Worldwide projection as of 2020−11−24
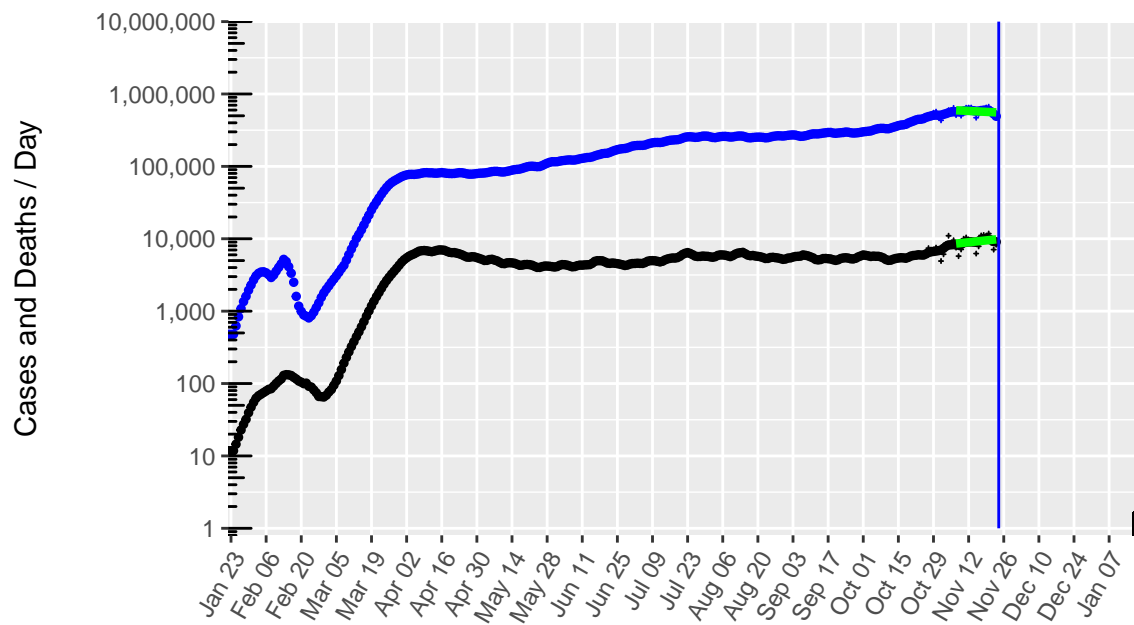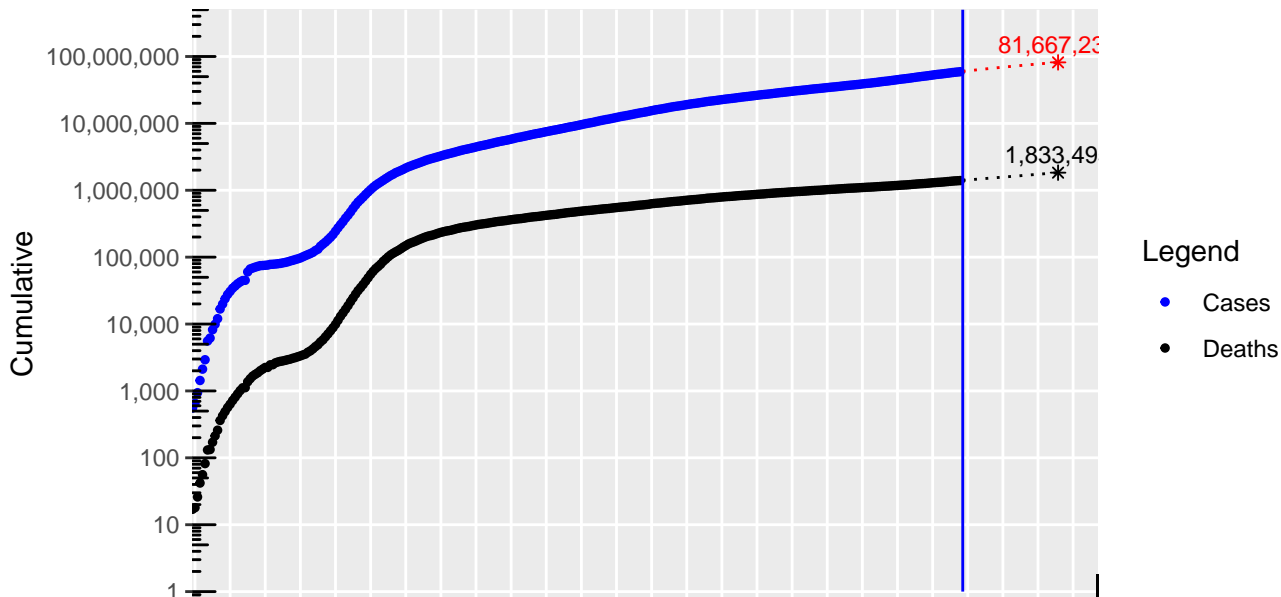
,396,343 (8,291) −− Case Mortality: 2.4% −− Daily Change: −0.4% Cases, +0.9% Deaths (over 16 days)
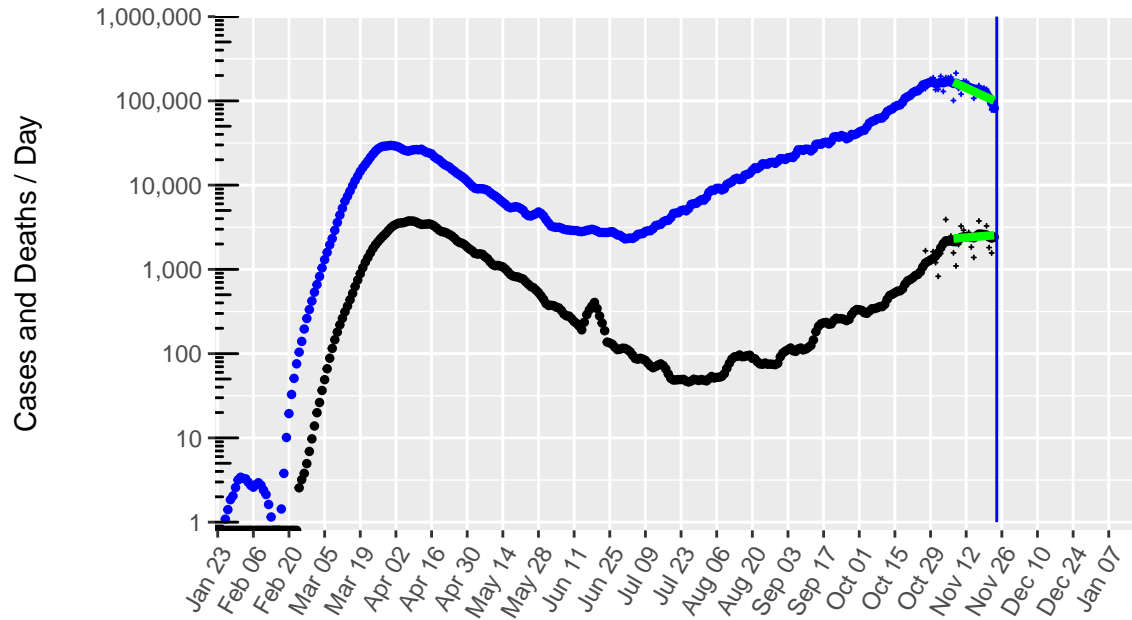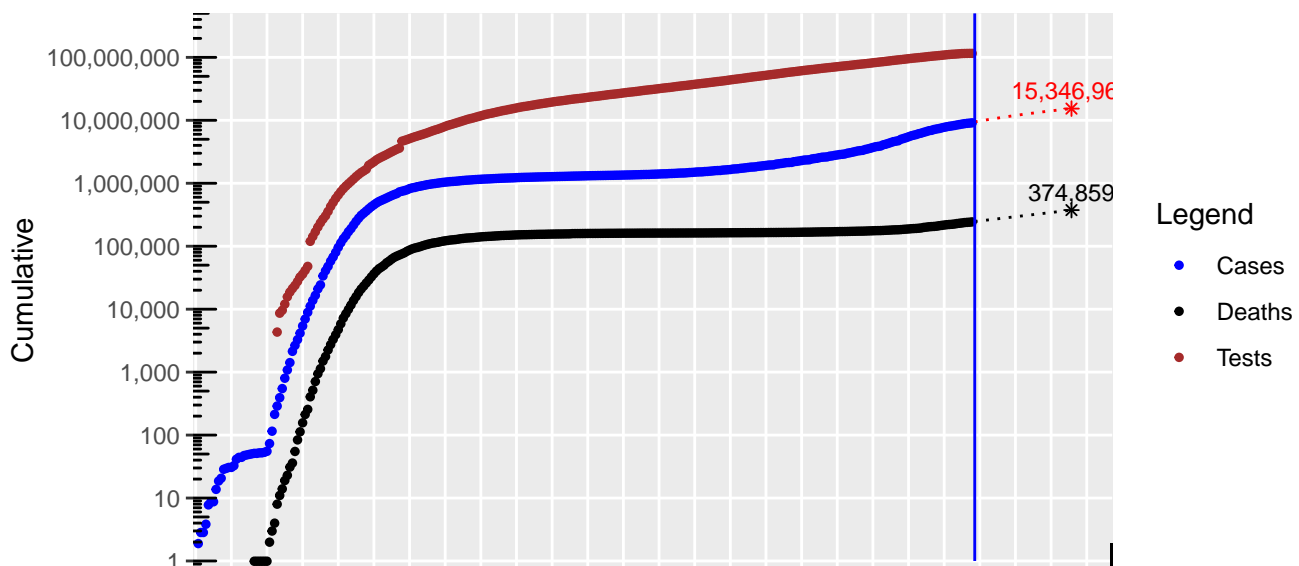
USA projection as of 2020−11−24
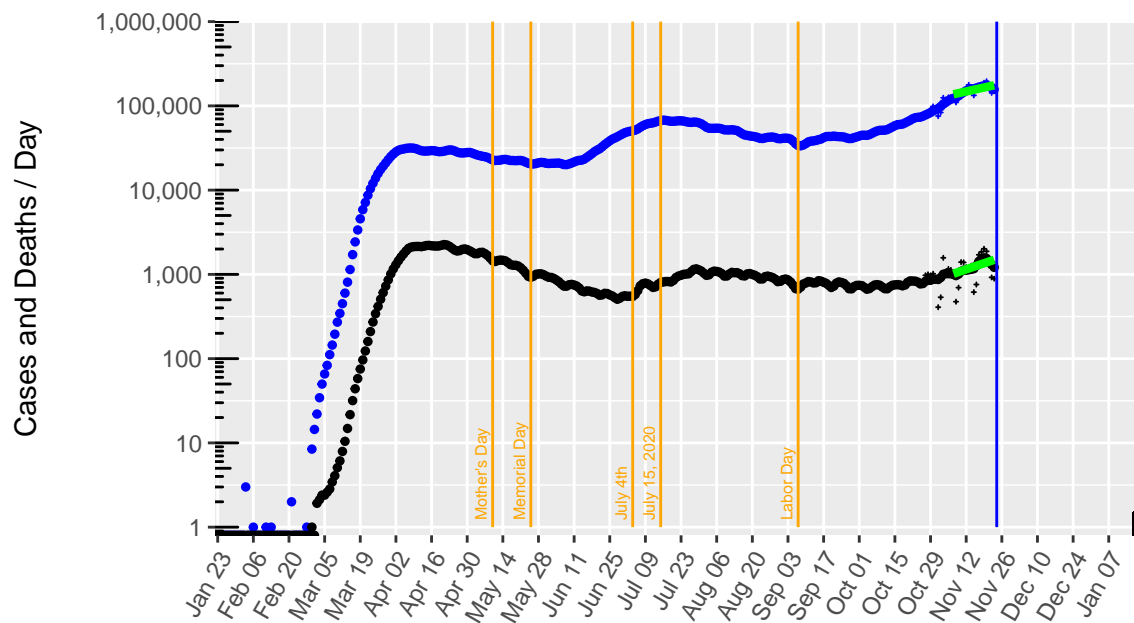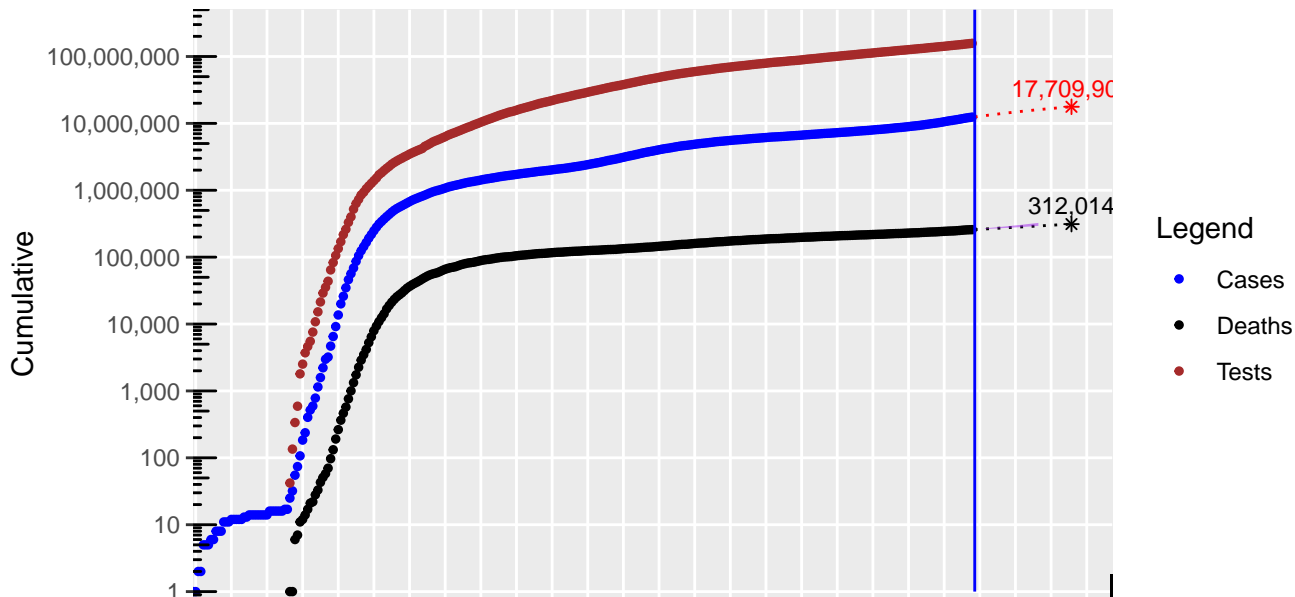
Cases: 257,671 (889) −− Case Mortality: 2.1% −− Daily Change: +1.6% Cases, +2.5% Deaths (over 16 days)
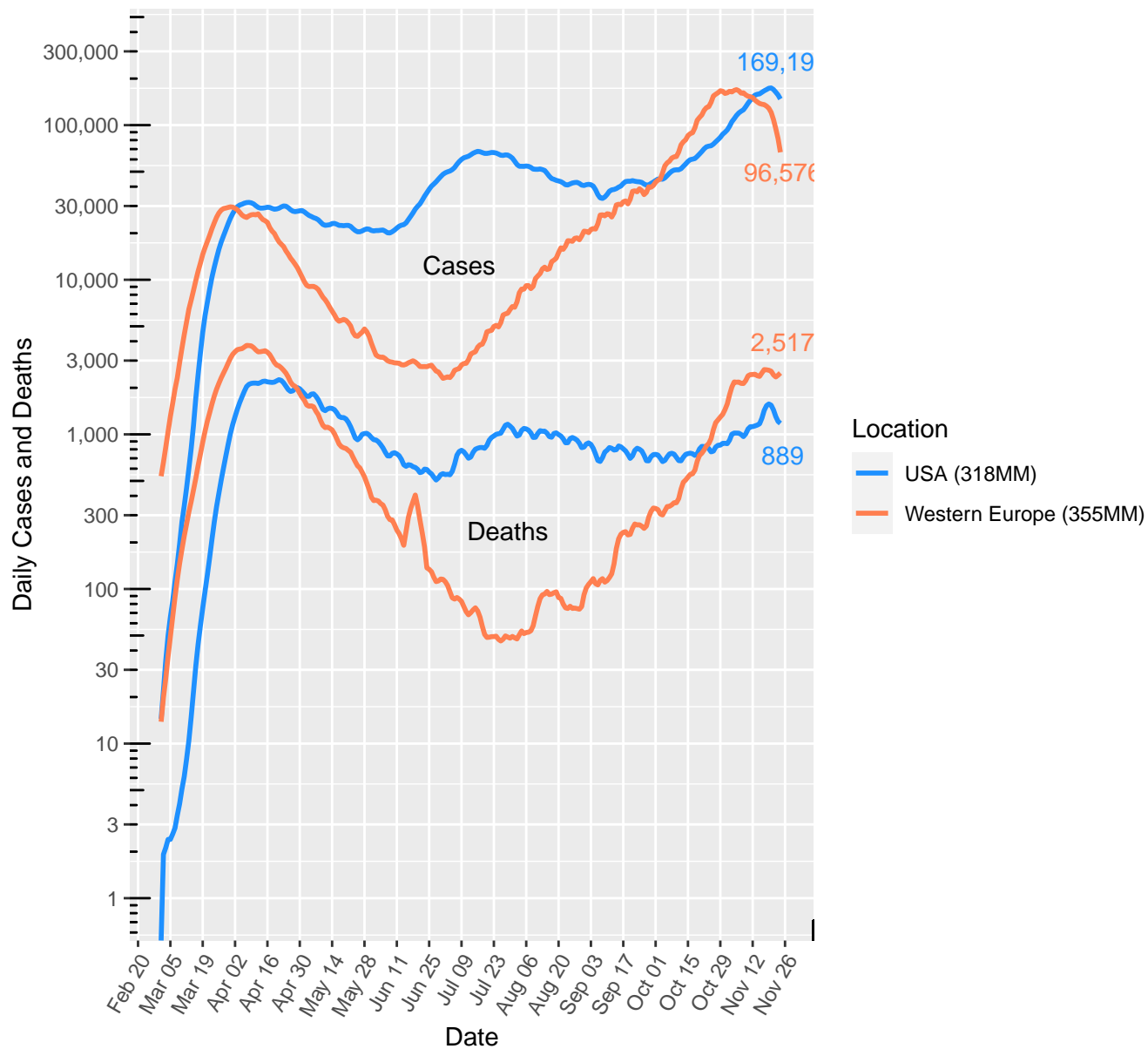
Western Europe projection as of 2020−11−24

