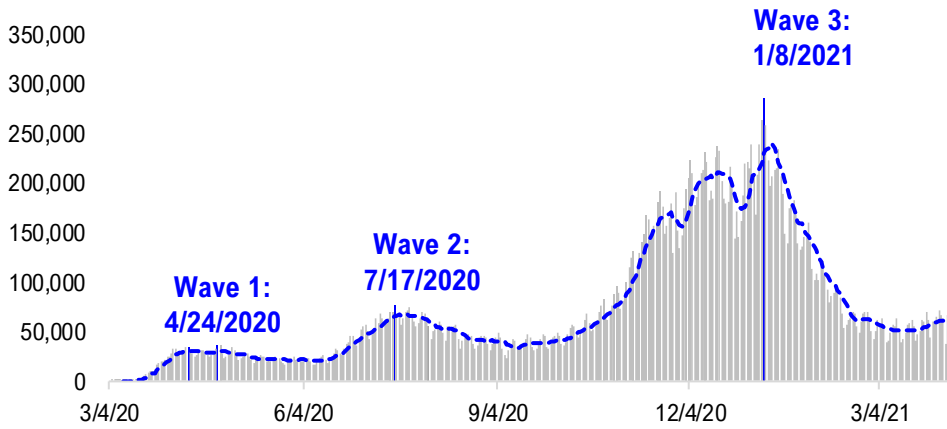


FSInsight Daily COVID-19 Chartbook

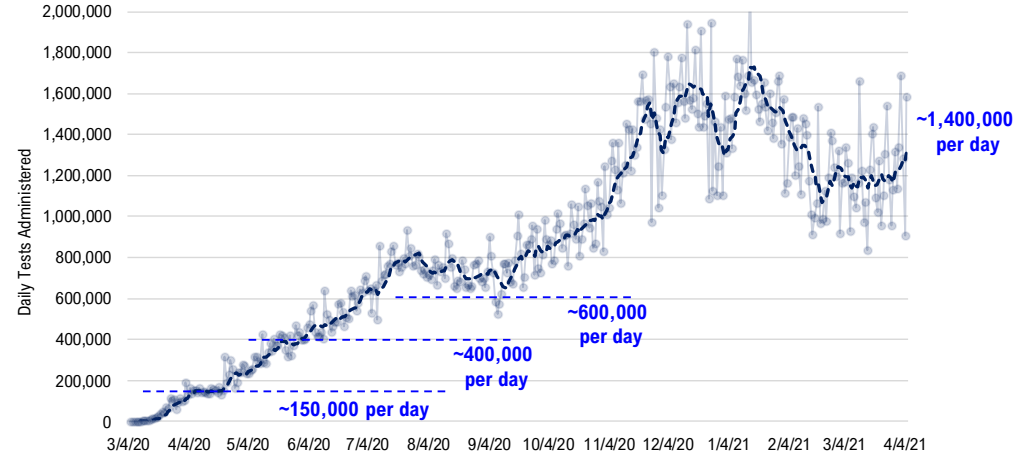


#1: USA COVID-19 Situation at a Glance...

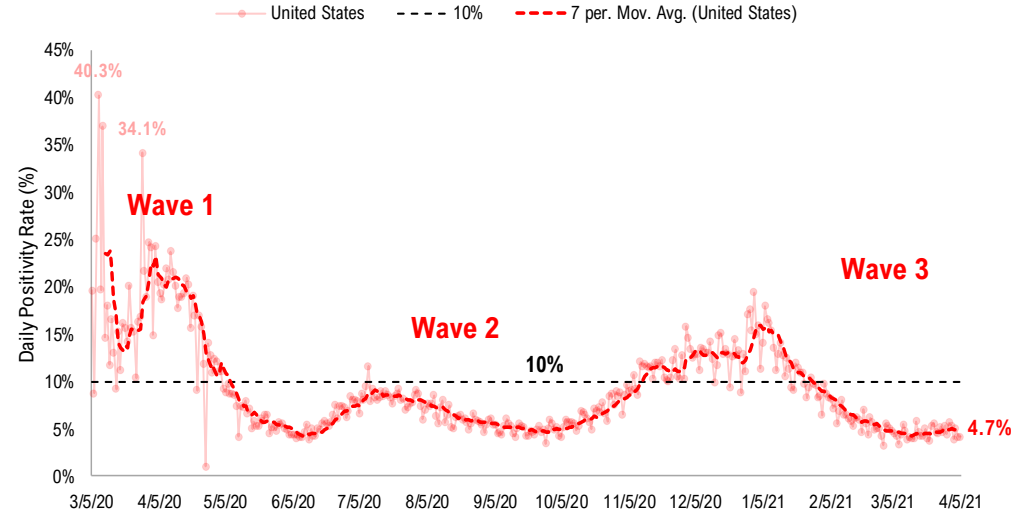
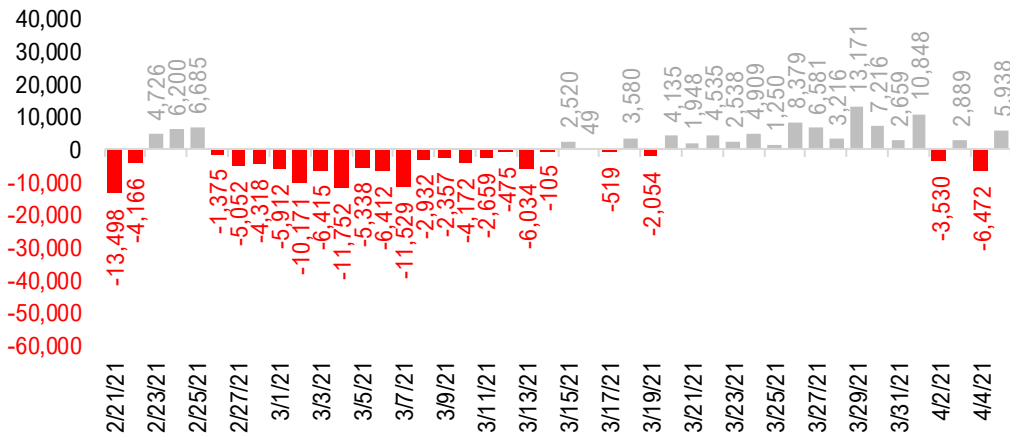
US daily new cases



USA total COVID-19 tests administered

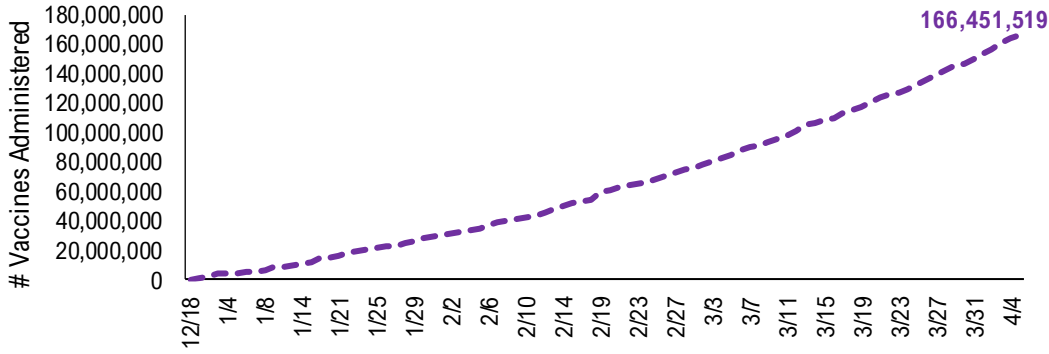


US daily new cases rolling 7D delta

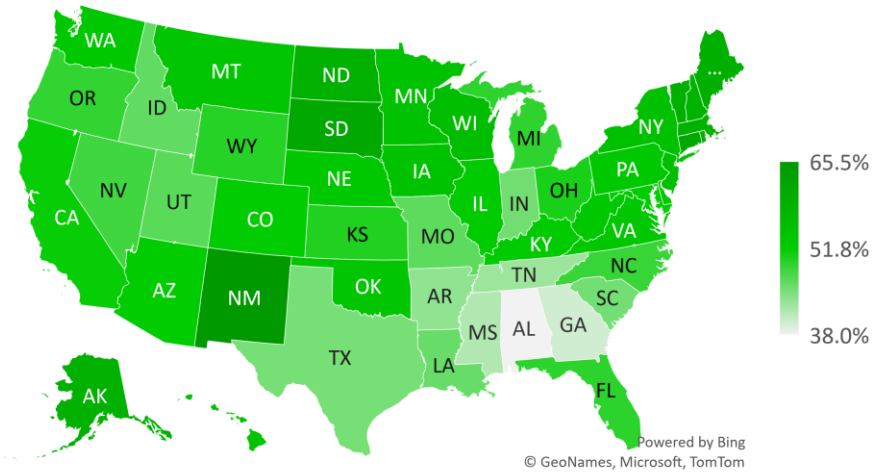


#2: USA COVID-19 Vaccination Progress at a Glance...

