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10/5/2020

COVID-19 UPDATE: White House outbreak highlights the asymmetric war against COVID-19. Virus only has to be right once.

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STRATEGY: COVID-19 outbreak at White House reminds us this is an asymmetric war

White House COVID-19 breakout is a reminder that the virus only has to be lucky once...

I gave this some thought over the weekend, and my biggest takeaway from the White House COVID-19 breakout is a reminder of the asymmetric war we are fighting against the virus. Former Secretary of Defense Donald Rumsfeld summarized it best when he said the following about terrorists:

COMMENTARY *(Daily News & Analysis, India - DNAIndia.com)*

Terrorists Have to Be Lucky Once; Targets, Every Time

Source: RAND Corporation -- I could not find the Rumsfeld quote.

- In other words, the virus only needs one lucky entry into our body and we have the virus.

Despite the extensive COVID-19 mitigation protocols used by the White House and extensive testing, there is an outbreak. I don't agree with those who say the White House has been careless. Their approach to mitigation was testing, testing, testing and if I recall, wasn't that prescribed by those so-called experts?

Instead, let's face it. COVID-19 is a mysterious disease. And people catching this are unfortunate, because the virus got "lucky" -- I think it really borders on self-deception and frankly, a bit contemptuous to blame those catching COVID-19. Even if we wear masks, we are not 100% safe. The only way we will be 100% safe is when we have a vaccine or a sure-fire therapeutic.

In fact, look at the protocols used by Vladimir Putin to avoid COVID-19. He has an extensive physical barrier before anyone can enter his inner circle. And those who want to meet him must quarantine for 14 days. This seems very effective. But also, this reminds us, most of us cannot actually practice this -- I cannot require 14 days quarantine from anyone I interact with.

 For important disclosures see **Page 17**.

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https://nypost.com/2020/10/03/these-are-the-measures-vladimir-putin-takes-to-avoid-covid-19/

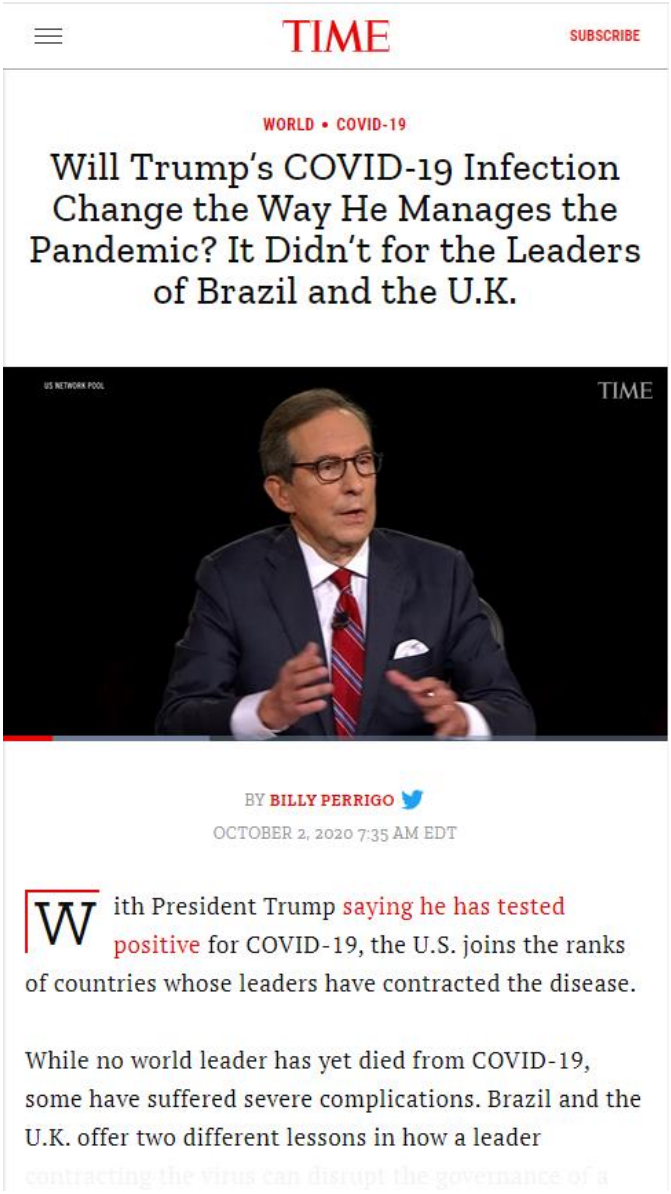
Only good will come from this White House outbreak... yup, hear me out again...
I know this is going to sound like a "half-full" view again, but I only see positives from the COVID-19 outbreak at the White House. Here are the reasons, not in any particular order:

- the outbreak is a result of "lucky virus" not because COVID-19 is getting stronger
- this reminds of the role that super-spreaders and super-spreader events have in this pandemic
- the attack rate of this outbreak is <10% which is consistent with prior studies -- not 100% infected
- reminds us that we cannot drop our guard
- masks, while not 100% effective, mitigate risk and as Dr. Murray of IHME noted, is essentially as effective as a vaccine
- if President Trump recovers quickly, this is a positive case for therapeutics and their important role
- the path of President Trump illness will be more clear in the next few days, but the chances of

a worsening outcome are low

If I had to highlight one negative, it is this:
- if Pres. Trump standing in polls worsen, it raises the risk of a "contested election" scenario

But this Time article is a good reminder, that we should not expect the White House to change its approach...
Another positive, but I did not list above, is the potential for the White House to change its views towards COVID-19, taking a more serious approach to mitigation. But this article by Time Magazine reminded that neither Boris Johnson of the UK, nor Jair Bolsonaro of Brazil, really changed their approach to COVID-19, despite being infected.



