AMEND
CHANGING CORRECTIONAL CULTURE

Berkeley Public Health

Limiting COVID-19 Transmission and Mitigating the Adverse Consequences of a COVID-19 Outbreak in Correctional Settings:

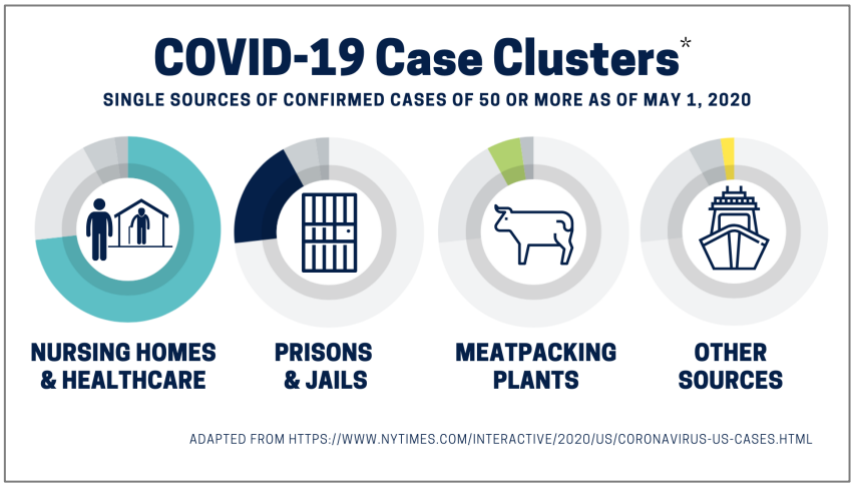
RELEASE · COHORT · TEST

May 4, 2020

Congregate living environments are uniquely vulnerable to the worst outcomes of the ongoing COVID-19 pandemic with dire implications for correctional populations, workforces and communities.

Background

Jails and prisons are the new foci of the COVID-19 epidemic in the U.S. In mid-March the first COVID-19 cases in correctional settings emerged in New York City, Cook County, and the Federal Bureau of Prisons. Today, according to data from the New York Times, jails and prisons are responsible for more clusters of COVID-19 cases (50 or more) than any other non-healthcare setting and represent ten of the top fifteen largest such clusters (spread across seven states). As described in the figure here, more than 70% of COVID-19 clusters are in nursing homes and similar residential healthcare facilities; nearly 20% are in prisons and jails; and 5% are in meatpacking plants or similar agricultural processing facilities. No other category of source is responsible for more than 2 clusters. There are now over 10,000 known cases among incarcerated people (not including correctional staff), two-thirds of which were counted in the last two week of April. *Nearly half of the nation's more than 150 deaths among incarcerated people also occurred in the time span.*



While information regarding staff and COVID-19 is more difficult to gather, at least 15 correctional officer deaths have been reported.

The extent of the epidemic inside U.S. jails and prisons is unknown – including in the three biggest systems. The recent surge of cases in jails and prisons captures growth mostly in a small number of states (OH, MI, NC) that began widescale testing in response to rapidly worsening outbreaks. As these states were announcing high rates of infection in their facilities (the week of April 20), the nation's three most populous state prison systems, housing nearly 25% of all state prisoners, had only tested <1% (2500) of their residents (0.4% [434] in Florida, 0.7% [822] in California, and 0.8% [1245] in Texas).

What *is* known about the extent of the outbreak in the nation's jails and prisons is worryingly similar to the epidemic's early (and ongoing) sweep through nursing homes. "Ground zero" for the COVID-19 outbreak in the U.S. was a nursing home in Kirkland, Washington that saw a surge in respiratory illness in late February and reported its first positive test on February 28. By the end of March, 33% of the Kirkland facility's population had died of the

disease and infections had been found in 400 additional facilities around the country. As of April 27 2020, updated data show 50,000 cases in at least 4,000 long-term care facilities across 36 states having resulted in more than 10,000 deaths (residents and staff).

While correctional settings and nursing homes differ in a number of ways, they share a critical feature: they are congregate living environments. As rising case counts and associated mortality increasingly point to a rapidly worsening COVID-19 epidemic in U.S. jails and prisons, affecting residents and staff alike, recently released case studies show how easily the virus can be tramsmitted in environments in which people spend prolonged time indoors, in close proximity to one another. The figures below, for example, describe the trajectory of an outbreak on a single floor of a call center in South Korea over a two-week period, illustrating that COVID-19 "can be exceptionally contagious in crowded… settings" (in this case, a 43.5% attack rate).

