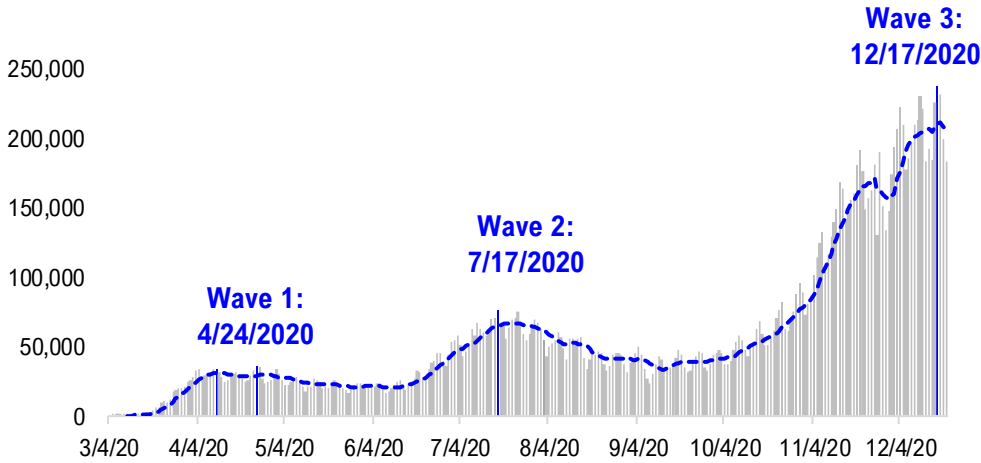


# FSInsight Daily COVID-19 Chartbook

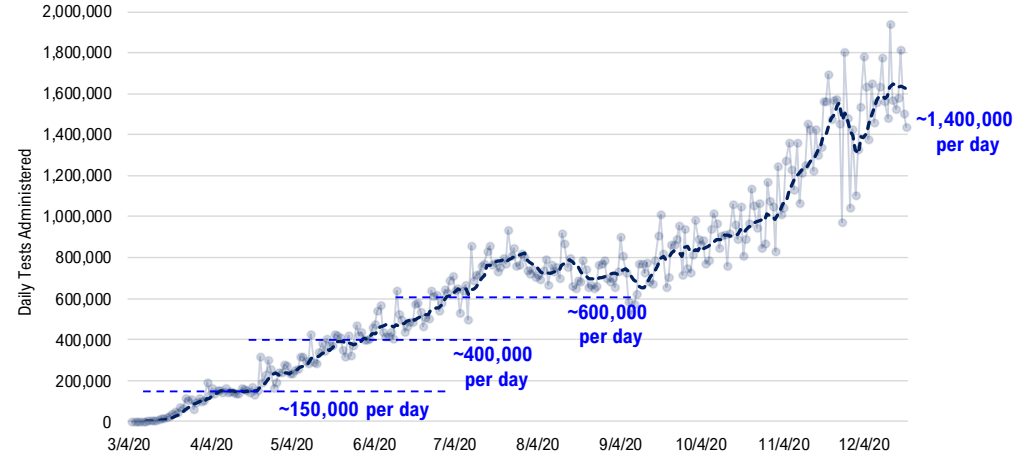


# #1: USA COVID-19 Situation at a Glance...

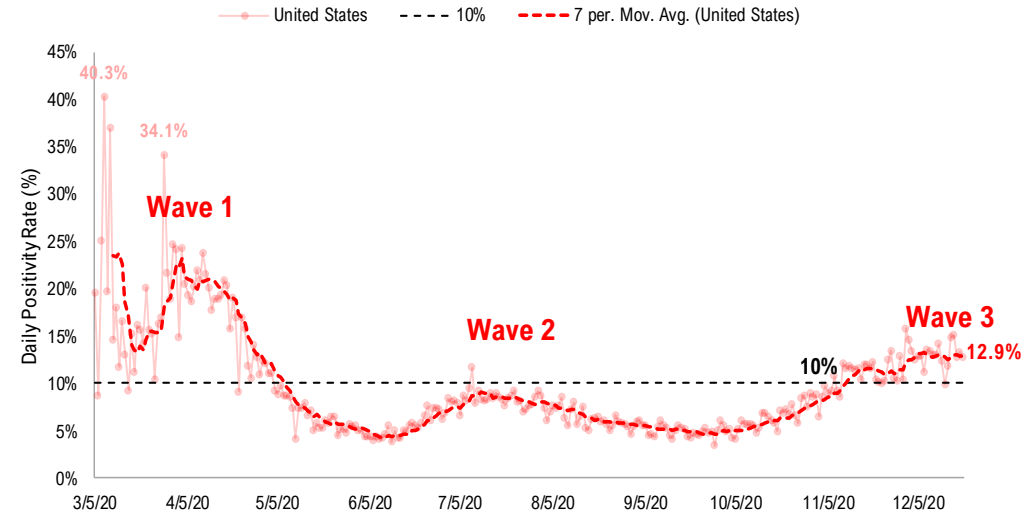
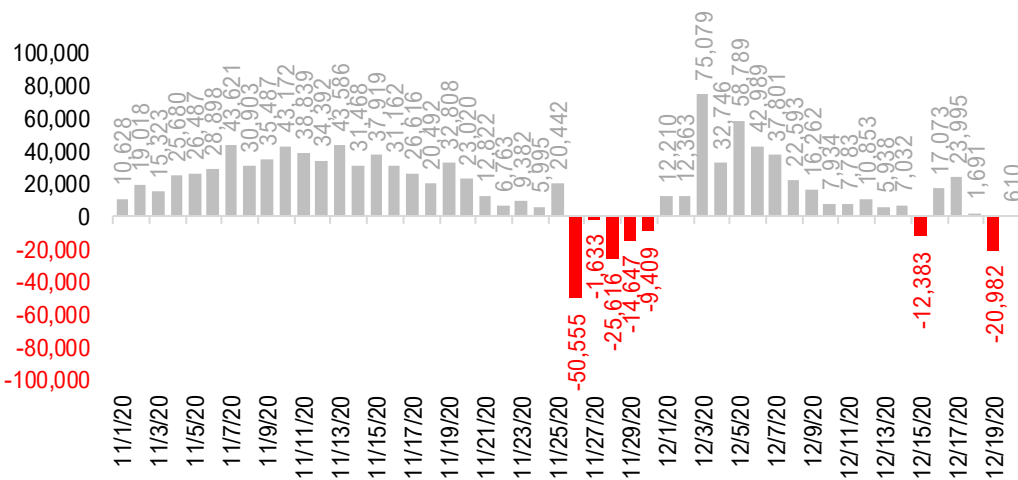
**US daily new cases**



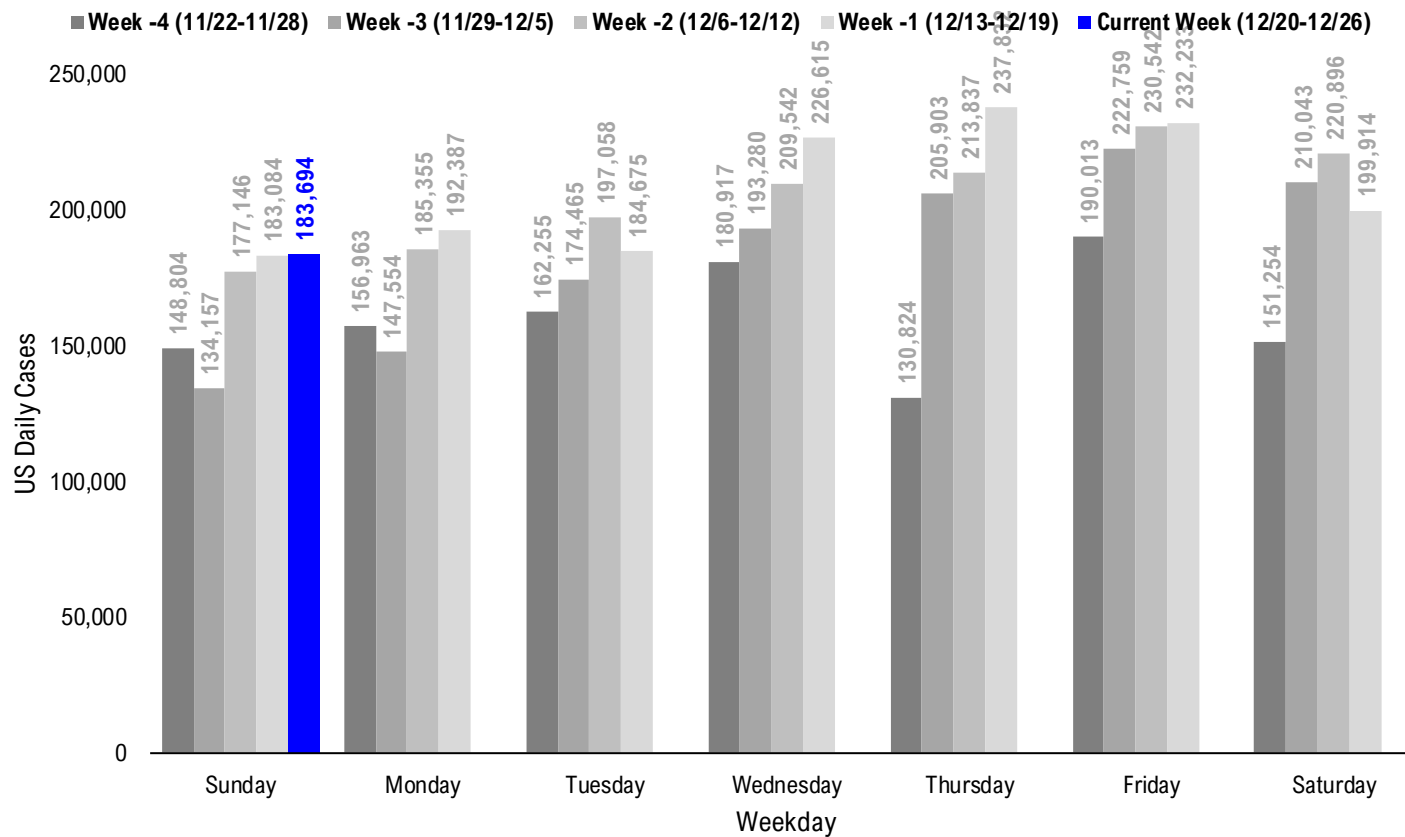
**USA total COVID-19 tests administered**



