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15 UNITED STATES DISTRICT COURT
 16 FOR THE CENTRAL DISTRICT OF CALIFORNIA
 17 WESTERN DIVISION

18 LANCE AARON WILSON; *et al.*,
 19 Plaintiff-Petitioners,
 20 v.
 21 FELICIA L. PONCE, *et al.*,
 22 Defendant-Respondents.

No. CV 20-4451-MWF-PVC

**NOTICE OF FILING OF REPORT OF
 DR. MICHAEL ROWE**

*[Filed pursuant to the Court's
 July 14, 2020 order (ECF No. 58)]*

Honorable Michael W. Fitzgerald
 United States District Judge

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1 Pursuant to the Court's July 14, 2020 order, Respondents hereby submit the
2 attached report of Dr. Michael Rowe, who was appointed by the Court under Federal
3 Rule of Evidence 706. (ECF No. 58 at 12-13.)
4

5 Dated: August 24, 2020

Respectfully submitted,

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**REPORT ON CURRENT MANAGEMENT AND FUTURE RISKS
ASSOCIATED WITH COVID-19 INFECTION AT
FCI TERMINAL ISLAND
San Pedro, California**

Michael Rowe, MD

August 24, 2020

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FOREWORD

The following is a summary of the observations, findings, and recommendations of Michael Rowe, MD following an assessment of the current status of the COVID-19 response and ongoing management at the Federal Correctional Institution, Terminal Island in San Pedro, California. This investigation was conducted beginning on July 14, 2020.

Beginning in approximately December 2019, the SARS Cov-2 (COVID-19) pandemic spread internationally and across the United States. It is currently estimated that there have been over 20 million cases globally and over 700 thousand deaths. In the United States, there have been over 5 million cases and greater than 160 thousand deaths.¹ On March 19, 2020, the first Bureau of Prisons (BOP) staff person in the nation tested positive for the virus. On March 21, 2020, the first incarcerated person in the BOP system tested positive for the virus.

On March 27, 2020 the first staff person at FCI Terminal Island became symptomatic and, subsequently, tested positive for the virus on April 2, 2020. The first incarcerated resident at FCI-TI became symptomatic 4/2/2020 and tested positive based on a test done on April 7, 2020. Over the next weeks, the virus spread extensively throughout the facility. The first resident of FCI-TI was placed on a ventilator for respiratory failure on April 13, 2020 and subsequently became the first to die as a result of COVID-19 infection on April 19, 2020. Ultimately (with a current population of about 930), 642 incarcerated residents have tested positive, 40 were hospitalized with severe manifestations of the disease, and 10 incarcerated residents have died as a result of COVID-19 infection.² In addition, 23 members of the staff were found to be positive though none have died.³

On 5/16/20, a complaint was filed in US District Court in the Central District of California, Western Division by attorneys representing 3 plaintiffs at FCI Terminal Island in response to conditions at that time at the prison as a result of the outbreak.⁴ On 7/14/20, an order in the case was issued in which this author was appointed as an expert⁵ to conduct an independent site visit and to prepare a report discussing the current status and management of the COVID-19 outbreak to the Court.⁶

¹ Johns Hopkins University COVID-19 Dashboard. Accessed 8/11/20 from <https://coronavirus.jhu.edu/map.html>

² BOP0001188-BOP0001204 (all BOP numbered references refer to documents provided by the Government in response to requests by plaintiffs and subsequently by me in preparation for my visit)

³ BOP0001131-BOP0001187

⁴ *Lance Aaron Wilson v. Felicia L. Ponce, et al.* CV 20-4451 "Class Action for Declaratory Relief and Petition for Writ of Habeas Corpus"

⁵ See Michael Rowe, MD Curriculum Vitae

⁶ *Wilson v. Ponce* CV 20-4451 (2020, July 14). "Order re: Supplemental Memorandum in Support of Ex Parte Application for Temporary Restraining Order and Order to Show Cause re: Preliminary Injunction"

INTRODUCTION

Without question, the Terminal Island facility was not prepared for the COVID-19 outbreak which occurred this spring. This is similar to the lack of preparedness of most governmental and institutional entities in the United States (and elsewhere) during this same period and which continue to varying degrees. There have been multiple outbreaks in jails, prisons, and detention centers across the country. Most have involved rapid spread of infection through the population as well as sickening many staff and have resulted in severe illness and deaths.

Population reduction has been the initial focus of many of the attempts nationwide to ameliorate the harm resulting from this situation. Every individual protected from harm is a huge positive step. However, even if the majority of eligible detained individuals were released, it's substantially unlikely that the remaining incarcerated population levels would be sufficiently low to eliminate the need for a multifaceted, complex, robust, and extremely challenging response on the part of these institutions.

Social distancing in order to decrease spread of the virus through airborne spread is one of the cornerstones of the attempts to decrease spread. Correctional institutions are, intrinsically, not designed to provide adequate social distancing. However, social distancing, even if possible, is insufficient to accomplish the goal of protecting the incarcerated population from spread. Consequently, every effort must be made to mitigate harm by instituting an array of new policies and procedures in response to COVID-19. The multiple possible ways the virus can be introduced into an incarcerated population, and then spread rapidly if that has occurred, make this very difficult but not impossible. This is not a binary situation where a facility is either doing well or badly. All the necessary measures occur on a gradient where constant movement in a constructive direction is required.

Attempts must be made to think creatively about what is possible in the setting of a particular institution. Formal recommendations from the CDC and other expert groups and even those from the Bureau of Prisons need to be refined and adjusted for most effective application in the context of the unique architectural, procedural, and population constraints at a given facility. Then, attention to detail must be maintained constantly by leadership, staff, and also the resident population to ensure compliance and discipline with the local guidelines for a prolonged period. This may last several years until an effective vaccine is developed, distributed, and administered in sufficient quantity to halt or minimize further spread of the virus.

COVID-fatigue is a real and dangerous phenomenon. As the tedium of observing all the many requisite measures accumulates, there is less and less motivation to remain disciplined. As compliance slips little by little over time, particularly with no negative consequences such as a personal infection or an institutional outbreak, this may be interpreted (even if not consciously) as validation of the acceptability of ever more eroded protective measures. Additionally, the outbreak and constant threat is demoralizing and stressful for all concerned and depression and nihilism may also result.

In a setting which is already defined by deprivation, such as in a prison, the further loss of privileges, activities, education, social contacts with family, and so on, the price of avoiding illness and even death may become too high for some to warrant the continued observation of tiresome, scrupulous measures to forestall what may slowly become more and more of an abstraction. It is ironic that, because of these phenomena, successful prevention of another outbreak will contribute over time to greater and greater risk of a recurrence. This poses

substantial risk for the residents of the prison as well as to the staff, their families, and ultimately the community at large.

To counter these tendencies, several things must be accomplished. One of these is repeated, thorough, informed education for staff as well as the entire resident population. Open forums for questions and discussion of all the various issues is part of this. Creating a sense of personal investment on the part of residents who are already told what to do and what not to in a myriad of ways by the administration is difficult but necessary.

Suggestions for different ways to do things to lessen the burden and institute more effective responses must be sought from all quarters including the incarcerated individuals who are bearing the greatest burden as a result of these measures. As with many workplaces as well as community settings, unexpected and potentially useful ideas will often be generated by those at the bottom of the hierarchy due to their intimate familiarity with the way things actually function. This requires soliciting input from line staff of all types as well as from the population. Obviously, this will not be sufficient without ongoing and active professional involvement from experts inside and outside of the organization. Maintaining relationships with local public health experts will be key along with the ongoing input from the staff at the Western Regional HQ is vital.

The prison remains and will remain constantly teetering on the brink of a recurrent outbreak, as with so many communities and institutions. Much of the population is high risk for severe complications and death from this infection. Assessing the institution's functioning and preparedness for further cases and another outbreak is complicated by the many ways that infections can be introduced and then spread. Every interaction and process will, ideally, be scrutinized ranging from use of appropriate OSHA approved disinfectants to the complexities of individual medical care over time. The individuals who can accomplish this most effectively already work and also live at the prison. My observations can serve to focus attention on areas needing revision, but creatively managing the ongoing maintenance and continuing improvement of the COVID-19 response over time will be their responsibility.

OVERVIEW OF THE OUTBREAK

The global COVID-19 pandemic arrived in the United States in January 2020. In the following months, there were (and continue to be) numerous gaps in the full understanding of and appreciation for the potential impact on communities and institutions of all types. Partly this has been due to slowly evolving understandings of the disease and its spread and partly this has been due to institutional lags at all levels in implementation of measures to manage the outbreak. This is not news and has occurred at all levels of government.

In response to the spread of the virus, the Federal Bureau of Prisons published a "Phase 1 Action Plan" (document not available to me) which established a task force to create a plan for the organization in responding to the possibility of spread of the virus within their facilities. On March 13, 2020, a Phase Two Action Plan was disseminated.⁷ This guidance suspended visiting and other entry into the facilities as well as most transfers between institutions in the BOP system. Facilities in areas with "sustained community transmission" were to institute entry screening for staff including temperature checks and questions regarding a (then) limited number of potential symptoms of the infection. New resident arrivals were to be screened along with asymptomatic residents with "exposure to risk factors". Symptomatic residents with exposure risk factors were to be isolated and tested. Wardens were to implement modified operations to "maximize social distancing" (e.g., staggering meal and recreation times).

On March 14, 2020, the Warden of FCI Terminal Island issued a memorandum for the resident population regarding COVID-19. This addressed intake screening, quarantine and isolation practices, and restrictions on visiting and transfers.⁸

The Centers for Disease Control and Prevention issued its first guidance related to COVID-19 in Correctional and Detention Facilities on March 23, 2020.⁹ This document focused on preventing introduction into the institutions with symptom and fever-based screening on entry and limiting movement between facilities. They also reviewed preventing spread within an institution with whatever social distancing could be accomplished, appropriate personal hygiene, intensified cleaning and disinfection strategies, isolation of symptomatic "suspects" and confirmed cases, and quarantine of those in close contact with possibly infected individuals.

Despite acknowledging that "many individuals infected with COVID-19 do not display symptoms", use of masks was not emphasized unless symptomatic. Individuals in quarantine for 14 days while being monitored for symptoms (based on close contact with an infected individual) were advised to wear masks "if feasible based on local supply". Asymptomatic individuals in routine intake quarantine were explicitly exempted from the recommendation to wear masks. Testing was only recommended at that time for symptomatic persons.

On April 3, 2020 the CDC issued general guidance on use of cloth face coverings to decrease spread from asymptomatic infected individuals "where other social distancing

⁷ BOP0000966-969

⁸ BOP0001165-1166

⁹ CDC (2020, March 23). *Interim Guidance on Management of Coronavirus Disease (COVID-19) in Correctional and Detention Facilities*. Retrieved May 19, 2020. Link no longer available.

measures are difficult to maintain".¹⁰ The BOP Phase Six Action Plan (April 13,2020)¹¹ first specified that "all staff and residents will be issued and strongly encouraged to wear an appropriate face covering in public areas when social distancing cannot be achieved. On April 10, 2020 the Warden at FCI-Terminal Island issued "Talking Points" which instructed that the resident population "must wear your mask when not sleeping or eating."¹²

(Since April, there have been multiple updates and additional guidance documents from the CDC directed at correctional institutions as well as many others addressing most aspects of the COVID-19 response. The BOP has also issued additional Action Plan documents as understanding of the virus and its effects have evolved.)

As noted, the first staff person became symptomatic and tested positive for COVID-19 infection on April 2, 2020. The first resident became symptomatic and tested positive on April 7, 2020. Between April 7,2020 and April 22,2020, between 98 and 106 residents were tested out of which all but 10 were found to be infected.¹³ 15 of this infected group were hospitalized and 3 died as a result of the infection.

At that point, with additional consultation, support, and resources, waves of broad-based testing of the remainder of the population began and were repeated every 7-10 days for the next 3-4 weeks. Remarkably (for any setting), 100% of the residents accepted multiple rounds of testing. In just the first round of testing alone conducted across the institution during the last week of April, approximately 58% of the population tested positive.¹⁴

On April 12, 2020, the first temporary-duty (TDY) physician was assigned by the BOP Western Region to Terminal Island. Lt. Commander Jessica Figlenski NP (USPHS detailed to the BOP Western Region) and assigned as infection control consultant for FCI-Terminal Island arrived at Terminal Island on April 22, 2020. In addition, a Western Region Medical Asset Support (MAST) team of 9 public health personnel were deployed there on April 19, 2020. All of these individuals subsequently departed except Commander Figlenski who remains in close contact and continues to provide assistance.¹⁵

In late March or early April, Dr. Lello Tesema MD (a representative of the COVID-19 response team established at the Los Angeles County Department of Public Health who was assigned responsibility for correctional facilities in the County) made contact with FCI Terminal Island and began a liaison, primarily with Commander Figlenski. During the course of the outbreak, they had near daily phone conversations.¹⁶

During the period leading up to the group testing, when it became clear that there was a major outbreak unfolding, attempts were made to accomplish some increased social distancing and separate the population into cohorts by opening up ad hoc housing units in a warehouse not being used (as the on-site industrial work program, UNICOR, had been suspended) from

¹⁰ CDC (2020, April 3). *Use of Cloth Face Coverings to Help Slow the Spread of COVID-19*. Retrieved May 28, 2020. Link no longer available.

¹¹ BOP0001002-1007

¹² BOP0001169

¹³ BOP0001188-1204 (Population Covid Status) and BOP0001205-1215 (Mass Testing); Note, the range is due to some small discrepancies between these two spreadsheets.

¹⁴ This number is approximate due to some anomalies in the presentation of the data provided.

¹⁵ BOP0005333

¹⁶ Personal Communication Dr. Tesema, August 14, 2020.

April 21st to June 1, 2020 and a visiting room from April 22nd to June 15, 2020. Subsequently, the institution obtained large temporary Quonset huts from the Coast Guard which were used from April 27th to June 23, 2020 and have been retained by the facility on a permanent basis. If temporary bunks were to be spaced 6 feet apart in each of these temporary spaces, this would provide additional housing for 203 individuals.¹⁷ Since then, the UNICOR warehouse and visiting room facilities have been cleared. All of the approximately 932 residents are currently housed in conventional dormitory and cell-based housing units.

As more patients were hospitalized, and in response to the size of the outbreak, contacts were established between the Clinical Director and two local hospitals to which they referred patients needing hospitalization. One of these, Torrance Memorial Medical Center, established a dedicated 40 bed unit reserved for incarcerated individuals from the prison. This facility became the primary "COVID-19" hospital. Providence Medical Center in San Pedro was available for overflow and as a "step-down" for Torrance patients who were less acute (and no longer infectious) but who were still too ill to be discharged back to Terminal Island. Two residents have been at this hospital for a prolonged period pending either improvement or transfer to a higher-level BOP medical facility.¹⁸

As each round of broad-based testing was performed in late-April through May, those who tested positive were removed from the "negative" population cohorts and housed together. After 3 rounds of broad-based ("mass") testing, at the advice of the LA County DPH consultants, only representative samples of the remaining negative population were tested until no more positives were found.

Since that time, there have been no further symptomatic infections or new COVID-19 related hospitalizations or deaths. The institution has maintained the entire population in their multiple separated housing unit cohorts. None of the temporary housing is being used at present though is still available if necessary. The population has been separated into two broad categories. One is considered to be "recovered" and therefore immune (though this may not be correct). The others were deemed "negative" and presumed to be still at risk of contracting the infection. Programming, work, visiting, and all other group activities have remained suspended.

¹⁷ BOP0005334

¹⁸ Personal communication with the FCI-TI Clinical Director.

FCI TERMINAL ISLAND DESCRIPTION

General

The Federal prison at Terminal Island lies within San Pedro, a community within the city of Los Angeles, California. At the time of my site visit on August 3, 2020, there were 932 people incarcerated at the facility.¹⁹ Their current rated capacity is, officially, 779 so even after some reduction, they remain about 20% over capacity. The new proposed rated capacity is 817 (though, apparently, that incorporates a goal of reducing the actual population further).²⁰ The facility has been designated for Care Level 3 residents by the Bureau of Prisons. These are “outpatients who have complex, and usually chronic medical or mental health conditions and who require frequent clinical contacts to maintain control or stability of their condition, or to prevent hospitalizations or complications”.²¹ In addition, there are a number of individuals in the population assigned there for a substance abuse program not necessarily based on their underlying medical conditions, though they may also have these.

Population Risk Profile

Increasing age has been identified by the Centers for Disease Control and Prevention (CDC) as a risk factor for severe complications of COVID-19 infection in a continuous manner (i.e., no sharp cut-off below which risk is substantially lower).²² As of July 24, 2020, the age breakdown of the prison population included 333 patients with an age ≥ 50 of which 94 were in their 60’s, 34 in their 70’s, and one over 80.

Similarly, a number of chronic conditions have been defined as increasing risk for severe disease as well. The breakdown of chronic medical conditions in the population included 193 with hypertension, 86 with Type II Diabetes, 66 patients had asthma, 59 were categorized as obese, 56 had chronic viral hepatitis, 23 had been diagnosed as having chronic kidney disease (CKD), 18 had chronic obstructive pulmonary disease (COPD), 15 were on immunosuppressive medications, 15 with heart failure, 9 with cardiomyopathy, 8 had undergone invasive interventions for coronary artery disease, and there were a number of other conditions which have been identified as increasing COVID-19 risk.²³ Of these, many had multiple conditions simultaneously increasing risk further.

Housing

Housing at FCI-TI is distributed among 10 units. These include 5 open dormitory-style housing units (A,B,C, D, K) with a total capacity of 614 people in bunk beds which are approximately 2 ½ feet apart. J housing unit is divided into 6 "ranges" (separate wings) of 2-

¹⁹ Personal communication, Warden Felicia Ponce. All subsequent references to information from the Warden refer to verbal communications during the site visit.

²⁰ BOP0005332

²¹ Federal Bureau of Prisons Clinical Guidance May 2019; *Care Level Classification for Medical and Mental Health Conditions or Disabilities*

²² CDC (2020, July 30). *People with Certain Medical Conditions*. Retrieved August 12,2020, from: <https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-with-medical-conditions.html>

²³ BOP0001216-1218

person cells with doors with open bars as well as one open dormitory area. There are also 2 units composed of 2-bed cells (F,G) divided into ranges with unlocked solid doors for each cell so residents can move through common spaces on their own. All of the ranges and dormitory areas have their own bathroom and shower spaces and dayrooms. The ranges and dormitory areas in each of these general population housing units open, through a locked door, onto a lobby area from which residents exit the building.

One 2-bed cell unit (E) had formerly been a general population unit and has two floors each with 35 locking cells with solid doors and their own toilets and sinks. There is a separate shower area which is used by residents of the unit. Currently, the upper floor is being used for COVID-19 quarantine and the lower one is for COVID-19 isolation.

Lastly, there is the current SHU or Secure Housing Unit (Z) used for individuals with disciplinary infractions which contains seventy 2-bed cells and four 1-bed cells all of which have locked solid doors and their own toilet and sink facilities. Separate locked shower spaces are used here as well.

Healthcare

Facilities-FCI Terminal Island has a central infirmary unit called the Short Stay Unit (SSU) where individuals who are too ill to be in regular housing or for some reason need special treatment can be temporarily housed. This unit has 15 beds including one ADA accessible cell for one person, 2 cells which can be used for suicide watch or medical patients, three 2-bed cells, and two 3-bed cells. This unit is staffed around the clock by a nurse and Providers do rounds there, seeing patients as needed. In addition, there is a clinical area where exam rooms are used for seeing patients called the Health Services Unit (HSU). In addition, there are dental, radiology, and lab (only phlebotomy) services available in the HSU.