Belgium, France, Greece, Germany, Italy, Luxembourg, Netherlands, Portugal, Spain,and the UK (Population = 355MM)

Cumulative

100,000,000
10,000,000
1,000,000
100,000
10,000
1,000
100
10
1

15,346,96
374,859

Legend

- Cases
- Deaths
- Tests

Cases and Deaths / Day

1,000,000
100,000
10,000
1,000
100
10
1

Jan 23 Feb 06 Feb 20 Mar 05 Mar 19 Apr 02 Apr 16 Apr 30 May 14 May 28 Jun 11 Jun 25 Jul 09 Jul 23 Aug 06 Aug 20 Sep 03 Sep 17 Oct 01 Oct 15 Oct 29 Nov 12 Nov 26 Dec 10 Dec 24 Jan 07

243,347 (2,517) −− Case Mortality: 2.7% −− Daily Change: −3.3% Cases, +0.6% Deaths (over 16 days)

COVID−19 Cases & Deaths in the USA & Europe
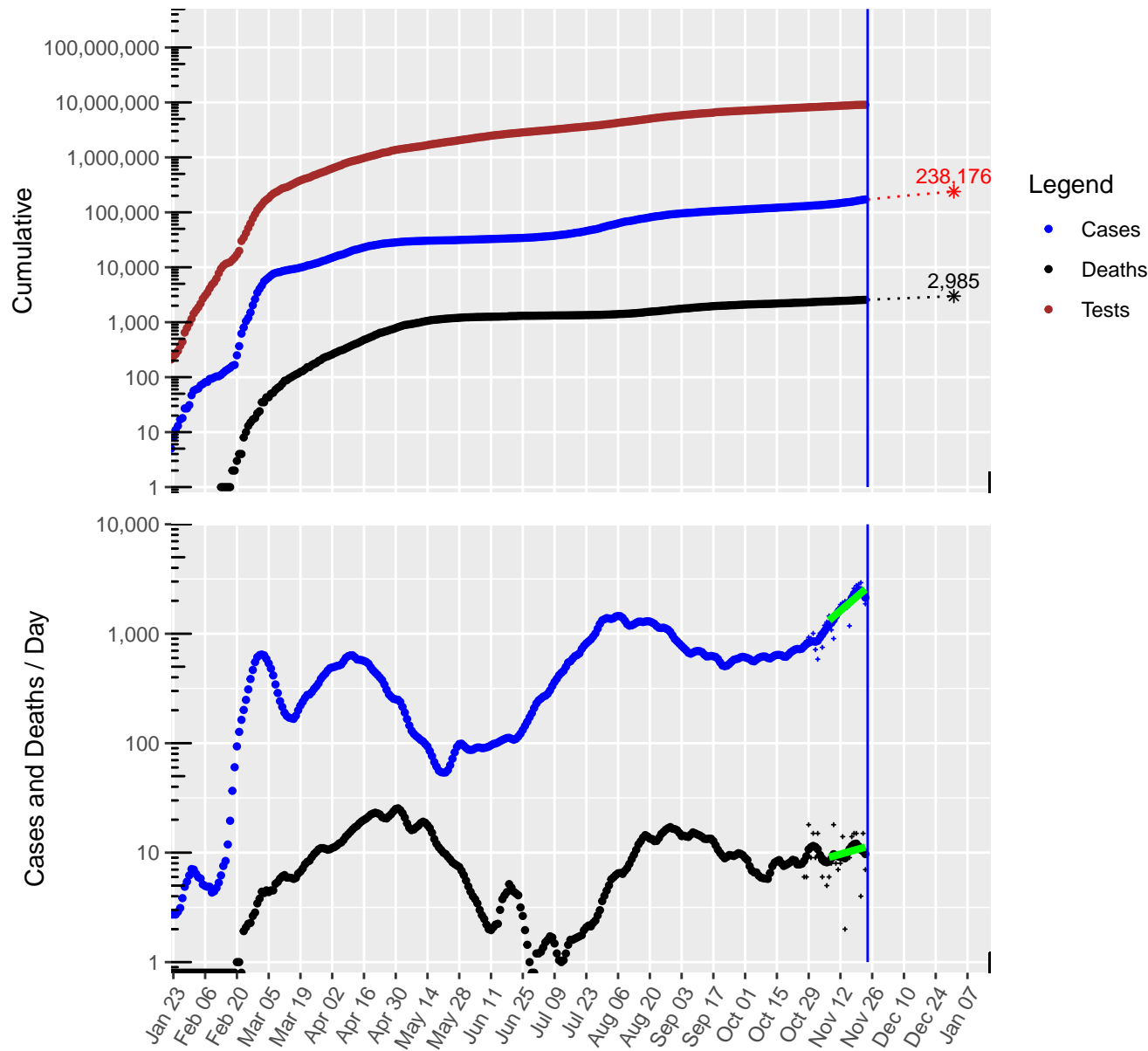
Log plot of 7 day average

169,19

96,576

2,517

889

Cases

Deaths

Daily Cases and Deaths

300,000
100,000
30,000
10,000
3,000
1,000
300
100
30
10
3
1

Feb 20 Mar 05 Mar 19 Apr 02 Apr 16 Apr 30 May 14 May 28 Jun 11 Jun 25 Jul 09 Jul 23 Aug 06 Aug 20 Sep 03 Sep 17 Oct 01 Oct 15 Oct 29 Nov 12 Nov 26

Date

Location

USA (318MM)

Western Europe (355MM)

many, Italy, Luxembourg, Netherlands, Portugal, Spain,and the UK (Population = 355MM)

Non–authoritarian Asian ensemble projection as of 2020–11–24

Japan, South Korea, Thailand, and Vietnam (Population = 328 MM)

Deaths: 2,554 (7) –– Case Mortality: 1.5% –– Daily Change: +4.2% Cases, +1.4% Deaths (over 16 days)

COVID−19 Cases in the USA, Western Europe, and the Asian Ensemble

Log plot of 7 day average
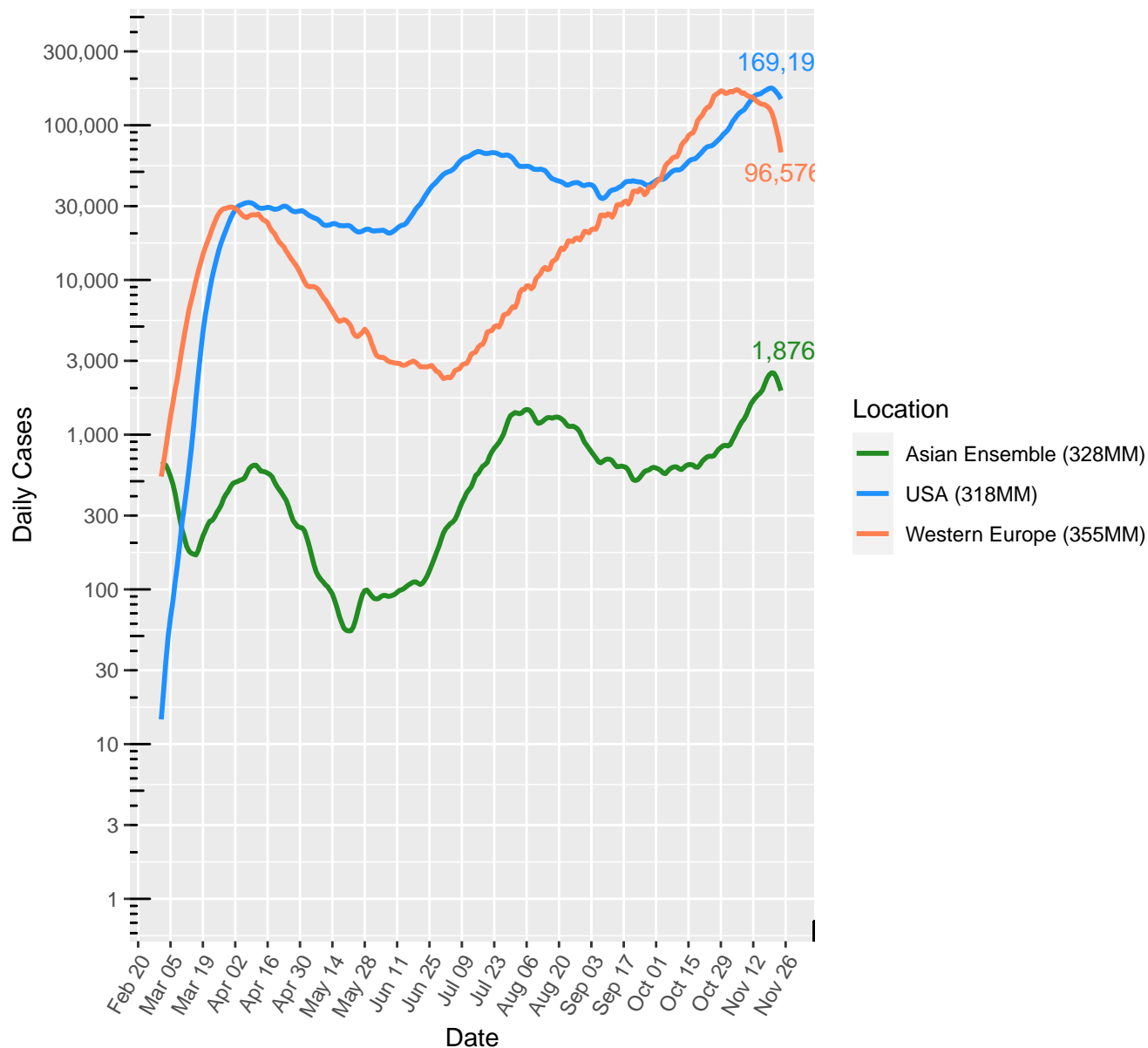
Asian Ensemble: Japan, South Korea, Thailand, and Vietnam (Population = 328 MM)

COVID−19 Deaths among the USA, Western Europe, and the Asian Ensemble

Log plot of 7 day average
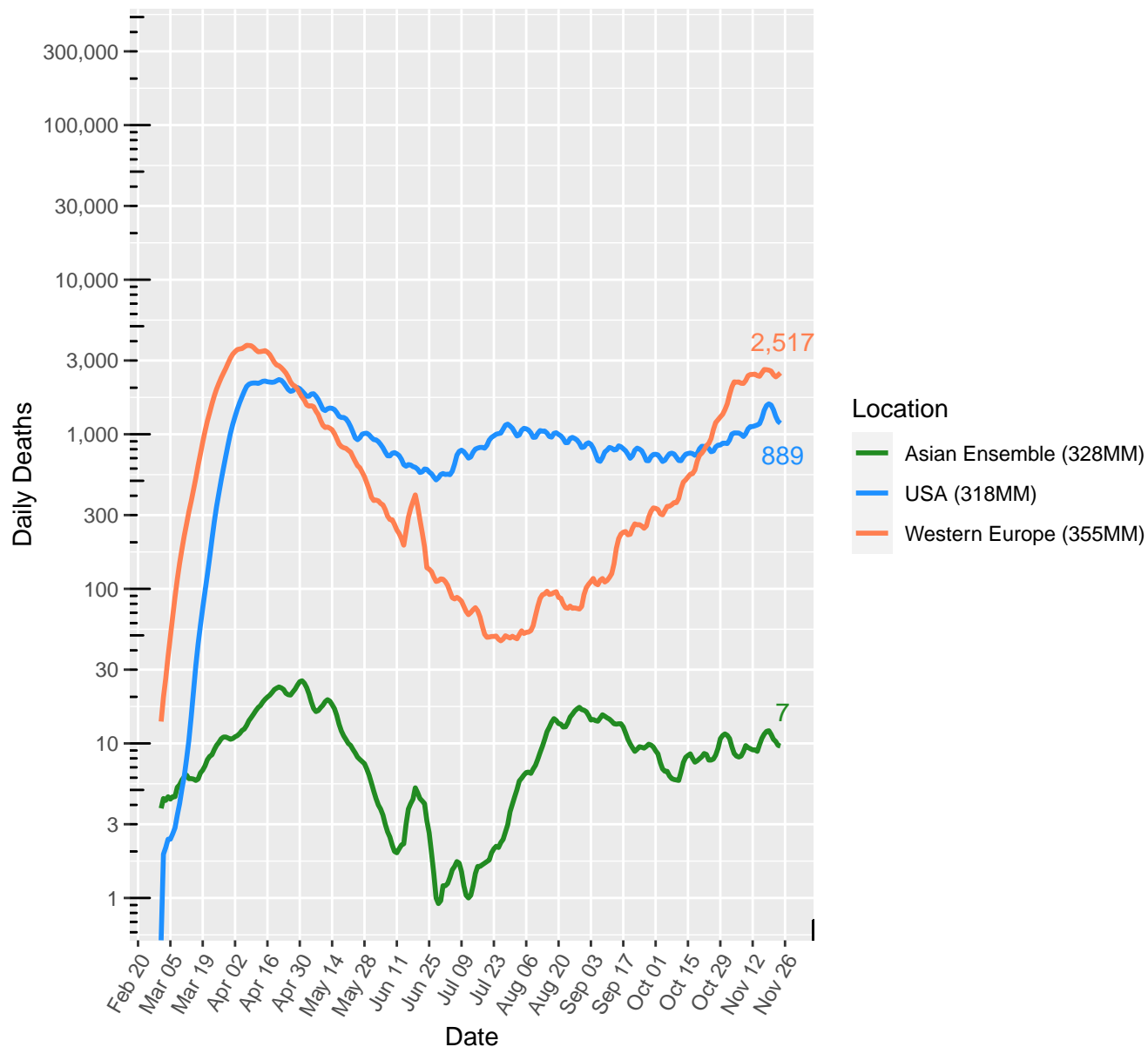
Asian Ensemble: Japan, South Korea, Thailand, and Vietnam (Population = 328 MM)