TIME SUBSCRIBE

WORLD • COVID-19

Will Trump's COVID-19 Infection Change the Way He Manages the Pandemic? It Didn't for the Leaders of Brazil and the U.K.

BY BILLY PERRIGO

OCTOBER 2, 2020 7:35 AM EDT

With President Trump saying he has tested positive for COVID-19, the U.S. joins the ranks of countries whose leaders have contracted the disease.

While no world leader has yet died from COVID-19, some have suffered severe complications. Brazil and the U.K. offer two different lessons in how a leader contracting the virus can disrupt the governance of a

https://time.com/5895452/trump-coronavirus-bolsonaro-johnson/

Policy-maker over-reacting would be a worse mistake -- witness what DeBlasio is suggesting...

But we also do not want policymakers over-reacting and moving to shut down the economy again. As we wrote about multiple times last week, the strict protocols used by NYC certainly did not seem to prevent a resurgence of cases. Yet, Mayor DeBlasio is now moving forward to shut down some areas of NYC.

- I think this is a tragic over-reaction.
- As discussed in point #2, the Rosh-Hashanah surge seems to be ending across the US
- This is a good thing, as this surge does not seem to be leading to an exponential rise in cases

Source: twitter.com

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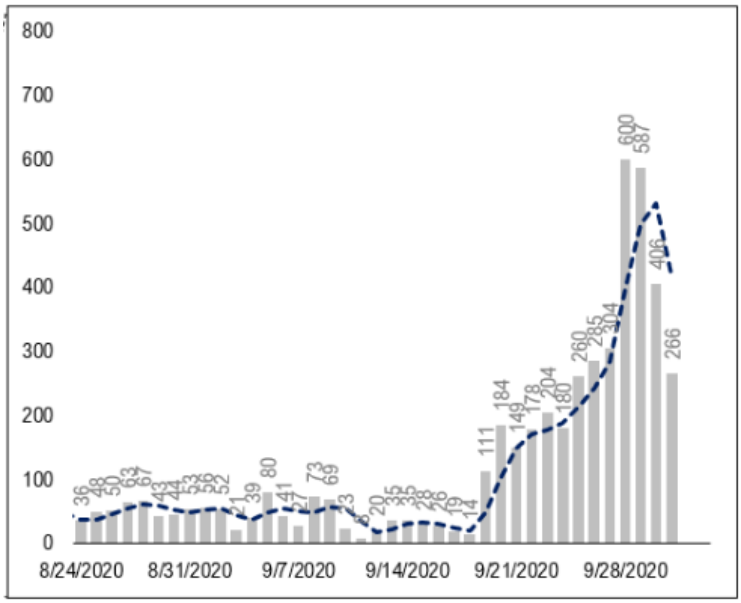
In fact, the number of NYC residents getting checked-into a hospital, aka gross hospitalizations, is actually falling. This was 600 in early October and down to 268 yesterday. So this is cooling off.

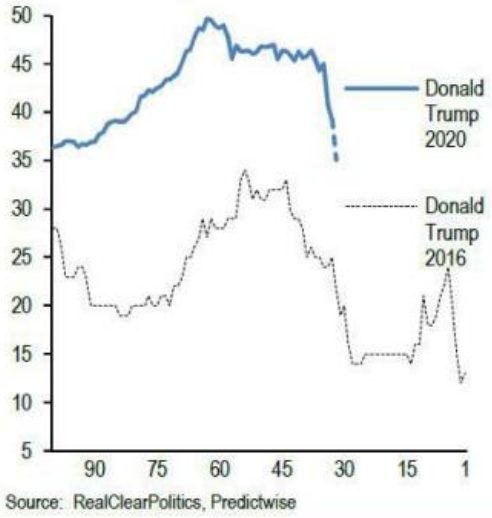


Source: NYC Health Dept.

Don't count Trump out just yet, great chart from JPMorgan
This chart compares market betting odds of a Presidential win for Trump in 2016 and 2020 and aligns days to election day. Notice how Trump's poor polling in 2020, while foreboding, is far higher than his tracking in 2016.

- too early to call the election

Figure 1: Betting odds for Trump in 2020 vs 2016
Probability in % in y-axis. X-axis denotes the number of days left to the election.



