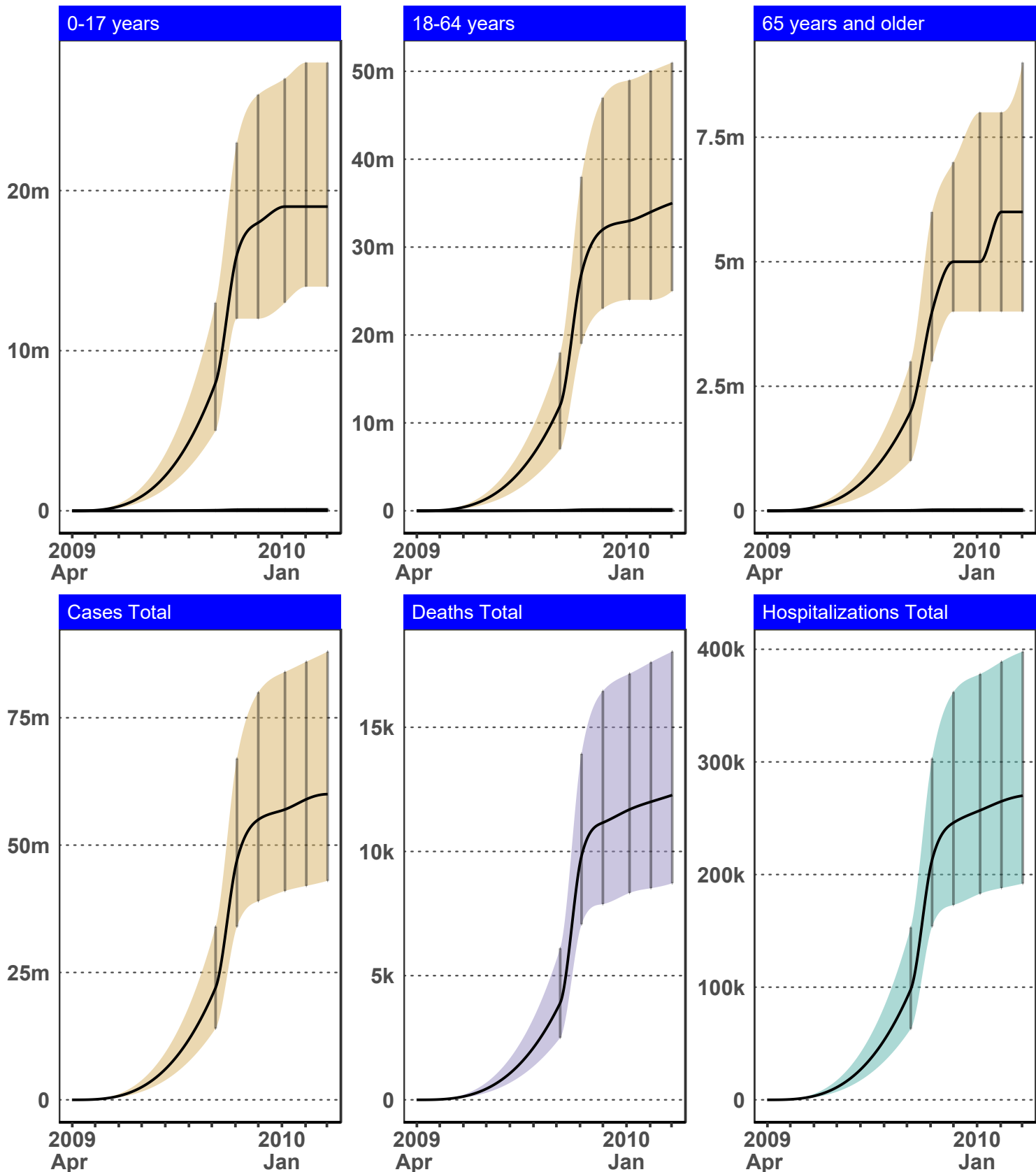# 2009 H1N1 (swine flu pandemic) cases, deaths, and hospitalizations

Interpolated counts from counts from Oct 2009 to March 2010
        The CDC provided middle, low and high, estimate counts for the categories below for each month from Oct 2009 to March 2010.
        Estimates starting from April 2009 (the beginning of the H1N1 pandemic) are not given, these were interpolated using spline estimation.

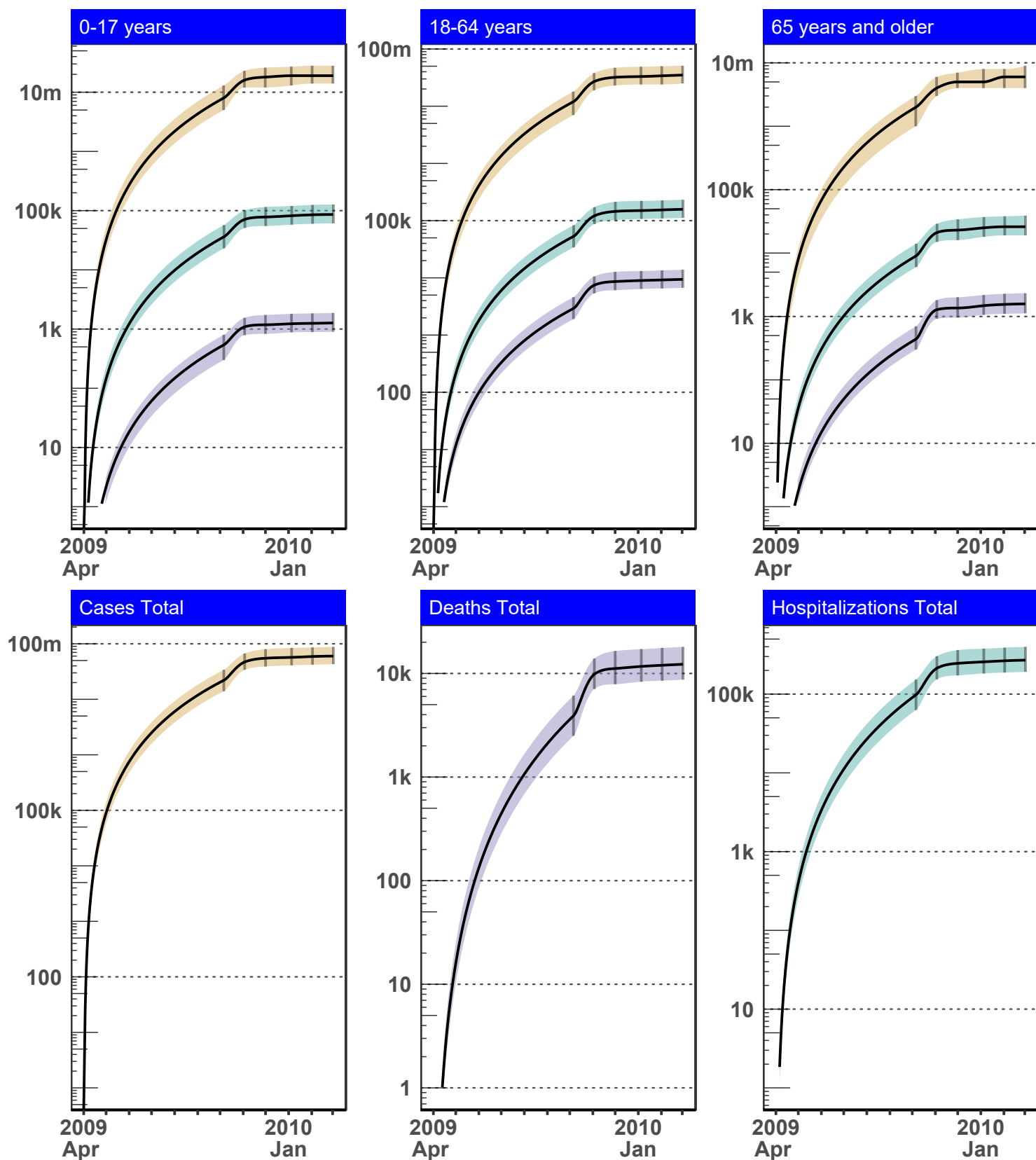Type   Cases   Deaths   Hospitalizations

2009 H1N1 (swine flu pandemic) cases, deaths, and hospitalizations

Interpolated counts from counts from Oct 2009 to March 2010

The CDC provided middle, low and high, estimate counts for the categories below for each month from Oct 2009 to March 2010.

Estimates starting from April 2009 (the beginning of the H1N1 pandemic) are not given, these were interpolated using spline estimation.

2009 H1N1 cumulative cases by day vs Covid-19

694 days after the first case

H1N1 cases
60,000,000
(mid-range)

