

SPREAD OF COVID-19 IN NEW YORK STATE PRISONS:

MONTH-TO-DATE INFECTIONS, ACTIVE CASES, AND RATES OF POSITIVITY

Correctional Association of New York
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OVERVIEW

In this report, the Correctional Association of New York (CANY) presents results from an imputation analysis of the COVID-19 positivity rate in New York State prisons and the number of active cases at a given prison. These two metrics are two of the most widely used public health measures of COVID-19 community spread and severity. This report details how CANY used these measures from the Department of Corrections and Community Supervision (DOCCS) to estimate future rates, particularly for the months of October and November. To the best of our knowledge, this is the first time that an imputation of this sort has been attempted. Based on these findings, CANY urges the state to conduct comprehensive and sustained testing; to publish detailed data on the results of those tests; and to take immediate steps to reduce risk to incarcerated people, state employees, and surrounding communities through decarceration strategies that pose minimal risk to public safety, including early release and clemency.

BACKGROUND

As of October 1, 2020, DOCCS held 36,072 people in 52 prisons across New York State. On April 11, 2020, DOCCS augmented its website to include its first count of [Confirmed Cases by Facility](#). DOCCS occasionally updates this report to reflect the cumulative number of people who have tested positive for, recovered from, or died as a result of COVID-19 at any of New York State's 52 prisons. New York State was not alone in its struggle to accurately report the extent of the COVID-19 pandemic inside its prisons. National projects such as UCLA Law *COVID-19 Behind Bars Data Project* have aggregated various individual state reports, a task made more difficult because many of these reports are not directly comparable due to statistical and/or demographic differences.

This report attempts to contribute to the literature on the extent of the COVID-19 pandemic in New York State prisons. The report does so by obtaining an imputed estimate for both daily total tests and daily positivity. This report also includes a cumulative number of negative COVID-19 tests and a point in time number of pending COVID-19 tests. CANY has been collecting this data since April 2020 in order to examine the rate of infection of COVID-19 in New York State prisons and to identify

BACKGROUND

prisons with spikes in active infections. In recent months, we have noted alarmingly high rates of infections, several of which were higher than the comparable rates in the New York City municipal jail system and several times the infection rate of New York City and New York State at their peak.

On October 21, 2020, Governor Andrew Cuomo revised New York State’s grounds for considering an area a “micro-cluster” and made explicit the [baseline actions](#) that the state must take in those communities to control the spread of COVID-19. The Governor’s office specifies three different zones: micro-cluster (red zone), warning (orange zone), and precautionary (yellow zone). The levels at which these metrics are reached depends upon the population of the county. Level 1 counties, those with more than 900,000 residents, are considered to be a microcluster when the seven-day moving average of the daily positivity is above 4%.The seven-day moving average typically rises and falls more slowly than daily positivity, which produces fewer false positives. We take this context into consideration when presenting the active cases and positivity rates in prisons throughout the state for October, November, and the first part of December 2020.

IMPUTING ACTIVE CASES

Using the information made available by DOCCS, CANY calculated month-to-date active cases in prisons for October and November to infer the number of incarcerated individuals who were, during the specified time frame, confirmed to have been infected with COVID-19¹. The table below represents a system-wide report of month-to-date active cases, tests administered, change in active cases, and change in pending tests since the previous month. None of the numbers in Table 1 is directly reported by DOCCS but is imputed by CANY from their reported statistics.

Table 1: Change in Active Cases and Testing in NYS Prisons in October and November
System-wide report of active cases (imputed); the change in active cases; total number of tests administered; and the change in pending tests. All numbers are month-to-date where month represents the period from the last day of the prior month to the date of the report.

| | OCTOBER (9/30/2020 - 10/21/2020) | NOVEMBER (10/30/2020 - 11/25/2020) |
|------------------------------------|-------------------------------------|---------------------------------------|
| Active Cases (imputed) | 448 | 75 |
| Changes in Active Cases (imputed) | +442 | -552 |
| Tests Administered (imputed) | 8,057 | 9,333 |
| Changes in Pending Tests (imputed) | +469 | -1,118 |

¹ The *DOCCS COVID-19 Report* includes the cumulative number of recovered, deceased, positive cases, pending tests, and negative tests. We manually calculated the number of active cases, which is simply the difference between the total number of positive cases and the total of those declared recovered or deceased. We assume that one test represents one person.