**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	12/20	7D Delta	12/20	7D Delta	# Days	% Decline in Daily Cases	7D Net Hospitalization	7D Net Hospitalization / 7D New Cases
	United States	100%	100%	183.694	+610	625	-19	2	-12%	4.332

	Sorted Daily Cases		Daily Cases (3D avg) per 1mm residents				Since Peak		Hospitalization	
	% US Pop	% US GDP	12/20	7D Delta	12/20	7D Delta	# Days	% Decline in Daily Cases	7D Net Hospitalization	7D Net Hospitalization / 7D New Cases
	United States	100%	100%	183.694	+610	625	-19	2	-12%	4.332

**States:**

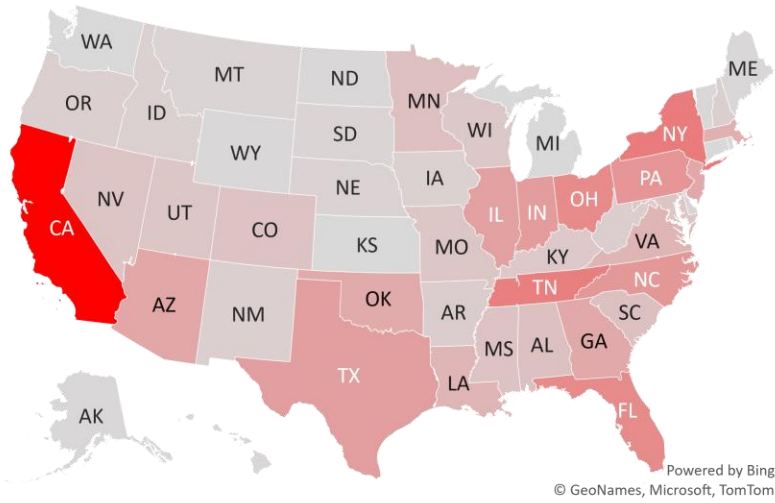
1 California	11.9%	14.6%	46,474	+16,140	1106	+249	2	-11%	3,790	1.3%
2 New York	5.9%	8.1%	9,957	-237	558	+11	2	-3%	775	1.1%
3 Tennessee	2.1%	1.8%	9,689	-1,663	1291	+55	2	-14%	72	0.1%
4 Florida	6.5%	5.0%	8,401	-557	513	+29	160	-14%	548	0.7%
5 Ohio	3.5%	3.3%	8,377	-889	759	-121	10	-23%	-394	(0.7%)
6 Pennsylvania	3.9%	3.8%	7,213	-3,471	687	-212	15	-27%	104	0.2%
7 North Carolina	3.2%	2.7%	6,900	+81	684	+32	0	0%	228	0.5%
8 Indiana	2.0%	1.8%	6,483	+585	850	-165	15	-29%	-176	(0.5%)
9 Texas	8.7%	8.8%	6,244	-235	360	+1	3	-32%	626	0.7%
10 Illinois	3.8%	4.2%	6,003	-1,213	551	-117	37	-49%	-684	(1.3%)
11 Arizona	2.2%	1.7%	5,366	-487	850	-108	6	-28%	277	0.6%
12 New Jersey	2.7%	3.0%	5,175	+1,021	498	-29	14	-22%	-17	(0.1%)
13 Georgia	3.2%	2.9%	5,087	+777	484	+49	1	-5%	550	1.6%
14 Oklahoma	1.2%	1.0%	4,970	+638	1064	+35	0	0%	40	0.2%
15 Massachusetts	2.1%	2.8%	4,261	-592	691	-73	15	-16%	212	0.6%
16 Virginia	2.6%	2.6%	3,876	+582	420	-4	10	-12%	251	1.0%
17 Louisiana	1.4%	1.3%	3,738	-716	491	-39	17	-42%	1	0.0%
18 Minnesota	1.7%	1.8%	2,684	-741	482	-204	20	-66%	-317	(1.7%)
19 South Carolina	1.6%	1.1%	2,608	-668	621	-38	7	-6%	193	1.0%
20 Alabama	1.5%	1.1%	2,548	-242	824	+96	1	-15%	89	0.3%
21 Colorado	1.7%	1.8%	2,292	-267	491	-158	29	-53%	-212	(1.0%)
22 Mississippi	0.9%	0.6%	2,222	+722	720	-7	9	-13%	55	0.4%
23 Nevada	0.9%	0.8%	2,087	-795	819	-80	15	-12%	101	0.6%
24 Missouri	1.8%	1.5%	2,072	-622	466	-95	36	-43%	120	0.6%
25 Maryland	1.8%	2.0%	2,054	-584	376	-109	14	-29%	-17	(0.1%)
26 Utah	1.0%	0.9%	1,994	-89	733	-95	29	-41%	24	0.1%
27 Wisconsin	1.8%	1.6%	1,826	-931	500	-111	37	-61%	-118	(0.6%)
28 Kentucky	1.3%	1.0%	1,757	-687	619	-101	17	-28%	-104	(0.5%)

**States:**

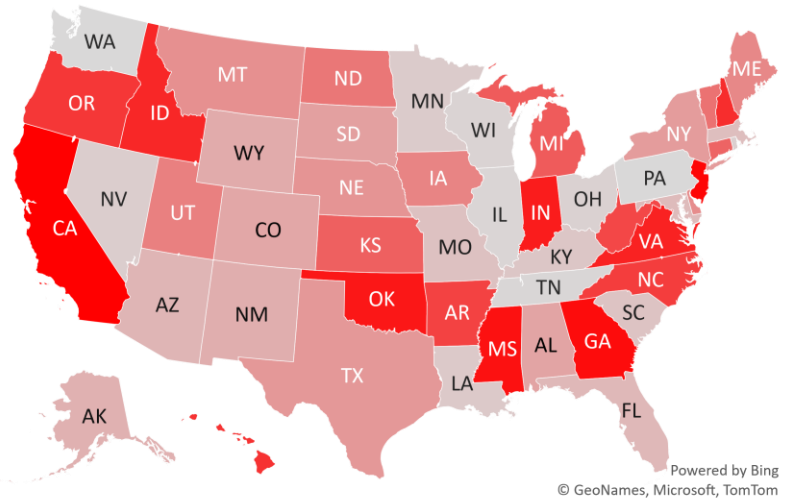
29 Arkansas	0.9%	0.6%	1,316	+68	562	+5	1	-16%	4	0.0%
30 West Virginia	0.5%	0.4%	1,127	+61	717	+62	1	-12%	-9	(0.1%)
31 Oregon	1.3%	1.2%	1,116	+102	316	-2	14	-23%	-23	(0.3%)
32 New Mexico	0.6%	0.5%	1,063	-379	628	-178	30	-59%	-58	(0.6%)
33 New Hampshire	0.4%	0.4%	933	+221	558	-99	9	-20%	10	0.2%
34 Iowa	1.0%	0.9%	897	-92	382	-16	37	-70%	-110	(1.4%)
35 Idaho	0.5%	0.4%	891	+344	575	-13	10	-50%	9	0.1%
36 Nebraska	0.6%	0.6%	670	-141	571	-78	31	-61%	-113	(1.5%)
37 Montana	0.3%	0.2%	551	-108	526	-226	35	-59%	-107	(2.8%)
38 Puerto Rico	1.0%	0.5%	515	-35	304	+18	1	-14%	-80	(1.6%)
39 Delaware	0.3%	0.4%	480	-104	633	-197	6	-30%	53	1.0%
40 South Dakota	0.3%	0.3%	391	-240	576	-294	36	-72%	-91	(2.5%)
41 District of Columbi	0.2%	0.7%	259	+28	364	-2	15	-25%	10	0.6%
42 North Dakota	0.2%	0.3%	251	-30	427	-82	36	-82%	-114	(3.7%)
43 Maine	0.4%	0.3%	207	-96	259	-4	2	-34%	-13	(0.4%)
44 Hawaii	0.4%	0.5%	202	+115	114	+27	113	-45%	-6	(0.6%)
45 Alaska	0.2%	0.3%	178	-459	453	-356	15	-59%	-12	(0.4%)
46 Wyoming	0.2%	0.2%	174	-279	616	-39	31	-64%	-27	(1.2%)
47 Vermont	0.2%	0.2%	100	-27	157	-25	16	-44%	0	0.0%
48 U.S. Virgin Islands	0.0%	0.0%	11	+11	134	-47	121	-68%	0	0.0%
49 Guam	0.0%	0.0%	4	-12	38	-70	40	-96%	-4	(4.7%)
50 Washington	2.3%	2.7%	0	-2,328	224	-198	25	-59%	35	0.3%
51 Rhode Island	0.3%	0.3%	0	-870	164	-1,180	15	-89%	-7	(0.2%)
52 Northern Mariana	0.0%	0.0%	0	+0	12	+12	63	-78%	0	0.0%
53 Michigan	3.0%	2.6%	0	+0	270	-52	32	-69%	-609	(2.2%)
54 Kansas	0.9%	0.8%	0	+0	670	+42	25	-56%	-380	(2.5%)
55 Connecticut	1.1%	1.3%	0	+0	251	-103	11	-79%	-43	(0.3%)
56 American Samoa	0.0%	0.0%	0	+0	0	+0	0	0%	0	0.0%