COVID19 cases
50,201,299
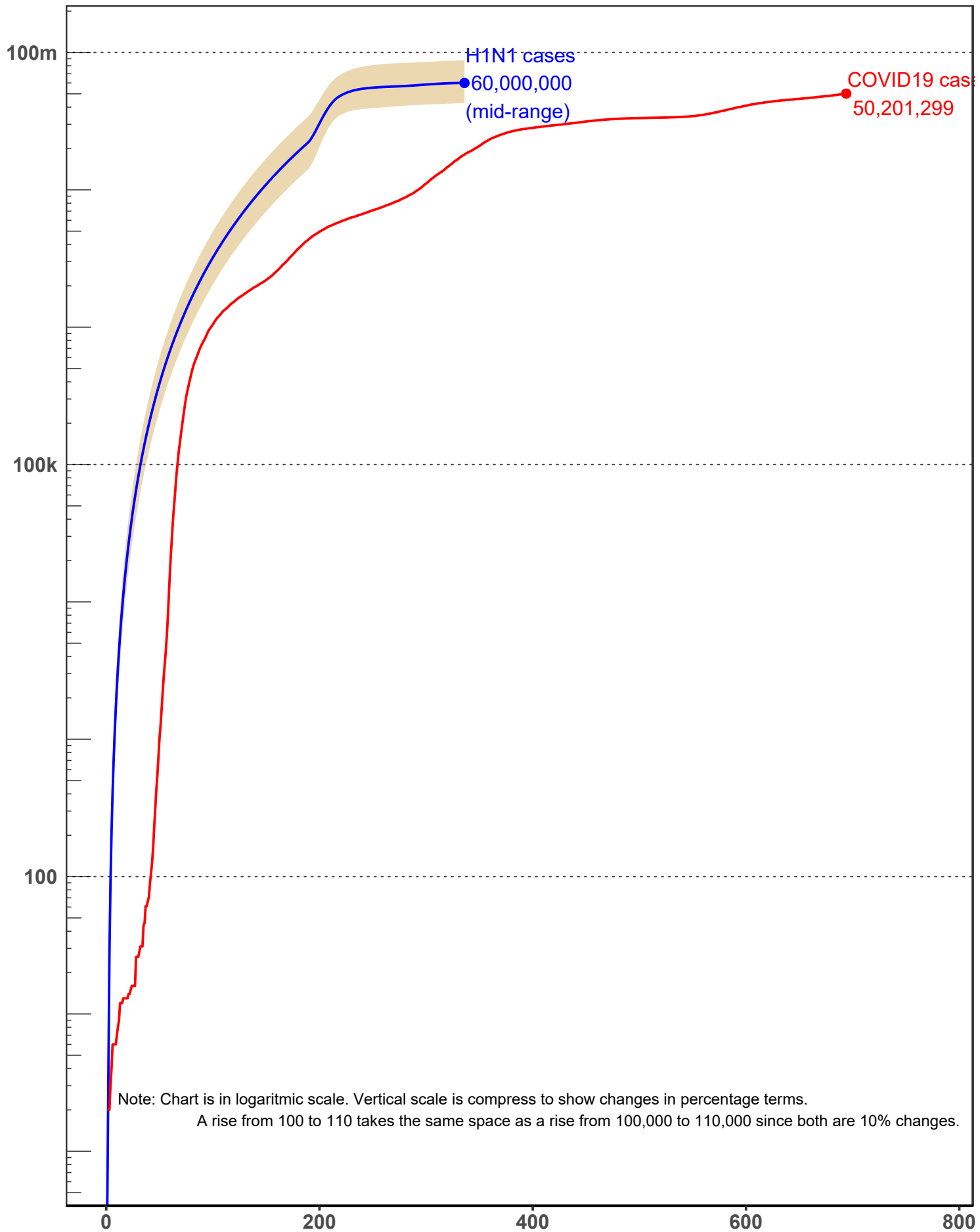
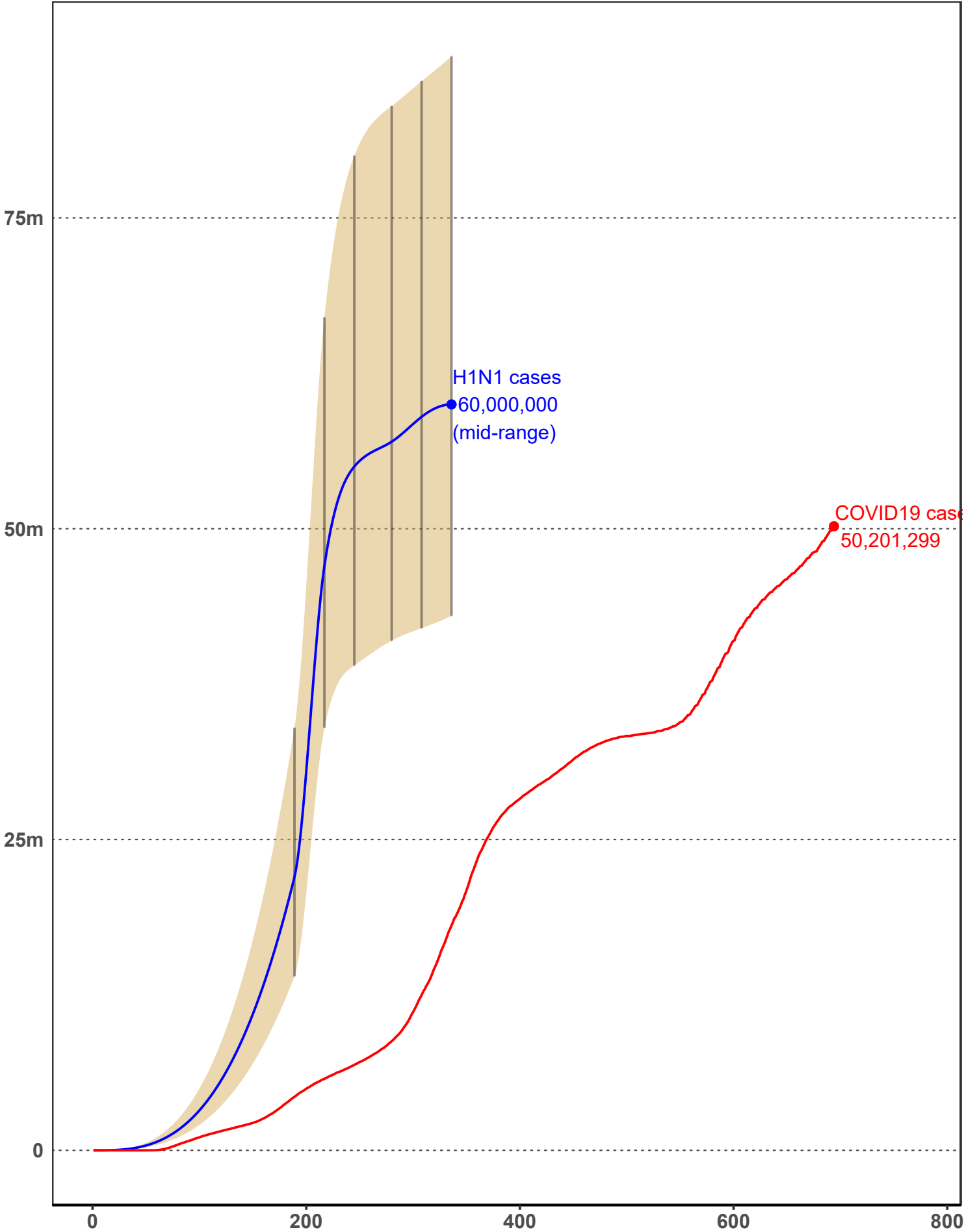Note: Chart is in logaritmic scale. Vertical scale is compress to show changes in percentage terms.
A rise from 100 to 110 takes the same space as a rise from 100,000 to 110,000 since both are 10% changes.

Note: y-axis is in log scale

2009 H1N1 cumulative cases by day vs Covid-19

694 days after the first case

H1N1 cases
60,000,000
(mid-range)

COVID19 cases
50,201,299

75m

50m

25m

0

0   200   400   600   800

2009 H1N1 estimated deaths by day vs Covid-19 deaths

694 days after the first case

COVID19 deal
798,946

H1N1 deaths
12,270
(mid-range)