Worldwide cases

Total cases to date
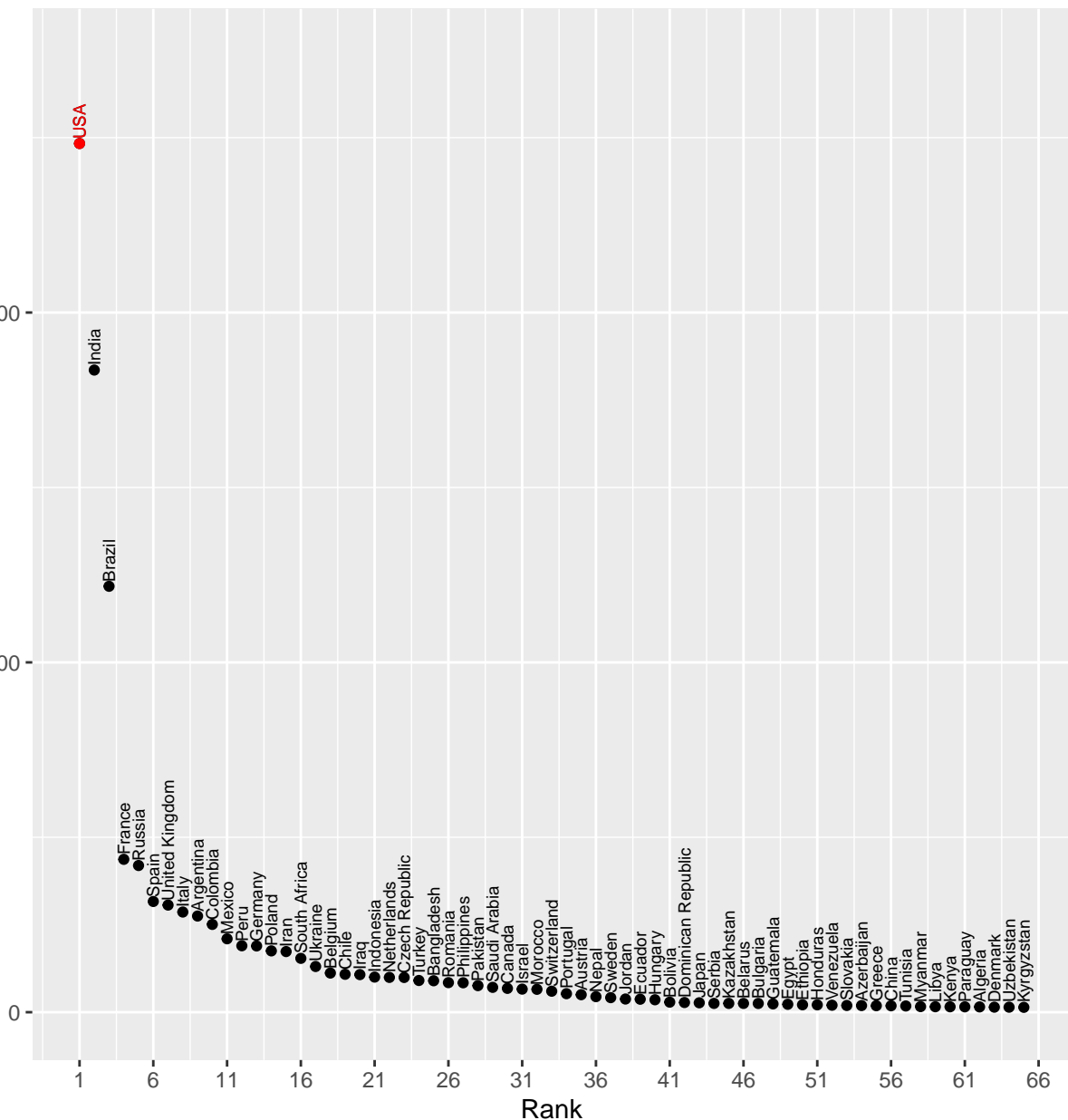
Rank

Excludes countries with population < 5,000,000

Worldwide cases

Total cases to date

Rank

Excludes countries with population < 5,000,000
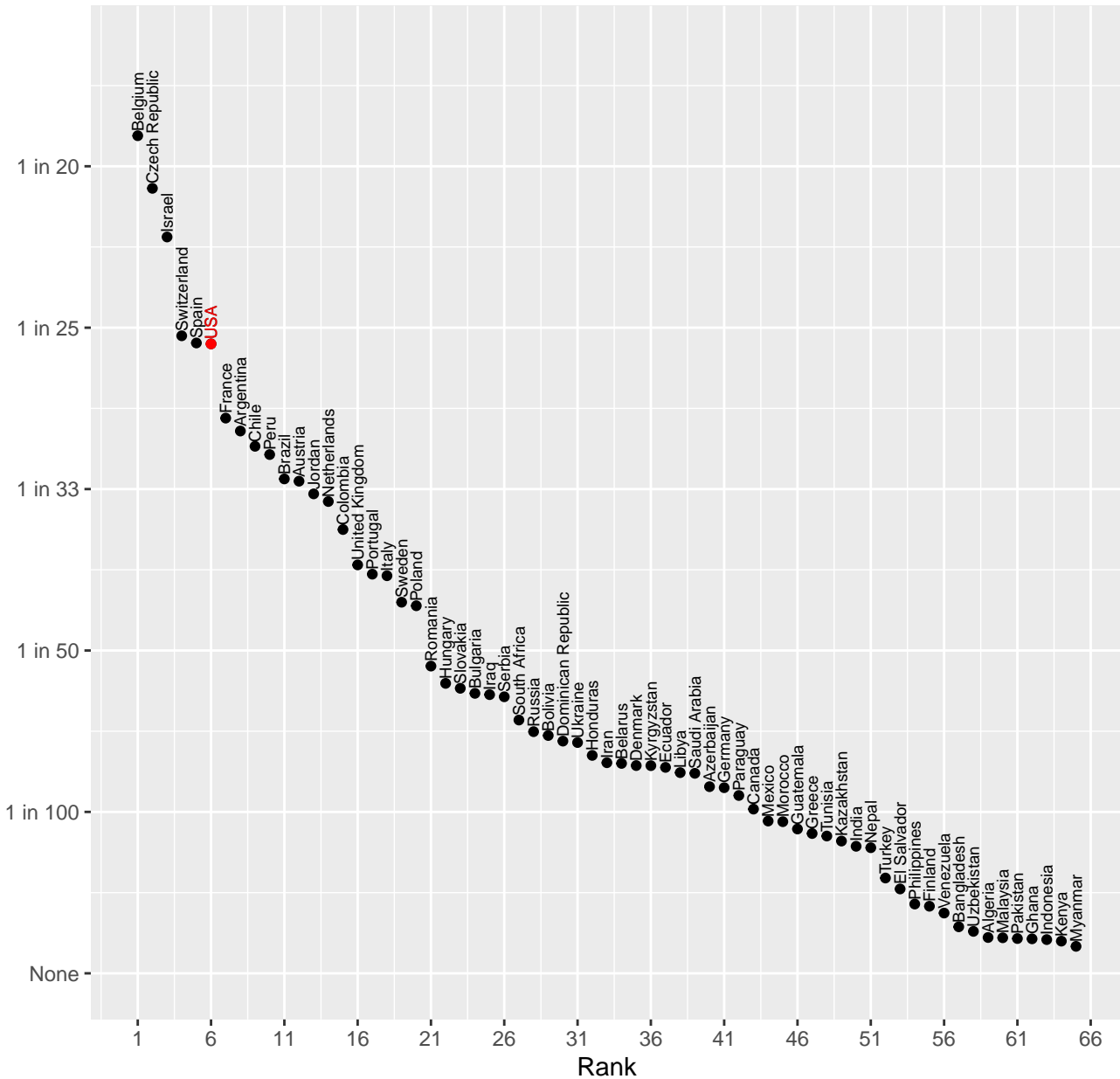
Average new cases over past 7 days

Excludes countries with population < 5,000,000

Worldwide deaths

Excludes countries with population < 5,000,000

Worldwide deaths

Excludes countries with population < 5,000,000

Average daily deaths over past 7 days

Excludes countries with population < 5,000,000
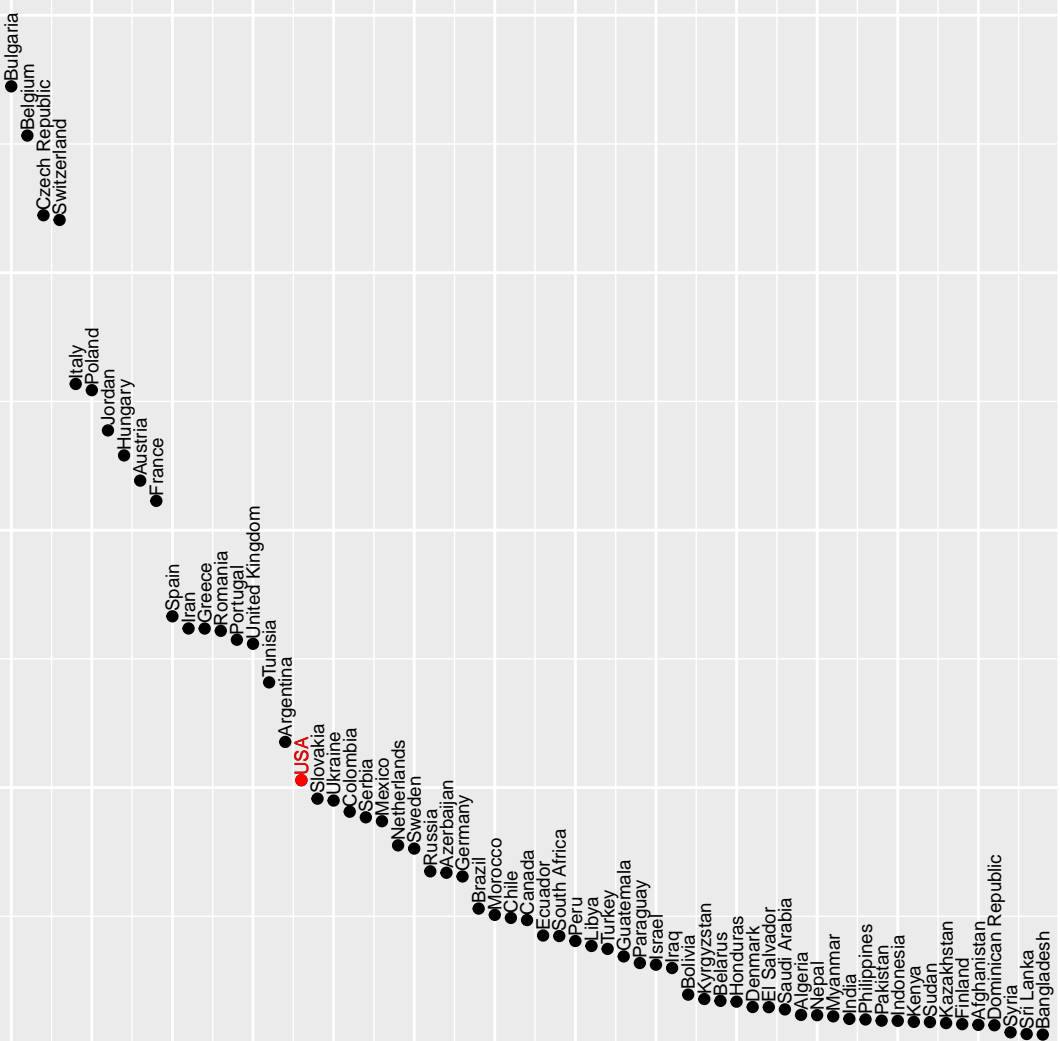
Daily vs. Cumulative US Case Rate Mortality
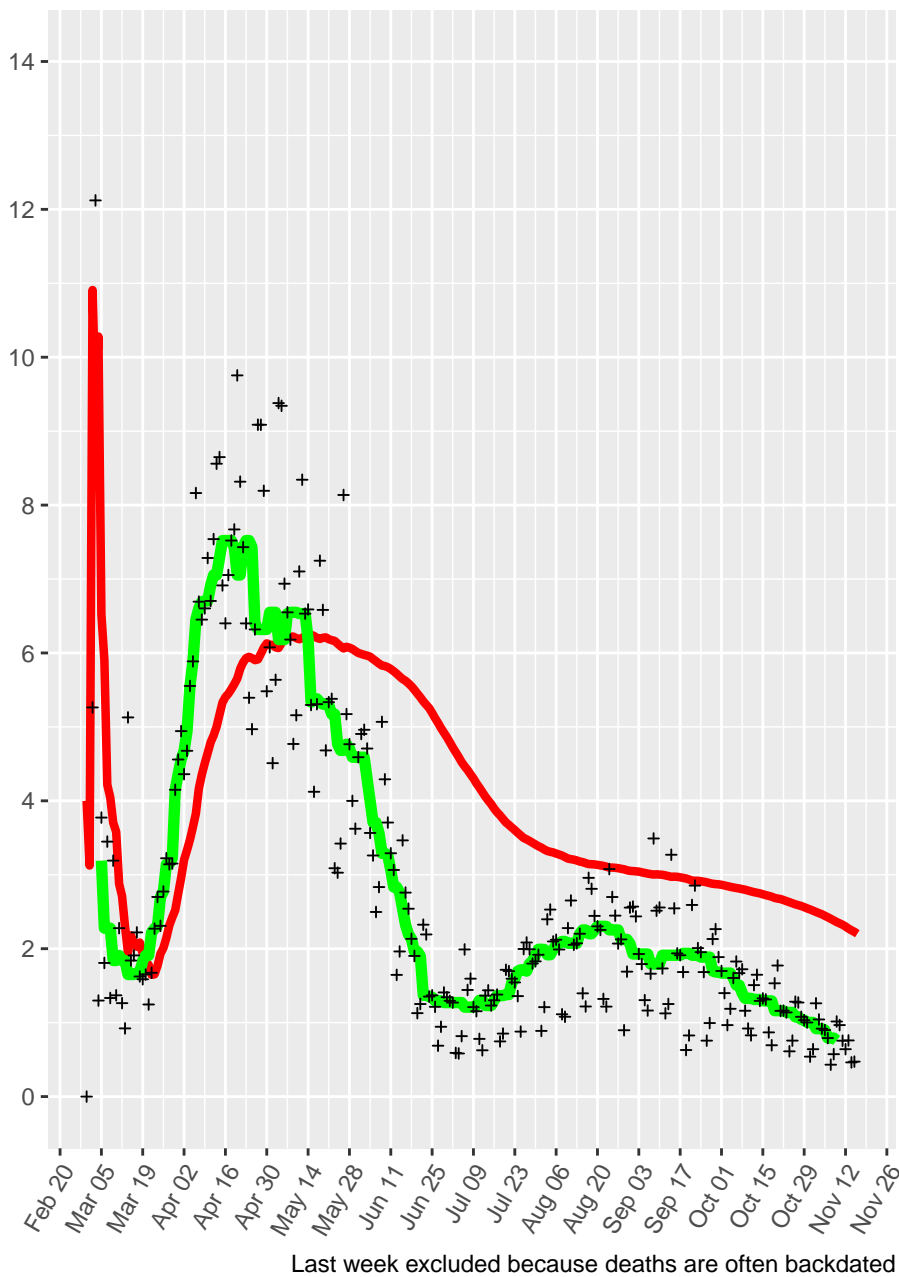
Mortality Type:
- 13 day rolling median
- Cumulative
- Daily Raw