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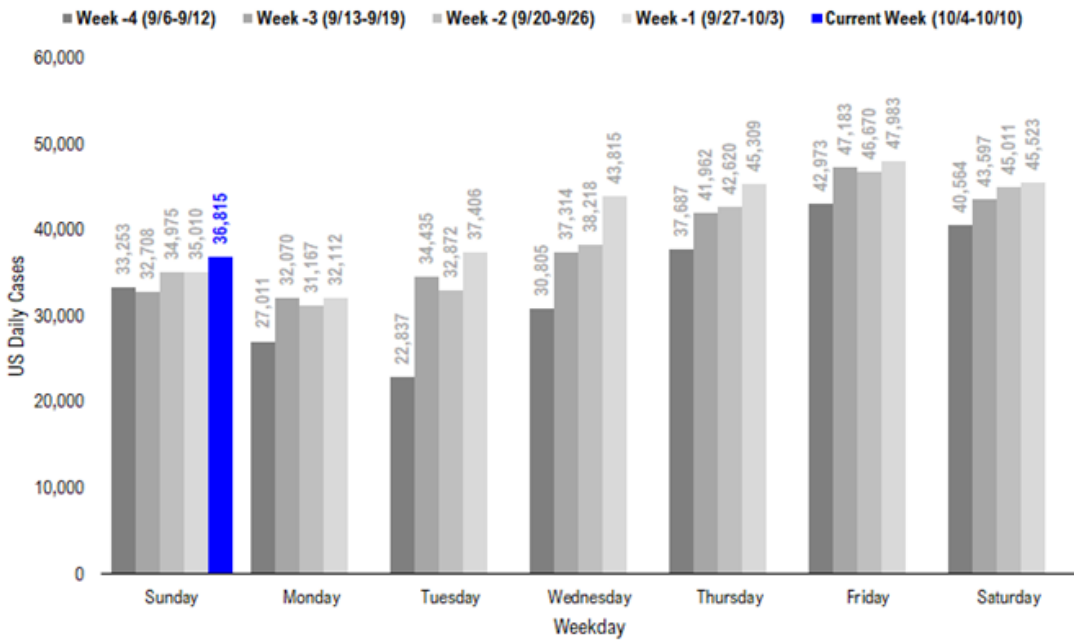
POINT 1: Daily cases flattening vs 7D ago, so post-Rosh Hashanah surge slowing

Daily new COVID-19 cases came in at 36,815, which is +1,805 vs 7D ago. But this figure was likely distorted by >1,000 due to Pennsylvania reporting two days worth of cases on Sunday.

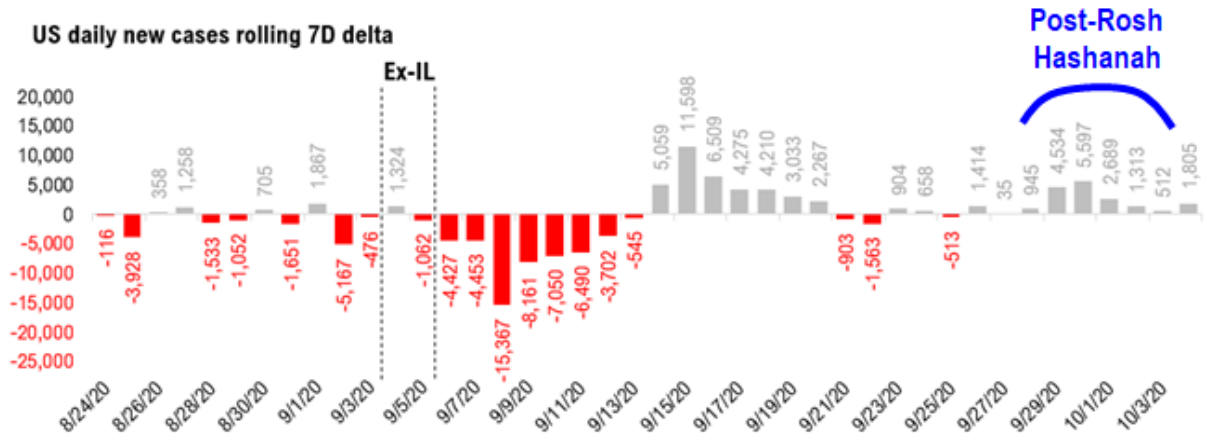
- Ex-PA distortion, daily cases are pretty flat vs 7D ago.



Source: COVID-19 Tracking Project

Again, the daily change vs 7D ago, in our view, is the leading indicator as it is what influences the 7D moving average.

