-covid-19-data.aspx, accessed Dec. 27, 2023.

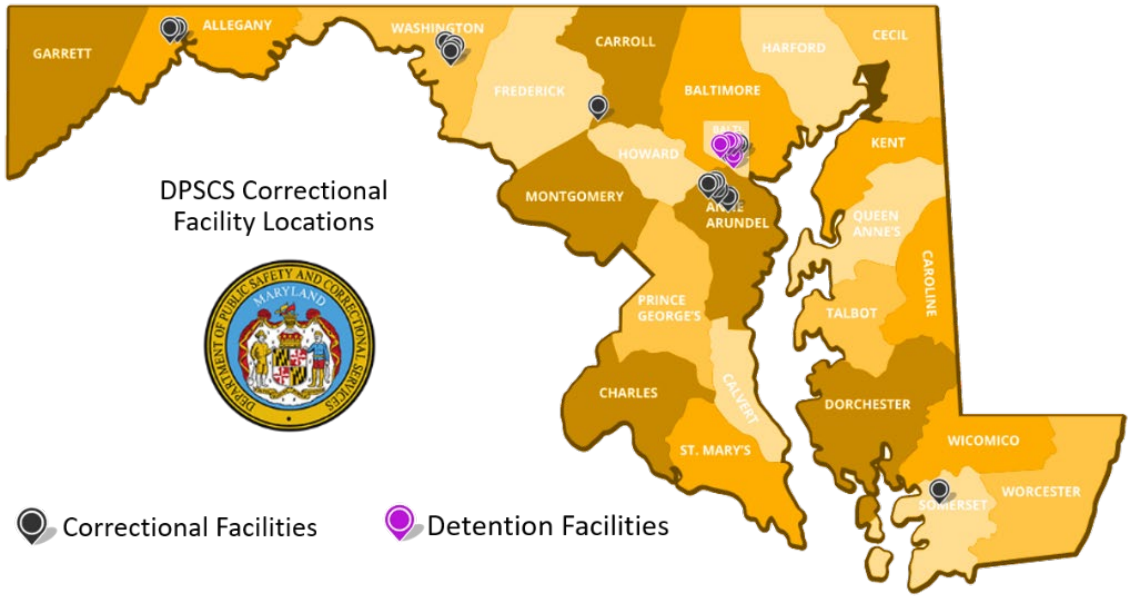
Figure C2: Maryland's COVID-19 pandemic deaths (March 4, 2020 – Dec. 26, 2023)[401]



Source: Maryland COVID-19 Data, https://health.maryland.gov/covid/pages/maryland-covid-19-data.aspx, accessed Dec. 27, 2023.

During the COVID-19 pandemic, DPSCS was led by Robert Green, who had four decades of experience working in Maryland's local and state confinement facilities, starting out at the Frederick County Sheriff's Office, and later serving as warden and corrections director in Montgomery County. As the secretary of DPSCS in 2020, Green was responsible for approximately 27,000 people housed in Maryland's 18 correctional facilities, four community release facilities, and the Baltimore City jail (see Figure C3 for DPSCS correctional facility locations).

Figure C3: Maryland correctional facilities



Source: DPSCS—Maryland Correctional Institution, "Facility Locator," https://www.dpscs.state.md.us/locations/prisons.shtml.

According to Green, in late December 2019, Governor Hogan convened his Cabinet and warned, "There is a train on the tracks. It's coming. It is going to be a once in a lifetime health event—a pandemic." Through the National Governor's Association, Hogan had received briefings on the virus which had been identified in Wuhan, China, and instructed his cabinet secretaries to prepare the state's response.

Maryland's Consequence Management Operations Plan established the Emergency Operation Center and the Senior Policy Group, which included the Governor and select cabinet secretaries. During the pandemic, the lead state agency for the pandemic response was the Maryland Department of Health (MDH). The lead for the Maryland pandemic response was Dennis Schrader, who was the acting secretary of MDH in 2020. Schrader had decades of leadership experience, having served as the director of the Maryland Governor's Office of Homeland Security (2003-2007) and as deputy administrator for national preparedness for the Federal Emergency Management Agency (2007-2007)—positions that would prepare him to lead Maryland's unified response to the COVID-19 pandemic.

