Exhibit 1

CALIFORNIA CORRECTIONAL HEALTH CARE SERVICES

MEMORANDUM

Date : October 20, 2021

To : Steven Fama, Prison Law Office

Subject : **PRISON LAW OFFICE NON-PARAGRAPH 7 CONCERN RELATING TO UPDATED TABLE SHOWING CDCR STAFF INSTITUTION-SPECIFIC COVID-19 VACCINATION NUMBERS AND PERCENTAGES**

California Correctional Health Care Services (CCHCS) is providing the italicized information below in response to your e-mail inquiry dated October 13, 2021.

1. Could you please send us an updated/current table showing California Department of Corrections and Rehabilitation (CDCR) staff prison-specific vaccination numbers and percentages for staff (overall, for healthcare, and for custody), of the kind filed with the Court on September 10, 2021, as an exhibit to a Declaration by Dr. Joseph Bick? When you provide the table, please let us know the date the table's data reflects.

   Refer to Attachment A for the updated table showing the number and percentage of CDCR staff at each institution who received COVID-19 vaccinations as of October 14, 2021.

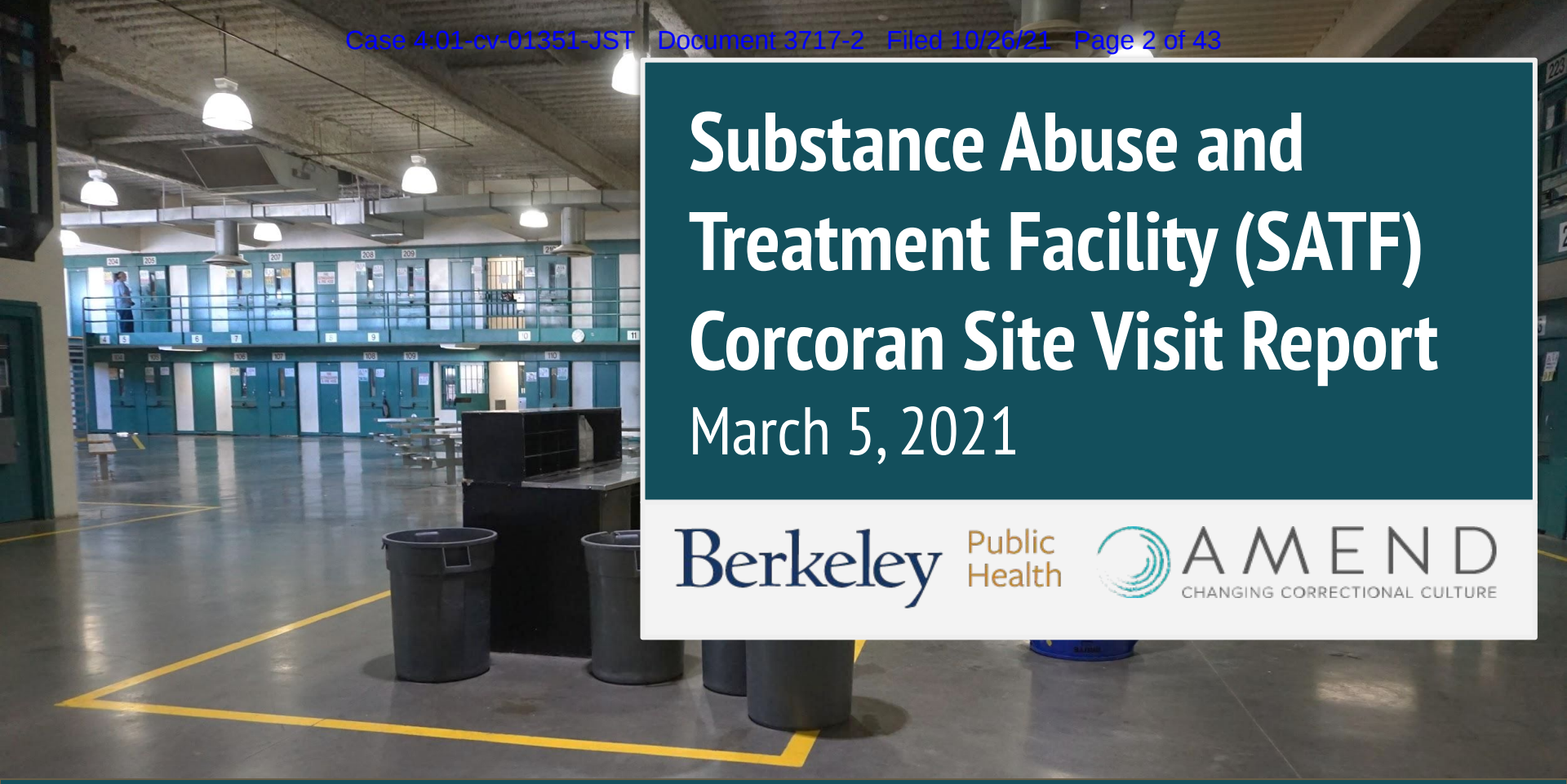
Thank you.

cc: Clark Kelso, Receiver
Directors, CCHCS
CCHCS Office of Legal Affairs
Office of Legal Affairs, CDCR
Office of the Attorney General
Hanson Bridgett, LLP
Jackie Clark, Deputy Director (A), Institution Operations, CCHCS
DeAnna Gouldy, Deputy Director, Policy and Risk Management Services, CCHCS
Renee Kanan, MD, Deputy Director, Quality Management, CCHCS
Erin Hoppin, Associate Director, Risk Management Branch, CCHCS
Regional Deputy Medical Executive, Regions I-IV, CCHCS
Regional Health Care Executive, Regions I-IV, CCHCS
Regional Nursing Executive, Regions I-IV, CCHCS

CDCR Institution Staff COVID-19 Vaccination
as of October 14, 2021

Institution	ALL					Healthcare					Custody					Administrative, Maintenance & Operations Services					Contractor Staff				
	Total number of staff	Completely Vaccinated		Vaccinated with at Least 1 Dose		Total number of staff	Completely Vaccinated		Vaccinated with at Least 1 Dose		Total number of staff	Completely Vaccinated		Vaccinated with at Least 1 Dose		Total number of staff	Completely Vaccinated		Vaccinated with at Least 1 Dose		Total number of staff	Completely Vaccinated		Vaccinated with at Least 1 Dose	
		#	%	#	%		#	%	#	%		#	%	#	%		#	%	#	%		#	%	#	%
SW	**55754**	**32784**	**59%**	**34587**	**62%**	**10685**	**8814**	**82%**	**9101**	**85%**	**26440**	**13412**	**51%**	**14315**	**54%**	**12084**	**8154**	**67%**	**8463**	**70%**	**6541**	**2401**	**37%**	**2705**	**41%**
ASP	1400	771	55%	824	59%	174	125	72%	130	75%	721	367	51%	400	55%	401	236	59%	250	62%	103	43	42%	44	43%
CAC	742	377	51%	399	54%	111	97	87%	99	89%	380	139	37%	149	39%	153	98	64%	103	67%	98	43	44%	48	49%
CAL	1302	887	68%	946	73%	147	112	76%	117	80%	722	486	67%	519	72%	324	241	74%	249	77%	109	48	44%	61	56%
CCC	1035	418	40%	439	42%	96	80	83%	80	83%	582	196	34%	210	36%	256	109	43%	113	44%	101	33	33%	36	36%
CCI	1671	753	45%	820	49%	213	163	77%	178	84%	960	355	37%	384	40%	340	186	55%	192	56%	158	49	31%	66	42%
CCWF	1336	810	61%	864	65%	296	240	81%	249	84%	529	247	47%	273	52%	384	267	70%	278	72%	127	56	44%	64	50%
CEN	1328	972	73%	1028	77%	152	120	79%	123	81%	739	546	74%	582	79%	343	270	79%	278	81%	94	36	38%	45	48%
CHCF	4002	2971	74%	3126	78%	1720	1509	88%	1543	90%	1063	748	70%	797	75%	612	462	75%	488	80%	607	252	42%	298	49%
CIM	1852	1175	63%	1235	67%	363	311	86%	316	87%	847	475	56%	510	60%	416	296	71%	305	73%	226	93	41%	104	46%
CIW	1381	875	63%	921	67%	362	299	83%	309	85%	484	306	63%	322	67%	278	216	78%	224	81%	257	54	21%	66	26%
CMC	1947	1209	62%	1265	65%	400	340	85%	355	89%	882	446	51%	464	53%	468	357	76%	365	78%	197	66	34%	81	41%
CMF	2807	1939	69%	1993	71%	813	727	89%	736	91%	870	636	73%	660	76%	404	341	84%	351	87%	720	235	33%	246	34%
COR	2194	1168	53%	1247	57%	377	310	82%	320	85%	1140	492	43%	540	47%	429	280	65%	290	68%	247	85	34%	96	39%
CRC	1322	788	60%	823	62%	178	152	85%	157	88%	741	388	52%	410	55%	285	209	73%	214	75%	118	39	33%	42	36%
CTF	1426	1015	71%	1066	75%	204	187	92%	190	93%	682	419	61%	443	65%	397	301	76%	314	79%	143	108	76%	119	83%
CVSP	901	522	58%	552	61%	115	91	79%	98	85%	432	230	53%	247	57%	278	178	64%	183	66%	76	23	30%	24	32%
DVI	70	44	63%	46	66%	18	15	83%	16	89%	4	2	50%	2	50%	17	11	65%	12	71%	31	16	52%	16	52%
FSP	1220	723	59%	747	61%	170	147	86%	152	89%	599	330	55%	344	57%	320	209	65%	212	66%	131	37	28%	39	30%
HDSP	1300	449	35%	488	38%	187	126	67%	132	71%	719	180	25%	194	27%	295	122	41%	138	47%	99	21	21%	24	24%
ISP	1361	747	55%	795	58%	131	90	69%	93	71%	685	356	52%	382	56%	300	191	64%	198	66%	245	110	45%	122	50%
KVSP	1627	925	57%	991	61%	238	194	82%	201	84%	975	463	47%	508	52%	362	237	65%	249	69%	52	31	60%	33	63%
LAC	1695	974	57%	1057	62%	347	269	78%	280	81%	809	395	49%	428	53%	337	217	64%	226	67%	201	92	46%	122	61%
MCSP	1794	1015	57%	1063	59%	384	310	81%	324	84%	861	349	41%	371	43%	457	302	66%	308	67%	92	54	59%	60	65%
NKSP	1482	847	57%	898	61%	259	201	78%	213	82%	772	389	50%	410	53%	338	219	65%	229	68%	113	38	34%	46	41%
PBSP	1347	516	38%	539	40%	136	83	61%	85	63%	853	240	28%	251	29%	299	165	55%	173	58%	59	28	47%	30	51%
PVSP	1313	664	51%	708	54%	170	127	75%	134	79%	763	323	42%	349	46%	305	185	61%	192	63%	75	29	39%	33	44%
RJD	2286	1440	63%	1513	66%	485	417	86%	430	89%	1047	598	57%	646	62%	385	306	79%	312	81%	368	118	32%	124	34%
SAC	1927	1098	57%	1151	60%	389	323	83%	331	85%	892	450	50%	482	54%	339	239	71%	246	73%	307	86	28%	92	30%
SATF	1983	1041	52%	1110	56%	383	276	72%	288	75%	988	430	44%	467	47%	455	273	60%	285	63%	157	62	39%	70	45%
SCC	1191	566	48%	594	50%	135	107	79%	108	80%	657	257	39%	275	42%	309	167	54%	173	56%	90	35	39%	38	42%
SOL	1484	836	56%	872	59%	217	188	87%	190	88%	723	343	47%	364	50%	378	254	67%	266	70%	166	51	31%	52	31%
SQ	2148	1313	61%	1392	65%	348	290	83%	301	86%	995	631	63%	676	68%	341	270	79%	278	82%	464	122	26%	137	30%
SVSP	2022	1277	63%	1338	66%	400	345	86%	358	90%	968	541	56%	573	59%	411	284	69%	295	72%	243	107	44%	112	46%
VSP	1203	791	66%	815	68%	258	215	83%	220	85%	538	307	57%	315	59%	311	230	74%	236	76%	96	39	41%	44	46%
WSP	1655	868	52%	922	56%	309	228	74%	245	79%	818	352	43%	368	45%	357	226	63%	238	67%	171	62	36%	71	42%

