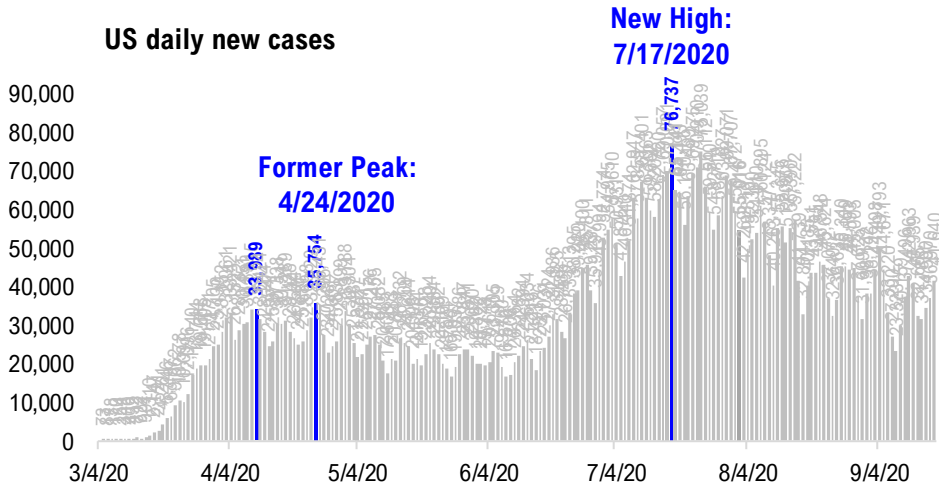


FSInsight Daily COVID-19 Chartbook

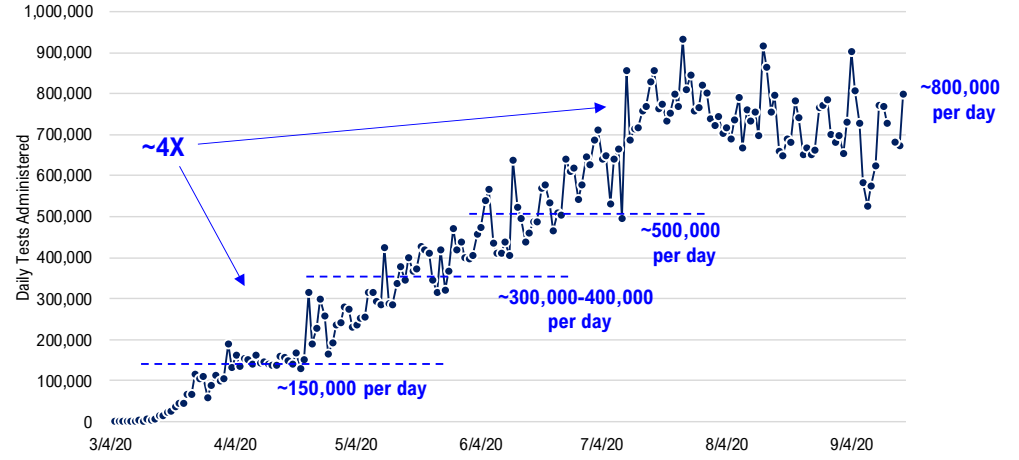


#1: USA COVID-19 Situation at a Glance...

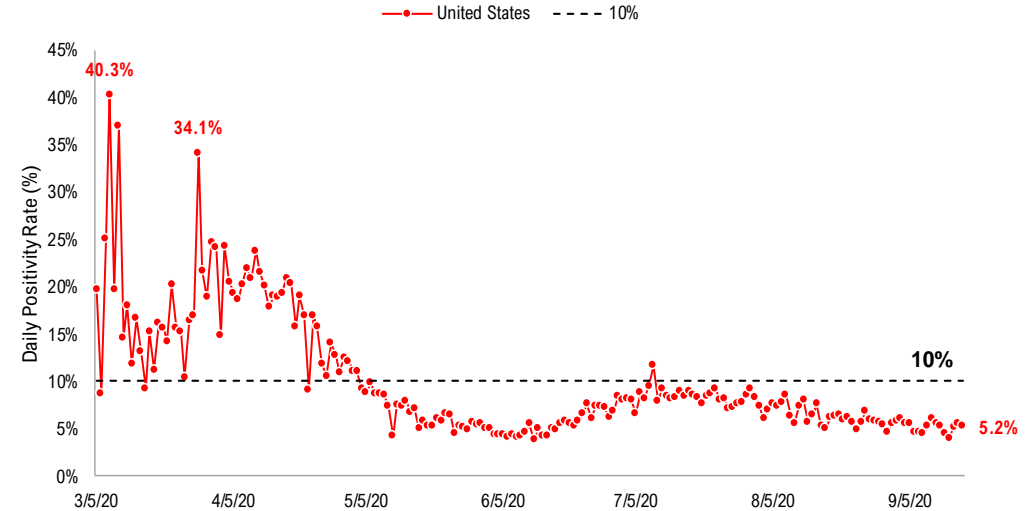
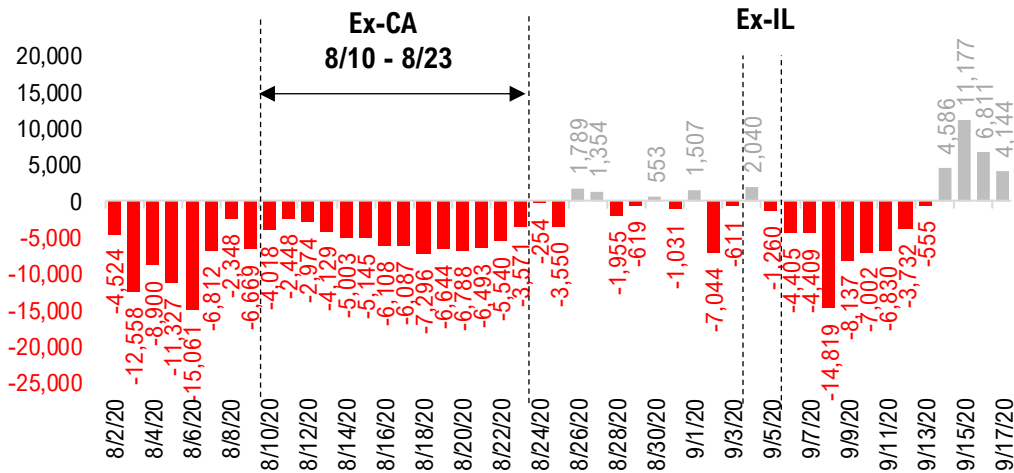
US daily new cases