Note: y-axis is in log scale
Sources: The New York Times, https://github.com/nytimes/covid-19-data accessed 2021-12-15 (Covid19);
https://www.cdc.gov/h1n1flu/estimates_2009_h1n1.htm (H1N1)
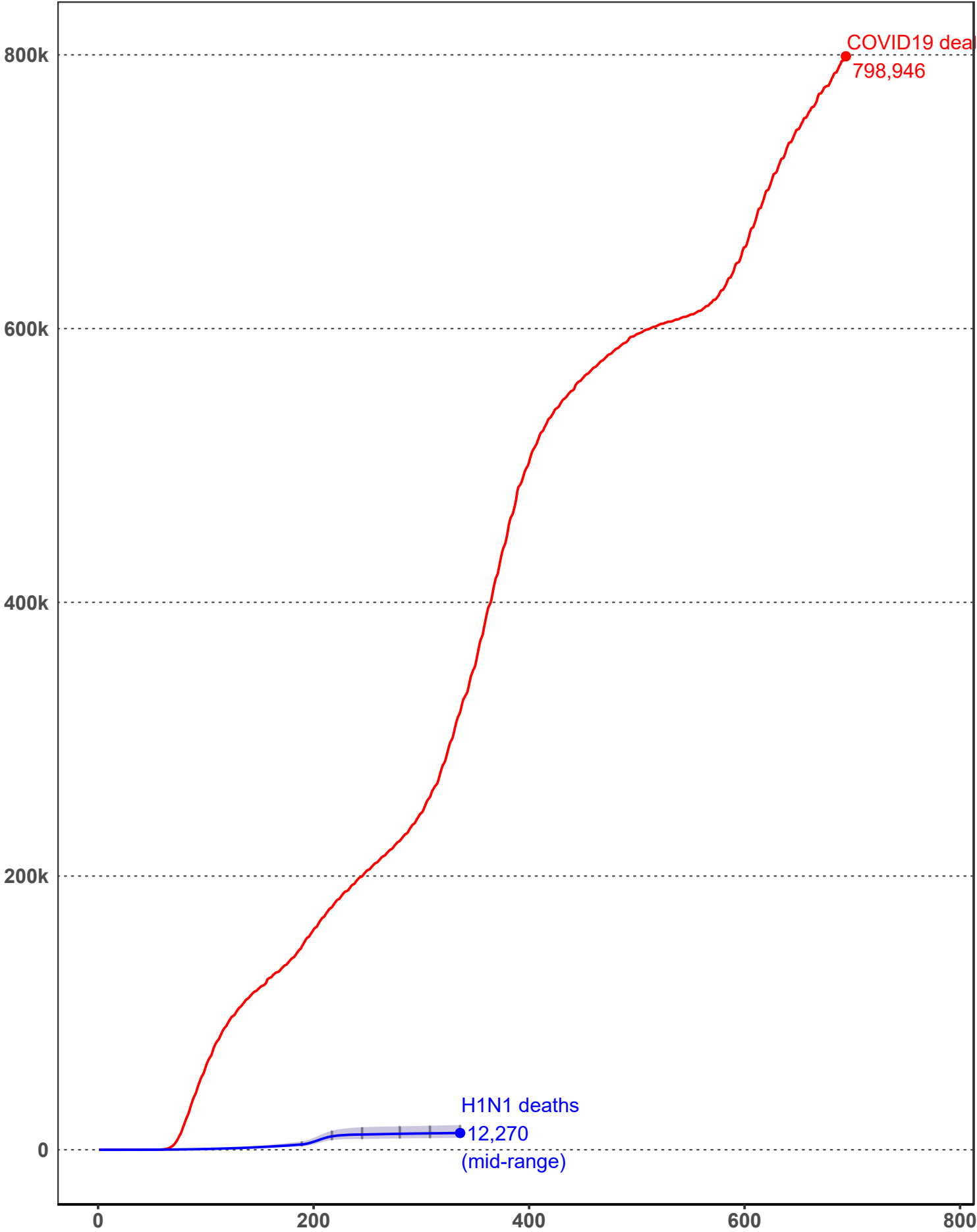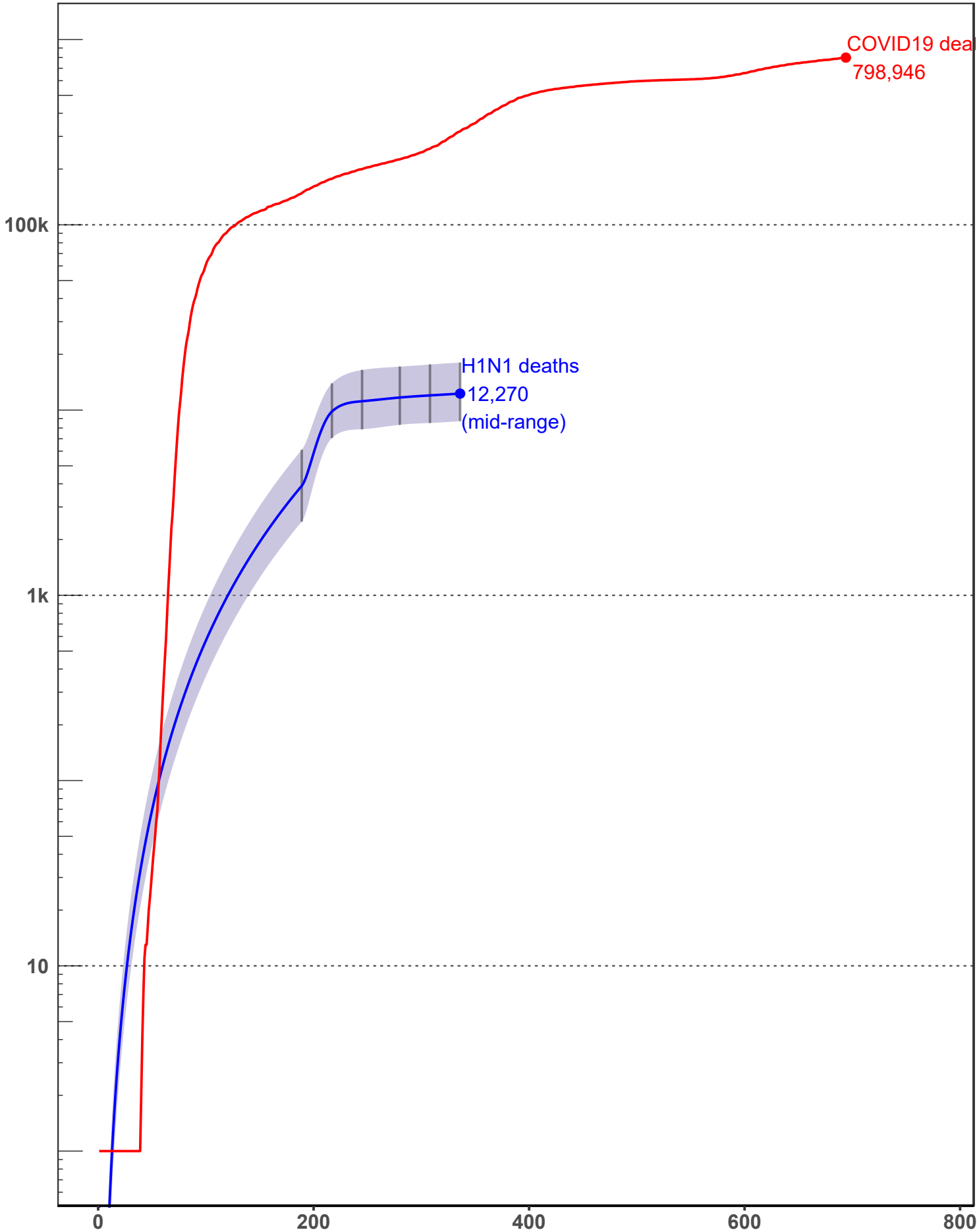
2009 H1N1 estimated deaths by day vs Covid-19 deaths
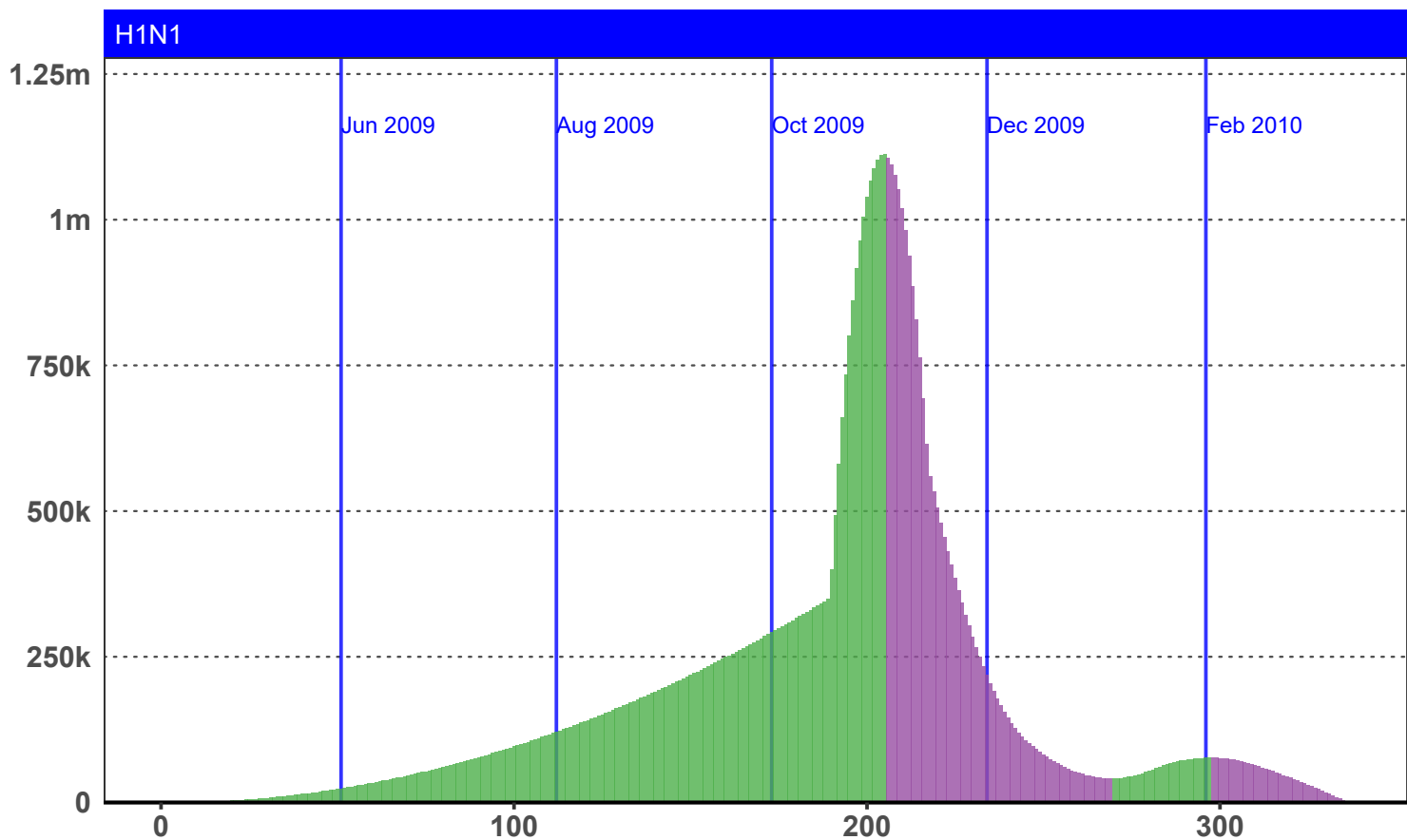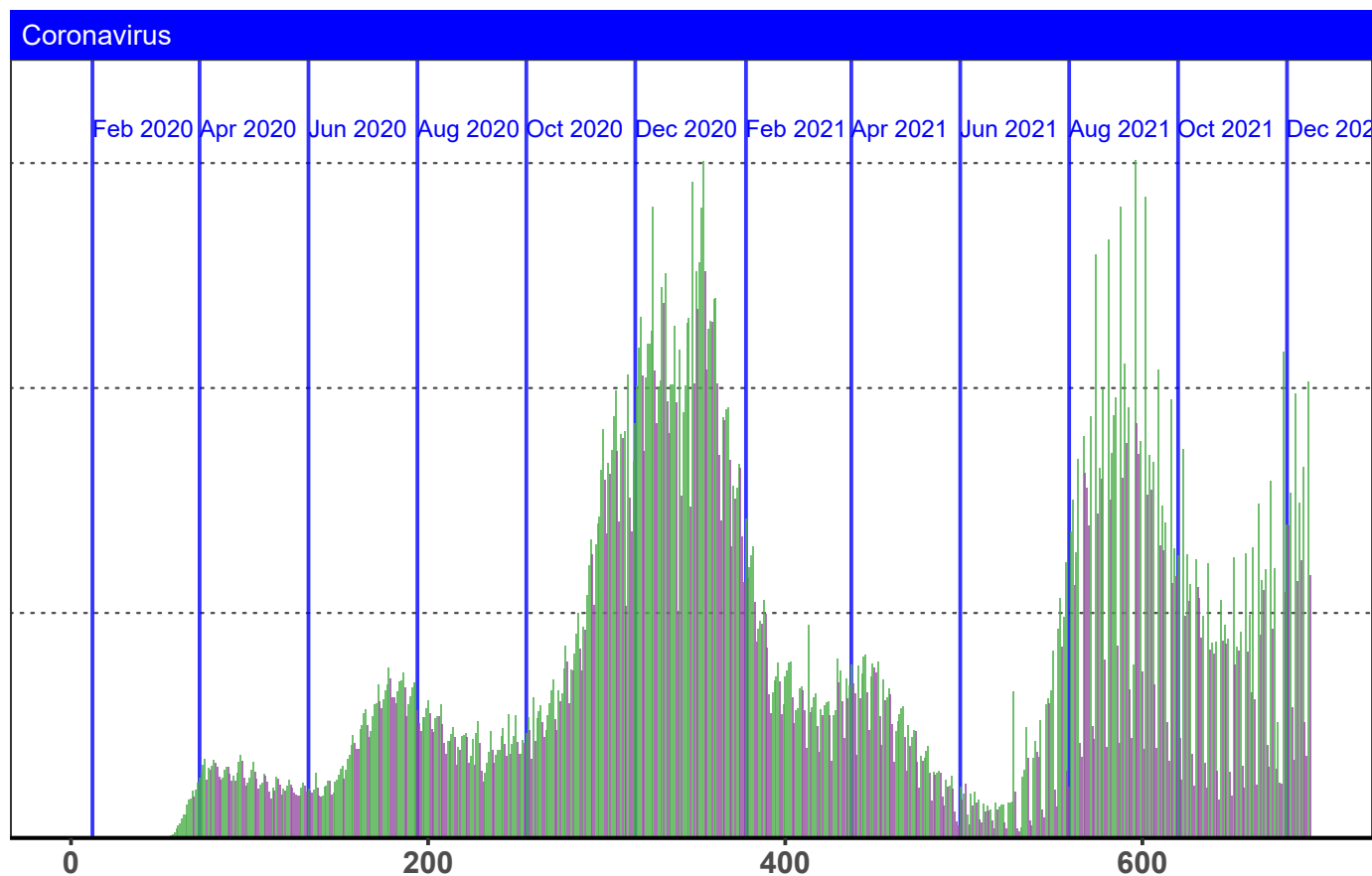
694 days after the first case