Exhibit 2



Substance Abuse and Treatment Facility (SATF) Corcoran Site Visit Report

March 5, 2021

Berkeley Public Health

AMEND
CHANGING CORRECTIONAL CULTURE

David Sears*δ, Stefano M. Bertozzi*δ, Rachel Sklar*, Brittany Imwalle*, Ada T. Kwan, Sandra I. McCoy, Robert Schell, Helena Archer, Chakriya Srey, Brie Williams

* *Attended in-person site visit*
δ *Corresponding authors*

Agenda

- Context
- Overview of observations
- Recommendations
- Discussion

CalPROTECT (California Prison Roadmap for Targeting Efforts to Address the Ecosystem of COVID Transmission)

CalPROTECT is an initiative comprised of a multidisciplinary team of experts in public health, medicine and infectious disease, behavioral science, environmental engineering, and economics from **AMEND at UC San Francisco** and **UC Berkeley Schools of Public Health and Public Policy**.

On December 13 & 14, 2020, CalPROTECT visited the Substance Abuse and Treatment Facility, Corcoran State Prison (SATF-CSP) to evaluate ongoing transmission of COVID-19.

Today's presentation summarizes our key findings and recommendations. We have opted to minimize our description of the background of the prison to optimize time for Q&A.

Dr. McCoy and Dr. Sklar will lead today's presentation, followed by Dr. Bertozzi who will highlight key points prior to the Q&A.

1. Purpose of this Assessment

Our goal is to describe and recommend policies that may protect and promote physical and mental health among people who are incarcerated, including the prevention and control of COVID-19.

For our team's December 2020 site visit to SATF, we were guided by the following questions:

1. *What were characteristics of the 2020 COVID-19 outbreak at SATF-CSP?*
    a. *What are the factors that contributed to the outbreak and/or its containment?*
    b. *How did COVID-19 spread in different housing units?*
    c. *What factors might contribute to mitigation of future outbreaks at SATF-CSP?*
    d. *In which areas does SATF-CSP remain vulnerable to future COVID-19 outbreaks?*
2. *What lessons might be transferable to other settings, and how are these lessons translated to policy?*

2. Methodology

Onsite Data Collection

- Interviews and conversations with key stakeholders (e.g., leadership staff, medical leadership, inmate councils)
- Group discussions (e.g., inmate councils)
- Space/place observation during facility visit
- Indoor air quality assessments
    - CO_2 and airflow

Public data sources

- CDCR, Kings County Department of Public Health, California Government Open Data Portal, CCHS

3.1 Findings

Outbreak Characterization

Overview of SATF Population and Outbreak

Population	Size	Active Cases	Total Confirmed
		As of January 19th, 2021	
Staff	1,555 (Q3)	74 (48 per 1000)	513 (330 per 1000)
Incarcerated (Capacity)	4,314 (3,424)	16 (3 per 1000)	3,004 (696 per 1000)

As of 1/19/2021:

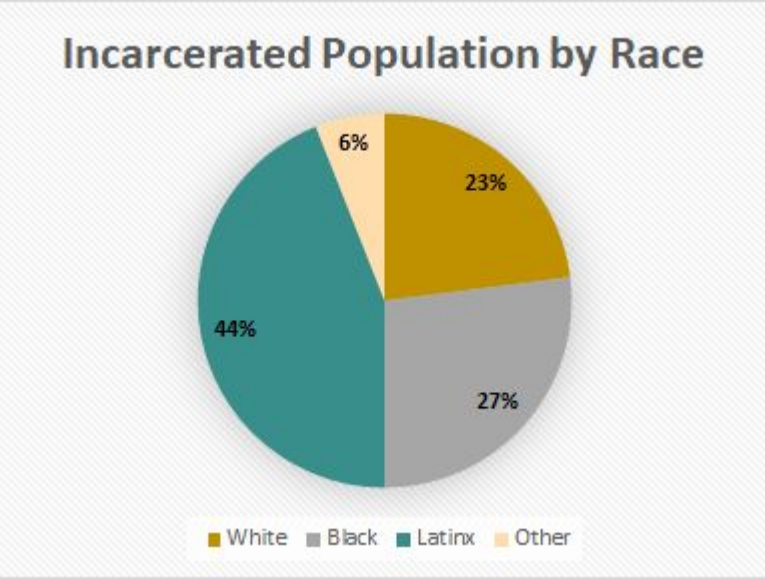
Active cases in CDCR = 37 per 1000

Confirmed cases in CDCR = 471 per 1000

Demographic Breakdown of SATF Population

Risk Level	SATF As of October 2020	CDCR Facility Avg
High Risk I	5%	7%
High Risk II	8%	10%
Medium Risk	54%	34%
Low Risk	33%	49%

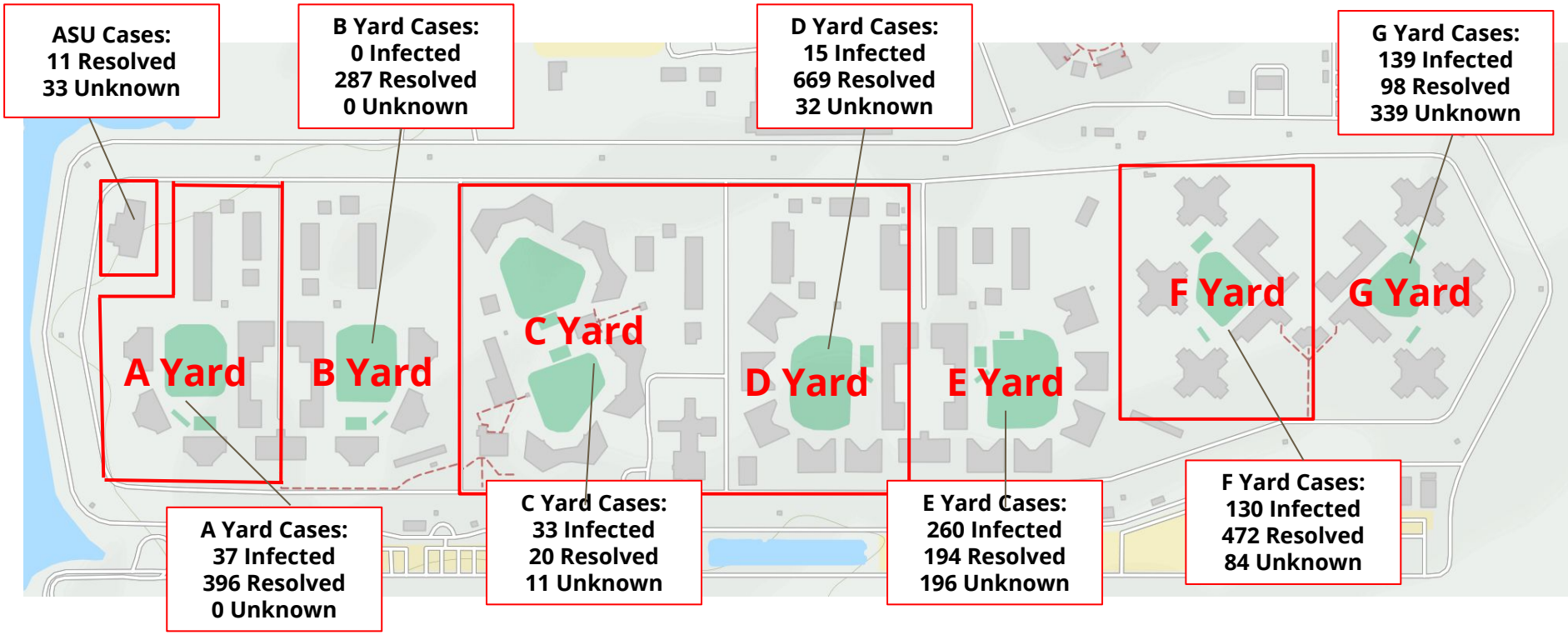
Notes:High risk selection criteria include i) diagnoses/conditions associated with current or future risk for adverse health event, ii) multiple higher level of care events in past 12 months, iii) prolonged medical bed stays, iv) patients on 10 or more medications, v) two or more high risk specialty consultations in past 6 months, vi) 65 years or older, vii) any comorbid medium risk diagnoses/conditions that may increase risks for future adverse health events; Chronic conditions constitute any that do not meet the selection criteria for high risk, including patients enrolled in mental health services delivery system and patients with permanent disabilities (ADA) affecting placement.



