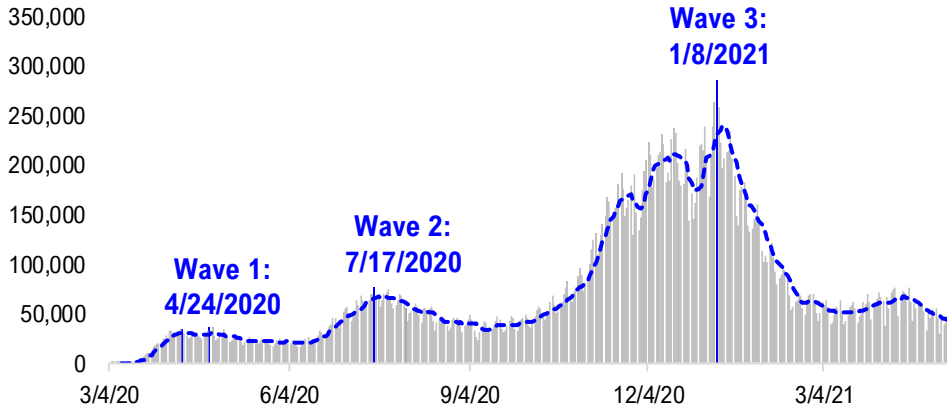


FSInsight Daily COVID-19 Chartbook

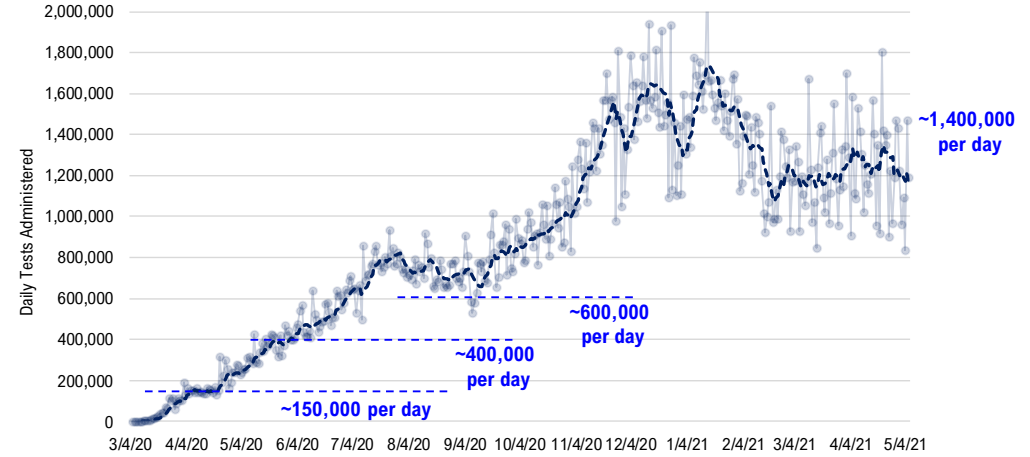


#1: USA COVID-19 Situation at a Glance...

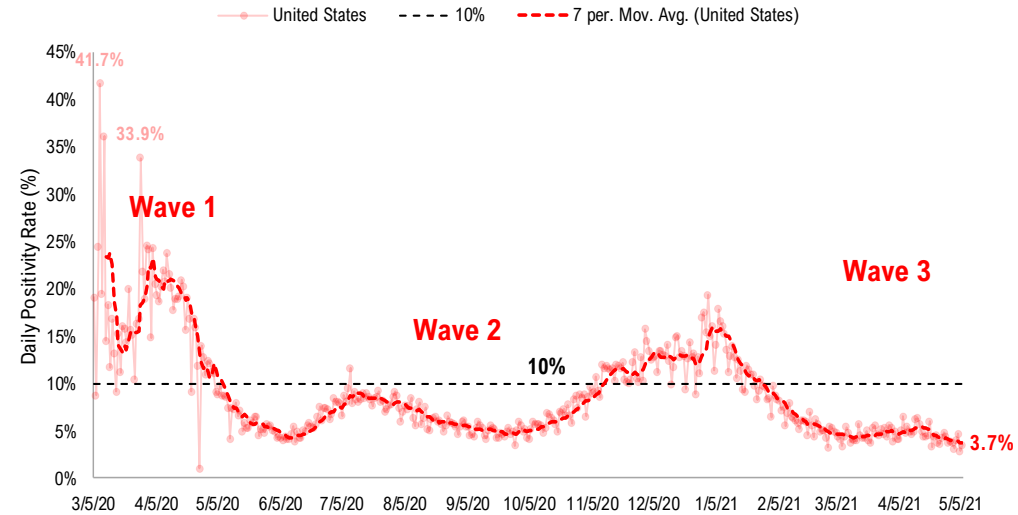
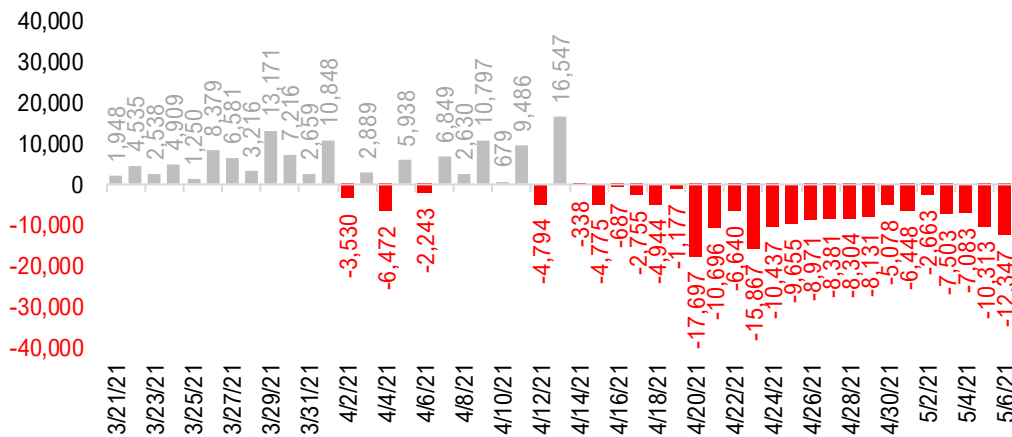
US daily new cases



USA total COVID-19 tests administered

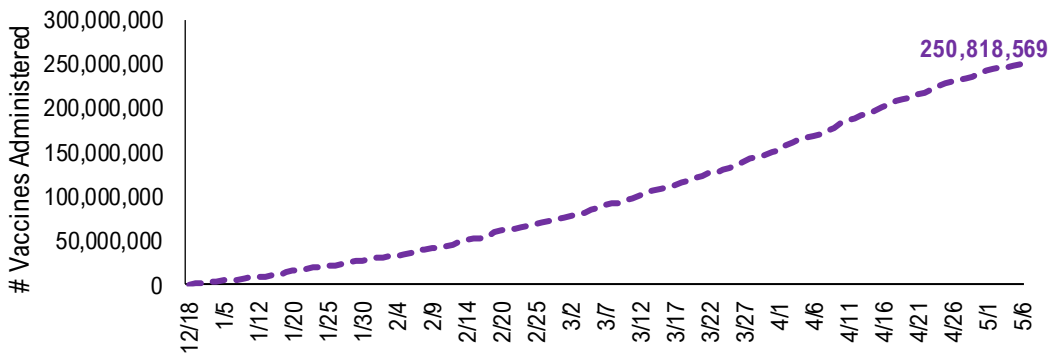


US daily new cases rolling 7D delta

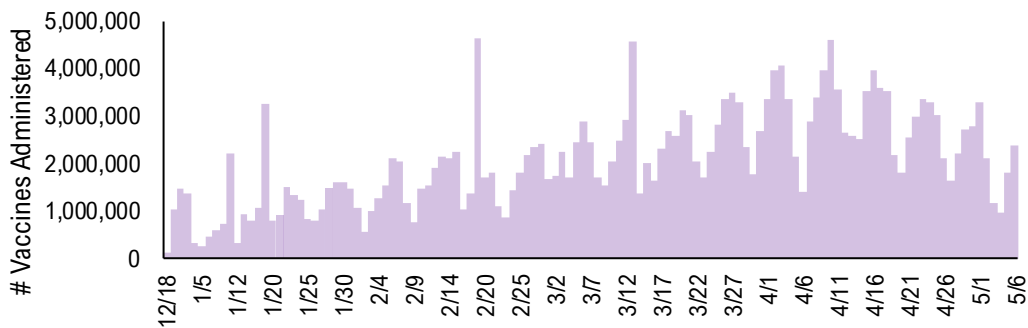


#2: USA COVID-19 Vaccination Progress at a Glance...

