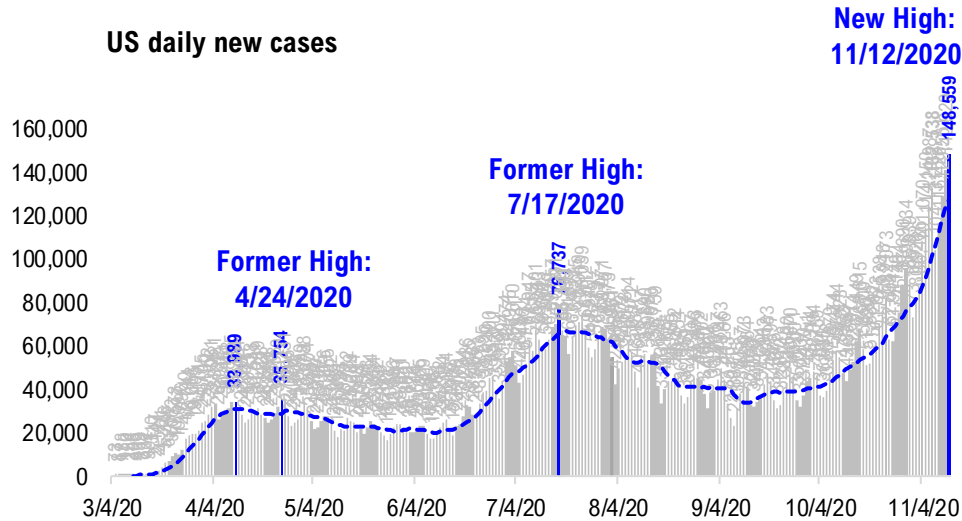


FSInsight Daily COVID-19 Chartbook

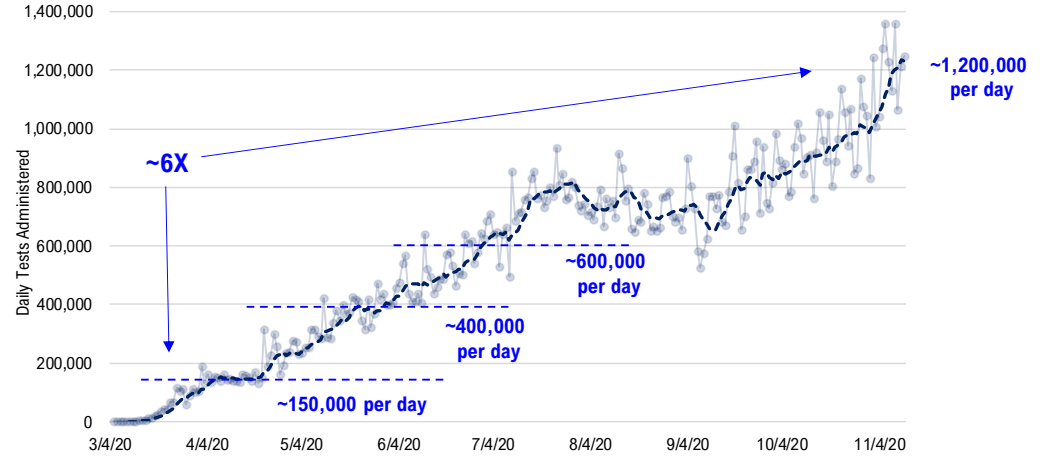


#1: USA COVID-19 Situation at a Glance...

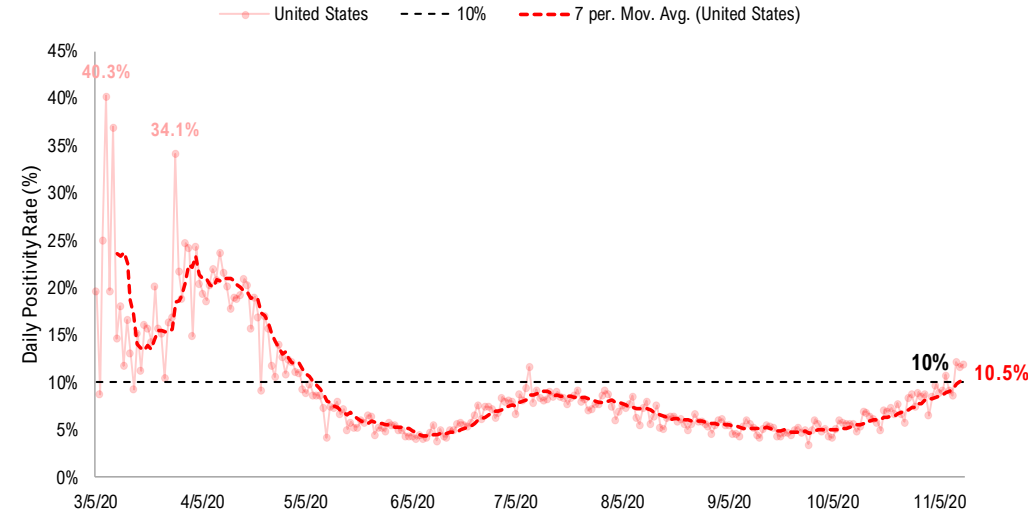
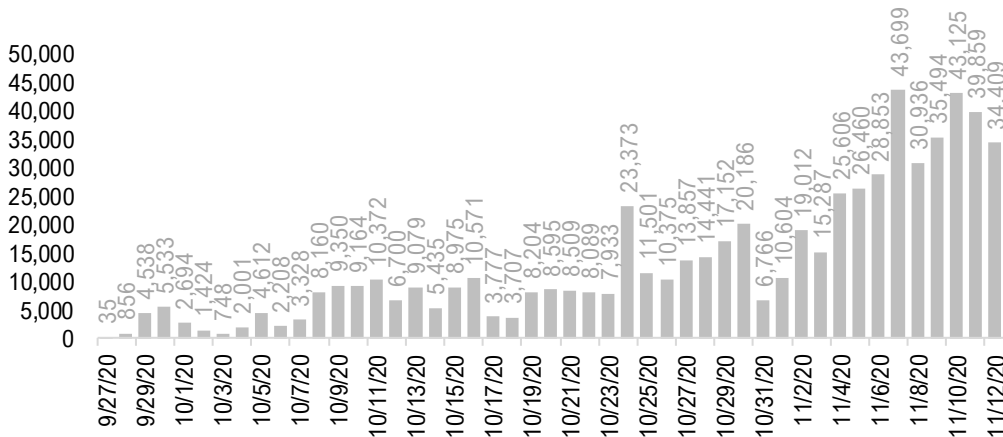
US daily new cases