29% of population aged 50+

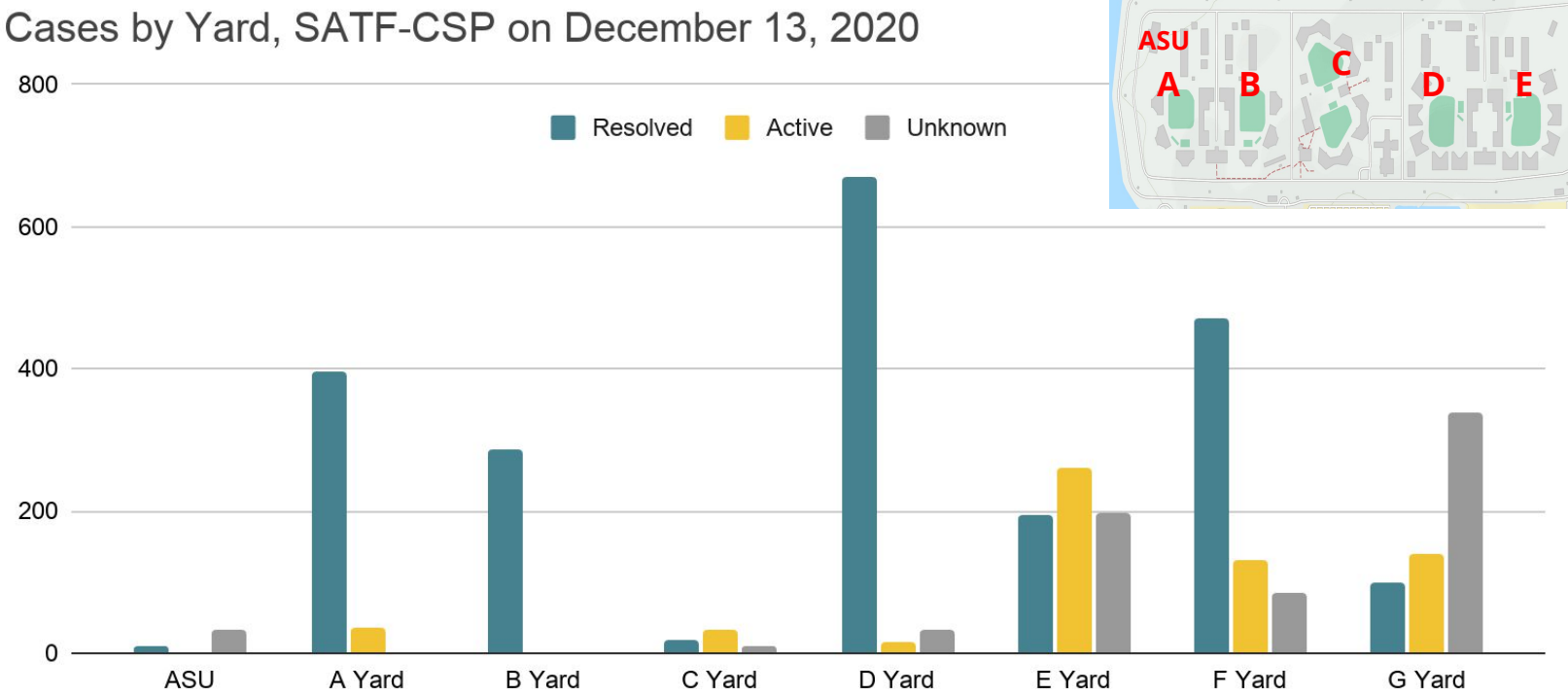
17.2% have at least one ADA-Classified Disability

Landscape of Cases on Visit Day: Dec. 13th, 2020



1. *All values as of December 13th, 2020*
2. *Bolded red squares indicate site visit and ventilation testing locations*

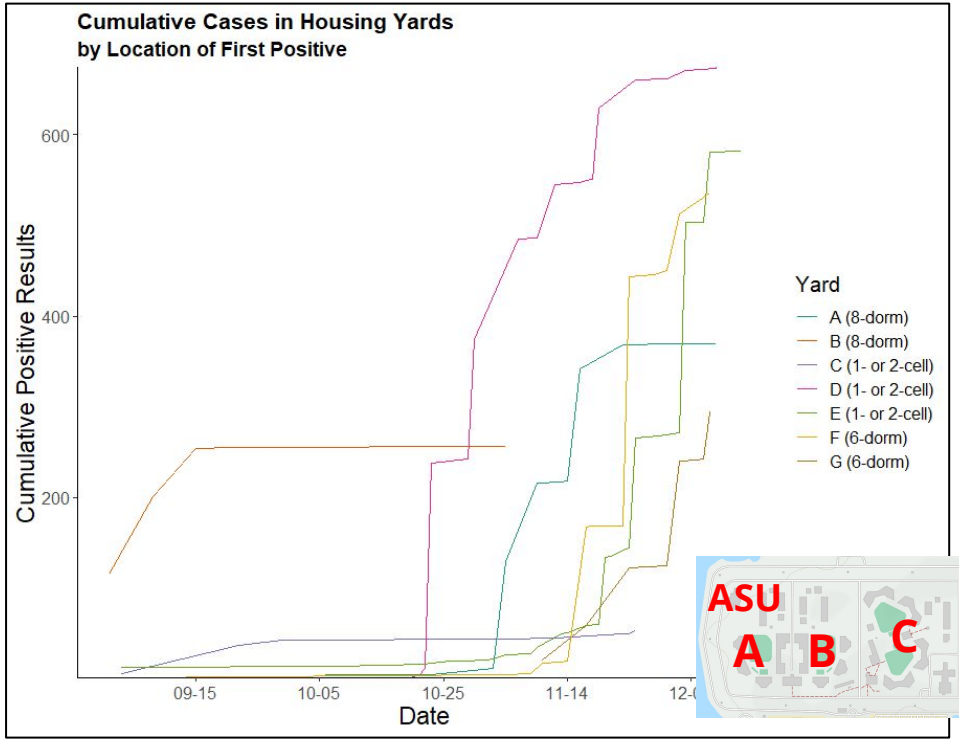
COVID-19 was detected in nearly all housing units



Cases increased across all housing types in fall

This graph displays cumulative COVID-19 cases across housing units at SATF over time:

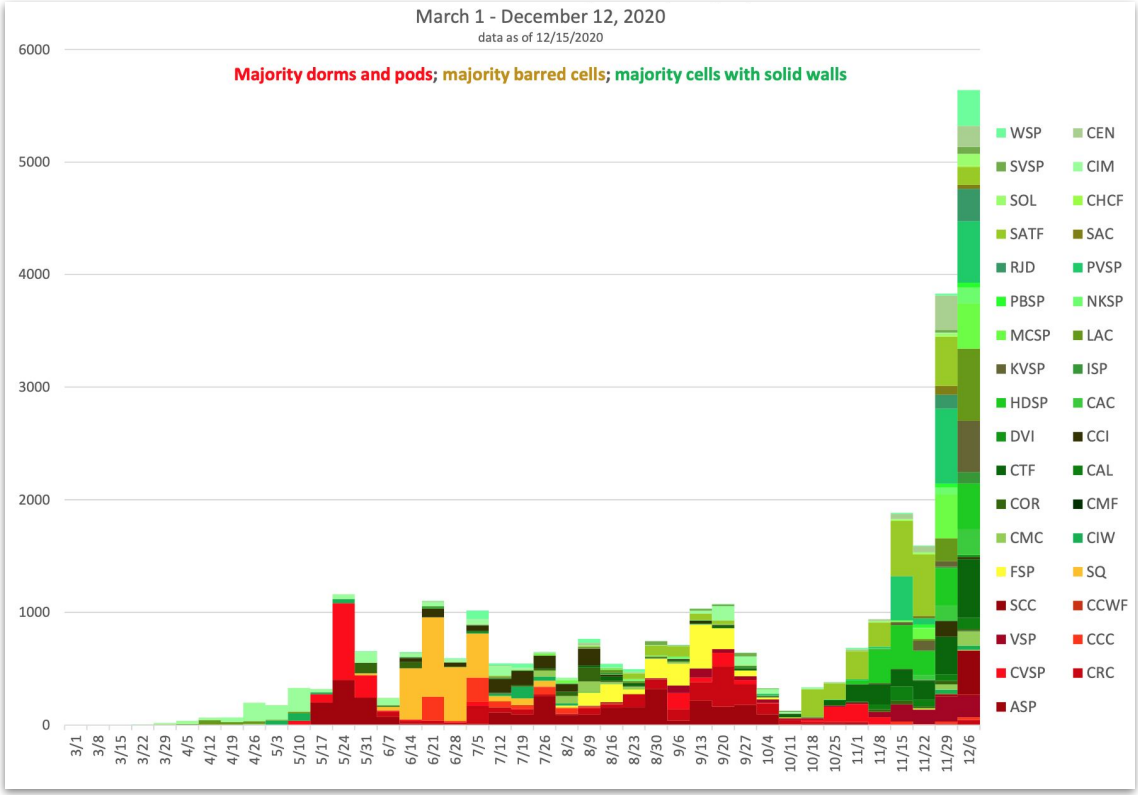
- "Stepwise" appearance due to periodic mass testing starting in late October
- Housing yard indicates location of first positive result, not where exposure occurred
- Many cases occurred in dedicated quarantine units/areas, where patients were moved
- Widespread testing began after outbreak was underway



Cases by institution housing type changed significantly in late fall

This graph displays CCHCS statewide COVID-19 Cases (N = 30,571) by institution and housing type

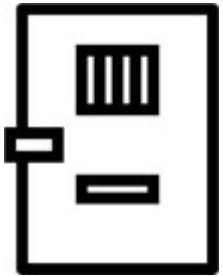
- Across CDCR, COVID-19 outbreaks in summer 2020 predominantly occurred in facilities that were mostly dorms and pods.
- However, this pattern has changed beginning in mid-October, with outbreaks occurring in facilities with majority solid-walled cells.
- This may be due to the onset of cooler weather and the use of recirculated, heated air.



Note: Figure provided to CalPROTECT by Dr. Heidi Bauer from CDCR (December 2020)

View of risk by housing status, Summer 2020

Within jails and prisons, density in the form of close, prolonged contact is a critical risk factor for COVID-19 transmission, which is primarily influenced by *population density*, *shared air space*, and *unit type.* While all units pose some level of risk for COVID-19 transmission, particular types of units have higher transmission risk than others.