By January 2020, Schrader began to pull together the cabinet secretaries into a multi-agency coordination command (MACC). Included in the command was Russell Strickland, who was the

executive director for the Maryland Emergency Management Agency (MEMA) during the pandemic and is currently the secretary of the Maryland Department of Emergency Management (MDEM, formerly MEMA). During his lengthy career, Strickland has served the state in various capacities for the departments of emergency management, homeland security, and fire and rescue. For the pandemic response, MEMA/MDEM was the state's coordinating agency and supported MDH and the actions the Governor promulgated.

"When COVID-19 started, the MACC was focused on hospital surge. We recognized the scale of the threat when COVID-19 began to hit the nursing homes. We had to assemble National Guard response teams to help them," Strickland said. "That's what woke everybody up to the fact that congregate facilities were high risk. Nursing homes were a known congregate facility type, but state hospitals and prisons are also congregate facilities."

Emergency Management Assistance Compact
The nation's mutual aid system

Through EMAC, states can share resources from all disciplines, protect personnel who deploy, and be reimbursed for mission-related costs during a disaster. Each state emergency management agency is responsible for implementing EMAC on behalf of the Governor.

Source: Emergency Management Assistance Compact. 1997-2023. (nemaweb.org)

Strickland elaborated: "We realized at the policy level that if we don't take care of these state hospitals and prisons, they are going to drain our resources. It was at this point in the pandemic we knew there was no cavalry coming—there was a declaration in all 50 states so even with the Emergency Management Assistance Compact, other states could not afford to send their people to help. The only resources Maryland had for our COVID-19 response was what was in the state. We had to carefully manage all of that."

With a core team of leaders from the Departments of Health, Public Safety and Correctional Services, and Emergency Management working together, the state's unified response safeguarded those housed and working in correctional settings. As COVID-19 spread across the state and eventually into the confinement facilities, the response expanded. Additional leaders were brought in to meet the needs that arose and support the statewide coordinated effort, including Dr. Clifford Mitchell, director of the Environmental Health Bureau for MDH since 2006. Because of his background, Mitchell assumed modeling responsibilities for the state in its planning for the pandemic response. In February 2020, Mitchell was also assigned responsibility for congregate non-healthcare-related settings, such as businesses, universities, group homes,

> While we in the Health Department know about the correctional setting, you never really know about the correctional setting until you spend a lot of time in it. In this case, I basically lived with the correctional folks for all COVID.
>
> -Dr. Clifford Mitchell, Director of the Environmental Health Bureau, MDH

and confinement facilities,[g] which had a variety of special needs and unique circumstances. He served as the guiding medical adviser for DPSCS during the pandemic.

DPSCS Response to COVID-19 – Making the Right Decisions

At the outset, Green and his team at DPSCS learned as much as they could about COVID-19 and the risks to their facilities and the people housed and working in them. Green met frequently with Mitchell, the corrections medical adviser.

"I received a Mortality Review from Dr. Mitchell that was specific to confinement facilities. It projected that within the first 90 days, we were to have over 500 dead and to lose more than 100 staff. That was a very sobering and shocking moment for me as a correctional leader," reflected Green. Fortunately, the projection was significantly off. Mitchell explained the early models of disease and mortality were based on data from Italy and New York, which both had high estimates of mortality and hospitalization. By the height of the pandemic, in March 2022, Maryland had 35 deaths of people who were incarcerated in confinement facilities attributed to COVID-19, a sizeable reduction from the projection and comparable to the community death rates, in part because of the decisions that were made early on.

"I remember where I was when I read [the Mortality Review], and we doubled down at that very moment. We started looking at every resource we had to mitigate the spread to our population," Green said. DPSCS moved quickly to safeguard its facilities.

