



# Protecting Chicago: Phase IV Re-Opening Metrics Update

**December 19th, 2020**

**(Data current through 12/16/2020)**

# CDPH COVID-19 Phase IV starting June 26 2020

|   | Stop: May need to delay moving ahead                                  | Caution: Pause and monitor                              | Go: Cautious progress  | Go: Continued progress  | Go: Advanced progress   |
|---|---|---|--|---|---|
| <b>Cases</b><br>7-day rolling daily average                             | Any sustained (consecutive) increase >14 days within the past 28 days | Increase 0-14 days (in most recent 14 -day period)      | Stable or decrease 0-13 days (w/o increase in most recent 14-day period)   | Stable or decrease 14-28 days   | Stable or decrease >28 days and/or sustained <200 new cases per day (~100 cases per 100,000 persons)                                  |
| <b>Hospitalizations</b><br>7-day rolling daily average                  |   |   |  |   |   |
| <b>Deaths</b><br>7-day rolling daily average                            |   |   |  |   |   |
| <b>COVID Emergency department visits</b><br>7-day rolling daily average |   |   |  |   |   |
| <b>Positivity rate</b><br>7-day rolling daily average                   | >10%  | 5% - 10%  | 3% - 5% of all daily tests are confirmed positive  | <3% of all daily tests are confirmed positive   | <=1% of all daily tests are confirmed positive  |
| <b>Hospital system capacity</b><br>7-day rolling daily average          | >1200 non-ICU beds<br>>250 ICU beds<br>>300 ventilators               | >1000 non-ICU beds<br>>150 ICU beds<br>>150 ventilators | <1000 non-ICU beds occupied by COVID patients<br><150 ICU beds occupied by COVID patients<br><150 ventilators occupied by COVID patients | <500 non-ICU beds occupied by COVID patients<br><75 ICU beds occupied by COVID patients<br><75 ventilators occupied by COVID patients | <250 non-ICU beds occupied by COVID patients<br><50 ICU beds occupied by COVID patients<br><50 ventilators occupied by COVID patients |
| <b>Testing capacity</b><br>7-day rolling daily average                  | Unexplained decline in testing <4500 total tests/day                  | Explained decline in testing <4500 total tests/day      | Stable testing >4500 total tests/day   | Stable testing >6750 total tests/day  | Stable testing >9,000 total tests/day   |
| <b>Response capacity</b>  | N/A   | N/A   | Investigation within 24h for 50% of CDPH cases interviewed   | Investigation within 24h for 75% of CDPH cases interviewed  | Investigation within 24h for 90% of CDPH cases interviewed  |

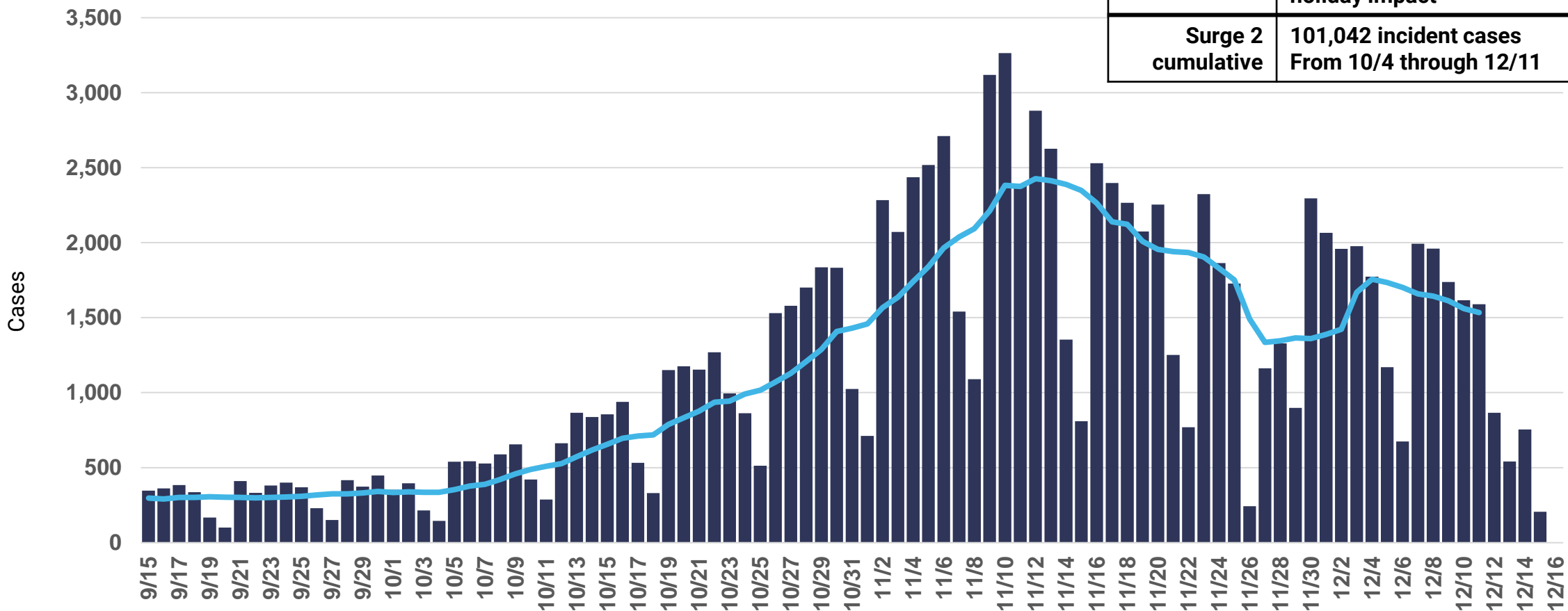


# COVID-19 Confirmed Cases

# COVID-19 case incidence is slowly declining. Now >4X greater than 8 weeks prior.



COVID-19 cases, daily counts and rolling 7-day average, specimen date



|                    |  |
|--------------------|--|
| Recent trend       | Caution: Pause and monitor                     |
| 14-day Incidence   | HIGH (1,646 avg. daily cases*)                 |
| 14-day slope       | 14-day slope masks influence of holiday impact |
| Surge 2 cumulative | 101,042 incident cases From 10/4 through 12/11 |

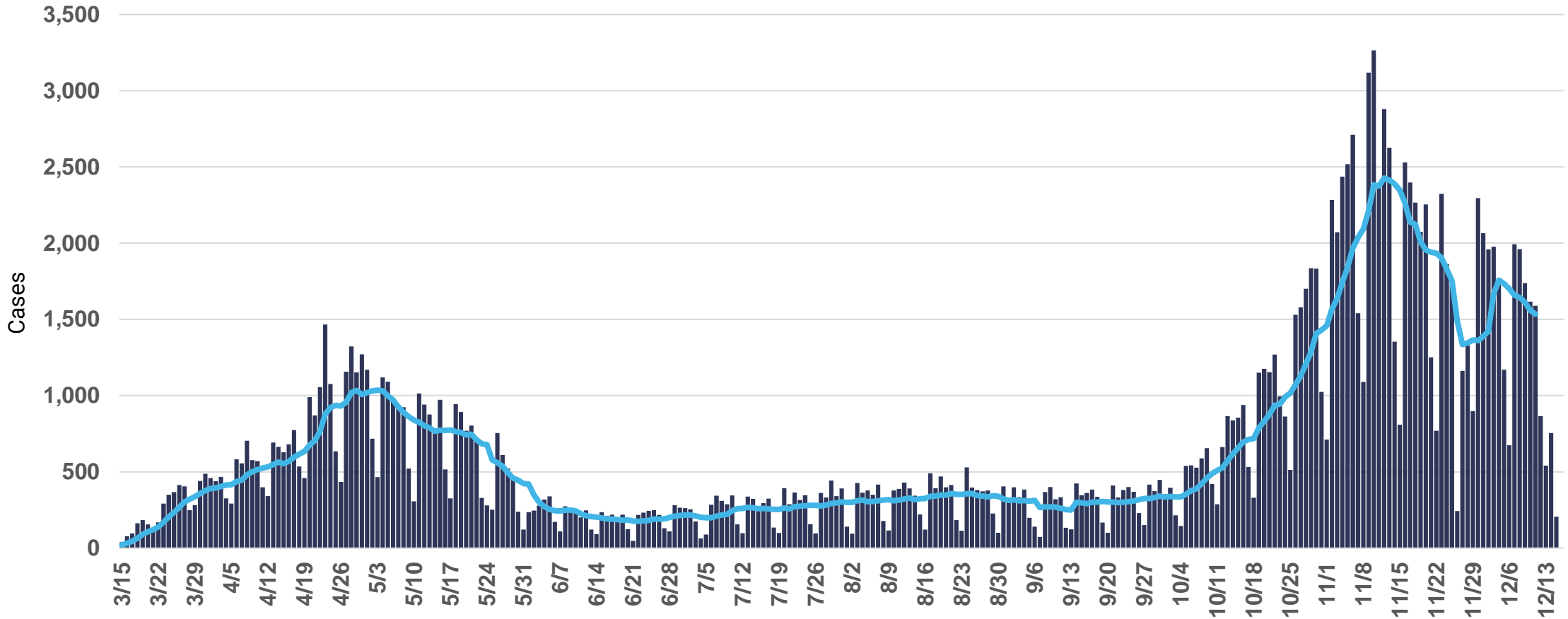
Daily COVID-19 cases with known specimen report date. \*14-day incidence is calculated by summing all new cases in the most recent 14-day period and dividing by 14 days to find an average daily count. Incidence gating rank is determined using 14-day cumulative incidence/100,000 population. The gating rank categories are defined as. LOW (1-10); MODERATELY LOW (11-25); MODERATE (26-50); MODERATELY HIGH (51-99); HIGH (100+) and presented as corresponding daily counts color-coded to gating category. Daily counts for most recent dates displayed are likely incomplete.

