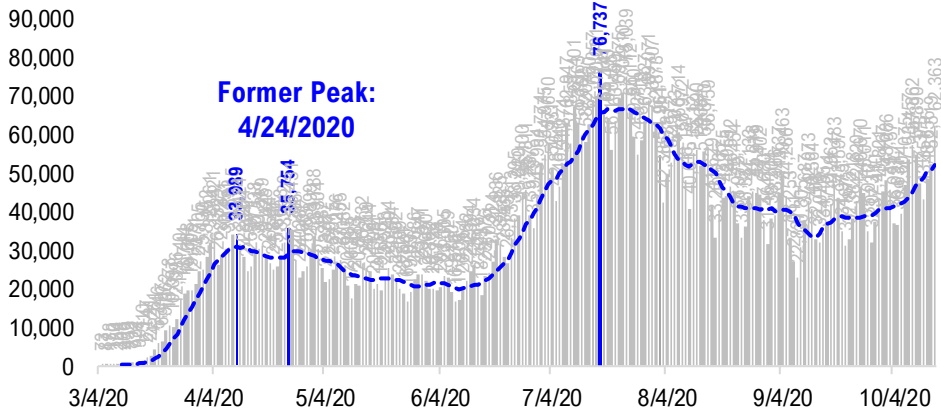


# FSInsight Daily COVID-19 Chartbook

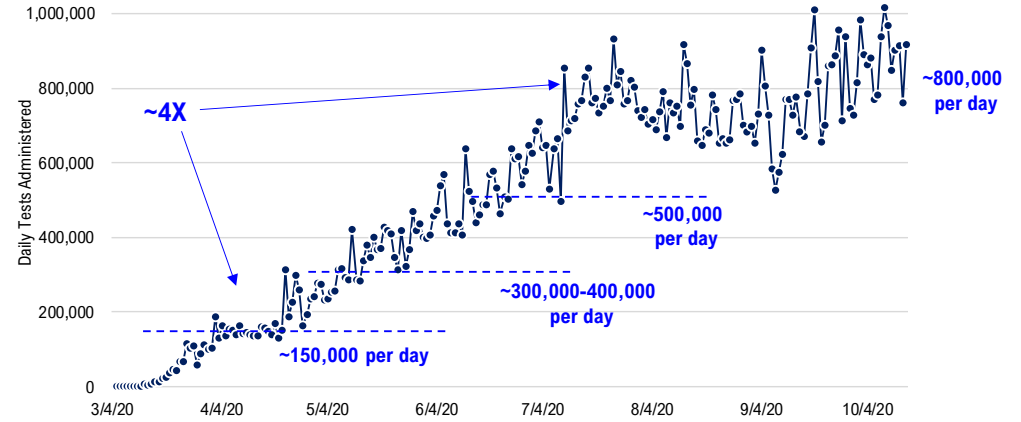


# #1: USA COVID-19 Situation at a Glance...

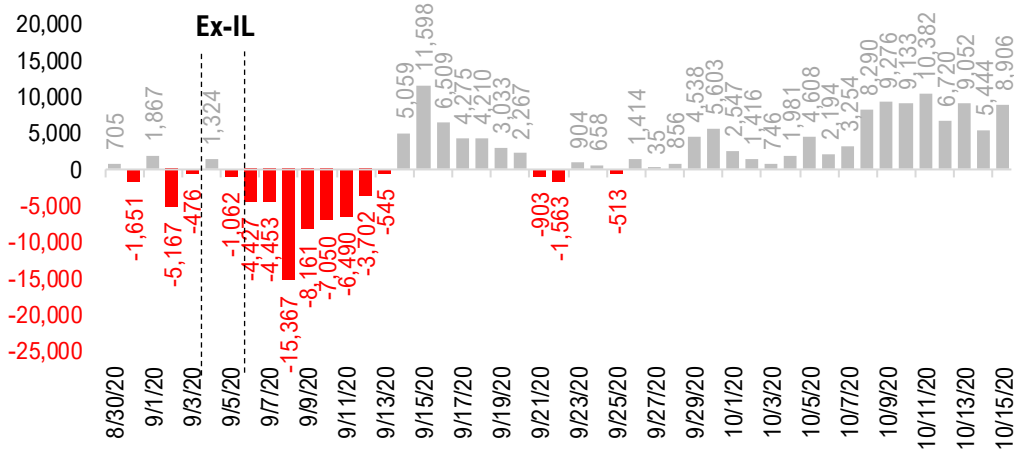
**US daily new cases**



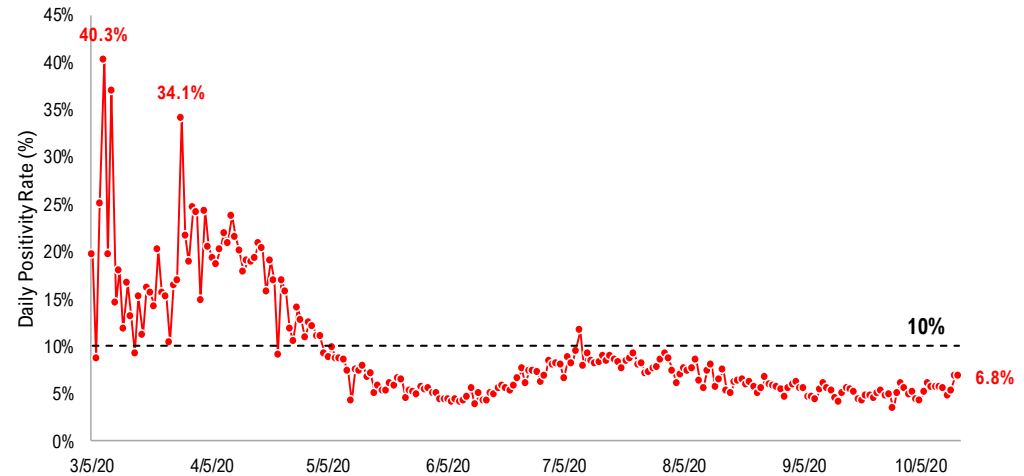
**USA total COVID-19 tests administered**



