



COVID-19 UPDATE: Trends in COVID-19 deaths good, but hospitalizations up 8%. India study 8% infected have $R_0 > 8$

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STRATEGY: America at a decision point as COVID-19 cases rise -- worst policy decision is "doing nothing"

The worst thing for policymakers to do is nothing...

COVID-19 cases are rising again in the US. This is not only confirmed by the sustained rise in cases across the US. But as we discuss below, the fact that COVID-19 patients hospitalized is up 8% in the past two weeks. The fact that cases are rising is not the real issue, in my view, it is really two orders of effect:

- first, will cases rise exponentially, ala IHME's view of a deadly winter second wave?
- second, what actions should policymakers take?

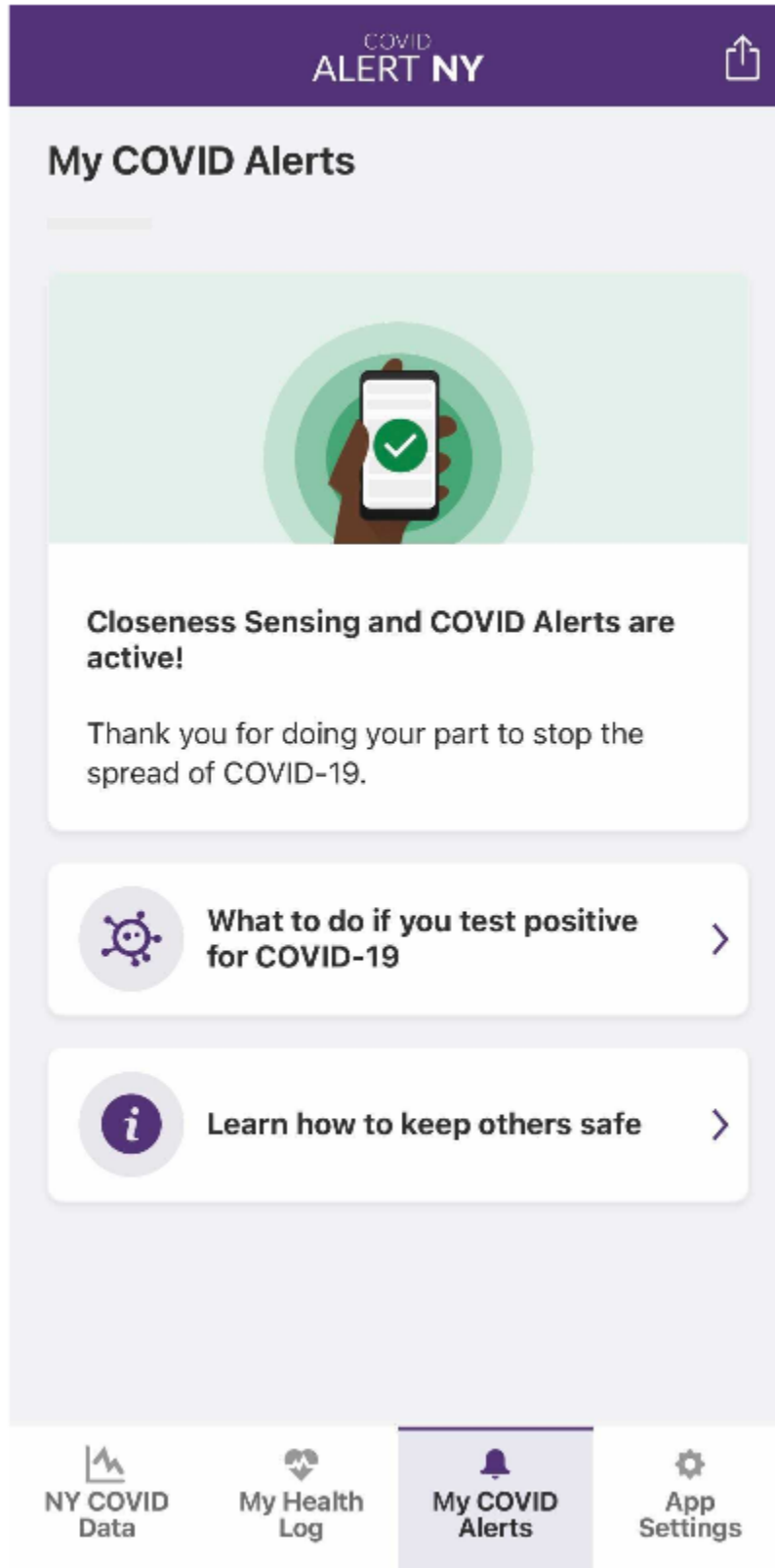
As Teddy Roosevelt, the US 26th President, famously said:

"In any moment of decision, the best thing you can do is the right thing, the next best thing is the wrong thing, and the worst thing you can do is nothing."