US Case Rate Mortality

Last week excluded because deaths are often backdated

Change in daily cases over 16 days as of 2020−11−24

Daily cases are:

Increasing > +3%

Increasing between +1% and +3%

No Change (−1% to +1%)

Decreasing between −1% and −3%

Decreasing > −3%

NA
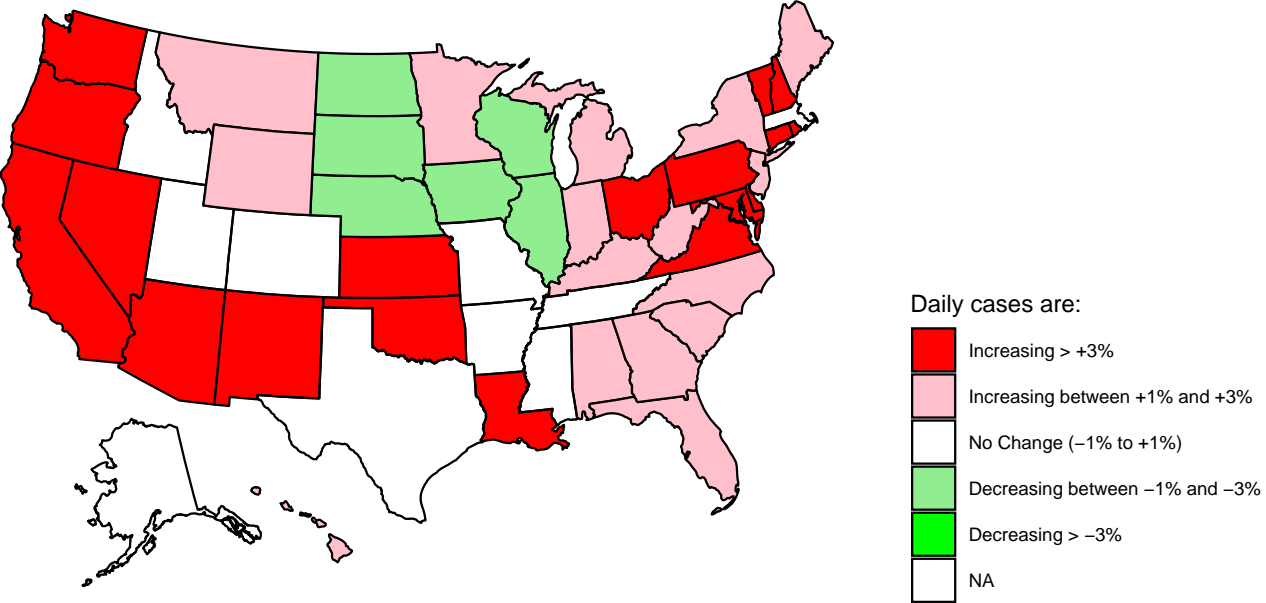
Daily Cases as a Percent of Peak Cases
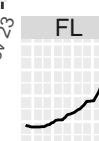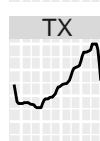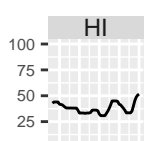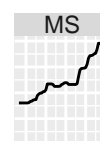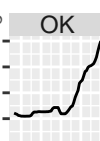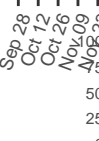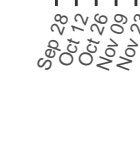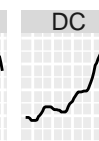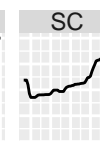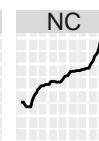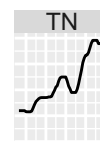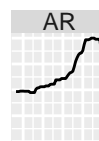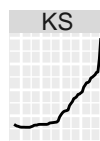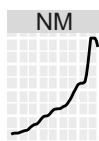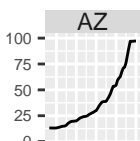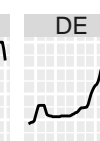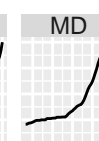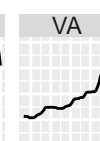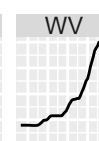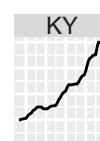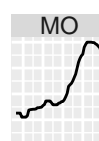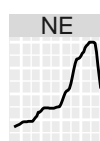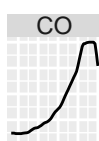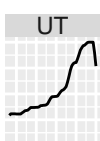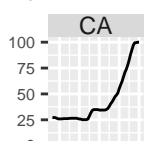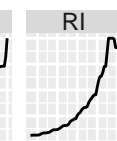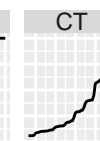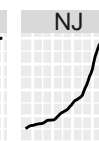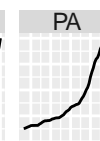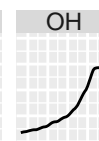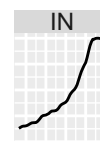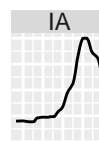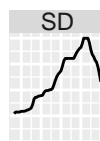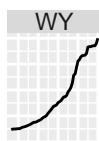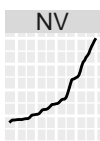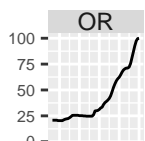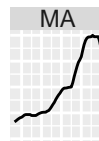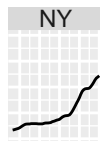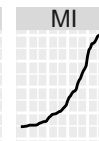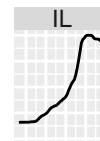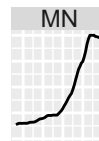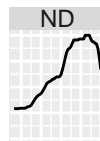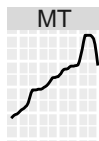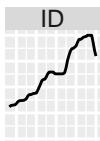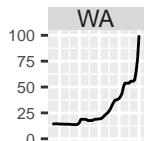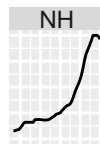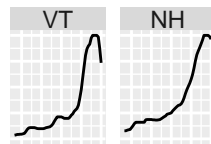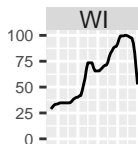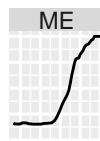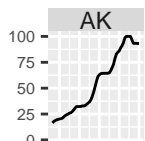
Change in daily deaths over 16 days as of 2020−11−24

Daily deaths are:

Increasing > +3%

Increasing between +1% and +3%

No Change (−1% to +1%)

Decreasing between −1% and −3%

Decreasing > −3%

NA
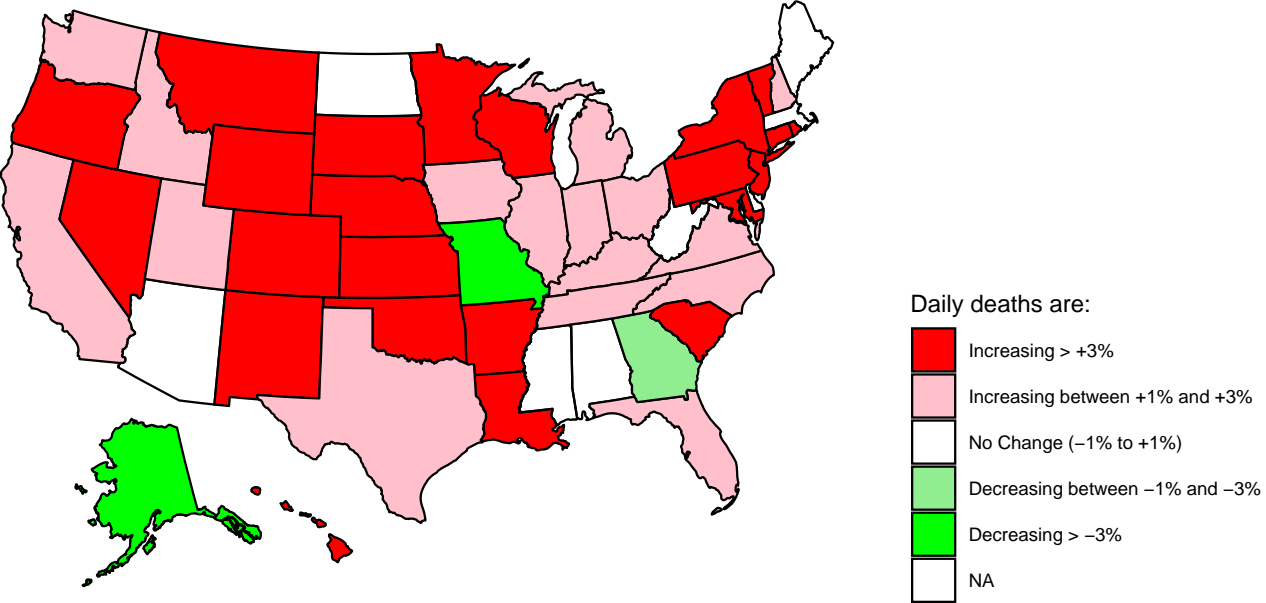
Daily Deaths as a Percent of Peak Deaths
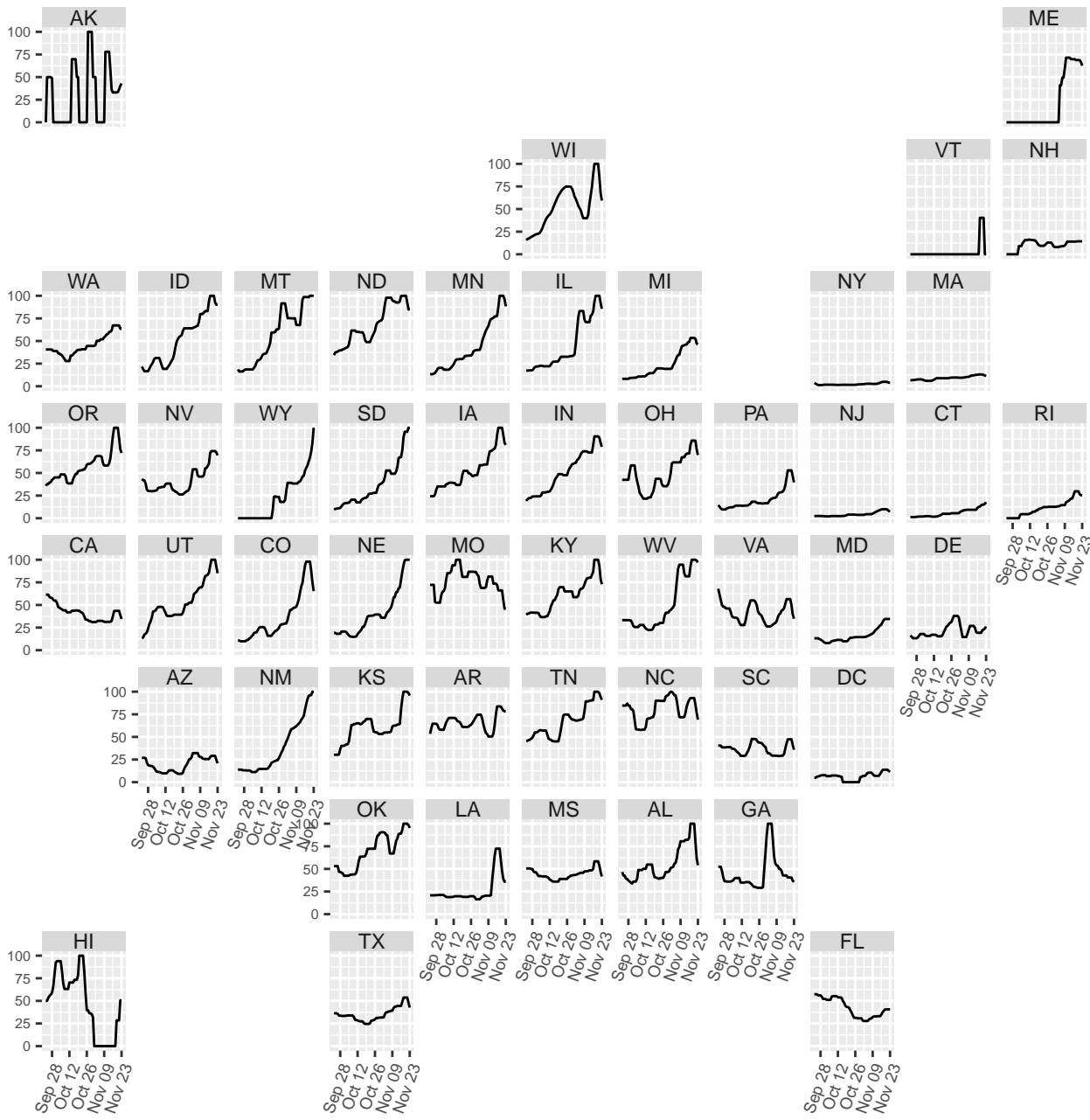
Change in cases vs. change in deaths over last 16 days as of 2020−11−24
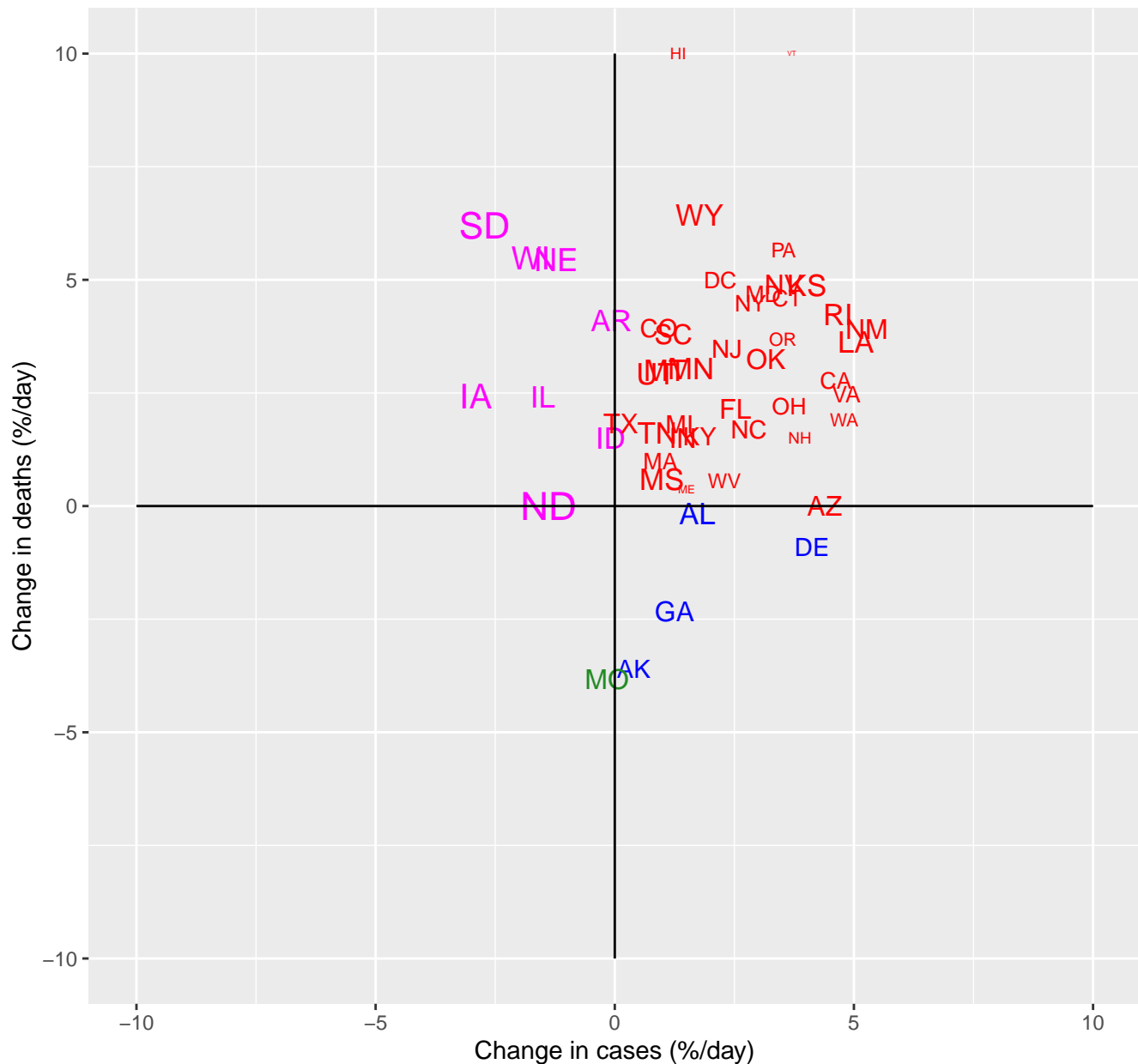
Size is proportional total cases per capita

