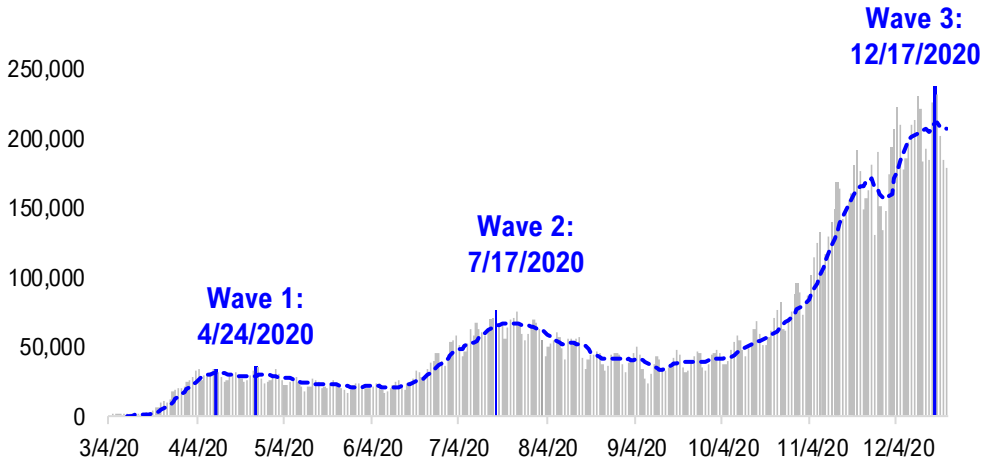


# FSInsight Daily COVID-19 Chartbook

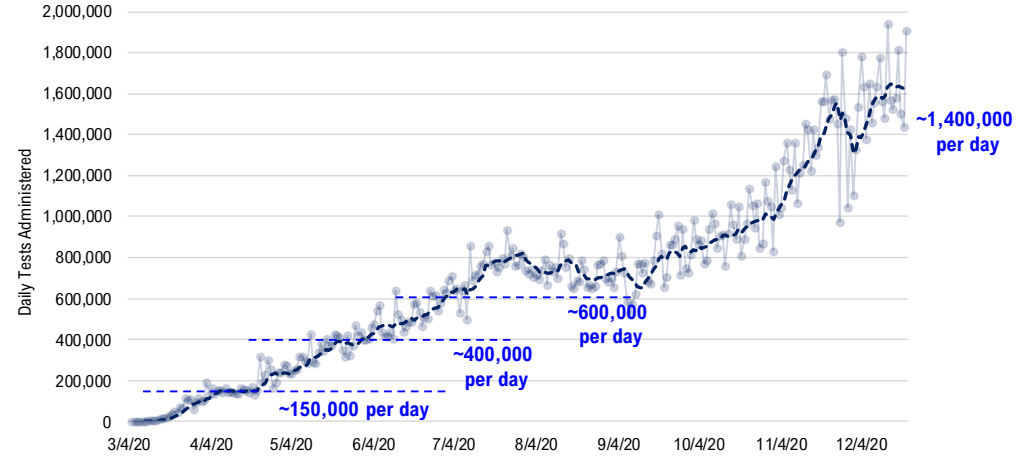


# #1: USA COVID-19 Situation at a Glance...

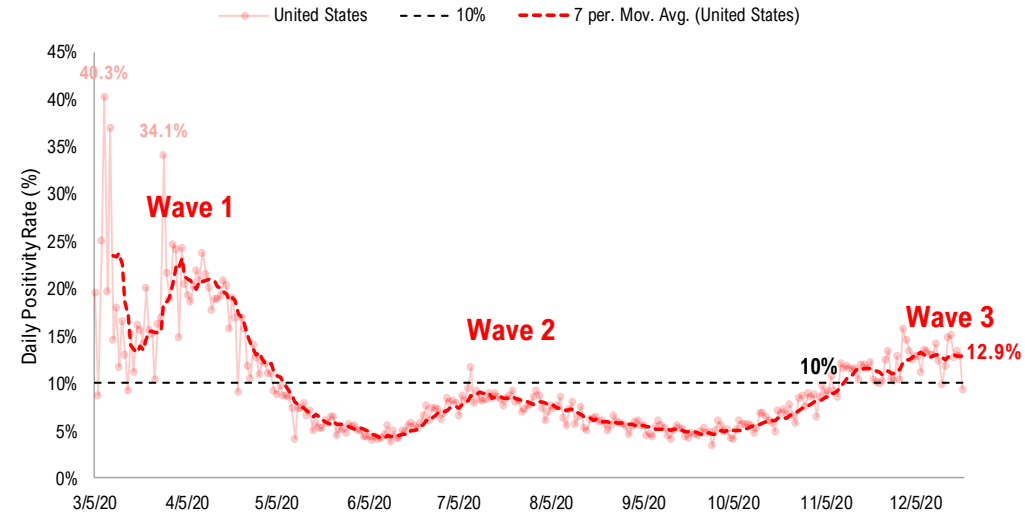
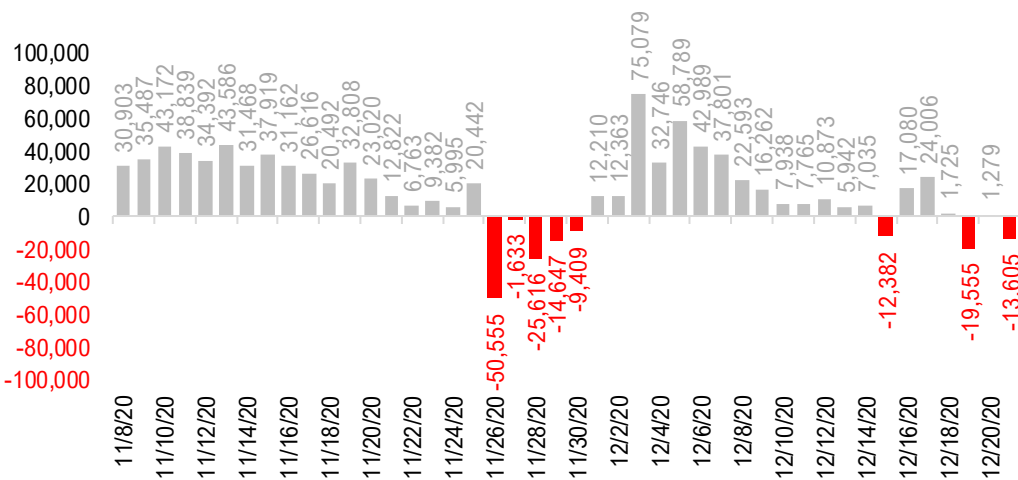
**US daily new cases**



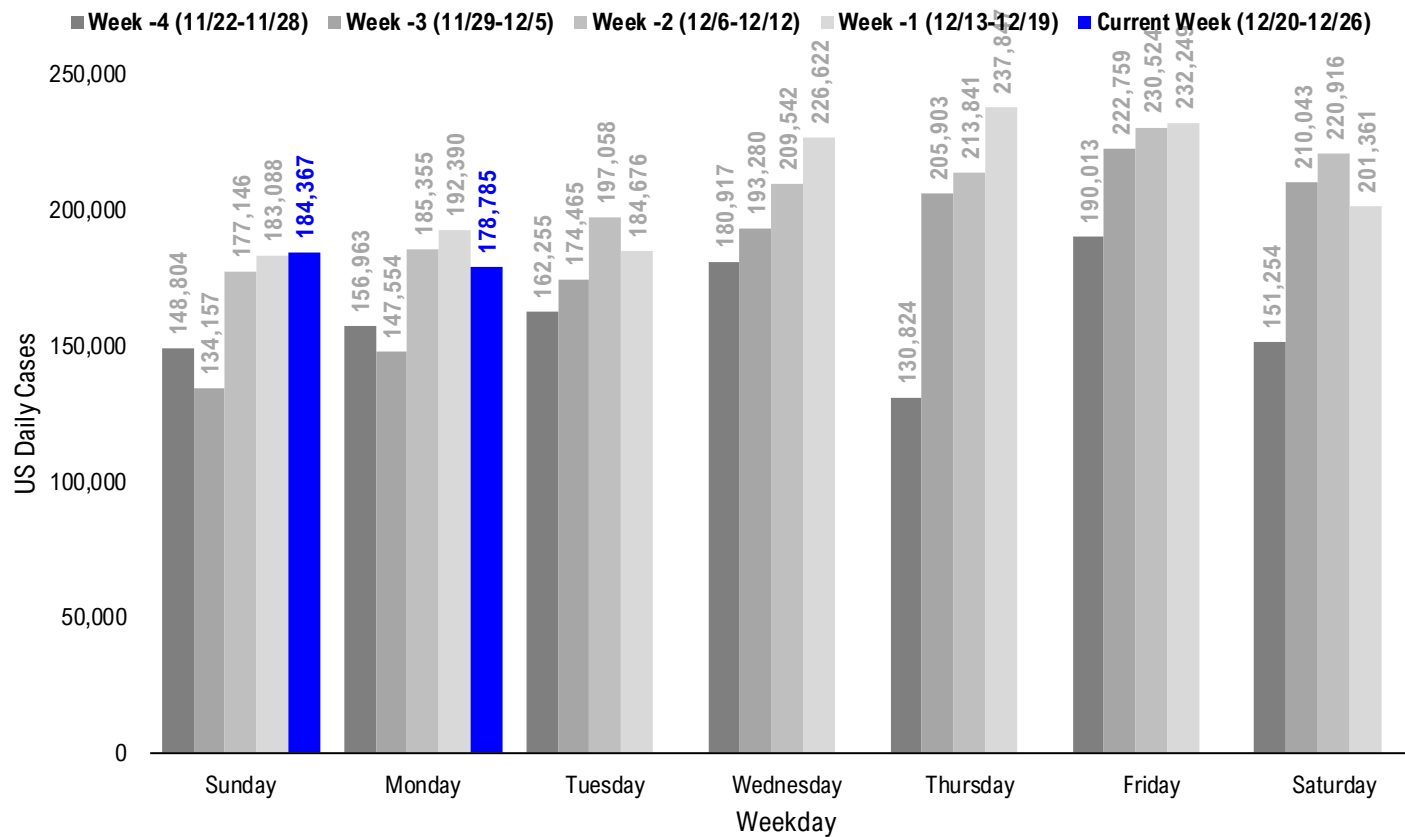
**USA total COVID-19 tests administered**