Staff-It was reported by institutional leadership that they continue to have unfilled healthcare positions. Currently, they have 3 MD's, 1 Nurse Practitioner, 7 RN's, 2 LVN's, 4 Paramedics, and one Medical Assistant. They report currently have a total of 8 vacancies in various healthcare staff categories.²⁴

²⁴ BOP0005334

SUMMARY OF FINDINGS

Note: This summary is based on the many findings specifically itemized (along with their related "concerns") in the far more detailed and inclusive Findings and Concerns section.

Terminal Island is in an unusual situation. Having gone through the massive outbreak in April and May, now there is almost no active virus in the institution other than two individuals in isolation, one of whom is probably not even infectious and the other will likely have met release criteria by the date of submission of this report. It currently gives the appearance of calm where, no doubt, there was organizational frenzy just a few months ago.

Despite this, huge risks remain. As discussed in the Challenges section, the potential for a devastating return of the outbreak remains. The portion of the population who was not infected remains at risk. The approximately 70% of the population which was infected may be immune for the moment but it's entirely possible that they will also become vulnerable once again as immunity wanes. If that will happen and, if so, how soon is not known. Additionally, influenza season will inevitably produce its own set of challenges as staff and residents become ill with symptoms which might be COVID-19 and need to be managed accordingly. Whether the BOP will be able to step up again and supplement the institution's response is unclear as there will be similar problems at multiple institutions as well as in the community, straining resources at the time they're needed most.

FCI Terminal Island has instituted many appropriate practices and, overall, is complying with the most current CDC recommendations for correctional facilities. They have benefited from close public health support both from within the BOP and from LA County. There still remain a number of areas which clearly require attention. Protecting against another outbreak is vital and needs to remain at the forefront of their ongoing efforts.

Findings based on document review, inspection of the facility, and interviews have been divided into several sections. The first regards the population known to be at risk and their characteristics. Even assuming that there is some period of immunity in the population deemed "recovered", there are still over 250 individuals who are clearly who are likely to have no immunity, many of whom have significant age and medical condition vulnerabilities to severe infection. This population is currently cohorted as a group making them more prone to having infection spread rapidly through their housing units.

The next section addresses practices to prevent introduction of infection into the facility. Screening of all staff upon entry has been implemented. The screening questions are not as thorough as they could be and, no doubt due to the repetitive nature of the process, they are frequently not addressed individually which may promote complacency. Use of face coverings by staff is widely observed though not always, unfortunately. Social distancing among staff was not observed at all. There appears to be an incomplete and potentially uncoordinated process for monitoring staff with symptoms which develop away from the workplace. Additionally, return to work criteria for individuals testing positive do not conform to CDC recommendations based on information provided.

There has been no workplace staff testing available or any requirement for broad-based testing of staff. In the absence of an on-site Occupational Health program (whether formal or ad hoc) there is no central resource for staff with questions about how to proceed in the face of close

contacts, possible symptoms, or positive tests in the community. Staff are expected to manage these issues with their personal health resources making consistency and accuracy difficult to monitor. With all visitors, volunteers, and other "non-essential" people still barred from the facility, the procedures addressing this group as a risk factor could not be observed. As reopening unfolds, this will become more of an issue. The same applies to the current restrictions on intake of new residents to the prison. Off-site excursions by the residents, whether to court or to medical consultations in the community have been quite limited as well but as they increase in number this will be a concern. The policy of quarantining residents after any off-site trip which may have exposed them to infection is an excellent one.

If these measures fail and members of the population become infected, limiting spread in a way that wasn't accomplished before will be critical. This is the third section of findings. Staff shortages are no longer as much of an issue as they were, but another outbreak will threaten that as will influenza season. This will compromise attempts to consistently cohort staff with housing cohorts. Rigorous monitoring of staff movements around the institution to avoid sequential assignments which risk carrying virus from an infected unit to one without infection is a goal but doesn't appear to have been actually implemented. PPE is described as being abundant and supply chains are considered robust enough for current or expected needs.

The resident population is well educated on the basics of the virus and its symptoms but there is little ongoing education, other than posters, on many aspects of the virus, immunity, and the resulting impact on programming and operations. Housing unit cohorts have been appropriately established which may help to insulate units from one another but it's unclear how long these "bubbles" can be maintained as the facility tries to reopen. There is no ongoing surveillance program for the population (whether symptom and temperature screening, testing, or both) making it likely that there will be a delay in response if another resident becomes infected.

Broad-based testing, which was key to helping to bring the outbreak to a close, remains a possibility and a large number of rapid point-of-care test kits are on-site. The turnaround time for the more accurate send-out tests is approximately 3 days, at present and lab resources are felt to be adequate. Whether sufficient healthcare staff will be available to implement a program like this remains to be seen. There is abundant space at present for appropriate individual quarantine and isolation and these programs are generally being run in accordance with recommendations. The practice of testing both on the way in and on the way out of quarantine is commendable.

Use of cloth face coverings by the population while in their housing units and most at risk of spreading virus is inconsistent (though compliance in public spaces is widespread) and there appears to be a breakdown in the process for obtaining replacement face coverings despite evidence for plentiful supplies. There is no social distancing possible in the dormitory units as currently configured and there is no social distancing being enforced elsewhere. Provision of liquid hand soap in the bathrooms as well as products for cleaning and disinfection of personal areas seems to vary from one housing unit to another and policies governing the using of surface disinfectant seem to be unclear and/or inconsistently implemented. There is little access to hand sanitizer by residents as it is available only in lobby areas outside the actual housing unit wings which makes it effectively unavailable much of the time. Nobody at the institution is currently housed in any of the available temporary spaces which were used during the outbreak so access to showers and bathroom facilities is no worse than at baseline. The actual practice of cleaning and disinfection of high touch areas and facilities was not observed though the policies themselves are appropriate.

The last area is the delivery of medical care. While not the central focus of this investigation, many aspects of this are related to COVID-19. Insufficient time was available for thorough review of, even the requested medical records, let alone a more comprehensive evaluation. Issues of interest would be emergency response and timely transfer of severely ill patients to outside hospitals, appropriate clinical monitoring of those who are sick but remain at the institution, potential breakdowns in care for pre-existing chronic illness, thorough assessment of individuals with new symptoms and, basically, the whole gamut of medical care in the current context. Of the few charts reviewed, some comments will be made but these are anecdotal and it cannot be determined whether they are a pattern of problem or exceptions.

Whereas there clearly (based on resident interviews) appear to have been problems with the process for sick call during the outbreak, this appears to be no longer the case. The clinical responses were a concern to many of the interviewees, but they were able to participate in sick call which is a first step. Charts for those with actual clinical concerns (as well as those regarding sick call follow-up) were requested but unfortunately not reviewed, as noted.

No facilities in the housing units for appropriate medical and nursing examinations and treatment have been established. This requires that residents proceed to the Health Services Unit or else these services are provided in ad hoc spaces in the housing units without privacy or appropriate facilities. Sick call takes place in the housing unit so there is also little or no privacy for this either, possibly creating a disincentive to reporting symptoms. At the same time, there is less movement of residents back and forth for these services, which is a plus.

The current Clinical Director has a large number of responsibilities including providing direct patient care, coordinating with outside hospitals on a daily basis at times, evaluating staff who fail screening upon entry, and reviewing and cosigning many clinical notes by other healthcare staff. In the absence of the Clinical Director, all of these complex and varied services would need to be provided by a contract employee or mid-level providers who, though likely competent to perform them, may not have experience with many of these tasks. Whereas it was reported that the institution was behind on compliance with BOP sick call referrals and chronic care appointments during the outbreak they assert that they are completely caught up at this point. Healthcare staff are considered to also be correctional officers and are used at times in non-healthcare positions potentially taxing healthcare resources but also creating ethical conflicts which could impede trust and the provision of care to the residents.

Copays by residents for healthcare visits have been suspended. The current status of the process for submitting healthcare grievances was not systematically assessed but residents report that they are currently able to obtain the forms they need and submit them for review.

CONCERNS

Note: These Concerns are extracted, essentially verbatim, from the larger Findings and Concerns section for more efficient review.

A) Current status of the COVID-19 Outbreak at the Institution

- 1) At least 30% of the FCI Terminal Island population remains at risk for COVID-19 infection and many are at significant risk for severe disease and possible death based on their age and risk factors.
- 2) Should the virus be introduced into the cohorted "negative" housing units as currently configured, it is likely that the infection would sweep through these units before anyone even became symptomatic and testing could be accomplished.
- 3) Plans for "reintegration" of negatives into the "recovered" population have not been formalized. As the science is not advanced enough to provide much guidance regarding the duration of immunity, these plans will have to be based on conjecture.
- 4) It is currently not known whether individuals who have had COVID-19 infection are immune to reinfection. Consequently, it cannot be known with certainty whether they would provide protective herd immunity for reintegrated "negative" residents or whether they themselves are vulnerable to reinfection if introduced into the facility.

B) Preventing Introduction into the Resident Population

- 1) **Staff Entry Screening**
 - i) The entry screening questionnaire does not fully reflect the CDC's current list of symptoms associated with the virus and, most importantly, contains no question about symptoms of fever and chills.
 - ii) The entry screening questionnaire is only intermittently reviewed with entering staff in detail and, otherwise, staff are just asked if there is "anything new" encouraging casual reporting.
 - iii) Interviewing both healthcare staff who participate as screeners and staff subjected to screening on arrival (and my own experience being screened twice) there is no catchall question about "other symptoms". Given the protean manifestations of COVID-19 infection, this would potentially identify some staff who may have active infection.
 - iv) Three staff members worked for between 1 and 6 days after symptomatic infection in late April.²⁵ According to institutional leadership at the time of my visit, these were discovered "retrospectively" after the staff members tested positive. It is unclear why they weren't picked up on symptom screening.
 - v) Not always having a dedicated staff person doing screening as their only function may compromise the screening process.

²⁵ BOP0001135; (TRM 12, 13, 14)

- vi) Outdoor screening is recommended to avoid the potential for viral spread from those waiting to be screened in indoor spaces so when staffing shortages dictate indoor screening, the risk of spread increases.
 - vii) Points of direct contact, such as those found in the entry process, where potentially numerous individuals will sequentially be touching the same surfaces, are potential sites of viral transmission.
 - viii) Personal assessment in real-time of individuals who fail screening by the Clinical Director may not be an adequate system, given the round the clock demands, if that individual were absent.
- 2) **Universal Staff Face Coverings**
- i) There appears to be incomplete "buy-in" and enforcement of use of face coverings by staff.
- 3) **Staff Social Distancing**
- i) There was no significant pattern of social distancing among staff.
- 4) **Staff with Close Contacts**
- i) It's unclear whether staff are aware of or reporting actual close contacts outside the institution based on the small sample size interviewed.
 - ii) As the strategy for allowing Critical Infrastructure Workers to continue working requires enhanced procedures including focused cleaning and disinfection, the institution would not be able to apply these recommendations if staff were not reporting symptoms.
- 5) **Staff with Symptoms**
- i) The allegation regarding staff working while symptomatic cannot be corroborated with the available information. Clearly, staff working while symptomatic is profoundly dangerous to the population and, if it was the case, would clearly violate CDC guidelines.
 - ii) There does not appear to be a clear procedure (or one that has been effectively communicated) for staff to notify the institution if they experienced symptoms consistent with COVID-19 infection while off-duty.
 - iii) This could result in relevant contact tracing being either delayed or impossible. For example, if a staff member went on vacation and developed symptoms (and didn't need to miss work) there appears to be no formal notification of the institution that has been effectively communicated if one exists.
 - iv) As influenza season approaches (along with increased transmission of other respiratory viruses, i.e. colds) it is extremely likely that many staff will have symptoms consistent with possible COVID-19 infection. This will likely lead to staff shortages and pressure to come to work while having symptoms which would normally be ignored.
 - v) Of the nine line-staff interviewed, only one was aware that they wouldn't have to use sick time in this situation. Consequently, this could potentially be a disincentive to reporting symptoms.

6) **Staff Testing Positive**

- i) It is unknown whether there were infectious staff still working driving the outbreak further.
- ii) In high-risk institutions (e.g. prisons), broad-based testing of staff is recommended in some circumstances (such as outbreaks). The only way to ensure that this is done in a reliable and coordinated fashion is if testing is provided on-site.
- iii) Any impediments to testing may result in underdiagnosis (and consequently impair institutional contact tracing).
- iv) It's unclear what staff who reside in other counties are to do as testing availability is inconsistent.
- v) In addition, turnaround time can be as much as a week or more at many locations in the community.
- vi) Apparently, EOC's will be standing down at some point. It is unclear who will be coordinating staff testing at that point.

7) **Occupational Health**

- i) There is no local occupational health program. Occupational health services are key to both increasing staff safety and decreasing spread into the population.²⁶ This can, to some degree, be accomplished by assigning an appropriate staff person to be a resource and coordinator if formal occupational health is not available.
- ii) Currently, staff appear to be generally on their own managing their relevant COVID-19 issues through their sources of private medical care in the community. This increases the chance that faulty medical guidance and recommendations in the community will abet introduction of virus into the institution.

8) **Return to Work**

- i) There doesn't appear to be central tracking of staff with symptoms and they, apparently, are under no obligation to get tested.
- ii) The return to work criteria for both of these (symptoms and tested) are contrary to CDC guidelines and substantially liable to introduce infection into the facility.²⁷
- iii) If a symptomatic staff person with COVID-19 infection were to be infected and not get tested, the criteria for coming out of isolation (not quarantine) is currently 10 days since the onset of symptoms, 24 hours since the last fever without antipyretic medication (e.g. acetaminophen or ibuprofen), and improvement in symptoms.
- iv) Anyone who tests positive is to remain in isolation (not quarantine) until they've met these same criteria (assuming that symptom-based release policies were being followed).

9) **Visitors, Volunteers, and Contractors**

- i) With reopening, numerous categories of non-staff with varying levels of relevant education and buy-in will be entering the institution. Some of these individuals may

²⁶ Annals of Internal Medicine (2020, July 27). *Occupational Health: A Key to the Control of COVID-19 in Correctional Facilities*. <https://doi.org/10.7326/M20-4543>

²⁷ CDC (2020, August 16). *When You Can be Around Others*. Retrieved August 22, 2020 from: <https://www.cdc.gov/coronavirus/2019-ncov/if-you-are-sick/end-home-isolation.html>

be reticent to divulge symptoms for a variety of reasons. This will increase the probability of outside introduction of virus into the facility.

- ii) On the spot education prior to entering the institution and, ideally, prior to screening as to the issues and procedures will be time consuming (as will entry screening itself). This will increase the likelihood that the process will become too casual to adequately serve the purpose intended.
- iii) The ability of FCI Terminal Island staff to adequately supervise compliance with masking and social distancing requirements for activities scattered around the institution (which don't necessarily have supervision under normal circumstances) may be limited.
- iv) Limiting visitors (and residents) sufficiently in the assigned visiting room will be difficult and take specific policies and procedures and active oversight by correctional staff.
- v) Contact visits have a high potential for introducing infection.
- vi) It's not clear that adequate spaces for programs will be widely available resulting in either overcrowding (in the context of social distancing) or restrictions on the available programs based on the requirement to reduce numbers of participants.

10) **New Intake**

- i) It isn't known how soon routine intake of new commitments or internal BOP transfers will commence. Currently, the institution has the capacity to quarantine a fairly large number of these arrivals, however, increased demands brought about by another outbreak would likely compromise this.

11) **Off-site Appointments**

- i) Given the hand-off to the USMS staff for outside court visits, the institution has little direct control over the movements and exposures of these residents. Consequently, it is possible that inappropriate reassurance would be provided by escort staff on return and they would then not be quarantined.
- ii) If more demands were placed on single cell isolation and quarantine spaces, this procedure might be compromised due to lack of available space.
- iii) While quarantine individuals after off-site appointments where they may have been exposed is an excellent procedure, there appears to be no documentation in the chart notes of the basis for the decision, particularly with the one individual with frequent ER visits.

C) **Preventing Spread of Infection within the Institution**

1) **Limiting Staff Movement within the Institution**

- i) It is recommended that staff cohort as much as possible with resident cohorts to avoid transferring virus from one cohort to another. This is not being rigorously implemented.
- ii) "Low to high" (traveling from sites of less infection to those with more) to avoid spreading) movement of staff is important for the same reasons.

- iii) The movement of healthcare staff from housing unit to housing unit, while possibly unavoidable given their relatively small numbers, poses significant risks for viral spread, particularly if stringent PPE practices are not followed.
- iv) If there were to be another outbreak or even just a large number of staff during influenza season with COVID-like symptoms, staffing could rapidly become short and this would then require multiple compromises with precautionary policies such as assigning staff to resident cohorts.

2) **Staffing Levels**

- i) If there were to be another outbreak or even just a large number of staff during influenza season with COVID-like symptoms, staffing could rapidly become short and this would then require multiple compromises with precautionary policies such as assigning staff to resident cohorts.
- ii) The availability of supplemental staff of any type may be limited in the future based on other organizational demands elsewhere.
- iii) The use of healthcare staff as supplemental correctional staff risks draining healthcare resources. Additionally, it raises concerns for ethical conflicts in the delivery of care.

3) **PPE**

- i) Availability of adequate supplies of PPE in the future will be vulnerable to competing demands from other BOP institutions, local community vendor shortages, and multiple potential breakdowns in the supply chain in the US and internationally.
- ii) The FDA is currently listing nationwide shortages in almost all categories of PPE.²⁸
- iii) As with all procedures, the longer staff go without having to use PPE the more likely they are to get the process wrong and risk personal infection or dissemination.
- iv) This concern particularly applies to staff assigned to new areas. Reading instructions (like reading post orders) is usually not sufficient for understanding complex procedures. Frequent re-training will be required.
- v) Close supervision by leadership will be required to ensure that appropriate PPE practices are in place for a variety of different settings within the institution.

4) **Resident Education**

- i) As education is key to gaining compliance and cooperation with the deprivations and requirements of managing the pandemic, it is concerning that signage appears to be the dominant mode of education as the many questions raised cannot be answered.
- ii) It appears that critical issues related to choices regarding re-integrating the "negative" population have not been adequately explained.
- iii) While residents often spoke highly of the Warden's Town Hall talks in the housing units, continuing education on the many medical issues surrounding the virus and the institutions responses from healthcare staff with expertise in these areas appears to have been more sporadic.

²⁸ Food and Drug Administration. (8/14/20). *Medical Device Shortages During the COVID-19 Public Health Emergency*. Retrieved 8/15/20 from: <https://www.fda.gov/medical-devices/coronavirus-covid-19-and-medical-devices/medical-device-shortages-during-covid-19-public-health-emergency>

iv) Complacency reflects insufficient education. It's as important for the population to understand what isn't known (presence and/or duration of immunity) as what is known.

5) **Limiting Resident Movement Within the Population**

- i) Healthcare contacts (sick call, nursing, and provider visits) are being performed in non-confidential settings.
- ii) There are no available medical exam rooms located in the housing units.
- iii) As the institution tries to reopen, increased mixing of cohorts (and possible elimination of cohorts) will occur, breaking down the compartmentalization of the population and promoting spread.
- iv) The desire to begin programming, work, education, and to reestablish suspended social relationships could result in insufficient caution regarding social distance measures.
- v) Even though there is little adequate social distancing within the current cohorts, once the population begins mixing it will become even more important. If not established beforehand to whatever degree possible, it will be much more difficult once the process begins.
- vi) Phlebotomy could actually be performed in housing units with appropriate accommodations but is currently requiring movement of individuals to the HSU.

6) **Population Medical Surveillance**

- i) With no ongoing program for active surveillance (i.e., education, clinical monitoring, testing). If a case were to occur in the population, there could be a delay in identification.
- ii) Sick call is not perceived as a vehicle for proactively screening for new symptoms in a housing unit. This puts the burden on the residents to be aware of what should immediately be reported and to whom.