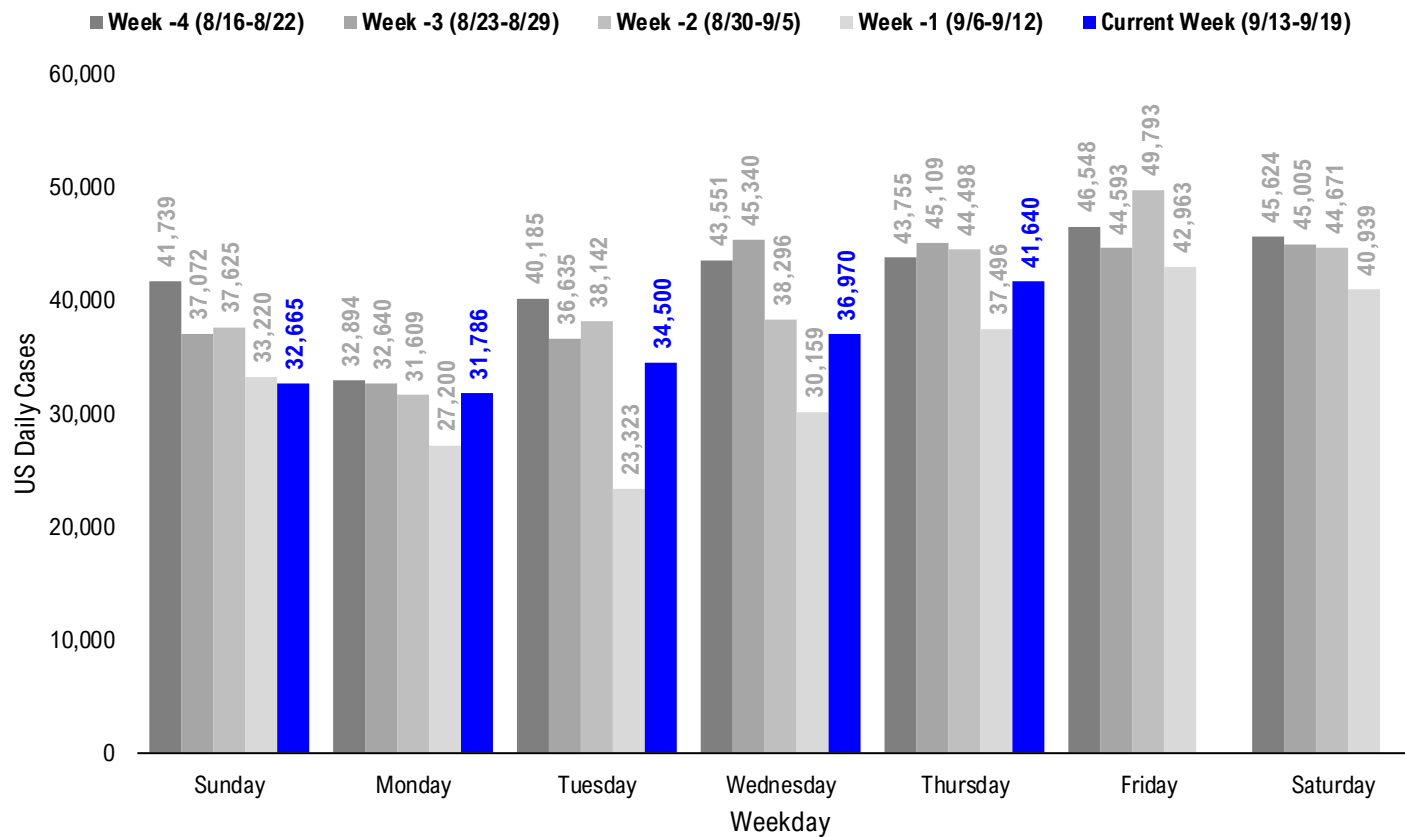
USA total COVID-19 tests administered



US daily new cases rolling 7D delta



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



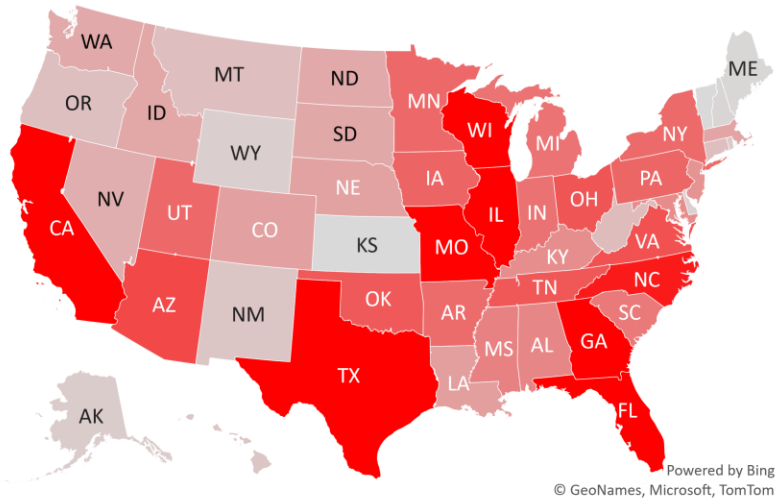
#3: USA State COVID-19 Situation at a Glance...

		Sorted Daily Cases		Daily Cases (3D avg) per 1mm residents		Since Peak		% Decline in Daily Cases	
		% US Pop	9/17/20	7D Delta	9/17/20	7D Delta	# Days	Cases	
United States		100%	41,640	+4,144	115	+22	62	-48%	
States:									
1	Texas	8.7%	3,518	-334	135	+25	62	-67%	
2	Florida	6.5%	3,255	+672	135	+35	66	-77%	
3	California	11.9%	3,238	-100	71	+7	55	-76%	
4	Illinois	3.8%	2,056	+103	144	+21	11	-44%	
5	Wisconsin	1.8%	2,034	+487	274	+96	0	0%	
6	Georgia	3.2%	1,847	+11	175	+8	54	-57%	
7	Missouri	1.8%	1,747	+631	231	+55	49	-26%	
8	North Carolina	3.2%	1,552	+330	121	+31	61	-43%	
9	Arizona	2.2%	1,176	+715	108	+60	77	-82%	
10	Virginia	2.6%	1,101	-135	113	-3	39	-32%	
11	Ohio	3.5%	1,067	-54	88	+10	48	-33%	
12	Tennessee	2.1%	1,053	-597	189	+36	51	-53%	
13	Oklahoma	1.2%	1,034	+263	261	+52	51	-16%	
14	Iowa	1.0%	948	+46	227	+46	20	-41%	
15	Pennsylvania	3.9%	933	+346	74	+22	160	-47%	
16	Utah	1.0%	911	+565	231	+128	61	-9%	
17	Minnesota	1.7%	909	+528	105	+44	19	-41%	
18	New York	5.9%	896	+139	40	+7	160	-93%	
19	Arkansas	0.9%	883	+485	239	+120	54	-21%	
20	Indiana	2.0%	837	+79	104	+13	4	-41%	
21	Michigan	3.0%	829	-95	69	-2	146	-43%	
22	South Carolina	1.6%	781	-177	136	-6	67	-65%	
23	Mississippi	0.9%	701	+184	215	+81	49	-59%	
24	Alabama	1.5%	670	-478	156	-20	54	-64%	
25	Maryland	1.8%	631	+128	103	+37	119	-50%	
26	Kentucky	1.3%	606	-189	156	+28	34	-17%	
27	New Jersey	2.7%	569	+145	52	+14	165	-88%	
28	Louisiana	1.4%	478	+14	97	-13	58	-83%	

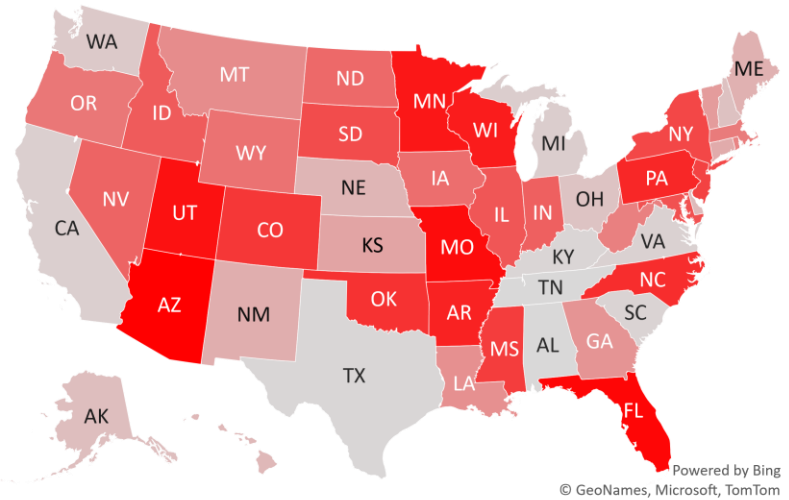
		Sorted Daily Cases		Daily Cases (3D avg) per 1mm residents		Since Peak		% Decline in Daily Cases	
		% US Pop	9/17/20	7D Delta	9/17/20	7D Delta	# Days	Cases	
United States		100%	41,640	+4,144	115	+22	62	-48%	
States:									
29	Colorado	1.7%	459	+194	84	+43	144	-34%	
30	Nebraska	0.6%	449	-7	187	-54	138	-30%	
31	Massachusetts	2.1%	429	+26	51	+14	145	-90%	
32	Idaho	0.5%	396	+89	179	+15	62	-53%	
33	South Dakota	0.3%	395	+132	333	+132	18	-22%	
34	North Dakota	0.2%	390	+57	390	+109	3	-22%	
35	Washington	2.3%	386	-72	46	-8	64	-66%	
36	Puerto Rico	1.0%	382	-77	69	+11	30	-50%	
37	Nevada	0.9%	347	+59	85	+22	61	-81%	
38	West Virginia	0.5%	234	+25	113	+31	5	-14%	
39	Connecticut	1.1%	220	-2	46	-22	148	-89%	
40	Montana	0.3%	216	+21	168	+60	0	0%	
41	Oregon	1.3%	210	+27	46	+9	47	-47%	
42	Hawaii	0.4%	160	-9	77	-1	19	-63%	
43	New Mexico	0.6%	158	-3	57	+11	50	-67%	
44	Rhode Island	0.3%	130	+24	113	+47	145	-72%	
45	Alaska	0.2%	105	-19	89	-12	46	-51%	
46	Wyoming	0.2%	86	+37	150	+53	0	0%	
47	Delaware	0.3%	84	-10	130	+56	142	-62%	
48	District of Columbia	0.2%	47	+22	79	+34	137	-76%	
49	New Hampshire	0.4%	34	-22	25	+1	138	-73%	
50	Guam	0.0%	32	-56	237	-115	21	-64%	
51	Maine	0.4%	21	-5	15	+0	118	-71%	
52	U.S. Virgin Islands	0.0%	6	+0	53	+31	27	-88%	
53	Vermont	0.2%	3	+0	5	+0	165	-94%	
54	Northern Mariana Islands	0.0%	1	+1	6	+0	167	-83%	
55	Kansas	0.9%	0	+0	111	+54	22	-68%	
56	American Samoa	0.0%	0	+0	0	+0	-	-	