**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				Hospitalization			
	% US Pop	% US GDP	7D		# Days	% Decline in Daily Cases	7D Net Hospitalization	7D Net Hospitalization / 7D New Cases		
			12/21	Delta						
United States	100%	100%	178,785	-13,605	573	-32	3	-19%	4,802	0.3%

	Sorted Daily Cases		Daily Cases (3D avg) per 1mm residents				Hospitalization			
	% US Pop	% US GDP	7D		# Days	% Decline in Daily Cases	7D Net Hospitalization	7D Net Hospitalization / 7D New Cases		
			12/21	Delta						
United States	100%	100%	178,785	-13,605	573	-32	3	-19%	4,802	0.3%

### States:

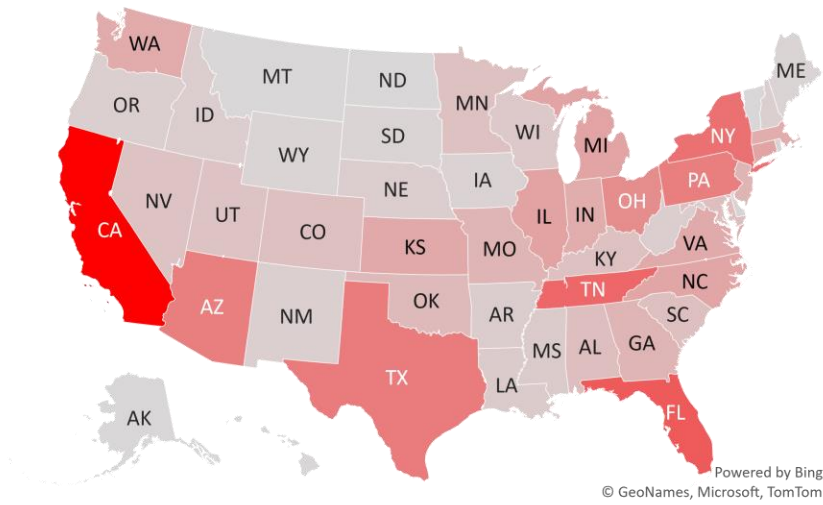
1 California	11.9%	14.6%	37,892	+4,614	1080	+242	3	-13%	3,781	1.2%
2 Florida	6.5%	5.0%	11,015	+2,563	483	+48	161	-19%	580	0.7%
3 Tennessee	2.1%	1.8%	9,891	-428	1266	-119	3	-16%	9	0.0%
4 New York	5.9%	8.1%	9,007	-37	495	-25	3	-14%	619	0.8%
5 Texas	8.7%	8.8%	8,107	-664	313	-14	4	-41%	705	0.8%
6 Pennsylvania	3.9%	3.8%	7,887	-75	649	-125	16	-31%	64	0.1%
7 Arizona	2.2%	1.7%	7,748	-4,058	855	-323	7	-27%	248	0.6%
8 Ohio	3.5%	3.3%	6,548	-1,327	670	-140	11	-32%	-399	(0.7%)
9 Illinois	3.8%	4.2%	4,699	-2,515	480	-129	38	-55%	-491	(1.0%)
10 Connecticut	1.1%	1.3%	4,595	-2,636	430	-246	12	-64%	-100	(0.7%)
11 Michigan	3.0%	2.6%	4,551	-2,654	282	-108	33	-68%	-623	(2.5%)
12 North Carolina	3.2%	2.7%	4,479	-291	558	-6	1	-18%	264	0.6%
13 Kansas	0.9%	0.8%	4,174	-550	478	-63	26	-69%	7	0.0%
14 Virginia	2.6%	2.6%	4,042	+802	449	+31	11	-6%	182	0.7%
15 Washington	2.3%	2.7%	3,949	+2,215	268	-92	26	-52%	35	0.2%
16 Indiana	2.0%	1.8%	3,865	-1,102	747	-158	16	-37%	-105	(0.3%)
17 Massachusetts	2.1%	2.8%	3,843	+190	602	-65	16	-27%	203	0.6%
18 New Jersey	2.7%	3.0%	3,171	-1,627	470	-100	15	-26%	-28	(0.1%)
19 Missouri	1.8%	1.5%	3,130	+568	434	-55	37	-47%	105	0.5%
20 Georgia	3.2%	2.9%	3,111	-185	390	-0	2	-23%	622	1.9%
21 Oklahoma	1.2%	1.0%	2,596	+497	983	+106	1	-8%	40	0.2%
22 Alabama	1.5%	1.1%	2,380	+116	622	+2	2	-36%	240	0.9%
23 Maryland	1.8%	2.0%	2,265	-49	359	-109	15	-32%	-66	(0.4%)
24 South Carolina	1.6%	1.1%	2,155	-436	514	-89	8	-22%	247	1.3%
25 Colorado	1.7%	1.8%	2,146	-765	401	-145	30	-61%	-199	(1.0%)
26 Minnesota	1.7%	1.8%	1,992	-1,026	439	-204	21	-69%	-243	(1.4%)
27 Kentucky	1.3%	1.0%	1,976	+190	530	-49	18	-39%	-132	(0.7%)
28 Nevada	0.9%	0.8%	1,939	-640	717	-160	16	-23%	-29	(0.2%)

### States:

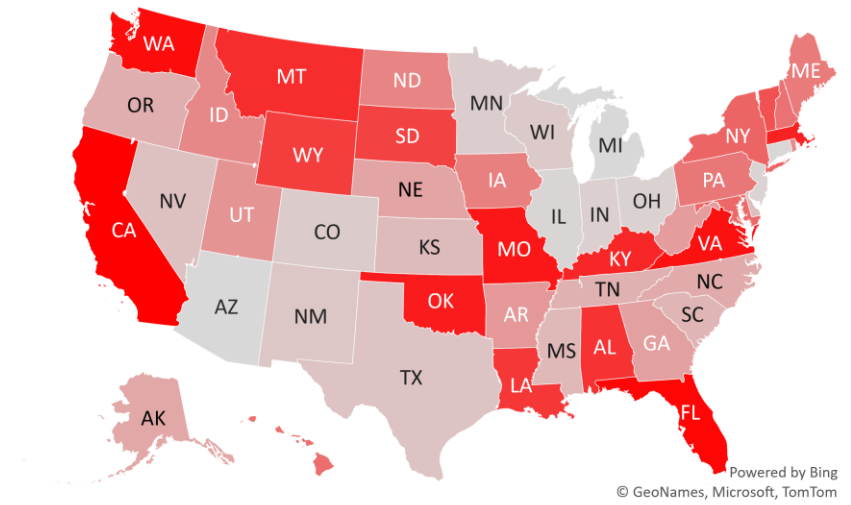
29 Utah	1.0%	0.9%	1,819	-149	647	-158	30	-48%	4	0.0%
30 Wisconsin	1.8%	1.6%	1,435	-687	397	-115	38	-69%	-163	(0.8%)
31 Mississippi	0.9%	0.6%	1,167	-481	570	-81	10	-31%	52	0.4%
32 Louisiana	1.4%	1.3%	1,111	+89	348	-45	18	-59%	63	0.4%
33 Arkansas	0.9%	0.6%	1,069	-164	468	-12	2	-30%	28	0.2%
34 West Virginia	0.5%	0.4%	995	-182	667	-32	2	-18%	-25	(0.3%)
35 Nebraska	0.6%	0.6%	967	-206	514	-18	32	-65%	-110	(1.5%)
36 Idaho	0.5%	0.4%	917	-121	496	+10	11	-57%	23	0.3%
37 New Hampshire	0.4%	0.4%	846	-73	595	+3	10	-14%	22	0.4%
38 Oregon	1.3%	1.2%	825	-332	272	-11	15	-34%	-6	(0.1%)
39 New Mexico	0.6%	0.5%	815	-684	526	-227	31	-65%	-64	(0.7%)
40 Iowa	1.0%	0.9%	538	-99	278	-25	38	-78%	-120	(1.5%)
41 Wyoming	0.2%	0.2%	456	+41	437	-133	32	-74%	-22	(0.9%)
42 Delaware	0.3%	0.4%	440	-557	666	-237	7	-26%	46	1.0%
43 Rhode Island	0.3%	0.3%	419	-133	761	-262	16	-51%	-4	(0.1%)
44 Puerto Rico	1.0%	0.5%	367	-139	208	+28	2	-41%	-89	(1.9%)
45 South Dakota	0.3%	0.3%	347	+31	491	-143	37	-76%	-97	(2.6%)
46 Maine	0.4%	0.3%	339	-87	235	-48	3	-40%	-28	(1.0%)
47 Montana	0.3%	0.2%	154	+154	415	-32	36	-68%	-97	(2.4%)
48 Alaska	0.2%	0.3%	150	-272	300	-418	16	-73%	-17	(0.7%)
49 District of Columbi	0.2%	0.7%	139	-25	300	-21	16	-38%	-1	(0.1%)
50 Hawaii	0.4%	0.5%	134	-55	116	+4	114	-44%	-9	(1.0%)
51 Vermont	0.2%	0.2%	91	-13	155	-13	17	-44%	-1	(0.1%)
52 North Dakota	0.2%	0.3%	82	-114	247	-126	37	-90%	-119	(5.5%)
53 Guam	0.0%	0.0%	9	-22	36	-80	41	-97%	0	0.0%
54 Northern Mariana	0.0%	0.0%	1	+1	6	+6	64	-89%	0	0.0%
55 U.S. Virgin Islands	0.0%	0.0%	0	-16	65	-165	122	-85%	0	0.0%
56 American Samoa	0.0%	0.0%	0	+0	0	+0	0	0%	0	0.0%