IMPUTING ACTIVE CASES

On September 30, there were six confirmed active cases system-wide. See Equation 1:

$$6 \text{ active} = 779 \text{ total positive} - 756 \text{ recovered} - 17 \text{ deceased}$$

From September 30 through October 21, there were an additional 510 active cases confirmed, representing a significant spike in infections among incarcerated people in New York State prisons. See Equation 2 and Equation 3:

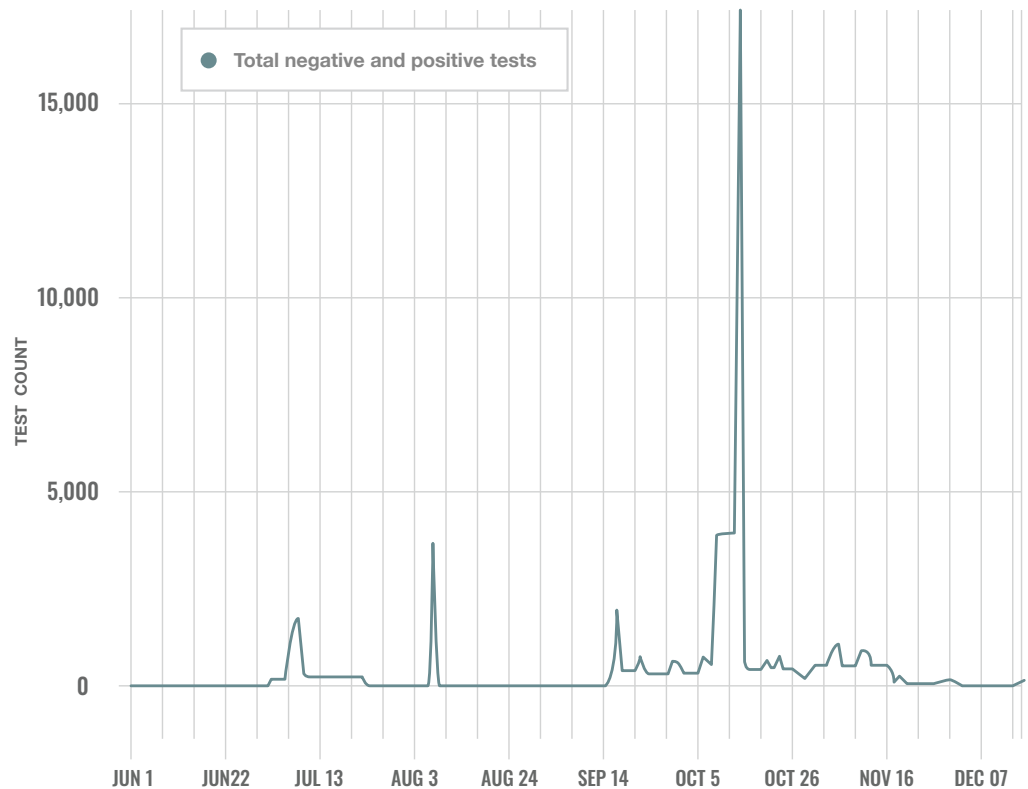
$$516 \text{ active} = 1,336 \text{ total positive} - 802 \text{ recovered} - 18 \text{ deceased}$$

$$510 \text{ increase in active cases} = 516 \text{ active } 2020-10-21 - 6 \text{ active } 2020-09-30$$

From October 30 through November 25, there were 75 active cases confirmed, down significantly from the prior month. Total tests administered from October 30 to November 25 was 9,552, indicating that 26.8% of people incarcerated in NY State prisons have been tested for COVID-19 as of November 25, 2020, assuming one test represents one person tested.

This is representative of the fact that DOCCS significantly increased testing during the months of September, October, and November, averaging roughly 400 tests per day during those months. See Figure 1.

Figure 1: Total tests (excluding pending tests) in all New York State Prisons from June 1, 2020 to December 17th, 2020.



CALCULATING PERCENT POSITIVITY & IMPLICATIONS

In this section, CANY uses CDC guidelines to calculate the percent positivity of tests month to date, for both the New York State prison system as a whole and individual New York State prisons.² Our analysis found that the daily positivity rate for the system as a whole reached 22.8% on October 21, 2020, and the seven-day moving average by that date was 11.4%. Either measure far surpasses the threshold to be considered a micro-cluster given the size of this population.