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

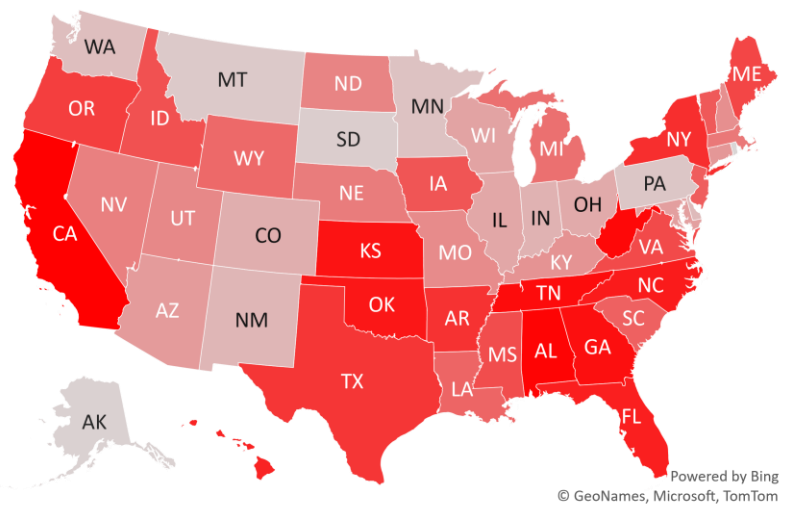
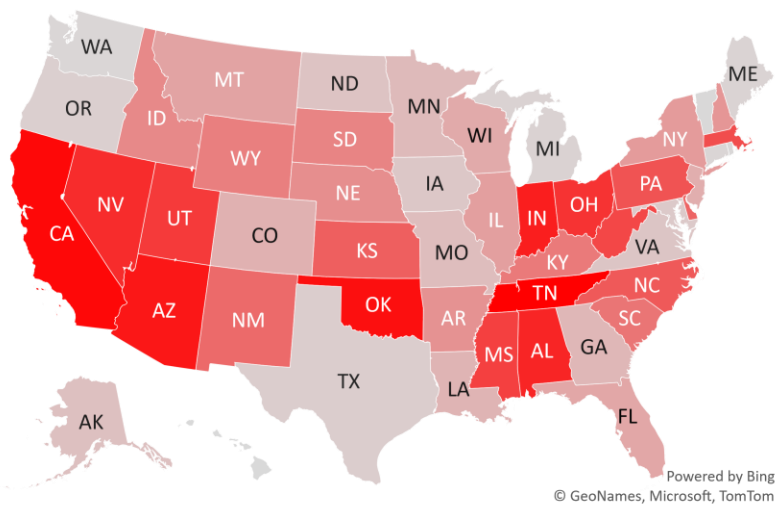
### Daily Case Increases



### 7D Delta in Daily New Cases



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





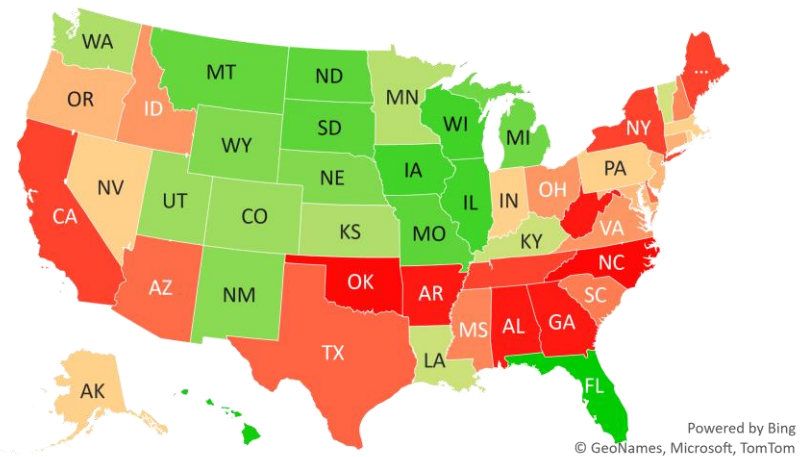
# #5: # of Days since Daily Case Peaked by States...

## # Days since Daily Cases (3D Avg) Peak (as of 12/20)

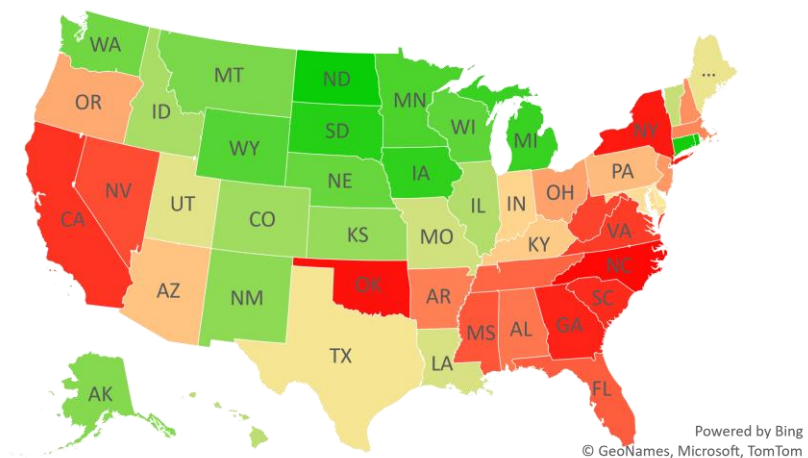
	Sorted			
	Peak Date	12/20/20	% off the Peak	% US Pop
United States	12/18/20	2	-12%	100%
<b>States:</b>				
Florida	7/13/20	160	-14%	6.5%
U.S. Virgin Islands	8/21/20	121	-68%	0.0%
Hawaii	8/29/20	113	-45%	0.4%
Northern Mariana Island	10/18/20	63	-78%	0.0%
Guam	11/10/20	40	-96%	0.0%
Wisconsin	11/13/20	37	-61%	1.8%
Illinois	11/13/20	37	-49%	3.8%
Iowa	11/13/20	37	-70%	1.0%
South Dakota	11/14/20	36	-72%	0.3%
North Dakota	11/14/20	36	-82%	0.2%
Missouri	11/14/20	36	-43%	1.8%
Montana	11/15/20	35	-59%	0.3%
Michigan	11/18/20	32	-69%	3.0%
Wyoming	11/19/20	31	-64%	0.2%
Nebraska	11/19/20	31	-61%	0.6%
New Mexico	11/20/20	30	-59%	0.6%
Utah	11/21/20	29	-41%	1.0%
Colorado	11/21/20	29	-53%	1.7%
Washington	11/25/20	25	-59%	2.3%
Kansas	11/25/20	25	-56%	0.9%
Minnesota	11/30/20	20	-66%	1.7%
Louisiana	12/3/20	17	-42%	1.4%
Kentucky	12/3/20	17	-28%	1.3%
Vermont	12/4/20	16	-44%	0.2%
Rhode Island	12/5/20	15	-89%	0.3%
Pennsylvania	12/5/20	15	-27%	3.9%
Nevada	12/5/20	15	-12%	0.9%
Massachusetts	12/5/20	15	-16%	2.1%

	Sorted			
	Peak Date	12/20/20	% off the Peak	% US Pop
United States	12/18/20	2	-12%	100%
<b>States:</b>				
Indiana	12/5/20	15	-29%	2.0%
District of Columbia	12/5/20	15	-25%	0.2%
Alaska	12/5/20	15	-59%	0.2%
Oregon	12/6/20	14	-23%	1.3%
New Jersey	12/6/20	14	-22%	2.7%
Maryland	12/6/20	14	-29%	1.8%
Connecticut	12/9/20	11	-79%	1.1%
Virginia	12/10/20	10	-12%	2.6%
Ohio	12/10/20	10	-23%	3.5%
Idaho	12/10/20	10	-50%	0.5%
New Hampshire	12/11/20	9	-20%	0.4%
Mississippi	12/11/20	9	-13%	0.9%
South Carolina	12/13/20	7	-6%	1.6%
Delaware	12/14/20	6	-30%	0.3%
Arizona	12/14/20	6	-28%	2.2%
Texas	12/17/20	3	-32%	8.7%
Tennessee	12/18/20	2	-14%	2.1%
New York	12/18/20	2	-3%	5.9%
Maine	12/18/20	2	-34%	0.4%
California	12/18/20	2	-11%	11.9%
West Virginia	12/19/20	1	-12%	0.5%
Puerto Rico	12/19/20	1	-14%	1.0%
Georgia	12/19/20	1	-5%	3.2%
Arkansas	12/19/20	1	-16%	0.9%
Alabama	12/19/20	1	-15%	1.5%
Oklahoma	12/20/20	0	0%	1.2%
North Carolina	12/20/20	0	0%	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

The COVID stats for WA was not available as of Sunday 8 PM ET.