7) **Testing**

- i) Another outbreak, even if just in the "negative" population could require between 500-1000 test kits depending on the number of positive tests in each wave of testing. (The less positives, the more tests are required in subsequent waves).
- ii) It's unclear whether that many test kits are immediately available and whether they will be available at the time needed, depending on conditions elsewhere in the BOP and the community.
- iii) Similarly, whether the laboratory used will be able to process that many tests and still be able to have a reasonable turnaround time will be dependent on external factors.
- iv) The arrival of influenza season will likely precipitate repeated testing as non-COVID illness present with similar symptoms. This will also be the case in the community and nationally, producing increased demands on testing resources.
- v) It is unlikely that broad-based testing would be possible with just the current healthcare staff assigned.
- vi) Enlistment of additional staff to perform testing is likely to result in individuals with less experience obtaining inadequate specimens resulting in false-negative tests.

vii) Patients not being told their results is inappropriate and can substantially compromise cooperation (as well as being clinically inappropriate).

8) **Isolation**

- i) A large outbreak or a large number of suspects with respiratory symptoms (as may occur during influenza season) may overwhelm the institution's capacity for single cell isolation and result in group cohorting.
- ii) Cohorting known isolation cases is not a problem but cohorting suspects in isolation is very likely to result in spread of infection to those who don't actually have COVID-19 should group cohorting be required.

9) **Quarantine**

- i) As noted elsewhere, if there were new cases, new suspects, or a full outbreak, it is very likely that individual cell quarantine capacity would be overwhelmed.
- ii) Cohorting quarantined individuals in groups makes it highly likely that infection would spread to uninfected residents (as with cohorting suspects together) and is an undesirable practice for that reason.
- iii) Testing capacity may not be sufficiently robust to minimize further spread if cohorting were required.

10) **Social Distancing**

- i) The current population density compromises this important goal.
- ii) Social distancing is functionally impossible in the current dormitory configuration.
- iii) The housing unit bathroom spaces are difficult spaces in which to achieve appropriate distance.
- iv) Even where social distancing could be accomplished, it isn't (e.g. sick call, phones, pill lines, etc.). This may reflect (and certainly engenders) nihilism on the part of the staff and population which is an unhelpful message to be conveying.
- v) It is likely that a lack of understanding of the additive benefits of face coverings and social distancing reflects inadequate education.

11) **Cloth Face Coverings**

- i) The significant lack of compliance with mask wearing in housing units (particularly when not actively supervised) suggests inadequate education on the potential for another outbreak and the importance of this and other protective measures.
- ii) The process to provide and replace masks is not functioning adequately.

12) **Personal Hygiene**

- a. In reality, the hand sanitizer is placed in the lobby between "ranges" and, consequently, is inaccessible to residents when in their actual housing unit.
- a. Additionally, this would make "frequent use of hand sanitizer" difficult for orderlies working inside the housing units as recommended in the FCI Terminal Island Sanitation Plan.²⁹
- b. As orderlies are supervised by correctional staff, there appears to be some variability in the amount and quality of supervision resulting in heterogenous practices.

²⁹ BOP0001115-1121

- c. Delays in repairing bathroom fixtures increase the density of use and may result in higher chances of viral spread if introduced into the unit.
- d. Not having tissues available increases the likelihood of viral spread on surfaces and potentially through the air (and is recommended by the CDC in correctional settings).

13) Cleaning and disinfection

- i) The apparent variation in cleaning and disinfection practices suggests that, between the housing units, there is some variability in supervision. Residents who either had been or were orderlies (one being a head orderly) felt that this wasn't surprising.
- ii) There appears to be a "personal" component to the distribution to residents of cleaning supplies by some orderlies at times possibly suggesting overly vague policies and inadequate supervision.
- iii) There is insufficient education (and supervision) of the orderlies on the different products used and their instructions. Identifying them by color ("the red one") isn't sufficient since, when suppliers and products change, they may appear different.
- iv) Lack of disinfectant for keyboards and telephones at any time is a potential means of viral transmission.
- v) There need to be heightened measures for disinfecting tools and equipment by workers. If and when the institution resumes more normal programming, there will be many areas where this is a concern.

D) Medical Care

1) Access to Care

- i) Whether the multiple sick call issues presented by residents reflect lapses in care or not, the perceptions of so many residents suggest that there is at least inadequate communication of plans following sick-call triage.
- ii) The lack of a log for sick call submissions and the absence of any documentation for residents to keep to and refer to in the future makes monitoring the quality of the sick call process difficult.
- iii) The lack of privacy for the sick call process may be a disincentive for individuals to openly discuss their medical issues, including possible symptoms of COVID-19 infection.
- iv) If copays are reinstated for some healthcare visits, this may be a disincentive for reporting symptoms.

2) General Clinical Issues

- i) The multiple duties of the Clinical Director, can during the unusual periods of an outbreak, have the potential to make accomplishing any one of them more difficult.
- ii) Contract physicians, no matter how experienced, may have difficulty immediately taking over these duties and, consequently, cause a lag in adequate management, both clinical and administrative.
- iii) Reviewing BOP policies, the opinion that Advance Directives and DNR status is not permitted appears to be a misunderstanding. While it is stipulated that there can be

- no DNR status within the institution, Advance Directives are available (and encouraged) and can include DNR/DNI wishes to be observed by outside medical staff as in the hospital.³⁰
- iv) Not enabling expression and documentation of these important healthcare decisions both disrespects patient autonomy and has the potential to waste scarce critical care resources in the community for patients who would not have wanted that type of treatment anyway.
 - v) While the institution may be able to manage with the current staff vacancies (though this wasn't really assessed), it is very likely that with any level of outbreak and, certainly, if staff again became affected, there would be significant problems monitoring the population and providing appropriate clinical care. If other BOP institutions and the community were also affected, additional support might not be available.
 - vi) Utilization of healthcare staff for correctional duties compromises medical autonomy and makes ethical performance of the relevant clinical responsibilities difficult if not impossible. When a healthcare provider (whether Nursing or Provider) is also tasked with and responsible for penological functions such as discipline and punishment (which is always implied by functioning in a correctional role), there can be no appropriate relationship with patients as these roles compromise patient-healthcare provider relationships.
 - vii) The additional logistic burdens in transporting potentially infected or infected individuals to another setting creates an incentive, as a result, to limit access to these kinds of routine or urgent medical evaluations and treatment.
- 3) **Chronic Care Illness**
- i) While chronic care issues could not be comprehensively addressed, it is important that, even in the face of an outbreak, pending appointments and follow-up of chronic medical conditions be tracked. At least chart review can then be accomplished and documented. Of the charts reviewed, this was not observed.
- 4) **Specific Clinical Issues found on Chart Review**
- i) Decreased availability of correctional staff may delay necessary transfers to the hospital potentially causing worse outcomes.
 - ii) Early and close follow-up of patients discharged from the hospital is imperative. Delays of a month after a complex hospitalization is inappropriate.
 - iii) A patient with dysphagia (difficulty swallowing) may have suffered an avoidable death as a result of aspiration pneumonia consequent to his continuing to be fed despite warnings from nursing that he was at risk.
 - iv) Lack of follow-up of necessary lab testing poses risk to patients.

³⁰ US DOJ, Federal BOP (2014, June 3). P6031.04 *Program Statement; Patient Care; 24-Serious Illness and Death Procedures, c.-Advance Directives and following*; Retrieved 8/14/20 from: https://www.bop.gov/policy/progstat/6031_004.pdf

RECOMMENDATIONS

PLANNING

1. Maintain robust relationships with relevant consultants including the LA County Department of Public Health and the relevant BOP Western Region staff.
2. The BOP Western Region should ensure adequately trained and experienced infection control staff remain available, so the same level of expertise as has been shown so far continues to be available to the institution even in the setting of possible multiple simultaneous outbreaks in the BOP system.
3. Continue reviewing evolving CDC guidance at the institutional level (currently done by the current infection control person) in order to timely implement new strategies without having to wait for formal guidance from the BOP.
4. Ensure that response plans are in place now for individual or multiple cases appearing in various locations in the population. Share this information and prepare with multidisciplinary teams.
5. The BOP should create a structure for COVID-19 "strike teams" to immediately respond to FCI Terminal Island (and any other institutions) as soon as cases appear in the population in order to assist in management and testing, and to replace key staff who may become unavailable.

REINTEGRATION

1. Begin as soon as possible to "sprinkle" the negative population back into the recovered one. There is no downside in terms of COVID-19. If there is no immunity following infection, the negatives will be no worse off. If there is immunity of any duration, they will benefit from the herd immunity for as long as it lasts.
2. Educate the entire population as fully as possible as to the underlying concepts and the rationale for the moves as well as the importance of continued vigilance for disease spread given the possibility of waning or no immunity.
3. Diligently work to spread the negatives as fully as possible through the recovered population in order to maximize their distance from each other and continue central tracking of their bed assignments over time to insure that the separation isn't compromised with subsequent bed moves.
4. Consider mounting plexiglass sheets on one side of each bunk (as has been done in many establishments in the community). This will decrease the risk of spread during times when masks are not worn (during hours of sleep) in these packed and relatively poorly ventilated spaces. The cost of this for all dormitory spaces to the BOP would probably be less than the reimbursement cost of one complex hospitalization.

REOPENING

1. Consider delaying reopening of the institution to additional outsiders as long as possible and to whatever degree possible. Consider waiting until after influenza season.
2. Ensure that rigorous entry screening is required for all those coming into the institution.
3. Create spaces, outdoors if possible, for all group activities including visiting.
4. Ensure social distancing is practiced in all program activities.
5. Ensure the disciplined use of face coverings is maintained in all program settings. Posting policies is insufficient to ensure this.
6. Once visiting resumes, ensure that compliance with use of cloth face coverings and social distancing is maintained. Thorough prior education of potential visitors (whether social or legal) will assist in obtaining compliance with the required measures.
7. Ensure that a supply of cloth face coverings is available to provide to visitors without them. This would be a minimal expense compared with the impact of having to turn away visitors.
8. Restrict contact visits and consumption of food or beverages during visiting as this requires removing face coverings.
9. Implement adjusted procedures for all work assignments including social distancing whenever possible, use of cloth face coverings at all times.
10. Vigorous cleaning and disinfection practices of all tools and equipment used.
11. Frequently monitor all of these locations throughout the day. Free-staff and volunteers cannot be counted on to either agree with these policies or to see that they're followed.
12. Avoid group dining unless sequenced in cohorts. Then, employ thorough cleaning and disinfection between groups.
13. Educate the resident population on the implications of another outbreak and the necessity for closing programming once again if that should occur. They are the ones with the most to lose so enlisting them in seeing that everyone maintains discipline with prevention measures is important.
14. Provide a non-punitive avenue for residents to report non-compliance with these requirements by staff and others entering the institution. These reports should be tracked and retained.
15. As off-site court and medical visits increase, continue to utilize "quarantine on return" for any resident who may have been exposed. If this becomes impossible due to volume, do not lose sight of the fact that testing (using any modality) on the day of exposure or for a few days are highly likely to be falsely negative. Consider quarantine and then a rapid test on day 3-5 after return to enable earlier release but be aware that this is a potentially risky strategy.
16. Continue to evaluate and re-evaluate all of these policies and seek out additional strategies and solutions in consultation with those with public health expertise.
17. If reopening is delayed, consider increasing Mental Health resources and surveillance of the population as adverse sequelae are likely for many members of the population.

INFLUENZA SEASON

1. Begin extensive education of both staff and the incarcerated population as to the vital importance of accepting the influenza vaccine when it becomes available and administer it as soon as possible.
2. Track staff influenza vaccinations and consider assigning those who refuse to areas away from the resident population. This will certainly reduce the demands for contact tracing, quarantine, and broad-based testing if these individuals should contract influenza in the community and develop symptoms.
3. Remember that an individual can have both influenza and COVID-19 simultaneously so a positive influenza test by itself does not rule out COVID infection.
4. Require all non-vaccinated staff to wear respirator masks (as opposed to cloth face coverings) even when assigned away from the population. These are more effective in both directions due to better seals and filtering, this will decrease the chance of spread to other staff and, secondarily, the population. Recall that spread of any respiratory illness among staff or into the population can disable the institution.
5. Offer the influenza vaccine repeatedly over the course of the influenza season to those in the population who don't accept it initially.
6. Plan for almost inevitable staff shortages as influenza (and cold) season approaches as all symptomatic individuals will be required to not come to work until they have cleared COVID-19 symptom-based release from isolation criteria.
7. Review return to work criteria and processes in anticipation of increased demand and many more situations which will need experienced management by institutional coordinators.
8. Prepare for increased COVID-19 testing turnaround times and shortages of testing supplies as the same issues impact the community.
9. Prepare for shortages of PPE.
10. Be aware of any rollouts of "point of care" (on-site) combined influenza and COVID-19 tests and evaluate whether they can be integrated into the institution's testing program.
11. Treat every case of influenza or any other non-COVID respiratory illness in the population as a breach of COVID-19 control measures and analyze accordingly.

TESTING

1. The institution should work closely with LA County DPH, BOP Western Region infection control resources, and their relevant vendors on planning for additional rounds of broad-based testing, including in the setting of decreased availability and increased turnaround time for laboratory testing.
2. Ensure an adequate supply of test kits now when supplies are available (both antigen and PCR) to enable rapid, repeated rounds of broad-based testing in case of another outbreak. Given the current "negative" population at ~250, they should have at least 500-1000 to sustain several waves of testing in that population alone.

3. Enter discussions with laboratory testing vendors regarding availability of rapid saliva testing capacity as these technologies are distributed.
4. Prepare for on-site broad-based surveillance testing of staff (as has been required in other penal institutions such as the California Department of Corrections and Rehabilitation) rather than the current piecemeal system of voluntary community testing. Doing this will substantially improve the capacity for rapid and effective monitoring of results and compliance in case of recurrent infection among either staff or residents. This would substantially improve the ability to mitigate an outbreak.
5. As mandatory surveillance testing of staff has been instituted elsewhere in other correctional facilities (all of which have unions) this may take research on the part of the BOP and their legal advisors. Clearly, it is possible.
6. Staff refusing testing in the community when symptomatic should be presumed to be suspects and managed accordingly by not permitting them entry into the institution until they meet appropriate return to work criteria as established by the CDC.
7. if broad-based surveillance testing of staff is instituted, forbid entry to any staff who refuse to be tested.
8. Continually educate the incarcerated residents as to the role of testing in anticipation of possible recurrent outbreaks to maximize acceptance. The initial 100% acceptance levels in the population are remarkable and admirable. This may have been inspired by fear in the context of this outbreak and may not be so high in the future.
9. Remember that no influenza test is ever even close to 100% effective so there may be infections even in vaccinated staff and residents. This is not a reason to avoid getting vaccinated. Every individual who doesn't become symptomatic will be a huge gain.
10. Ensure that each patient undergoing lab testing (of any kind) is told their results either in person or in writing or both and given the opportunity to discuss the results with a Provider.

PPE

1. Ensure an adequate supply of PPE and cloth face coverings both in-stock and available on short notice sufficient for another large outbreak.
2. Project PPE usage under various conditions and be prepared for shortages.
3. Review CDC PPE reuse guidance.
4. See that cloth face coverings are provided in adequate supply (without impediment) to all residents sufficient to provide the ability to launder or clean them frequently.

VACCINES

1. Begin discussions now with both BOP and the LA County DPH on strategies for obtaining vaccines for administration to the resident population when available.
2. Given the usual levels of resistance to vaccination, begin education now with staff as to the advantages of vaccination.
3. Begin education with the resident population (along with influenza vaccine education) as to the potential within the next year or so for the distribution of a COVID-19

vaccination. Include the concept of herd immunity along with its role in decreasing periods of lockdown and maintaining visiting and programming.

QUARANTINE AND ISOLATION PRACTICES

1. As currently practiced, these procedures are robust and in conformation with guidelines with the exception of using correctional staff for monitoring of those in quarantine.
2. Everyone in quarantine should have at least once daily checks by healthcare staff including a temperature check and symptom screening. The more rapidly an individual who becomes symptomatic is seen and evaluated, the more likely it is that they can receive proper medical care.
3. Plan for more individuals presenting with respiratory symptoms during influenza season. These may be due to COVID-19, influenza, or usual circulating respiratory viruses. As each of these individuals will need to be placed in isolation and the remainder of the housing unit placed in quarantine, the numbers of single cells required for proper quarantine practices will rapidly become overwhelmed. One person with a cold in one of the dormitories is all it would take.
4. Do whatever possible to avoid placing quarantined individuals in group cohorts. This will almost guarantee spread from asymptomatic infected individuals (if present in the cohort) to non-infected individuals.
5. If quarantine cohorts are required, dormitory or other open spaces should not be used. Cell housing, even if two in a cell is far preferable as it will help limit spread of infection within the cohort.
6. Continue the "antigen test in/PCR test out" practice for quarantine.
7. Continue the intake quarantine in place for all new arrivals regardless of their prior locations, quarantines, or testing. None of these should be considered reassuring.
8. Employ the intake quarantine period to provide comprehensive education on COVID-19 prevention strategies and modifications in the institutional program as a result.
9. Continue to employ a 14-day period of quarantine regardless of negative test results.
10. Continue the quarantine-on-return practice with a very low threshold for any off-site inmate close contacts including for court and medical visits.
11. Implement broad-based testing for all those placed in a quarantine cohort.
12. Prepare for large numbers of tests to be required.
13. Provide a sufficient number of masks to those in quarantine cohorts and require that they be worn.
14. If isolation of a large number of diagnosed cases (whether symptomatic or not) is required, it is acceptable to place them in a group cohort.
15. Ensure that twice daily monitoring of all cases by healthcare staff is used.
16. Not yet diagnosed "suspects" should never be housed in a cohort as this will also ensure spread from actually infected members of the cohort to those who are not.
17. As with quarantine cohorts, if this does become necessary, cell-based housing units should be used and not open dormitory spaces.
18. Provide sufficient face coverings and require their use in these cohorts.
19. Continue to use a symptom-based strategy for release from isolation and a time-based strategy for releasing those who are asymptomatic.
20. Avoid using test-based strategies for release from quarantine or isolation.

21. Quarantine and suspect cohorts are the spaces that require the most stringent and well-monitored cleaning and disinfection. This includes everything included in the relevant BOP guidance including bathroom and shower facilities as well as any other high touch areas.
22. All staff entering any of these spaces should use appropriate PPE. Donning and doffing stations as described in relevant CDC guidance should be created at all of these locations.

MAINTAINING AND IMPROVING CURRENT PREVENTION PRACTICES

1. Create a more robust return to work process based at the institution which is in accordance with relevant CDC return to work guidelines.
2. Ensure that the return to work procedure for all staff after suspected or confirmed COVID-19 infection or close contact is coordinated and closely supervised by a medical professional not an administrator.
3. Institute central tracking at the institution of all staff who report symptoms in addition to those who get tested. The individuals charged with this will need education on relevant confidentiality issues but, without this, there's no way even with broad-based surveillance testing of staff to manage the risk of introduction of virus into the population.
4. Educate all staff on the importance of not coming to work with any symptoms whatsoever which could be related to COVID-19 infection.
5. Ensure that all staff are aware of the most current procedures for taking leave to isolate or quarantine. This is key to dissuading non-disclosure to avoid using sick days.
6. Ensure that there are institutional resources for all staff to contact and discuss questions or concerns regarding COVID-19 related issues.
7. Consider cross training a second individual at the institution to be able to assume the infection control role if a replacement should become necessary as the commitment and expertise currently displayed in this role is key to managing the virus.
8. Maintain proficiency and preparedness in contact tracing protocols. Multiple individuals should be trained to do this. Educating the population as to the importance of this process (and ensuring that it isn't perceived as investigation of "infractions") will help this process.
9. Review entry screening procedures frequently to ensure that "COVID fatigue" doesn't engender complacency.
10. See that the screening questionnaire is up to date per CDC symptom guidance (even if it means adding questions not yet included by BOP). Also, include a question about "fever and chills" in addition to temperature screening and an open question about "other symptoms".
11. Continually emphasize the importance of mask use and social distancing when possible in order to minimize the chance of reinfection. These are not alternatives to each other while at the institution.