# COVID-19 case incidence in Chicago varies over time. Lower testing volume in Spring make comparisons difficult.



|                            |   |
|----------------------------|---|
| Peak 7-day rolling average | 2364 avg. daily cases<br>11/11/2020               |
| Surge 2 cumulative cases   | 101,042 incident cases<br>From 10/4 through 12/11 |

COVID-19 cases, daily counts and rolling 7-day average, specimen date



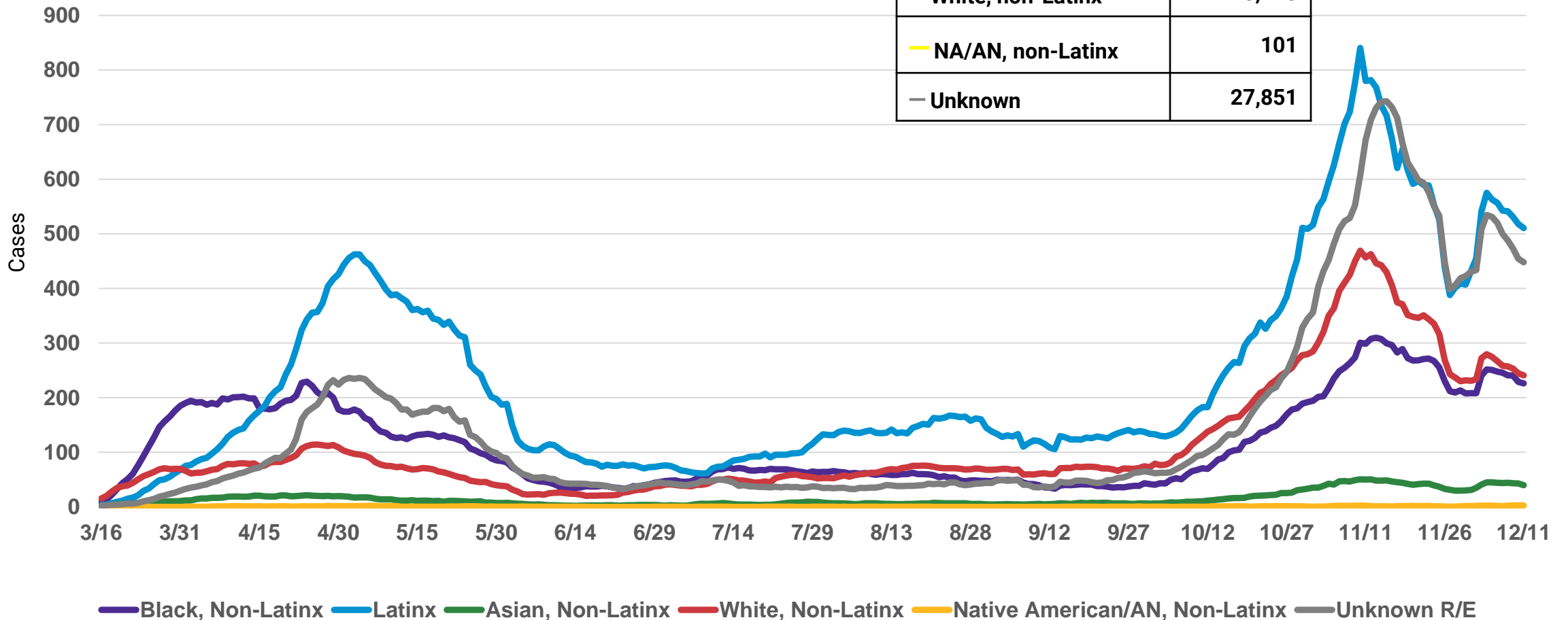
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# Surge 2 cumulative case counts by race/ethnicity (since 10/4/2020)



COVID-19 cases among Chicago residents by race/ethnicity, rolling 7-day average, specimen collection date

| Surge 2 Cumulative Cases<br>(10/4/2020-12/11/2020) |        |
|--|--------|
| — Latinx   | 33,240 |
| — Black, non-Latinx                                | 14,037 |
| — Asian, non-Latinx                                | 2,302  |
| — White, non-Latinx                                | 18,998 |
| — NA/AN, non-Latinx                                | 101    |
| — Unknown  | 27,851 |

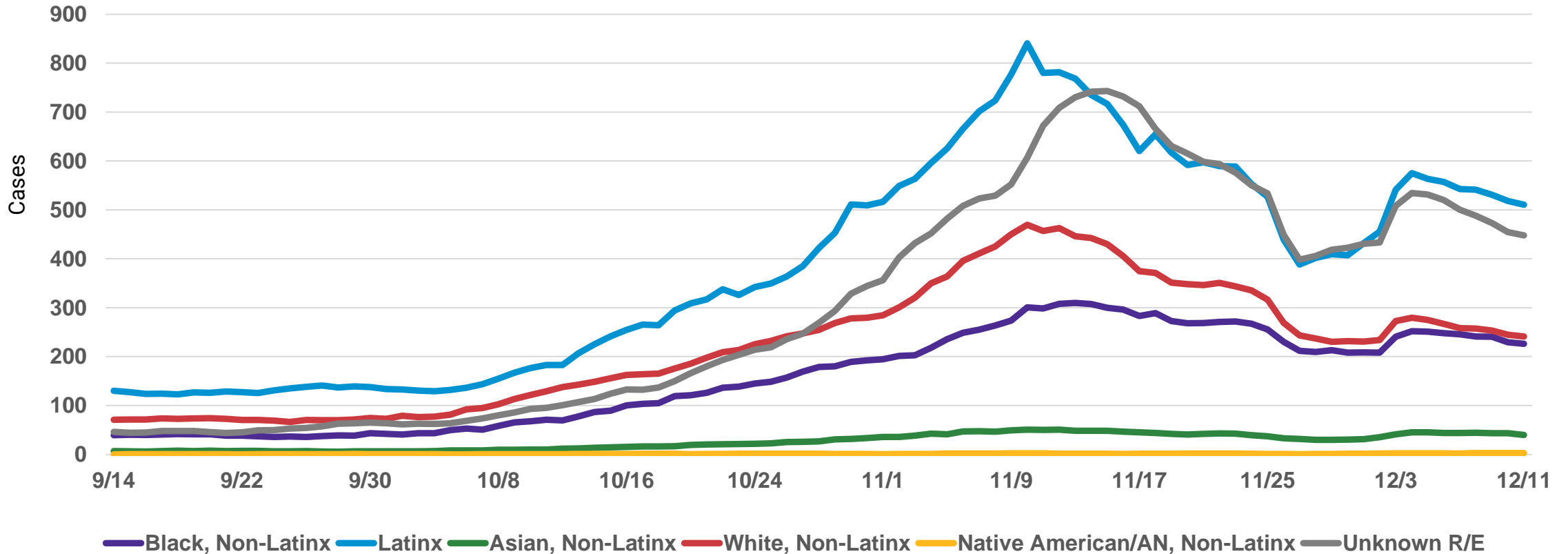


Daily COVID-19 cases with known specimen report date and race/ethnicity information.



# COVID-19 case incidence continues to be highest among Latinx Chicagoans.

COVID-19 cases among Chicago residents by race/ethnicity, rolling 7-day average, specimen collection date



|                     | 14-day incidence             | 14-day slope                 |
|---------------------|------------------------------|------------------------------|
| — Latinx            | HIGH<br>543 avg. daily cases | GROWTH<br>+7.8 cases per day |
| — Black, non-Latinx | HIGH<br>239 avg. daily cases | GROWTH<br>+1.2 cases per day |
| — Asian, non-Latinx | HIGH<br>42 avg. daily cases  | GROWTH<br>+0.7 cases per day |
| — White, non-Latinx | HIGH<br>260 avg. daily cases | STABLE<br>+0.3 cases per day |

Daily COVID-19 cases with known specimen report date and race/ethnicity information. Approximately 30% of cases used to calculate 14-day incidence are missing race/ethnicity information, therefore the reported 14-day incidence represents an undercount of true incidence.