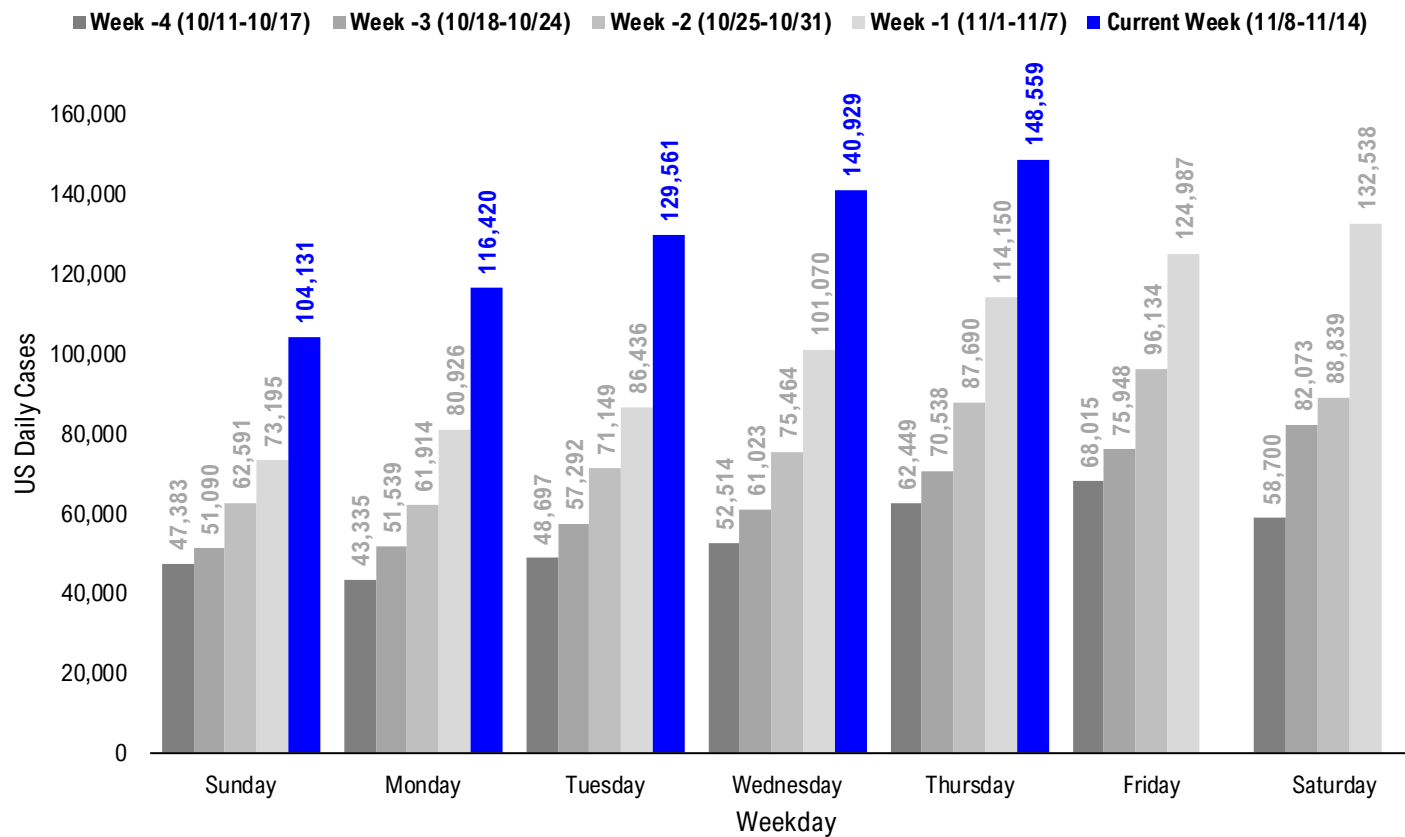
USA total COVID-19 tests administered



US daily new cases rolling 7D delta



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



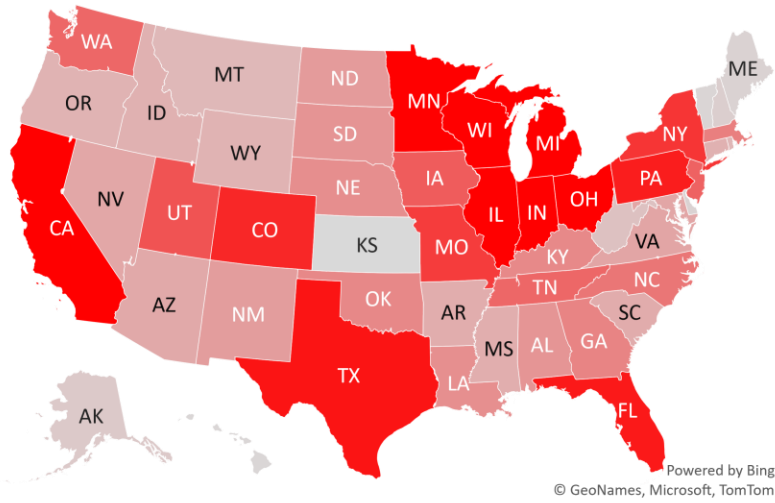
#3: USA State COVID-19 Situation at a Glance...

	Sorted Daily Cases		Daily Cases (3D avg) per 1mm residents				Since Peak		Hospitalization	
	% US Pop	% US GDP	11/12	7D Delta	11/12	7D Delta	# Days	% Decline in Daily Cases	7D Net Hospitalization	7D Net Hospitalization / 7D New Cases
United States	100%	100%	148,559	+34,409	426	+119	0	0%	13,835	1.5%
States:										
1 Illinois	3.8%	4.2%	12,702	+2,767	999	+368	0	0%	1,367	1.7%
2 Wisconsin	1.8%	1.6%	7,497	+1,575	1238	+228	0	0%	303	0.7%
3 Minnesota	1.7%	1.8%	7,225	+3,283	1005	+341	0	0%	398	1.1%
4 Ohio	3.5%	3.3%	7,101	+2,140	556	+177	0	0%	949	2.4%
5 Michigan	3.0%	2.6%	6,940	+1,230	648	+217	1	-10%	929	2.4%
6 California	11.9%	14.6%	6,927	+2,361	167	+49	111	-43%	540	1.1%
7 Indiana	2.0%	1.8%	6,591	+2,179	815	+271	0	0%	621	1.8%
8 Texas	8.7%	8.8%	5,756	-2,576	304	+21	118	-27%	971	1.9%
9 Florida	6.5%	5.0%	5,607	-650	245	+7	122	-59%	539	1.5%
10 Pennsylvania	3.9%	3.8%	5,488	+2,588	379	+156	0	0%	597	2.1%
11 Colorado	1.7%	1.8%	5,197	+1,828	756	+243	0	0%	334	1.3%
12 New York	5.9%	8.1%	4,797	+1,800	233	+105	216	-57%	400	1.5%
13 Missouri	1.8%	1.5%	4,603	+1,050	702	+247	0	0%	474	1.6%
14 Utah	1.0%	0.9%	3,919	+1,112	912	+227	0	0%	75	0.4%
15 Iowa	1.0%	0.9%	3,650	-342	1128	+351	1	-6%	369	1.5%
16 New Jersey	2.7%	3.0%	3,491	+1,529	388	+154	221	-13%	603	3.1%
17 Washington	2.3%	2.7%	3,345	+2,275	210	+70	0	0%	187	1.7%
18 Tennessee	2.1%	1.8%	3,344	+1,375	437	+86	3	-39%	272	1.1%
19 North Carolina	3.2%	2.7%	2,893	+34	273	+31	0	0%	86	0.5%
20 Massachusetts	2.1%	2.8%	2,648	+786	361	+138	201	-28%	163	1.1%
21 Georgia	3.2%	2.9%	2,496	+580	189	+18	110	-53%	265	2.2%
22 Oklahoma	1.2%	1.0%	2,357	+256	525	+131	5	-27%	193	1.3%
23 Kentucky	1.3%	1.0%	2,336	+68	531	+112	0	0%	209	1.5%
24 Nebraska	0.6%	0.6%	2,209	+381	1029	+302	5	-10%	187	1.3%
25 Louisiana	1.4%	1.3%	2,173	+1,433	250	+87	114	-56%	40	0.7%
26 South Dakota	0.3%	0.3%	2,020	+660	1660	+416	0	0%	76	0.8%
27 Alabama	1.5%	1.1%	2,000	+619	393	+103	110	-9%	239	2.1%
28 North Dakota	0.2%	0.3%	1,800	+264	1625	-47	5	-24%	33	0.4%

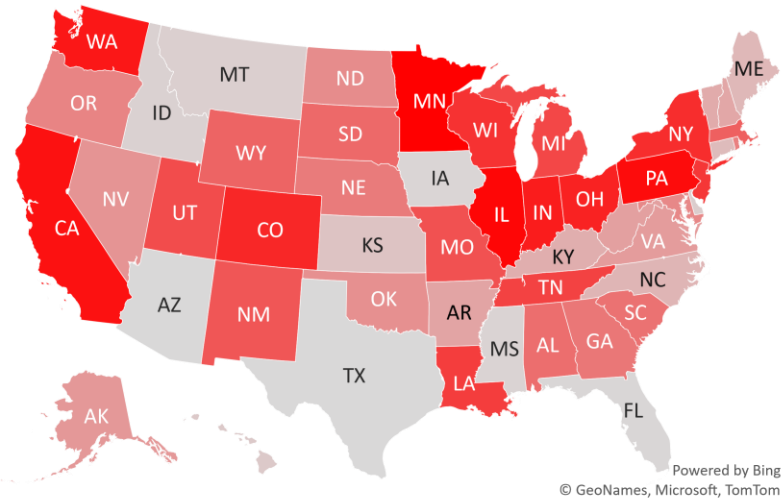
	Sorted Daily Cases		Daily Cases (3D avg) per 1mm residents				Since Peak		Hospitalization	
	% US Pop	% US GDP	11/12	7D Delta	11/12	7D Delta	# Days	% Decline in Daily Cases	7D Net Hospitalization	7D Net Hospitalization / 7D New Cases
United States	100%	100%	148,559	+34,409	426	+119	0	0%	13,835	1.5%
States:										
29 New Mexico	0.6%	0.5%	1,742	+883	713	+235	0	0%	71	0.7%
30 Virginia	2.6%	2.6%	1,521	+155	178	+30	5	-10%	249	2.3%
31 Maryland	1.8%	2.0%	1,477	+279	250	+86	0	0%	275	2.8%
32 Nevada	0.9%	0.8%	1,469	+202	422	+71	4	-16%	201	2.1%
33 Arizona	2.2%	1.7%	1,399	-736	314	+102	133	-47%	268	1.9%
34 South Carolina	1.6%	1.1%	1,310	+602	257	+93	103	-51%	55	0.6%
35 Arkansas	0.9%	0.6%	1,285	+130	383	+97	5	-11%	172	2.2%
36 Mississippi	0.9%	0.6%	1,271	-341	388	+49	105	-25%	134	2.0%
37 Puerto Rico	1.0%	0.5%	1,169	+875	156	+83	18	-23%	83	2.1%
38 Idaho	0.5%	0.4%	1,158	-107	756	+59	1	-3%	65	0.7%
39 Connecticut	1.1%	1.3%	1,158	+1	415	+165	1	-33%	237	2.7%
40 Oregon	1.3%	1.2%	1,109	+319	215	+68	0	0%	20	0.3%
41 Wyoming	0.2%	0.2%	1,105	+740	1422	+707	2	-7%	58	1.1%
42 Rhode Island	0.3%	0.3%	988	+360	867	+354	0	0%	50	1.0%
43 Montana	0.3%	0.2%	961	-52	929	+82	5	-1%	85	1.4%
44 West Virginia	0.5%	0.4%	696	+136	389	+145	0	0%	25	0.6%
45 Alaska	0.2%	0.3%	481	+173	684	+183	4	-9%	9	0.2%
46 New Hampshire	0.4%	0.4%	322	+77	189	+69	0	0%	25	1.5%
47 Delaware	0.3%	0.4%	204	-15	218	+67	198	-36%	13	0.7%
48 Maine	0.4%	0.3%	193	+10	126	+11	5	-4%	24	2.1%
49 District of Columbi	0.2%	0.7%	128	+47	198	+83	193	-39%	26	3.2%
50 Vermont	0.2%	0.2%	109	+75	126	+81	0	0%	15	4.3%
51 Hawaii	0.4%	0.5%	97	-3	69	-12	75	-67%	20	2.7%
52 Guam	0.0%	0.0%	95	-6	758	+133	2	-30%	-7	0.0%
53 U.S. Virgin Islands	0.0%	0.0%	0	+0	16	-16	83	-96%	0	0.0%
54 Northern Mariana	0.0%	0.0%	0	+0	0	+0	25	-100%	0	0.0%
55 Kansas	0.9%	0.8%	0	+0	649	+307	1	-51%	243	1.4%
56 American Samoa	0.0%	0.0%	0	+0	0	+0	0	0%	0	0.0%