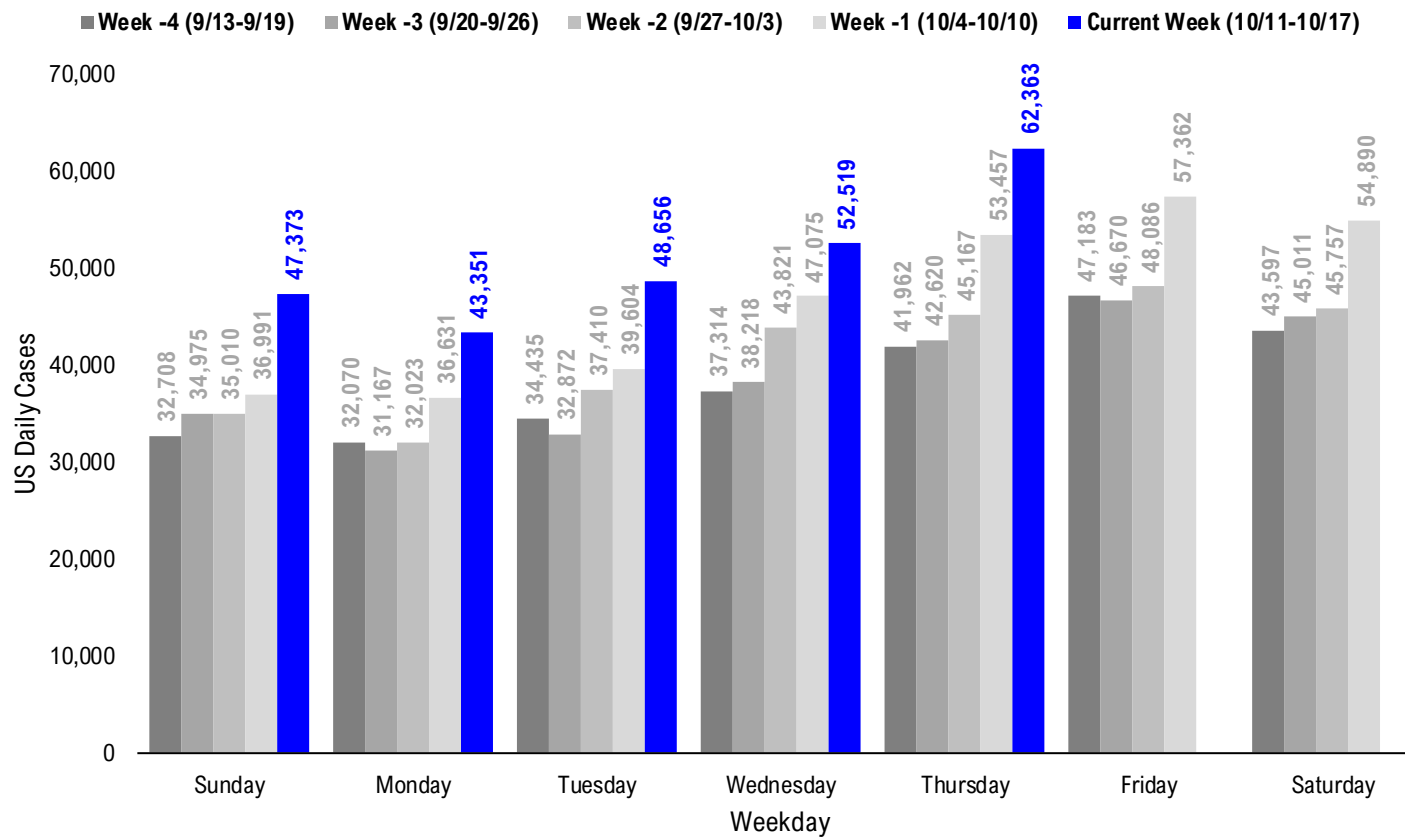
**US daily new cases rolling 7D delta**



—●— United States    - - - 10%



# #2: USA COVID-19 Daily Cases Weekday Seasonality (Past 4 Weeks) ...



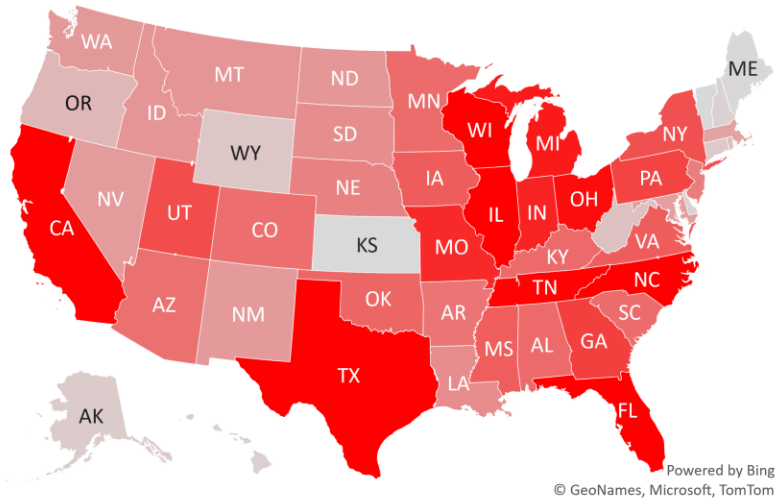
# #3: USA State COVID-19 Situation at a Glance...

	Sorted Daily Cases		Daily Cases (3D avg) per 1mm residents				Since Peak		Hospitalization	
	% US Pop	% US GDP	10/15	7D Delta	10/15	7D Delta	# Days	% Decline in Daily Cases	7D Net Hospitalization	7D Net Hospitalization / 7D New Cases
United States	100%	100%	62.363	+8.906	166	+24	90	-24%	2,970	0.8%
<b>States:</b>										
1 Texas	8.7%	8.8%	4,615	+829	164	+32	90	-60%	707	2.7%
2 Illinois	3.8%	4.2%	4,015	+956	256	+64	39	-1%	177	0.8%
3 Wisconsin	1.8%	1.6%	3,747	+615	580	+152	0	0%	136	0.7%
4 Florida	6.5%	5.0%	3,356	+50	139	+13	94	-77%	-22	(0.1%)
5 California	11.9%	14.6%	3,329	-246	71	+3	83	-76%	-108	(0.5%)
6 North Carolina	3.2%	2.7%	2,532	+104	197	+17	5	-9%	89	0.7%
7 Tennessee	2.1%	1.8%	2,289	+297	251	-29	79	-38%	182	1.4%
8 Ohio	3.5%	3.3%	2,178	+639	162	+39	0	0%	178	1.5%
9 Michigan	3.0%	2.6%	2,030	+833	154	+50	0	0%	138	1.5%
10 Indiana	2.0%	1.8%	1,943	+493	231	+47	4	-12%	245	2.1%
11 Missouri	1.8%	1.5%	1,875	+370	228	+25	5	-48%	99	0.7%
12 Georgia	3.2%	2.9%	1,640	+375	123	+7	82	-70%	-60	(0.7%)
13 Pennsylvania	3.9%	3.8%	1,598	+222	110	+13	188	-22%	112	1.2%
14 Utah	1.0%	0.9%	1,498	-3	377	+42	5	-14%	26	0.3%
15 New York	5.9%	8.1%	1,460	-376	70	-9	188	-87%	143	1.5%
16 Iowa	1.0%	0.9%	1,333	+72	307	+24	48	-21%	33	0.5%
17 Virginia	2.6%	2.6%	1,331	+176	132	+15	67	-20%	76	1.0%
18 Mississippi	0.9%	0.6%	1,322	+744	326	+89	77	-37%	-8	(0.2%)
19 Oklahoma	1.2%	1.0%	1,221	+9	308	+6	5	-14%	84	1.0%
20 Alabama	1.5%	1.1%	1,185	+628	210	+56	82	-51%	90	1.3%
21 Kentucky	1.3%	1.0%	1,182	+314	244	+33	0	0%	37	0.5%
22 South Carolina	1.6%	1.1%	1,167	+231	178	+3	75	-66%	46	0.7%
23 Minnesota	1.7%	1.8%	1,163	-108	217	+32	4	-16%	-12	(0.1%)
24 Colorado	1.7%	1.8%	1,141	+278	167	+37	0	0%	36	0.6%
25 Arizona	2.2%	1.7%	1,113	+250	124	+17	105	-79%	-2	(0.0%)
26 Arkansas	0.9%	0.6%	1,068	+2	269	+17	5	-14%	41	0.8%
27 New Jersey	2.7%	3.0%	971	-327	109	+17	193	-76%	81	1.4%
28 Nebraska	0.6%	0.6%	924	+285	359	+85	4	-16%	23	0.5%

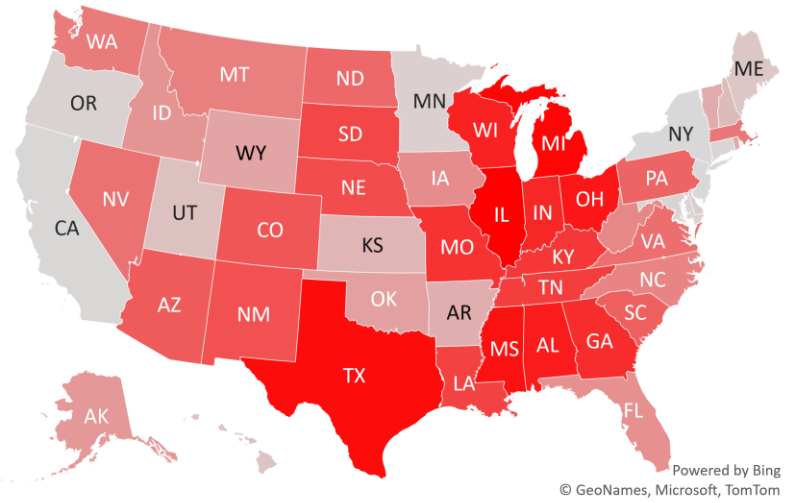
	Sorted Daily Cases		Daily Cases (3D avg) per 1mm residents				Since Peak		Hospitalization	
	% US Pop	% US GDP	10/15	7D Delta	10/15	7D Delta	# Days	% Decline in Daily Cases	7D Net Hospitalization	7D Net Hospitalization / 7D New Cases
United States	100%	100%	62.363	+8.906	166	+24	90	-24%	2,970	0.8%
<b>States:</b>										
29 Louisiana	1.4%	1.3%	823	+297	130	-20	86	-77%	2	0.1%
30 South Dakota	0.3%	0.3%	797	+292	786	+103	6	-11%	20	0.4%
31 Montana	0.3%	0.2%	723	+109	564	-7	5	-12%	38	0.9%
32 Idaho	0.5%	0.4%	718	+45	363	-11	90	-4%	28	0.7%
33 North Dakota	0.2%	0.3%	706	+179	838	+172	0	0%	-7	(0.2%)
34 Washington	2.3%	2.7%	676	+131	138	+79	0	0%	23	0.5%
35 New Mexico	0.6%	0.5%	668	+284	254	+75	0	0%	31	1.0%
36 Nevada	0.9%	0.8%	655	+175	175	+25	89	-60%	-12	(0.3%)
37 Maryland	1.8%	2.0%	630	-131	93	+3	147	-55%	9	0.2%
38 Massachusetts	2.1%	2.8%	587	+143	93	+21	173	-82%	19	0.4%
39 Oregon	1.3%	1.2%	365	-117	84	-1	5	-18%	-7	(0.3%)
40 Puerto Rico	1.0%	0.5%	318	-34	98	+34	19	-45%	39	2.0%
41 Rhode Island	0.3%	0.3%	274	+5	191	-6	173	-53%	12	0.9%
42 West Virginia	0.5%	0.4%	264	+78	149	+41	4	-0%	12	0.7%
43 Wyoming	0.2%	0.2%	198	+5	330	+63	0	0%	-5	(0.4%)
44 Connecticut	1.1%	1.3%	167	-217	61	+2	176	-86%	63	3.1%
45 Alaska	0.2%	0.3%	152	+25	203	+25	3	-36%	14	1.1%
46 Delaware	0.3%	0.4%	95	-37	93	-16	170	-73%	10	1.1%
47 Hawaii	0.4%	0.5%	91	-9	59	-9	47	-71%	-4	(0.6%)
48 Guam	0.0%	0.0%	86	+20	517	+153	49	-21%	22	4.5%
49 New Hampshire	0.4%	0.4%	77	-1	53	+5	166	-42%	4	0.7%
50 District of Columbia	0.2%	0.7%	34	-34	68	-35	165	-79%	-12	(3.5%)
51 Maine	0.4%	0.3%	20	-15	21	-2	146	-59%	4	2.0%
52 Vermont	0.2%	0.2%	14	+3	15	+4	193	-84%	5	7.7%
53 Northern Mariana	0.0%	0.0%	0	+0	0	+0	23	-100%	0	0.0%
54 Kansas	0.9%	0.8%	0	+0	148	+6	1	-61%	95	1.8%
55 American Samoa	0.0%	0.0%	0	+0	#N/A	+0	0	0%	0	
56 U.S. Virgin Islands	0.0%	0.0%	-1	-2	6	+22	55	-99%	0	0.0%