Figure 1, at left, shows the rapid increase in infection within 12 days of an initial infection. Blue shading in the figure at right indicates seating places of confirmed cases; the study can be found here.

Figure 1

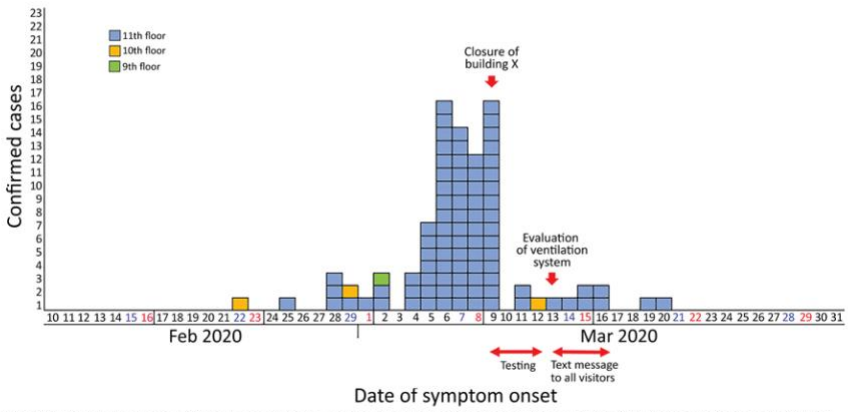
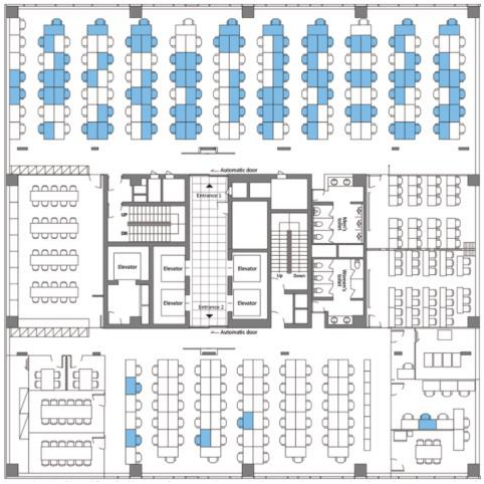


Figure 1. Epidemic curve of a coronavirus disease outbreak in a call center, by date of symptom onset, Seoul, Korea, 2020. Asymptomatic cases are excluded.



On March 23, 2020, Amend at UCSF issued guidance[1] to correctional system leaders preparing for a potential COVID-19 outbreak in their facilities. That guidance emphasized the following critical steps:

- **Immediately release people** to create the space and resources needed to safeguard those remaining. These releases are necessary until other preventive measures (vaccines, prophylactic drugs or biologicals) can be implemented, or until a sufficiently large proportion of the U.S. population has been previously infected so that herd immunity will prevent large outbreaks. This is a recommendation to safeguard public health. It is not a recommendation for or against reducing sentence duration as release can happen with a reduction or a postponement of incarceration or a transfer of custody to community corrections or home confinement.
- **House the remaining population in cohorts,** or "mini-communities," that practice *absolute social distancing from other cohorts*. Assign staff and re-organize essential activities (e.g. recreation, shower, pill call, canteen, medical and mental health treatment) consistent with this measure. This requires minimizing the number of cohorts that come into contact with an individual staff member, particularly when physical distancing is not possible (e.g. nursing staff). Such cohorting is not an alternative to substantial releases in systems operating at or near capacity;

[1] These recommendations are enumerated in greater detail in a source document available at: https://amend.us/covid.

in fact, cohorting's effectiveness is dependent on space created by release. De-institutionalizing people into non-congregate living environments in the community is the most important first-line public health strategy to mitigate disease transmission in correctional settings.

