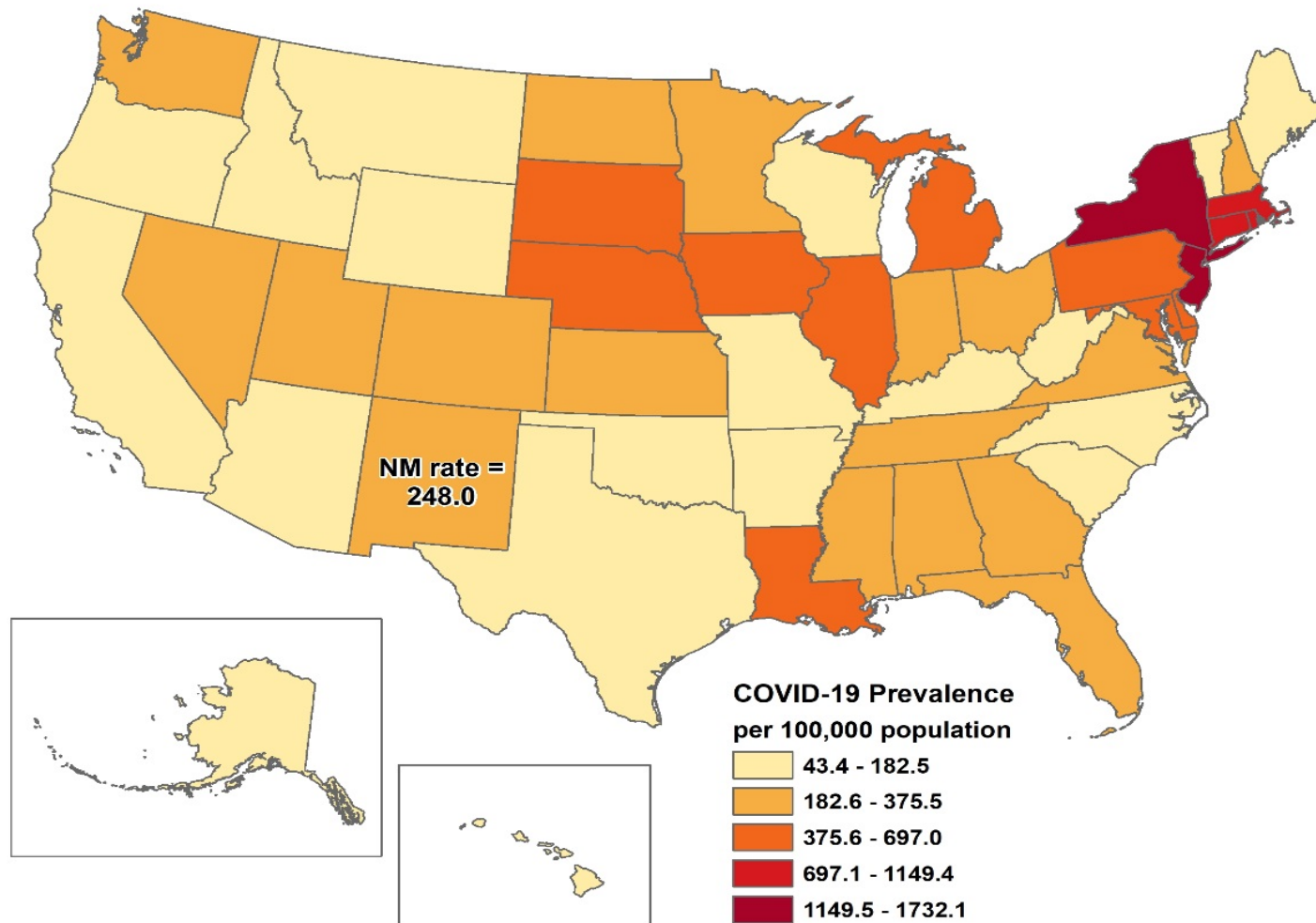


COVID-19 in New Mexico: Epidemiologic Update

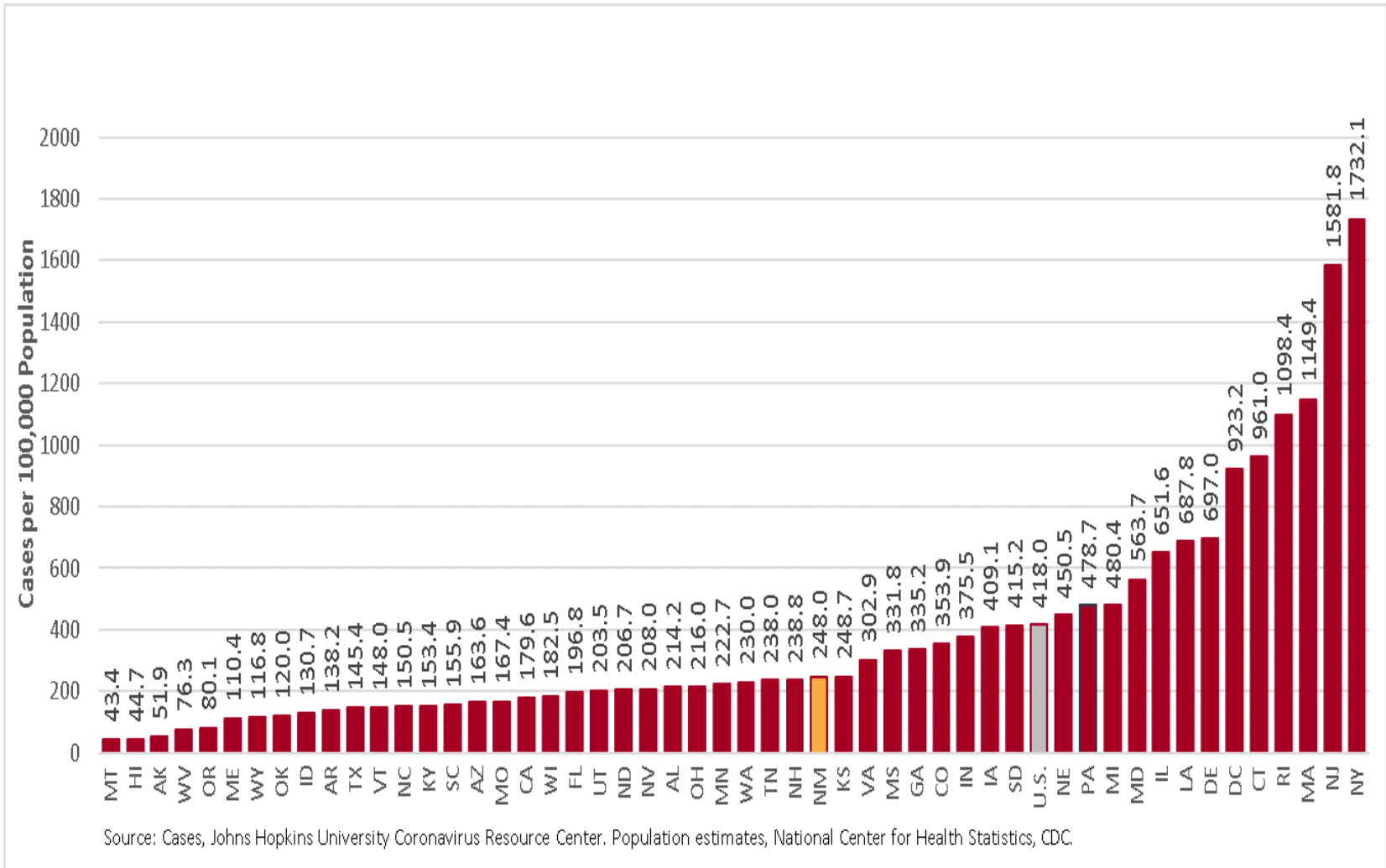
A NMDOH, Presbyterian, LANL, and SNL Partnership