— Theodore Roosevelt, 26th U.S. president

In other words, we want to make sure US policy makers don't do the "worst thing" which, I believe, is "doing nothing". I think it will be important for federal, state and local governments to take some mitigating actions. I am not in favor of economic shutdowns, and even point to NYC as an example of how that will not help (NYC has been mostly shut, and cases are inching up). Rather, it probably becomes an issue of making sure American's take better individual action. As Dr. Charles Murray of IHME stated, the more Americans lose fear, the more careless we get.

- At least NY/NYC finally rolled out a contact tracing app. Better late than never? It is October 1, and COVID-19 contact tracing apps and even the APIs have been around since May.

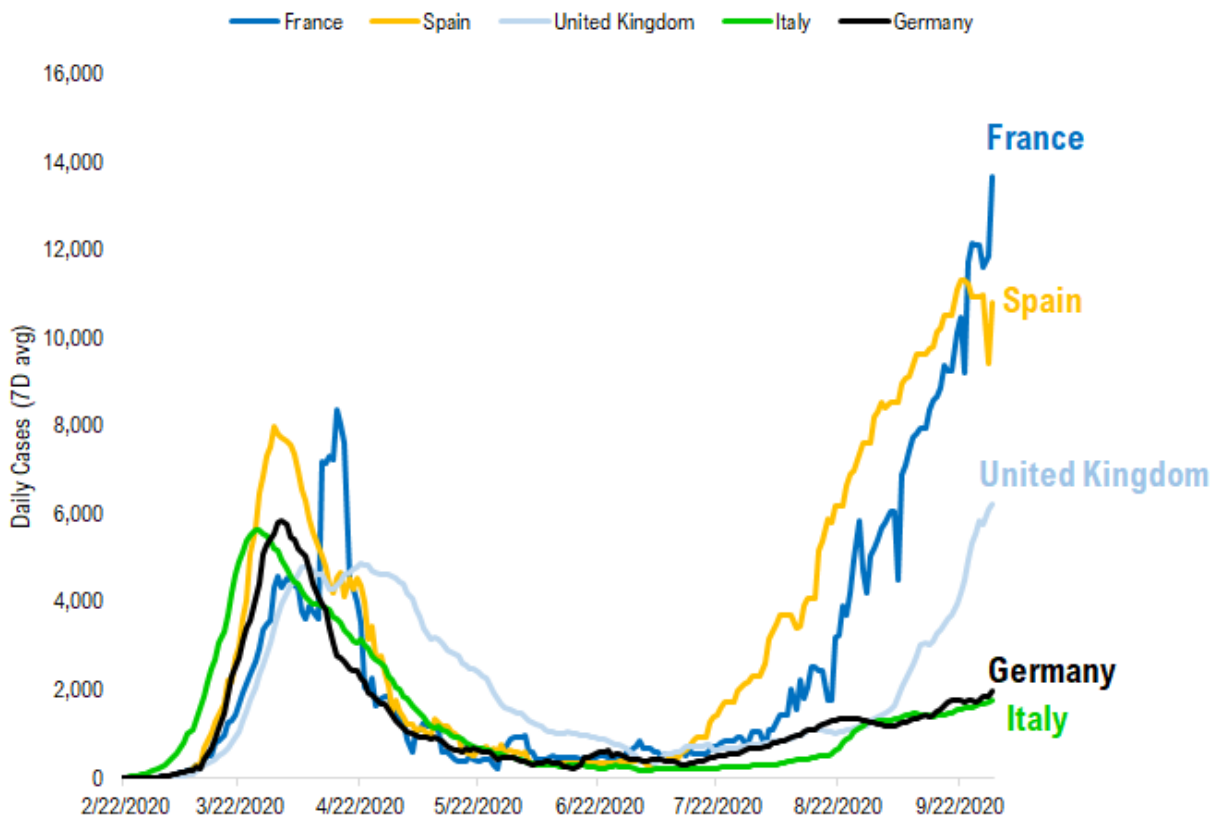


Source: NY Dept of Health

But if US cases do not rise exponentially, this is a real validation the US can manage COVID-19...

But equally important is the trajectory of cases in the next two weeks. I don't think it is a foregone conclusion that the US is going full "second wave." Europe has gone full on the second wave especially in France, Spain and the UK. But Europe is what we need to watch, in a way:

- None of the 3 nations is really taking drastic measure (UK closed pubs).
- Mortality has not soared while cases soared = good
- Germany and Italy have hardly seen a rise



Source: Johns Hopkins and Fundstrat

Chances for passage of the stimulus package before election day dimming...

It looks like the chance for a fiscal stimulus package before election day is dimming. This is disappointing news on many levels. Politics aside, with the economic restrictions in place, millions of Americans are facing a new wave of distress. Our Policy Strategist, Tom Block, shares his thoughts below. But basically, the gap is \$600 billion, and that difference is enough to end progress.

Relief package



Tom Block



11:57 AM

 You replied to this message on 10/1/2020 12:35 PM.

