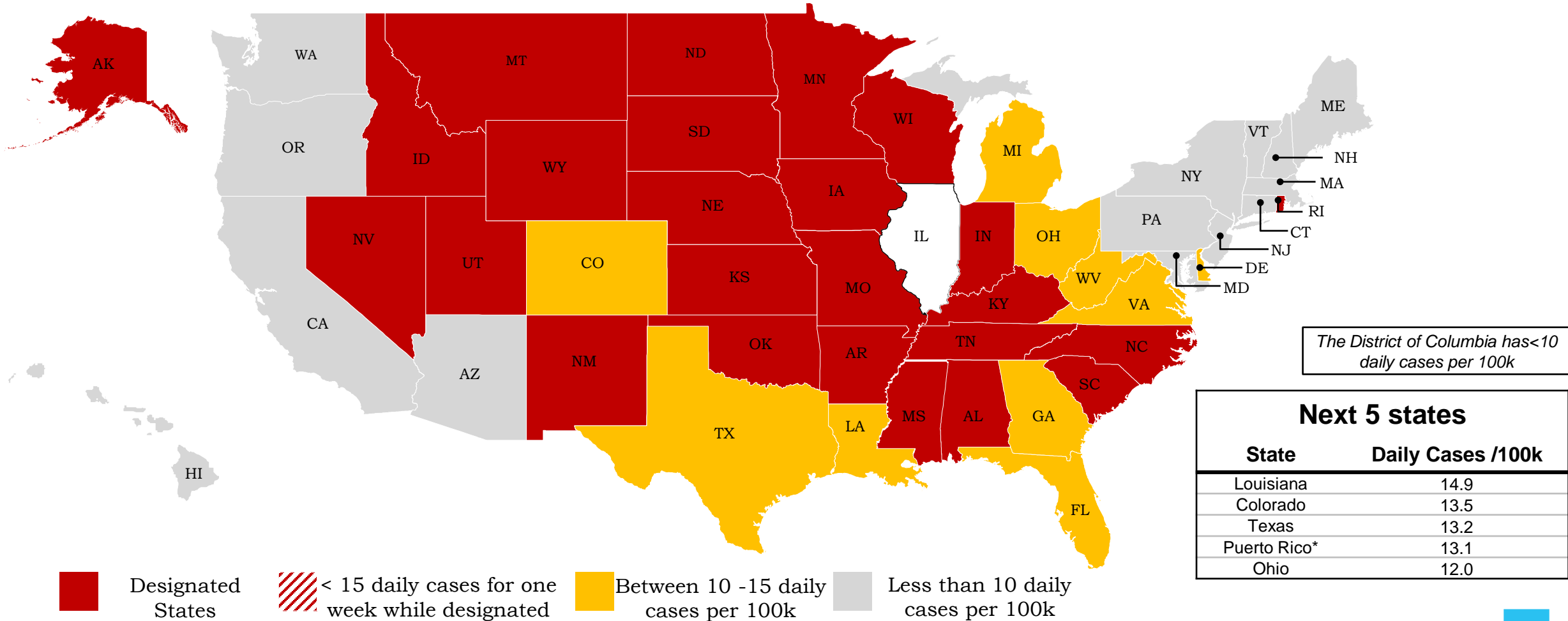




COVID-19 Update

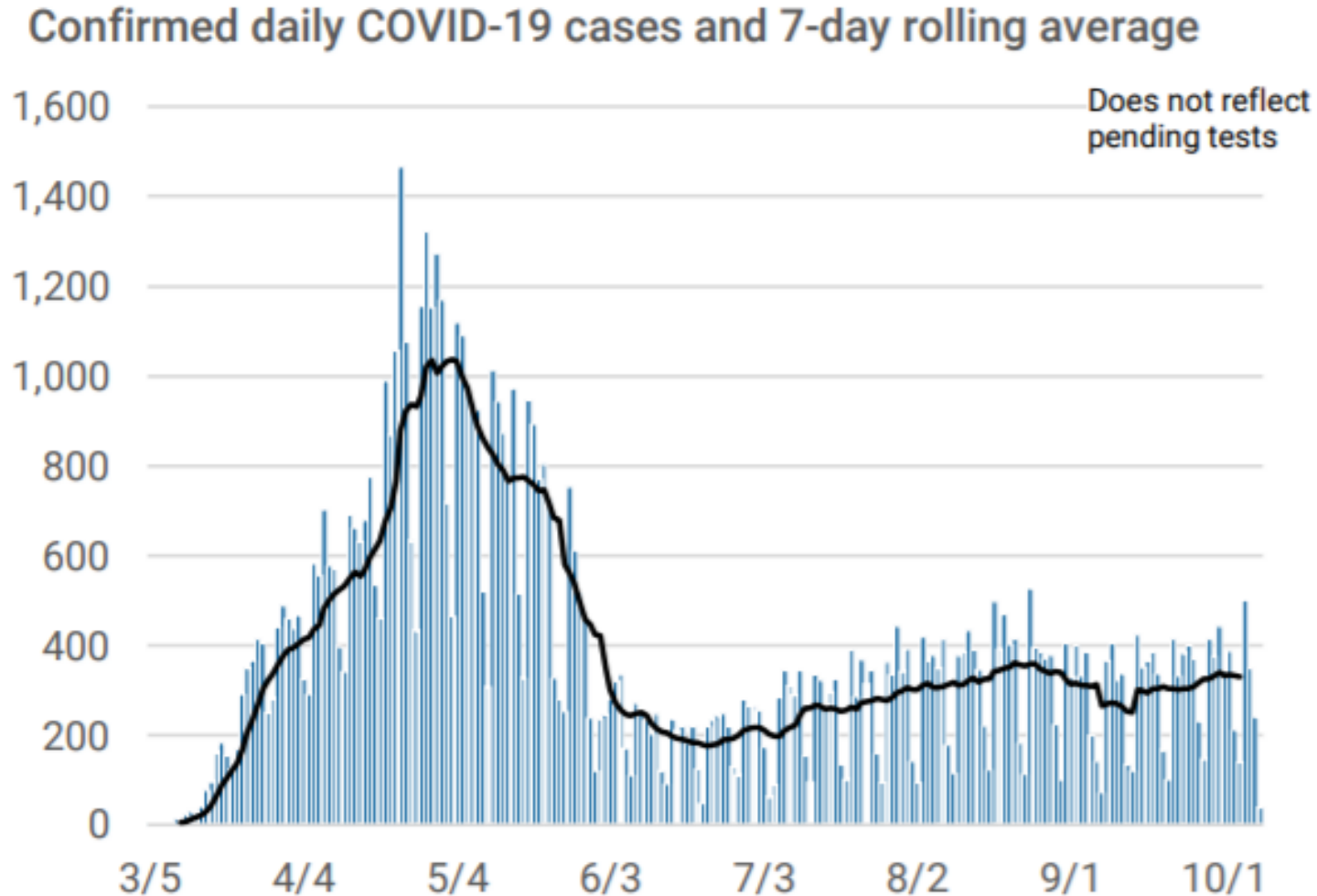
October 13, 2020

As of 10/12, Chicago's travel order consists of 25 states and Puerto Rico. Indiana, North Carolina, Rhode Island, and New Mexico added.



Note: *This State was on the designated list and is now under 15 daily cases per 100k residents, if they stay below for another week, it will be taken off the list