May 19, 2020

Prevalence: COVID-19 cases per 100,000 by U.S. states

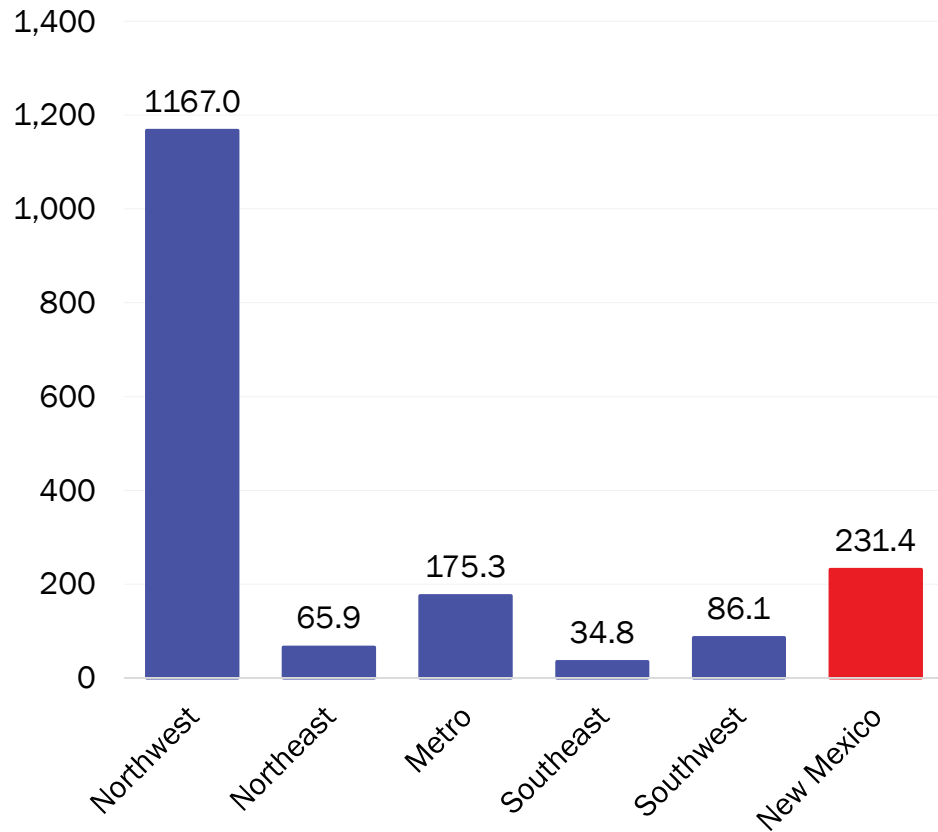


Prevalence: COVID-19 cases per 100,000 by U.S. states

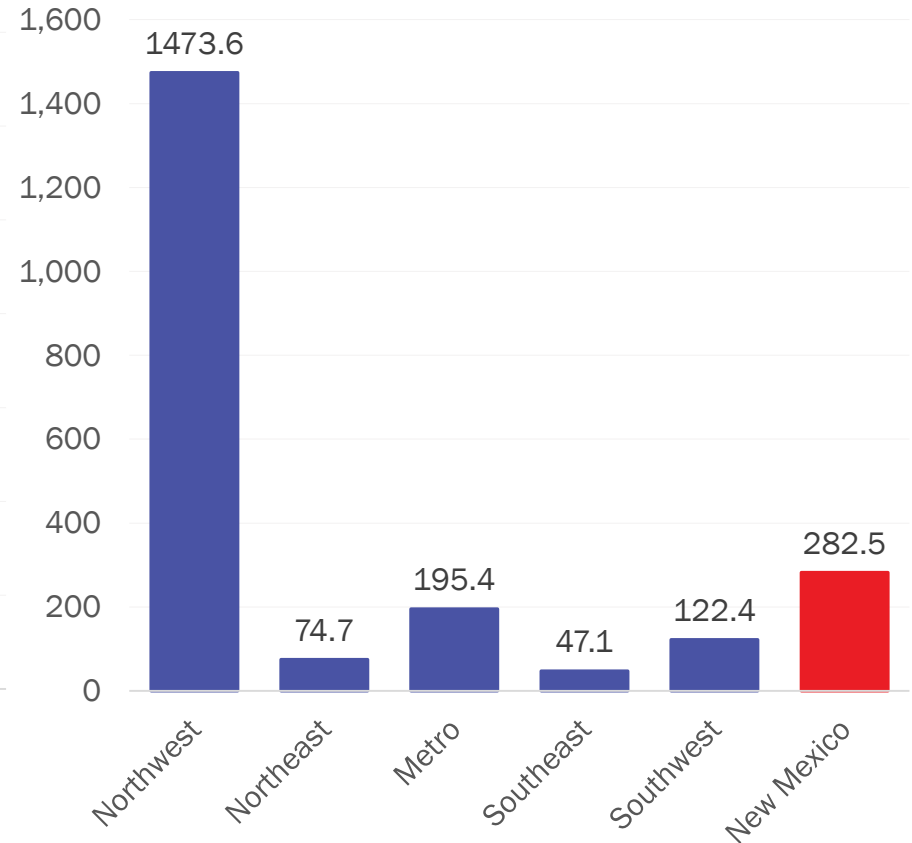


Prevalence Rate: Number of COVID-19 cases per 100,000 population

May 11, 2020

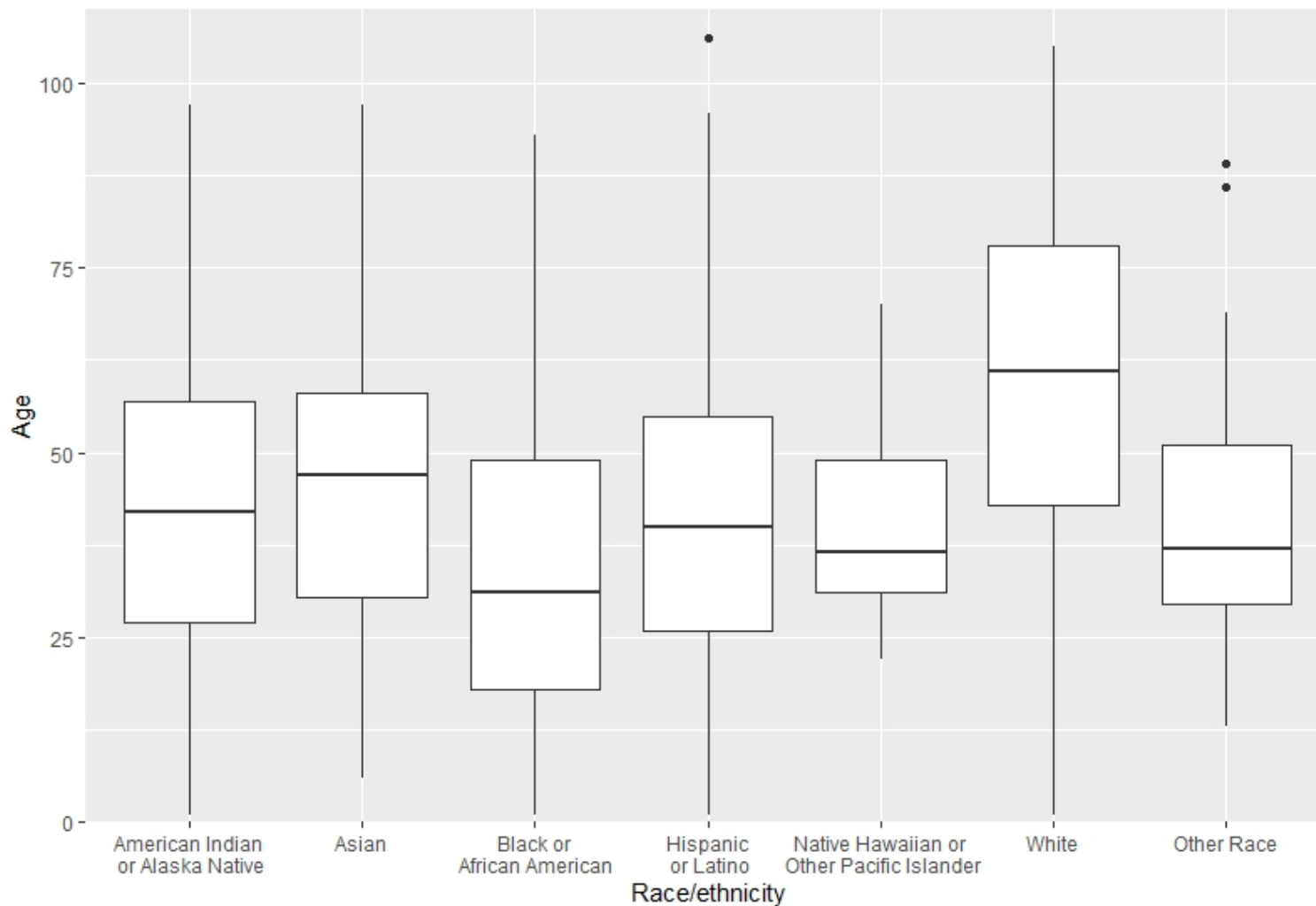


May 18, 2020

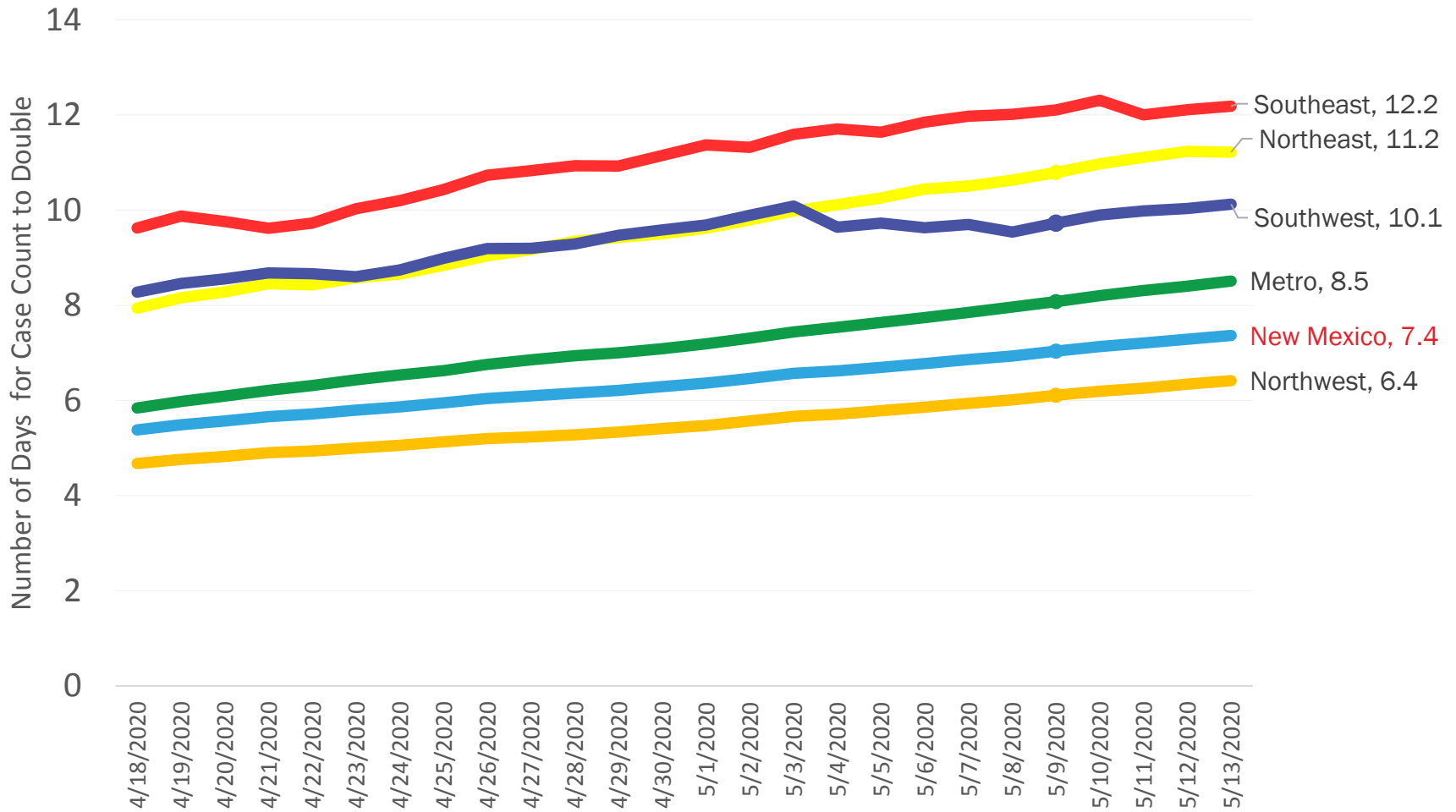


Source: Infectious Disease Epidemiology Bureau, Epidemiology and Response Division 5.18.2020, New Mexico Department of Health. Population estimates, UNM Geospatial and Population Studies Program.

COVID-19 cases by race/ethnicity and age



Projected doubling time



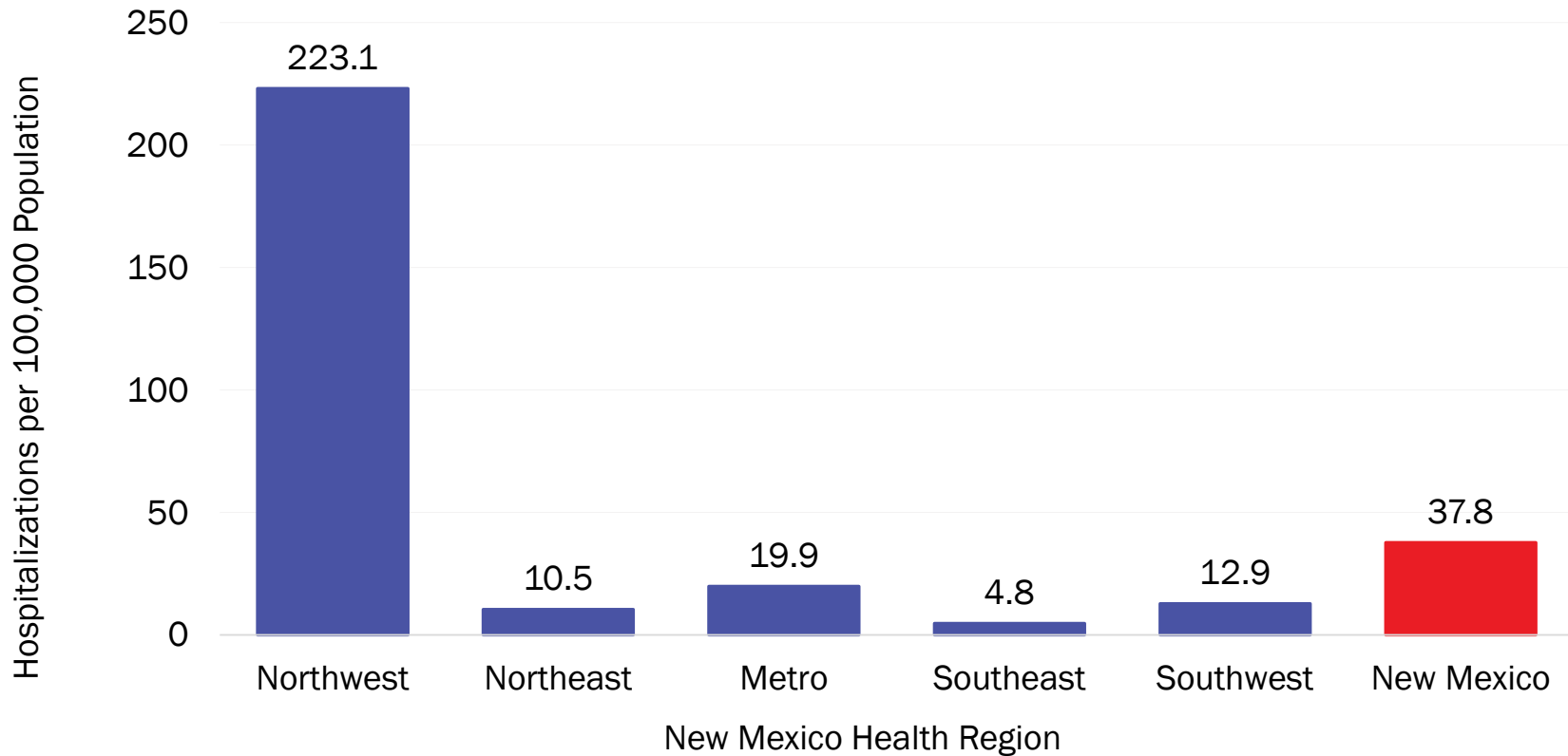
Projected Doubling Time Based on Date of Test Specimen Collection and Cumulative Average Rate of Increase.

Source: Infectious Disease Epidemiology Bureau, Epidemiology and Response Division 5.18.2020, New Mexico Department of Health.



