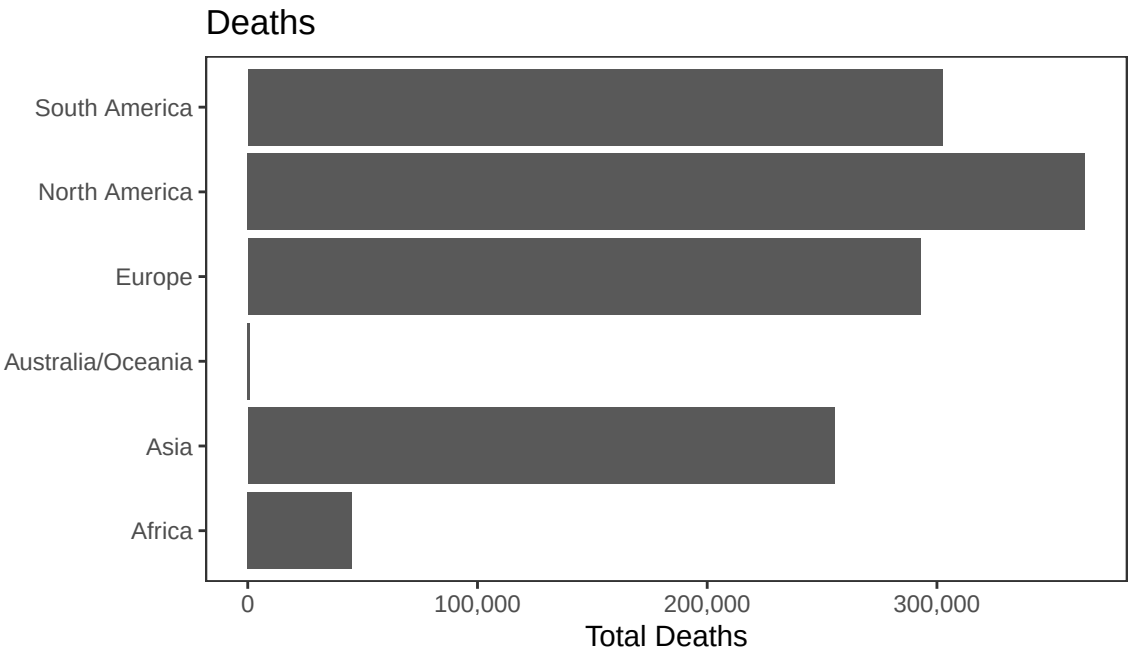
# Erik's Covid-19 Chart Pack

Data updated 2020-11-09 11:55:31. World data are from Worldometers. National and state-level mortality, case, and testing data are from Johns-Hopkins University. County and city-level mortality and case data are from the New York Times. Most data presented in this report were accessed through APIs provided by The COVID Tracking Project and NovelCOVID API.

## World Data

There have been 50,723,121 confirmed Covid-19 cases and 1,261,747 deaths worldwide.



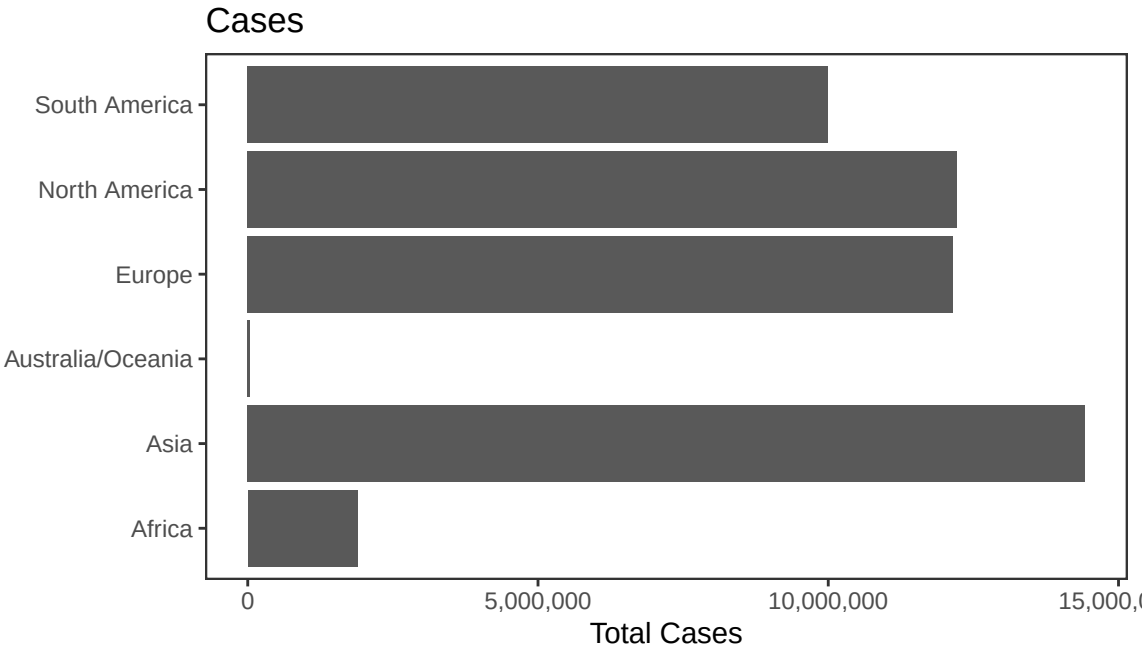
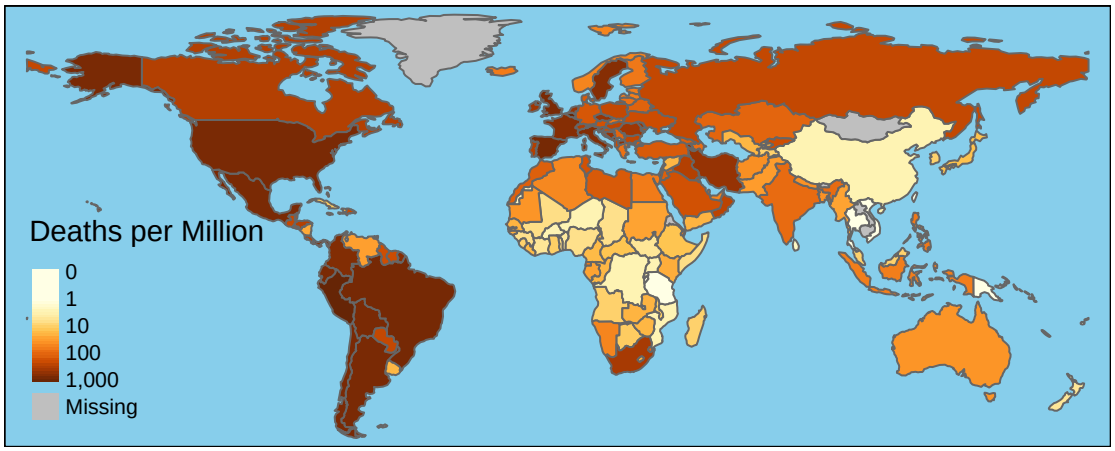
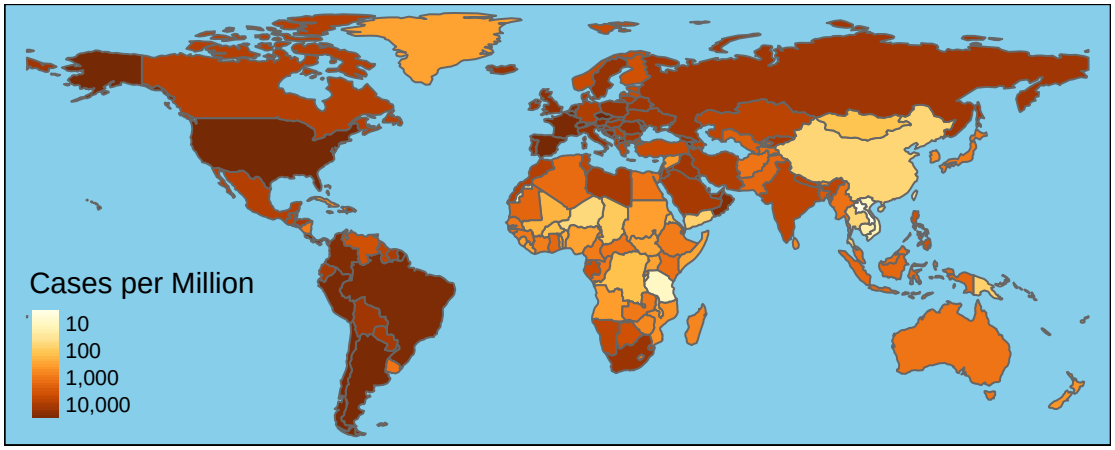
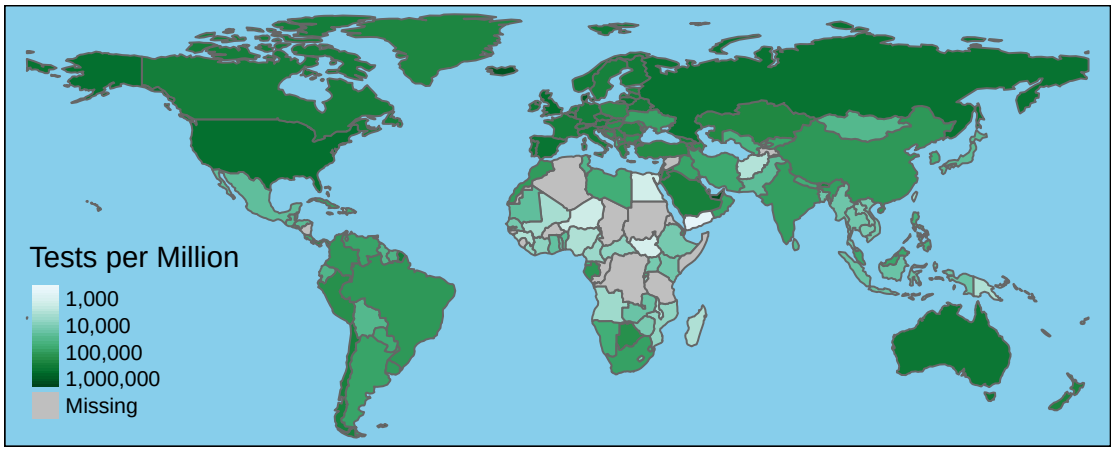



Table 1: Top Countries by Total Cases

| Country | Cases | Deaths | New Cases | New Deaths |
|---|---|---|---|---|
| USA | 10,288,507 | 243,768 | 102,694 | 512 |
| India | 8,553,864 | 126,653 | 46,661 | 491 |
| Brazil | 5,664,115 | 162,397 | 10,554 | 111 |
| France | 1,787,324 | 40,439 | 38,619 | 270 |
| Russia | 1,774,334 | 30,537 | 20,498 | 286 |
| Spain | 1,388,411 | 38,833 | 0 | 0 |
| Argentina | 1,242,182 | 33,560 | 5,331 | 212 |
| UK | 1,192,013 | 49,044 | 20,572 | 156 |
| Colombia | 1,143,887 | 32,791 | 7,440 | 196 |
| Mexico | 961,938 | 94,808 | 6,810 | 485 |
| Italy | 935,102 | 41,394 | 32,614 | 331 |
| Peru | 922,333 | 34,879 | 2,323 | 39 |
| South Africa | 737,278 | 19,809 | 1,372 | 20 |
| Iran | 682,486 | 38,291 | 9,236 | 459 |
| Germany | 672,507 | 11,505 | 14,026 | 70 |
| Poland | 546,425 | 7,872 | 24,785 | 236 |
| Chile | 521,558 | 14,543 | 1,581 | 44 |
| Iraq | 498,549 | 11,327 | 2,530 | 44 |
| Belgium | 494,168 | 12,907 | 6,124 | 199 |
| Ukraine | 460,331 | 8,450 | 9,397 | 138 |


Deaths per Million
0
1
10
100
1,000
Missing


Cases per Million
10
100
1,000
10,000


Tests per Million
1,000
10,000
100,000
1,000,000
Missing

## National Data

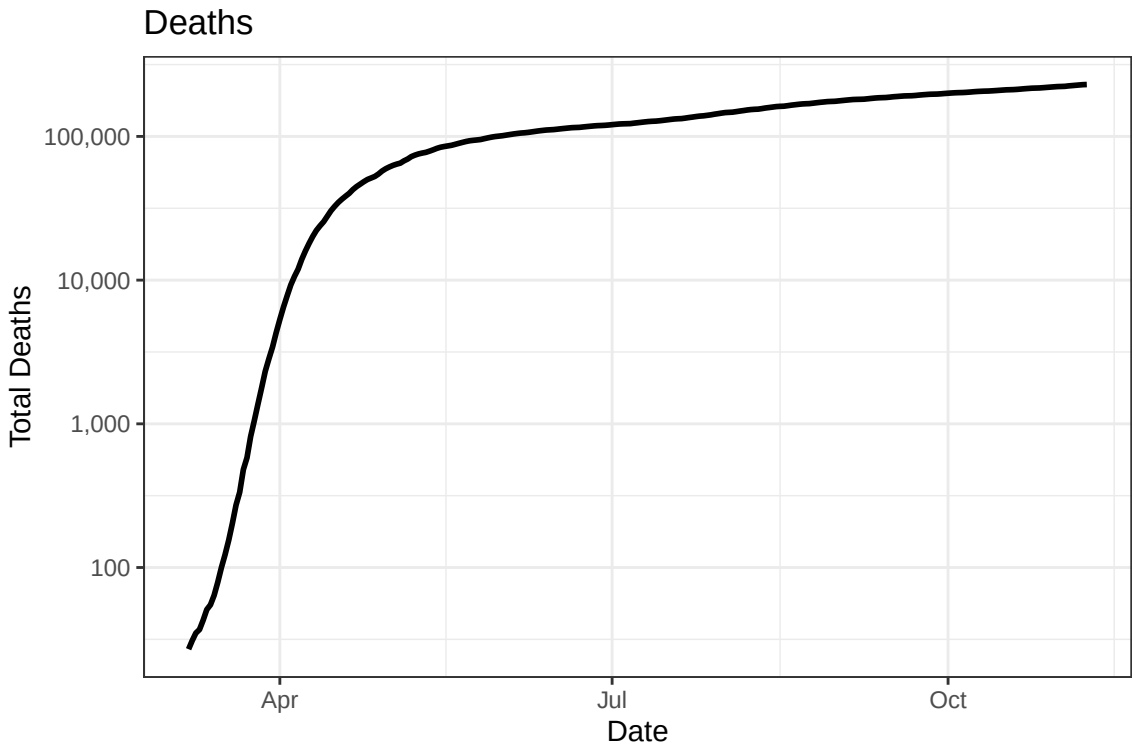
There have been 9,871,751 confirmed Covid-19 cases and 229,724 deaths in the United States.

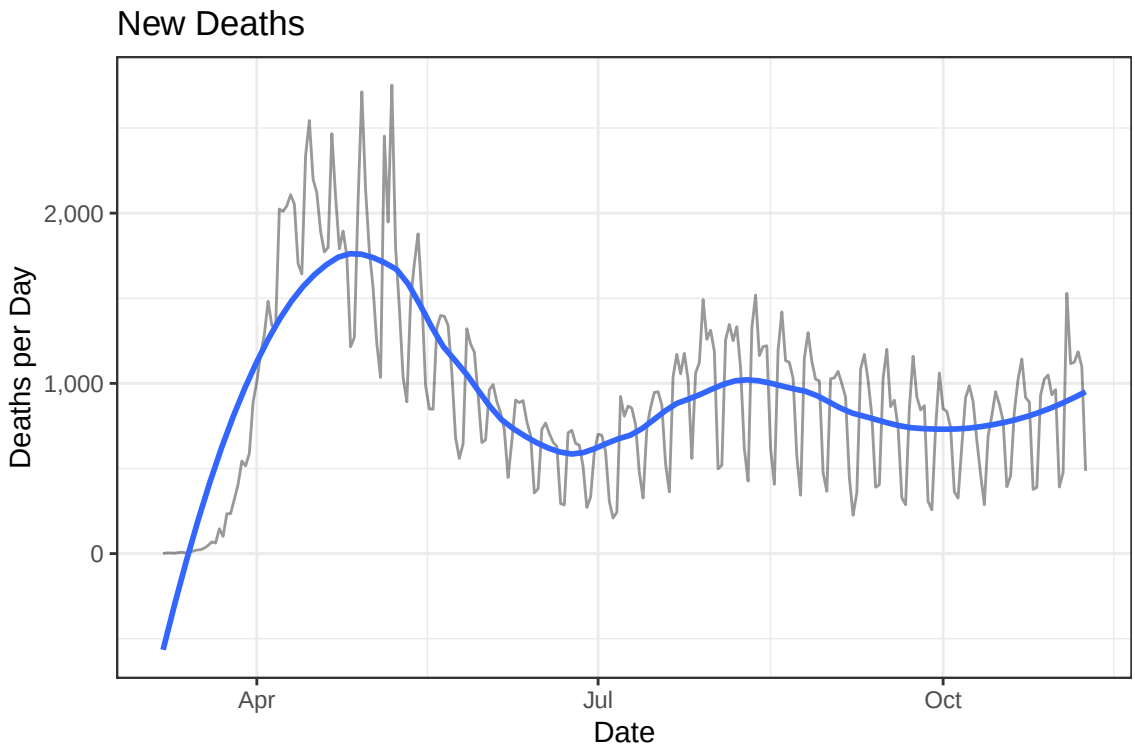
Table 2: U.S. Deaths and Cases over the Last Two Weeks