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

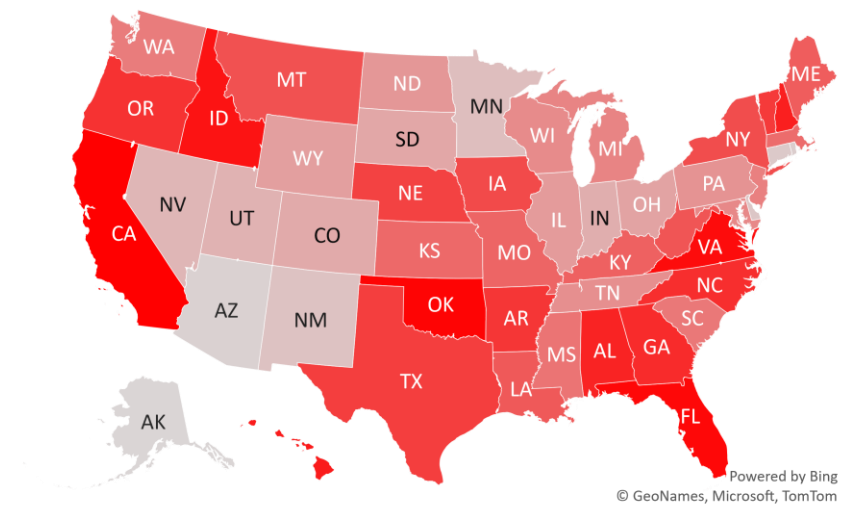
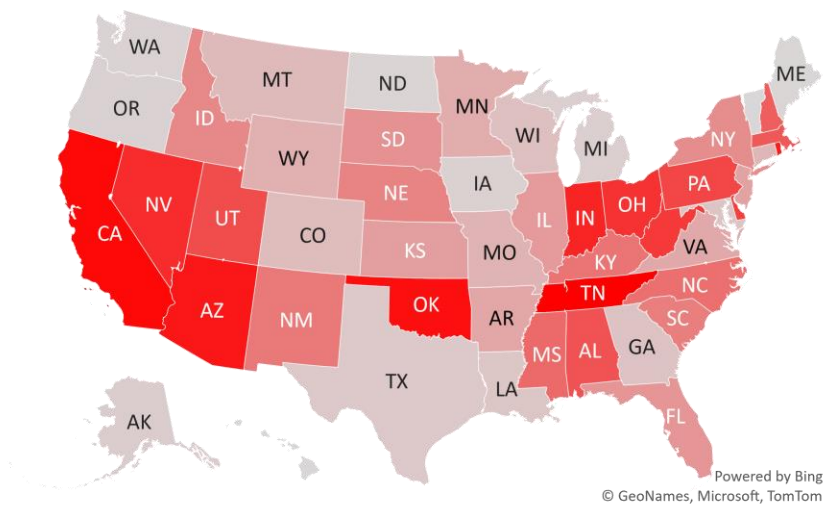
### Daily Case Increases



### 7D Delta in Daily New Cases



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





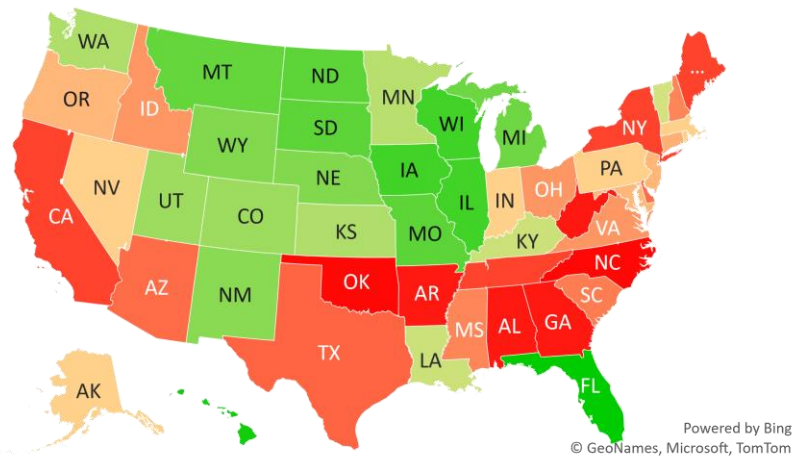
# #5: # of Days since Daily Case Peaked by States...

## # Days since Daily Cases (3D Avg) Peak (as of 12/21)

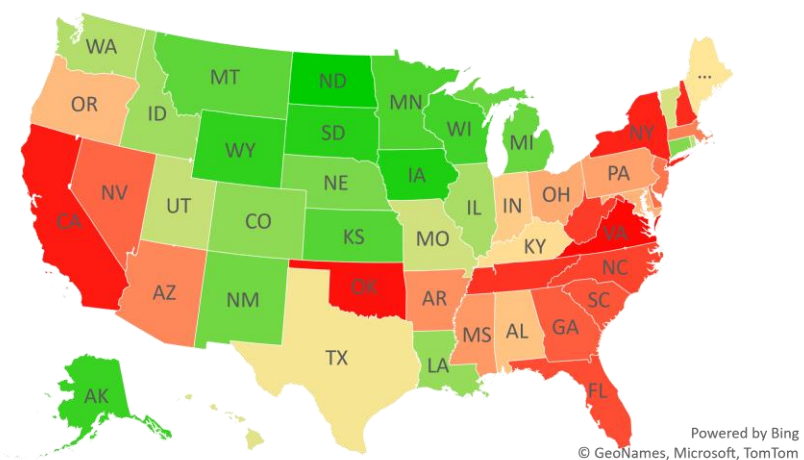
	Sorted			
	Peak Date	12/21/20	% off the Peak	% US Pop
United States	12/18/20	3	-19%	100%
<b>States:</b>				
Florida	7/13/20	161	-19%	6.5%
U.S. Virgin Islands	8/21/20	122	-85%	0.0%
Hawaii	8/29/20	114	-44%	0.4%
Northern Mariana Island	10/18/20	64	-89%	0.0%
Guam	11/10/20	41	-97%	0.0%
Wisconsin	11/13/20	38	-69%	1.8%
Illinois	11/13/20	38	-55%	3.8%
Iowa	11/13/20	38	-78%	1.0%
South Dakota	11/14/20	37	-76%	0.3%
North Dakota	11/14/20	37	-90%	0.2%
Missouri	11/14/20	37	-47%	1.8%
Montana	11/15/20	36	-68%	0.3%
Michigan	11/18/20	33	-68%	3.0%
Wyoming	11/19/20	32	-74%	0.2%
Nebraska	11/19/20	32	-65%	0.6%
New Mexico	11/20/20	31	-65%	0.6%
Utah	11/21/20	30	-48%	1.0%
Colorado	11/21/20	30	-61%	1.7%
Washington	11/25/20	26	-52%	2.3%
Kansas	11/25/20	26	-69%	0.9%
Minnesota	11/30/20	21	-69%	1.7%
Louisiana	12/3/20	18	-59%	1.4%
Kentucky	12/3/20	18	-39%	1.3%
Vermont	12/4/20	17	-44%	0.2%
Rhode Island	12/5/20	16	-51%	0.3%
Pennsylvania	12/5/20	16	-31%	3.9%
Nevada	12/5/20	16	-23%	0.9%
Massachusetts	12/5/20	16	-27%	2.1%