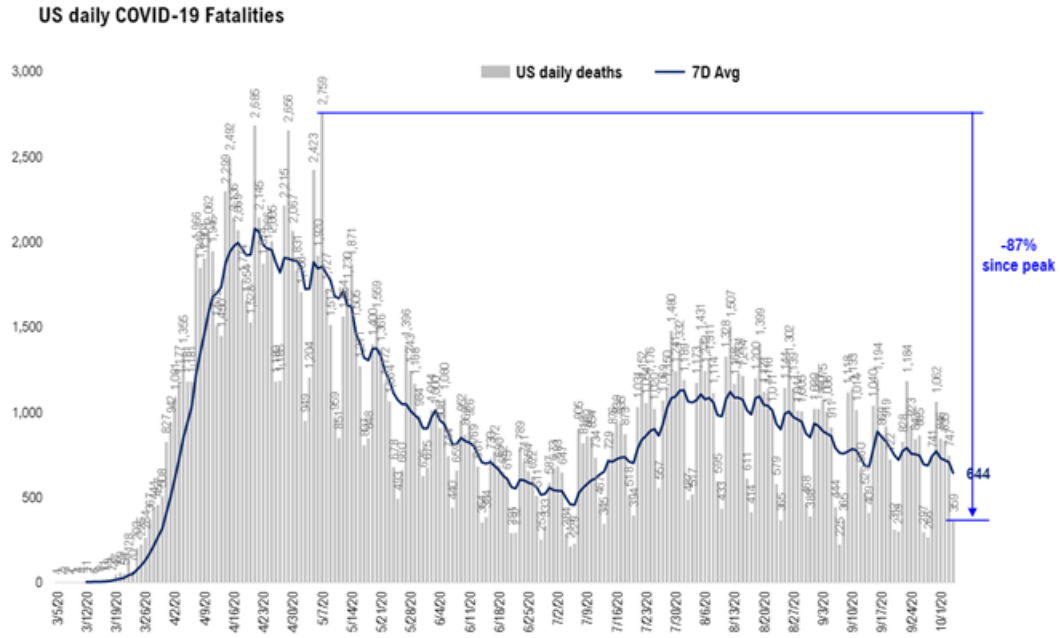
- Post-Rosh Hashanah surge seems to be ending
- This is good. Instead of an exponential rise, we are seeing a flattening, though at a high level of cases



Source: COVID-19 Tracking and Fundstrat

Daily deaths are trending lower...

Daily deaths continue to trend lower and the moving average is the best since early July. So, the surge in cases has not led to a commensurate surge in mortality. As we discuss below, this could change in the coming weeks. But daily deaths falling is a good sign, nonetheless.



Source: COVID-19 Tracking and Fundstrat

6 states with largest 7D delta in daily cases		
Pennsylvania	2,251 vs 918 (-7D)	+1,333
Texas	2,181 vs 1,292	+889
New York	1,222 vs 866	+356
Virginia	1,067 vs 736	+331
Utah	1,393 vs 1,068	+325
California	4,293 vs 4,071	+222
Total		+3,456

6 states with largest 7D delta in daily cases		
North Carolina	610 vs 1,290 (-7D)	-680
Tennessee	1,615 vs 2,104	-489
Wisconsin	1,865 vs 2,217	-352
Puerto Rico	230 vs 533	-303
Oklahoma	569 vs 823	-254
Illinois	1,453 vs 1,604	-151
Total		-2,229

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Daily Case Increases (by State) (10/04)

% total new cases (state cases/ total US cases)
% total US pop (state population/ total US population)