	12/13/20	12/18/20	12/19/20	12/20/20	vs 7D ago
United States	183,084	232,233	199,914	183,694	+610
<b>States:</b>					
California	30,334	41,012	43,608	46,474	<--higher
New York	10,194	12,697	9,919	9,957	
Tennessee	11,352	10,421	6,347	9,689	
Florida	8,958	13,000	11,682	8,401	
Ohio	9,266	9,684	8,567	8,377	
Pennsylvania	10,684	9,320	9,834	7,213	
North Carolina	6,819	8,444	6,164	6,900	
Indiana	5,898	5,949	4,732	6,483	
Texas	6,479	12,192	12,914	6,244	
Illinois	7,216	7,377	7,562	6,003	
Arizona	5,853	7,635	5,560	5,366	
New Jersey	4,154	3,896	4,191	5,175	<--higher
Georgia	4,310	6,092	4,236	5,087	
Oklahoma	4,332	3,556	4,108	4,970	
Massachusetts	4,853	5,679	4,344	4,261	
Virginia	3,294	3,295	3,584	3,876	
Louisiana	4,454	3,103	0	3,738	
Minnesota	3,425	2,718	2,746	2,684	
South Carolina	3,276	3,917	3,060	2,608	
Alabama	2,790	5,348	4,221	2,548	
Colorado	2,559	3,693	2,491	2,292	
Mississippi	1,500	2,507	1,700	2,222	<--higher
Nevada	2,882	2,878	2,601	2,087	
Missouri	2,694	3,723	2,784	2,072	
Maryland	2,638	2,569	2,201	2,054	
Utah	2,083	2,644	2,408	1,994	
Wisconsin	2,757	3,235	3,675	1,826	
Kentucky	2,444	3,169	3,374	1,757	

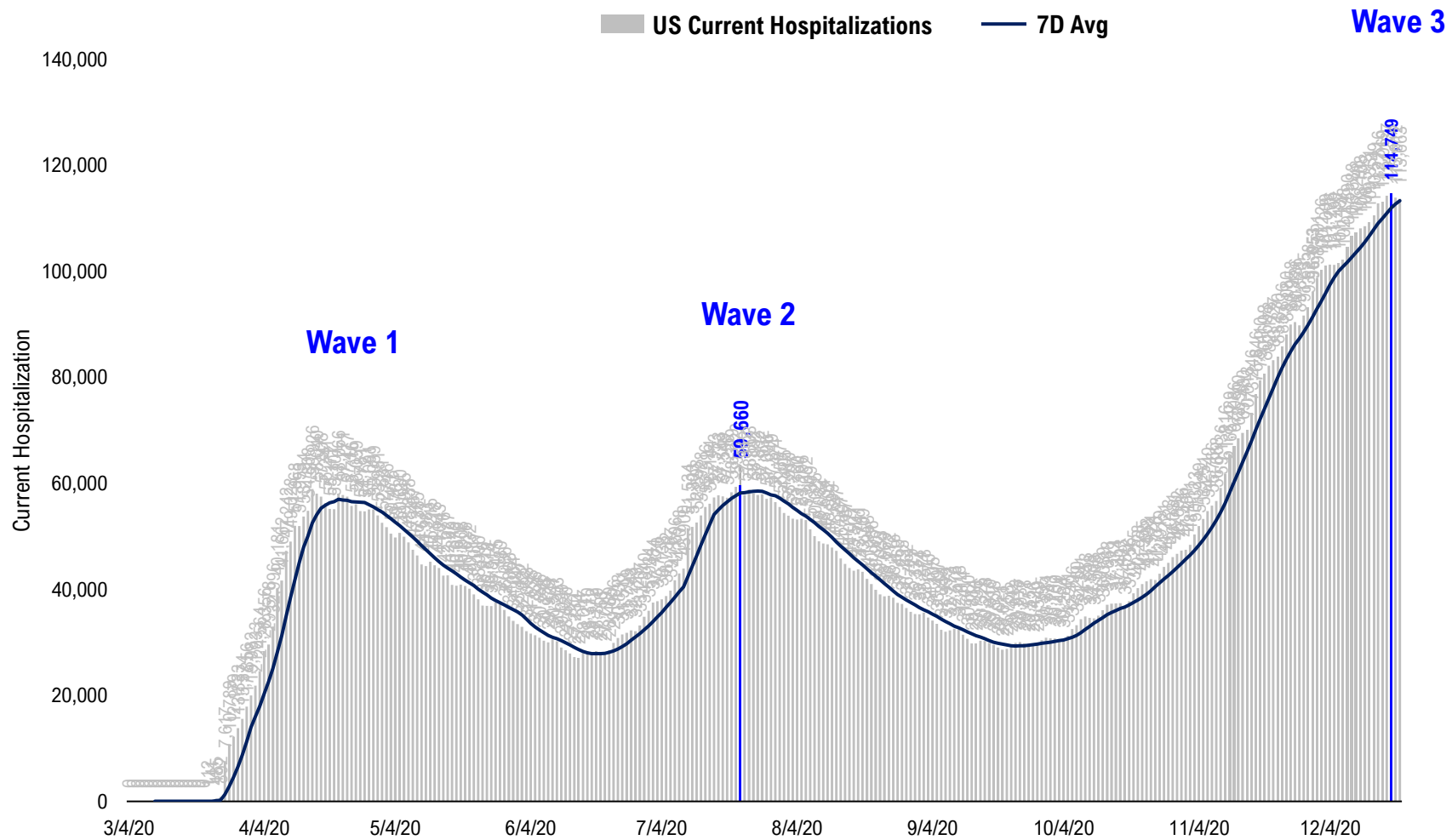
**Sorted**  
7D Ago      Last 3-day Trend

The COVID stats for WA was not available as of Sunday 8 PM ET.

	12/13/20	12/18/20	12/19/20	12/20/20	vs 7D ago
United States	183,084	232,233	199,914	183,694	+610
<b>States:</b>					
Arkansas	1,248	1,922	1,853	1,316	
West Virginia	1,066	1,266	1,464	1,127	
Oregon	1,014	1,372	1,506	1,116	
New Mexico	1,442	1,455	1,430	1,063	
New Hampshire	712	696	649	933	<--higher
Iowa	989	1,524	1,198	897	
Idaho	547	1,340	851	891	<--higher
Nebraska	811	1,297	1,345	670	
Montana	659	509	627	551	
Puerto Rico	550	1,292	1,107	515	
Delaware	584	341	1,027	480	
South Dakota	631	575	564	391	
District of Columbia	231	274	238	259	
North Dakota	281	494	231	251	
Maine	303	436	402	207	
Hawaii	87	128	156	202	<--higher
Alaska	637	487	330	178	
Wyoming	453	766	129	174	
Vermont	127	94	100	100	
U.S. Virgin Islands	0	22	10	11	
Guam	16	10	5	4	
Washington	2,328	2,939	2,183	0	
Rhode Island	870	522	0	0	
Northern Mariana Islands	0	2	0	0	
Michigan	0	4,180	3,896	0	
Kansas	0	5,857	0	0	
Connecticut	0	2,680	0	0	
American Samoa	0	0	0	0	

