



Protecting Chicago: Phase IV Re-Opening Metrics Update

November 21, 2020

(Data current through 11/18/2020)

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
Cases 7-day rolling daily average	Any sustained 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)
Hospitalizations 7-day rolling daily average					
Deaths 7-day rolling daily average					
COVID Emergency department visits 7-day rolling daily average					
Positivity rate 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
Hospital system capacity 7-day rolling daily average	>1200 non-ICU beds >250 ICU beds >300 ventilators	>1000 non-ICU beds >150 ICU beds >150 ventilators	<1000 non-ICU beds occupied by COVID patients <150 ICU beds occupied by COVID patients <150 ventilators occupied by COVID patients	<500 non-ICU beds occupied by COVID patients <75 ICU beds occupied by COVID patients <75 ventilators occupied by COVID patients	<250 non-ICU beds occupied by COVID patients <50 ICU beds occupied by COVID patients <50 ventilators occupied by COVID patients
Testing capacity 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
Response capacity	N/A	N/A	Assign case for investigation within 24h for 50% of cases	Assign case for investigation within 24h for 75% of cases	Assign case for investigation within 24h for 100% of cases

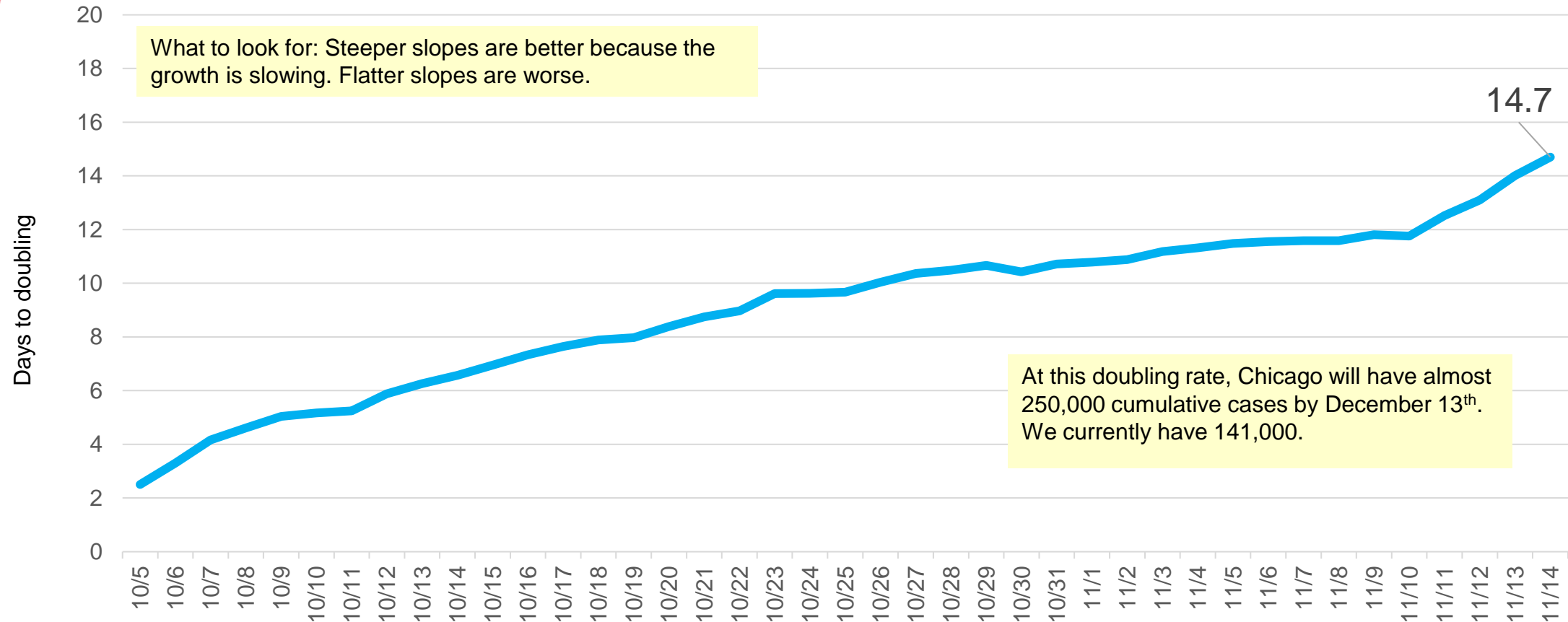


COVID-19 case incidence

The doubling time is currently 14.7 days as of 11/14/20



COVID-19 cumulative cases trend, days to doubling measured in prior 7 days



Doubling time is a logarithmic calculation of the speed of 7-day average daily incidence of new confirmed COVID-19 cases in Chicago during the 2nd surge (October 4 to present) Answers the question: **At the current rate of growth, how many days from today will it take to double the number of people infected since the start of the surge?** The longer it takes to double, the slower the growth of the epidemic. Case counts are based on lab results with known specimen collection date. (Source: INEDSS)



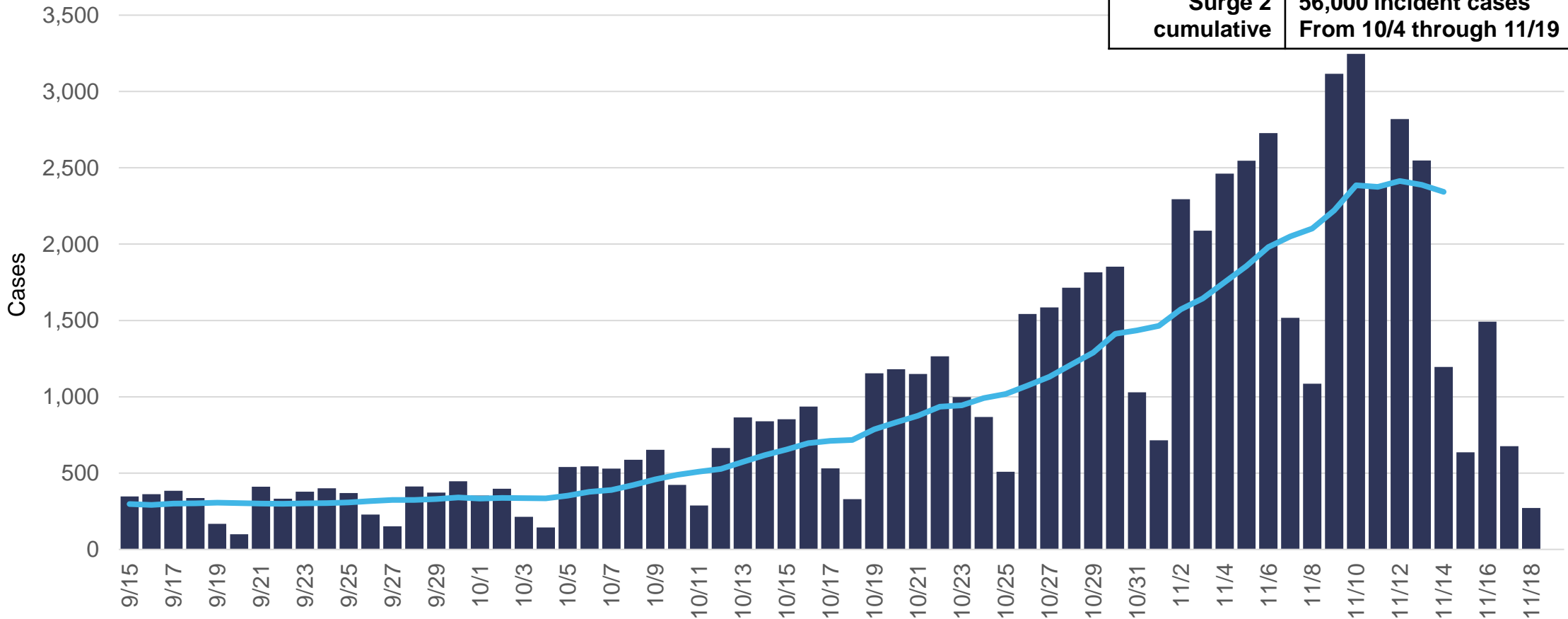
COVID-19 Confirmed Cases

COVID-19 case incidence reaches plateau on 10/11 at very high level (7X greater than 6 weeks prior). Data reported through 11/19.



Recent Trend	Increase 11 days (10/4-10/15) 29 C/D Increase 10 days (10/15-10/25) 36 C/D Increase 16 (10/25-11/10) 85 C/D Stable 4 days (11/10-11/14)
14-day Incidence	HIGH (2,196 avg. daily cases*)
14-day slope	GROWTH +64.8 cases per day
Surge 2 cumulative	56,000 incident cases From 10/4 through 11/19

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

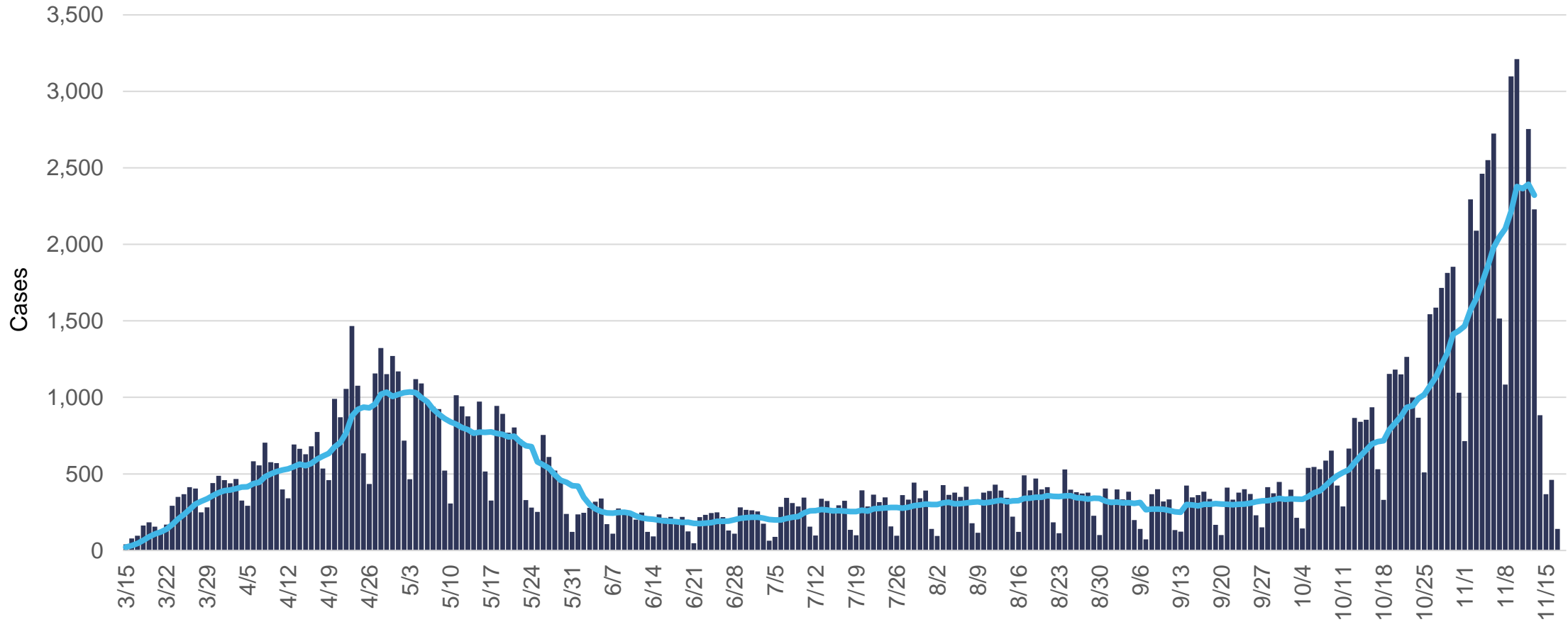


Daily COVID-19 cases with known specimen report date. *14-day incidence is calculated by summing all new cases in the most recent 14-day period and dividing by 14 days to find an average daily count. Incidence gating rank is determined using 14-day cumulative incidence/100,000 population. The gating 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 set new peaks for counts and speed of increase.