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

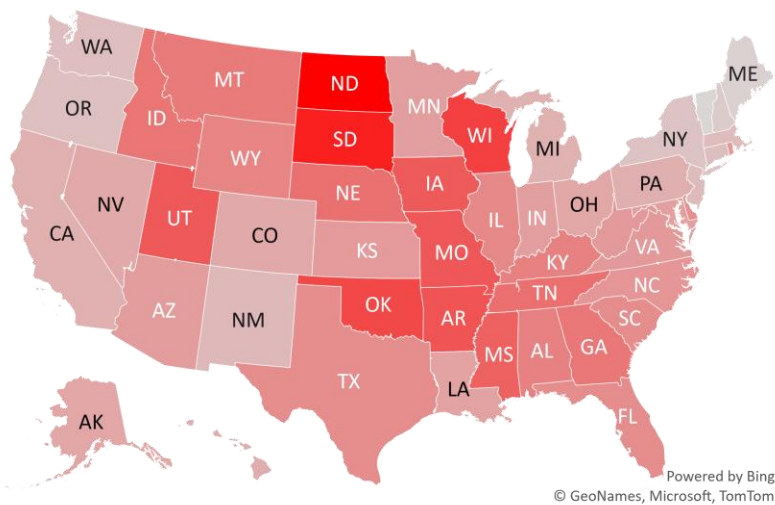
Daily Case Increases



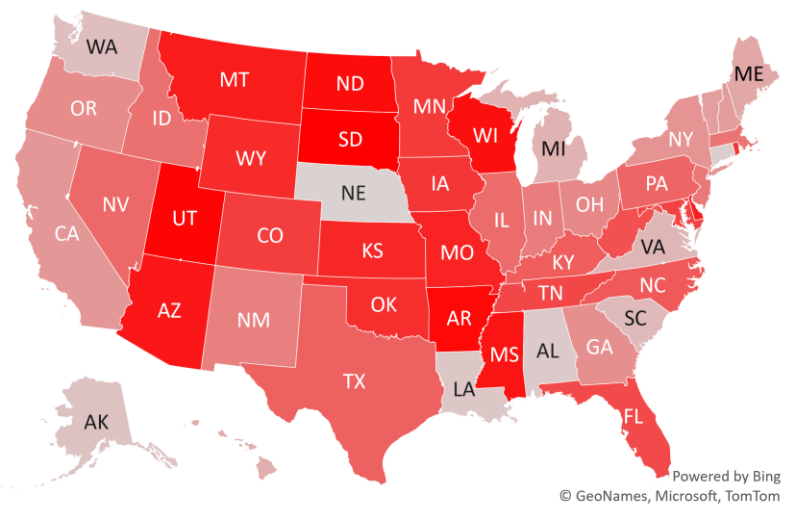
7D Delta in Daily New Cases



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



7D Delta in Daily New Cases per 1mm (3D Avg)



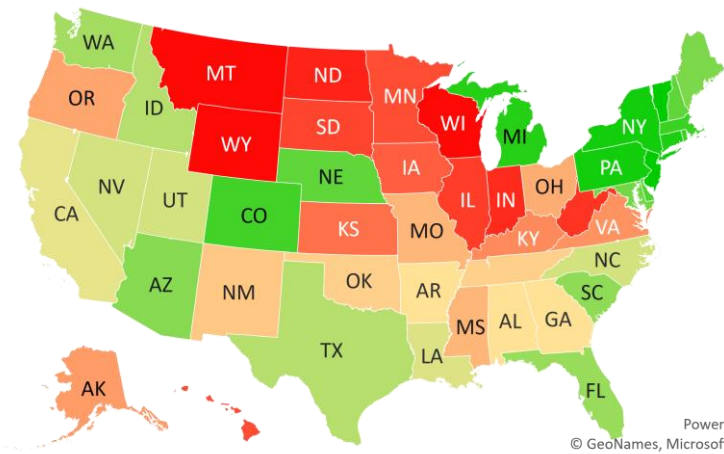
#5: # of Days since Daily Case Peaked by States...

Days since Daily Cases (3D Avg) Peak (as of 9/17)

	Sorted			
	Peak Date	9/17/20	% off the Peak	% US Pop
United States	7/17/20	62	-48%	100%
States:				
Northern Mariana Island	4/3/20	167	-83%	0.0%
Vermont	4/5/20	165	-94%	0.2%
New Jersey	4/5/20	165	-88%	2.7%
Pennsylvania	4/10/20	160	-47%	3.9%
New York	4/10/20	160	-93%	5.9%
Connecticut	4/22/20	148	-89%	1.1%
Michigan	4/24/20	146	-43%	3.0%
Rhode Island	4/25/20	145	-72%	0.3%
Massachusetts	4/25/20	145	-90%	2.1%
Colorado	4/26/20	144	-34%	1.7%
Delaware	4/28/20	142	-62%	0.3%
New Hampshire	5/2/20	138	-73%	0.4%
Nebraska	5/2/20	138	-30%	0.6%
District of Columbia	5/3/20	137	-76%	0.2%
Maryland	5/21/20	119	-50%	1.8%
Maine	5/22/20	118	-71%	0.4%
Arizona	7/2/20	77	-82%	2.2%
South Carolina	7/12/20	67	-65%	1.6%
Florida	7/13/20	66	-77%	6.5%
Washington	7/15/20	64	-66%	2.3%
Texas	7/17/20	62	-67%	8.7%
Idaho	7/17/20	62	-53%	0.5%
Utah	7/18/20	61	-9%	1.0%
Nevada	7/18/20	61	-81%	0.9%
North Carolina	7/18/20	61	-43%	3.2%
Louisiana	7/21/20	58	-83%	1.4%
California	7/24/20	55	-76%	11.9%
Georgia	7/25/20	54	-57%	3.2%

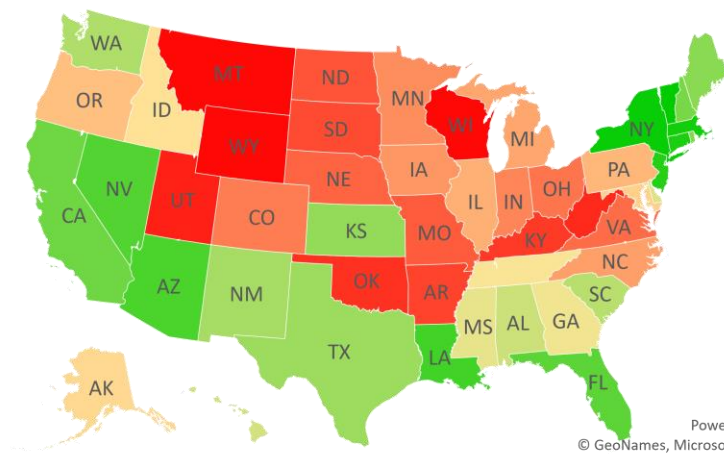
	Sorted			
	Peak Date	9/17/20	% off the Peak	% US Pop
United States	7/17/20	62	-48%	100%
States:				
Arkansas	7/25/20	54	-21%	0.9%
Alabama	7/25/20	54	-64%	1.5%
Tennessee	7/28/20	51	-53%	2.1%
Oklahoma	7/28/20	51	-16%	1.2%
New Mexico	7/29/20	50	-67%	0.6%
Mississippi	7/30/20	49	-59%	0.9%
Missouri	7/30/20	49	-26%	1.8%
Ohio	7/31/20	48	-33%	3.5%
Oregon	8/1/20	47	-47%	1.3%
Alaska	8/2/20	46	-51%	0.2%
Virginia	8/9/20	39	-32%	2.6%
Kentucky	8/14/20	34	-17%	1.3%
Puerto Rico	8/18/20	30	-50%	1.0%
U.S. Virgin Islands	8/21/20	27	-88%	0.0%
Kansas	8/26/20	22	-68%	0.9%
Guam	8/27/20	21	-64%	0.0%
Iowa	8/28/20	20	-41%	1.0%
Minnesota	8/29/20	19	-41%	1.7%
Hawaii	8/29/20	19	-63%	0.4%
South Dakota	8/30/20	18	-22%	0.3%
Illinois	9/6/20	11	-44%	3.8%
West Virginia	9/12/20	5	-14%	0.5%
Indiana	9/13/20	4	-41%	2.0%
North Dakota	9/14/20	3	-22%	0.2%
Wyoming	9/17/20	0	0%	0.2%
Wisconsin	9/17/20	0	0%	1.8%
Montana	9/17/20	0	0%	0.3%