# COVID-19 Severe Outcomes

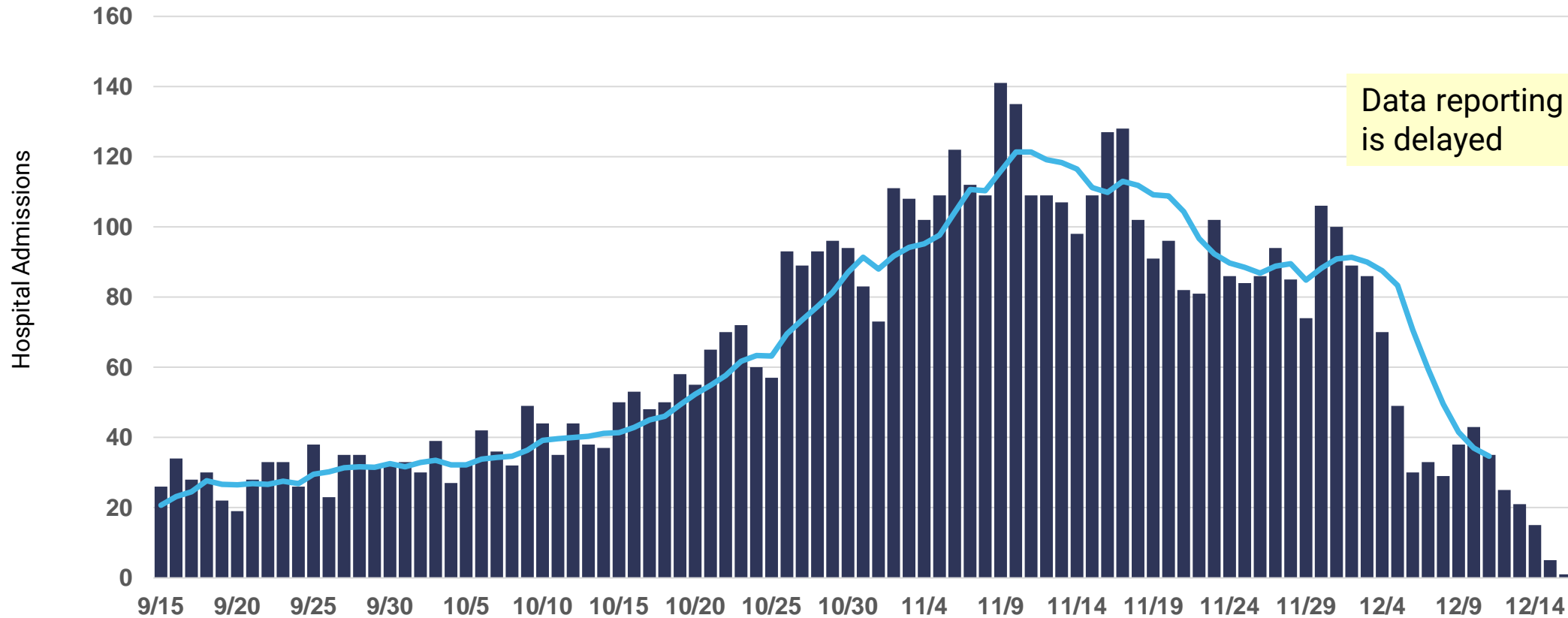


# Daily COVID-19 hospital admissions plateaued ~90 per day 11/24 – 12/5



COVID-19 Hospital admissions, daily counts and rolling 7-day average, first known hospital admit date

|                                     |  |
|-------------------------------------|--|
| Recent trend                        | Unknowable due to delays   |
| Peak 7-day rolling average          | 173 avg. daily admissions<br>4/12/2020                               |
| Cumulative hospital admits by surge | Current surge: 5,020 (10/11-12/11)<br>First surge: 8,262 (3/14-5/14) |



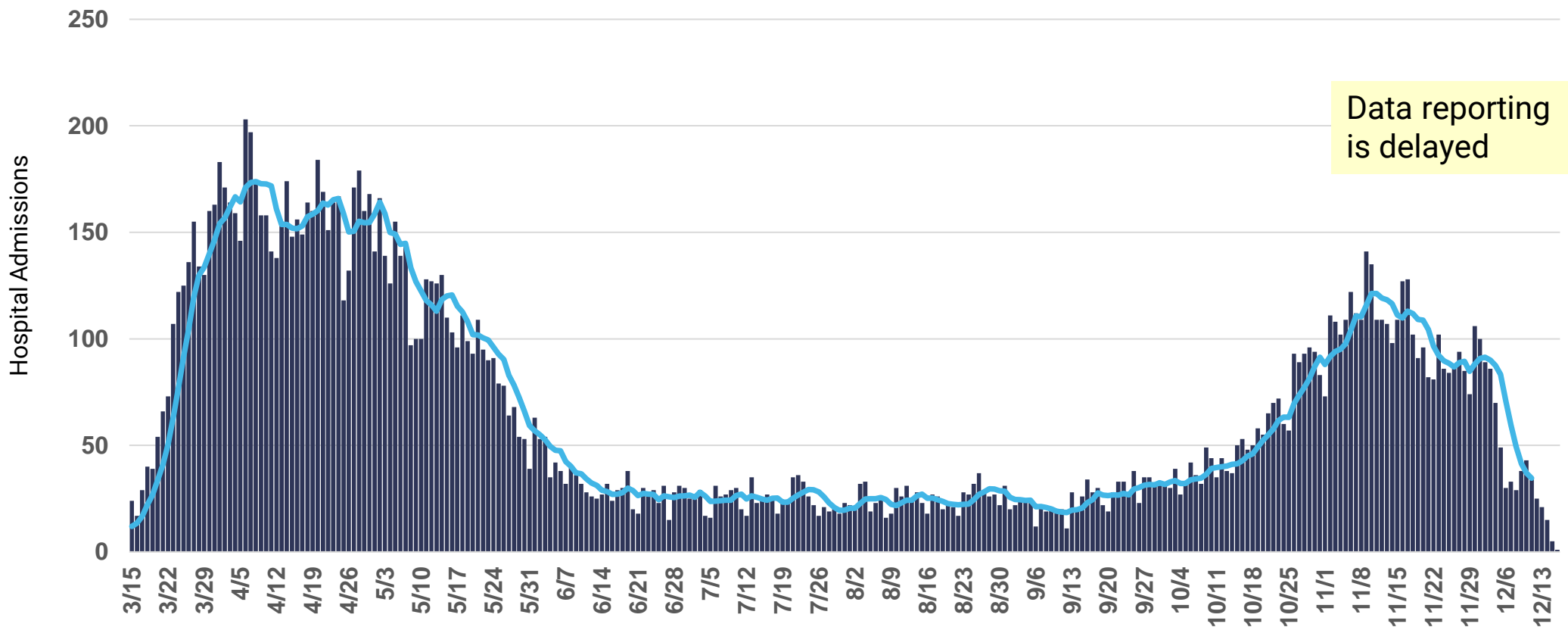
Hospitalizations are reported to CDPH by hospitals into I-NEDSS and ESSENCE and self-reported by patients via an online survey. Daily counts for most recent dates displayed are likely incomplete. Cases who are not indicated to have been hospitalized across any of the three data sources are assumed to not have been hospitalized. Six records with hospital admit dates from January and February 2020 are excluded from this chart. Peak daily admissions based on rolling 7-day average.

# Daily COVID-19 hospital admissions peaked at ~120 per day during 2<sup>nd</sup> surge (compared to 174 - 1<sup>st</sup> surge)



|                                     |  |
|-------------------------------------|--|
| Peak 7-day rolling average          | 173 avg. daily admissions<br>4/12/2020                               |
| Cumulative hospital admits by surge | Current surge: 5,020 (10/11-12/11)<br>First surge: 8,262 (3/14-5/14) |

COVID-19 Hospital admissions, daily counts and rolling 7-day average, first known hospital admit date



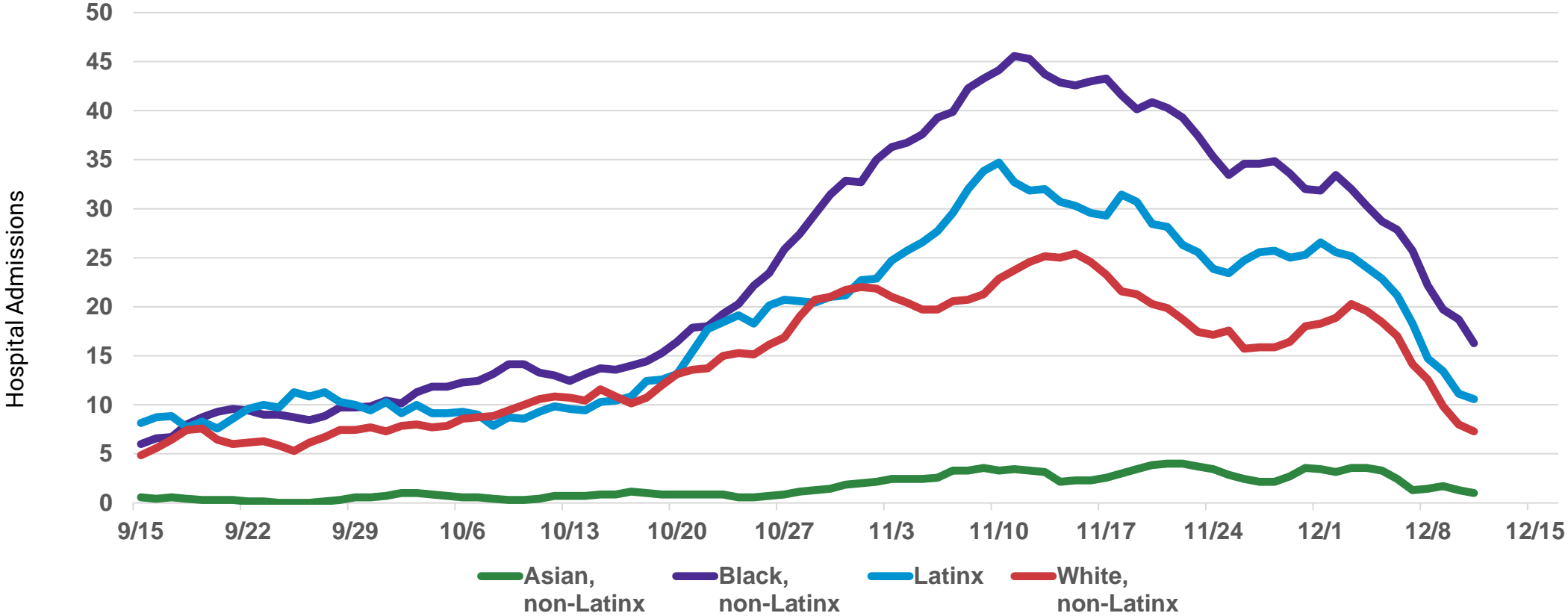
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# Daily COVID-19 hospital admissions are highest for Black, non-Latinx in the second surge.