COVID19 deal
798,946

H1N1 deaths
12,270
(mid-range)

100k

1k

10

0   200   400   600   800

Note: y-axis is in log scale
Sources: The New York Times, https://github.com/nytimes/covid-19-data accessed 2021-12-15 (Covid19);
https://www.cdc.gov/h1n1flu/estimates_2009_h1n1.htm (H1N1)

2009 H1N1 new cases by day vs Covid-19 cases

Vertical blue lines are for reference and placed every two months
after the frst case for each pandemic

Change Type ■ Decreased ■ Increased ■ Other ■ Unchanged

Sources: The New York Times, https://github.com/nytimes/covid-19-data accessed 2021-12-15 (Covid19);
https://www.cdc.gov/h1n1flu/estimates_2009_h1n1.htm (H1N1)

2009 H1N1 new deaths by day vs Covid-19 deaths

Vertical blue lines are for reference and placed every two months
after the frst case for each pandemic

Change Type ■ Decreased ■ Increased ■ Unchanged ■ Other
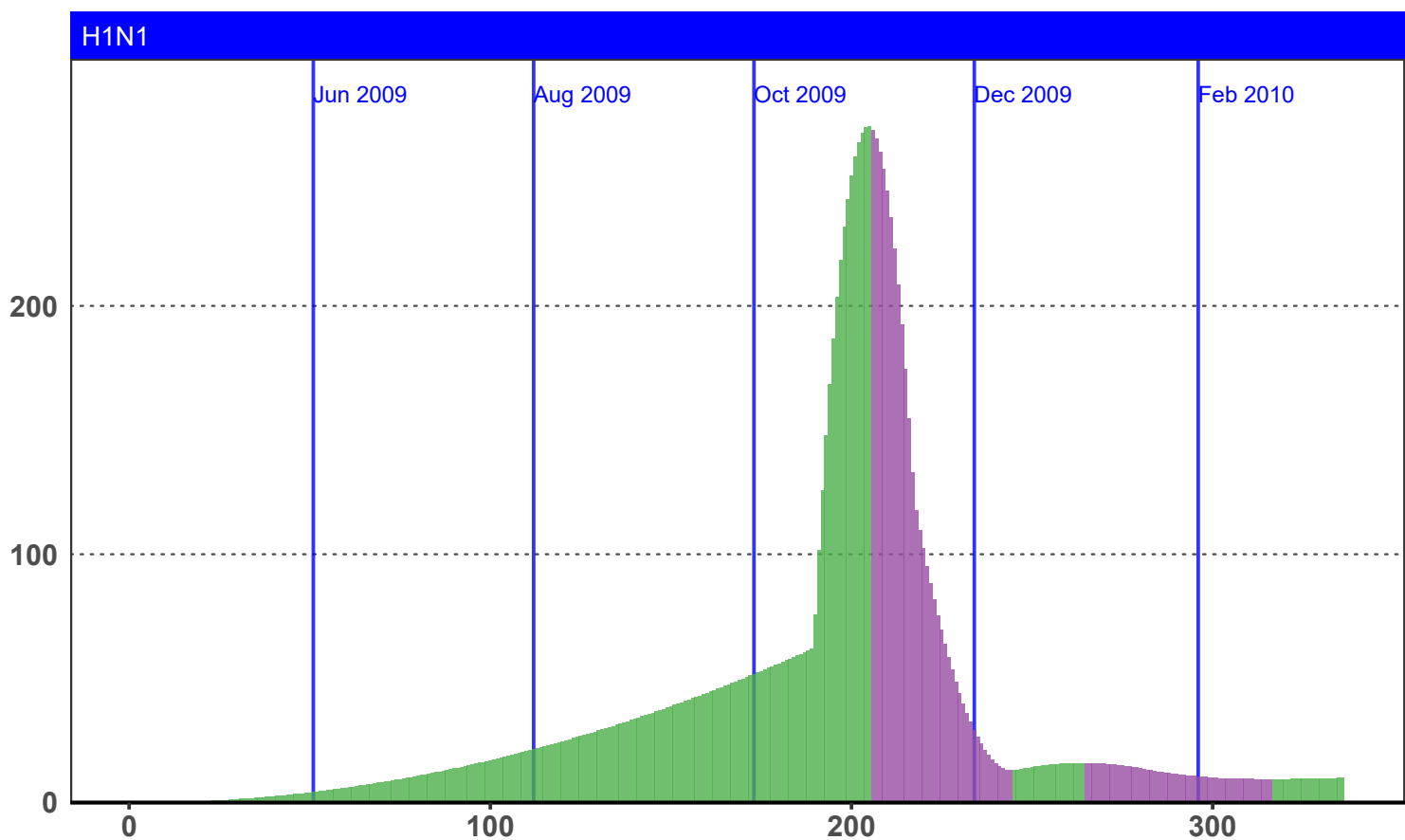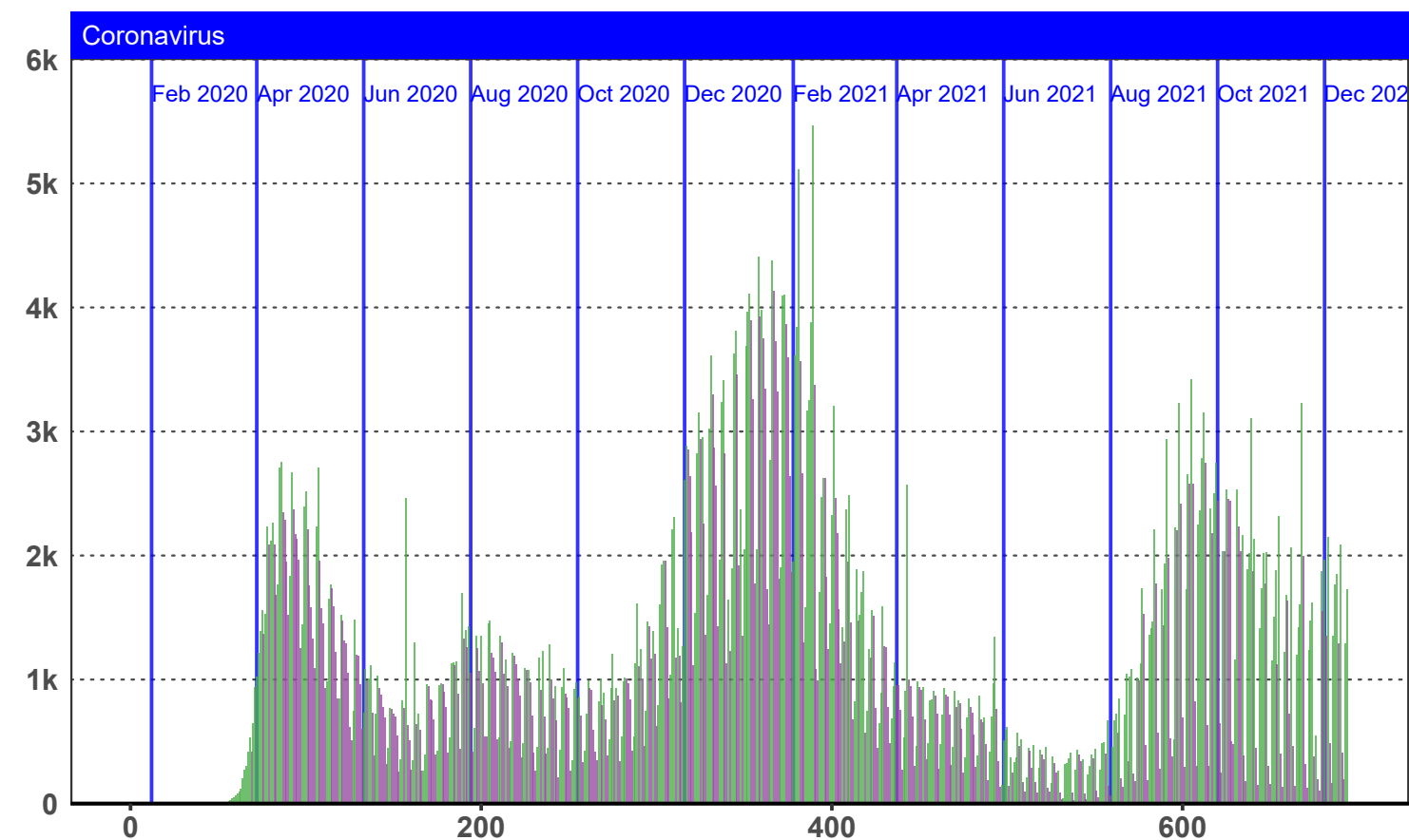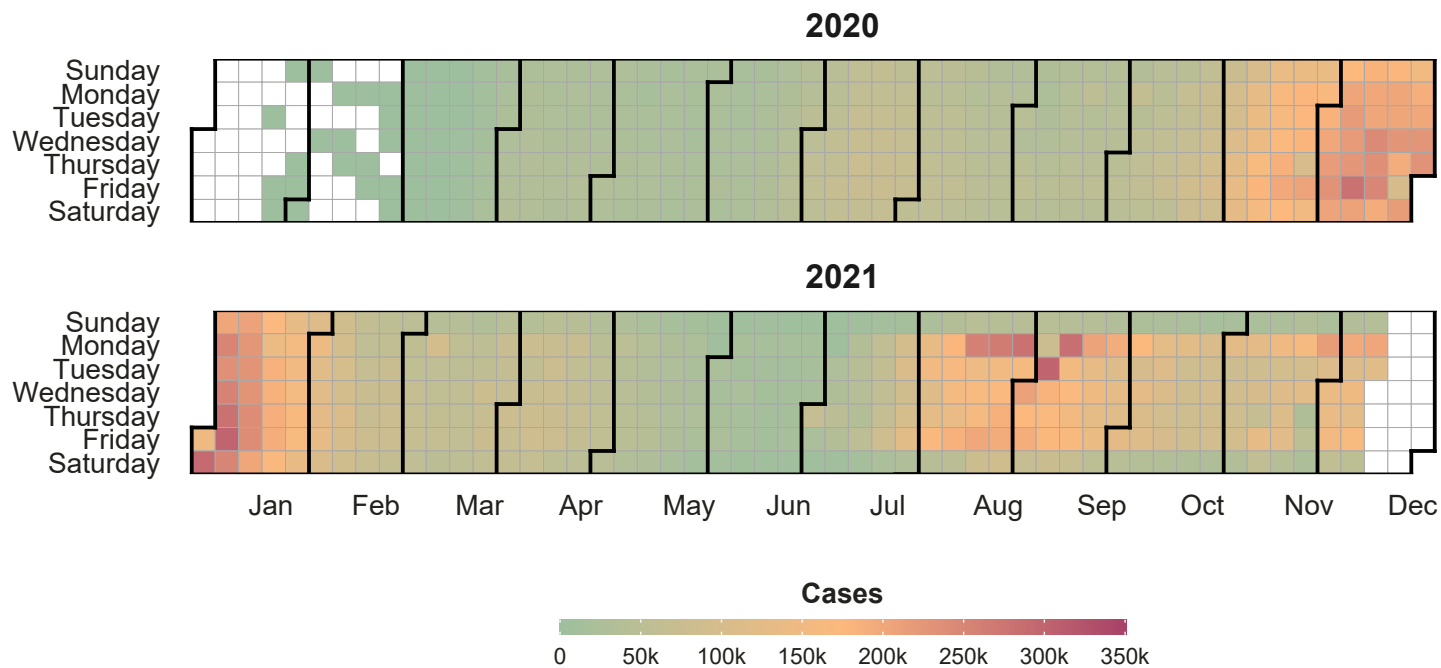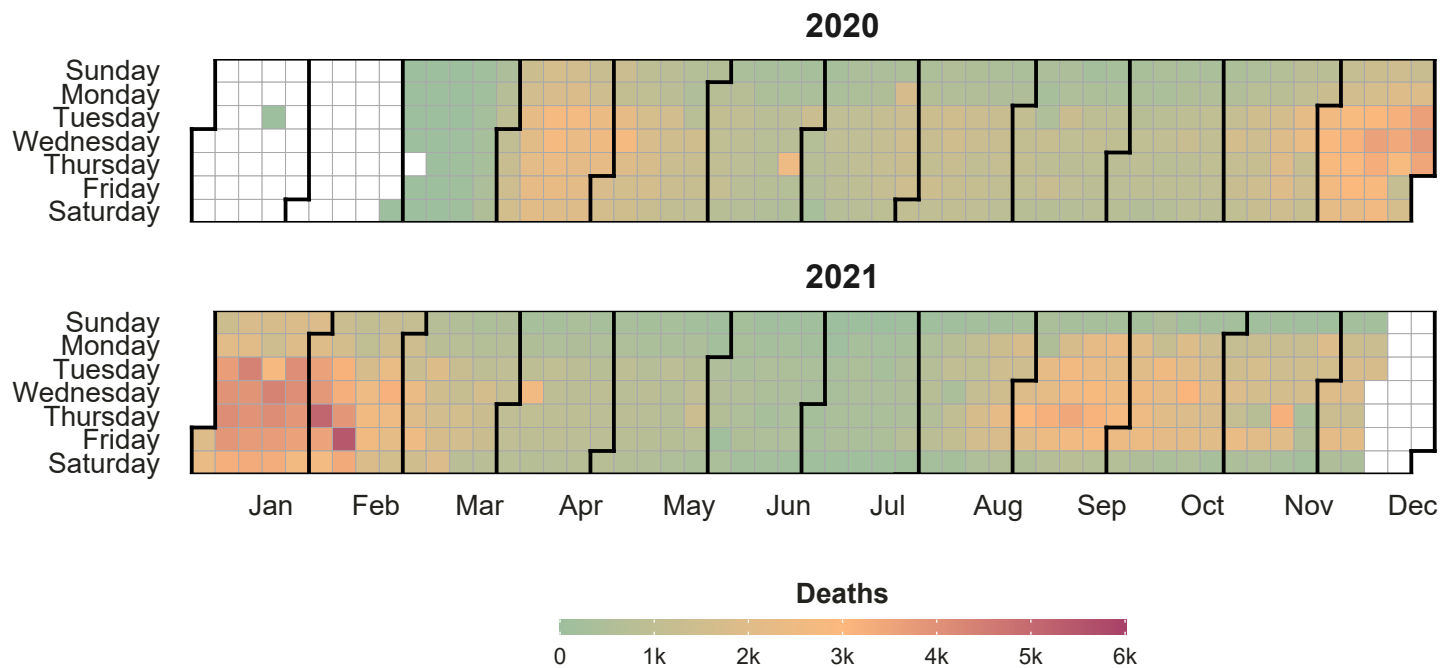

