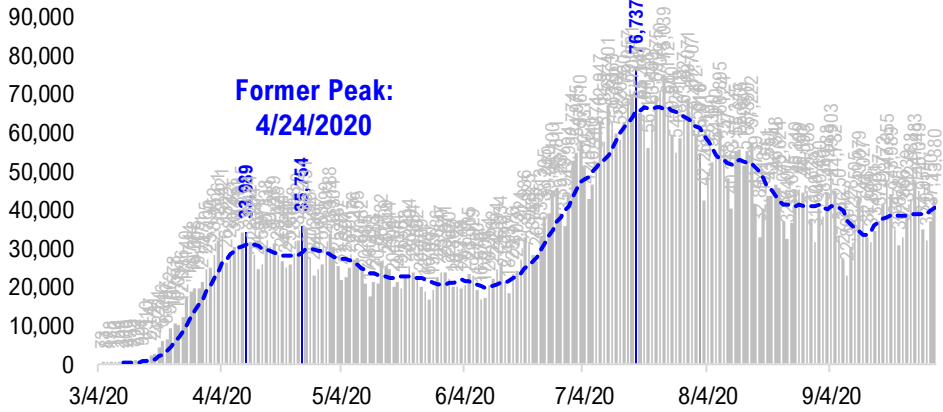


FSInsight Daily COVID-19 Chartbook

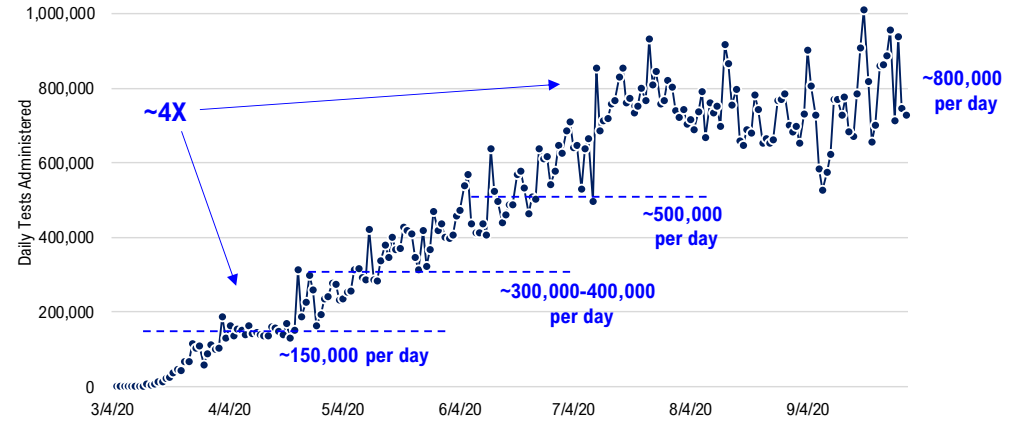


#1: USA COVID-19 Situation at a Glance...

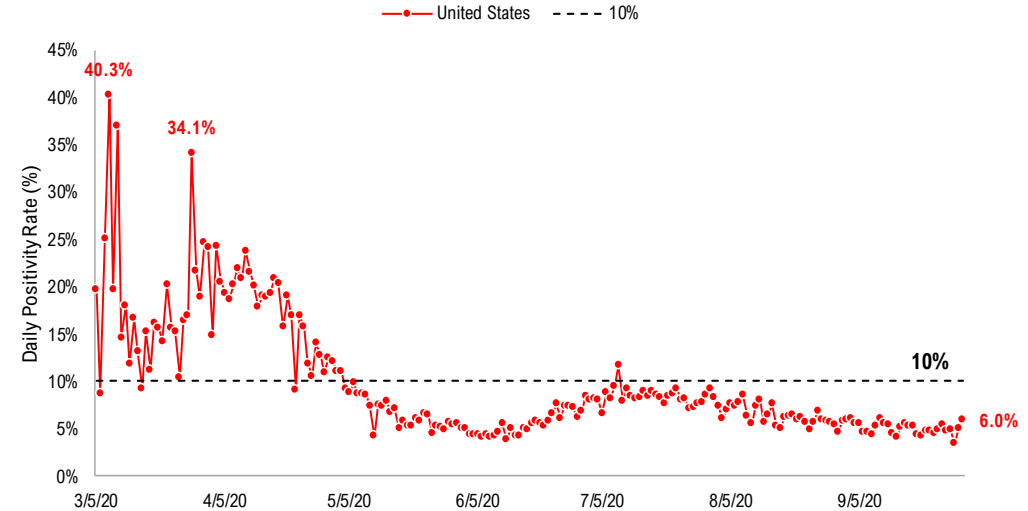
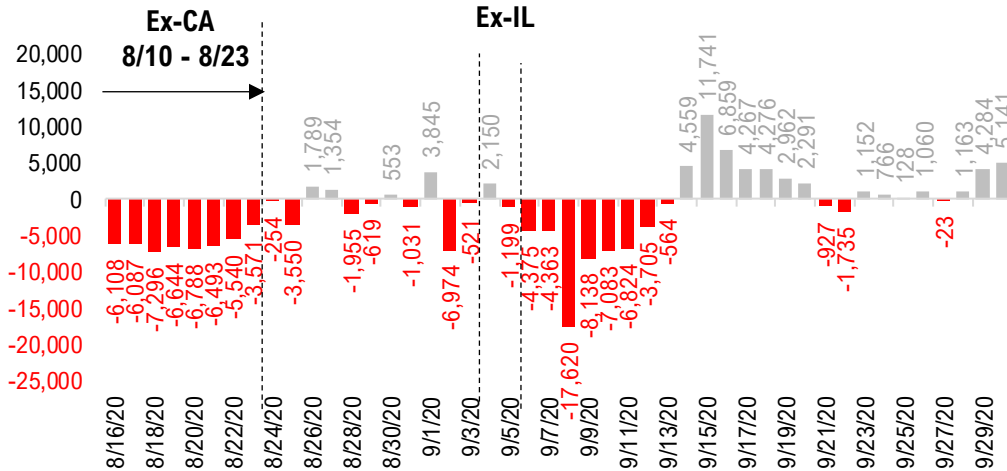
US daily new cases