Negative news from DC, Pelosi reportedly told Democrats on a conference call this morning that she is pessimistic about an agreement with WH today and that they will pass their partisan \$2.2T bill tonight and then go home to campaign. She believes all the Ds must do is pass their bill and then blame Rs for "not sharing their values" to pass a bigger bill.

I think the President really wants a bill, I just don't know how much COS Mark Meadows and McConnell are telling him Senate Republicans won't go as high as he and Mnuchin are willing to go. I also am not sure if Pelosi just believes that not having a bill is the better political position in the closing days of the campaign, deny Trump an election eve victory.

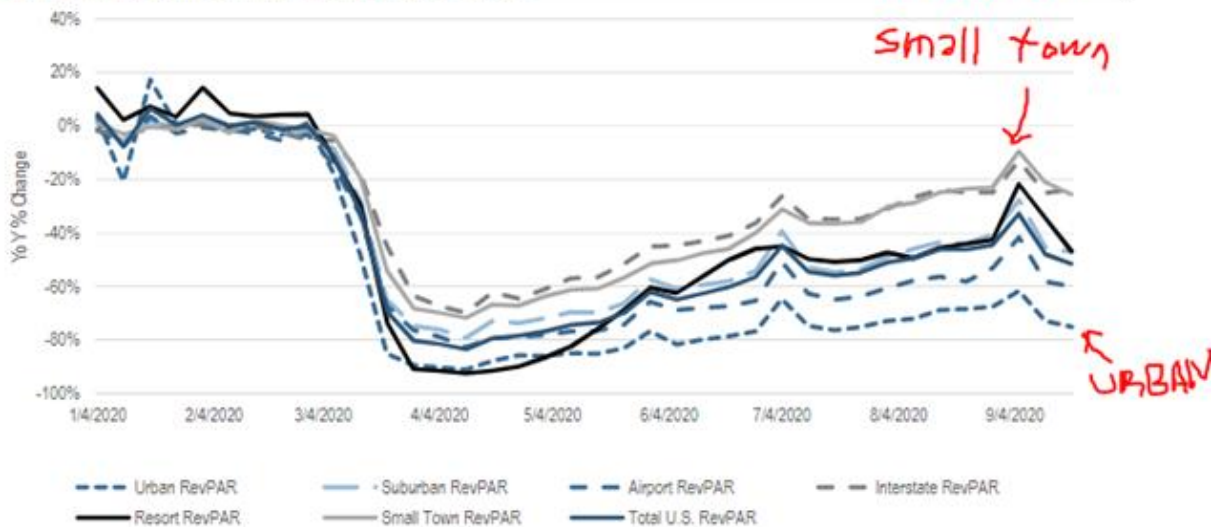
Tom

If there were a chart to really explain the changes in traveler preferences, it might be this hotel Rev/PAR (revenue per available room) by JPMorgan (Joseph Greff). This is a weekly tracker looking at yoy changes.

- Small town and interstate Rev/PAR down 20% YoY (least bad)
- Urban Rev/PAR down 78%

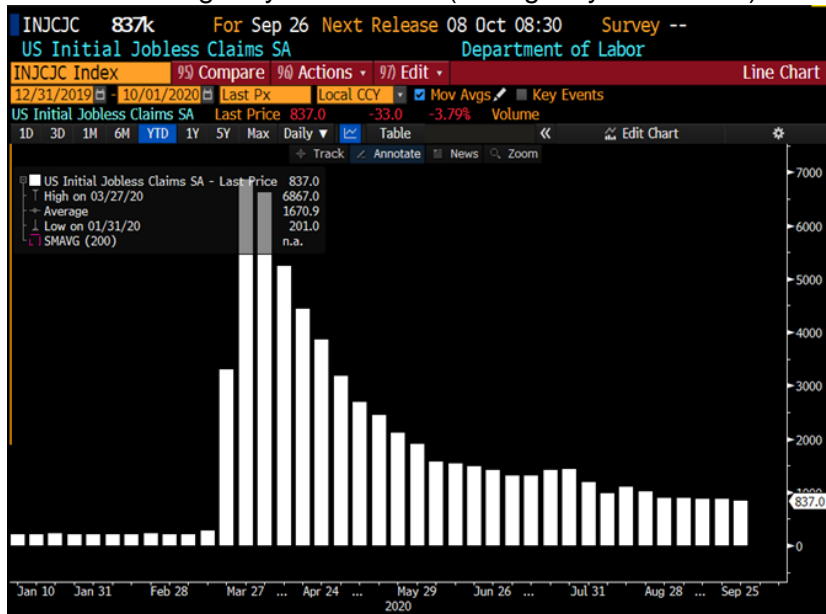
So like the same migration we see from residents moving from cities to the suburbs. So have travel plans reflected this.

Figure 1: Summary U.S. Weekly RevPAR Trends Since the Pandemic



Source: STR, Inc., J.P. Morgan.

