Decarceration:
Impact on SARS-CoV-2 Transmission in Correctional Facilities and Community Needs after Release

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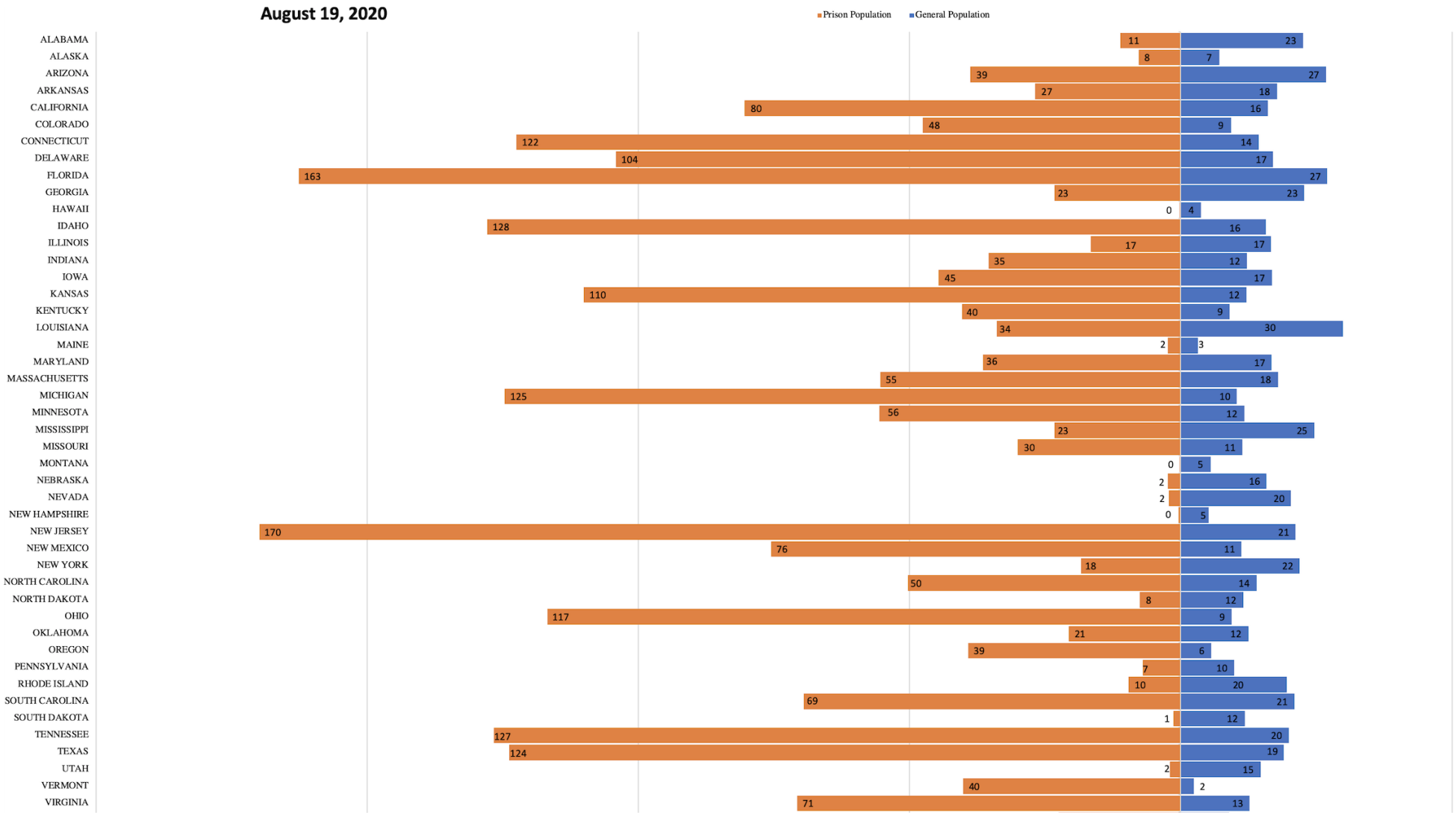
COVID-19 CAN SPREAD QUICKLY IN CORRECTIONAL AND DETENTION FACILITIES

Measuring COVID-19 Infection Rate in Prisons



The COVID Prison Project

Decarceration

Historical Examples

- 1832- Cholera outbreak, Yorkshire, England
- 1999- Large outbreak of TB in Russia

International Efforts

March 2020

- UN calls on countries to reduce prison populations
- Iran temporarily releases 85,000
- Columbia plans to release 10,000

Decarceration in the US

Over 5000 different facilities

Jails

- Little control over who and how many are detained
- Depend on prisons to accept transfers of people who are sentenced
- High throughput, but some longer stays with courts closed

Prisons

- Generally larger with older population and more chronic medical illness
- Includes people serving long sentences and have been away from community for longer periods
- DOC itself cannot decide to release people

The Empirical Basis

Prison crowding is associated with MTB, pneumococcal infection and skin and soft tissue infections[1]

High rates of asymptomatic and presymptomatic SARS-CoV-2 infection shown even in early studies[2,3]