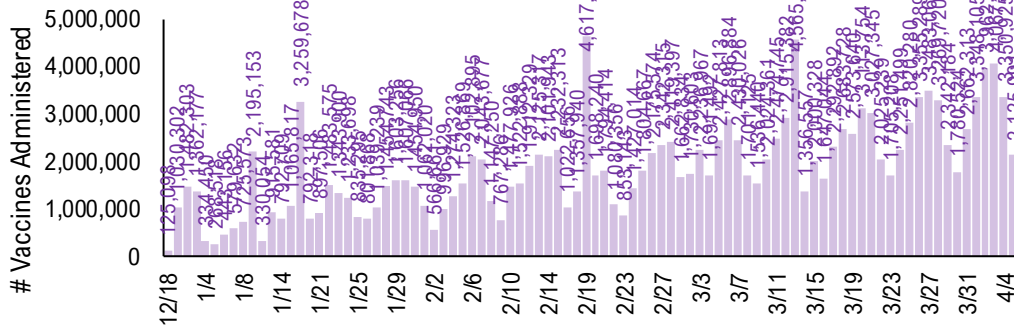
Cumulative Vaccines Administered



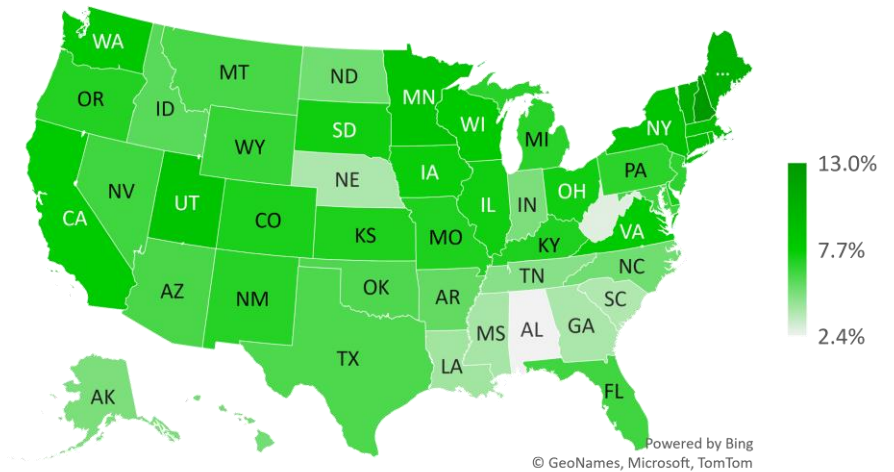
Cumulative Vaccines Administered as % State Population



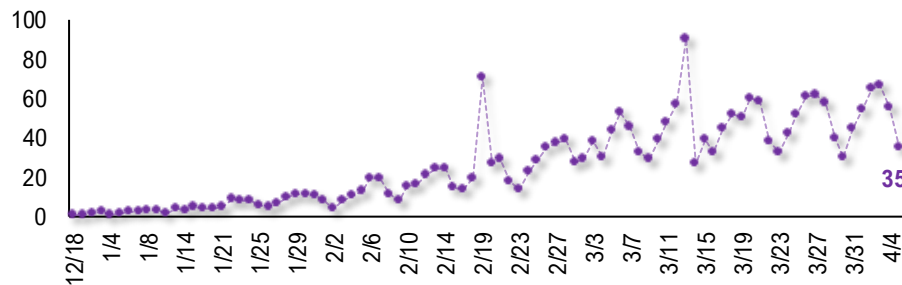
Daily Vaccines Administered



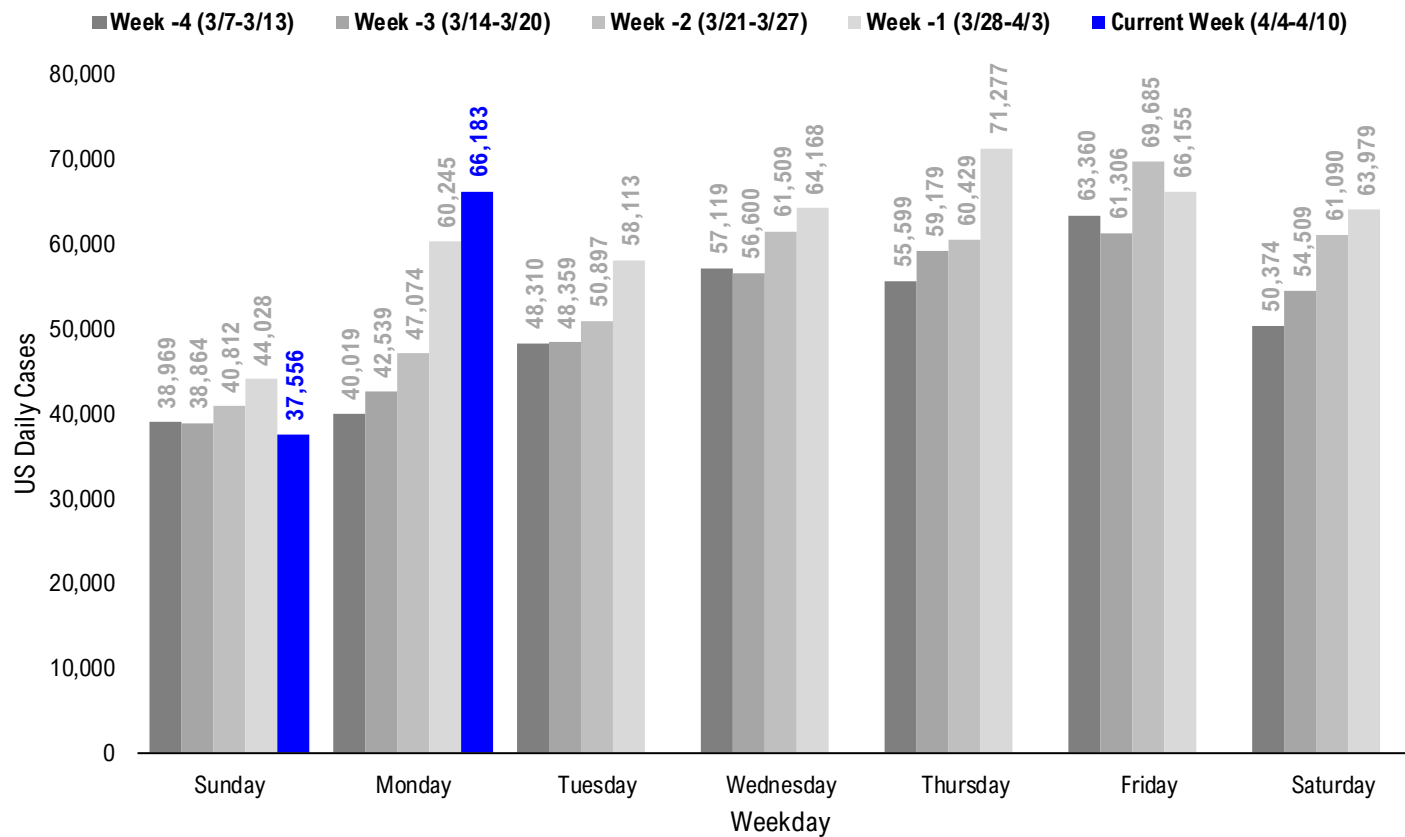
Implied Weekly Vaccines Administered as % State Population



Daily Vaccinations / Daily Cases (7D Avg)



#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	
			4/5	Delta	4/5	Delta				# Days
United States	100%	100%	66.183	+5.938	170	+2	86	-79%	544	0.1%

	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	
			4/5	Delta	4/5	Delta				# Days
United States	100%	100%	66.183	+5.938	170	+2	86	-79%	544	0.1%

States:

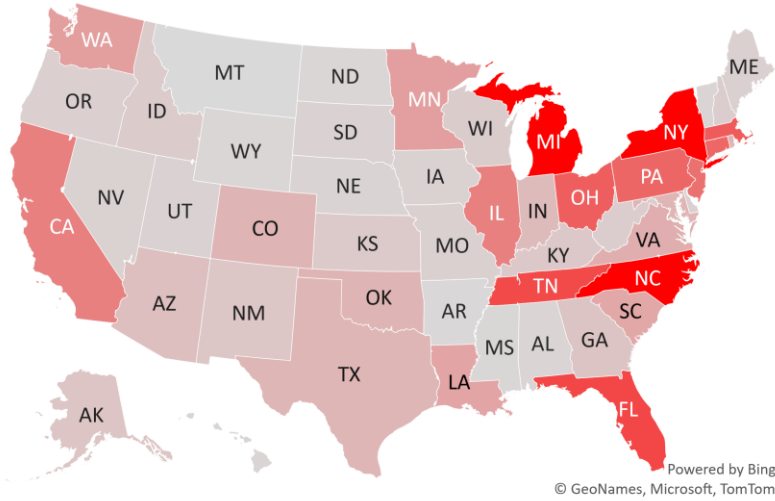
1 Michigan	3.0%	2.6%	10,293	+2,091	624	+195	138	-28%	466	1.1%
2 New York	5.9%	8.1%	6,583	-1,039	375	-57	86	-59%	-141	(0.3%)
3 North Carolina	3.2%	2.7%	6,401	+1,096	203	+35	86	-80%	34	0.3%
4 Florida	6.5%	5.0%	3,480	+106	222	+1	87	-75%	64	0.2%
5 Tennessee	2.1%	1.8%	3,408	+2,120	166	+25	108	-89%	-29	(0.4%)
6 Massachusetts	2.1%	2.8%	2,988	+1,488	263	-29	86	-76%	32	0.2%
7 Ohio	3.5%	3.3%	2,918	+1,421	149	+29	116	-85%	53	0.4%
8 Pennsylvania	3.9%	3.8%	2,718	-205	312	+49	121	-67%	331	1.1%
9 Connecticut	1.1%	1.3%	2,699	-530	252	-50	82	-81%	-14	(0.2%)
10 New Jersey	2.7%	3.0%	2,457	-686	356	-50	86	-48%	67	0.3%
11 California	11.9%	14.6%	2,112	-165	79	+7	85	-94%	-210	(1.2%)
12 Illinois	3.8%	4.2%	2,102	+341	194	+18	143	-82%	229	1.2%
13 Washington	2.3%	2.7%	1,388	+285	107	+7	131	-81%	30	0.5%
14 Minnesota	1.7%	1.8%	1,383	-167	204	-63	126	-85%	105	1.0%
15 Louisiana	1.4%	1.3%	1,259	+419	90	-2	88	-92%	-70	(2.5%)
16 South Carolina	1.6%	1.1%	1,195	+326	158	-62	85	-88%	-1	(0.0%)
17 Virginia	2.6%	2.6%	1,023	-120	150	-24	77	-84%	-15	(0.2%)
18 Rhode Island	0.3%	0.3%	918	+274	289	+86	121	-81%	27	1.0%
19 Oklahoma	1.2%	1.0%	873	-9	74	-1	85	-95%	9	0.4%
20 Colorado	1.7%	1.8%	867	+60	212	+35	135	-80%	0	0.0%
21 Maryland	1.8%	2.0%	859	-172	210	+4	85	-65%	126	1.4%
22 Texas	8.7%	8.8%	837	-1,044	41	-29	88	-95%	-374	(2.5%)
23 Indiana	2.0%	1.8%	715	+2	134	+4	121	-89%	49	0.7%
24 Arizona	2.2%	1.7%	608	+4	81	-7	92	-95%	-33	(0.7%)
25 Georgia	3.2%	2.9%	501	-305	60	-21	85	-93%	-63	(1.1%)
26 Alaska	0.2%	0.3%	483	+483	220	+220	121	-80%	7	0.4%
27 New Mexico	0.6%	0.5%	443	+261	70	-11	136	-95%	-14	(1.0%)
28 Kentucky	1.3%	1.0%	405	+96	73	-22	87	-94%	-11	(0.3%)