Total US COVID−19 Cases

Mask mandate is from July 20th. Political lean is based on election results.

p masks as of July 20, 2020: 0.69, p 2020 Election: 0.86.
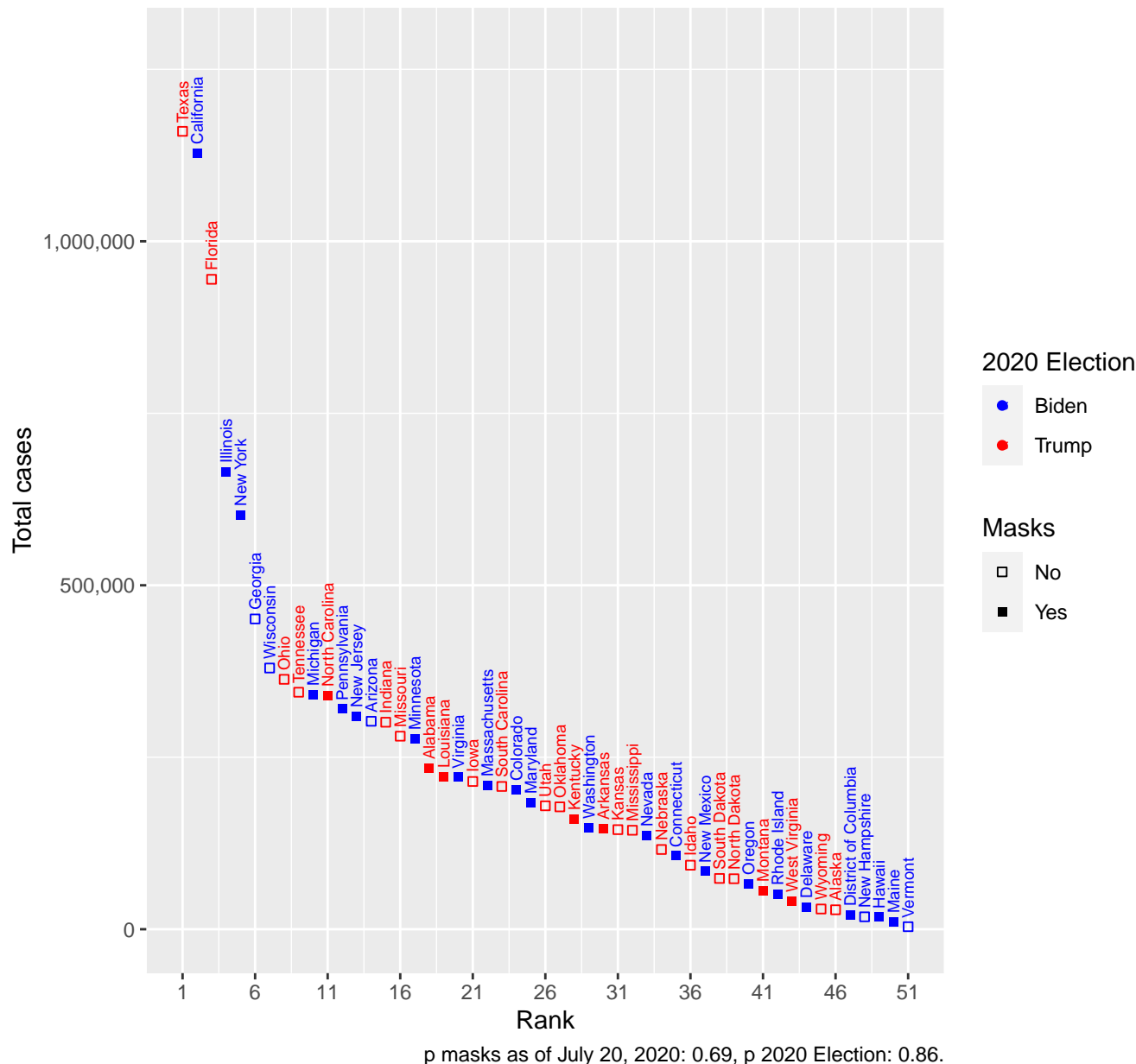
Total US COVID−19 Cases

Mask mandate is from July 20th. Political lean is based on election results.
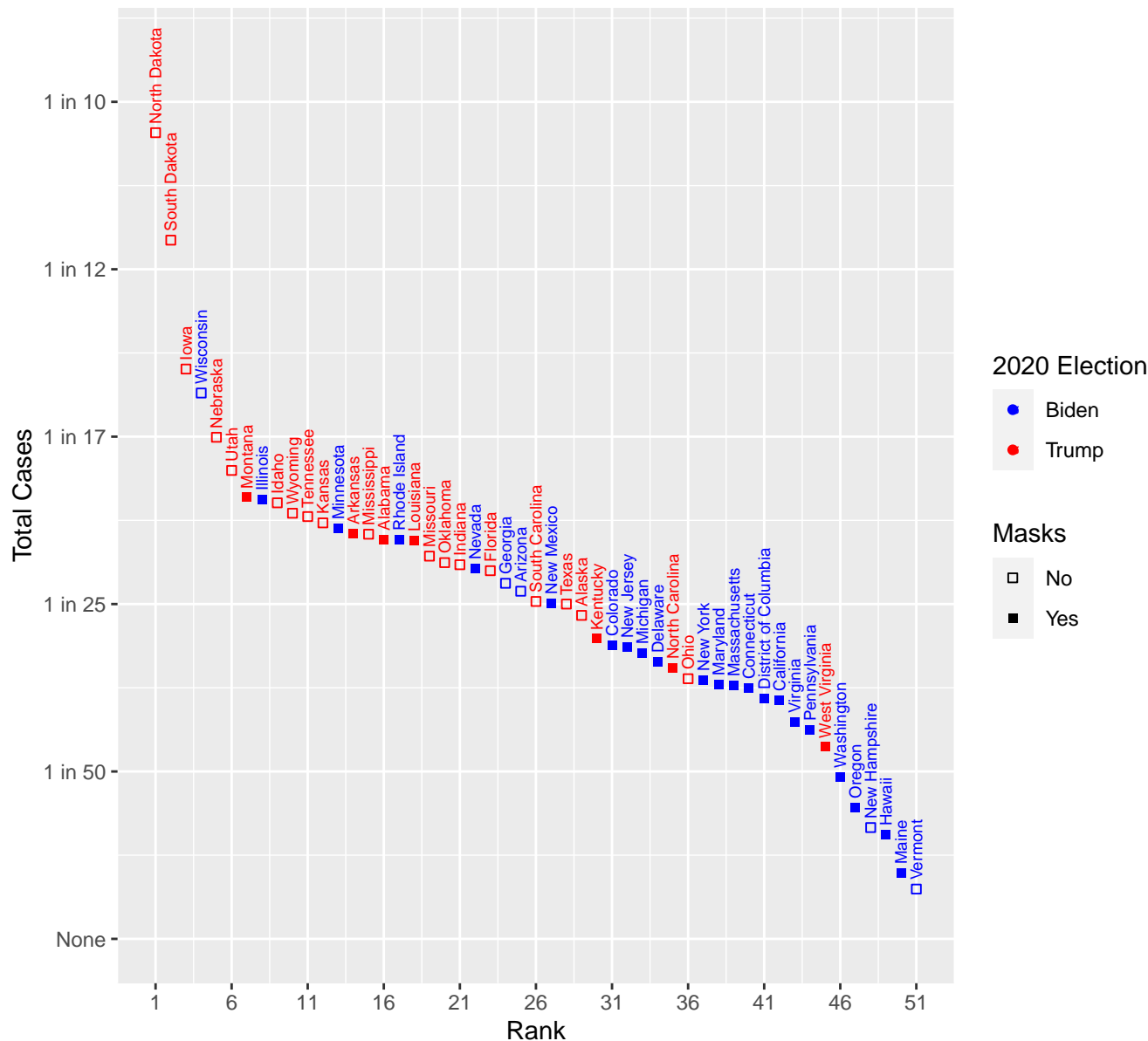
p masks as of July 20, 2020: 0.001, p 2020 Election: 0.00004.

Average US COVID−19 cases over the past 7 days

Mask mandate is from July 20th. Political lean is based on election results.

p masks as of July 20, 2020: 0.062, p 2020 Election: 0.0083.

Total US COVID−19 Deaths

Mask mandate is from July 20th. Political lean is based on election results.

p masks as of July 20, 2020: 0.44, p 2020 Election: 0.39.

Total US COVID−19 Deaths

Mask mandate is from July 20th. Political lean is based on election results.

p masks as of July 20, 2020: 0.38, p 2020 Election: 0.46.

Average US COVID−19 deaths over the past 7 days

Mask mandate is from July 20th. Political lean is based on election results.

p masks as of July 20, 2020: 0.34, p 2020 Election: 0.0039.

Daily testing trends from min to max

Line = Friedman's supersmoother

Change in daily tests over past 16 days

Mask mandate is from July 20th. Political lean is based on election results.

p masks as of July 20, 2020: 0.09, p 2020 Election: 0.16.

Percent Tested

Mask mandate is from July 20th. Political lean is based on election results.
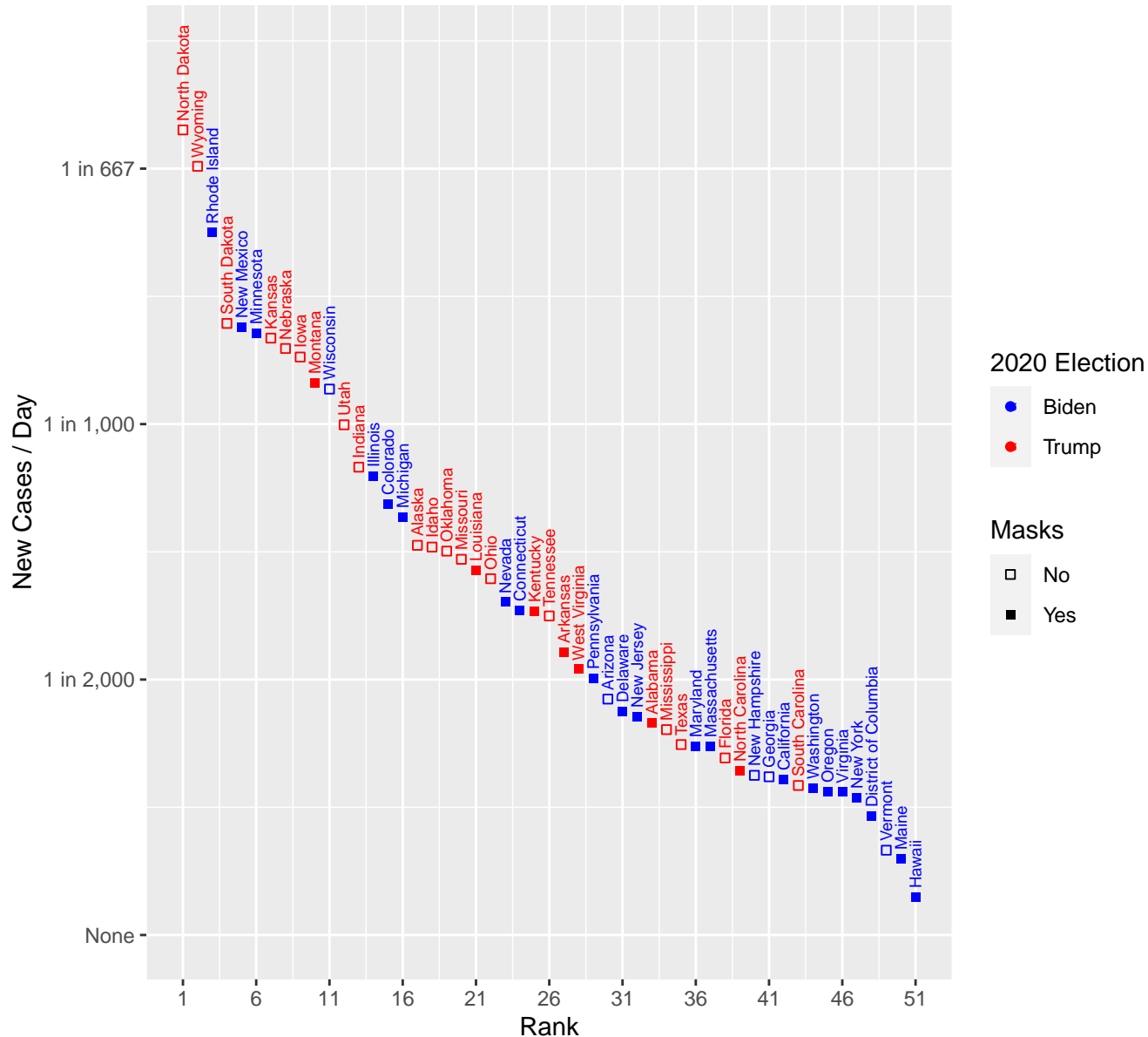
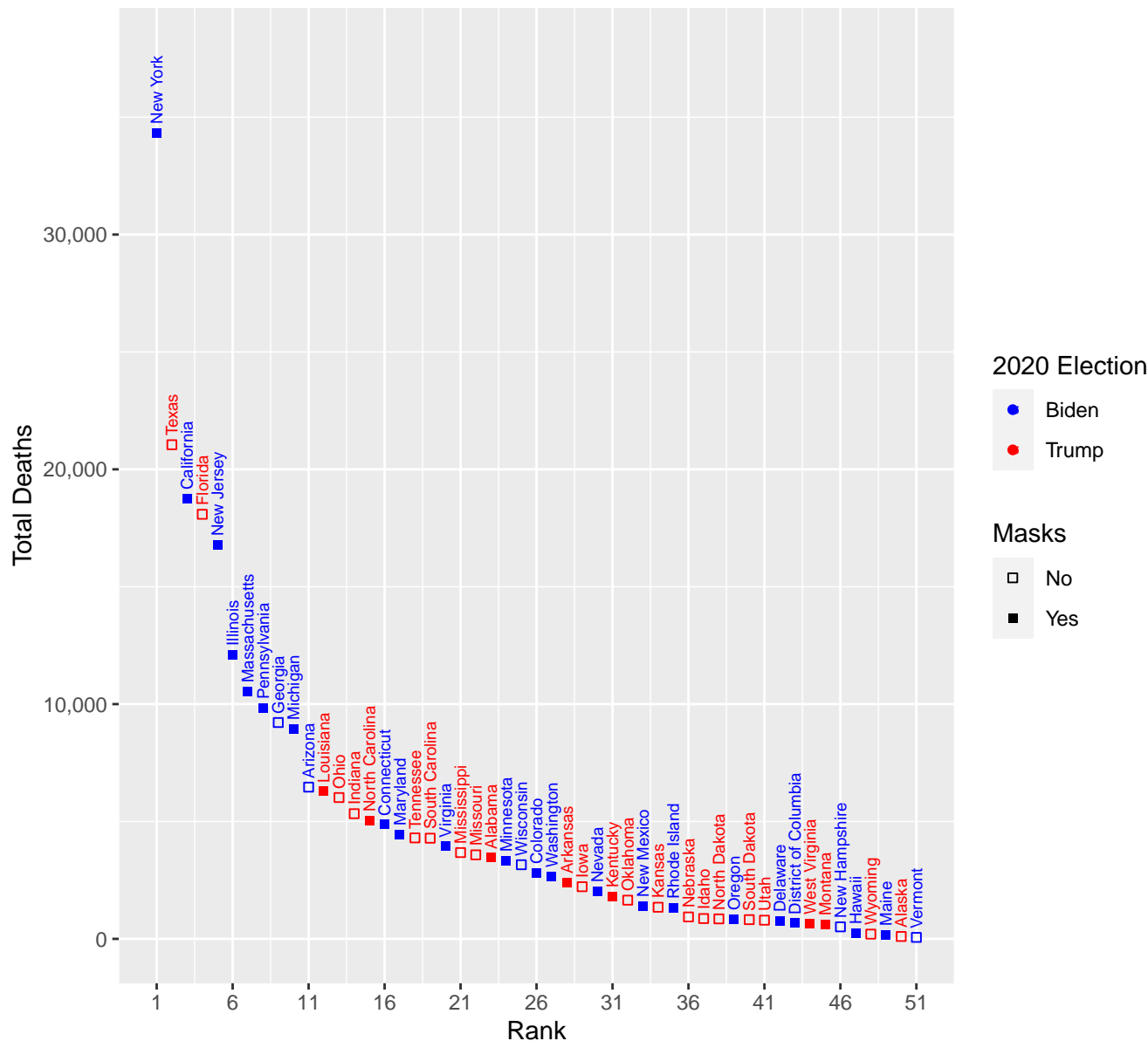p masks as of July 20, 2020: 0.017, p 2020 Election: 0.69.