	Sorted			
	Peak Date	12/21/20	% off the Peak	% US Pop
United States	12/18/20	3	-19%	100%
<b>States:</b>				
Indiana	12/5/20	16	-37%	2.0%
District of Columbia	12/5/20	16	-38%	0.2%
Alaska	12/5/20	16	-73%	0.2%
Oregon	12/6/20	15	-34%	1.3%
New Jersey	12/6/20	15	-26%	2.7%
Maryland	12/6/20	15	-32%	1.8%
Connecticut	12/9/20	12	-64%	1.1%
Virginia	12/10/20	11	-6%	2.6%
Ohio	12/10/20	11	-32%	3.5%
Idaho	12/10/20	11	-57%	0.5%
New Hampshire	12/11/20	10	-14%	0.4%
Mississippi	12/11/20	10	-31%	0.9%
South Carolina	12/13/20	8	-22%	1.6%
Delaware	12/14/20	7	-26%	0.3%
Arizona	12/14/20	7	-27%	2.2%
Texas	12/17/20	4	-41%	8.7%
Tennessee	12/18/20	3	-16%	2.1%
New York	12/18/20	3	-14%	5.9%
Maine	12/18/20	3	-40%	0.4%
California	12/18/20	3	-13%	11.9%
West Virginia	12/19/20	2	-18%	0.5%
Puerto Rico	12/19/20	2	-41%	1.0%
Georgia	12/19/20	2	-23%	3.2%
Arkansas	12/19/20	2	-30%	0.9%
Alabama	12/19/20	2	-36%	1.5%
Oklahoma	12/20/20	1	-8%	1.2%
North Carolina	12/20/20	1	-18%	3.2%

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



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



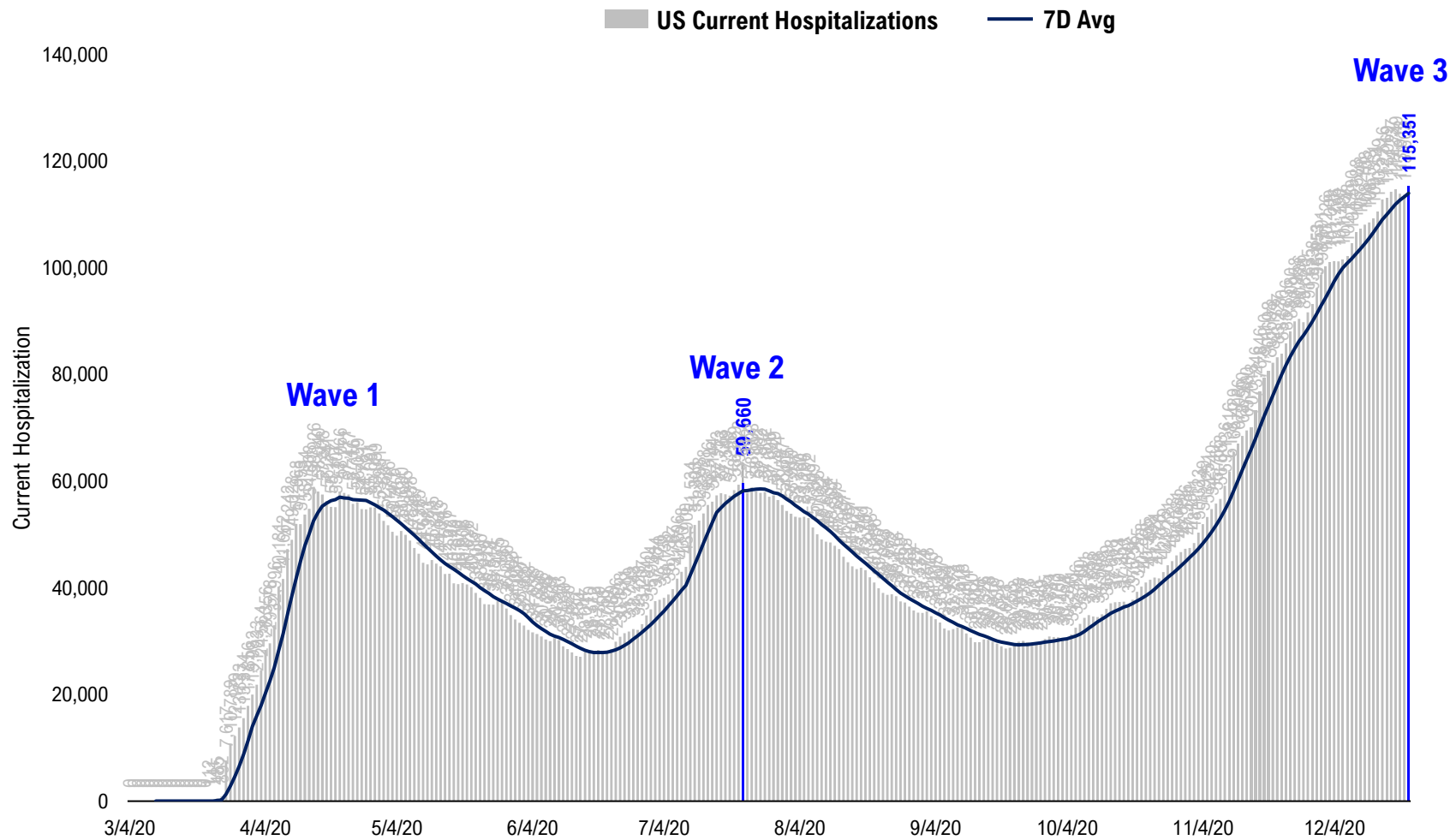
# #6: US New Cases by States... (sorted by today's new cases)

	Sorted				
	7D Ago	Last 3-day Trend			
	12/14/20	12/19/20	12/20/20	12/21/20	vs 7D ago
United States	192,390	201,361	184,367	178,785	-13,605
<b>States:</b>					
California	33,278	43,608	46,474	37,892	
Florida	8,452	11,682	8,401	11,015	<--higher
Tennessee	10,319	6,347	9,689	9,891	
New York	9,044	9,919	9,957	9,007	
Texas	8,771	12,914	6,244	8,107	
Pennsylvania	7,962	9,834	7,213	7,887	
Arizona	11,806	5,560	5,366	7,748	
Ohio	7,875	8,567	8,377	6,548	
Illinois	7,214	7,562	6,003	4,699	
Connecticut	7,231	0	0	4,595	
Michigan	7,205	3,896	0	4,551	
North Carolina	4,770	6,164	6,900	4,479	
Kansas	4,724	0	0	4,174	
Virginia	3,240	3,584	3,876	4,042	<--higher
Washington	1,734	2,183	0	3,949	<--higher
Indiana	4,967	4,732	6,483	3,865	
Massachusetts	3,653	4,344	4,261	3,843	
New Jersey	4,798	4,191	5,175	3,171	
Missouri	2,562	2,784	2,072	3,130	<--higher
Georgia	3,296	4,236	5,087	3,111	
Oklahoma	2,099	4,108	4,970	2,596	<--higher
Alabama	2,264	4,221	2,548	2,380	
Maryland	2,314	2,201	2,054	2,265	
South Carolina	2,591	3,117	2,671	2,155	
Colorado	2,911	2,491	2,292	2,146	
Minnesota	3,018	2,746	2,684	1,992	
Kentucky	1,786	3,374	1,757	1,976	
Nevada	2,579	2,601	2,087	1,939	

	Sorted				
	7D Ago	Last 3-day Trend			
	12/14/20	12/19/20	12/20/20	12/21/20	vs 7D ago
United States	192,390	201,361	184,367	178,785	-13,605
<b>States:</b>					
Utah	1,968	2,408	1,994	1,819	
Wisconsin	2,122	3,675	1,826	1,435	
Mississippi	1,648	1,700	2,222	1,167	
Louisiana	1,022	0	3,738	1,111	
Arkansas	1,233	1,853	1,316	1,069	
West Virginia	1,177	1,464	1,127	995	
Nebraska	1,173	1,345	670	967	
Idaho	1,038	851	891	917	
New Hampshire	919	649	933	846	
Oregon	1,157	1,506	1,116	825	
New Mexico	1,499	1,430	1,063	815	
Iowa	637	1,198	897	538	
Wyoming	415	129	174	456	
Delaware	997	1,027	480	440	
Rhode Island	552	1,390	610	419	
Puerto Rico	506	1,107	515	367	
South Dakota	316	564	391	347	
Maine	426	402	207	339	
Montana	0	627	551	154	
Alaska	422	330	178	150	
District of Columbia	164	238	259	139	
Hawaii	189	156	202	134	
Vermont	104	100	100	91	
North Dakota	196	231	251	82	
Guam	31	5	4	9	
Northern Mariana Islands	0	0	0	1	
U.S. Virgin Islands	16	10	11	0	
American Samoa	0	0	0	0	