# #4: USA COVID-19 Heat Map...

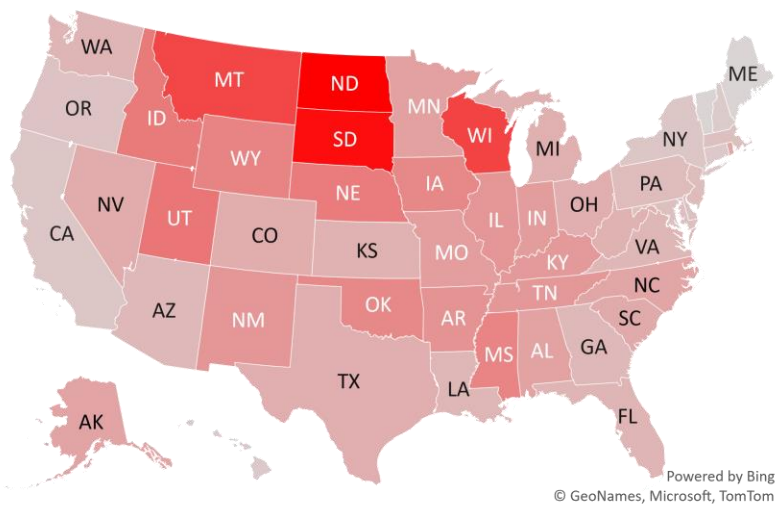
### Daily Case Increases



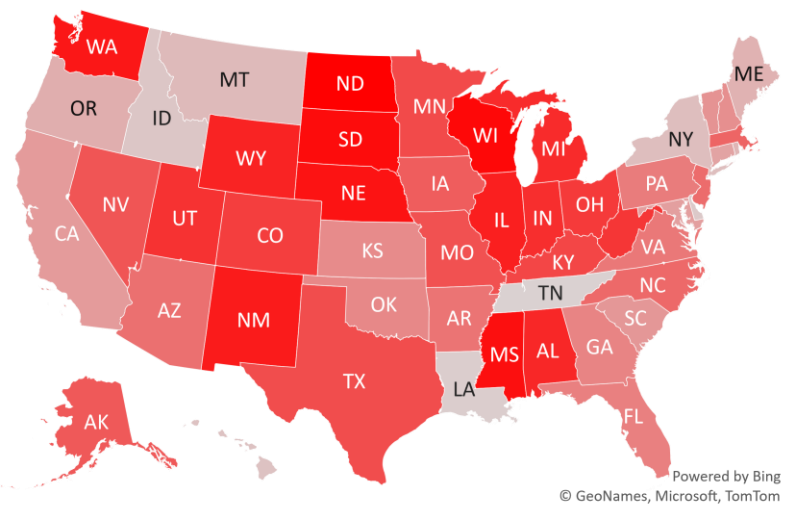
### 7D Delta in Daily New Cases



### Daily Case Increases per 1mm Resident (3D Avg)



### 7D Delta in Daily New Cases per 1mm (3D Avg)



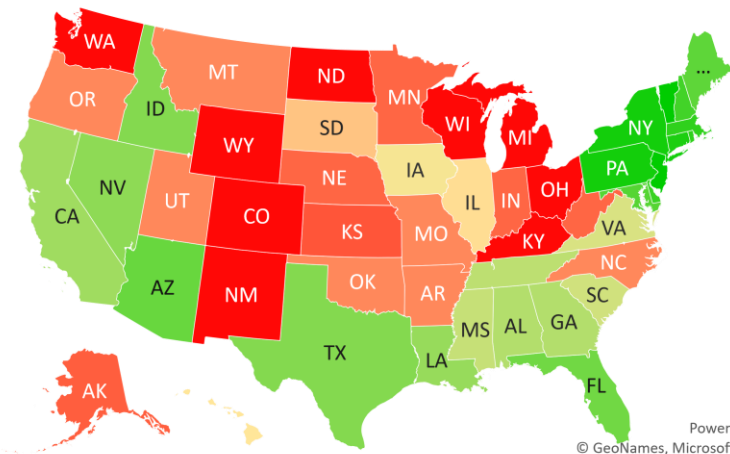
# #5: # of Days since Daily Case Peaked by States...

## # Days since Daily Cases (3D Avg) Peak (as of 10/15)

	Sorted			
	Peak Date	10/15/20	% off the Peak	% US Pop
United States	7/17/20	90	-24%	100%
<b>States:</b>				
Vermont	4/5/20	193	-84%	0.2%
New Jersey	4/5/20	193	-76%	2.7%
Pennsylvania	4/10/20	188	-22%	3.9%
New York	4/10/20	188	-87%	5.9%
Connecticut	4/22/20	176	-86%	1.1%
Rhode Island	4/25/20	173	-53%	0.3%
Massachusetts	4/25/20	173	-82%	2.1%
Delaware	4/28/20	170	-73%	0.3%
New Hampshire	5/2/20	166	-42%	0.4%
District of Columbia	5/3/20	165	-79%	0.2%
Maryland	5/21/20	147	-55%	1.8%
Maine	5/22/20	146	-59%	0.4%
Arizona	7/2/20	105	-79%	2.2%
Florida	7/13/20	94	-77%	6.5%
Texas	7/17/20	90	-60%	8.7%
Idaho	7/17/20	90	-4%	0.5%
Nevada	7/18/20	89	-60%	0.9%
Louisiana	7/21/20	86	-77%	1.4%
California	7/24/20	83	-76%	11.9%
Georgia	7/25/20	82	-70%	3.2%
Alabama	7/25/20	82	-51%	1.5%
Tennessee	7/28/20	79	-38%	2.1%
Mississippi	7/30/20	77	-37%	0.9%
South Carolina	8/1/20	75	-66%	1.6%
Virginia	8/9/20	67	-20%	2.6%
U.S. Virgin Islands	8/21/20	55	-99%	0.0%
Guam	8/27/20	49	-21%	0.0%
Iowa	8/28/20	48	-21%	1.0%