12. Institute meaningful expectations for adequate social distancing of all staff and residents in all settings whenever possible. This may include employing markings in locations which are used for queuing including for sick call, medication distribution, all outside activities, telephone use (particularly since residents often remove face coverings when speaking), etc. For staff, this includes inside buildings as well as when moving about the facility. By creating these expectations, all concerned will be reminded of their importance.
13. Consider permitting residents to eat outdoors to whatever degree possible, particularly those residing in dormitories. This is an occasion when face coverings cannot be worn so the risk of spread definitely increases.
14. Prepare for COVID fatigue with frequent education, discussion of relevant issues, and maintenance of high standards for preventive practices to demonstrate to all concerned that this virus remains an immense risk.
15. Education of the population is vital. While posting of new signage can be helpful, it is not a replacement for in-person teaching as it soon becomes invisible whether replaced or not.
16. Clearly educate the entire population as to the open questions regarding immunity and why all interventions are being done.
17. Require substantive supervision of housing unit orderlies in all housing units to see that all common areas are properly disinfected with appropriate products used as directed.
18. Additionally, supervising correctional staff need to ensure that soap dispensers are always filled.
19. Clear policies on cleaning and disinfecting of inmate personal areas are required and adequate provision of appropriate supplies (and education on their use) should be required of all orderlies and supervising correctional staff.
20. Monitor the Trulinc facility and phone banks to ensure that there is always disinfectant spray available.
21. Consider placing non-alcohol hand sanitizer dispensers in the housing unit bathrooms, day rooms, and other locations. The risk of misuse is outweighed by the benefits.
22. Given the high person to fixture ratios for toilets, urinals, and sinks in the housing units, ensure that they are repaired timely (within 24 hours).

MEDICAL CARE

1. Avoid reinstating resident copayments for any healthcare visits until the pandemic is no longer an issue. There should be no impediment to any avenue of symptom reporting.
2. Institute logs for all sick call submissions or another technique to enable auditing and oversight of these interactions. Sick call slips should be retained for reference and review, not just the notes generated in the electronic health record.

3. Consider adapting spaces at each housing unit to be used as medical examination rooms. These could include converted offices or even erecting partitions or other barriers in the lobby areas of the housing units.
4. Explore arranging for phlebotomy for general lab testing to occur in housing units rather than the HSU.
5. Immediately address the apparent confusion over the right of all incarcerated individuals at the institution to complete an Advance Directive including the option of specifying DNR/DNI status if they should require hospitalization.
6. Advance Directives including DNR/DNI status should be rapidly completed with every resident who is interested. This should be done with appropriate guidance and the opportunity for questions. It is inappropriate to just distribute forms and hope for the best. These should be transported to outside hospitals with other paperwork whenever a patient is hospitalized.
7. Reconsider the practice of assigning healthcare staff to correctional positions. This potentially depletes healthcare staff and introduces substantial ethical conflicts impacting appropriate relationships between healthcare staff and patients.

CHALLENGES

Note: This section discusses some of the broader contexts for which many of the more granular practices and procedures will need to be developed.

- A) Planning**
- B) Reintegration**
- C) Reopening**
- D) Influenza Season**
- E) Testing**
- F) PPE**
- G) Preparing for a Vaccine**

FCI-Terminal Island finds itself in a fairly unique situation shared by only a few other correctional facilities (and nursing homes) which have had similar large outbreaks. The prevalence of COVID-19 infection was approximately 70% of the incarcerated population. There are no communities or regions outside of these types of institutions in which even 50% of the population has become infected with the virus. It is estimated that, in New York City, which has had one of the most intense outbreaks anywhere, the level of infection in the general population was estimated to be only about 22%.³¹ In the hotspot areas of Spain (provinces around Madrid) which were equally affected the prevalence of infection was, at most, 13.6%.³²

Immunity refers to the body's response to infection, in this case with a virus. (For a readable discussion of the many still unknown areas of the immune response to SARS-CoV-2 infection see the cited article from The Atlantic magazine.³³) This is of more than academic interest as these issues are the fundamental basis for developing strategies for preventing further outbreaks at FCI Terminal Island.

Immunity doesn't necessarily imply resistance to infection as is commonly believed. Only some immune responses accomplish this. For example, antibodies are molecules produced by the body which can assist in disabling an invading organism. At present, however, discussions of the levels of antibodies to this coronavirus, though popular in the press, are mostly irrelevant. It is still not known whether the presence of antibodies (at any level) confers immunity or, conversely, whether the absence of detectable antibodies signals a lack of immunity.³⁴ Measurement of antibodies levels following infection does show a sharp drop-off

³¹ Annals of Epidemiology (48:23029 (August 2020). Rosenberg E, et al. *Cumulative incidence and diagnosis of SARS-CoV-2 infection in New York*. <https://doi.org/10.1016/j.annepidem.2020.06.004>

³² Lancet (2020, July 6) Pollán M, et al. *Prevalence of SARS-CoV-2 in Spain...*
[https://doi.org/10.1016/S0140-6736\(20\)31483-5](https://doi.org/10.1016/S0140-6736(20)31483-5)

³³ Atlantic (2020, August 5) au. Ed Yong. *Immunology is Where Intuition Goes to Die*.
<https://www.theatlantic.com/health/archive/2020/08/covid-19-immunity-is-the-pandemics-central-mystery/614956/>

³⁴ CDC (2020, August 16). *Duration of Isolation and Precautions for Adults with COVID-19*. Retrieved August 17, 2020 from: <https://www.cdc.gov/coronavirus/2019-ncov/hcp/duration-isolation.html>

after a period of months following infection.³⁵ As noted, whether this correlates with waning immunity is still not known.

Some individuals may be protected entirely from infection while some may just have more mild illness. And some may have no protection whatsoever. Some immunity is short-lived and some lasts for one's entire life. Determining the degree and duration of immunity typically requires the same type of very large prolonged population studies as are required to determine vaccine efficacy. As the period of immunity could last for months or years and then wane, it could take a very long time to answer this question fully. The relevance of this is that, if infection confers a period of immunity to further infection, the majority of the residents may be safe from reinfection for some period of time while a smaller group is still vulnerable.

It is also now clear that a substantial portion of infected individuals remain completely asymptomatic despite active, communicable infection. This group has been estimated to represent at least 40% of those infected and is likely responsible for a very large proportion of the spread of the pandemic.³⁶ As a result, symptom and fever-based screening (of staff and residents) while necessary is insufficient for detecting new infection in the population prior to the likely significant spread of infection. This was evident in the rapid progress of the outbreak at FCI Terminal Island. The prevalence of infection in various housing units during the first mass testing event was as high as 93% in D-unit where 88 of 95 residents tested positive but only 33 residents were ever symptomatic (~35%).³⁷

Planning

Unfortunately, due to the lack of clear scientific understanding as to even the existence of immunity and then the duration of immunity to reinfection if it does occur, there are three general scenarios for which the institution needs to prepare. These range from infection conferring no immunity to inducing full and permanent immunity. This will require a significant amount of time and to do what's possible to avoid a repeat of the original outbreak. Now is the time for this to be undertaken while things are relatively "quiet". If and when another outbreak occurs, everyone will be required to deal with the crisis and planning will be much more difficult.

Infection Confers No Immunity to Reinfection

This is, hopefully (on so many levels), the least likely of the possibilities. In this case, the current separation of the population into two groups ("negatives" and "recovered") accomplishes nothing and the prison is at the same point of vulnerability it was in late March.

³⁵ Long, Q., Tang, X., Shi, Q. *et al.* Clinical and immunological assessment of asymptomatic SARS-CoV-2 infections. *Nat Med* **26**, 1200–1204 (2020). <https://doi.org/10.1038/s41591-020-0965-6>

³⁶ Annals of Internal Medicine. (2020, June 3) Oran D and Topol E. *Prevalence of Asymptomatic SARS-CoV-2 Infection*. <https://doi.org/10.7326/M20-3012>

³⁷ BOP0001188-1204

Inmates could be housed anywhere as the risk of infection would always be present (aside from those in isolation and quarantine).

Even though substantial strides in awareness, preparedness, and management (along with most of the rest of the country) have been made as a result of their massive outbreak, it is almost inevitable that the infection would spread through the institution again to a significant degree and similar consequences would result. There is simply no way to effectively accomplish the requisite social distancing required even with rigorous mask use and other preventive measures given the size of the population and the available housing. Masking and social distancing are additive measures, not replacements for each other in limiting the spread of the virus.

Some efforts were made with varying degrees of success to reduce the population as the epidemic progressed but, even if every inmate who could be released (based on BOP and DOJ guidelines or even legal compulsion) was granted home confinement or compassionate release, there would still likely be a significant residual incarcerated population at risk. Estimating the number of those possible releases is beyond my expertise or available information but, I believe, can be presumed. Of course, every individual moved to a safer setting would benefit so these efforts should not be discounted, in the least. However, substantial vulnerability would remain.

In order to at least mitigate the impact, the facility would have to maintain its current response indefinitely (or until an effective vaccine is both available and widely administered). In addition, the facility would need to remain on high alert for any potential new cases and perform diligent contact tracing. Repeated waves of large-scale testing, including possible periodic surveillance testing of the population would also be necessary and have to be extremely rapid, aggressive, and accepted by the population.

In addition, mandatory surveillance testing of all staff would have to be considered as has been recommended for nursing facilities.^{38,39} In a recent guidance document issued by the CDC regarding COVID-19 testing in correctional facilities, it was recommended to "strongly consider" testing staff as part of a program of broad-based testing in the incarcerated population.⁴⁰ Given the particular vulnerabilities of the Care Level 3 population at FCI Terminal Island, there are similar risks for spread from staff to the population as those found in nursing facilities. Cohorting residents with higher risk profiles (and instituting even more stringent, targeted prevention measures) could be considered but incurs the risk of creating a pool of vulnerable individuals in close contact with each other. If the virus were introduced, the consequences of spread would be that much more severe.

³⁸ Hatfield KM, Reddy SC, Forsberg K, et al. Facility-Wide Testing for SARS-CoV-2 in Nursing Homes — Seven U.S. Jurisdictions, March–June 2020. *MMWR Morb Mortal Wkly Rep* 2020;69:1095–1099.

DOI: <http://dx.doi.org/10.15585/mmwr.mm6932e5>

³⁹ California Department of Public Health (2020, July 31). *Coronavirus Disease 2019 (COVID-19) Mitigation Plan Recommendations for Testing of Health Care Personnel and Residents at Skilled Nursing Facilities.*

<https://www.cdph.ca.gov/Programs/CHCQ/LCP/Pages/AFL-20-53.aspx>

⁴⁰ CDC (2020, August 10). *Interim Considerations for SARS CoV-2 Testing in Correctional and Detention Facilities.* Retrieved August 17, 2020 from: <https://www.cdc.gov/coronavirus/2019-ncov/community/correction-detention/testing.html>

Allowing staff with close contacts ("Critical Infrastructure Workers") to work rather than quarantine at home would also need to be reconsidered unless the most stringent compliance with masking, social distancing, and targeted cleaning and disinfection could be guaranteed. This would obviously compromise the ability to maintain adequate staff.

Unfortunately, though the current population has been reduced from its peak and the proposed future reduction in rated population would incrementally help further in spreading out the population in order to slow spread (as would utilizing available alternative housing in Quonset huts, visiting areas, and even back to the UNICOR warehouse) this would almost certainly be insufficient for meaningful social distancing to be accomplished in housing units.

Infection Confers Temporary Immunity to Reinfection

This may be the most likely scenario given patterns of immunity with other infectious diseases. Unfortunately, whether it is the case is still unknown and even if the case, the duration of immunity is also unknown.

The CDC recently issued a guideline recommending against retesting asymptomatic individuals ("recovered") for a period of three months after their initial infection was diagnosed. Due to confusion in what this implied for duration of immunity they immediately clarified that "this science does not imply a person is immune to reinfection with...COVID-19...in the 3 months following infection."⁴¹ However, it would be unusual (though still possible) if there weren't some period of immunity to reinfection.

While possibly better than no immunity at all, this scenario is actually almost more complicated to manage. For example, if immunity begins to wane after a period of three months, then some proportion of the population currently considered to be "recovered" (and possibly immune) has already lost their immunity given that the wide distribution of infection occurred over three months ago. Consequently, this would already resemble the first scenario. In practical terms, immunity for such a short period would essentially require managing the institution as if there was no immunity at all. It cannot be determined, with currently science, which individuals have lost (or retained) immunity so the entire population would have to be considered at risk once again.

Alternatively, immunity could last for 6 months and be waning just as influenza season arrives this fall. If that were the case, there would be no way to know whether symptoms were due to this or reinfection with COVID-19 and, consequently, every symptom would have to engender a brisk response including isolation and many repeated waves of broad-based testing. If immunity lasted a year, then a similar situation would occur however, it is hoped that by then the scientific community will have worked out some of the details of the duration of immunity expected. And, potentially, there could even be an effective vaccine. Unfortunately, most of this will only be known in retrospect.

⁴¹ CDC Media Statement (2020, August 14). *Updated Isolation Guidance Does Not Imply Immunity to COVID-19*. Retrieved August 17, 2020 from: <https://www.cdc.gov/media/releases/2020/s0814-updated-isolation-guidance.html>

Infection Confers Permanent Immunity to Reinfection

If this were to be the case, the entire group of inmates classified as "recovered" could be assumed to be safe from the possibility of reinfection. In this case, the focus of attention would have to be on how to address the current high-risk cohort of "negatives" who are all housed together at present. "Reintegration" (redistributing non-immune individuals in the immune population) is discussed separately. Even though some reintegration strategies might decrease the chance of infection racing through large swaths of the population as occurred previously, the group of "negatives" remains at risk.

This group, including many individuals at high risk for severe disease, would have to be protected and monitored for an indefinite period. They should likely have at least daily nurse monitoring for symptoms and fever. Even that raises concerns for social distancing as they would inevitably queue up to be monitored when in congregate housing. Essentially, this would be a type of free-form quarantine. The alternative would be to, functionally, isolate them in single cells without socializing or programming (the equivalent of staying at home alone in the community) except for limited and closely monitored excursions only when necessary. (Exactly as quarantine should be run.) This is unlikely to be well-received by many, particularly if it went on for months or years.

Other issues include, for example, that since "cloth face coverings" are only considered to be a means for decreasing spread from infected "point-source" individuals to others and not reliable for protecting the wearer from infection, provision of an endless supply of respirators (N95 masks or at least reasonable quality surgical masks) to the non-immune population might be in order. This raises concerns for resentment on the part of the rest of the population, consequently, high-quality education of everyone concerned would be important as well as insuring that the requisite logistic supply chain was robust.

Sequential broad-based testing of the non-immune group would have to be considered and, as mentioned above, surveillance testing of staff would have to be on the table. If programming (including group dining) was resumed, these people would have to be tracked to insure they didn't cluster in other settings besides the dormitory, as well, thereby potentially sharing virus while asymptomatic. This might entail marked vests, for example, which are the type of thing which frequently meets with resistance in the prison setting given the types of stigmatization which often occur with their use.

Reintegration

How to reduce the risk to the presumed non-immune population cohort (the "negatives") is of paramount importance. Currently, the "negative" group is cohorted together in housing units. The remaining population is considered to be "recovered" and possibly immune to reinfection (this being the conceptual basis for the separation). Two housing units, J and G, house the approximately 280 inmates who tested negative. These housing units consist of a combination of open dormitory spaces and separate wings ("ranges") with 2-person cells with solid doors. If the virus were to be introduced into this population, given the risk profile of this population (based on age and medical conditions), one would expect possibly multiple

hospitalizations and potential deaths. As discussed in the Immunity and Vaccines section, however, what the immune status of the "recovered" population turns out to be is pivotal in crafting a plan to manage the current situation.

Herd immunity is the development of a resistance to spread (not to infection) in a population based on a sufficient number of individuals being immune. Effectively, it is a surrogate for social distancing. If there was 50% immunity in a population, the chance that a non-immune individual would have a close contact with someone spreading the infection is reduced. This applies to vaccine-induced immunity as well as that arising from natural infection. While the percentage immunity required to meaningfully halt spread can be estimated for a large population, social contact occurs to individuals.

This is most relevant in the setting of FCI Terminal Island when applied to housing. Clearly, if the non-immune population only encountered immune individuals in housing, they would be substantially safe from infection. In a packed dormitory setting however, the percentage of immune individuals required for protection would be proportionally higher than in a 2-person cell unit or out on the yard.

There has been some discussion of a "sprinkling" strategy for reintegrating this group into the larger population. Of course, this is predicated on the assumption that those with prior infection currently have some meaningful degree of immunity to reinfection. If not, all bets are off, and it really doesn't matter where anyone is housed. There would be no reintegration strategy which would decrease risk.

Sprinkling would mean distributing these at-risk individuals throughout the recovered population to provide some herd immunity around them and, effectively, create social distance in the housing units. For example, if each "recovered" dormitory area (having the highest architectural risk for rapid spread) had 15% of their population replaced with non-immune individuals and these were scattered as widely as possible throughout the dormitory, over 7 feet of distance might be created between their bunks. (This is based on the measured 2 ½ feet between the two-level bunks and placing a non-immune individual in every 7th bunk.)

Assuming that all of the negatives wore masks when they weren't sleeping or around other negative individuals (and potentially infected staff) then they would have been effectively distanced from one another during periods without wearing masks and the rapid spread of infection would be less likely. In 2-bed cell housing, non-immune individuals could be paired with recovered ones and, also, if they were masked outside of their cell when not able to social distance from other negatives, they might be quite a bit safer from reinfection. These cell units could tolerate greater density given the intrinsic distancing accomplished by having individual rooms with doors.

Between the 15% introduced into dormitory spaces and possibly 20-25% of the population in cell-based housing units, almost the entire group of negative individuals could be accommodated. Realistically, this would be quite logistically complicated if it were to be done in a rigorous and meaningful way and would require the assistance of and coordination with public health specialists. All custody generated moves would have to be cleared through medical staff to avoid inadvertent clustering of non-immune individuals. And, as noted, if the recovered population is in fact not immune or loses their protection in the near-term as immunity wanes, then nothing will have been accomplished.

Reopening

At some point, the institution will need to move to varying degrees of reopening. This would include a number of domains. There will be appropriate pressures to keep the institution closed and programming at a minimum. This will need to be weighed against the short- and long-term impacts on the mental health of the population. Additionally, prolonged severe restriction is likely to produce higher levels of "COVID fatigue" (as is being observed in the community) and consequent decreased investment in maintaining prevention measures. Creating processes for balancing these competing interests will require effort, creativity, and attention to detail.

Visiting

Visiting, both social and legal, has been suspended for months. At some point, this will need to be addressed and liberalized. Face to face visits are quite important to incarcerated individuals and there are many consequences to their absence. Population mental health depends heavily on these contacts with their families and friends. Alternatives such as "zoom visiting" can be considered if resources are available but this is unlikely to substitute fully given the inevitable shortage of technical resources adequate for the entire population. When visiting resumes, rigorous screening with explicit symptom review and temperature checks will be required. As discussed, however, the number of asymptomatic spreaders will also require extremely rigorous (and supervised) compliance with appropriate use of face coverings and social distancing.