Green sought support from Carolyn Scruggs, currently secretary of DPSCS, who in 2020, was the assistant secretary for programs, treatment, and reentry services, which encompasses medical, mental health, re-entry services, and an audit component for medical vendors and vendors associated with mental health and substance abuse. Scruggs began her 32-year career in Maryland as a judicial officer of the court,

KEY COVID-19 DATES IN MARYLAND CORRECTIONS

March 5, 2020 —Governor declares state of emergency

March 12, 2020—Outside visitation to DPSCS halted to limit transmission from visitors to people who were incarcerated

March 16, 2020 —DPSCS begins coordination with MDH to include correctional population in resource allocation and surge planning

March 22, 2020—Intakes from local detention facilities stopped

March 28, 2020—The first confirmed COVID-19 case of a person incarcerated was identified; quarantine and isolation housing spaces identified and prepared in every DPSCS facility

March 31, 2020 —Modified movement within facilities

March 2020 —DPSCS suspended medical co-pays, and provided free phone calls, free video calls, and free hygiene products to people who were incarcerated

April 3, 2020—Mandatory use of masks by all Maryland staff; authorization for DPSCS staff to work overtime shifts across multiple facilities was restricted

April 18, 2020—Executive order issued allowing expanded release options for DPSCS-sentenced persons

May 20, 2020—Maryland among first states to implement universal testing

August 31, 2020—Weekly testing begins of people incarcerated across all DPSCS facilities

January 19, 2021—Vaccinations for people who are incarcerated begin

May 20, 2021—DPSCS reaches 10,000 first-dose vaccine goal for the incarcerated population

June 2021—Maryland reduces prison population by 9.3 percent

[g] Confinement facilities in Maryland include five detention facilities and 13 correctional facilities located across the state.

moving up through the ranks to major, and serving as a warden for several confinement facilities. When the pandemic hit and it became clear that it would be severe, Scruggs shifted her focus to safety. "A memo went out naming me as the state COVID coordinator for DPSCS and I felt like I had everybody's life in my hands," Scruggs explained.

Mitchell approved of Scrugg's posting: "Secretary Green did a couple of things early on that were incredibly foresightful and helpful. One was he designated then Assistant Secretary Scruggs as the point person for the COVID response. The second was that he and I spoke early and often about some of the challenges that they were having." Mitchell noted that he participated in all the corrections COVID-19 meetings, and because of this open and frequent collaboration between corrections and public health, he and his group of clinicians were able to develop specialized guidance for confinement facilities. As a result, DPSCS established policies and processes to ensure that sick individuals were not infecting the well (see Figure C4).

Figure C4: DPSCS' layered mitigation approach to COVID-19

Limiting Staff Overtime and Addressing Staffing Shortages

By April 3, 2020, DPSCS had restricted authorization for its staff to work overtime shifts across multiple facilities. "We didn't try to hide the fact that the vector was going to be the staff," said Green. The staff did get sick and there were staffing shortages at times. To help, DPSCS spent hundreds of thousands of dollars on food and other incentives. "We had to buy some grace," Secretary Green said, adding, "I was running prisons of 2,000 incarcerated individuals with 30 staff."

Staffing shortages were a major concern for DPSCS. During the pandemic the incident commander responsible for staffing in the state was Bryan Mroz, who worked for Schrader and is now the deputy secretary of operations for MDH. To address the state's staffing needs, MDH launched a staffing portal where any agency or office that needed staff could make a request. Any person in the state could apply for any position under COVID-19. They would then be connected to 40 different staffing agencies that would review the applications and respond to the demand side.

COVID-19 testing in Maryland corrections

MDH established standardized COVID-19 testing policies for congregate settings, whether it was a hospital, nursing home or detention center.

"For DPSCS, it was just simple math: how many staff do we have? How often do we have to test them every week? How many people do we need to hire, and how many tests do we need?" Mroz explained. "The real challenge was enforcement of the testing policies." According to Mroz, Green did not let his staff slip on testing requirements.

For the test results, MDH used a combination of public health labs and private sector labs "We had all of our state facilities go through public labs, but they couldn't meet the demand, so we started individual contracts," Mroz said. Maryland aimed for results within 48 hours, but it took time to get there. To help build the capacity, MDH worked with the University of Maryland.