Percent of Positive COVID Tests

Mask mandate is from July 20th. Political lean is based on election results.

p masks as of July 20, 2020: 0.013, p 2020 Election: 0.078.

Percent Positive Trends

Percent Positive (log scale)
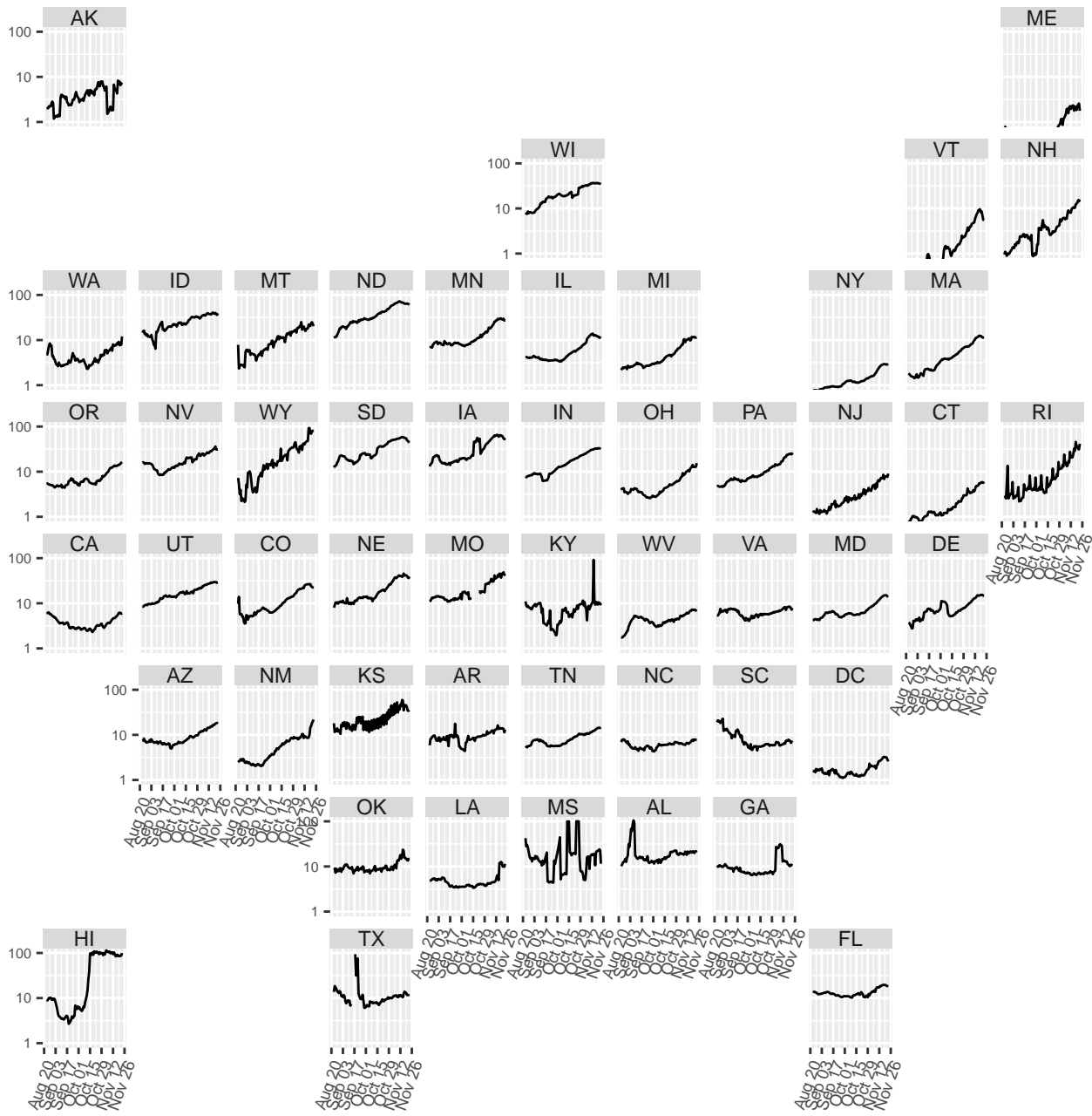
Change in tests vs. change in positive tests over last 14 days as of 2020−11−24

Size is proportional daily deaths per capita over the past 7 days
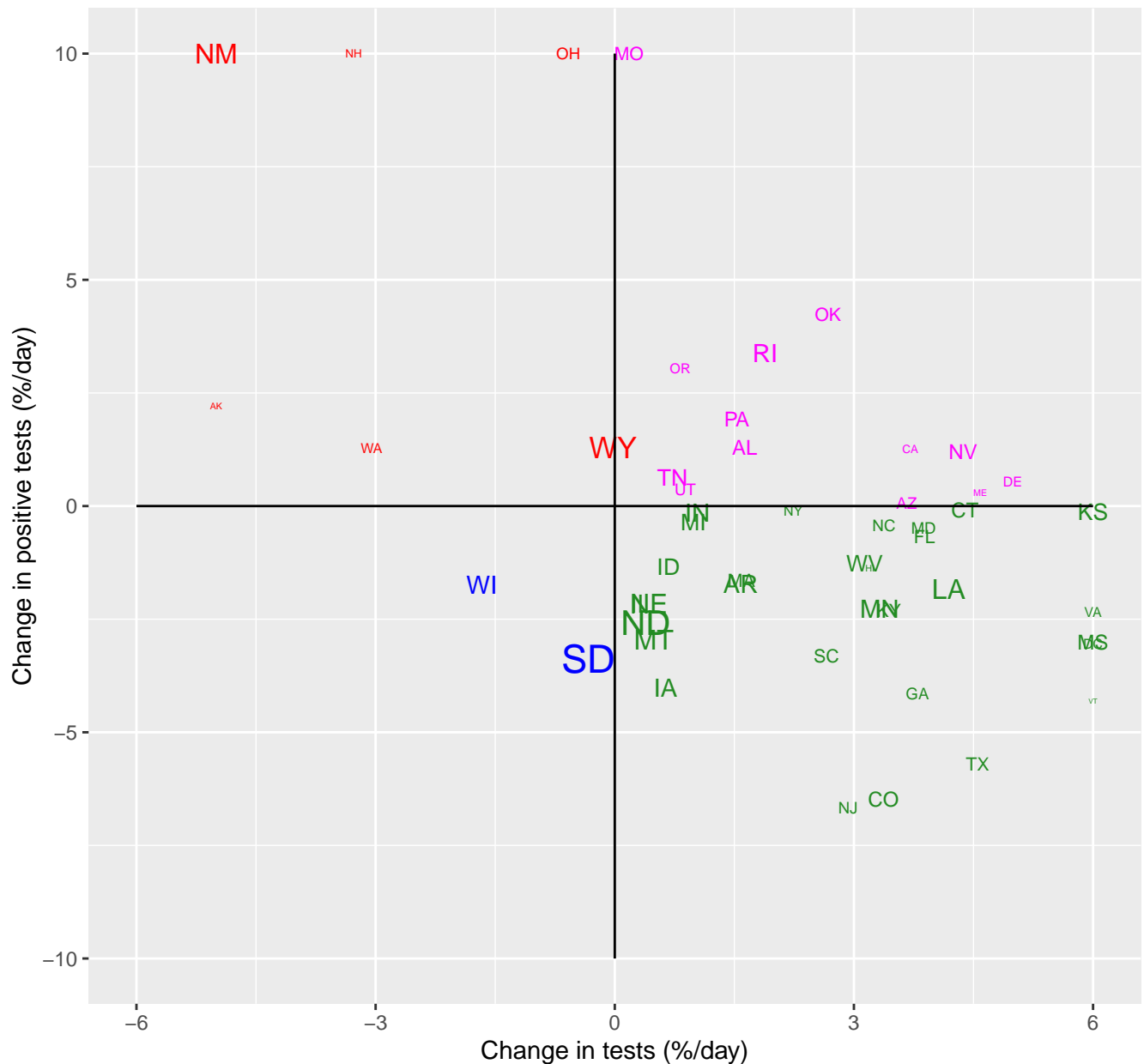
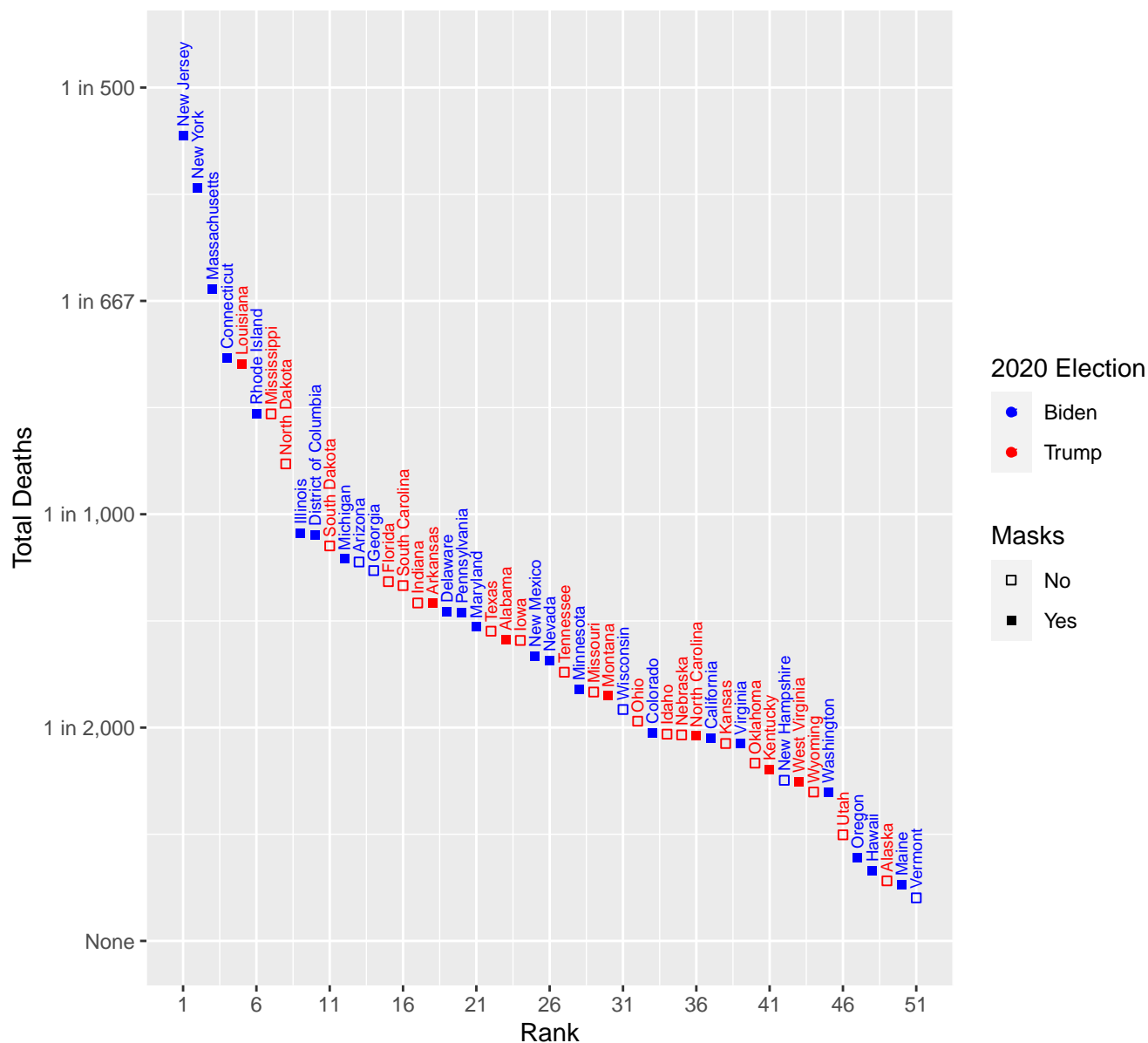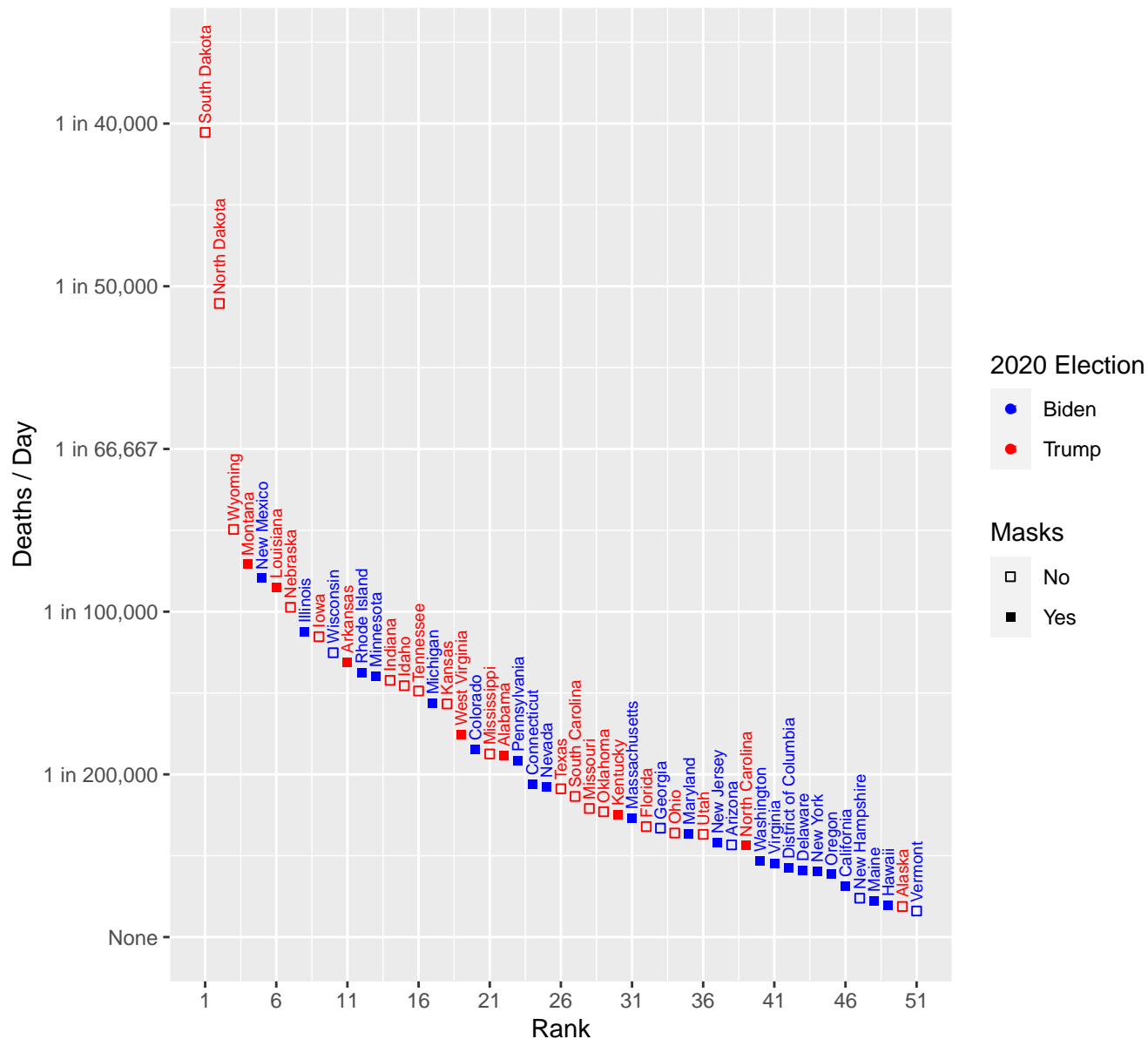Current hospitalizations as a percent of peak since February