States:

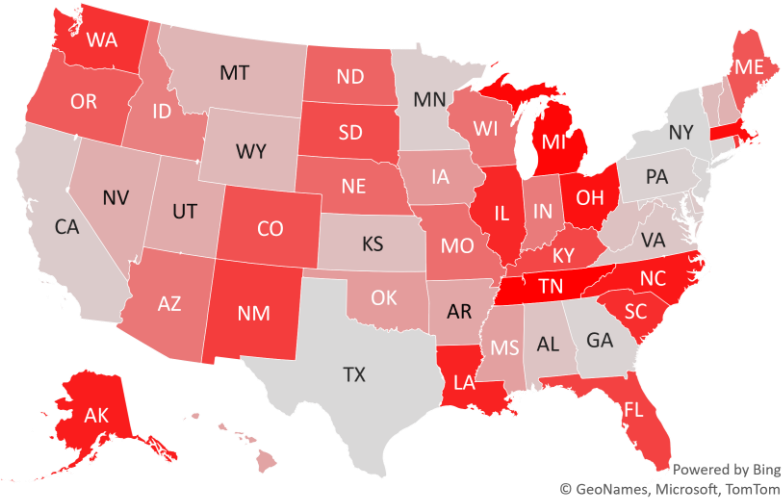
29 Kansas	0.9%	0.8%	354	-75	41	-9	131	-97%	4	0.3%
30 Idaho	0.5%	0.4%	337	+2	122	+18	116	-89%	-81	(3.9%)
31 Wisconsin	1.8%	1.6%	307	+11	91	+24	143	-93%	14	0.3%
32 Puerto Rico	1.0%	0.5%	306	-7	146	+58	107	-59%	81	3.4%
33 New Hampshire	0.4%	0.4%	279	-34	273	+37	91	-66%	11	0.4%
34 West Virginia	0.5%	0.4%	277	-101	201	-30	92	-81%	37	1.3%
35 Oregon	1.3%	1.2%	246	+34	88	+19	120	-79%	35	1.2%
36 Maine	0.4%	0.3%	223	+43	198	+52	80	-68%	5	0.3%
37 Missouri	1.8%	1.5%	206	+13	44	+0	142	-95%	-282	(11.5%)
38 Delaware	0.3%	0.4%	201	-139	338	-31	86	-64%	52	2.4%
39 Nevada	0.9%	0.8%	181	-31	98	+27	86	-90%	34	1.6%
40 Iowa	1.0%	0.9%	178	-7	94	+24	143	-93%	5	0.2%
41 Utah	1.0%	0.9%	173	-21	100	-8	87	-92%	-17	(0.6%)
42 South Dakota	0.3%	0.3%	156	+64	125	-65	142	-94%	-3	(0.3%)
43 Nebraska	0.6%	0.6%	146	+17	124	-29	137	-91%	29	0.9%
44 Vermont	0.2%	0.2%	118	-64	274	+4	3	-21%	-2	(0.2%)
45 Alabama	1.5%	1.1%	109	-119	44	-26	88	-96%	-35	(1.5%)
46 Hawaii	0.4%	0.5%	93	-10	71	-4	219	-66%	-1	(0.1%)
47 Wyoming	0.2%	0.2%	82	-62	47	-36	137	-97%	3	0.9%
48 North Dakota	0.2%	0.3%	76	+20	111	-1	142	-95%	11	1.0%
49 District of Columbia	0.2%	0.7%	75	+2	144	-56	85	-71%	7	0.8%
50 Mississippi	0.9%	0.6%	70	-9	51	-3	86	-95%	0	0.0%
51 Arkansas	0.9%	0.6%	42	-17	28	+2	85	-96%	-19	(2.6%)
52 U.S. Virgin Islands	0.0%	0.0%	32	+32	100	+41	8	-77%	0	0.0%
53 Montana	0.3%	0.2%	0	-35	90	+33	141	-93%	2	0.2%
54 Northern Mariana	0.0%	0.0%	0	+0	0	+0	160	-100%	0	
55 Guam	0.0%	0.0%	0	+0	0	+0	146	-100%	0	0.0%
56 American Samoa	0.0%	0.0%	0	+0	0	+0	0	0%	0	

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

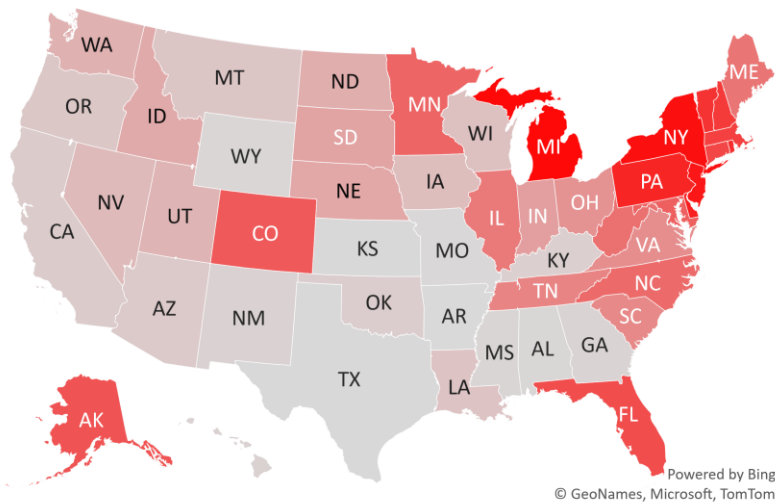
Daily Case Increases



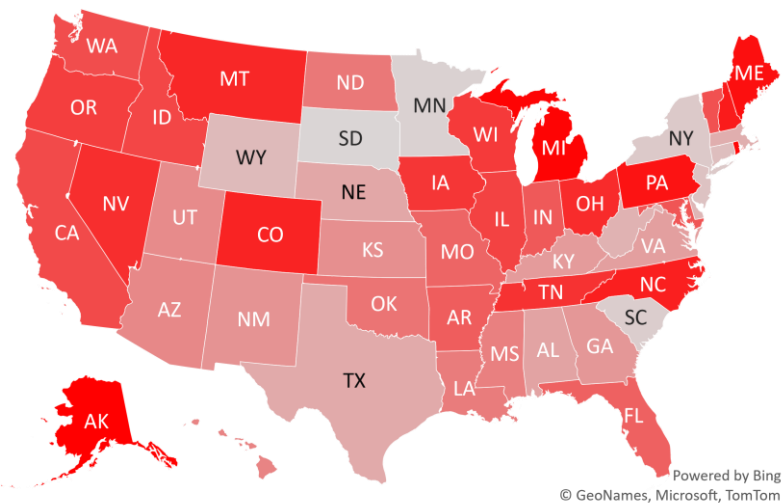
7D Delta in Daily New Cases



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



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



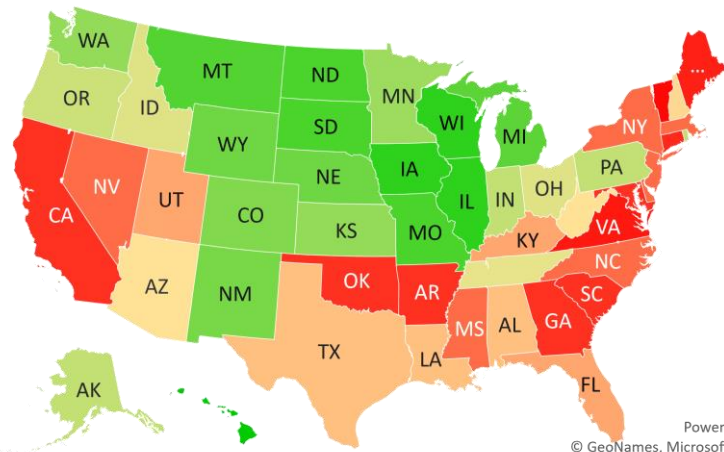
#6: # of Days since Daily Case Peaked by States...