- **Provide all staff and residents with education** regarding COVID-19: what it is, how it is spread, common measures needed to reduce spread (including strict cohorting / social distancing), and what will happen to staff or residents who report symptoms.
- **Respond to suspected cases of COVID-19 transparently, consistently, and with measures that are patient-centered and optimized for harm reduction.**[2]
- **As testing capacity expands, prioritize robust testing and contact tracing in correctional facilities.**
- **Restrict all non-essential movement in and out of facilities,** including halting new admissions when possible. If not possible, new admissions should be quarantined for two weeks with as few people housed per cell as possible prior to being introduced into the prison population.
- **Greatly enhance resident communication with friends and family outside of prison** while temporarily eliminating in-person contacts.
- **Allow emergency credentialing of nearby hospital healthcare professionals in anticipation of need.**

UPDATED GUIDANCE: Cohorting, Population Reduction, Testing, and Information Sharing

In light of recent developments surrounding the spread of COVID-19 in U.S. correctional facilities and accumulating knowledge regarding the unique risk of widespread COVID-19 transmission in congregate living environments, we reassert the relevance and importance of our guidance provided on March 23 and summarized above.

We expand on that guidance with the following urgent recommendations:

(1) **Cohort populations in facilities with one or more confirmed COVID-19 case (resident or staff) into mini-communities of as few people as possible and maintain absolute social distancing between cohorts.** Cohorting to contain infectious disease outbreak is long-practiced, evidence-based, and a hallmark of CDC infection control guidelines for residential settings. Cohorting at the household-level, or a "stay-at-home order", is the community standard for reducing risk of transmission in most U.S. jurisdictions. Some critical components of effective cohorting in correctional settings include:

   a. Cohorts should be no larger than could be cared for by the facility and/or surrounding healthcare systems should every member of a cohort be infected. We estimate that very few correctional facilities, if any, have access to sufficient healthcare resources to allow for cohorts of larger than 10 people, though optimal cohort sizes may differ by facility.

   b. Cohorts should be based on existing housing assignments; suitable space should be secured through the use of population reduction (see #2, below). Undertaking population movements to arrange cohorts for the purpose of infection control at this late stage in the COVID-19 epidemic is likely counter-productive and could undermine the health and safety of all people living and working in the correctional system in question. People should only be moved into *new* cohorts – meaning cohorts outside of their current housing unit area – if they are going into centralized quarantine or medical isolation because they are suspected or confirmed

[2] We have provided additional, detailed guidance on the appropriate implementation of medical isolation and quarantine in a context where punitive solitary confinement may deter symptom reporting. As we discuss below, emerging evidence suggests that centralized quarantine of patients and their close contacts may be essential in slowing the spread of disease. These findings point to the importance of cohorting to dramatically reduce the number of contacts infected people have.

of being infected OR if they are living in a dormitory or tiered environment that cannot be made safe using population reduction, in which case as few people as possible should be moved - and they should be moved together to the extent possible and with a clear, public-health oriented rationale.

c. Cohorts should be separated from each other by as much space as recent studies suggest is needed to minimize the spread of infection, this should be updated as new information becomes available. Partitions are not suitable substitutes for adequate space.

   i. Based on evidence from China and South Korea, and on current guidance for U.S. nursing homes, it is evident that six feet of separation between cohorts is insufficient to contain the spread of disease for people who are living in close quarters or maintaining sustained contact. *Social distancing by six feet is the recommendation when one cannot avoid being in close proximity to other people for short periods of time,* such as when in a store. To protect against the rapid spread of infection, cohorts of people living in shared housing require total separation from other cohorts for general living, including sleeping, eating, and waiting or recreating. *The community standard for these activities is the distance between households*. While the optimal amount of space between cohorts in a jail or prison setting is not known, preliminary evidence showing the aerosol distribution of coronavirus over at least 13 feet suggests that a minimum of 13 feet between cohorts in every direction at all times is needed. This should include 13 feet of separation from shared walkways and during recreation time. Additional separation may be appropriate in poorly ventilated areas or where air is re-circulating.

   ii. Partitions and practices like sleeping head to foot on nearby beds are insufficient measures – and likely of little use - to guard against the spread of disease between cohorts.

d. As is the standard practice when cohorting in residential healthcare settings, alter staff and daily routines in order to maintain effective cohorting. Ideally, a specific security staff would be assigned to each cohort. Security staff should not transfer between cohorts.