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



Peak 7-day rolling average	2364 avg. daily cases 11/11/2020
Surge 2 cumulative events	54,500 incident cases From 10/4 through 11/13

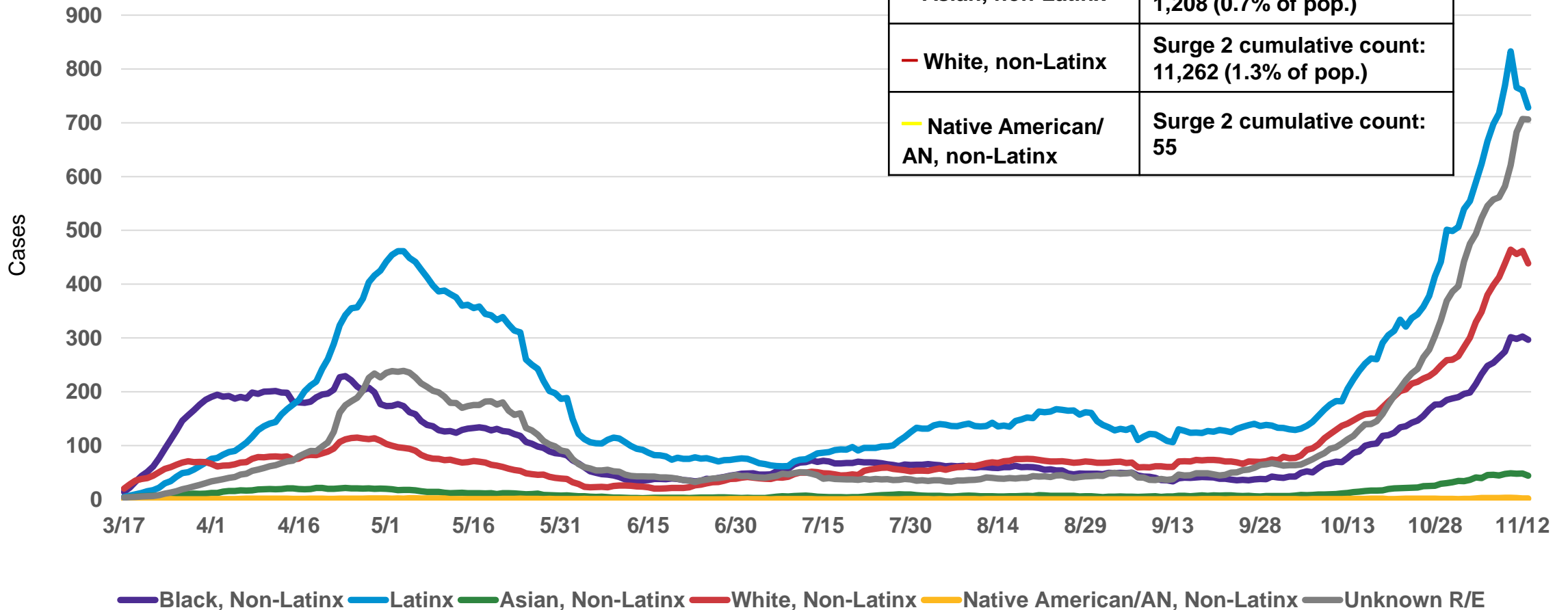
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Surge 2 cumulative case counts by race/ethnicity (since 10/4/2020)



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

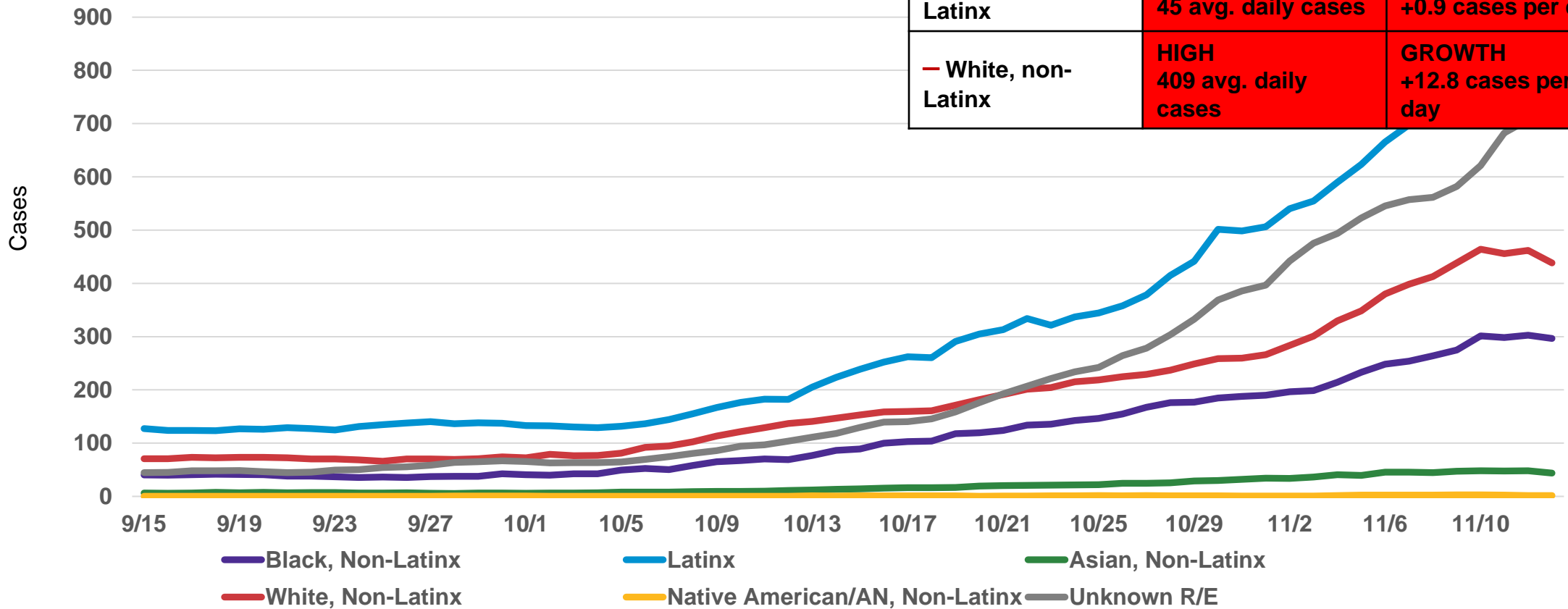
Surge 2 Cumulative Cases (since 10/4/2020)	
— Latinx	Surge 2 cumulative count: 18,778 (2.4% of pop.)
— Black, non-Latinx	Surge 2 cumulative count: 7,569 (1.0% of pop.)
— Asian, non-Latinx	Surge 2 cumulative count: 1,208 (0.7% of pop.)
— White, non-Latinx	Surge 2 cumulative count: 11,262 (1.3% of pop.)
— Native American/AN, non-Latinx	Surge 2 cumulative count: 55



COVID-19 case incidence is very high and growing among all race/ethnicities.



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

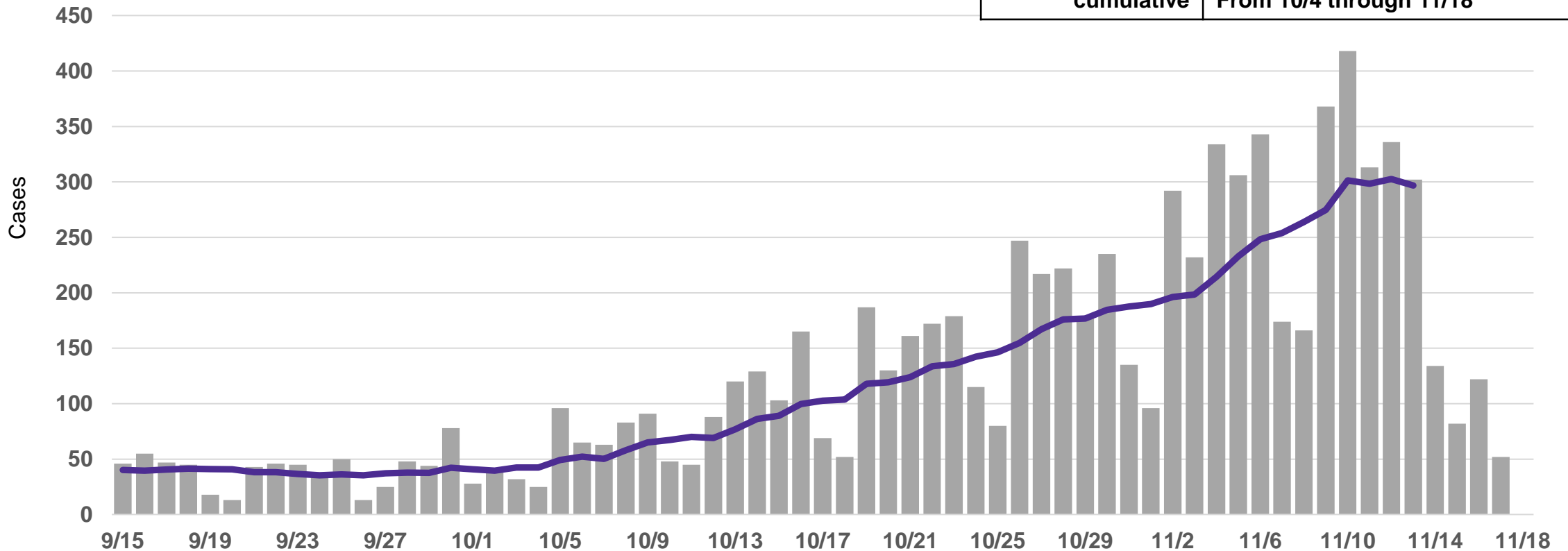


Daily COVID-19 cases with known specimen report date and race/ethnicity information. Approximately 30% of cases used to calculate 14-day incidence are missing race/ethnicity information, therefore the reported 14-day incidence represents an undercount of true incidence.

Black, non-Latinx case incidence is very high and growing. Incidence has been stable for 3 days.



COVID-19 cases among Black, non-Latinx residents, daily counts and rolling 7-day average, specimen collection date



Recent Trend	Increase 13 days (10/15-10/28) 1 C/D Increase 6 days (10/28-11/3) 4 C/D Increase 7 days (11/3-11/10) 15 C/D Stable 3 days (11/10-11/13)
14-day incidence	HIGH (273 avg. daily cases*)
14-day slope	GROWTH +7.8 cases per day
Surge 2 cumulative	7,569 incident cases From 10/4 through 11/18

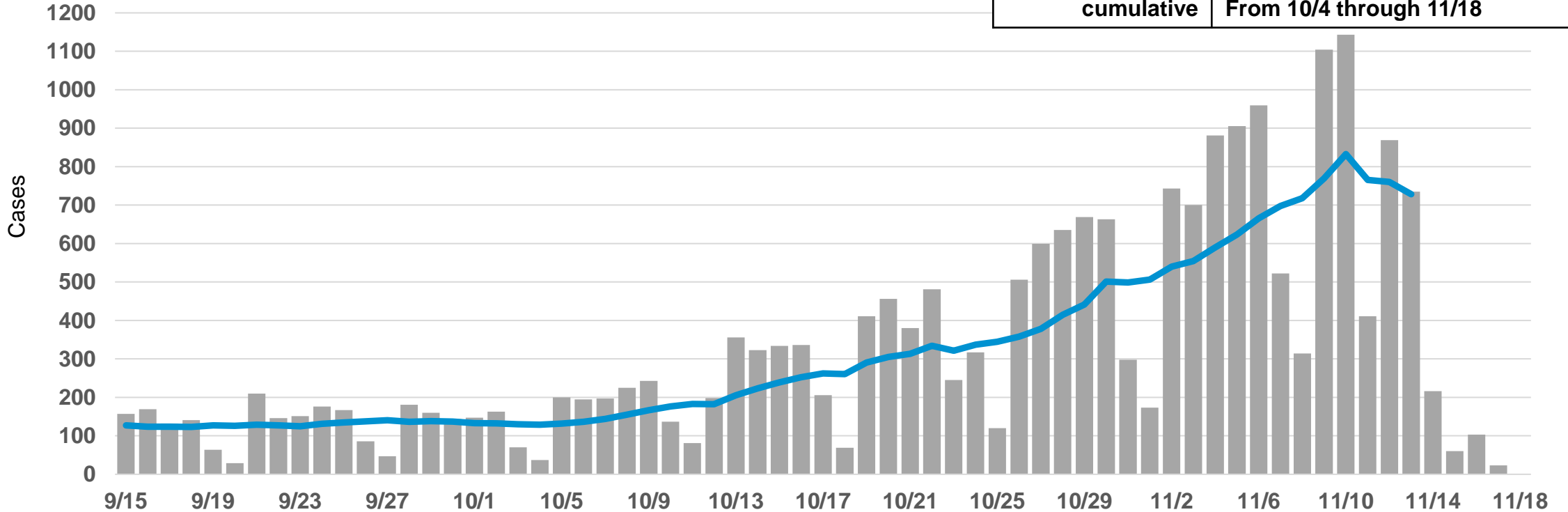
Daily COVID-19 cases with known specimen report date and race/ethnicity information. Approximately 30% of cases used to calculate 14-day incidence are missing race/ethnicity information, therefore the reported 14-day incidence represents an undercount of true incidence. Daily counts for most recent dates displayed are likely incomplete. *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 follows. 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.



Latinx case incidence is very high and growing. Incidence has decreased for 3 days.

Recent Trend	Increase 7 days (10/15-10/22) 14 C/D Stable 4 days (10/22-10/26) Increase 4 days (10/26-10/30) 36 C/D Stable 3 days (10/30-11/2) Increase 8 days (11/2-11/10) 37 C/D Decrease 3 days (11/10-11/13)
14-day incidence	HIGH (697 avg. daily cases*)
14-day slope	GROWTH +16.4 cases per day
Surge 2 cumulative	18,778 incident cases From 10/4 through 11/18

COVID-19 cases among Latinx residents, daily counts and rolling 7-day average, specimen collection date

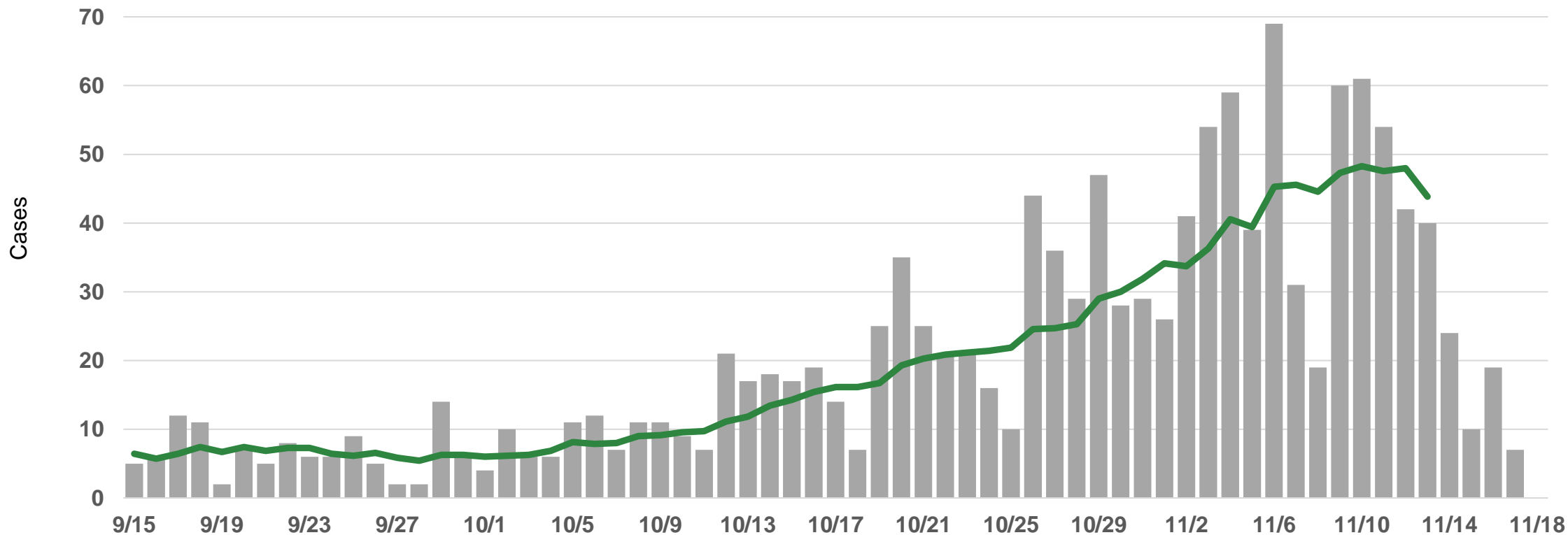


Daily COVID-19 cases with known specimen report date and race/ethnicity information. Approximately 30% of cases used to calculate 14-day incidence are missing race/ethnicity information, therefore the reported 14-day incidence represents an undercount of true incidence. Daily counts for most recent dates displayed are likely incomplete. *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 follows. 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.