Days since Daily Case Peak: Greener = More Days



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Daily Cases % off the Peak: Greener = Larger Decline



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

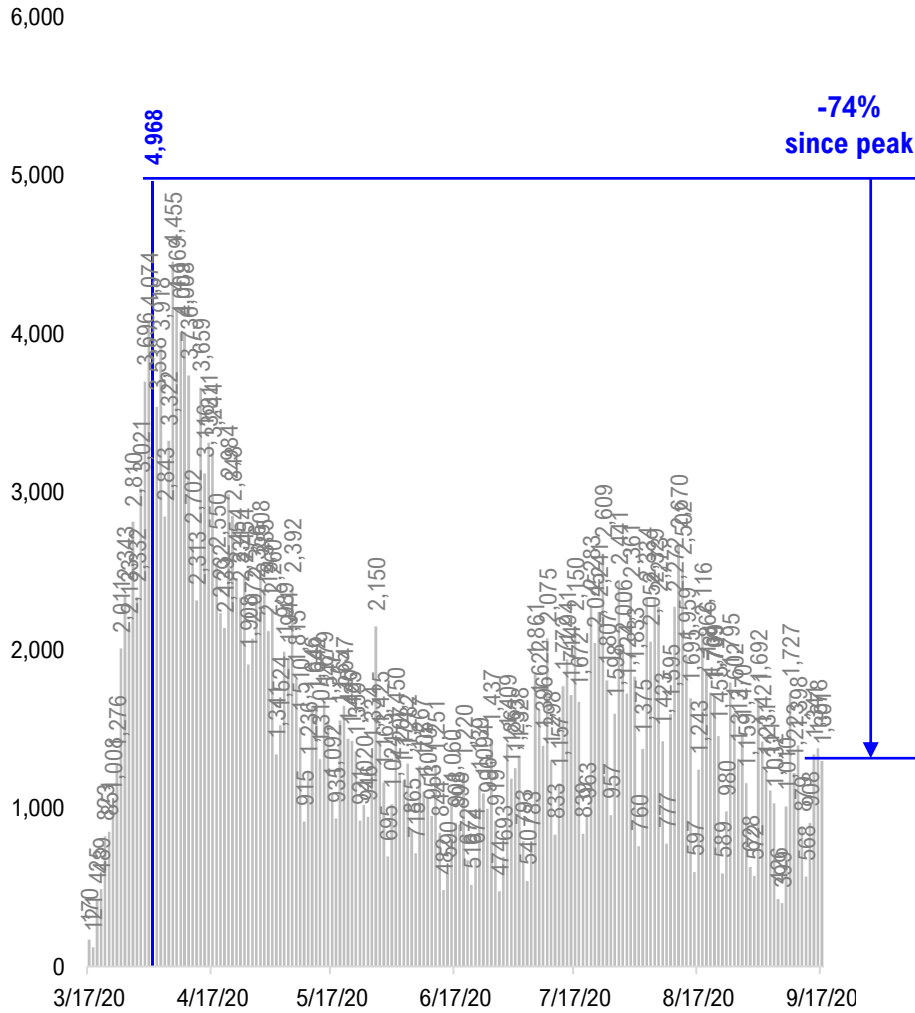
	Sorted				
	7D Ago	Last 3-day Trend			
	9/10/20	9/15/20	9/16/20	9/17/20	vs 7D ago
United States	37,496	34,500	36,970	41,640	+4,144
States:					
Texas	3,852	4,816	3,409	3,518	
Florida	2,583	3,116	2,355	3,255	<--higher
California	3,338	2,235	2,950	3,238	
Illinois	1,953	1,466	1,941	2,056	
Wisconsin	1,547	1,348	1,408	2,034	<--higher
Georgia	1,836	1,496	2,223	1,847	
Missouri	1,116	1,317	1,191	1,747	<--higher
North Carolina	1,222	1,106	1,137	1,552	<--higher
Arizona	461	487	695	1,176	<--higher
Virginia	1,236	943	845	1,101	
Ohio	1,121	1,001	1,033	1,067	
Tennessee	1,650	957	1,856	1,053	
Oklahoma	771	1,091	970	1,034	<--higher
Iowa	902	401	803	948	
Pennsylvania	587	1,151	776	933	<--higher
Utah	346	562	747	911	<--higher
Minnesota	381	402	462	909	<--higher
New York	757	766	652	896	
Arkansas	398	676	606	883	<--higher
Indiana	758	689	580	837	
Michigan	924	571	680	829	
South Carolina	958	742	571	781	
Mississippi	517	505	711	701	<--higher
Alabama	1,148	701	927	670	
Maryland	503	599	643	631	<--higher
Kentucky	795	718	764	606	
New Jersey	424	436	388	569	<--higher
Louisiana	464	371	508	478	

	Sorted				
	7D Ago	Last 3-day Trend			
	9/10/20	9/15/20	9/16/20	9/17/20	vs 7D ago
United States	37,496	34,500	36,970	41,640	+4,144
States:					
Colorado	265	400	587	459	<--higher
Nebraska	456	307	328	449	
Massachusetts	403	313	306	429	
Idaho	307	278	283	396	<--higher
South Dakota	263	193	297	395	<--higher
North Dakota	333	233	269	390	
Washington	458	327	347	386	
Puerto Rico	459	229	46	382	
Nevada	288	226	208	347	<--higher
West Virginia	209	156	220	234	
Connecticut	222	136	135	220	
Montana	195	137	187	216	
Oregon	183	178	188	210	
Hawaii	169	66	101	160	
New Mexico	161	81	118	158	
Rhode Island	106	120	108	130	<--higher
Alaska	124	42	49	105	
Wyoming	49	46	128	86	<--higher
Delaware	94	200	97	84	
District of Columbia	25	65	56	47	<--higher
New Hampshire	56	34	32	34	
Guam	88	39	47	32	
Maine	26	15	23	21	
U.S. Virgin Islands	6	4	7	6	
Vermont	3	6	1	3	
Northern Mariana Islands	0	0	0	1	
Kansas	0	0	971	0	
American Samoa	0	0	0	0	

#7: US Daily Hospitalizations...(aggregated by data type)