e. All shared-use inside space – such as day rooms, dining rooms, bathrooms, showers – should be thoroughly cleaned and disinfected between use by different cohorts (a better option is for each cohort to have its own restroom).

f. Emerging evidence suggests that centralized isolation of patients and quarantine of their close contacts may be an essential tool in slowing the spread of disease. A recently released study measuring the effects of a range of public health measures implemented in Wuhan during its outbreak found that centralized isolation and quarantine contributed to reductions in transmissions across multiple settings (within households, in healthcare settings, in the community). These findings point to the importance of cohorting in such crowded, congregate living environments as exist in prisons and jails in order to dramatically reduce the number of contacts infected people might have and "buy time" to respond to an outbreak using quarantine and medical isolation wings before infection sweeps through the population, as it did recently in two Ohio prisons reporting 78% and 75% infection rates.

   Cohorting is thus advised in both tier ("cell block") and dormitory settings. In order to ensure suitable space and staffing to effectively cohort in either setting, substantial numbers of empty cells / beds are needed (see #2), meaning many dormitory settings will only be large enough or have sufficient capacity for 1 or 2 cohorts. Note that while transmission by large droplets appears to be the dominant form of transmission in the community, the role of aerosol transmission is of increasing importance for people who are in close proximity with each other for extended periods of time with limited ventilation or with recirculating air. Thus, if it is not possible for walls to reduce air mixing between cohorts then further reduction in occupancy will be required. Additional measures to reduce risk (temporary floor-to-ceiling walls, increased ventilation creating negative pressure, etc.) may also need to be considered.

(2) **Release substantial numbers of people from facilities operating near, at, or above bed capacity.** In facilities that have one or more reported cases of COVID-19 (staff or resident), populations should be immediately reduced so that such cohorted living conditions as described above can be achieved. Given the high rates of asymptomatic spread throughout the US, such population reduction should ideally be started *before* a reported case occurs inside a correctional facility. We estimate that the *maximum* capacity at which most correctional facilities could operate while faithfully implementing an effective cohorting intervention for infection control is rarely more than 80%. (This estimation is based on the assumption that a facility using cohorts of 10 people requires at least one "empty bed" on either "side" of the cohort, or one empty bed for every 5 people [20% vacancy]. If this allowance does not translate into sufficient distance then further population reduction would be required.) Lowering operating capacity beyond this target will further benefit infection control.

Fortunately, U.S. correctional systems could achieve 80% or lower bed capacity in most if not all of their facilities at little to no increased risk to public safety – and all state or city/county executives (Governors and Mayors) have the power to immediately achieve that outcome. We note that population reduction can be achieved using alternative custody or community corrections measures - such as parole, home confinement, or electronic monitoring - as is currently underway in the Federal Bureau of Prisons. In considering whom to release, we recommend factoring an individual's risk of becoming infected and the individual's risk of developing serious illness if infected. For the former it is important to prioritize those who cannot be housed in small cohorts that are effectively isolated from other cohorts (assuming that following release the person will not be in a similar congregate housing environment). For the latter, the older the patient and the greater the number of pre-existing medical conditions, the higher the priority. Such infection/severity risk will need to be assessed in tandem with the security risk associated with releasing that particular person. However, New York City reduced its jail population by 30% in response to COVID-19 and only 2% of those released people have been re-arrested as of this writing.

We recommend consideration of the following for rapid public health-focused population reduction:

a. **Residents with a release/parole date in the next ~two years and a clean disciplinary record for the last ~two years.** Systems should use some combination of proximity to likely release and "good behavior" while incarcerated to accelerate release for a large number of people who will be returning to the community in the near future anyway and have not participated in any recent behavior while incarcerated to suggest that they are a substantial threat to public safety (now as opposed to two years from now). We recommend a "2 and 2" approach (within two years of release with two years of good behavior) as the most stringent rubric that could be applied to achieve the degree of population reduction needed to mitigate COVID-19 spread, although a less stringent rubric could also be used.