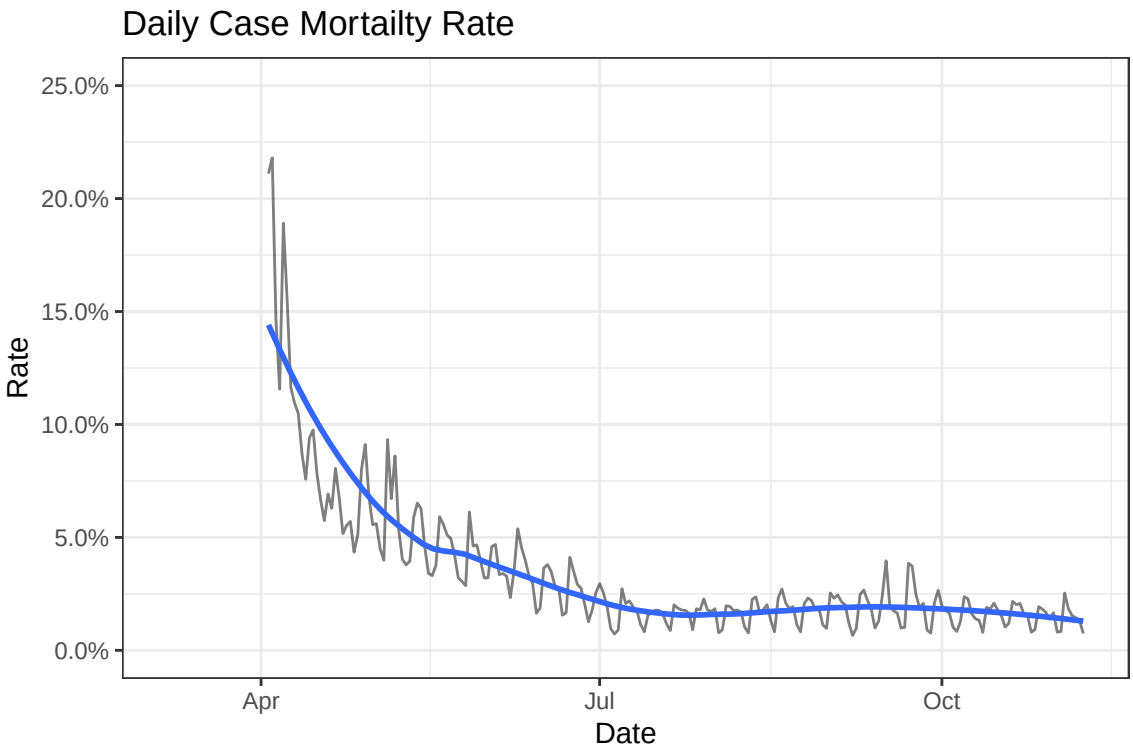
| Date | Cases | Deaths | New Cases | New Deaths |
|---|---|---|---|---|
| 2020-11-08 | 9,871,751 | 229,724 | 110,270 | 486 |
| 2020-11-07 | 9,761,481 | 229,238 | 128,396 | 1,097 |
| 2020-11-06 | 9,633,085 | 228,141 | 125,252 | 1,186 |
| 2020-11-05 | 9,507,833 | 226,955 | 116,153 | 1,124 |
| 2020-11-04 | 9,391,680 | 225,831 | 103,067 | 1,116 |
| 2020-11-03 | 9,288,613 | 224,715 | 86,081 | 1,529 |
| 2020-11-02 | 9,202,532 | 223,186 | 82,248 | 476 |
| 2020-11-01 | 9,120,284 | 222,710 | 74,051 | 391 |
| 2020-10-31 | 9,046,233 | 222,319 | 90,492 | 963 |
| 2020-10-30 | 8,955,741 | 221,356 | 96,709 | 933 |
| 2020-10-29 | 8,859,032 | 220,423 | 87,993 | 1,049 |
| 2020-10-28 | 8,771,039 | 219,374 | 78,637 | 1,025 |
| 2020-10-27 | 8,692,402 | 218,349 | 72,997 | 931 |
| 2020-10-26 | 8,619,405 | 217,418 | 62,103 | 389 |

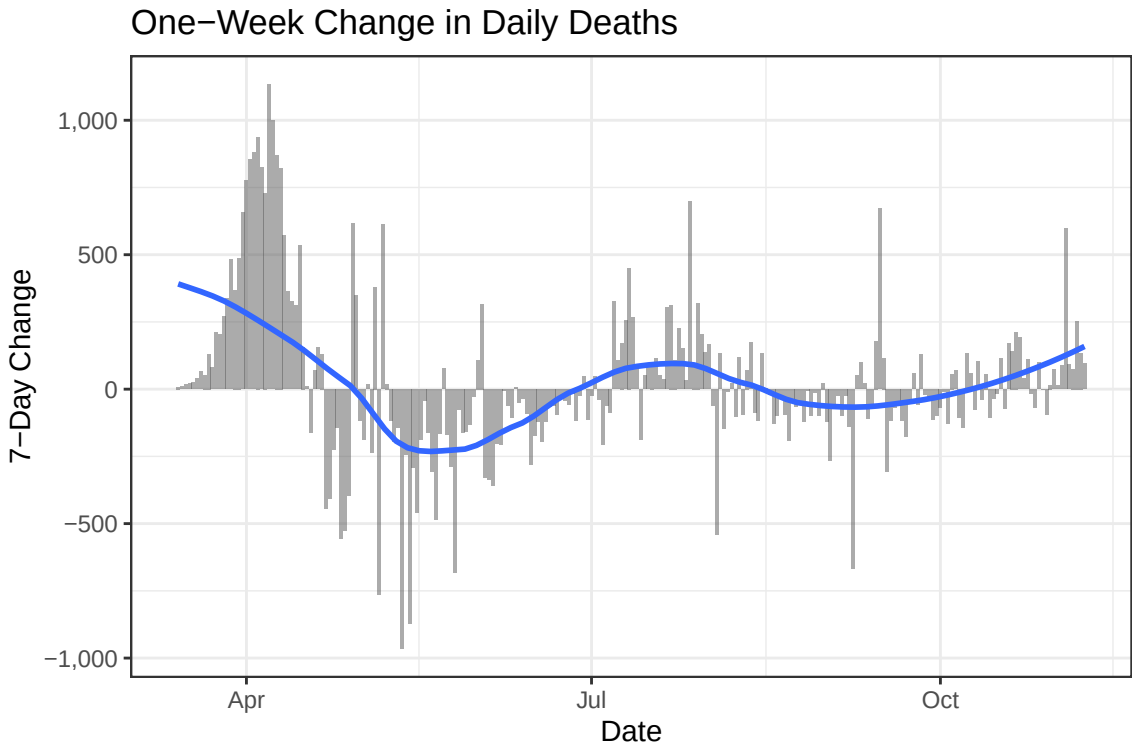
## Deaths

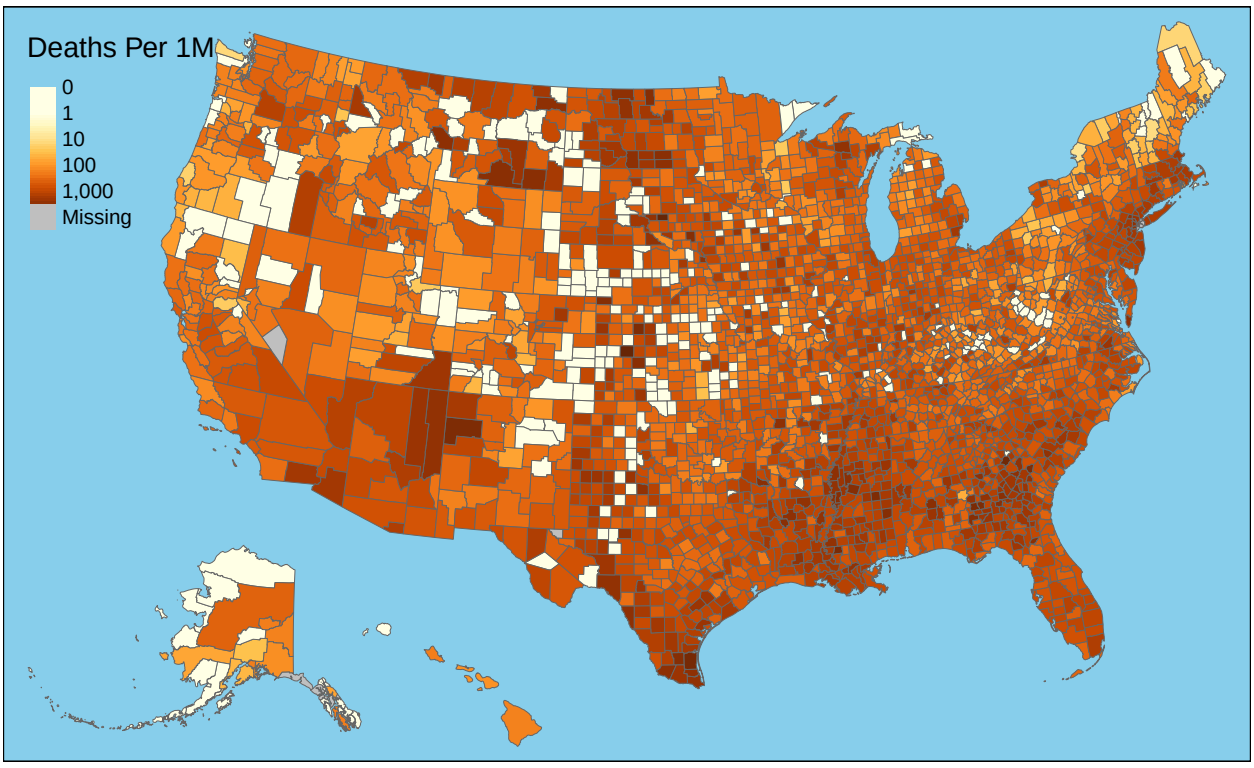
Because the effects of the virus can take several weeks to manifest in patients, deaths are a lagging indicator of contagion, but they may be a more reliable than case counts, which are a function of both the prevalence of the disease and the rate of testing. The case mortality rate is a very crude indicator of lethality because a large numbers of non-lethal cases are likely never detected. A declining case mortality rate is indicative of more widespread testing.



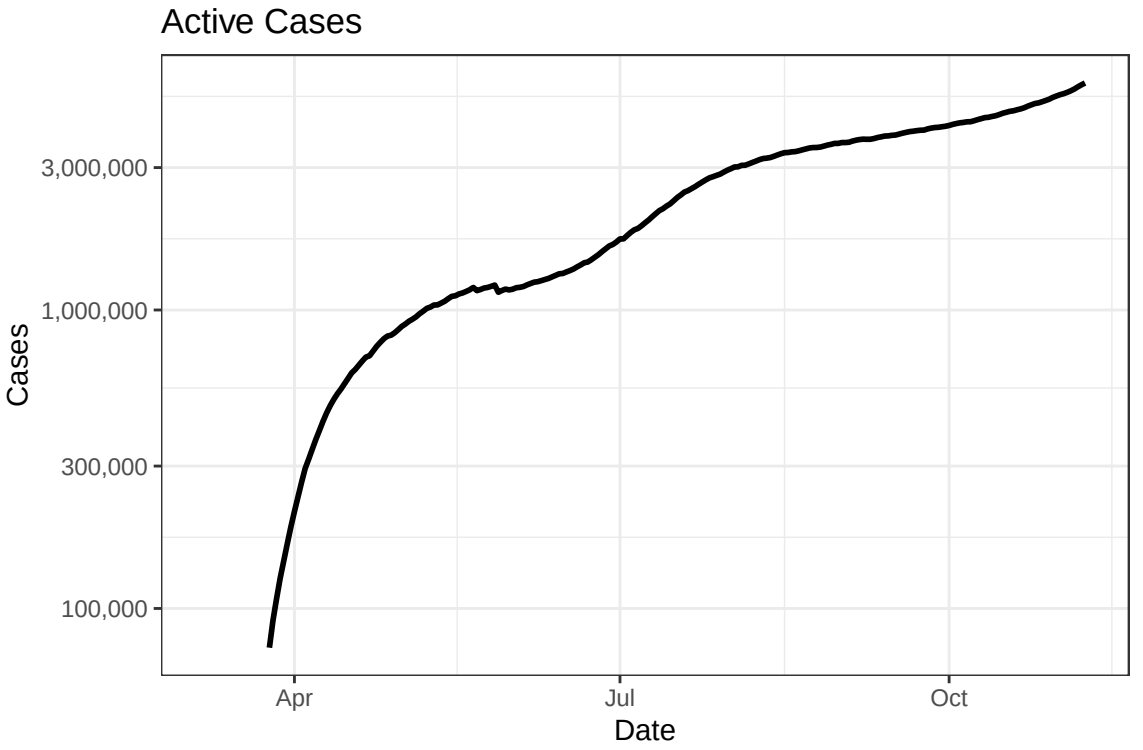

Daily Case Mortailty Rate
25.0%
20.0%
15.0%
10.0%
5.0%
0.0%
Rate
Apr
Jul
Oct
Date

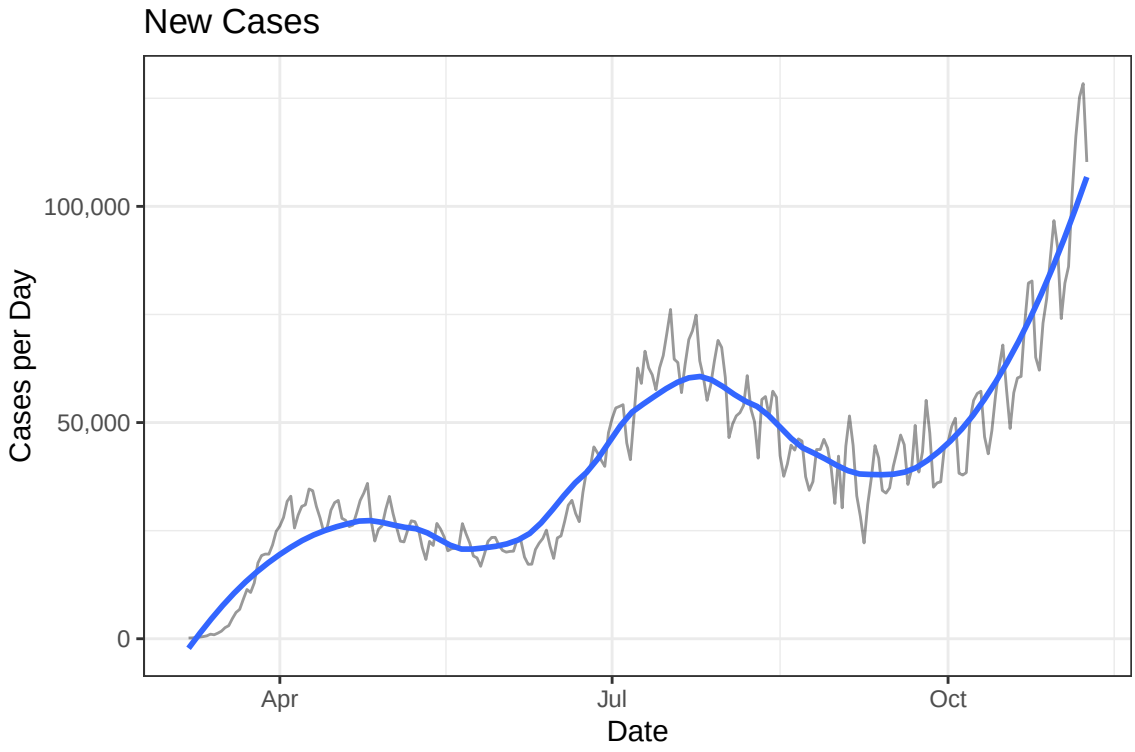

One−Week Change in Daily Deaths
1,000
500
0
−500
−1,000
7−Day Change
Apr
Jul
Oct
Date