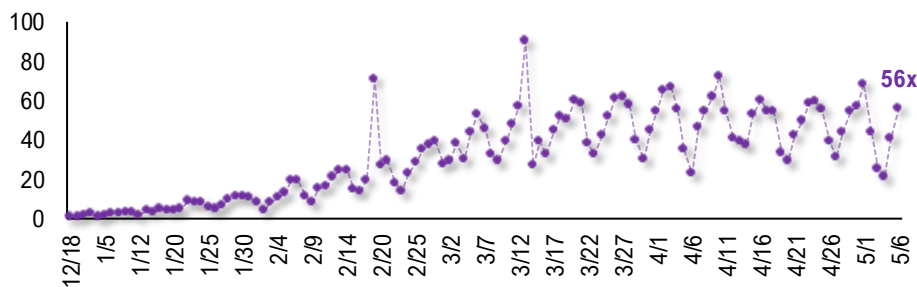
Cumulative Vaccines Administered



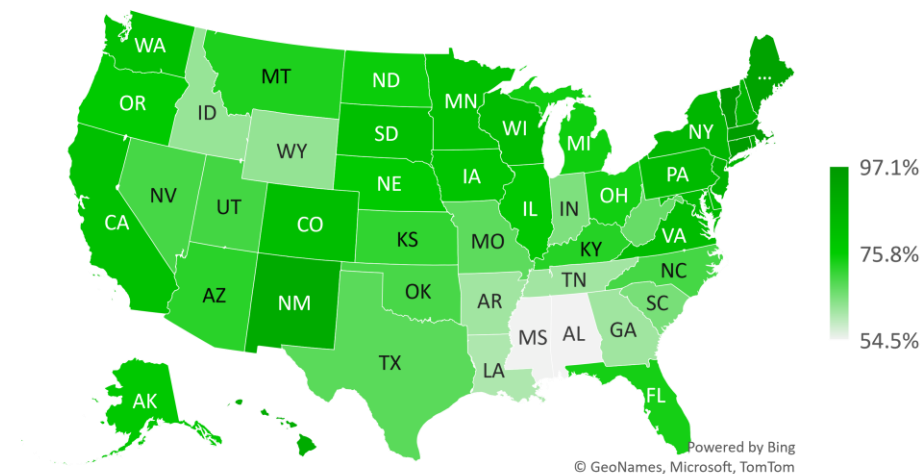
Daily Vaccines Administered



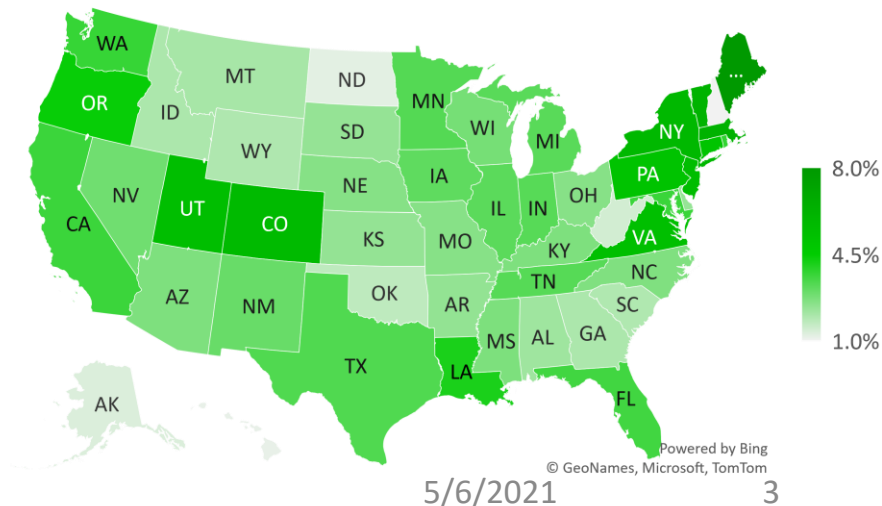
Daily Vaccinations / Daily Cases (7D Avg)



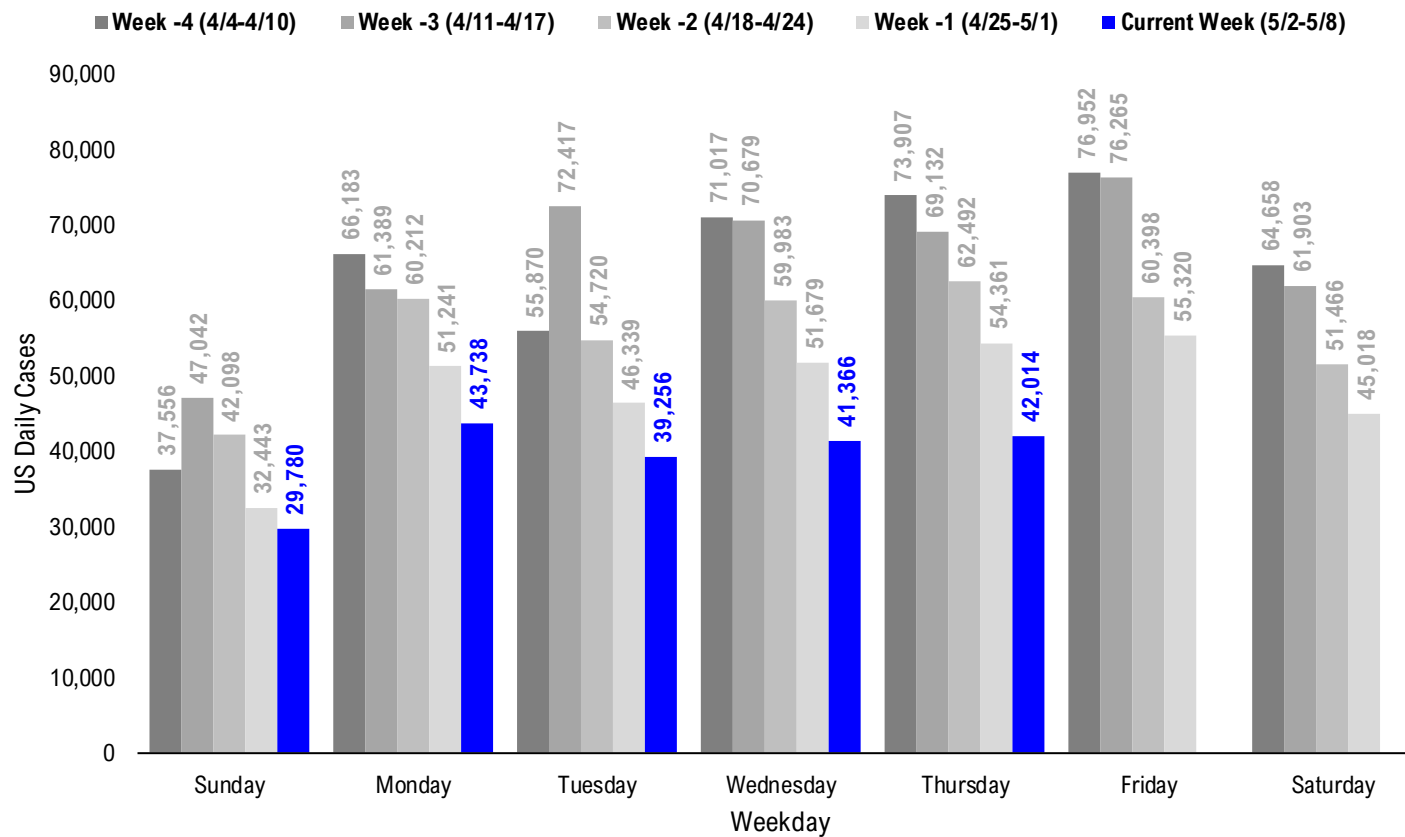
Cumulative Vaccines Administered as % State Population



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		Since Peak		% Decline in Daily Cases	7D Net Hospitalization	7D Net Hospitalization / 7D New Cases	
			5/6	Delta	5/6	Delta				# Days
United States	100%	100%	42.014	-12,347	125	-30	117	-85%	-3,571	-1.2%

	Sorted Daily Cases		Daily Cases (3D avg) per 1mm residents				Hospitalization			
	% US Pop	% US GDP	7D		Since Peak		% Decline in Daily Cases	7D Net Hospitalization	7D Net Hospitalization / 7D New Cases	
			5/6	Delta	5/6	Delta				# Days
United States	100%	100%	42.014	-12,347	125	-30	117	-85%	-3,571	-1.2%

States:

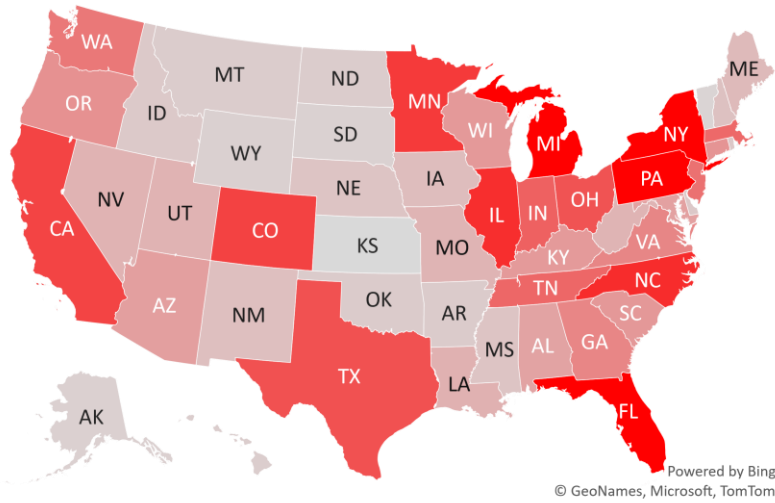
1 Florida	6.5%	5.0%	4,504	-1,162	195	-55	118	-78%	-315	(1.0%)
2 Michigan	3.0%	2.6%	3,514	-109	288	-101	22	-67%	-521	(2.5%)
3 New York	5.9%	8.1%	2,585	-1,488	124	-46	117	-86%	-599	(3.0%)
4 Pennsylvania	3.9%	3.8%	2,476	-846	214	-56	152	-77%	-271	(1.3%)
5 North Carolina	3.2%	2.7%	1,798	-187	135	-21	117	-87%	-106	(1.0%)
6 Illinois	3.8%	4.2%	1,778	-1,616	168	-60	174	-84%	-60	(0.4%)
7 Minnesota	1.7%	1.8%	1,651	-262	230	-36	157	-84%	-79	(0.8%)
8 Colorado	1.7%	1.8%	1,563	-1,226	272	-72	166	-74%	33	0.3%
9 California	11.9%	14.6%	1,547	+90	36	-2	116	-97%	-198	(1.6%)
10 Texas	8.7%	8.8%	1,408	-996	74	-25	119	-90%	-180	(1.3%)
11 Ohio	3.5%	3.3%	1,387	-399	118	-27	147	-88%	-127	(1.4%)
12 Indiana	2.0%	1.8%	1,247	-137	156	-16	152	-87%	101	1.3%
13 Tennessee	2.1%	1.8%	1,187	+95	129	-38	139	-91%	-25	(0.4%)
14 Massachusetts	2.1%	2.8%	1,161	-234	147	-45	117	-87%	-121	(1.7%)
15 New Jersey	2.7%	3.0%	1,078	-911	103	-108	117	-85%	-385	(5.1%)
16 Washington	2.3%	2.7%	1,009	-392	135	-27	162	-76%	-21	(0.3%)
17 Georgia	3.2%	2.9%	865	-146	69	-15	116	-92%	-100	(1.8%)
18 Virginia	2.6%	2.6%	856	-331	96	-37	108	-90%	-113	(1.9%)
19 Oregon	1.3%	1.2%	745	-169	181	-18	151	-56%	2	0.0%
20 Connecticut	1.1%	1.3%	711	+225	162	+21	113	-88%	-79	(2.1%)
21 South Carolina	1.6%	1.1%	671	-240	111	-21	116	-92%	-142	(2.9%)
22 Wisconsin	1.8%	1.6%	667	-139	116	-16	174	-91%	-23	(0.5%)
23 Kentucky	1.3%	1.0%	653	-137	159	-8	118	-86%	-14	(0.3%)
24 Arizona	2.2%	1.7%	601	-280	94	-6	123	-94%	29	0.6%
25 Maryland	1.8%	2.0%	578	-388	97	-49	116	-84%	-179	(3.7%)
26 Alabama	1.5%	1.1%	565	+135	83	+4	119	-92%	58	2.3%
27 Louisiana	1.4%	1.3%	417	-157	133	+30	119	-88%	32	1.0%
28 Utah	1.0%	0.9%	395	-68	118	-18	118	-91%	0	0.0%

States:

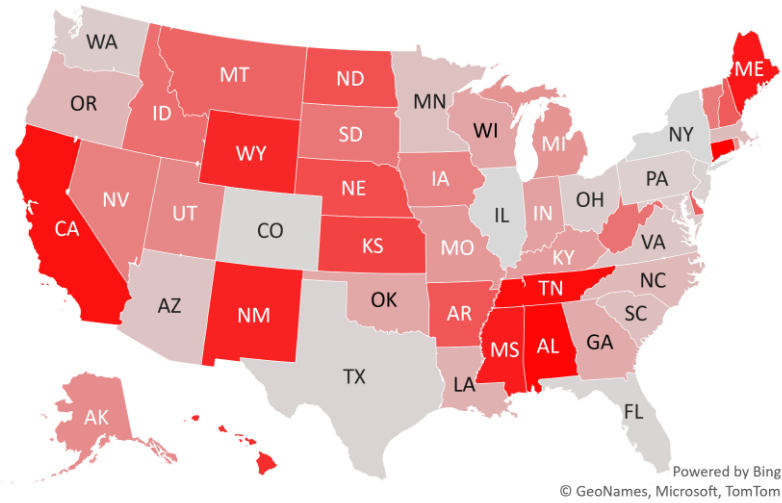
29 Nevada	0.9%	0.8%	394	-59	135	-1	117	-86%	-3	(0.1%)
30 West Virginia	0.5%	0.4%	385	-47	211	+13	123	-80%	-7	(0.3%)
31 Missouri	1.8%	1.5%	385	-136	63	-11	173	-92%	-1	(0.0%)
32 Maine	0.4%	0.3%	318	+64	269	+35	111	-56%	4	0.2%
33 Iowa	1.0%	0.9%	292	-59	92	-14	174	-93%	4	0.2%
34 New Mexico	0.6%	0.5%	273	+44	108	+13	167	-93%	15	0.9%
35 New Hampshire	0.4%	0.4%	253	-18	154	-28	122	-81%	1	0.1%
36 Mississippi	0.9%	0.6%	214	+53	59	-16	117	-94%	0	0.0%
37 Nebraska	0.6%	0.6%	213	-5	122	-3	168	-92%	-4	(0.3%)
38 Rhode Island	0.3%	0.3%	187	-109	225	-70	152	-86%	-32	(2.2%)
39 Delaware	0.3%	0.4%	171	-23	173	-25	117	-82%	-41	(2.7%)
40 Idaho	0.5%	0.4%	166	-44	108	-33	147	-91%	-18	(1.6%)
41 Oklahoma	1.2%	1.0%	148	-141	46	-9	116	-97%	-8	(0.5%)
42 Arkansas	0.9%	0.6%	146	-10	60	+8	116	-93%	11	1.1%
43 North Dakota	0.2%	0.3%	137	-7	199	-15	173	-92%	14	1.5%
44 Montana	0.3%	0.2%	133	-41	155	-17	172	-88%	7	0.8%
45 Hawaii	0.4%	0.5%	128	+6	63	+6	250	-70%	11	1.6%
46 Alaska	0.2%	0.3%	96	-70	149	-70	152	-87%	0	0.0%
47 Puerto Rico	1.0%	0.5%	93	-149	78	-51	138	-78%	-162	(5.2%)
48 Wyoming	0.2%	0.2%	89	+19	136	-8	168	-92%	-3	(0.7%)
49 South Dakota	0.3%	0.3%	84	-50	155	-15	173	-92%	-25	(4.0%)
50 Vermont	0.2%	0.2%	49	-52	74	-37	34	-79%	0	0.0%
51 District of Columbia	0.2%	0.7%	39	-42	84	-28	116	-83%	0	0.0%
52 Guam	0.0%	0.0%	4	+4	62	+62	177	-94%	2	1.8%
53 U.S. Virgin Islands	0.0%	0.0%	0	+0	44	-47	39	-90%	0	0.0%
54 Northern Mariana	0.0%	0.0%	0	+0	0	+0	191	-100%	0	0.0%
55 Kansas	0.9%	0.8%	0	+0	54	-20	162	-96%	67	4.2%
56 American Samoa	0.0%	0.0%	0	+0	0	+0	0	0%	0	

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

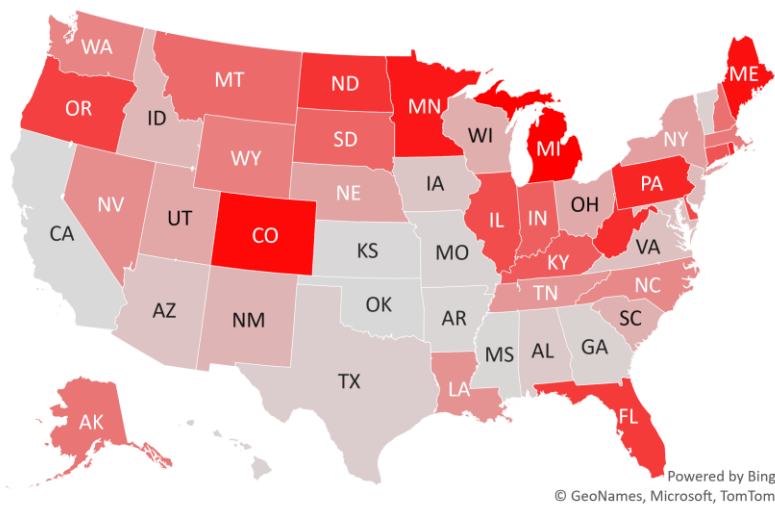
Daily Case Increases



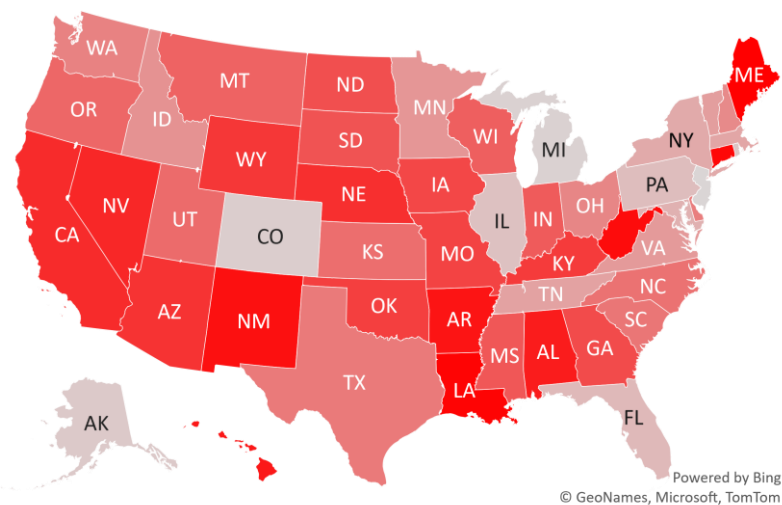
7D Delta in Daily New Cases



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



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



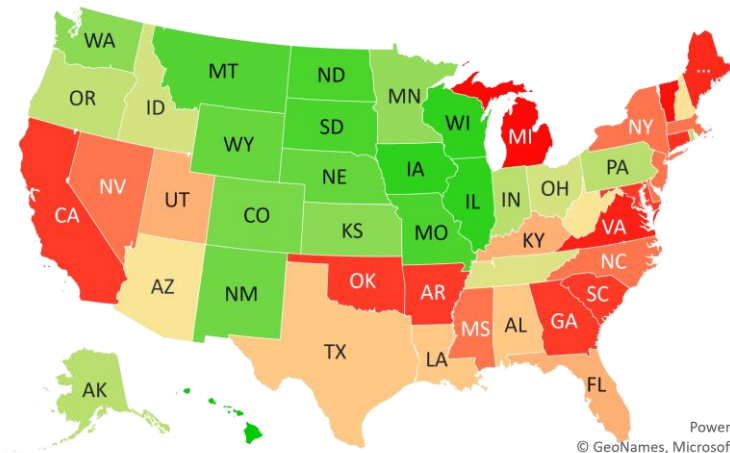
#6: # of Days since Daily Case Peaked by States...