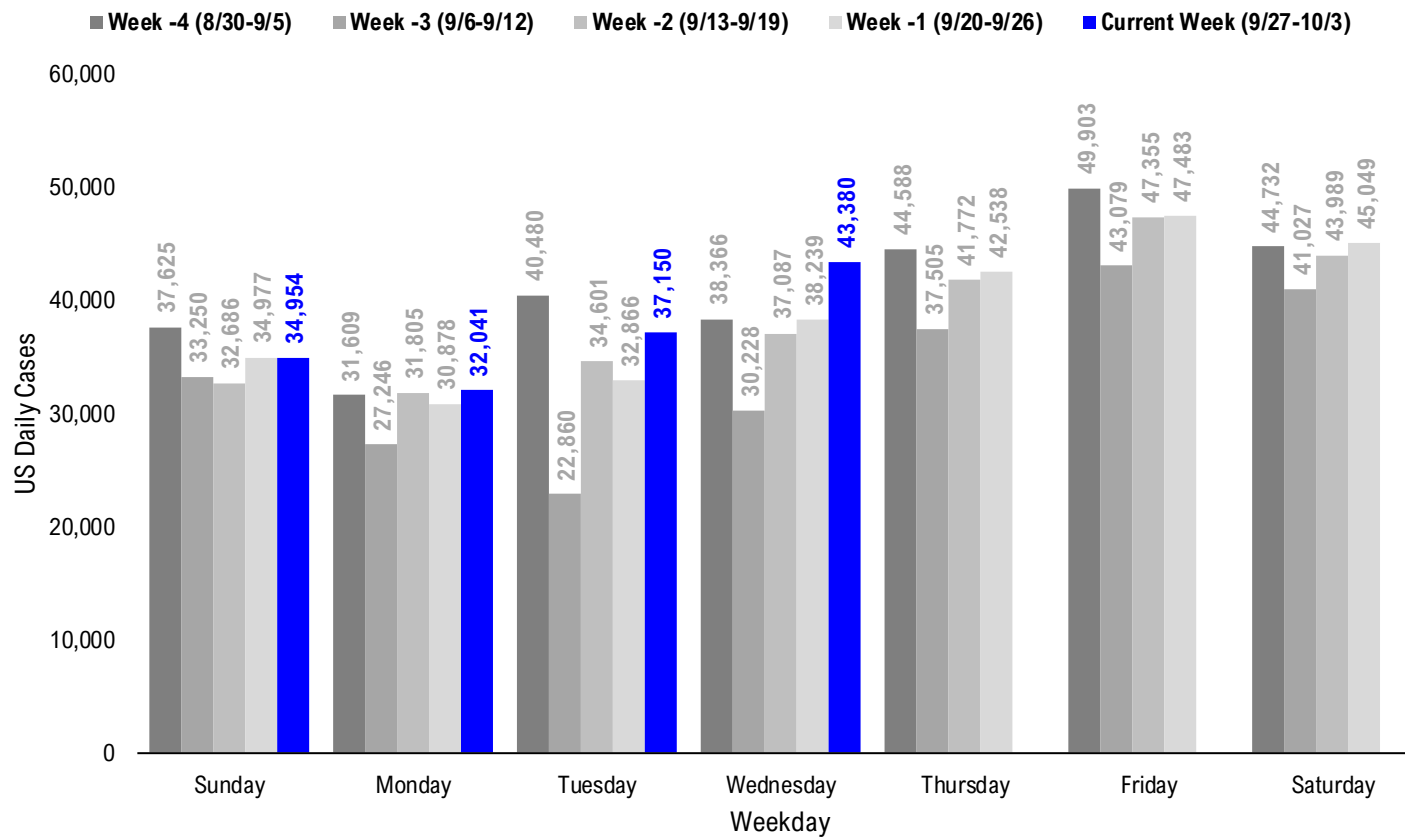
USA total COVID-19 tests administered



US daily new cases rolling 7D delta



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



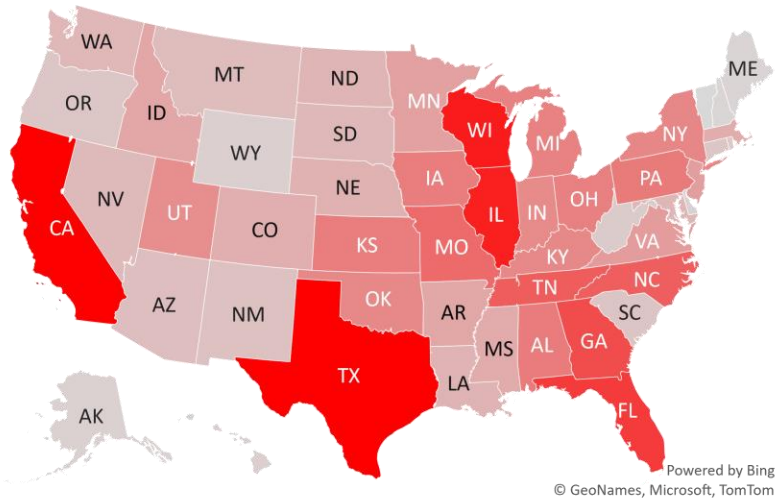
#3: USA State COVID-19 Situation at a Glance...

		Sorted Daily Cases		Daily Cases (3D avg) per 1mm residents		Since Peak		% Decline in Daily Cases	
		% US Pop	9/30/20	7D Delta	9/30/20	7D Delta	# Days		
United States		100%	43,380	+5,141	114	+11	75	-48%	
States:									
1	Texas	8.7%	5,335	+2,358	121	+21	75	-71%	
2	California	11.9%	3,200	+54	70	-6	68	-76%	
3	Wisconsin	1.8%	2,319	+557	367	+98	4	-17%	
4	Illinois	3.8%	2,273	+425	141	+13	24	-45%	
5	Florida	6.5%	1,948	-642	92	-12	79	-84%	
6	Georgia	3.2%	1,720	+263	105	-6	67	-74%	
7	Tennessee	2.1%	1,528	-33	153	-2	64	-62%	
8	North Carolina	3.2%	1,495	+543	103	+11	74	-51%	
9	Missouri	1.8%	1,351	-229	224	+1	62	-29%	
10	Pennsylvania	3.9%	1,153	+255	73	+22	173	-48%	
11	Alabama	1.5%	1,147	+578	162	+13	67	-62%	
12	Kansas	0.9%	1,120	-147	361	+25	0	0%	
13	Iowa	1.0%	1,120	+84	207	-30	33	-47%	
14	Ohio	3.5%	1,080	+177	91	+21	61	-32%	
15	Michigan	3.0%	1,054	+349	109	+17	159	-11%	
16	New York	5.9%	1,000	+335	52	+18	173	-90%	
17	Kentucky	1.3%	984	+198	175	+28	4	-7%	
18	Oklahoma	1.2%	980	-109	241	-41	64	-22%	
19	Indiana	2.0%	953	+242	127	+36	17	-28%	
20	Utah	1.0%	906	+29	252	+29	4	-33%	
21	Virginia	2.6%	755	+175	83	+2	52	-50%	
22	New Jersey	2.7%	712	+304	65	+19	178	-86%	
23	Minnesota	1.7%	687	+9	142	+19	3	-36%	
24	Idaho	0.5%	614	+218	289	+55	75	-24%	
25	Arkansas	0.9%	607	-267	207	-9	67	-31%	
26	Mississippi	0.9%	552	+0	149	+14	62	-71%	
27	Massachusetts	2.1%	532	-11	71	+24	158	-86%	
28	Colorado	1.7%	511	-105	84	-21	157	-33%	

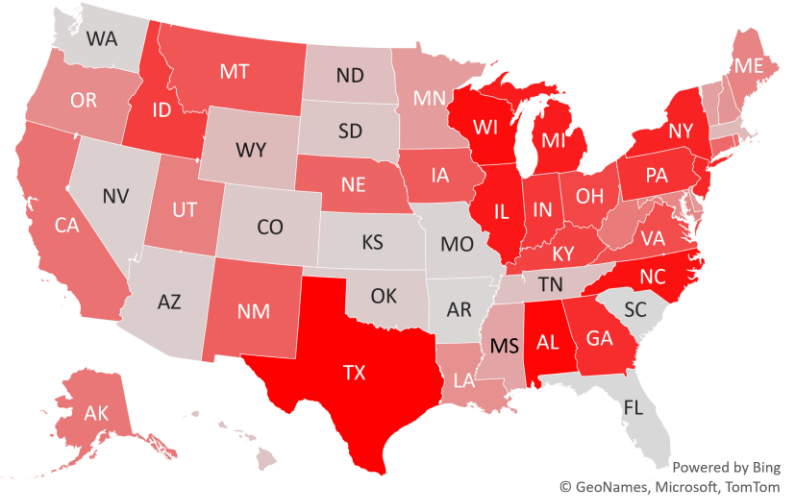
		Sorted Daily Cases		Daily Cases (3D avg) per 1mm residents		Since Peak		% Decline in Daily Cases	
		% US Pop	9/30/20	7D Delta	9/30/20	7D Delta	# Days		
United States		100%	43,380	+5,141	114	+11	75	-48%	
States:									
29	Nebraska	0.6%	466	+69	250	+79	151	-6%	
30	Louisiana	1.4%	452	+21	88	-14	71	-85%	
31	North Dakota	0.2%	445	-28	491	+43	4	-20%	
32	Maryland	1.8%	414	+29	73	+10	132	-65%	
33	Washington	2.3%	404	-241	53	+25	77	-61%	
34	South Dakota	0.3%	392	-53	320	-34	4	-43%	
35	Nevada	0.9%	385	-124	135	+27	74	-69%	
36	Montana	0.3%	347	+135	301	+109	4	-3%	
37	Arizona	2.2%	323	-115	58	+0	90	-90%	
38	New Mexico	0.6%	278	+81	94	+29	63	-46%	
39	South Carolina	1.6%	250	-630	93	-57	80	-76%	
40	Connecticut	1.1%	221	+66	90	+16	161	-79%	
41	Oregon	1.3%	218	+28	54	-1	60	-37%	
42	Puerto Rico	1.0%	207	+167	137	+98	4	-24%	
43	Rhode Island	0.3%	192	+59	110	+17	158	-73%	
44	West Virginia	0.5%	156	+36	93	+9	18	-30%	
45	Wyoming	0.2%	127	-26	181	+10	5	-22%	
46	Hawaii	0.4%	121	-47	70	+3	32	-66%	
47	Alaska	0.2%	103	+49	156	+80	59	-15%	
48	Delaware	0.3%	82	+13	121	+30	155	-65%	
49	Maine	0.4%	54	+29	26	+3	131	-50%	
50	Guam	0.0%	45	+0	269	+32	34	-59%	
51	New Hampshire	0.4%	33	+16	23	+8	151	-75%	
52	District of Columbia	0.2%	26	-3	36	-9	150	-89%	
53	Vermont	0.2%	3	+2	5	+2	178	-94%	
54	U.S. Virgin Islands	0.0%	0	-2	3	-25	40	-99%	
55	Northern Mariana Islands	0.0%	0	+0	0	-6	8	-100%	
56	American Samoa	0.0%	0	+0		+0	-	-	