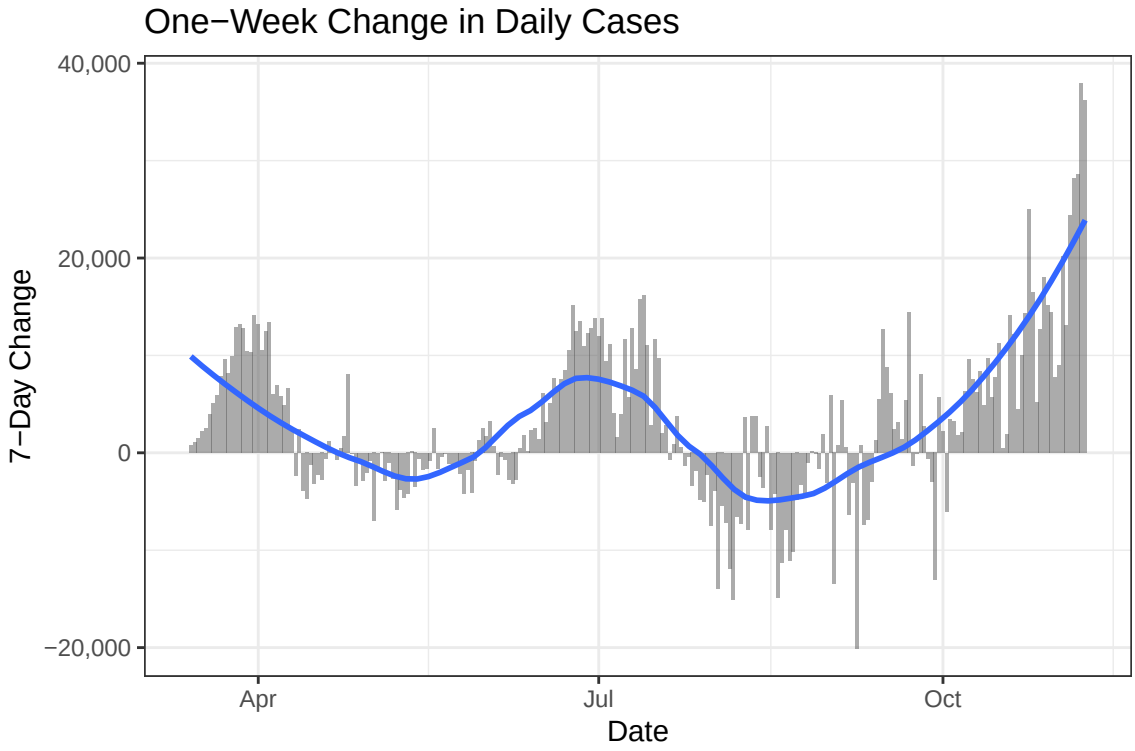

Deaths Per 1M
0
1
10
100
1,000
Missing

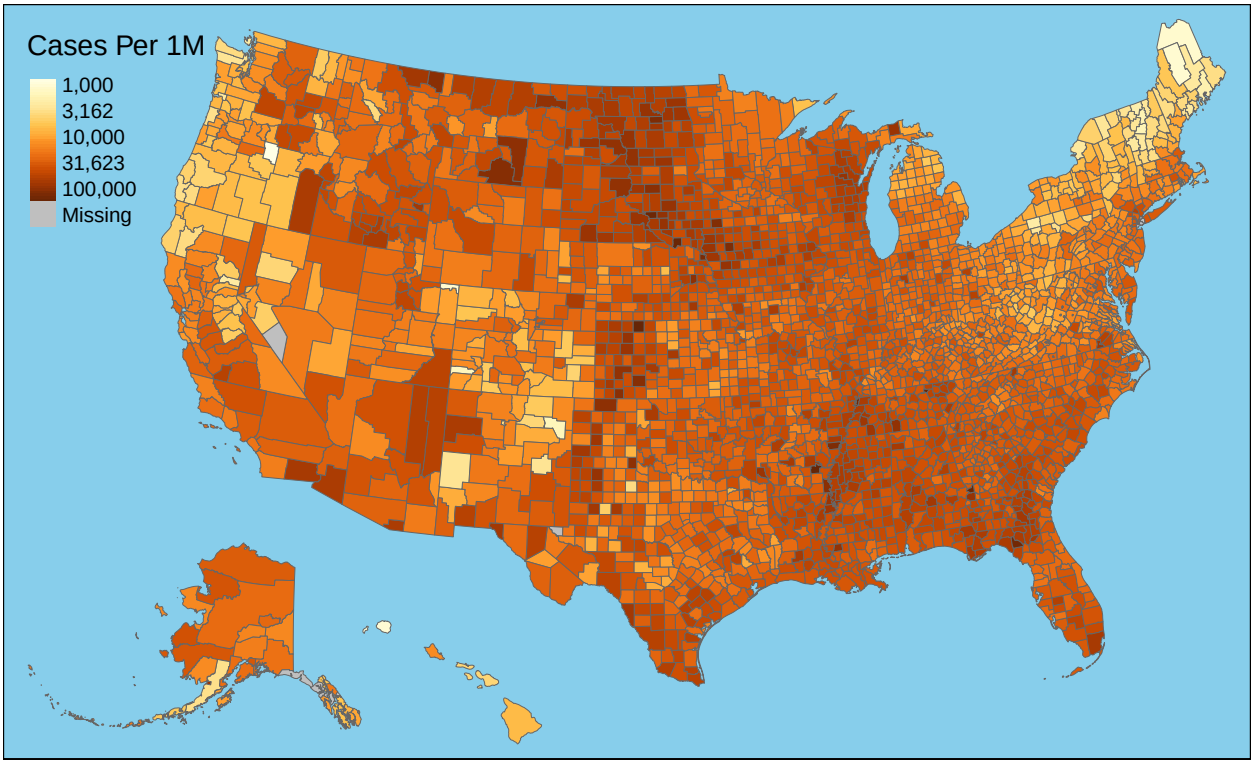
## Cases

Reported cases are a function of both the spread of the disease and the prevalence of testing.



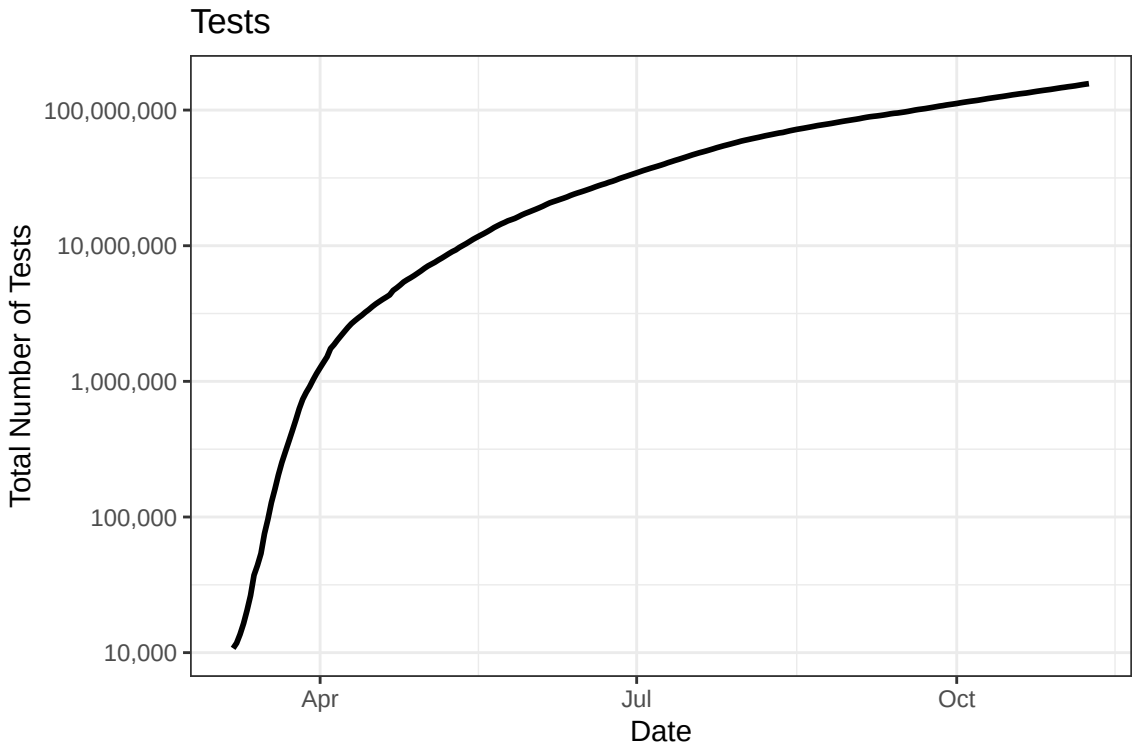



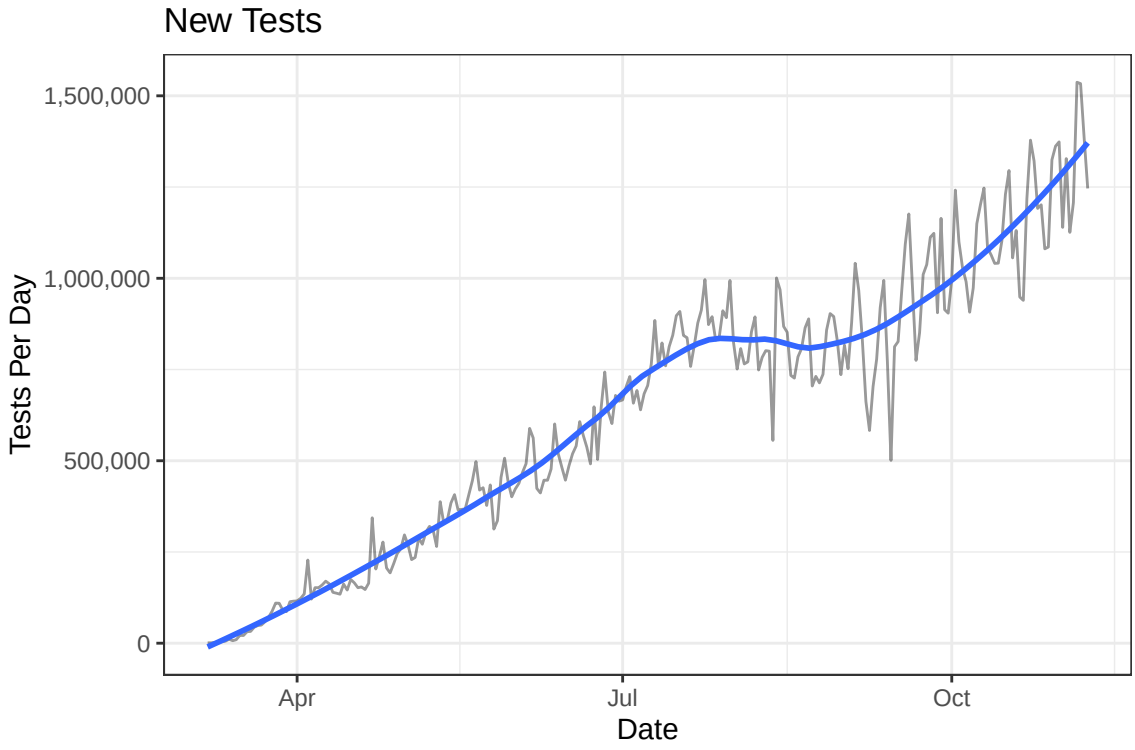

One−Week Change in Daily Cases
40,000
20,000
0
−20,000
7−Day Change
Apr
Jul
Oct
Date

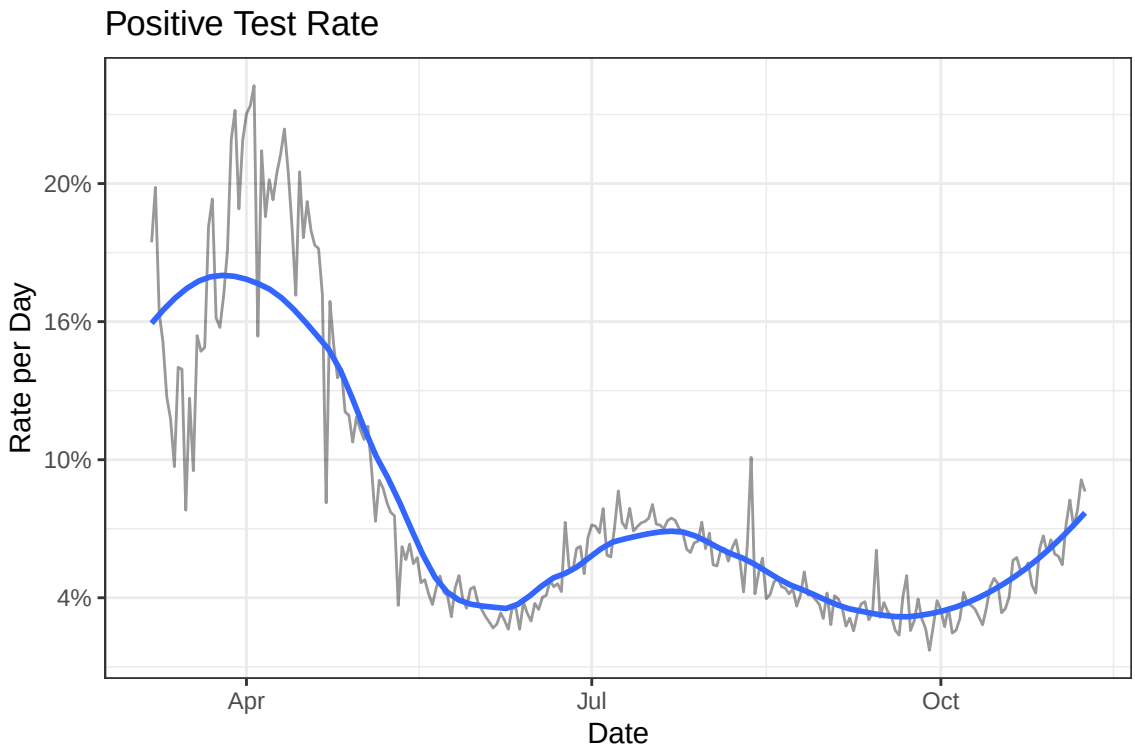

Cases Per 1M
1,000
3,162
10,000
31,623
100,000
Missing

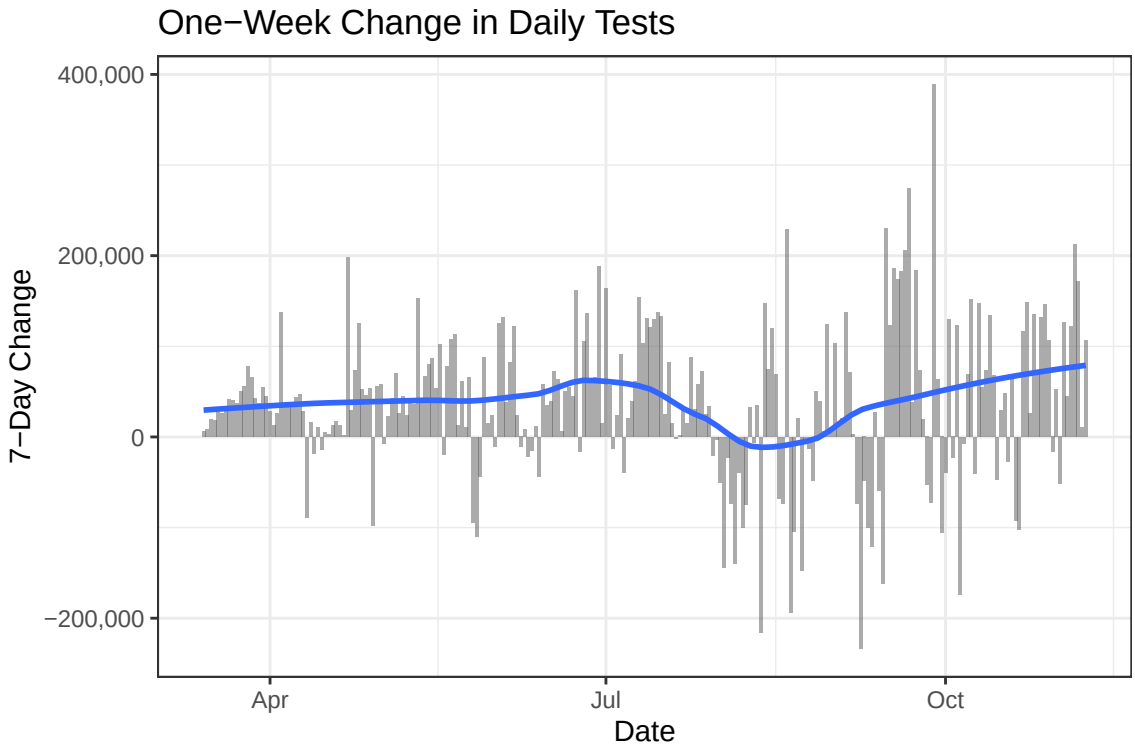
## Testing

Widespread testing is necessary for managing the spread of the disease. The following charts show how testing in the United States has changed over time. When the supply of available tests is limited, they are typically only used for patients whose symptoms suggest they are likely to have contracted the virus. A high positive test rate indicates that testing capacity is constrained.