Sources: The New York Times, https://github.com/nytimes/covid-19-data accessed 2021-12-15 (Covid19);
https://www.cdc.gov/h1n1flu/estimates_2009_h1n1.htm (H1N1)

COVID-19 Cases in the US

2020

2021

Cases

0   50k   100k   150k   200k   250k   300k   350k

COVID-19 Deaths in the US

2020

2021

Deaths

0   1k   2k   3k   4k   5k   6k
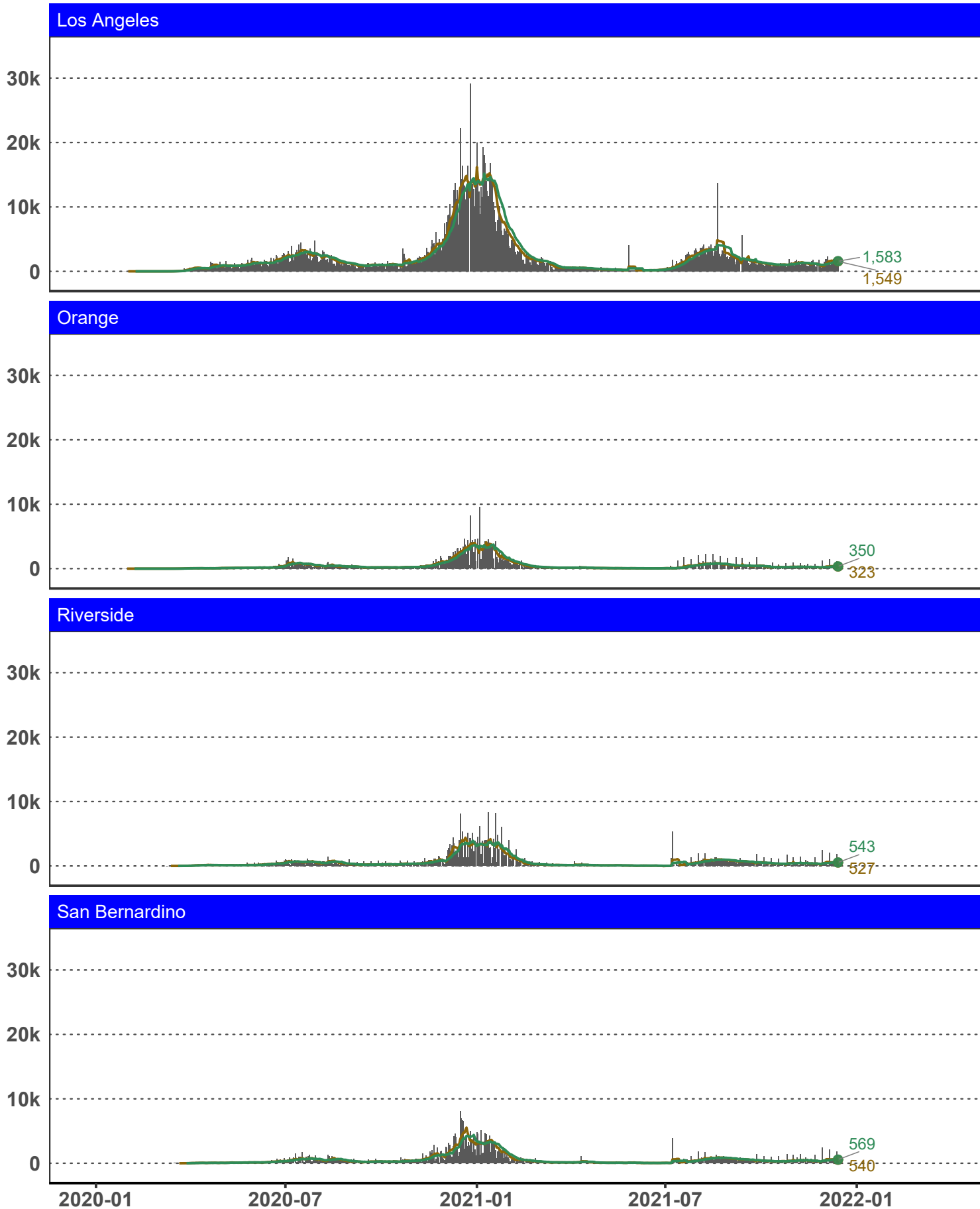
Rates by Counties

New cases, 7 and 14 days rolling average

variable ● rollingMean07Day ● rollingMean14Day

Sources: The New York Times, https://github.com/nytimes/covid-19-data accessed 2021-12-15 (Covid19)
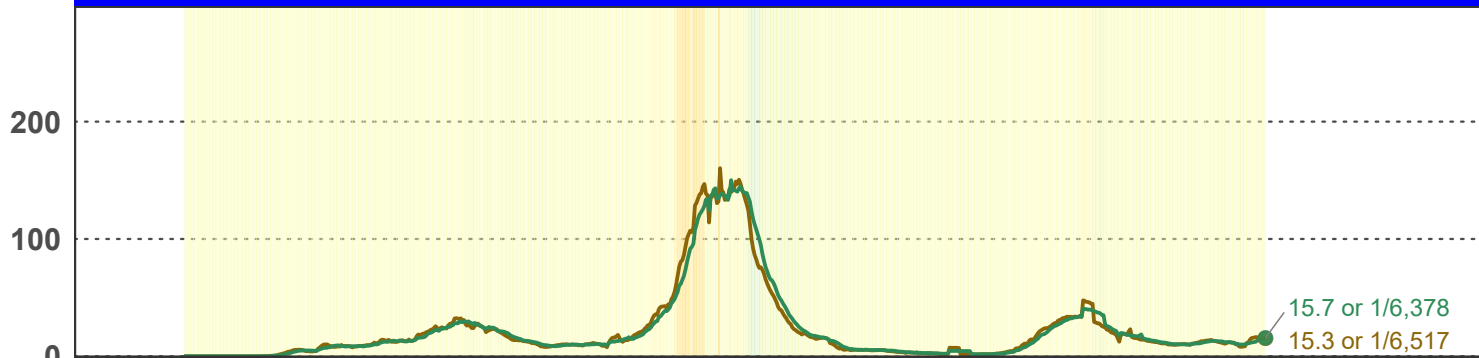
Rates by Counties by 100K population