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

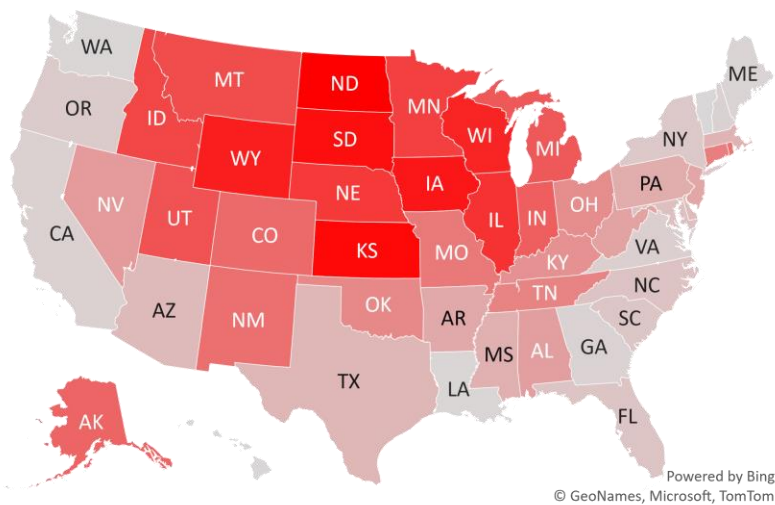
Daily Case Increases



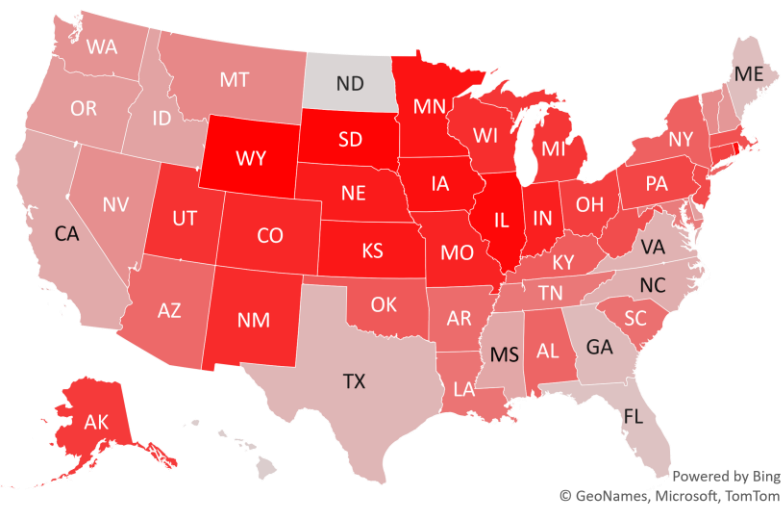
7D Delta in Daily New Cases



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



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



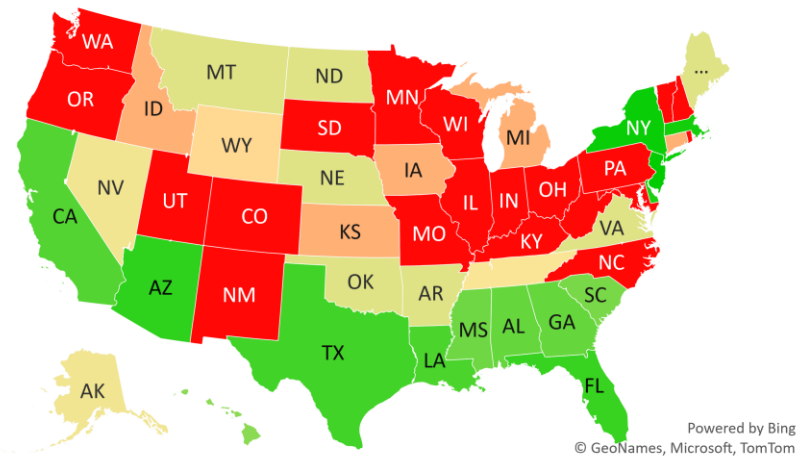
#5: # of Days since Daily Case Peaked by States...

Days since Daily Cases (3D Avg) Peak (as of 11/12)

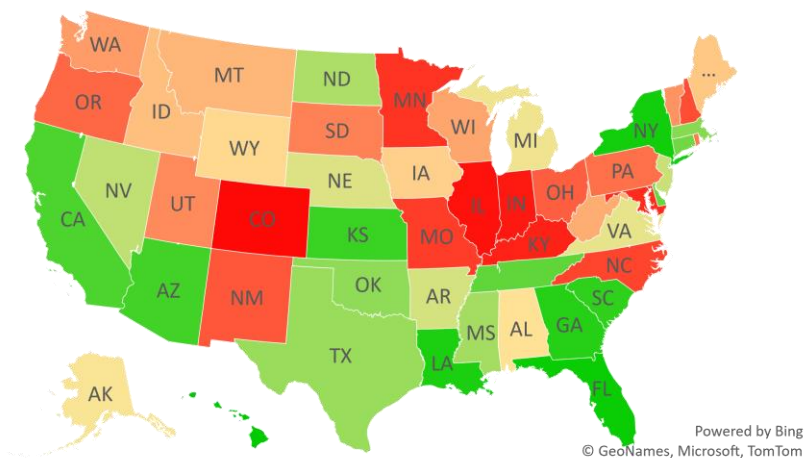
	Sorted			
	Peak Date	11/12/20	% off the Peak	% US Pop
United States	11/12/20	0	0%	100%
States:				
New Jersey	4/5/20	221	-13%	2.7%
New York	4/10/20	216	-57%	5.9%
Massachusetts	4/25/20	201	-28%	2.1%
Delaware	4/28/20	198	-36%	0.3%
District of Columbia	5/3/20	193	-39%	0.2%
Arizona	7/2/20	133	-47%	2.2%
Florida	7/13/20	122	-59%	6.5%
Texas	7/17/20	118	-27%	8.7%
Louisiana	7/21/20	114	-56%	1.4%
California	7/24/20	111	-43%	11.9%
Georgia	7/25/20	110	-53%	3.2%
Alabama	7/25/20	110	-9%	1.5%
Mississippi	7/30/20	105	-25%	0.9%
South Carolina	8/1/20	103	-51%	1.6%
U.S. Virgin Islands	8/21/20	83	-96%	0.0%
Hawaii	8/29/20	75	-67%	0.4%
Northern Mariana Island	10/18/20	25	-100%	0.0%
Puerto Rico	10/25/20	18	-23%	1.0%
Virginia	11/7/20	5	-10%	2.6%
Oklahoma	11/7/20	5	-27%	1.2%
Nebraska	11/7/20	5	-10%	0.6%
North Dakota	11/7/20	5	-24%	0.2%
Montana	11/7/20	5	-1%	0.3%
Maine	11/7/20	5	-4%	0.4%
Arkansas	11/7/20	5	-11%	0.9%
Nevada	11/8/20	4	-16%	0.9%
Alaska	11/8/20	4	-9%	0.2%
Tennessee	11/9/20	3	-39%	2.1%