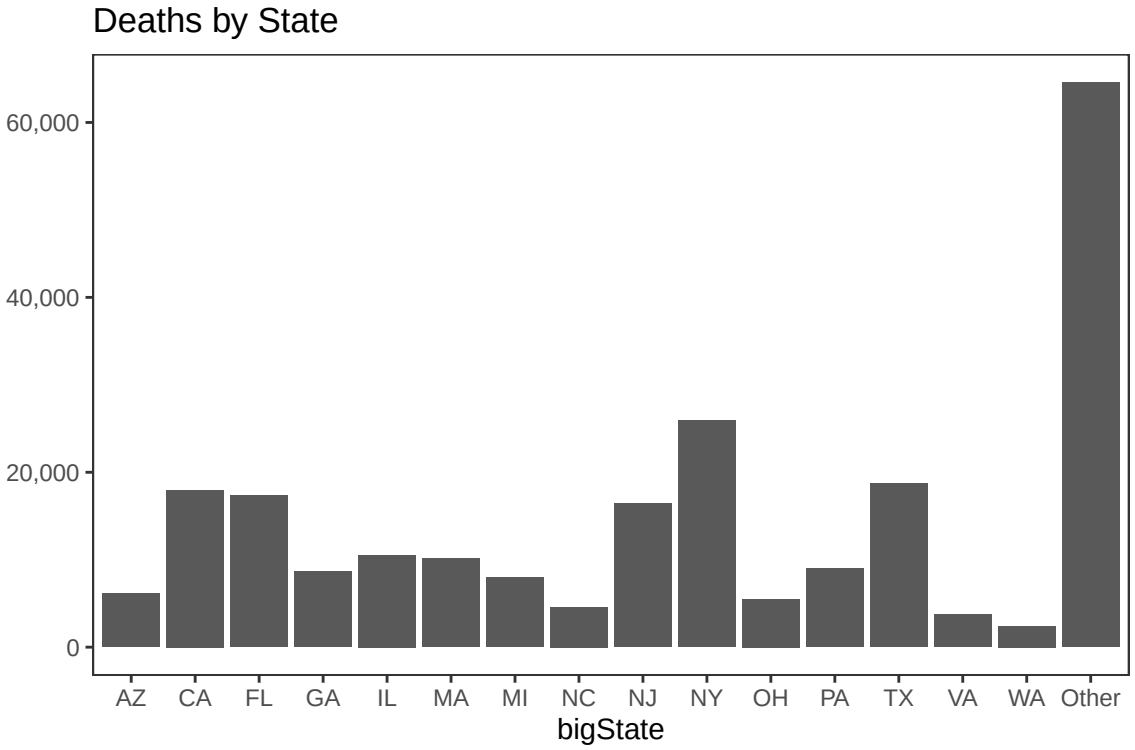

Positive Test Rate
20%
16%
10%
4%
Rate per Day
Apr
Jul
Oct
Date

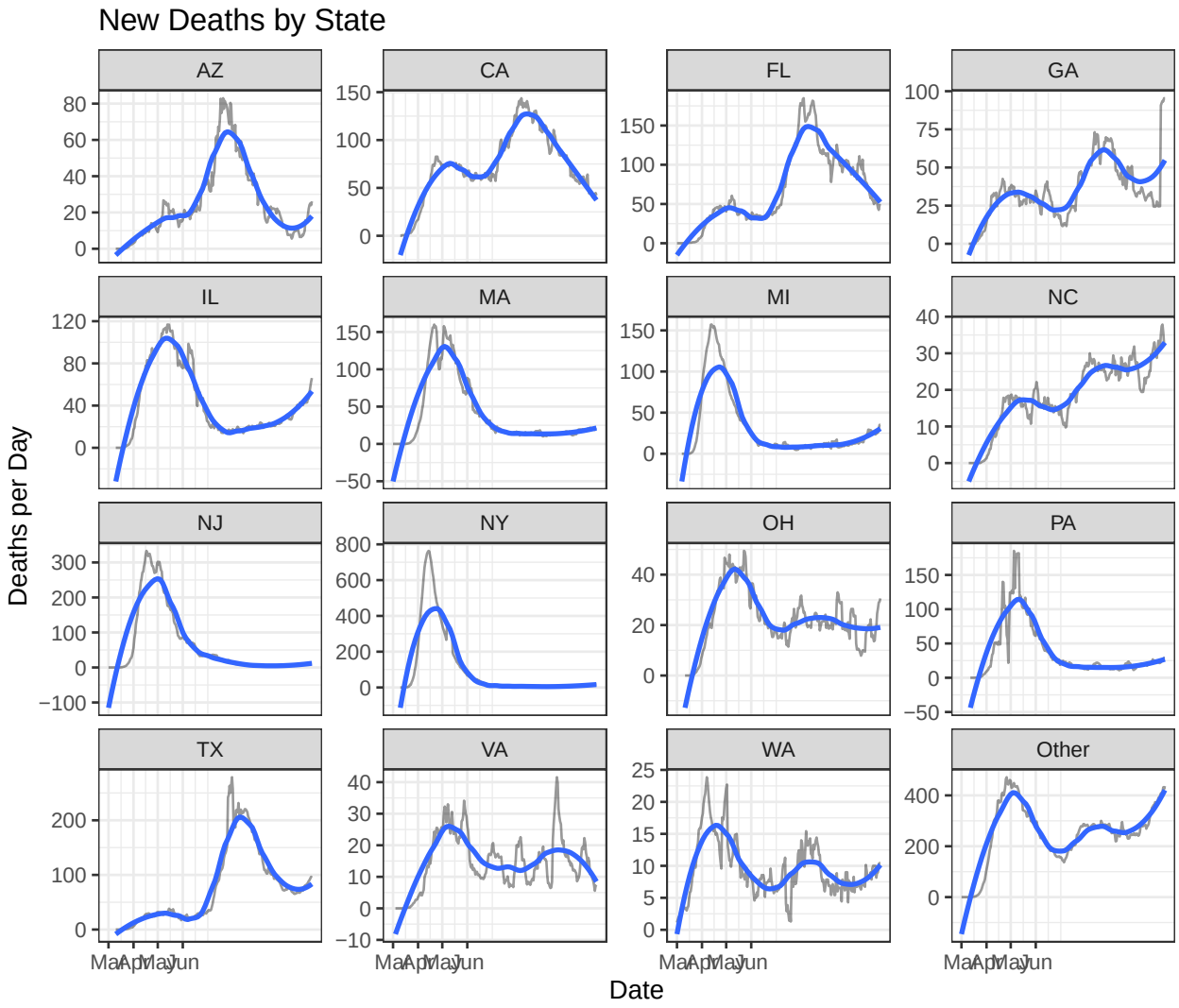

One−Week Change in Daily Tests
400,000
200,000
0
−200,000
7−Day Change
Apr
Jul
Oct
Date

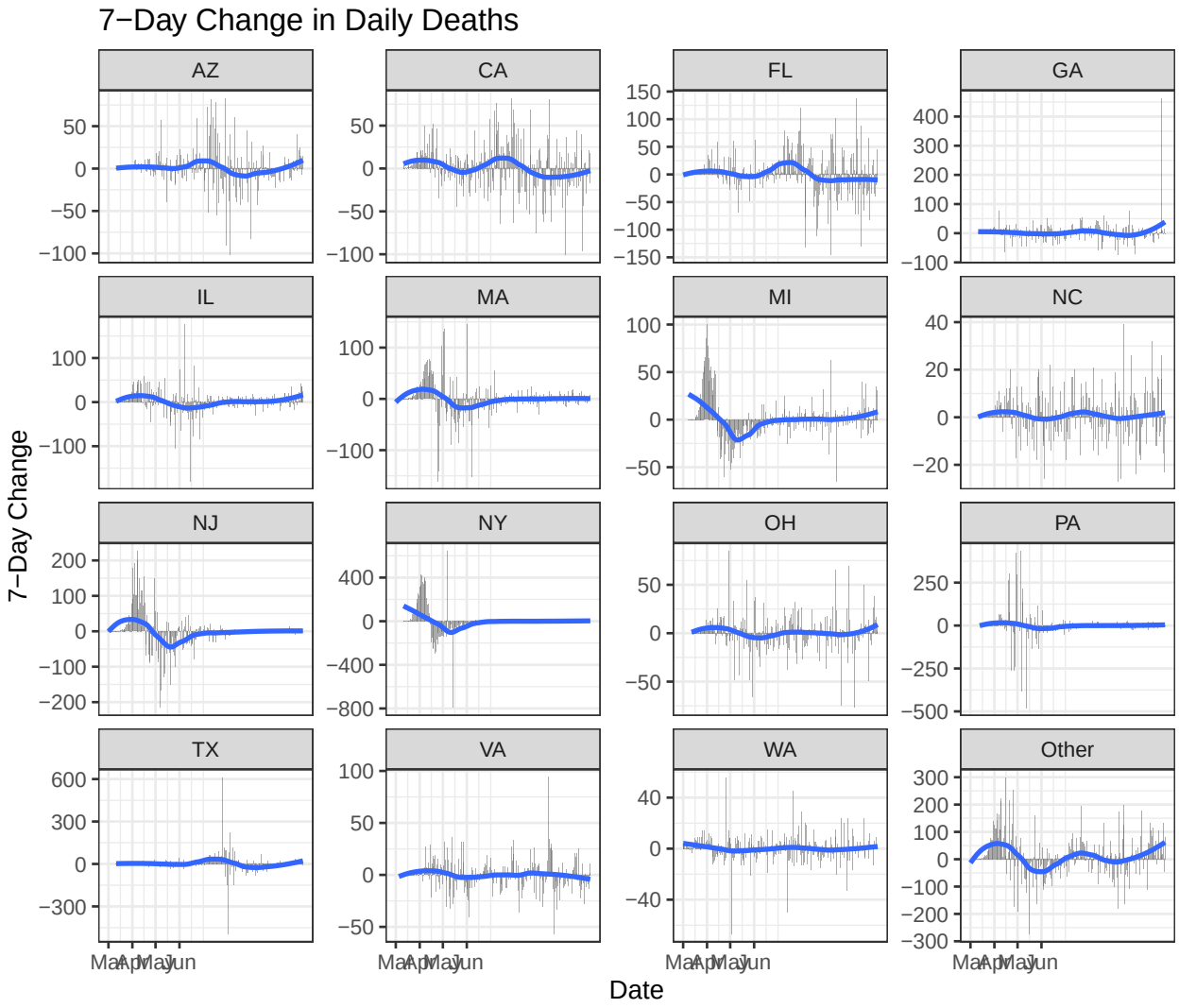
## State Data

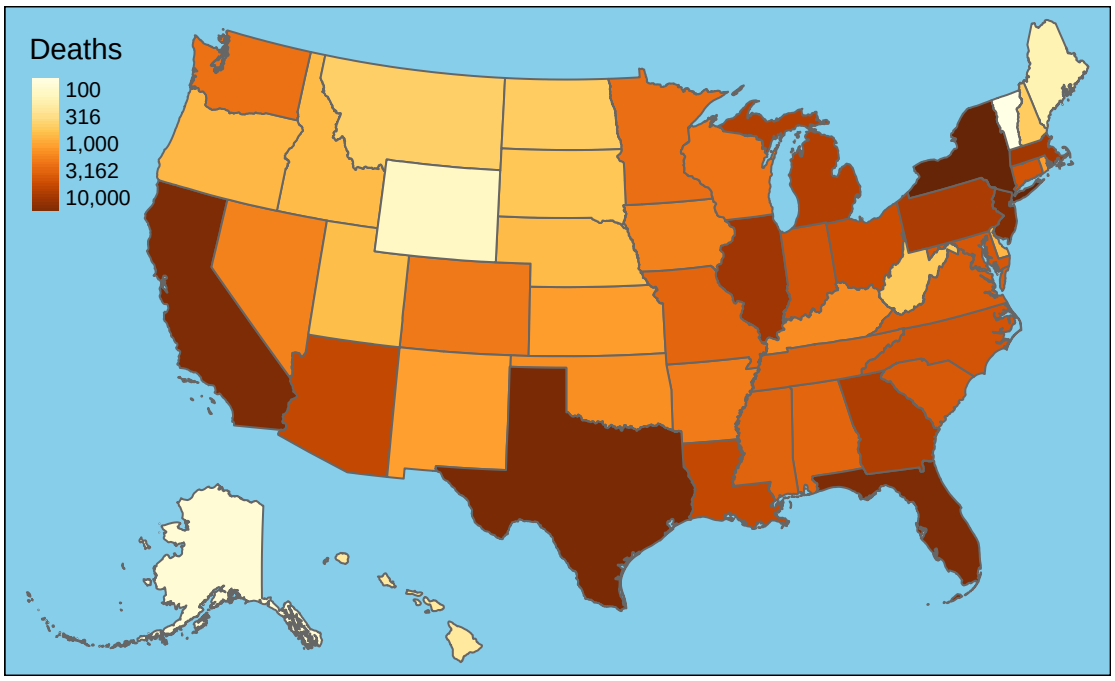
This section summarizes state-level data. Most data are reported for the largest 15 states by population, which account for NaN percent of the total U.S. population.

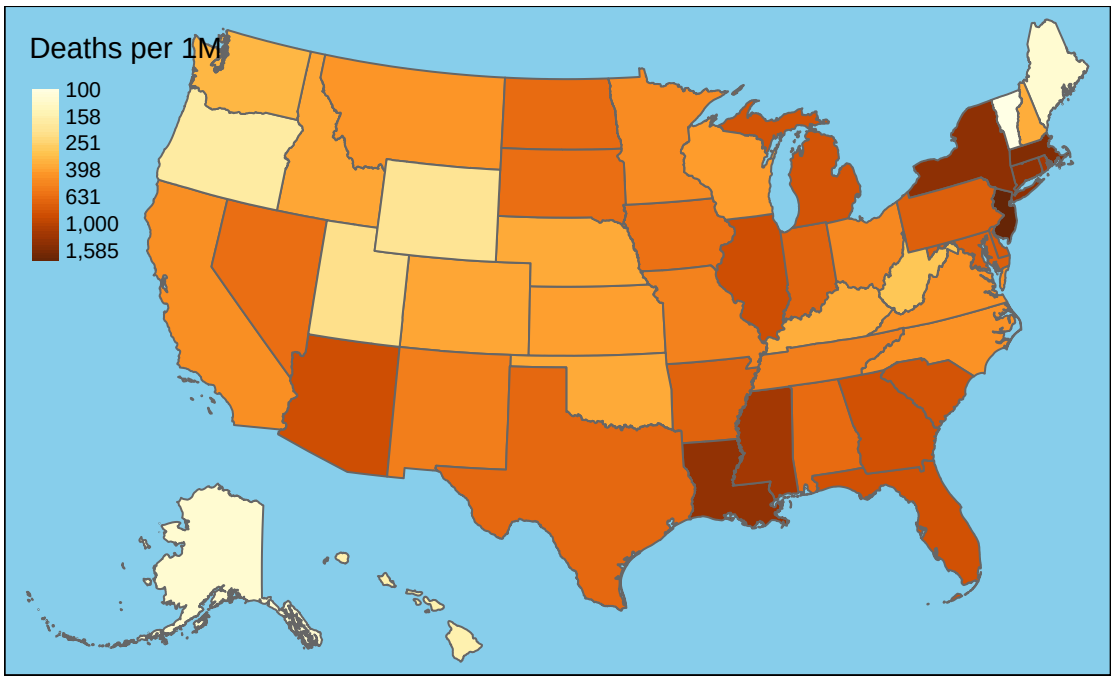
### Deaths



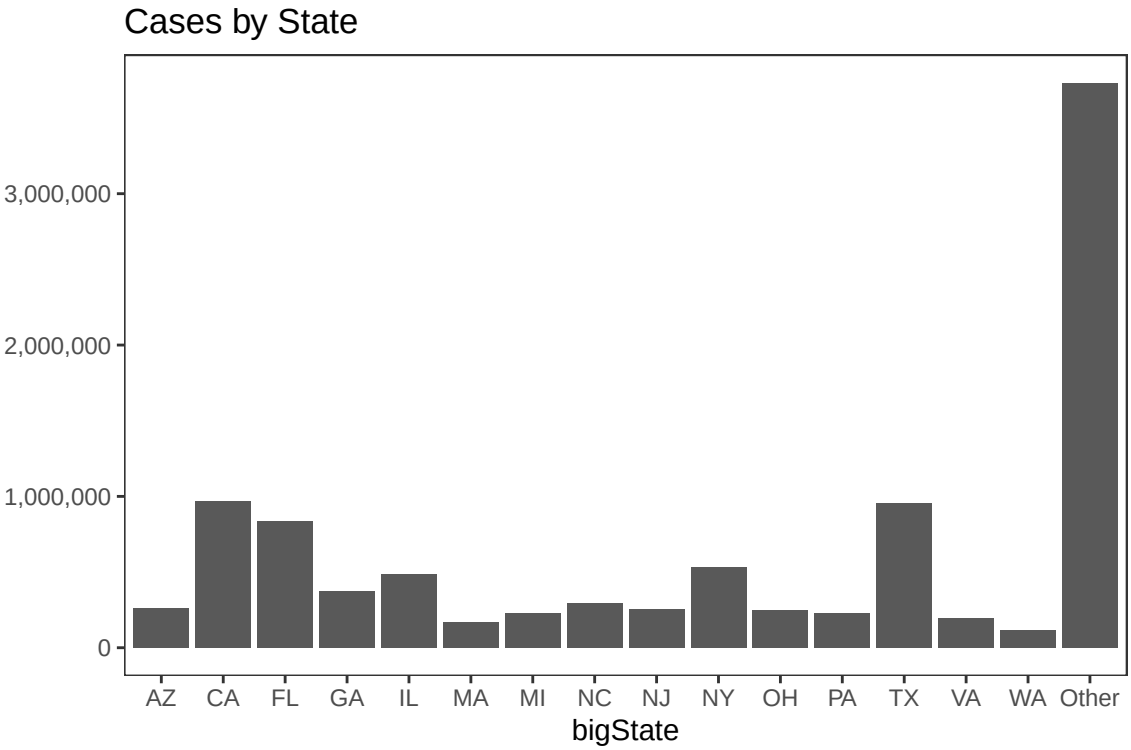

New Deaths by State
AZ
CA
FL
GA
IL
MA
MI
NC
NJ
NY
OH
PA
TX
VA
WA
Other
Deaths per Day
Date
Mar
Apr
May
Jun

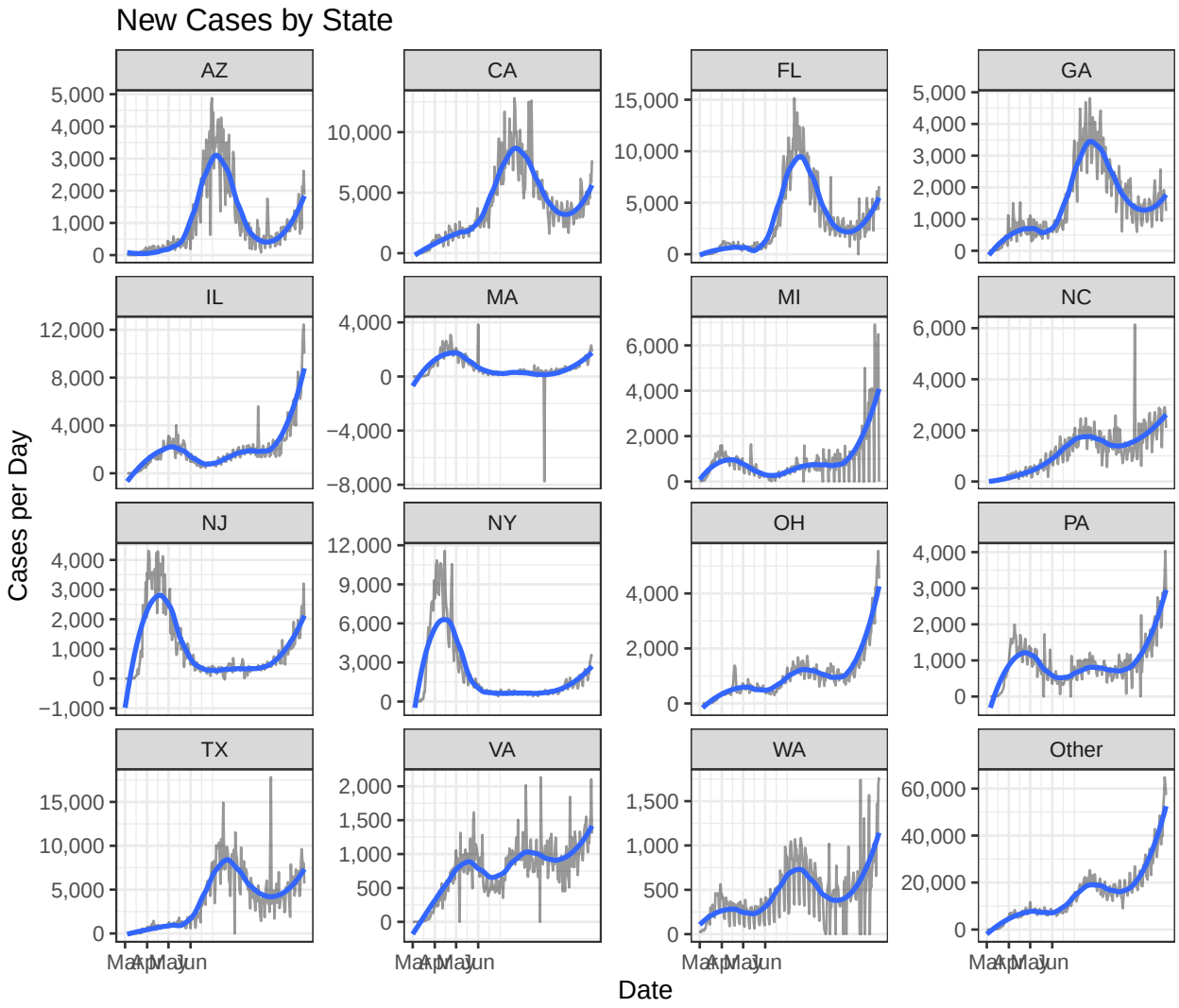

7−Day Change in Daily Deaths
AZ
CA
FL
GA
IL
MA
MI
NC
NJ
NY
OH
PA
TX
VA
WA
Other
7−Day Change
Date
Mar
Apr
May
Jun