Days since Daily Cases (3D Avg) Peak (as of 5/6)

Sorted				
	Peak Date	5/6/21	% off the Peak	% US Pop
United States	1/9/21	117	-85%	100%
States:				
Hawaii	8/29/20	250	-70%	0.4%
Northern Mariana Island	10/27/20	191	-100%	0.0%
Guam	11/10/20	177	-94%	0.0%
Wisconsin	11/13/20	174	-91%	1.8%
Illinois	11/13/20	174	-84%	3.8%
Iowa	11/13/20	174	-93%	1.0%
South Dakota	11/14/20	173	-92%	0.3%
North Dakota	11/14/20	173	-92%	0.2%
Missouri	11/14/20	173	-92%	1.8%
Montana	11/15/20	172	-88%	0.3%
Wyoming	11/19/20	168	-92%	0.2%
Nebraska	11/19/20	168	-92%	0.6%
New Mexico	11/20/20	167	-93%	0.6%
Colorado	11/21/20	166	-74%	1.7%
Washington	11/25/20	162	-76%	2.3%
Kansas	11/25/20	162	-96%	0.9%
Minnesota	11/30/20	157	-84%	1.7%
Rhode Island	12/5/20	152	-86%	0.3%
Pennsylvania	12/5/20	152	-77%	3.9%
Indiana	12/5/20	152	-87%	2.0%
Alaska	12/5/20	152	-87%	0.2%
Oregon	12/6/20	151	-56%	1.3%
Ohio	12/10/20	147	-88%	3.5%
Idaho	12/10/20	147	-91%	0.5%
Tennessee	12/18/20	139	-91%	2.1%
Puerto Rico	12/19/20	138	-78%	1.0%
West Virginia	1/3/21	123	-80%	0.5%
Arizona	1/3/21	123	-94%	2.2%

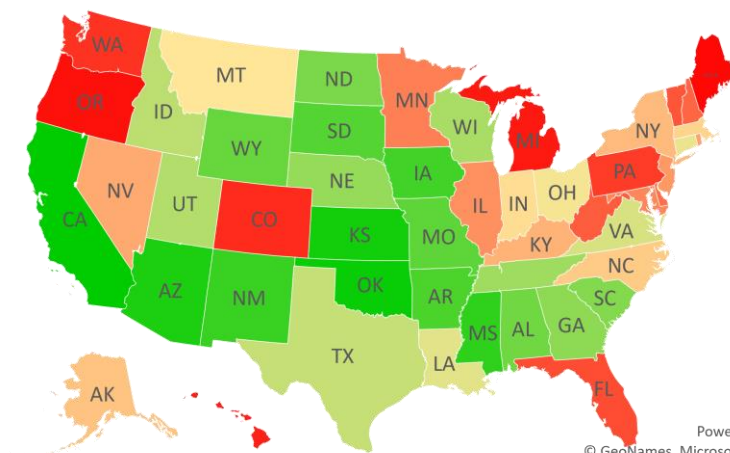
Sorted				
	Peak Date	5/6/21	% off the Peak	% US Pop
United States	1/9/21	117	-85%	100%
States:				
New Hampshire	1/4/21	122	-81%	0.4%
Texas	1/7/21	119	-90%	8.7%
Louisiana	1/7/21	119	-88%	1.4%
Alabama	1/7/21	119	-92%	1.5%
Utah	1/8/21	118	-91%	1.0%
Kentucky	1/8/21	118	-86%	1.3%
Florida	1/8/21	118	-78%	6.5%
New York	1/9/21	117	-86%	5.9%
Nevada	1/9/21	117	-86%	0.9%
New Jersey	1/9/21	117	-85%	2.7%
North Carolina	1/9/21	117	-87%	3.2%
Mississippi	1/9/21	117	-94%	0.9%
Massachusetts	1/9/21	117	-87%	2.1%
Delaware	1/9/21	117	-82%	0.3%
South Carolina	1/10/21	116	-92%	1.6%
Oklahoma	1/10/21	116	-97%	1.2%
Maryland	1/10/21	116	-84%	1.8%
Georgia	1/10/21	116	-92%	3.2%
District of Columbia	1/10/21	116	-83%	0.2%
California	1/10/21	116	-97%	11.9%
Arkansas	1/10/21	116	-93%	0.9%
Connecticut	1/13/21	113	-88%	1.1%
Maine	1/15/21	111	-56%	0.4%
Virginia	1/18/21	108	-90%	2.6%
U.S. Virgin Islands	3/28/21	39	-90%	0.0%
Vermont	4/2/21	34	-79%	0.2%
Michigan	4/14/21	22	-67%	3.0%

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



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



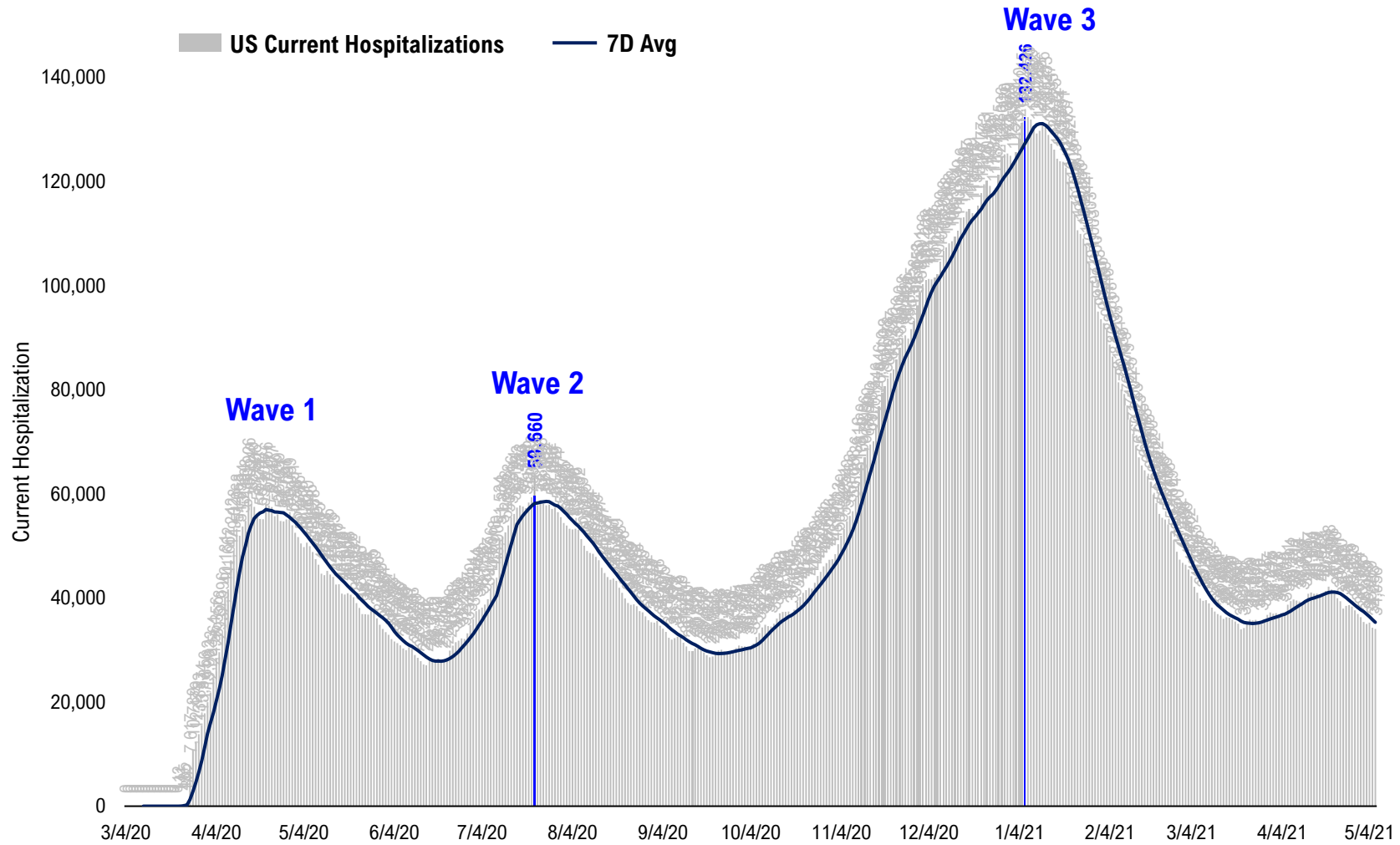
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#7: US New Cases by States... (sorted by today's new cases)