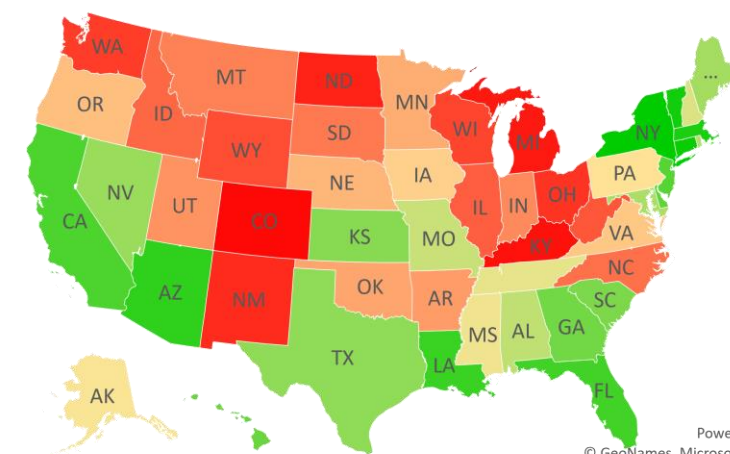
	Sorted			
	Peak Date	10/15/20	% off the Peak	% US Pop
United States	7/17/20	90	-24%	100%
<b>States:</b>				
Hawaii	8/29/20	47	-71%	0.4%
Illinois	9/6/20	39	-1%	3.8%
Northern Mariana Island	9/22/20	23	-100%	0.0%
Puerto Rico	9/26/20	19	-45%	1.0%
South Dakota	10/9/20	6	-11%	0.3%
Utah	10/10/20	5	-14%	1.0%
Oregon	10/10/20	5	-18%	1.3%
Oklahoma	10/10/20	5	-14%	1.2%
North Carolina	10/10/20	5	-9%	3.2%
Montana	10/10/20	5	-12%	0.3%
Missouri	10/10/20	5	-48%	1.8%
Arkansas	10/10/20	5	-14%	0.9%
West Virginia	10/11/20	4	-0%	0.5%
Nebraska	10/11/20	4	-16%	0.6%
Minnesota	10/11/20	4	-16%	1.7%
Indiana	10/11/20	4	-12%	2.0%
Alaska	10/12/20	3	-36%	0.2%
Kansas	10/14/20	1	-61%	0.9%
Wyoming	10/15/20	0	0%	0.2%
Wisconsin	10/15/20	0	0%	1.8%
Washington	10/15/20	0	0%	2.3%
Ohio	10/15/20	0	0%	3.5%
New Mexico	10/15/20	0	0%	0.6%
North Dakota	10/15/20	0	0%	0.2%
Michigan	10/15/20	0	0%	3.0%
Kentucky	10/15/20	0	0%	1.3%
Colorado	10/15/20	0	0%	1.7%

## # Days since Daily Case Peak: **Longer = Good**



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## Daily Cases % off the Peak: **Larger Decline = Good**



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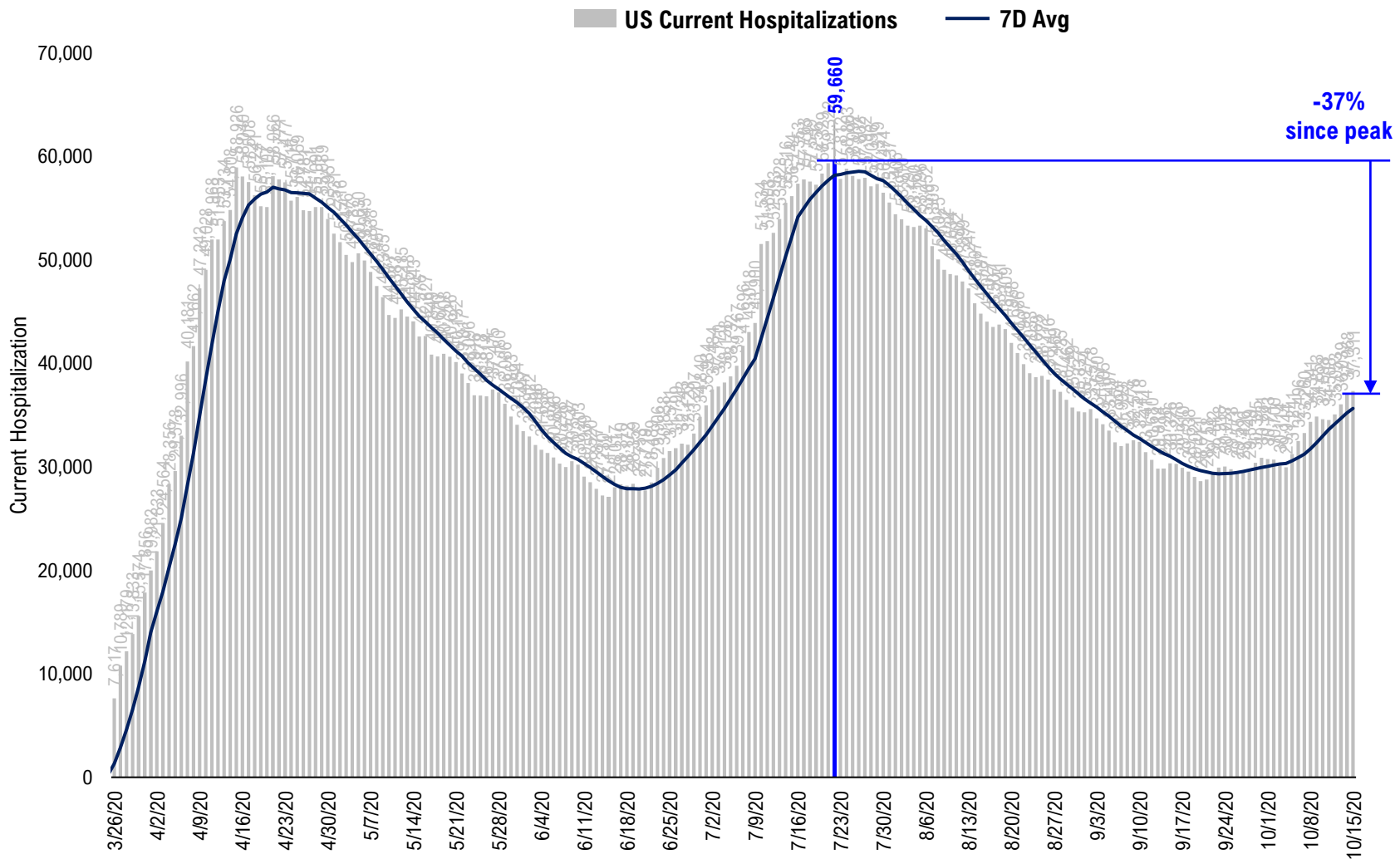
# #6: US New Cases by States... (sorted by today's new cases)

	Sorted				
	7D Ago	Last 3-day Trend			
	10/8/20	10/13/20	10/14/20	10/15/20	vs 7D ago
United States	53,457	48,656	52,519	62,363	+8,906
<b>States:</b>					
Texas	3,786	5,050	4,564	4,615	<--higher
Illinois	3,059	2,851	2,862	4,015	<--higher
Wisconsin	3,132	3,279	3,107	3,747	
Florida	3,306	2,725	2,883	3,356	
California	3,575	2,378	2,666	3,329	
North Carolina	2,428	1,734	1,926	2,532	
Tennessee	1,992	1,147	1,709	2,289	
Ohio	1,539	1,447	2,039	2,178	<--higher
Michigan	1,197	1,237	1,359	2,030	<--higher
Indiana	1,450	1,549	1,165	1,943	<--higher
Missouri	1,505	988	1,338	1,875	<--higher
Georgia	1,265	993	1,297	1,640	<--higher
Pennsylvania	1,376	1,342	1,276	1,598	
Utah	1,501	987	1,144	1,498	
New York	1,836	1,393	1,232	1,460	
Iowa	1,261	529	1,046	1,333	
Virginia	1,155	1,235	805	1,331	
Mississippi	578	713	876	1,322	<--higher
Oklahoma	1,212	1,309	1,122	1,221	
Alabama	557	1,117	784	1,185	<--higher
Kentucky	868	761	1,322	1,182	<--higher
South Carolina	936	743	840	1,167	<--higher
Minnesota	1,271	1,135	1,369	1,163	
Colorado	863	1,048	692	1,141	<--higher
Arizona	863	684	901	1,113	<--higher
Arkansas	1,066	481	884	1,068	
New Jersey	1,298	988	938	971	
Nebraska	639	457	704	924	<--higher

	Sorted				
	7D Ago	Last 3-day Trend			
	10/8/20	10/13/20	10/14/20	10/15/20	vs 7D ago
United States	53,457	48,656	52,519	62,363	+8,906
<b>States:</b>					
Louisiana	526	653	331	823	<--higher
South Dakota	505	414	876	797	<--higher
Montana	614	486	599	723	
Idaho	673	584	645	718	
North Dakota	527	508	702	706	<--higher
Washington	545	1,740	734	676	<--higher
New Mexico	384	351	577	668	<--higher
Nevada	480	487	479	655	<--higher
Maryland	761	482	575	630	
Massachusetts	444	749	580	587	<--higher
Oregon	482	313	380	365	
Puerto Rico	352	135	490	318	
Rhode Island	269	129	204	274	
West Virginia	186	274	263	264	<--higher
Wyoming	193	162	213	198	
Connecticut	384	320	164	167	
Alaska	127	151	143	152	
Delaware	132	105	71	95	
Hawaii	100	62	98	91	
Guam	66	96	75	86	<--higher
New Hampshire	78	71	70	77	
District of Columbia	68	46	64	34	
Maine	35	28	36	20	
Vermont	11	10	4	14	<--higher
Northern Mariana Islands	0	0	0	0	
Kansas	0	0	1,293	0	
American Samoa	0	0	0	0	
U.S. Virgin Islands	1	0	3	-1	