COVID-19 Hospital admissions, by Race/Ethnicity, rolling 7-day average, first known hospital admit date

Data reporting is delayed



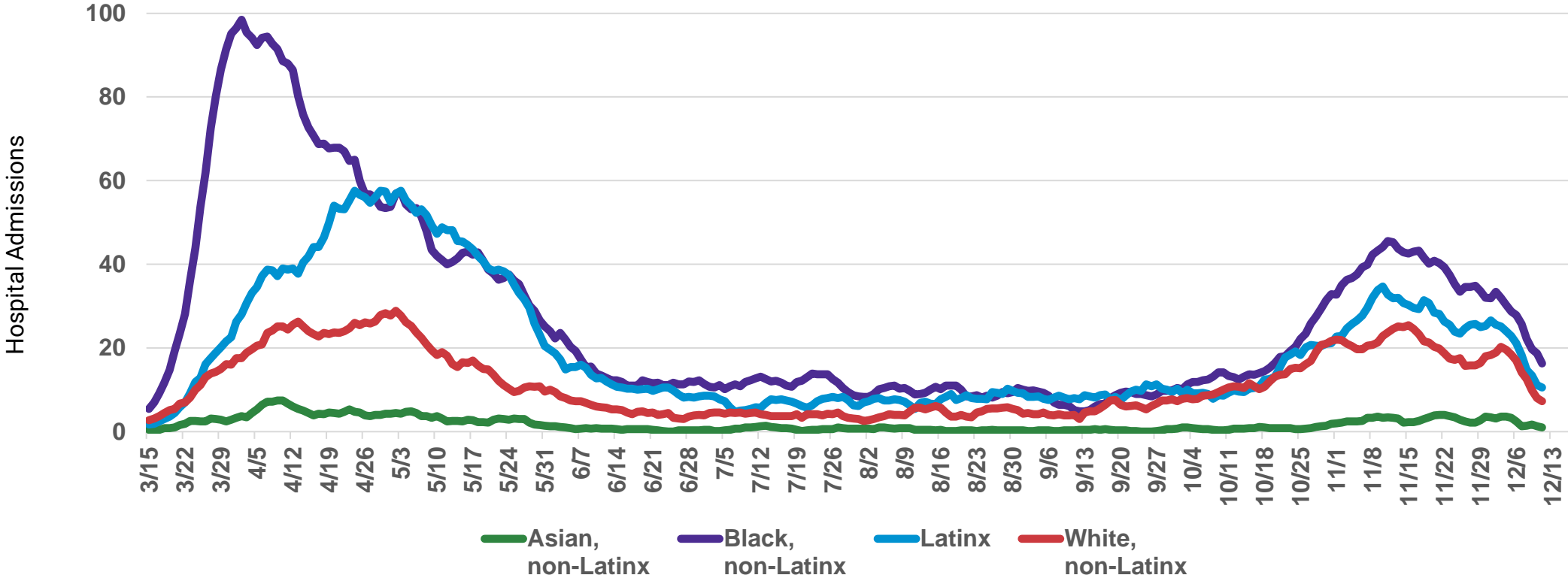
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# Daily COVID-19 hospital admissions are highest for Black, non-Latinx but less than half of 1<sup>st</sup> surge peak.



COVID-19 Hospital admissions, by Race/Ethnicity, rolling 7-day average, first known hospital admit date

Data reporting is delayed

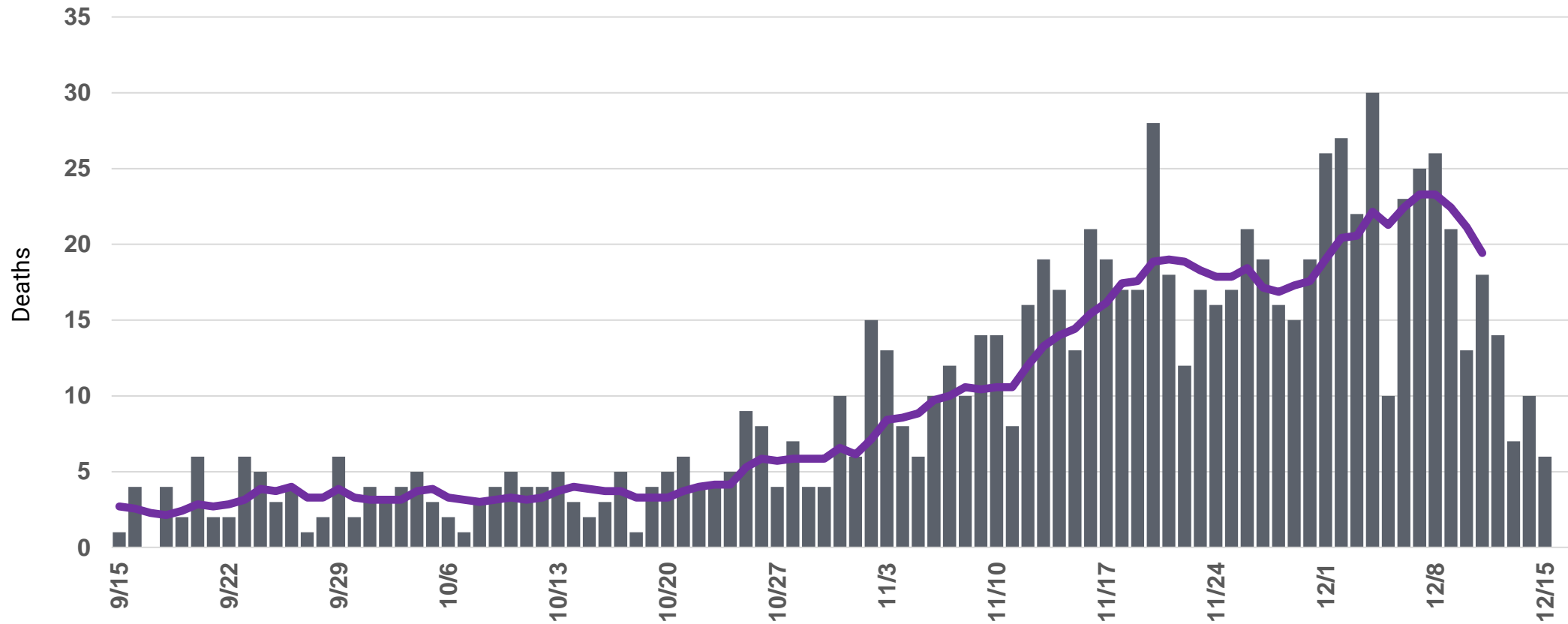


Hospitalizations are reported to CDPH by hospitals into I-NEDSS and ESSENCE and self-reported by patients via an online survey. Daily counts for most recent dates displayed are likely incomplete. Cases who are not indicated to have been hospitalized across any of the three data sources are assumed to not have been hospitalized. Six records with hospital admit dates from January and February 2020 are excluded from this chart. Peak daily admissions based on rolling 7-day average.