Days since Daily Cases (3D Avg) Peak (as of 4/5)

	Sorted			
	Peak Date	4/5/21	% off the Peak	% US Pop
United States	1/9/21	86	-79%	100%
States:				
Hawaii	8/29/20	219	-66%	0.4%
Northern Mariana Island	10/27/20	160	-100%	0.0%
Guam	11/10/20	146	-100%	0.0%
Wisconsin	11/13/20	143	-93%	1.8%
Illinois	11/13/20	143	-82%	3.8%
Iowa	11/13/20	143	-93%	1.0%
South Dakota	11/14/20	142	-94%	0.3%
North Dakota	11/14/20	142	-95%	0.2%
Missouri	11/14/20	142	-95%	1.8%
Montana	11/15/20	141	-93%	0.3%
Michigan	11/18/20	138	-28%	3.0%
Wyoming	11/19/20	137	-97%	0.2%
Nebraska	11/19/20	137	-91%	0.6%
New Mexico	11/20/20	136	-95%	0.6%
Colorado	11/21/20	135	-80%	1.7%
Washington	11/25/20	131	-81%	2.3%
Kansas	11/25/20	131	-97%	0.9%
Minnesota	11/30/20	126	-85%	1.7%
Rhode Island	12/5/20	121	-81%	0.3%
Pennsylvania	12/5/20	121	-67%	3.9%
Indiana	12/5/20	121	-89%	2.0%
Alaska	12/5/20	121	-80%	0.2%
Oregon	12/6/20	120	-79%	1.3%
Ohio	12/10/20	116	-85%	3.5%
Idaho	12/10/20	116	-89%	0.5%
Tennessee	12/18/20	108	-89%	2.1%
Puerto Rico	12/19/20	107	-59%	1.0%
West Virginia	1/3/21	92	-81%	0.5%

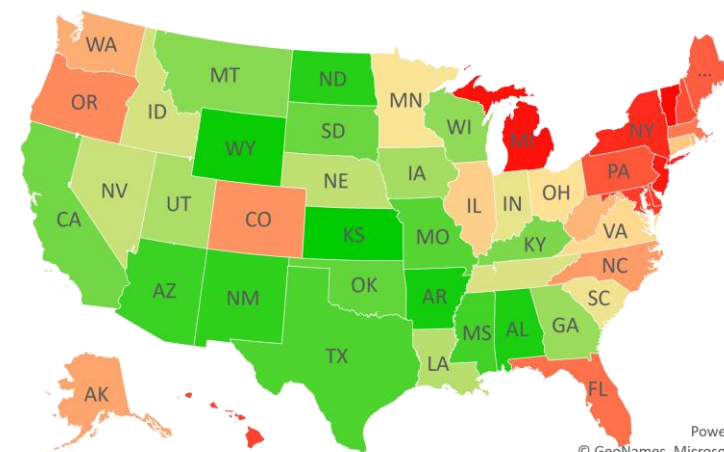
	Sorted			
	Peak Date	4/5/21	% off the Peak	% US Pop
United States	1/9/21	86	-79%	100%
States:				
Arizona	1/3/21	92	-95%	2.2%
New Hampshire	1/4/21	91	-66%	0.4%
Texas	1/7/21	88	-95%	8.7%
Louisiana	1/7/21	88	-92%	1.4%
Alabama	1/7/21	88	-96%	1.5%
Utah	1/8/21	87	-92%	1.0%
Kentucky	1/8/21	87	-94%	1.3%
Florida	1/8/21	87	-75%	6.5%
New York	1/9/21	86	-59%	5.9%
Nevada	1/9/21	86	-90%	0.9%
New Jersey	1/9/21	86	-48%	2.7%
North Carolina	1/9/21	86	-80%	3.2%
Mississippi	1/9/21	86	-95%	0.9%
Massachusetts	1/9/21	86	-76%	2.1%
Delaware	1/9/21	86	-64%	0.3%
South Carolina	1/10/21	85	-88%	1.6%
Oklahoma	1/10/21	85	-95%	1.2%
Maryland	1/10/21	85	-65%	1.8%
Georgia	1/10/21	85	-93%	3.2%
District of Columbia	1/10/21	85	-71%	0.2%
California	1/10/21	85	-94%	11.9%
Arkansas	1/10/21	85	-96%	0.9%
Connecticut	1/13/21	82	-81%	1.1%
Maine	1/15/21	80	-68%	0.4%
Virginia	1/18/21	77	-84%	2.6%
U.S. Virgin Islands	3/28/21	8	-77%	0.0%
Vermont	4/2/21	3	-21%	0.2%

Days since Daily Case Peak: Longer = Good



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Daily Cases % off the Peak: Larger Decline = Good



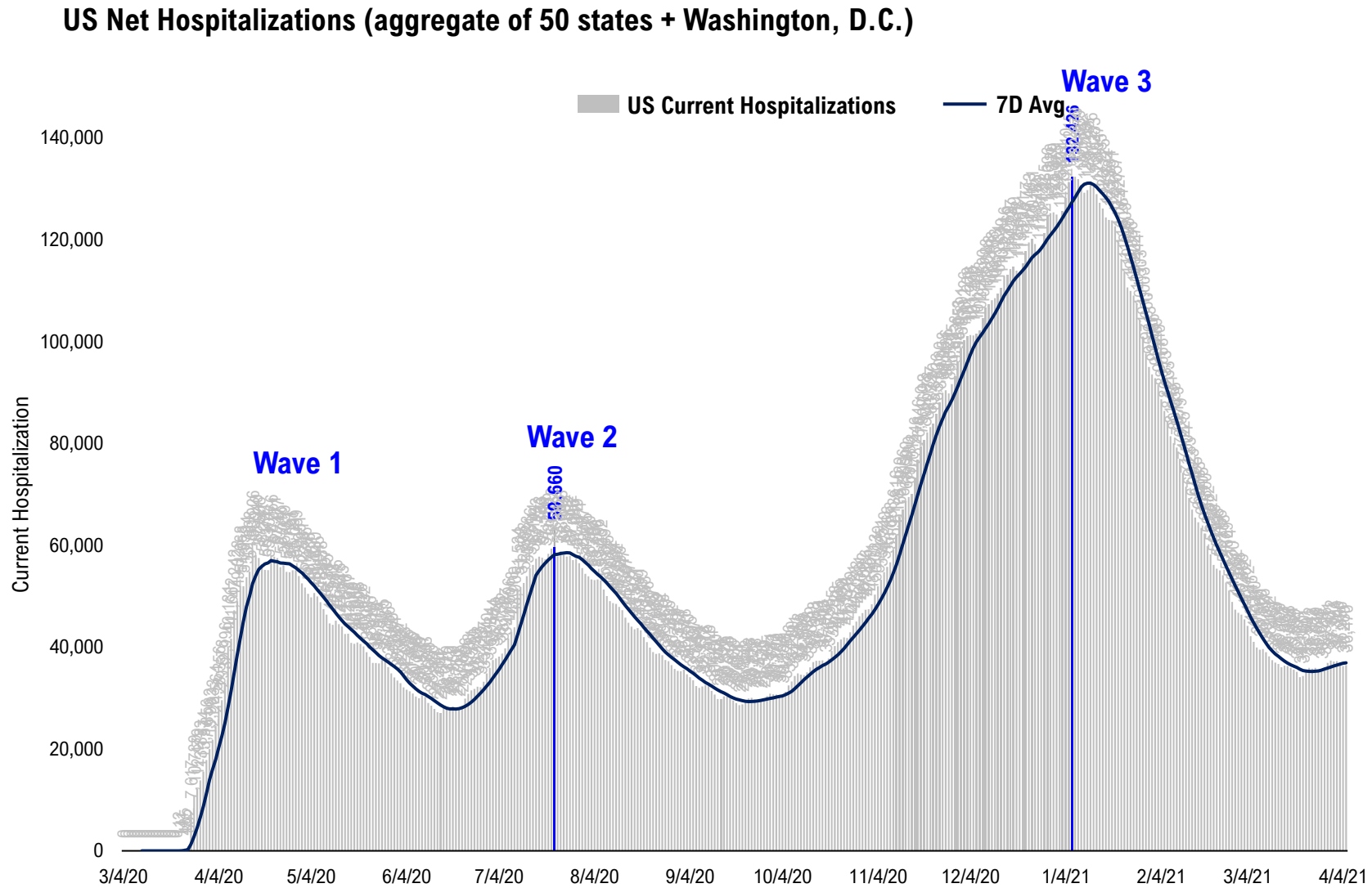
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#7: US New Cases by States... (sorted by today's new cases)