	Sorted						Sorted				
	7D Ago	Last 3-day Trend					7D Ago	Last 3-day Trend			
	4/29/21	5/4/21	5/5/21	5/6/21	vs 7D ago		4/29/21	5/4/21	5/5/21	5/6/21	vs 7D ago
United States	54,361	39,256	41,366	42,014	-12,347	United States	54,361	39,256	41,366	42,014	-12,347
States:						States:					
Florida	5,666	3,682	4,394	4,504		Nevada	453	476	373	394	
Michigan	3,623	2,527	2,589	3,514		West Virginia	432	344	405	385	
New York	4,073	2,173	2,463	2,585		Missouri	521	312	454	385	
Pennsylvania	3,322	3,133	2,597	2,476		Maine	254	417	348	318	<--higher
North Carolina	1,985	981	1,468	1,798		Iowa	351	227	356	292	
Illinois	3,394	2,211	2,410	1,778		New Mexico	229	204	205	273	
Minnesota	1,913	995	1,241	1,651		New Hampshire	271	208	167	253	
Colorado	2,789	1,519	1,611	1,563		Mississippi	161	208	104	214	<--higher
California	1,457	1,349	1,388	1,547		Nebraska	218	256	239	213	
Texas	2,404	3,217	1,798	1,408		Rhode Island	296	260	268	187	
Ohio	1,786	1,285	1,450	1,387		Delaware	194	137	197	171	
Indiana	1,384	771	1,139	1,247		Idaho	210	209	202	166	
Tennessee	1,092	542	907	1,187		Oklahoma	289	169	225	148	
Massachusetts	1,395	854	1,019	1,161		Arkansas	156	174	220	146	
New Jersey	1,989	784	889	1,078		North Dakota	144	149	169	137	
Washington	1,401	1,206	875	1,009		Montana	174	223	140	133	
Georgia	1,011	690	654	865		Hawaii	122	78	62	128	
Virginia	1,187	771	842	856		Alaska	166	84	146	96	
Oregon	914	734	806	745		Puerto Rico	242	465	191	93	
Connecticut	486	417	609	711	<--higher	Wyoming	70	77	71	89	<--higher
South Carolina	911	427	614	671		South Dakota	134	229	99	84	
Wisconsin	806	721	639	667		Vermont	101	33	56	49	
Kentucky	790	772	708	653		District of Columbia	81	83	55	39	
Arizona	881	701	742	601		Guam	0	15	12	4	
Maryland	966	501	679	578		U.S. Virgin Islands	0	14	0	0	
Alabama	430	0	662	565	<--higher	Northern Mariana Islands	0	0	0	0	
Louisiana	574	983	459	417		Kansas	0	0	470	0	
Utah	463	259	480	395		American Samoa	0	0	0	0	

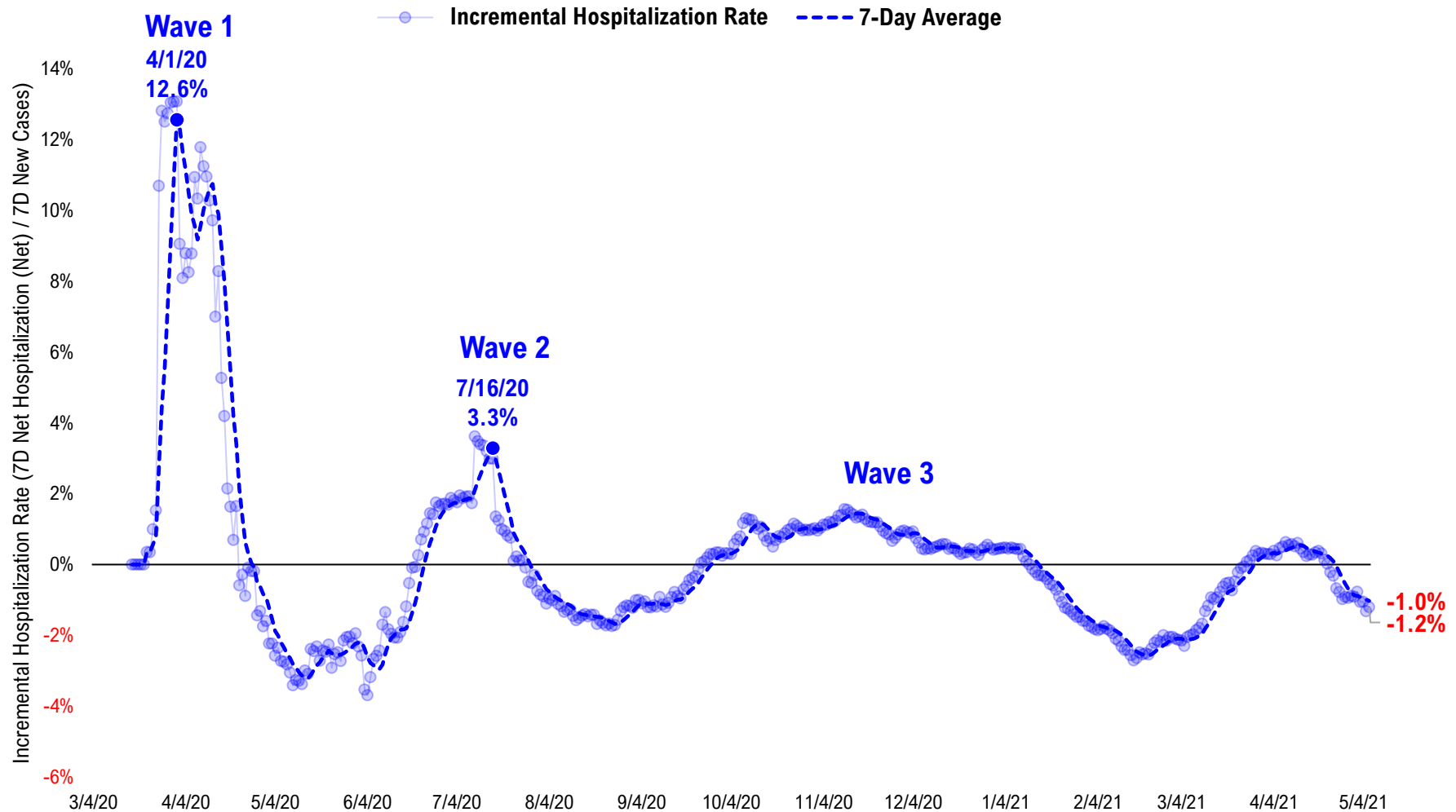
#8: US Daily Hospitalizations...

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



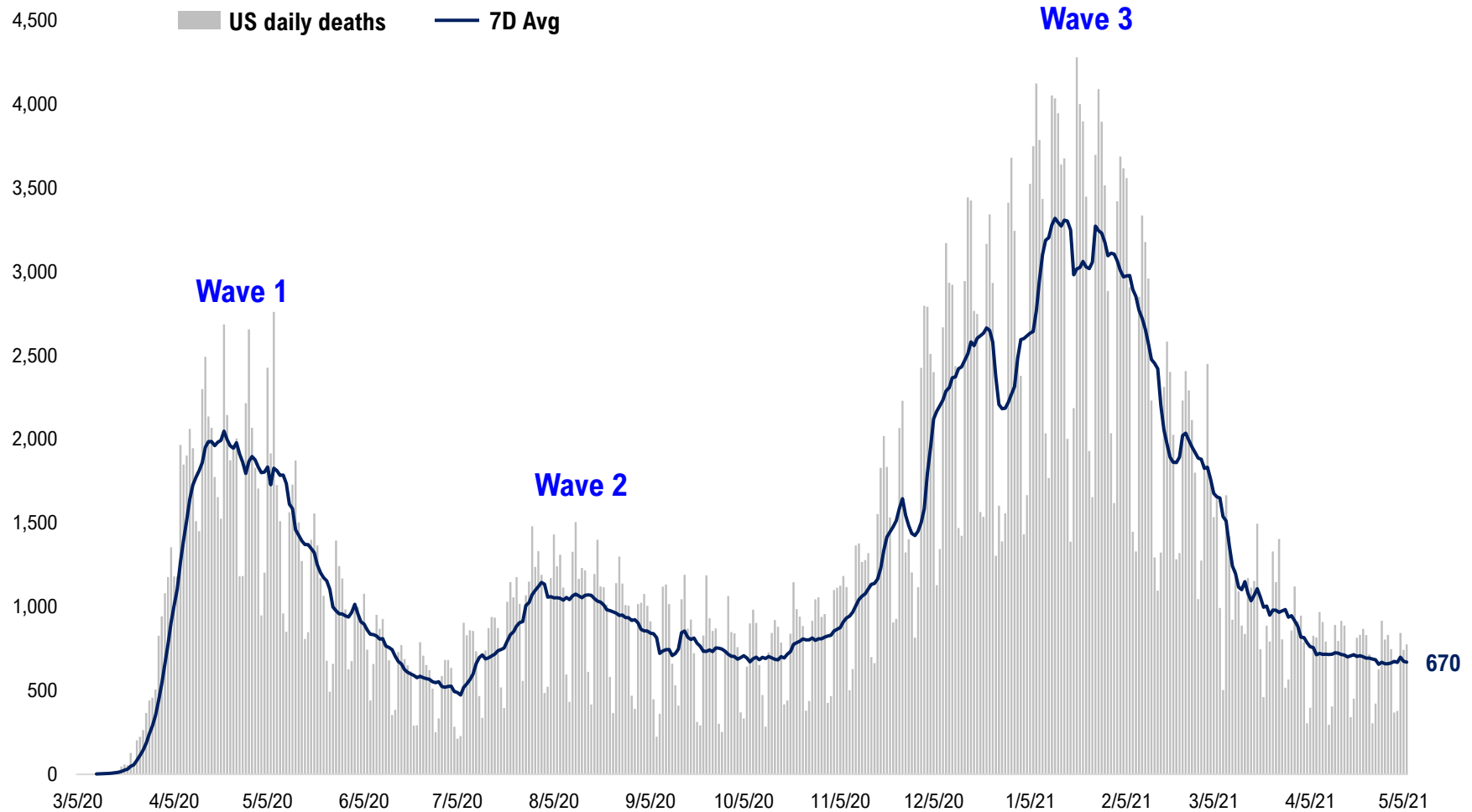
#9: Incremental Hospitalization Rate...