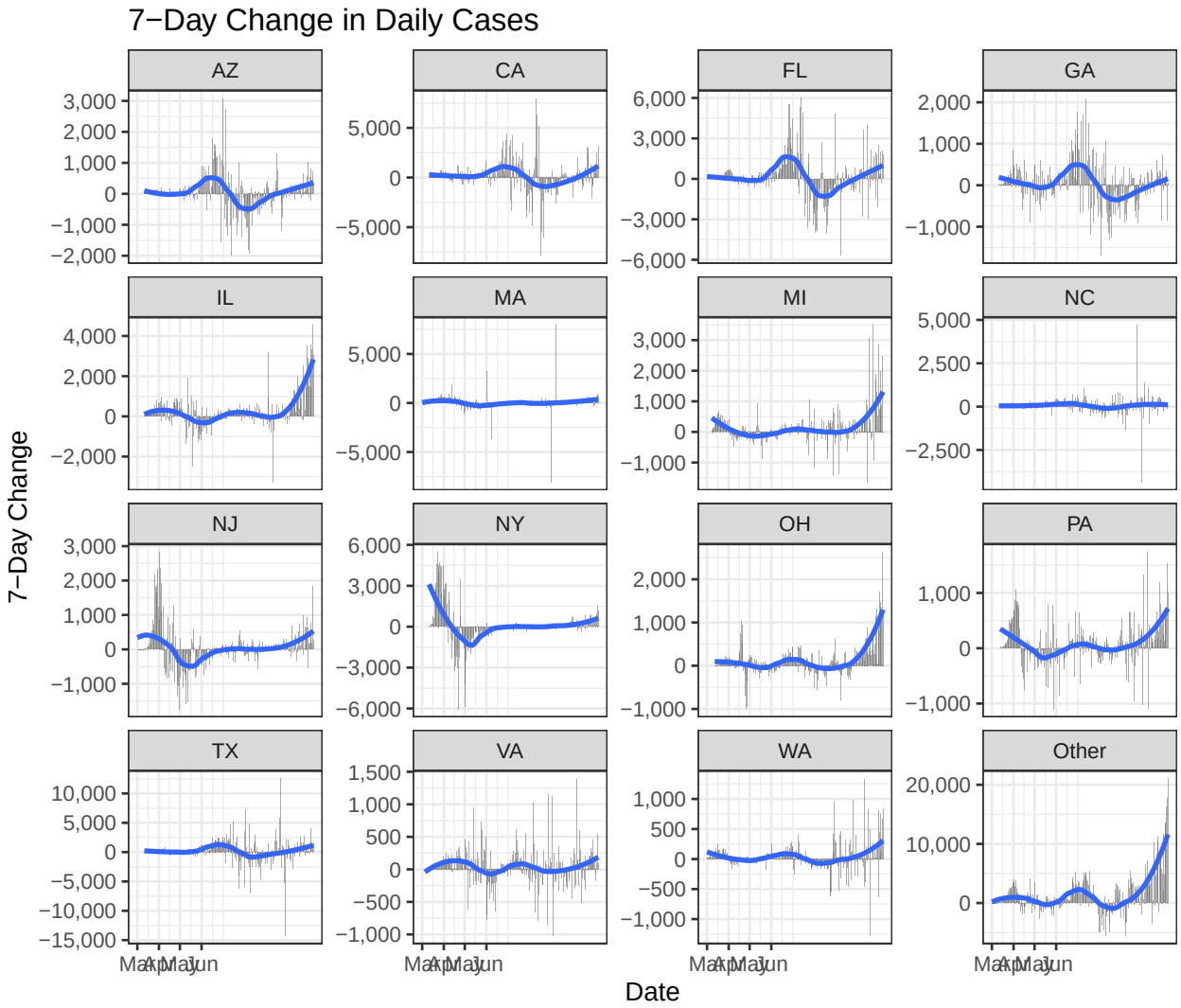

Deaths
100
316
1,000
3,162
10,000

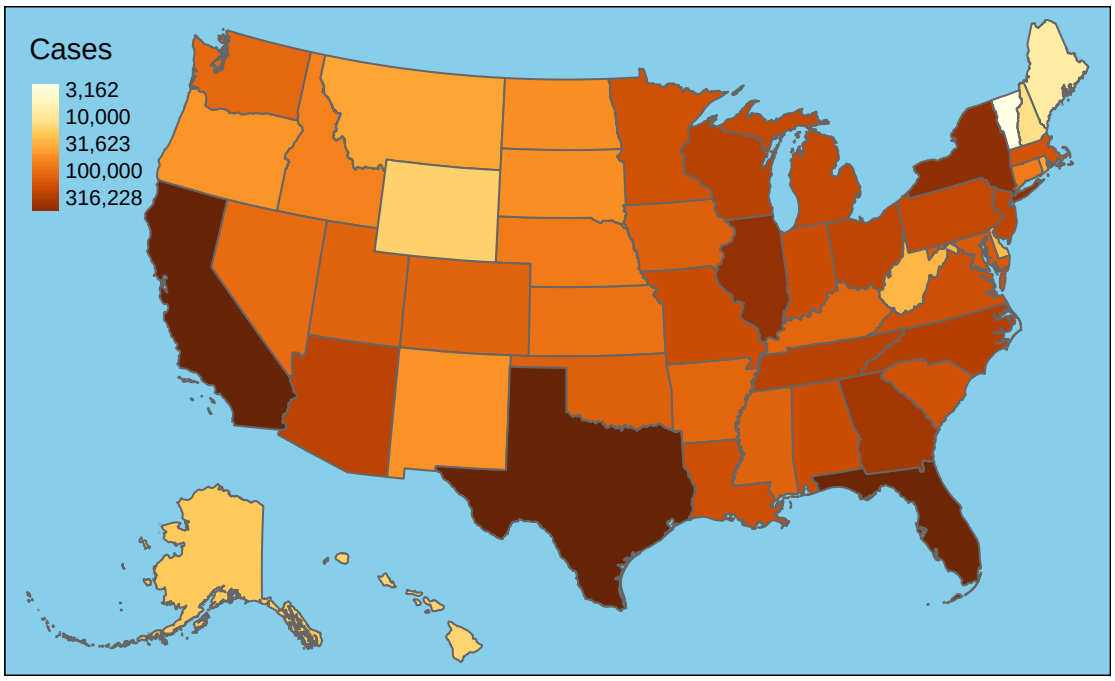

Deaths per 1M
100
158
251
398
631
1,000
1,585

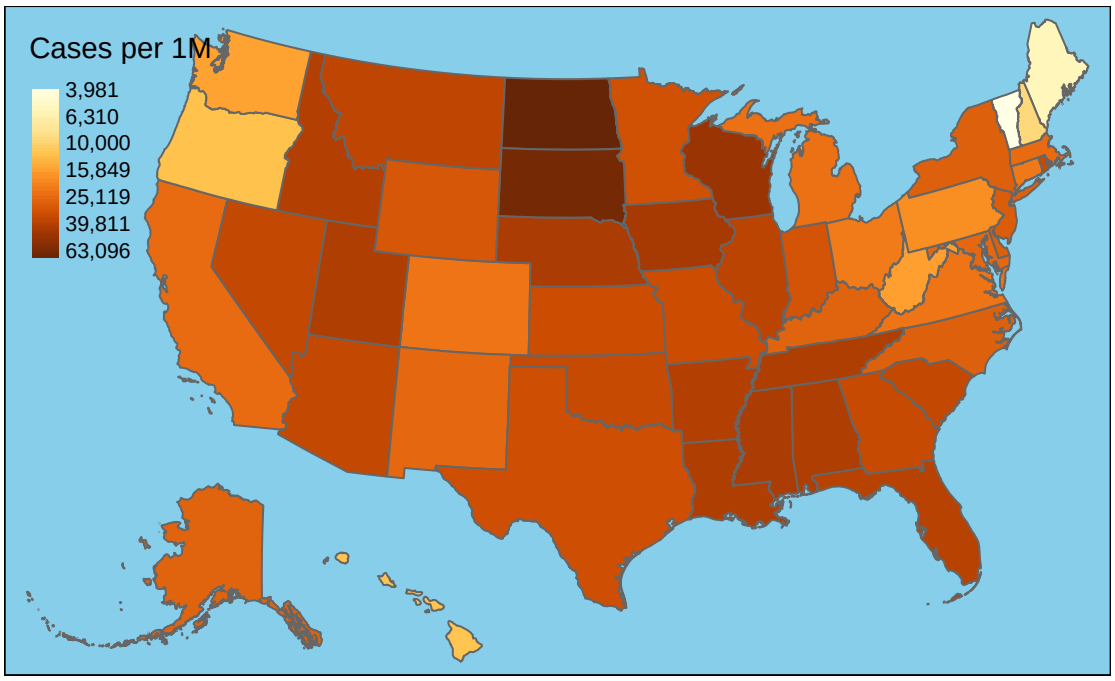
Cases


Cases by State
3,000,000
2,000,000
1,000,000
0
AZ
CA
FL
GA
IL
MA
MI
NC
NJ
NY
OH
PA
TX
VA
WA
Other
bigState

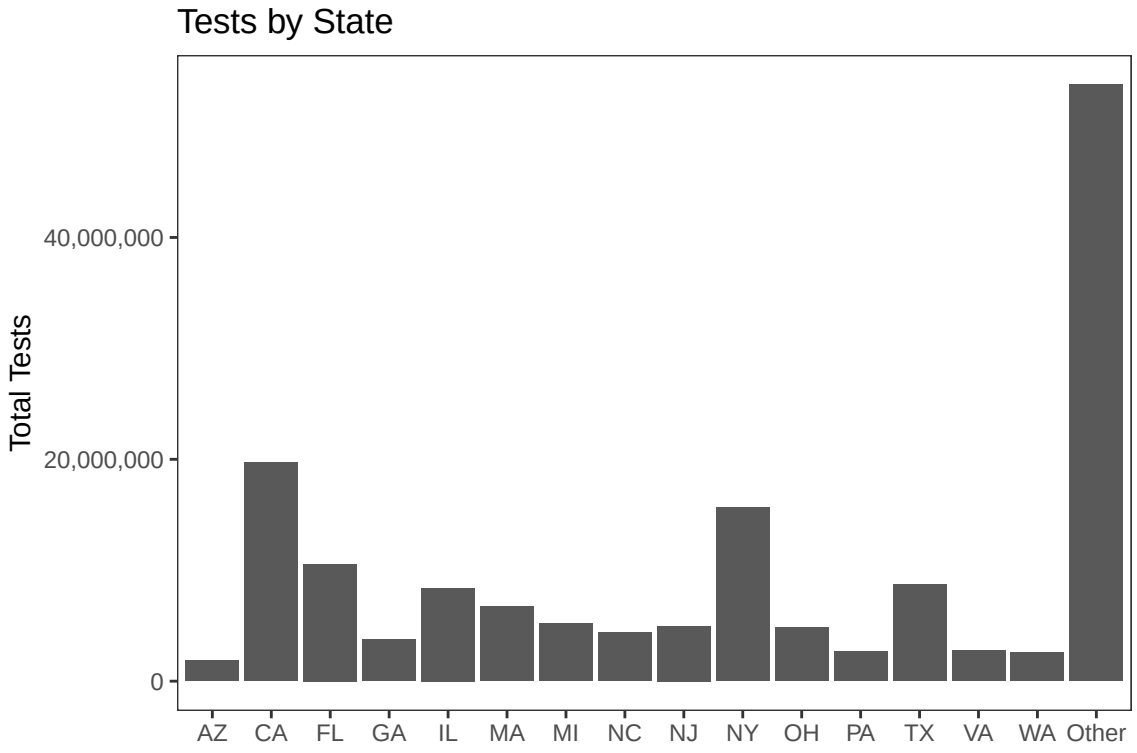

New Cases by State
AZ
CA
FL
GA
IL
MA
MI
NC
NJ
NY
OH
PA
TX
VA
WA
Other
Cases per Day
Date
Mar
Apr
May
Jun

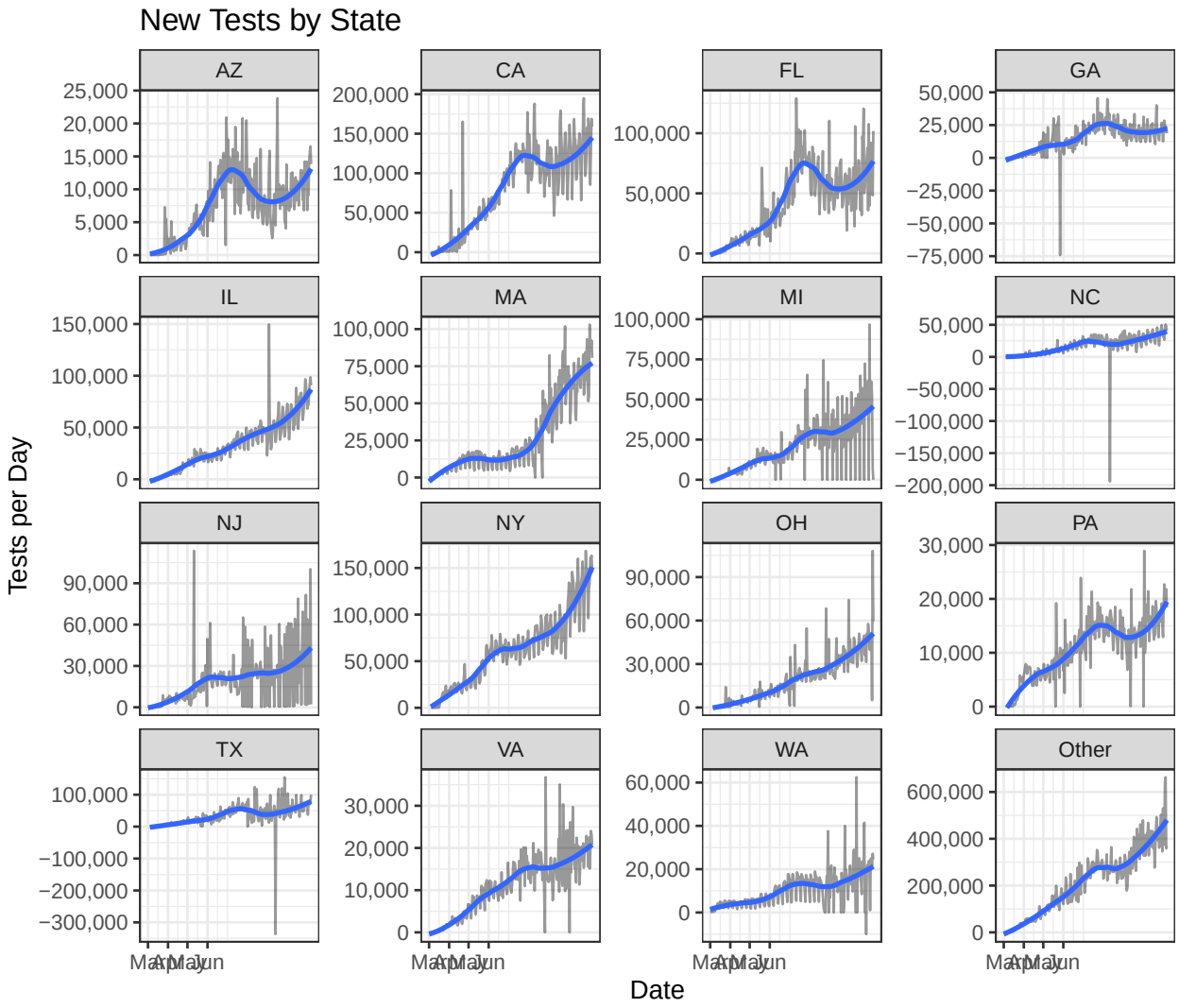

7−Day Change in Daily Cases
AZ
CA
FL
GA
IL
MA
MI
NC
NJ
NY
OH
PA
TX
VA
WA
Other
7−Day Change
Date
Mar
Apr
May
Jun