# #7: US Daily Hospitalizations...

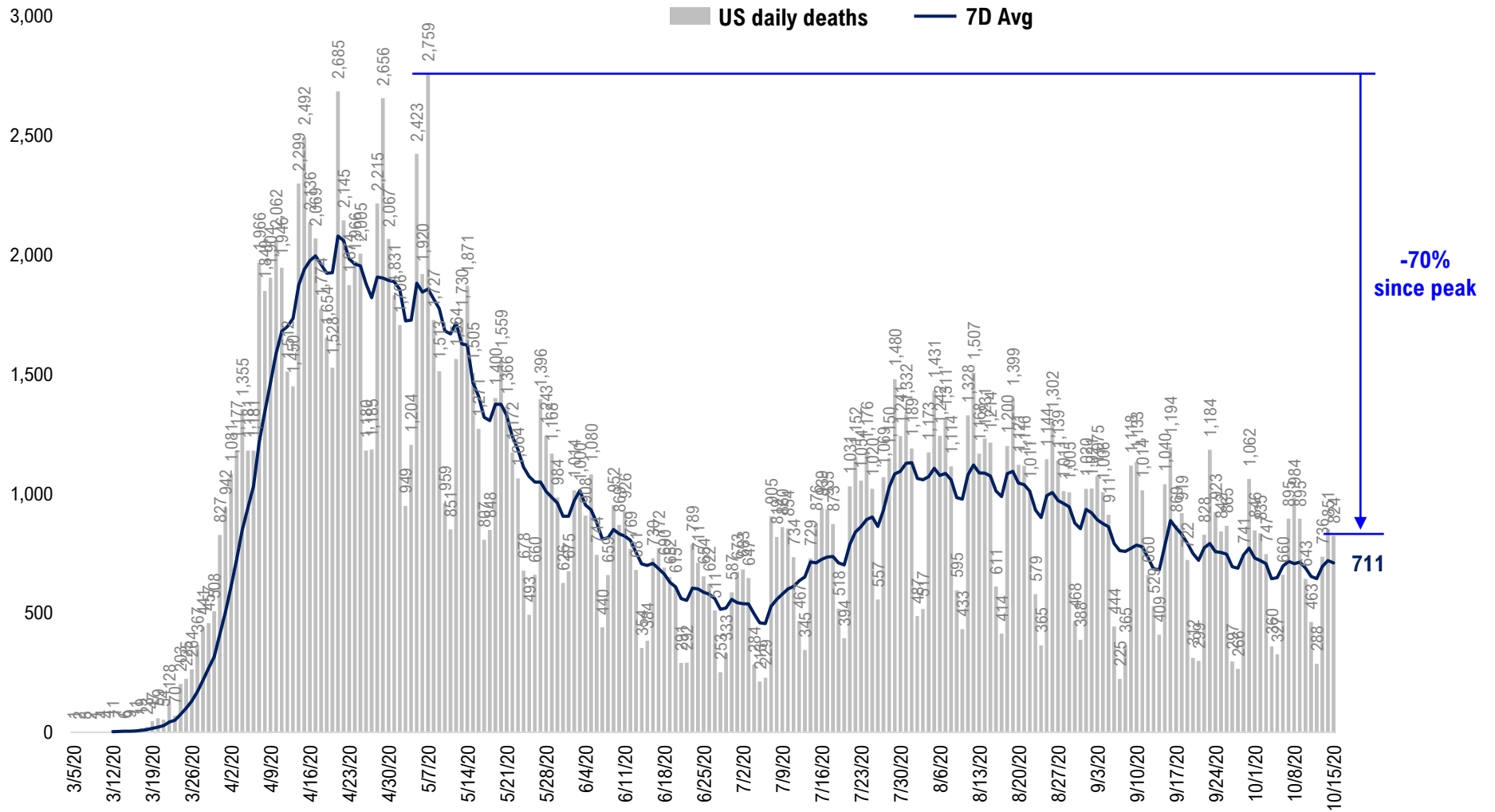
## US Net Hospitalizations (aggregate of 50 states + Washington, D.C.)





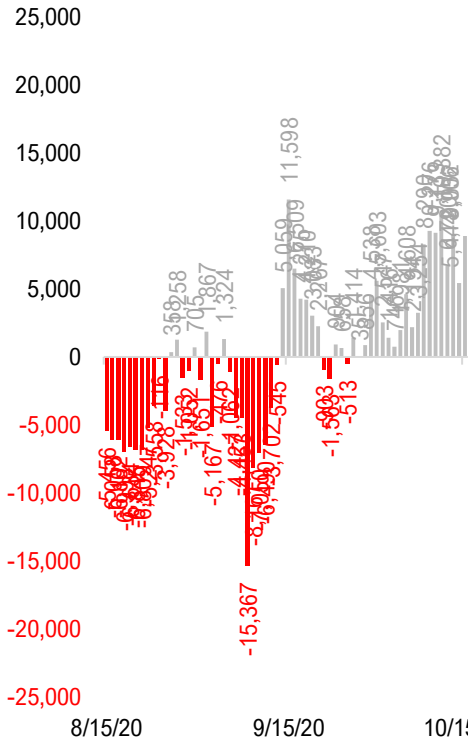
# #8: US Daily New Fatalities...

## US daily COVID-19 Fatalities

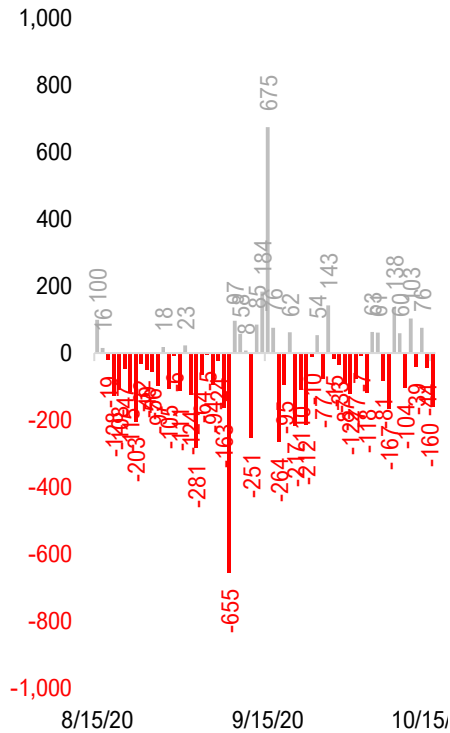


# #9: Rolling 7-Day Change in the Key Metrics... (Past 8 Weeks)

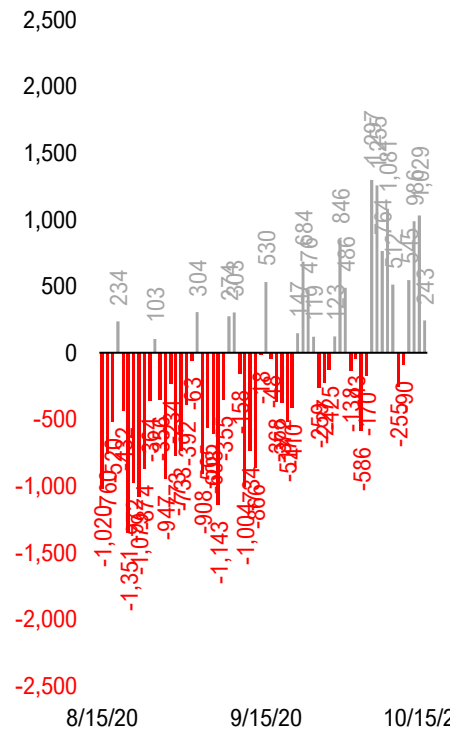
**Daily New Cases**  
(8/10-8/23 ex-CA; 9/4-9/5 ex-IL)