★ New Daily COVID-19 Cases, Chicago

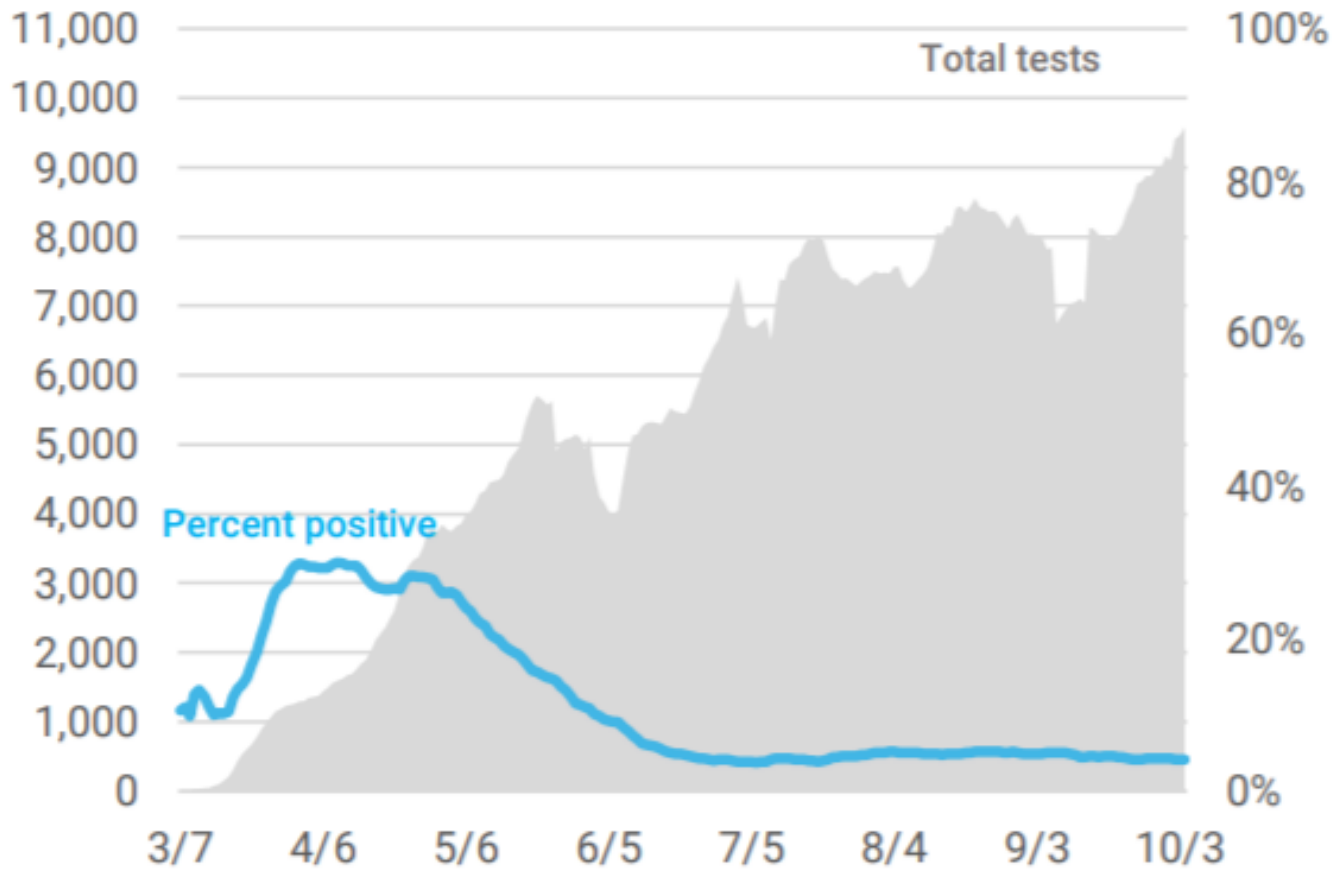


Current
Confirmed cases

364 ▲
Prior wk.: 332 (10%)