"In April 2020, I was introduced to Secretary Green to discuss what staffing shortages would look like in a detention center. We immediately had a meeting with the National Guard, but I learned that calling in the National Guard would be a very last resort," Mroz said. He explained: "To mitigate staffing concerns at DPSCS, we set up health care outside of the confinement facilities, to get sick people out of those buildings. That's when we started our efforts to staff auxiliary tents with medical teams outside of each one of the three or four major correctional areas across the state. Secretary Green was very much driving that, wanting to make sure we had the staffing plans in effect."

DPSCS also needed space for the housed population to social distance. In the beginning, DPSCS employed techniques such as hanging plastic sheeting to create separation for the people who were incarcerated. According to Mroz, the state also used COVID-19 funding to rehab unused correctional space by quickly bringing it up to code. "That created more space within our correctional facilities," Mroz explained. However, the facilities still had too many housed to safely manage a pandemic; thus, emergency release orders were implemented.

Emergency Release Orders

Hogan was one of the first governors in the country to initiate emergency release orders. On April 18, 2020, he issued an Executive Order allowing for expanded release options for DPSCS-

sentenced inmates. These included accelerated release, medical/compassionate release, and minor offense release policies.

"The Governor didn't do it in a manner that just let everybody go," Green said. "We fashioned an order that reviewed potential releases in 90-day increments, so we weren't inadvertently creating a public safety emergency by letting our population out into the community where many of them would go to a homeless shelter and would be no safer than in our systems."

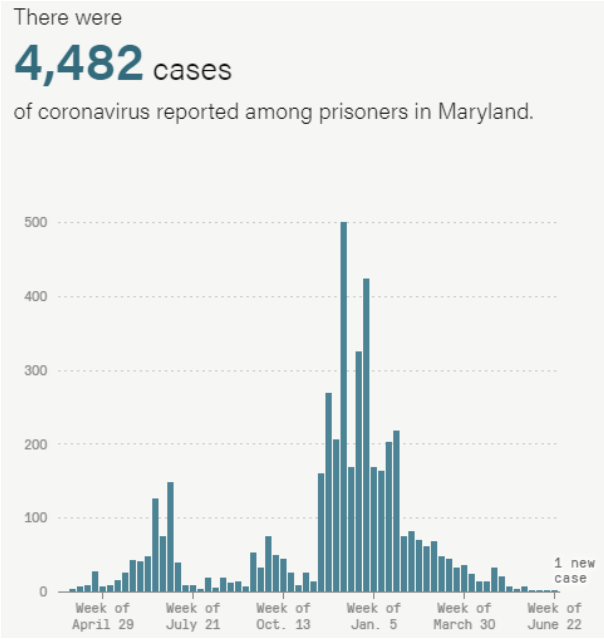
Through the 90-day early releases, the Parole Commission, which comes under DPSCS, significantly lowered the number of people who were incarcerated. According to Scruggs, "The Parole Commission first looked at the entire population to determine if anybody was parole eligible, and then identified any individuals who, if provided waivers with conditions of parole, could become eligible." DPSCS also worked with the State's Attorney and public defenders to develop a list of individuals deemed low risk to recommend to the Commissioner of Corrections for releasing under home detention. "Between home detention and placing individuals on supervised parole conditions, we drastically reduced our population," Scruggs said.

In fact, between March 2020 and June 2021, Maryland successfully reduced its overall prison population by 9.3 percent. "That bought us space to separate folks and we could provide more single celling. At the time, 22 percent of our population was held in a dormitory setting, which was its own nightmare," Green noted.

Alternative Care Sites

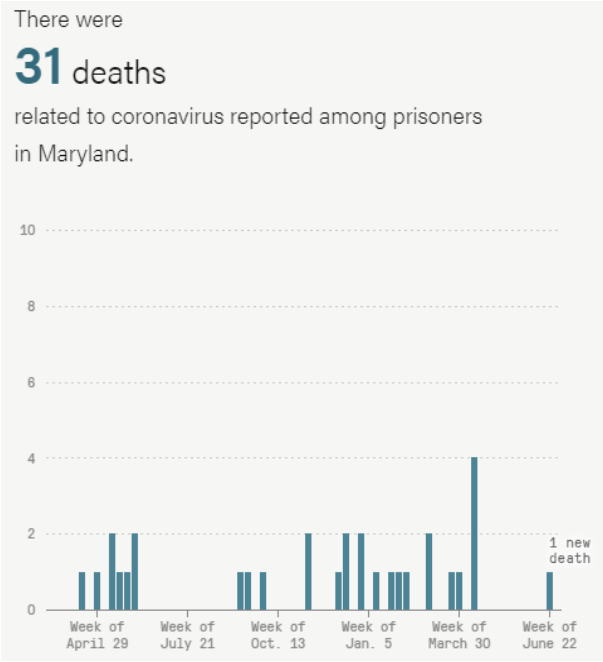
Despite these efforts, the first confirmed COVID-19 case in a Maryland confinement facility was identified on March 28, 2020, and the need to care for the ill became critical. Figures C5 and C6