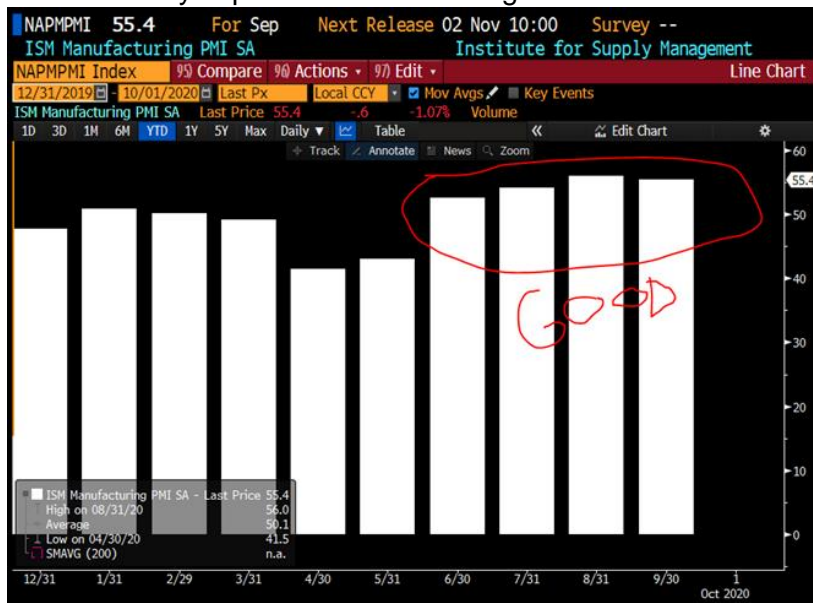
We get some key economic data this week and the biggest is the September jobs report coming out Friday am. But the initial jobless claims improved slightly today, which is encouraging. And while this figure remains extremely high, as GS noted earlier this week, a lot of this might reflect the fact that eligibility for the PUA (emergency assistance) is so low.



Source: Bloomberg

Similarly, the ISM manufacturing number came in today at 55.4. This figure is about where it was for the last few months. The ISM is a diffusion index (respondents just answer better, worse or the same), so a figure >50 means activity is expanding and a level of ISM is not necessarily correlated to GDP levels.

- US economy expansion continues = good



Source: Bloomberg

The good news we finally got a close above the key level S&P 500 3,363.31 after the S&P 500 has bumped up against this for the past few days. The 3,224, as marked below, was important to hold as this was the level where we saw "worst is yet to come" discounted, as a 62% retrace of the June to August rally.

And closing above 3,363.31 means the market is finding some footing, despite the poor visibility into election day. It would certainly help if Congress could get a stimulus plan passed. But hope for that is dimming.



POINT 1: Daily cases continue rising vs 7D ago but at a slower pace = good

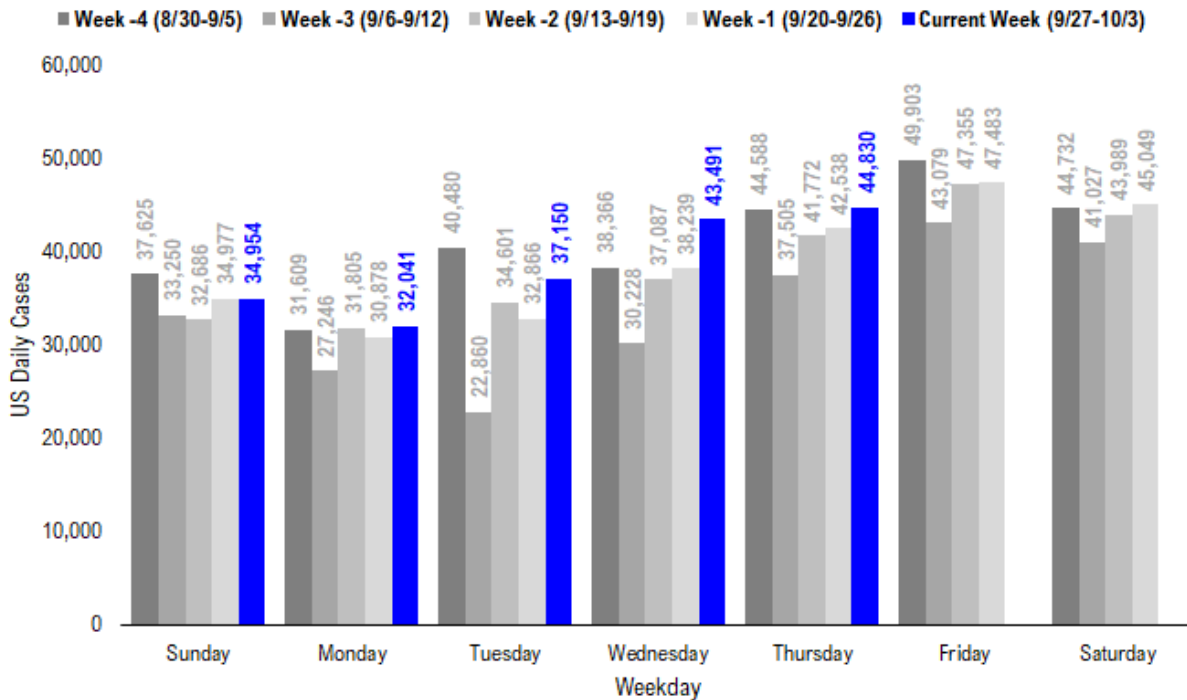
Daily new COVID-19 cases came in at 44,830, which is up 2,292 vs 7D ago. Although the 7D delta of daily cases is lower than yesterday's +5,252, daily cases are generally rising across the US.