★ Testing and Percent Positivity, Chicago

COVID-19 testing and percent positivity, 7-day rolling average

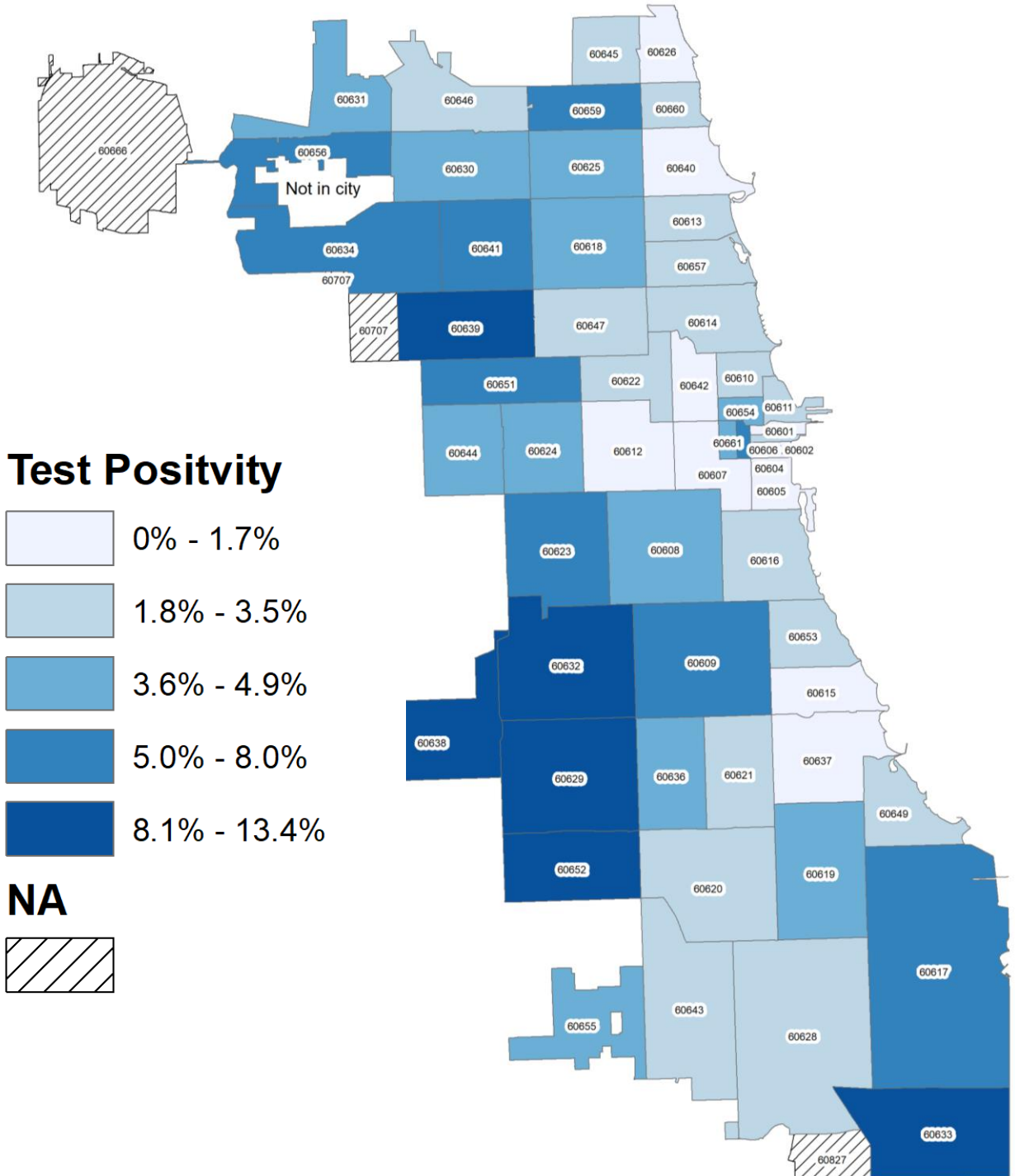


Current Test Positivity
4.4%



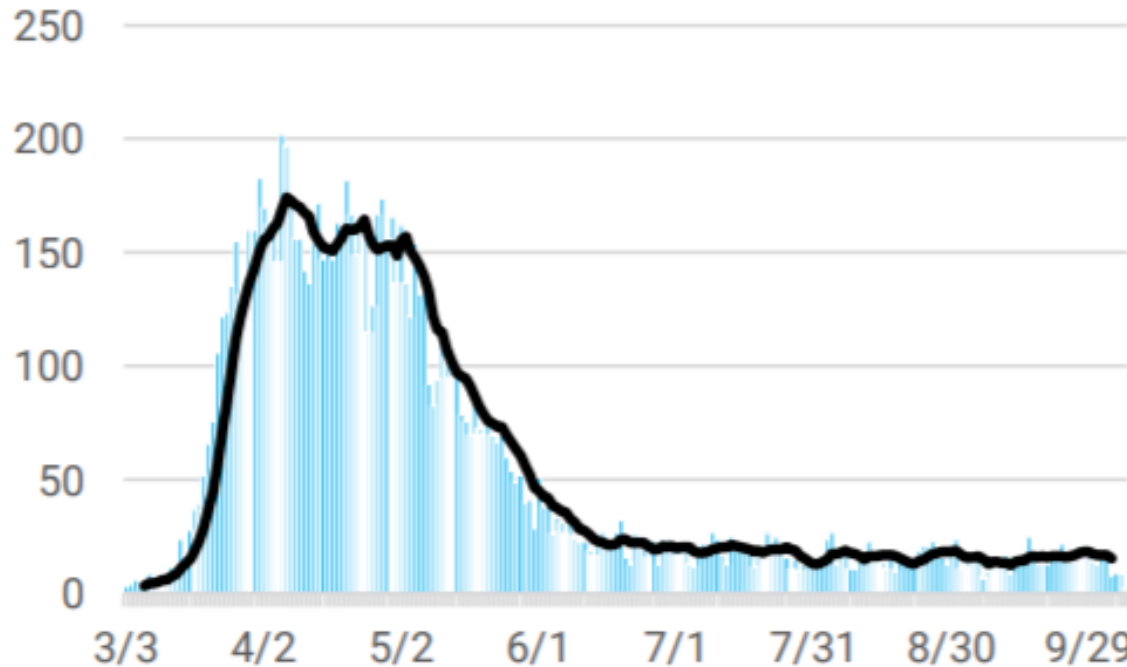
Test Positivity by Zip Code