Figure C5: COVID-19 cases in Maryland confinement facilities, March 2020 – June 2021



Source: Maryland COVID-19 Data, https://health.maryland.gov/covid/pages/maryland-covid-19-data.aspx, accessed Dec. 27, 2023.

Figure C6: COVID-19 deaths in Maryland confinement facilities, March 2020 – June 2021



Source: DPSCS State COVID Response Comparison Report, 3/20/22

provide the number of COVID-19 cases and deaths in Maryland.

A looming concern for Green and the MACC was the potential for an outbreak in the confinement facility to affect the surrounding community. Green explained, "In the western part of the state, we had one hospital in Hagerstown to serve 11,000 individuals who were incarcerated. We could have easily, with one massive outbreak, shut down that hospital." Similarly, in Jessup and Baltimore City, seven hospitals served another 10,000 members of the incarcerated population.

"We immediately began to set up isolation and quarantine areas throughout our department. Originally every facility had at least a quarantine area, even if it was just a couple of cells," Scruggs said, adding, "Because community hospitals were already overwhelmed, we realized that we were not going to be able to get our men and women who were incarcerated the care they needed, and we did not want them to succumb to this virus."

Concurrently, Mitchell was reviewing COVID-19 model outputs by geographic area, which showed high estimates of mortality and hospitalizations. As a result, Maryland took a conservative view of how many beds it would need and where. "That's when Russ Strickland brought in the U.S. Army Corps of Engineers (USACE),"[h] Green said. Strickland noted, "It's a lot easier to set up a capability at a prison to handle those who are infected versus sending them to the local emergency room and potentially infecting the hospital." He added, "We also knew it would require two to four guards to go with them while they are in the hospital. That came to light right away, so Corrections was brought to the table while we were considering the hospital surge program."

With the help of MDEM and USACE, DPSCS erected 10 alternative care sites (ACSs) in the Jessup and Hagerstown facilities, providing 100 beds. USACE was able to stand up the advanced medical tent hospitals with ventilators, oxygen generators, and generating plants in 30 to 60 days (see Figure 20 for one example of a USACE-constructed field hospital).

DPSCS built the ACSs directly inside the facility's fence, where staff could treat individuals and house them. "Those confined individuals that required hospital care, got hospital care at the traditional hospitals, but we were able to step them down quicker and get them back inside the facility to open up hospital beds for others," Green reflected.

MDH provided the medical staffing for the ACSs. "We set up contracts to bring in nurses and doctors and set up a whole medical command outside on the grounds of the correctional facilities," Mroz explained. Corrections had pre-existing medical services within the facilities. "We did not use the same medical teams to staff the ACSs outside," Mroz said.

Medical treatment at the confinement facilities was triaged. A patient would first be evaluated and treated by the medical team within the facility. If isolation and medical treatment was determined necessary, the patient was brought outside into the medical facilities on the grounds. "We started setting up those treatment centers at the facilities themselves to avoid as much as we could using any outside resources like hospitals and emergency rooms, because they were busy taking care of the general public," Mroz explained. As a result, the incarcerated

[h] MEMA requested support of USACE through the Federal Emergency Management Agency, Region 3.

population was being treated—and being treated in a quicker way than they would have if this collaboration between DPSCC and MDH had not occurred in Maryland.

DPSCS also took the unpreceded step of converting an unoccupied facility into a 192-bed negative pressure facility. "In our western region, we had the 192 building that had sat vacant for a while – we were able to convert some beds there and acquire the needed equipment, in conjunction with the Department of Health," Scruggs explained.