	Sorted			
	Peak Date	11/12/20	% off the Peak	% US Pop
United States	11/12/20	0	0%	100%
States:				
Wyoming	11/10/20	2	-7%	0.2%
Guam	11/10/20	2	-30%	0.0%
Michigan	11/11/20	1	-10%	3.0%
Kansas	11/11/20	1	-51%	0.9%
Idaho	11/11/20	1	-3%	0.5%
Iowa	11/11/20	1	-6%	1.0%
Connecticut	11/11/20	1	-33%	1.1%
West Virginia	11/12/20	0	0%	0.5%
Wisconsin	11/12/20	0	0%	1.8%
Washington	11/12/20	0	0%	2.3%
Vermont	11/12/20	0	0%	0.2%
Utah	11/12/20	0	0%	1.0%
South Dakota	11/12/20	0	0%	0.3%
Rhode Island	11/12/20	0	0%	0.3%
Pennsylvania	11/12/20	0	0%	3.9%
Oregon	11/12/20	0	0%	1.3%
Ohio	11/12/20	0	0%	3.5%
New Mexico	11/12/20	0	0%	0.6%
New Hampshire	11/12/20	0	0%	0.4%
North Carolina	11/12/20	0	0%	3.2%
Missouri	11/12/20	0	0%	1.8%
Minnesota	11/12/20	0	0%	1.7%
Maryland	11/12/20	0	0%	1.8%
Kentucky	11/12/20	0	0%	1.3%
Indiana	11/12/20	0	0%	2.0%
Illinois	11/12/20	0	0%	3.8%
Colorado	11/12/20	0	0%	1.7%

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



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



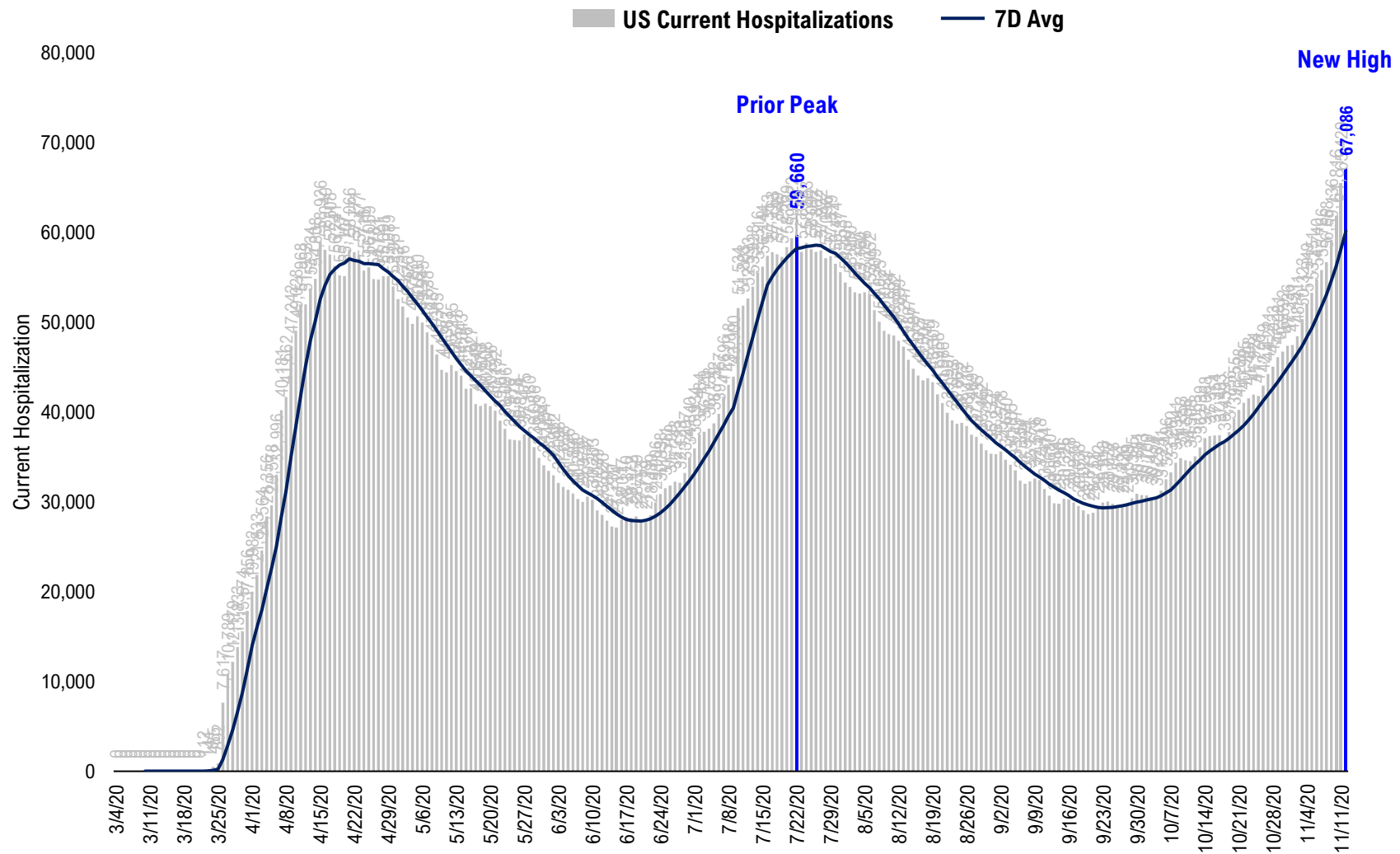
#6: US New Cases by States... (sorted by today's new cases)

	Sorted				
	7D Ago	Last 3-day Trend			
	11/5/20	11/10/20	11/11/20	11/12/20	vs 7D ago
United States	114.150	129.561	140.929	148,559	+34,409
States:					
Illinois	9,935	12,623	12,657	12,702	<--higher
Wisconsin	5,922	7,073	7,048	7,497	<--higher
Minnesota	3,942	4,893	4,889	7,225	<--higher
Ohio	4,961	6,508	5,874	7,101	<--higher
Michigan	5,710	6,473	6,008	6,940	<--higher
California	4,566	5,367	7,464	6,927	<--higher
Indiana	4,412	4,829	5,036	6,591	<--higher
Texas	8,332	10,605	10,097	5,756	
Florida	6,257	4,353	5,838	5,607	
Pennsylvania	2,900	4,361	4,711	5,488	<--higher
Colorado	3,369	3,890	3,975	5,197	<--higher
New York	2,997	3,965	4,820	4,797	<--higher
Missouri	3,553	4,256	4,071	4,603	<--higher
Utah	2,807	2,517	2,335	3,919	<--higher
Iowa	3,992	2,734	4,297	3,650	
New Jersey	1,962	3,777	3,065	3,491	<--higher
Washington	1,070	1,441	0	3,345	<--higher
Tennessee	1,969	1,979	3,632	3,344	<--higher
North Carolina	2,859	2,582	3,119	2,893	
Massachusetts	1,862	2,154	2,660	2,648	<--higher
Georgia	1,916	1,873	1,640	2,496	<--higher
Oklahoma	2,101	1,702	2,177	2,357	
Kentucky	2,268	2,079	2,698	2,336	
Nebraska	1,828	1,582	2,182	2,209	<--higher
Louisiana	740	1,307	0	2,173	<--higher
South Dakota	1,360	1,023	1,362	2,020	<--higher
Alabama	1,381	1,710	2,070	2,000	<--higher
North Dakota	1,536	884	1,031	1,800	

	Sorted				
	7D Ago	Last 3-day Trend			
	11/5/20	11/10/20	11/11/20	11/12/20	vs 7D ago
United States	114,150	129,561	140,929	148,559	+34,409
States:					
New Mexico	859	1,258	1,487	1,742	<--higher
Virginia	1,366	1,435	1,594	1,521	
Maryland	1,198	1,338	1,714	1,477	<--higher
Nevada	1,267	1,322	1,107	1,469	
Arizona	2,135	3,434	2,030	1,399	
South Carolina	708	1,493	1,166	1,310	<--higher
Arkansas	1,155	975	1,207	1,285	
Mississippi	1,612	933	1,256	1,271	
Puerto Rico	294	207	118	1,169	<--higher
Idaho	1,265	1,201	1,693	1,158	
Connecticut	1,157	1,524	1,754	1,158	
Oregon	790	754	861	1,109	<--higher
Wyoming	365	1,232	132	1,105	<--higher
Rhode Island	628	789	978	988	<--higher
Montana	1,013	1,098	919	961	
West Virginia	560	511	885	696	<--higher
Alaska	308	525	495	481	<--higher
New Hampshire	245	220	229	322	<--higher
Delaware	219	204	230	204	
Maine	183	172	142	193	
District of Columbia	81	86	206	128	<--higher
Vermont	34	47	79	109	<--higher
Hawaii	100	77	118	97	
Guam	101	181	101	95	
U.S. Virgin Islands	0	5	0	0	
Northern Mariana Islands	0	0	0	0	
Kansas	0	0	5,672	0	
American Samoa	0	0	0	0	

#7: US Daily Hospitalizations...