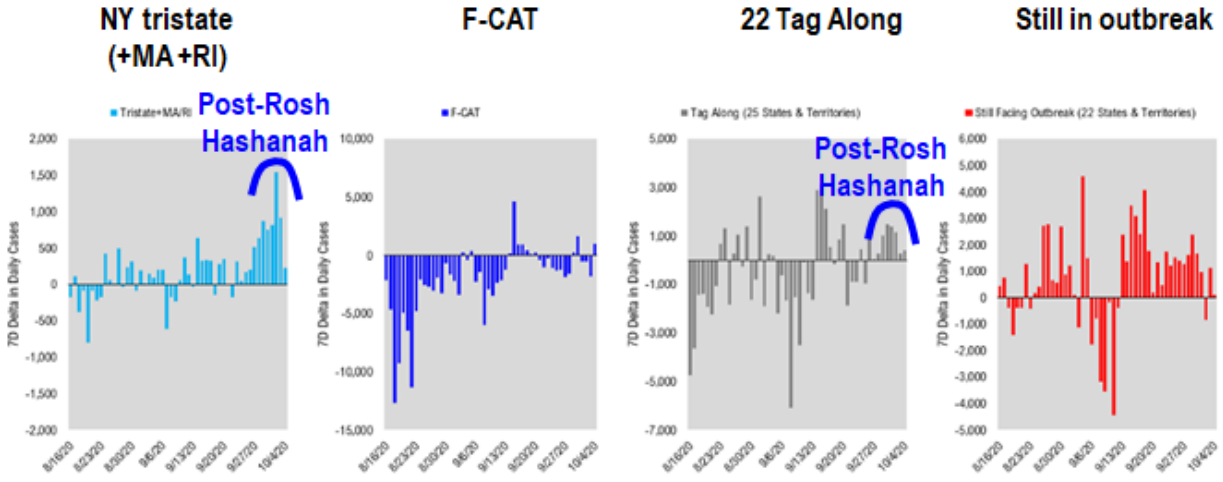
				Sorted		
		7D Ago	Last 3-day Trend			
		9/27/20	10/2/20	10/3/20	10/4/20	vs 7D ago
	United States	35,010	47,983	45,523	36,815	+1,805
	States:					
1	California	4,071	3,590	2,159	4,293	
2	Pennsylvania	918	1,161	0	2,251	<--higher
3	Texas	1,292	2,729	3,346	2,181	<--higher
4	Florida	1,882	2,660	2,787	1,868	
5	Wisconsin	2,217	2,745	2,892	1,865	
6	Tennessee	2,104	971	1,192	1,615	
7	Illinois	1,604	2,456	2,442	1,453	
8	Utah	1,068	1,107	1,068	1,393	<--higher
9	Missouri	1,392	1,485	1,708	1,326	
10	New York	866	1,598	1,731	1,222	<--higher
11	Indiana	901	1,464	1,419	1,087	<--higher
12	Virginia	736	966	1,116	1,067	<--higher
13	Minnesota	1,075	1,166	1,421	1,039	
14	Ohio	800	1,495	1,157	941	
15	Louisiana	923	889	0	878	
16	Georgia	812	1,300	1,444	847	
17	Alabama	730	954	1,682	789	
18	Massachusetts	592	761	672	644	
19	South Carolina	586	728	743	639	
20	New Jersey	698	740	947	626	
21	Iowa	692	925	911	626	
22	Kentucky	455	999	1,274	616	<--higher
23	North Carolina	1,290	1,775	2,202	610	
24	Washington	604	594	694	609	
25	Oklahoma	823	1,190	1,189	569	
26	Colorado	569	680	657	521	
27	Maryland	431	712	597	471	
28	Arkansas	475	778	542	455	
29	South Dakota	408	386	464	432	
30	Nebraska	434	621	792	426	
31	North Dakota	344	476	440	416	<--higher
32	Nevada	373	772	526	392	
33	Arizona	411	551	636	355	
34	Mississippi	182	672	609	321	<--higher
35	Montana	200	355	501	279	<--higher
36	Idaho	205	677	464	262	<--higher
37	Oregon	239	301	348	259	
38	Puerto Rico	533	267	299	230	
39	Alaska	114	126	143	188	<--higher
40	New Mexico	152	339	296	181	
41	West Virginia	190	283	161	160	
42	Wyoming	168	131	151	139	
43	Delaware	104	150	188	118	
44	Hawaii	95	87	133	70	
45	District of Columbia	35	65	50	46	<--higher
46	Maine	28	37	18	33	
47	Vermont	2	15	9	6	<--higher
48	U.S. Virgin Islands	21	3	0	1	
49	Rhode Island	114	162	0	0	
50	New Hampshire	51	217	63	0	
51	Northern Mariana Islands	1	3	0	0	
52	Michigan	0	780	1,158	0	
53	Kansas	0	1,362	0	0	
54	Guam	0	67	82	0	
55	Connecticut	0	460	0	0	
56	American Samoa	0	0	0	0	

Source: COVID-19 Tracking and Fundstrat

POINT 2: The post-Rosh Hashanah surge seems ending, and without an exponential rise in cases...

The surge in cases which coincided with Rosh Hashanah seems to be ending. That is good. This means, despite a nationwide surge in cases, it did not lead to an exponential rise in cases. In other words, it seems steps were taken to mitigate this from happening.

- by tiers of US states, we can see that Rosh Hashanah surge rolling over on daily new cases.
- in FL, CA, AZ, TX, or states with fewer proportionate participants in Rosh Hashanah, those states barely saw a rise in daily cases

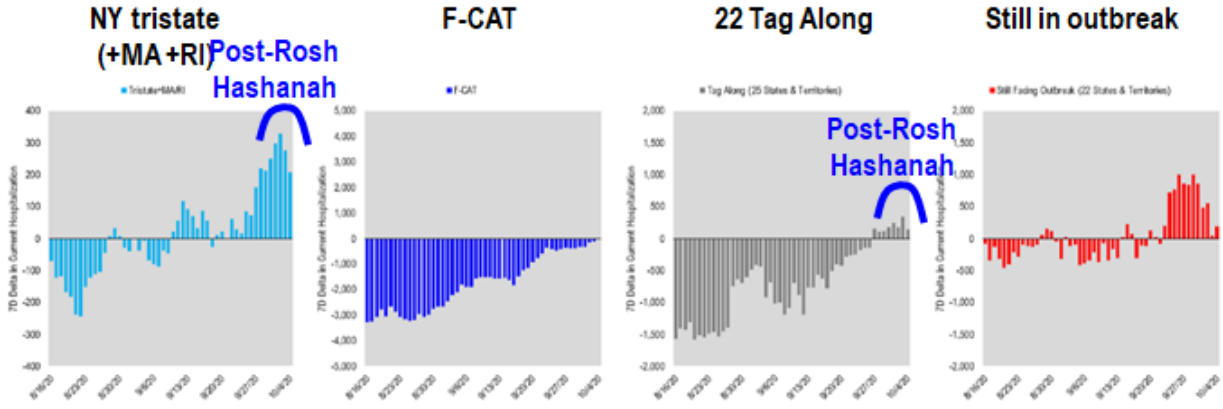


Source: Fundstrat

Daily hospitalization trends show post-Rosh Hashanah surge ending...