# #7: US Daily Hospitalizations...

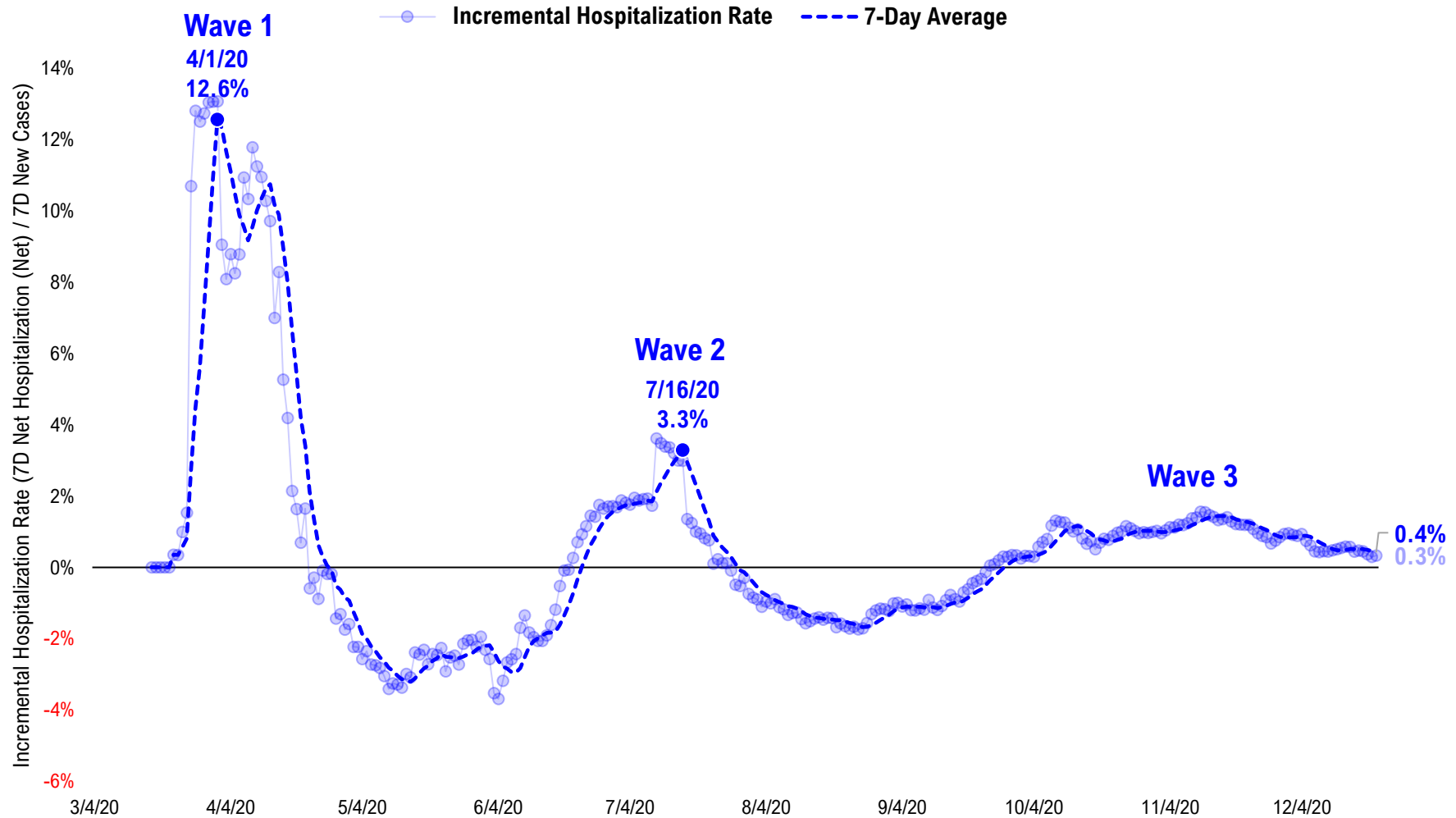
### US Net Hospitalizations (aggregate of 50 states + Washington, D.C.)





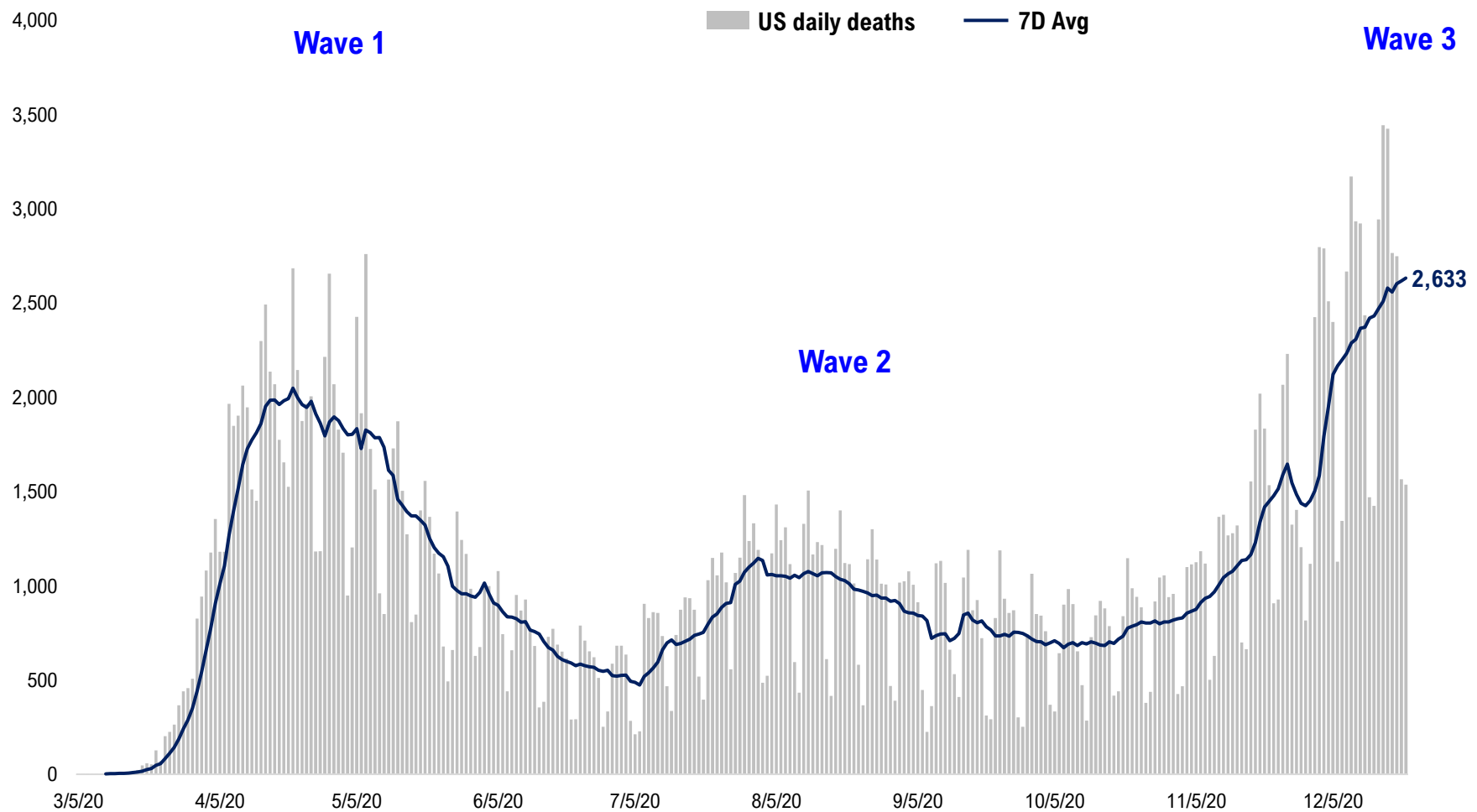
# #8: Incremental Hospitalization Rate...

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



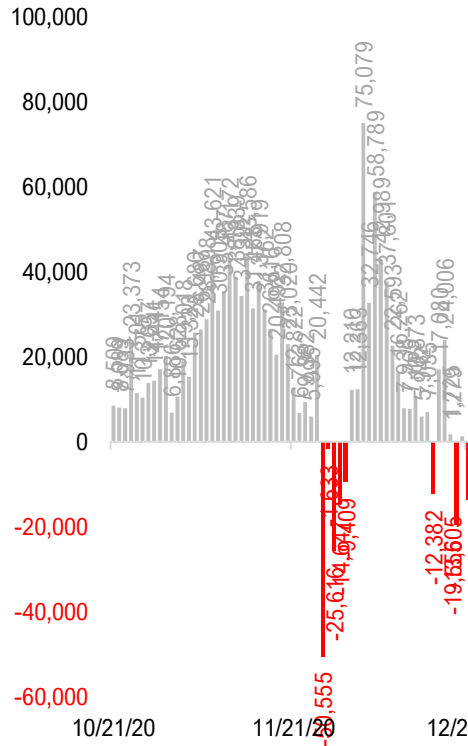
# #9: US Daily New Fatalities...