Again, our biggest concern is if this surge in cases becomes exponential. So, the next week will really be the key. If daily cases don't rise exponentially, ala France, Spain, UK, we can feel a bit more comfortable.

We can think of a few factors explaining this rise, but the most important question is whether this leads to an exponential rise:

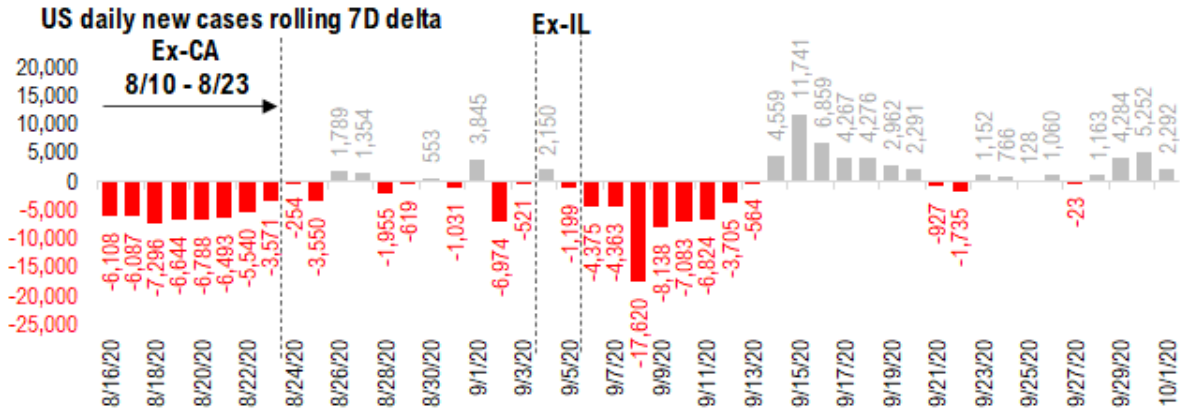
- is this due to back to school?
- is this due to flu season (which started early August in the South)
- is this due to more testing? maybe
- is this a "Rosh Hashanah effect"? maybe

We just don't know. Ultimately, it is better if Americans are scared because they will be more careful.



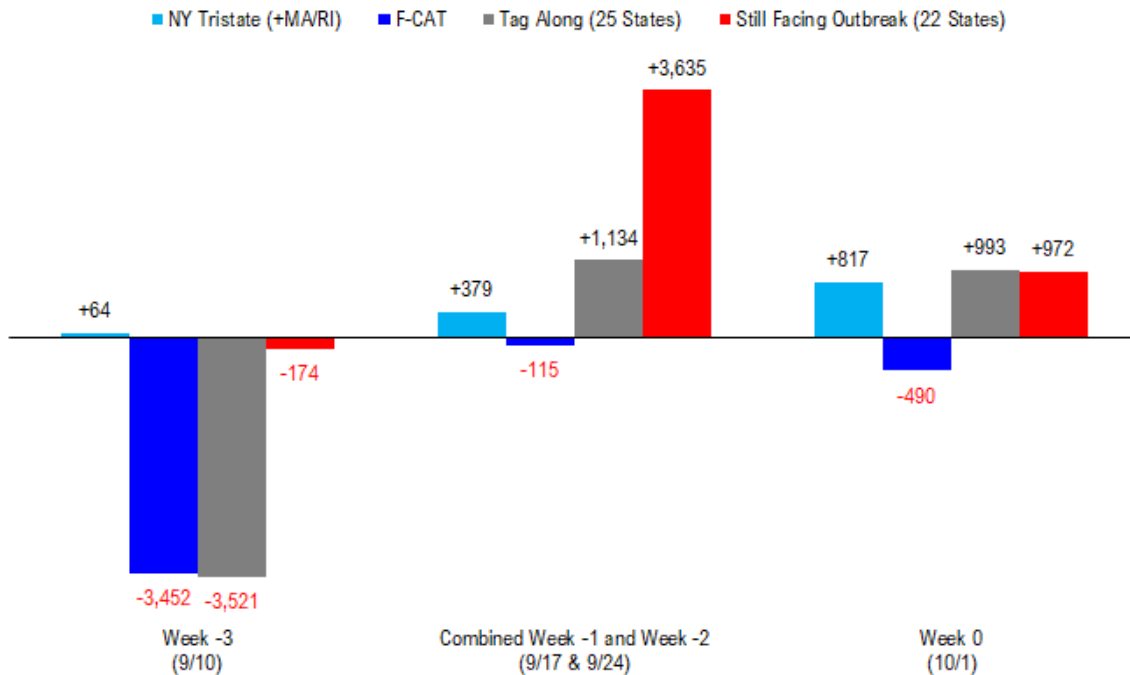
Source: COVID-19 Tracking Project

Again, the daily change vs 7D ago, in our view, is the leading indicator as it is what influences the 7D moving average. After 6 "flat" days, the daily cases jumped in the past three days. This is a notable rise compared to other days in the past two months (ignoring the post-Labor Day spikes given they are largely due to the data distortion).