New cases, 7 and 14 days rolling average
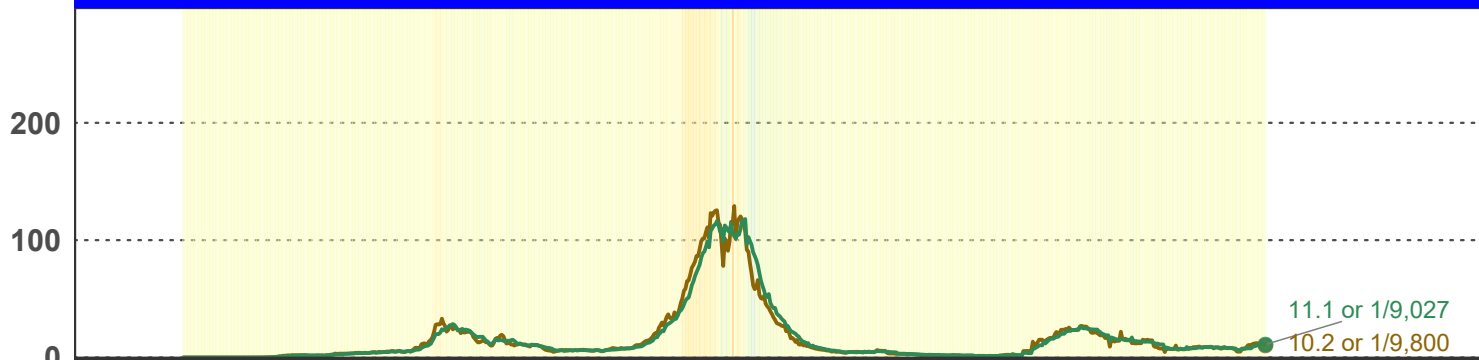
Difference between
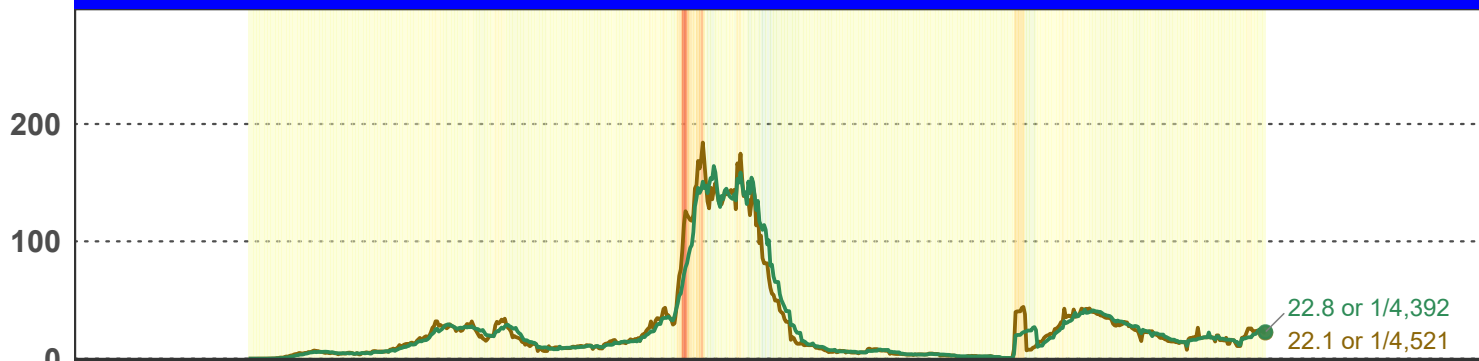7 and 14 days rolling average
−30 0 30 60

Rolling Average ● 7-day ● 14-day

Los Angeles

200

100

0

15.7 or 1/6,378
15.3 or 1/6,517

Orange

200

100

0

11.1 or 1/9,027
10.2 or 1/9,800

Riverside

200

100

0

22.8 or 1/4,392
22.1 or 1/4,521

San Bernardino

200

100

0

26.7 or 1/3,750
25.3 or 1/3,952
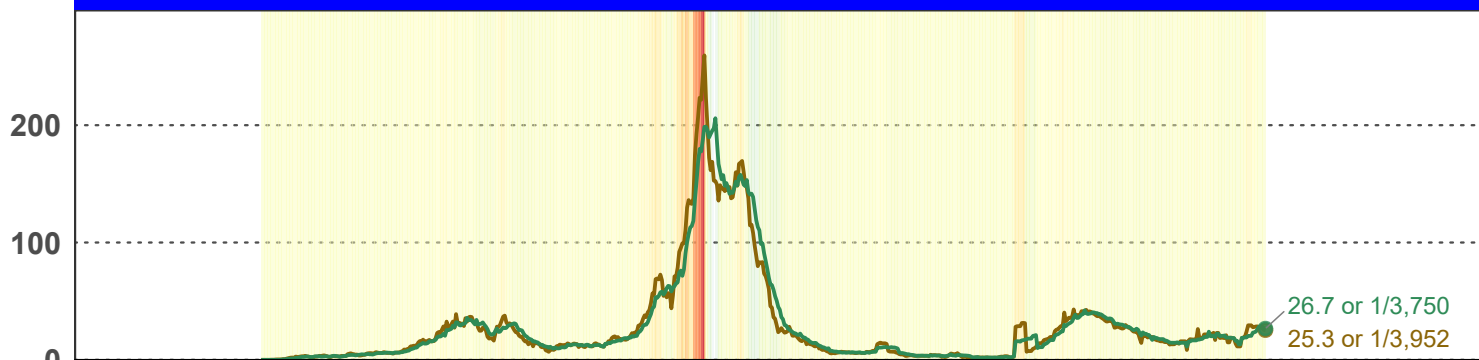
2020-01   2020-07   2021-01   2021-07   2022-01

Sources: The New York Times, https://github.com/nytimes/covid-19-data accessed 2021-12-15 (Covid19)
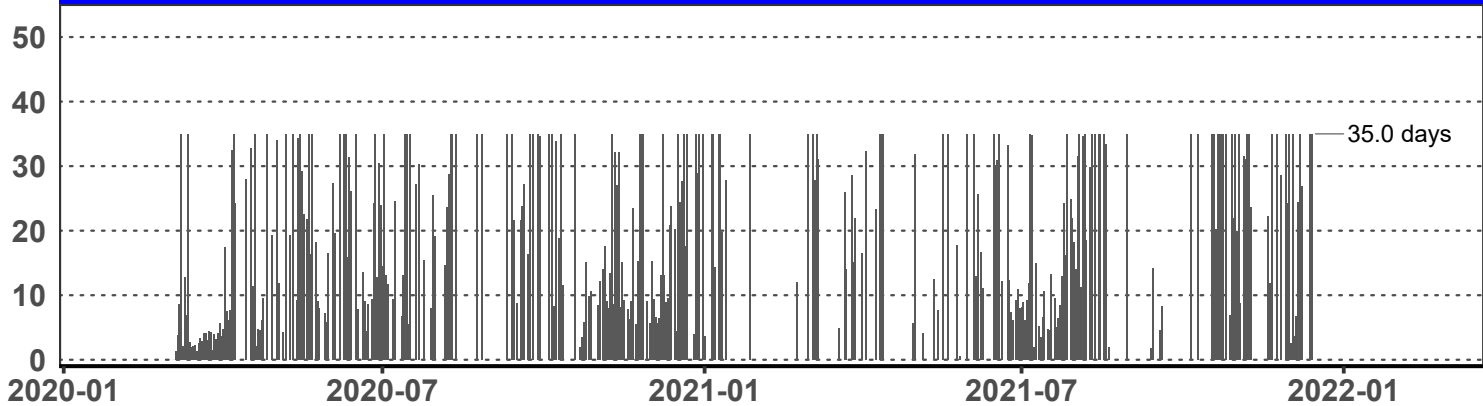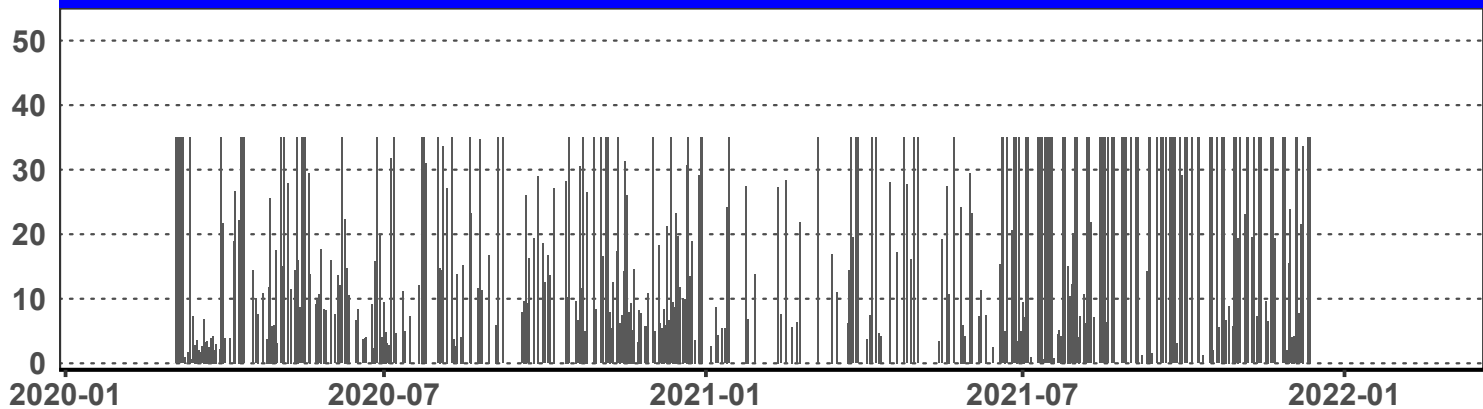
Days to double the number of cases

based on seven day rolling average of new cases,
    for counts increase only, if the counts double in more
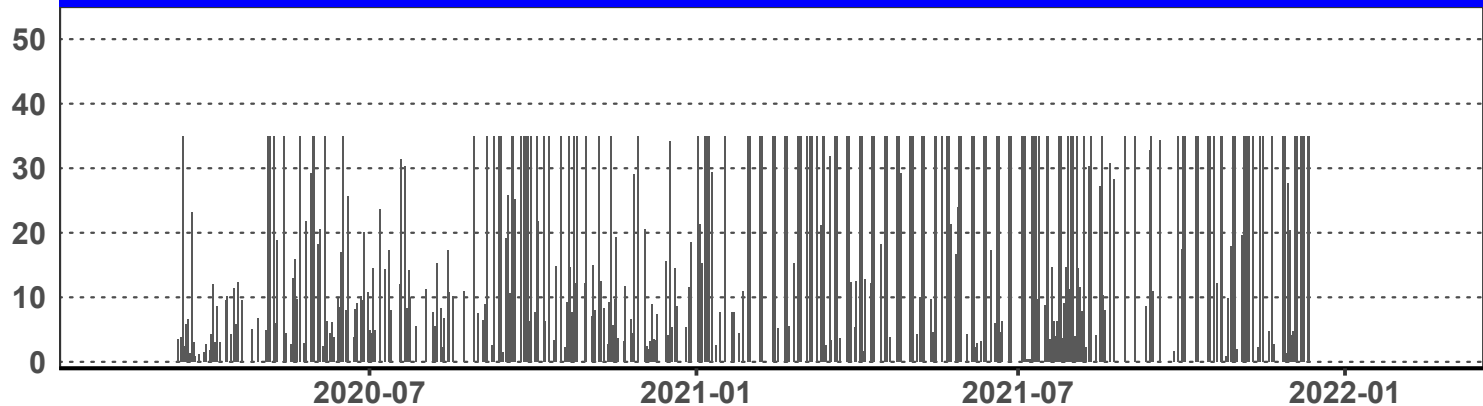   than 35 days they show as 35 days.