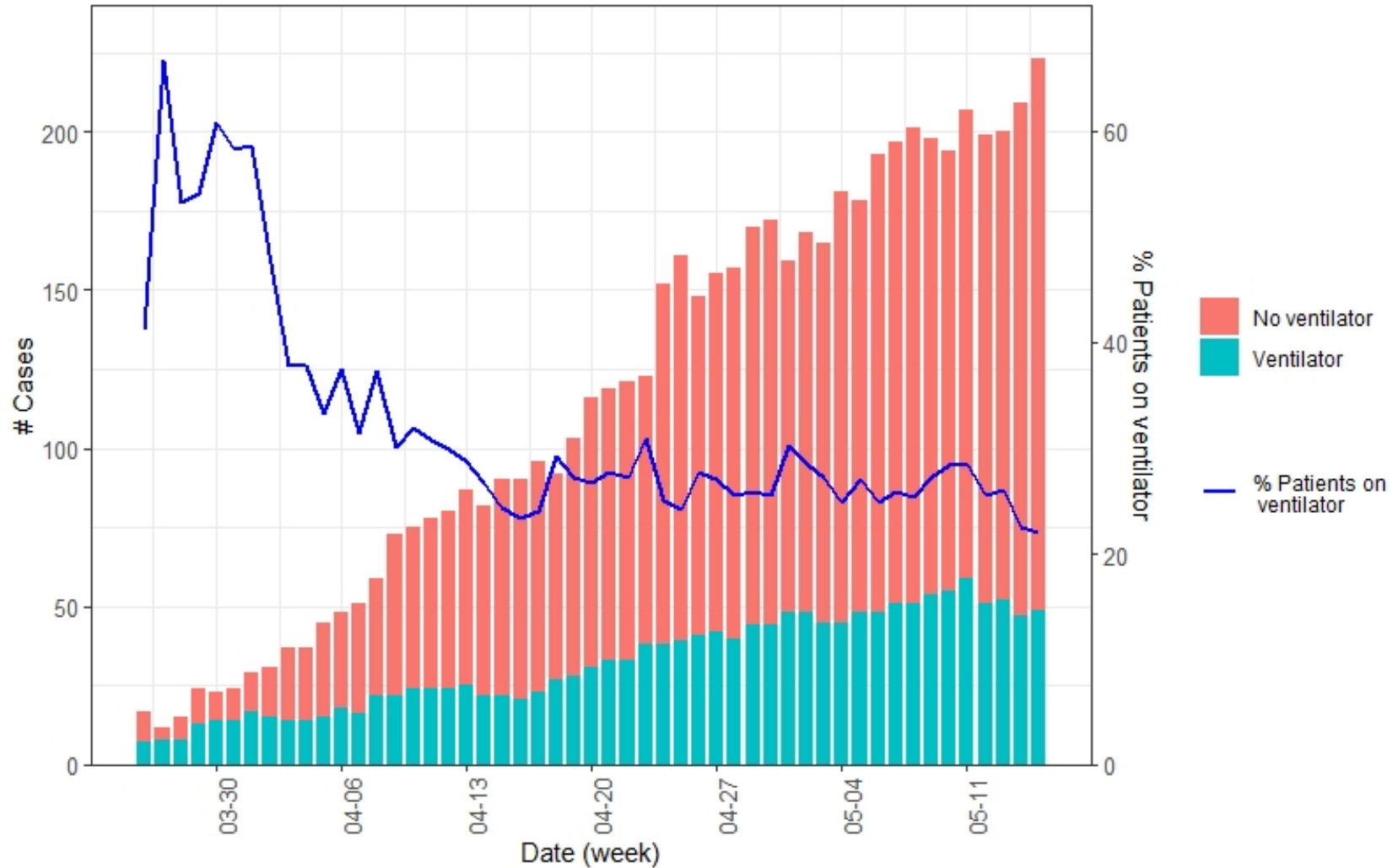
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Hospitalization Rate: Number of COVID-19 cases per 100,000 population

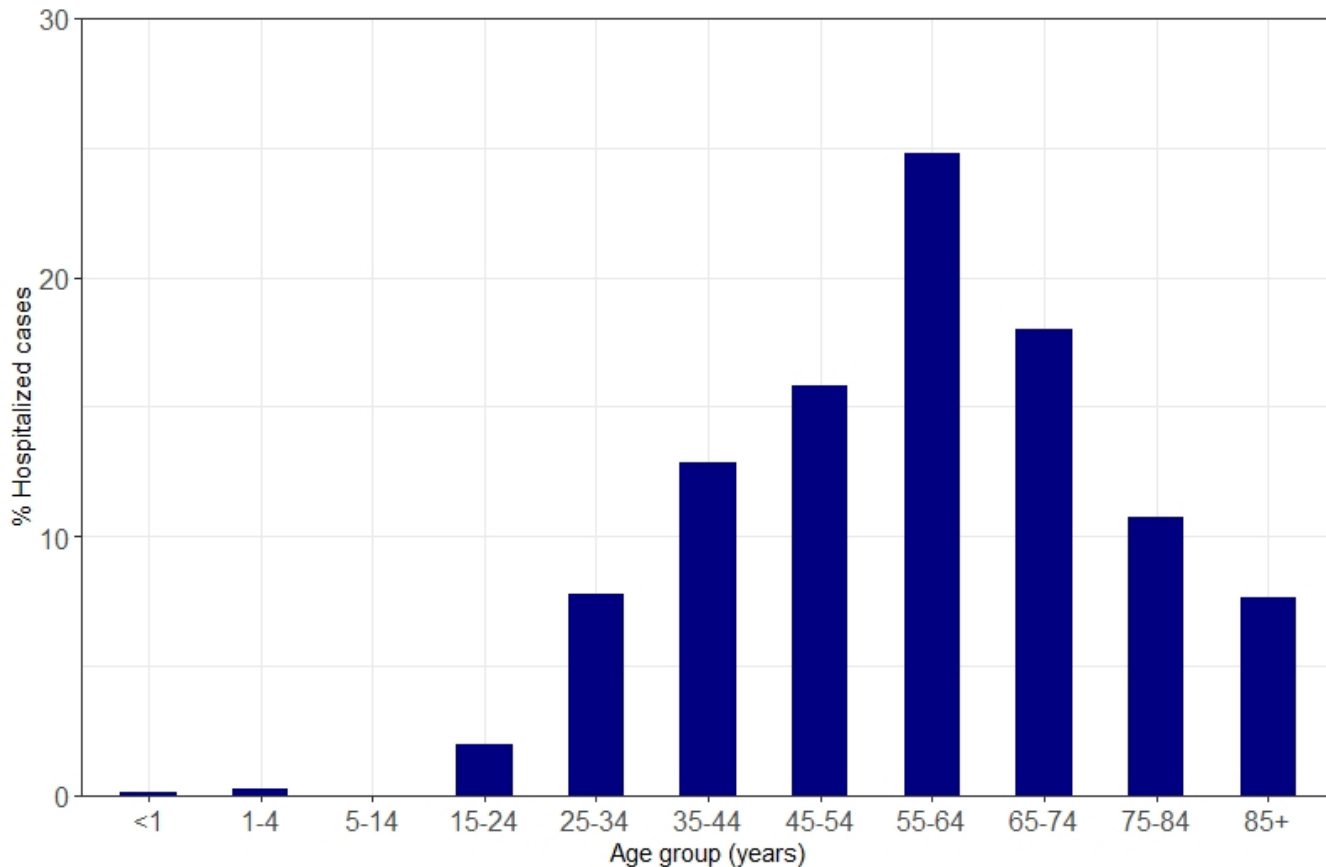


Source: Infectious Disease Epidemiology Bureau, Epidemiology and Response Division 5.18.2020 at 8:08 AM, New Mexico Department of Health. Population estimates, UNM Geospatial and Population Studies Program.

COVID-19 hospitalizations and ventilator use

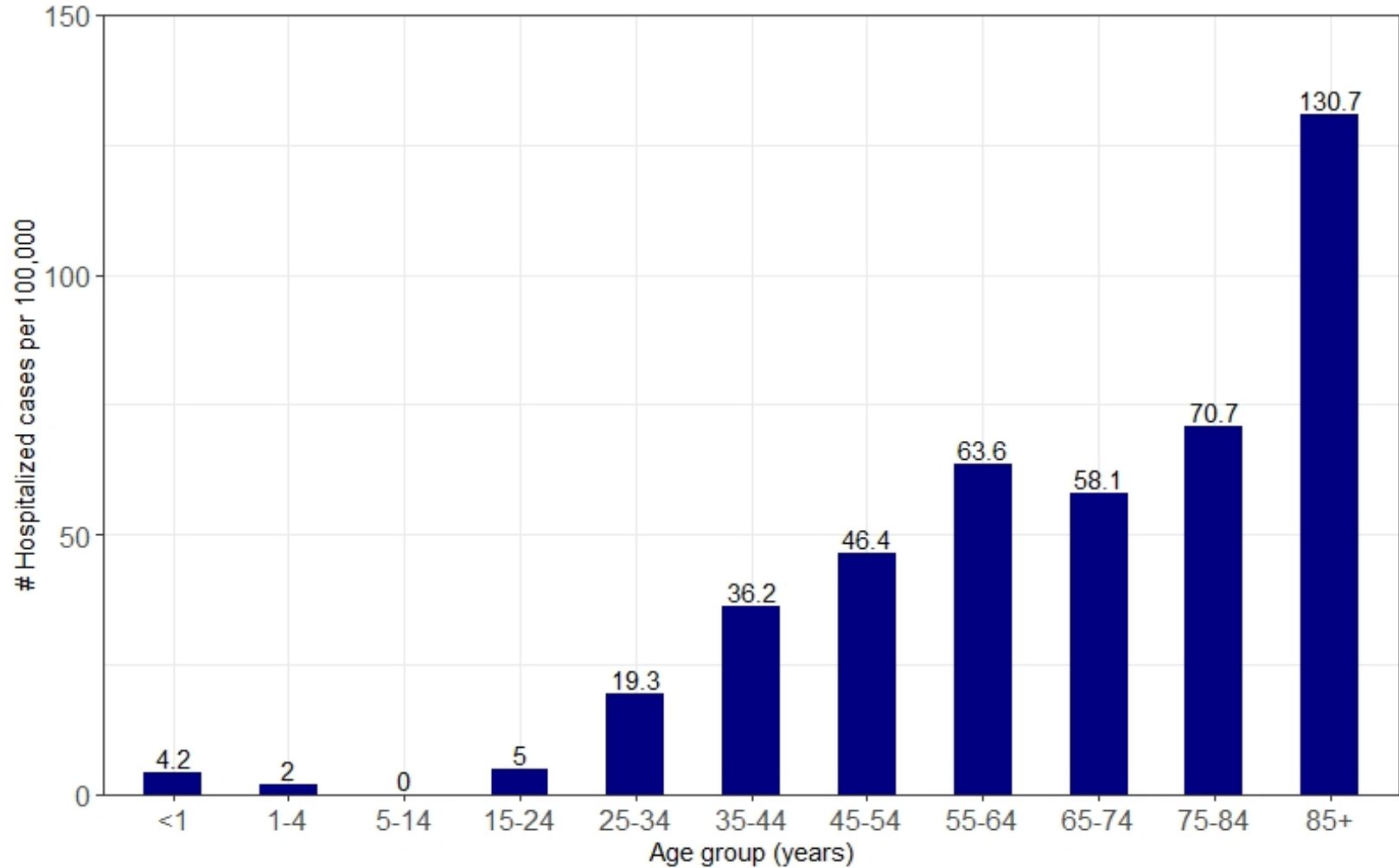


COVID-19 hospitalizations by age group



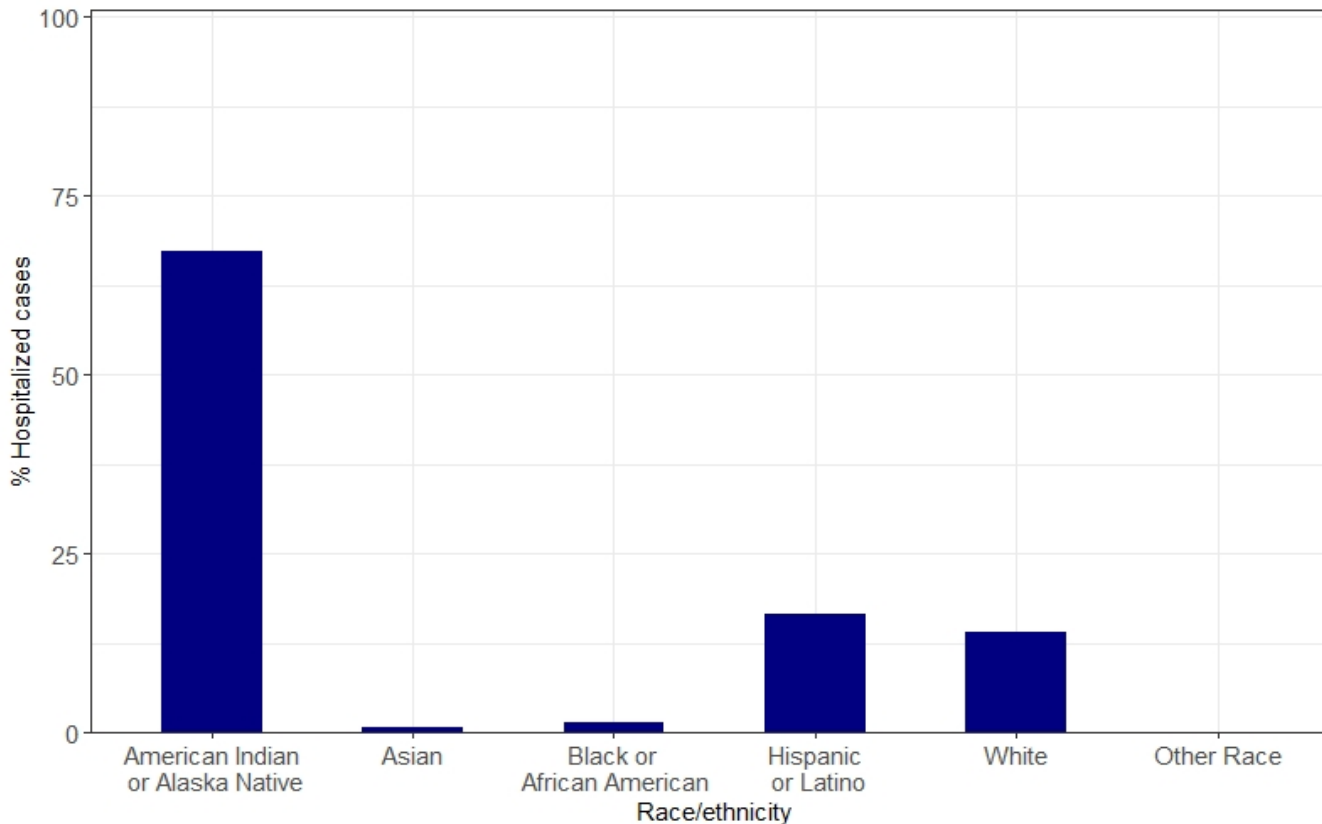
Age group (years)	# Hospitalized cases (%)
<1	1 (0.14)
1-4	2 (0.28)
5-14	0 (0)
15-24	14 (2)
25-34	55 (7.8)
35-44	91 (12.9)
45-54	112 (15.8)
55-64	175 (24.8)
65-74	127 (18)
75-84	76 (10.7)
85+	54 (7.6)
All ages	707