	Sorted						Sorted				
	7D Ago	Last 3-day Trend					7D Ago	Last 3-day Trend			
	3/29/21	4/3/21	4/4/21	4/5/21	vs 7D ago		3/29/21	4/3/21	4/4/21	4/5/21	vs 7D ago
United States	60,245	63,979	37,556	66,183	+5,938	United States	60,245	63,979	37,556	66,183	+5,938
States:						States:					
Michigan	8,202	8,413	0	10,293	<--higher	Kansas	429	0	0	354	
New York	7,622	7,846	7,467	6,583		Idaho	335	0	318	337	
North Carolina	5,305	0	0	6,401	<--higher	Wisconsin	296	706	584	307	
Florida	3,374	6,017	4,794	3,480		Puerto Rico	313	623	470	306	
Tennessee	1,288	0	0	3,408		New Hampshire	313	438	398	279	
Massachusetts	1,500	2,453	0	2,988	<--higher	West Virginia	378	453	350	277	
Ohio	1,497	2,293	0	2,918	<--higher	Oregon	212	467	402	246	
Pennsylvania	2,923	5,343	3,933	2,718		Maine	180	279	295	223	<--higher
Connecticut	3,229	0	0	2,699		Missouri	193	327	279	206	
New Jersey	3,143	3,756	3,281	2,457		Delaware	340	487	299	201	
California	2,277	4,877	2,400	2,112		Nevada	212	462	260	181	
Illinois	1,761	2,839	2,449	2,102		Iowa	185	376	332	178	
Washington	1,103	1,053	0	1,388	<--higher	Utah	194	447	344	173	
Minnesota	1,550	2,064	0	1,383		South Dakota	92	175	0	156	<--higher
Louisiana	840	0	0	1,259	<--higher	Nebraska	129	331	242	146	
South Carolina	869	1,243	0	1,195	<--higher	Vermont	182	150	244	118	
Virginia	1,143	1,542	1,267	1,023		Alabama	228	349	194	109	
Rhode Island	644	0	0	918	<--higher	Hawaii	103	112	96	93	
Oklahoma	882	0	0	873		Wyoming	144	0	0	82	
Colorado	807	1,571	1,220	867		North Dakota	56	117	61	76	<--higher
Maryland	1,031	1,275	1,669	859		District of Columbia	73	125	105	75	
Texas	1,881	1,250	1,465	837		Mississippi	79	290	97	70	
Indiana	713	1,049	945	715		Arkansas	59	144	72	42	
Arizona	604	706	464	608		U.S. Virgin Islands	0	0	0	32	
Georgia	806	770	653	501		Montana	35	182	107	0	
Alaska	0	0	0	483		Northern Mariana Islands	0	0	0	0	
New Mexico	182	0	0	443	<--higher	Guam	0	0	0	0	
Kentucky	309	579	0	405	<--higher	American Samoa	0	0	0	0	

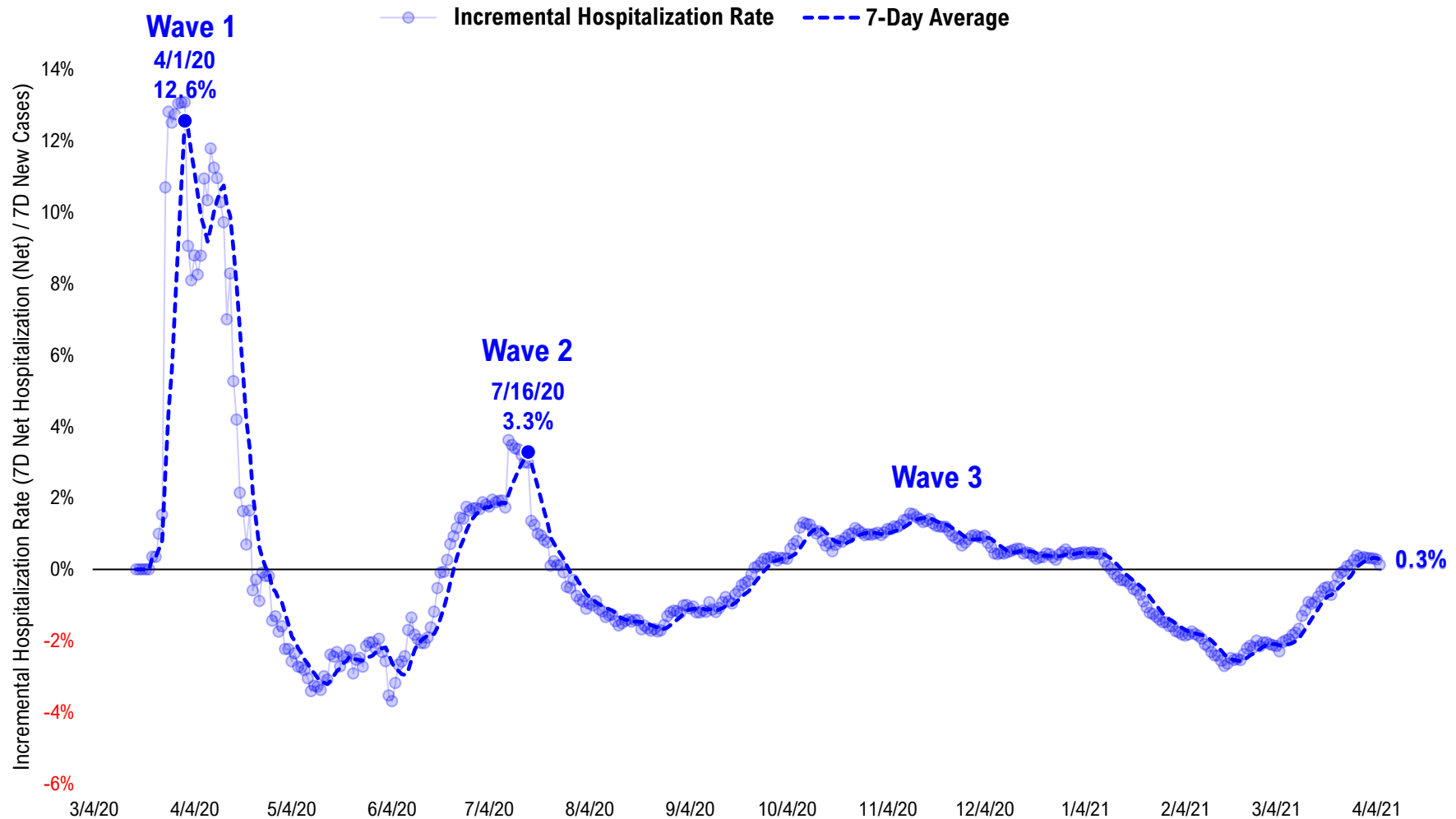
<--higher – if the state has 20% more daily cases than 7D ago...
Source: Fundstrat, COVID-19 Tracking Project, State Department of Health

#8: US Daily Hospitalizations...



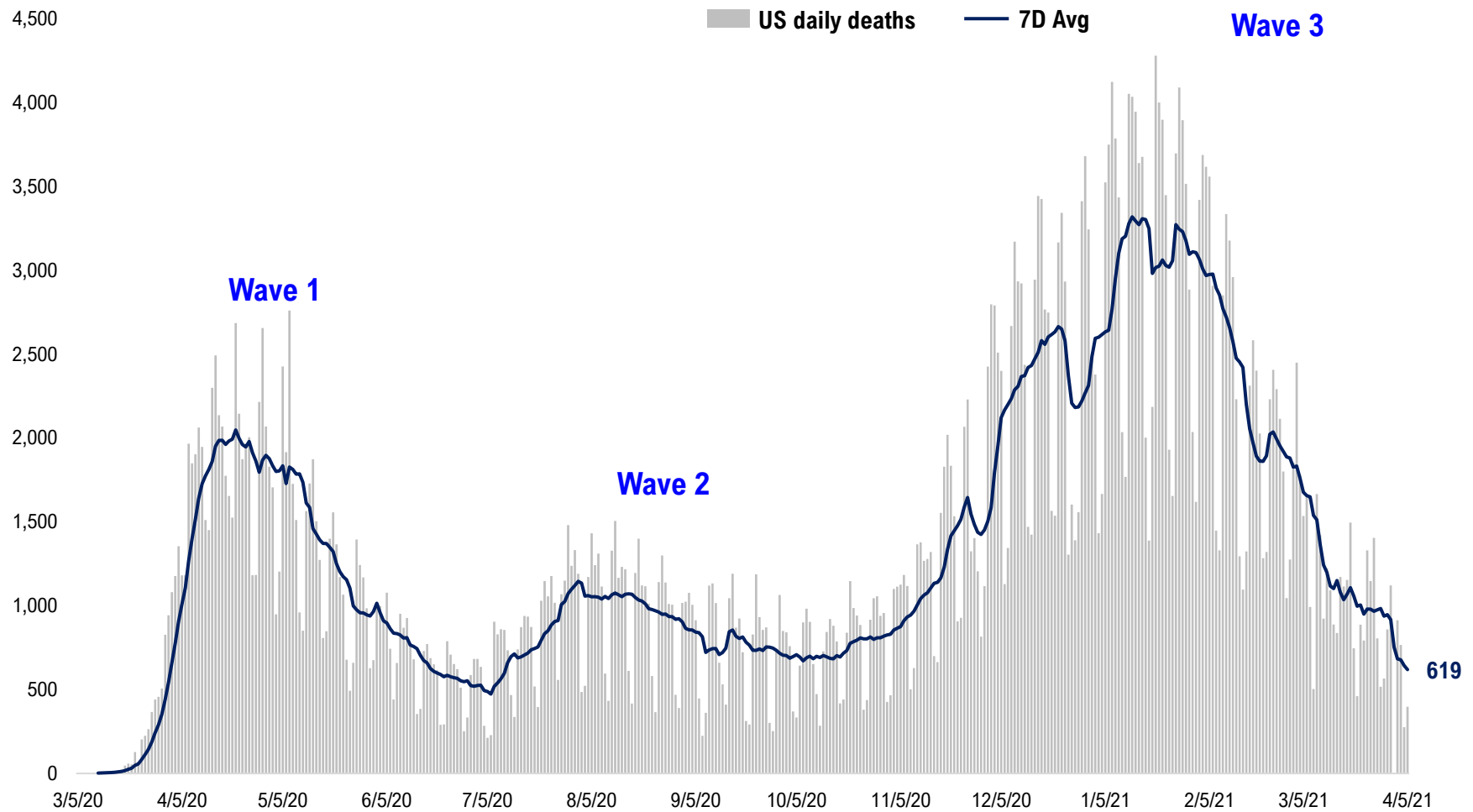
#9: Incremental Hospitalization Rate...