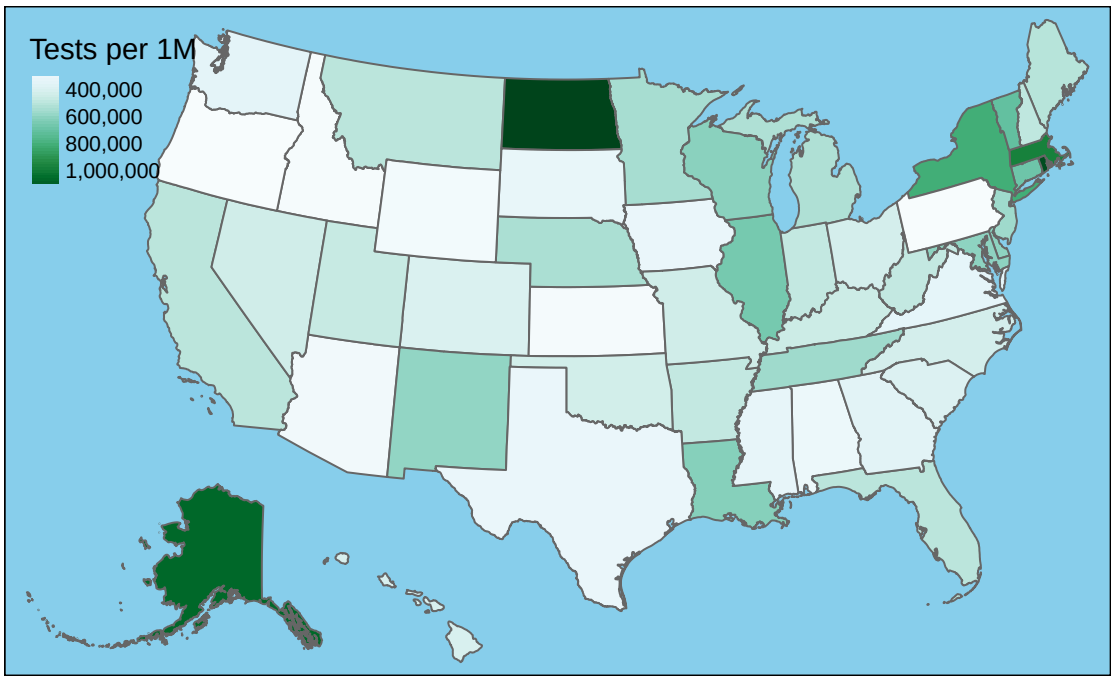

Cases
3,162
10,000
31,623
100,000
316,228

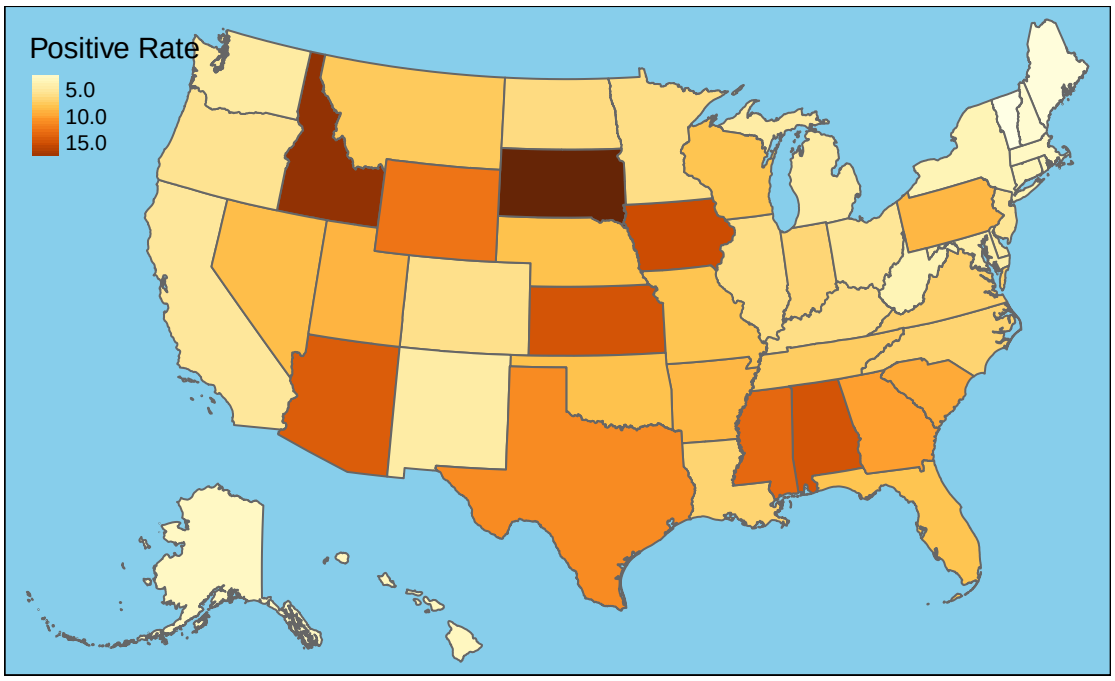

Cases per 1M
3,981
6,310
10,000
15,849
25,119
39,811
63,096

**Testing**

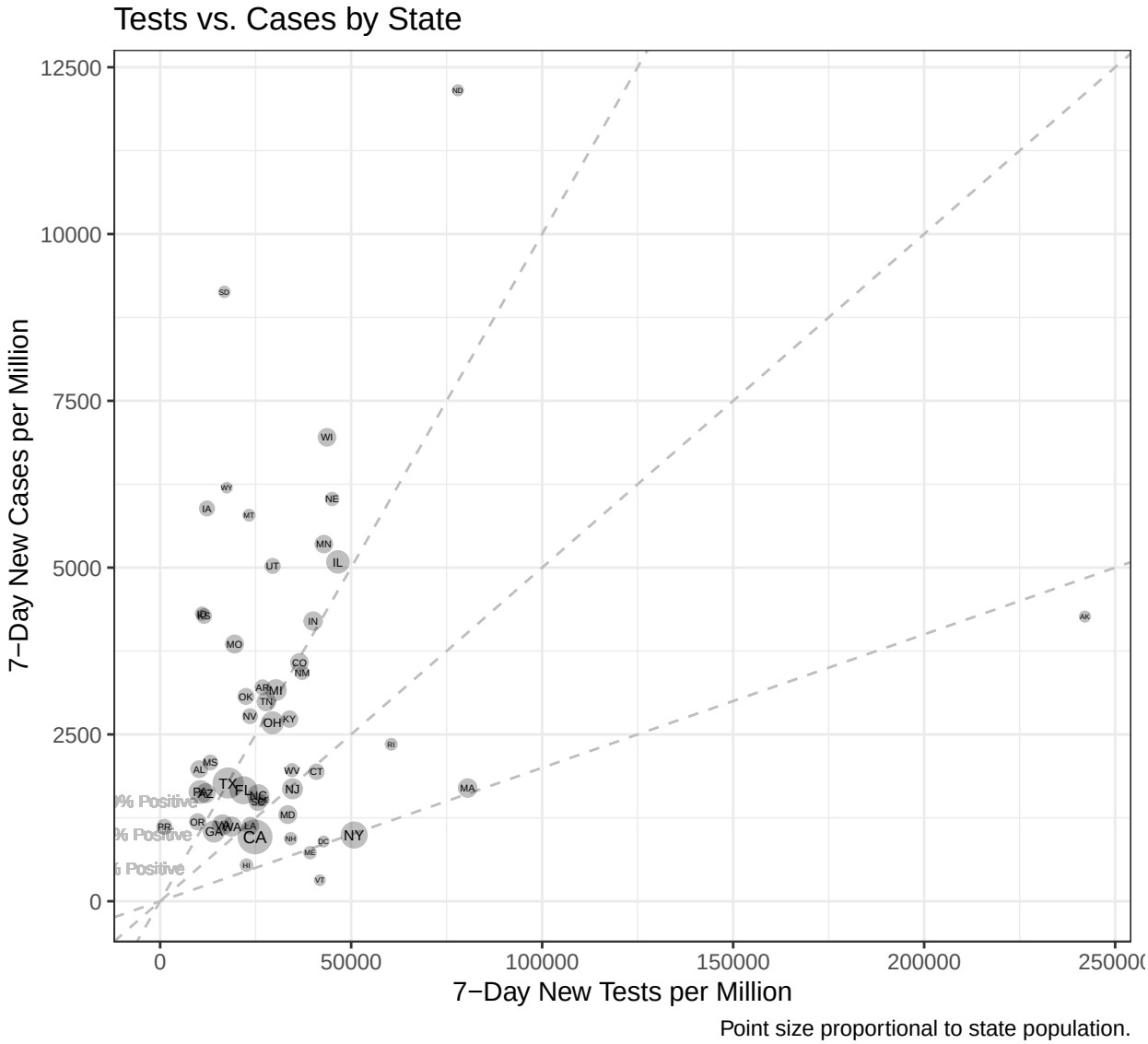

Tests by State
Total Tests
40,000,000
20,000,000
0
AZ
CA
FL
GA
IL
MA
MI
NC
NJ
NY
OH
PA
TX
VA
WA
Other


New Tests by State
AZ
CA
FL
GA
IL
MA
MI
NC
NJ
NY
OH
PA
TX
VA
WA
Other
Tests per Day
Date
Mar
Apr
May
Jun


Tests per 1M
400,000
600,000
800,000
1,000,000


Positive Rate
5.0
10.0
15.0

Interpretation of differences in case rates across states is complicated by the fact that those states that do more thorough testing will invariably uncover more cases. A lower positive test rate is an indication that a state is doing more comprehensive testing since, when testing is rationed, only those individuals who are more likely to test positive are typically tested. The following chart compares the one-week increase in detected cases to the the number of tests administered by each state relative to population. The states of greatest current concern are those with both a large increase in detected cases and a relatively small increase in tests. These states lie in the upper-left of the chart.



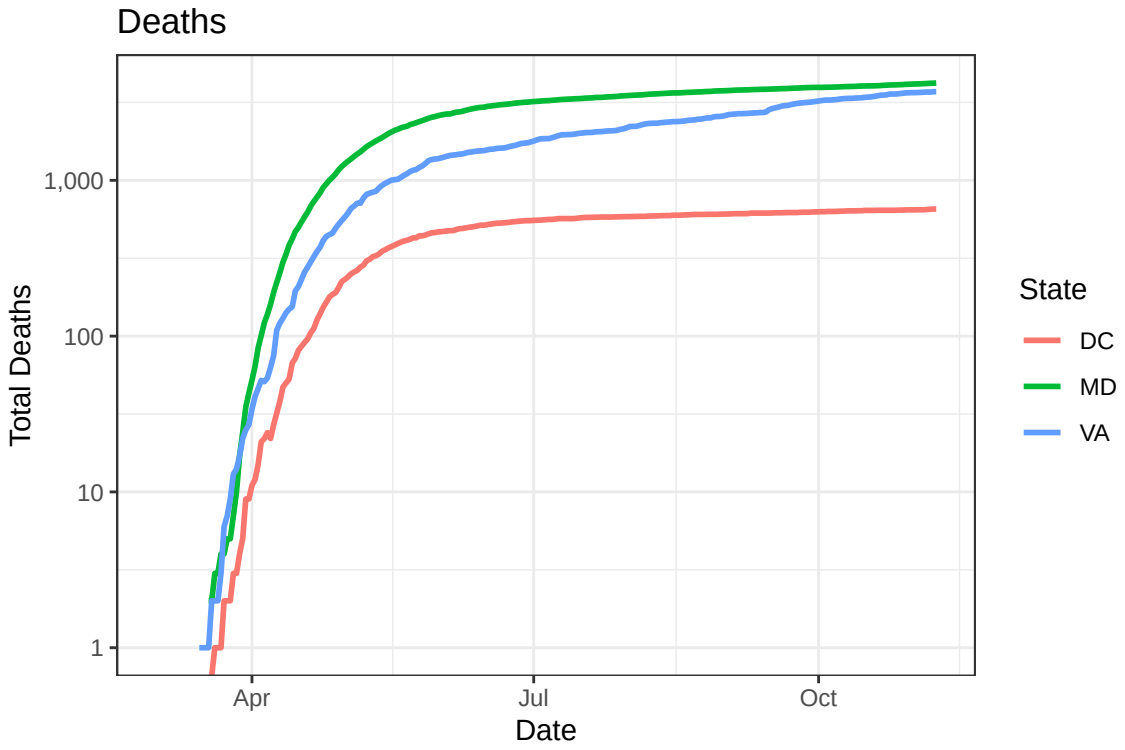
## Local Data

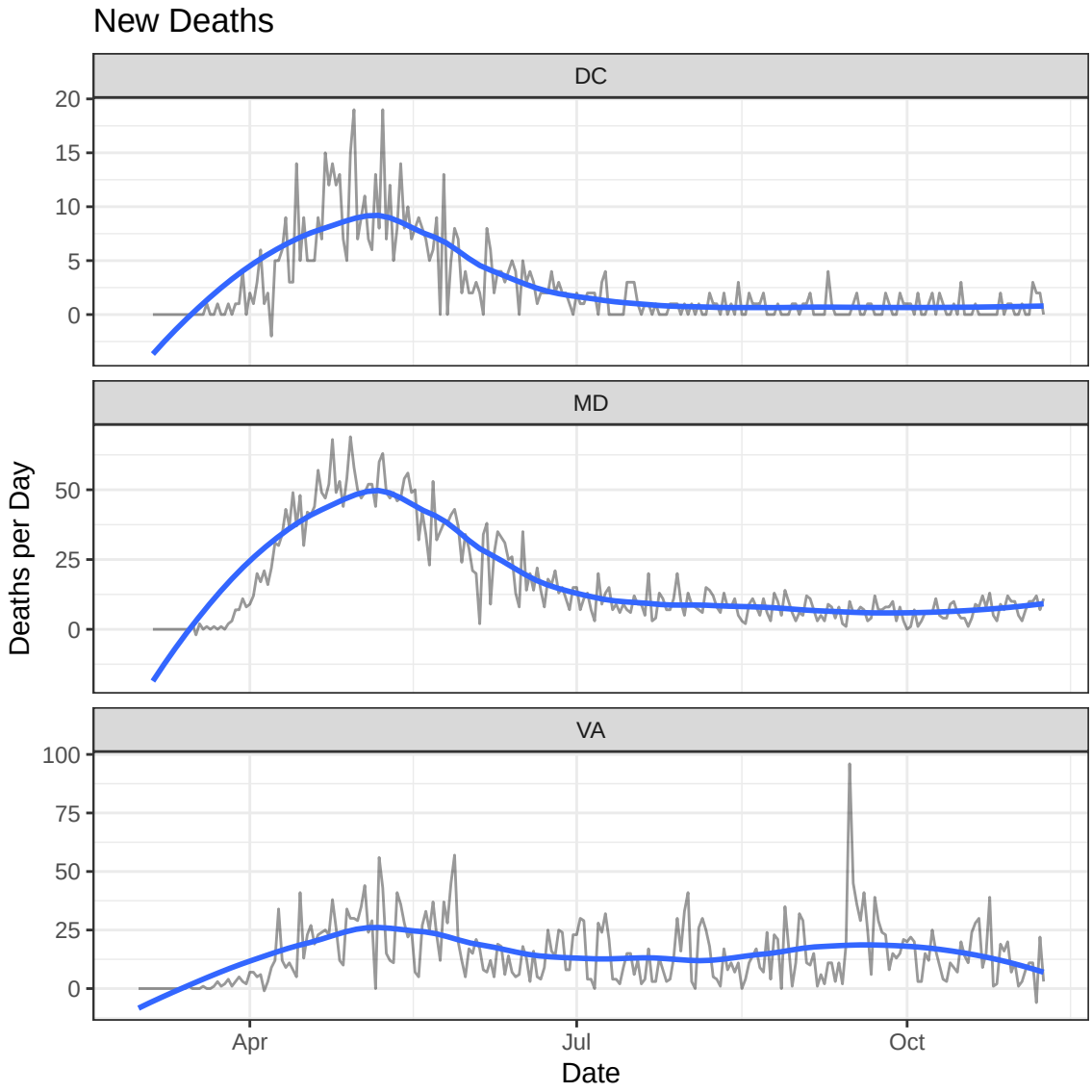
The following charts and tables present mortality, case, and testing data for the Washington DC metropolitan area and adjacent states.