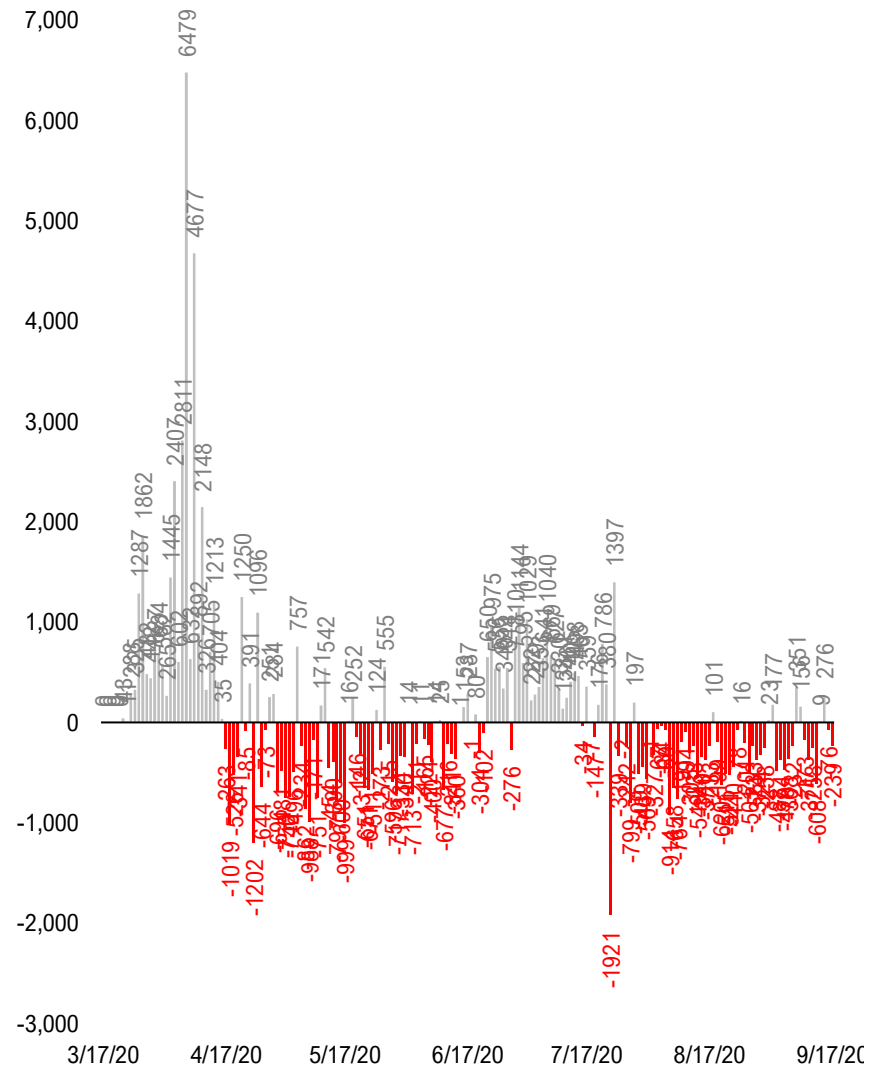
US Gross Hospitalizations

(Composite of 33 states that report "gross hospitalizations")



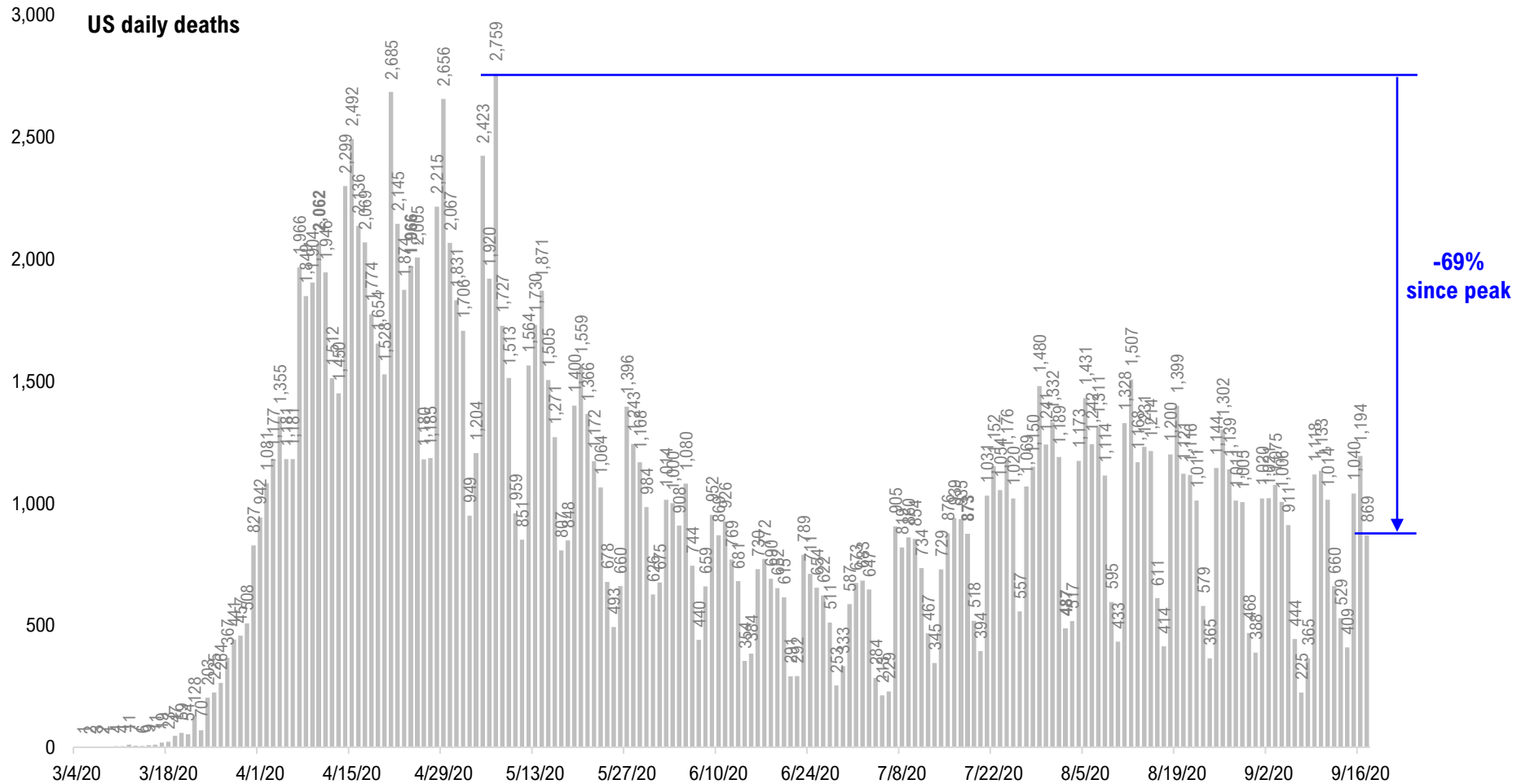
US Net Hospitalizations

(Composite of 18 states that report "net/current hospitalizations")



#8: US Daily New Fatalities...

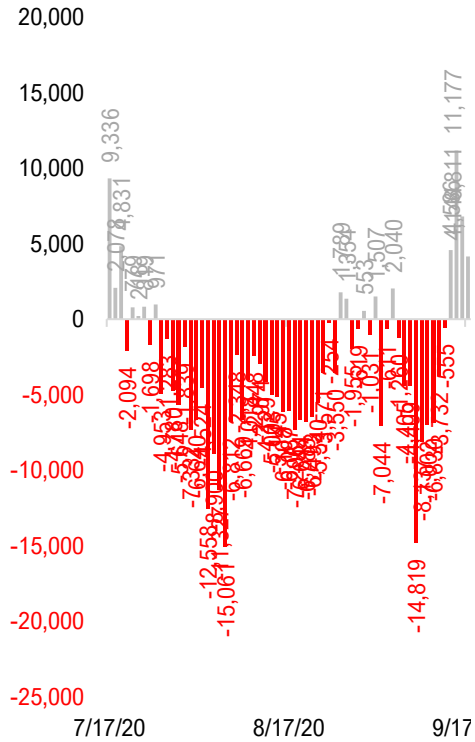
US daily COVID-19 Fatalities



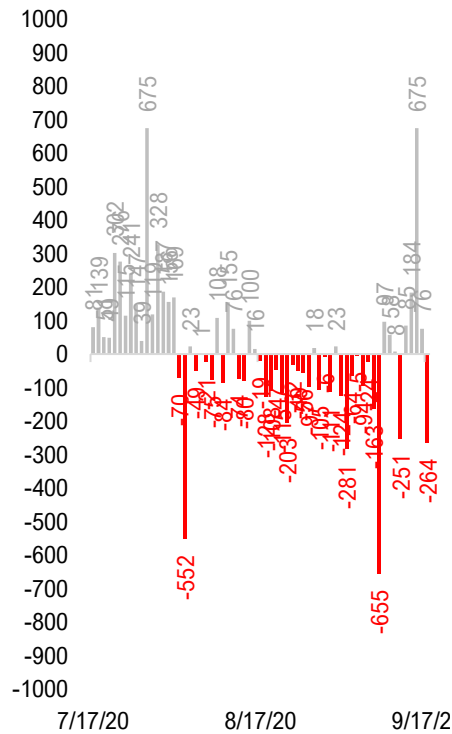
Source: Fundstrat, COVID-19 Tracking Project, State Department of Health

