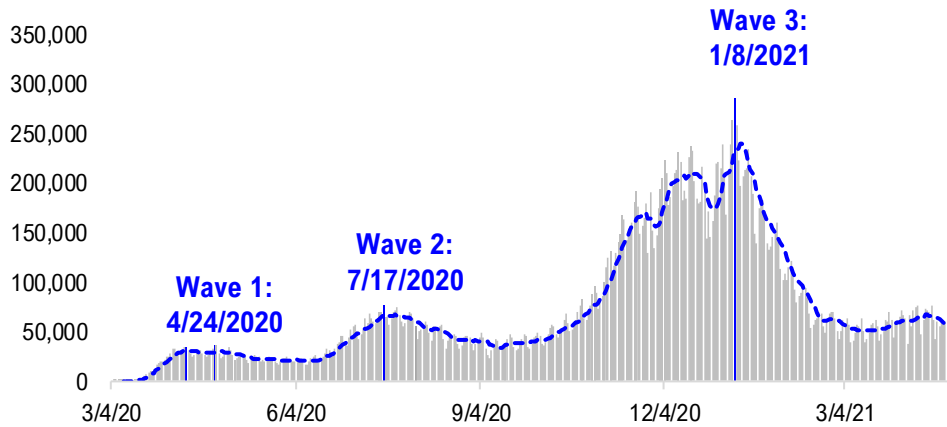


FSInsight Daily COVID-19 Chartbook

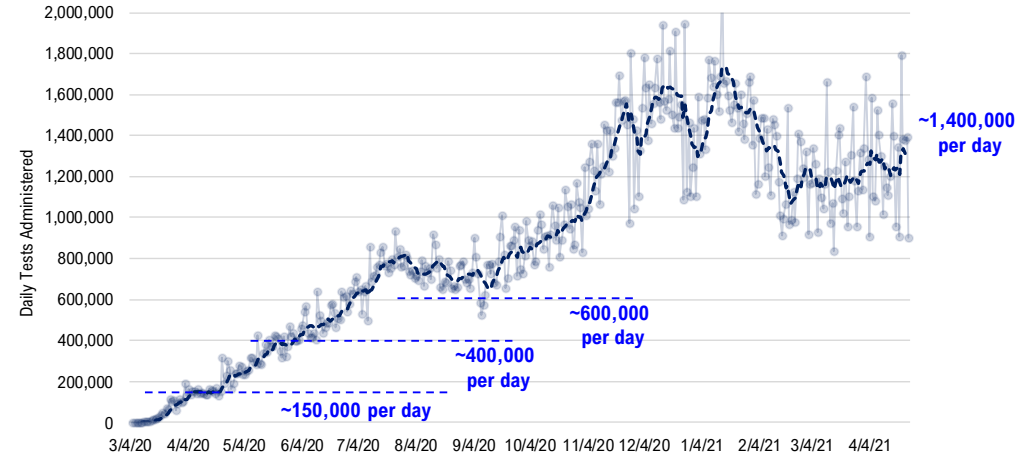


#1: USA COVID-19 Situation at a Glance...

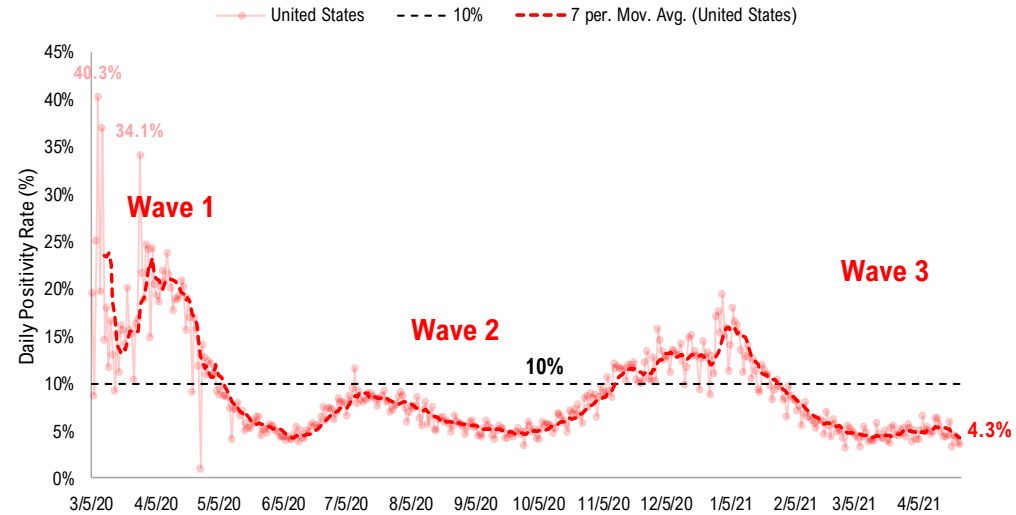
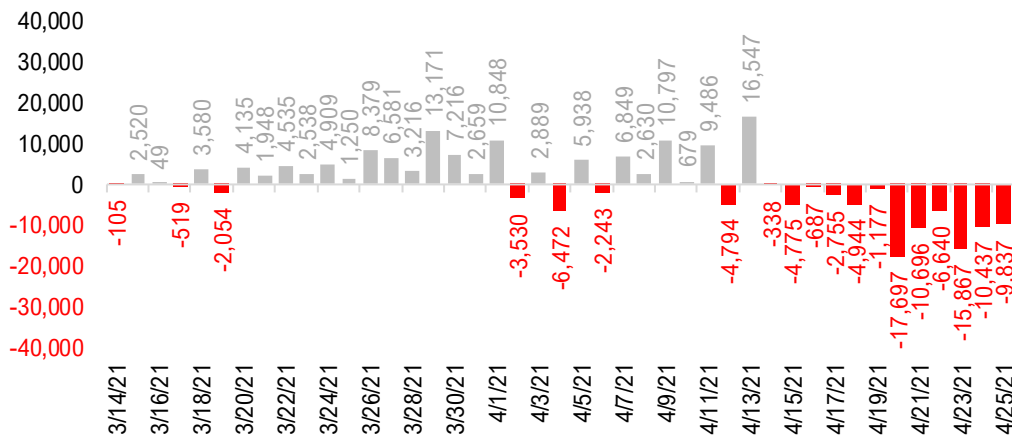
US daily new cases



USA total COVID-19 tests administered

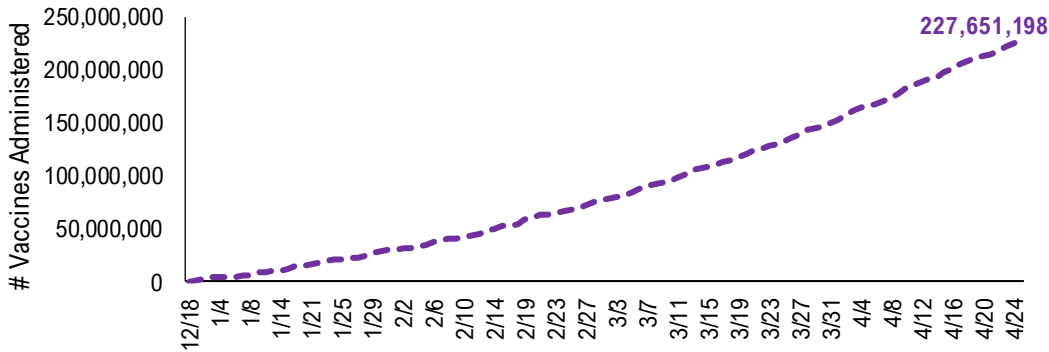


US daily new cases rolling 7D delta

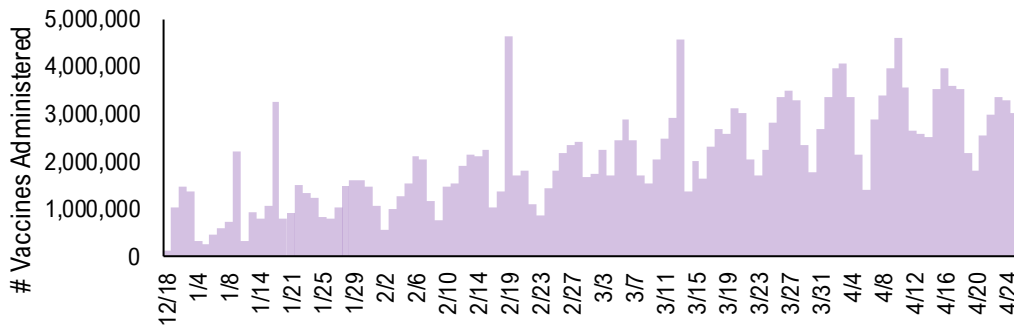


#2: USA COVID-19 Vaccination Progress at a Glance...