# COVID-19 deaths are very high. Second surge likely to cause more than 1,100 deaths by 12/31.



COVID-19 deaths, daily counts and rolling 7-day average, deceased date



|                            |  |
|----------------------------|--|
| Recent trend               | Caution: Pause and monitor   |
| Cumulative deaths by surge | Current surge: 740 (10/25-12/11)<br>First surge: 1,603 (3/25-5/11) |

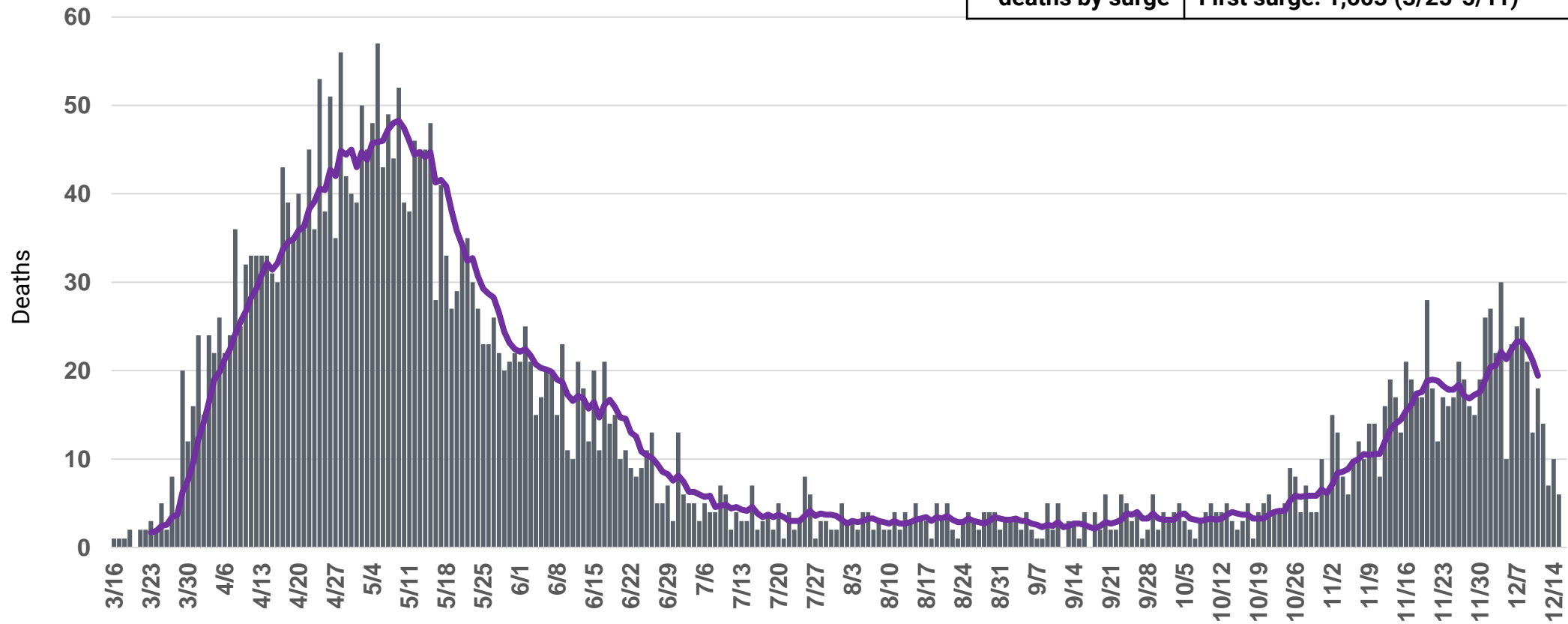
Daily COVID-19 deaths reported for Chicago residents with known death date. Data source: INEDSS. Daily counts for most recent dates displayed are likely incomplete.

# COVID-19 deaths may have peaked; are on pace to equal 3/4 of the deaths from first surge.



COVID-19 deaths, daily counts and rolling 7-day average, deceased date

|                            |  |
|----------------------------|--|
| Peak 7-day rolling average | 48 avg. daily deaths<br>5/9/2020                                   |
| Cumulative deaths by surge | Current surge: 740 (10/25-12/11)<br>First surge: 1,603 (3/25-5/11) |



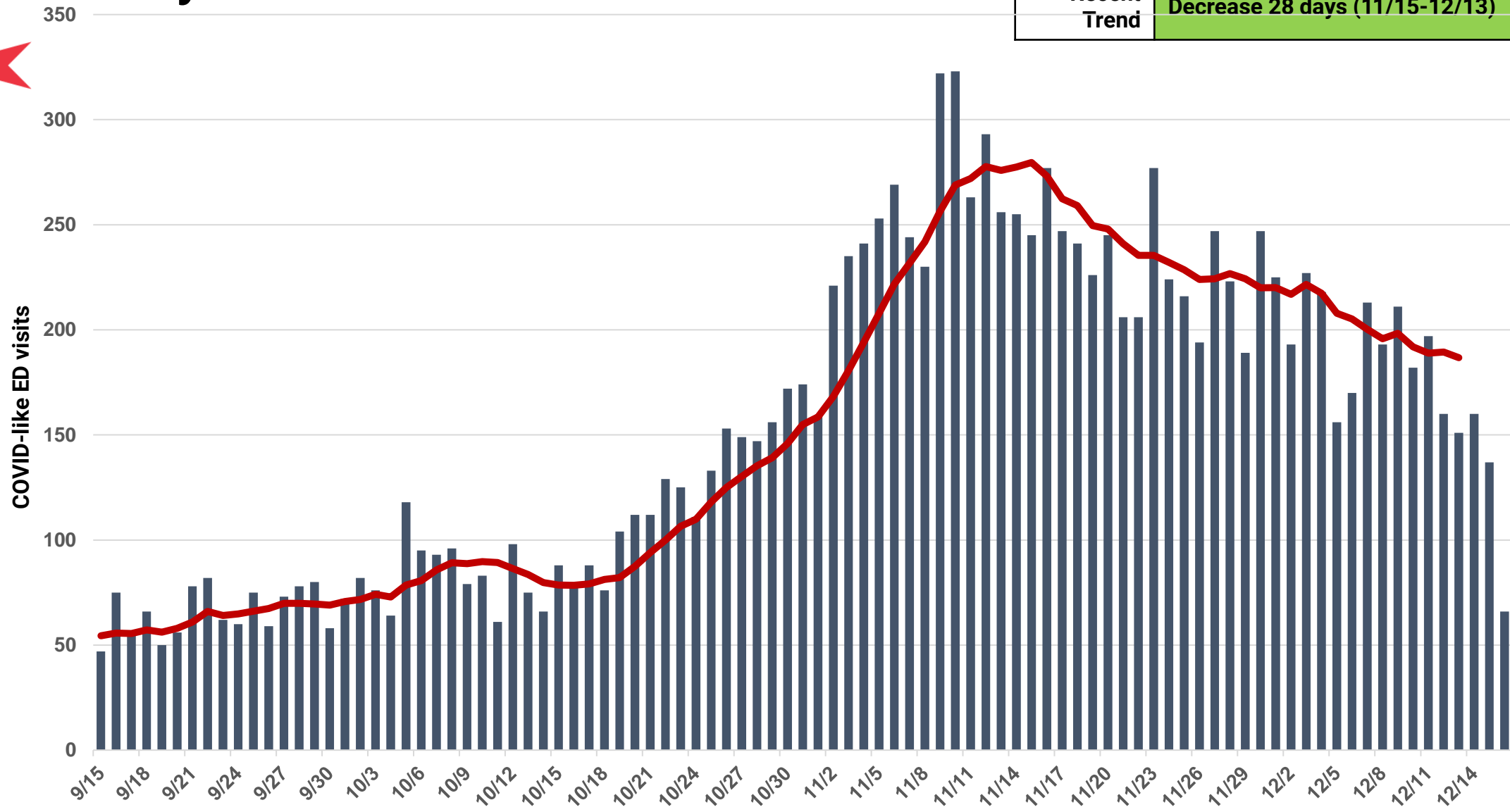
Daily COVID-19 deaths reported for Chicago residents with known death date. Data source: INEDSS. Daily counts for most recent dates displayed are likely incomplete.



# Emergency Department Visits

# ED visits for COVID-like illness have been stable or decreasing for 28 days.

|              |                                |
|--------------|--------------------------------|
| Recent Trend | Decrease 28 days (11/15-12/13) |
|--------------|--------------------------------|



Percentage of all emergency department visits reported with COVID-like symptoms among Chicago residents.  
Data Source: Illinois Hospital Emergency Departments reporting to CDPH through the National Syndromic Surveillance Project.