Asian, non-Latinx case incidence is high and growing. Incidence has been stable for 4 days.



COVID-19 cases among Asian, non-Latinx residents, daily counts and rolling 7-day average, specimen collection date



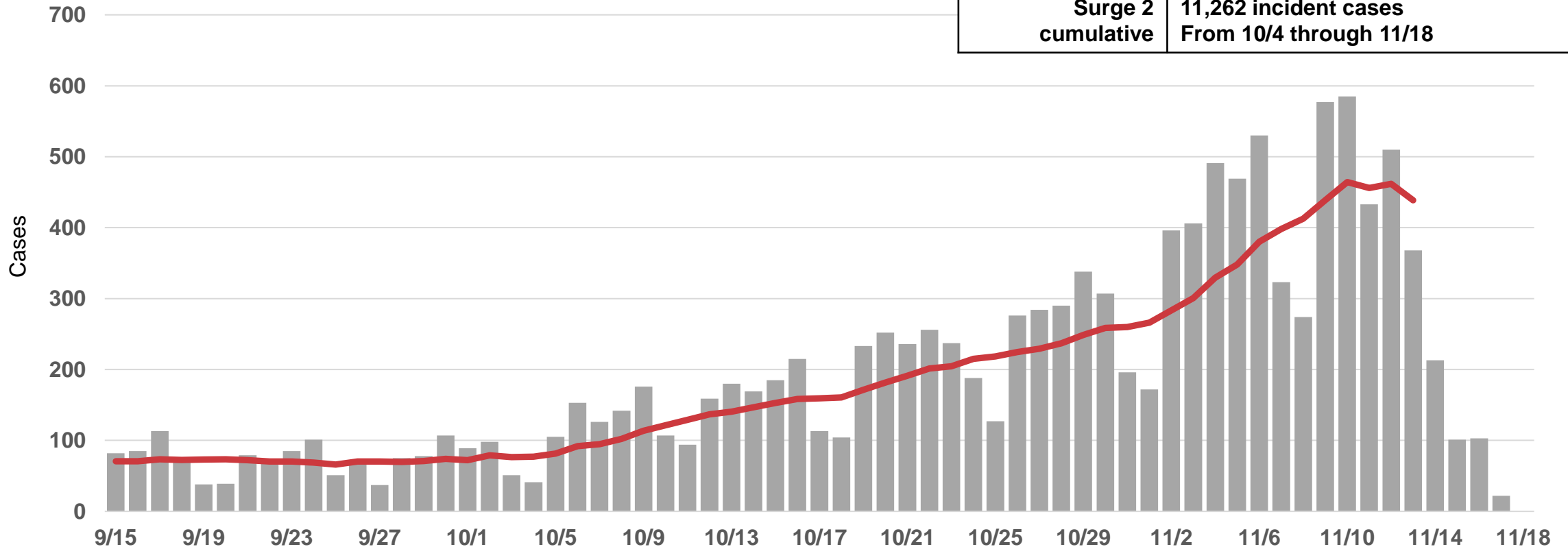
Recent Trend	Increase 25 days (10/15-11/9) 1 C/D Stable 4 days (11/9-11/13)
14-day incidence	HIGH (45 avg. daily cases*)
14-day slope	GROWTH +0.9 cases per day
Surge 2 cumulative	1,208 incident cases From 10/4 through 11/18

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. Daily counts for most recent dates displayed are likely incomplete. *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 follows. 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.

White, non-Latinx case incidence is very high and growing. Incidence has been stable for 3 days.



COVID-19 cases among white, non-Latinx residents, daily counts and rolling 7-day average, specimen collection date



Recent Trend	Stable 3 days (10/15-10/18) Increase 4 days (10/18-10/22) 10 C/D Increase 10 days (10/22-11/1) 7 C/D Increase 9 days (11/1-11/10) 22 C/D Stable 3 days (11/10-11/13)
14-day incidence	HIGH (409 avg. daily cases*)
14-day slope	GROWTH +12.8 cases per day
Surge 2 cumulative	11,262 incident cases From 10/4 through 11/18

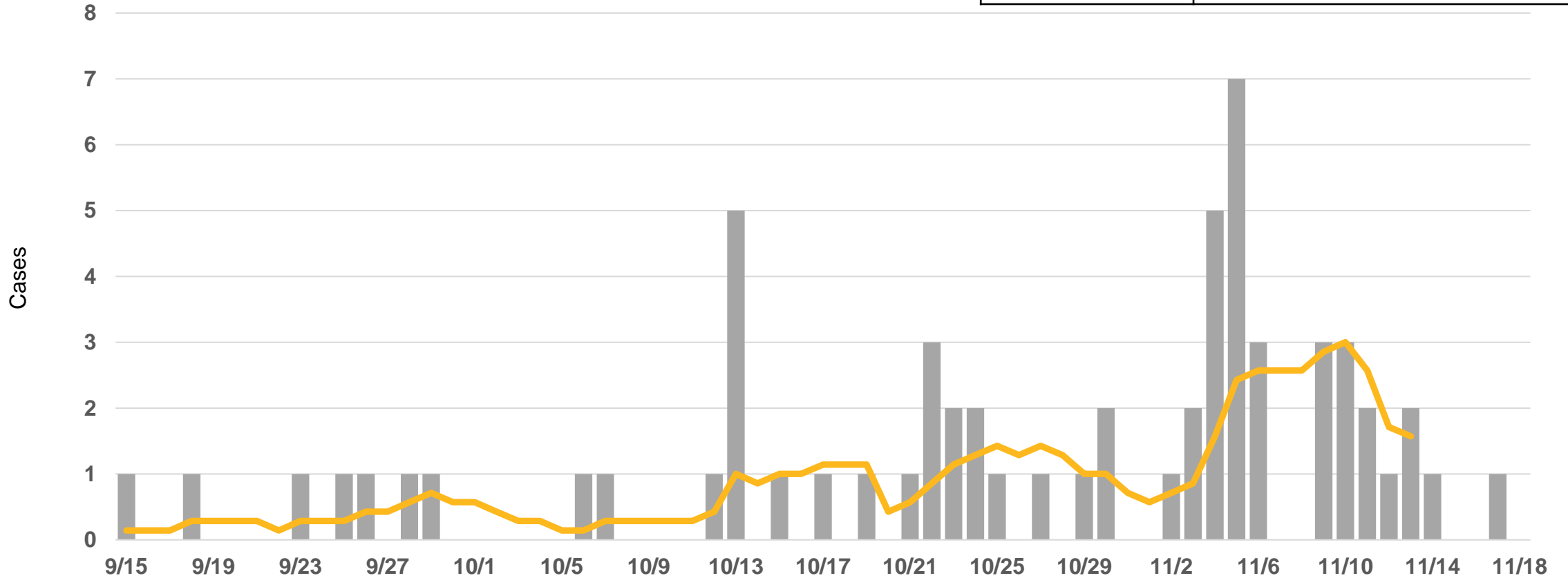
Daily COVID-19 cases with known specimen report date and race/ethnicity information. Approximately 30% of cases used to calculate 14-day incidence are missing race/ethnicity information, therefore the reported 14-day incidence represents an undercount of true incidence. Daily counts for most recent dates displayed are likely incomplete. *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 follows. 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.

Native American/Alaska Native case incidence is low and stable.



COVID-19 cases among Native American/Alaska Native, non-Latinx residents, daily counts and rolling 7-day average, specimen collection date

Recent Trend	Cases at low incidence for >28 days.
14-day incidence	2 avg. daily cases*
14-day slope	+0.1 cases per day
Surge 2 cumulative	55 incident cases From 10/4 through 11/18



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. Daily counts for most recent dates displayed are likely incomplete. *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. Due to the citywide population size of 8,086, gating ranks are not applied here.



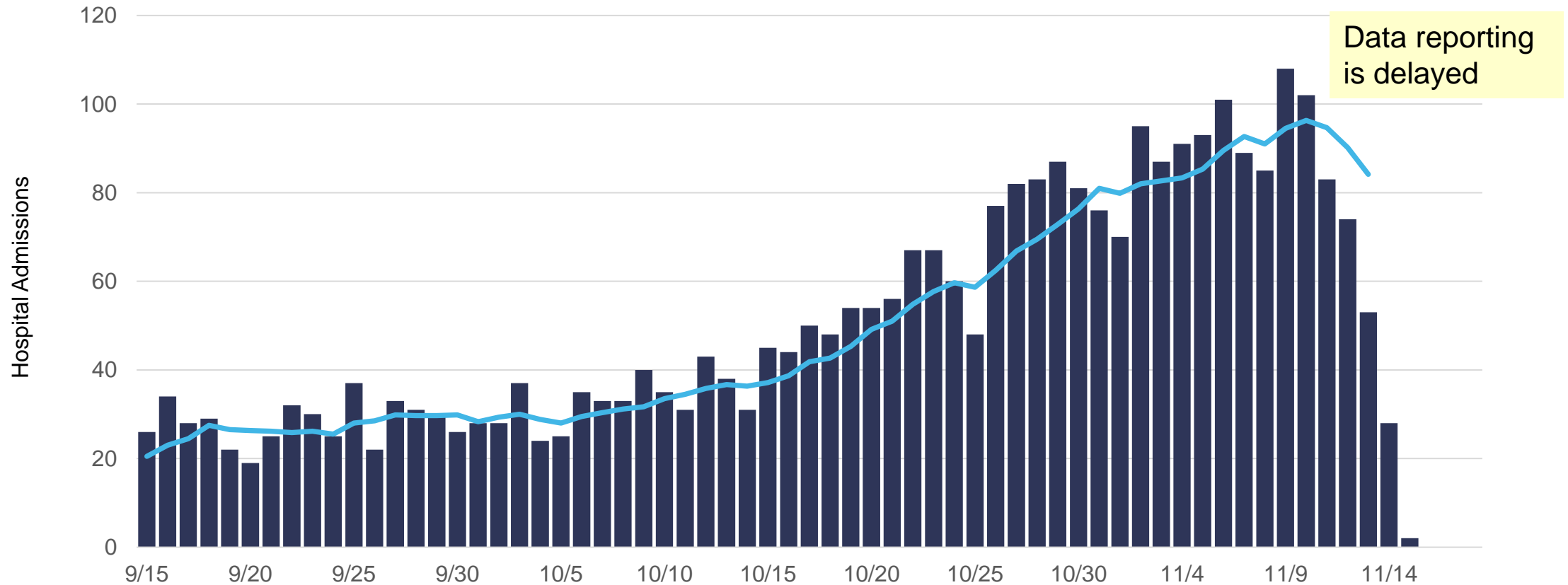
COVID-19 Severe Outcomes

Daily COVID-19 hospital admission is up 3X over 4 weeks.