Single or double occupancy cells with solid doors which are located on solid-floor tiers

Single or double occupancy cells with grilled doors and windows, which are located on solid-floor tiers

Single or double occupancy cells with grilled doors and no windows, located on solid-floor tiers

Small dorms (<20 individuals)

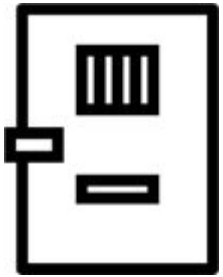
Large dorms (>20 individuals)

Relative likelihood of onward COVID-19 transmission within the unit

Source: CalPROTECT Evaluation of the April-May 2020 COVID-19 Outbreak at California Men's Colony, July 2020

View of risk by housing status, Fall 2020 - Winter 2021

The initial outbreak in Yard D, which has single and double occupancy cells with solid doors and allowed little time out of cells, suggests risk is more complicated…



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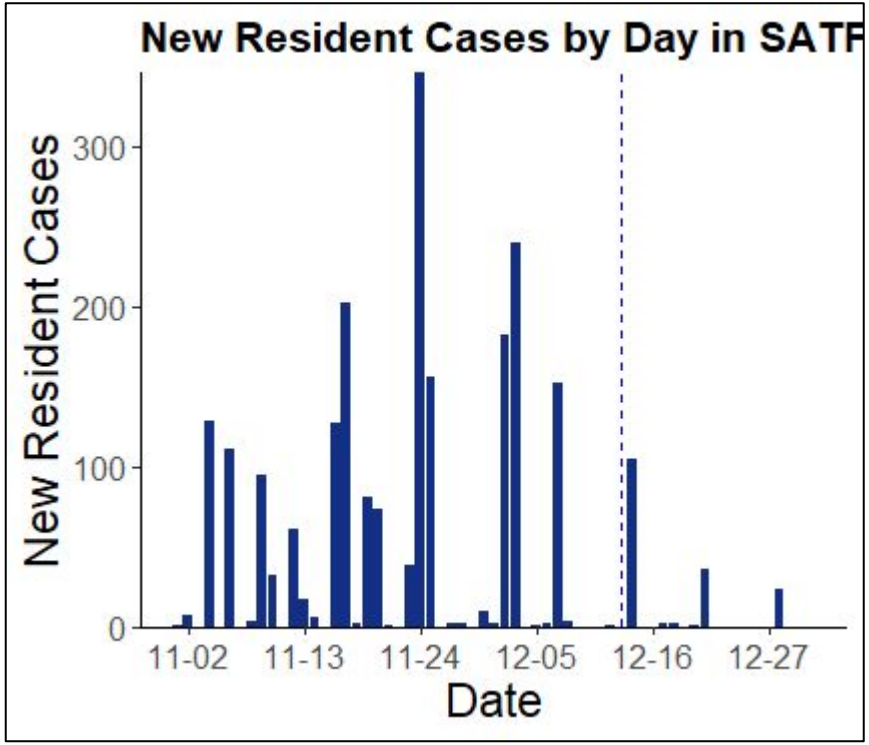
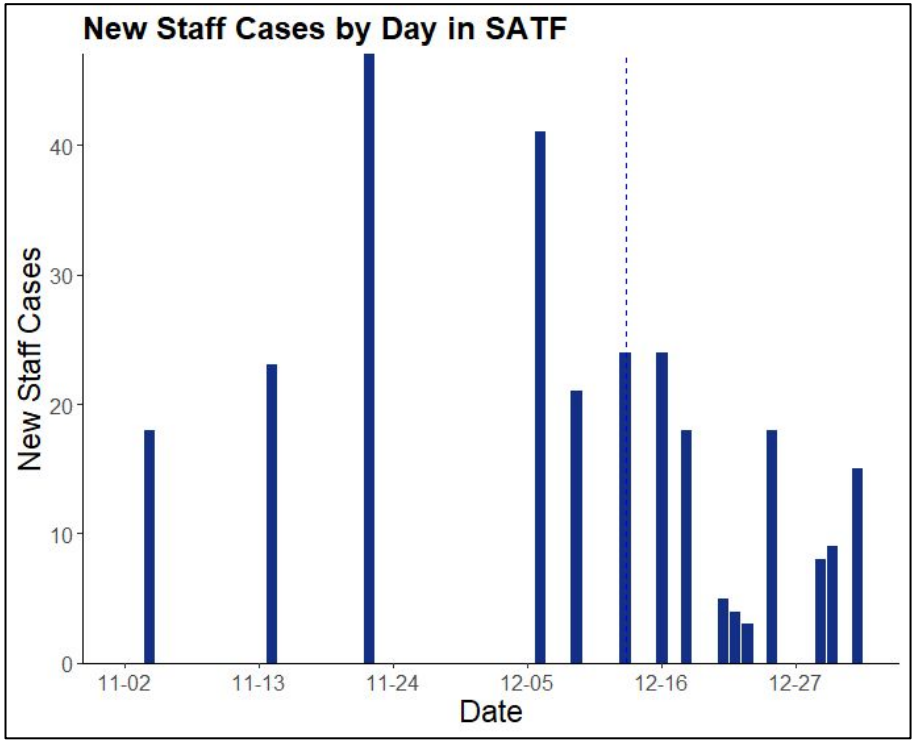
Outbreak Characterization: Epi Curves





NOTE: Date is of first positive test result

---------- CalPROTECT Team Visit Date (12/13-12/14)

Notes on Outbreak Characterization

There was a small outbreak in September but the situation turned much more dire in late October and peaked in early December - current case rate far below average but after 3,000+ inmates already had COVID-19

There is still a sizable population that has not yet had the virus but certain yards contain no uninfected inmates

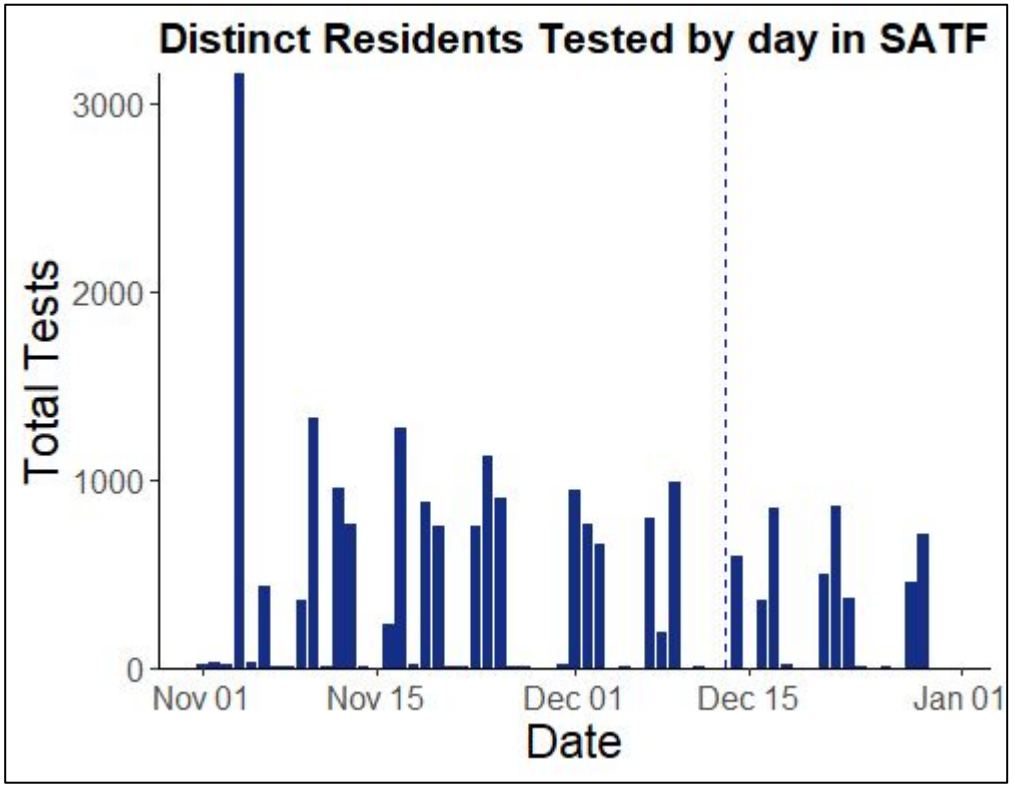
Note: The odd flat areas here are the result of several days without reporting information from Dec 4-6, Dec 10, Dec 12-14, Dec 16, Dec 25-27, Jan 2-4

The staff epi curve suggests that the timing of the most significant outbreak coincides with that of the inmates, with a peak at mid-December

Overview of Testing at SATF

Features of Testing Program:

- Inmate testing began in June '20
- Rapid testing rolled out on 9/23/20
- Approximately 25 Sofia 2 tests/day and 5 BD Veritor tests/day
- Weekly testing of staff
- Limited rapid testing for clinical use
- Most of the data on right is RT-PCR Tests, which face significant turnaround time at SATF (3-4 days)



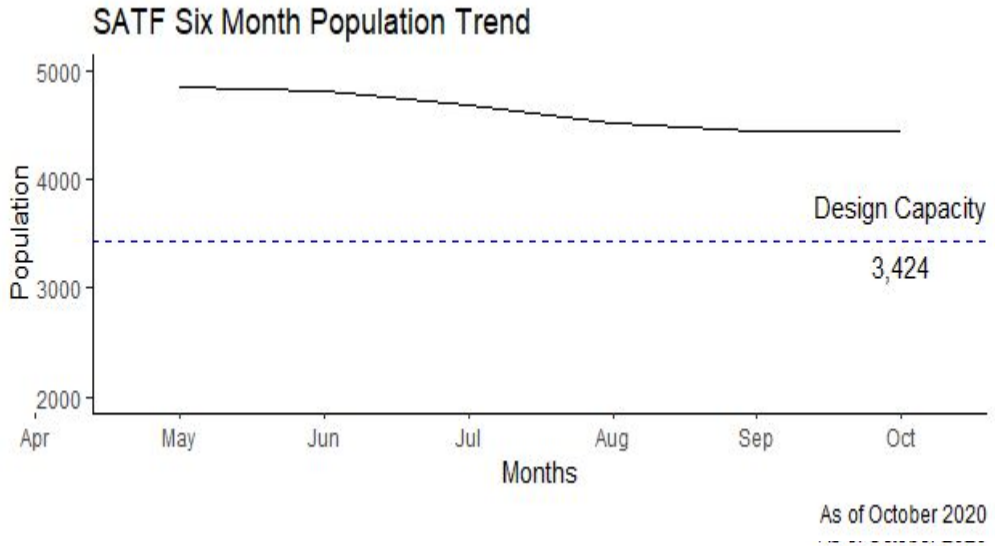
3.2 Findings

Evaluation of Outbreak Mitigation and Control

Gaps in adherence to recommended control measures limit effectiveness

Although CDC guidelines emphasize the public health importance of reducing population density, **decarceration occurred early on in the outbreak but not in recent months**.

- Population decreased from 4587 to 4450 before outbreak
- Staff interviews describe critical staffing & space shortages for an outbreak setting
- Ventilation may be designed for stated capacity, rather than current population.