Mask mandate is from July 20th. Political lean is based on election results.
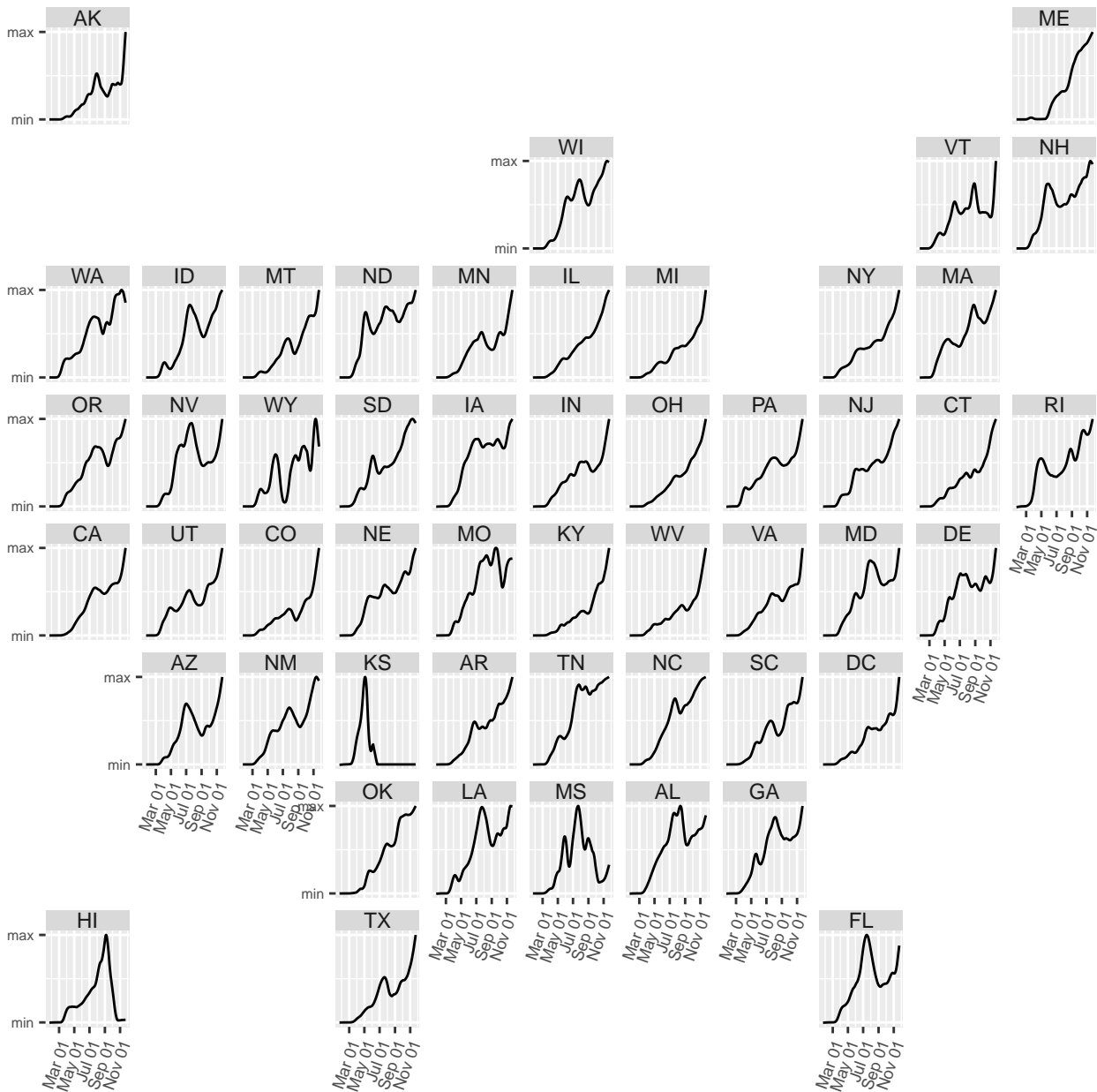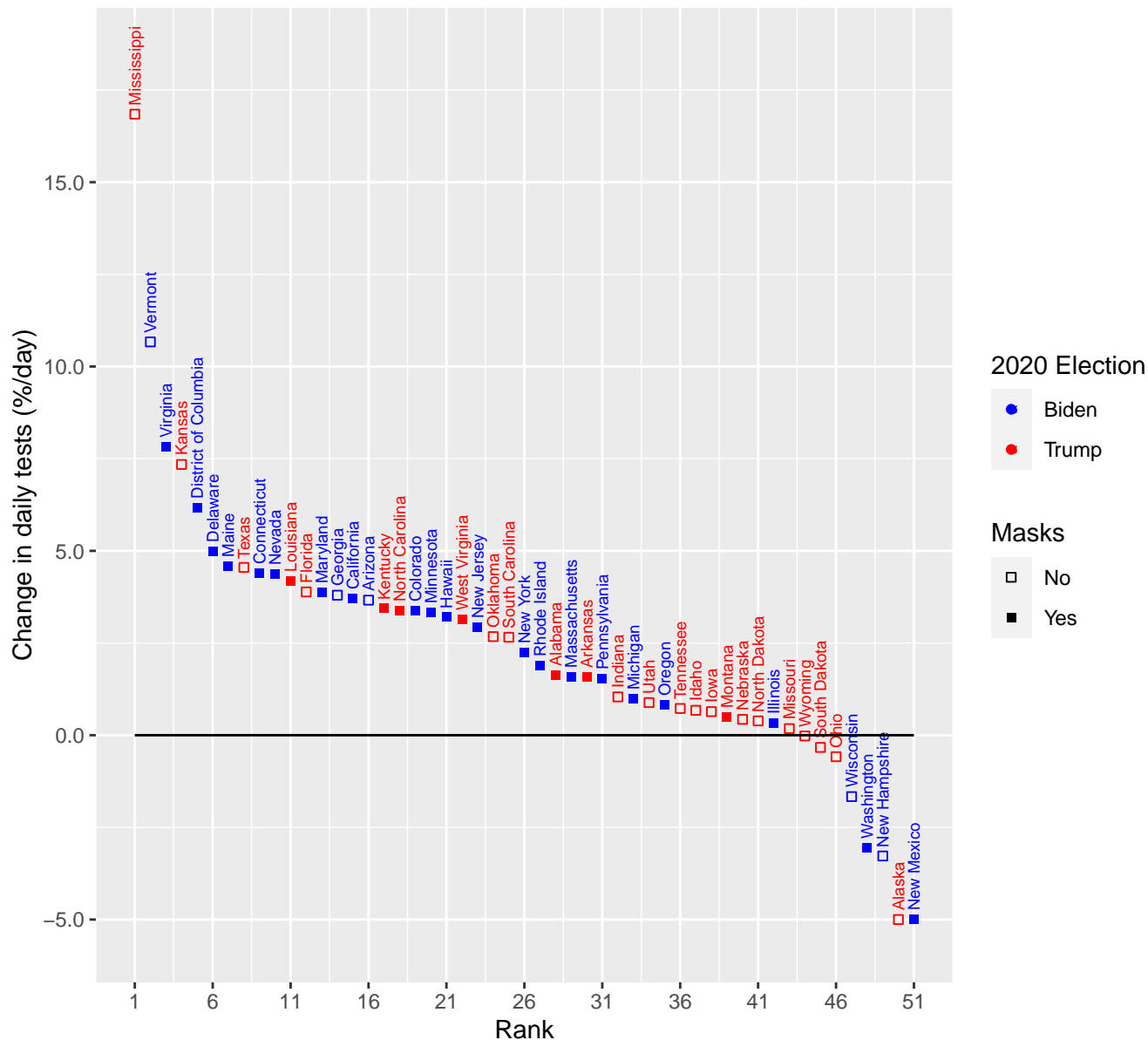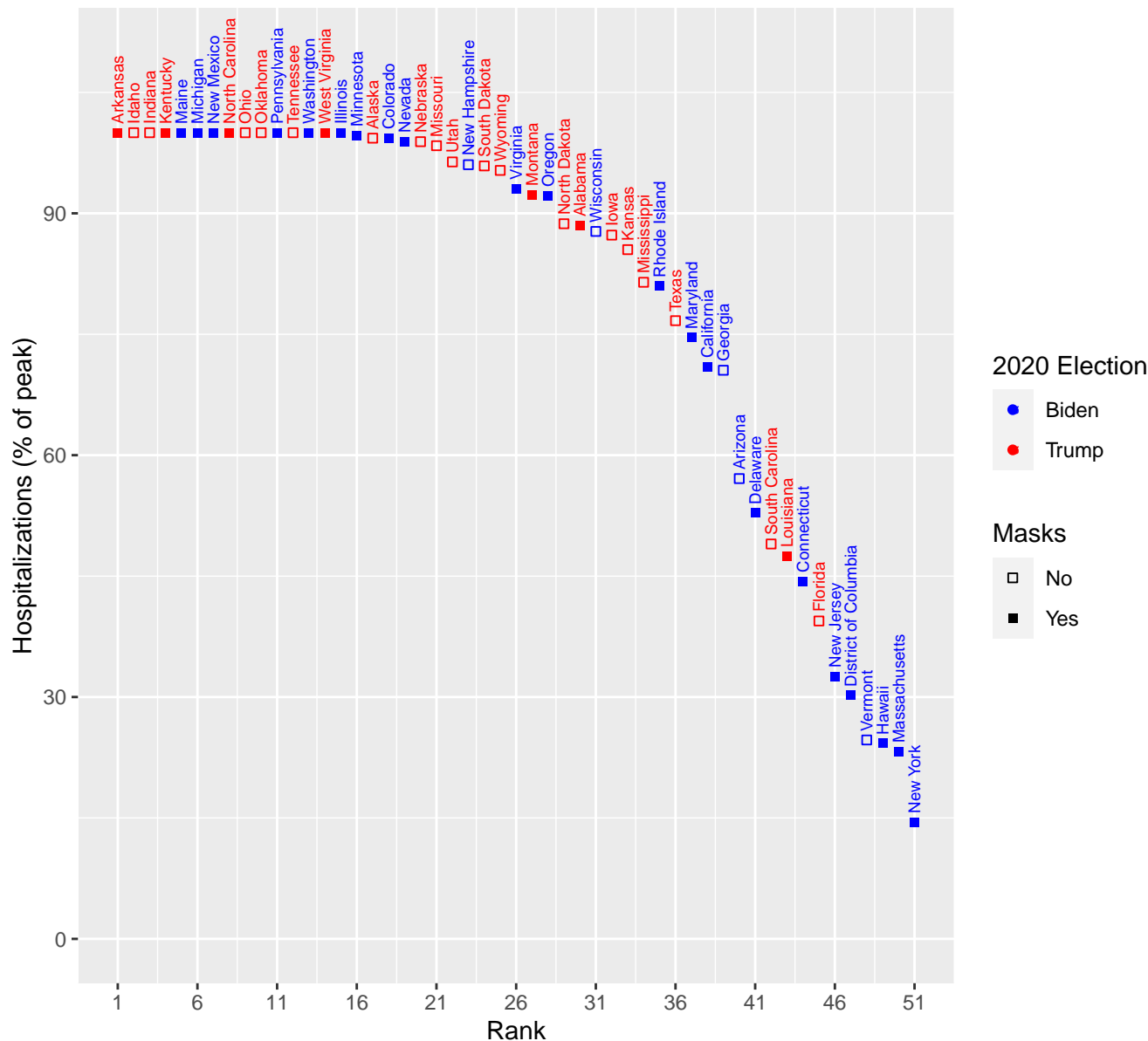
p masks as of July 20, 2020: 0.99, p 2020 Election: 0.044.

Hospitalizations trends from min to max
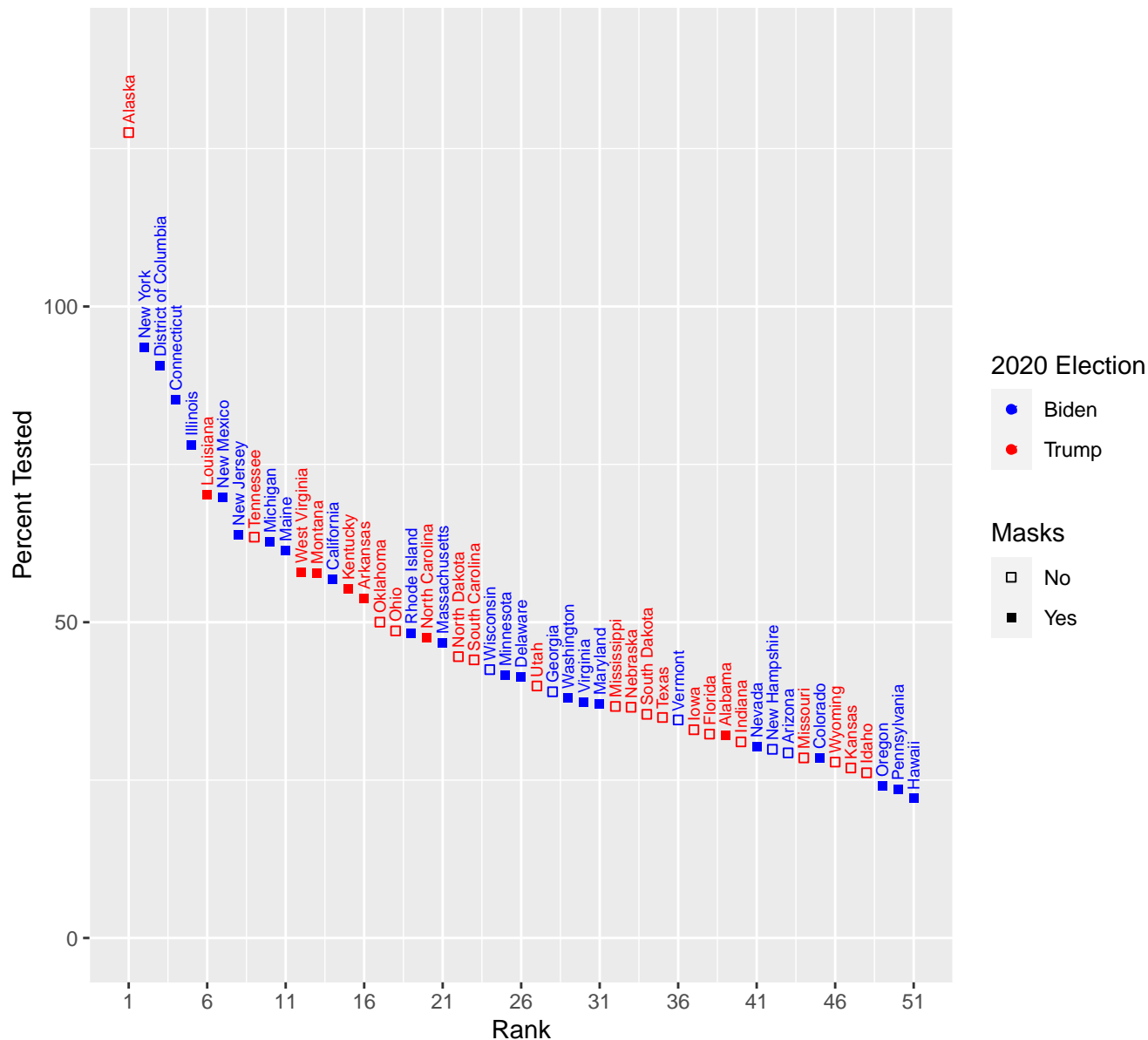
Change in hospitalizations over past 14 days