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

Recent Trend	<i>Admissions tripled since 10/13</i>
Peak 7-day rolling average	173 avg. daily admissions 4/12/2020
Cumulative hospital admits by surge	Current surge: 2,143 (10/11-11/10) First surge: 4,016 (3/14-4/14)

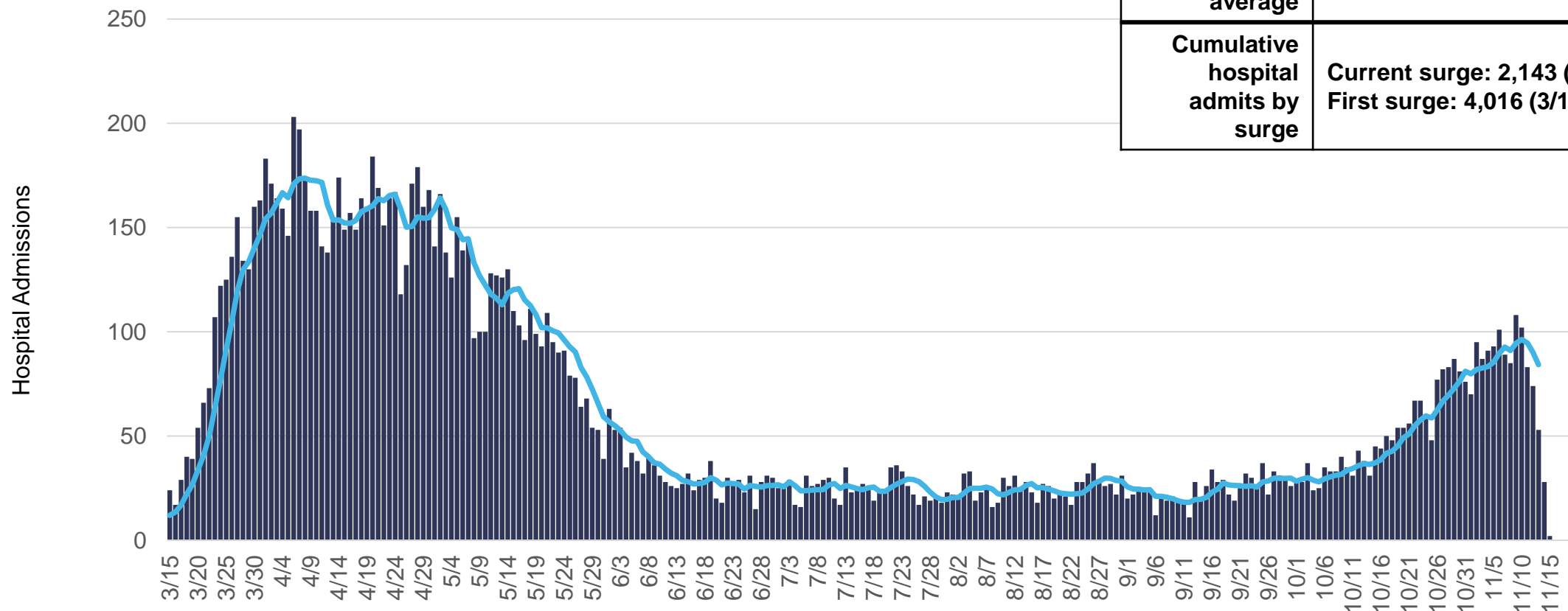


Hospitalizations are reported to CDPH by hospitals into I-NEDSS and ESSENCE and self-reported by patients via an online survey. Daily counts for most recent dates displayed are likely incomplete. Cases who are not indicated to have been hospitalized across any of the three data sources are assumed to 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 are much higher than recent months and rising quickly.



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



Peak 7-day rolling average	173 avg. daily admissions 4/12/2020
Cumulative hospital admits by surge	Current surge: 2,143 (10/11-11/10) First surge: 4,016 (3/14-4/14)

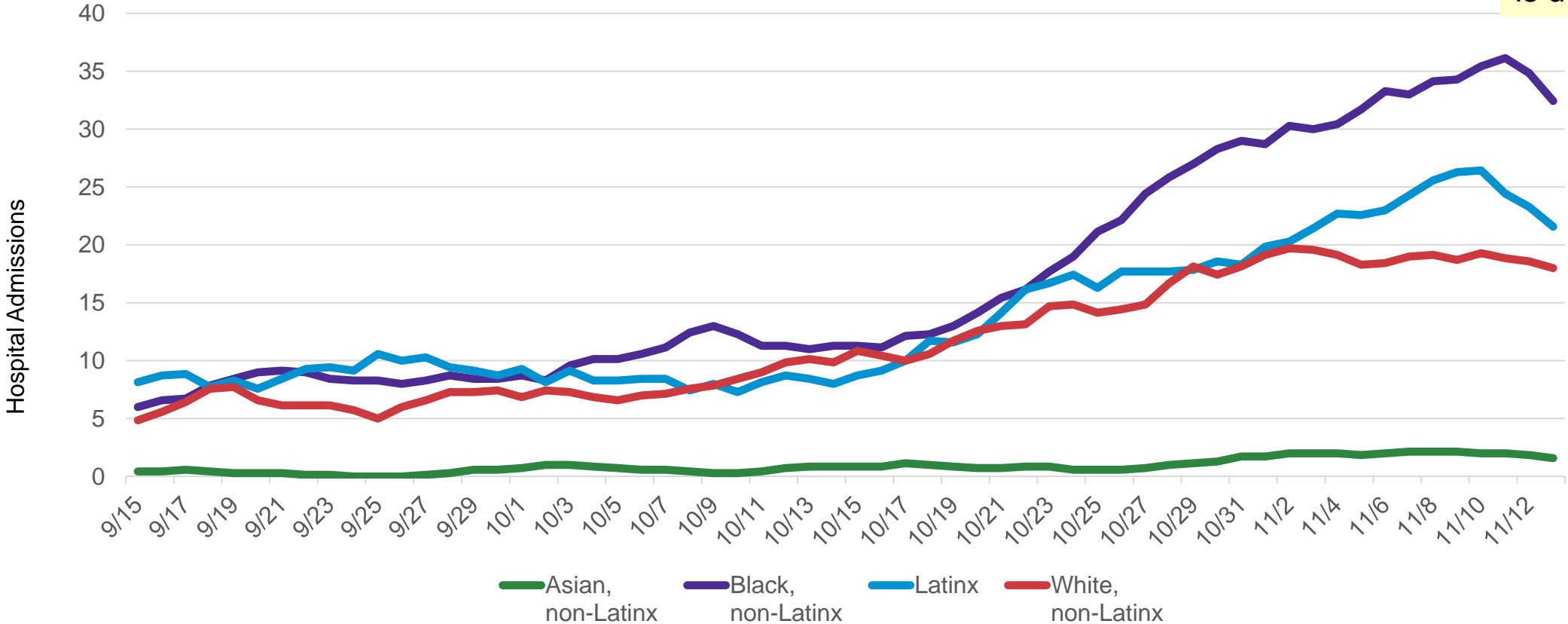
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Daily COVID-19 hospital admissions are rising for every race/ethnicity yet fastest for Black, non-Latinx.



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

Data reporting is delayed



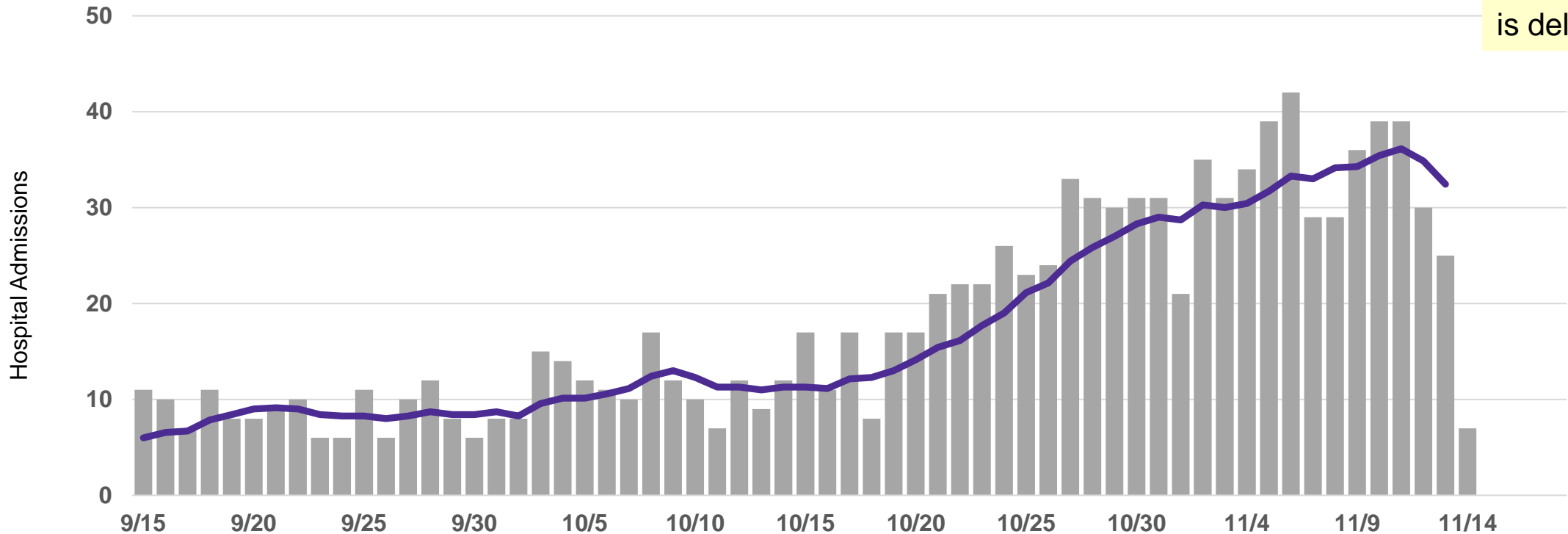
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Black, non-Latinx hospital admission are rising.



Recent Trend	<i>Admissions tripled since 10/13</i>
Peak 7-day rolling average	97 avg. daily admissions 4/6/2020

COVID-19 hospital admissions among Black, non-Latinx residents, daily counts and 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.

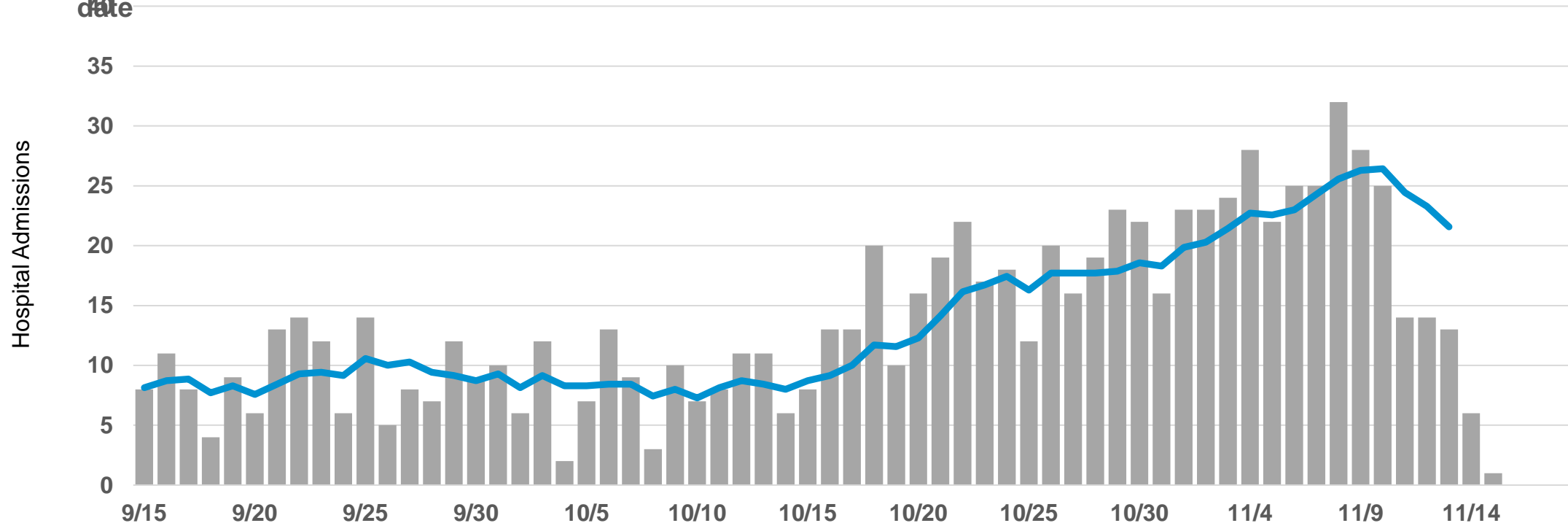
Latinx hospital admissions are rising.



Recent Trend	<i>Admissions tripled since 10/13</i>
Peak 7-day rolling average	57 avg. daily admissions 4/28/2020

Data reporting is delayed

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



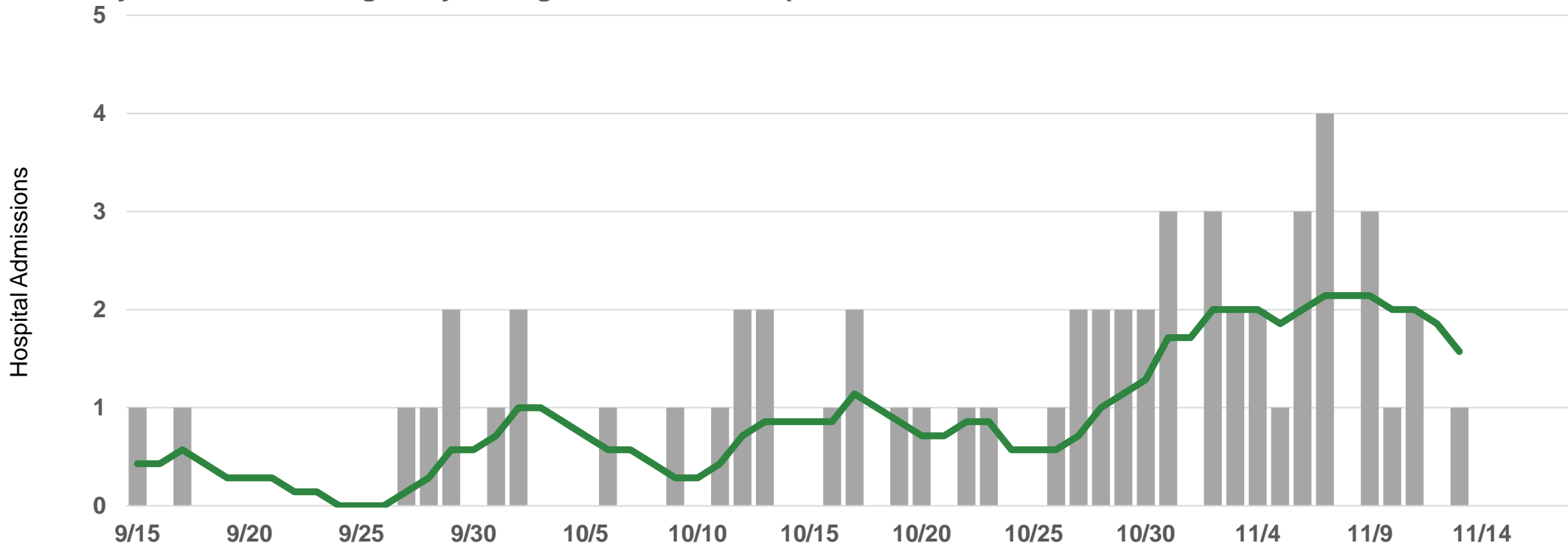
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Asian non-Latinx hospital admissions.