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

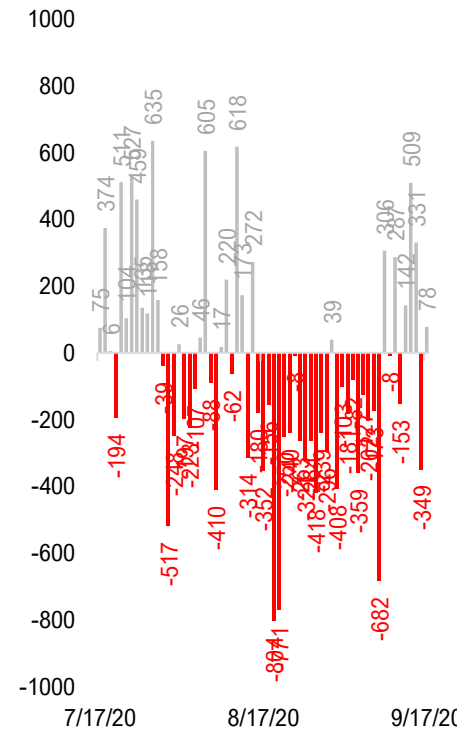
Daily New Cases
(8/10-8/23 ex-CA; 9/4-9/5 ex-IL)



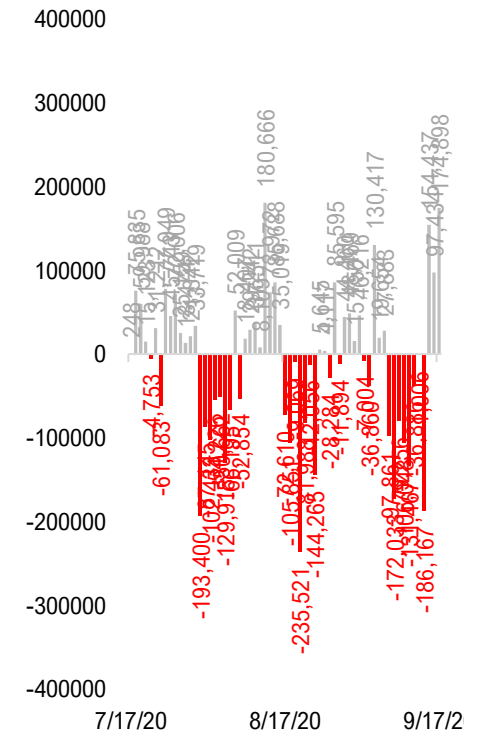
Daily Deaths



Daily New Gross hospitalization
(aggregate of 33 states)