Note: While crucial for mitigating outbreaks, rated capacity is simply the number of inmates intended to be housed in the facility according to the BJS and does not have a meaningful public health interpretation

Source: CDC Interim Guidance on Management of Coronavirus Disease 2019 (COVID-19) in Correctional and Detention Facilities; National Academies of Science, Math and Engineering: Decarcerating Correctional Facilities During COVID-19

Source: CDC Interim Guidance on Management of Coronavirus Disease 2019 (COVID-19) in Correctional and Detention Facilities

Measures/Most Relevant Guidance	Current State
Transfer Guidance: Minimize interactions between incarcerated/detained persons living in different housing units, to prevent transmission from one unit to another.	Within-facility transfer policies at present do not include an evaluation of the location-specific risk for transmission of the areas in question. **All but essential transfers were frozen on 3/23/20, and all transfers prohibited from 11/23/20.** **No restrictions on staff movement, cohorting, or changes to vanpooling policies at present.**
Personal protective equipment (PPE): Ensure all individuals with risk of infection have correct PPE available, are properly trained to use it, and are adherent to guidelines.	Early distribution of masks; good compliance observed, but some feedback on fatigue. Interviews indicate a desire for further education.
Testing procedures: Testing is recommended for all close contacts; periodic testing for staff and cohorts should be considered. Encourage collaboration with local health authorities for planning.	Testing turnaround for staff around 2d, for residents around 3-4d, which hamper mitigation. At present, only use rapid tests for symptomatic patients, not for exposures or screening; additionally, rapid testing only available to residents at present. **Testing for symptomatic patients was slow in the initial outbreak phase, which dramatically delayed the response.**

Source: CDC Interim Guidance on Management of Coronavirus Disease 2019 (COVID-19) in Correctional and Detention Facilities

Measures/Most Relevant Guidance	Current State
Quarantine/ isolation procedures: Individuals with symptoms should be isolated as soon as recognized, and movement kept to a minimum. Established hierarchy of quarantine space for multiple individuals.	**Widespread movement of residents, prolonged testing turnaround time, and delayed outbreak recognition accelerated COVID-19 spread between housing units.** Concerns about the movement of residents in isolation or quarantine seeding outbreaks in other parts of the prison, likely due to some combination of **poor air exchange, recirculation, and unbalanced ventilation/pressurization,** and shared staff between isolation/ quarantine area and housing units without cases in these yards. Quarantine and isolation units exist within housing yards. Inmates testing positive are rehoused in dedicated isolation unit, with cell and pod-mates in quarantine. Uninfected, "High Risk Medical patients" as defined by CDCR, were removed from dorm style living and rehoused in 2 person cells.
Physical mitigation measures Implement distancing strategies, regardless of symptoms, and minimize mixing of individuals from different housing units. If group activities detained, other activities to support mental health should occur.	Residents are now nearly all housed based on uninfected/resolved/infected status. **Delays from testing and ventilation issues may have contributed to spread** in spite of this. Since resolved patients are nearly all housed together, they could be given more privileges with little risk (such as more yard, return to jobs, etc). Dorms faced nearly 100% spread, making it difficult to implement recommended quarantine/isolation guidance within these buildings.

"To list all movement would be astronomical." - Associate Warden

Strengths and Vulnerabilities Related to COVID-19 Control

Key Strengths	Key Vulnerabilities
• Dedicated medical and custody staff and leadership • Engaged inmate council willing to model and support vaccination rollout • Virtual video visits to promote morale and well-being of patients starting in November '20 • Masking compliance was well-noted	• Medical staff shortages increased fatigue, required adjustment of services provided, and led to more staff movement throughout facility • Although formal sharing of staff across institutions was discontinued in response to COVID-19, staff interviews suggest it may have continued with Corcoran SP • Long testing turnaround times (3-4 days) and limited use of rapid tests delayed decisions, thereby limiting effective response and mitigation • By following well-intentioned, central office guidelines about movement of residents throughout the facility for quarantine and medical isolation, healthcare staff noted that frequent movement may have driven spread • Aspects of outbreak managed separately for the three groups (medical/custody/residents), rather than as a coordinated effort. • Data collection systems are slow and require a large amount of time from medical staff • **Ventilation and air recirculation**

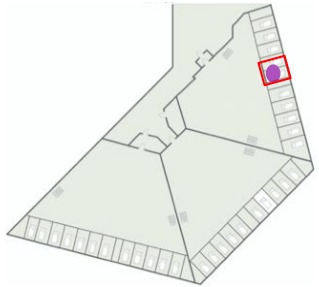
3.3 Findings

Environmental Observations

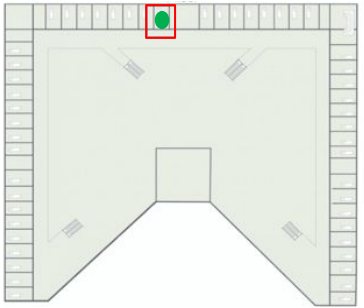
Air changes were estimated using measured CO2 levels in four buildings at SATF

Yard	Room Type	Observed Occupants	Air Changes per Hour (ACH)
A	Dorm	48	0.7
C	Cell	2	3.2
D	Cell	2	5.7
F	Dorm	6	2.6

Yard A



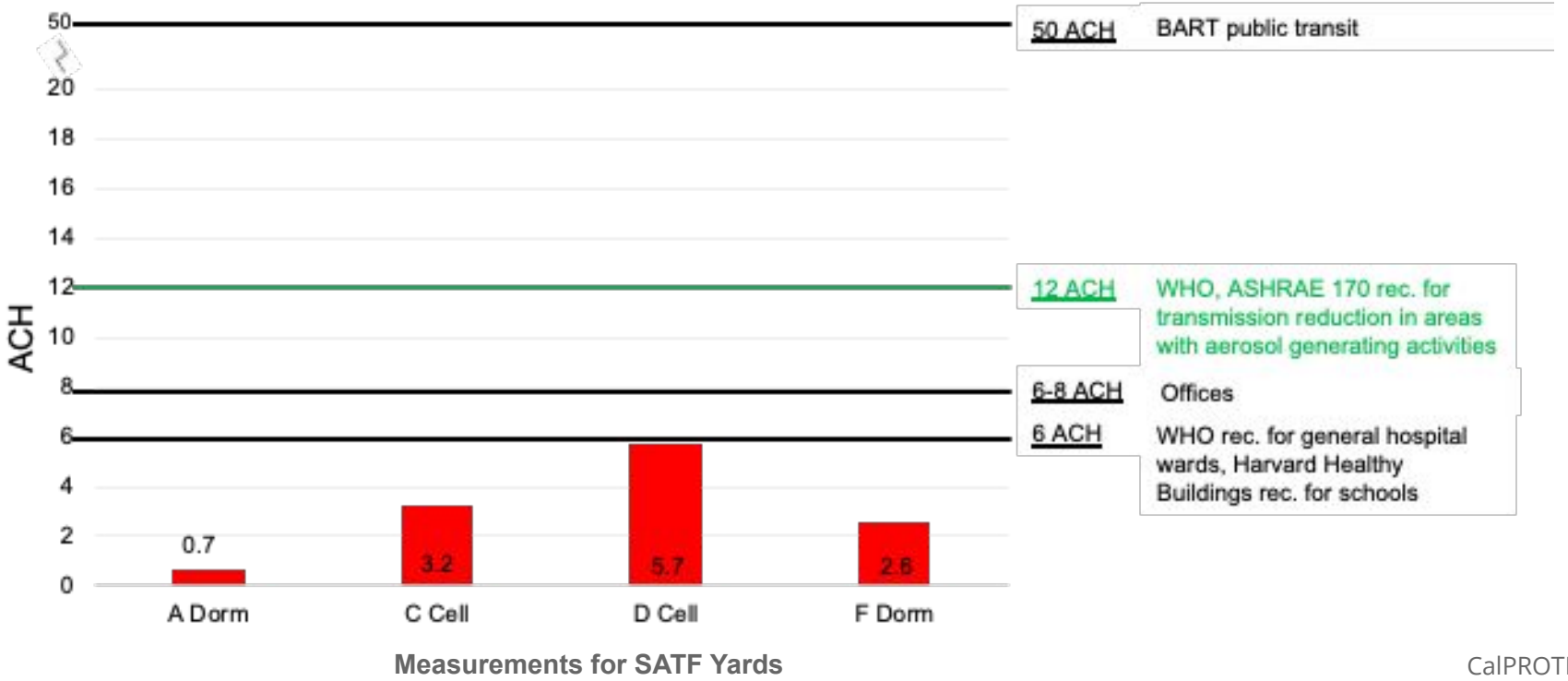
Yard C



Yard D

Yard F

Air change rates in four SATF buildings are lower than recommended minimum for infection control



Measurements for SATF Yards

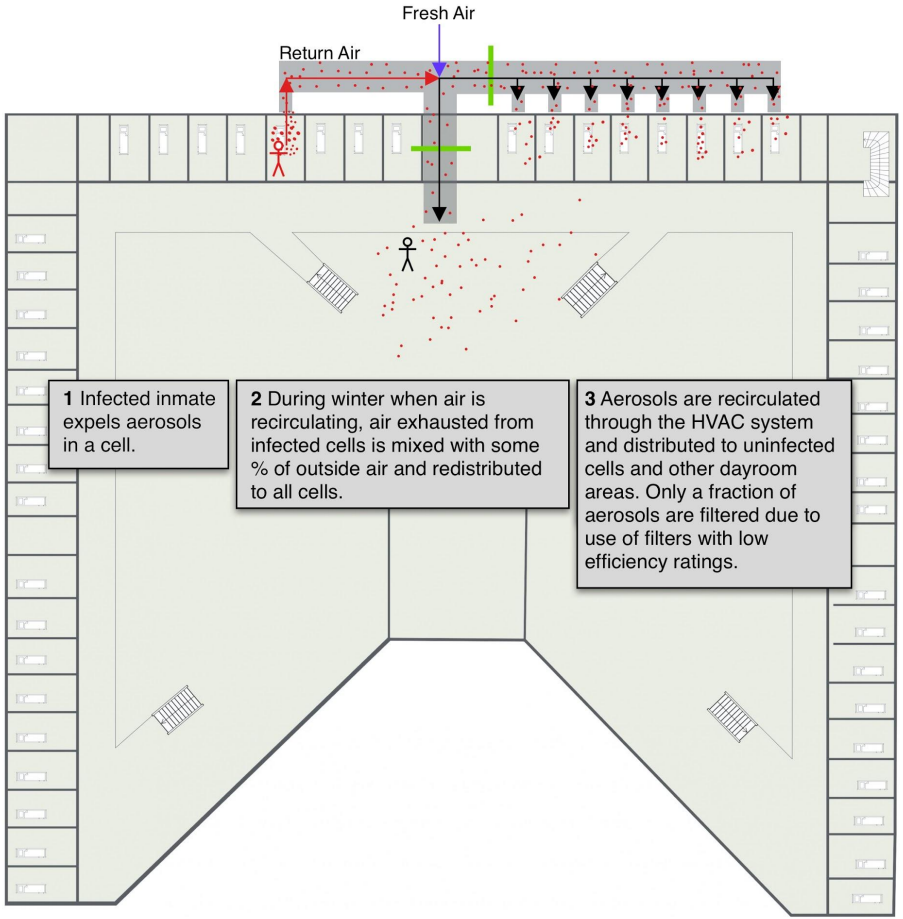
Other Environmental Observations

- **Movement of infected patients to rooms with poorly functioning ventilation systems**
  - Inoperative exhausts and variable air velocities measured in cells indicate unbalanced system
  - Unintended pressurization differences between rooms promote the escape of virus laden air from enclosed cells or spaces

- **Use of filters below minimum efficiency ratings**
  - MERV 13 (or higher) recommended by CDC and ASHRAE for viral capture
  - MERV 8,10 used at SATF

- **Lack of routine maintenance compromising overall indoor air quality**
  - Need for filter replacements indicated by:
    - Accumulation of dirt/debris around vents
    - Inmates use hair nets to block black smoke and dust from coming from supply
  - Uncomfortable/uncontrolled flows suggest need for damper replacement & rebalancing

Potential infection scenario: air recirculation in cell blocks



Infected droplets, > 5 µm in size, settle on floors and surfaces quickly, but aerosols can travel in air currents potentially for hours.