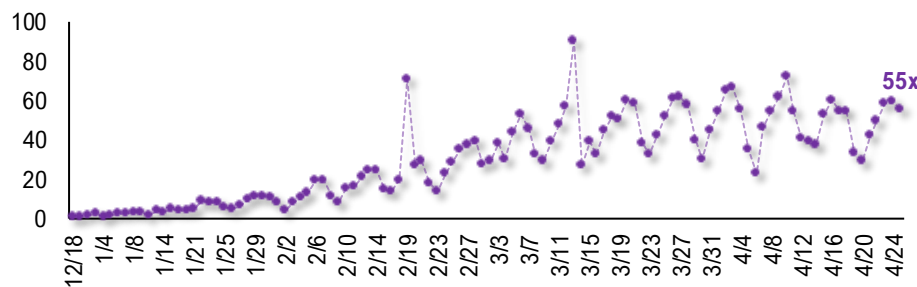
Cumulative Vaccines Administered



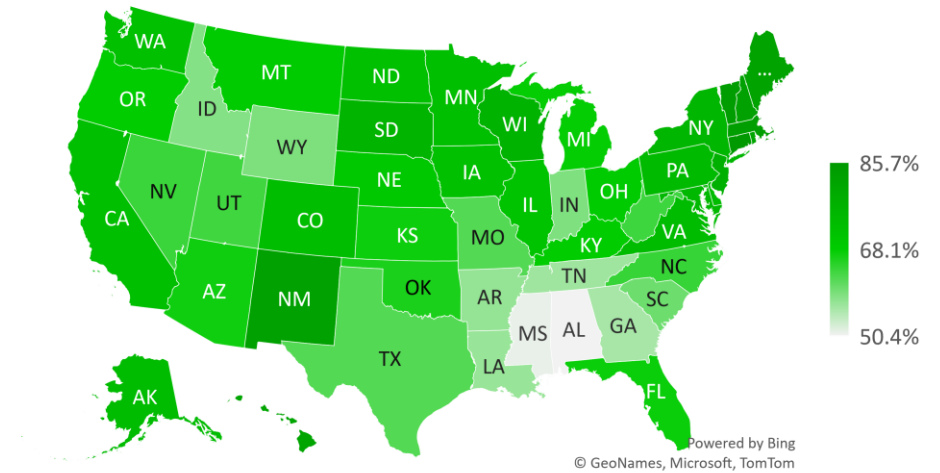
Daily Vaccines Administered



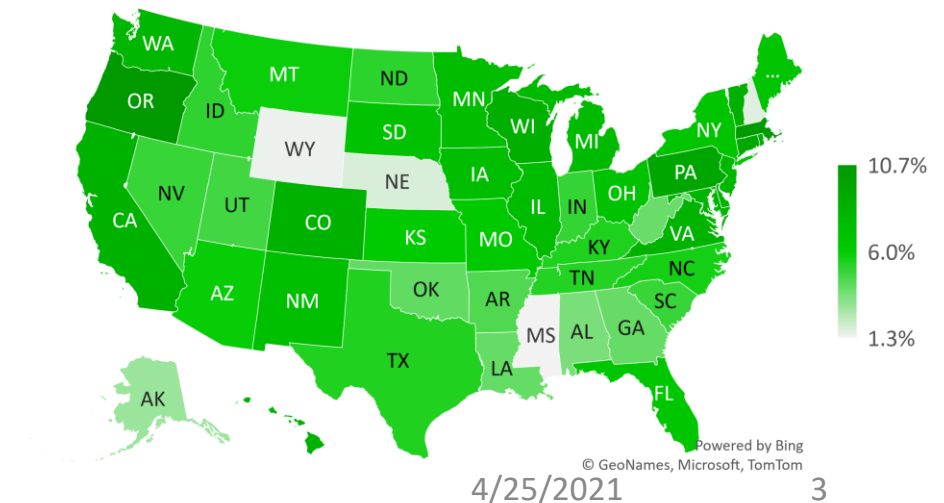
Daily Vaccinations / Daily Cases (7D Avg)



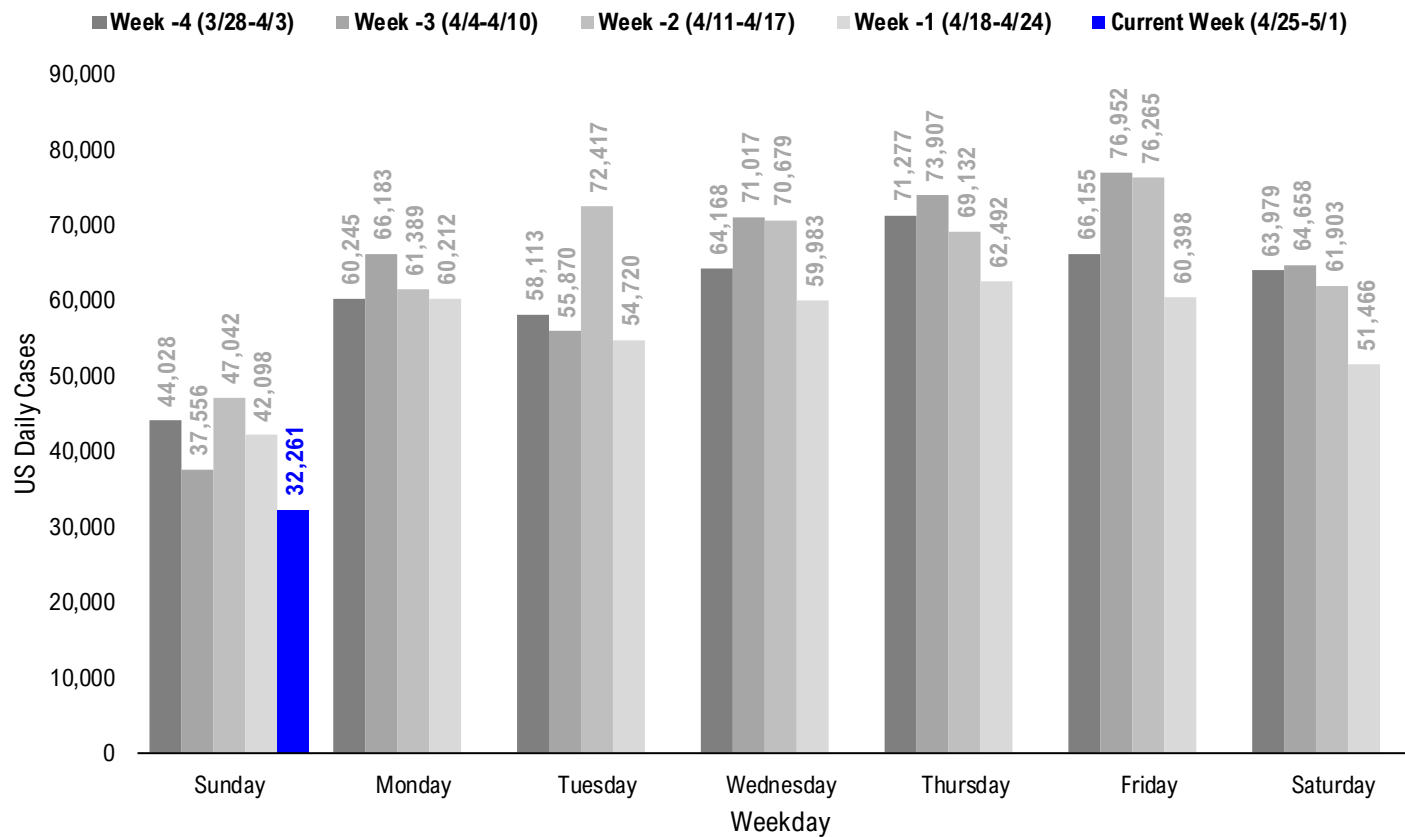
Cumulative Vaccines Administered as % State Population



Implied Weekly Vaccines Administered as % State Population



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



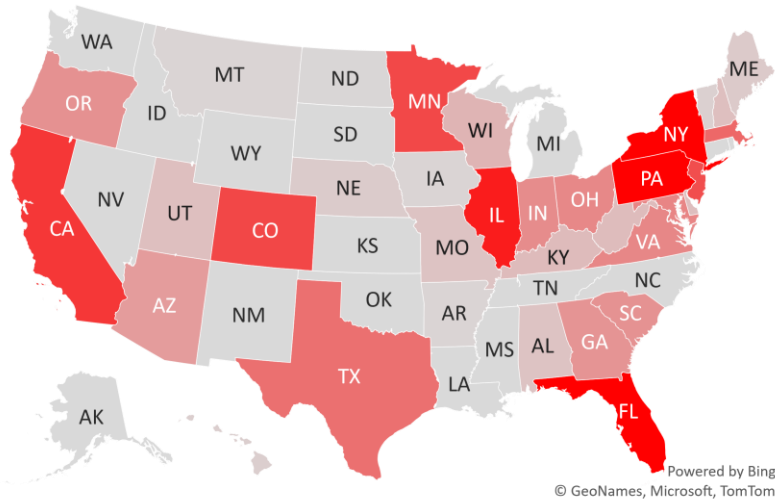
#4: USA State COVID-19 Situation at a Glance...