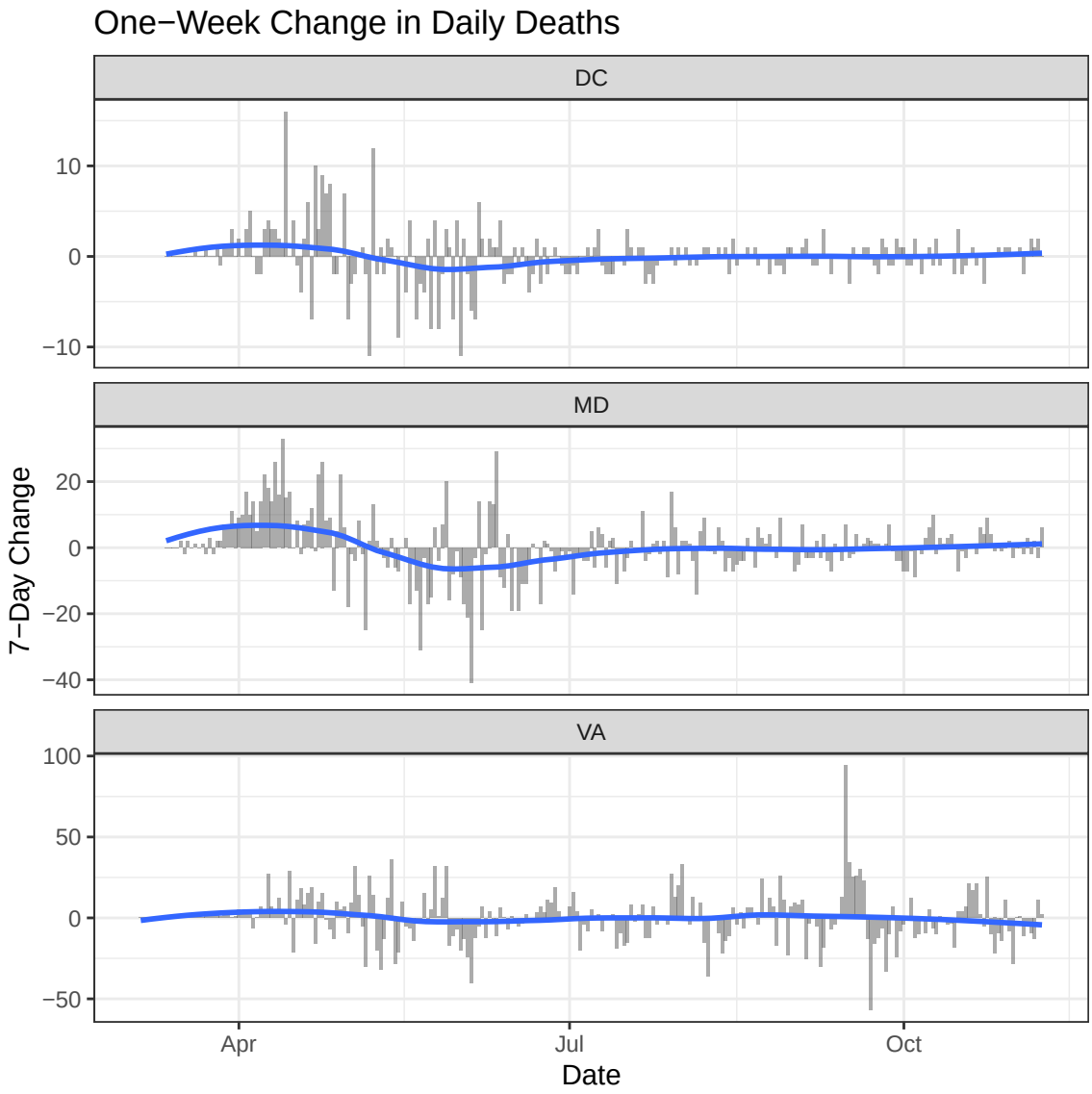
Table 3: Latest Local Data

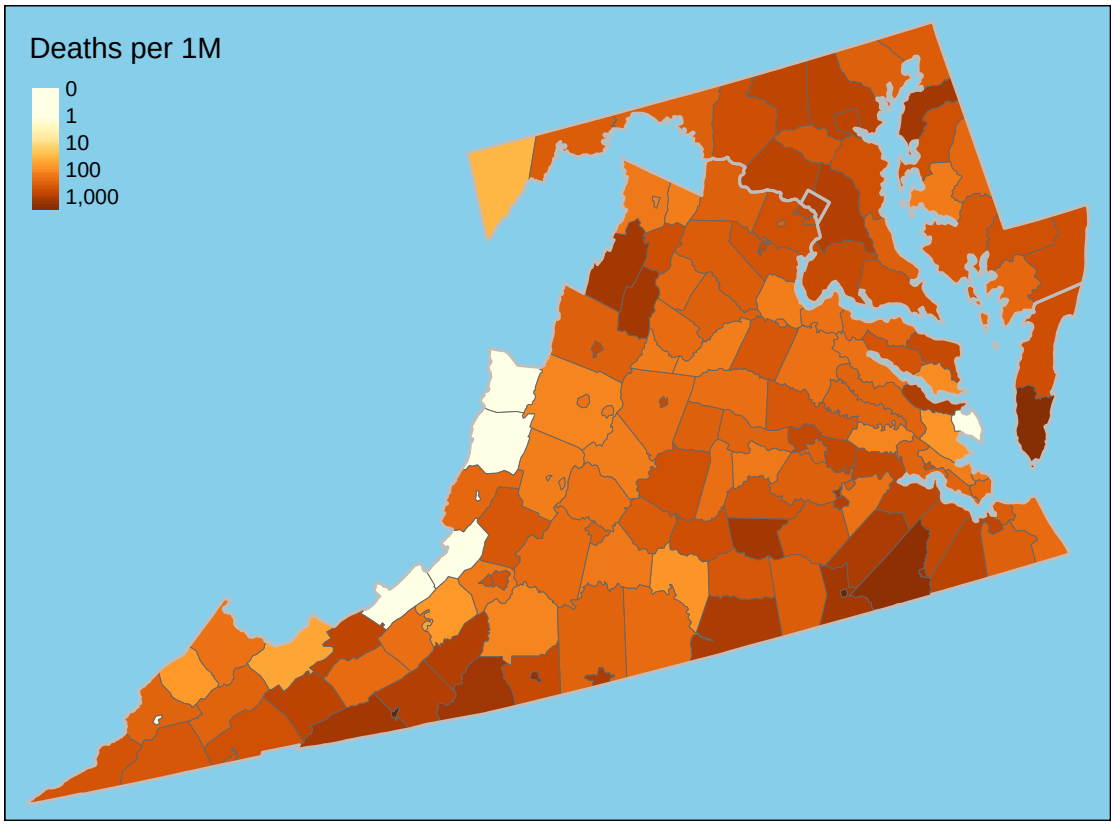
| State | Cases | Deaths | New Cases | New Deaths |
|---|---|---|---|---|
| DC | 18,001 | 654 | 110 | 0 |
| MD | 153,996 | 4,212 | 1,081 | 11 |
| VA | 192,175 | 3,707 | 1,302 | 3 |

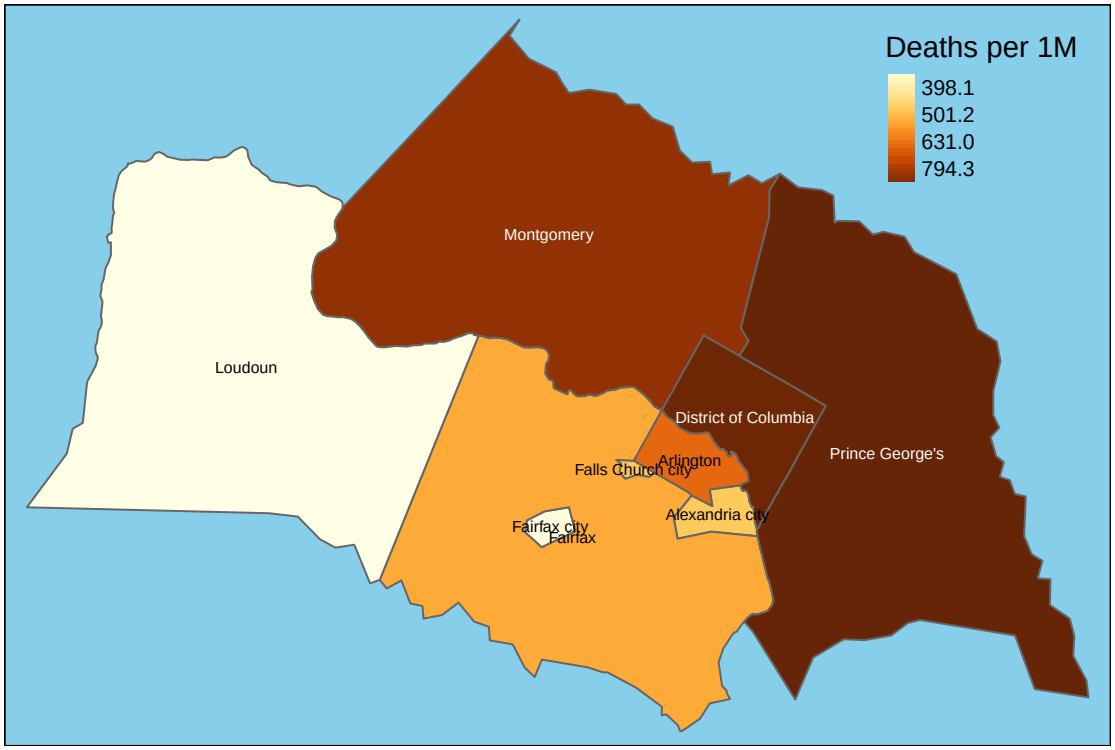
**Deaths**


Deaths
Total Deaths
1,000
100
10
1
Apr
Jul
Oct
Date
State
DC
MD
VA

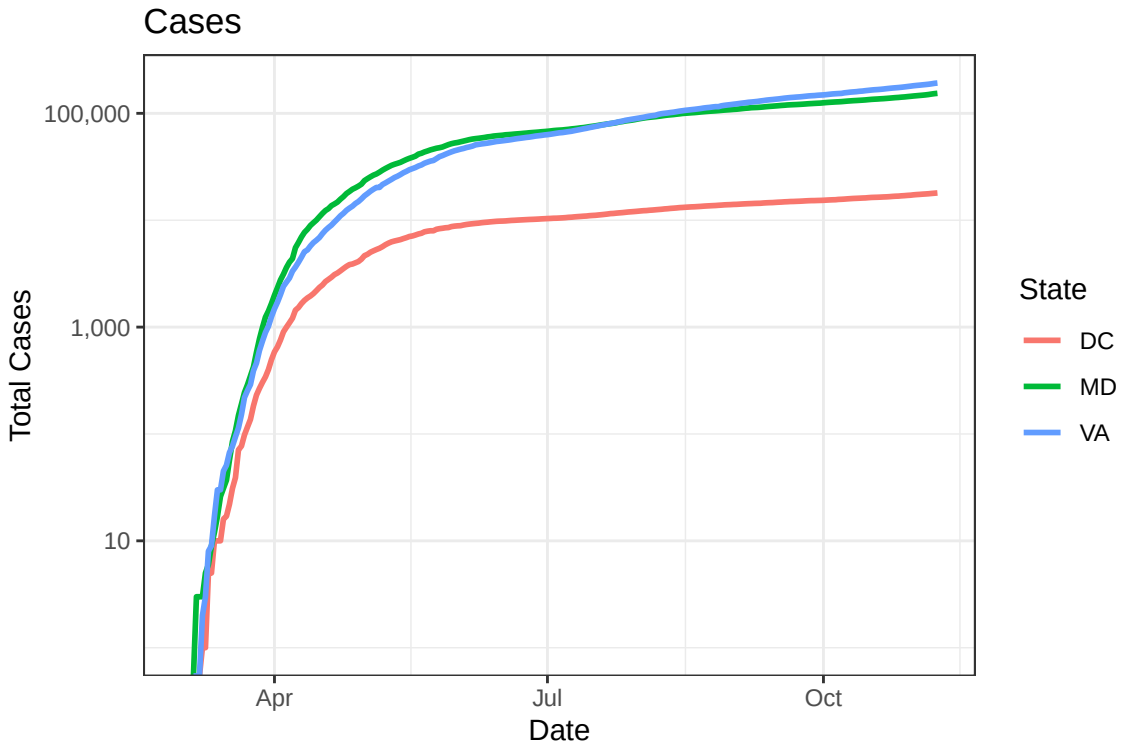

New Deaths
DC
MD
VA
Deaths per Day
20
15
10
5
0
50
25
0
100
75
50
25
0
Apr
Jul
Oct
Date

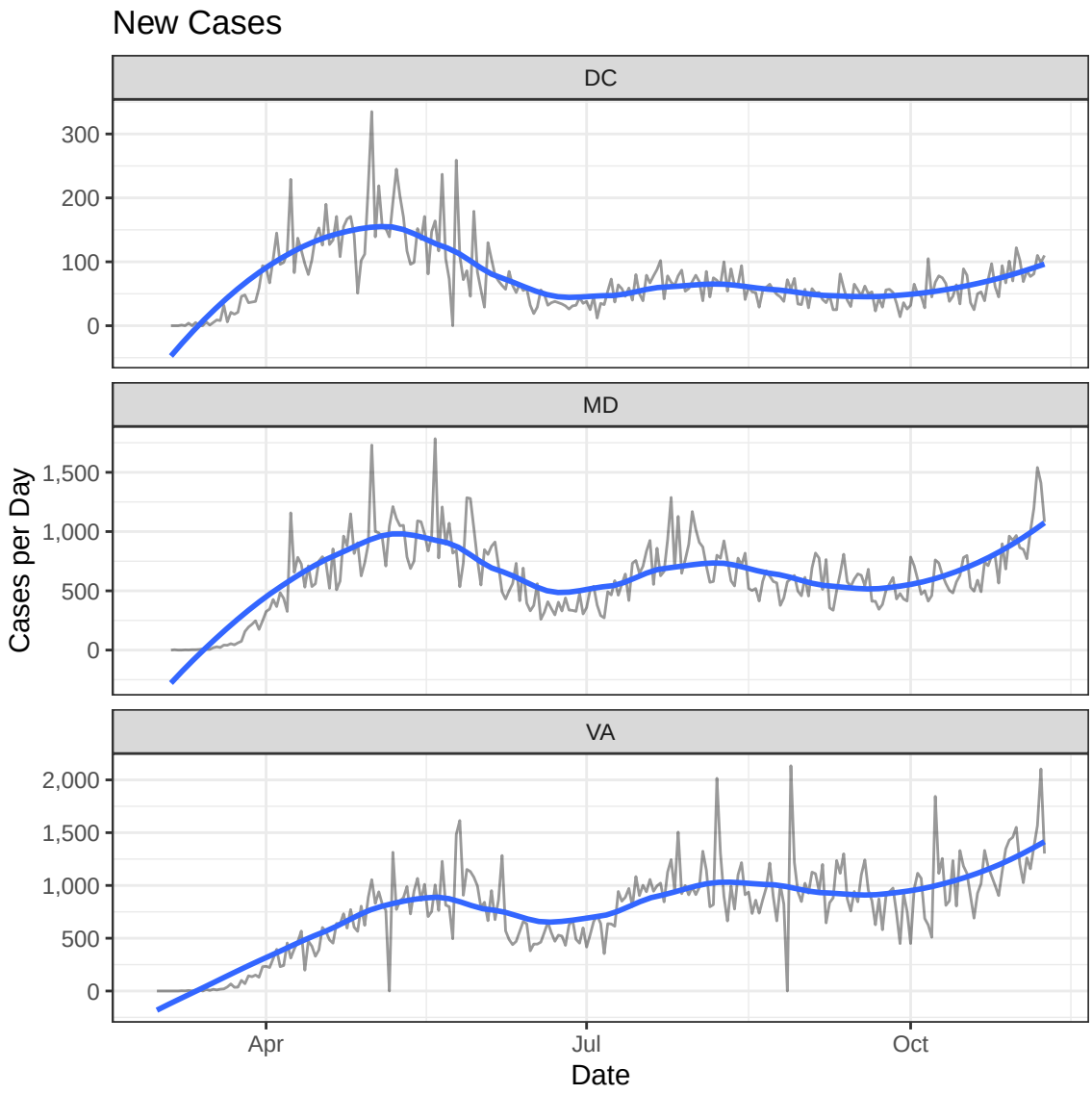

One−Week Change in Daily Deaths
DC
MD
VA
10
0
−10
20
0
−20
−40
100
50
0
−50
7−Day Change
Apr
Jul
Oct
Date