# #7: US Daily Hospitalizations...

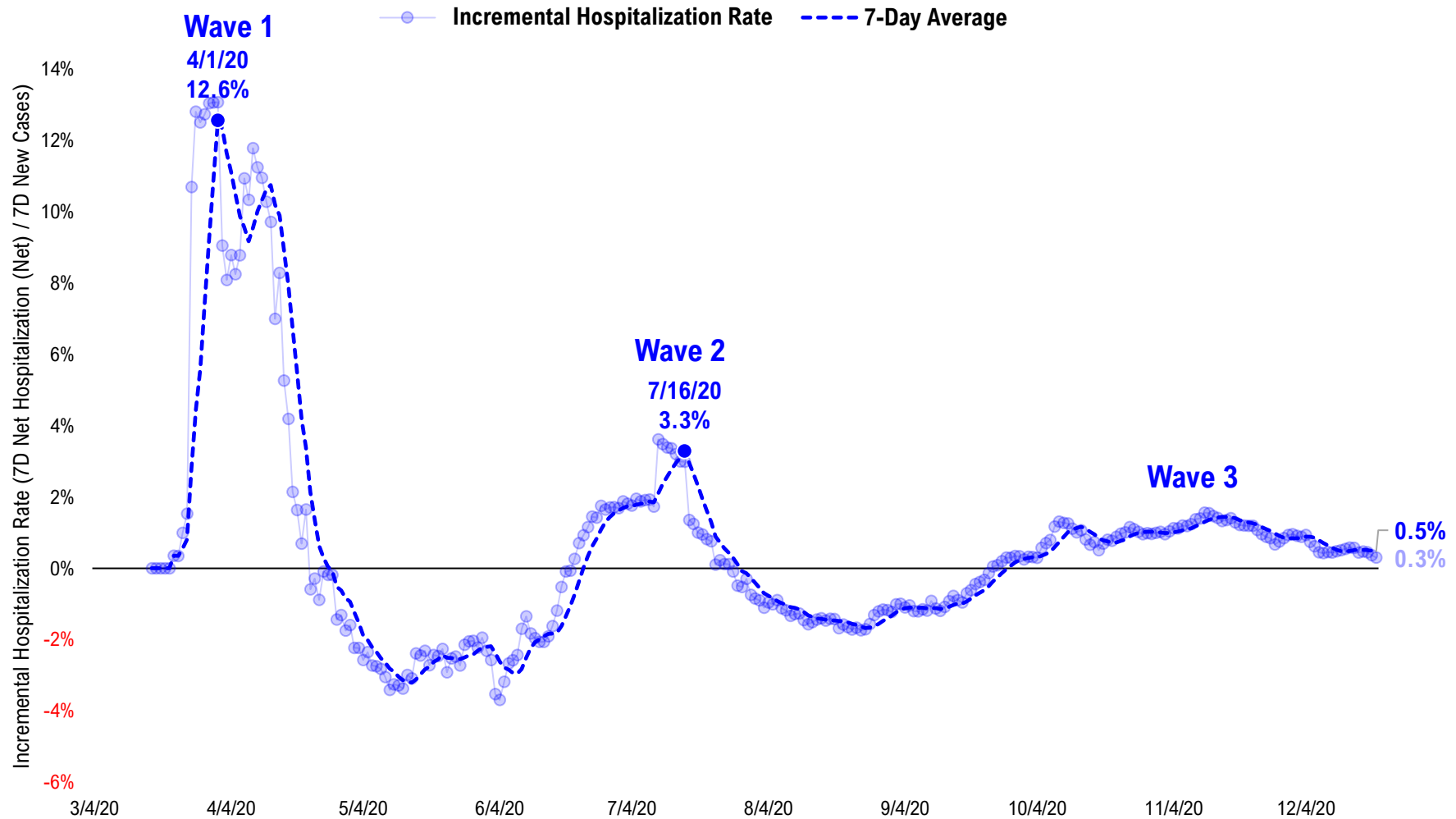
### US Net Hospitalizations (aggregate of 50 states + Washington, D.C.)



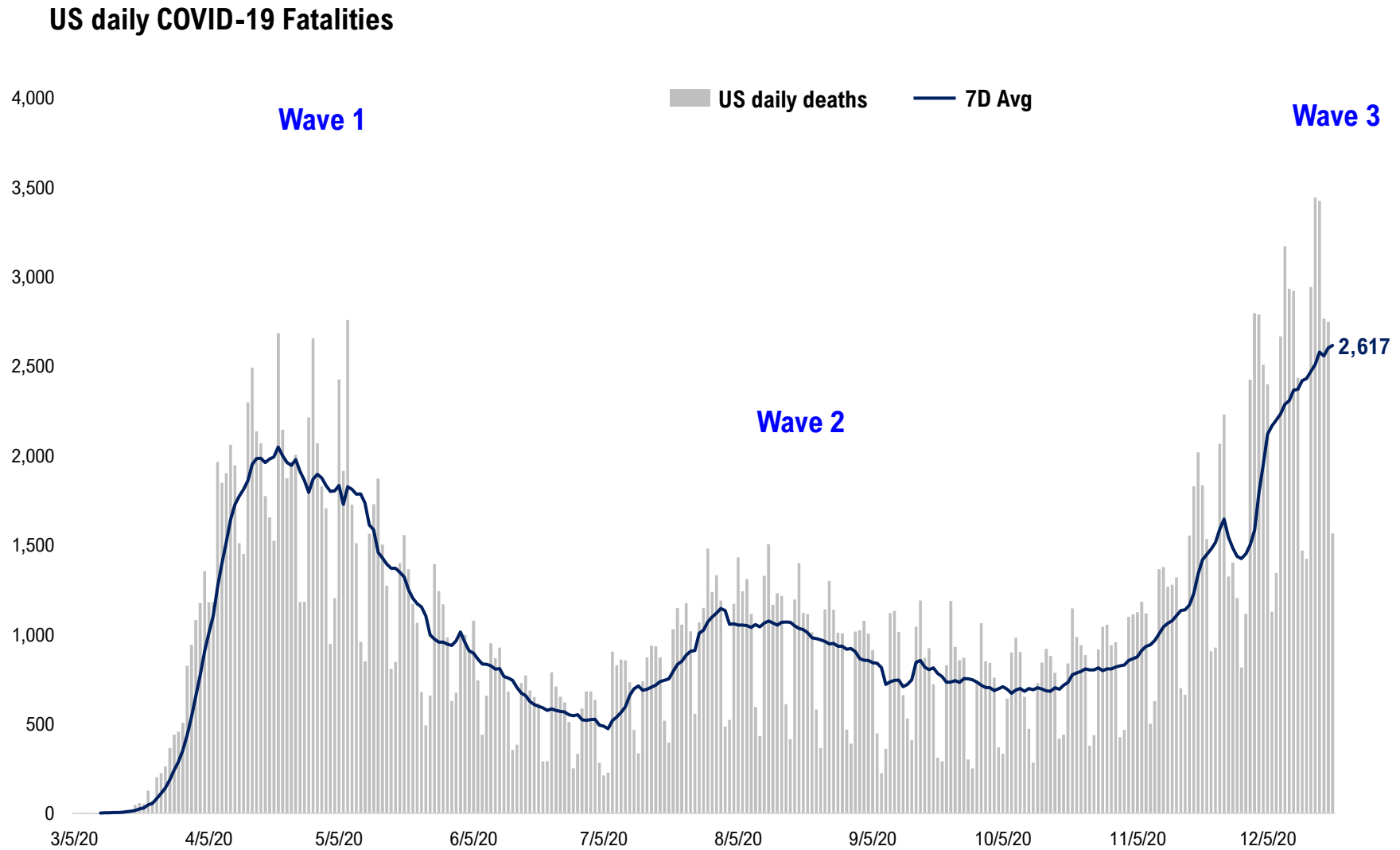


# #8: Incremental Hospitalization Rate...

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

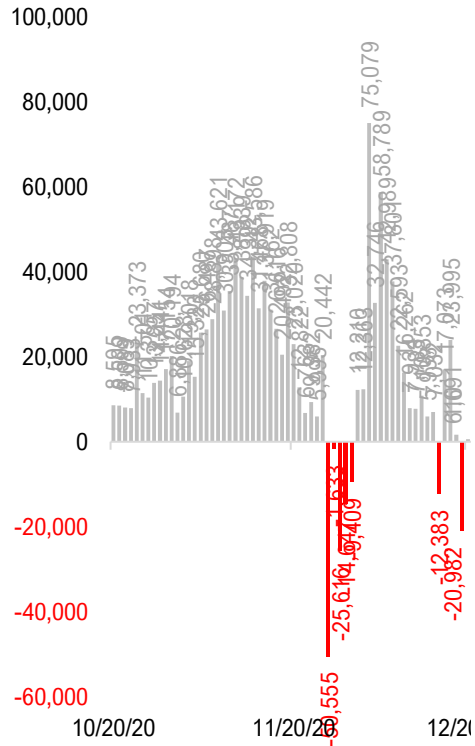


# #9: US Daily New Fatalities...

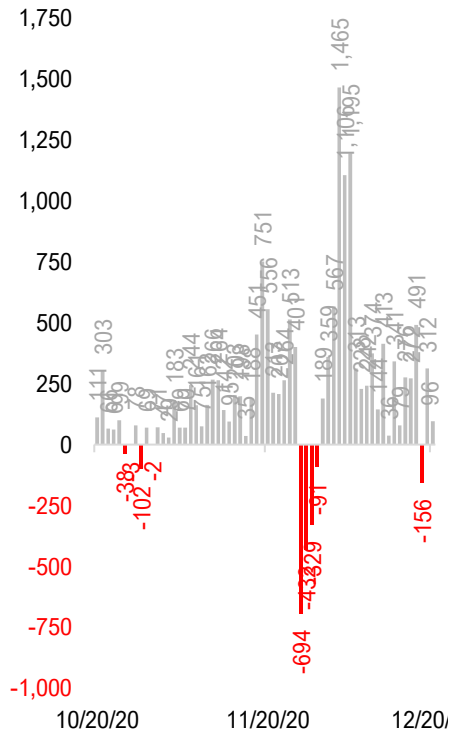


# #10: Rolling 7-Day Change in the Key Metrics... (Past 8 Weeks)

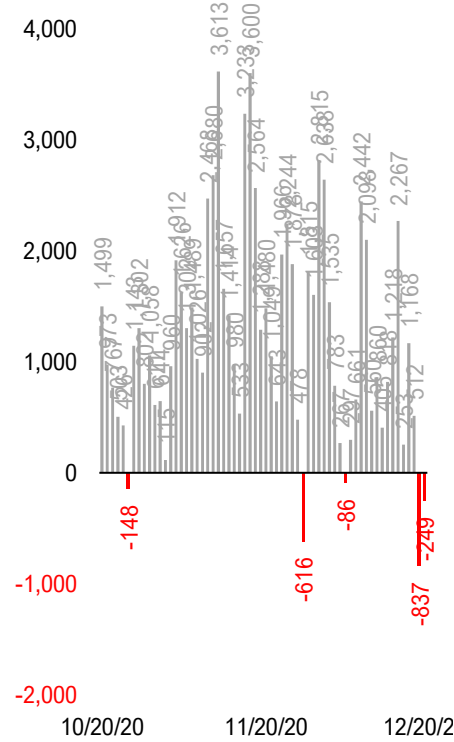
**Daily New Cases**  
(8/10-8/23 ex-CA; 9/4-9/5 ex-IL)