	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		
			4/25	Delta						
United States	100%	100%	32.261	-9.837	146	-37	106	-82%	-2.538	-0.7%
States:										
1 Florida	6.5%	5.0%	4,671	-2,163	272	-45	107	-69%	-869	(2.2%)
2 New York	5.9%	8.1%	4,087	-1,617	225	-126	106	-75%	-556	(1.8%)
3 Pennsylvania	3.9%	3.8%	3,162	-599	300	-78	141	-68%	-77	(0.3%)
4 Illinois	3.8%	4.2%	2,035	-631	219	-37	163	-80%	-95	(0.5%)
5 California	11.9%	14.6%	1,739	-928	40	-26	105	-97%	-88	(0.7%)
6 Colorado	1.7%	1.8%	1,567	+306	310	+23	155	-70%	54	0.5%
7 Minnesota	1.7%	1.8%	1,556	-289	344	-43	146	-75%	18	0.2%
8 New Jersey	2.7%	3.0%	1,496	-1,264	238	-135	106	-65%	-324	(2.0%)
9 Massachusetts	2.1%	2.8%	1,214	-193	213	-58	106	-81%	-60	(0.6%)
10 Texas	8.7%	8.8%	1,128	-306	63	+1	108	-92%	-204	(1.3%)
11 Maryland	1.8%	2.0%	906	-263	180	-53	105	-70%	-107	(1.5%)
12 Virginia	2.6%	2.6%	884	-421	126	-50	97	-86%	-54	(0.7%)
13 Ohio	3.5%	3.3%	873	-203	119	-25	136	-88%	-115	(1.0%)
14 Indiana	2.0%	1.8%	827	-129	148	-85	141	-88%	32	0.5%
15 Oregon	1.3%	1.2%	770	+150	205	+32	140	-50%	77	1.4%
16 South Carolina	1.6%	1.1%	759	-262	177	-34	105	-87%	-2	(0.0%)
17 Georgia	3.2%	2.9%	739	+37	97	+2	105	-88%	-1	(0.0%)
18 Arizona	2.2%	1.7%	661	-50	105	+11	112	-94%	42	0.8%
19 Wisconsin	1.8%	1.6%	399	-119	97	-15	163	-92%	33	0.8%
20 Kentucky	1.3%	1.0%	324	+49	105	-12	107	-91%	-13	(0.4%)
21 West Virginia	0.5%	0.4%	314	-56	203	-37	112	-81%	28	1.1%
22 Delaware	0.3%	0.4%	295	-86	327	-99	106	-65%	0	0.0%
23 Utah	1.0%	0.9%	281	+33	114	-3	107	-91%	24	0.9%
24 New Hampshire	0.4%	0.4%	279	-28	203	-57	111	-75%	-42	(1.9%)
25 Missouri	1.8%	1.5%	235	-19	72	+12	162	-91%	60	1.9%
26 Alabama	1.5%	1.1%	233	-37	74	-8	108	-93%	-70	(1.9%)
27 Maine	0.4%	0.3%	165	-181	225	-105	100	-63%	12	0.5%
28 Nebraska	0.6%	0.6%	152	-24	143	-45	157	-90%	-21	(0.9%)

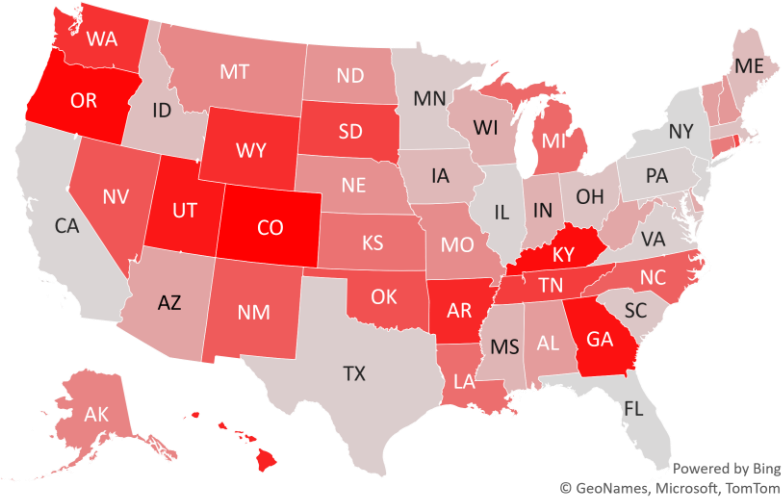
	Sorted Daily Cases		Daily Cases (3D avg) per 1mm residents				Hospitalization			
	% US Pop	% US GDP	7D		# Days	% Decline in Daily Cases	7D Net Hospitalization	7D Net Hospitalization / 7D New Cases		
			4/25	Delta						
United States	100%	100%	32.261	-9.837	146	-37	106	-82%	-2.538	-0.7%
States:										
29 Hawaii	0.4%	0.5%	122	+11	63	-9	239	-70%	-1	(0.2%)
30 District of Columbia	0.2%	0.7%	104	+21	134	-30	105	-73%	-3	(0.5%)
31 Vermont	0.2%	0.2%	97	-50	134	-54	23	-61%	-3	(0.5%)
32 Iowa	1.0%	0.9%	54	-164	88	-10	163	-93%	-17	(0.8%)
33 Arkansas	0.9%	0.6%	52	+9	37	-5	105	-95%	-9	(1.1%)
34 Montana	0.3%	0.2%	49	-7	118	+18	161	-91%	-1	(0.1%)
35 North Dakota	0.2%	0.3%	32	-26	133	-31	162	-94%	5	0.5%
36 Wyoming	0.2%	0.2%	0	+0	48	+11	157	-97%	-4	(0.9%)
37 Washington	2.3%	2.7%	0	+0	127	-13	151	-77%	78	1.0%
38 U.S. Virgin Islands	0.0%	0.0%	0	+0	0	+0	28	-100%	0	0.0%
39 Tennessee	2.1%	1.8%	0	+0	59	-8	128	-96%	28	0.3%
40 South Dakota	0.3%	0.3%	0	+0	126	-41	162	-94%	8	0.9%
41 Rhode Island	0.3%	0.3%	0	+0	93	-36	141	-94%	14	0.6%
42 Puerto Rico	1.0%	0.5%	0	+0	282	-17	127	-20%	35	0.7%
43 Oklahoma	1.2%	1.0%	0	+0	26	+3	105	-98%	5	0.3%
44 Nevada	0.9%	0.8%	0	+0	61	+3	106	-94%	-30	(1.2%)
45 New Mexico	0.6%	0.5%	0	+0	37	-5	156	-98%	0	0.0%
46 North Carolina	3.2%	2.7%	0	+0	69	-10	106	-93%	81	0.6%
47 Mississippi	0.9%	0.6%	0	-157	24	-51	106	-98%	19	1.6%
48 Northern Mariana	0.0%	0.0%	0	+0	12	+6	180	-83%	0	0.0%
49 Michigan	3.0%	2.6%	0	+0	325	-159	11	-63%	-372	(1.1%)
50 Louisiana	1.4%	1.3%	0	+0	39	+2	108	-97%	13	0.4%
51 Kansas	0.9%	0.8%	0	+0	56	-6	151	-96%	-51	(3.4%)
52 Idaho	0.5%	0.4%	0	-181	35	-38	136	-97%	-17	(1.4%)
53 Guam	0.0%	0.0%	0	+0	105	+52	166	-90%	2	3.8%
54 Connecticut	1.1%	1.3%	0	+0	97	-3	102	-93%	-8	(0.1%)
55 American Samoa	0.0%	0.0%	0	+0	0	+0	0	0%	0	
56 Alaska	0.2%	0.3%	0	+0	66	-18	141	-94%	8	0.7%

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

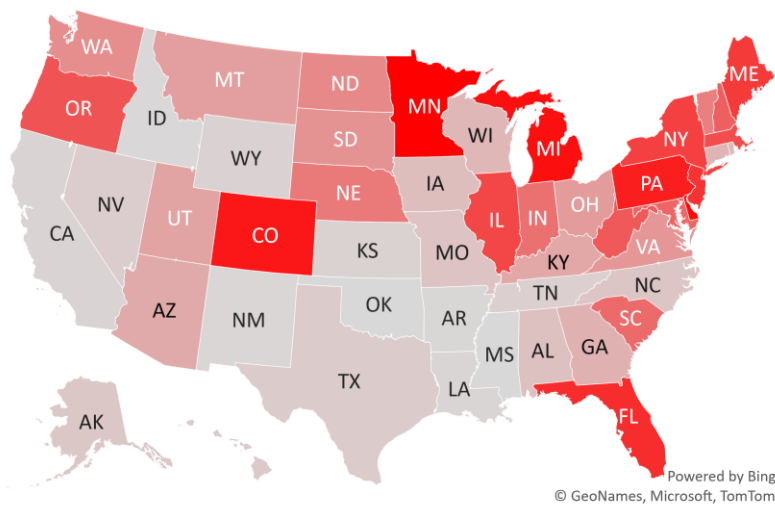
Daily Case Increases



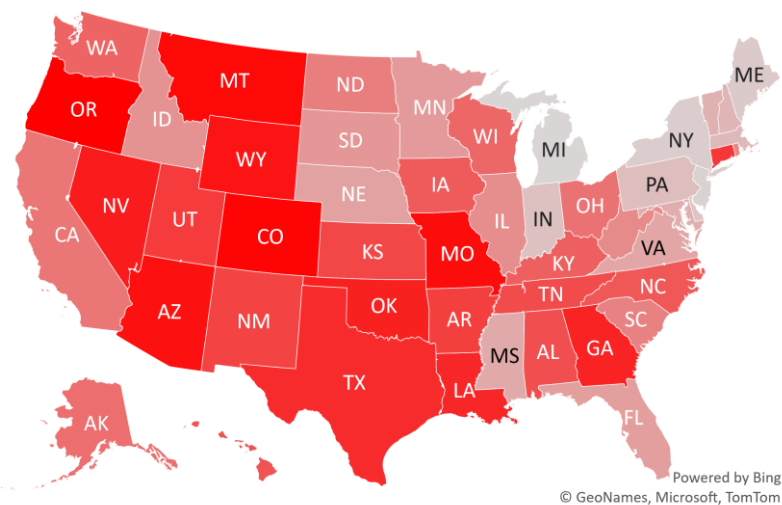
7D Delta in Daily New Cases



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



7D Delta in Daily Case Increases per 1mm Resident (3D Avg)



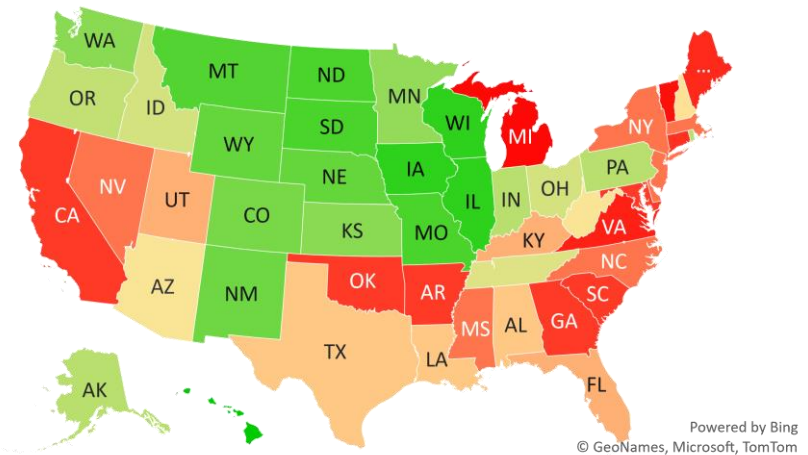
#6: # of Days since Daily Case Peaked by States...