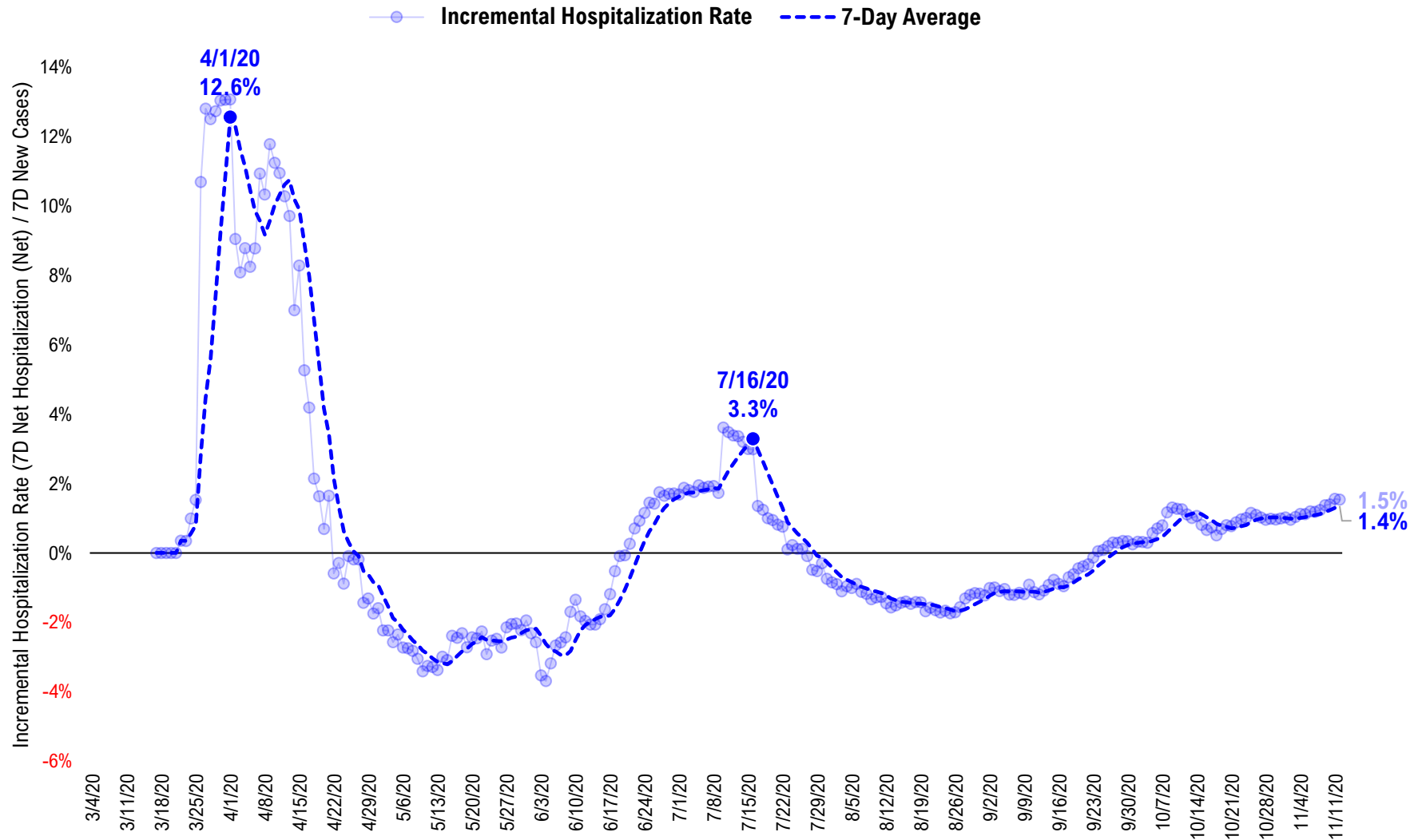
US Net Hospitalizations (aggregate of 50 states + Washington, D.C.)



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

#8: Incremental Hospitalization Rate...

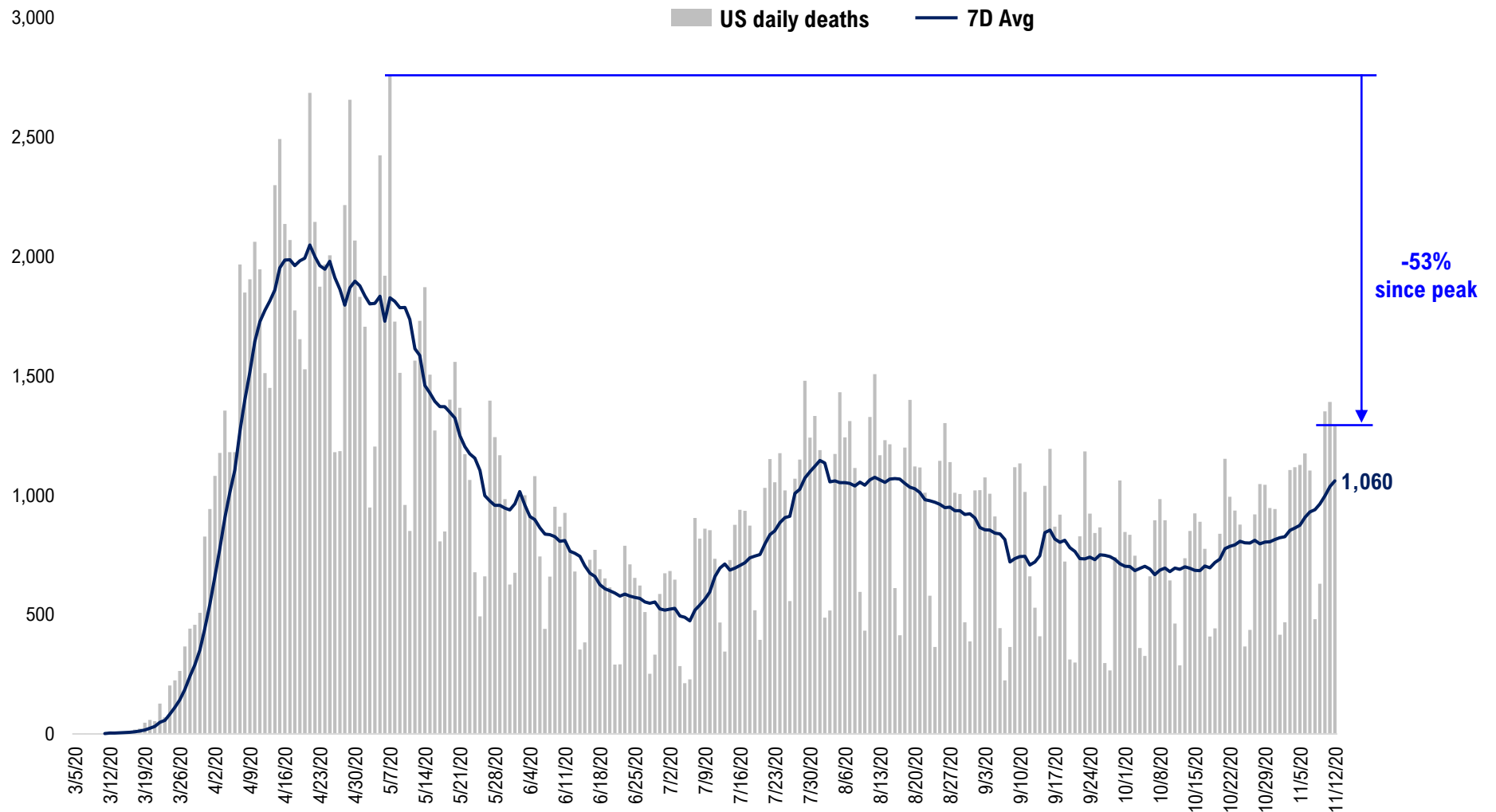
**Incremental Hospitalization Rate: 7D Net Hospitalizations / 7D Total New Cases
(aggregate of 50 states + Washington, D.C.)**



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

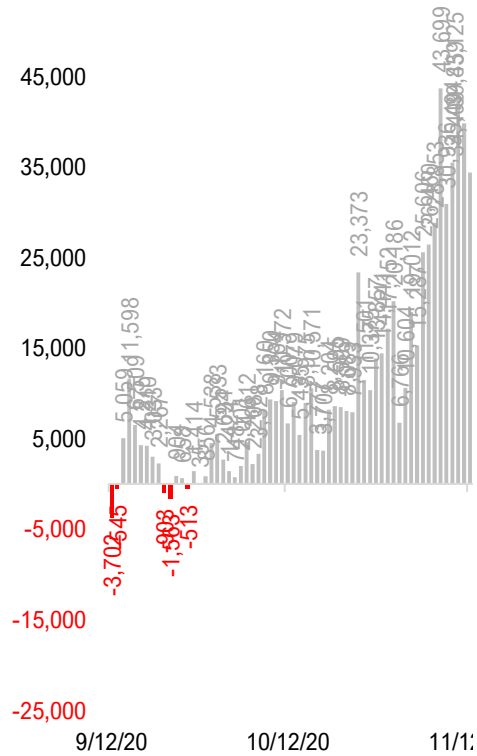
#9: US Daily New Fatalities...