Figure C7: Hagerstown Correctional Facility Wing converted into a Field Hospital with help of USACE

Source: Bryce Meyers, "In Maryland, First-of-Its-Kind Project Turns a Prison Wing into a Field Hospital," CoStar News, Apr.

Mitchell agreed that the 192 building was helpful, especially for that region of Maryland: "Secretary Green thought about the fact that not only did he have a large population of people in the western part of the State, but the western part of the state (as well as the eastern part of the state) is relatively poorly resourced in terms of hospital beds. That led to the planning for the 192 building, which was an incredibly valuable and prudent thing to do in my view, given what we thought might happen."

As a result, DPSCS was able to keep most of the infected confined population inside its facilities for treatment and care, unless they required hospitalization. Through March 13, 2022, DPSCS' two correctional-based ACSs provided 1,324 in-patient days of COVID-19 treatment across 100 ACS beds. This effort of using the ACSs versus area inpatient hospital beds saved the state more than $3.2 million in cost avoidance (actual versus expected cost).

Maryland's ACSs provided 1,324 in-patient days and saved the state more than $3.2 million.

COVID-19, the Resource Shortage, and Incarcerated Workforce

By serving as part of the MACC, DPSCS learned what resources were available to them and what were needed. DPSCS met with Mitchell at least twice a week to pre-plan; he had a significant influence on their preparedness activities. "We began very early to purchase and stockpile supplies," said Green, noting, "One of the great successes of the Maryland Department of Public Safety and Correctional Services is that we got on the front end of buying masks and gloves."

DPSCS, through Maryland Correctional Enterprises (MCE),[i] also began making PPE and other resources that were in short supply. "Understanding what the future was going to look like, we started making face shields," Green said. "We bought a ton of plastic for the face shields because, while we were not thinking that we would ultimately put correctional employees in those, the hospitals told us they were going to have a need for all of this." DPSCS donated approximately 100,000 face shields to hospitals.

Although MDEM received a delivery of 250,000 N95 masks from the strategic national stockpile, the elastic ear loops dry rotted. Strickland called Green to ask if they could do anything. Green assured him, "I've got sewing factories and we got elastic. We'll fix them." MCE employed people who were incarcerated in five sewing factories, located strategically across the state that were able to manufacture masks, and repaired close to a million masks. "The incarcerated workforce became an incredible resource for the citizens of the state of Maryland. We've always rewarded and thanked our population, but they knew during the pandemic they were helping the greater good, which included their families. They were so proud of the work they had done," Green said.

MCE also had woodworking shops that closed during the pandemic, because state agencies were not buying furniture. MCE redirected their entire workforce to other manufacturing. For example, MCE manufactured hand sanitizer when it was in short supply. Strickland said, "With DPSCS at the table, we realized they are an asset for helping us with supply chain issues. At that time, everyone was running out of hand sanitizer, but MCE could help the state by making it." DPSCS bought and installed a still in the Hagerstown facility to distill 71 percent alcohol for hand sanitizer. Green explained, "We were giving the hand sanitizer to hospitals by the case, so they had hand sanitizer for their medical staff when it couldn't be bought. I think that's when the mutual benefit was realized—we were seen as a partner in the response, which helped our position when the vaccines became available.

[i] Maryland Correctional Enterprises was established in 1937 under the Board of Correction. The program is designed to provide essential work and training for prisoners and to produce needed goods for state government. MCE services encompass construction, data entry, furniture restoration, mailing and distribution, moving, warehousing, and news clipping. Goods produced include a large selection of office furniture; modular furniture; metal products, such as benches, carts, and shelving units; mattresses and pillows; and graphics, tags, and signs. (Maryland Correctional Enterprises)

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Johnathan Medlock, the assistant secretary of the Office of External Affairs for DGS, is responsible for supporting emergencies in Maryland and coordinating the required resources. His division within DGS coordinates with all the state agencies. DGS has a standing agreement to support the state's consequence management operational plan. "During COVID-19, no one was prepared for this level of catastrophe," Medlock said, but noted, "There were things DGS did to help." For example, through the Design, Construction and Energy division, DGS provided support for the advanced medical tents and the walk-up and drive-through testing centers at state and private medical facilities and convention centers. For DPSCS, DGS supported the Building 192 renovations.