Days since Daily Cases (3D Avg) Peak (as of 4/25)

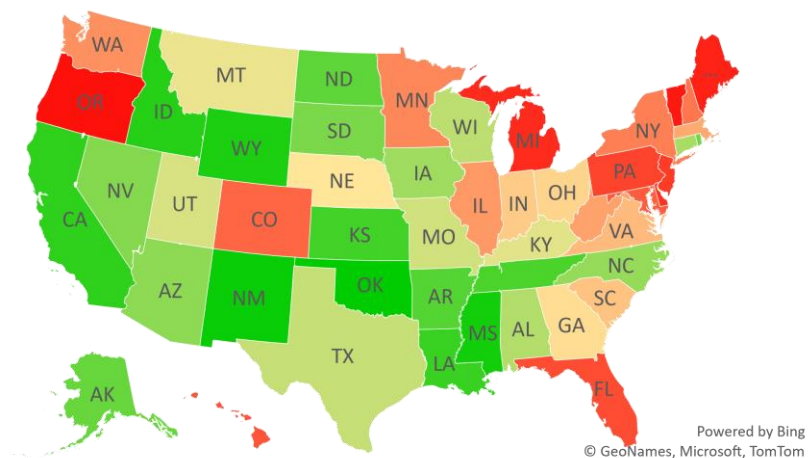
Sorted				
	Peak Date	4/25/21	% off the Peak	% US Pop
United States	1/9/21	106	-82%	100%
States:				
Hawaii	8/29/20	239	-70%	0.4%
Northern Mariana Island	10/27/20	180	-83%	0.0%
Guam	11/10/20	166	-90%	0.0%
Wisconsin	11/13/20	163	-92%	1.8%
Illinois	11/13/20	163	-80%	3.8%
Iowa	11/13/20	163	-93%	1.0%
South Dakota	11/14/20	162	-94%	0.3%
North Dakota	11/14/20	162	-94%	0.2%
Missouri	11/14/20	162	-91%	1.8%
Montana	11/15/20	161	-91%	0.3%
Wyoming	11/19/20	157	-97%	0.2%
Nebraska	11/19/20	157	-90%	0.6%
New Mexico	11/20/20	156	-98%	0.6%
Colorado	11/21/20	155	-70%	1.7%
Washington	11/25/20	151	-77%	2.3%
Kansas	11/25/20	151	-96%	0.9%
Minnesota	11/30/20	146	-75%	1.7%
Rhode Island	12/5/20	141	-94%	0.3%
Pennsylvania	12/5/20	141	-68%	3.9%
Indiana	12/5/20	141	-88%	2.0%
Alaska	12/5/20	141	-94%	0.2%
Oregon	12/6/20	140	-50%	1.3%
Ohio	12/10/20	136	-88%	3.5%
Idaho	12/10/20	136	-97%	0.5%
Tennessee	12/18/20	128	-96%	2.1%
Puerto Rico	12/19/20	127	-20%	1.0%
West Virginia	1/3/21	112	-81%	0.5%
Arizona	1/3/21	112	-94%	2.2%

Sorted				
	Peak Date	4/25/21	% off the Peak	% US Pop
United States	1/9/21	106	-82%	100%
States:				
New Hampshire	1/4/21	111	-75%	0.4%
Texas	1/7/21	108	-92%	8.7%
Louisiana	1/7/21	108	-97%	1.4%
Alabama	1/7/21	108	-93%	1.5%
Utah	1/8/21	107	-91%	1.0%
Kentucky	1/8/21	107	-91%	1.3%
Florida	1/8/21	107	-69%	6.5%
New York	1/9/21	106	-75%	5.9%
Nevada	1/9/21	106	-94%	0.9%
New Jersey	1/9/21	106	-65%	2.7%
North Carolina	1/9/21	106	-93%	3.2%
Mississippi	1/9/21	106	-98%	0.9%
Massachusetts	1/9/21	106	-81%	2.1%
Delaware	1/9/21	106	-65%	0.3%
South Carolina	1/10/21	105	-87%	1.6%
Oklahoma	1/10/21	105	-98%	1.2%
Maryland	1/10/21	105	-70%	1.8%
Georgia	1/10/21	105	-88%	3.2%
District of Columbia	1/10/21	105	-73%	0.2%
California	1/10/21	105	-97%	11.9%
Arkansas	1/10/21	105	-95%	0.9%
Connecticut	1/13/21	102	-93%	1.1%
Maine	1/15/21	100	-63%	0.4%
Virginia	1/18/21	97	-86%	2.6%
U.S. Virgin Islands	3/28/21	28	-100%	0.0%
Vermont	4/2/21	23	-61%	0.2%
Michigan	4/14/21	11	-63%	3.0%

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



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



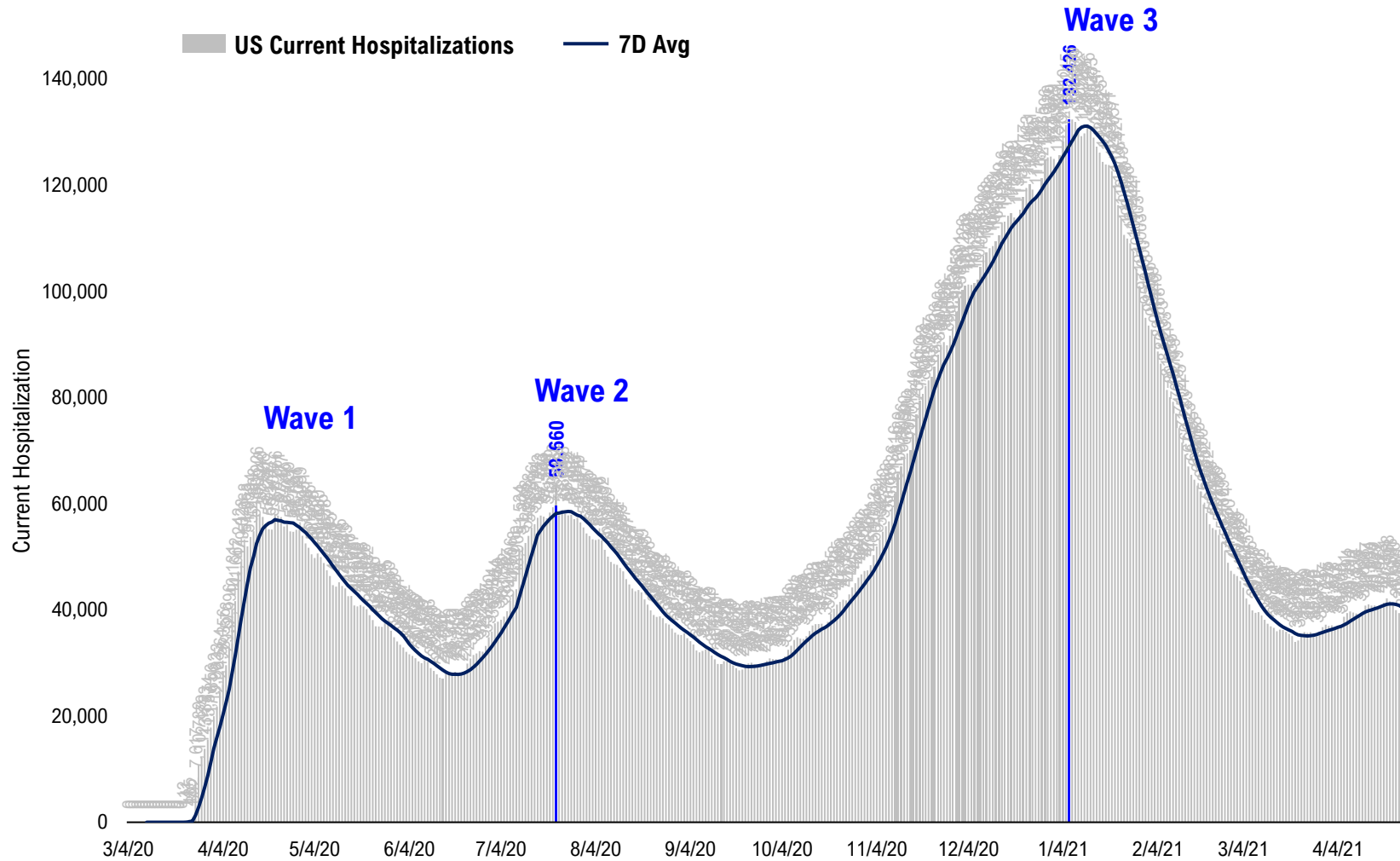
#7: US New Cases by States... (sorted by today's new cases)