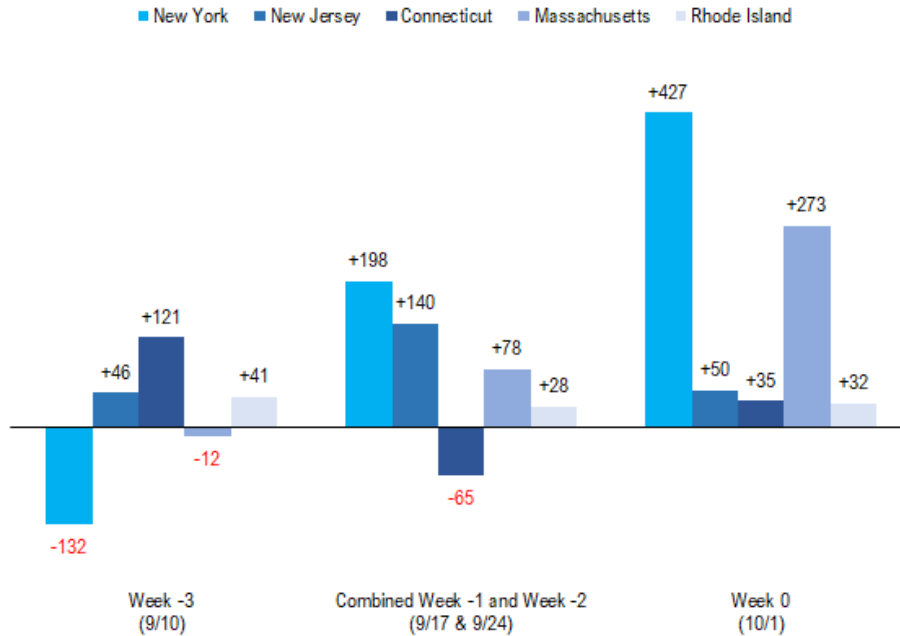
Source: COVID-19 Tracking and Fundstrat

Looking at the tiers of the US states, compared to 7D ago, all tiers except F-CAT see case rises. The 5 states of NY Tristate (+MA&RI) contributed +817 more cases vs. 7D ago.



Source: COVID-19 Tracking and Fundstrat

Below we show the breakdown of the NY Tristate areas (plus MA and RI). As we wrote in the past few days, New York is facing troubling clusters of increasing COVID cases in Brooklyn, Rockland County and Orange County. As a result, the daily cases for New York is +427 higher than 7D ago. The second-largest contributor is Massachusetts, +273 cases vs. 7D ago.



6 states with largest 7D delta in daily cases

North Carolina	2,277 vs 1,688 (-7D)	+589
Wisconsin	2,887 vs 2,392	+495
Tennessee	1,293 vs 835	+458
Missouri	1,799 vs 1,365	+434
New York	1,382 vs 955	+427
Ohio	1,327 vs 991	+336
Total		+2,739

6 states with largest 7D delta in daily cases

Texas	3,234 vs 3,840 (-7D)	-606
South Carolina	267 vs 852	-585
Puerto Rico	230 vs 717	-487
Virginia	450 vs 902	-452
Utah	1,008 vs 1,198	-190
Iowa	1,038 vs 1,148	-110
Total		-2,430

Daily Case Increases (by State) (10/01)