1. Simpson, PL. BMJ Open 2020. 2. Wei, WE. MMWR 2020. 3. Bai, Y. JAMA 2020

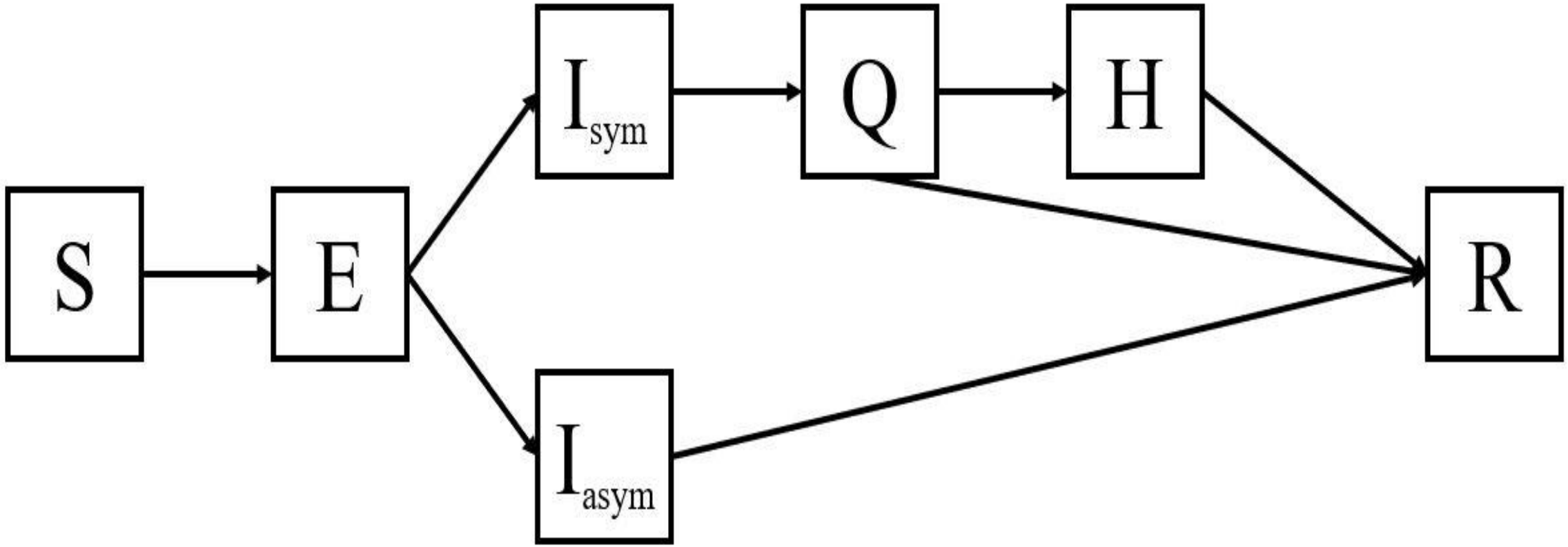
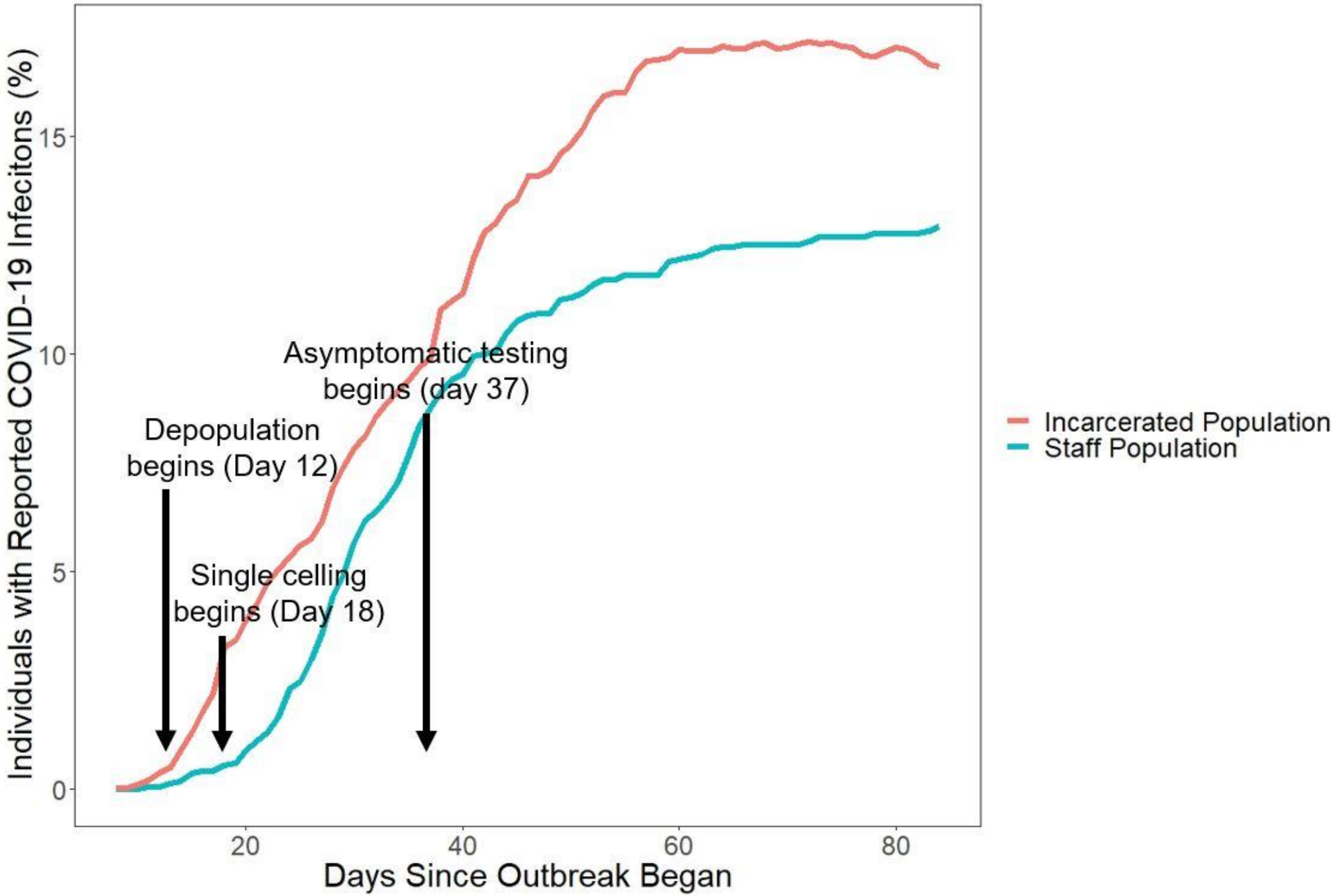