## US daily COVID-19 Fatalities

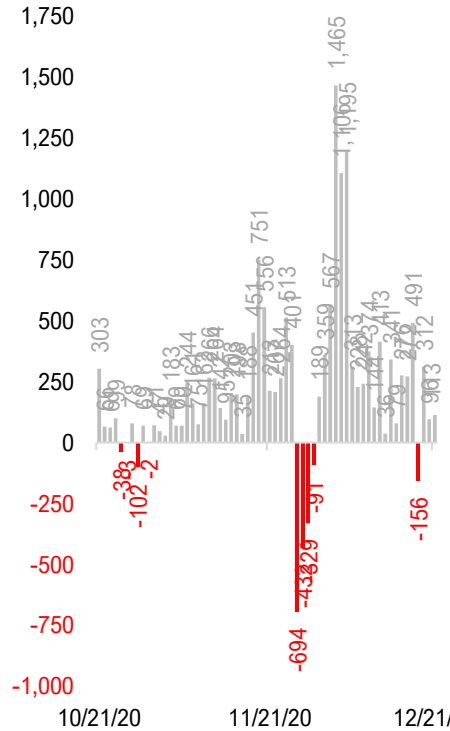


# #10: Rolling 7-Day Change in the Key Metrics... (Past 8 Weeks)

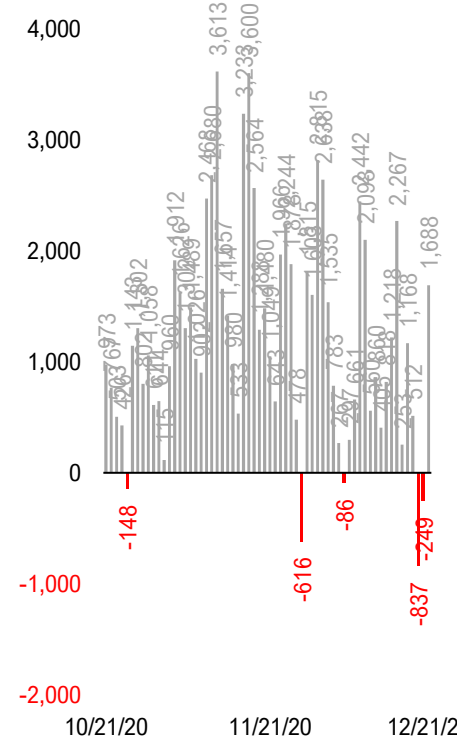
**Daily New Cases**  
(8/10-8/23 ex-CA; 9/4-9/5 ex-IL)



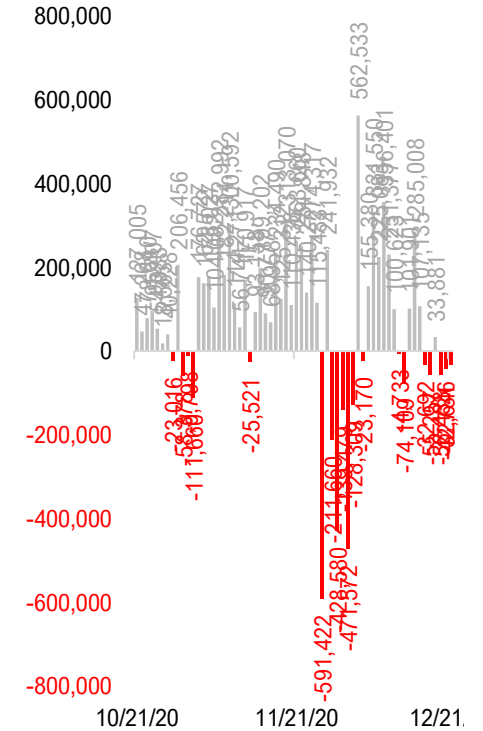
**Daily Deaths**



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

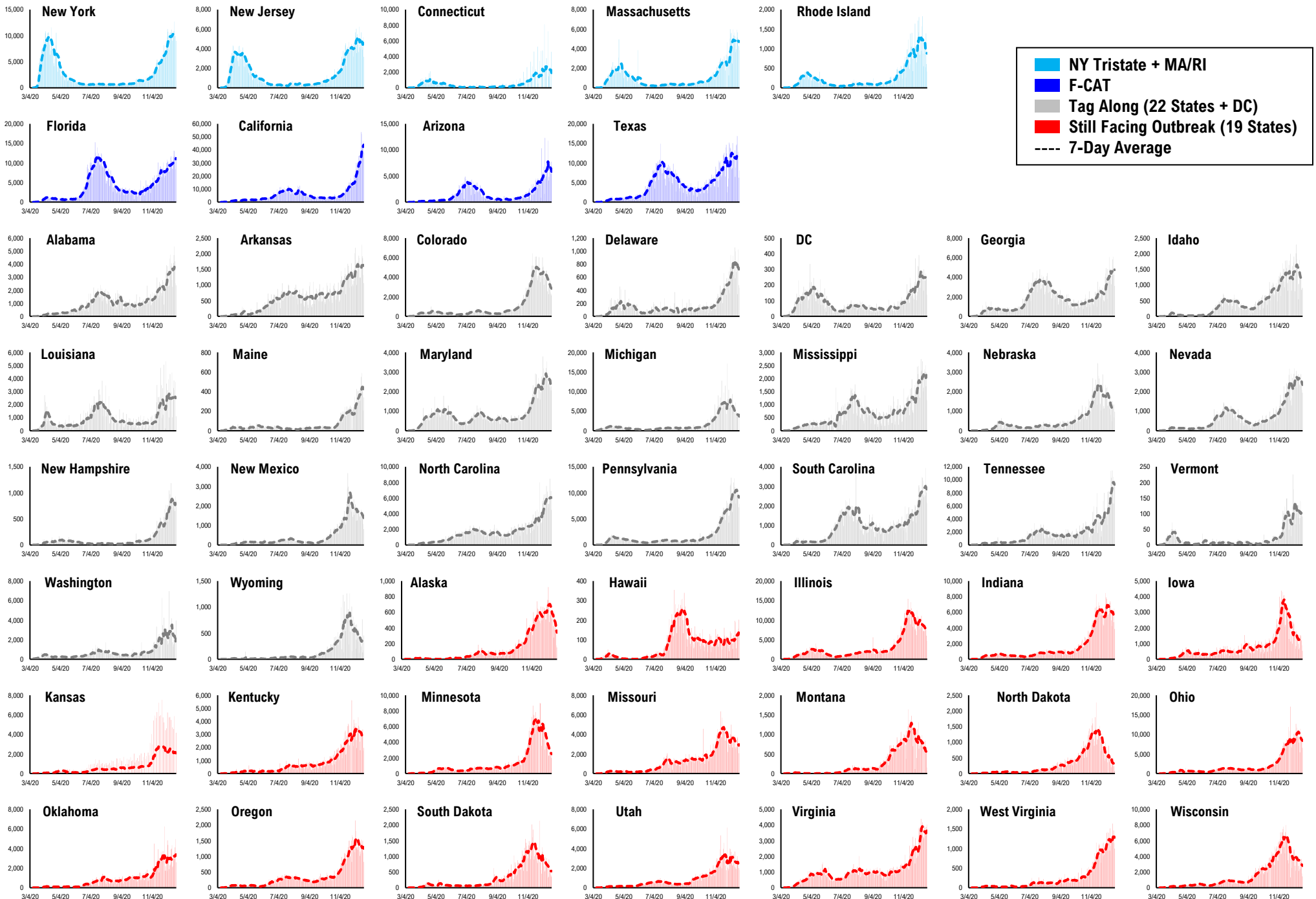


**Daily Tests**

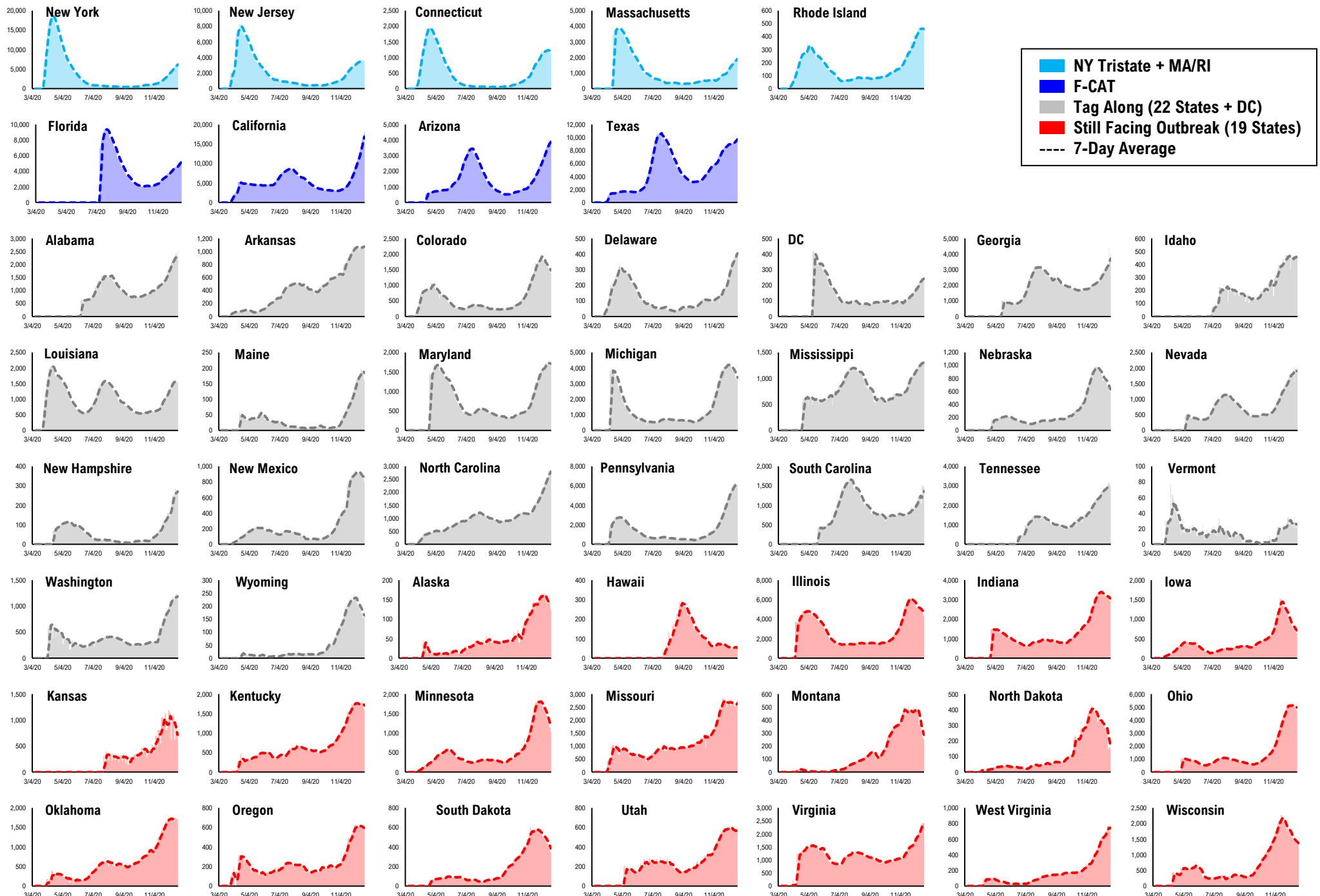


\* Ignored California between 8/10 and 8/23, due to its data glitch caused 300,000-case backlog  
Source: Fundstrat, COVID-19 Tracking Project, State Department of Health