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

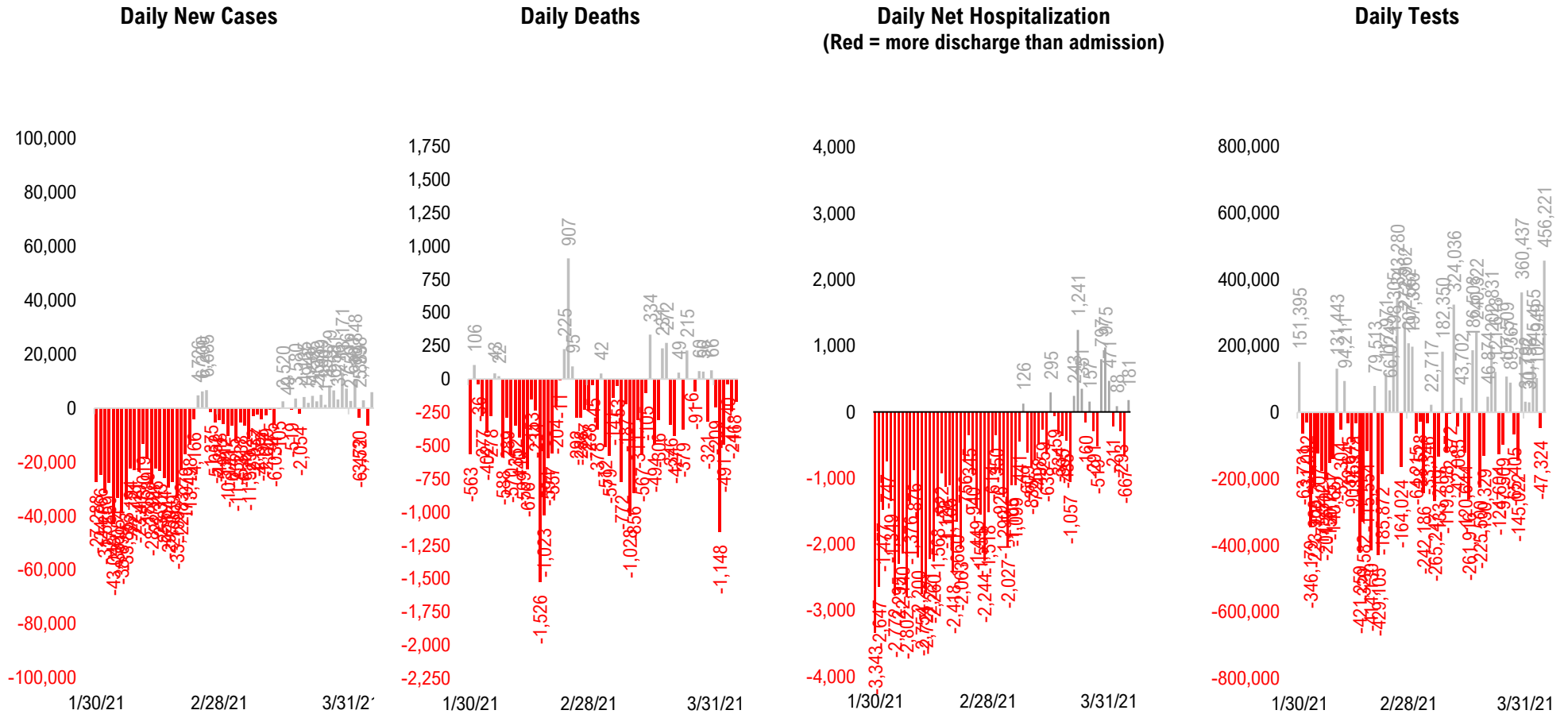


#10: US Daily New Fatalities...

US daily COVID-19 Fatalities



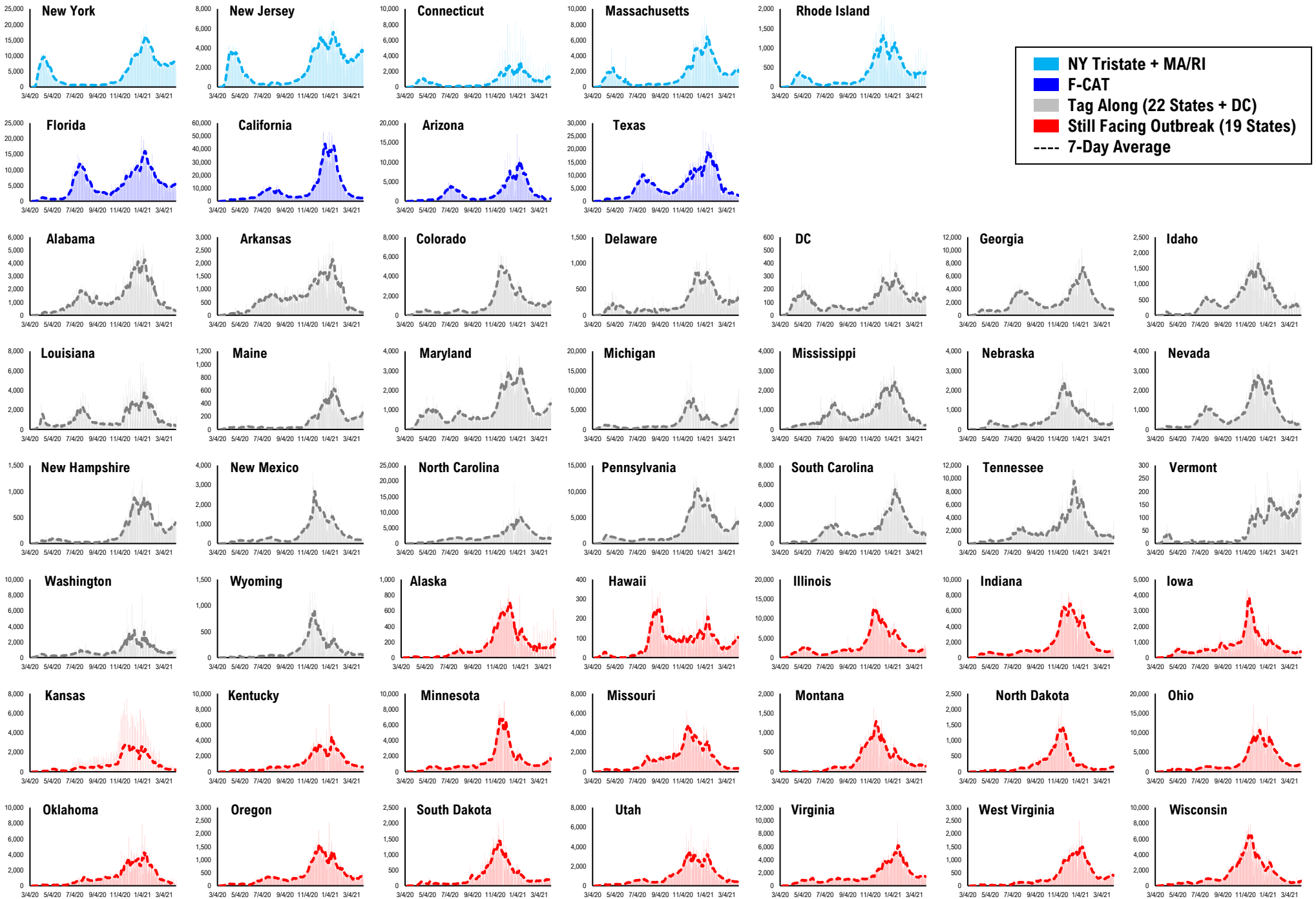
#11: Rolling 7-Day Change in the Key Metrics... (Past 8 Weeks)



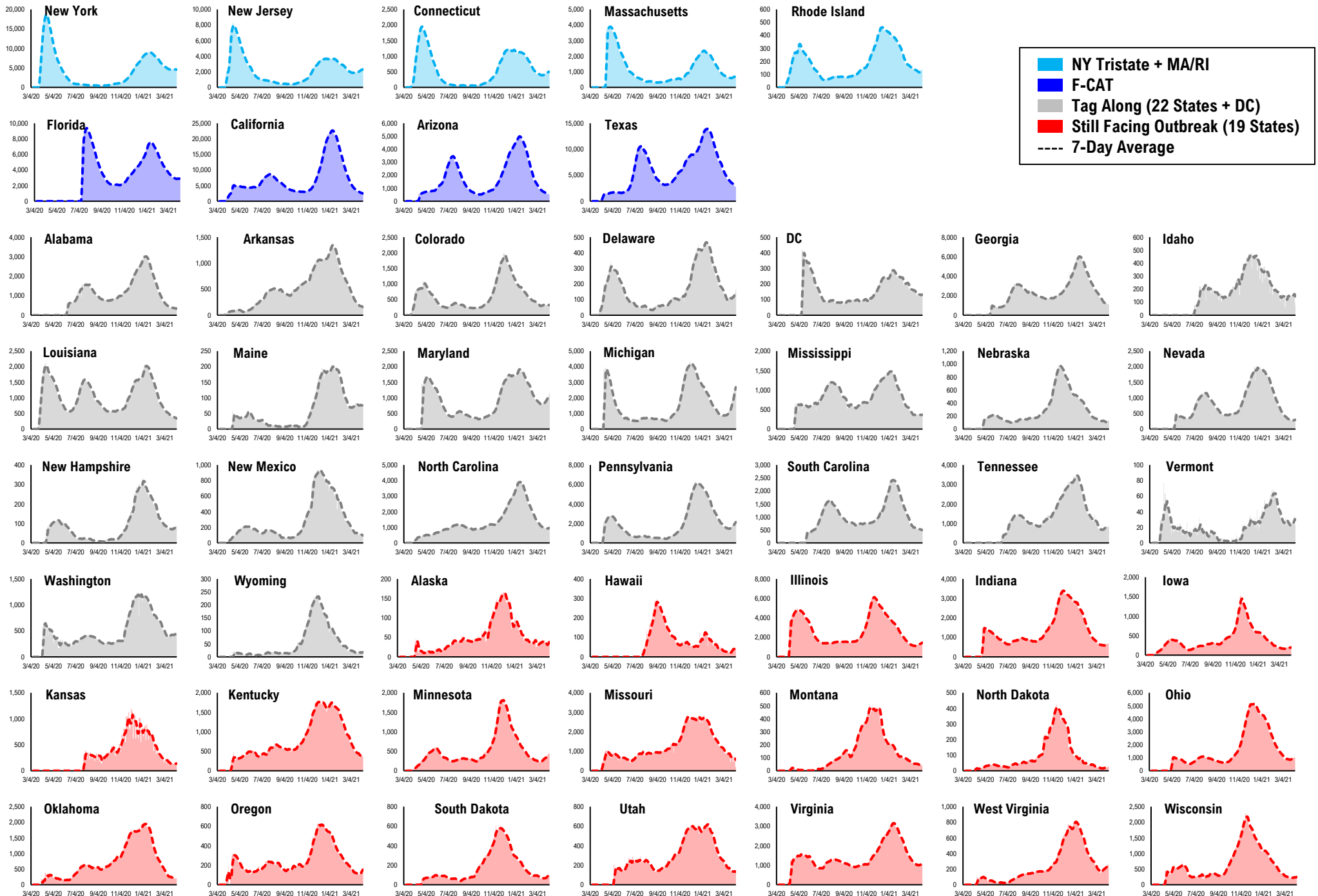
* Ignored California between 8/10 and 8/23, due to its data glitch caused 300,000-case backlog