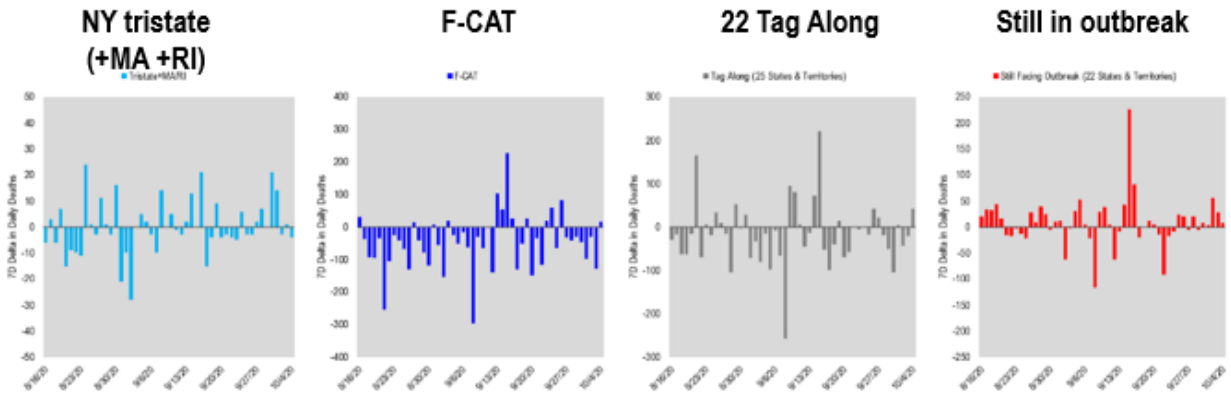
Similarly, the net change in Americans hospitalized also seems to be rolling over. This is shown by the same tier of states below:

- Americans net change in hospitalizations is not accelerating
- Instead, in NY tristate and 22 Tag Along states, this figure is rolling over



Source: Fundstrat

Daily deaths, fortunately, have remained quite muted. But we also know hospitalizations are a leading indicator of death. So, this could easily start to rise in the next few weeks. This bears watching.