Sources: The New York Times, https://github.com/nytimes/covid-19-data accessed 2021-12-15 (Covid19)

Structural change analysis of daily new cases

blue lines with dates reflect when there was a break in the trend for each county

Note: new break trends can developed as new daily counts are included.
Sources: The New York Times, https://github.com/nytimes/covid-19-data accessed 2021-12-15 (Covid19)
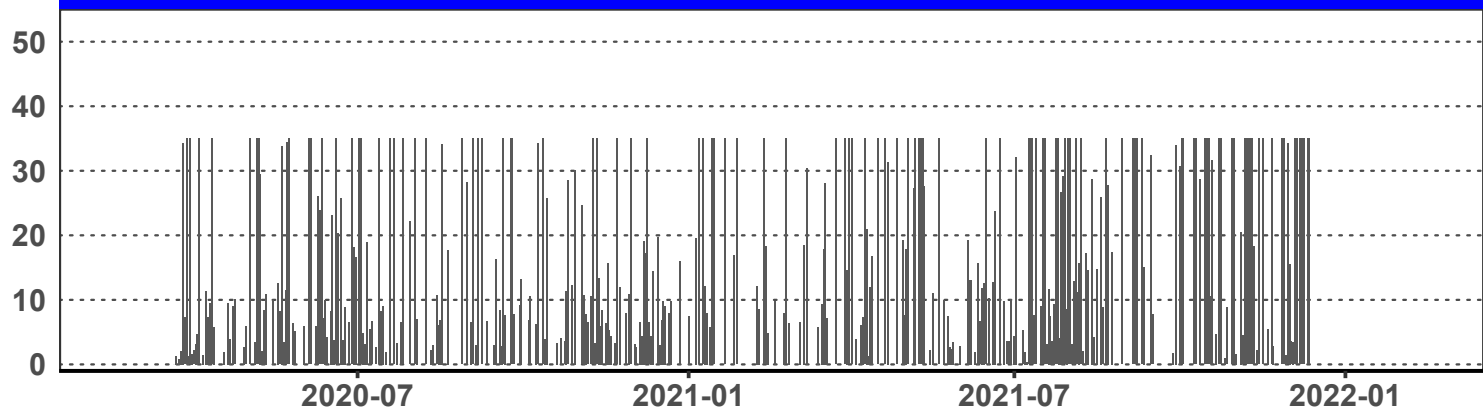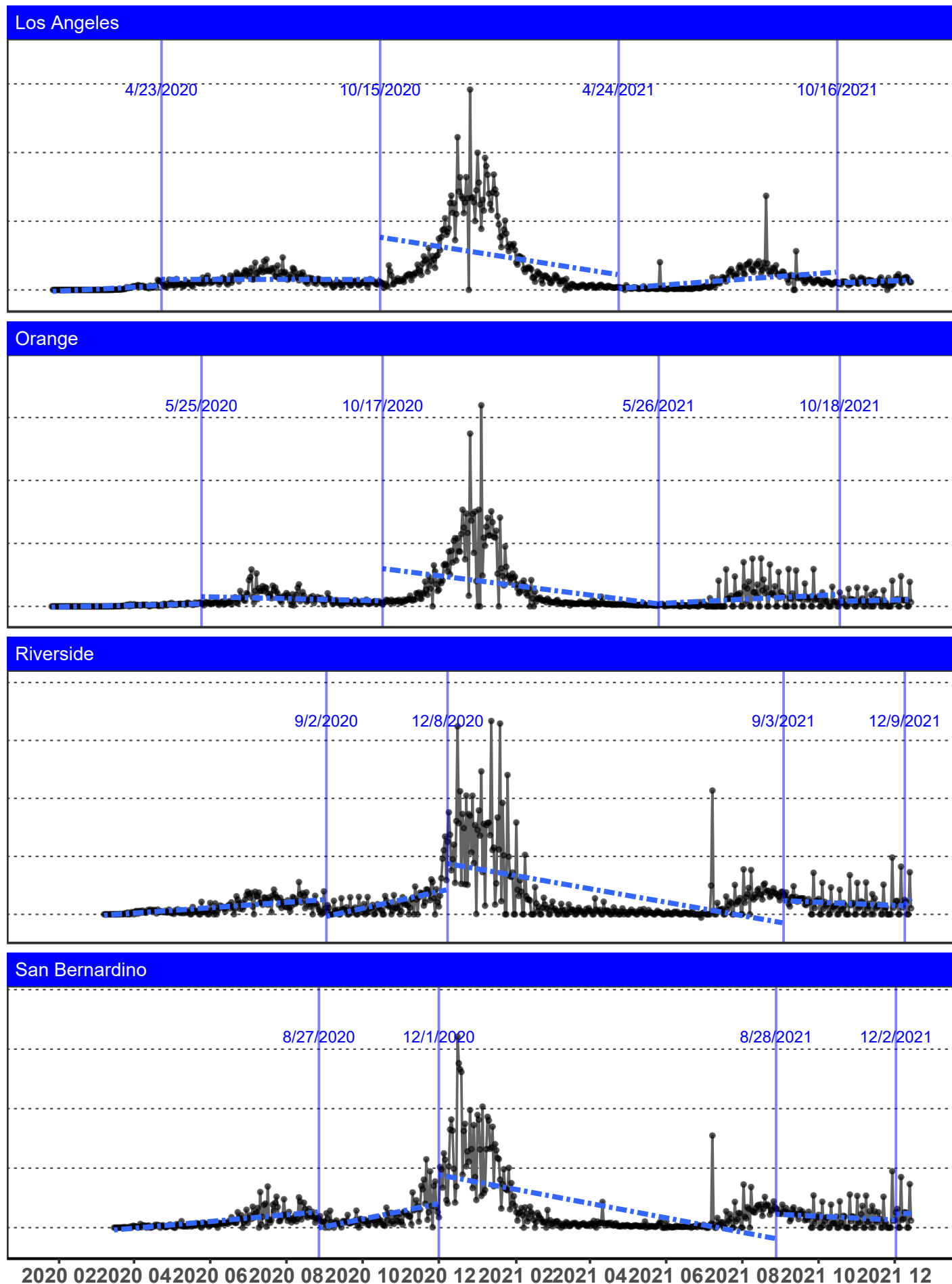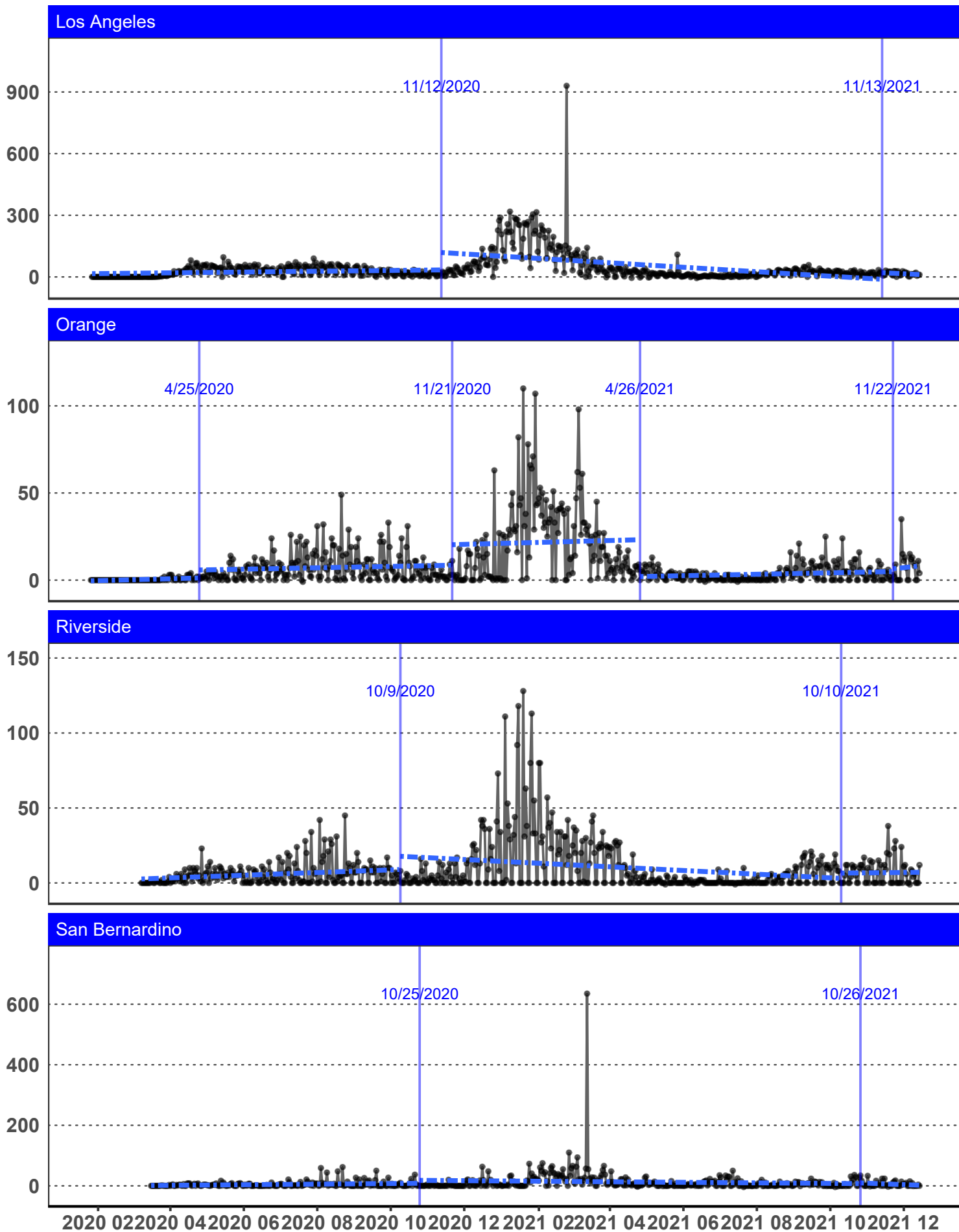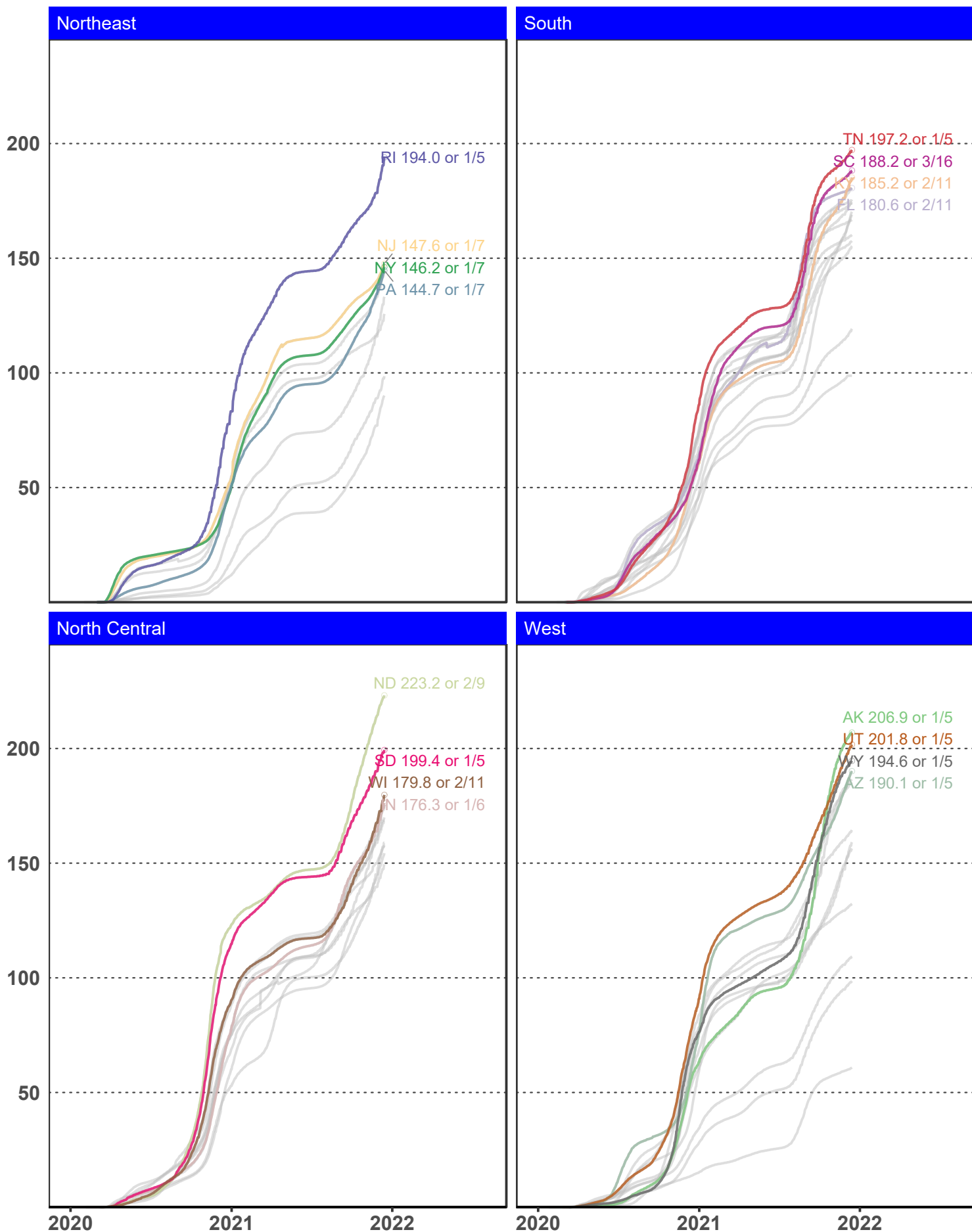
Structural change analysis of daily new deaths