This approach may seem daunting or politically difficult, but only if ignoring the substantial annual population turnover that already exists within U.S. state prison populations. In 2017, the most recent year for which data are available, nearly 600,000 people were released from state prisons. For example, in California, more than 36,000 people were released that year, a small increase from the 34,000 who were released in 2016 (see here, Table 7). Thus, an estimated 70,000 people are likely to be released from California prisons within the next two years. The considerable numbers of people who could be immediately and safely released to the community is borne out by a small-scale effort recently undertaken by the California Department of Corrections and Rehabilitation when they released approximately 3,500 residents using the following criteria: "inmates *with 60 days or less* remaining on their sentence (as of March 30, 2020) who are not serving a current term for a violent felony, or for a domestic violence offense, and are not required to register as a sex offender" [*emphasis* ours]. These criteria – which are very stringent yet applied to at least 3,500 incarcerated people - preclude the immediate release of anyone meeting those same criminological criteria who have an expected release date of June 1, 2020 or later. California's

approach does not provide a rationale for the presumed public safety threat posed by those with 61 days or more remaining on their sentence, yet the 3% reduction of an already overcrowded population does far too little to reduce risk of infection for the remaining approximately 120,000 residents and tens of thousands of employees. As of this writing, California prisons have confirmed infections in 316 residents (out of just 1,494 tests) and 156 staff, from which 19 and 9 deaths respectively may be expected given the observed case-fatality ratio at current U.S. testing levels.

b. **Residents age 50 and over.** Older age is associated with a significantly lower likelihood of recidivism. Older age is also the most important risk factor for hospitalization and death following infection with COVID-19. One in four prisoners (>30,000 people) in California is age 50 or older. Given their high risk of profoundly poor outcomes with COVID-19 infection, residents of older age who do not meet the "2 and 2" criteria described above (because they have not been incarcerated for two years or are not eligible for release in the next two years) should be nonetheless evaluated for immediate release.

c. **Women.** Women have lower recidivism rates than men and are far less likely to be serving time for a violent crime. Among those who are incarcerated for violent crime, acting in self-defense and/or being a victim of violence is common. The U.S. incarcerates women at a rate (133 per 100,000) nearly 10x the nearest NATO country (Portugal, 15 per 100,000). Women who do not meet the "2 and 2" criteria described above (for example, because they have not been incarcerated for two years or are not eligible for release in the next two years) should be considered for immediate release.

d. **Residents who are not scheduled for release in the near future but have lived multiple years without disciplinary misconducts.** In many systems, the benefits of good behavior are far slower to accrue than are the (often disproportionate) penalties that follow rule violations. In the California prison system, for example, a 2019 Legislative Analyst's Office report found that the state's "Inmate Classification System" is biased in favor of placing people in more restrictive environments by systematically excluding classes of individuals from the lowest security levels (including those with more than five years left to serve) and disproportionately penalizing people who commit minor behavioral infractions. Such systemic bias creates the false impression that people who have lived successfully and without disciplinary infractions for years are not yet ready to safely return to the community. In the current COVID-19 pandemic, when smart and safe population reduction efforts are likely to directly result in fewer deaths among remaining residents, correctional staff, and those living in surrounding communities, it is important to release people whose ongoing incarceration serves only to undermine public health.

All released people should have a housing plan that allows compliance with current public health measures in their jurisdiction. Those without housing should receive enhanced discharge planning. People should not be released to homelessness. Some jurisdictions, like California, have taken a "housing first" approach to promoting public health during the COVID-19 epidemic by reducing homelessness. These resources should be made available to those releasing from jails and prisons who require them for safe post-release housing. Mobilization (and likely increased funding) of a vast network of existing community-based organizations will be needed to meet this urgent demand.

(3) **Rapidly scale up local testing in response to suspected or confirmed cases.** Emerging evidence from correctional settings suggests that, like in nursing homes, early confirmed cases often represent the "tip of the iceberg" of infection. When universal testing was prompted in two Ohio prisons by an apparent surge of infection, it revealed infection rates of 78% and 75% among residents and over 225 staff infections (one of which has resulted in a staff death). This emerging pattern roughly corresponds to trends in nursing homes, where testing has been slow to keep up with the rapidly rising rates of infection, hospitalization, and death. In response, on April 2, all long-term care facilities were required to implement regular symptom screening for all, including daily temperature checks for residents. As of April 19, U.S. nursing homes are required to report cases directly

to CDC and inform residents and their families or representatives of COVID-19 cases in their facilities. Outside of a few correctional systems that have ramped up testing in recent days, screening and testing in U.S. jails and prisons appear poised to trail the pace of infection, giving up a vital infection control opportunity. As testing capacity increases, jails and prisons should be prioritized for testing, including universal testing where infections (resident or staff) have already been identified. Short of universal testing in all correctional facilities, here are some steps that correctional systems should take to ensure that screening and testing reduce COVID-19's impact rather than simply describe its unfettered course:

a. Administer symptom screening for all (residents and staff).