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

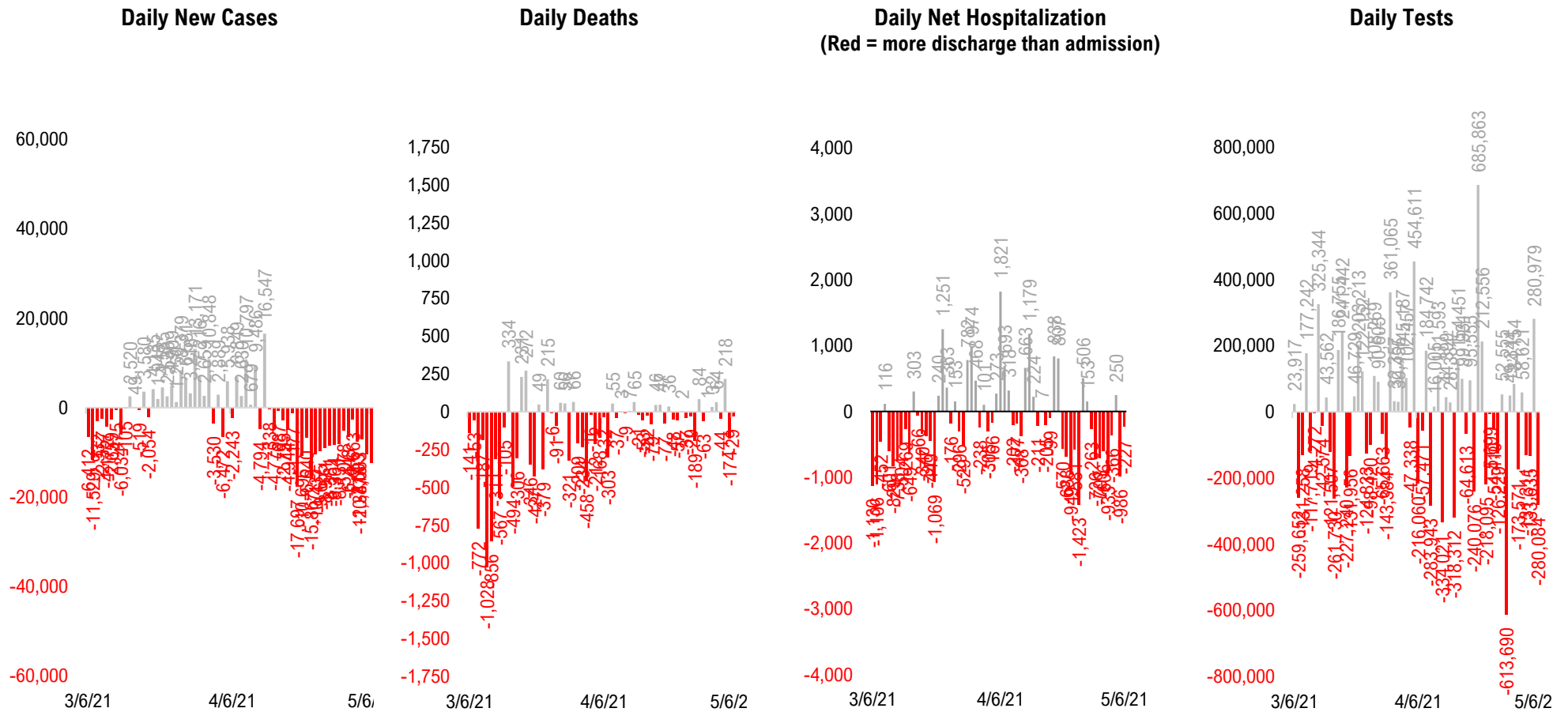


#10: US Daily New Fatalities...

US daily COVID-19 Fatalities

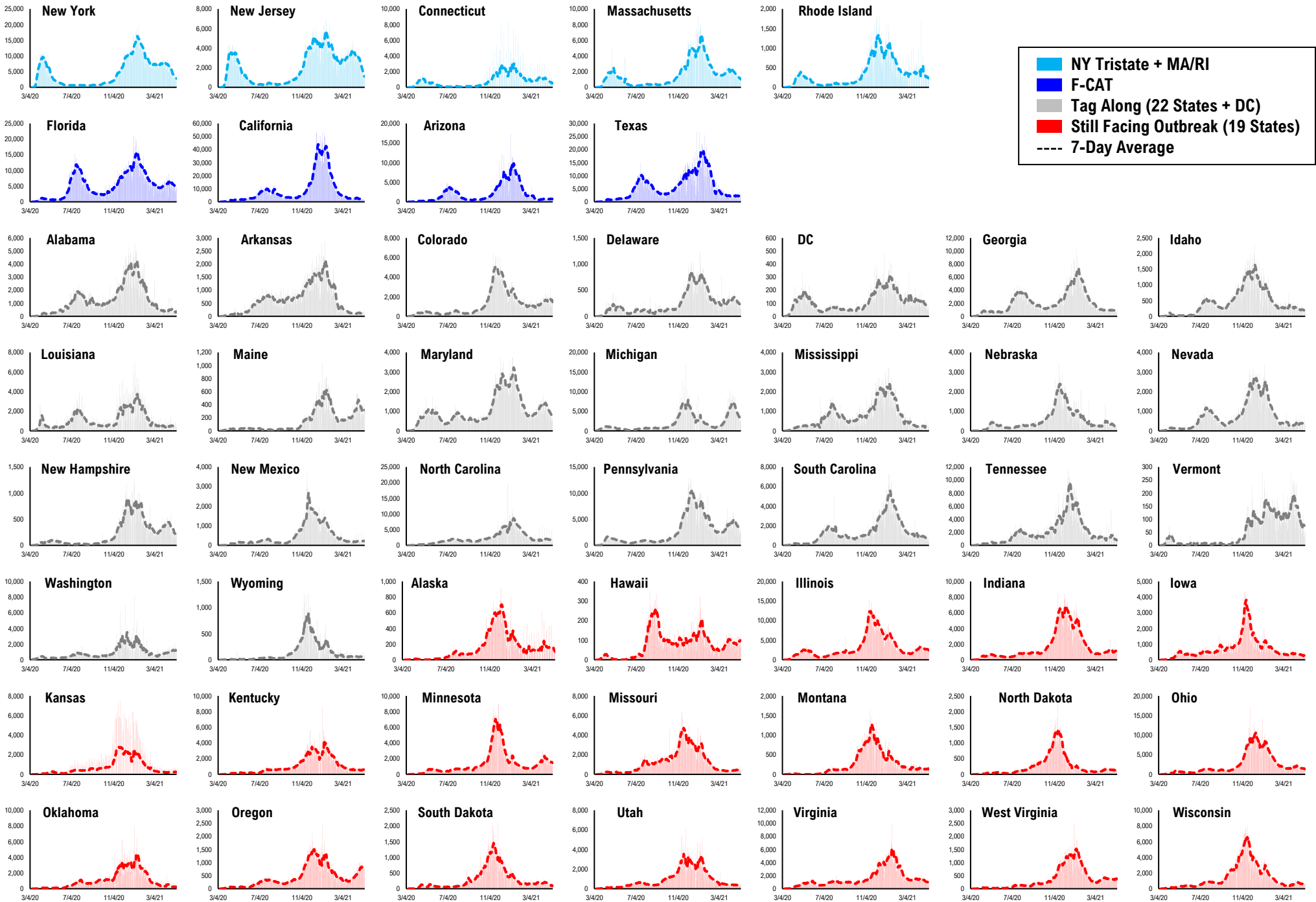


#11: Rolling 7-Day Change in the Key Metrics... (Past 8 Weeks)