The imputed daily percent positivity for November 25 is 41.7% with the seven-day moving average of almost 21.7%. In addition to an increase in prevalence of COVID-19, this spike at the end of November is likely occurring because the number of tests dropped precipitously as the Thanksgiving holiday approached and because, by definition, the daily number is much more sensitive to that drop off than the cumulative monthly number. To emphasize this point, there were 364 tests done on October 21, but only 11 on November 25.

Positivity rates at individual prisons have varied widely. On October 21, Gouverneur and Upstate prisons had positivity rates of 0.3% and 0.4%, respectively, while Elmira and Cayuga had positivity rates of 55.7% and 30.2%, respectively. Table 2 shows the facilities with new positive cases and negative cases, which is an indication of how much testing was done during the specified date range. In October, percent positivity below 1% was normal for New York State as a whole. By stark contrast, percent positivity in certain prisons was as high as 55.7% in October and 30.8% in November.³

² The CDC calculates percent positivity as the number of positive tests divided by the total number of resulted reported tests: $(\text{positive}/\text{total}) \times 100\%$, where the total equals positive plus negative test results and excludes pending results.

³ Negative numbers in negative tests are reported when the cumulative number of negative tests for a date are lower than the cumulative number of negative tests for the last day of the prior month. CANY avoids reporting negative numbers by crediting DOCCS for any increase in negative tests reported at the facility level and enforcing a zero minimum on reported negative tests.

CALCULATING PERCENT POSITIVITY & IMPLICATIONS

Table 2: Positivity rates in prisons in October and November

| FACILITY | OCTOBER (9/30/2020 - 10/21/2020) | | | NOVEMBER (10/30/2020 - 11/25/2020) | | | | | |
|--------------------|---------------------------------------|----------|------------|---------------------------------------|----------|------------|----|-----|------|
| | POSITIVE | NEGATIVE | POSITIVITY | POSITIVE | NEGATIVE | POSITIVITY | | | |
| Elmira | 335 | 266 | 55.7% | 15 | 0 | 100% | | | |
| Greene | 99 | 920 | 9.7% | 24 | 0 | 100% | | | |
| Caguya | 32 | 74 | 30.2% | 5 | 0 | 100% | | | |
| Clinton | 11 | 1674 | 0.7% | 8 | 18 | 30.8% | | | |
| Gouverneur | 2 | 617 | 0.3% | NO POSITIVE TESTS IN GIVEN TIME FRAME | | | | | |
| Upstate | 2 | 475 | 0.4% | | | | | | |
| Adirondack | 1 | 0 | 100% | | | | | | |
| Edgecombe | 1 | 1 | 50% | | | | | | |
| Fishkill | 1 | 0 | 100% | | | | | | |
| Franklin | 1 | 806 | 0.1% | | | | | | |
| Sullivan | 1 | 2 | 33.3% | | | | 2 | 271 | 0.7% |
| Attica | NO POSITIVE TESTS IN GIVEN TIME FRAME | | | | | | 45 | 0 | 100% |
| Wyoming | | | | | | | 45 | 0 | 100% |
| Washington | | | | | | | 16 | 585 | 2.7% |
| Eastern | | | | 5 | 645 | 0.8% | | | |
| Midstate | | | | 5 | 719 | 0.7% | | | |
| Sing.Sing | | | | 3 | 953 | 0.3% | | | |
| Downstate | | | | 2 | 666 | 0.3% | | | |
| Great Meadow | | | | 2 | 1096 | 0.2% | | | |
| Mohawk / Walsh RMU | | | | 2 | 717 | 0.3% | | | |
| Southport | | | | 2 | 12 | 14.3% | | | |
| Sullivan | | | | 2 | 271 | 0.7% | | | |
| Albion | | | | 1 | 0 | 100% | | | |
| Auburn | | | | 1 | 890 | 0.1% | | | |
| Hudson | | | | 1 | 71 | 1.4% | | | |
| Marcy | | | | 1 | 605 | 0.2% | | | |
| Queensboro | 1 | 109 | 0.9% | | | | | | |
| Ulster | 1 | 197 | 0.5% | | | | | | |

Additionally, we provide another table which compares positivity rates for each of the prisons where positive cases appeared between November and December 17th.