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

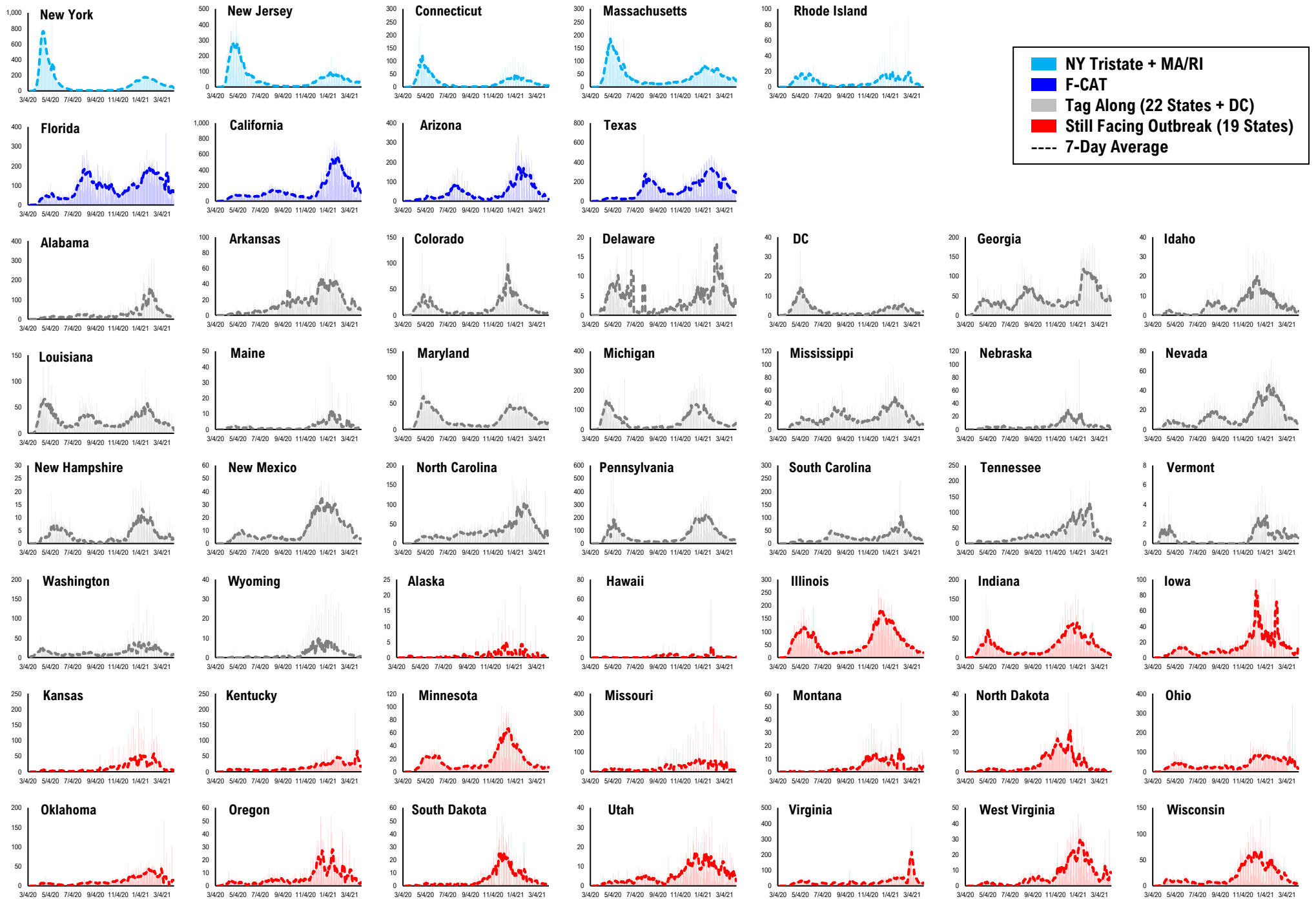
#12: Daily New Cases by States...



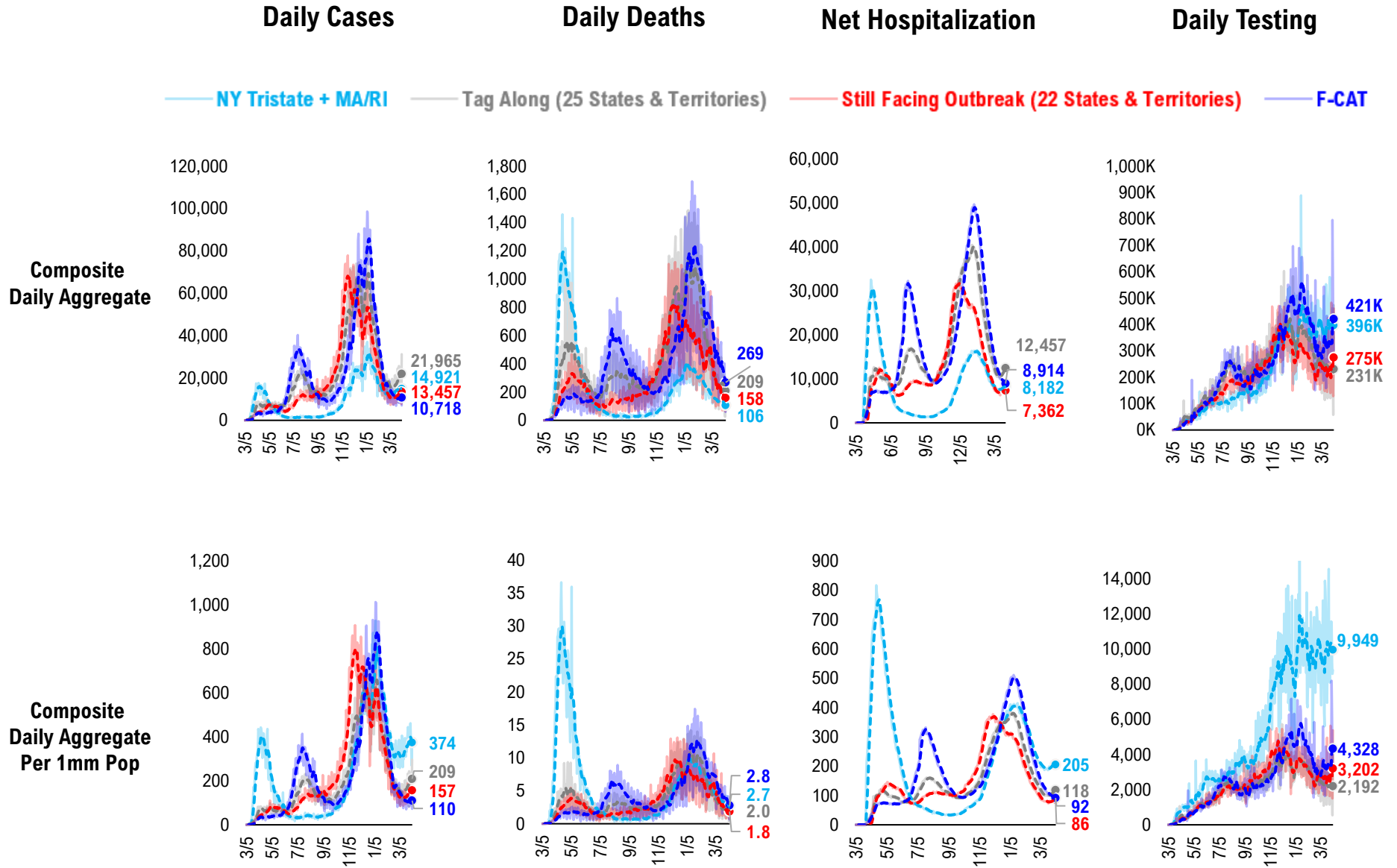
#13: Current Hospitalizations by States...



#14: Daily New Deaths by States...