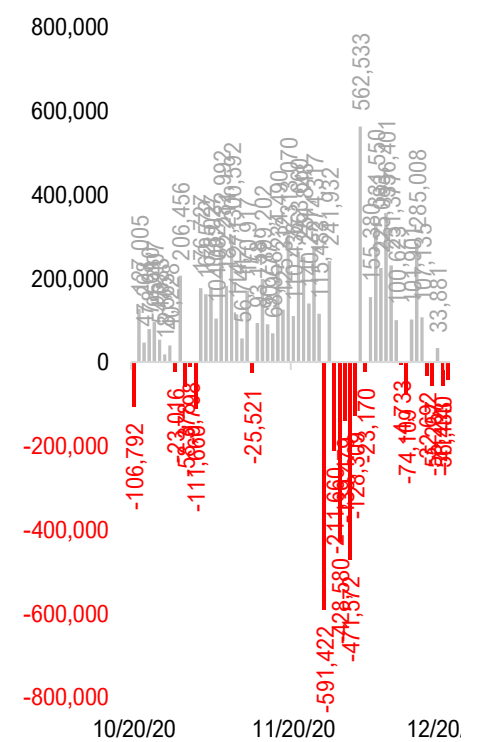
**Daily Deaths**



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

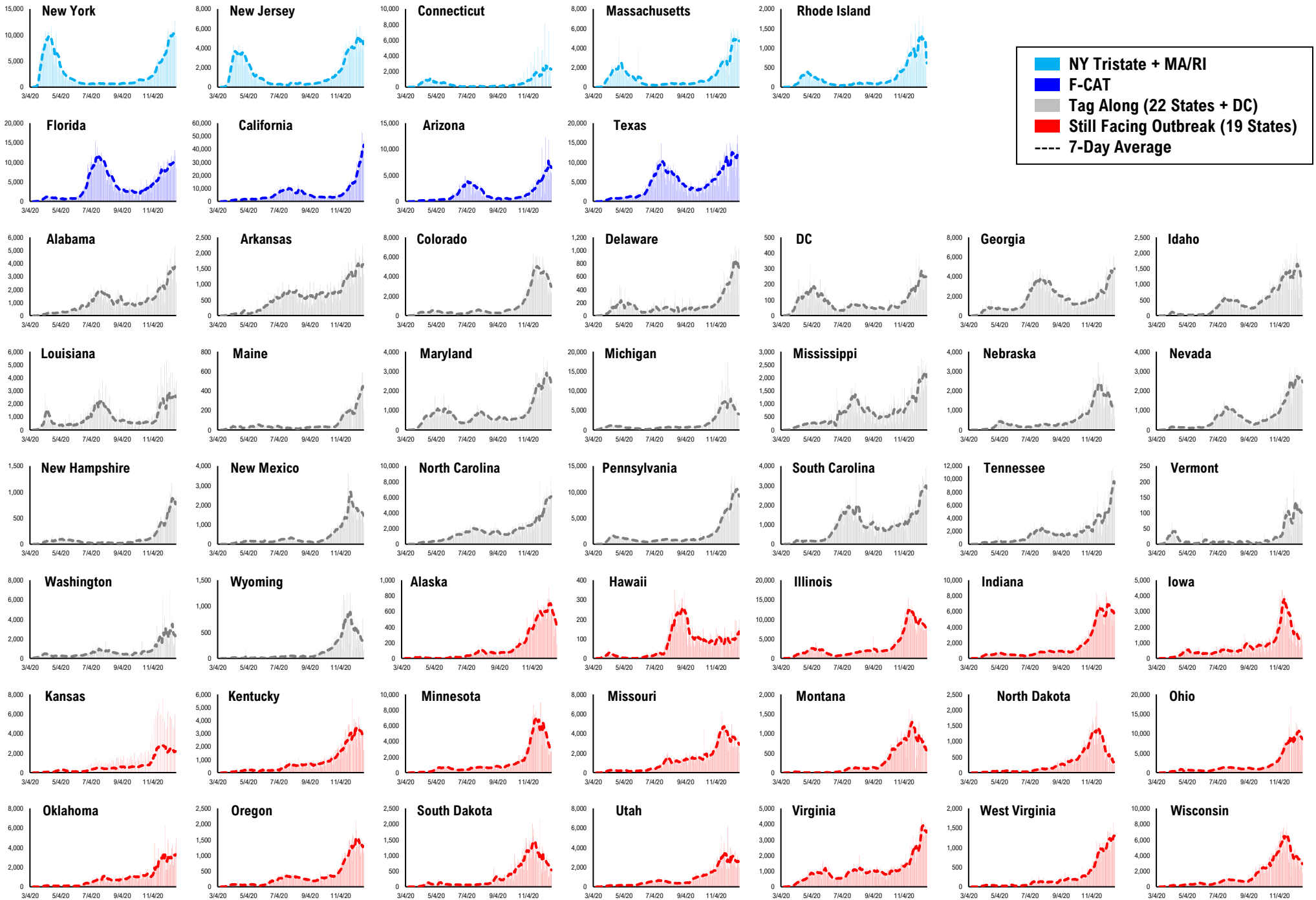


**Daily Tests**

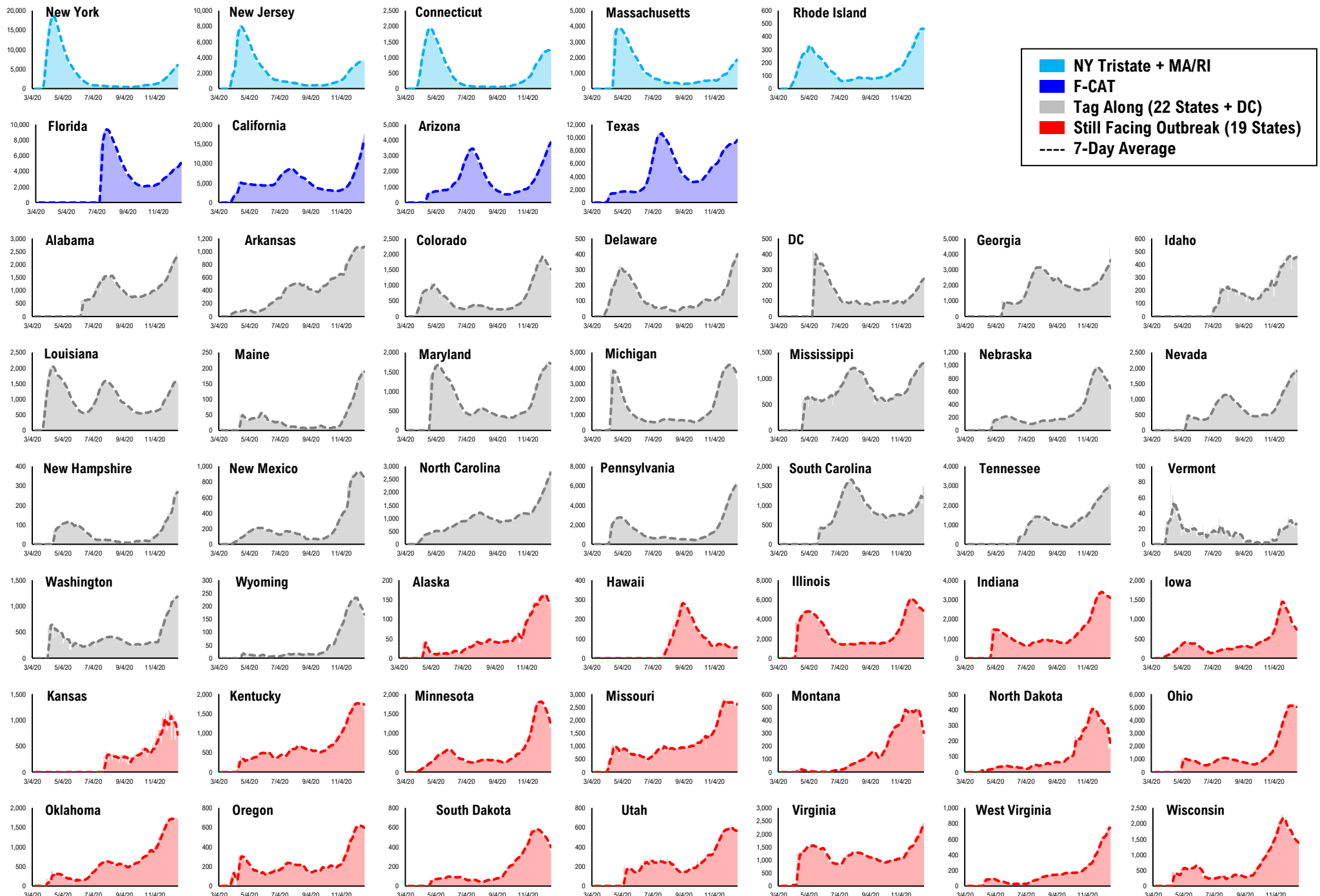


\* Ignored California between 8/10 and 8/23, due to its data glitch caused 300,000-case backlog  
Source: Fundstrat, COVID-19 Tracking Project, State Department of Health