CALCULATING PERCENT POSITIVITY & IMPLICATIONS

On December 17th NYDOCCS changed the way it reported tests from a "per-individual" to a total test methodology. Therefore Table 3 is the last possible apples-to-apples comparison.

Table 3: Positivity rates in prisons in November and December

| FACILITY | OCTOBER - NOVEMBER (10/30/2020 - 11/25/2020) | | | NOVEMBER - DECEMBER (11/30/2020 - 12/17/2020) | | |
|--------------------|---|----------|------------|--|----------|------------|
| | POSITIVE | NEGATIVE | POSITIVITY | POSITIVE | NEGATIVE | POSITIVITY |
| Attica | 45 | 0 | 100% | 53 | 0 | 100% |
| Wyoming | 45 | 0 | 100% | 9 | 0 | 100% |
| Clinton | 8 | 18 | 30.8% | 47 | 0 | 100% |
| Caguya | 5 | 0 | 100% | 38 | 0 | 100% |
| Midstate | 5 | 719 | 0.7% | 1 | 8 | 11.1% |
| Great Meadow | 2 | 1096 | 0.2% | 15 | 0 | 100% |
| Mohawk / Walsh RMU | 2 | 717 | 0.3% | 36 | 0 | 100% |
| Southport | 2 | 12 | 14.3% | 3 | 0 | 100% |
| Auburn | 1 | 890 | 0.1% | 15 | 0 | 100% |
| Hudson | 1 | 71 | 1.4% | 2 | 9 | 18.2% |
| Marcy | 1 | 605 | 0.2% | 1 | 0 | 100% |
| Greene | 24 | 0 | 100% | NO POSITIVE TESTS IN GIVEN TIME FRAME | | |
| Washington | 16 | 585 | 0.03% | | | |
| Elmira | 15 | 0 | 100% | | | |
| Eastern | 5 | 645 | 0.01% | | | |
| Sing.Sing | 3 | 953 | 0% | | | |
| Sullivan | 2 | 271 | 0.7% | | | |
| Downstate | 2 | 666 | 0% | | | |
| Sullivan | 2 | 271 | 0.01% | | | |
| Albion | 1 | 0 | 1% | | | |
| Queensboro | 1 | 109 | 0.01% | | | |
| Ulster | 1 | 197 | 0.01% | | | |
| Woodbourne | NO POSITIVE TESTS IN GIVEN TIME FRAME | | | | | |
| Bare Hill | | | | 66 | 0 | 100% |
| Wende | | | | 57 | 0 | 100% |
| Groveland | | | | 41 | 0 | 100% |
| Bedford Hills | | | | 15 | 0 | 100% |
| Gowanda | | | | 14 | 0 | 100% |
| Coxsackie | | | | 13 | 0 | 100% |
| Lakeview | | | | 10 | 0 | 100% |
| Green Haven | | | | 5 | 0 | 100% |
| Watertown | | | | 4 | 0 | 100% |
| Upstate | | | | 4 | 0 | 1% |
| Orleans | | | | 1 | 1 | 50% |
| Gouverneur | 1 | 23 | 0.04% | | | |

CALCULATING PERCENT POSITIVITY & IMPLICATIONS

The state's COVID-19 micro-cluster metrics are based on a seven-day moving average using much more granular data than what is released publicly by DOCCS. However, with a reasonable set of assumptions⁴, the data we have can be transformed into the moving average of daily positivity. CANY imputed that in October, New York State prisons had a seven-day moving average of 5.4%, well above the definition of a micro-cluster for this community. This rate rose to 8.1% in November, likely owing to a steep decline in testing in the days leading up to the November 25 report issued by DOCCS. Furthermore, because testing levels have still not recovered in December, the month-to-date seven day moving average has reached 58.2% as of December 15th.