In the same way that correctional staff supervise visiting are on alert for the passing of contraband, the same scrutiny should be applied to maintaining prevention measures. Although potentially perceived as punitive, consider quarantining residents who are observed (or their visitors) not abiding by these measures during visits. Although contact visits are important, it will be safer to require social distancing until a vaccine is available. As a result, more space will be needed for visits. Arranging outside visiting areas would be far better than continuing to utilize enclosed visiting rooms. In order to assist with face covering compliance, sharing food or eating during visits should be restricted.

As understanding by the resident population that any new cases at the institution will immediately result in re-suspension of visiting, comprehensive and repeated education will assist in enlisting the population in supporting compliance with prevention measures on the part of their visitors.

Programming

As with visiting, programming of all types serves many purposes. It improves the mental health of the community and individuals, provides needed vocational skills, education, assists with dealing with substance abuse and other dysfunctional behaviors both within the institution and after release, and many others. As noted elsewhere, rigorous screening on entry of all volunteers and others entering the institution will be required. Masks and social distancing both between program staff and residents will need to be maintained. Alternative spaces should be considered particularly using outdoor areas whenever possible.

Work Assignments

This involves both UNICOR jobs, inmate-led educational and recreational activities, and those involved with maintaining the institution. Currently, most work has been suspended with the exception of orderlies and a few essential assignments required for institutional maintenance. As with visiting and programming, there are definitely benefits to the institution as well as the residents to working. As this is resumed, more rigorous protocols for cleaning and disinfection of tools and equipment need to be instituted. Cloth face coverings and, to the degree possible, social distancing should be maintained. All supervisors, whether correctional staff, UNICOR employees, volunteers, educational staff, or maintenance and engineering staff need to be formally instructed in the various measures required. Emails, signs, and videos are not sufficient. In addition, a representative of the institution with familiarity with various measures to reduce spread of infection should periodically (frequently) inspect all work sites without prior warning to ensure that appropriate prevention measures are maintained. In order to avoid complacency, inspections by various levels of the institutional hierarchy should be employed as well.

Off-site Court and Medical Visits

The current protocol of quarantine residents with potential close contacts during off-site excursions is an excellent one and should be continued. Obviously, continuing to work with the US Marshals service and area court administrators to minimize potential contacts is vital. Off-site medical consultant offices and hospital waiting facilities should be reviewed and alternatives sought if insufficient for providing social distancing. Transportation should, whenever possible, be limited to one or as few individuals in vehicles as possible. Disciplined use of face coverings by transportation staff, even with barriers between them and residents are in place, should be emphasized. This is no different than continuing to require their use by institutional staff. The greater the spread of infection among the staff, the greater the risk to the population.

Intake

Once intake (both for new commitments and internal BOP transfers) resumes, screening and quarantine measures will need to be maintained. This will require ongoing coordination with BOP Emergency Operations or other regional or HQ staff to ensure that the institution is prepared and has appropriate quarantine capacity. Currently, the BOP is directing all into the system to three "quarantine" facilities.⁴² All of these institutions have current active COVID-19 cases (including a large outbreak within the Victorville complex) and are likely to continue this pattern. FCI Terminal Island absolutely should, additionally, quarantine all intake for 14 days with testing in and out as they are currently doing. Hopefully, the projected reduction in rated capacity will keep intake numbers low enough that they can be appropriately accommodated. During the quarantine period, comprehensive education on all relevant COVID-19 prevention measures and current programming should be provided and reviewed.

⁴² BOP *Implementing Modified Operations*. Retrieved August 18, 2020 from: https://www.bop.gov/coronavirus/covid19_status.jsp

Influenza Season

Influenza season will be arriving in a few months and features a number of illnesses which have the potential to generate similar symptom profiles to COVID-19 infection. Particularly coming from the community, where infection control measures are likely to be less stringent than those currently in place at the prison, there is a high likelihood that staff will contract illnesses which are similar in presentation to COVID-19. Whether these are actual influenza or other circulating seasonal respiratory illnesses ("common colds"), all of these individuals will have to, initially, be regarded as potential COVID-19 infections.

Typically, during flu season, there is not a compelling reason to be tested for influenza specifically unless severely ill, although sometimes it may be required for the prescription of medications to shorten the course and decrease the intensity of infection. Now, however, influenza (and COVID-19) tests will have to be required for every one of these individuals. As this evolves, the community resources for testing will become more and more strained and turnaround time for results will increase, possibly dramatically. Additionally, staff shortages may become acute as many more symptomatic individuals are required to stay away from the institution.

This is a setting where, historically, both correctional and healthcare staff discount recommendations for staying away from the workplace while potentially infectious. This will increase the possibility that staff will be tempted to not report what feel like minor symptoms.⁴³ Potentially, everyone with a COVID-like illness will require similar management to prevent spread of the infection.

Ideally, emerging new test technologies will enable simultaneous testing for both types of virus and save on testing supplies, personnel time, and decrease the number of intrusive tests. This may slightly mitigate the burden on testing resources. However, as it is entirely possible to have simultaneous influenza and COVID-19, a positive influenza test cannot be considered reliable for ruling out COVID-19 infection.

Widespread administration of the influenza vaccine as soon as it becomes available to both staff and the population will provide some potential decrease in this pending crisis. Education should begin soon along with additional explanations of why, in the context of COVID-19, this is so important. The high-risk character of the population alone makes the influenza vaccine of significant benefit but now the need is heightened immensely.

In planning, it is critical to remain aware that the same burdens imposed on the prison during influenza season will be present and widespread in the community as well as all other BOP facilities. This will additionally impair access to replacement staff, testing facilities, community hospital resources, etc.

⁴³ Personal observation

Testing

If infected persons were only infectious if they had symptoms, testing could be targeted at them. (See a larger discussion of the central and complex issue of testing at the end of the report). Due to the large number of asymptomatic infectious individuals, broad-based testing as was done beginning in late April is required if there's an outbreak (starting with a single individual) in the resident population. This requires very large numbers of test kits, is very labor intensive on the part of staff (no matter which test is used), and then requires either transportation to and processing at a lab or a large amount of time running the test machine for one test at a time.

Recently, it has been proposed that, despite the reduced sensitivity of the rapid point of care antigen tests, the speed of turnaround makes them preferable for broad-based testing when the goal is to rapidly identify positives.⁴⁴ Given the observed speed of spread at Terminal Island in April (and in other correctional settings), every day of delay in identifying residents positive for COVID-19 infection would result in many additional cases. It may be the case that this strategy is appropriate for smaller numbers of tests (for example in a nursing home) but even testing a housing unit at Terminal Island would likely be barely manageable.

Additionally, as with nursing facilities with outbreaks, broad-based staff testing in correctional settings is of substantial benefit in identifying sources of infection among staff.⁴⁵ Currently, the institution has no coordinated, on-site capacity for staff testing. This places additional burdens on resources. Based on multiple examples of staff surveillance testing at nursing facilities and other correctional institutions, many asymptomatic staff test positive. This is expected with a 40% or more rate of asymptomatic infections. Merely testing symptomatic staff and known close contacts is completely inadequate for identifying sources of infection which place the resident population at risk. The BOP guidelines require staff who test positive to remain off-duty and to not report to the institution under any circumstances. Without surveillance testing, this cannot be enforced.

As with PPE, the institution feels that they currently have sufficient test kits and laboratory resources for processing the tests. They report having 1,389 Abbott test kits on-site. These have been provided by the Central Office in Washington, D.C.⁴⁶ Also, as with PPE, this situation is vulnerable to the status of outbreaks both in the local community and nationally. Even if only the "negative" population (~250 persons) were tested, three rounds of testing could require as many as 500-1,000 tests to be done over the course of two weeks depending on the pace of spread through the cohort. Ironically, the slower the spread, the more test kits will be needed as more repeated testing would occur.

⁴⁴ Larremore DB, Wilder B, Lester E, et al. *Test sensitivity is secondary to frequency and turnaround time for COVID-19 surveillance*. Preprint. *medRxiv*. 2020;2020.06.22.20136309. Published 2020 Jun 27. doi:10.1101/2020.06.22.20136309

⁴⁵ CDC (2020, August 10). *Interim Considerations for SARS-CoV-2 Testing in Correctional and Detention Facilities*. Retrieved August 18, 2020 from: <https://www.cdc.gov/coronavirus/2019-ncov/community/correction-detention/testing.html#when-test>

⁴⁶ BOP0005334

PPE

Currently, the institutional leadership reports adequate stocks of PPE and cloth face coverings for all current needs. During the outbreak, as supplies were running short, measures were taken to obtain adequate supplies both locally and through BOP. Nationally, however, there continue to be shortages of all relevant items.⁴⁷ This is due to a combination of actual supply interruptions and distribution issues. These shortages are projected to continue for the duration of the pandemic due to both national and international supply chain issues. While there may, currently, be sufficient stocks of these vital supplies, whether that remains the case in the future is unclear. The institution will need to both project needs in various scenarios (focusing on potential future outbreaks) and review their current supplies on an ongoing basis.^{48,49} By so doing, they will be prepared to arrange alternative sources and be prepared for shortages. There are various CDC strategies for reusing various PPE and these should be reviewed on an ongoing basis as well. Assuming that the BOP will be able to always provide what is needed, or that local supplies will be sufficient is unlikely to be adequate depending on national and community conditions.

Preparing for a Vaccine

Vaccines provoke immunity artificially. Sometimes, this immunity is partial and sometimes short-lived. For example, the threshold set by the Food and Drug Administration for approving a vaccine against COVID-19 infection is 50% efficacy. This could mean that half the people who receive the vaccine are entirely unprotected. It could also mean that the 50% who have an "effective" response may still contract the virus but possibly not get severely ill. Unfortunately, this doesn't mean that they aren't infectious and at risk for spreading the virus.

Determining a vaccine's actual efficacy and also its propensity to cause side effects or more serious complications requires large scale population-based studies. The study population must also be in a setting where they are at risk for contracting the virus. The more rigorous the precautions are (e.g. masking and social distancing) the longer it takes to observe the results. Similarly, rare but serious complications may not be measurable until large numbers have already received the candidate vaccine. For example, if 0.0001% of the individuals who receive the vaccine suffer a severe life-threatening complication that would imply that, in the United States alone (if vaccination were universal), approximately 35,000 individuals could suffer this complication. This takes time to become apparent. Consequently, the roll-out a vaccine hopefully will be and should be slow and careful. Conceivably, there

⁴⁷ FDA (2020, August 14). *Medical Device Shortages During the COVID-19 Public Health Emergency*. Retrieved 8/18/20 from: <https://www.fda.gov/medical-devices/coronavirus-covid-19-and-medical-devices/medical-device-shortages-during-covid-19-public-health-emergency#shortage>

⁴⁸ CDC (2020, July 16) *Optimizing Supply of PPE and Other Equipment during Shortages*. Retrieved August 18, 2020 from: <https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/index.html>

⁴⁹ CDC (2020, April 7) *Personal Protective Equipment (PPE) Burn Rate Calculator*. Retrieved August 18, 2020 from: <https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/burn-calculator.html>

could be no wide distribution of a safe and effective vaccine for a year or more despite numerous pronouncements from all quarters.

Distribution of a vaccine is also likely to be a deeply contentious issue with substantial ramifications for correctional systems. Since the vaccines are likely to be manufactured in insufficient numbers for the entire population initially, it could take a year or two to vaccinate everyone who was eligible. Typically, when resources are in short supply, incarcerated individuals have rarely been offered them sooner than the bulk of the free population, if then. There would very likely be an outcry if community residents were not able to be vaccinated when incarcerated persons were already receiving them.

Despite the fact that congregate living institutions such as correctional and detention facilities (and nursing homes and senior residences) are the most susceptible to rapid spread of the virus and contain a large high-risk population in most cases, it remains to be seen what priority is given to vaccinating their residents. As with outbreaks in nursing homes, there have been stark examples of how outbreaks in prisons and jails can risk spread into the community as well as overwhelming community hospital resources. As is frequently said, correctional facilities exist within communities and the health of their residents is part of the wider public health of those communities.

DETAILED FINDINGS AND CONCERNS

- A) Current status of the COVID-19 Outbreak at the Institution**
- B) Preventing Introduction into the Resident Population**
- C) Preventing Spread of Infection within the Institution**
- D) Medical Care**

A) Current status of the COVID-19 Outbreak at the Institution

- 1) Residents with no known history of COVID-19 Infection ("Negatives")
 - i) Currently, out of the 932 residents at the prison, approximately 280 are considered "negative" and still at risk for infection.⁵⁰ (Some of this population may actually have had the virus but tested negative by the time broad-based testing was performed. That cannot be reliably determined, and they will all be presumed vulnerable to infection.)
 - ii) Of these individuals, 8 are 70 years of age or older, 27 are 60 or older, and 40 are 50 or older.
 - iii) 1 has 6 risk factors increasing the likelihood of severe COVID-19, 1 has 5, 6 have 4, 13 have 3, 33 have 2, and 74 have 1 risk factor.
- 2) Recovered Residents
 - i) Approximately 650 individuals are considered to be "Recovered". They all tested positive at one point but are now at least 7 weeks from the date of their test. There is actually no current science showing that these individuals are immune to reinfection though that is hoped based on other indirect findings.⁵¹
- 3) Other (all housed in single cells in a separate unit from the rest of the population)
 - i) One individual in isolation was a "voluntary surrender" and was positive on arrival. He was to remain in isolation until CDC release criteria were met and would then be considered recovered.
 - ii) One currently asymptomatic individual has had persistently positive tests (which has been reported frequently) but he is unlikely to actually be infectious according to current literature.

Concerns

- 1. At least 30% of the FCI Terminal Island population remains at risk for COVID-19 infection and many are at significant risk for severe disease and possible death based on their age and risk factors.
- 2. Should the virus be introduced into these cohorted "negative" housing units as currently configured, it is likely that the infection would sweep through these units before anyone even became symptomatic and testing could be accomplished.

⁵⁰ Per Warden Ponce

⁵¹ CDC (2020, August 14). *Updated Isolation Guidance Does Not Imply Immunity to COVID-19*. Retrieved 8/14/20 from: <https://www.cdc.gov/media/releases/2020/s0814-updated-isolation-guidance.html>

3. Plans for "reintegration" of negatives into the "recovered" population have not been formalized. As the science is not advanced enough to provide guidance, these plans will have to be based on conjecture.
4. It is currently not known whether individuals who have had COVID-19 infection are immune to reinfection. Consequently, it cannot be known with certainty whether they would provide protective herd immunity for reintegrated "negative" residents or whether they themselves are vulnerable to reinfection if introduced into the facility.

B) Preventing Introduction of Infection into the Resident Population

1) Staff

- (1) All staff interviewed were aware of the two primary modes of transmission of the virus (airborne and direct contact) and were all able to list several of the primary symptoms of infection.

ii) Staff screening prior to entry

- (1) BOP guidance from March 13, 2020 required screening of staff "in areas with sustained community transmission".⁵² On March 26, 2020 a requirement was issued by BOP to screen all persons entering BOP institutions, regardless of the state of infection in the community.⁵³ (As of April 5, 2020, Los Angeles had 15,034 cumulative cases and was increasing over 2,000 new cases per day.)⁵⁴
- (2) All staff are screened outside the entry building prior to entry to the facility.
- (3) According to institutional leadership, the Clinical Director comes to the gate to assess every staff member who does not pass screening and is contacted by phone when he is not on-site. In their absence, a contract physician would perform this function.
- (4) Staff who don't pass screening, are instructed to return home, placed on leave, and are not permitted to enter the institution. They are then referred to their Primary Care Provider (PCP) and the local health department for further management.
- (5) This screening includes a touchless temperature check. The threshold for intervention is $\geq 100.4F$ which is consistent with CDC recommendations. The screeners report cleaning the thermometer with alcohol between staff. Though not observed screening numbers of staff, they were noted to have alcohol wipes for this purpose with their screening equipment.
- (6) Prior to entry, staff either complete a standard questionnaire listing some possible symptoms of COVID-19 infection. According to almost all staff interviewed, this questionnaire is only intermittently completed in detail and, otherwise, the staff are asked if there is "anything new" since they last completed the form. This invites rote answers.

⁵² BOP0000968

⁵³ BOP0000985

⁵⁴ Johns Hopkins University COVID-19 Dashboard. Accessed 8/11/20 from <https://coronavirus.jhu.edu/map.html>

- (7) This questionnaire has been updated periodically (currently version 4.1 provided by the BOP is being used). The form does not include all relevant symptoms currently listed by the CDC. It does not include a question about symptoms of "fever or chills" (which is vital) and has no questions regarding headache, abdominal pain, or rash which are currently included in the CDC symptom list.
- (8) On the first day of my site visit, on arrival I was required to come inside the building for screening at a high counter (requiring direct contact) adjacent to the metal detector. It was explained to me subsequently that this was because they were "short-staffed" and the screening person was required to also run the metal detector.
- (9) In the process of entering and exiting the facility, direct contact was required with the UV light (used by the control officer inside the booth to confirm the hand stamp) and adjacent surfaces, and with passing of an ID card into and later receiving it back through the small access port.

Concerns

1. The entry screening questionnaire does not fully reflect the CDC's current list of symptoms associated with the virus and, most importantly, contains no question about symptoms of fever and chills. Additionally, there is no general question regarding "other symptoms" than those included on the form.
2. The entry screening questionnaire is only intermittently reviewed with entering staff in detail and, otherwise, staff are just asked if there is "anything new" encouraging casual reporting.
3. Interviewing both healthcare staff who participate as screeners and staff subjected to screening on arrival (and my own experience being screened twice) there is no catchall question about "other symptoms". Given the protean manifestations of COVID-19 infection, this would potentially identify some staff.
4. Three staff members worked for between 1 and 6 days after symptomatic infection in late April.⁵⁵ According to institutional leadership at the time of my visit, these were discovered "retrospectively" after the staff members tested positive. It is unclear why they weren't picked up on symptom screening.
5. Not always having a dedicated staff person doing screening as their only function may compromise the screening process. Outdoor screening is recommended to avoid the potential for viral spread from those waiting to be screened in indoor spaces.
6. Points of direct contact where, potentially, numerous individuals will sequentially be touching the same surfaces are potential sites of viral transmission.

⁵⁵ BOP0001135; (TRM 12, 13, 14)

7. Personal assessment in real-time of individuals who fail screening by the Clinical Director may breakdown in their absence.

iii) Universal Face Covering Use by Staff

- (1) Based on evolving CDC recommendations, a BOP memorandum on April 13, 2020 "strongly encouraged" all staff to wear an appropriate face covering when in public areas when social distancing could not be achieved.⁵⁶
- (2) Staff interviewed report that though masks were in somewhat short supply initially during the outbreak, they were now freely available to all staff.
- (3) During my tour of the institution, there was general staff compliance with wearing cloth face coverings, however there were a number of instances when staff were observed by me to be clustered closely in a small group of 2-4 individuals and not all were wearing their masks over their mouth and nose. Typically, when they realized they were being observed, they would pull their masks back up into position. This was not observed when they were in proximity to residents.
- (4) Several members of the incarcerated population mentioned unprompted during their interviews that, aside from the period of my visit, there is frequent noncompliance with masking by staff though this could not be corroborated.

Concerns

1. There appears to be incomplete "buy-in" and enforcement of use of face coverings by staff.

iv) Social Distancing by Staff

- (1) Staff were not observed to be social distancing from each other (or residents) in many situations where that could have been accomplished.
- (2) Relevant CDC guidance identify face coverings as additional ways to decrease spread of infection when unable to social distance not alternatives to social distancing.

Concerns

1. There was no significant pattern of social distancing among staff.

v) Hand Hygiene by Staff

- (1) All staff interviewed reported unlimited access to both soap and water and hand disinfectant for themselves while on duty.
- (2) Hand sanitizer is available to staff in multiple locations around the institution.
- (3) At the time of my visit, small bottles of hand sanitizer were neatly arrayed on the metal detector in the entry hall and presented as available to staff. It cannot be verified whether these are usually available or were just made available at the time of my visit.