	Sorted						Sorted				
	7D Ago	Last 3-day Trend					7D Ago	Last 3-day Trend			
	4/18/21	4/23/21	4/24/21	4/25/21	vs 7D ago		4/18/21	4/23/21	4/24/21	4/25/21	vs 7D ago
United States	42,098	60,398	51,466	32,261	-9,837	United States	42,098	60,398	51,466	32,261	-9,837
States:						States:					
Florida	6,834	5,464	7,411	4,671		Hawaii	111	93	51	122	
New York	5,704	4,901	4,164	4,087		District of Columbia	83	101	78	104	<--higher
Pennsylvania	3,761	4,188	4,164	3,162		Vermont	147	91	63	97	
Illinois	2,666	3,369	2,907	2,035		Iowa	218	342	436	54	
California	2,667	1,818	1,229	1,739		Arkansas	43	168	111	52	<--higher
Colorado	1,261	1,876	1,917	1,567	<--higher	Montana	56	155	175	49	
Minnesota	1,845	2,164	2,103	1,556		North Dakota	58	152	119	32	
New Jersey	2,760	2,445	2,413	1,496		Wyoming	0	83	0	0	
Massachusetts	1,407	1,621	1,563	1,214		Washington	0	1,369	1,537	0	
Texas	1,434	2,547	1,768	1,128		U.S. Virgin Islands	0	0	0	0	
Maryland	1,169	1,163	1,196	906		Tennessee	0	1,208	0	0	
Virginia	1,305	1,340	1,005	884		South Dakota	0	199	136	0	
Ohio	1,076	1,788	1,526	873		Rhode Island	0	296	0	0	
Indiana	956	1,071	1,101	827		Puerto Rico	0	848	1,856	0	
Oregon	620	1,010	810	770	<--higher	Oklahoma	0	304	0	0	
South Carolina	1,021	977	1,001	759		Nevada	0	562	0	0	
Georgia	702	1,273	1,085	739		New Mexico	0	231	0	0	
Arizona	711	896	729	661		North Carolina	0	2,167	0	0	
Wisconsin	518	795	494	399		Mississippi	157	212	0	0	
Kentucky	275	598	482	324		Northern Mariana Islands	0	0	2	0	
West Virginia	370	405	375	314		Michigan	0	5,031	4,698	0	
Delaware	381	326	334	295		Louisiana	0	544	0	0	
Utah	248	344	472	281		Kansas	0	489	0	0	
New Hampshire	307	240	311	279		Idaho	181	190	0	0	
Missouri	254	622	467	235		Guam	0	52	0	0	
Alabama	270	428	421	233		Connecticut	0	1,034	0	0	
Maine	346	371	373	165		American Samoa	0	0	0	0	
Nebraska	176	292	383	152		Alaska	0	145	0	0	

<--higher – if the state has 20% more daily cases than 7D ago...
Source: Fundstrat, COVID-19 Tracking Project, State Department of Health

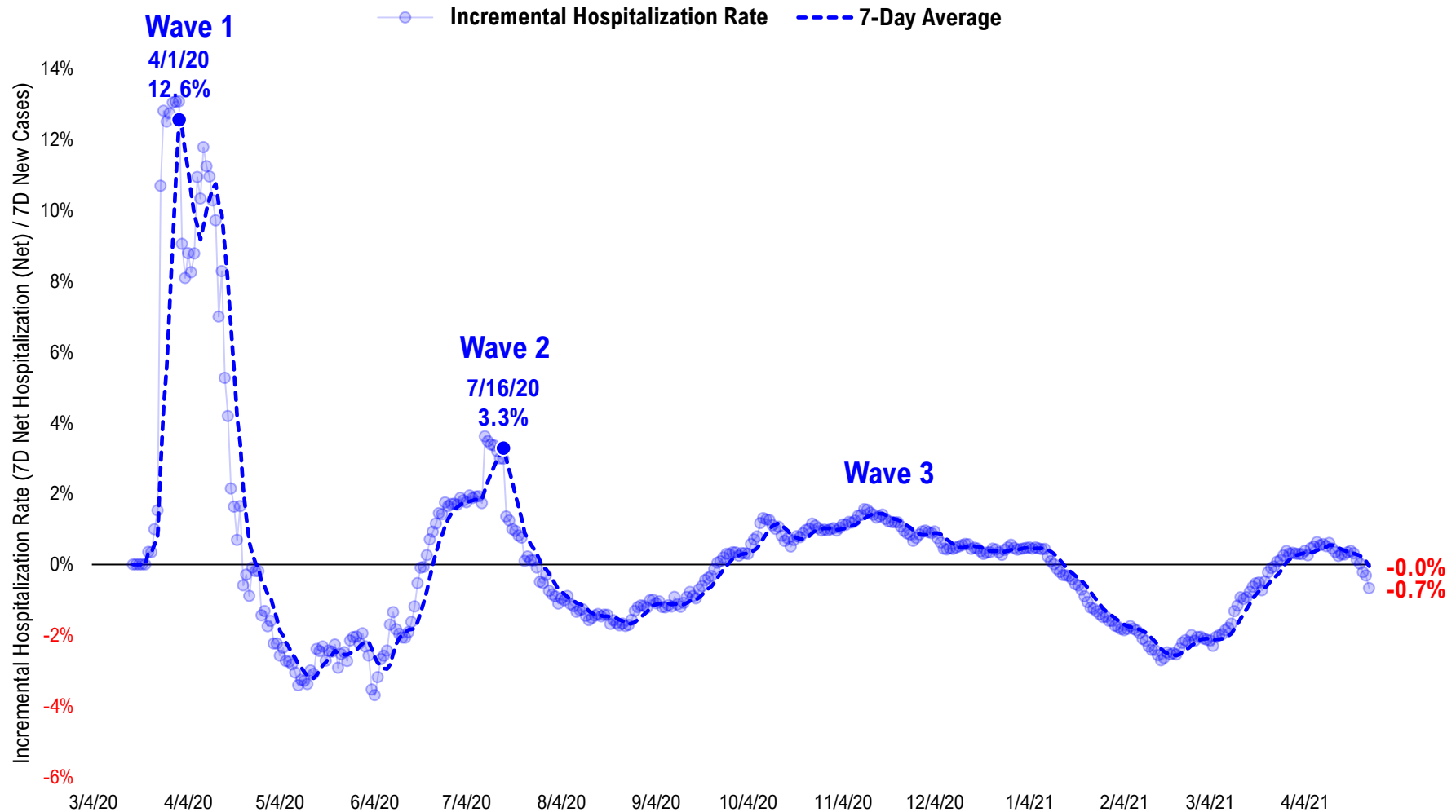
#8: US Daily Hospitalizations...

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



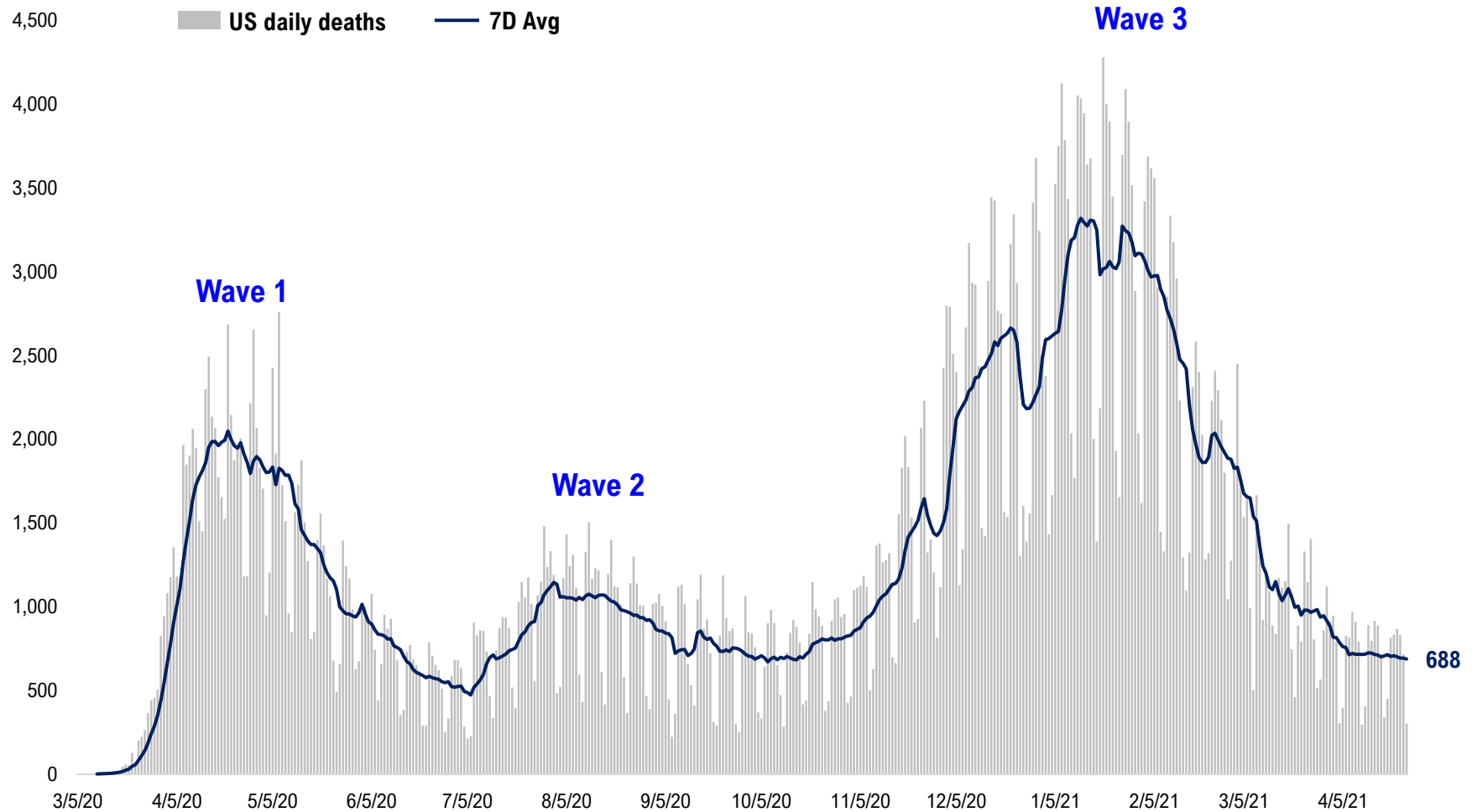
#9: Incremental Hospitalization Rate...