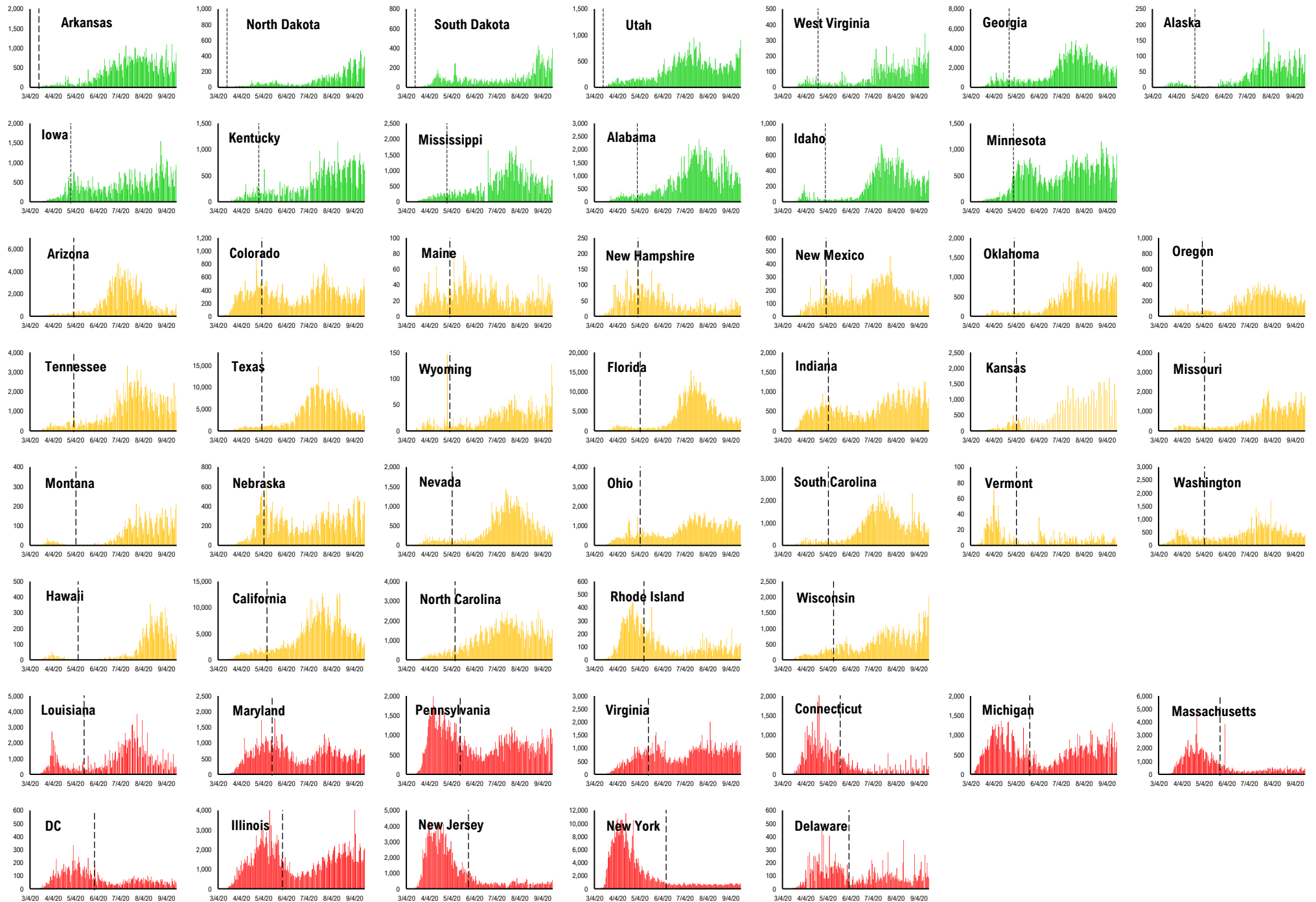


Daily Tests



* 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

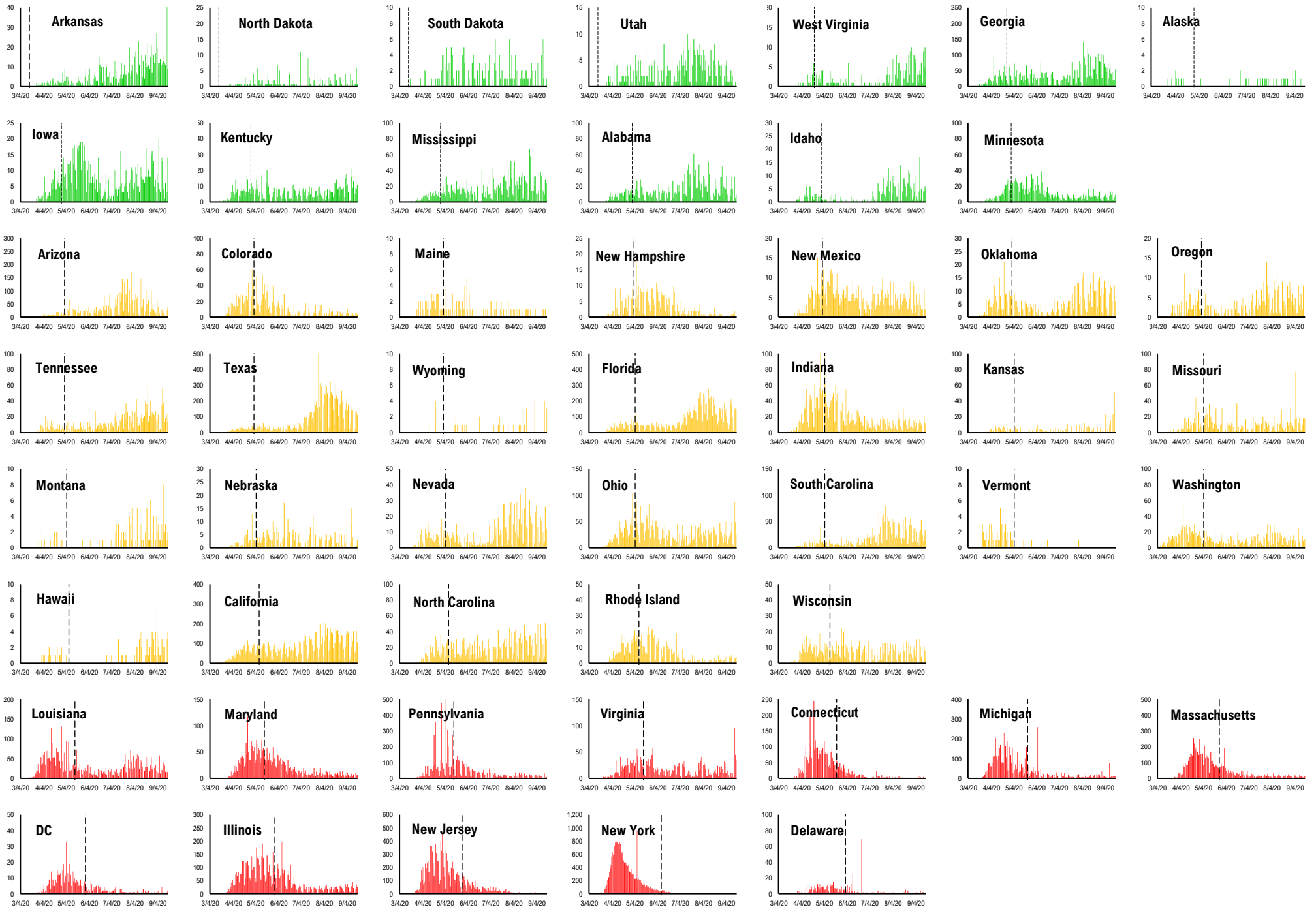
#10: Daily New Cases by States... (sorted by "open" date)



#11: Daily Hospitalizations by States... (sorted by "open" date)



#12: Daily New Deaths by States... (sorted by "open" date)



#13: State COVID-19 situation by Reopen Date...

Daily Cases

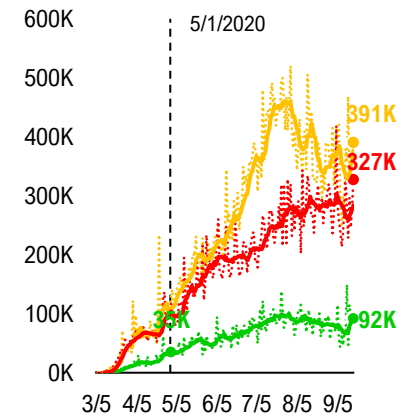
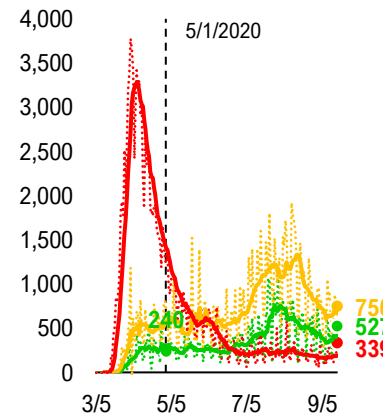
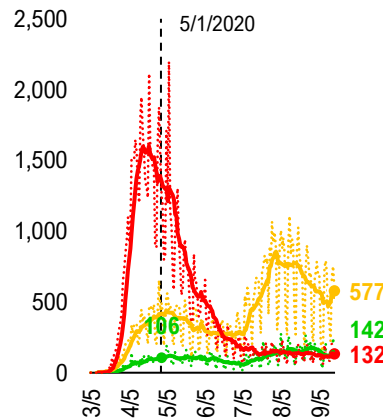
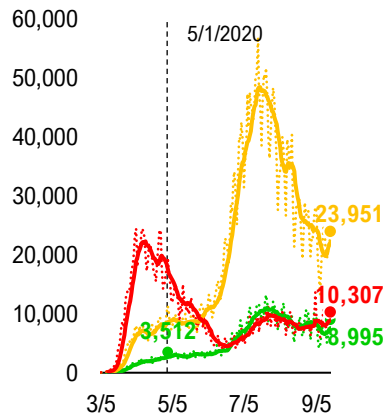
Daily Deaths

Daily Hospitalization

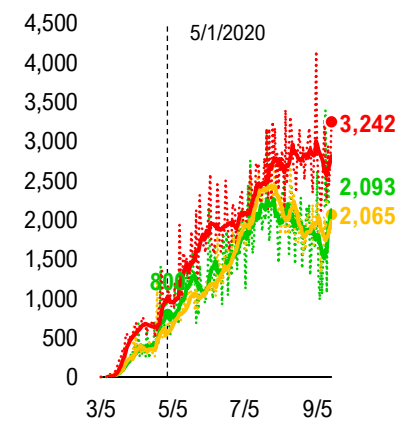
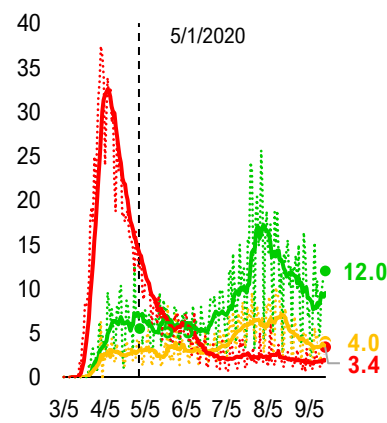
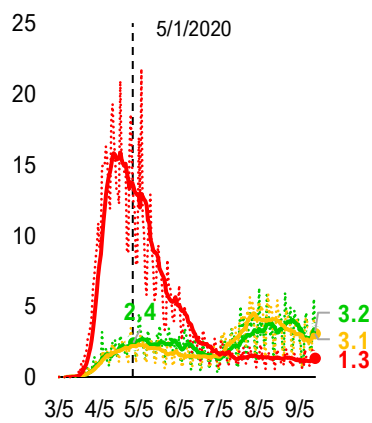
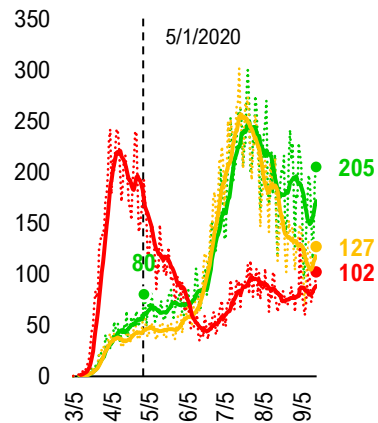
Daily Testing

— States Open Before 5/1 — States Open between 5/1 and 5/11 — States Open after 5/11