⁵⁶ BOP0001002-1007. *Coronavirus (COVID-19) Phase Six Action Plan*. April 13, 2020

- (4) Given the current increased availability of hand sanitizer in the community, there is no current expectation of a shortage.

Concerns

1. None, other than ensuring that staff actually wash or disinfect their hands on a regular basis (which could not be assessed).

vi) **Staff with Close Contacts**

- (1) Only one of the staff interviewed had been formally informed of a close contact at the institution but didn't recall any particular guidance.
- (2) None of the staff interviewed were aware of close contacts in the community and some weren't even clear on what this meant.
- (3) Given the lack of close contacts, staff were not interviewed about enhanced cleaning and disinfection procedures in their work areas recommended in this situation nor were they interviewed regarding possible increased monitoring by infection control coordinators if they fell in this category.
- (4) Staff who are guarding patients at community hospitals have been directed to not return to the institution at the end of their shift. This is in accordance with CDC recommendations.
- (5) Staff interviewed who have been assigned to outside hospitals report having appropriate PPE available and used at the hospital by correctional staff. Staff guidance was issued (date not known) specifically regarding procedures to follow after working at the hospital.⁵⁷
- (6) The union representing Federal prison employees has filed a grievance alleging that staff with close contacts were required to come to work rather than stay at home for 14 days of quarantine and when they did come to work were not issued appropriate PPE.⁵⁸ This cannot be corroborated with the available information.
- (7) All staff have been designated Critical Infrastructure Workers and, based on CDC guidelines, are intended to continue working rather than stay home for a 14-day quarantine period.⁵⁹
- (8) Relevant BOP contract tracing guidance and tools appear thorough and appropriate.⁶⁰
- (9) Records of contact tracing were not reviewed.

Concerns

1. It's unclear whether staff are aware of or reporting actual close contacts outside the institution based on the small sample size interviewed.

⁵⁷ BOP0001150

⁵⁸ Formal Grievance Form BP-10176 (2020, April 6) Retrieved August 18, 2020 from: https://cdn.govexec.com/media/gbc/docs/pdfs_edit/042020cb1.pdf

⁵⁹ CDC (2020, April 20). *Critical Workers*. Retrieved August 12, 2020, from: <https://www.cdc.gov/coronavirus/2019-ncov/community/critical-workers/implementing-safety-practices.html>

⁶⁰ BOP0001180-1187

2. As the strategy for allowing Critical Infrastructure Workers to continuing working requires enhanced procedures including focused cleaning and disinfection, the institution would not be able to apply these recommendations if staff were not reporting.

vii) Staff with Symptoms (COVID-19 "Suspects")

(1) On-site

- (a) All staff interviewed stated that, if they developed symptoms at work, they would report them to their supervisor and leave the institution.

(2) Off-site

- (a) In the original complaint, it was alleged that staff were required to come work when symptomatic. Of the small number of staff interviewed, none were aware of this or denied it.
- (b) The Warden stated that staff were "never" required to come to work when symptomatic.
- (c) Based on staff interviews, it is somewhat unclear as to what procedure to follow if they experience symptoms off-duty. Some said they would notify the institution but most reported that they would seek medical care and possible testing in the community with no consistent reporting to the institution expected other than through the "return to work" procedures.
- (d) According to the Warden, staff are currently able to use "Weather and Safety" administrative leave for COVID-19 related requirements for staying at home in isolation per CDC guidelines.

Concerns

1. The allegations regarding working while symptomatic cannot be corroborated with the available information. Clearly, staff working while symptomatic is profoundly dangerous to the population and, if it was the case, would clearly violate CDC guidelines.
2. There does not appear to be a clear procedure (or one that has been effectively communicated) for staff to notify the institution if they experienced symptoms consistent with COVID-19 infection while off-duty away from the institution.
3. This could result in relevant contact tracing being either delayed or impossible. For example, if a staff member went on vacation and developed symptoms (and didn't need to miss work) there appears to be no formal notification of the institution that has been effectively communicated if one exists.
4. As influenza season approaches (along with increased transmission of other respiratory viruses, i.e. colds) it is extremely likely that many staff will have symptoms consistent with possible COVID-19 infection. This will likely lead to staff shortages and pressure to come to work while having symptoms which would normally be ignored.

5. Of the nine line-staff interviewed, only one was aware that they wouldn't have to use sick time in this situation. Consequently, this could potentially be a disincentive to reporting symptoms.

viii) Staff Testing Positive

- (a) According to the Staff Tracking Sheet provided, there have been approximately 22 known cases among staff.⁶¹ (One entry lists a "negative" test so that one is unclear.)
- (b) There is no on-site testing available for staff.
- (c) Testing for staff is to be obtained independently in the community. Staff have been given resource lists for LA County testing sites or they can go through their Primary Care Providers.
- (d) No surveillance testing of staff was performed at any point during the outbreak. Given the number of infected staff, it is highly likely that additional staff were asymptomatic and positive and still potentially shedding virus into the population.
- (e) It was reported that, if staff test positive, they are to report this to the Warden who then reports to the BOP Emergency Operations Center (EOC's). (It is unclear what happens after that.)

Concerns

1. It is unknown whether there were infectious staff still working and driving the outbreak further.
2. In high-risk institutions (e.g. prisons), broad-based testing of staff is recommended in some circumstances (such as outbreaks). The only way to ensure that this is done in a reliable and coordinated fashion is if testing is provided on-site.
3. Any impediments to testing may result in underdiagnosis (and consequently impair institutional contact tracing).
4. It's unclear what staff who reside in other counties are to do as testing availability is inconsistent.
5. In addition, turnaround time can be as much as a week or more at many locations in the community.
6. Apparently, EOC's will be standing down at some point. It is unclear who will be coordinating staff testing at that point.

ix) Occupational Health

- (1) There are apparently no institution-based Occupational Health services or appointed COVID-19 coordinator with which the staff are familiar, based on interviews.

⁶¹ BOP0001135

Concerns

1. Occupational health services are key to both increasing staff safety and decreasing spread into the population.⁶² This can, to some degree, be accomplished by assigning an appropriate staff person to be a resource and coordinator if formal occupational health is not available.
2. Currently, staff appear to be generally on their own managing their relevant COVID-19 issues through their sources of private medical care in the community. This increases the chance that faulty medical guidance and recommendations in the community will abet introduction of virus into the institution.

x) **Return to Work Procedures**⁶³

- (1) Staff who have symptoms in the community are "encouraged to get tested in the community and or only return to work when free of symptoms for one day".
- (2) Staff members who get tested turn in their results to the Warden who forwards them to the Regional Health Services Administrator for confirmation.
- (3) According to the institution, those staff members are tested in the community are told to "return after 10 days quarantine and 1 day without symptoms".

Concerns

1. There doesn't appear to be central tracking of staff with symptoms and they, apparently, are under no obligation to get tested.
2. The return to work criteria for both of these (symptoms and tested) are contrary to CDC guidelines and substantially liable to introduce infection into the facility.⁶⁴
3. Even if these responses are inaccurate, they suggest significant confusion as to the correct procedures.
4. If a symptomatic staff person with COVID-19 infection were to be infected and not get tested, the criteria for coming out of isolation (not quarantine) is currently 10 days since the onset of symptoms, 24 hours since the last fever without antipyretic medication (e.g. acetaminophen or ibuprofen), and improvement in symptoms.
5. Anyone who tests positive is to remain in isolation (not quarantine) until they've met these same criteria (assuming that symptom-based release policies were being followed).

⁶² Annals of Internal Medicine (2020, July 27). *Occupational Health: A Key to the Control of COVID-19 in Correctional Facilities*. <https://doi.org/10.7326/M20-4543>

⁶³ BOP0005334

⁶⁴ CDC (2020, August 16). *When You Can be Around Others*. Retrieved August 22, 2020 from: <https://www.cdc.gov/coronavirus/2019-ncov/if-you-are-sick/end-home-isolation.html>

2) Visitors, Volunteers, and Contractors

- (1) On March 13, 2020, the BOP suspended all social visits, legal visits, entrance of volunteers, tours, and limited contractors to only those providing essential services.
- (2) As of the date of my visit, these restrictions were still in place though legal visits were being considered on a case by case basis. To date, per the Warden, there had been no requests by attorneys for on-site legal visits, though if one were to occur, screening would be required.
- (3) According to institutional leadership, there is no immediate plan to resume social visiting.
- (4) Per BOP guidelines, all non-staff entering the institution would require screening with symptom questionnaires and temperature checks.
- (5) All non-staff entering the institution will be required to wear cloth face coverings.
- (6) Some plans have been made to reopen the RDAP (substance abuse) program. This will include smaller numbers of residents in order to permit increased social distancing.
- (7) The visiting room is indoors.

Concerns

1. With reopening, numerous categories of non-staff with varying levels of relevant education and institutional buy-in will be entering the institution. Some of these individuals may be reticent to divulge symptoms for a variety of reasons. This will increase the probability of outside introduction of virus into the facility.
2. On the spot education prior to entering the institution and, ideally, prior to screening as to the issues and procedures will be time consuming (as will entry screening itself). This will increase the likelihood that the process will become too casual to adequately serve the purpose intended.
3. The ability of FCI Terminal Island staff to adequately supervise compliance with masking and social distancing requirements for activities scattered around the institution (which don't necessarily have supervision under normal circumstances) may be limited.
4. Limiting visitors (and residents) sufficiently in the assigned visiting room will be difficult and take specific policies and procedures and active oversight by correctional staff.
5. Contact visits have a high potential for introducing infection.
6. It's not clear that adequate spaces for programs will be widely available resulting in either overcrowding (in the context of social distancing) or restrictions on the available programs based on the requirement to reduce numbers of participants.

3) Incarcerated Residents

(1) New Intake

- (a) On March 13, 2020, BOP suspended most movement of already incarcerated persons between institutions within the BOP system.
- (b) On March 26, 2020, BOP required temperature and symptom screening of all newly arriving prisoners to the institution. All arrivals were to be placed in quarantine for 14 days or "until cleared by medical staff".⁶⁵
- (c) There is only one new intake currently in isolation, as noted above. Otherwise, there have been no new intakes to the institution since March 19, 2020.⁶⁶
- (d) Intake quarantine is for 14 days in single cells with solid doors regardless of negative test results, per CDC guidelines. Monitoring of these individuals is by correctional staff.
- (e) On admission to quarantine, an Abbott antigen test is performed (quick results but false negative tests possible) and prior to release around day 14 or later, a PCR test is done (slower send-out test with more reliable results). If either of the tests is positive, the individual is moved into isolation. This is an excellent practice.
- (f) Institutional staff were aware of recommendations to not add individuals to quarantine cohorts if they were required and resetting the 14-day clock if anyone in a cohort becomes symptomatic and tests positive.
- (g) The Warden feels that there is sufficient bed capacity currently that, if and when intake resumes to the facility, they will be able to continue the current 14-day quarantine practice of placing these individuals in single cells in a separate unit from the population and separate from individuals in isolation.

Concerns

- 1. It isn't known how soon routine intake of new commitments or internal BOP transfers will commence. Currently, the institution has the capacity to quarantine a fairly large number of arrivals. Whether this remains the case is unclear.
- 2. Monitoring of anyone in quarantine by correctional officers (and not including temperature checks) is inappropriate as they are not trained to evaluate reported symptoms and there are privacy issues which may impede reporting.

(2) Off-site Appointments

(a) Out to court

- (i) This is handled in coordination with the US Marshalls rather than institutional staff who transport the residents to their court appearances. The current practice (and per BOP guidance) is to place any individual

⁶⁵ BOP0000984

⁶⁶ BOP0005333

returning to the institution who may have mixed with individuals not from the institution in quarantine and are presumed to have had "close

(b) Outside medical visits contacts".

(i) Patients with outside specialty medical visits (mostly suspended but now restarting) are similarly quarantined if there is any chance that they have had close contact with someone.⁶⁷

(ii) During limited chart review, one individual was not quarantined despite numerous visits (every few weeks) to the emergency room of a local hospital for a repeated procedure. There was no comment in the chart notes regarding this to suggest it was considered.⁶⁸

(c) Hospital Returns

(i) Patients returning from the hospital to the institution are first cleared by the Clinical Director to insure that the institution can provide the necessary level of care and then, they are housed based on their then current COVID-19 status (i.e., into Quarantine, Isolation, or back to the Recovered population).

Concerns

1. Given the hand-off to the USMS staff for outside court visits, the institution has little direct control over the movements and exposures of these residents. Consequently, it is possible that inappropriate reassurance would be provided by escort staff on return and they would then not be quarantined.
2. Capacity is a concern here as well.
3. While quarantine individuals after off-site appointments where they may have been exposed is an excellent procedure, there appears to be no documentation in the chart notes of the basis for the decision, particularly with the one individual with frequent ER visits.

C) Preventing Spread of Infection within the Institution

1) Staff

i) Staffing Levels

- (1) Sufficient staff are required to enable limiting of resident movement around the institution. It was reported by a number of line staff that they felt there were insufficient staff to manage the changes required by the outbreak during the period when it was very active and that, even before the outbreak, there were unfilled staff positions.
- (2) During the peak of the outbreak, additional correctional and healthcare staff were brought into the institution. These individuals are no longer at the institution.

⁶⁷ BOP0001088-1089

⁶⁸ BOP3974-4313

- (3) There were no concerns expressed by healthcare staff and, generally, by correctional staff regarding current staffing levels.
- (4) During the peak of the outbreak, correctional staff changed from three eight-hour shifts per day to two 12-hour shifts and this was generally perceived as having alleviated some of the staff shortages.
- (5) The current schedule for correctional staff is back to eight-hour shifts but, per the Warden, could be changed back if necessary.
- (6) Of note, due to the dual nature of BOP healthcare staff, they are sometimes employed to fill in in correctional positions.

Concerns

1. The availability of supplemental staff of any type may be limited in the future based on other organizational demands elsewhere.
2. The use of healthcare staff as supplemental correctional staff risks draining healthcare resources. Additionally, it raises concerns for ethical conflicts in the delivery of care.
3. If there were to be another outbreak or even just a large number of staff during influenza season with COVID-like symptoms, staffing could rapidly become short and this would then require multiple compromises with precautionary policies such as assigning staff to resident cohorts.

ii) **Limiting Staff Movement within the Institution**

- (1) Leadership reported that correctional staff are "generally" assigned to the same units when possible.
- (2) Healthcare staff move all over the institution.
- (3) Generally, the staff do appear to have consistent assignments based on interviews. Some staff normally assigned to inactive duty stations (e.g. UNICOR, transportation) were being assigned to various locations as needed.
- (4) While there was some awareness, of the recommendation to try and move from "low to high" risk units (e.g., from a negative unit to a quarantine unit to an isolation unit) with increasing chances of encountering active virus, this does not appear to be an active staffing priority.
- (5) Line staff report that, depending on where overtime shifts occur, they might go in other directions than low to high.
- (6) The staff who were aware of this recommendation did feel that using appropriate PPE for each particular unit would be satisfactory no matter what the direction of assignment regarding the status of infections.

Concerns

1. It is recommended that staff cohort as much as possible with resident cohorts to avoid transferring virus from one cohort to another. This should be a priority.
2. Low to high movement is important for the same reasons.

3. The movement of healthcare staff from housing unit to housing unit, while possibly unavoidable given their relatively small numbers, poses significant risks for viral spread, particularly if stringent PPE practices are not followed.

iii) PPE

- (1) It was reported that, during the outbreak, there were shortages of PPE at various times and to varying degrees.
- (2) Staff interviewed confirmed reports by leadership that there is an abundance of PPE currently available.
- (3) A correctional staff person assigned to the isolation unit was quite familiar with appropriate PPE usage and the products were available at his location along with donning and doffing areas.
- (4) Familiarity and expertise with the use of PPE could not be confirmed more generally.

Concerns

1. Availability of adequate supplies of PPE in the future will be vulnerable to competing demands from other BOP institutions, local community vendor shortages, and multiple potential breakdowns in the supply chain in the US and internationally.
2. The FDA is currently listing nationwide shortages in almost all categories of PPE.⁶⁹
3. As with all procedures, the longer staff go without having to use PPE the more likely they are to get the process wrong and risk personal infection or dissemination.
4. This concern particularly applies to staff assigned to new areas. Reading instructions (like reading post orders) is usually not sufficient for understanding complex procedures. Frequent re-training will be required.
5. Close supervision by leadership will be required to ensure that appropriate PPE practices are in place for a variety of different settings within the institution.

2) Resident Population

i) Education

- (1) All residents interviewed demonstrated understanding of the modes of transmission of COVID-19 and were able to report a number of prominent symptoms of the infection.
- (2) While levels of misinformation were not explored, residents report getting much of their information from television.

⁶⁹ Food and Drug Administration. (8/14/20). *Medical Device Shortages During the COVID-19 Public Health Emergency*. Retrieved 8/15/20 from: <https://www.fda.gov/medical-devices/coronavirus-covid-19-and-medical-devices/medical-device-shortages-during-covid-19-public-health-emergency>

- (3) Most of the residents interviewed reported that a number of new educational signs were posted in housing units shortly prior to my visit.
- (4) Some of the residents interviewed acknowledged verbal teaching by institutional leadership but felt that this was mostly related to procedures and changes in program though this aspect of information sharing was considered generally adequate.
- (5) All of the "negative" residents interviewed expressed anxiety about possible reintegration into housing units occupied by "recovered" individuals.
- (6) Document production showed "Talking Points for Reintegration (date?)"⁷⁰ but it's unclear if these were communicated to the resident population and the explanation of notions of immunity, herd immunity, and other related concepts which would enhance understanding is not included.

Concerns

1. As education is key to gaining compliance and cooperation with the deprivations and requirements of managing the pandemic, it is concerning that signage appears to be the dominant mode of education as the many questions raised cannot be answered.
2. It appears that critical issues related to choices regarding re-integrating the "negative" population have not been adequately explained.
3. While residents often spoke highly of the Warden's Town Hall talks in the housing units, continuing education on the many medical issues surrounding the virus and the institutions responses from healthcare staff with expertise in these areas appears to have been more sporadic.

ii) Limiting Resident Movement within the Institution

- (1) Since the outbreak, all programming for residents has stopped including substance abuse treatment sessions, education, etc.
- (2) Social visiting has stopped.
- (3) Legal visiting was stopped (but will now be evaluated on an ad hoc basis though, to date, no attorneys have requested to come on site, per leadership).
- (4) The majority of work assignments have been suspended including employment at the UNICOR facilities.
- (5) Sick call is currently being run entirely at the housing units in ad hoc spaces since a BOP directive on June 24, 2020.
- (6) Pill line (medication pass) is currently being done at the individual housing units for a.m. and p.m. med pass. For the mid-day medication pass, patients receive their medications as they go to pick up their "grab and go" meals (which is also cohorted by housing unit).
- (7) Insulin is being administered in these same locations.
- (8) Phlebotomy (for lab testing requiring blood draws) and Radiology continue to be performed at the HSU

⁷⁰ BOP0001178

- (9) All incarcerated persons in general housing have been cohorted with their housing unit with no mixing in common areas or on the yard.
- (10) Outside exercise ("yard") was stopped for a period of time but has now resumed. This is cohorted by individual housing unit so there isn't mixing of individuals from different housing units.
- (11) Access to the Law Library and Trulinc email computers is by cohort.

Concerns

1. As the institution tries to reopen, increased mixing of cohorts (and possible elimination of cohorts) will occur, breaking down the compartmentalization of the population which may limit spread.
2. The desire to begin programming, work, education, and to reestablish suspended social relationships could result in insufficient caution regarding social distance measures.
3. Even though there is little adequate social distancing within the current cohorts, once the population begins mixing it will become even more important. If not established beforehand to whatever degree possible, it will be much more difficult once the process begins.
4. Sick call is being conducted in non-confidential spaces.
5. Phlebotomy could actually be performed in housing units with appropriate accommodations but is currently requiring movement of individuals to the HSU.

iii) **Population Medical Surveillance**

- (1) Currently, there appears to be no structured ongoing COVID-19 surveillance of the population.
- (2) Residents in the "recovered" population appear to believe that they are immune to reinfection so display little concern in interviews that symptoms should be reported.