b. Test everyone (residents and staff) with signs or symptoms of COVID-19 infection and isolate them until test results are returned (confirmed resident cases should be cohorted in a centralized isolation area at the same facility; confirmed staff cases should be isolated at home when possible or at another venue).

c. Use testing to determine when a case is no longer infectious and the person can be returned to their previous housing / employees can return to work. The use of testing for this purpose will accelerate people's return to prior housing / employment as the CDC's non-test-based critiera for return require at least 3 days without a fever (not using medication), 3 days of improving respiratory symptoms, and 7 days since symptom onset. The CDC's criteria for test-based determinations of "recovery" are:

   i. Resolution of fever without the use of fever-reducing medications **and**

   ii. Improvement in respiratory symptoms (e.g., cough, shortness of breath), **and**

   iii. Negative results of an FDA Emergency Use Authorized COVID-19 molecular assay for detection of SARS-CoV-2 RNA from at least two consecutive nasopharyngeal swab specimens collected ≥24 hours apart (total of two negative specimens)

d. Periodically test all residents undergoing aerosol generating procedures (like CPAP); provide housing for such residents with even less likelihood of air circulating into adjacent housing areas.

e. In settings of a large-scale outbreak, test everyone who could be potentially exposed to the outbreak (which is usually everyone in the facility) irrespective of symptoms as is the community standard for nursing homes. The appropriate threshold for a "large scale outbreak" that should trigger a universal testing response has not been established, however recent experiences in prisons in the federal Bureau of Prisons, Ohio, Michigan, and elsewhere suggest that universal testing immediately following the appearance of even a small number of confirmed cases (e.g. in the single digits) may be needed to effectively contain infection using contact tracing and centralized quarantine.

As the COVID-19 epidemic sweeps into correctional institutions around the nation, these critical actions must be urgently prioritized by system and political leaders in order to avert a health and humanitarian disaster among incarcerated people and the law enforcement, health, and administrative professionals who work in corrections: population reduction, cohorting, testing, isolation and quarantine. Based on all available evidence as of this writing, we advise all people in positions to advance progress along these first-line public health initiatives to do so. Note that existing guidelines on isolation and quarantine of known cases do little good if there are untested (potentially asymptomatic) infected people transmitting the virus in the general population. Because a high proportion of infected persons, especially in young populations, have no or mild symptoms, it is especially important to assume that when symptomatic people are identified as infected with SARS-COV-2 that there are other infected people in the population.

Other people – including community-based public health and medical experts and practitioners, advocates, labor organizers – can provide another vital service: educating correctional residents and staff about COVID-19, how it is transmitted, what protective measures every person can take, and what measures are appropriate for those experiencing symptoms, awaiting testing results, or confirmed negative or positive following a test. Within correctional systems, all residents and staff require a comprehensive understanding of the policies and

practices being employed in response to the COVID-19 pandemic and trusted resources must be made available to address prevailing misconceptions on an ongoing basis. We continue to hear from residents and correctional staff – uniformed officers and health care providers around the country – who lack the basic information they need to faithfully comply with standard public health practices and help reduce the spread of infection in their homes and workplaces. **Overall, a lack of regular, useful communication from correctional agency leadership to staff and residents inside facilities is common in systems across the country and must be resolved if we are to avoid the scenario in which the worst of COVID-19 in the U.S. is visited upon incarcerated people and the men and women who watch over them.**

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Amend at UCSF is a health-focused correctional culture change program led by experts in medicine, infectious diseases, public health, and correctional health and policy that is providing correctional leaders, policymakers, and advocates the evidence-based tools they need to protect the health and dignity of those who live and work in jails and prisons during the COVID-19 pandemic.

The University of California, Berkeley School of Public Health is working on the leading edge of research, educating the public, and mobilizing to serve California's most vulnerable populations during the COVID-19 pandemic.

For more information:

https://amend.us

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