The SW and NW sides of city remain highest in test positivity



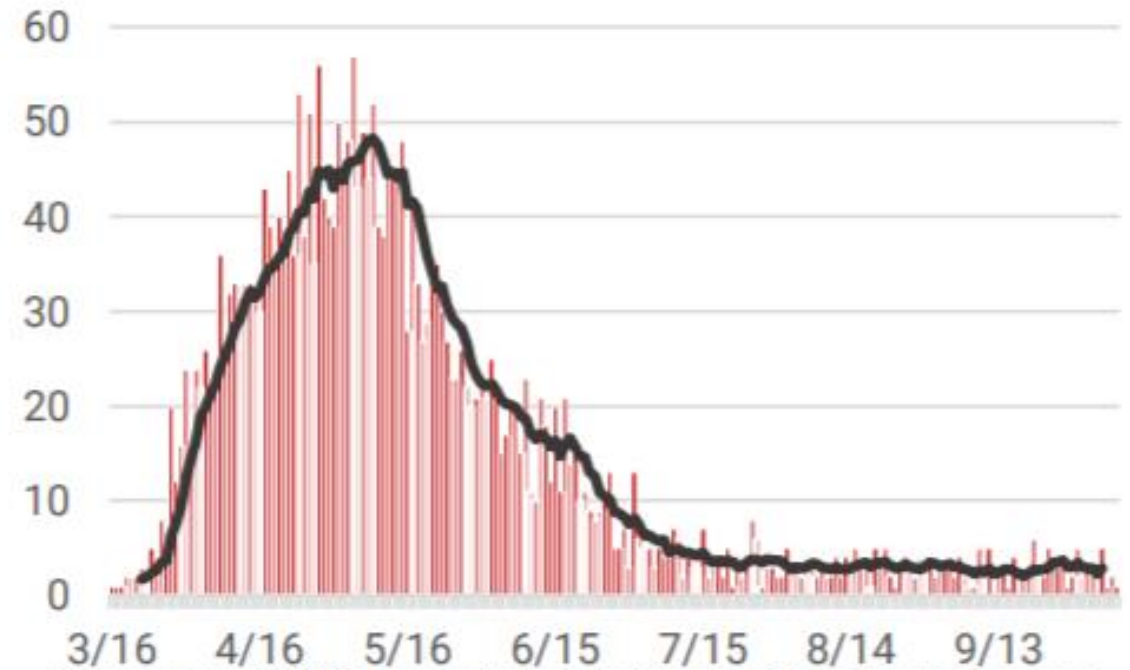
★ Hospitalizations and Deaths, Chicago

Daily COVID-19 hospitalizations and 7-day rolling average



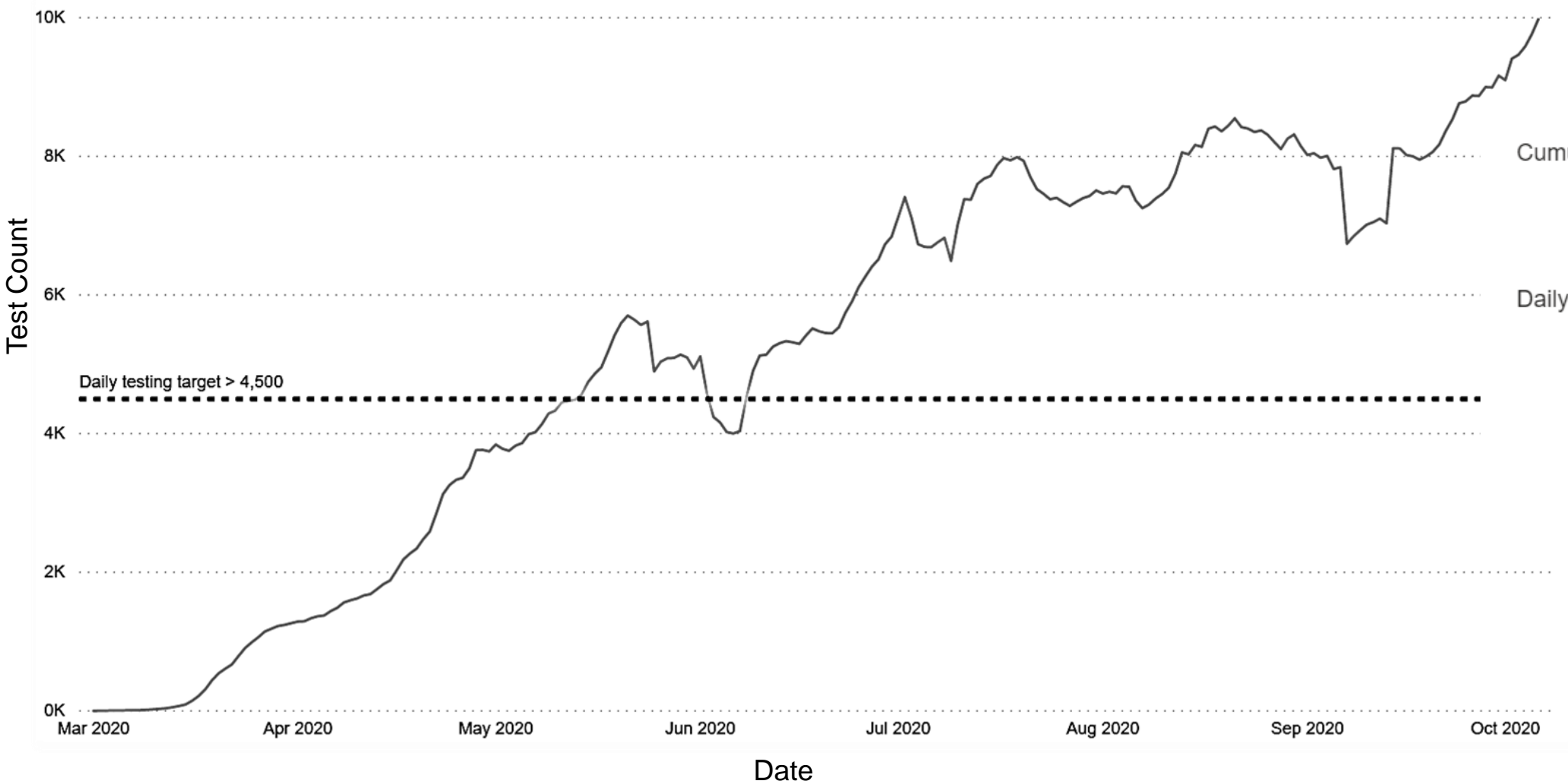
Chicago resident COVID-19 cases who have been hospitalized, by date of first hospitalization. Results for several previous days are updated each day.

Daily COVID-19 deaths and 7-day rolling average



Chicago resident COVID-19 cases who have died, by date of death. Results for several previous days are updated each day.