Figure 1. Structure of the disease transmission model. These disease states included susceptible (S), exposed (E), infected symptomatic (I_{sym}), infected asymptomatic (I_{asym}), quarantined (Q), hospitalized (H), and recovered (R) individuals.


Individuals with Reported COVID-19 Infecitons (%)
0
5
10
15
20
40
60
80
Days Since Outbreak Began
Depopulation begins (Day 12)
Single celling begins (Day 18)
Asymptomatic testing begins (day 37)
Incarcerated Population
Staff Population

	Time Range in Days	β (95% CrI)	R_0 (95% CrI)	Marginal Reduction in β and R_0	Expected Total Symptomatic Cases, Day 83* (95% CrI)	Expected Total Hospitalizations, Day 83* (95% CrI)	Expected Total Deaths, Day 83* (95% CrI)	Expected Total Cases, Day 200* (95% CrI)
1: Initial outbreak	1 – 11	1·89 (1·44 - 2·44)	8·25 (5·01 - 12·90)		3,867 (2,742 - 5,044)	541 (384 - 706)	38 (29 - 47)	6,372 (6,318 - 6,437)
2: Depopulation	12 – 17	0·83 (0·66 - 1·06)	3·58 (2·46 - 5·08)	56%	2,520 (1,940 - 3,088)	353 (272 - 432)	24 (20 - 28)	4,055 (3,666 - 4,294)
3: Increased single celling	18 – 36	0·41 (0·30 - 0·56)	1·72 (1·41 - 2·12)	51%	1,447 (1,224 - 1,654)	203 (171 - 232)	12 (11 - 13)	2,950 (2,331 - 3,521)
4: Asymptomatic Testing	37 – 83	0·11 (0·06 - 0·20)	0·45 (0·32 - 0·59)	73%	642 (592 - 692)	90 (83 - 97)	3.9 (3.6 - 4.1)	1,121 (904 - 1,433)

Intervention Effects: Estimated Transmission Rates (β), Effective Reproduction Ratios ($R0$), and Disease Cases for each Outbreak Phase

* Assuming the value of β estimated for this intervention phase occurs during all subsequent days.

TRANSITIONS CLINIC

TRANSITIONS CLINIC NETWORK CONNECTICUT COVID-19 RESPONSE LINE

Transitions Clinic is here to answer your questions and help coordinate medical care to people being released from jail/prison & in halfway houses!

Shifting to the Community

- Typical necessities more necessary than ever- i.e. telephone for telemedicine and reaching emergency medical help
- The health system- flexible access, when all goes to telemedicine, need to be able to see people in person who don’t have phones
- Housing, housing, housing- alternative options when shelters are shut down, access to places that allow for social distancing
- Helping families plan requires broader testing offered prior to release
- Robust and flexible addiction services as well

Cloe Poisson, CTMIRROR.ORG

KEY CHALLENGES:

-Little funding to offer the necessary discharge planning and testing
-Community health system can be unprepared to offer needed services

KEY OPPORTUNITIES:
-Consensus around the health risks of incarceration
-More intentional relationships b/w health departments and correctional facilities
-Staff considered part of the ecosystem
-Centering the voice of incarcerated people and family
-Studying equity impact of policy decisions

Issues to Consider for Future Work

- Little data on who has been released limits our ability to study equity impact of different policies
- No uniform reporting requirements- i.e. best practices in public health reporting
- Little data on comorbidities and how COVID risk may differ in this population
- Shared decision making around testing- what is the patient perspective? What are the ethical considerations that are front and center?