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

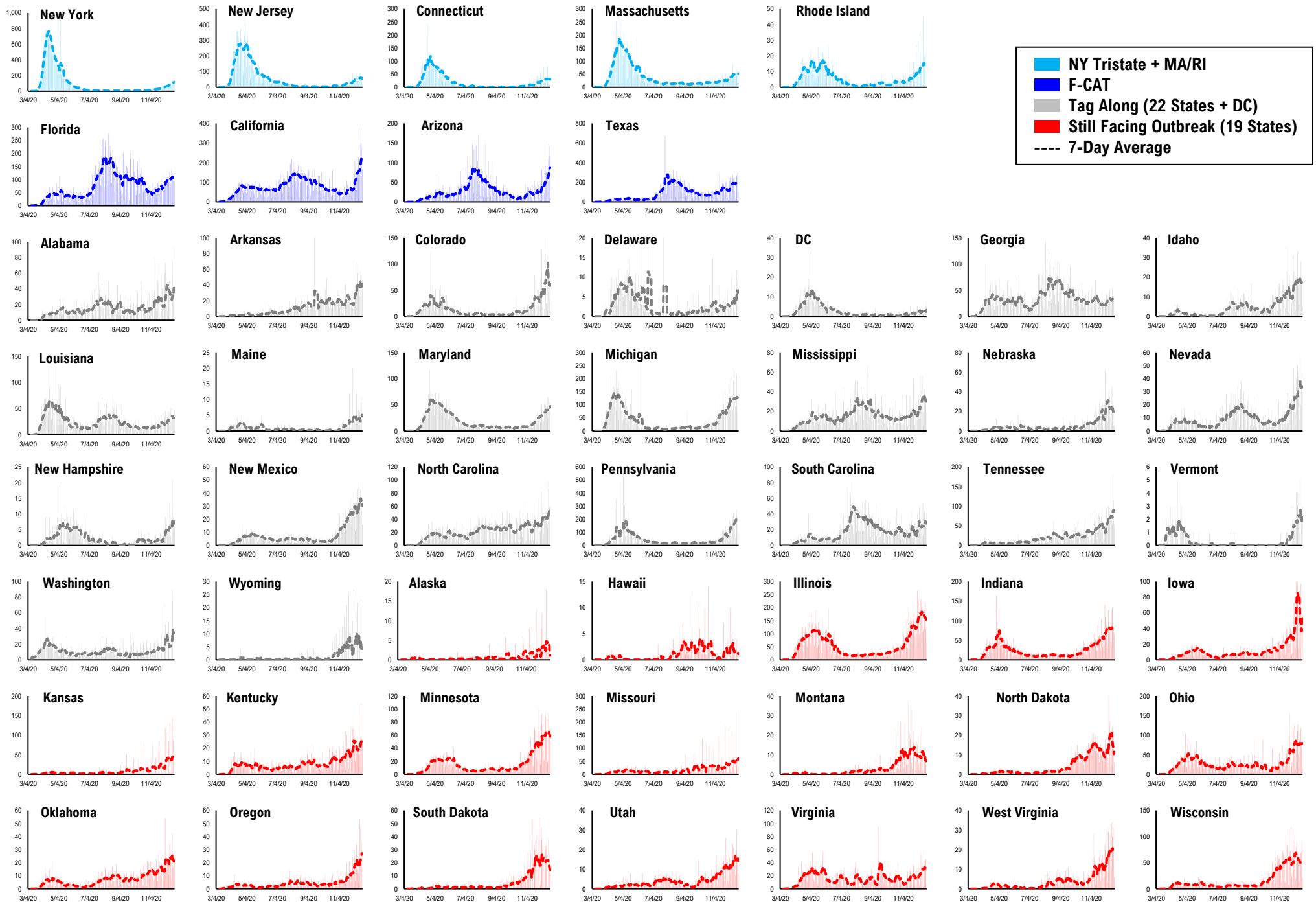


# #12: Current Hospitalizations by States...

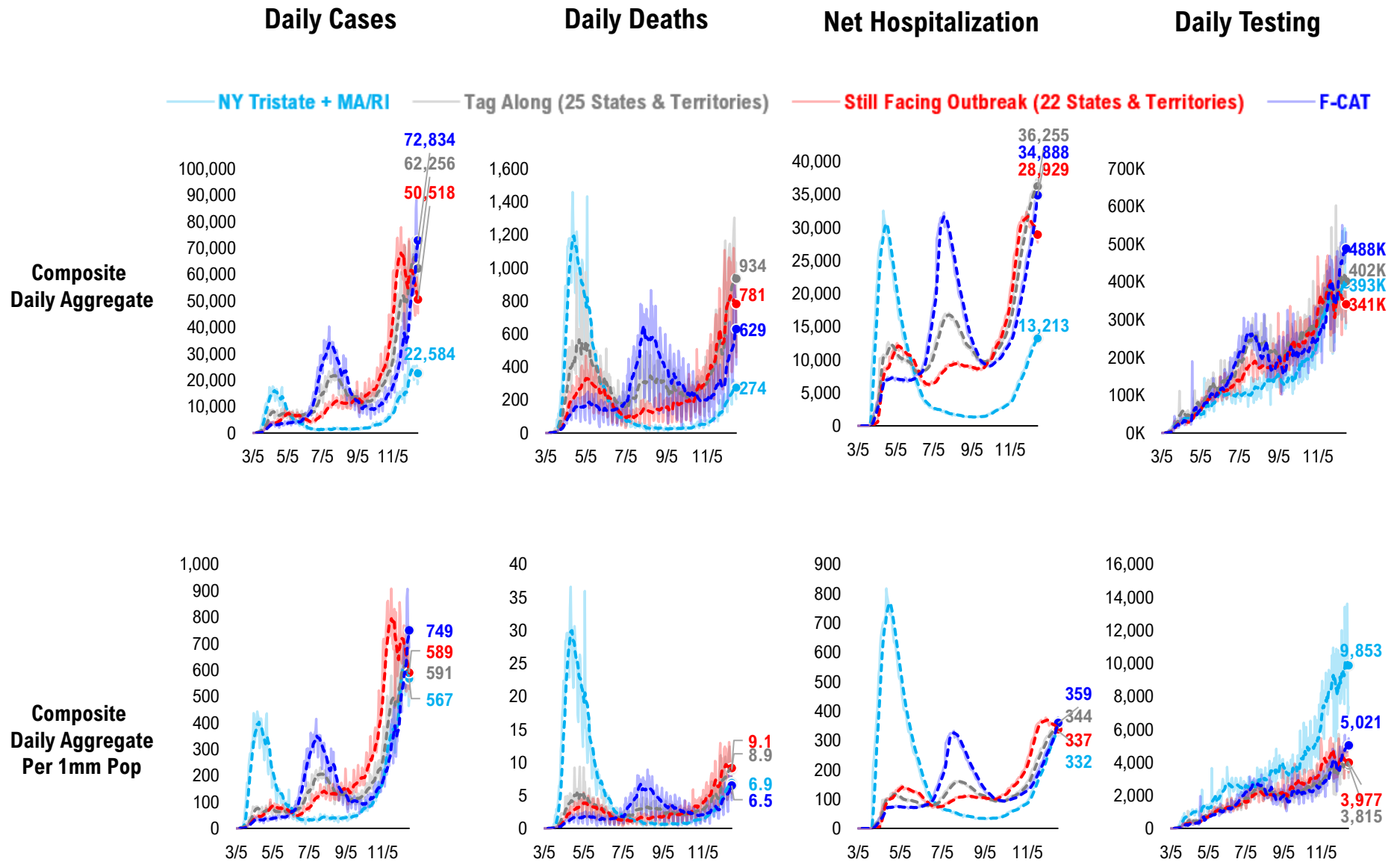




# #13: Daily New Deaths by States...

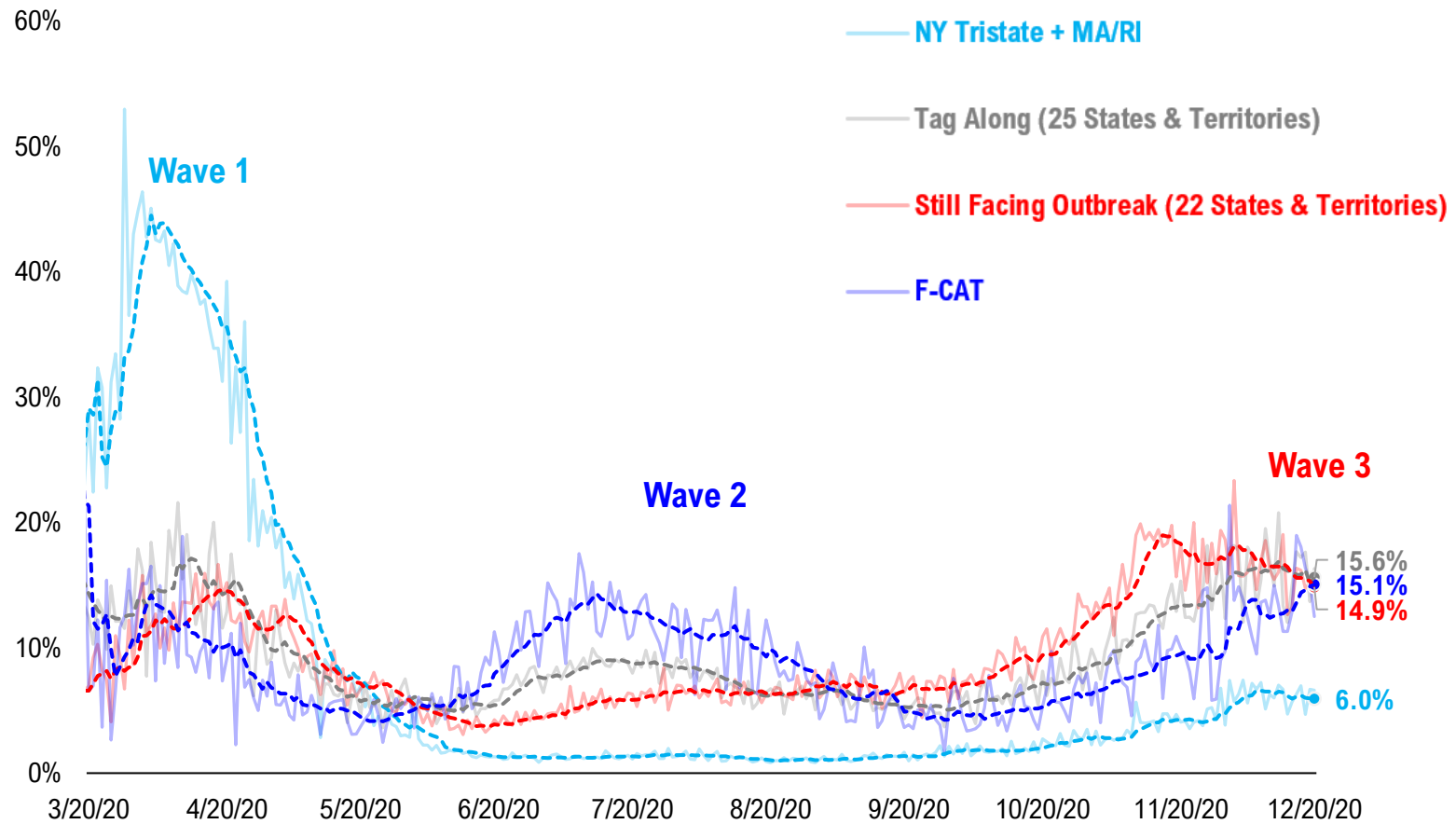


# #14: State COVID-19 situation by Tier...

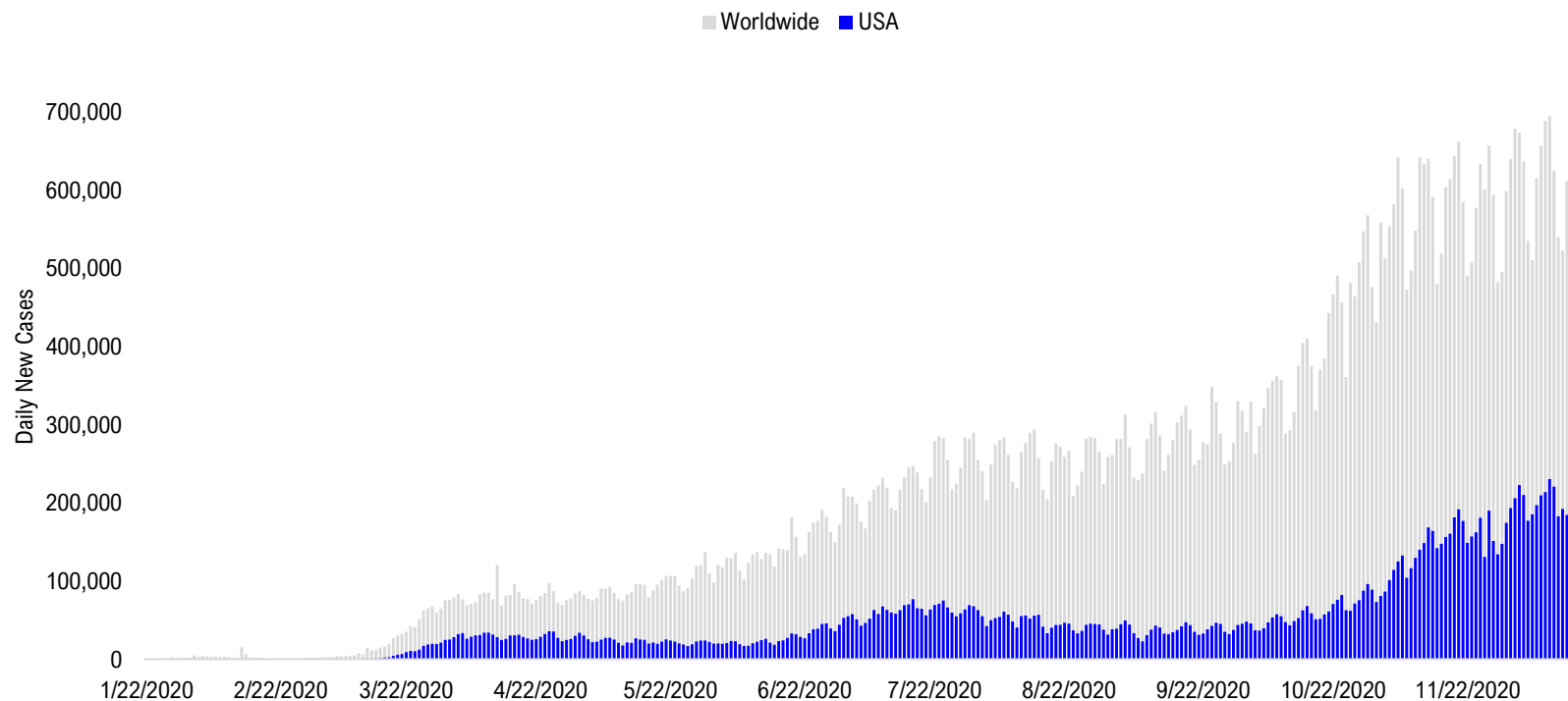


# #15: State COVID-19 Daily Positivity Rate by Tier...

## Composite Daily Positivity Rate



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



Jul 31	Aug 14	Aug 28	Sep 11	Sep 25	Oct 9	Oct 23	Nov 6	Nov 20	Dec 4	Dec 19
Latin America 97,308	Latin America 100,636	Latin America 88,255	Pakistan + India + Bangladesh 98,888	Pakistan + India + Bangladesh 88,225	Europe 112,289	Europe 223,797	Europe 312,557	Europe 279,289	Europe 258,860	Europe 266,769
US + Canada 67,272	Pakistan + India + Bangladesh 68,924	Pakistan + India + Bangladesh 82,644	Latin America 80,841	Latin America 76,712	Pakistan + India + Bangladesh 76,149	US + Canada 71,893	US + Canada 117,107	US + Canada 182,600	US + Canada 213,685	US + Canada 234,101