Infected aerosols, <5 µm in size, can travel in air currents within a room, and remain suspended in air for hours.

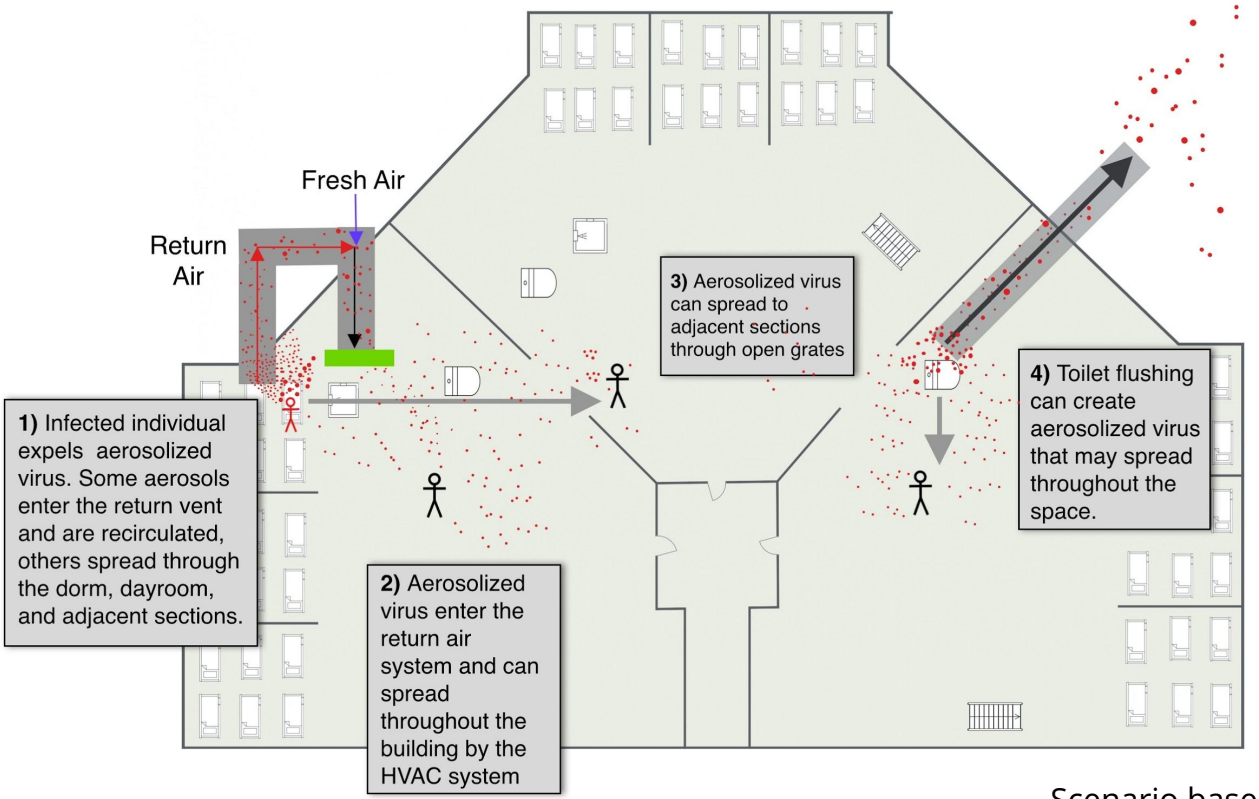
Air filter. At SATF, filter MERV 8 and MERV 10 filters are used. A MERV 10 or less filter has no effect on particulates in the 0.3 - 1 µm

Infected individual

Uninfected individual

Scenario based on our observation of heating and recirculation system.

Potential infection scenario: air recirculation in dormitory buildings



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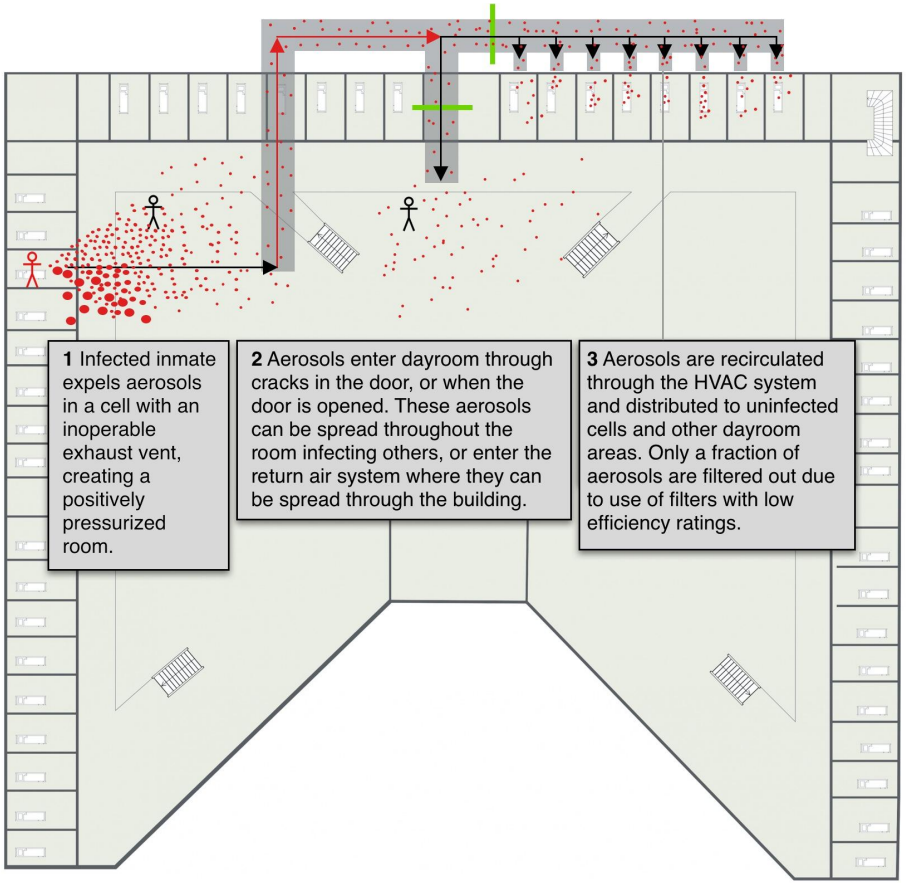
Infected individual

Uninfected individual

Scenario based on our observation of heating and recirculation system.

Potential infection scenario: inoperative exhaust vent in cells, positively pressurized cell



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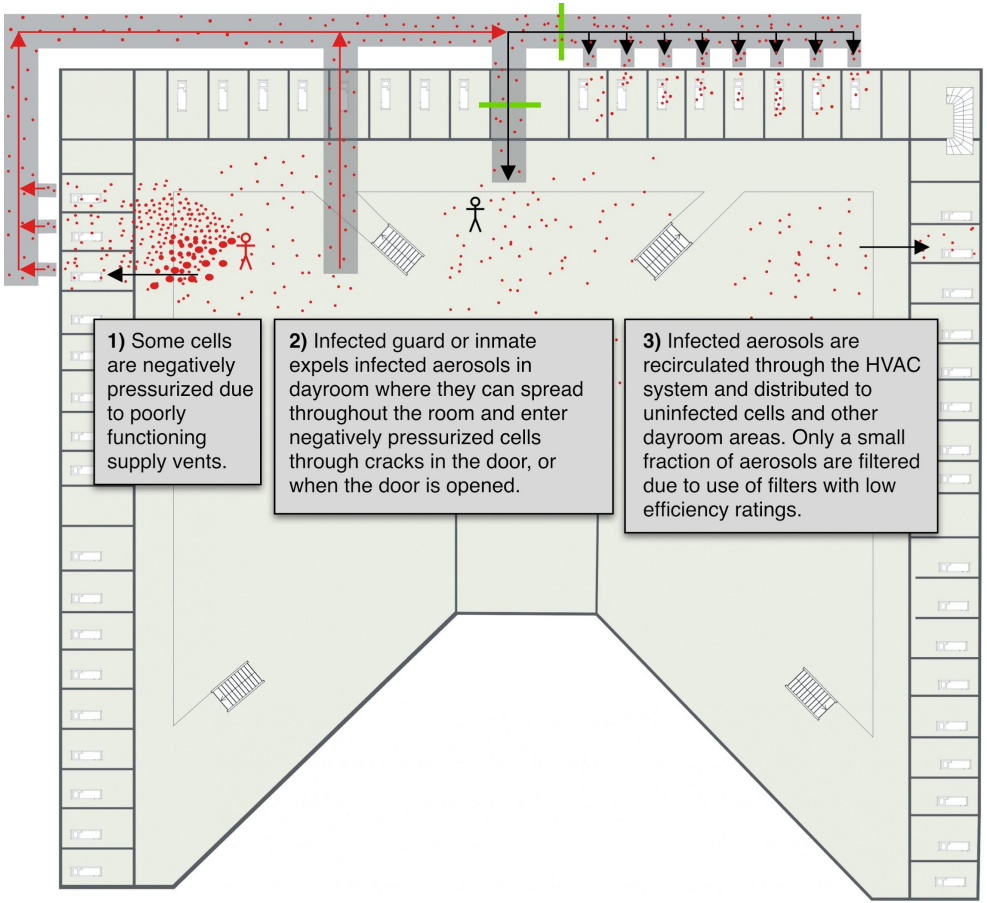
Air filter. At SATF, filter MERV 8 and MERV 10 filters are used. A MERV 10 or less filter has no effect on particulates in the 0.3 - 1 µm

Infected individual

Uninfected individual

Scenario based on our observation of inoperable exhaust vents in D Yard cells.