"For future pandemics, DGS has inventory standards and support services in place. We have buildings that we can convert for emergency preparedness facilities for medical emergencies, as we did during COVID. We also can procure quickly what is needed in emergency situations. I'm not saying the procurement process goes out the window, but the procurement process is tailored to the times," Medlock said.

Source: Department of General Services Maryland, dgs.maryland.gov/AboutDGS.aspx

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Maryland Prioritized Correctional Population For Vaccine Rollout

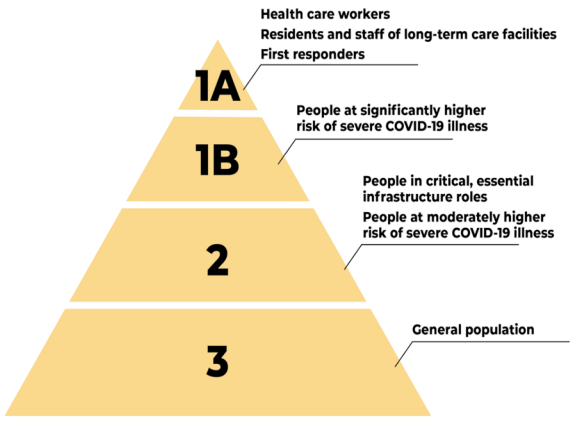
MDH understood that there were two key facility types that were going to be affected significantly by the pandemic—jails/prisons and nursing homes—because both were congregate settings. "We did have an appreciation here at the state health department about the vulnerability in the correctional populations. We also understood health equity concerns and, historically, the sort of challenges this congregate population faced," Mitchell said. "As vaccines became available, the folks in congregate settings, including and, in particular, confinement facilities would be identified early as people in need."

In the early planning stages, when the MACC began to consider the distribution of vaccines, they discussed a multi-phased approach, dubbed the "Vaccine Pyramid." Nursing homes would be in Phase 1 and confinement facilities and correctional staff would be in Phase 2 (see Figure 21). Green disagreed with that plan. "I was able to articulate critical facts to my colleagues, asking them to consider the sheer numbers of what could happen if we don't get vaccinations inside our prisons. Our sick population would shut down many community hospitals," Green explained.

Scruggs added, "We fought very hard to make sure that the Governor realized the importance of putting Maryland correctional facilities at the top of that pyramid. If 20,000 men and women who were incarcerated all got sick, they're rotating into the community, and we're going to have greater problems."

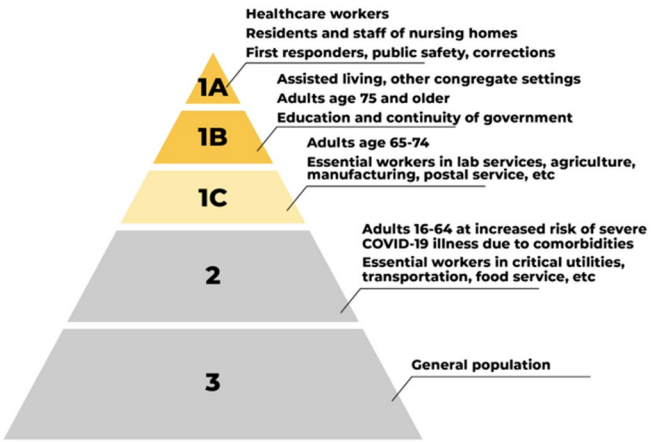
Backed with his knowledge of the risks facing the state, for the first time in his career, Green went directly to the Governor with his appeal for corrections and Hogan agreed. Subsequently, the Maryland COVID-19 Vaccination Plan, submitted to the CDC on October 16, 2020, listed "People in Prisons, Jails, Detention Centers, and Staff" among the six target populations to receive the vaccine in Maryland's Phase 1 distribution (see Figure 9). The estimated population of individuals incarcerated, and staff subgroup was 54,460.[402] "We didn't allow anybody to pull the plug or treat confinement facilities differently, and I think that was really important," Green said. Mitchell

Figure 8: Original Maryland vaccine pyramid



Source: Glynis Kazanjian, Inmates Will Be Among First to Receive COVID-19 Vaccination in Md., Maryland Matters, Dec. 14, 2020

Figure 9: Updated Maryland vaccine pyramid



Source: Maryland COVID-19 Vaccination Plan, MDH, Oct. 16,

explained, "Everybody recognized that if we didn't get vaccines for both the staff and for the incarcerated population, we were going to end up with a lot of outbreaks in confinement facilities."