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

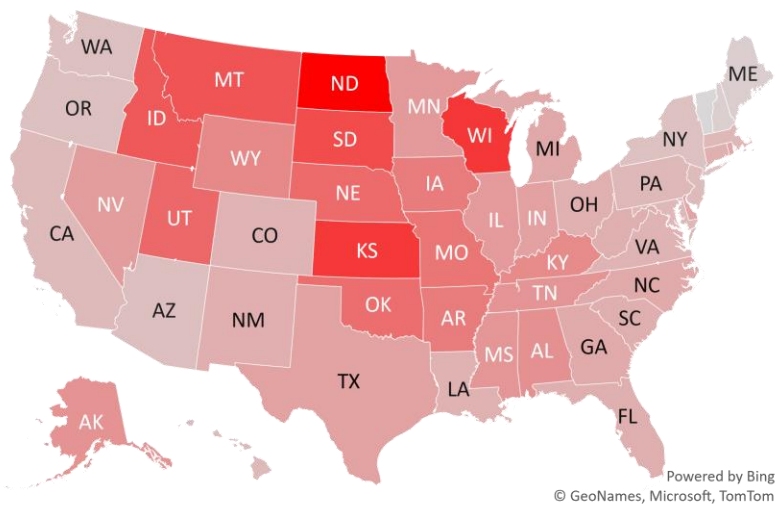
Daily Case Increases



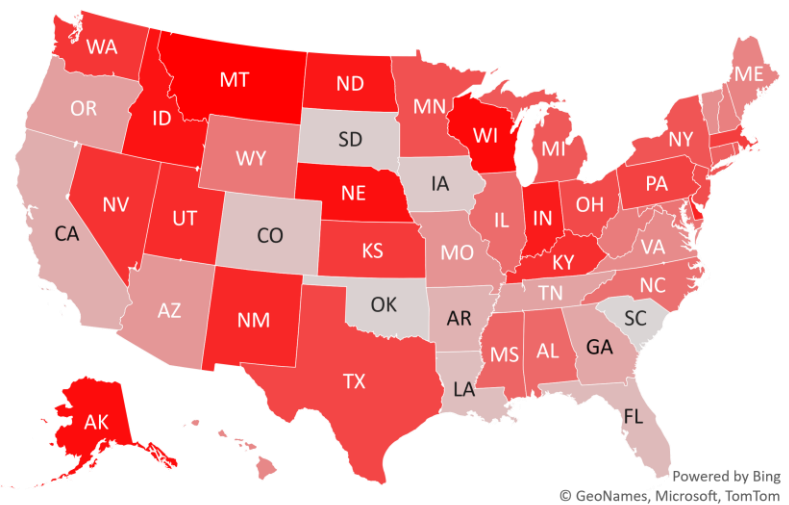
7D Delta in Daily New Cases



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



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



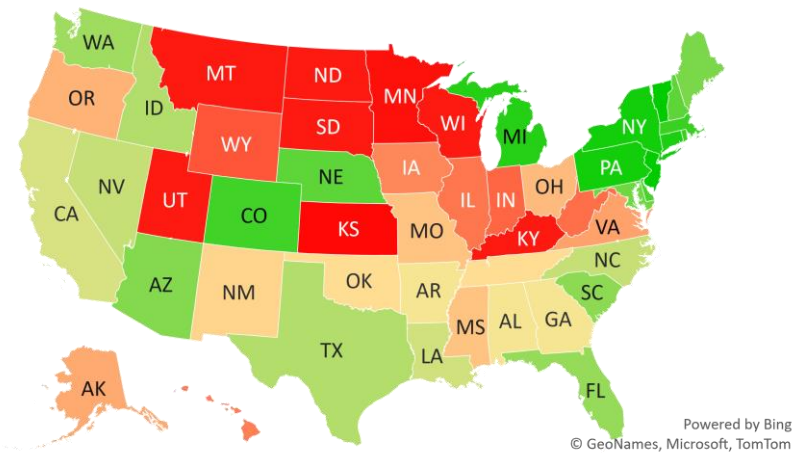
#5: # of Days since Daily Case Peaked by States...

Days since Daily Cases (3D Avg) Peak (as of 9/30)

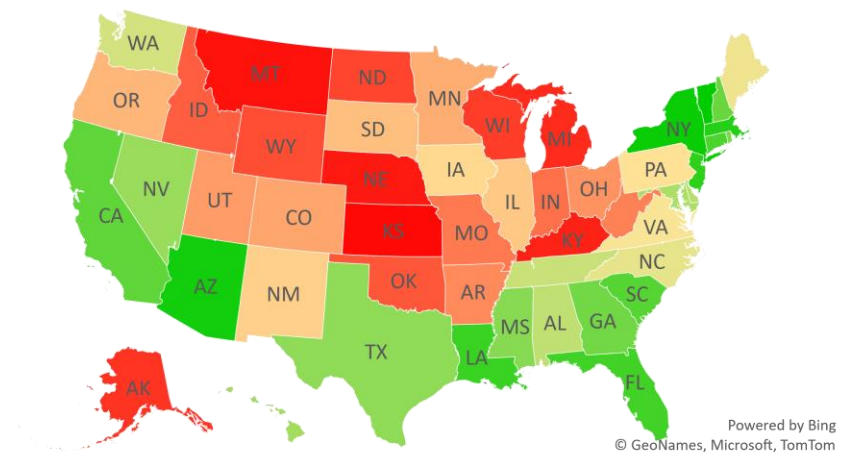
	Sorted			
	Peak Date	9/30/20	% off the Peak	% US Pop
United States	7/17/20	75	-48%	100%
States:				
Vermont	4/5/20	178	-94%	0.2%
New Jersey	4/5/20	178	-86%	2.7%
Pennsylvania	4/10/20	173	-48%	3.9%
New York	4/10/20	173	-90%	5.9%
Connecticut	4/22/20	161	-79%	1.1%
Michigan	4/24/20	159	-11%	3.0%
Rhode Island	4/25/20	158	-73%	0.3%
Massachusetts	4/25/20	158	-86%	2.1%
Colorado	4/26/20	157	-33%	1.7%
Delaware	4/28/20	155	-65%	0.3%
New Hampshire	5/2/20	151	-75%	0.4%
Nebraska	5/2/20	151	-6%	0.6%
District of Columbia	5/3/20	150	-89%	0.2%
Maryland	5/21/20	132	-65%	1.8%
Maine	5/22/20	131	-50%	0.4%
Arizona	7/2/20	90	-90%	2.2%
South Carolina	7/12/20	80	-76%	1.6%
Florida	7/13/20	79	-84%	6.5%
Washington	7/15/20	77	-61%	2.3%
Texas	7/17/20	75	-71%	8.7%
Idaho	7/17/20	75	-24%	0.5%
Nevada	7/18/20	74	-69%	0.9%
North Carolina	7/18/20	74	-51%	3.2%
Louisiana	7/21/20	71	-85%	1.4%
California	7/24/20	68	-76%	11.9%
Georgia	7/25/20	67	-74%	3.2%
Arkansas	7/25/20	67	-31%	0.9%
Alabama	7/25/20	67	-62%	1.5%