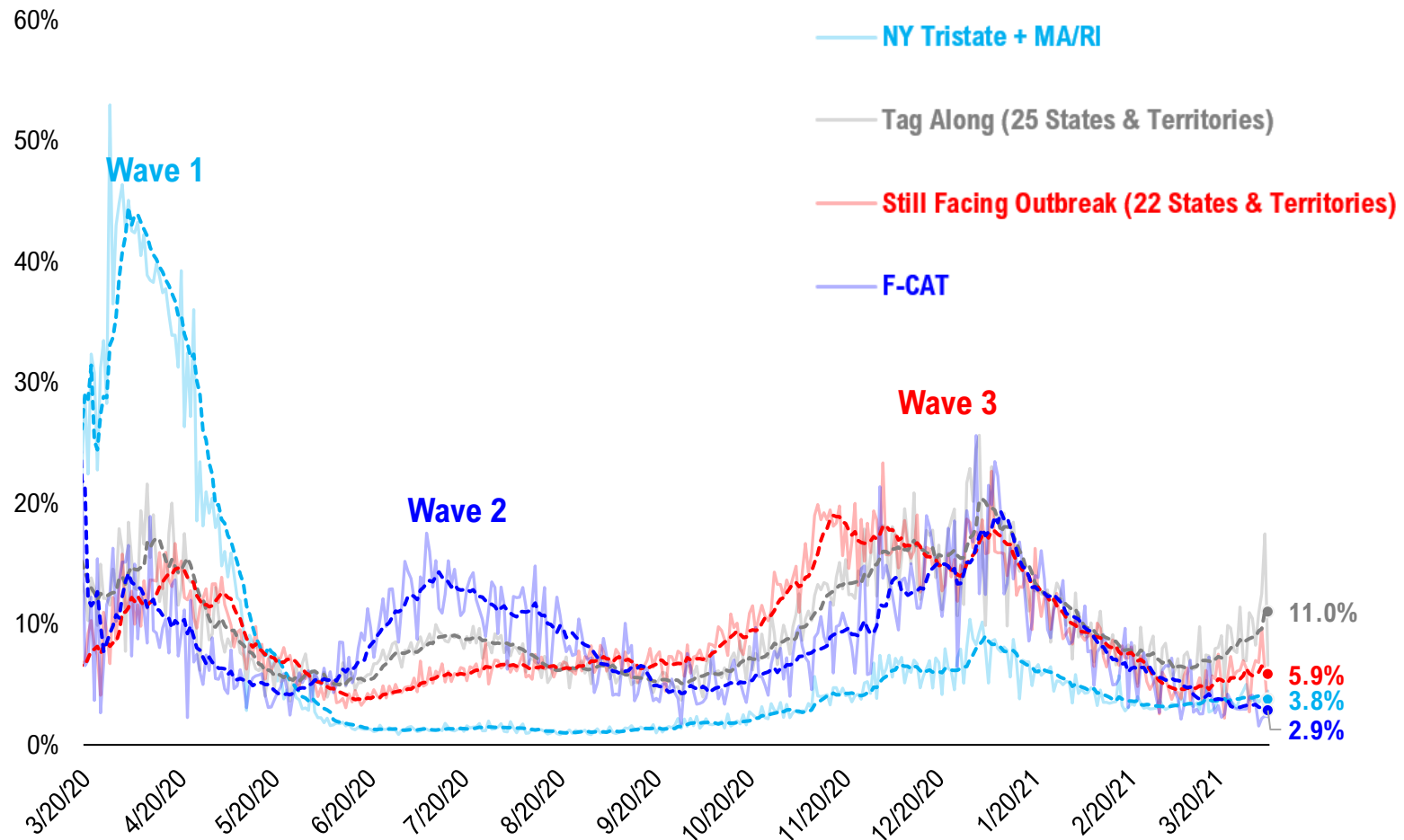


#15: State COVID-19 situation by Tier...

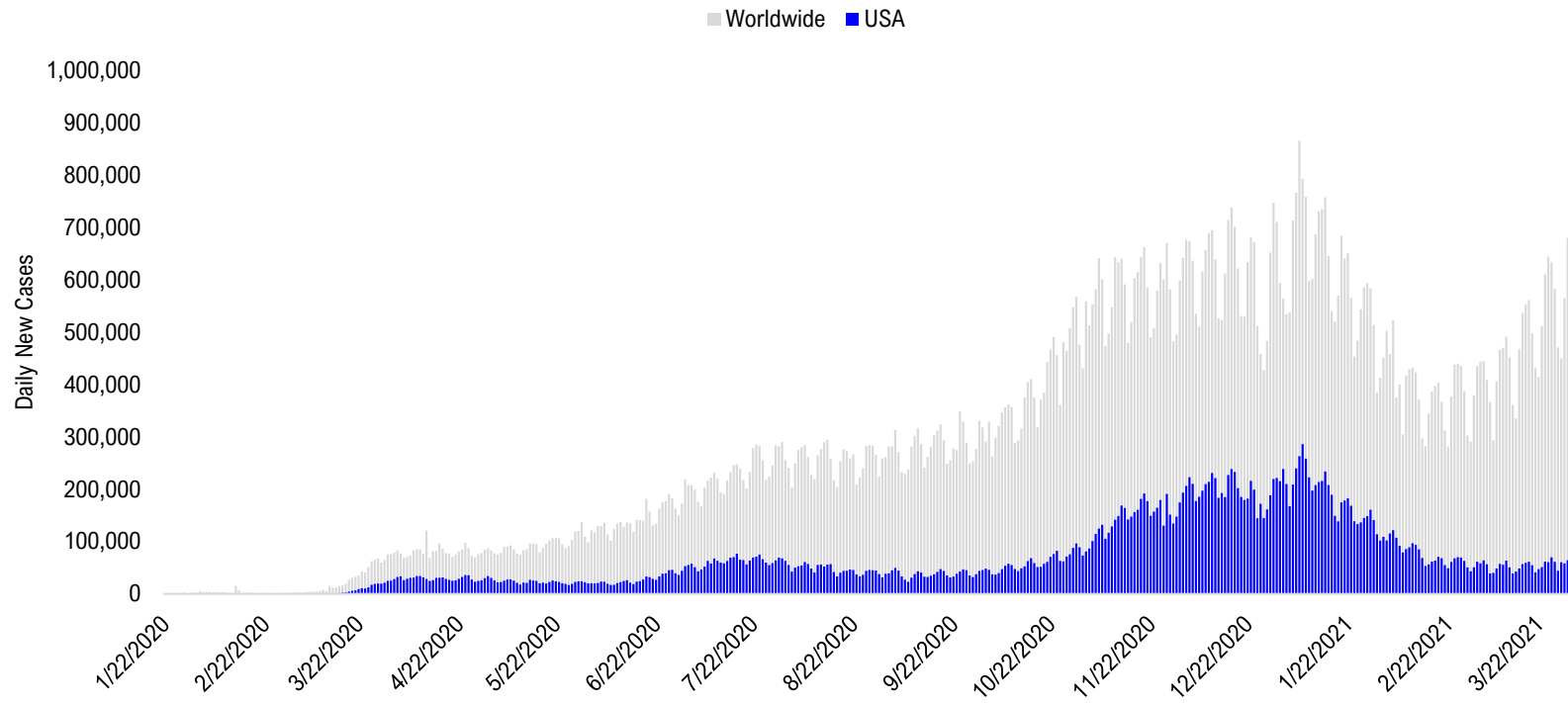


#16: State COVID-19 Daily Positivity Rate by Tier...

Composite Daily Positivity Rate



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



Nov 13	Nov 27	Dec 11	Dec 25	Jan 8	Jan 22	Feb 5	Feb 19	Mar 5	Mar 19	Apr 3
Europe 279,145	Europe 241,638	Europe 240,597	Europe 235,134	Europe 253,225	Europe 215,947	Europe 171,879	Europe 136,398	Europe 159,160	Europe 203,932	Europe 239,119
US + Canada 138,952	US + Canada 169,379	US + Canada 210,059	US + Canada 192,649	US + Canada 239,474	US + Canada 180,145	US + Canada 118,696	Latin America 81,969	Latin America 92,091	Latin America 112,087	Latin America 116,154
Latin America 58,452	Latin America 65,408	Latin America 77,754	Latin America 83,629	Latin America 95,580	Latin America 116,932	Latin America 95,221	US + Canada 68,407	US + Canada 58,634	US + Canada 54,412	Pakistan + India + Bangladesh 83,668
Pakistan + India + Bangladesh 47,942	Pakistan + India + Bangladesh 48,091	Pakistan + India + Bangladesh 36,327	Pakistan + India + Bangladesh 26,900	Africa 28,432	Asia ex- India+Pakistan 26,862	Asia ex- India+Pakistan 24,436	Asia ex- India+Pakistan 17,226	Pakistan + India + Bangladesh 17,965	Pakistan + India + Bangladesh 36,253	US + Canada 66,768
Asia ex- India+Pakistan 13,963	Asia ex- India+Pakistan 15,707	Asia ex- India+Pakistan 16,852	Africa 22,109	Pakistan + India + Bangladesh 21,150	Africa 25,790	Africa 15,433	Pakistan + India + Bangladesh 13,652	Asia ex- India+Pakistan 13,960	Asia ex- India+Pakistan 16,169	Asia ex- India+Pakistan 22,776
Africa 13,421	Africa 13,326	Africa 15,657	Asia ex- India+Pakistan 18,034	Asia ex- India+Pakistan 20,638	Pakistan + India + Bangladesh 16,471	Pakistan + India + Bangladesh 13,449	Africa 11,086	Africa 9,369	Africa 10,204	Africa 12,183

Disclosures

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