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

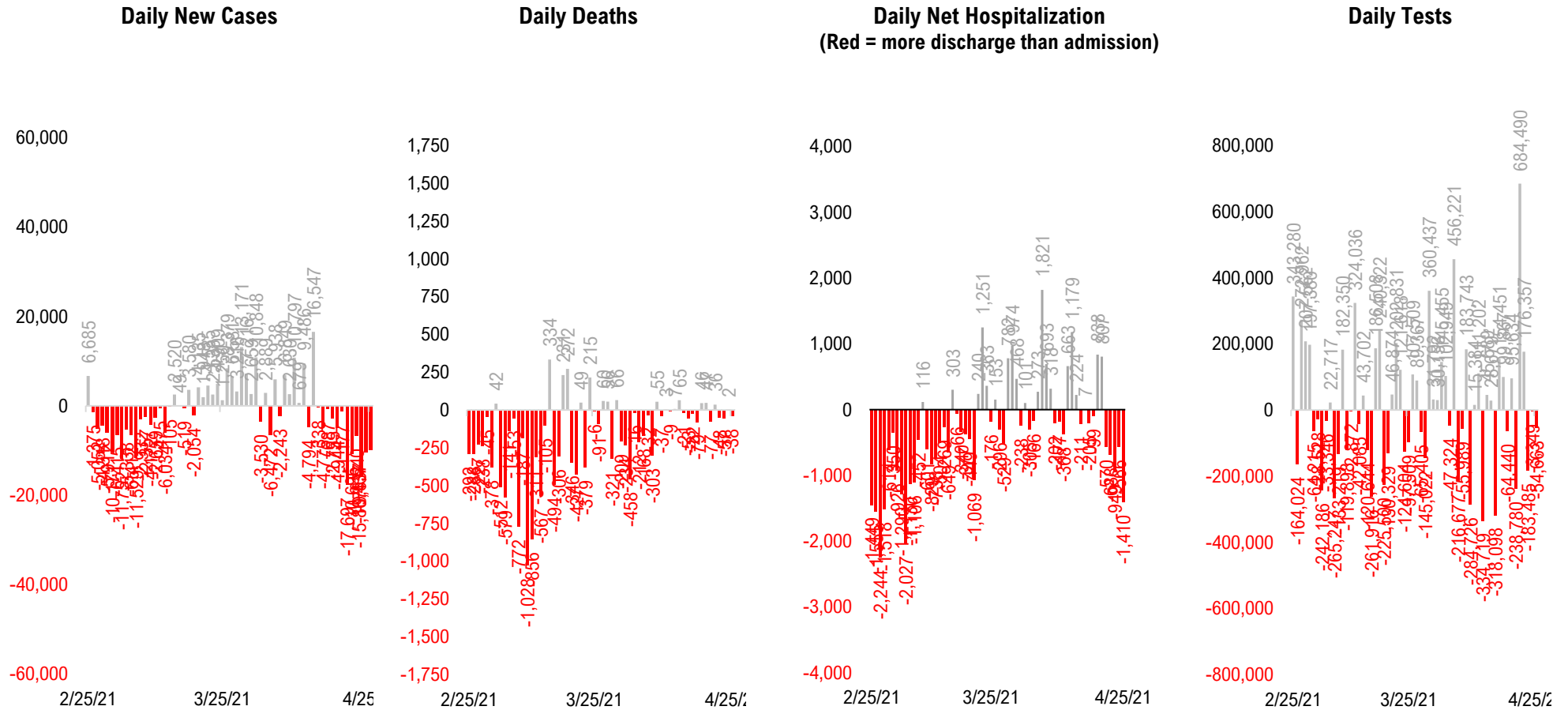


#10: US Daily New Fatalities...

US daily COVID-19 Fatalities

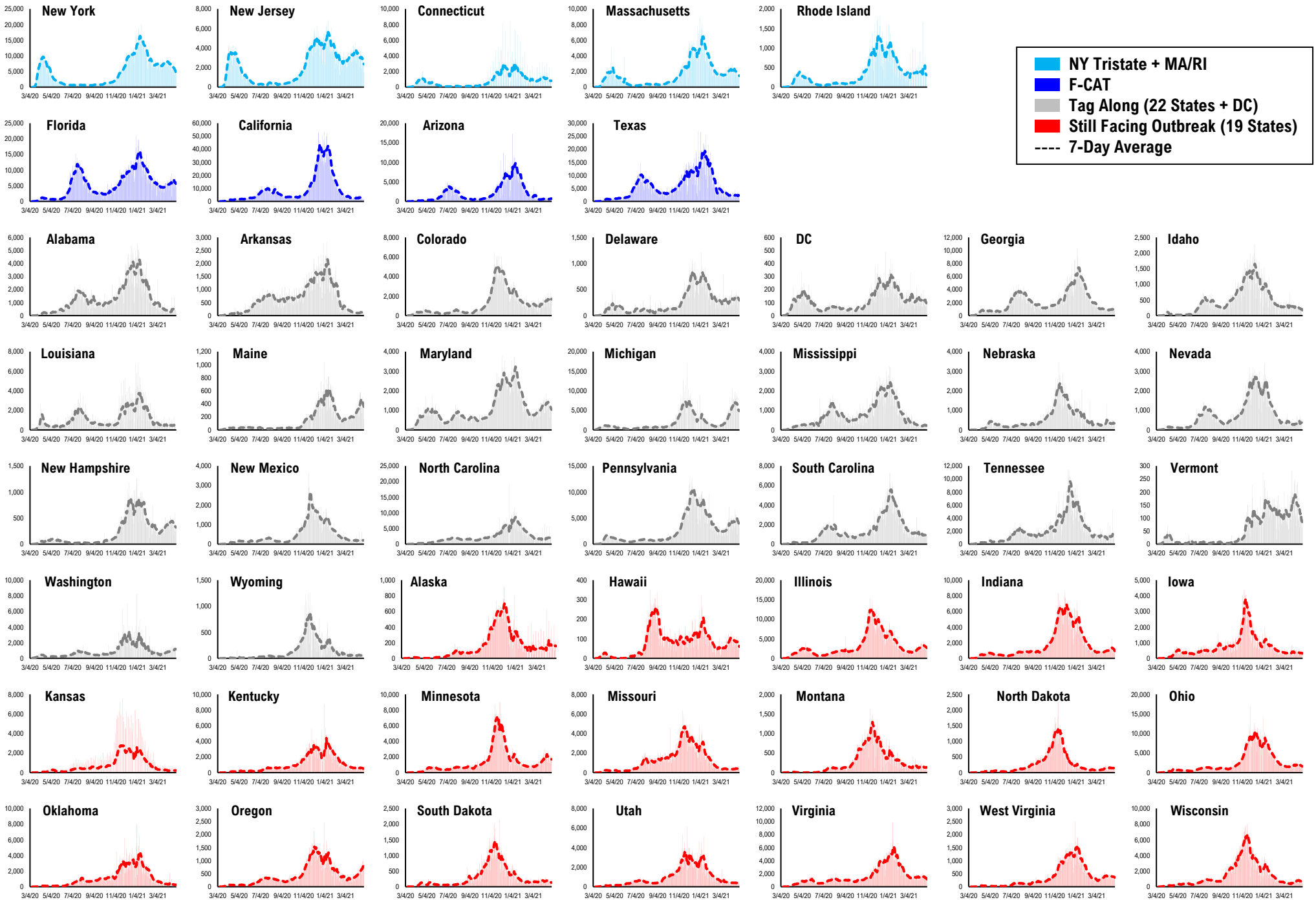


#11: Rolling 7-Day Change in the Key Metrics... (Past 8 Weeks)