blue lines with dates reflect when there was a break in the trend for each county

Note: new break trends can developed as new daily counts are included.
Sources: The New York Times, https://github.com/nytimes/covid-19-data accessed 2021-12-15 (Covid19)

Cummulative cases per 1k persons by state region

the four highest states by region are highlighted

Northeast

RI 194.0 or 1/5

NJ 147.6 or 1/7
NY 146.2 or 1/7
PA 144.7 or 1/7

South

TN 197.2 or 1/5
SC 188.2 or 3/16
KY 185.2 or 2/11
FL 180.6 or 2/11

North Central

ND 223.2 or 2/9

SD 199.4 or 1/5
WI 179.8 or 2/11
IN 176.3 or 1/6

West

AK 206.9 or 1/5
UT 201.8 or 1/5
WY 194.6 or 1/5
AZ 190.1 or 1/5

7-day rolling average of daily cases per 100k persons by state region

the four highest states by region are highlighted

Northeast

NH 94.5 or 1/1,058
RI 93.5 or 1/1,069
ME 78.1 or 1/1,281
MA 71.1 or 1/1,407

South

DE 67.3 or 1/1,485
WV 53.6 or 1/1,865
KY 48.2 or 1/2,073
OK 31.4 or 1/3,186

North Central

WI 100.5 or 1/995
MI 71.8 or 1/1,393
IN 67.6 or 1/1,479
OH 65.2 or 1/1,533

West

NM 52.6 or 1/1,901
AZ 46.6 or 1/2,146
UT 36.3 or 1/2,752
CO 34.0 or 1/2,942

Cummulative cases per 1k persons for California counties
selected counties highlighted

LAS 257.8 or 1/4
KIN 239.1 or 5/21
IMP 220.9 or 2/9
TUL 190.6 or 1/5
KER 181.7 or 2/11
SBD 179.1 or 2/11
MAD 172.7 or 1/6
STA 172.6 or 1/6
MER 171.8 or 1/6
RIV 165.9 or 1/6
LA 153.5 or 2/13
SD 126.6 or 1/8
VEN 124.7 or 1/8
SB 109.0 or 1/9
ORA 107.2 or 1/9
MRN 73.1 or 3/41
SF 66.8 or 1/15
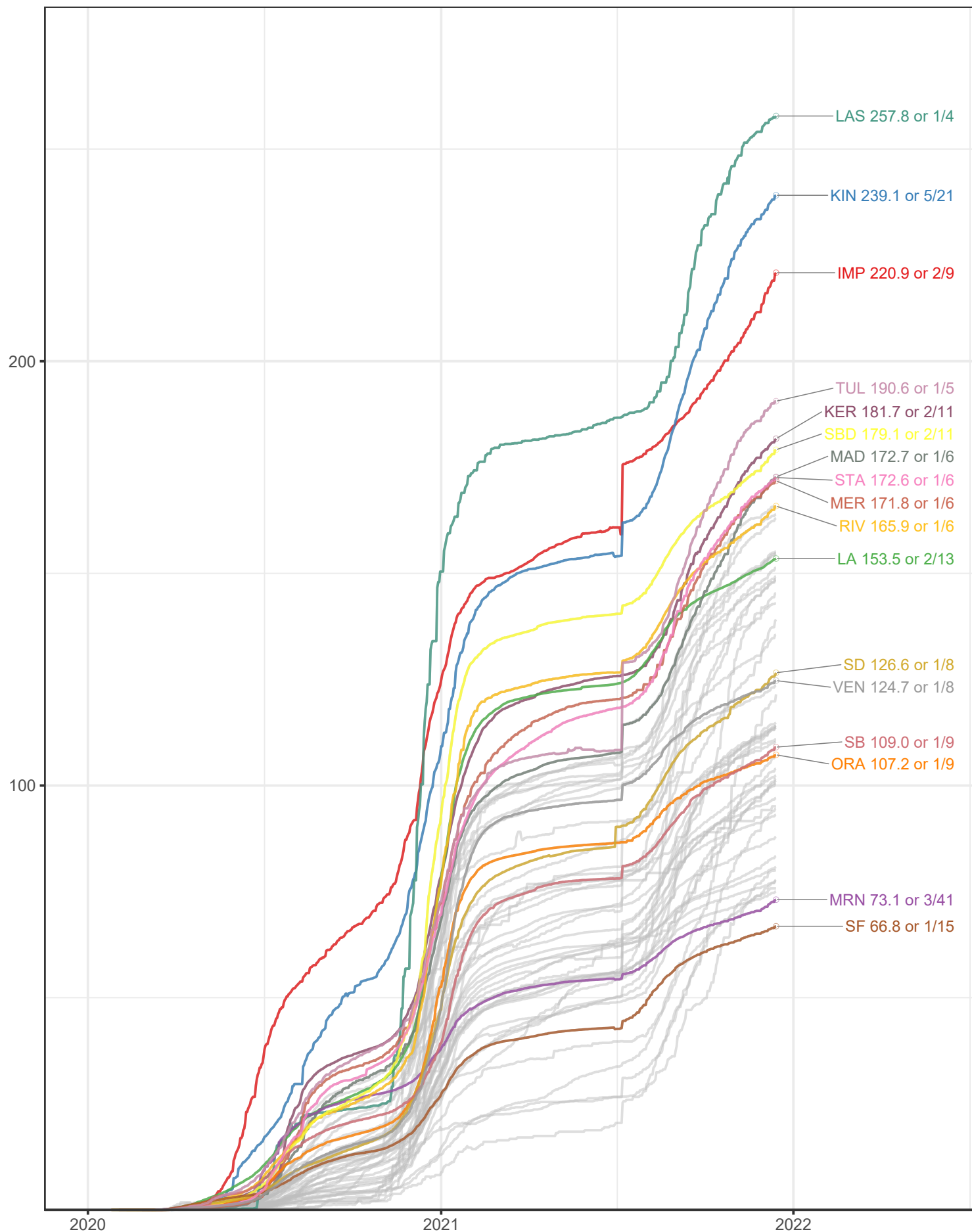
7-day rolling average of daily cases per 100k persons by California counties
selected counties highlighted

IMP 49.3 or 1/2,028
MNO 39.3 or 1/2,544
MOD 35.2 or 1/2,843
SBT 25.5 or 1/3,923
SBD 25.3 or 1/3,952
PLU 24.4 or 1/4,090
SB 15.9 or 1/6,287
LA 15.3 or 1/6,517
MRN 14.4 or 1/6,928
VEN 13.4 or 1/7,458
SF 10.4 or 1/9,636
ORA 10.2 or 1/9,800

2020   2021   2022