Potential infection scenario: inoperative supply in cells, negatively pressurized cells



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Air filter. At SATF, filter MERV 8 and MERV 10 filters are used. A MERV 10 or less filter has no effect on particulates in the 0.3 - 1 µm

Infected individual

Uninfected individual

Scenario based on our observation of inoperable supply vents in D Yard cells.

Common strategies to reduce indoor air concentrations of virus and inhalation dose have NOT been available at SATF

"The dose makes the poison"

Dose=**Concentration** x **Respiration rate** x **Time in infected space** x **Fraction deposited in lungs**

- **Concentration**: properly functioning ventilation systems, supplementary air cleaners/single zone filters
- **Respiration rate**: Separation of high respiration activities to outdoors versus sedentary activities indoors
- **Time in infected space**: Ventilating the space while occupants are away from room

4. Recommendations

Recommendations overview

1. **Decarcerate: Occupancy reduction is the single most effective method to prevent and reduce COVID-19 transmission.**

   All further recommendations are dependent on the implementation of effective decarceration.

2. **Ventilate: Urgently hire an HVAC specialist to evaluate and rebalance SATF's ventilation system; Install supplemental air cleaners and open building windows to reduce airborne transmission.**

3. **Test smartly: Scale up testing for early detection and reduce testing turnaround time to 24 hours or less. Testing approach may differ for institutions that have an outbreak vs. without an outbreak**

4. **Prepare: Improve outbreak/emergency planning, communication, and response through including surge planning, testing plans and strengthened data systems.**

5. **Communicate: Develop and disseminate plans to create stable community cohorts that include medical staff, custody staff, and residents.**

6. **Foster Wellness: Continue to promote a culture that encourages learning, participation in public health measures, and promotes health and wellness.**

Recommendations:

Strategy #1: Occupancy reduction is the single most effective method to prevent and reduce COVID-19 transmission.

Why is this strategy important? Both population density and overcrowding influence the feasibility and effectiveness of every preparation, prevention, and management recommendation from CDC. Specifically:

- SATF experienced a rapidly spreading, large-scale outbreak despite have a high proportion of single and double occupancy cells with solid doors and walls
- SATF is already well over design capacity which is in itself too crowded to ensure safe quarantine and isolation and protection of medically vulnerable residents given observed outbreaks in most units.
- The rate of onward SARS-CoV-2 transmission is directly related to the number of people exposed.
- Emergent evidence from other facilities suggests that other prevention and control methods may reduce transmission but ultimately are insufficient to fully control spread without decarceration.

Specific steps and tactics to implement this strategy: Urgently decarcerate the SATF and CDCR population through releases (not high-risk transfers) with support for re-entry. This may involve collaboration with local university dorms, hotels, etc. for quarantine prior to release, and coordination with community partners for reentry support.

Several subsequent recommendations rely on decarceration for successful implementation and management.

Recommendations:

Strategy #2: Urgently hire an HVAC specialist to evaluate and rebalance SATF's ventilation system and prevent/reduce airborne transmission.

Why is this strategy important? COVID-19 attack rates across SATF housing units are so high that transmission through close contact *alone* is highly unlikely.

Specific steps and tactics to implement this strategy (recognizing that expert support is URGENTLY needed):

- Maximize outdoor air and **avoid recirculation** in HVAC systems. If recirculation is unavoidable, increase filter ratings to MERV 13+
- Hire external ventilation specialists to rebalance HVAC system
- Establish an updated understanding of relative room pressure relationships and areas vulnerable to infiltration/exfiltration of infected aerosols
- Introduce natural ventilation where possible (e.g., guard quarters in front of cell blocks)
- Separate isolation/quarantine into different buildings to avoid contamination of fresh air intakes
- Install lids on toilet seats to reduce any potential transmission through infected fecal aerosols, especially in dorms
- **Instate a regular ventilation maintenance schedule including rebalancing, filter changes, damper replacements and duct cleaning**

Recommendations:

Strategy #3: Scale up testing for early detection and reduce testing turnaround time (TAT) to 24 hours or less.

Why is this strategy important? Lab turnaround times >24 hours create immense vulnerabilities given the lack of safe spaces for quarantine, isolation, and protection of medically vulnerable residents. On *average*, an infected patient is able to transmit the virus for 2d prior to the onset of symptoms, followed by another 5d from the onset of symptoms with most transmission likely occurring at the beginning of this time frame. A 3.5d TAT means that isolation is commencing well after a person is most infectious. Ultimately, this meant that SATF identified the outbreak and implemented mass screening too late.

Specific steps and tactics to implement this strategy:

- Immediately undertake an analysis of bottlenecks and potential solutions to reduce testing TAT to <24 hours (e.g., more staff).
- Make quarantine and medical isolation decisions based on PCR tests with a 24-hour turnaround time or rapid antigen testing. Notably, speed of reporting can be more important than test sensitivity when screening asymptomatic individuals (Larremore, 2021)
- If bottlenecks persist, prioritize increasing testing frequency in housing units/yards with expanding outbreaks (at the expense of those without)
- Use rapid tests more frequently for people with known exposures and/or high-risk activities (kitchen workers, staff working in units with active infections, etc.) who are not currently isolated.
- Expand close contact definition for testing from roommate to fellow residents in shared air spaces (e.g., 47 rather than 8 close contacts in A yard) to avoid missing new infections.

Recommendations:

Strategy #4: Improve outbreak/emergency planning, communication, and response.

Why is this strategy important? Well-intentioned movement of residents as part of outbreak control efforts likely inadvertently spread SARS-CoV-2 throughout and between housing units. Transmission was likely accelerated by the use of recirculated air. Unlike in the summer, celled housing may carry comparable risks to dormitory housing when coupled with the onset of winter necessitating the use of unfiltered, recirculated heated air.

Specific steps and tactics to implement this strategy:

- **Conduct surge planning to identify locations** to house a significant proportion of the population in separate medical isolation and quarantine beds should an outbreak occur
  - Identify high medical risk patients to support releases, well-planned transfers, isolation and quarantine.
  - Assess of housing types, capacity, resident health risk, ventilation and other relevant characteristics to inform selection of isolation and quarantine areas
- Use rapid testing for screening of staff and residents to support decision making and case detection.
- Prepare outdoor facilities with adequate air exchange for testing and treatment with low transmission risk.
- Establish a data collection system that allows for automation and reduces the demand on medical staff for data entry activities.
- **Prioritize full-site outbreak planning that identifies site-specific risks and vulnerabilities and coordination across all groups at risk (medical, correctional, residential).**

Recommendations:

Strategy #5: Develop and disseminate plans to create stable community cohorts that include medical staff, custody staff, and residents.

Why is this strategy important? Use of cohorts reduces risk of transmission within facilities, facilitates more effective contact tracing and testing programs, and limits need for within-facility movement.

Specific steps and tactics to implement this strategy:

- Create stable community cohorts that include medical staff, custody staff, and residents with movement restricted to those areas. The cohort should include housing units, activity units, kitchens, etc., and allocates an adequate number of staff to support both standard and outbreak activities.
- Prohibit vanpooling and carpooling, particularly with staff from neighboring correctional facilities. Subsidize transportation costs for staff to avoid vanpooling (and use rapid tests on these individuals weekly).
- Restrict within-facility movement of high-risk residents unless absolutely necessary, and only in cases where facility can confirm they are being moved into housing with closed cells and no shared or recirculated air. Utilize daily rapid testing for staff and residents who cross cohorts.

Cohorting of close contacts of a case should only be practiced when there are no other options. Individual isolation is always preferable, and may be facilitated through decarceration or depopulation.

Source: CDC Interim Guidance on Management of Coronavirus Disease 2019 (COVID-19) in Correctional and Detention Facilities

Recommendations:

Strategy #6: Continue to promote a culture that encourages learning, participation in public health measures, and promotes health and wellness.

Why is this strategy important? Promoting mental health and social well-being is an essential function of healthcare in the prison system, and should be considered both within outbreak response situations, with reintroduction of activities in non-mass-outbreak situations.

Specific steps and tactics to implement this strategy:

- Increase yard time for residents who have recovered from illness and those who have been vaccinated. Within cohorts, allocate yard time instead of strictly limiting ability to go outside.
- Continue to offer video visitations to improve inmate and family mental health, in addition to other activities to promote mental and social health within each setting.
- Strengthen education and and dissemination of information for staff and residents around COVID-19 transmission, proper social distancing and mitigation efforts, importance of early reporting of symptoms, and vaccination FAQ. Additionally, develop plans for clearly disseminating new evidence and new guidance appropriate for the facility.
- Collect patient and staff questions about vaccination safety, answer and disseminate responses as FAQs
- Financial and other incentives can support staff morale, particularly when surge capacity needed.
- Offer COVID-19 specific sick days in addition to regular time to address staff concerns around vaccination

Further Consideration for Implementing Recommendations

Decarceration
Less applicable for infectious disease setting
Ventilation rebalancing, filtration, introduction of natural ventilation into buildings, extra capacity (tents?)
Frequent testing, plan for isolation/quarantine, extra medical support, education about aerosol transmission.
Masking, face shields.

Hierarchy of Controls, NIOSH/CDC

At current occupancy levels it is impossible to control infection in dorms

Yard	Room Type	Observed Occupants	Measured Air Changes per Hour (ACH)	Occupancy Needed to to Meet WHO Standards
A	Dorm	48	0.7	3
C	Cell	2	3.2	1
D	Cell	2	5.7	1
F	Dorm	6	2.6	1

Note: Above chart shows occupancy reduction needed to meet WHO minimum standard for containing airborne infections. Chart shows the effect of reducing occupancy alone. However, a mix of interventions including ventilation maintenance, addition of air cleaning units, UVGI can be used to provide additional air changes to meet standards

Acknowledgments

Ms. Theresa Cisneros, SATF Chief Deputy Warden

Mr. Jason Collins, SATF Associate Warden

Mr. Raul Morales, SATF Associate Warden

Mr. Bob Edwards, SATF CEO

Mr. Wayne Motle, SATF Chief Engineer

SATF inmate councils

SATF Medical and Custody leadership

Receiver Mr. Clark Kelso

Dr. Joseph Bick

Ms. Jackie Clark

Ms. Chakriya Srey

Dr. Amy Lerman

Ms. Karalyn Lacey

And all others involved in coordinating the visit and providing information for the report.