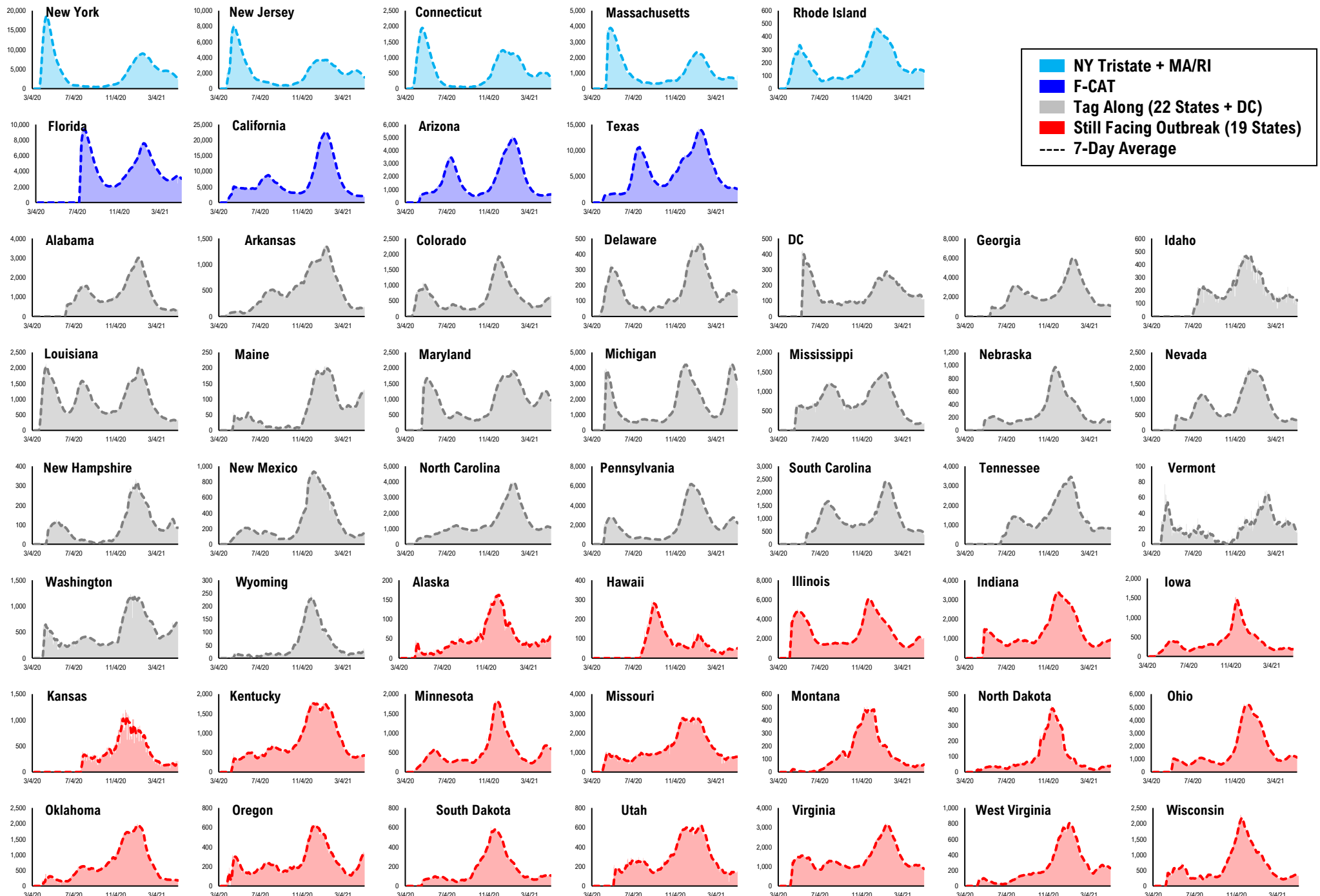


* Ignored California between 8/10 and 8/23, due to its data glitch caused 300,000-case backlog
Source: Fundstrat, COVID-19 Tracking Project, State Department of Health

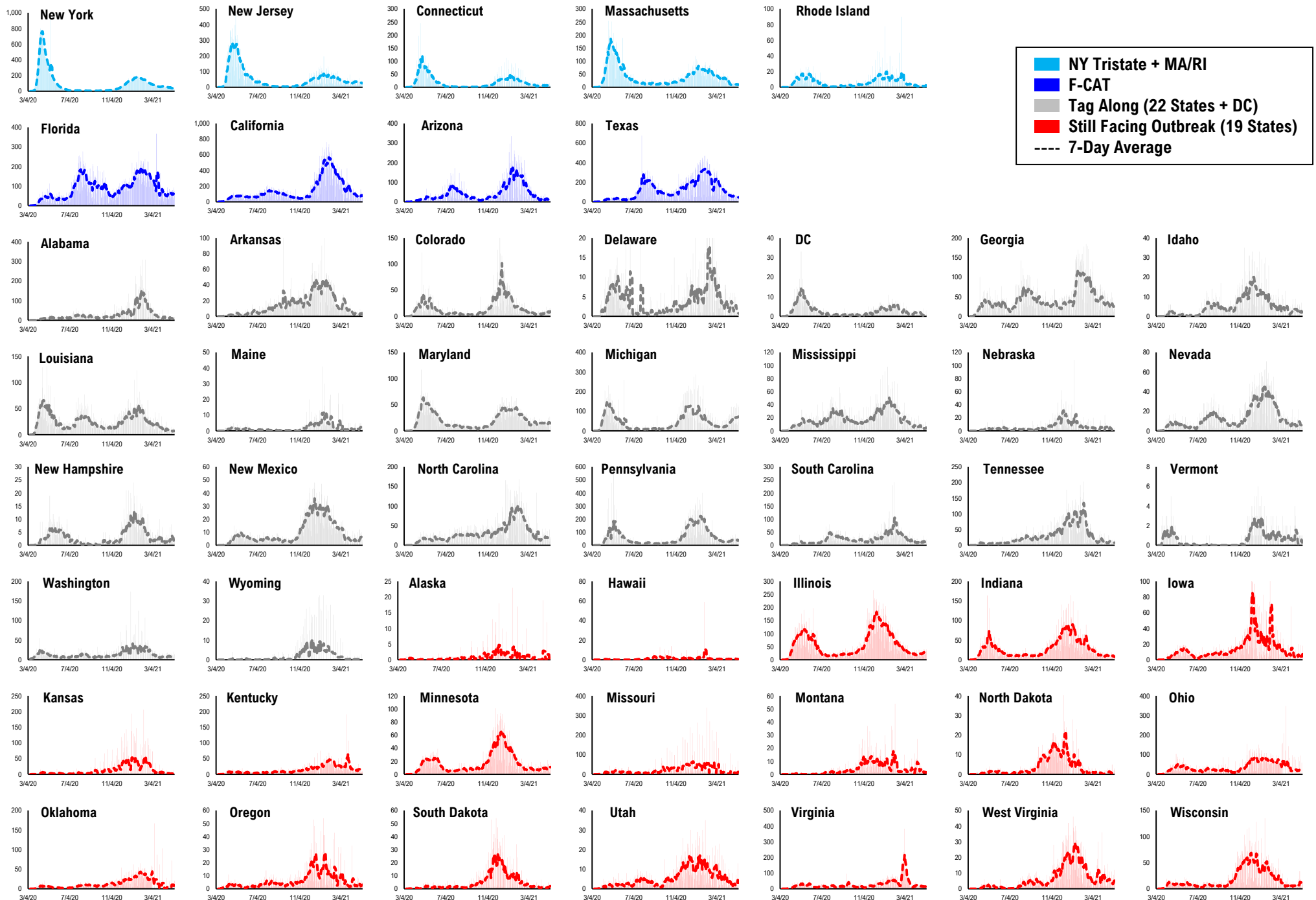
#12: Daily New Cases by States...



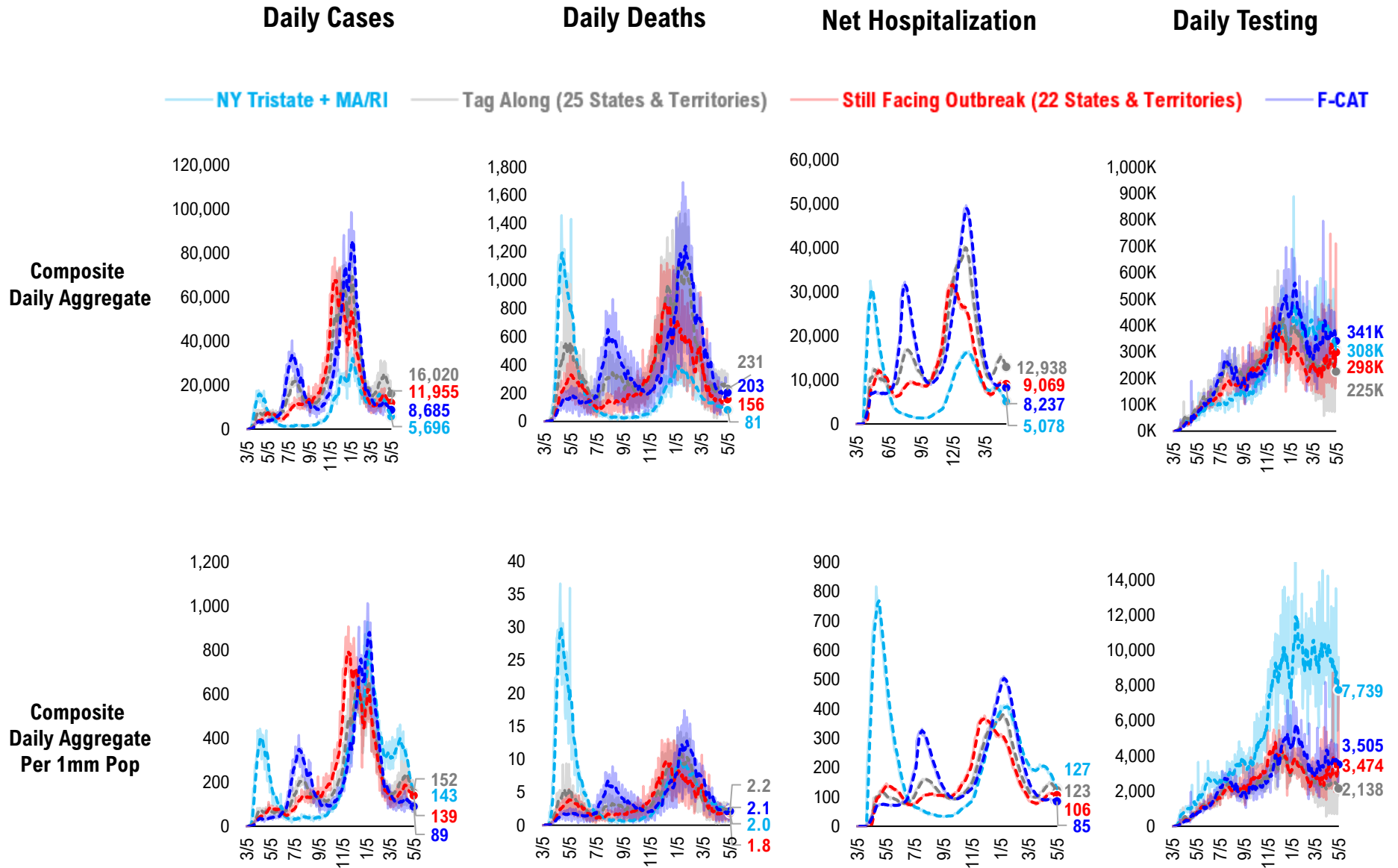
#13: Current Hospitalizations by States...