Concerns

1. If a case were to occur in the population, there could be a delay in identification.
2. Complacency reflects insufficient education. It's as important for the population to understand what isn't known (presence and/or duration of immunity) as what is known.
3. Sick call is not perceived as a forum for screening for new symptoms in a housing unit. This puts the burden on the residents to be aware of what should immediately be reported and to whom.

iv) **Testing**

- (1) It appears almost certain that the implementation of broad-based testing was responsible for limiting further spread of infection at the facility and, in so doing, likely reducing significant morbidity and mortality.

- (2) The institutional leadership believes they have an adequate supply of test kits and adequate lab resources for processing them. They have a large (>1,000) number of rapid tests but it's unknown how many PCR test kits are on-site or immediately available.
- (3) Current send-out lab test turnaround time is about 3 days.
- (4) The current use of testing ("Abbott in, PCR out") in quarantine is an excellent practice.
- (5) Broad-based testing of the population was accomplished with additional staff resources brought to the institution.
- (6) A number of residents in the "negative" cohort reported never being told their test results. Some thought they were moving because they were positive.

Concerns

1. Another outbreak, even if just in the "negative" population could require between 500-1000 test kits depending on the number of positive tests in each wave of testing. (The less positives, the more tests are required in subsequent waves).
2. It's unclear whether that many test kits are immediately available and whether they will be available at the time needed, depending on conditions elsewhere in the BOP and the community.
3. Similarly, whether the laboratory used will be able to process that many tests and still be able to have a reasonable turnaround time will be dependent on external factors.
4. The arrival of influenza season will likely precipitate repeated testing as non-COVID illness present with similar symptoms. This will also be the case in the community and nationally producing increased demands on testing resources.
5. It is unlikely that broad-based testing would be possible with just the current healthcare staff assigned.
6. Enlistment of additional staff to perform testing is likely to result in individuals with less experience obtaining inadequate specimens resulting in false-negative tests.
7. Patients not being told their results is inappropriate and can substantially compromise cooperation.

v) **Isolation**

- (1) As noted, there were only two individuals still in isolation during my visit. Both of these placements were appropriate, and the repeatedly positive individual was there out of an abundance of caution.
- (2) The isolation facility (E unit) consists of individual cells with solid doors.
- (3) Appropriate PPE was available to staff and used on entering the unit.
- (4) Ventilation could not be assessed.
- (5) Cleaning and disinfection of the attached shower area was not observed.
- (6) Those in isolation were cell fed.

- (7) They were showered individually.
- (8) If patients in isolation require formal exam and evaluation by a Provider or Nurse (beyond monitoring) they would be appropriately garbed and transported to the HSU after that area was cleared of other residents. Afterwards, these spaces would be cleaned and disinfected prior to re-use.
- (9) Per leadership, the plan going forward (barring another massive outbreak, presumably) would be to continue using these same facilities and not cohort isolation patients or suspects (or those in quarantine) in a group setting.
- (10) The staff were quite aware of concerns about mixing groups during isolation (and quarantine) and, though apparently this was occurring at times during the outbreak, it was no longer the case.
- (11) Those in isolation are monitored twice daily by healthcare staff.
- (12) Isolation Release Practices
 - (a) A symptom-based release strategy is employed for those with symptoms as recommended by the CDC.⁷¹ (as opposed to a testing-based strategy)
 - (b) For asymptomatic individuals (based on positive tests in quarantine or as a result of broad-based testing), a time-based release strategy is used (as recommended by the CDC).
 - (c) Those placed in isolation as "suspects" (i.e., presenting with relevant symptoms but not yet diagnosed) are rapid tested on admission and PCR tested prior to release at 14 days or later if the first test was negative. This is an excellent practice.

Concerns

1. A large outbreak or a large number of suspects with respiratory symptoms (as may occur during influenza season) may overwhelm the institution's capacity for single cell isolation and result in group cohorting.
2. Cohorting known isolation cases is not a problem but cohorting suspects in isolation is very likely to result in spread of infection to those who don't actually have COVID-19 should group cohorting be required.

vi) **Quarantine**

- (1) There are no current individuals within the population in quarantine as close contacts of suspects or cases.
- (2) Quarantine practice for this circumstance is identical to those described in the intake quarantine section including "monitoring" only by correctional staff.
- (3) As is currently done for individuals, any group quarantine cohort (if that were required) would require immediate broad-based testing, likely utilizing both rapid tests and laboratory testing repeated in waves over a period of weeks, of all involved.

Concerns

⁷¹ CDC (2020, July 20). *Discontinuation of Isolation for Persons with COVID-19 Not in Healthcare Settings*. Retrieved August 14, 2020 from: <https://www.cdc.gov/coronavirus/2019-ncov/hcp/disposition-in-home-patients.html>

1. As noted elsewhere, if there were new cases, new suspects, or a full outbreak, it is very likely that individual cell quarantine capacity would be overwhelmed.
2. Cohorting quarantined individuals in groups makes it highly likely that infection would spread to uninfected residents (as with cohorting suspects together) and is an undesirable practice for that reason.
3. Testing capacity may not be sufficiently robust to minimize further spread if cohorting were required.
4. As noted earlier, evaluation of medical symptoms must be performed by healthcare staff. Correctional staff are not trained in this function and this could potentially delay or prevent identification of new symptoms in individuals under quarantine, potentially delaying appropriate evaluation and treatment.

vii) Social Distancing

- (1) Social distancing is impossible in the dormitory settings.
- (2) Bunks are approximately 2 ½ feet apart from each other. Even with "head to toe" sleeping arrangements, maintaining social distance would be almost impossible in dormitory units.
- (3) Social distancing is more possible in open cell-based housing units but still difficult in common areas.
- (4) While the bulk of the cell-based housing employs solid doors, one unit (J) has doors with open bars for all of these cells.
- (5) Two-person cells involve having two individuals in a "bubble" as they would be unlikely to use face coverings when inside (and not when sleeping).
- (6) Bathrooms spaces in all GP units make social distancing difficult (face coverings are plausible at toilets and urinals but not when sink bathing, tooth brushing, etc.)
- (7) No social distancing was occurring during my period of observation even outside the packed sleeping areas such as at phones, pill line, picking up meals, and sick call. Social distancing was also not observed in the one work crew seen which included residents. This was universally corroborated in resident interviews.
- (8) As "grab and go" meals are consumed in the housing units, this requires removal of face coverings in a confined and crowded space.
- (9) It was reported in the original complaint that temporary bunks set up in the UNICOR warehouse were closer to each other than 6 feet apart. Having observed the size of the space, it is unclear why that was the case, if correct.
- (10) The temporary housing space established in the visiting room would not accommodate a large number of individuals if appropriate spacing was maintained.
- (11) The bunks observed in the UNICOR, Quonset hut, and visiting spaces had been set up just prior to my visit for display purposes (per leadership) and didn't represent the arrangement during the outbreak.

- (12) The addition of the USCG Quonset huts may, to some degree, alleviate this though their capacity is not great if social distancing between bunks is maintained.

Concerns

1. The current population density compromises this important goal.
2. Social distancing is functionally impossible in the current dormitory configuration.
3. The cells with bars rather than solid doors is less adequate for restrictive airflow into the hallway (though better than a dormitory).
4. The housing unit bathroom spaces are difficult spaces in which to achieve appropriate distance.
5. Even where social distancing could be accomplished, it isn't (e.g. sick call, phones, pill lines, etc.). This may reflect (and certainly engenders) nihilism on the part of the staff and population which is an unhelpful message to convey.
6. It is likely that a lack of understanding of the additive benefits of face coverings and social distancing reflects inadequate education.

viii) Cloth Face Coverings

- (1) These have been required of all residents when not sleeping or eating since at least April 10, 2020.⁷²
- (2) Compliance with this directive is fairly good when observed outdoors and other areas under the supervision of staff.
- (3) However, in the housing units it was observed that many individuals only pulled up their masks when staff were entering. This phenomenon was corroborated by a number of residents interviewed.
- (4) All residents interviewed reported that staff would address non-compliance verbally if observed.
- (5) Leadership reported that "write-ups" were possible for noncompliance, but no residents reported knowing of anyone who received one.
- (6) Many residents reported that direction to wear masks was intensified preceding my visit.
- (7) Most also stated that, within the housing units, there was little feedback from their peers if masks weren't worn.
- (8) Residents estimates of mask compliance within the housing units ranged from 50% to 80-90%.
- (9) It was reported that all residents were provided with three masks.⁷³
- (10) There appears to be a current lack of understanding, breakdown in communication (both between leadership and staff, and staff and residents), or other source of inconsistency regarding the current policies and procedures regarding obtaining replacement face coverings by residents.

⁷² BOP0001169. *Warden's Talking Points*

⁷³ Response to Interrogatory No. 15. (2020, June 24)

- (11) All correctional staff interviewed stated that residents could have as many face coverings "as they needed".
- (12) The majority of residents interviewed reported at least some difficulty obtaining additional or replacement face coverings (though some reported no problem at all).
- (13) One resident reported that "custody stopped distributing masks on May 1st and just resumed last week".
- (14) The majority of residents interviewed did not have or no longer had three masks (5/16 had 3, 8/16 had 2, 3/16 had 1). Some had received one of their masks in the week prior to my visit.
- (15) Large size face coverings were, apparently, only distributed in the previous week forcing some residents to wear ones which were too small to adequately block spread.
- (16) Residents reported washing their masks by hand or sending them to the laundry and found these both adequate.

Concerns

1. The significant lack of compliance with mask wearing in housing units (particularly when not actively supervised) suggests inadequate education on the potential for another outbreak and the importance of this and other protective measures.
2. The process to provide and replace masks is not functioning adequately.

ix) Personal Hygiene

- (1) The institution reports that non-alcohol hand sanitizer is located in the common area of all housing units.⁷⁴
- (2) Maintaining adequate soap in the bathroom dispensers within the actual housing unit is the responsibility of the unit resident "orderlies". Interestingly, interviewees in one housing unit reported that, generally, the dispensers were kept filled while in another housing unit it was reported that they were sometimes empty for days at a time.
- (3) It was reported that some of the sanitary fixtures (urinals and toilets) were broken, sometimes for many days or longer. It was noted that there was a number of them were fixed in the period just prior to my visit.
- (4) Orderlies interviewed and assigned to housing units reported not generally wearing actual PPE when cleaning in the unit (other than their masks and a pair of gloves).
- (5) Residents reported no current constraints on showers within the housing units.
- (6) None of the residents interviewed recalled having been given tissues to use during the period when they were symptomatic.

⁷⁴ BOP0001112-1130

Concerns

1. In reality, the hand sanitizer is placed in the lobby between "ranges" and, consequently, is inaccessible to residents when in their actual housing unit.
2. Additionally, this would make "frequent use of hand sanitizer" difficult for orderlies working inside the housing units as recommended in the FCI Terminal Island Sanitation Plan.⁷⁵
3. As orderlies are supervised by correctional staff, there appears to be some variability in the amount and quality of supervision resulting in heterogeneous practices.
4. Delays in repairing bathroom fixtures increase the density of use and may result in higher chances of viral spread if introduced into the unit.
5. Not having tissues available increases the likelihood of viral spread on surfaces and potentially through the air (and is recommended by the CDC in correctional settings).

x) **Cleaning and disinfection**

- (1) Cleaning and disinfection as actually practiced was not personally observed during my visit. The FCI Terminal Island Sanitation Plan (COVID-19) was reviewed and appears to contain appropriate guidelines.⁷⁶
- (2) The only example actually observed was a non-resident individual seen disinfecting surfaces in the entry foyer of the institution but not wearing more than the usual mask and gloves (contrary to the guidance in the Sanitation Plan). Given the setting, this may not have been more than a theoretical risk, however.
- (3) Staff supervise orderlies doing the majority of cleaning and disinfection within the institution and particularly the housing units.
- (4) Each housing unit has a "lead orderly" and a crew of other orderlies working underneath them.
- (5) In my interviews with the incarcerated population it seemed that there was consistency within housing units in perceptions of the availability of cleaning supplies and practices but there was noticeable variation between different housing units.
- (6) Typically, residents can ask orderlies for cleaning supplies and it is given without charge (when it is given and/or available).
- (7) There was a suggestion from several (but not the majority) of residents interviewed that there was some favoritism in distribution of cleaning supplies and one individual even suggested a requirement for bartering. This was not corroborated by others interviewed subsequently.
- (8) Both orderlies and non-orderlies interviewed generally perceived no shortage of restock supplies of cleaning products from correctional staff when requested.

⁷⁵ BOP0001115-1121

⁷⁶ BOP0001115-1123

- (9) There was some unclear guidance disseminated to orderlies recently about not using excess amounts of cleaning products, but this wasn't equated with being inaccessible.
- (10) Orderlies are responsible for cleaning and disinfecting common areas but not individual bunks, lockers, and other similar items.
- (11) In one unit, it was repeatedly mentioned that when individuals in the housing unit wanted to clean and disinfect their personal areas (bunks, lockers, etc.) that they were frequently unable to get appropriate products from the orderly. In another unit that generally wasn't an issue.
- (12) It was reported that in the previous week, all personal spray bottles (of disinfectant?) used for cleaning personal areas were confiscated. This is in accord with BOP policy.
- (13) Head orderlies apparently request additional supplies from their housing unit correctional officers when needed and, generally, this wasn't considered a problem and supplies were felt to be plentiful.
- (14) There was a general lack of familiarity on the part of both the orderlies and residents in general as to which products were for cleaning and which were for disinfection.
- (15) The orderlies interviewed seemed unfamiliar with the requirement to leave disinfectant wet on surfaces for a period of 10 minutes.
- (16) Shift inspections are required according to the BOP directives. These reports were not reviewed.
- (17) Correctional staff consistently reported disinfecting shared equipment prior to exchanging or checking in. This includes keys, radios, etc.
- (18) Laundry is available once weekly. Laundering practices (regarding potential for COVID-19 infection) were not observed.
- (19) Telephones were to be disinfected in between use by the residents using them. There were spray bottles observed on each bank of phones in the housing unit lobbies along with rags. It was observed that these were being used intermittently.
- (20) It was reported by several residents, that this is only being done sometimes and sometimes no disinfectant is available as other residents are taking it for their personal use.
- (21) It was widely reported that the Trulincs computer room often didn't have disinfectant for use on the keyboards between users. This was acknowledged by institutional staff and it was noted that residents have free access to the room (during scheduled times) and are not monitored so are thought to be "swiping" the sanitizer bottles.
- (22) Wipeable keyboard covers have been installed.
- (23) Only one resident interviewed had returned to his institutional work assignment and reported that, though masks were required, there were no special procedures for disinfecting tools and equipment in place.

(24) Cleaning and disinfection practices in other areas of the institution were not assessed.

Concerns

1. The apparent variation in cleaning and disinfection practices suggests that, between the housing units, there is some variability in supervision. Residents who either had been or were orderlies (one being a head orderly) felt that this wasn't surprising.
2. There appears to be a "personal" component to the distribution to residents of cleaning supplies by some orderlies at times possibly suggesting overly vague policies and inadequate supervision.
3. There is insufficient education (and supervision) of the orderlies on the different products used and their instructions. Identifying them by color ("the red one") isn't sufficient since, when suppliers and products change, they may appear different.
4. Lack of disinfectant for keyboards and telephones at any time is a potential means of viral transmission.
5. It is unclear whether heightened measures for disinfecting tools and equipment by workers. If and when the institution resumes more normal programming, there will be many areas where this is a concern.

D) Medical Care

1) Access to Care

- (1) Copayments by residents for some healthcare visits have been suspended.
- (2) It was alleged in the original complaint that, during the outbreak, there was "no medical care at all" and residents were "not able to speak with a doctor".
- (3) Medical grievances were reportedly difficult to submit during the outbreak (lack of paperwork from correctional officers and general discouragement regarding submission) but those who had filed grievances more recently felt that, currently, the forms were readily available, and they were able to submit them.
- (4) It was alleged that, during the outbreak, symptomatic patients were not given any treatment and were unable to see a doctor. This could not be evaluated currently as there were no symptomatic individuals.
- (5) The sick call process currently consists of residents completing a sick call form and then standing in line for triage (sometimes by nurses and sometimes by paramedics).
- (6) The sick call form is handed in but there is no copy or receipt for the resident to use to document submission.
- (7) Some residents reported being told that the forms were then shredded after processing. This was not investigated.
- (8) Healthcare staff reported that there was no log used to keep track of sick call submissions.

- (9) Residents interviewed noted that, during the outbreak, sick call line was definitely cursory, and residents were discouraged from presenting at sick call unless they were very ill.
- (10) The majority of residents interviewed felt that this was generally no longer the case and it was felt that the initial "procedure" was working adequately now.
- (11) However, a number of individuals (7 of 16 interviewed) reported submitting sick call forms and not being seen and/or having a problematic response. These charts, though requested, were not reviewed due to time constraints. Without actual chart review it cannot be determined whether these are the result of misunderstandings of appropriate care processes or actual gaps in the provision of care. These are extracts of the resident complaints:
 - (a) Reported submitting a form on June 4, 2020 but hadn't yet been seen.
 - (b) Reported submitting one a month ago regarding his chronic HCV infection but still hadn't been seen.
 - (c) Reported having submitted weekly sick call slips for shortness of breath (he has a history of asthma) and one the previous week for an inhaler he needed but not having been seen yet.
 - (d) Reported having chronic groin pain for 5 months, having an x-ray (though he never got the results), being told he needed to see an orthopedic surgeon but that was deferred for now due to the outbreak. However, he also submitted one for a change in his medication due to side effects and got an almost immediate response.
 - (e) Reported that he had submitted many sick call slips over the past few months, was told to take ibuprofen, and has had no follow-up. He also reported having had an EKG then hearing that the machine was broken, not having another one done, and never got any results.
 - (f) Reported submitting a sick call slip every two weeks for continuing symptoms he first got when COVID-19 infected, was told to take ibuprofen, and hasn't been seen.
 - (g) Reported submitting a sick call slip 4-5 days ago for persistent heartburn symptoms for more than a year which have been refractory to various medications. He was told to take one of them again for a month and then resubmit if not improved.

Concerns

1. Whether these sick call issues reflect lapses in care or not, the perceptions of so many residents suggest that there is inadequate communication of plans following sick-call triage.
2. The lack of a log for sick call submissions and the absence of any documentation for residents to keep to refer to in the future makes monitoring the quality of the sick call process difficult.
3. The lack of privacy for the sick call process may be a disincentive for individuals to openly discuss their medical issues, including possible symptoms of COVID-19 infection.

4. If copays are reinstated for some healthcare visits, this may be a disincentive for reporting symptoms.

2) General Clinical Issues

- i) The current Clinical Director has responsibility for many areas of the COVID-19 clinical response. These include multiple daily contacts with outside hospitals regarding each resident who is out. In addition, liaison with family members of those who are critically ill is also part of the duties. This is in addition to his clinical responsibility for evaluating staff who fail screening on entry. They also perform a substantial amount of primary care and patient management in the infirmary.
- ii) It was reported by the Clinical Director that it is against BOP policy for residents to have Advanced Directives specifying that they would like to not be resuscitated or to be intubated, i.e. placed on a ventilator (DNR, DNI). As a consequence, critically ill patients at outside hospitals were potentially treated against what their wishes would have been.
- iii) In chart review it appears that there were occasions when hospital staff were at a loss as to where to receive direction regarding "aggressive" or even potentially futile treatment in many cases.
- iv) Currently, there are 8 healthcare staff vacancies.
- v) It appears that healthcare staff in the BOP are also considered correctional staff and, at times, assigned to correctional duties.
- vi) Patients requiring medical examinations by Providers or Nursing are required to go to the HSU (as well as for lab testing).