Mask mandate is from July 20th. Political lean is based on election results.

p masks as of July 20, 2020: 0.0046, p 2020 Election: 0.0037.
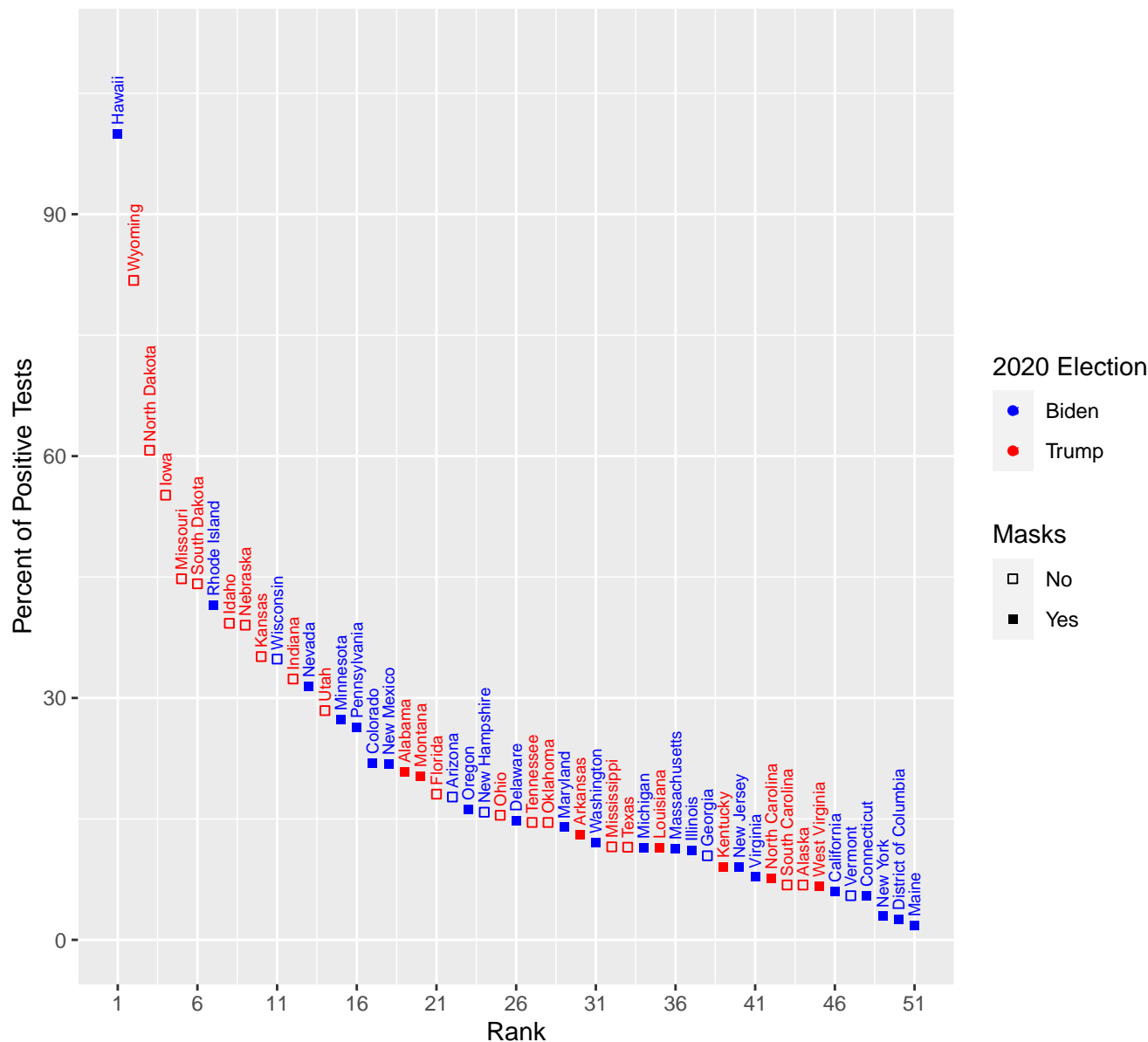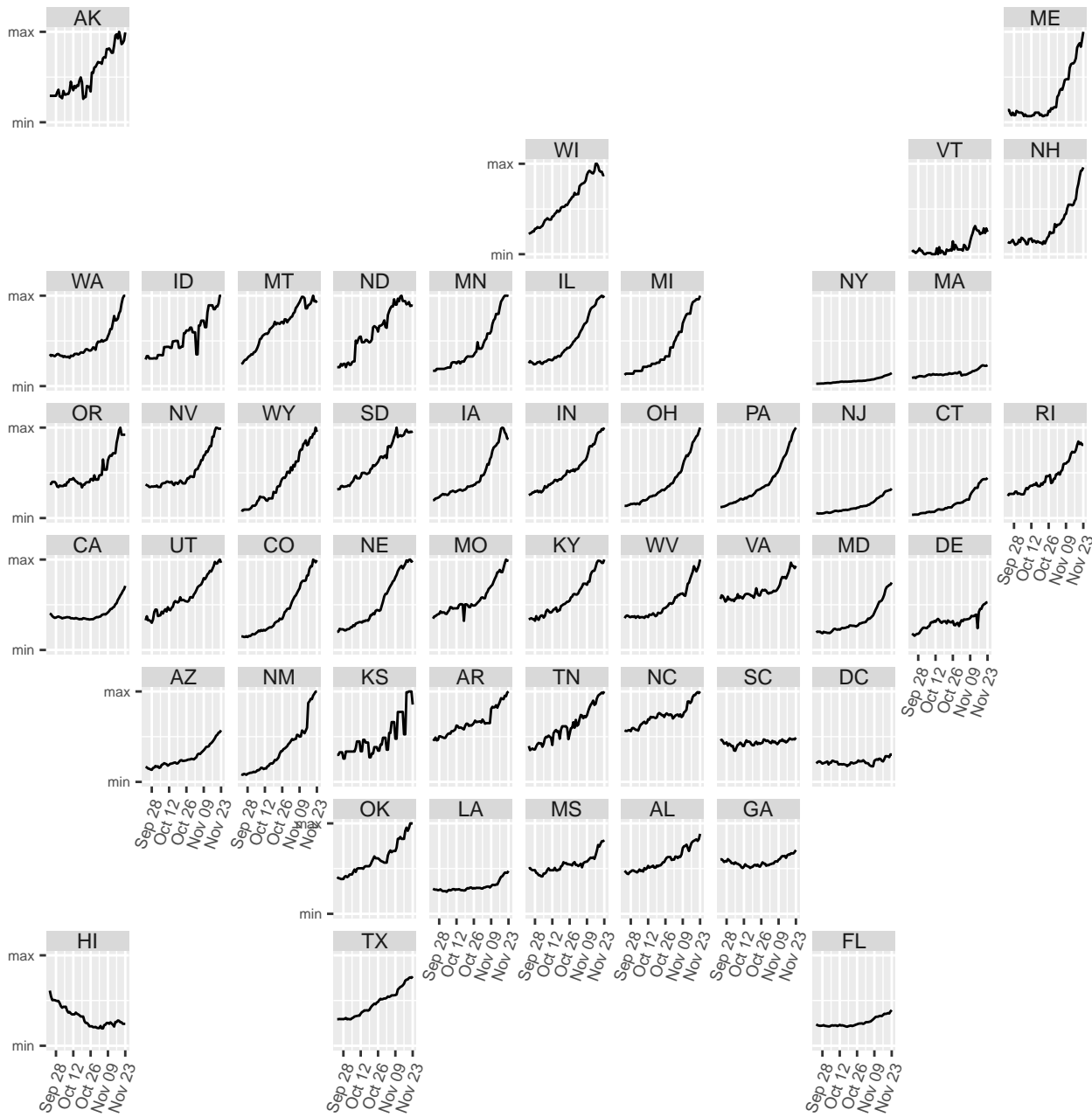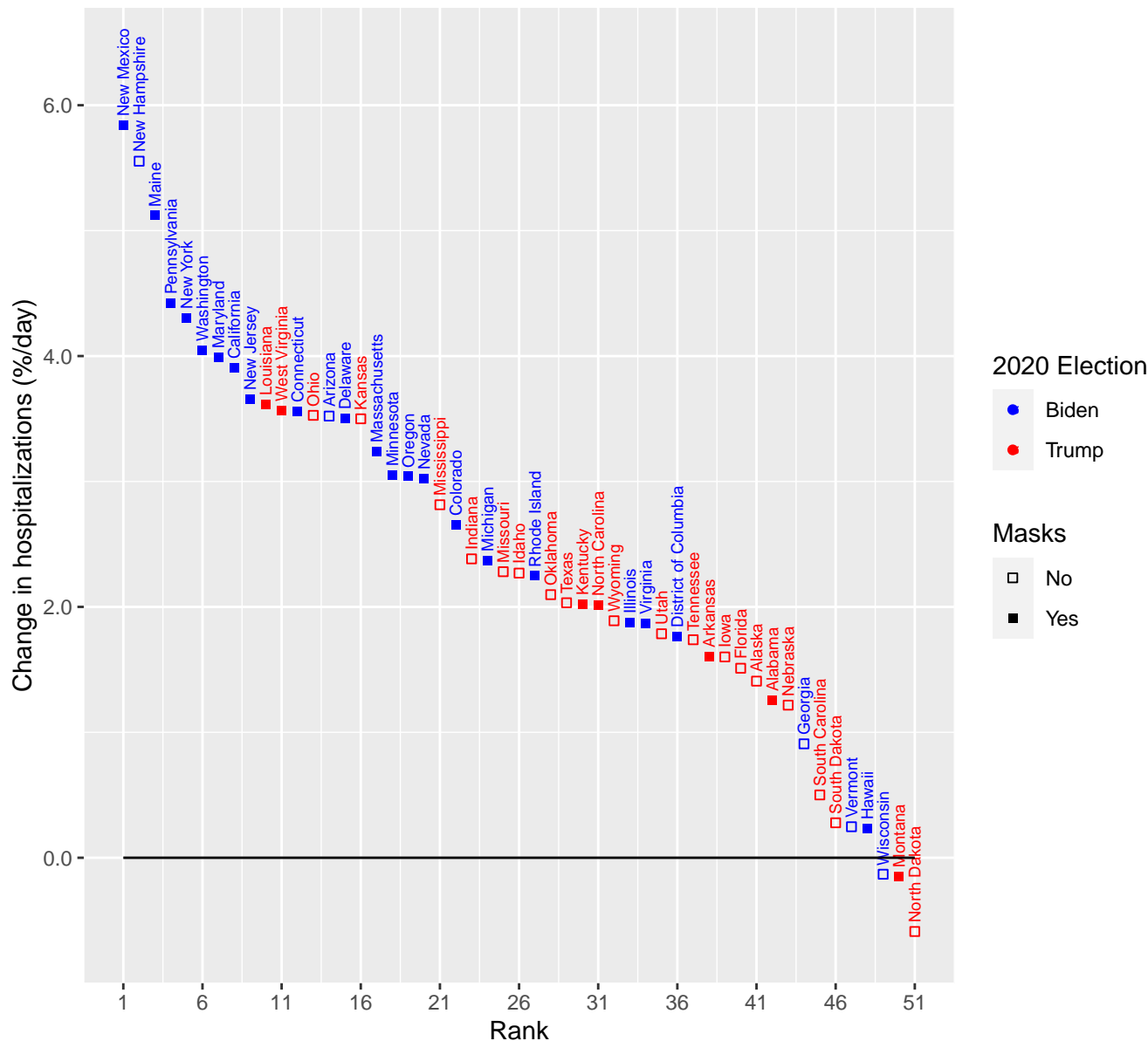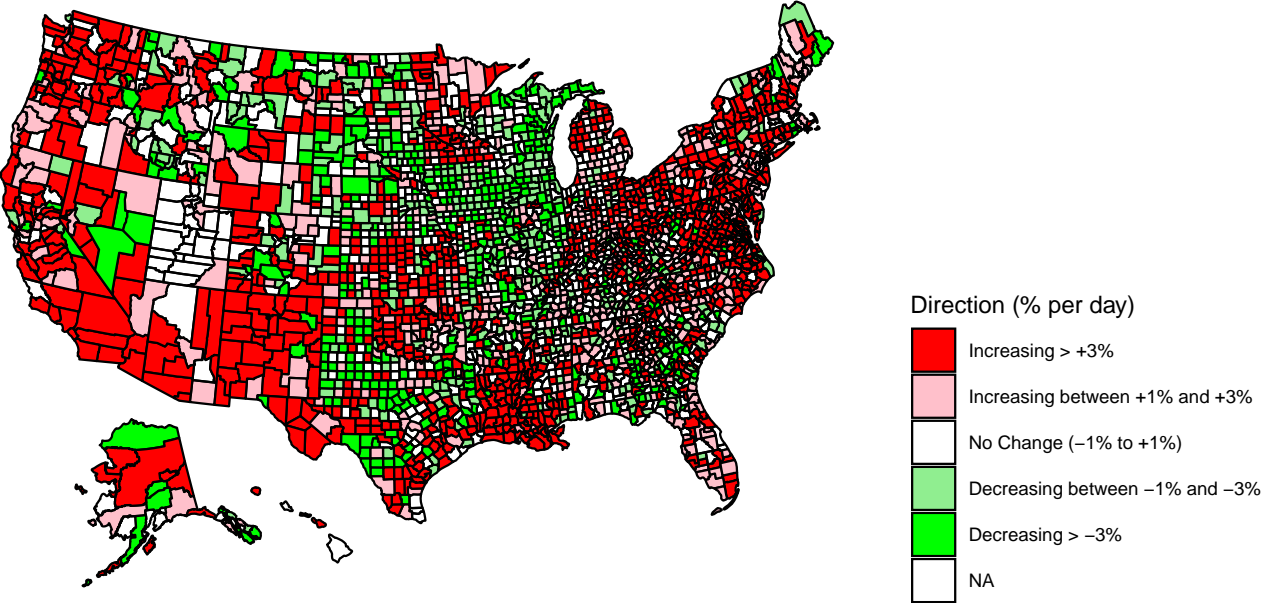
Case trends over 16 days as of 2020–11–24

Direction (% per day)

- Increasing > +3%
- Increasing between +1% and +3%
- No Change (−1% to +1%)
- Decreasing between −1% and −3%
- Decreasing > −3%
- NA

NA = Inadequate data

Death trends over 16 days as of 2020–11–24

Direction (% per day)

- Increasing > +3%
- Increasing between +1% and +3%
- Decreasing between −1% and −3%
- Decreasing > −3%
- NA

NA = Inadequate data