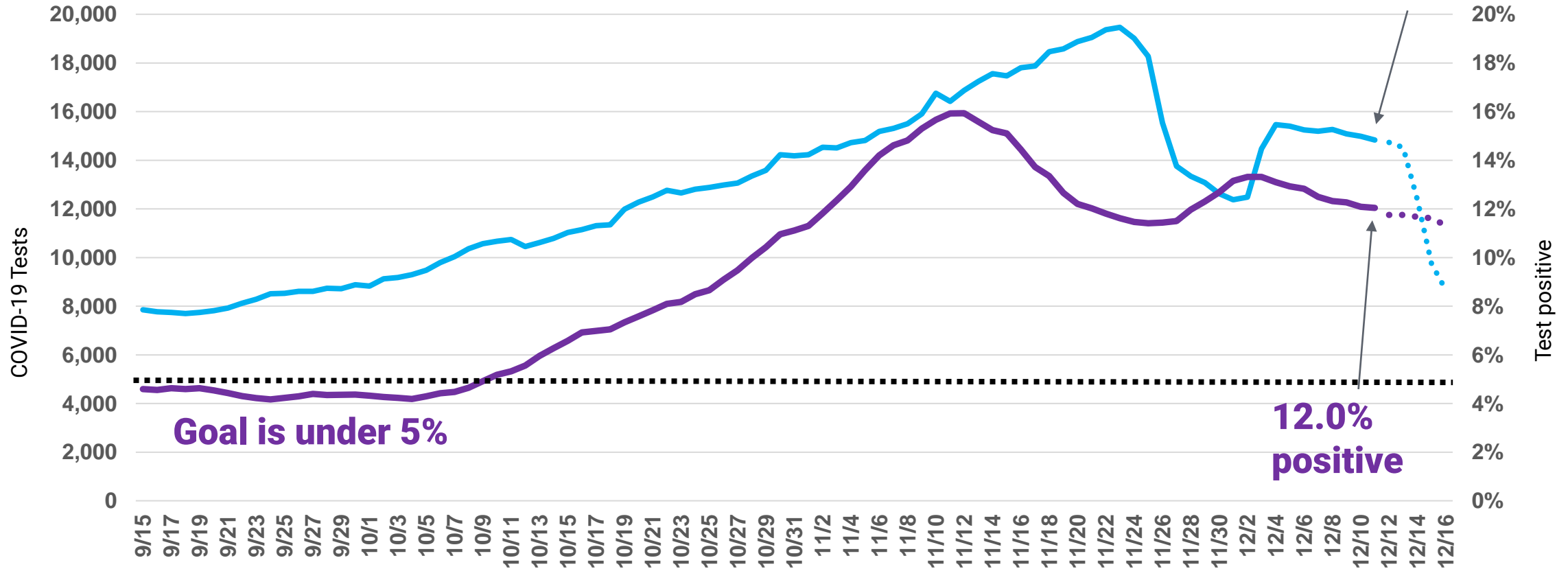


# COVID Testing and Test Positivity

# Test positivity is slowly descending to the very high level of 12.0% with steady and high levels of testing.



COVID-19 tests, 7-day rolling average for test positive (%) and for counts (one test per individual per day)

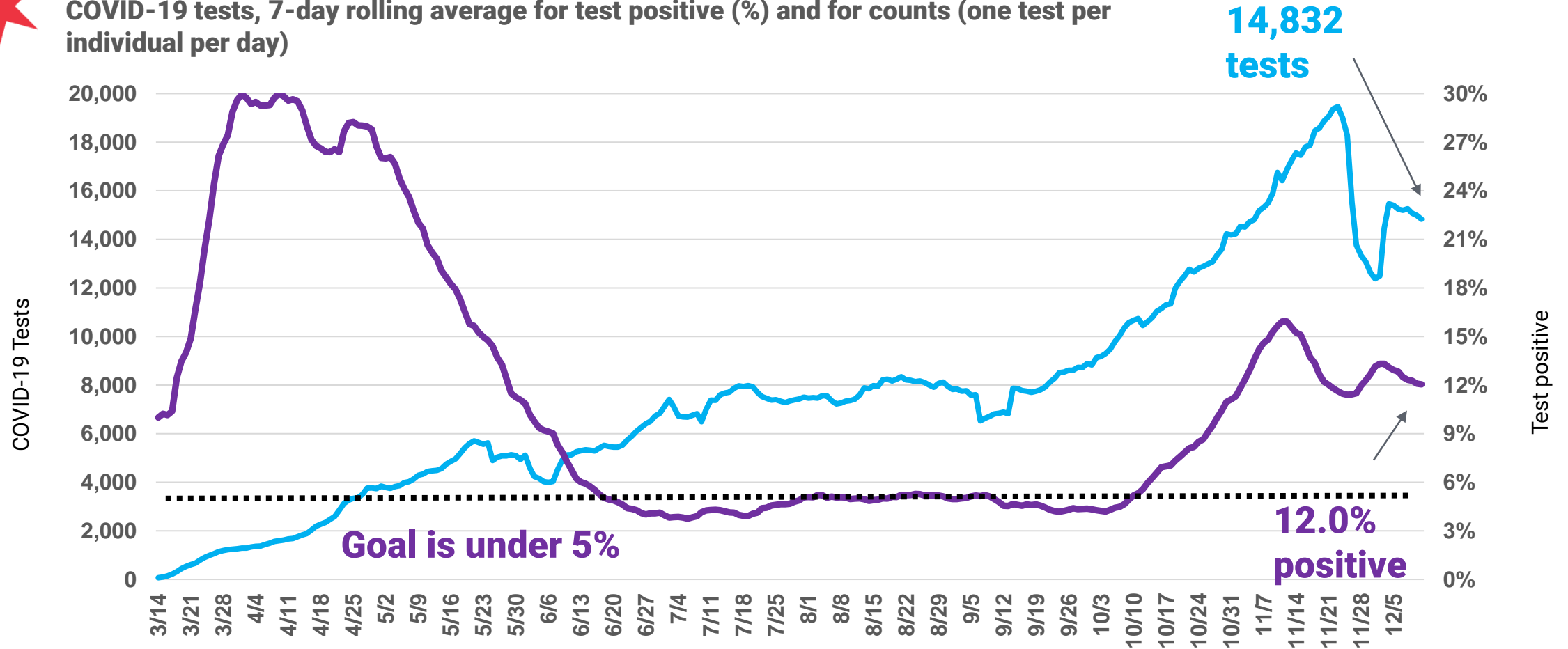


As of 7/30/2020, test positivity is being reported rather than percent positivity. Test positivity is the number of positive tests divided by all tests performed in contrast to percent positivity which is the number of individuals tested positive divided by the total number of individuals tested (Source: INEDSS). For positivity rates among demographic subgroups and zip codes CDPH will continue reporting by individuals tested.

# Test positivity and testing count have varied greatly over the entire duration of the epidemic.



COVID-19 tests, 7-day rolling average for test positive (%) and for counts (one test per individual per day)



Test positivity is the number of positive tests divided by all tests performed (Source: INEDSS).

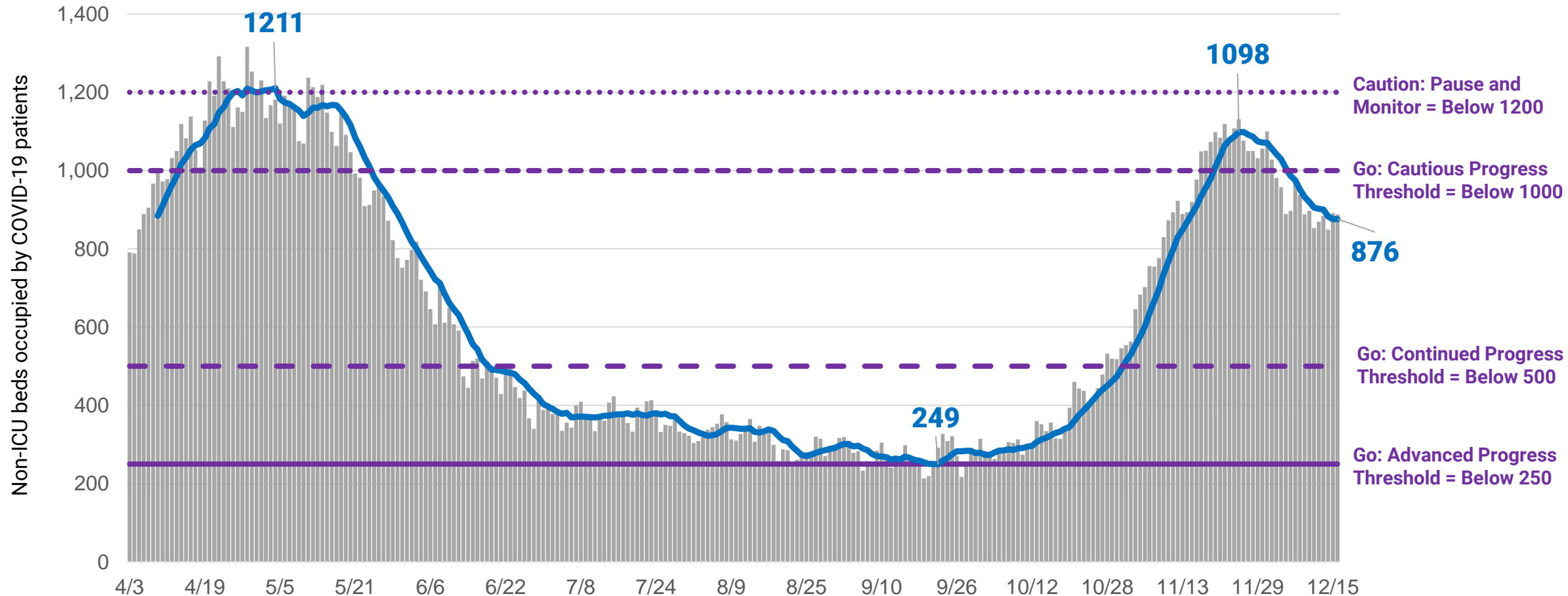


# Hospital System Capacity

# Non-ICU bed occupancy from COVID-19 in Surge 2 reached 91% of Surge 1 peak occupancy and is now declining.



COVID-19 acute/non-ICU beds occupied, daily counts, 7 day average and reopening threshold, daily occupancy census (04/03/2020-12/16/2020)