	Sorted			
	Peak Date	9/30/20	% off the Peak	% US Pop
United States	7/17/20	75	-48%	100%
States:				
Tennessee	7/28/20	64	-62%	2.1%
Oklahoma	7/28/20	64	-22%	1.2%
New Mexico	7/29/20	63	-46%	0.6%
Mississippi	7/30/20	62	-71%	0.9%
Missouri	7/30/20	62	-29%	1.8%
Ohio	7/31/20	61	-32%	3.5%
Oregon	8/1/20	60	-37%	1.3%
Alaska	8/2/20	59	-15%	0.2%
Virginia	8/9/20	52	-50%	2.6%
U.S. Virgin Islands	8/21/20	40	-99%	0.0%
Guam	8/27/20	34	-59%	0.0%
Iowa	8/28/20	33	-47%	1.0%
Hawaii	8/29/20	32	-66%	0.4%
Illinois	9/6/20	24	-45%	3.8%
West Virginia	9/12/20	18	-30%	0.5%
Indiana	9/13/20	17	-28%	2.0%
Northern Mariana Island	9/22/20	8	-100%	0.0%
Wyoming	9/25/20	5	-22%	0.2%
Wisconsin	9/26/20	4	-17%	1.8%
Utah	9/26/20	4	-33%	1.0%
South Dakota	9/26/20	4	-43%	0.3%
Puerto Rico	9/26/20	4	-24%	1.0%
North Dakota	9/26/20	4	-20%	0.2%
Montana	9/26/20	4	-3%	0.3%
Kentucky	9/26/20	4	-7%	1.3%
Minnesota	9/27/20	3	-36%	1.7%
Kansas	9/30/20	0	0%	0.9%

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



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



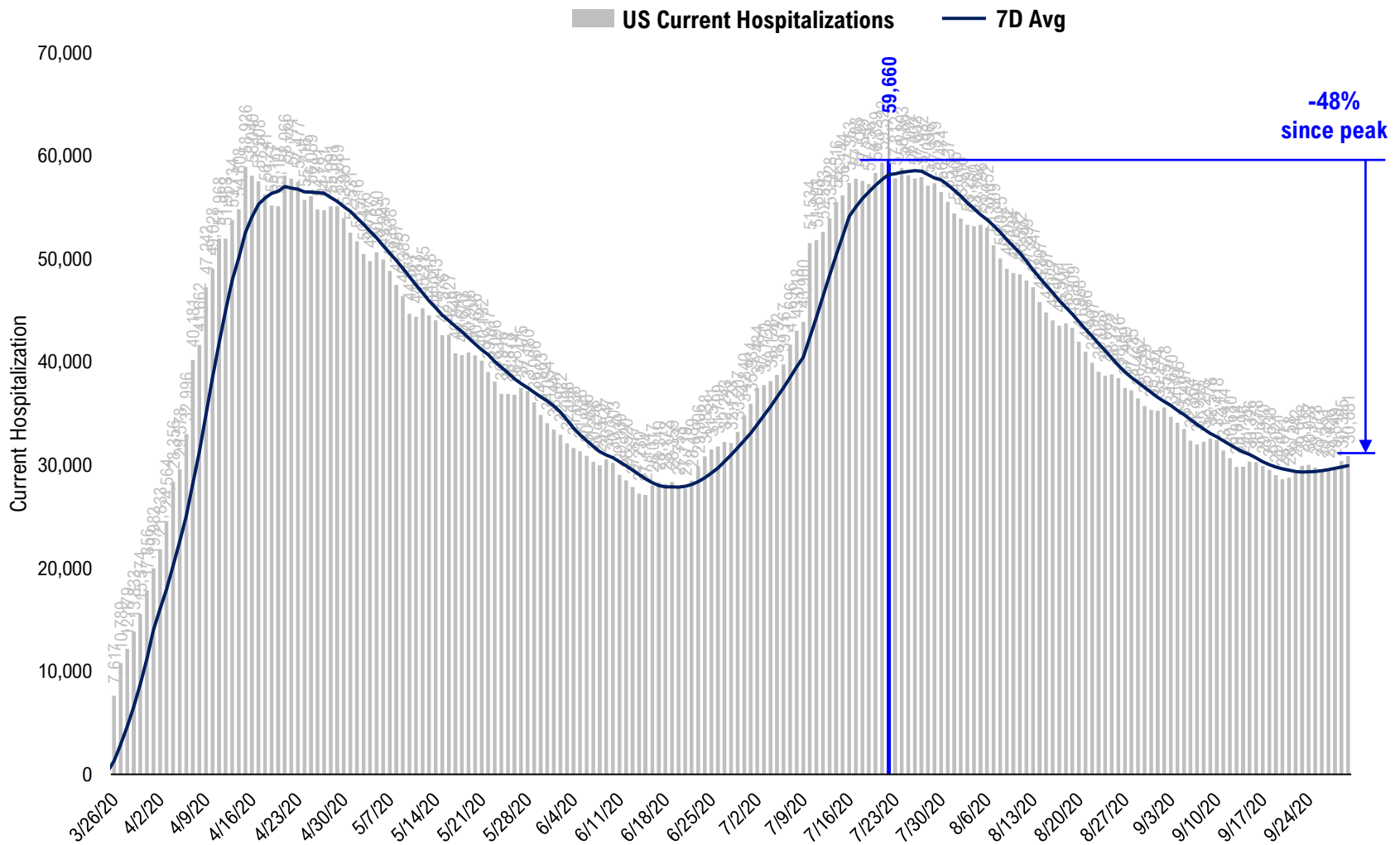
#6: US New Cases by States... (sorted by today's new cases)

	Sorted				
	7D Ago	Last 3-day Trend			
	9/23/20	9/28/20	9/29/20	9/30/20	vs 7D ago
United States	38,239	32,041	37,150	43,380	+5,141
States:					
Texas	2,977	1,397	3,812	5,335	<--higher
California	3,146	2,955	2,162	3,200	
Wisconsin	1,762	1,726	2,367	2,319	<--higher
Illinois	1,848	1,709	1,362	2,273	<--higher
Florida	2,590	738	3,266	1,948	
Georgia	1,457	596	1,025	1,720	
Tennessee	1,561	737	879	1,528	
North Carolina	952	868	889	1,495	<--higher
Missouri	1,580	1,280	1,486	1,351	
Pennsylvania	898	676	988	1,153	<--higher
Alabama	569	662	571	1,147	<--higher
Kansas	1,267	2,037	0	1,120	
Iowa	1,036	366	474	1,120	
Ohio	903	993	1,105	1,080	
Michigan	705	1,308	898	1,054	<--higher
New York	665	834	1,189	1,000	<--higher
Kentucky	786	448	917	984	<--higher
Oklahoma	1,089	861	1,025	980	
Indiana	711	872	744	953	<--higher
Utah	877	827	694	906	
Virginia	580	449	923	755	<--higher
New Jersey	408	559	456	712	<--higher
Minnesota	678	904	809	687	
Idaho	396	422	511	614	<--higher
Arkansas	874	786	482	607	
Mississippi	552	190	589	552	
Massachusetts	543	430	512	532	
Colorado	616	411	535	511	