# #11: Daily New Cases by States...

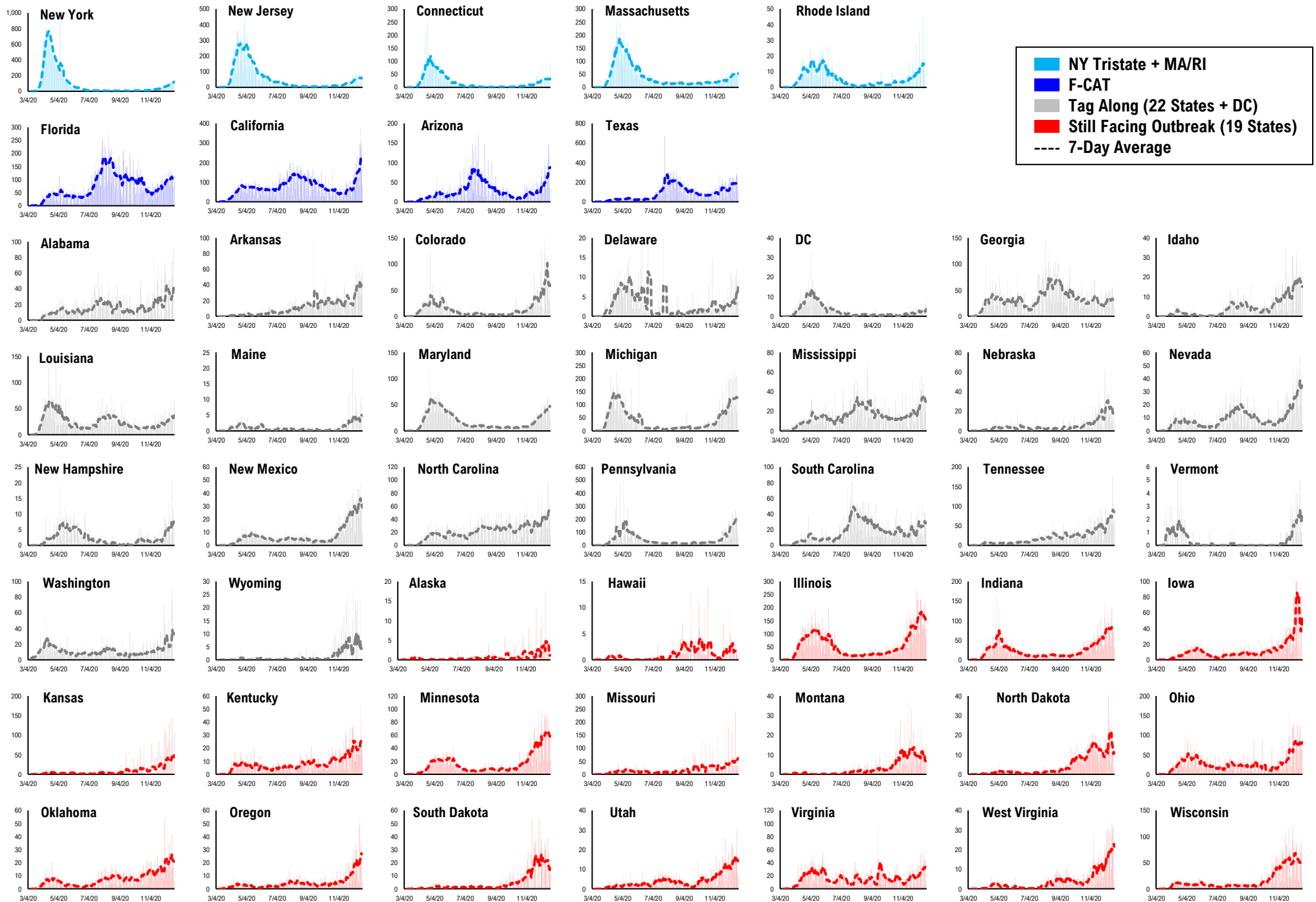


# #12: Current Hospitalizations by States...

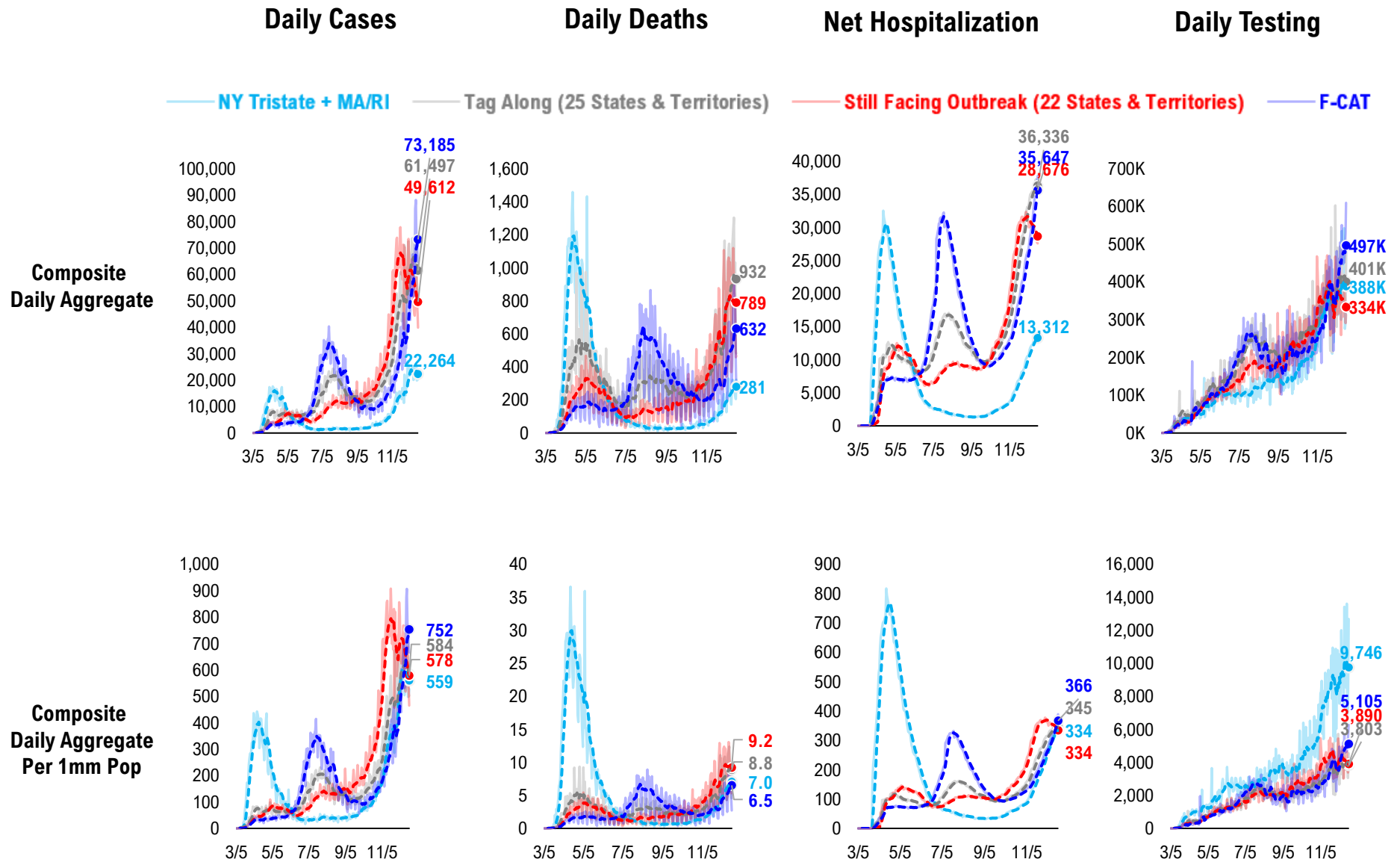




# #13: Daily New Deaths by States...

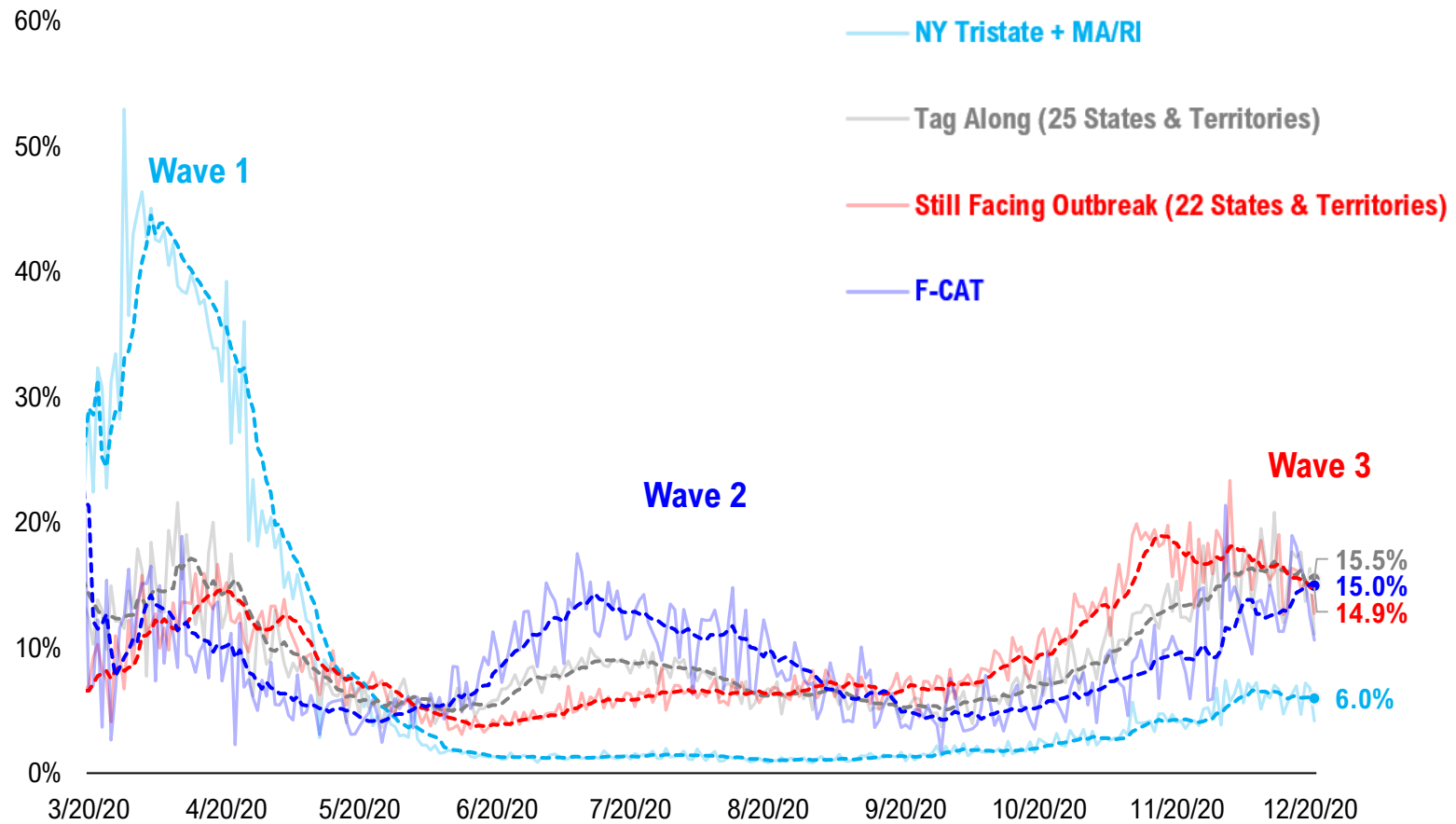


# #14: State COVID-19 situation by Tier...

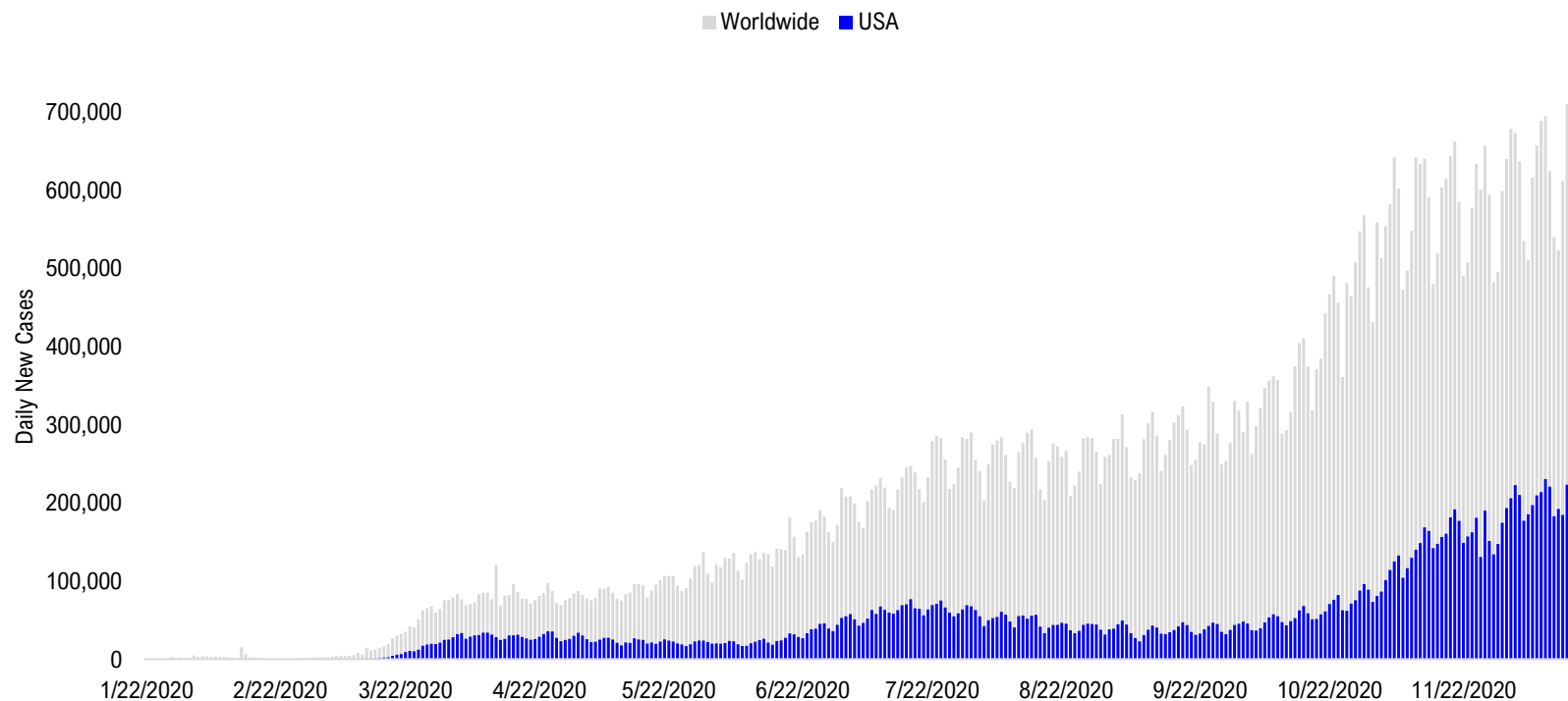


# #15: State COVID-19 Daily Positivity Rate by Tier...

## Composite Daily Positivity Rate



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



Aug 7	Aug 21	Sep 4	Sep 18	Oct 2	Oct 16	Oct 30	Nov 13	Nov 27	Dec 11	Dec 20
Latin America 97,310	Latin America 85,471	Latin America 88,295	Pakistan + India + Bangladesh 98,115	Pakistan + India + Bangladesh 84,614	Europe 156,735	Europe 288,231	Europe 301,976	Europe 274,571	Europe 268,913	Europe 235,273
Pakistan + India + Bangladesh 63,674	Pakistan + India + Bangladesh 72,740	Pakistan + India + Bangladesh 87,400	Latin America 76,730	Europe 77,882	Latin America 67,985	US + Canada 89,511	US + Canada 157,136	US + Canada 172,771	US + Canada 224,467	US + Canada 215,670