COVID-19 age-specific hospitalization rates per 100,000 population



Source: NM Indicator-Based Information System (IBIS) was used for 2018 population estimates for each age group

COVID-19 hospitalizations by race/ethnicity



Race/ethnicity	# Hospitalized cases (%)
American Indian or Alaska Native	472 (67.1)
Asian	5 (0.71)
Black or African American	10 (1.4)
Hispanic or Latino	116 (16.5)
White	99 (14.1)
Other Race	1 (0.14)
Total	703

Note: 4 hospitalized cases excluded due to missing race information

COVID-19 age-adjusted hospitalization rate by race/ethnicity per 100,000 population

Race/ethnicity	Age-adjusted rate per 100,000 population
American Indian or Alaska Native	261.3
Asian	12.2
Black or African American	27.4
Hispanic or Latino	11.7
White	7.9

Note:

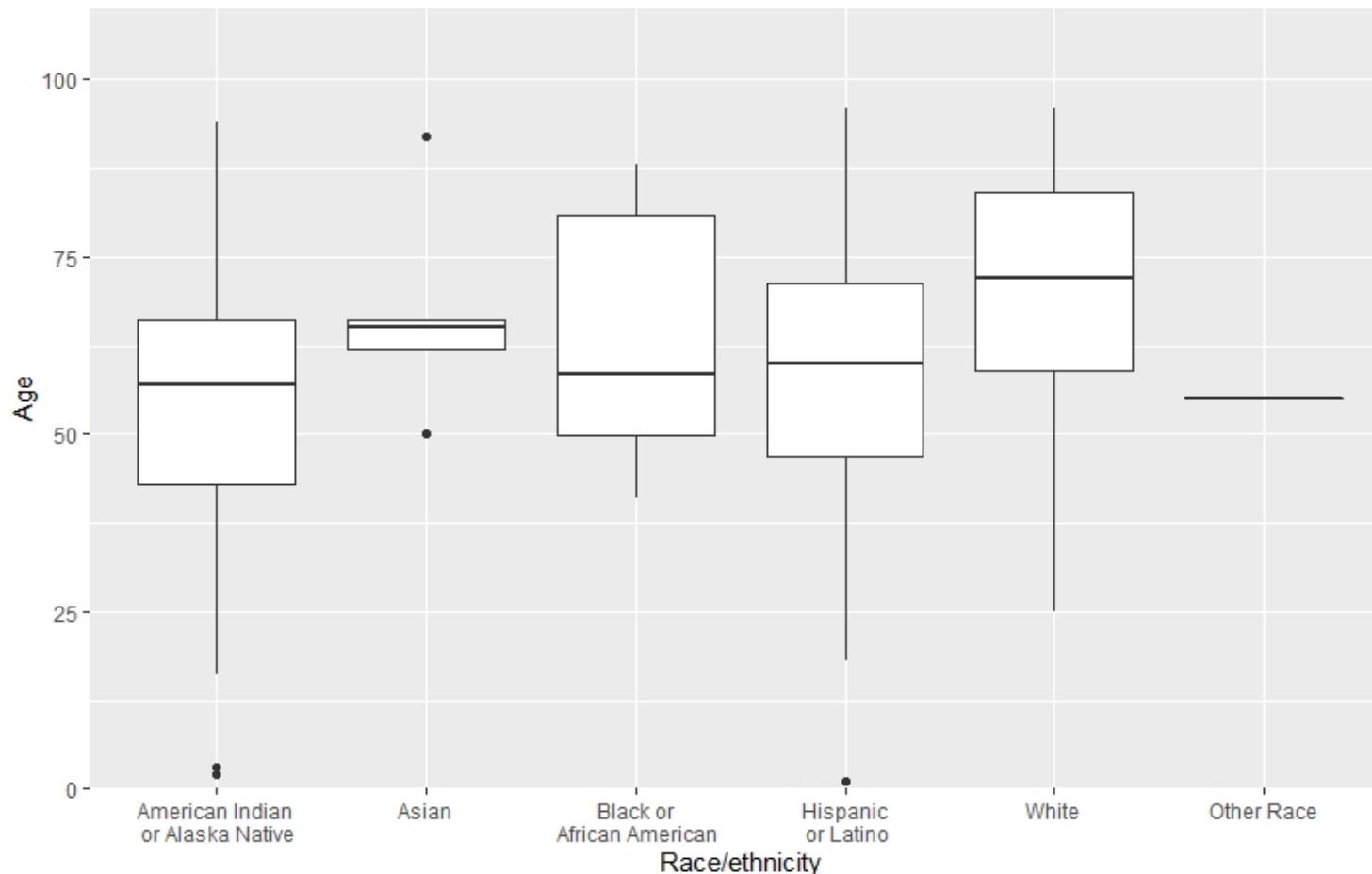
4 hospitalized cases excluded due to missing race information

1 hospitalized case was excluded because it was "Other Race" and there is no population estimate for "Other Race" in NM-IBIS



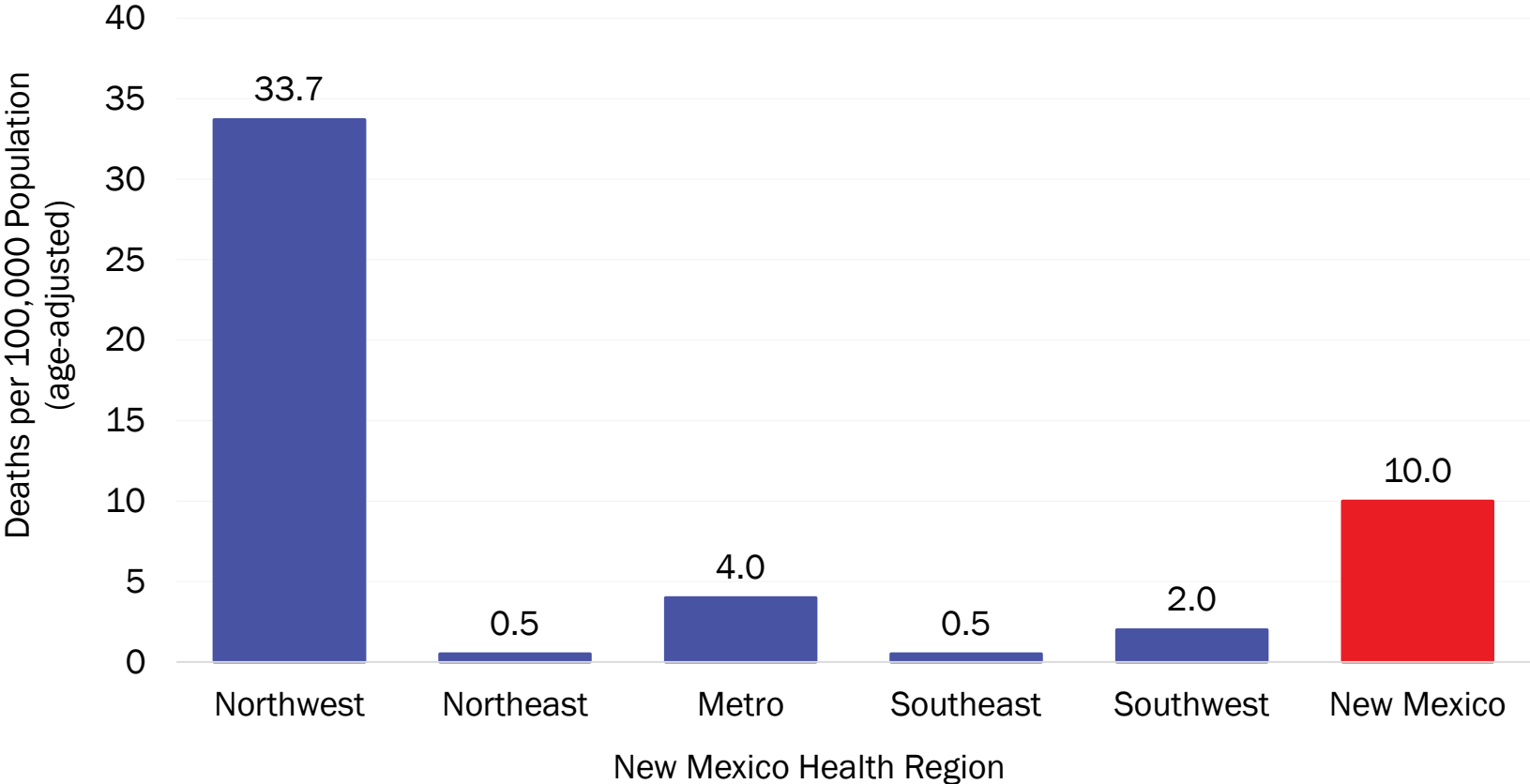
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Summary statistics of COVID-19 hospitalizations by race/ethnicity and age



Note: 4 hospitalized cases excluded due to missing race information

Mortality Rate: Number of COVID-19 deaths per 100,000 population

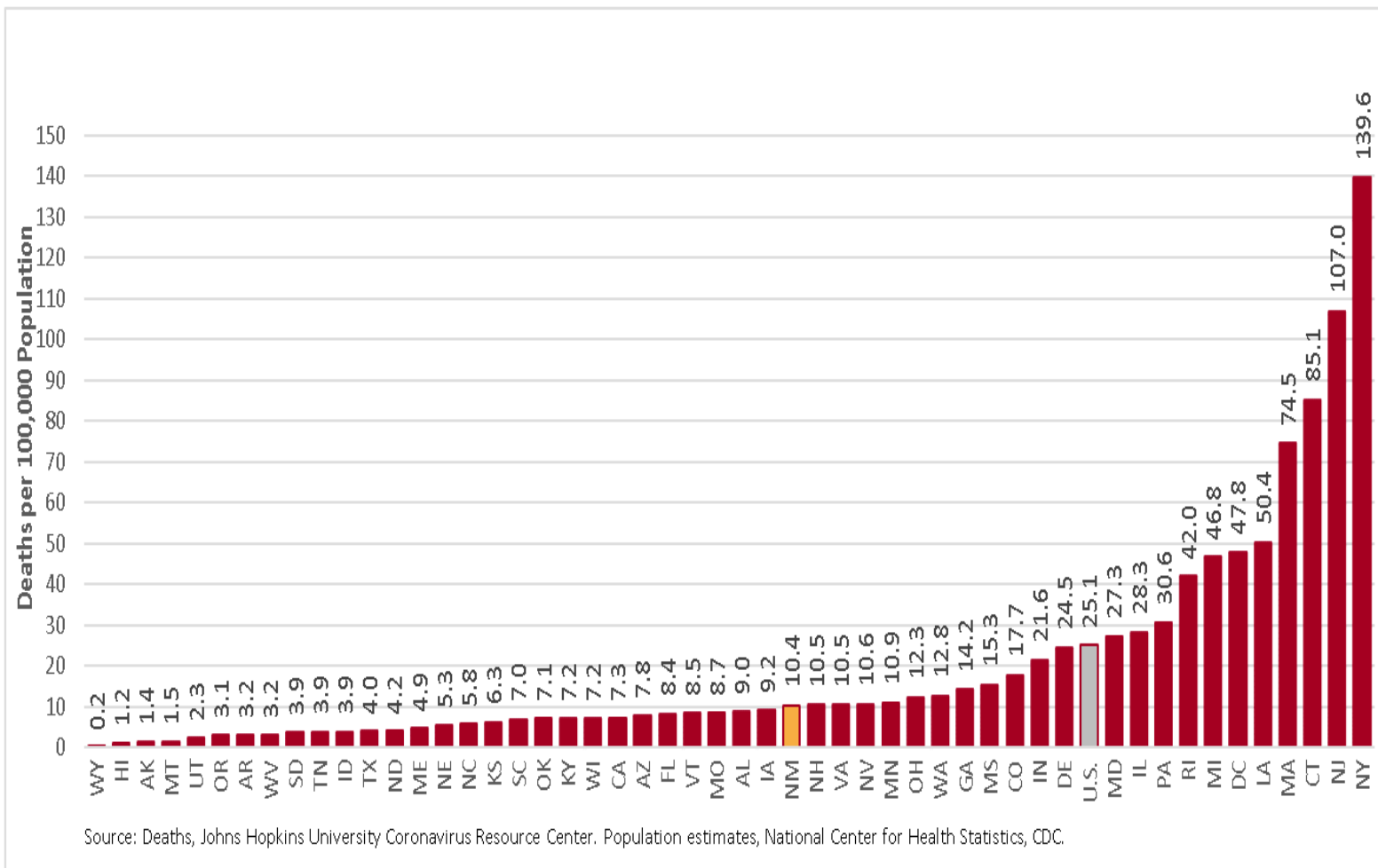


Rates have been age-adjusted to the U.S. 2000 standard population.
Source: Bureau of Vital Records and Health Statistics and Infectious Disease Epidemiology Bureau, Epidemiology and Response Division 5.17.2020, New Mexico Department of Health. Population estimates, UNM Geospatial and Population Studies Program.