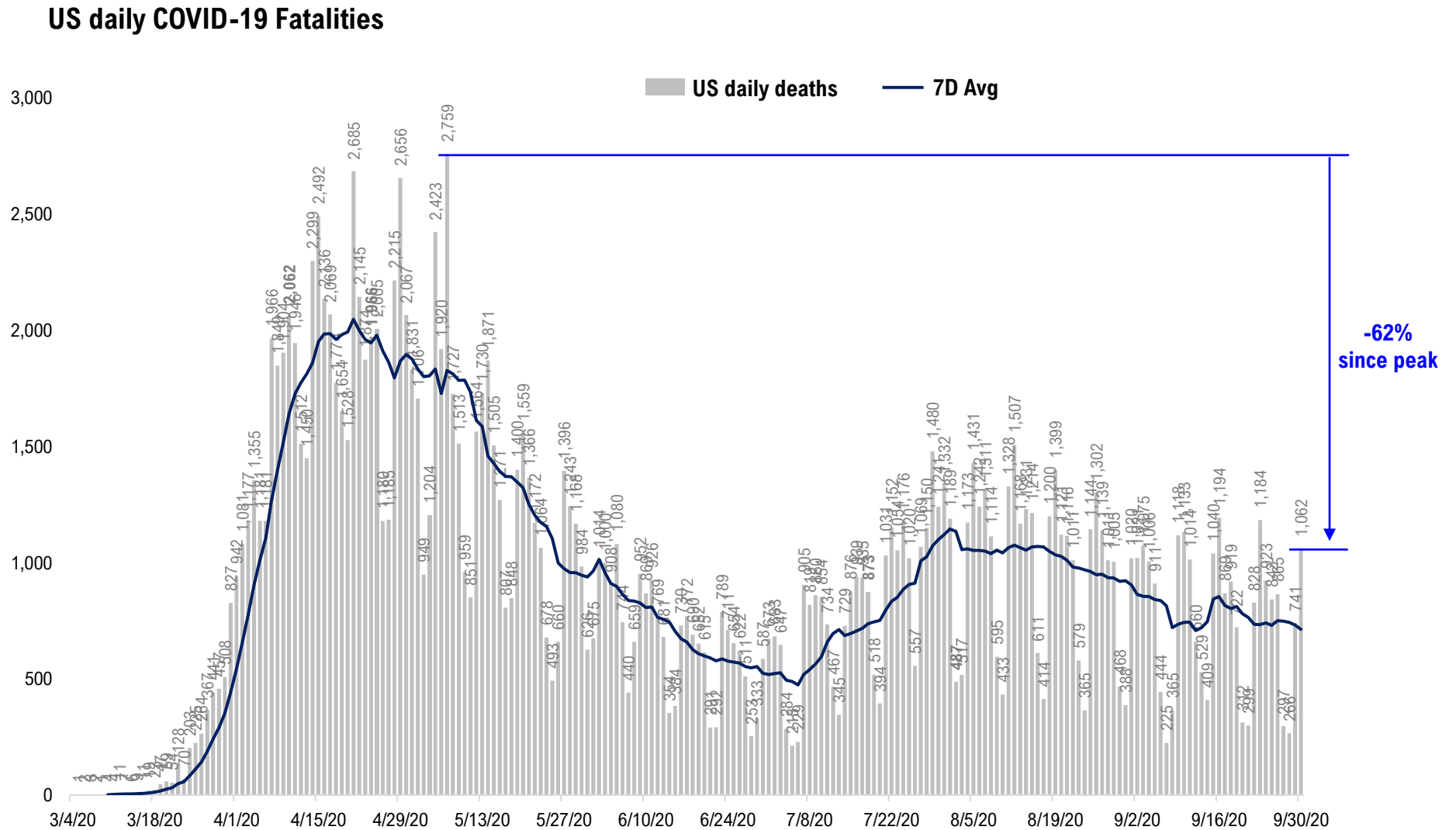
	Sorted				
	7D Ago	Last 3-day Trend			
	9/23/20	9/28/20	9/29/20	9/30/20	vs 7D ago
United States	38,239	32,041	37,150	43,380	+5,141
States:					
Nebraska	397	467	515	466	
Louisiana	431	240	533	452	
North Dakota	473	259	418	445	
Maryland	385	477	431	414	
Washington	645	439	369	404	
South Dakota	445	197	259	392	
Nevada	509	463	404	385	
Montana	212	306	311	347	<--higher
Arizona	438	273	674	323	
New Mexico	197	141	172	278	<--higher
South Carolina	880	597	584	250	
Connecticut	155	560	182	221	<--higher
Oregon	190	174	297	218	
Puerto Rico	40	660	444	207	<--higher
Rhode Island	133	26	132	192	<--higher
West Virginia	120	164	180	156	<--higher
Wyoming	153	121	67	127	
Hawaii	168	90	86	121	
Alaska	54	116	124	103	<--higher
Delaware	69	129	142	82	
Maine	25	12	37	54	<--higher
Guam	45	36	53	45	
New Hampshire	17	36	25	33	<--higher
District of Columbia	29	14	36	26	
Vermont	1	3	4	3	<--higher
U.S. Virgin Islands	2	0	1	0	
Northern Mariana Islands	0	0	0	0	
American Samoa	0	0	0	0	

#7: US Daily Hospitalizations...

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



#8: US Daily New Fatalities...



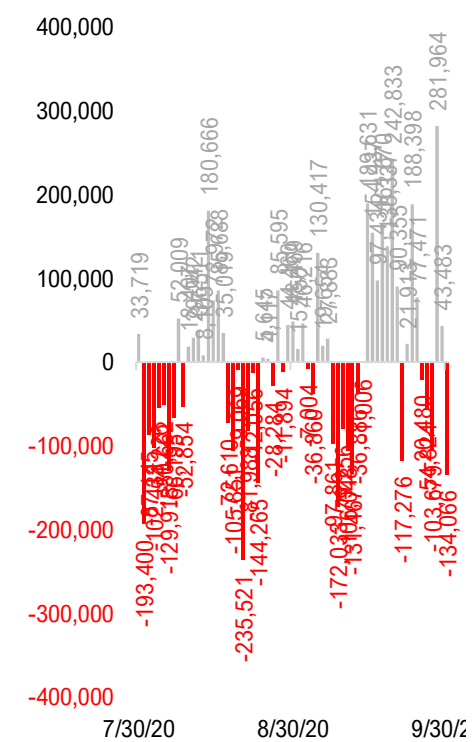
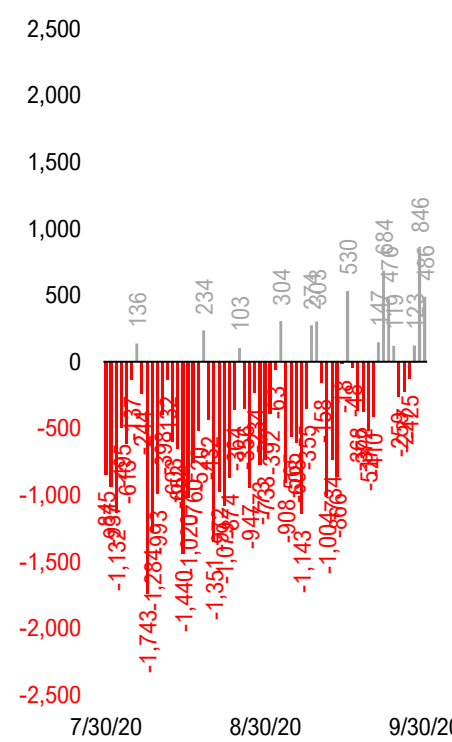
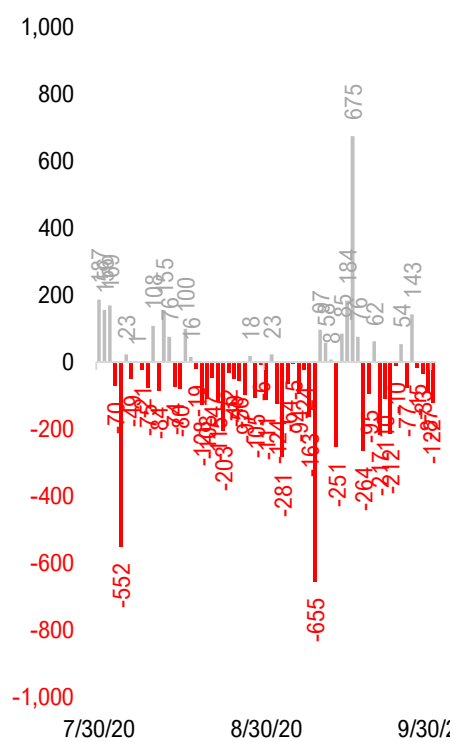
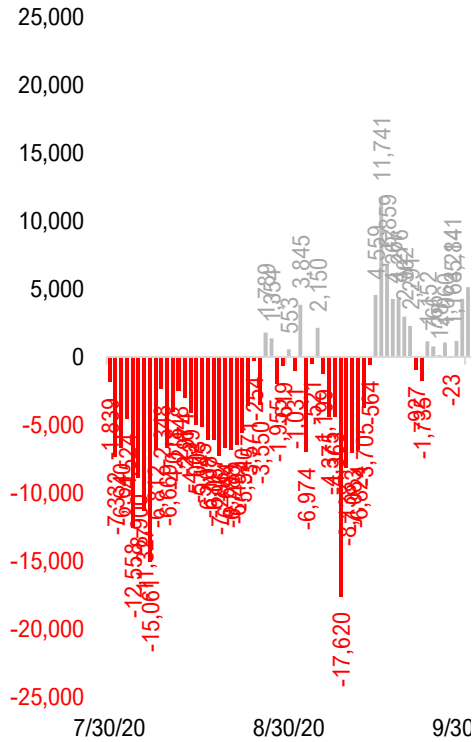
#9: Rolling 7-Day Change in the Key Metrics... (Past 8 Weeks)