US + Canada 56,201	US + Canada 45,159	US + Canada 44,962	Europe 57,979	Latin America 61,017	Pakistan + India + Bangladesh 66,697	Latin America 65,611	Latin America 74,234	Latin America 75,171	Latin America 92,555	Latin America 84,964
Europe 23,567	Europe 31,851	Europe 40,040	US + Canada 43,204	US + Canada 47,741	US + Canada 63,472	Pakistan + India + Bangladesh 51,456	Pakistan + India + Bangladesh 49,697	Pakistan + India + Bangladesh 48,359	Pakistan + India + Bangladesh 35,248	Pakistan + India + Bangladesh 29,108
Africa 14,390	Asia ex- India+Pakistan 10,921	Asia ex- India+Pakistan 9,069	Asia ex- India+Pakistan 11,067	Asia ex- India+Pakistan 11,658	Asia ex- India+Pakistan 13,788	Asia ex- India+Pakistan 12,846	Africa 14,829	Asia ex- India+Pakistan 16,287	Africa 19,264	Africa 19,639
Asia ex- India+Pakistan 12,060	Africa 10,566	Africa 8,318	Africa 7,997	Africa 8,146	Africa 10,428	Africa 12,181	Asia ex- India+Pakistan 14,319	Africa 14,762	Asia ex- India+Pakistan 17,917	Asia ex- India+Pakistan 18,016

# Disclosures

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