US daily COVID-19 Fatalities

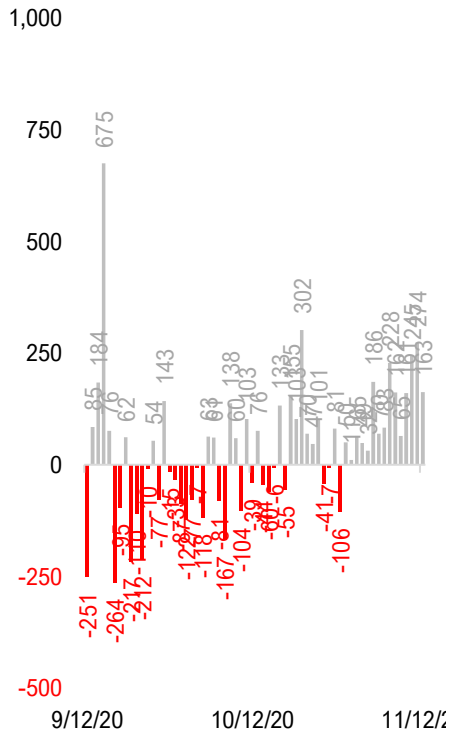


#10: Rolling 7-Day Change in the Key Metrics... (Past 8 Weeks)

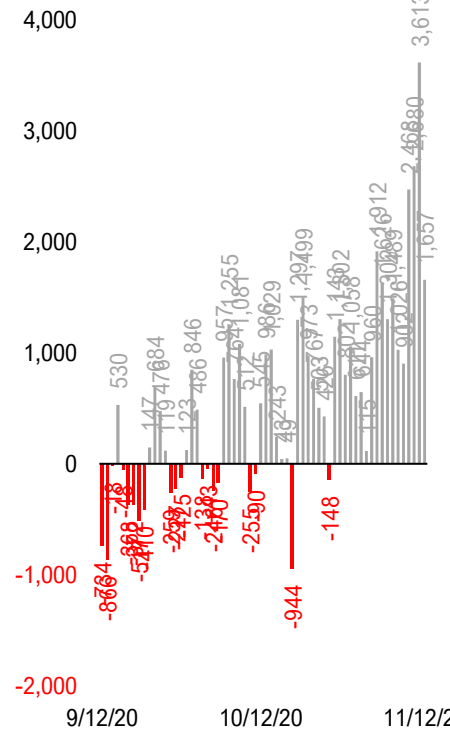
Daily New Cases
(8/10-8/23 ex-CA; 9/4-9/5 ex-IL)



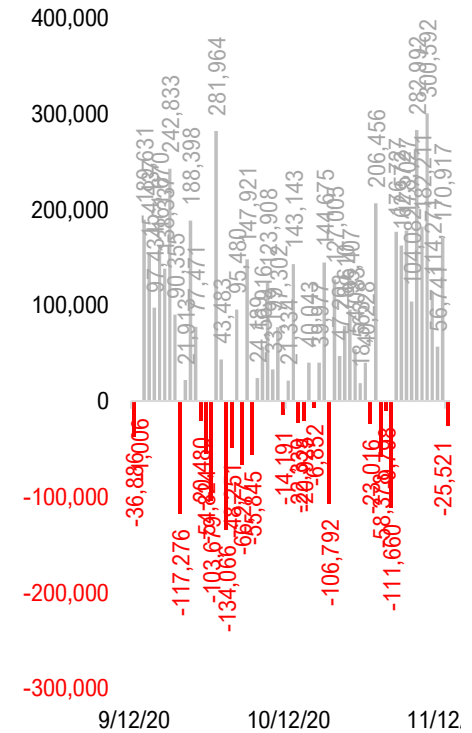
Daily Deaths



Daily Net Hospitalization
(Red = more discharge than admission)