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)

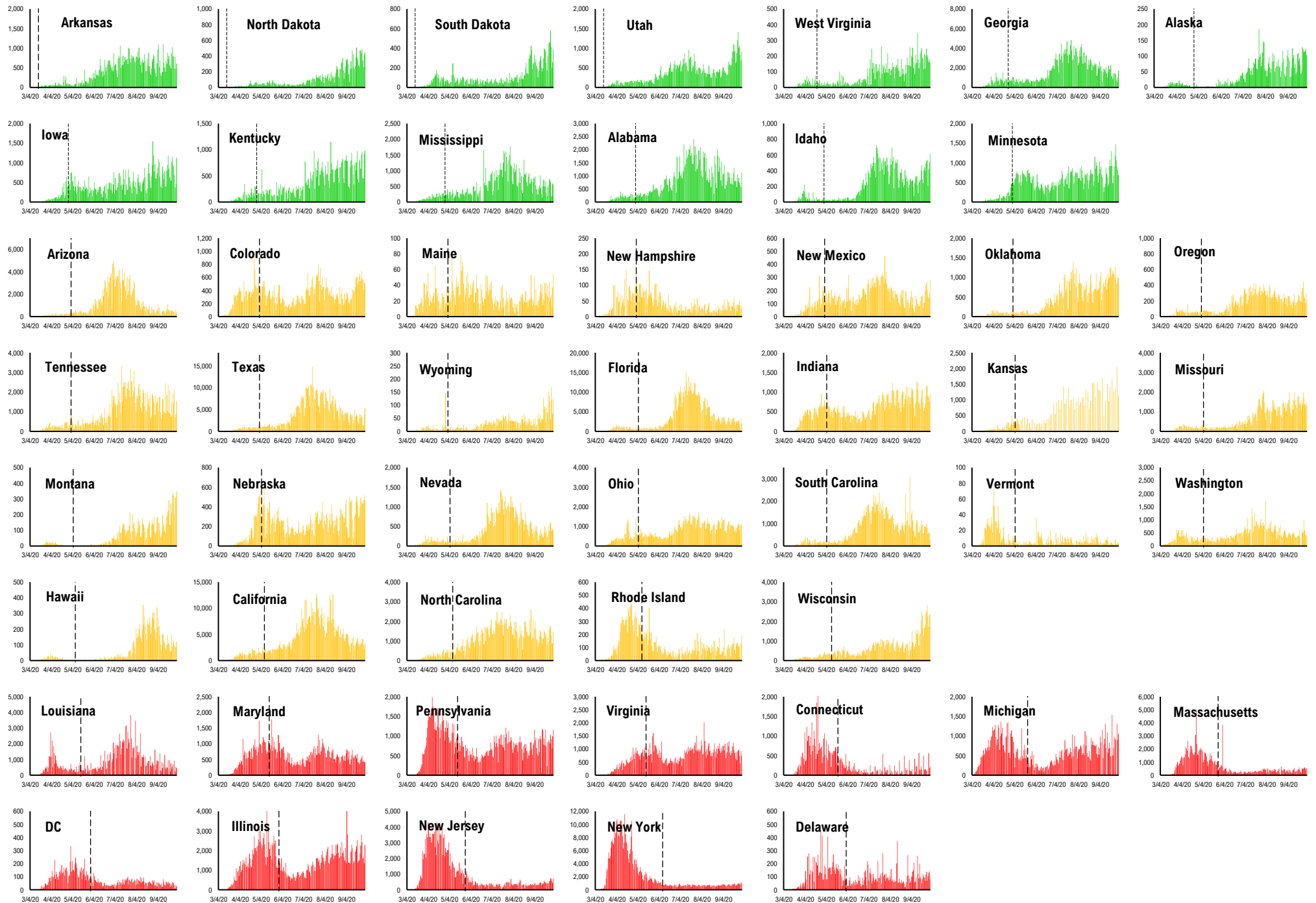
Daily Tests



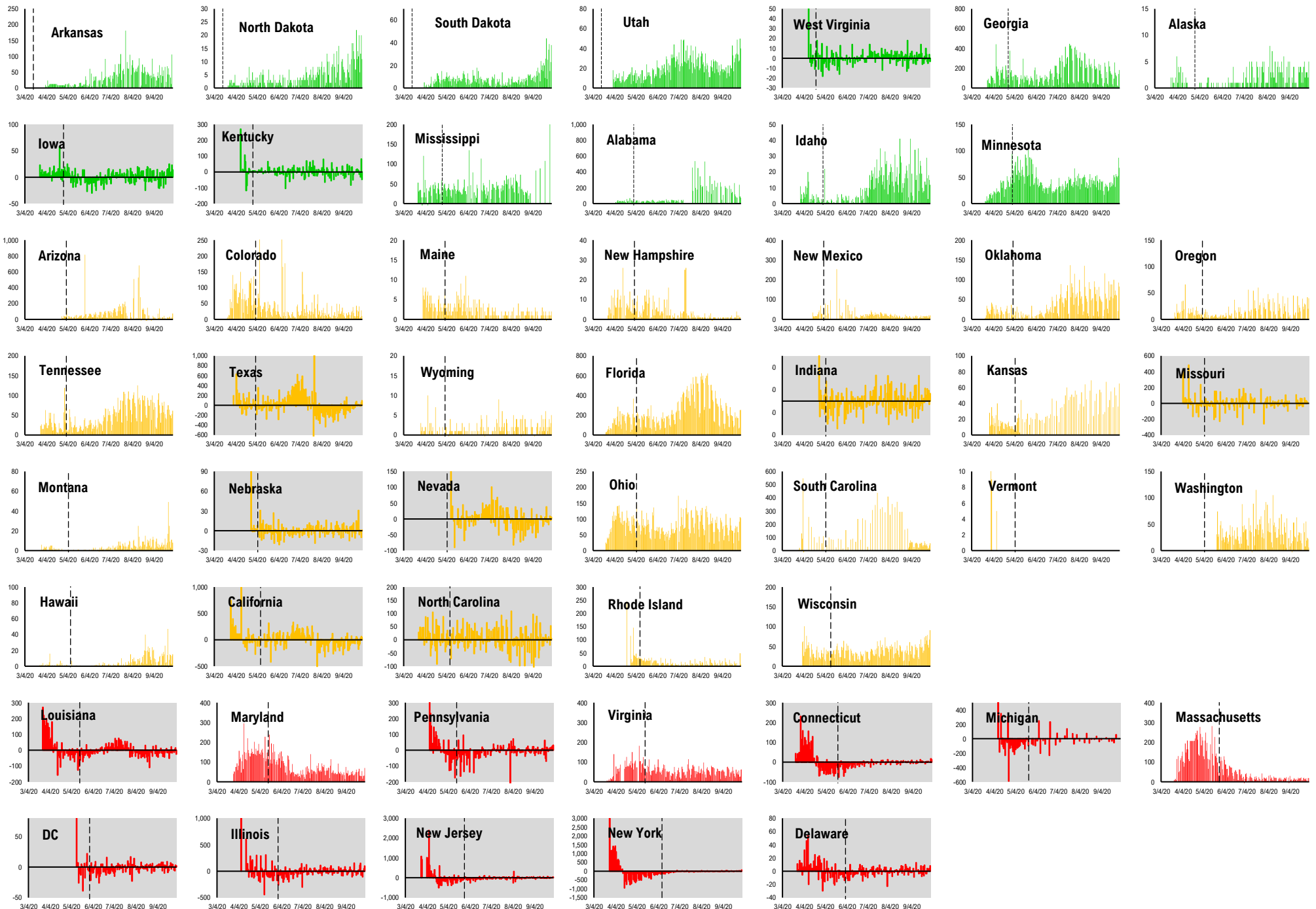
* Ignored California between 8/10 and 8/23, due to its data glitch caused 300,000-case backlog