Pakistan + India + Bangladesh 58,625	US + Canada 54,914	US + Canada 45,273	Europe 47,339	Europe 67,906	Latin America 69,822	Latin America 69,390	Latin America 59,345	Latin America 68,233	Latin America 88,693	Latin America 102,270
Europe 20,945	Europe 27,525	Europe 35,993	US + Canada 37,795	US + Canada 43,790	US + Canada 54,955	Pakistan + India + Bangladesh 56,907	Pakistan + India + Bangladesh 52,404	Pakistan + India + Bangladesh 50,856	Pakistan + India + Bangladesh 41,815	Pakistan + India + Bangladesh 29,050
Africa 17,999	Asia ex- India+Pakistan 11,706	Asia ex- India+Pakistan 10,223	Asia ex- India+Pakistan 10,997	Asia ex- India+Pakistan 11,003	Asia ex- India+Pakistan 13,934	Asia ex- India+Pakistan 15,237	Africa 13,656	Asia ex- India+Pakistan 15,310	Asia ex- India+Pakistan 17,499	Africa 20,237
Asia ex- India+Pakistan 10,630	Africa 10,680	Africa 8,468	Africa 8,309	Africa 8,247	Africa 9,966	Africa 10,615	Asia ex- India+Pakistan 13,638	Africa 14,917	Africa 16,543	Asia ex- India+Pakistan 18,413

# Disclosures

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