Exhibit 3

HOUSING UNIT AIR HANDLING UNIT INSPECTIONS

Executive Summary

The California Department of Corrections and Rehabilitation (CDCR) directed adult institutions to conduct an inspection of housing unit Air Handling Units (AHUs). The inspection was to include physical inspections of AHUs, ducts and vents, as well as airflow measurements at both the AHU and at supply vents within the housing unit.

An initial review of the submitted inspection data indicated that the task of performing the airflow measurements in the ventilation systems was complex and not evenly understood or implemented. In some instances, the measurements provided for the AHU airflow and resulting housing unit vent airflow seemed contradictory. In other instances, the airflow measurements were based upon fewer individual measurements than had been indicated in the instructions, leading to incomplete measurements. CDCR's Facility Planning, Construction and Management Division (FPCM) staff will be conducting site visits beginning in September to work with individual institutions to review their data collection practices, identify data anomalies, perform additional airflow measurements (if warranted) and assist in prioritizing repairs for underperforming AHUs.

While AHU performance and overall ventilation within a housing unit was the focus of the inspections, the installation of MERV-13 filters in housing unit AHUs that have the capability of recirculating interior air is anticipated to improve filtration of the recirculated air and assist in the reduction of airborne viruses. Prisons were directed in December 2020 to install MERV-13 filters, which provide more effective filtration for smaller particles, such as aerosols and viruses. Currently, 21 institutions have switched to these higher-efficiency filters. The remaining 11 institutions that have AHUs with the capability of recirculating interior air are anticipated to have MERV-13 filters installed by the end of October 2021, when these AHUs switch from cooling to heating mode.

Background

There is a large variety of ventilation system designs within CDCR's institutions. Some housing units have no AHU (i.e. rely on natural ventilation) and provide radiant heat. Other systems use 100% outside air as the intake to their AHUs (there are no fans or ducts to recirculate interior air back through the AHU). However, most AHUs operate with a mix of outside air and recirculated air. Typically, during warmer weather, a large number of AHUs use nearly 100% outside air. During cooler weather, most systems use a higher amount of recirculated air.

For celled housing units built within the last 40 years, a common feature for ventilation is that the cells are under positive air pressure: the air supply to the cell (120 cubic feet per minute) is greater than the volume of air exhausted directly from the cell to outside the housing unit through the exhaust fan (55 cubic feet per minute). Therefore, per design, there is a net flow of air from the cell to the dayroom.

Institutional Plant Operations staff are responsible for the day-to-day maintenance and management of an institution's infrastructure systems, including ventilation systems in the housing units. In addition to performing routine inspections, preventive maintenance and replacing AHU filters, they are called on to investigate, mitigate, and repair AHUs and ventilation systems that are reported to them by the incarcerated population or staff as not operating properly.

HOUSING UNIT AIR HANDLING UNIT INSPECTIONS

Inspection of Housing Unit Ventilation Systems

On March 30, 2021, CDCR headquarters directed adult institutions to have Plant Operations staff at each adult institution perform an inspection of each housing unit's ventilation system. This effort was to identify needed ventilation system repairs for optimal system operation. To that end, Plant Operations staff performed physical inspections of AHUs, ducts and vents, as well as airflow measurements at the supply duct leading from the AHU and a representative sample of supply vents in cells or dormitory areas. Measuring airflow at the supply duct leading from the AHU level is to review if the AHU is supplying air in accordance with its specification. Low airflow measurements could indicate a need for maintenance or repair on the AHU. Measurements at supply vents in cells or dormitory areas are intended to identify potential issues within the air distribution ducting or with blocked vents.

To assist the institutions with this task, CDCR headquarters' staff developed a training tool that specified the methodology to use when measuring airflow, and identified measuring equipment the institutions would need to use to perform these measurements. Additional information provided included instructions, inspection forms, a listing of AHUs specific to the individual sites, and forms to record the measured results. Two statewide training conference calls were also held to provide instruction to the institutions.

Data Analysis, Quality and Follow-Up Actions

Institutions uploaded documentation of the inspection activities on a shared data platform. Overall, Plant Operations staff inspected approximately 1,800 AHUs and performed air sampling measurements at more than 10,000 cell and dormitory supply vents. A "Summary of Performance Measurements" chart has been prepared to summarize information for each prison. The yellow-shaded columns under the "AHU Performance" heading reflect measurements at the supply duct leading from the AHU, and the green-shaded columns under the "Airflow Performance within Living Space" heading reflect measurements taken at supply vents in cells or dormitory areas. The measurements were compared to 90% of the design specification airflow, which is an industry standard developed by the American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE). The chart also indicates that additional review is ongoing at identified prisons, often related to identifying the design specifications for older AHUs.

An initial review by FPCM staff of the data submitted from the inspections effort indicated a varying level of expertise across the Plant Operations personnel who performed the inspections and varying levels of completeness of the collected data. While Plant Operations staff are skilled at performing maintenance tasks and otherwise maintaining the variety of infrastructure systems that are needed to operate 24-hour institutions, performing the airflow measurements in the ventilation system proved to be a complex task that was unevenly understood and implemented. In some instances, the measurements provided for the AHU airflow and resulting housing unit vent airflow seemed contradictory, which may indicate that measurements were not taken correctly. In other instances, the airflow measurements were based on fewer individual measurements than had been indicated in the instructions, leading to incomplete measurements.

HOUSING UNIT AIR HANDLING UNIT INSPECTIONS

FPCM staff held subsequent conference calls with each institution to discuss the AHU inspection data. FPCM is working with each prison to prioritize maintenance and repair activities such as re-inspecting any AHU that was identified as underperforming (when airflow measurements were less than 90% of the design specification), correcting any deficiencies noted in the re-inspection, and then re-measuring airflow to determine if the repairs were sufficient to restore airflow to within design parameters. FPCM staff will be conducting site visits in September/October 2021 to work with individual institutions to review and improve their data collection practices, identify data anomalies, perform additional airflow measurements (if warranted) and assist in prioritizing repairs for underperforming AHUs.

MERV-13 Filter Installation

Due to the complexity of ventilation and air circulation patterns within a housing unit, CDCR is following the recommendation of ASHRAE to install MERV-13 filters in housing unit AHUs that have the capability of recirculating interior air based on their effectiveness in capturing particles of a size similar to the COVID-19 virus. Prisons were directed in December 2020 to replace existing filters (mostly were of the MERV-8 level of efficiency) with MERV-13 filters, which provide more effective filtration for smaller particles, such as aerosols and viruses. If MERV-13 filters caused a significant decrease in airflow, institutions were directed to instead install MERV-11 filters. In addition, it was reiterated that institutions should maximize outside air intake and minimize recirculated air.

Since that time, FPCM has been monitoring the institutions' progress in installing MERV-13 filters. Many institutions found that obtaining MERV-13 filters was difficult because of shortages in the supply chain. Currently, 21 institutions have switched to these higher-efficiency filters. The remaining 11 institutions that have AHUs with the capability of recirculating interior air are anticipated to have MERV-13 filters installed by the end of October 2021, when these AHUs switch from cooling to heating mode and the volume of recirculated air will increase.

Housing Unit Air Handling Unit Inspections

- Summary of Performance Measurements -

Institution	AHU Performance				Airflow Performance within Living Space	
	Total Number of AHUs	Number of AHUs with Airflow at Least 90% of Design Specifications	Number of AHUs with Airflow Below 90% of Design Specifications	Number of AHUs Pending Airflow Measurement	Number of Cell/Dorm Level Airflow Measurements	Percentage of Airflow Measurements Taken at Cell/Dorm Level with Airflow at Least 90% of Design Specifications
ASP[1]	66	———	———	66	———	———
CAC	120	30	90	———	420	14%
CAL	70	44	26	———	664	67%
CCC[2]	53	48	3	2	812	91%
CCI	44	31	13	———	362	93%
CCWF	62	49	13	———	118	89%
CEN	68	61	7	———	227	96%
CHCF[3]	62	———	———	———	———	———
CIM[4]	50	6	28	16	1176	15%
CIW	25	25	0	———	75	96%
CMC[4]	64	5	59	———	212	Additional Review Necessary
CMF[4]	21	12	5	4	42	95%
COR	57	55	2	———	330	91%
CRC	16	16	0	———	64	13%
CTF	15	7	8	———	117	60%
CVSP[5]	25	15	10	———	147	96%
FSP[4]	27	16	7	4	167	50%

[1] Due to inconsistencies in the procedures used for the original measurements, re-measurements are underway.

[2] Two AHUs at this prison have inaccessible ductwork and were not available for staff to measure airflow from the AHU.

[3] CHCF was constructed with a Building Management System that automatically controls airflow based on established parameters and field sensor communications. Because the system automatically varies airflow as required, it does not lend itself to the AHU inspection measurements.

[4] AHU and/or Living Unit airflow design specifications require additional review for certain AHU/Living Units at these prisons.

[5] These rows exclude newly-installed AHUs from the ISP/CVSP HVAC replacement project. These AHUs are under warranty by the General Contractor.

Housing Unit Air Handling Unit Inspections

- Summary of Performance Measurements -

Institution	AHU Performance				Airflow Performance within Living Space	
	Total Number of AHUs	Number of AHUs with Airflow at Least 90% of Design Specifications	Number of AHUs with Airflow Below 90% of Design Specifications	Number of AHUs Pending Airflow Measurement	Number of Cell/Dorm Level Airflow Measurements	Percentage of Airflow Measurements Taken at Cell/Dorm Level with Airflow at Least 90% of Design Specifications
HDSP	46	44	2	———	267	63%
ISP[5]	27	1	26	———	246	100%
KVSP	26	21	5	———	816	92%
LAC	68	68	0	———	204	100%
MCSP	63	19	44	———	348	79%
NKSP	54	54	0	———	162	100%
PBSP	60	49	11	———	652	90%
PVSP	66	29	37	———	528	95%
RJD	74	71	3	———	444	91%
SAC[4]	18	12	4	2	308	0%
SATF	80	80	0	———	432	100%
SCC[1]	75	———	———	———	———	———
SOL	67	50	17	———	620	97%
SQ[4]	20	10	0	10	57	Additional Review Necessary
SVSP	62	16	46	———	132	71%
VSP	77	54	23	———	486	69%
WSP	60	59	1	———	142	98%

[1] Due to inconsistencies in the procedures used for the original measurements, re-measurements are underway.

[2] Two AHUs at this prison have inaccessible ductwork and were not available for staff to measure airflow from the AHU.

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