Concerns

1. The multiple duties of the Clinical Director, can during the unusual periods of an outbreak, have the potential to make accomplishing any one of them less effective.
2. Contract physicians, no matter how experienced, may have difficulty immediately taking over these duties and, consequently, cause a lag in adequate management, both clinical and administrative.
3. Reviewing BOP policies, the opinion on Advance Directives appears to be a misunderstanding. While it is stipulated that there can be no DNR status within the institution, Advance Directives are available (and encouraged) and can include DNR/DNI wishes to be observed by outside medical staff as in the hospital.⁷⁷ Not enabling expression and documentation of these important healthcare decisions both disrespects patient autonomy and has the potential to waste scarce critical care resources in the community for patients who would not have wanted that type of treatment anyway.
4. While the institution may be able to manage with the current staff vacancies (though this wasn't really assessed), it is very likely that with any level of

⁷⁷ US DOJ, Federal BOP (2014, June 3). P6031.04 *Program Statement; Patient Care; 24-Serious Illness and Death Procedures, c.-Advance Directives and following*; Retrieved 8/14/20 from: https://www.bop.gov/policy/progstat/6031_004.pdf

outbreak and, certainly, if staff again became affected, there would be significant problems monitoring the population and providing appropriate clinical care. If other BOP institutions and the community were also affected, additional support might not be available.

5. Utilization of healthcare staff for correctional duties compromises medical autonomy and makes ethical performance of the relevant clinical responsibilities difficult if not impossible. When a healthcare provider (whether Nursing or Provider) is also tasked with and responsible for penological functions such as discipline and punishment (which is always implied by functioning in a correctional role), there can be no appropriate relationship with patients as these roles compromise patient-healthcare provider relationships.
6. There are, currently, no appropriate spaces in the housing units for proper medical or nursing evaluation and treatment. Transportation to the HSU is required.
7. Healthcare staff advised that they would try and see patients for evaluations in ad hoc spaces at the housing units if that was possible, depending on the nature of the visit.
8. Healthcare contacts (sick call, nursing, and provider visits) are being performed in non-confidential settings.
9. Transportation of individuals requiring proper medical or nursing evaluation and treatment creates a significant risk for spreading virus.
10. This creates a strong incentive, as a result, to limit access to these kinds of routine or urgent medical evaluations and treatment due to the added logistical burden.

vii) Chronic Care Illnesses

- (1) According to leadership, they were behind during the outbreak in time frames for scheduled visits but now are "100%" in compliance" with the exception of some specialty visits. These details were not specifically evaluated and addressed for the purposes of this report, though if prolonged delays were actually still occurring that would be cause for concern.⁷⁸
- (2) It could not be corroborated whether current management of chronic medical problems fall within BOP guidelines or whether it meets community standards. This was not the focus of the investigation but would obviously be germane to evaluating the institutions capacity to continue appropriate medical care during an outbreak.

Concerns

1. While chronic care issues could not be comprehensively addressed, it is important that, even in the face of an outbreak, pending appointments and follow-up of chronic medical conditions be tracked. At least chart review can

⁷⁸ BOP0001059-1060

then be accomplished and documented. Of the charts reviewed, this was not observed.

viii) Specific Clinical Issues found on Chart Review

- (1) During the outbreak, one person whose chart was reviewed had his transfer to the hospital delayed for at least 12 hours (during which his oxygen levels declined) after the order to send him was given due to insufficient staffing to transport him sooner. On further review of the hospital record, there didn't appear to be obvious, direct consequences as a result even though he ultimately died at the hospital.⁷⁹
- (2) A very fragile patient with multiple complex hospitalizations prior to the outbreak, was discharged on or around April 23, 2020 but was not seen in follow-up by a provider until May 13, 2020. Additionally, he was discharged prior to the outbreak from a community hospital on a new medication, digoxin, which requires blood levels to avoid toxicity. This lab test was never obtained.⁸⁰
- (3) A patient was discharged from the hospital after a long and complex course due to COVID-19, including being placed on a ventilator. He was discharged back to Terminal Island on a modified consistency diet due to swallowing difficulties (dysphagia) and a risk of aspiration. He required hand feeding by the nurse. On August 11, 2020, a nurse documented in their note that the patient was coughing with small amounts of water and "may need a swallow evaluation" requesting he be seen that day. A note that same day by the provider made no mention of a swallow evaluation or dysphagia and recommended "plenty of water" in addition to his puree diet. The following day he developed coughing. On August 15, 2020 he was transferred to the hospital for shortness of breath and very low oxygen levels. A chest x-ray showed multiple patchy infiltrates consistent with possible pneumonia. His respiratory status declined and he subsequently died of respiratory failure.⁸¹
- (4) While emergency response was not assessed in a comprehensive way, and no doubt was not functioning as well as it should have during the outbreak, a recent resident suffered a cardiac arrest in his housing unit, CPR was commenced on scene, and he survived the event to be hospitalized and undergo cardiac catheterization without apparent permanent sequelae. This is commendable.⁸²

Concerns

1. Decreased availability of correctional staff may delay necessary transfers to the hospital potentially causing worse outcomes.
2. Early and close follow-up of patients discharged from the hospital is imperative.

⁷⁹ BOP0000003119-3222

⁸⁰ BOP1601-1777

⁸¹ BOP0003223-3355

⁸² BOP0003700-3828

3. The patient with dysphagia may have suffered an avoidable death as a result of aspiration pneumonia consequent to his continuing to be fed despite warnings from nursing that he was at risk.
4. Lack of follow-up of necessary lab testing poses risk to patients.

ix) Allegations (see original complaint)

- (1) It was alleged that, during the outbreak, patients with symptoms were not tested because their fever wasn't high enough. This could not be corroborated.
- (2) It was alleged that, during the outbreak, residents were "deprived of usual medical care". This could not be corroborated.
- (3) It was alleged that, during the outbreak, there were insufficient beds in the short-stay unit (SSU) for all the sicker patients therefore they received "no monitoring or treatment" and there were "premature" releases from medical care. This could not be corroborated.

METHODOLOGY

Beginning on 8/3/2020 a site visit at the FCI Terminal Island facility was conducted. An extensive tour of the institution was arranged by FCI-TI staff but also redirected at times at my request to additional areas. While at the facility, interviews were conducted with correctional and healthcare leadership, custody and healthcare line staff, and members of the resident incarcerated population chosen at random by me from various housing units. Clearly, the institution made specific preparations in anticipation of my visit (which is not surprising or even unreasonable) but without ongoing unscheduled inspection visits, it can't be confirmed what the practices are under "usual" conditions.

Prior to the site visit, numerous documents were reviewed. These included the original complaint which included numerous declarations both by plaintiffs and others and also expert testimony procured by Plaintiffs regarding conditions at that time at the prison. Subsequent legal filings were also reviewed. Documents were requested from Respondents and produced over time. Some of these had already been distributed in response to prior requests by the Plaintiffs. Additionally, some were produced in response to my requests. Relevant Bureau of Prisons memoranda, policies, and guidelines were also reviewed. Following the site visit, additional documents and clarifications were requested and provided.

In addition, relevant medical records were requested for review both before, during, and after the site visit. These included those for the three original plaintiffs, the last four individuals at the facility who died, the last four who were hospitalized, those with four or more medical condition risk factors for severe disease, as well as a number of charts for residents who were interviewed during the site visit in order to attempt to corroborate allegations regarding certain aspects of their healthcare. Unfortunately, due to the late production of the bulk of the medical records (August 20,2020 after a request on August 6,2020), these could not all be reviewed prior to submission of the report). While about half were reviewed in the time available, a comprehensive investigation of quality of care issues and their relationship to COVID-19 would take substantially more time than was available.

The basis for reviewing the current status of FCI Terminal Island regarding COVID-19 was, primarily, relevant CDC guidance. The main reference was their 7/22/20 updated Guidance for Correctional & Detention Facilities, though many other guidance documents were used.⁸³

⁸³ CDC (2020, July 22). Guidance for Correctional & Detention Facilities. Retrieved, most recently, on August 23, 2020 from: <https://www.cdc.gov/coronavirus/2019-ncov/community/correction-detention/guidance-correctional-detention.html>

DEFINITIONS

Adapted from CDC Guidance

Close contact of someone with COVID-19 – Data to inform the definition of close contact are limited. Considerations when assessing close contact include the duration of exposure (e.g., longer exposure time likely increases exposure risk) and the clinical symptoms of the person with COVID-19 (e.g., coughing likely increases exposure risk, as may exposure to a severely ill patient). The definition of close contact does not change if the infected individual is wearing a mask or cloth face covering.

Cloth face covering – Cloth face coverings cover the nose and mouth and are intended to help prevent people who have the virus from transmitting it to others, even if they do not have symptoms. CDC recommends wearing cloth face coverings in public settings where other social distancing measures are difficult to maintain. Cloth face coverings prevent the person wearing the covering from spreading respiratory droplets when talking, sneezing, or coughing. If everyone wears a cloth face covering in congregate settings, the risk of exposure to SARS-CoV-2 can be reduced. Anyone who has trouble breathing, or is unconscious, incapacitated, younger than 2 years of age or otherwise unable to remove the mask without assistance should not wear a cloth face covering. Cloth face coverings are a type of “source control,” intended to help slow the spread of COVID-19 and are not personal protective equipment (PPE). Individuals working under conditions that require PPE should not use a cloth face covering when a surgical mask or N95 is indicated. Surgical masks and N95 respirators should be reserved for situations where the wearer needs PPE.

Cohorting – Cohorting refers to the practice of isolating multiple individuals with laboratory-confirmed COVID-19 together or quarantining close contacts of an infected person together as a group due to a limited number of individual cells. While cohorting those with confirmed COVID-19 is acceptable, cohorting individuals with suspected COVID-19 is not recommended due to the high risk of transmission from infected to

uninfected individuals. Additionally, cohorting close contacts together in quarantine also risks transmission from individuals who may have contracted the infection from the contact to those who never did. Only cohorting individuals with known infection together poses no risk of further spread within the cohort.

Confirmed vs. suspected COVID-19 – A person has **confirmed COVID-19** when they have received a positive result from a COVID-19 viral test, but they may or may not have symptoms. A person has **suspected COVID-19** if they show symptoms of COVID-19 but either have not been tested via a viral test or are awaiting test results. If their test result is positive, suspected COVID-19 is reclassified as confirmed COVID-19.

Medical isolation – Medical isolation refers to separating someone with confirmed or suspected COVID-19 infection to prevent their contact with others and to reduce the risk of transmission. Medical isolation ends when the individual meets pre-established clinical, time-based, and/or testing criteria for release from isolation, in consultation with clinical providers and public health officials. In this context, isolation does NOT refer to punitive isolation for behavioral infractions within the custodial setting. Staff are encouraged to use the term “medical isolation” to avoid confusion, and should ensure that the conditions in medical isolation spaces are distinct from those in punitive isolation.

Quarantine – Quarantine refers to the practice of separating individuals who have had or may have had close contact with someone with COVID-19 to determine whether they develop symptoms or test positive for the disease. Quarantine also reduces the risk of transmission if an individual is later found to have COVID-19. Quarantine for COVID-19 should last for a period of 14 days after the exposure has ended. Ideally, each quarantined individual should be quarantined in a single cell with solid walls and a solid door that closes. If symptoms develop during the 14-day period, and/or a quarantined individual receives a positive viral test result for SARS-CoV-2, the individual should be placed under medical isolation and evaluated by a healthcare professional. If symptoms do not develop during the 14-day period and the individual does not receive a positive viral test result for SARS-CoV-2, quarantine restrictions can be lifted. (NOTE:

Some facilities may also choose to implement a “routine intake quarantine,” in which individuals newly incarcerated/detained (“new intakes”) are housed separately or as a group for 14 days before being integrated into general housing. This type of quarantine is conducted to prevent introduction of SARS-CoV-2 from incoming individuals whose exposure status is unknown, rather than in response to a known exposure to someone infected with SARS-CoV-2.)

Social distancing – Social distancing is the practice of increasing the space between individuals and decreasing their frequency of contact to reduce the risk of spreading a disease (ideally to maintain at least 6 feet between all individuals, even those who are asymptomatic). Social distancing strategies can be applied on an individual level (e.g., avoiding physical contact), a group level (e.g., canceling group activities where individuals will be in close contact), and an operational level (e.g., rearranging chairs in the dining hall to increase distance between them). Although social distancing is challenging to practice in correctional and detention environments, it is a cornerstone of reducing transmission of respiratory diseases such as COVID-19. People who have been infected with SARS-CoV-2 but do not have symptoms can still spread the infection, making social distancing even more important.

UNDERSTANDING TESTING

Reliable and timely testing is key to managing spread of the virus. In order to rapidly isolate positive individuals from the rest of the population before the infection spreads further, it is necessary to know who is positive. It is clear that broad-based testing is required to adequately identify asymptomatic infectious individuals in the resident population, and staff for that matter. Earlier guidance to only test symptomatic individuals and limited testing capacity was partly responsible for the wide spread of the pandemic in the United States and in various institutions. It has been suggested that broad-based testing "resulted in a 12.1-fold increase in the number of known infections among incarcerated or detained persons in these facilities, which had previously used symptom-based testing strategies only".⁸⁴ Of note, the referenced study includes data from testing at FCI Terminal Island. The ability to test is critical for adequately identifying and isolating infectious individuals and slowing and halting the spread of infection at a congregate living facility.

How the tests function (their "performance") is critical for deciding how to manage an outbreak. There are two main types of diagnostic tests for COVID-19 infection. They require sampling the nose and/or throat with special swab kits. Both are used at FCI Terminal Island in different ways and a recurrent outbreak will require careful consideration as to how to employ them again. Tests are evaluated based on their "sensitivity" (the ability to reliably detect true infection, as opposed to "false negatives") and "specificity" (the ability to reliability confirm the absence of infection, as opposed to "false positives").

One test utilizes a technology called PCR which can detect very small sections of viral genes. The PCR tests, which require processing in an actual laboratory by skilled technicians can have good sensitivity (even over 90%). Unfortunately, no test is perfect. How reliable this test is for detecting infection varies based a number of factors. Adequate specimen collection is important as is the handling of the specimen on the way to the lab. Also, the sensitivity of the test varies based on when in the course of infection it is performed.

For example, one study suggested that on the day of infection (before the virus is well established), the test is almost useless (near 100% false negative) and reliability peaks on or about the time of symptom onset which is, on average, 4-6 days after infection though can occur as late as about 12 days.⁸⁵ This means that there could be a negative result and within a few days the person could be heavily spreading the virus. If there is significant clinical suspicion that the patient is infected, then it is important to repeat the test. An unfortunate number of individuals have tested negative initially and then positive on repeat testing. Additionally, in the 40% or more of infected individuals who never develop symptoms, they appear to shed virus in similar time frames to symptomatic individuals. Luckily, the specificity of the PCR test remains excellent so a positive result can be considered reliable proof of infection.

⁸⁴ 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. *MMWR Morb Mortal Wkly Rep* 2020;69:1139–1143. DOI: <http://dx.doi.org/10.15585/mmwr.mm6933a3>

⁸⁵ He, X., Lau, E.H.Y., Wu, P. *et al.* Temporal dynamics in viral shedding and transmissibility of COVID-19. *Nat Med* 26, 672–675 (2020). <https://doi.org/10.1038/s41591-020-0869-5>

The other type of test measures a marker on the surface of the virus (an "antigen"). This test has the advantage of being both more rapid and quite simple to perform and the devices don't require a lab. Consequently, these tests have been marketed for "point of care" use and have been touted as a solution for inadequate testing capacity. Unfortunately, this type of test is less sensitive (approximately 70% reliable for detecting infection) so a negative test still implies a 30% chance that the patient is actually infected. Consequently, a negative test cannot accurately rule out infection, so it is generally recommended that a negative antigen test be followed with a PCR laboratory-based test for confirmation of the result. This antigen test is also reasonably specific so a positive result can be taken as good evidence for disease.

The version of the antigen test marketed by Abbott Laboratories is the most common and is often referred to as the "Abbott" test. For example, at FCI Terminal Island, individuals placed in quarantine have an "Abbott in" which is performed on-site and "PCR out" which is sent out to the lab. This way, if the initial test is positive, the patient can immediately be moved to isolation. If the PCR test on or after day 14 of quarantine is negative, it is considered safe to reintegrate the patient back into the population.

How long it takes to receive test results is also critical when management decisions depend on knowing whether an individual is infected or not. For the PCR test, the result turnaround time is actually most dependent on how busy the lab is. The machines can actually process many specimens at once, so delays are more the result of backlog based on the number of tests submitted to the lab. This is why sometimes the test results return in less than 24 hours and sometimes it may take over a week or more. As community spread necessitates more and more testing, lab resources become strained and the time increases. As noted in the Influenza section, this is likely to become a substantial problem as more respiratory illness appears in the community. Currently, per institutional leadership, the turnaround time for these tests is about 3 days.

While the antigen test can be run in as little as 5 minutes if the result is positive and 13 minutes if negative, only one test can be processed at a time and there is delay between tests for cleaning and preparation of the specimen. Consequently, even though this technology is more convenient and potentially faster for a single test, to process 250 specimens (the approximate number of negative individuals at FCI Terminal Island) this would require an absolute minimum of 60 hours even under ideal conditions and assuming the machine didn't break. And then, the negative results would not be considered reliable and would need PCR confirmation.

The FDA has recently approved the latest saliva sample tests which can be run rapidly on simpler machines with need for fewer scarce reagents though these still require performance in a licensed laboratory setting. These may make the process (and acceptance) of testing easier.⁸⁶

⁸⁶ medRxiv Preprint Vogels C, et al. (2020, August 4) SalivaDirect: *Simple and sensitive molecular diagnostic test for SARS-CoV-2 surveillance*. <https://doi.org/10.1101/2020.08.03.20167791>

CURRICULUM VITAE

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Employment

Court Medical Expert, US District Court, Eastern District
Mays v. County of Sacramento
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California Correctional Healthcare Services
Physician and Surgeon
San Quentin State Prison, San Quentin, California
January 2009-July 2019

California Correctional Healthcare Services
Chief Physician and Surgeon
San Quentin State Prison, San Quentin, California
January 2016-May 2017

California Correctional Healthcare Services
Chief Medical Executive (acting)
San Quentin State Prison, San Quentin, California
April 2016-December 2016

Marin Hospitalist Medical Group, Inc.- Hospitalist
Marin General Hospital, Greenbrae, California
May 2001-January 2009

Avant Inpatient Services - Hospitalist
St. Rose Hospital, Hayward, California
August 2000-April 2001

Mountain Health Services – General Internist
Androscoggin Valley Hospital, Berlin, NH
1995-2000

Harvard Medical School, Pathology Department - Research assistant
1987-1988

The New York Hospital - Paramedic
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New York City Emergency Medical Service - Paramedic
1984-1986

Residency

University of California, San Francisco - Categorical Internal Medicine
1992-1995

Education

State University of New York at Stony Brook - MD, May 1992
Columbia University, School of General Studies
Post Baccalaureate Pre-Med Program, 1985-1987
Bennington College - BA, 1981

Honors and Awards

Clinical Valedictorian- SUNY at Stony Brook School of Medicine, 1992
Alpha Omega Alpha Medical Honor Society-SUNY at Stony Brook School of Medicine, 1992
Edward H. Kass Travel Fellowship, Infectious Disease Society of America, 1991

Service

Executive Committee of the Medical Staff - Androscoggin Valley Hospital, 1996-2000
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Military

United States Air Force, 1974-1976
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