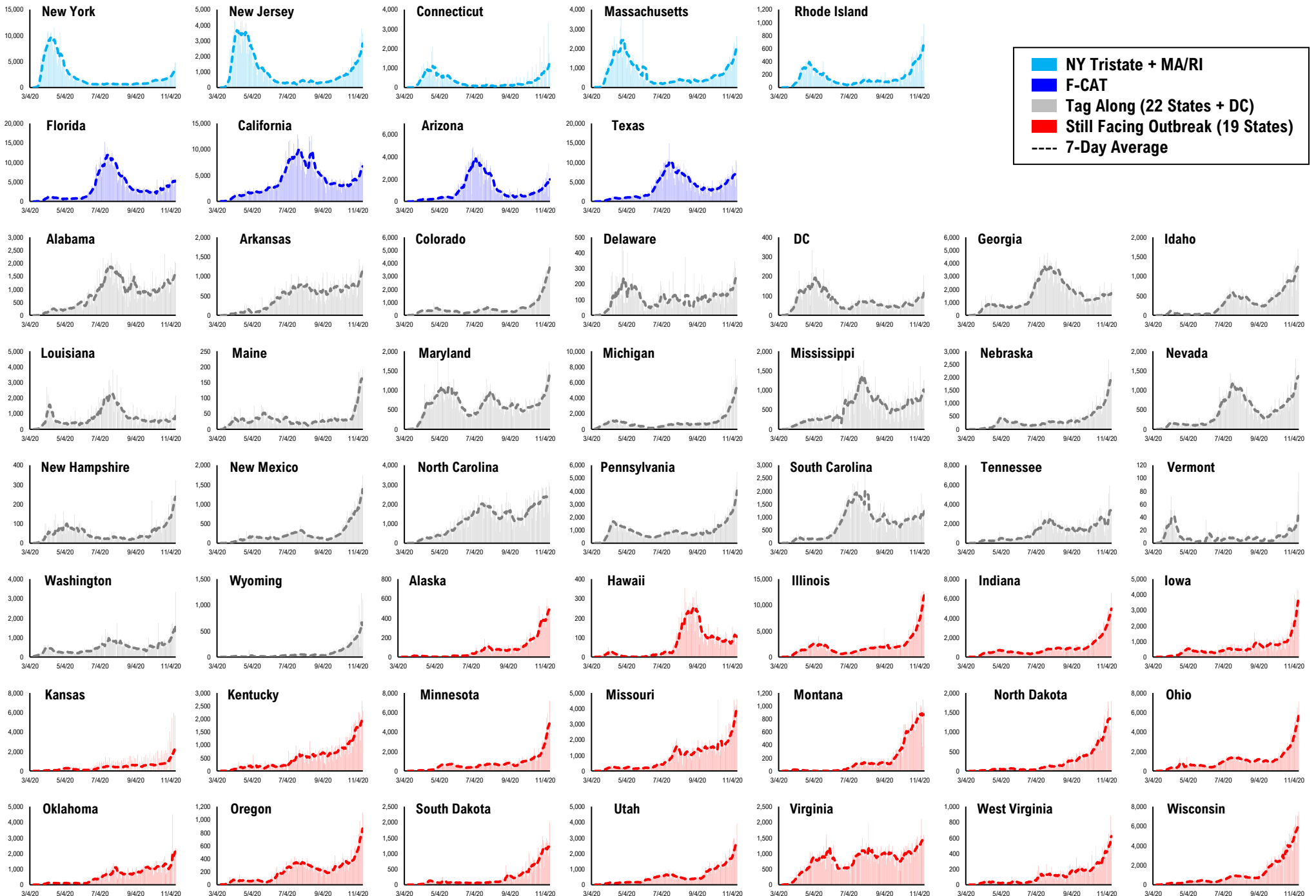


Daily Tests

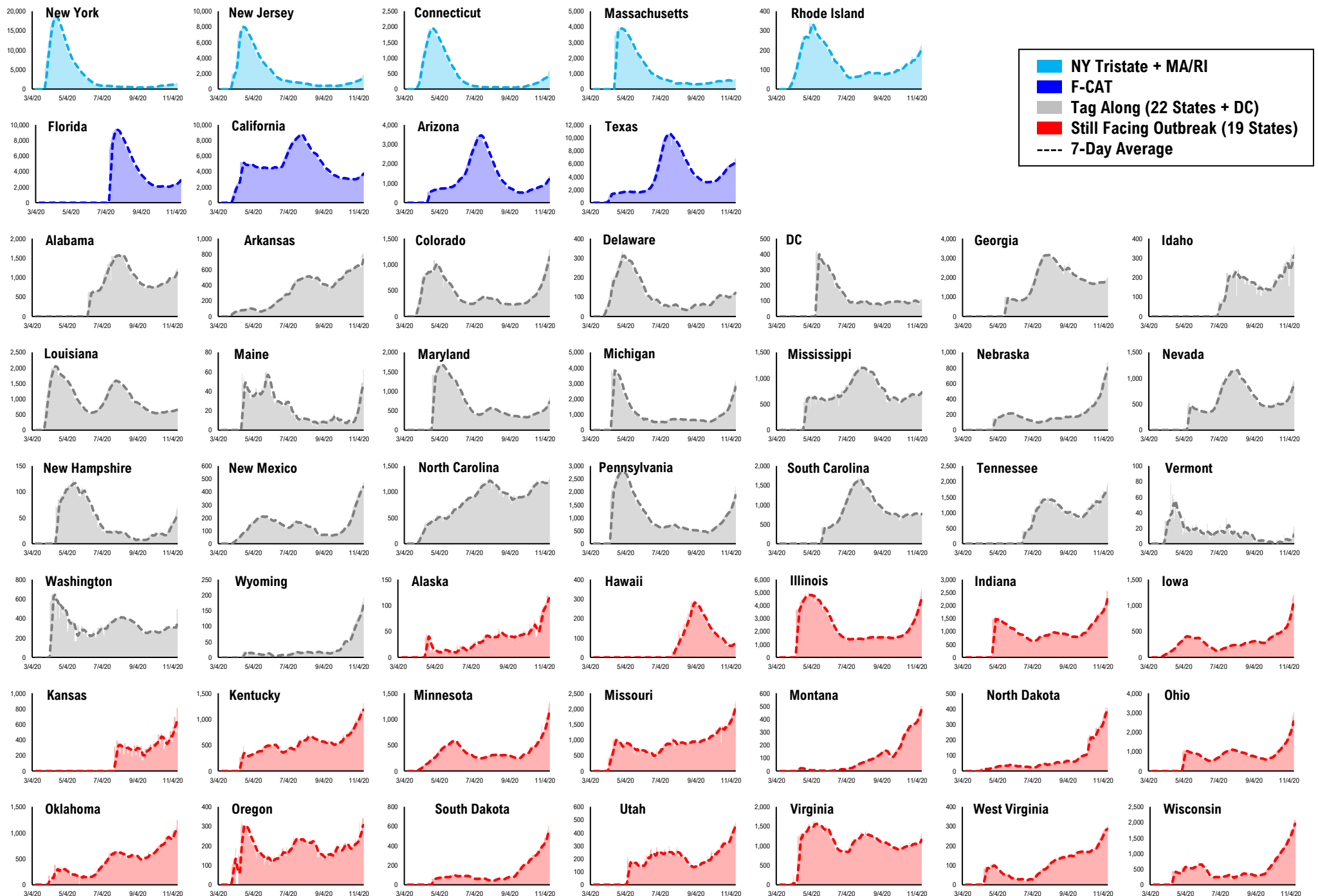


* Ignored California between 8/10 and 8/23, due to its data glitch caused 300,000-case backlog
Source: Fundstrat, COVID-19 Tracking Project, State Department of Health

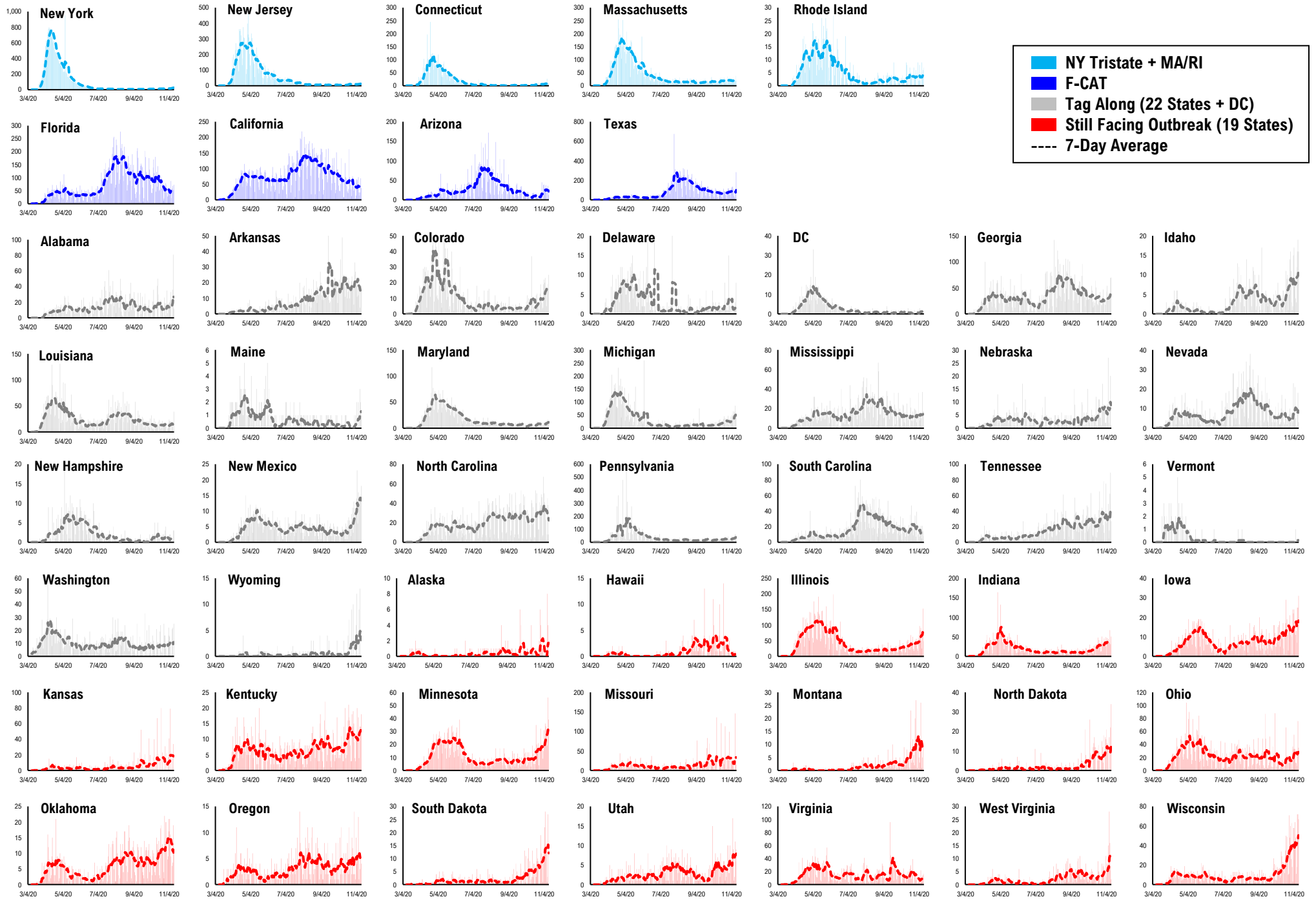
#11: Daily New Cases by States...



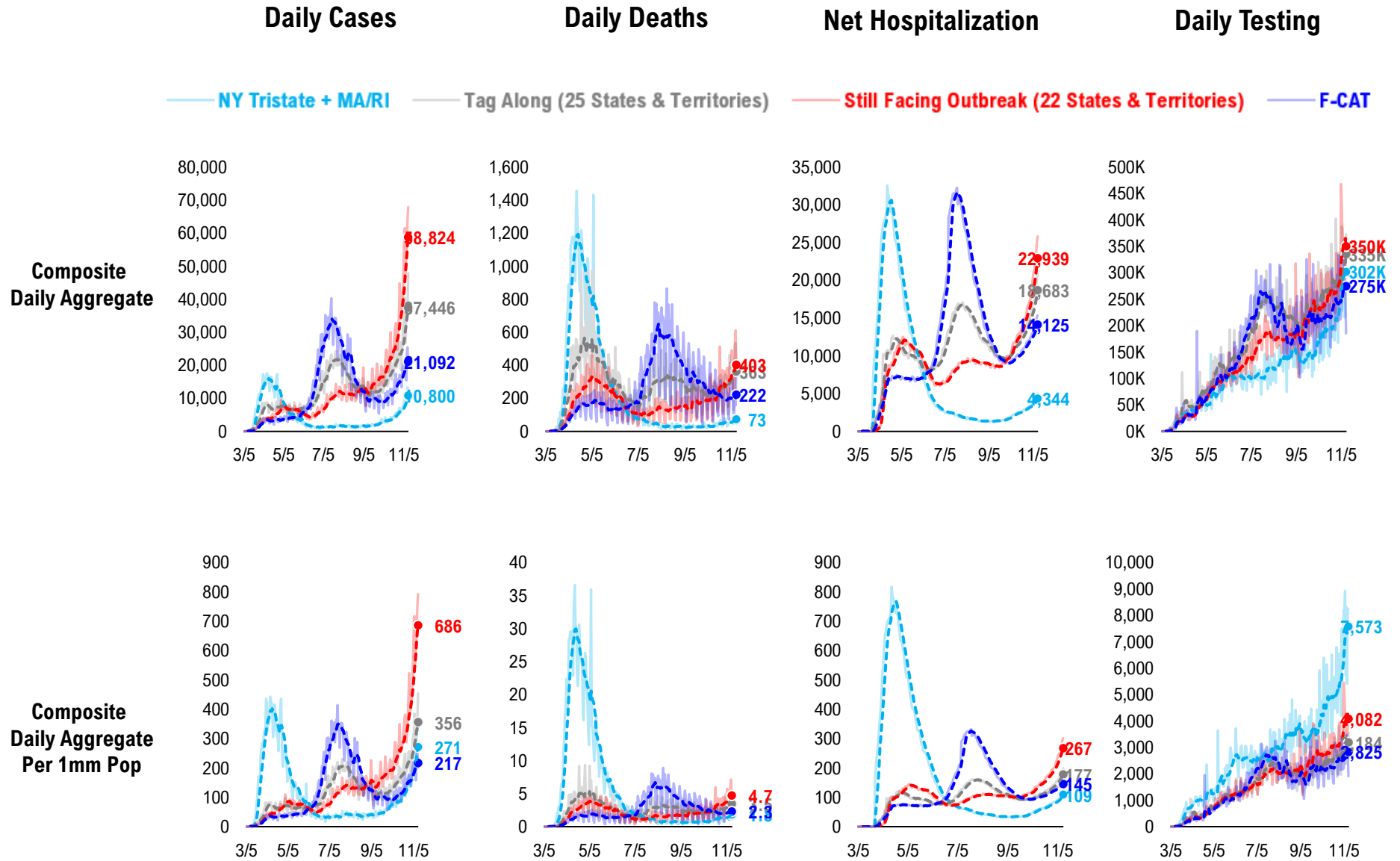
#12: Current Hospitalizations by States...