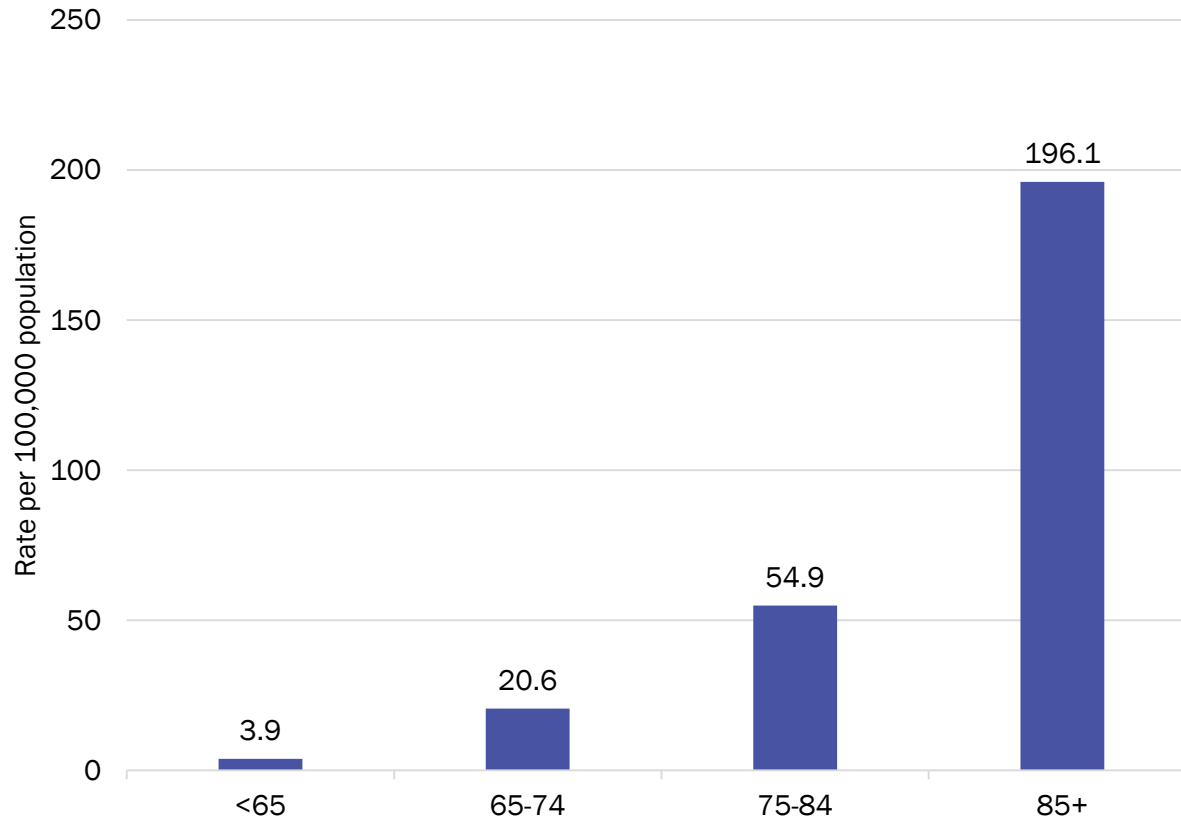


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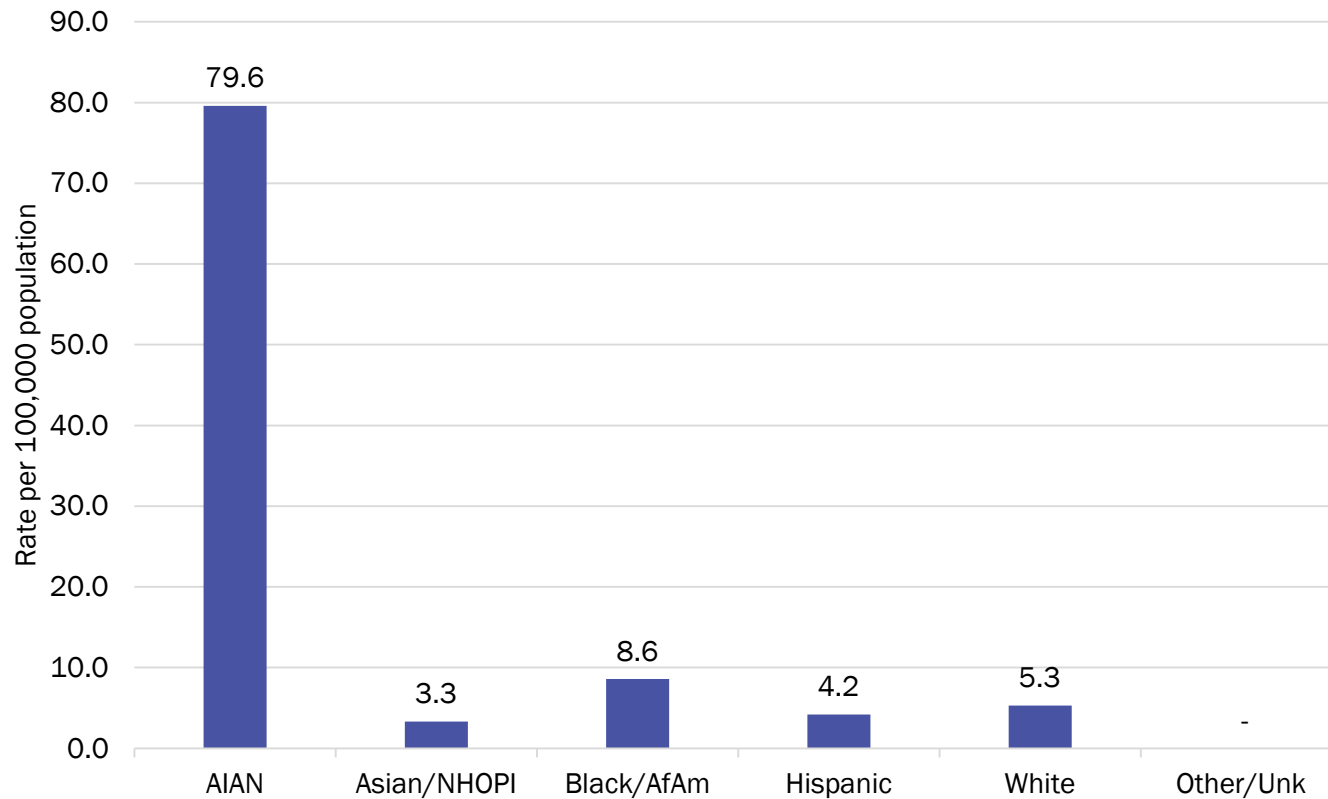
Crude death rate: COVID-19 deaths per 100,000 by U.S. states



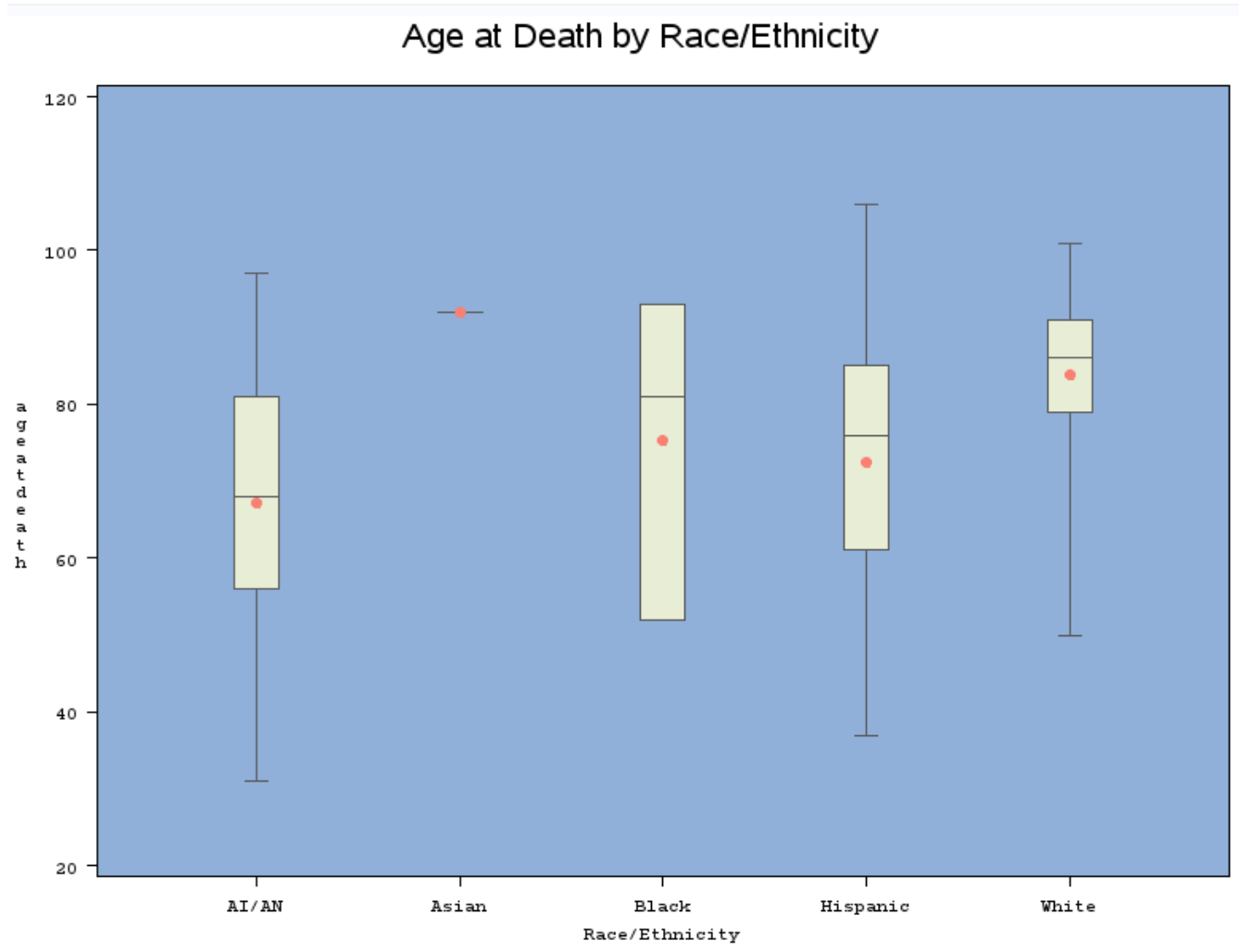
Number of COVID-19 crude mortality rate by age group