Recent Trend	Near-zero admissions
Peak 7-day rolling average	8 avg. daily admissions 4/13/2020

Data reporting is delayed

COVID-19 hospital admissions among Asian, non-Latinx residents, daily counts and rolling 7-day average, first known hospital admit date



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.

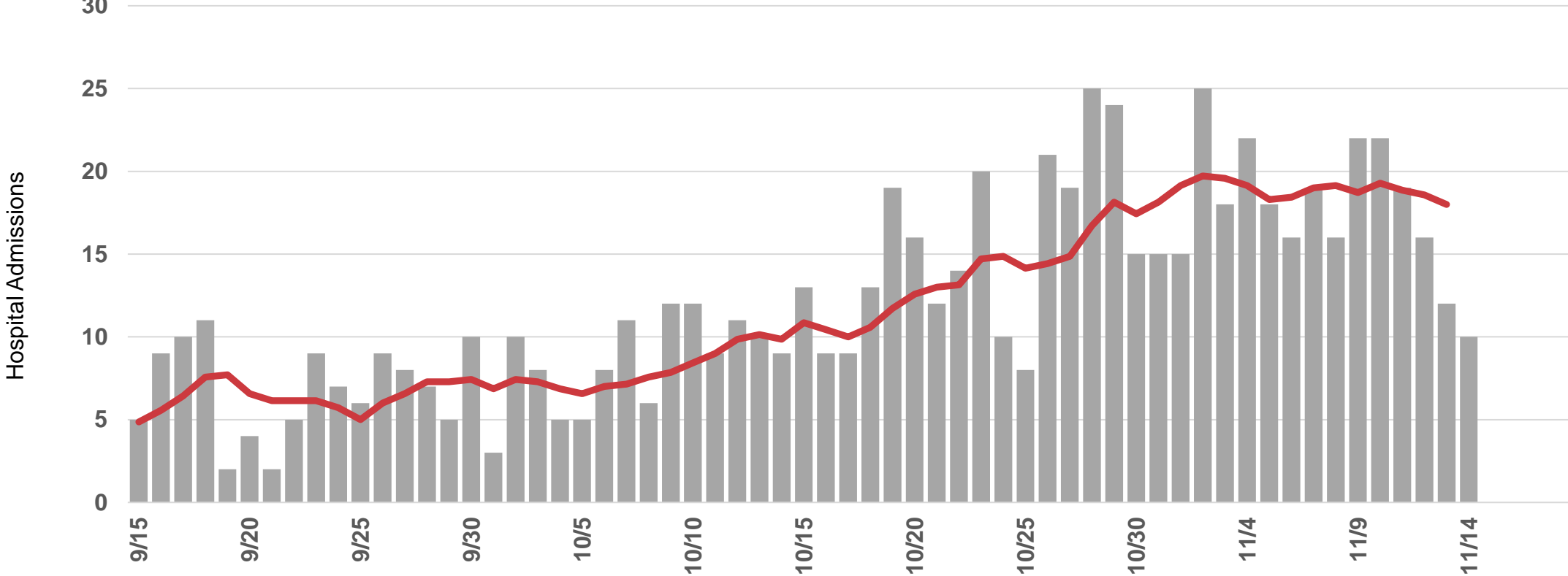
White, non-Latinx hospital admissions are rising.



Recent Trend	Admissions doubled since 10/13
Peak 7-day rolling average	27 avg. daily admissions 5/6/2020

COVID-19 hospital admissions among white, non-Latinx residents, daily counts and rolling 7-day average, first known hospital admit date

Data reporting is delayed



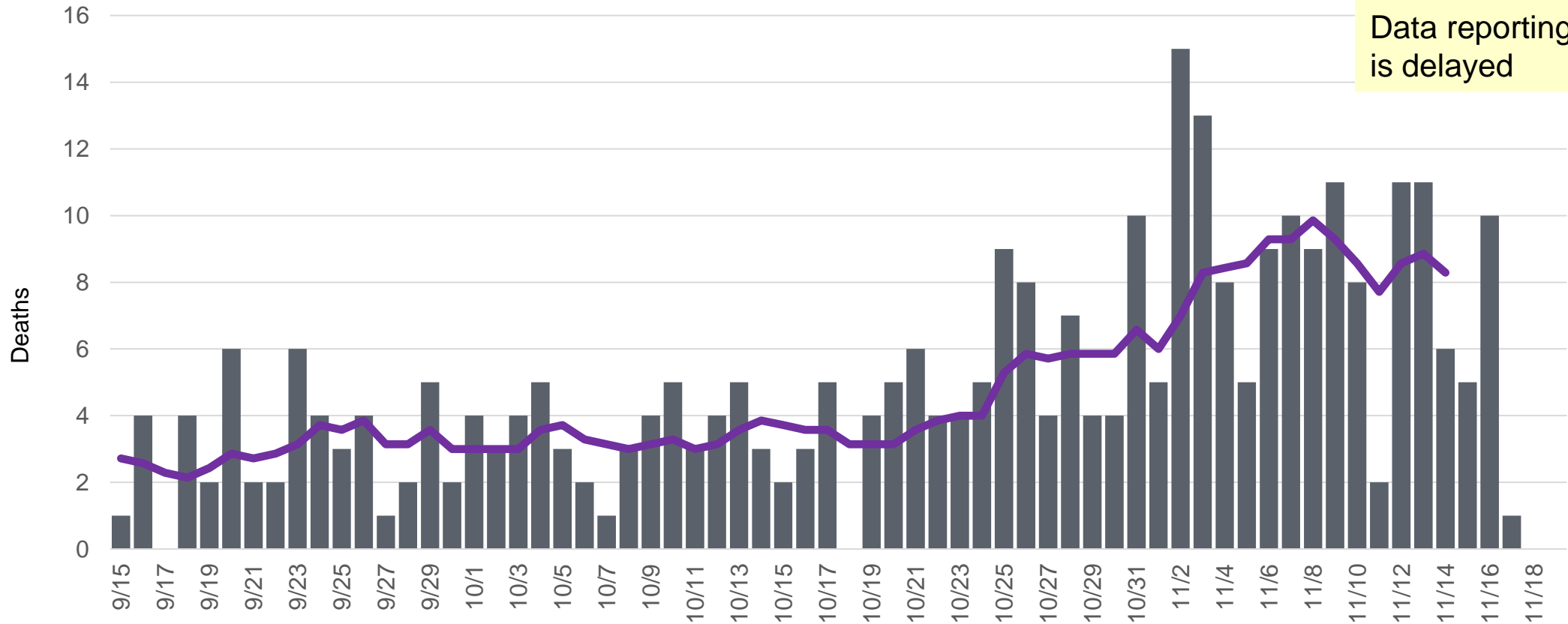
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COVID-19 deaths have risen 3X since 10/19. Data reported 11/19.



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

Recent Trend	Stable 3 days (10/16-10/19) Increase 7 days (10/19-10/26) Increase 13 days (10/26-11/8) Stable 6 days (11/8-11/14)
Cumulative deaths by surge	Current surge: 159 (10/25-11/13) First surge: 416 (3/25-4/13)

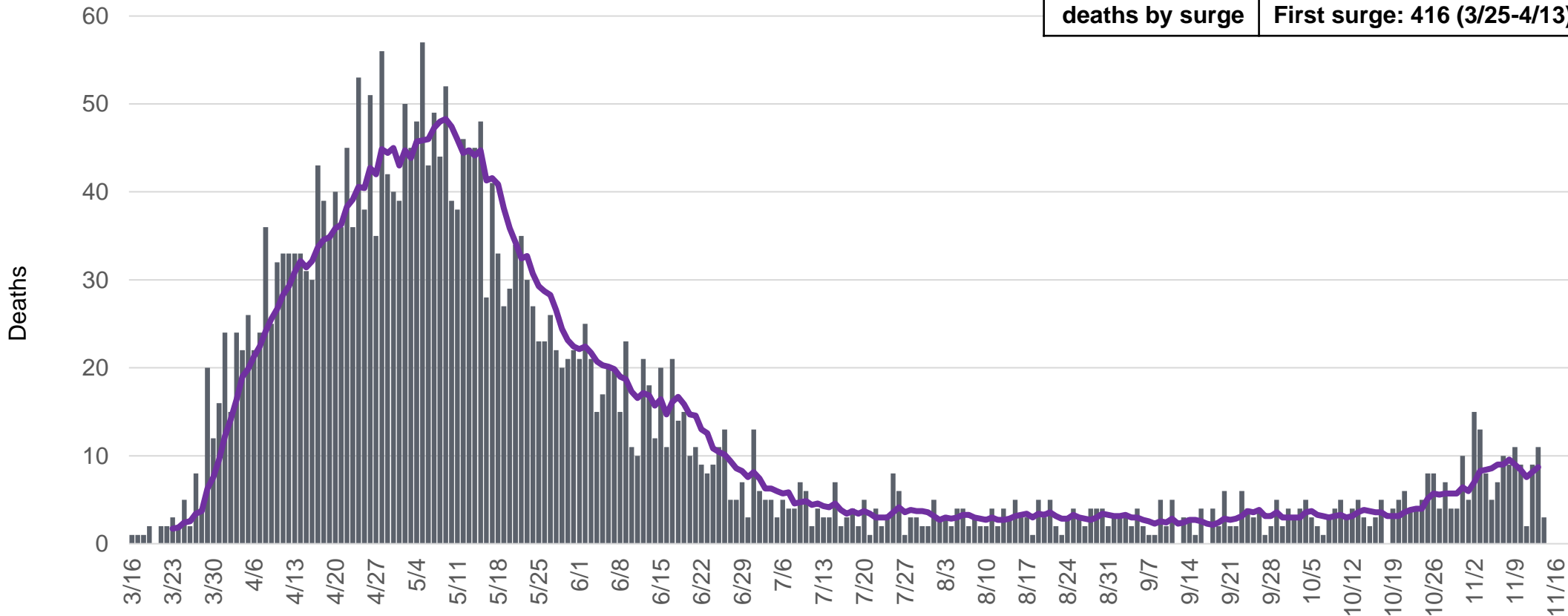


Daily COVID-19 deaths reported for Chicago residents with known death date. Data source: INEDSS. Daily counts for most recent dates displayed are likely incomplete.

COVID-19 deaths are 5X fewer now when compared to the peak in May yet 3X greater than September.



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



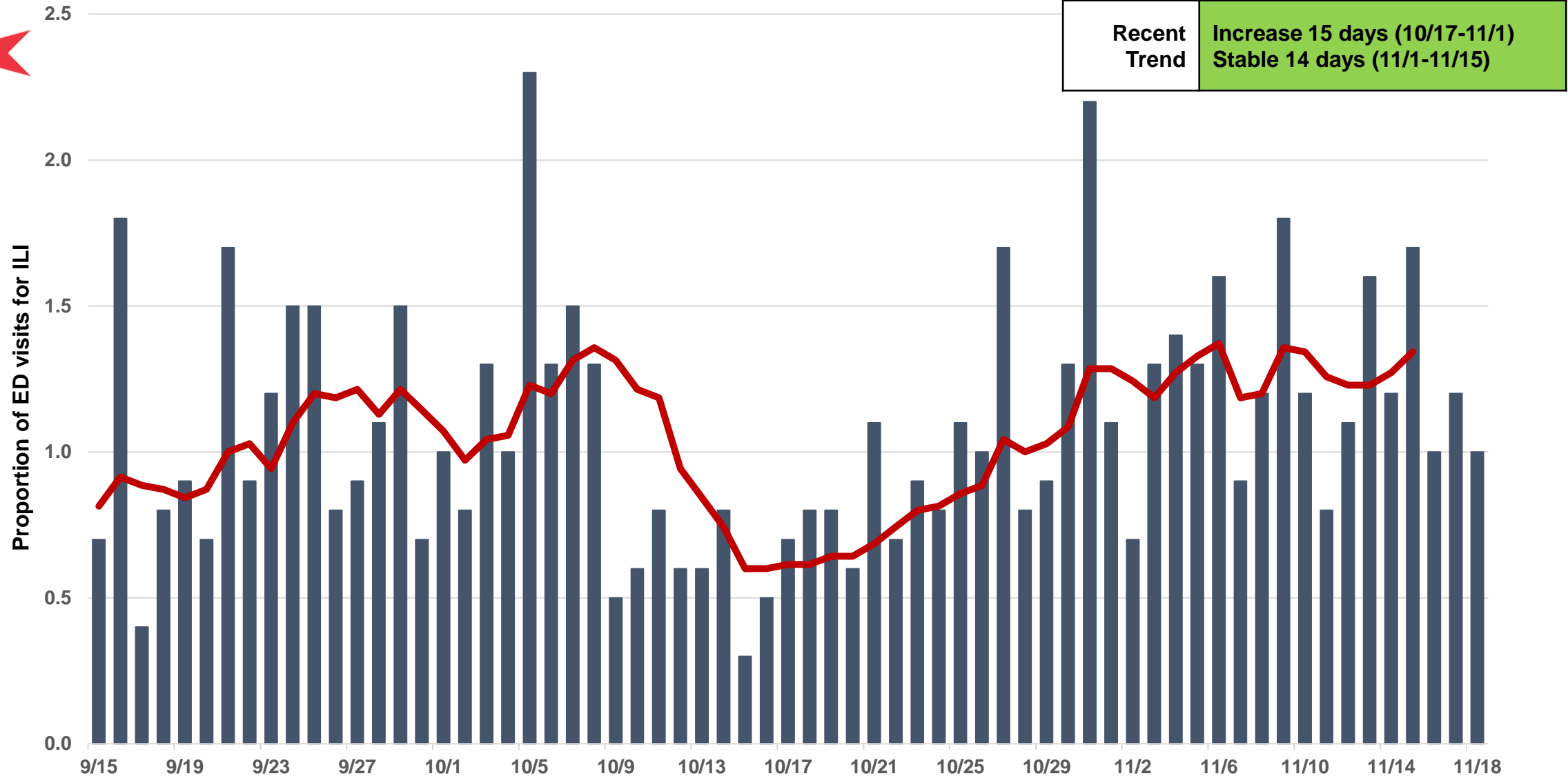
Peak 7-day rolling average	48 avg. daily deaths 5/9/2020
Cumulative deaths by surge	Current surge: 159 (10/25-11/13) First surge: 416 (3/25-4/13)