Figure 2: Daily Positivity of all NY Prisons from June 1 to December 17, 2020

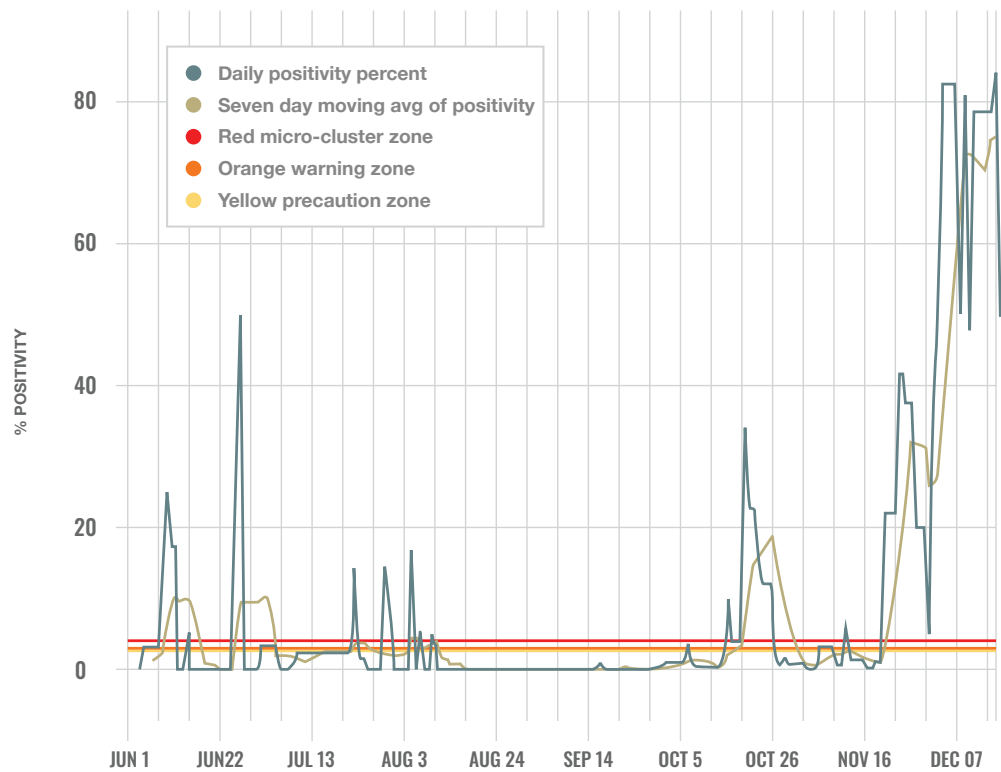


Figure 2 depicts both daily rates of positivity and the seven-day moving average of positivity in prisons, superimposed over the measures used to define micro-clusters, warning, and precaution (red, orange, and yellow) zones in the community.

A CLOSER LOOK AT ELMIRA

On October 21, the percent positivity at Elmira was 55.7% and the number of positive tests was 242. The positivity rate at Elmira during October indicates that most of those tested at Elmira were positive, which suggests that DOCCS prioritized testing of people already thought to be infected.

Prior to the COVID-19 pandemic, during an August 2019 monitoring visit, CANY received reports from incarcerated people at Elmira that the prison provided inadequate medical care and unhygienic living conditions. Specifically, 78% reported being unable to see a doctor

⁴ DOCCS does not release the moving average of daily positivity but instead occasionally releases aggregate numbers on the Confirmed Cases by Facility report. One can reasonably assume that a similar number of tests are administered daily and that the positivity rate is consistent on a day-to-day basis between the two dumps of aggregate data. This is an unbiased estimate of the true positivity rate but may underestimate the volatility of positivity rates.

A CLOSER LOOK AT ELMIRA

or other medical professional when needed during the prior year and 73% reported having put in sick calls that were ignored. Additionally, 55.2% reported that their living conditions were so dirty that they were concerned for their health. These pre-pandemic conditions give rise to serious concerns about the risks posed to incarcerated people during a coronavirus outbreak.

CONCLUSIONS

Testing in New York State prisons has been conducted inconsistently and largely in response to major outbreaks, which has resulted in extremely high positivity rates where outbreaks have occurred and less reliable measures of positivity in the system as a whole. Episodic and incomplete reporting of test results has further obscured the public's view of how COVID-19 is spreading throughout prisons. Comprehensive and sustained testing of people in prison as is being done by New York State in nursing homes⁵; detailed public reporting of test results; and immediate actions to reduce risk to people in state prisons will be essential in the coming weeks to prevent additional outbreaks, illness, and death.

⁵ Nursing home staff are tested twice a week except for certain exceptions. Residents are checked for symptoms daily and tested at staff discretion and are tested when they are likely to have been exposed to the virus.

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