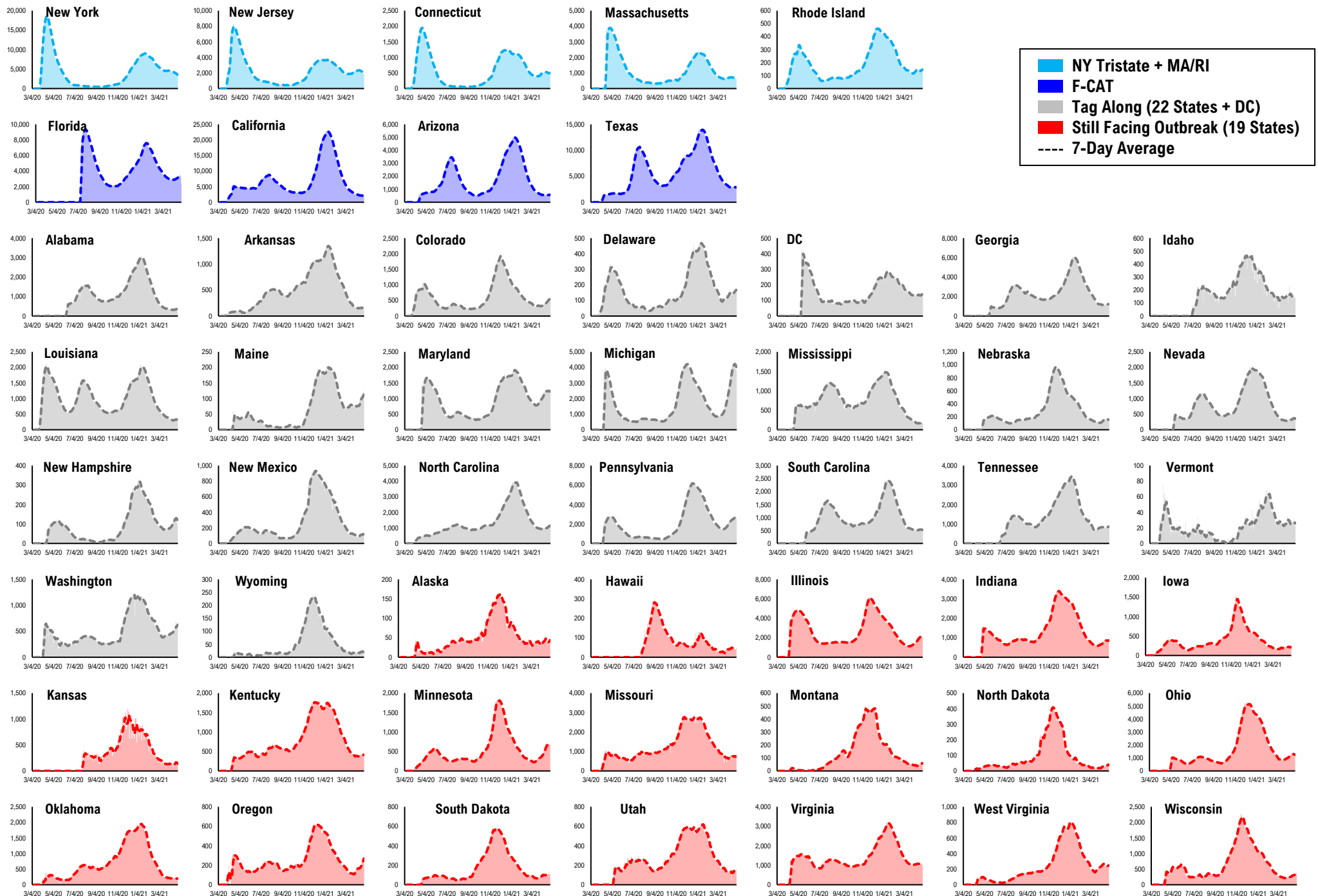


* Ignored California between 8/10 and 8/23, due to its data glitch caused 300,000-case backlog
Source: Fundstrat, COVID-19 Tracking Project, State Department of Health

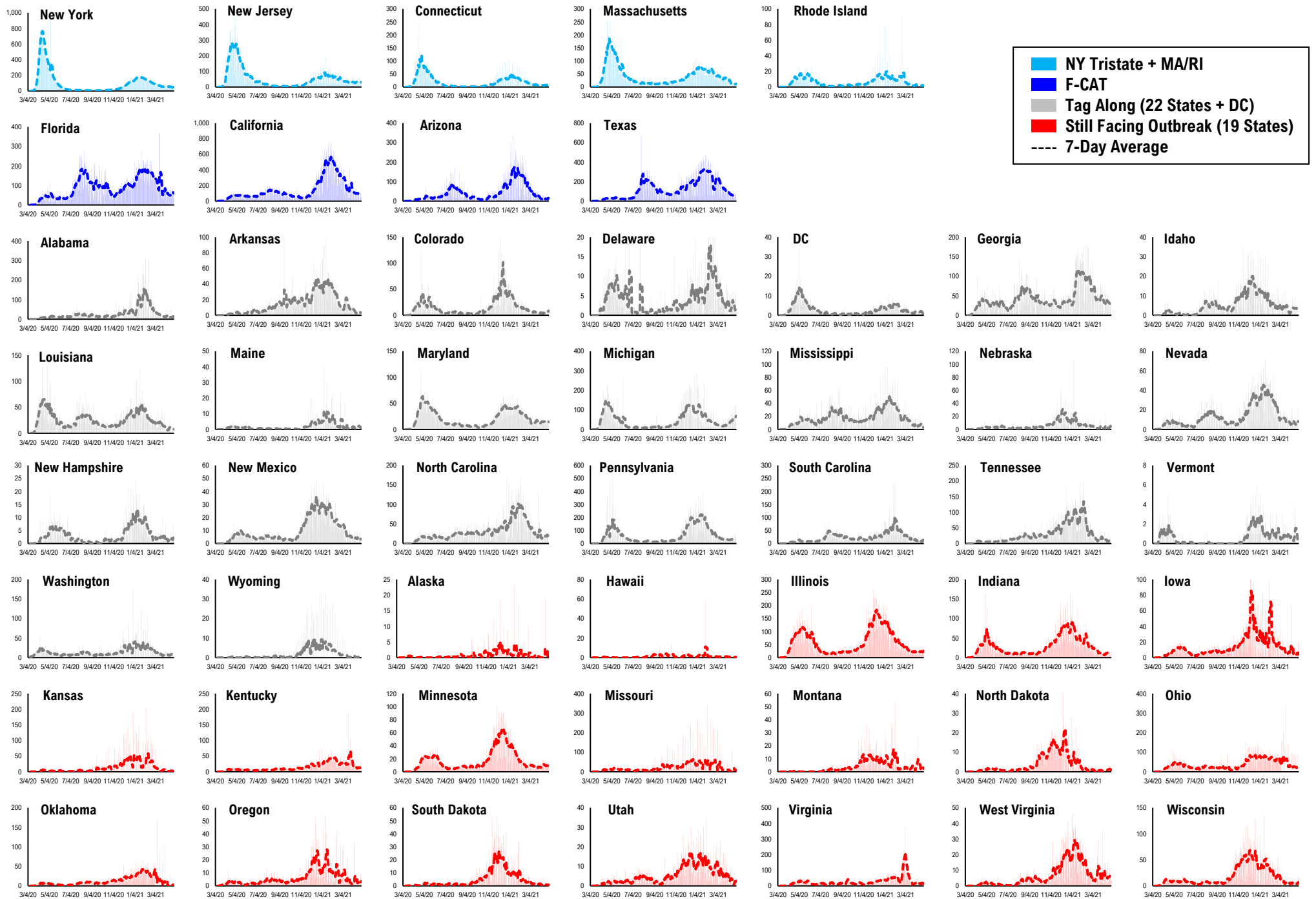
#12: Daily New Cases by States...



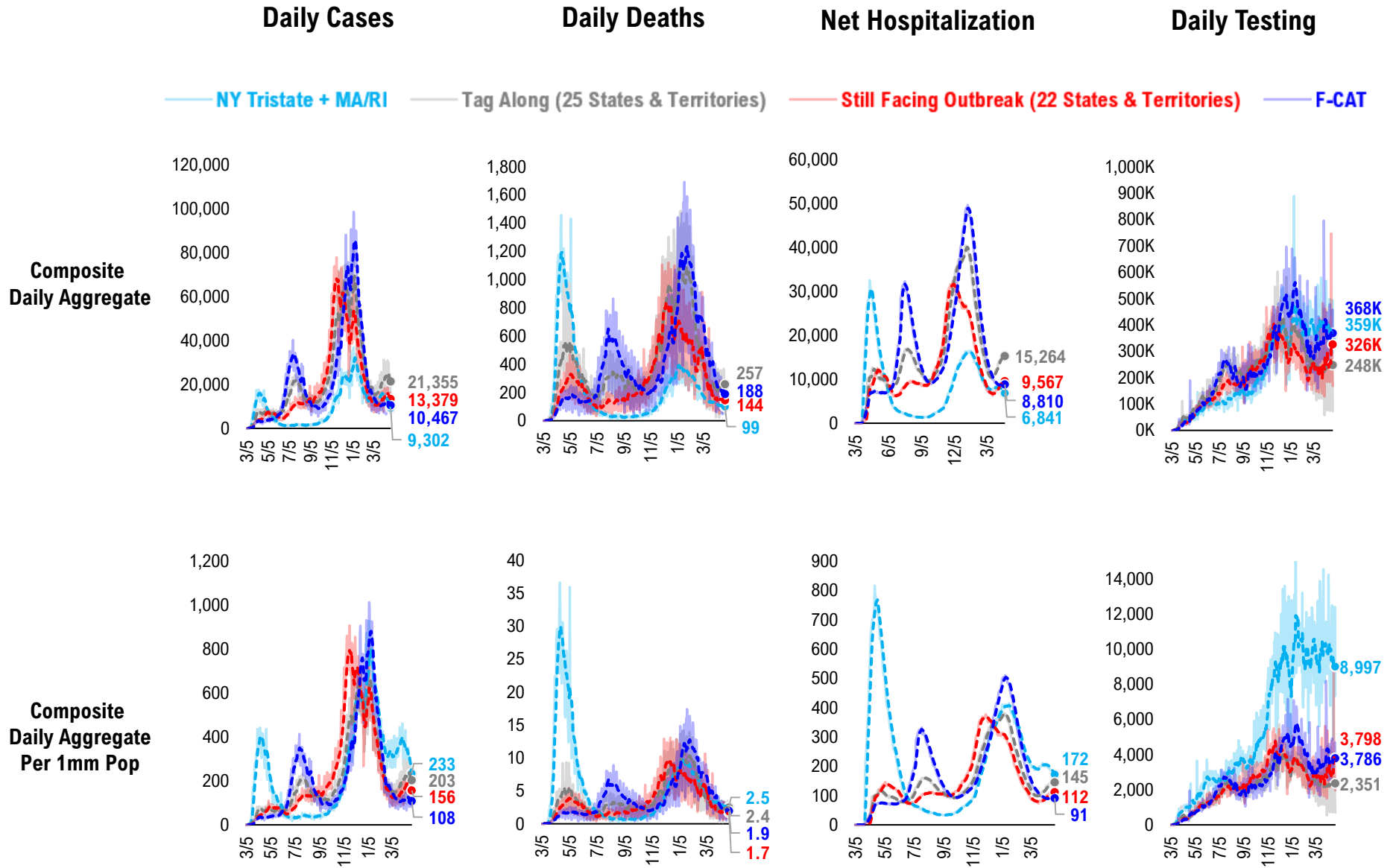
#13: Current Hospitalizations by States...