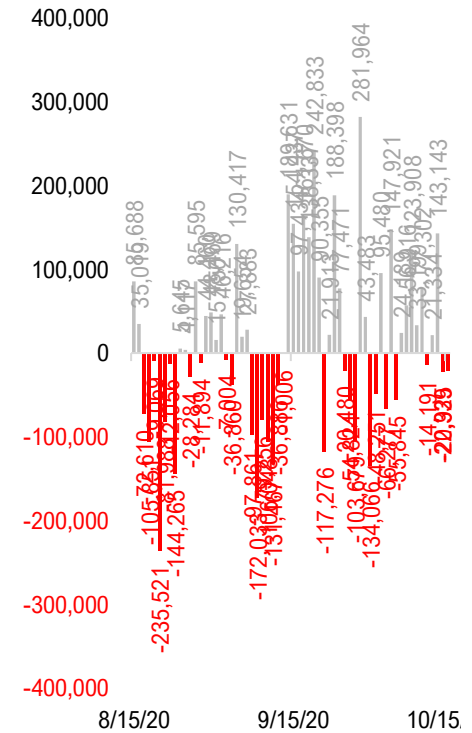
**Daily Deaths**



**Daily Net Hospitalization**  
(Red = more discharge than admission)

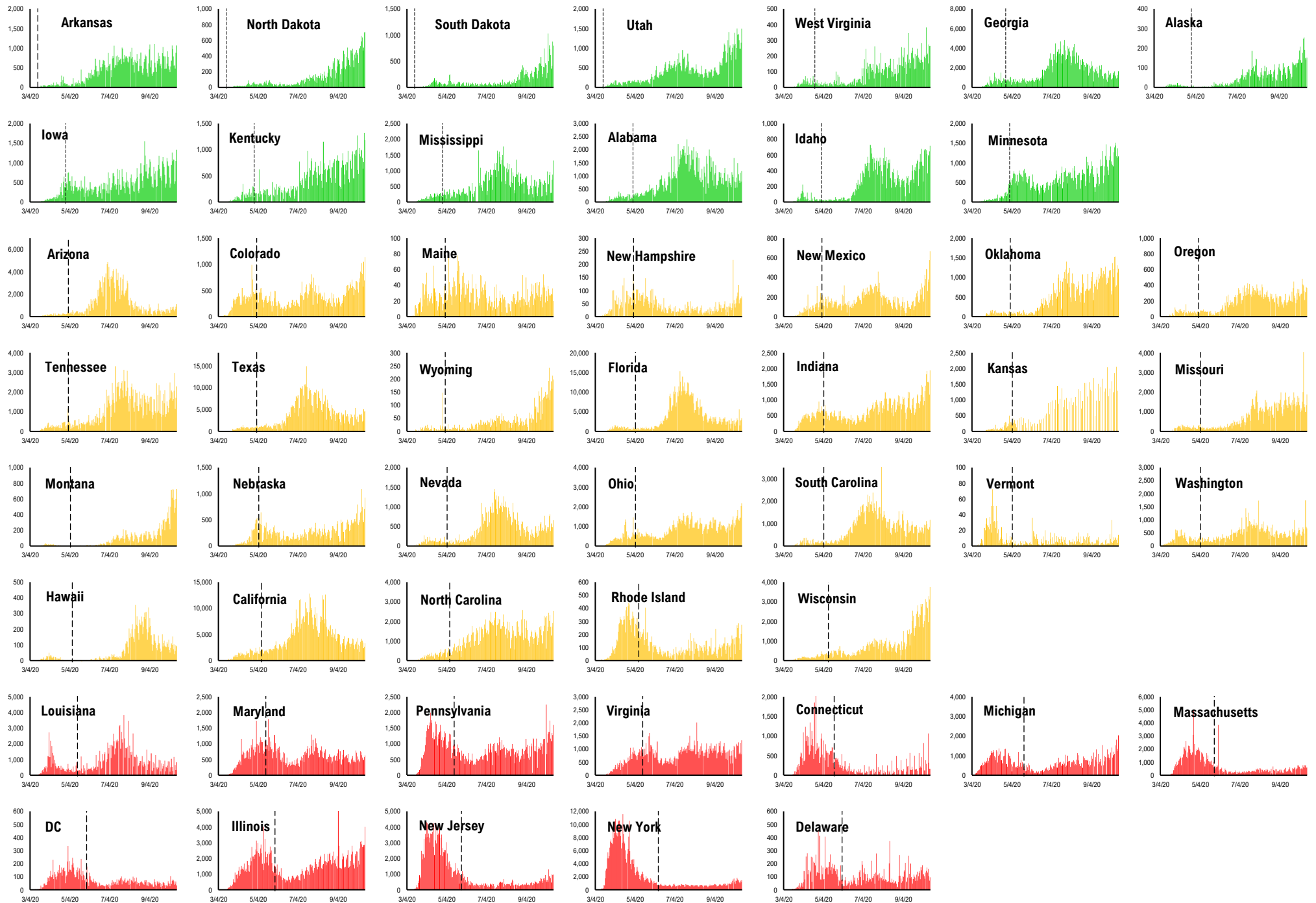


**Daily Tests**

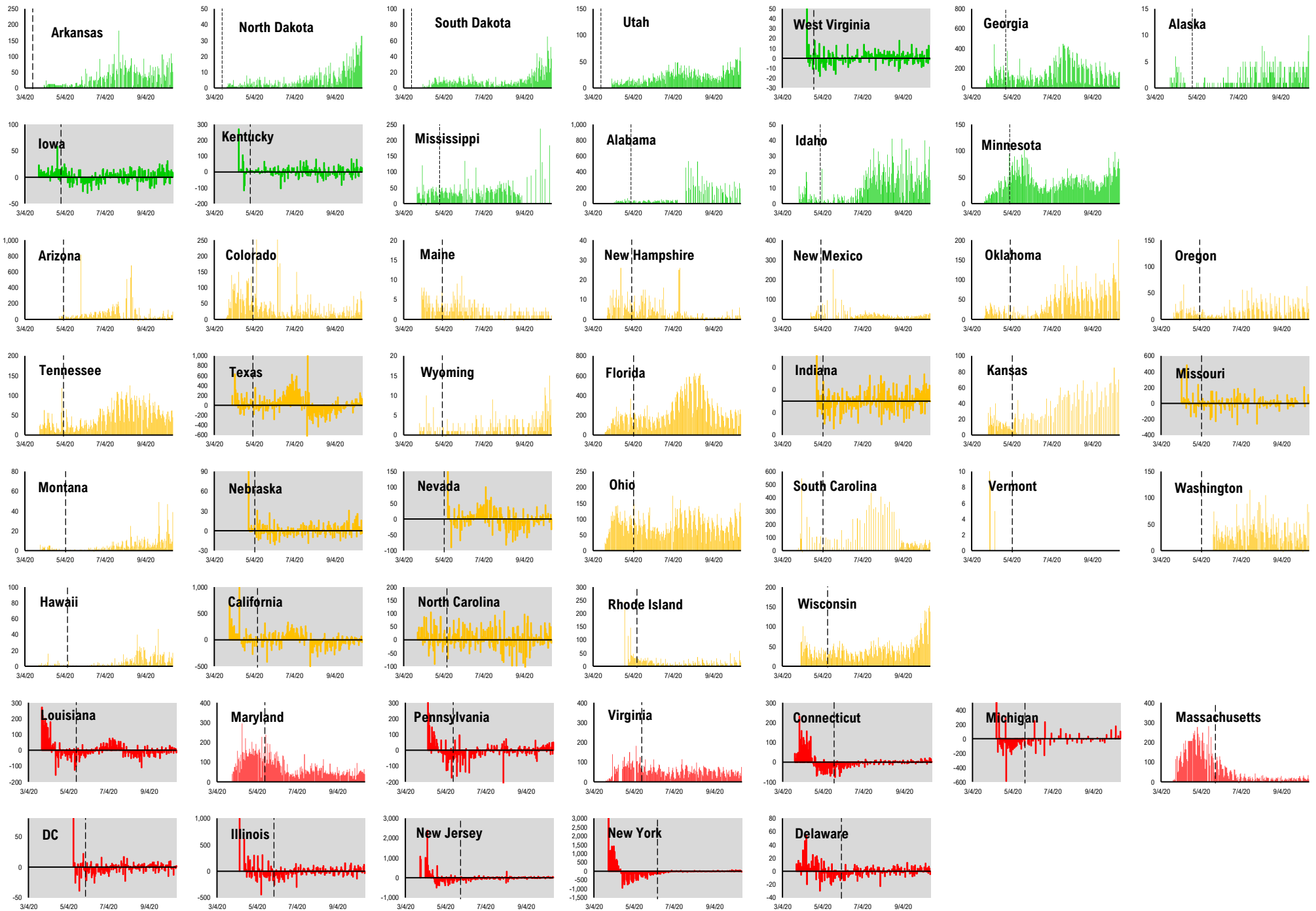


\* Ignored California between 8/10 and 8/23, due to its data glitch caused 300,000-case backlog  
Source: Fundstrat, COVID-19 Tracking Project, State Department of Health