Source: Fundstrat, COVID-19 Tracking Project, State Department of Health

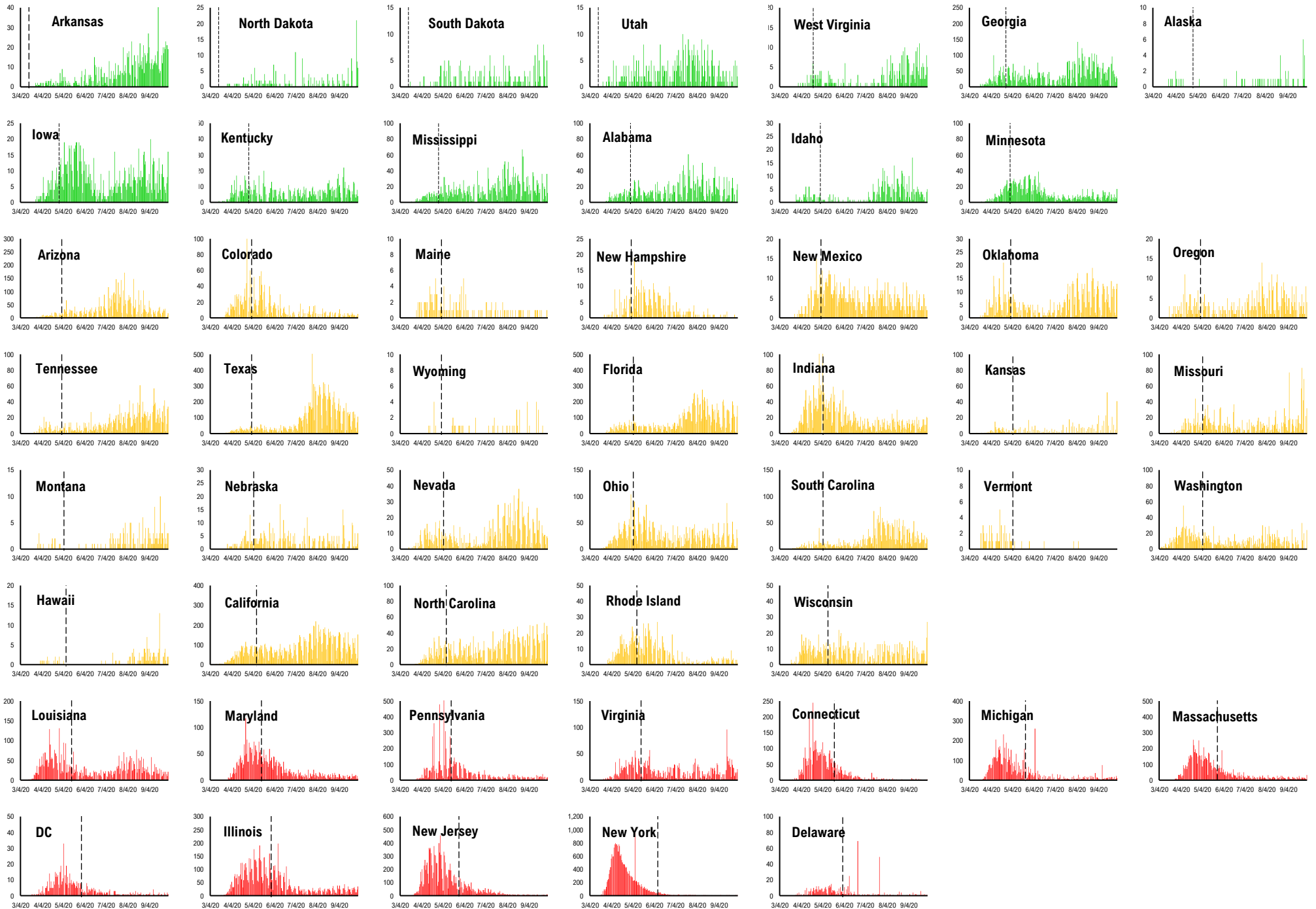
#10: Daily New Cases by States... (sorted by "open" date)



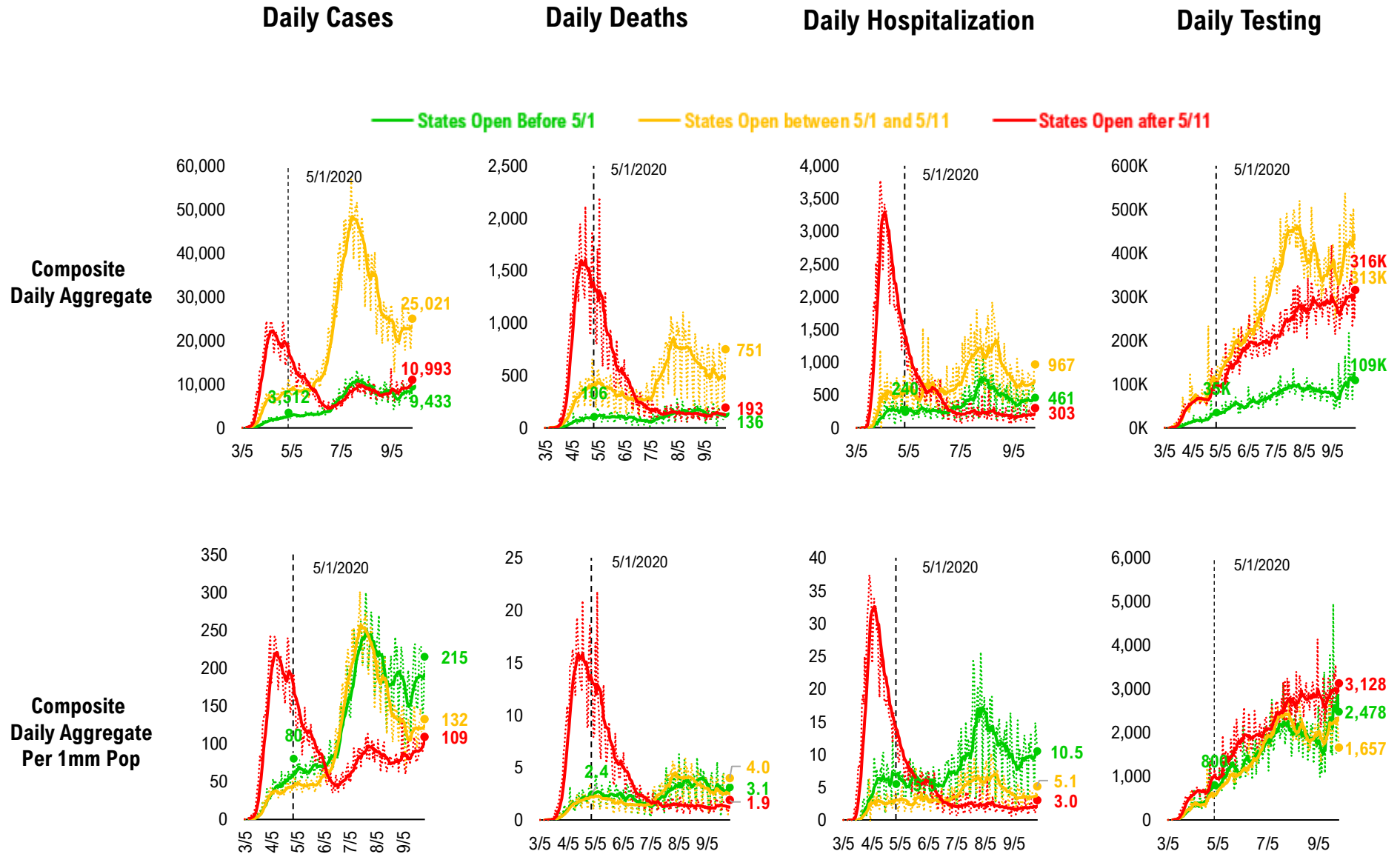
#11: Daily Hospitalizations by States... (sorted by "open" date)