> Maryland's was one of only 10 states in the country that vaccinated its correctional officers, correctional staff, employees with direct contact, and the incarcerated population in Phase 1. (Prison Policy Initiative)

Strickland echoed the significance of the vaccine decision: "Across the state, we had to manage our resources. It was simple when it came to the prisons. If you don't contain the virus there, then we are going to end up having a challenge with staff to be able to maintain order in the prison. Similarly, with the vaccines, we recognized that if we vaccinate them, then they can take care of themselves, and we don't have to send in other state resources." The resources MDEM would have considered sending into the prisons would have been the state police and the National Guard; however, neither was available.

Key Takeaways For Corrections

When asked about the lasting impacts of the COVID-19 pandemic on corrections, the Maryland leaders provided key takeaways.

1. **Look for every opportunity to adopt technology into corrections operations and communications.**

   Technology was a game changer for Maryland's confinement facilities during the pandemic. "Prior to COVID, the department was fearful of technology and adamant that everything had to be in person," Scruggs said. During the pandemic, DPSCS learned how to use technology and embraced it. As an added benefit, DPSCS was able to reduce costs. For example, by having an individual who is incarcerated sit in a booth at a correctional facility for a bail review, DPSCS did not have to incur the risks, costs, and staff time associated with transporting that person with correctional officers to the court. "Through technology we were able to better ourselves," Scruggs concluded.

2. **Maintain strong partnerships between corrections and emergency management as they are critical to success in future incidents.**

   One contributor to Maryland's success was the existing relationship between corrections and emergency management. "Prior to COVID, DPSCS always had a working relationship with emergency management. During COVID, the relationship just became more robust," Scruggs said.

   Strickland added, "I think the key takeaway is to bring emergency management in early." Corrections needs to know what capabilities they have onsite to move people or to isolate people whether the emergency is a pandemic, a flood, or a fire. If they do have to evacuate a

facility, corrections should know what capacities they have available to them to do that quickly. "I am not a warden of a state prison, but I do know how crisis management should be handled and structured, and how we should prepare before a crisis," Strickland said. "Emergency management professionals are the conveners, facilitators, and coordinators who are going to come in and help corrections do what needs to be done during a crisis."

Strickland recommended that corrections have dedicated emergency management planners who are plugged into the preparedness cycle. "It's important in emergency management to not meet somebody for the first time in the middle of a disaster," he emphasized, adding, "Whether it's a jail reaching out to their local emergency manager, or it's a state operation, they should consider hiring a full-time person for preparedness in their system. And depending upon the size of their system, they may need more than one person to conduct the assessments, planning, training, and exercises for different scenarios."

Green said, "I think COVID put corrections on the map for emergency management decisions, but it also made it important for correctional leaders to understand how the broader systems work because there will be another pandemic and it will probably be far worse than what we've already been through. I think that corrections will never again be overlooked in the conversation."

3. **Protect corrections staff and incarcerated populations as a phase 1 priority population.**

   In the case of another public health emergency, corrections should be a priority along with other congregate facilities because of the risk posed to the health of the residents, staff, and their families. This will help protect not only the staff and incarcerated population, but also the surrounding community by preserving limited hospital resources.

4. **Adopt an anticipatory mindset for state needs, understand critical supply chains, and remain responsive and adaptable to both.**

   A whole of community response, which includes corrections, requires agency leaders to anticipate the needs of the state, understand the supply chain, and be adaptable and responsive to both. "We have to be flexible and responsive to our clients, which are all our state agencies and those affiliates of the state. DGS is looking at better ways to continue to respond and build our protocols for our next pandemic," Medlock said.

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