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

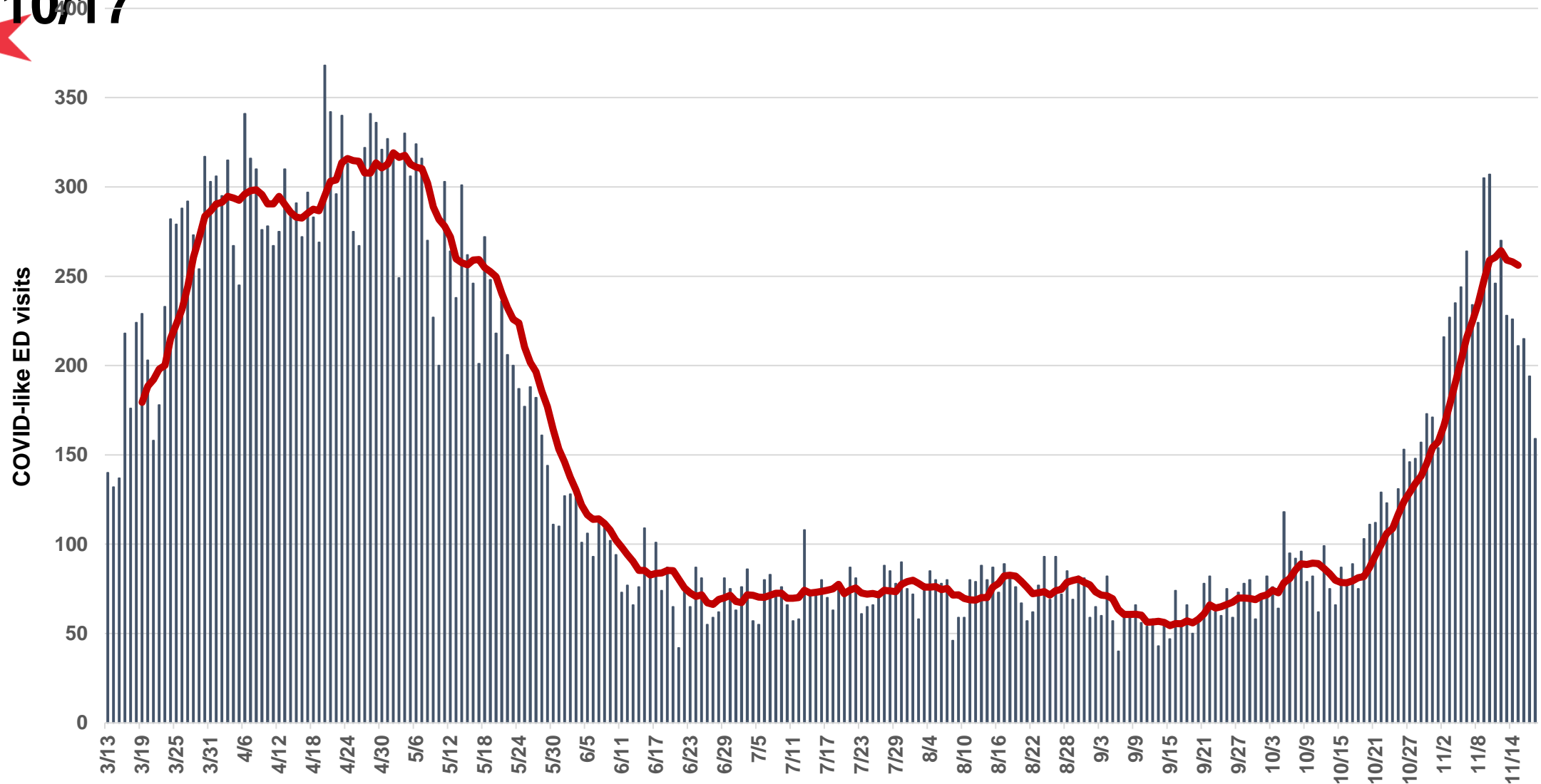
Proportion of ED visits for influenza-like illnesses has stable for 14 days after increasing for 15 days.



Recent Trend	Increase 15 days (10/17-11/1) Stable 14 days (11/1-11/15)
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ILI: Influenza-like illness. Percentage of all emergency department visits reported with influenza-like illness symptoms among Chicago residents.
Data Source: Illinois Hospital Emergency Departments reporting to CDPH through the National Syndromic Surveillance Project.

ED visits for COVID-like illness reached the highest peaked in early May at 318 and is currently almost 3X higher compared to 10/17

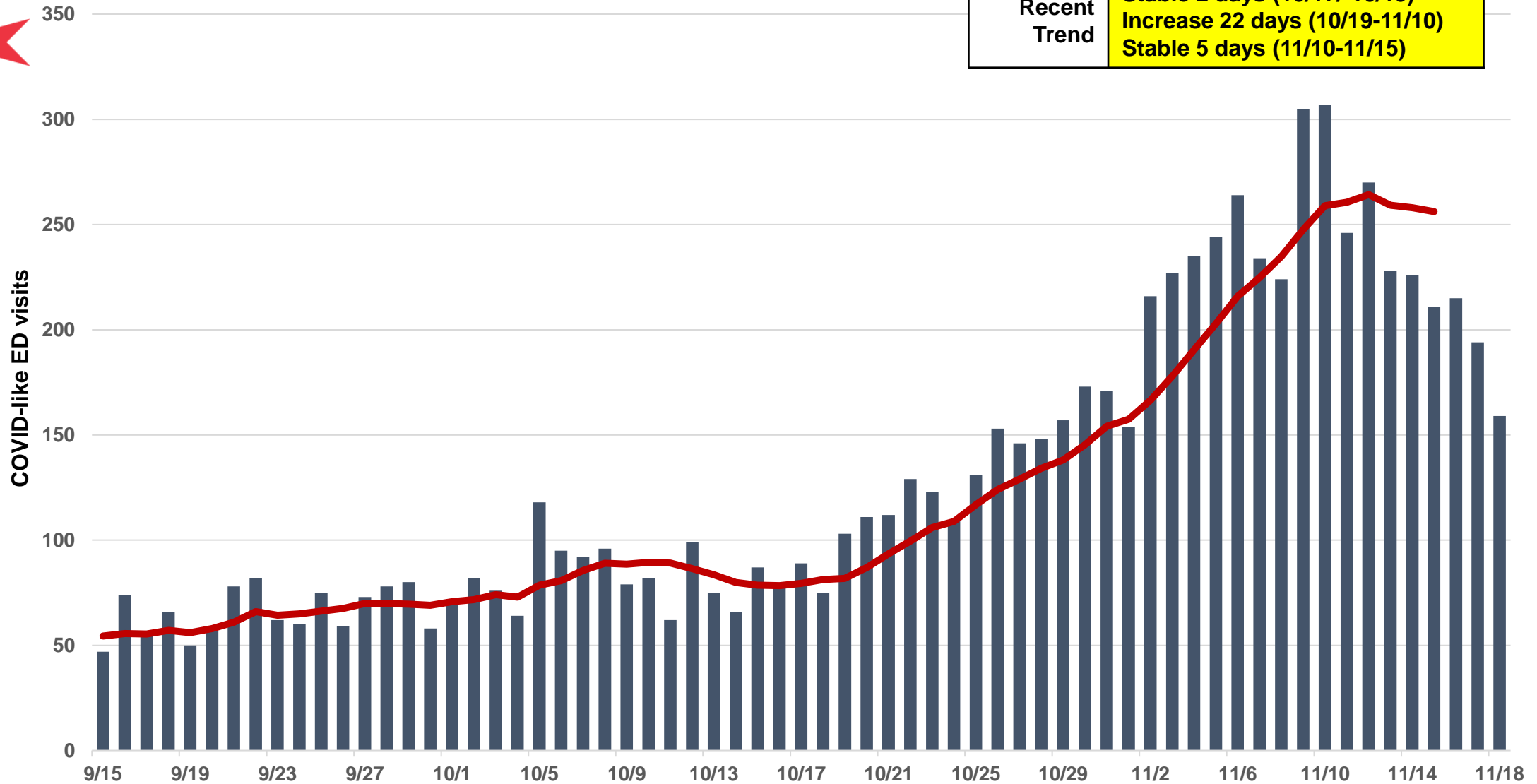


Percentage of all emergency department visits reported with COVID-like symptoms among Chicago residents.
Data Source: Illinois Hospital Emergency Departments reporting to CDPH through the National Syndromic Surveillance Project.

ED visits for COVID-like illness has been stable for 5 days after being increasing for 22 days.



Recent Trend	Stable 2 days (10/17/-10/19)
	Increase 22 days (10/19-11/10)
	Stable 5 days (11/10-11/15)



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.

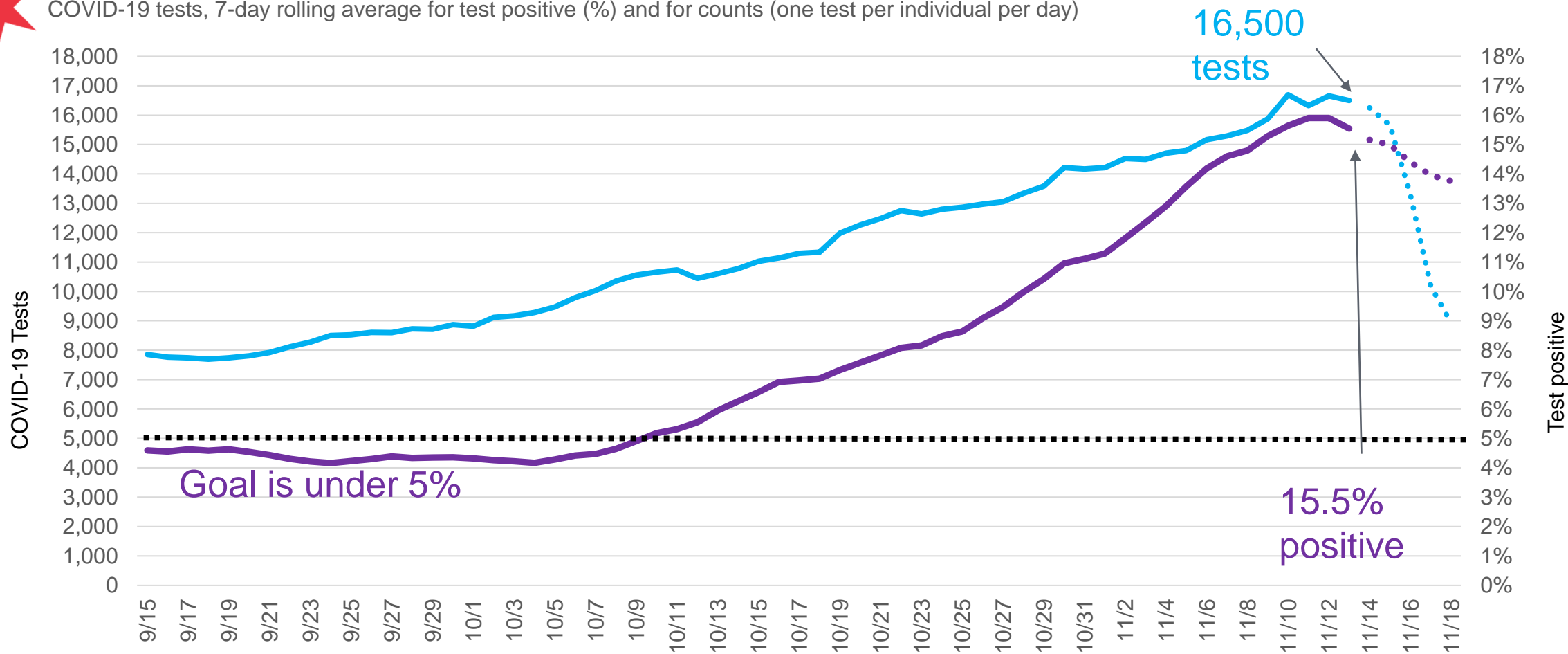


Test Positivity

Test positivity is 15.5%. Testing and test positivity are at plateau.