★ Tests per day (7-day RA) highest ever and growing



Cumulative tests
1,225,576

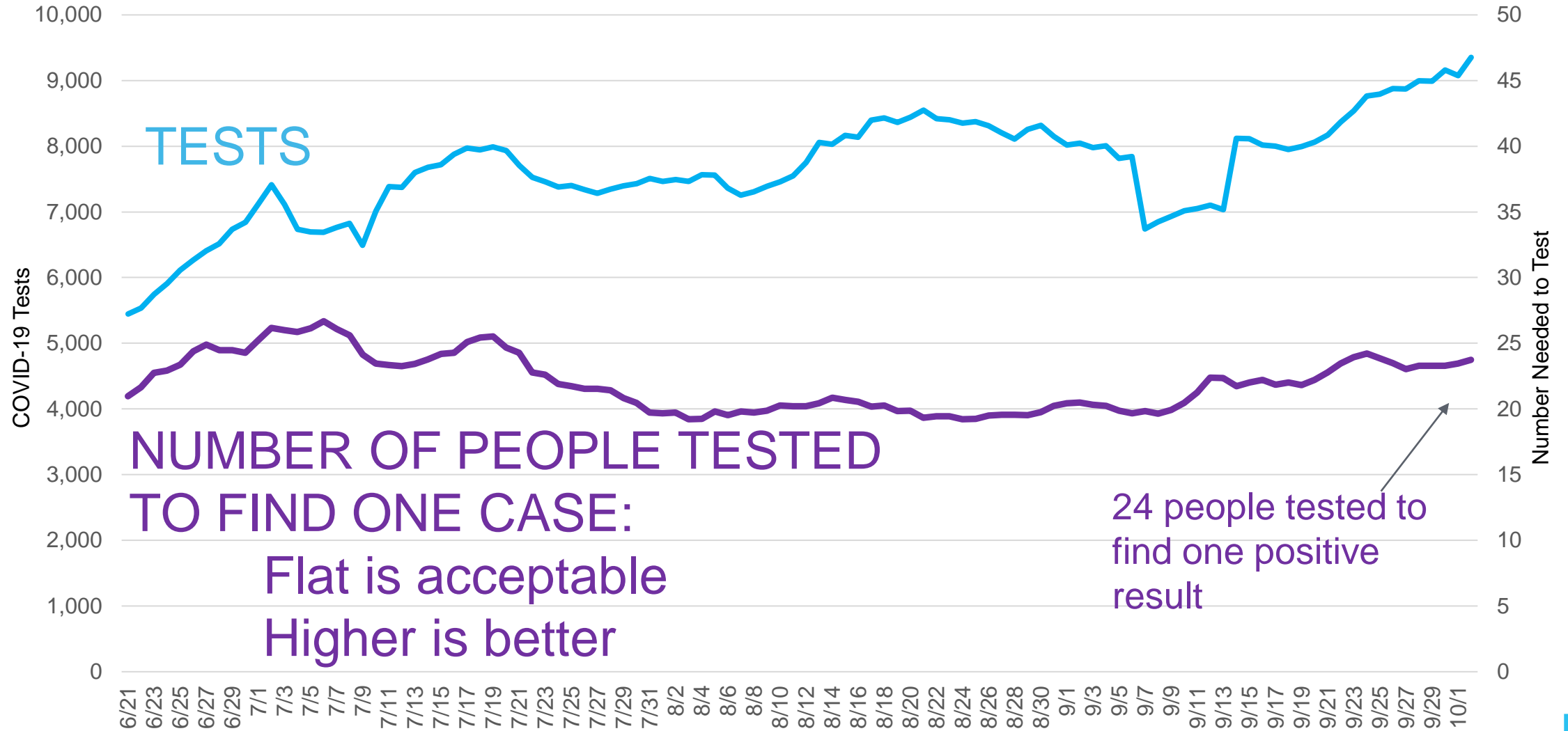
Daily tests (7 day rolling average)
9,977 ▲
Prior wk.: 8,994 (11%)

Source: chi.gov/coronavirus



Number needed to test (NNT)

Number of tests needed to identify one case has remained stable since re-opening. This suggests stable and steady community transmission.

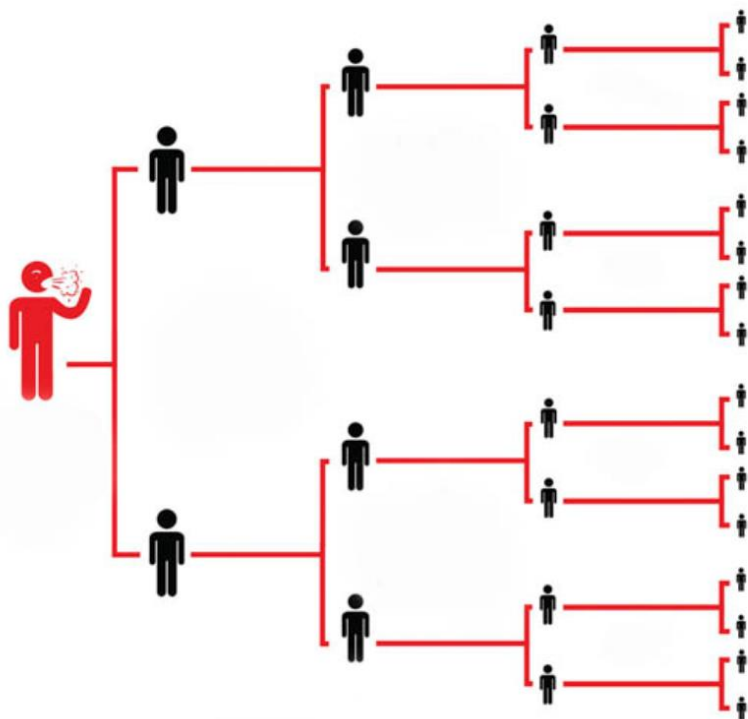


★ Reproduction number (R_t)

How well is the virus reproducing?

R_t : The *average* number of people who are infected by each person with COVID-19 in Chicago.

$R_t=2$



Each person spreads to an average of **2** other people

$R_t=1$



Each person spreads to an average of **1** other people



Reproduction number (R_t)

How well is the virus reproducing?

R_t : The *average* number of people who are infected by each person with COVID-19 in Chicago.

- The higher the R_t is above 1, the faster COVID will spread.
- If R_t is below 1, infections will slow.