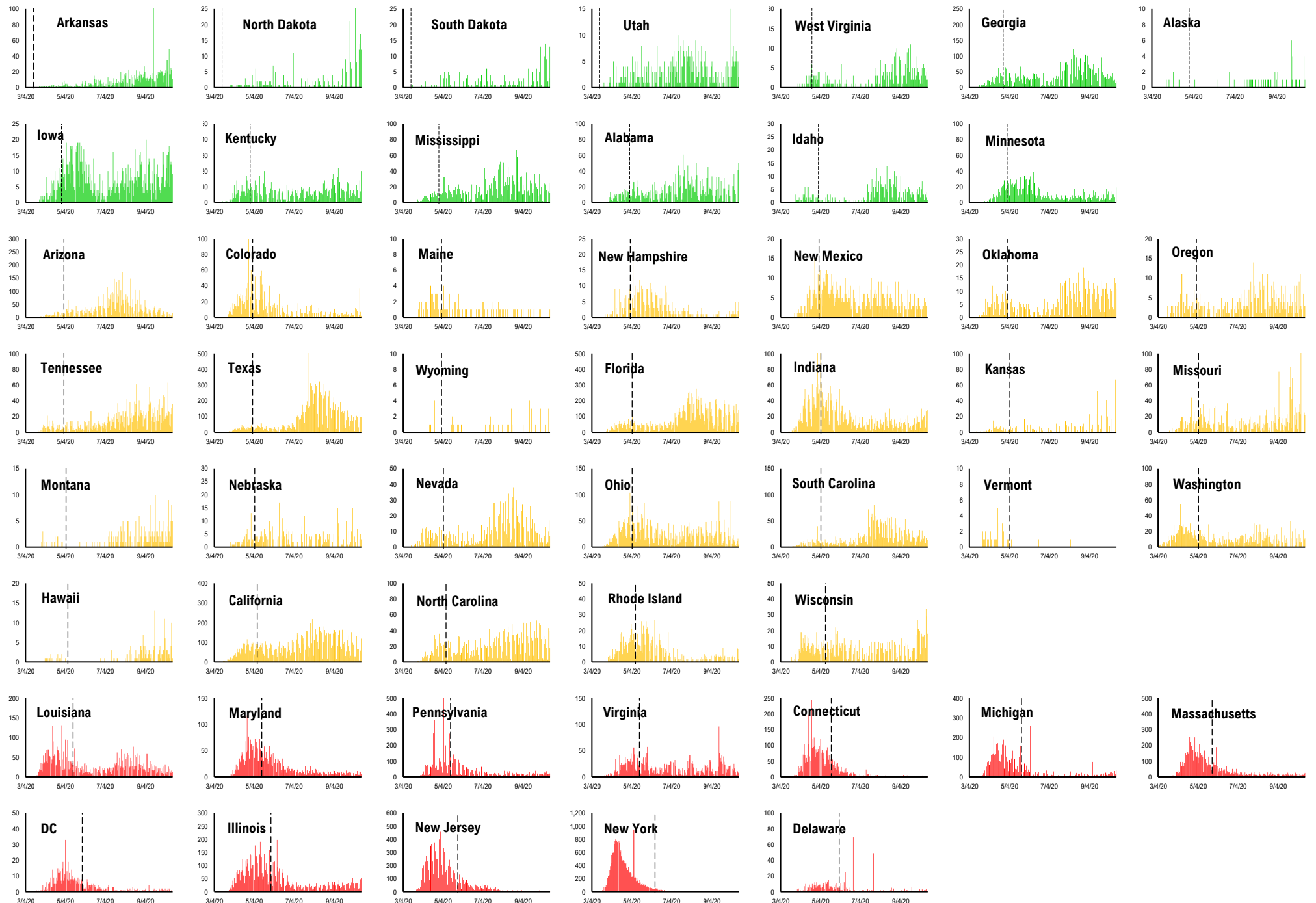
# #10: Daily New Cases by States... (sorted by "open" date)



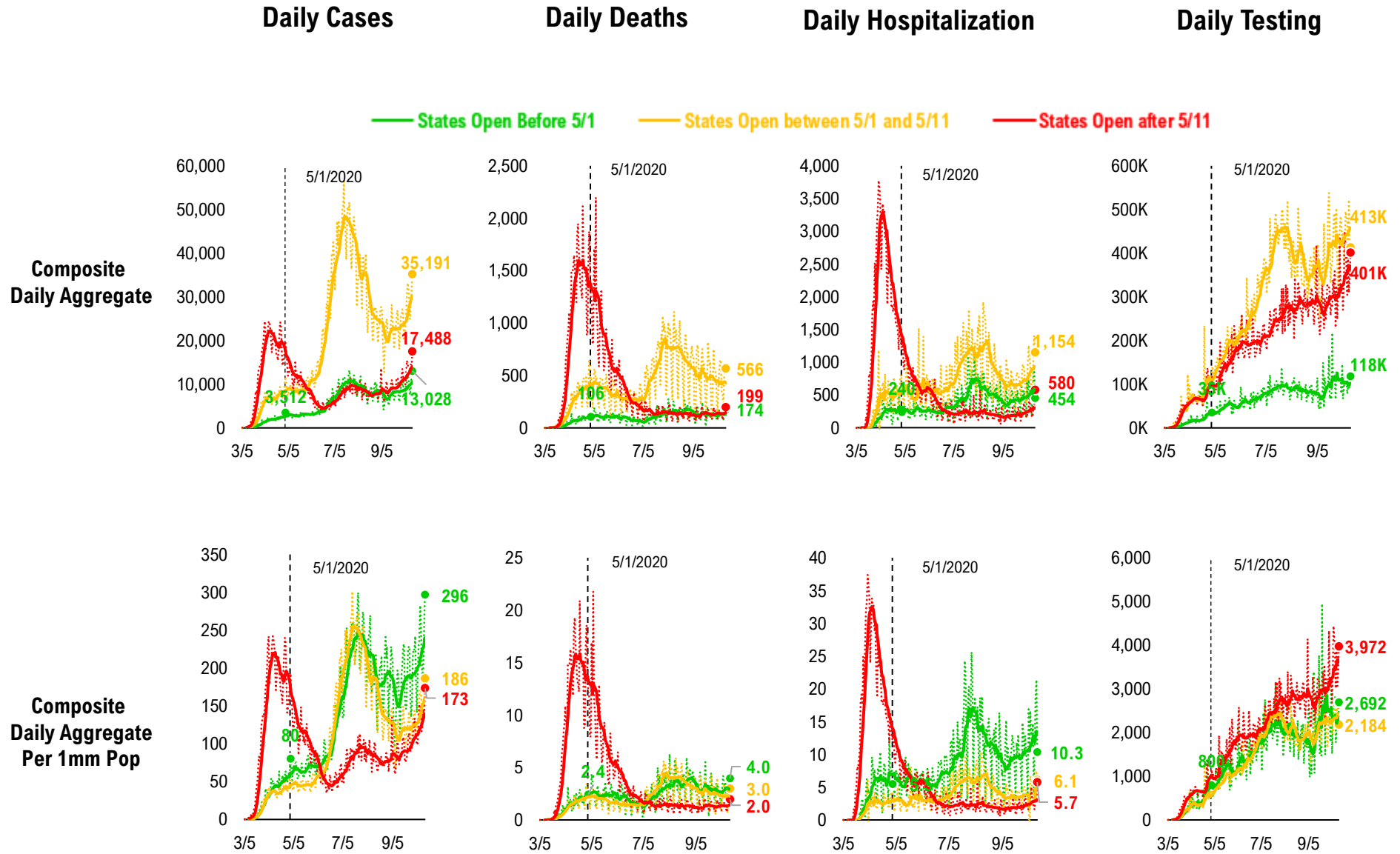
# #11: Daily Hospitalizations by States... (sorted by "open" date)