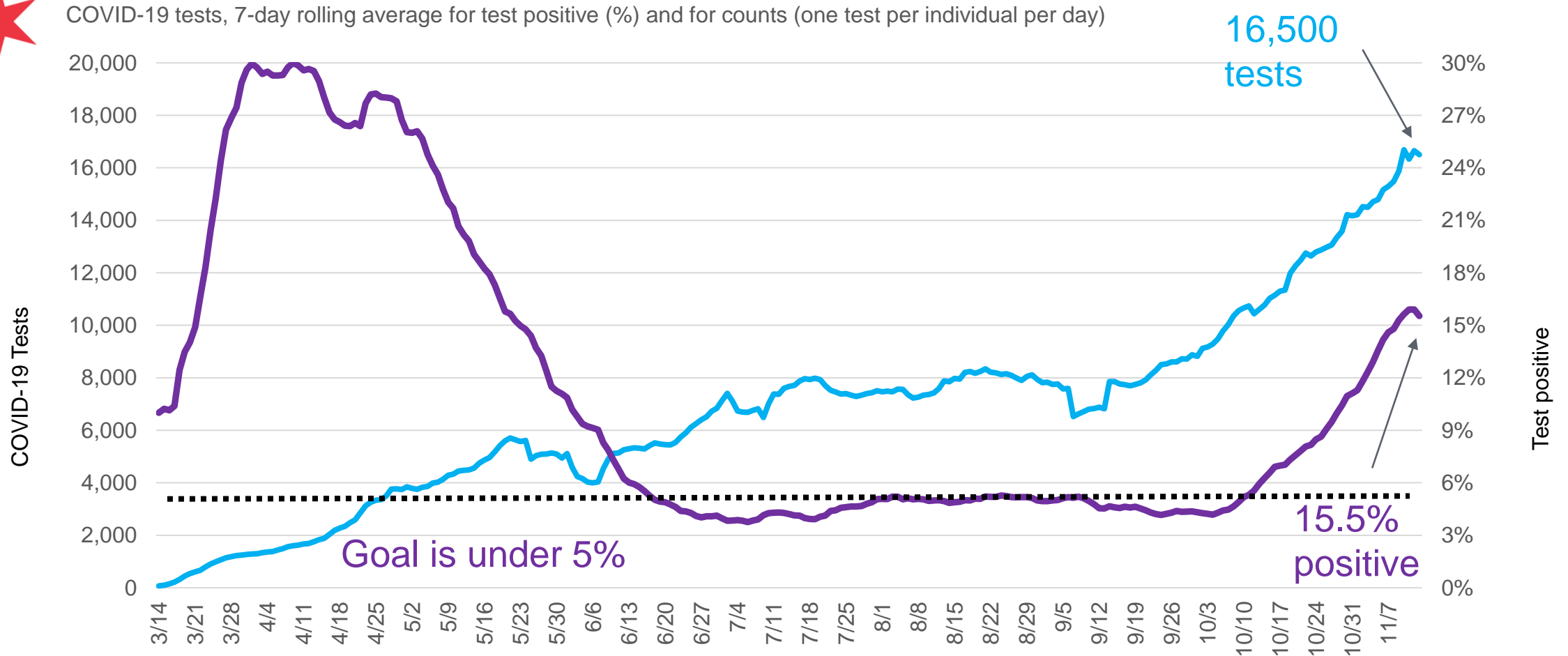


COVID-19 tests, 7-day rolling average for test positive (%) and for counts (one test per individual per day)



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.



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

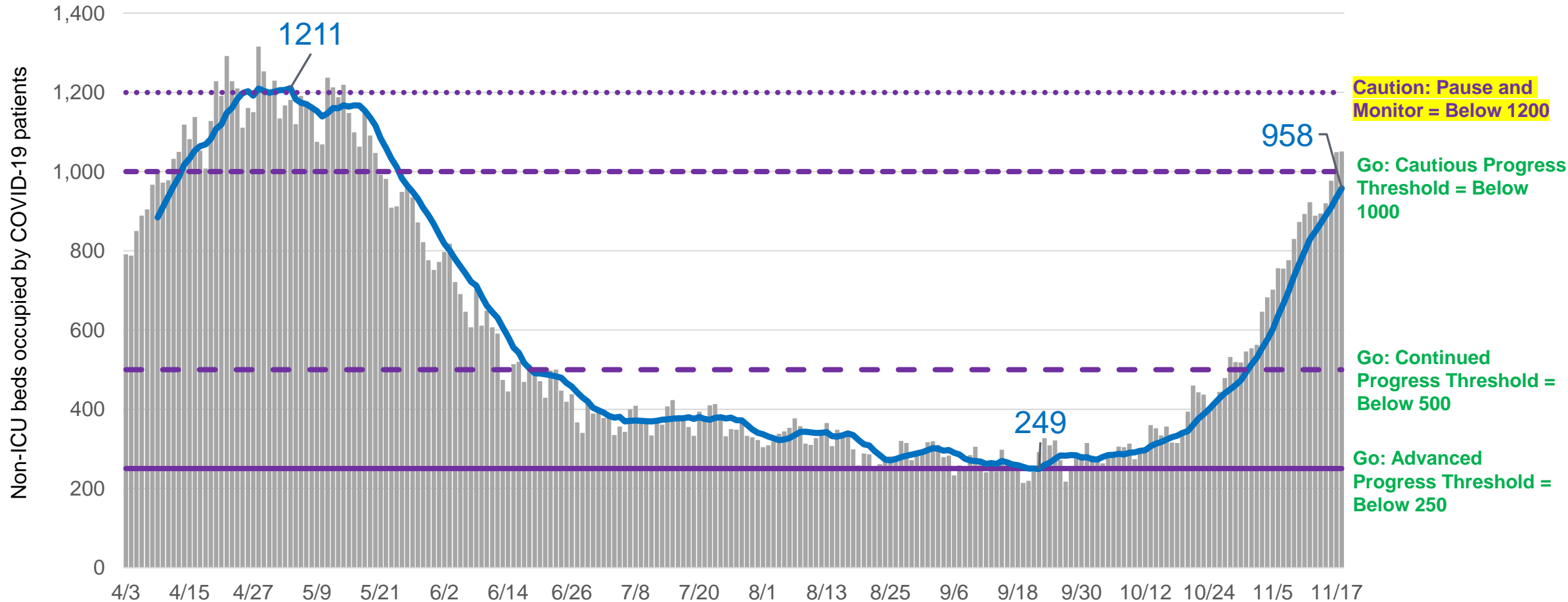


Hospital System Capacity

Non-ICU bed occupancy from COVID-19 has increased 285% since trough (9/22); Go: Cautious Progress.



COVID-19 acute/non-ICU beds occupied, daily counts, 7 day average and reopening threshold, daily occupancy census (04/03/2020-11/18/2020)

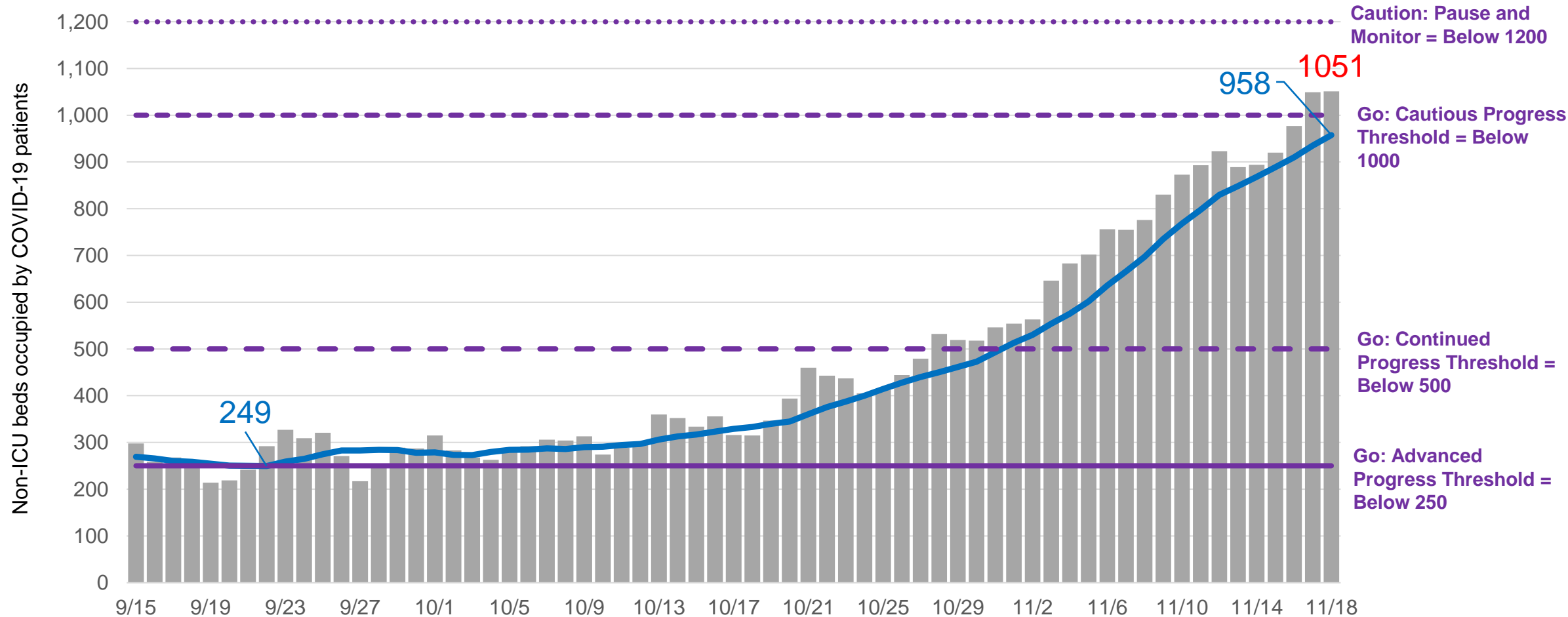


Includes all Chicago hospitals. Hospitals report daily to CDPH via EMResource, beginning April 3 (acute non-ICU occupancy). Acute non-ICU bed counts include burn, emergency department, med/surg, other, pediatrics and psychiatry beds in Chicago hospitals. Includes Chicago and non-Chicago residents. Includes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

Non-ICU bed occupancy from COVID-19 is increasing at an average of net +27 non-ICU admissions per day; Go: Cautious Progress.



COVID-19 acute non-ICU beds occupied, daily counts, 7 day average and reopening threshold, daily occupancy census (9/15/2020-11/18/2020)

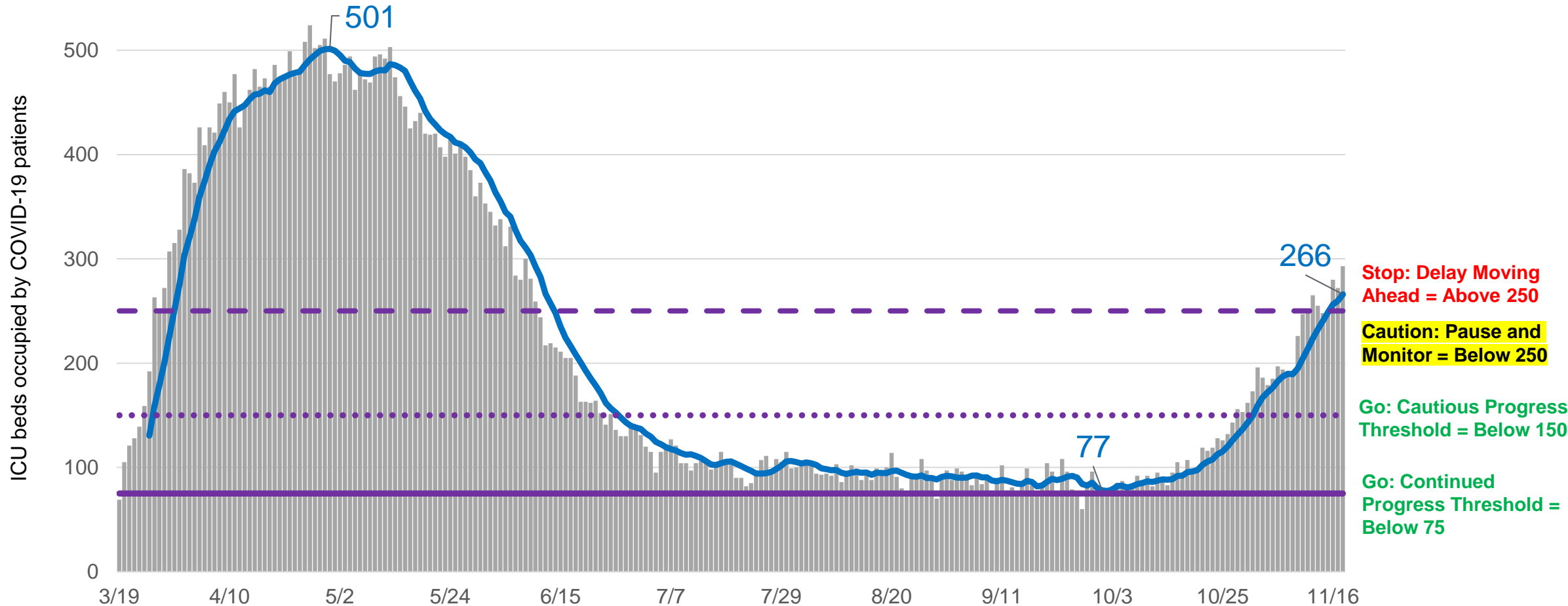


Includes all Chicago hospitals. Hospitals report daily to CDPH via EMResource, beginning April 3 (acute non-ICU occupancy). Acute non-ICU bed counts include burn, emergency department, med/surg, other, pediatrics and psychiatry beds in Chicago hospitals. Includes Chicago and non-Chicago residents. Includes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

ICU occupancy from COVID-19 has increased 245% since trough (10/1); Stop: May need to delay moving ahead



COVID-19 ICU beds occupied, daily counts, 7 day average and progress threshold, daily occupancy census (03/13/2020 - 11/18/2020)