Very early in our outbreak: R_t in Chicago estimated at **3.62**.

Each person with COVID-19 spread disease to between 3 and 4 other people, on average.

That's why our cases rose so quickly.

When we successfully flattened the curve, we did that by changing the conditions to make it harder for the virus to reproduce.

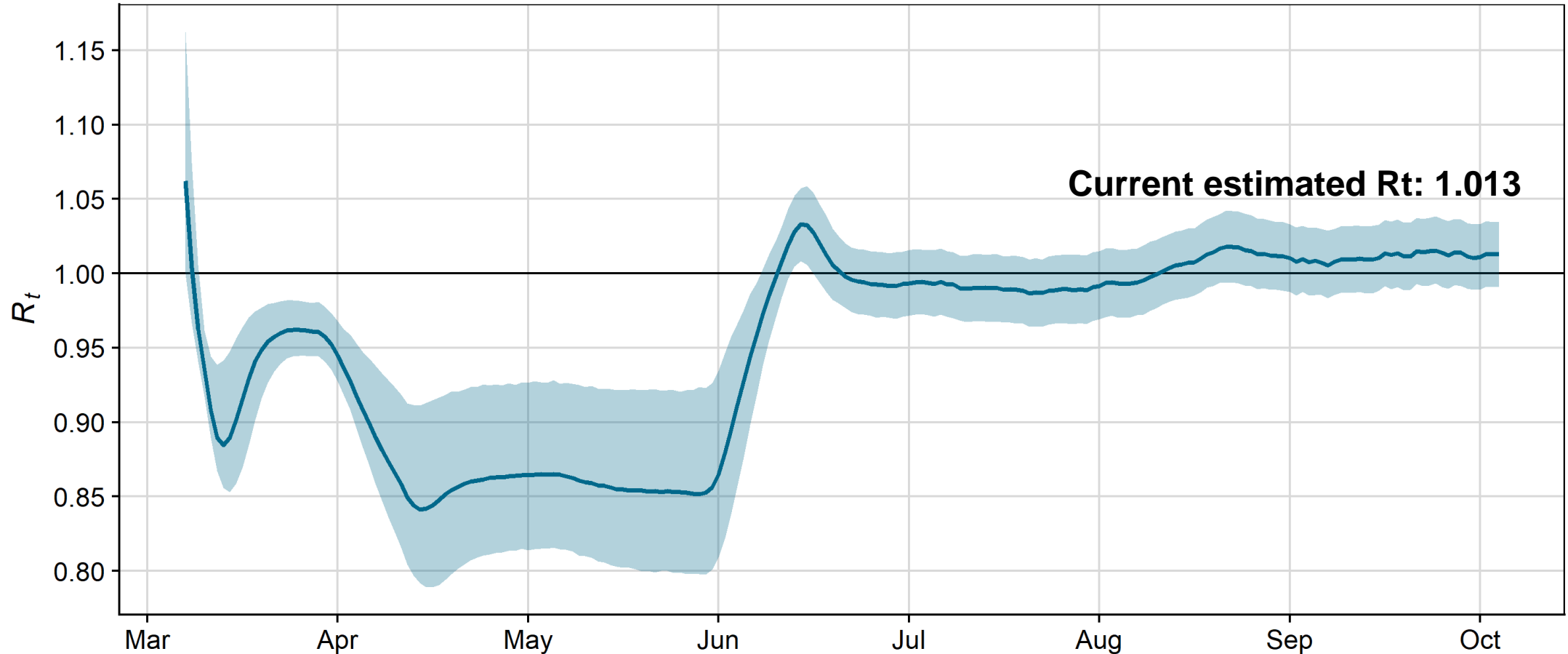
We successfully got R_t down to under 1 (**as low as 0.85**).

Each person with COVID-19 spread disease to an average of less than other person, meaning many infected people did not spread the disease at all.

Current R_t in Chicago estimated at **1.013**.



Reproduction Number (R_t): 1.013 suggests stable outbreak



Chicago

Estimated R_t using NU's COVID transmission model
 Estimated R_t for Oct 7th: 1.013 (95%CI: 0.991 - 1.034)

*Model fitted to hospitalizations, intensive care unit census and deaths

* R_t estimated using EpiEstim with an uncertain SI distribution

Plot truncated in March, before March 15th, R_t was estimated at 3.62 (95%CI 1.82-7.22)

Thank You!



[Chicago.gov/Health](https://chicago.gov/Health)



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