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

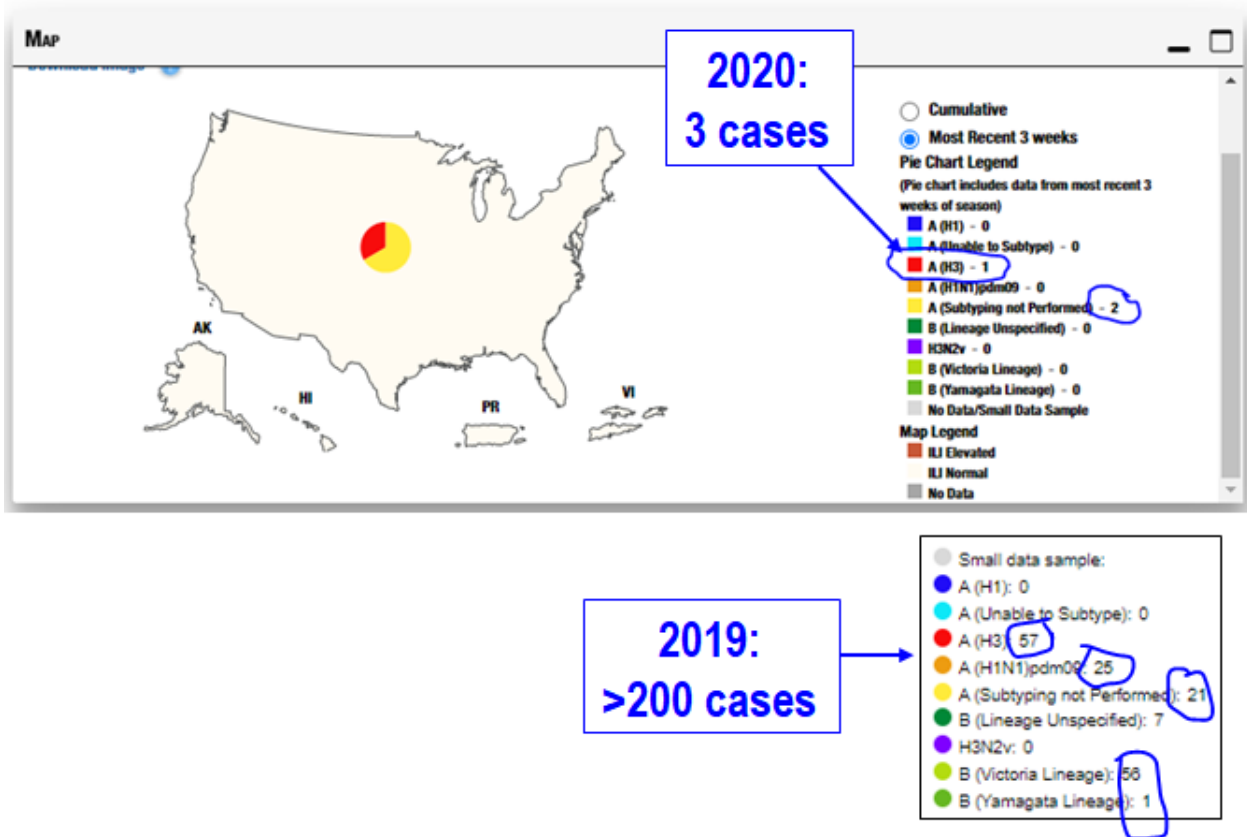
		Sorted				
		7D Ago		Last 3-day Trend		
		9/24/20	9/29/20	9/30/20	10/1/20	vs 7D ago
United States		42,538	37,150	43,491	44,830	+2,292
States:						
1	Texas	3,840	3,812	5,335	3,234	
2	California	3,170	2,162	3,200	3,062	
3	Wisconsin	2,392	2,367	2,319	2,887	<-higher
4	Florida	2,541	3,266	1,948	2,628	
5	North Carolina	1,688	889	1,495	2,277	<-higher
6	Illinois	2,257	1,362	2,273	2,166	
7	Missouri	1,365	1,486	1,351	1,799	<-higher
8	New York	955	1,189	1,000	1,382	<-higher
9	Ohio	991	1,105	1,080	1,327	<-higher
10	Georgia	1,368	1,025	1,720	1,308	
11	Tennessee	835	879	1,528	1,293	<-higher
12	Oklahoma	1,083	1,025	980	1,170	
13	Indiana	899	744	953	1,157	<-higher
14	Pennsylvania	853	988	1,153	1,156	<-higher
15	Minnesota	912	809	687	1,066	
16	Alabama	1,053	571	1,147	1,043	
17	Iowa	1,148	474	1,120	1,038	
18	Utah	1,198	694	906	1,008	
19	Arkansas	1,030	482	607	921	
20	Michigan	982	898	1,054	891	
21	Kentucky	641	917	984	888	<-higher
22	Maryland	503	431	414	785	<-higher
23	Massachusetts	481	512	532	754	<-higher
24	South Dakota	463	259	392	747	<-higher
25	Arizona	568	674	323	705	<-higher
26	Mississippi	737	589	552	696	
27	Colorado	548	535	511	682	<-higher
28	New Jersey	564	456	712	614	
29	Louisiana	577	533	452	608	
30	Nebraska	493	515	466	520	
31	Idaho	491	511	614	513	
32	Washington	509	369	404	480	
33	Virginia	902	923	755	450	
34	Nevada	390	404	385	430	
35	Montana	330	311	347	429	<-higher
36	North Dakota	470	418	445	372	
37	Oregon	362	297	218	353	
38	South Carolina	852	584	364	267	
39	Puerto Rico	717	444	207	230	
40	New Mexico	237	172	278	226	
41	Connecticut	157	182	221	192	<-higher
42	West Virginia	202	180	156	176	
43	Delaware	117	142	82	174	<-higher
44	Rhode Island	134	132	192	166	<-higher
45	Wyoming	136	67	127	135	
46	Alaska	128	124	103	124	
47	Hawaii	90	86	118	108	
48	Guam	28	53	45	62	<-higher
49	New Hampshire	37	25	33	51	<-higher
50	Maine	44	37	54	40	
51	District of Columbia	56	36	26	32	
52	U.S. Virgin Islands	12	1	0	5	
53	Vermont	2	4	3	3	<-higher
54	Northern Mariana Islands	0	0	0	0	
55	Kansas	0	0	1,120	0	
56	American Samoa	0	0	0	0	

Source: COVID-19 Tracking and Fundstrat

POINT 2: Deaths trends encouraging, but current hospitalizations up 8% since 9/20
No flu season? Only US 3 flu cases reported by CDC this week, compared to >200 same week last year...