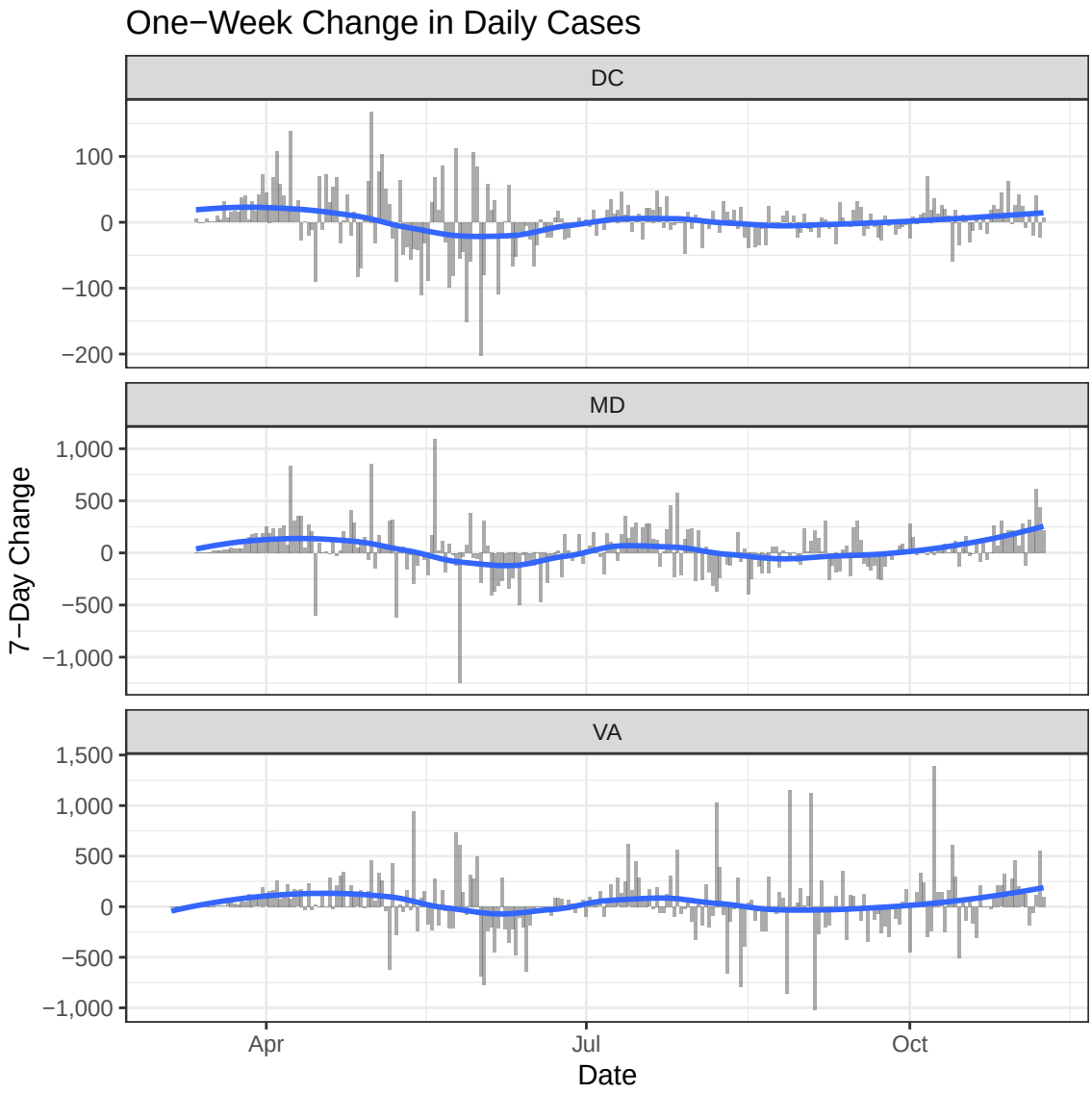

Deaths per 1M
0
1
10
100
1,000

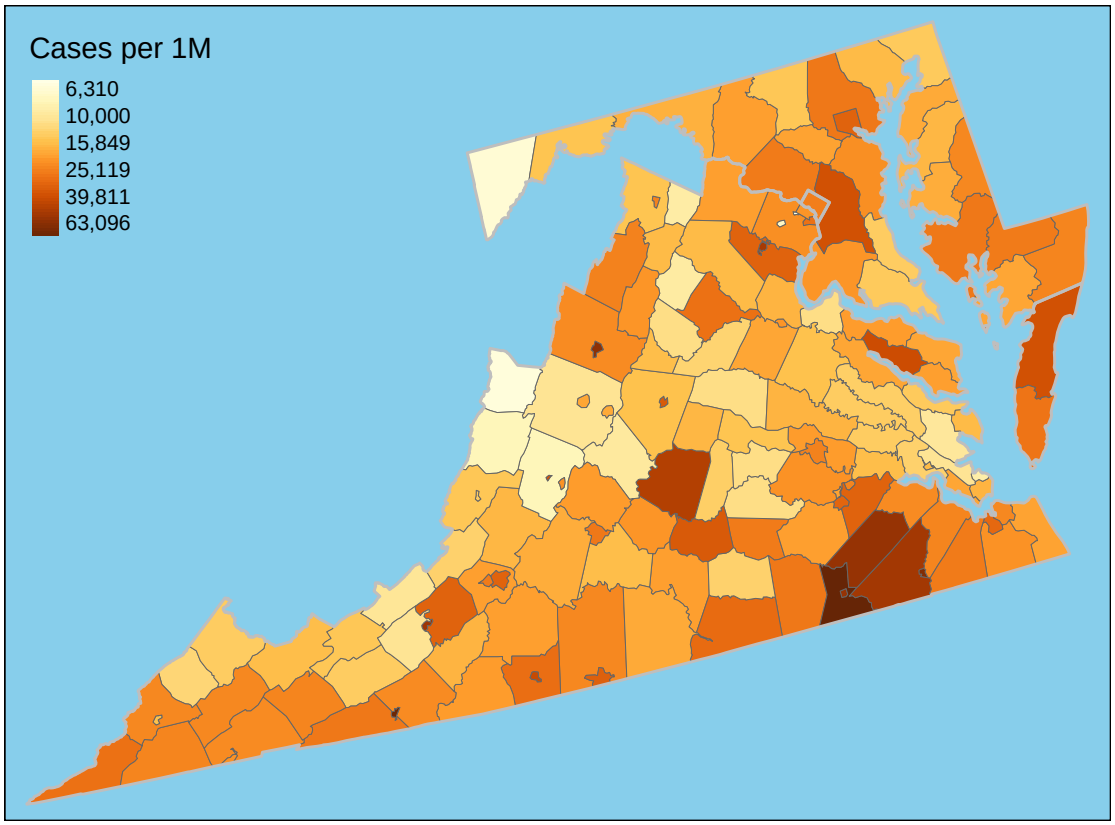

Deaths per 1M
398.1
501.2
631.0
794.3
Montgomery
Loudoun
District of Columbia
Prince George's
Arlington
Falls Church city
Alexandria city
Fairfax city
Fairfax

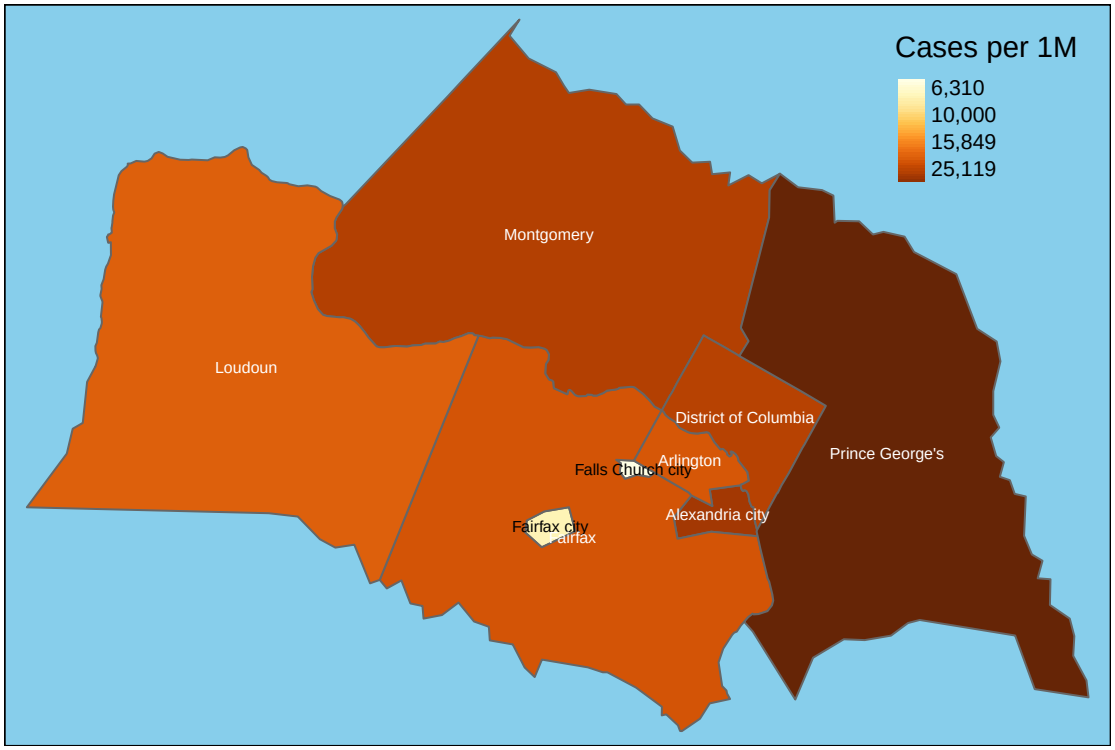
Cases


Cases
100,000
1,000
10
Total Cases
Apr
Jul
Oct
Date
State
DC
MD
VA

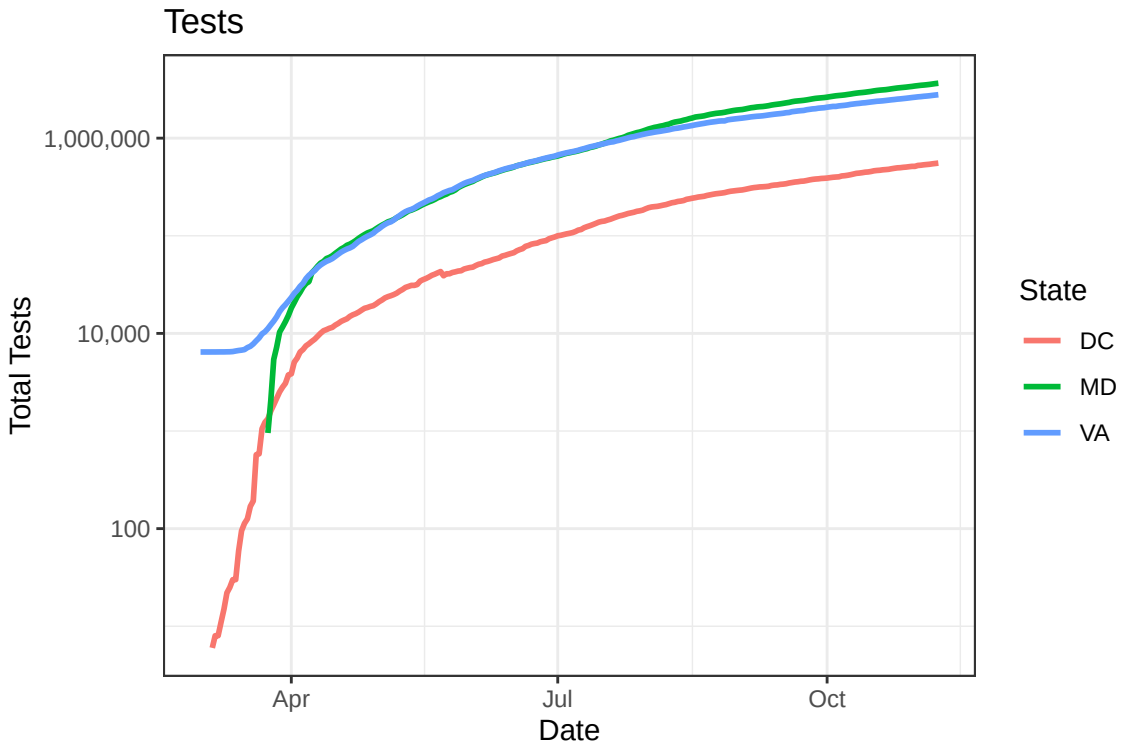

New Cases
DC
MD
VA
Cases per Day
300
200
100
0
1,500
1,000
500
0
2,000
1,500
1,000
500
0
Apr
Jul
Oct
Date

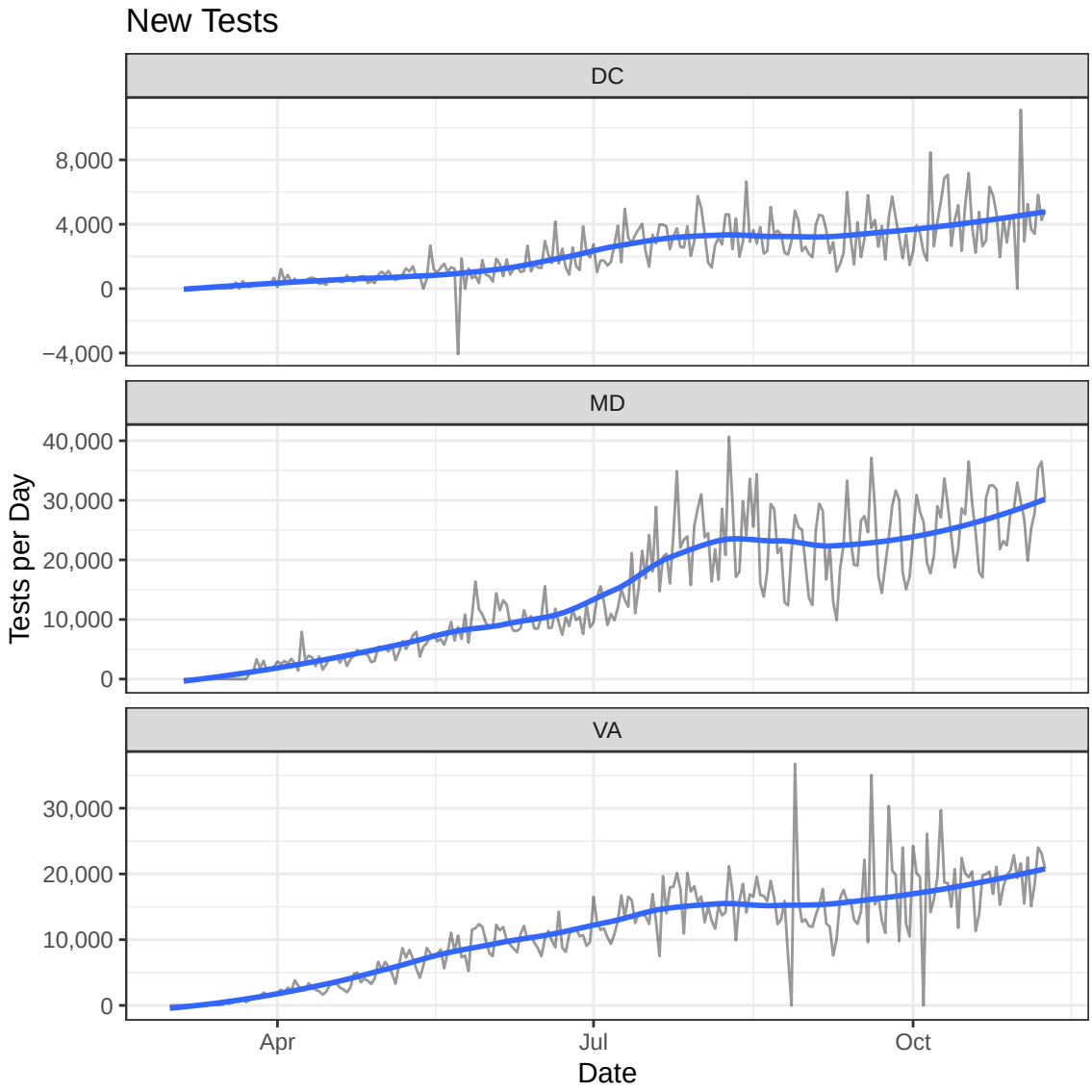

One−Week Change in Daily Cases
DC
MD
VA
7−Day Change
100
0
−100
−200
1,000
500
0
−500
−1,000
1,500
1,000
500
0
−500
−1,000
Apr
Jul
Oct
Date

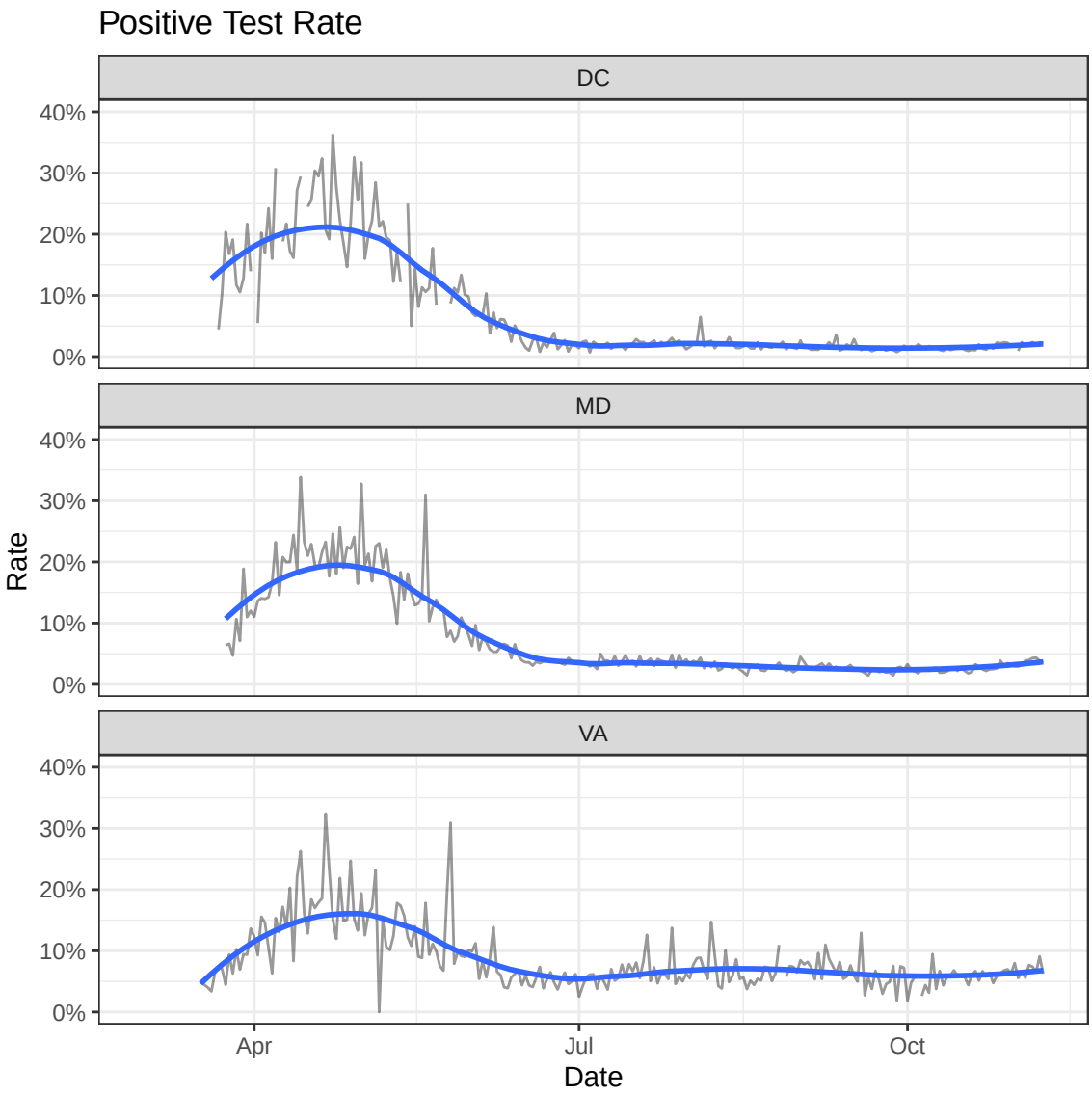

Cases per 1M
6,310
10,000
15,849
25,119
39,811
63,096


Cases per 1M
6,310
10,000
15,849
25,119
Montgomery
Loudoun
District of Columbia
Prince George's
Arlington
Falls Church city
Alexandria city
Fairfax city
Fairfax

**Testing**


Tests
1,000,000
10,000
100
Total Tests
Apr
Jul
Oct
Date
State
DC
MD
VA


New Tests
DC
MD
VA
8,000
4,000
0
−4,000
40,000
30,000
20,000
10,000
0
30,000
20,000
10,000
0
Tests per Day
Apr
Jul
Oct
Date


Positive Test Rate
DC
MD
VA
40%
30%
20%
10%
0%
Rate
Apr
Jul
Oct
Date