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

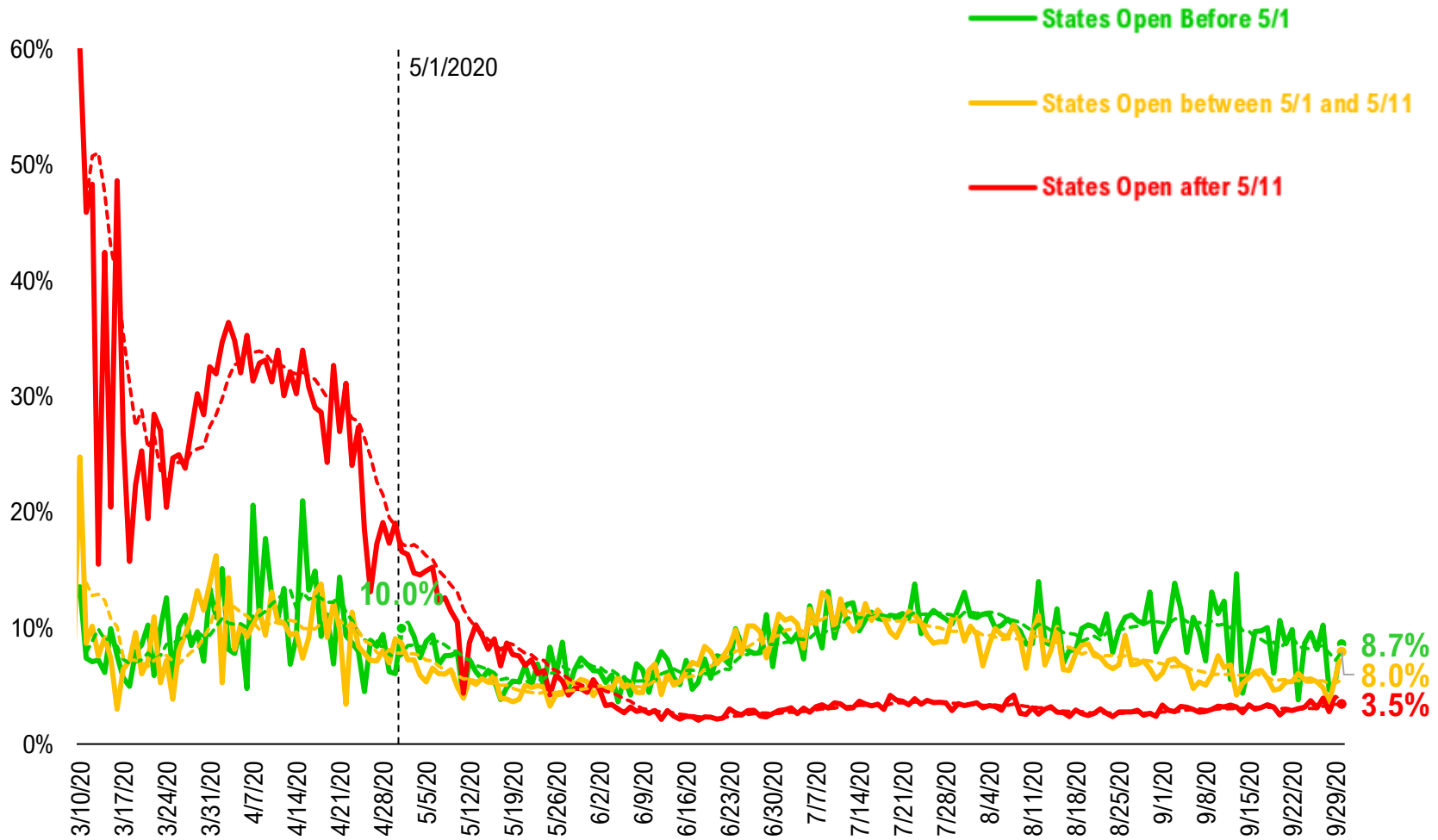


#13: State COVID-19 situation by Reopen Date...

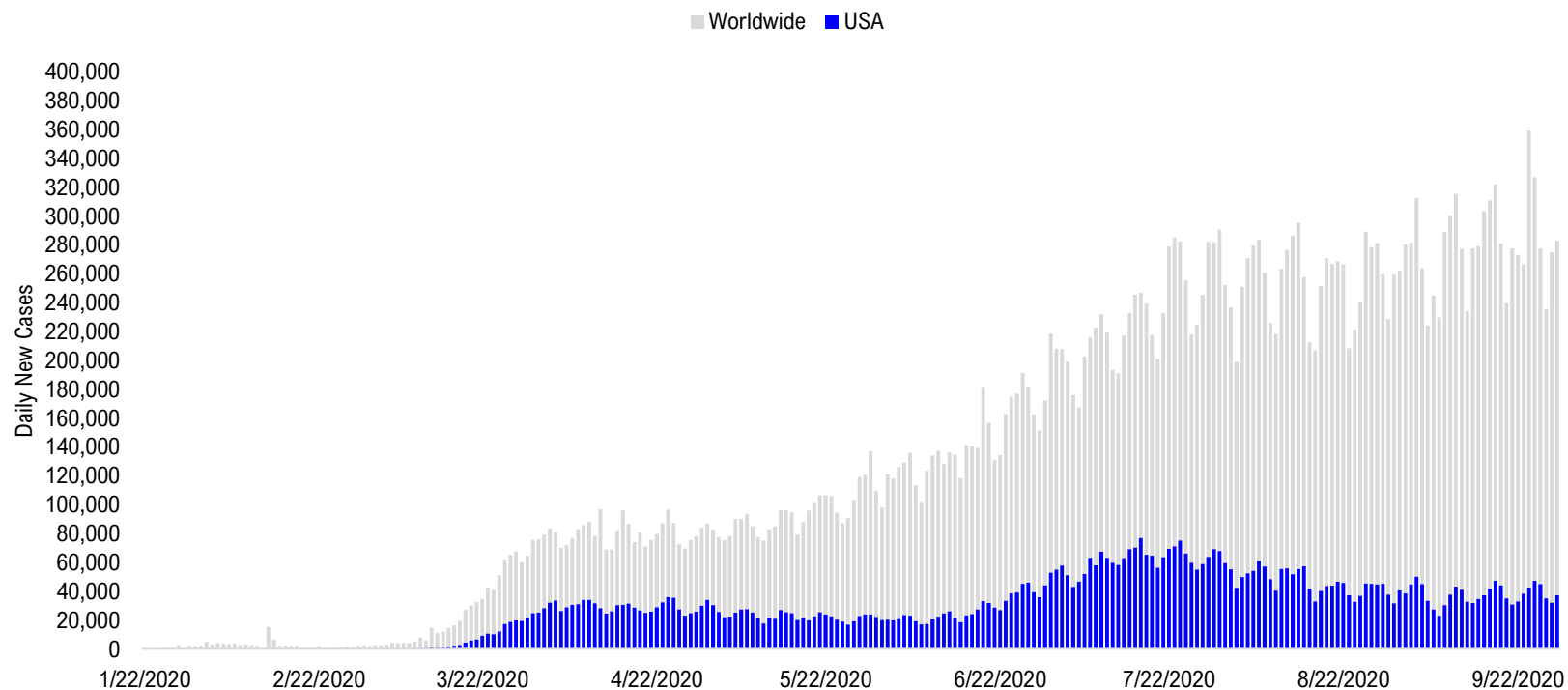


#14: State COVID-19 Daily Positivity Rate by Reopen Date...

Composite Daily Positivity Rate



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



5/15/2020	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	9/29/2020
US + Canada 25,443	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 79,796
Latin America 25,394	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 60,875
Europe 22,177	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 56,150	US + Canada 45,030	US + Canada 44,859	Europe 57,871	Latin America 53,400
Pakistan + India + Bangladesh 6,133	Pakistan + India + Bangladesh 12,032	Europe 18,149	Europe 17,889	Africa 17,127	Africa 20,063	Europe 23,878	Europe 32,513	Europe 40,013	US + Canada 43,079	US + Canada 36,421
Africa 2,942	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 10,248
Asia ex- India+Pakistan 2,033	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 7,176

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