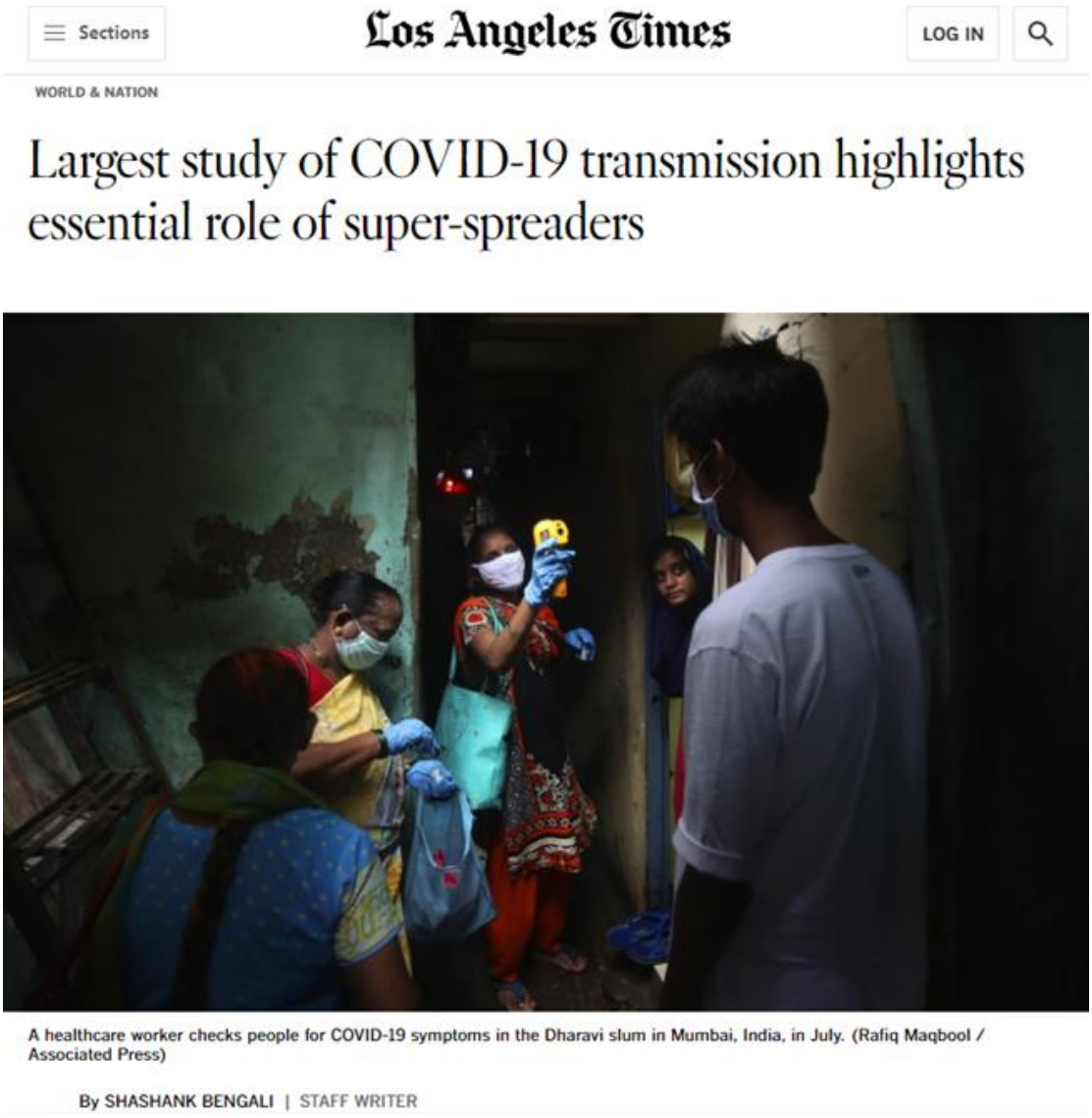


Source: Fundstrat

POINT 3: White House breakout reminder of the role of "Super Spreaders" (or Super spreader events)

The breakout in cases at the White House, which seemed to stem from the reception held for Supreme Court nominee Amy Coney Barrett, is a reminder of the role of super spreaders and super-spreader events. We thought it worth highlighting again the results of a study from India. We commented on this last week, but it is worth repeating.

One of the largest ever COVID-19 transmission studies was published last week. The study was based upon exhaustive and intensive contact tracing of cases in India and is the largest study done so far. The purpose was to see the factors and causes behind COVID-19 transmission. The conclusions really interested me. The study was published in Science magazine (Science.org article) last week.



Sections

Los Angeles Times

LOG IN

WORLD & NATION

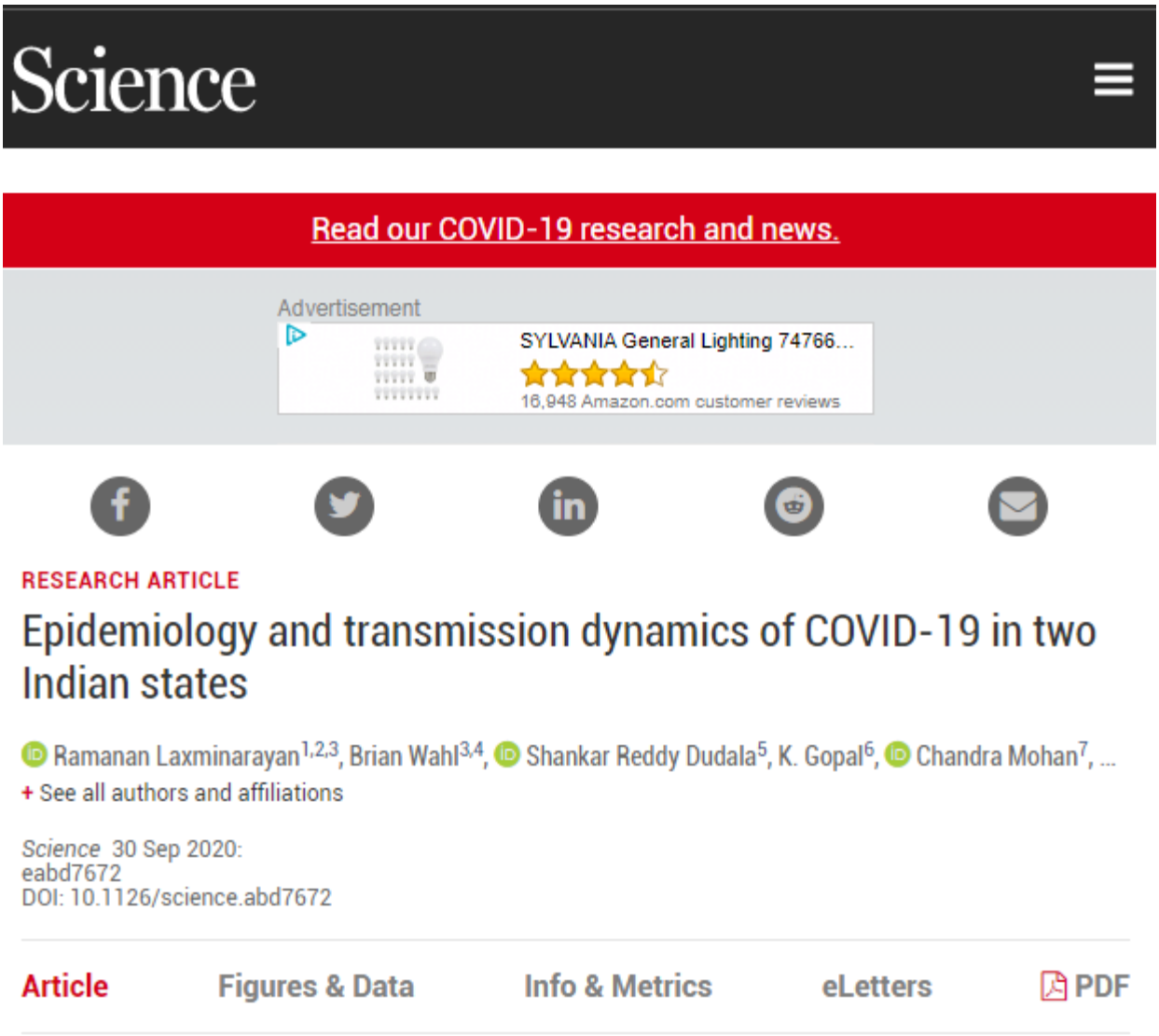
Largest study of COVID-19 transmission highlights essential role of super-spreaders