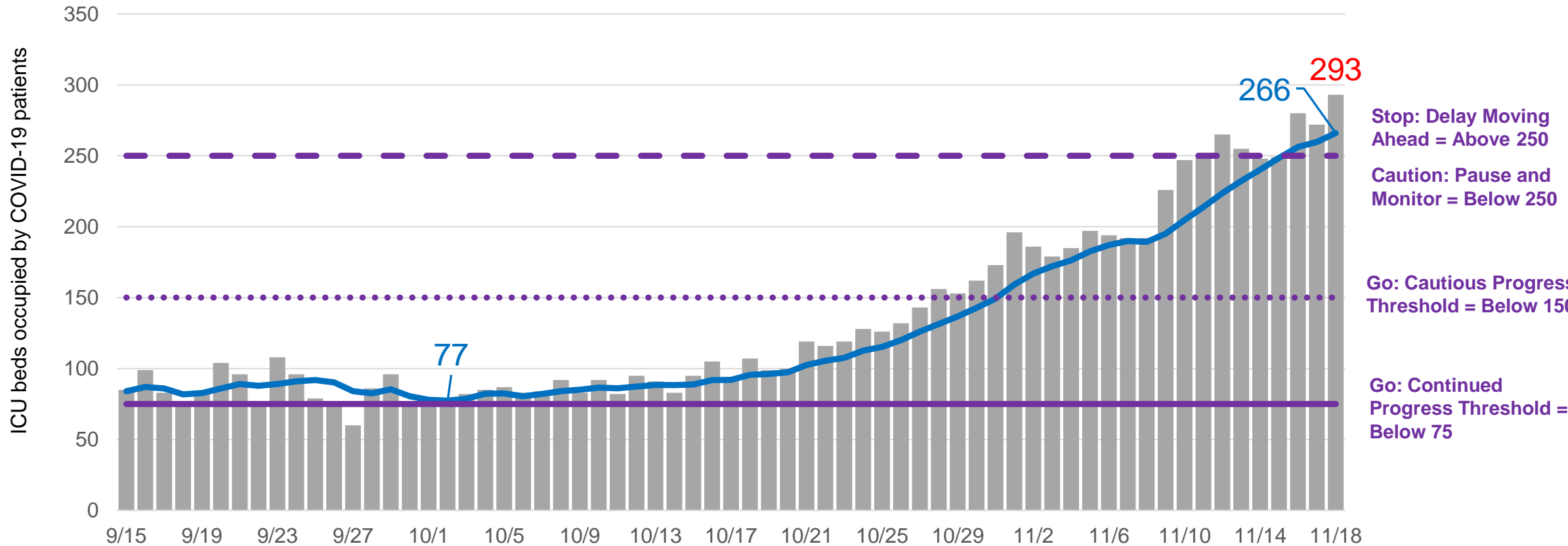


Includes all Chicago hospitals. Hospitals report daily to CDPH via EMResource, beginning March 19. ICU bed count includes all adult and pediatric ICU beds in Chicago hospitals. Includes Chicago and non-Chicago residents. Includes confirmed and suspected COVID-19 cases. Beginning 4/24/2020, the definition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



ICU occupancy from COVID-19 is increasing at an average rate of net +6 ICU admissions per day; Stop: May need to delay moving ahead

COVID-19 ICU beds occupied, daily counts, 7 day average and progress threshold, daily occupancy census (09/15/2020 - 11/18/2020)

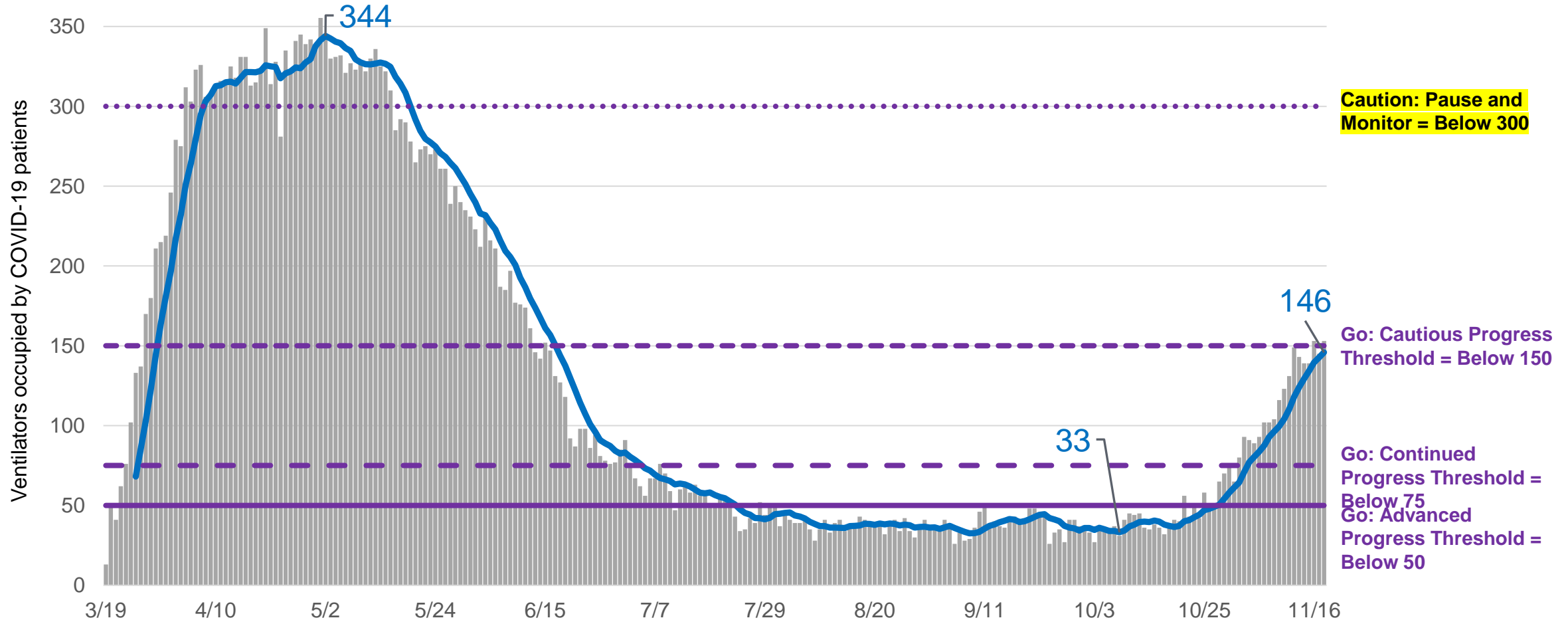


Includes all Chicago hospitals. Hospitals report daily to CDPH via EMResource, beginning March 19. ICU bed count includes all adult and pediatric ICU beds in Chicago hospitals. Includes Chicago and non-Chicago residents. Includes confirmed and suspected COVID-19 cases. Beginning 4/24/2020, the definition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

Ventilator utilization from COVID-19 has increased 342% since its trough (10/8); Go: Cautious Progress.



COVID-19 ventilators in use, daily counts, 7 day average and reopening threshold, daily utilization census (3/19/2020-11/18/2020)

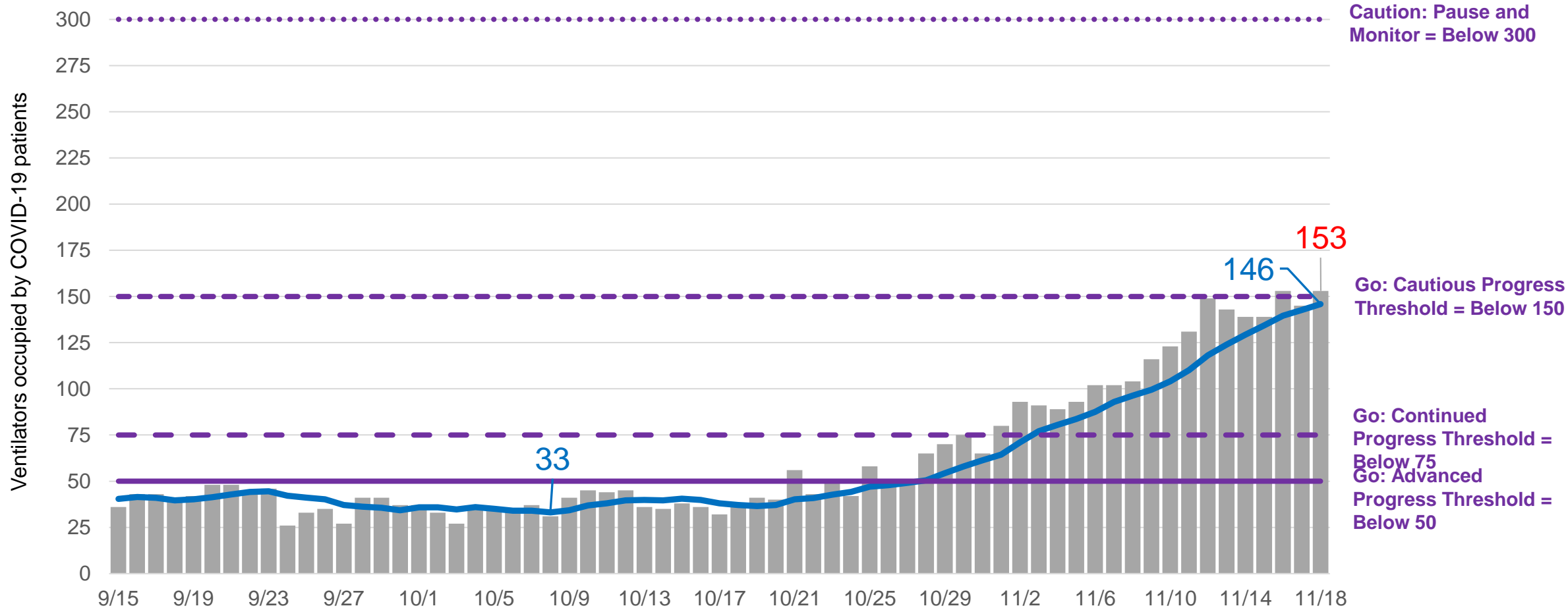


Includes all Chicago hospitals. Hospitals report daily to CDPH via EMResource, beginning March 19. Includes Chicago and non-Chicago residents. Includes confirmed and suspected COVID-19 cases. Beginning 4/24/2020, ventilator counts include all full-functioning mechanical ventilators, BiPAP, anesthesia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

Ventilator utilization from COVID-19 is increasing at an average rate of net +5 per day; Go: Cautious Progress.



COVID-19 ventilators in use, daily counts, 7 day average and reopening threshold, daily utilization census (9/15/2020-11/18/2020)



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.

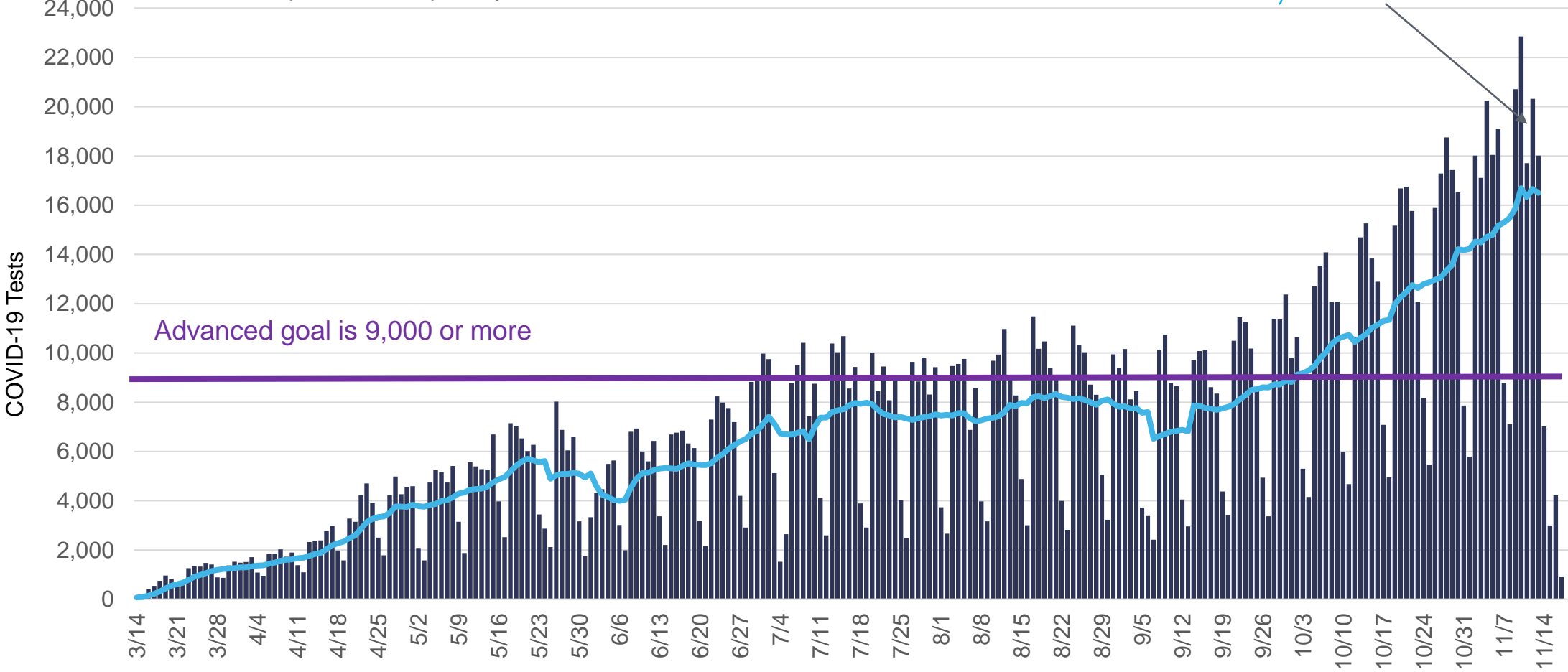


Diagnostic Testing Capacity

COVID-19 testing above 9,000 tests per day for 43 straight days. Now at all time high.



COVID-19 tests, daily count and 7-day moving average, all test results, one test per individual per day



All COVID-19 tests performed on Chicago residents per day as reported by electronic lab reporting from IDPH. 9000 tests per day represents the capacity to test 10% of Chicago residents per month. Daily counts for most recent dates displayed are likely incomplete.