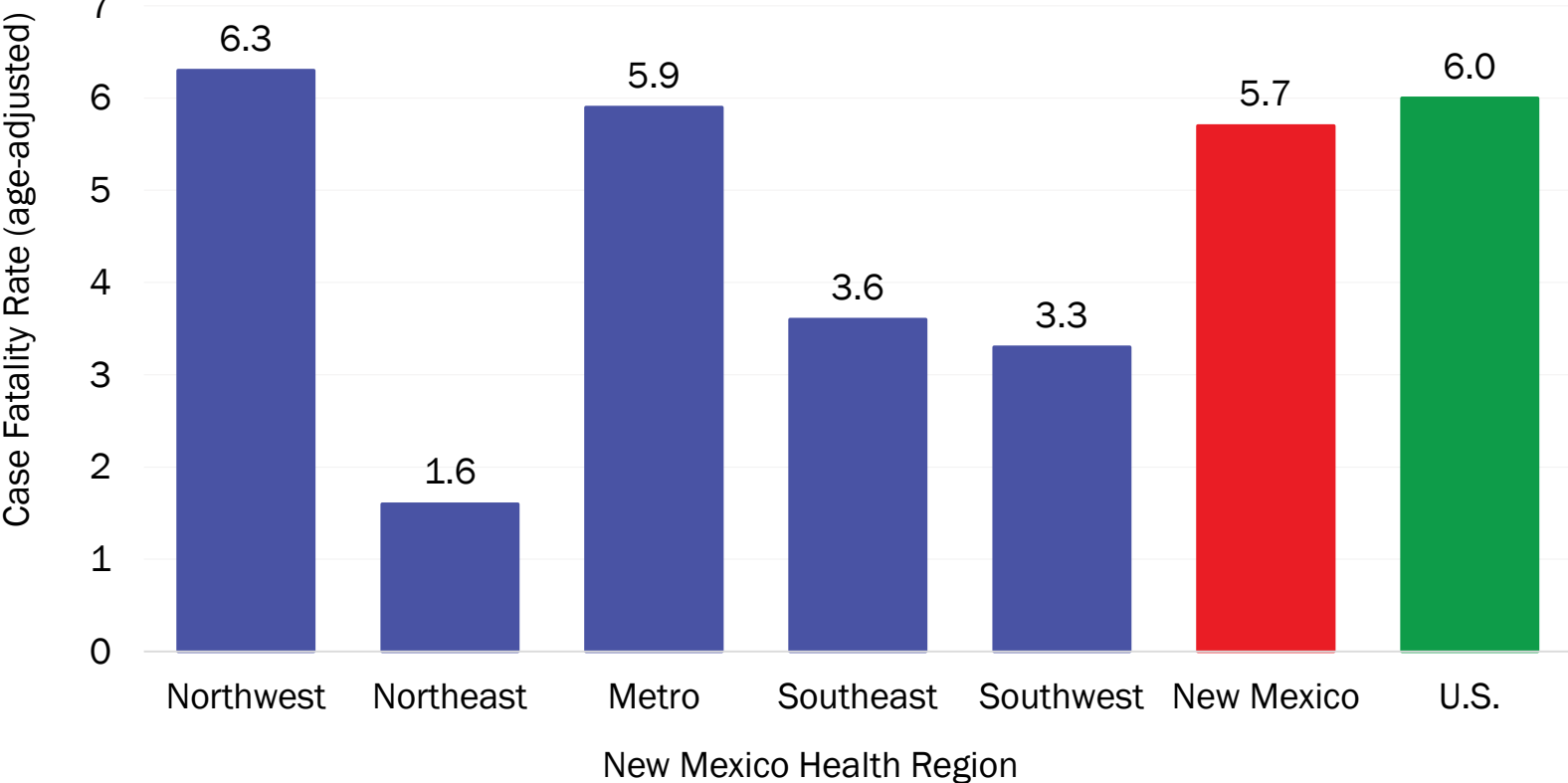
Number of COVID-19 age-adjusted mortality rate by race/ethnicity



COVID-19 death by age and race/ethnicity



Case Fatality Rate: Percentage of COVID-19 cases resulting in death

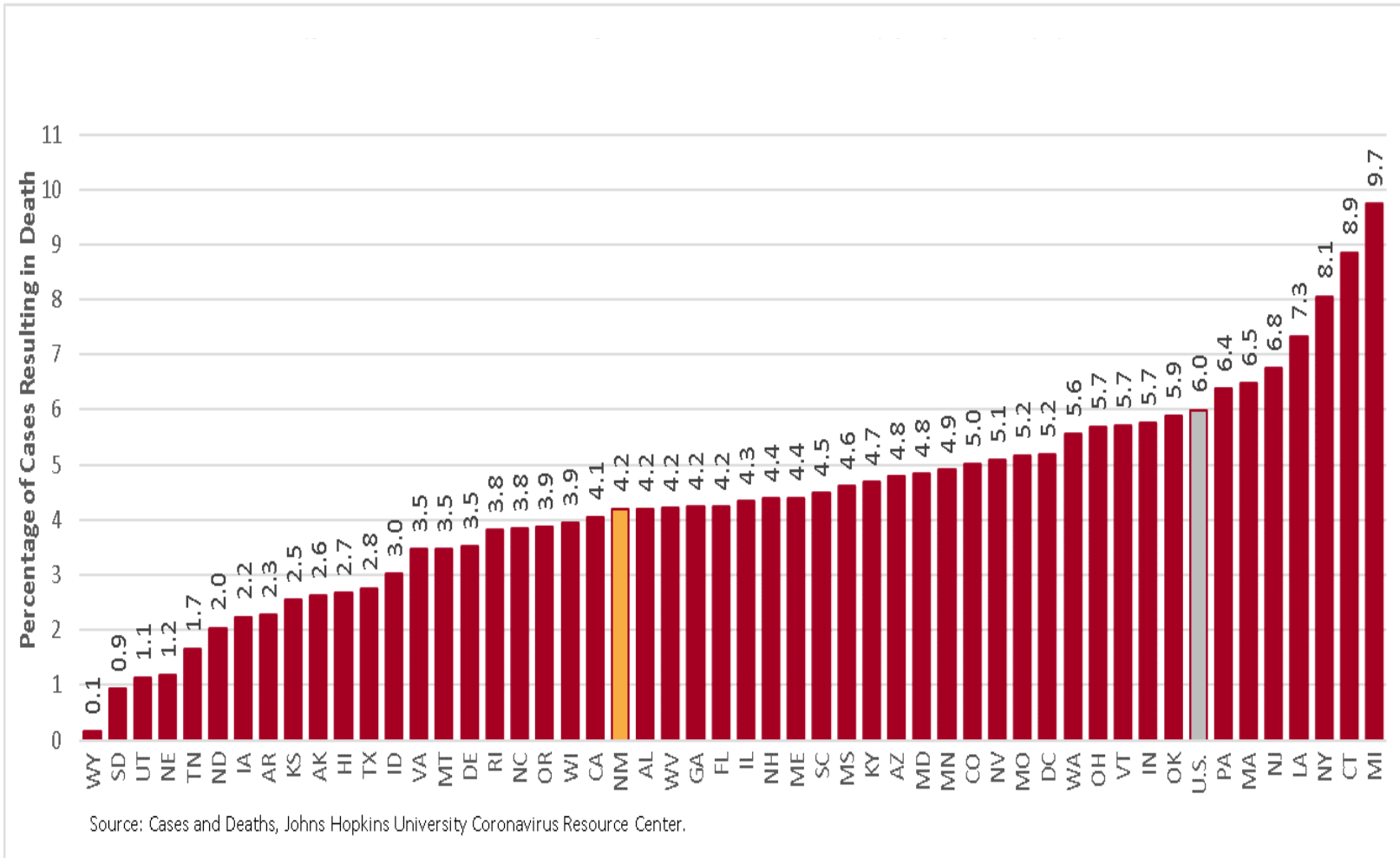


Rates have been age-adjusted to the U.S. COVID-19 cases.
Source: Bureau of Vital Records and Health Statistics and Infectious Disease Epidemiology Bureau, Epidemiology and Response Division, reporting through 5.17.2020, New Mexico Department of Health.



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Case fatality rate: Percentage of COVID-19 cases resulting in death by U.S. states



Key points

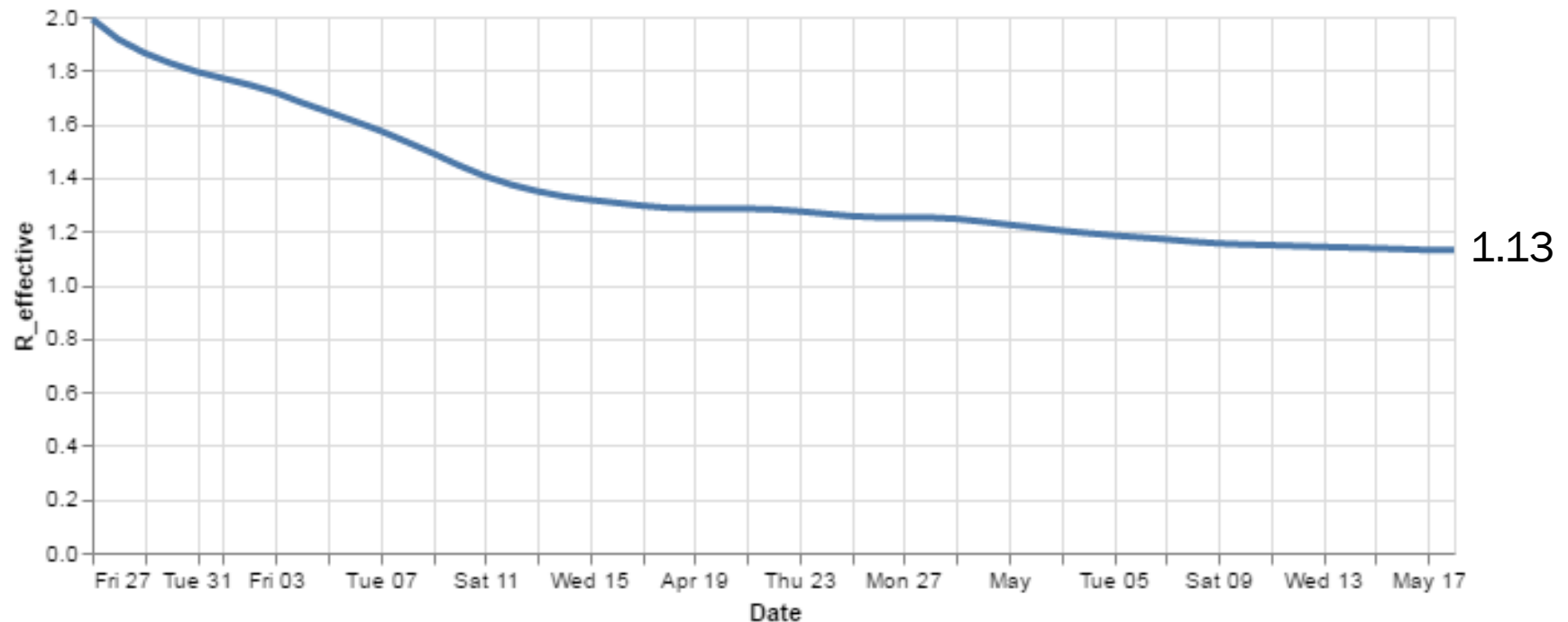
- COVID-19 prevalence continues to increase in New Mexico
 - #30 in the U.S.
 - Socorro, Sandoval, Cibola, Guadalupe, San Juan, and McKinley counties have prevalence rates higher than NM overall
 - AI/AN have highest burden of disease across all health regions
 - Median age of cases is similar across all race/ethnicity groups except White, which is higher (older population)
 - Southwest region's doubling time has increased since last week since last week (9.7 days)
- Hospitalization rates continue to increase in the NW and Metro Regions
 - Ventilator use remains at ~25% of hospitalized cases
 - County-specific rates are similar to the 6 counties with the highest prevalence rates
 - The elderly and AI/AN groups continue to have the highest rates of hospitalizations
 - Hospitalized cases who self-identify as White tend to be older than other race/ethnicity groups
- Mortality rates and case-fatality rates (CFRs) are highest in the NW region followed by Metro Region
 - #29 in the U.S.
 - Highest in 85+ age group and AI/AN population
 - Deaths by race/ethnicity and age indicate that the White population tends to be older
 - NM CFR is similar to U.S. CFR after age-adjustment

COVID-19 in New Mexico: modeling update

As of May 19, 2020
Epidemiology & Response Division

The effective rate of transmission for the state has remained static for the last two weeks.