#14: Daily New Deaths by States...

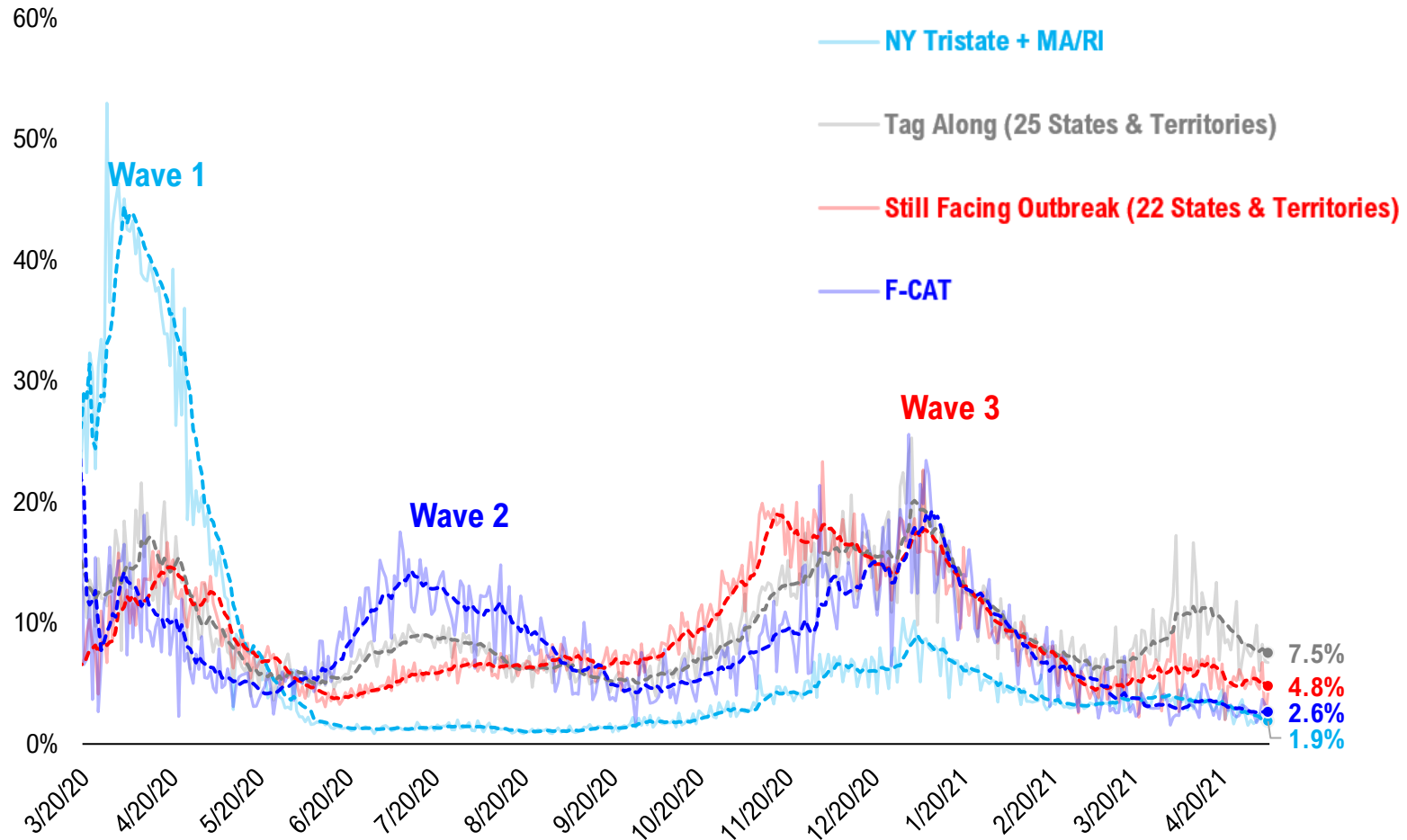


#15: State COVID-19 situation by Tier...

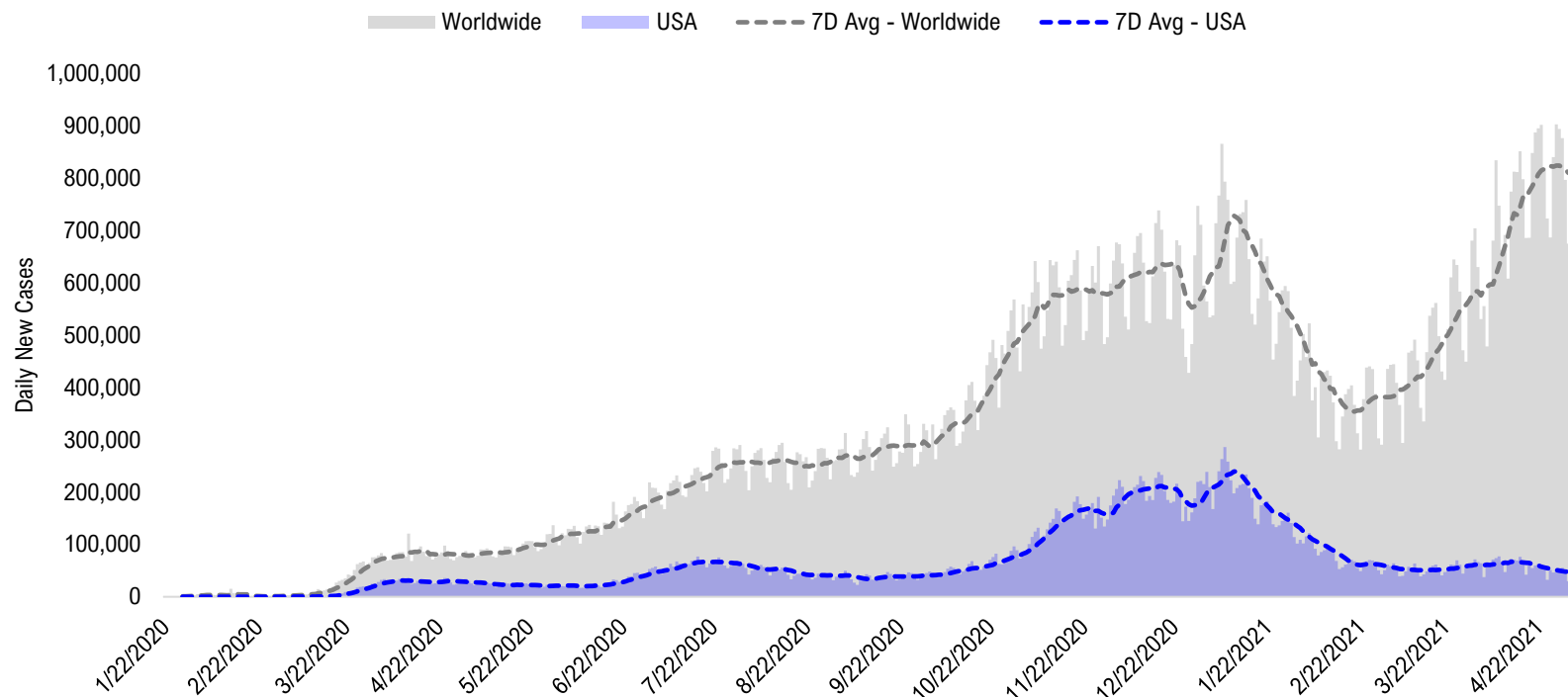


#16: State COVID-19 Daily Positivity Rate by Tier...

Composite Daily Positivity Rate



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



Dec 18	Jan 1	Jan 15	Jan 29	Feb 12	Feb 26	Mar 12	Mar 26	Apr 9	Apr 23	May 5
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 307,379	Pakistan + India + Bangladesh 391,377
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 219,193	Europe 145,305
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 134,173	Latin America 123,723
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 65,809	US + Canada 52,024
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 24,103	Asia ex- India+Pakistan 31,729	Asia ex- India+Pakistan 38,090
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 11,154	Africa 8,956

Disclosures

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