#14: Daily New Deaths by States...

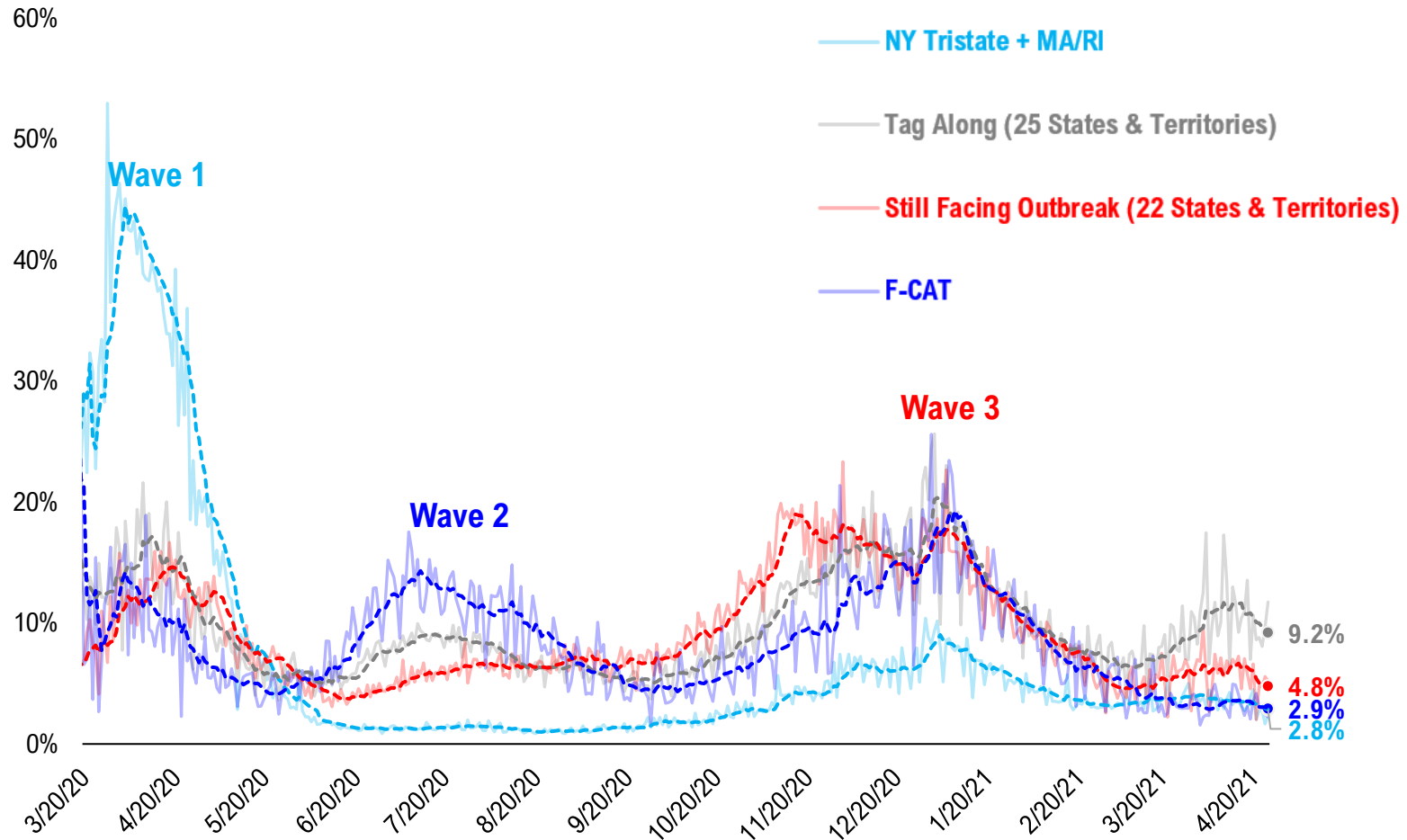


#15: State COVID-19 situation by Tier...

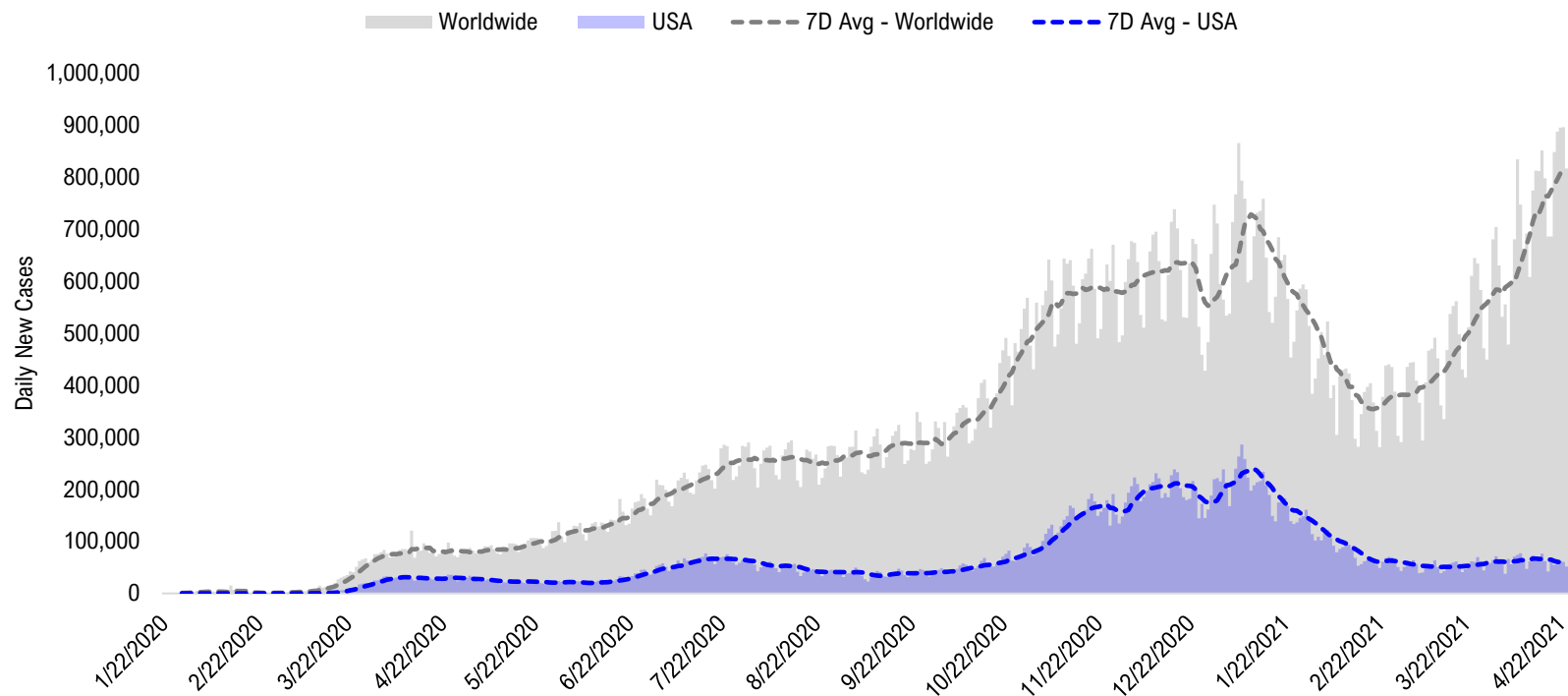


#16: State COVID-19 Daily Positivity Rate by Tier...

Composite Daily Positivity Rate



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



Dec 4	Dec 18	Jan 1	Jan 15	Jan 29	Feb 12	Feb 26	Mar 12	Mar 26	Apr 9	Apr 24
Europe 234,613	Europe 248,691	Europe 227,213	Europe 243,930	Europe 195,208	Europe 145,047	Europe 150,232	Europe 172,950	Europe 233,545	Europe 226,762	Pakistan + India + Bangladesh 318,592
US + Canada 181,863	US + Canada 218,055	US + Canada 195,207	US + Canada 228,560	US + Canada 151,931	US + Canada 94,843	Latin America 90,697	Latin America 106,657	Latin America 121,448	Latin America 128,319	Europe 212,491
Latin America 77,676	Latin America 85,354	Latin America 78,723	Latin America 118,406	Latin America 110,698	Latin America 87,199	US + Canada 65,753	US + Canada 54,551	US + Canada 59,138	Pakistan + India + Bangladesh 127,964	Latin America 133,534
Pakistan + India + Bangladesh 41,888	Pakistan + India + Bangladesh 29,698	Africa 23,274	Africa 31,292	Asia ex- India+Pakistan 26,451	Asia ex- India+Pakistan 19,467	Asia ex- India+Pakistan 16,429	Pakistan + India + Bangladesh 23,076	Pakistan + India + Bangladesh 57,373	US + Canada 71,402	US + Canada 64,325
Asia ex- India+Pakistan 16,452	Africa 17,772	Pakistan + India + Bangladesh 19,958	Asia ex- India+Pakistan 25,115	Africa 20,287	Pakistan + India + Bangladesh 12,778	Pakistan + India + Bangladesh 16,328	Asia ex- India+Pakistan 14,243	Asia ex- India+Pakistan 19,058	Asia ex- India+Pakistan 24,248	Asia ex- India+Pakistan 32,108
Africa 13,958	Asia ex- India+Pakistan 17,001	Asia ex- India+Pakistan 18,156	Pakistan + India + Bangladesh 21,782	Pakistan + India + Bangladesh 15,623	Africa 12,288	Africa 9,945	Africa 10,142	Africa 11,175	Africa 11,159	Africa 10,695

Disclosures

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