R_effective over time, state

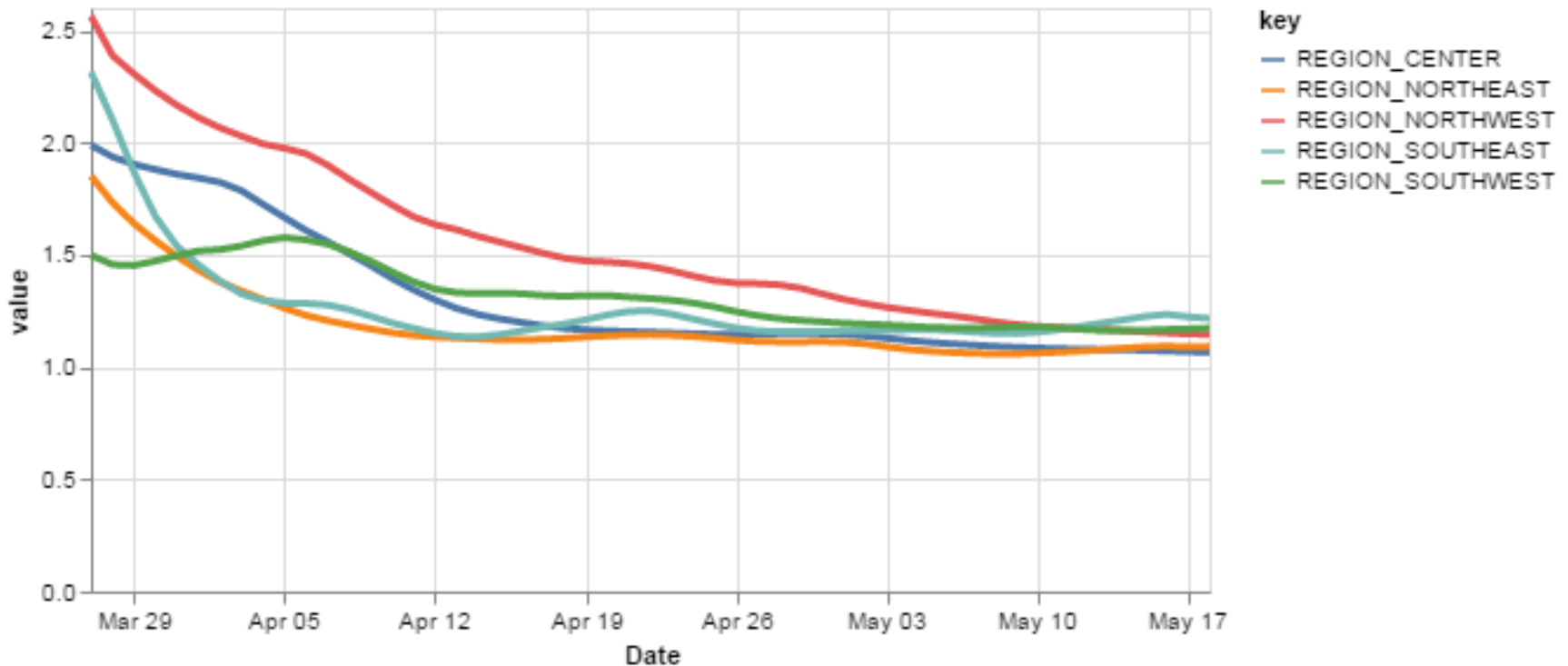


1.13

Courtesy of Presbyterian Healthcare Services - May 19, 2020.

The Southeast region now has the highest rate of transmission at 1.22.

R_effective over time, regions



Courtesy of Presbyterian Healthcare Services - May 19, 2020.

Northwest
R_{effective} 1.15 ↓

Northeast
R_{effective} 1.09 ↑

Key

Low Level Endemic
1-1.1

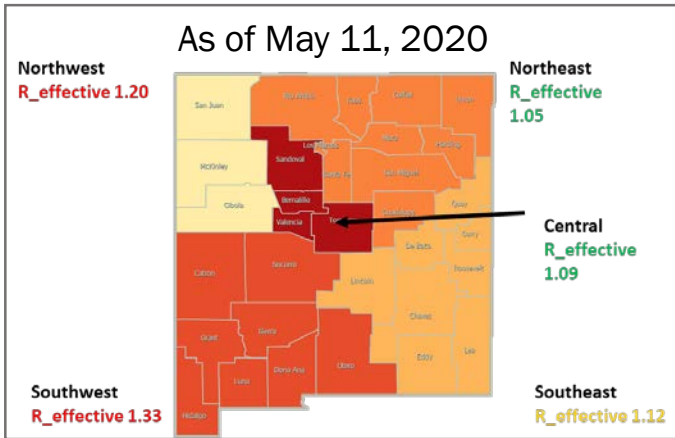
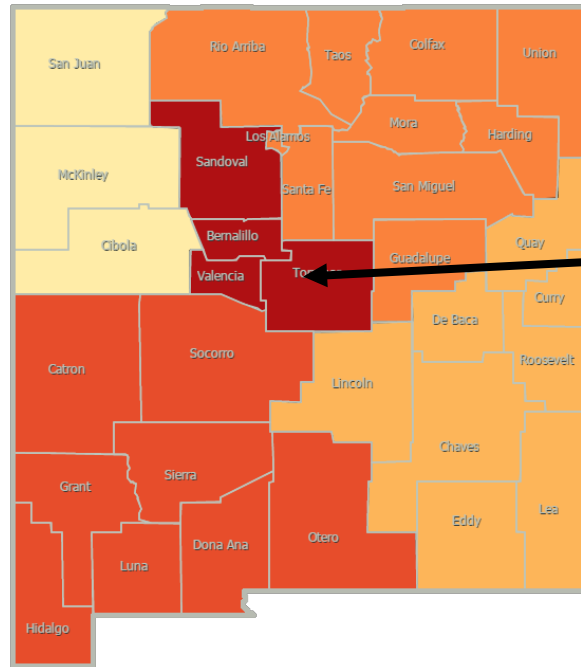
Approaching Low Level Endemic
1.11-1.15

Requiring further mitigation >1.15

Central
R_{effective} 1.07 ↓

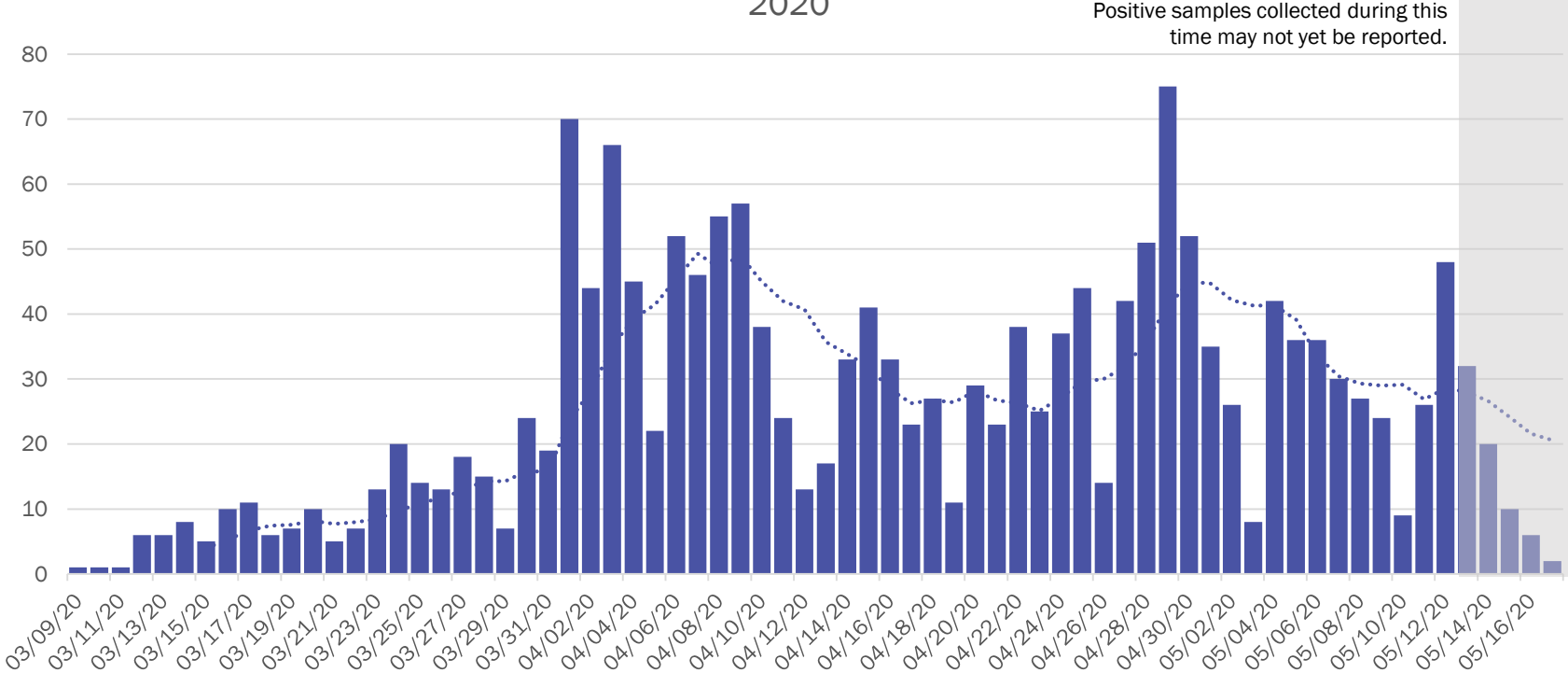
Southwest
R_{effective} 1.17 ↓

Southeast
R_{effective} 1.22 ↑



Case counts in the Metro region have been slowly declining for the month of May.

Metro Region Case Count by Collection Date with 7 Day Moving Average – May 18, 2020



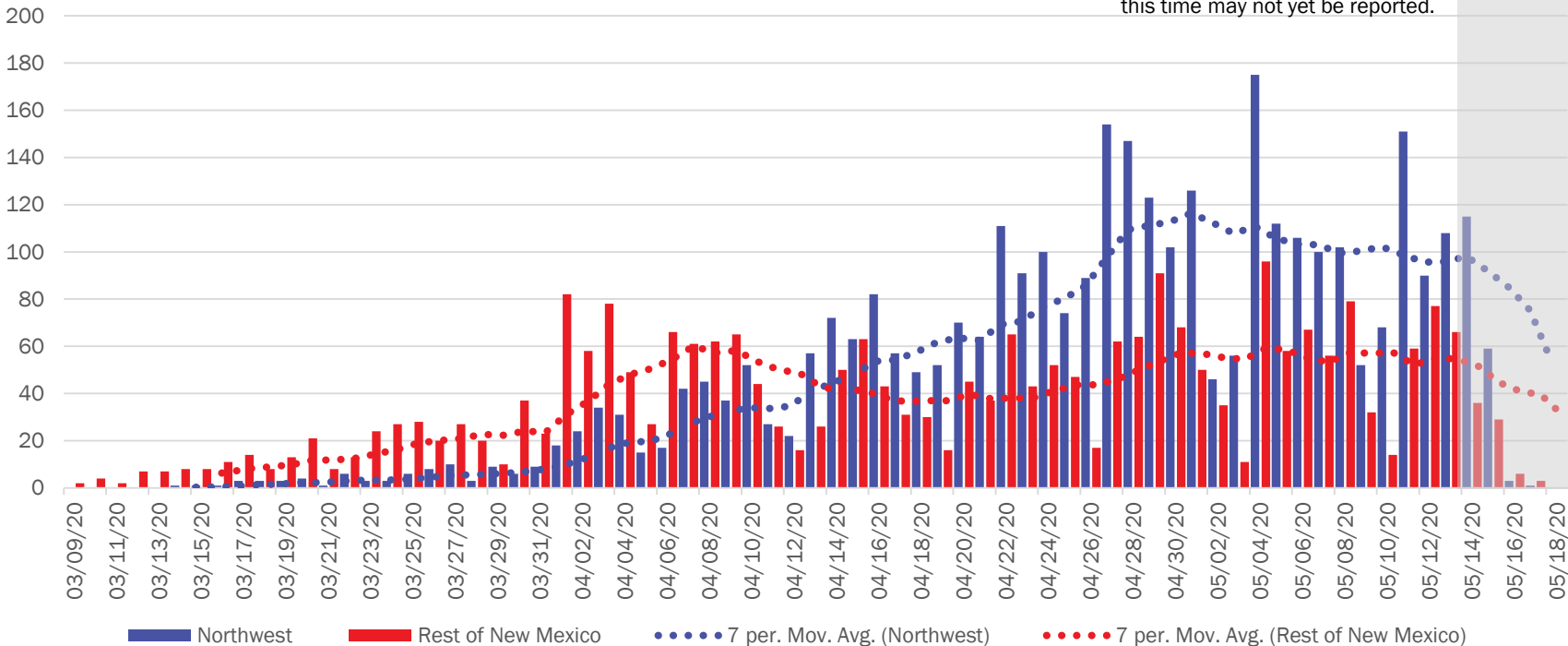
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Case counts in the Northwest region seem to have plateaued.

Northwest Region Case Count by Collection Date with 7 Day Moving Average – May 18, 2020

Positive samples collected during this time may not yet be reported.