#13: Daily New Deaths by States...

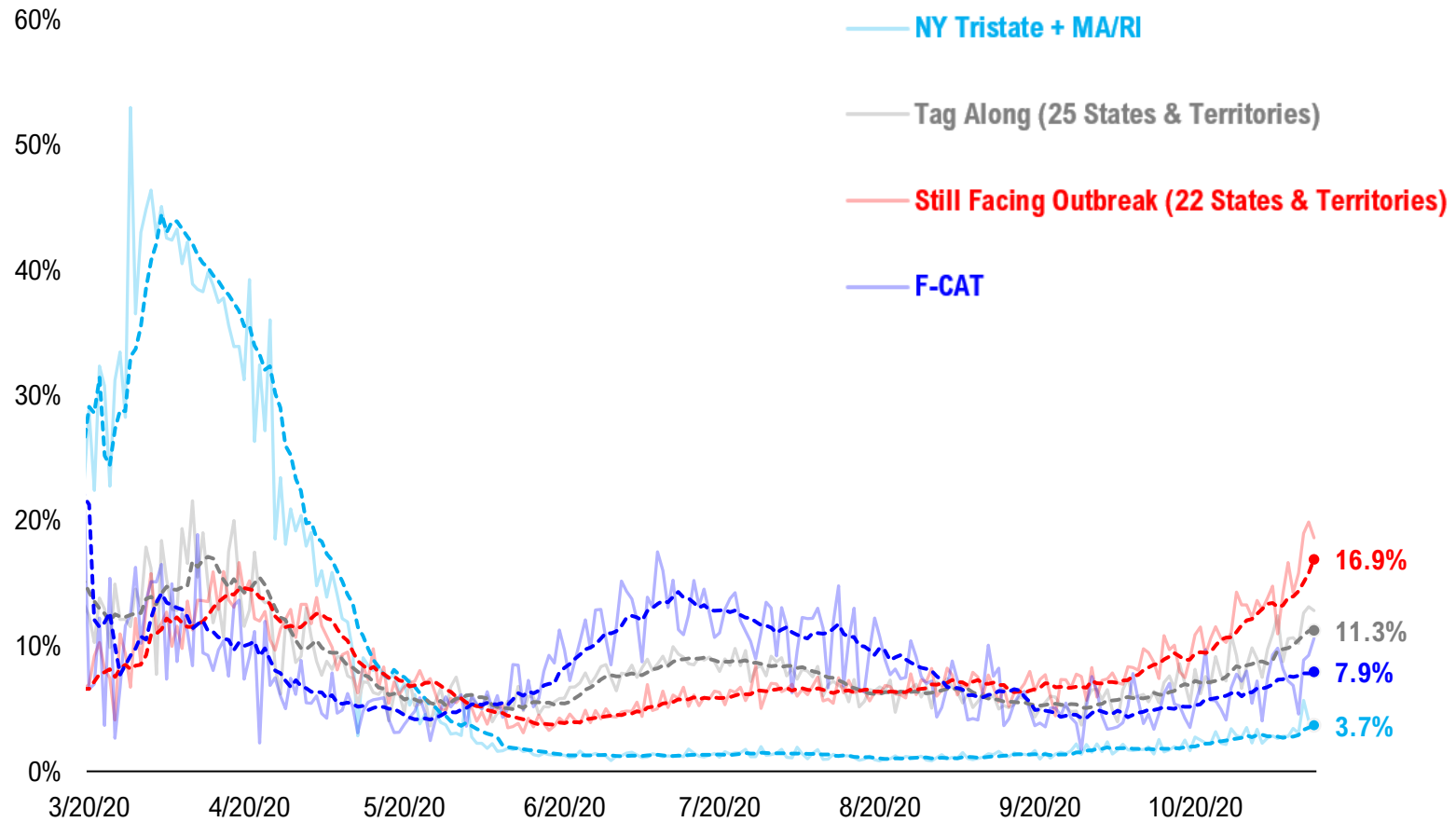


#14: State COVID-19 situation by Tier...

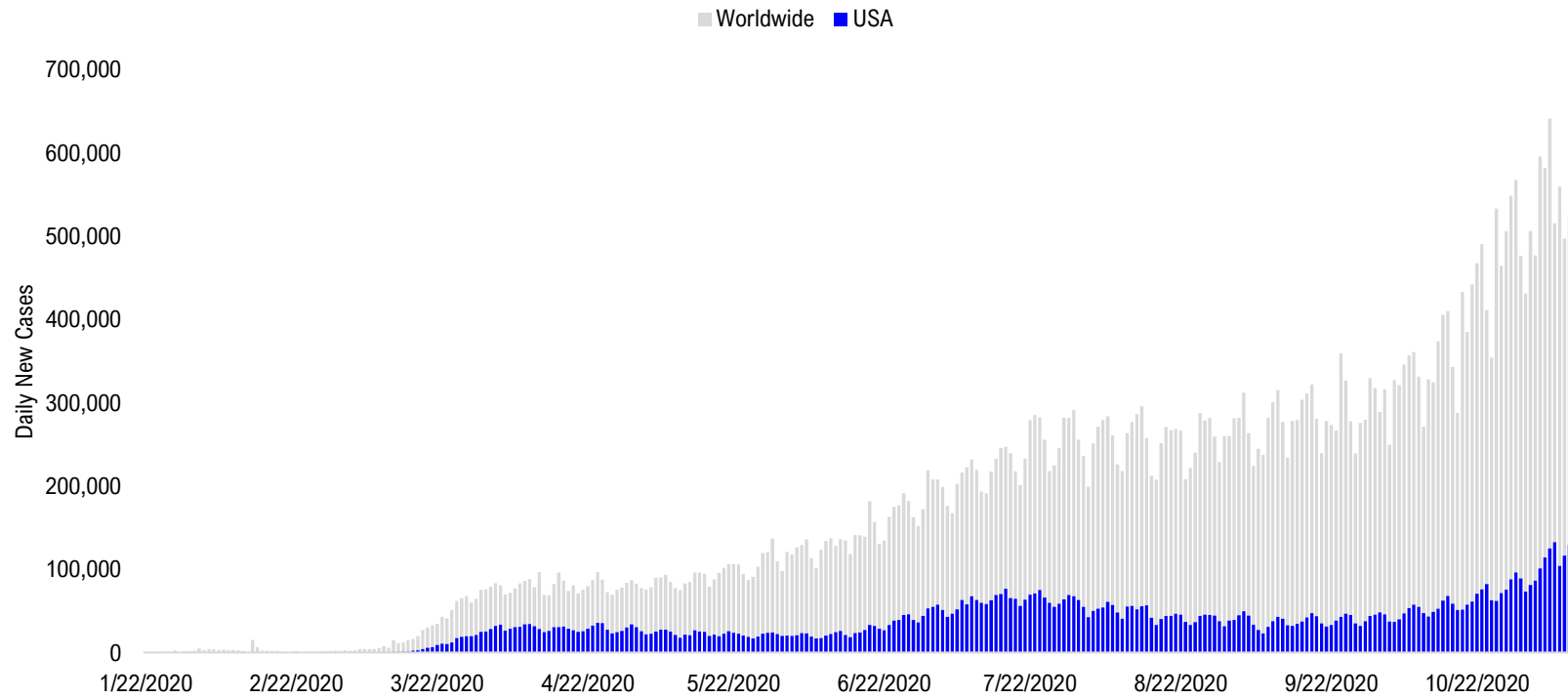


#15: State COVID-19 Daily Positivity Rate by Tier...

Composite Daily Positivity Rate



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



Jun 26	Jul 10	Jul 24	Aug 7	Aug 21	Sep 4	Sep 18	Oct 2	Oct 16	Oct 30	Nov 11
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 156,633	Europe 288,054	Europe 271,435
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	Latin America 67,985	US + Canada 89,508	US + Canada 133,366
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	Pakistan + India + Bangladesh 66,697	Latin America 65,611	Latin America 59,612
Europe 17,889	Africa 17,127	Africa 20,063	Europe 23,878	Europe 32,466	Europe 40,116	US + Canada 43,204	US + Canada 47,741	US + Canada 63,472	Pakistan + India + Bangladesh 51,456	Pakistan + India + Bangladesh 46,842
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 13,578	Asia ex- India+Pakistan 12,736	Asia ex- India+Pakistan 12,910
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 10,428	Africa 12,181	Africa 12,021

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