# #12: Daily New Deaths by States... (sorted by "open" date)

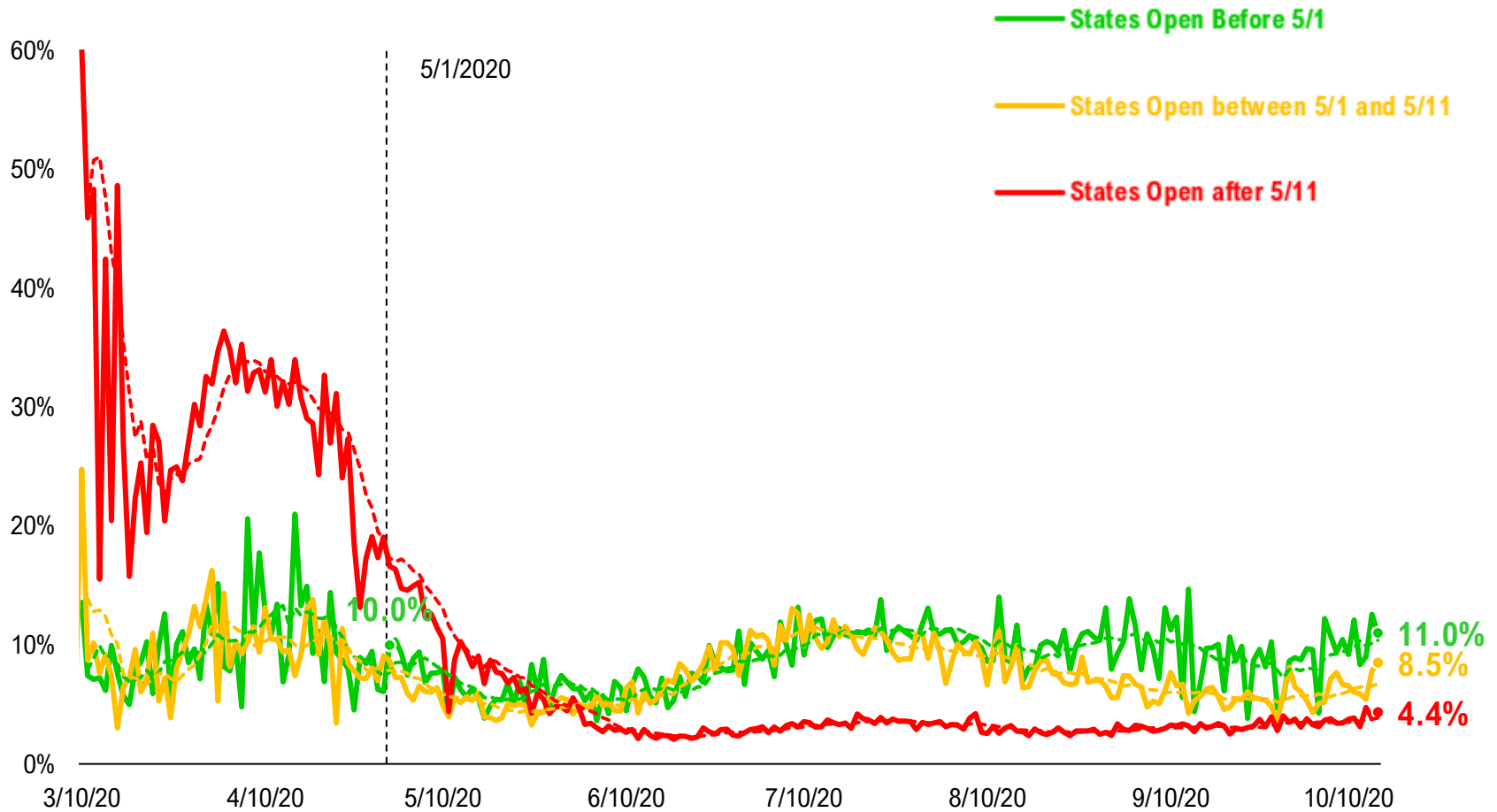


# #13: State COVID-19 situation by Reopen Date...

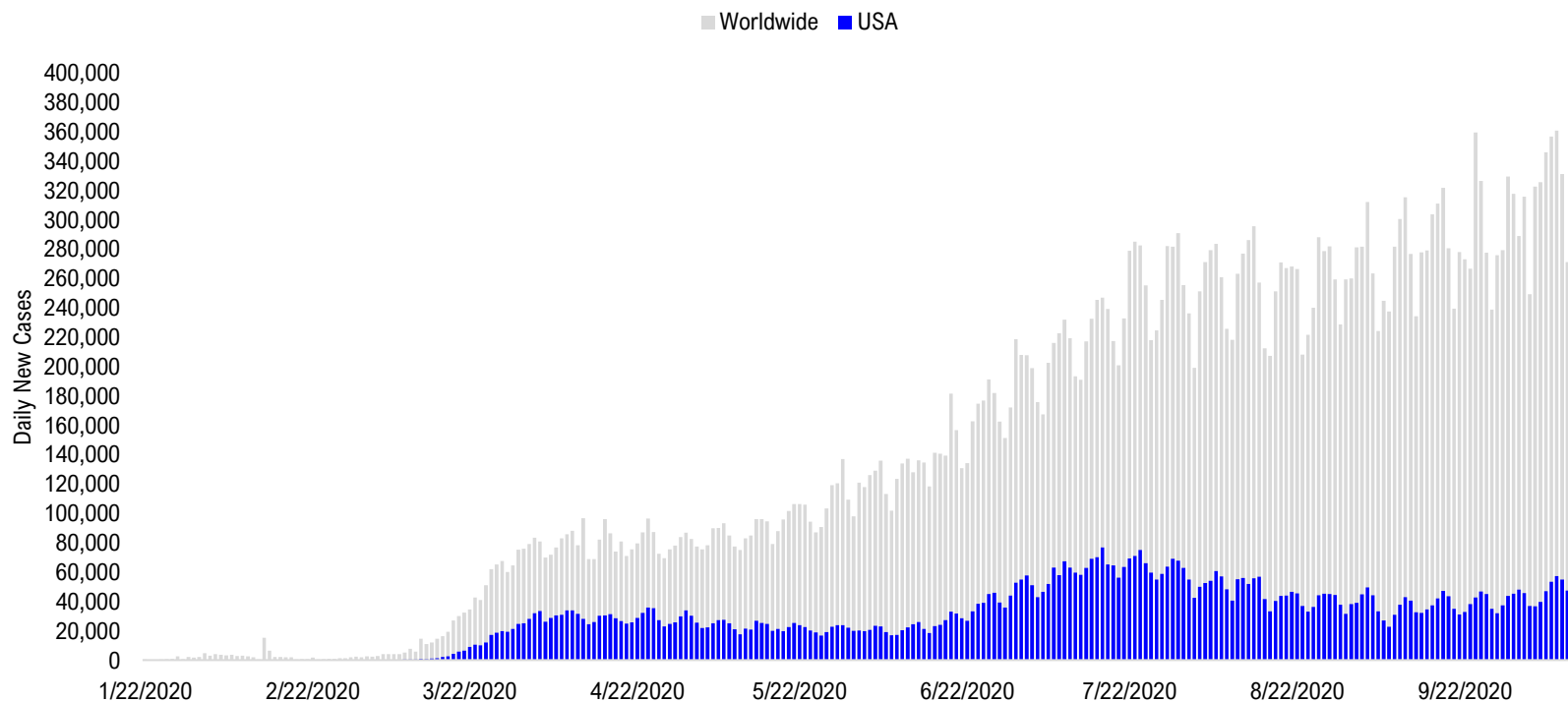


# #14: State COVID-19 Daily Positivity Rate by Reopen Date...

## Composite Daily Positivity Rate



# #15: Global COVID-19 Situation at a Glance...



5/29/2020	6/12/2020	6/26/2020	7/10/2020	7/24/2020	8/7/2020	8/21/2020	9/4/2020	9/18/2020	10/2/2020	10/14/2020
Latin America 42,759	Latin America 51,123	Latin America 68,227	Latin America 73,176	Latin America 97,008	Latin America 97,310	Latin America 85,471	Latin America 88,295	Pakistan + India + Bangladesh 98,115	Pakistan + India + Bangladesh 84,614	Europe 140,631
US + Canada 22,796	US + Canada 22,798	US + Canada 41,092	US + Canada 63,055	US + Canada 72,289	Pakistan + India + Bangladesh 63,674	Pakistan + India + Bangladesh 72,740	Pakistan + India + Bangladesh 87,400	Latin America 76,730	Europe 77,734	Pakistan + India + Bangladesh 64,384
Europe 19,130	Pakistan + India + Bangladesh 18,309	Pakistan + India + Bangladesh 24,668	Pakistan + India + Bangladesh 32,386	Pakistan + India + Bangladesh 52,184	US + Canada 56,201	US + Canada 45,159	US + Canada 44,962	Europe 57,930	Latin America 61,017	US + Canada 50,704
Pakistan + India + Bangladesh 12,032	Europe 18,149	Europe 17,889	Africa 17,127	Africa 20,063	Europe 23,878	Europe 32,466	Europe 40,116	US + Canada 43,204	US + Canada 47,712	Latin America 47,106
Africa 5,307	Africa 7,322	Africa 11,684	Europe 16,204	Europe 18,765	Africa 14,390	Africa 10,566	Asia ex- India+Pakistan 8,720	Asia ex- India+Pakistan 10,763	Asia ex- India+Pakistan 11,417	Asia ex- India+Pakistan 12,783
Asia ex- India+Pakistan 2,762	Asia ex- India+Pakistan 3,064	Asia ex- India+Pakistan 3,866	Asia ex- India+Pakistan 7,373	Asia ex- India+Pakistan 8,636	Asia ex- India+Pakistan 10,424	Asia ex- India+Pakistan 10,047	Africa 8,318	Africa 7,997	Africa 8,146	Africa 8,402



# Disclosures

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