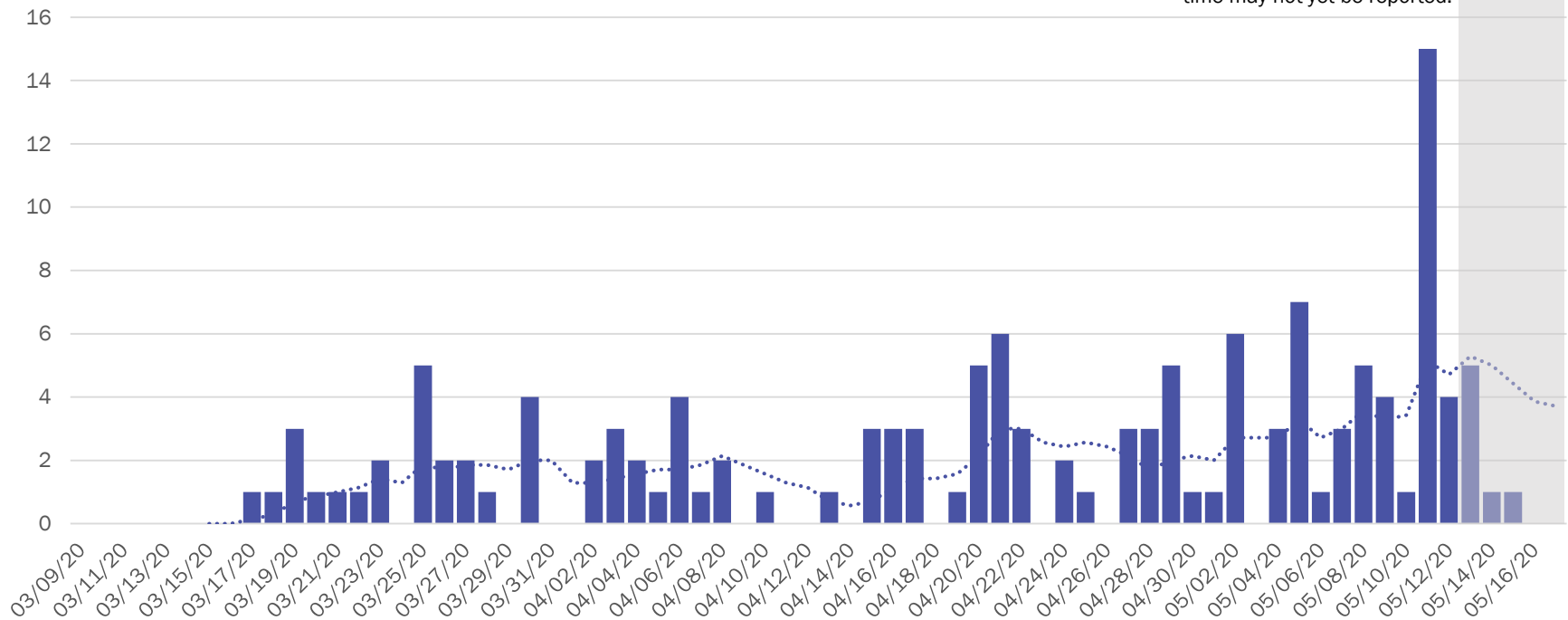
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The spike in R-effective for the Southeast region may be in response to an increase of cases in one county in this region with relatively few cases.

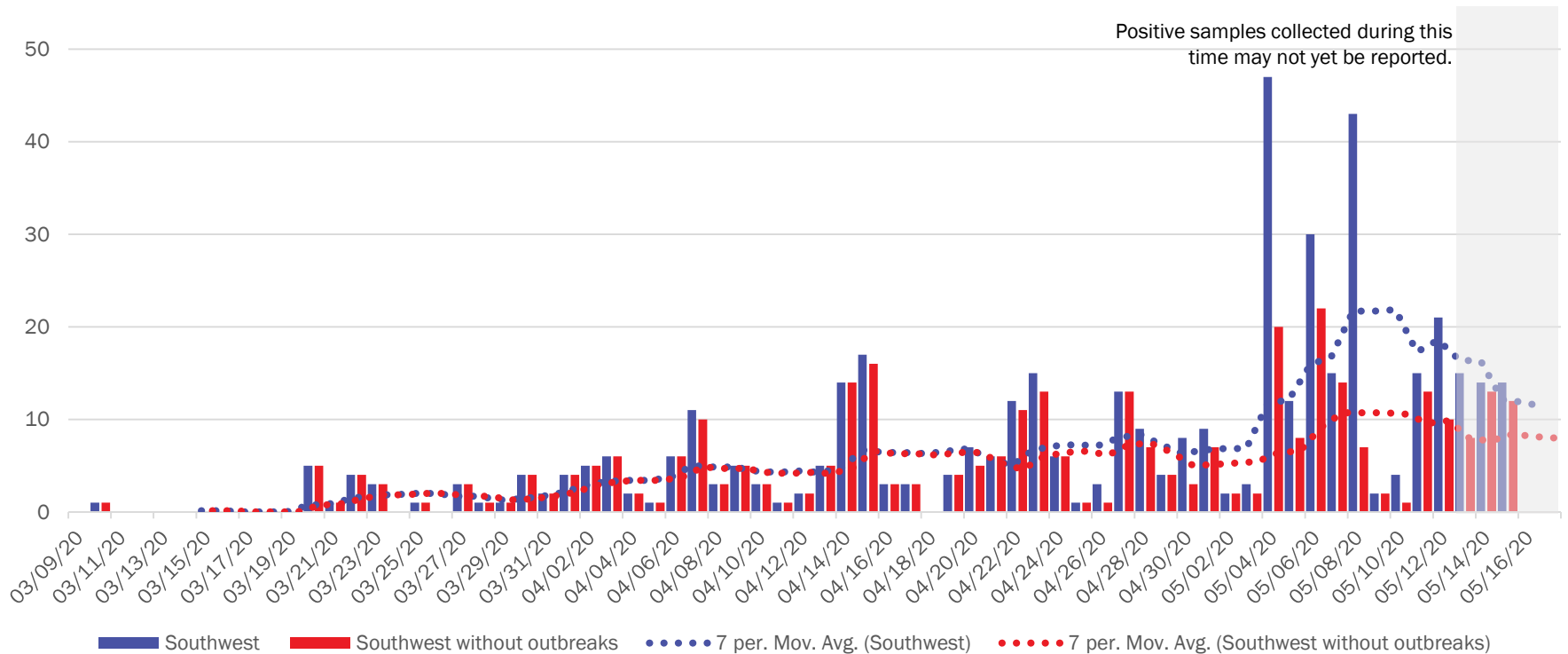
Southeast Region Case Count by Collection Date with 7 Day Moving Average – May 18, 2020

Positive samples collected during this time may not yet be reported.



While daily case counts for the Southwest region may be stabilizing, the down-stream impact of 2 local outbreaks may not yet be revealed.

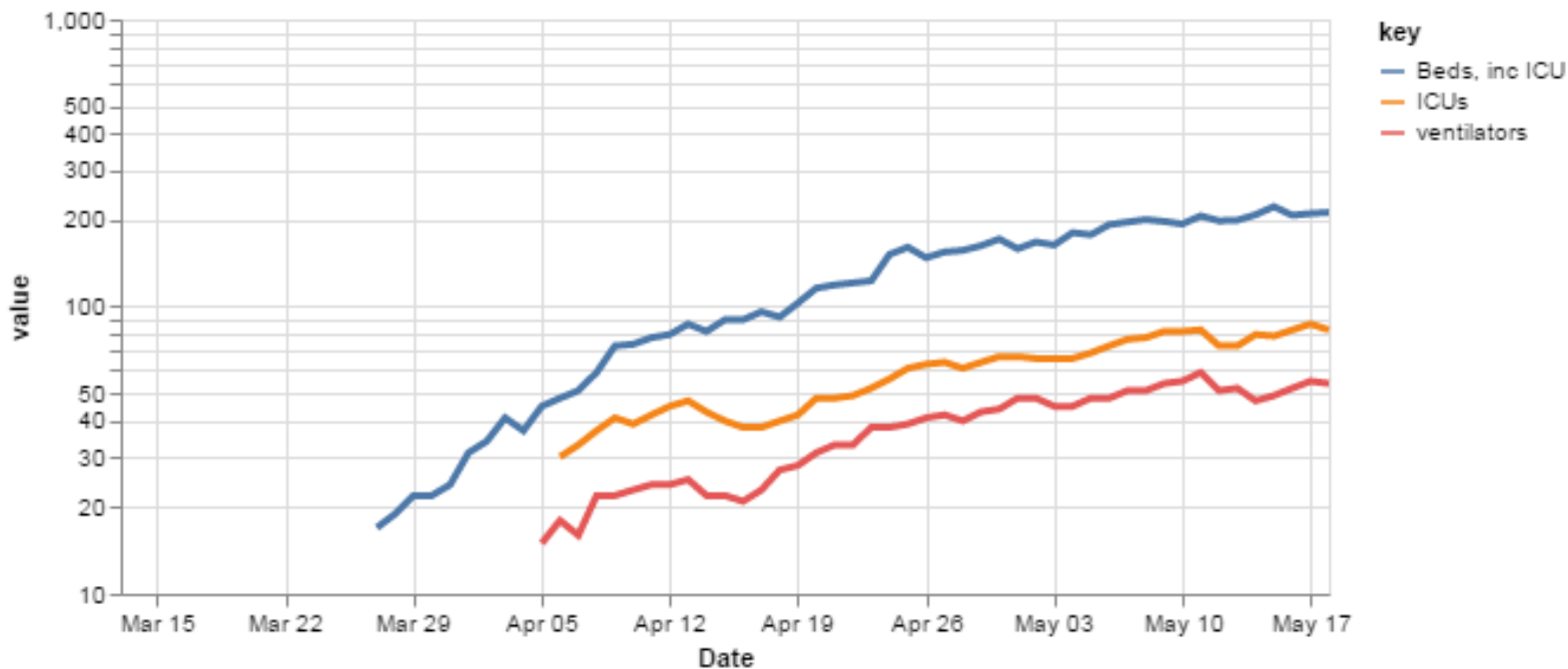
Southwest Region Daily Case Count by Collection Date – May 18, 2020



Hospital resource use, to date, statewide has not risen exponentially.

log(beds, ICUs, vents) over time

For comparison against state-reported data, this chart **includes** ICUs in the count of beds



Courtesy of Presbyterian Healthcare Services - May 19, 2020.



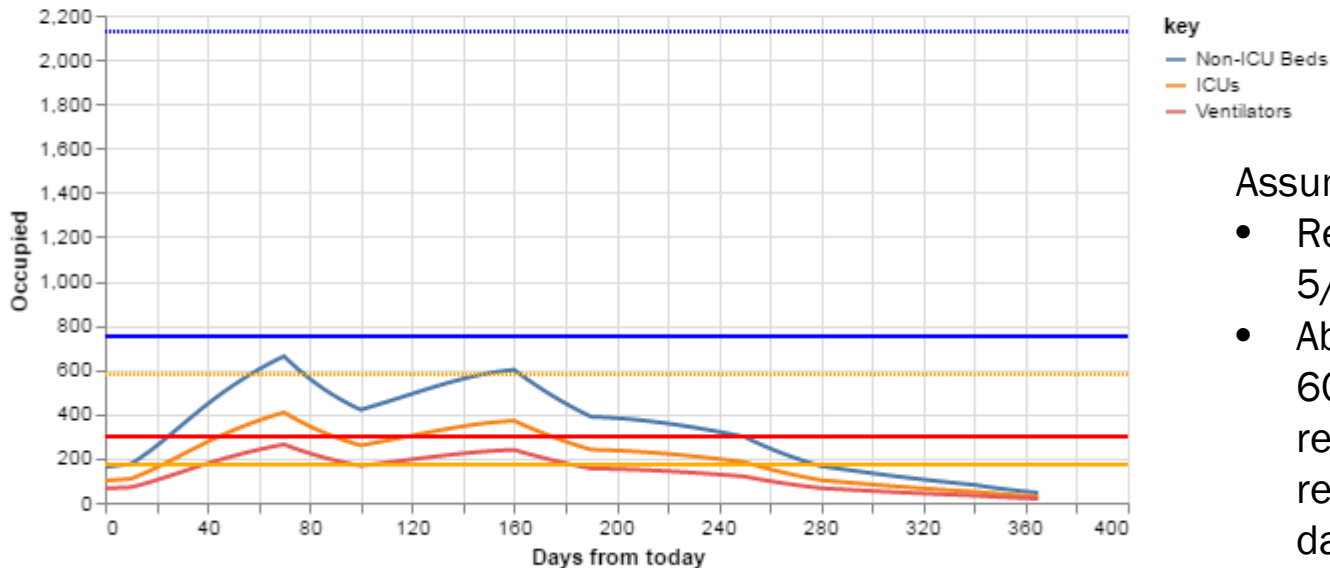
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Relaxation of social distancing measures and practices may sharply increase bed use over the summer.

Demand on beds, ICUs, and ventilators

Note: beds and ICUs are counted separately. ICU counts are not a subset of bed counts



Assumptions:

- Relaxation begins on 5/18.
- Absent restrictions for 60 days, followed by reintroduction of restrictions for 30 days.
- R-effective becomes 50% worse compared to April 1.

Courtesy of Presbyterian Healthcare Services - May 19, 2020.

Supplementary Slide

Modeling Assumptions

Variable	Measured Value	Value as of 5.18.20
R_Effective	Actual Measured Daily Value by key county	R_eff=1.13
Positive Test Multiplier	Calculated by LANL	2
Hospitalization and Mortality	Actual rolling value / estimated number of total infected	Medical 1.1% ICU 0.7% Vent Rate 64.5% of ICU Crude Case Fatality Rate 4.1%
Length of Stay	Actual rolling value / estimated number of total infected	Medical 5 days ICU 14 days ICU on Vent 14 days