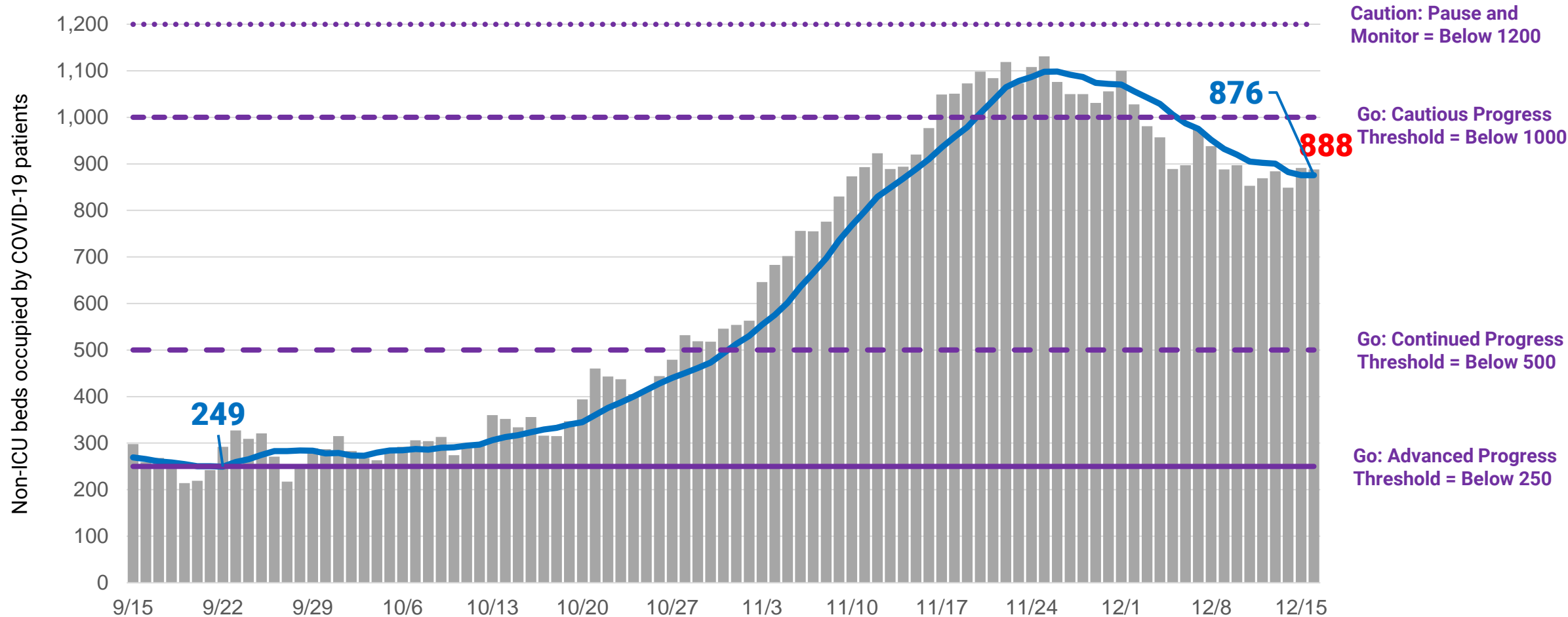


Includes all Chicago hospitals. Hospitals report daily to CDPH via EMResource, beginning April 3 (acute non-ICU occupancy). Acute non-ICU bed counts include burn, emergency department, med/surg, other, pediatrics and psychiatry beds in Chicago hospitals. Includes Chicago and non-Chicago residents. Includes confirmed and suspected COVID-19 cases.

# Non-ICU bed occupancy from COVID-19 remains high but appears to have peaked and is now slowly declining.



COVID-19 acute non-ICU beds occupied, daily counts, 7 day average and reopening threshold, daily occupancy census (9/15/2020-12/16/2020)

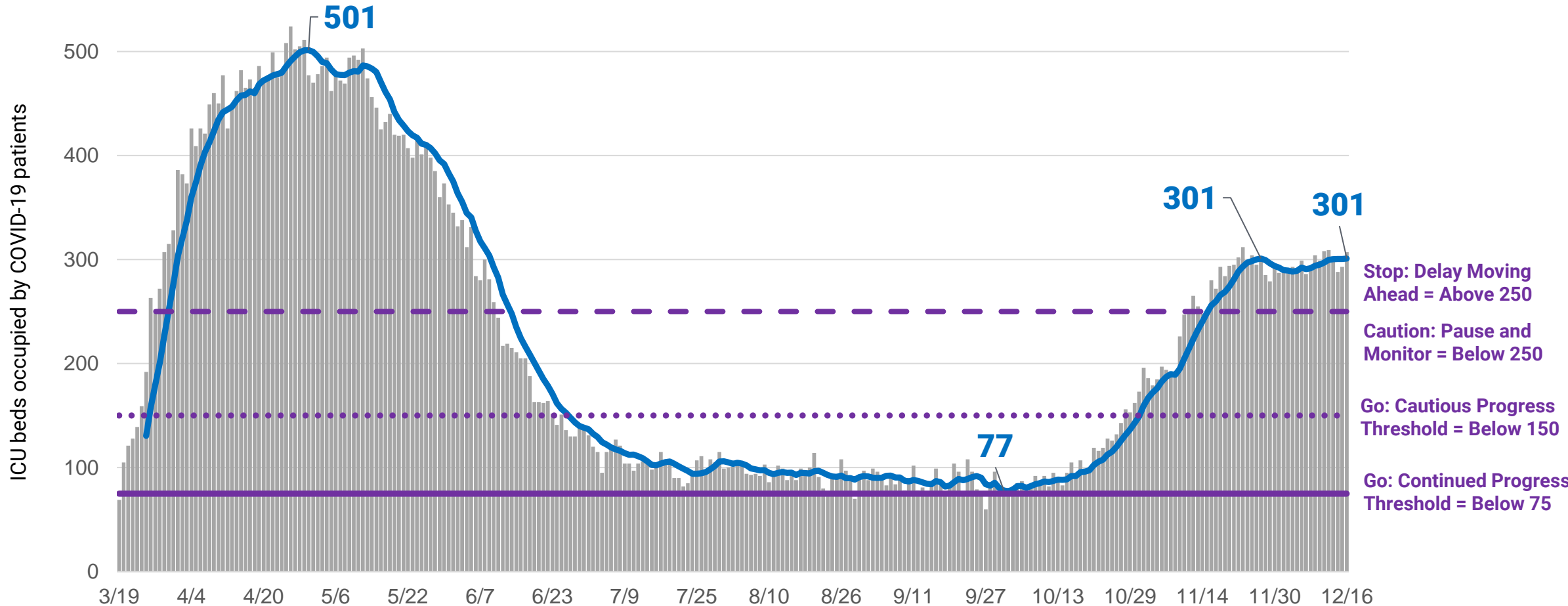


Includes all Chicago hospitals. Hospitals report daily to CDPH via EMResource, beginning April 3 (acute non-ICU occupancy). Acute non-ICU bed counts include burn, emergency department, med/surg, other, pediatrics and psychiatry beds in Chicago hospitals. Includes Chicago and non-Chicago residents. Includes confirmed and suspected COVID-19 cases.

# ICU occupancy from COVID-19 in Surge 2 reached 60% of Surge 1 peak occupancy and has plateaued.



COVID-19 ICU beds occupied, daily counts, 7 day average and progress threshold, daily occupancy census (03/13/2020 - 12/16/2020)