A healthcare worker checks people for COVID-19 symptoms in the Dharavi slum in Mumbai, India, in July. (Rafiq Maqbool / Associated Press)

By SHASHANK BENGALI | STAFF WRITER

Source: Los Angeles Times

This is the study on Science.org and was led by Ramanan Laxminarayan, who is the founder and director of the US-based Center for Disease Dynamics, Economics & Policy (CDDEP) in Washington, D.C., and a senior research scholar and lecturer at the Princeton Environmental Institute at Princeton University. So, this guy has credentials.



Source: https://science.sciencemag.org/content/early/2020/09/29/science.abd7672

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The scope of the study was huge. Over 575,000 individuals were contacted and are 10X larger than prior studies.

> A team of Indian and U.S. researchers examined data from 575,071 individuals who were tested after coming into contact with 84,965 people with confirmed cases of COVID-19. That's an average of seven contacts per case, and a cohort more than 10 times larger than in a previous study from South Korea that mapped how the virus was transmitted.
>
> "It's the largest epidemiological study anywhere on COVID by far," said the lead author, Ramanan Laxminarayan of the Center for Disease Dynamics, Economics and Policy, in New Delhi.

Source: Los Angeles Times

70% of individuals R0 = 0, 8% of people R0 = 8 or higher....
The team found some useful insights about COVID-19 transmission. One part confirms what we already know, but the other is quite surprising:

- 8% of individuals accounted for 60% of new infections
- 70% of COVID-19 infected were not linked to new cases

> Laxminarayan and his colleagues found that just 8% of people with COVID-19 accounted for 60% of the new infections observed among the contacts. Meanwhile, 7 out of 10 COVID-19 patients were not linked to any new cases.
>
> The finding underscores the essential role of super-spreaders in the COVID-19 pandemic: One individual or event, such as in a poorly ventilated indoor space, can trigger a high number of new infections, while others might not transmit the virus at all.

Source: Los Angeles Times

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The bottom line, 8% of infected are extremely dangerous, because they are super-spreaders...

The bottom line is that 8% of infected people are super-spreaders. In other words, COVID-19 is largely are result of super spreaders. If I simplified this math:

- 8% people --> 60% new infections -> R0 ~8
- 22% people --> 40% infections -> R0 ~2
- 70% people --> 0% infections -> R0 0

Source: senior year high school photo of Fundstrat employee (unnamed)

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The research could not determine what makes someone a super-spreader but they found more evidence it is environmental, rather than based upon the biology of the person. The key environmental factors:

- proximity to infected
- length of contact
- ambient conditions

> "Super-spreading events are the rule rather than the exception," Laxminarayan said. "It has lots of implications for modeling COVID, for how to keep places safe."
>
> The study suggests that super-spreading events are influenced by behavior — that proximity to an infected person, length of contact and ambient conditions determine the level of risk. It doesn't examine whether some infected people spread the virus more efficiently because of biological factors, a question scientists are still trying to answer.

Source: Los Angeles Times

Here is the scary thing -- if someone meets a "super spreader" the attack rate is 11% -- in the right settings...

This statement can easily be misconstrued. And my own interpretation is not exactly complete. But look at this sentence from the study:

- "secondary attack rate was 10.7%" (risk of transmission from infected to exposed person)

Yikes. That means you have a ~11% chance of catching COVID-19 if you are near a super-spreader.

> Assuming test-positive contacts were infected by the index case to whom they were traced, we estimated that the overall secondary attack rate (or risk of transmission from an index case to an exposed contact) was 10.7% (10.5-10.9%) for high-risk contacts, who had close social contact or direct physical contact with index cases without protective measures, and 4.7% (4.6-4.8%) for low-risk contacts, who were in the proximity of index cases but did not meet these criteria for high-risk exposure (tables S6 and S7). Data on

Source: https://science.sciencemag.org/content/early/2020/09/29/science.abd7672

Fortunately, this is termed to mean being in a risky environment:

- no PP&E
- no masks
- indoors
- exposed for a long time

So bottom line, please avoid these settings, particularly if your superpower is detecting COVID-19 infected.

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