Composite Daily Aggregate

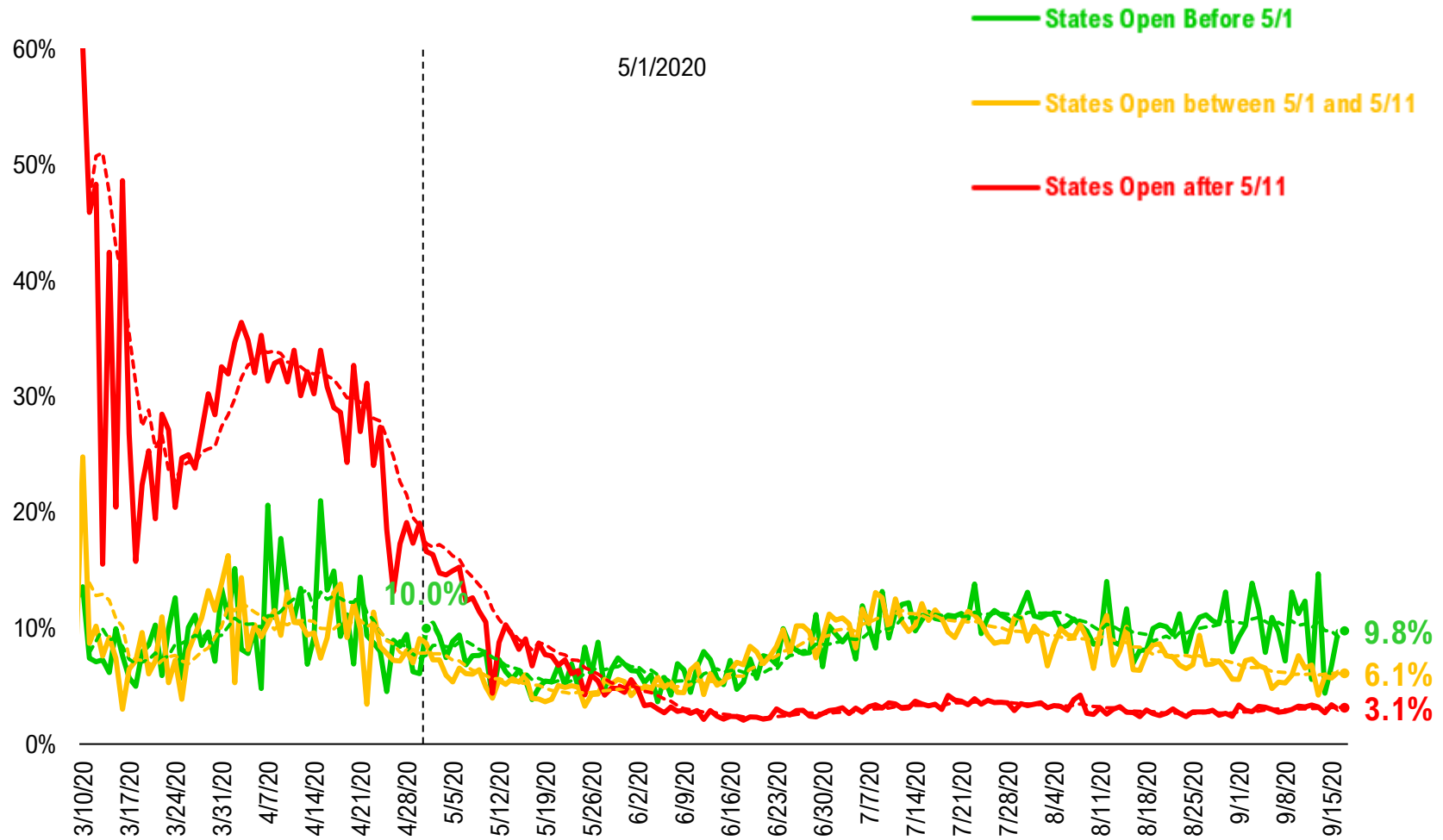


Composite Daily Aggregate Per 1mm Pop

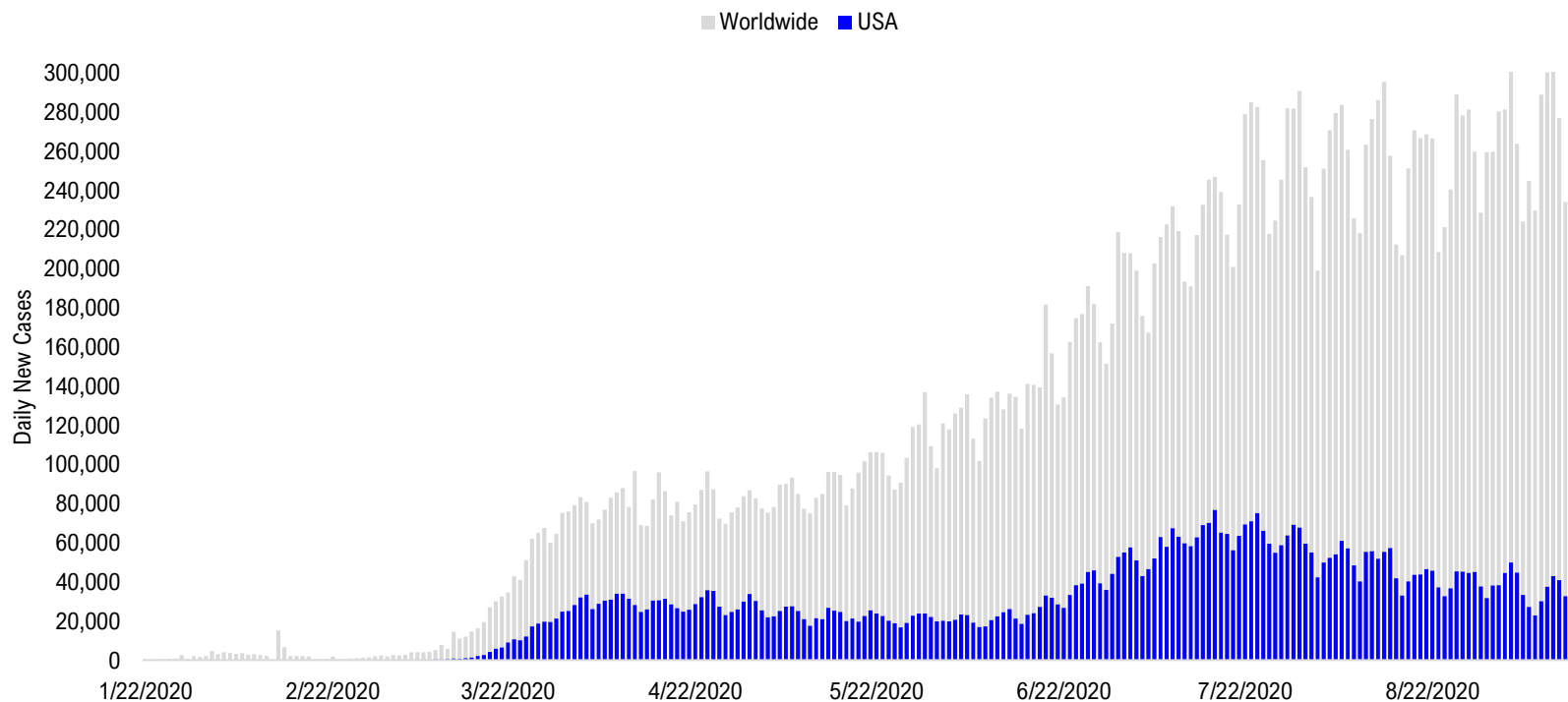


#14: State COVID-19 Daily Positivity Rate by Reopen Date...

Composite Daily Positivity Rate



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



5/1/2020	5/15/2020	5/29/2020	6/12/2020	6/26/2020	7/10/2020	7/24/2020	8/7/2020	8/21/2020	9/4/2020	9/16/2020
US + Canada 31,572	US + Canada 25,443	Latin America 42,759	Latin America 51,123	Latin America 68,227	Latin America 73,176	Latin America 97,008	Latin America 97,310	Latin America 85,471	Latin America 88,295	Pakistan + India + Bangladesh 89,221
Europe 25,405	Latin America 25,394	US + Canada 22,796	US + Canada 22,798	US + Canada 41,092	US + Canada 63,055	US + Canada 72,289	Pakistan + India + Bangladesh 63,674	Pakistan + India + Bangladesh 72,740	Pakistan + India + Bangladesh 87,400	Latin America 65,730
Latin America 13,595	Europe 22,177	Europe 19,130	Pakistan + India + Bangladesh 18,309	Pakistan + India + Bangladesh 24,668	Pakistan + India + Bangladesh 32,386	Pakistan + India + Bangladesh 52,184	US + Canada 56,150	US + Canada 45,030	US + Canada 44,769	Europe 57,843
Pakistan + India + Bangladesh 3,762	Pakistan + India + Bangladesh 6,133	Pakistan + India + Bangladesh 12,032	Europe 18,149	Europe 17,889	Africa 17,127	Africa 20,063	Europe 23,878	Europe 32,513	Europe 40,013	US + Canada 35,490
Asia ex- India+Pakistan 2,022	Africa 2,942	Africa 5,307	Africa 7,322	Africa 11,684	Europe 16,204	Europe 18,765	Africa 14,390	Africa 10,566	Asia ex- India+Pakistan 8,720	Asia ex- India+Pakistan 10,612
Africa 1,926	Asia ex- India+Pakistan 2,033	Asia ex- India+Pakistan 2,762	Asia ex- India+Pakistan 3,064	Asia ex- India+Pakistan 3,866	Asia ex- India+Pakistan 7,373	Asia ex- India+Pakistan 8,636	Asia ex- India+Pakistan 10,424	Asia ex- India+Pakistan 10,047	Africa 8,318	Africa 6,761

Disclosures

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