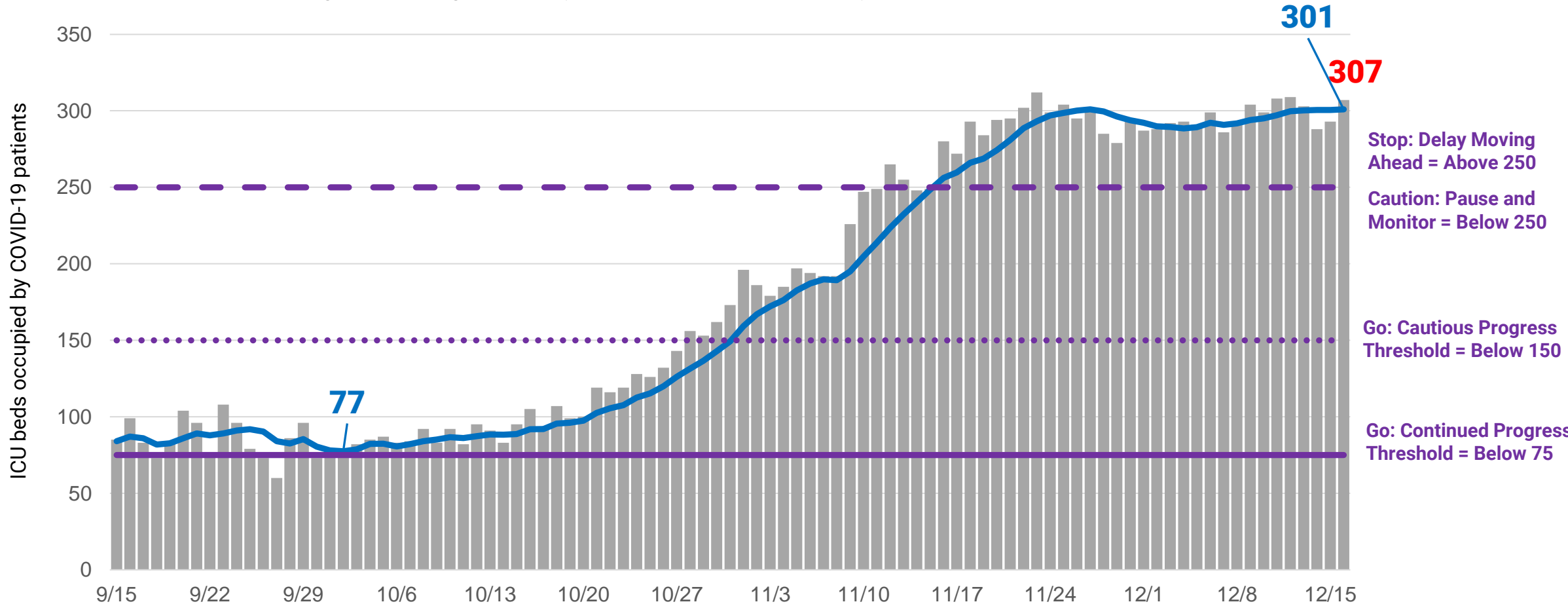


Includes all Chicago hospitals. Hospitals report daily to CDPH via EMResource, beginning March 19. ICU bed count includes all adult and pediatric ICU beds in Chicago hospitals. Includes Chicago and non-Chicago residents. Includes confirmed and suspected COVID-19 cases. Beginning 4/24/2020, the definition of ICU status changed as requested by HHS.

# ICU occupancy from COVID-19 remains high and has plateaued.



COVID-19 ICU beds occupied, daily counts, 7 day average and progress threshold, daily occupancy census (09/15/2020 - 12/16/2020)



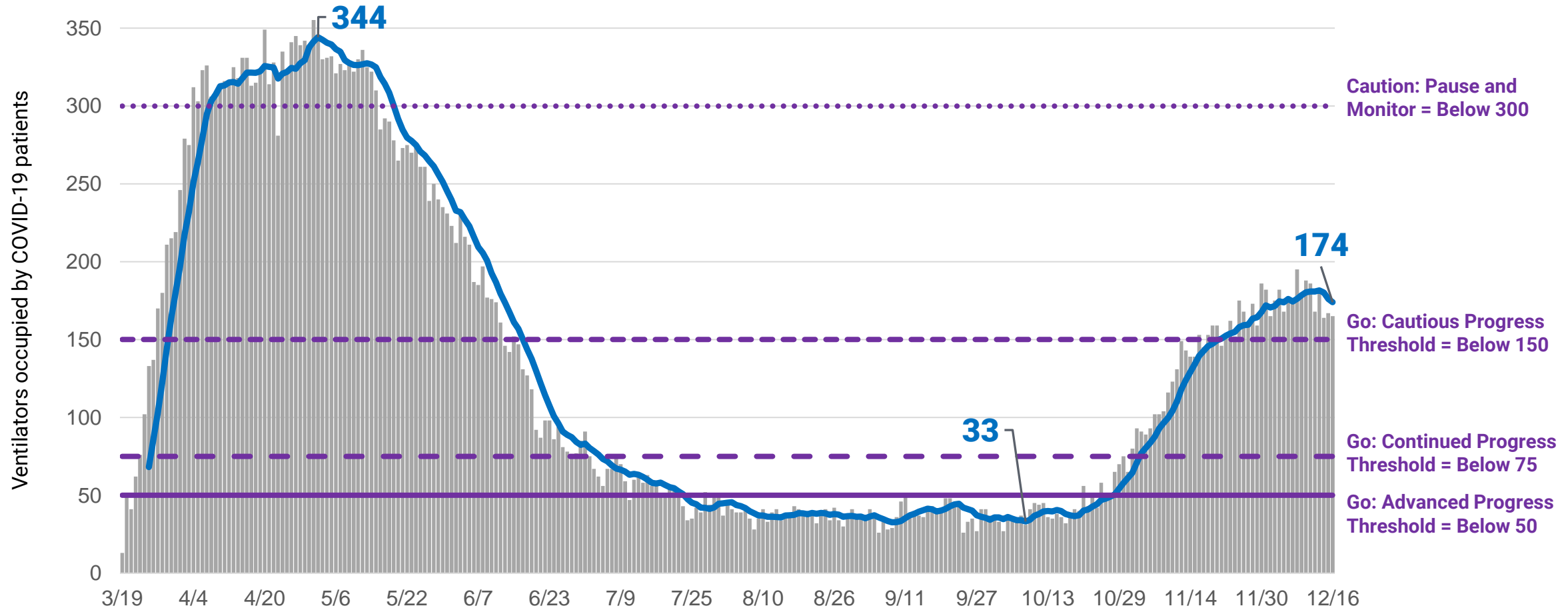
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# Ventilator utilization from COVID-19 may be reaching its Surge 2 peak (51% of Surge 1 peak).



COVID-19 ventilators in use, daily counts, 7 day average and reopening threshold, daily utilization census (3/19/2020-12/16/2020)

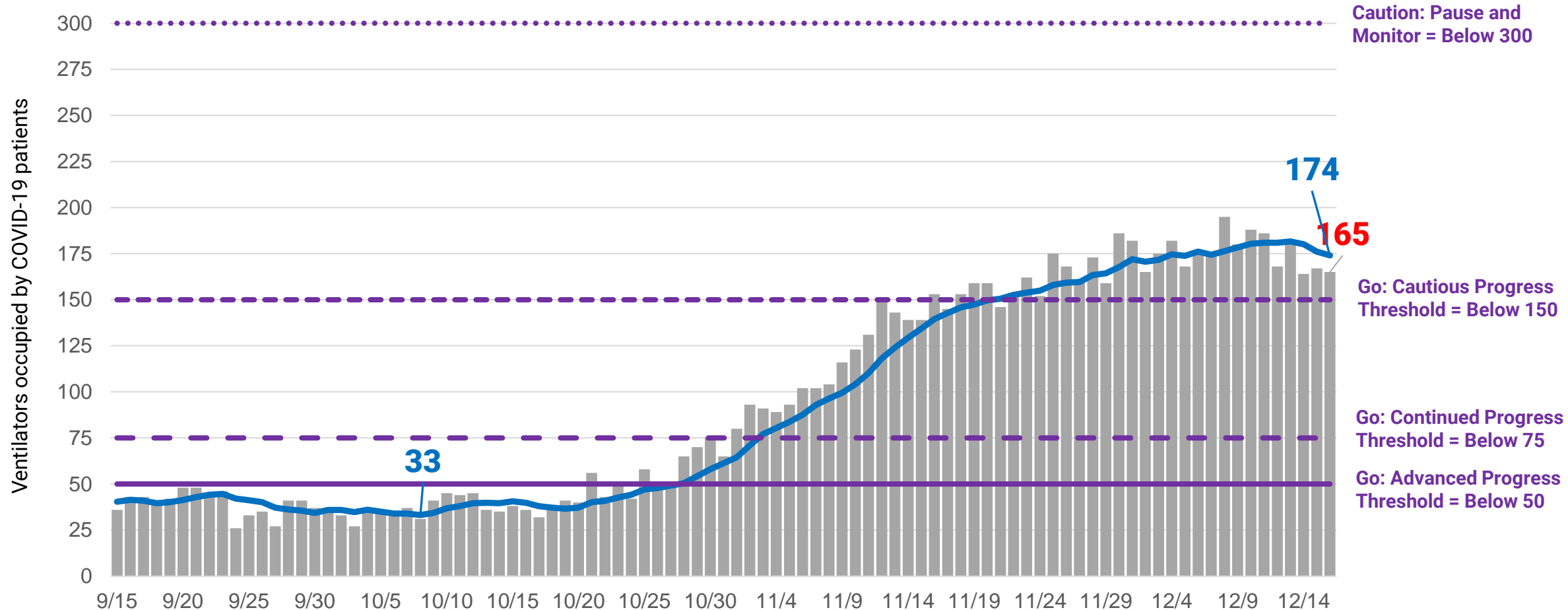


Includes all Chicago hospitals. Hospitals report daily to CDPH via EMResource, beginning March 19. Includes Chicago and non-Chicago residents. Includes confirmed and suspected COVID-19 cases. Beginning 4/24/2020, ventilator counts include all full-functioning mechanical ventilators, BiPAP, anesthesia machines and portable/transport ventilators.

# Ventilator utilization from COVID-19 may have reached its Surge 2 peak and is now steady.



COVID-19 ventilators in use, daily counts, 7 day average and reopening threshold, daily utilization census (9/15/2020-12/16/2020)



Includes all Chicago hospitals. Hospitals report daily to CDPH via EMResource, beginning March 19. Includes Chicago and non-Chicago residents. Includes confirmed and suspected COVID-19 cases. Beginning 4/24/2020, ventilator counts include all full-functioning mechanical ventilators, BiPAP, anesthesia machines and portable/transport ventilators.