Something very curious is happening. We are already more than 5 weeks into flu season (it starts in the South) and the latest surveillance data from CDC shows only 3 cases are positive for flu (see below).

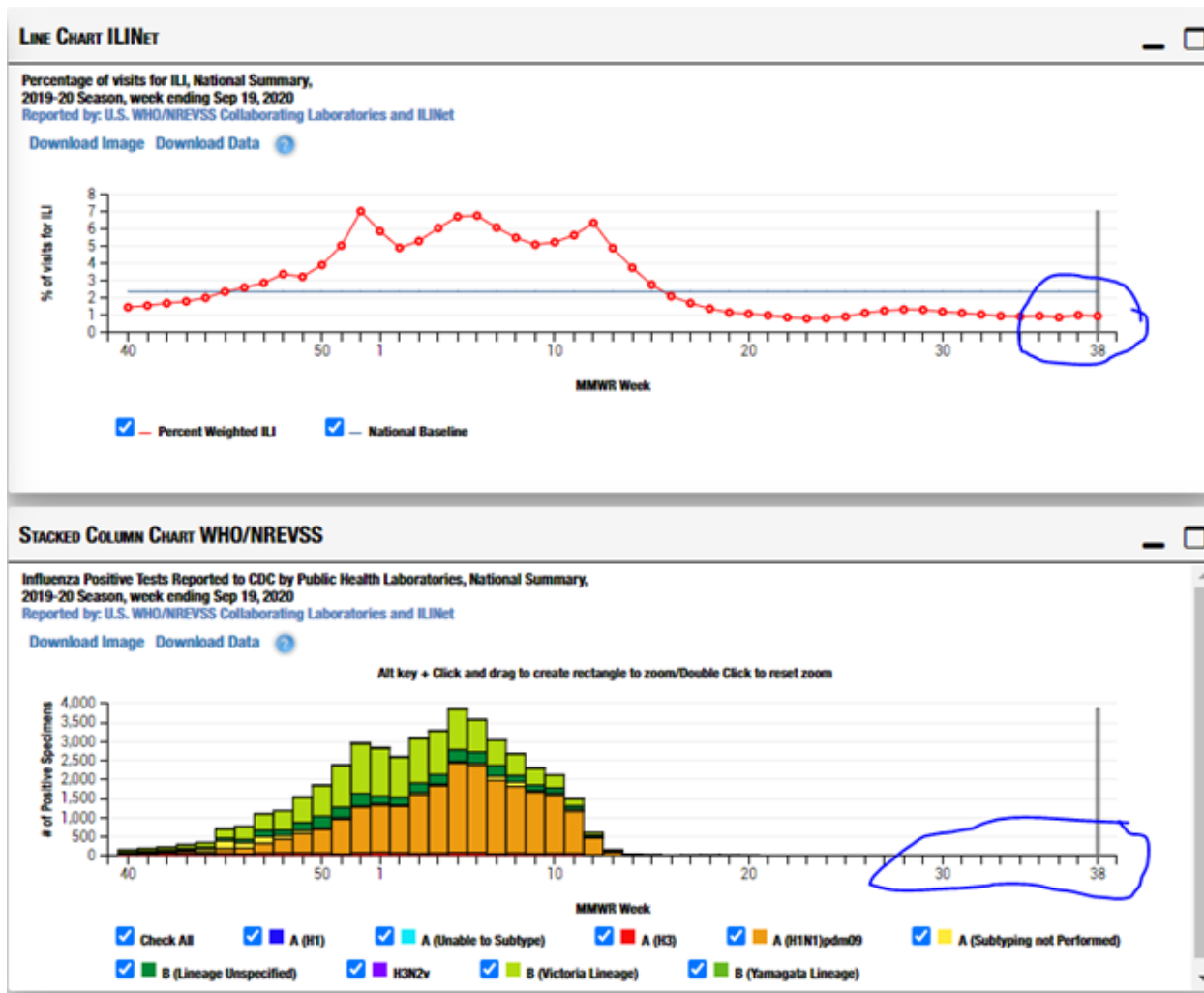
- this was the week a year ago, >200 samples tested positive for flu
- has COVID-19 somehow mitigated flu (due to masks, social distance, etc.)?



Source: CDC

There may be something to this as we can see there has been zero activity, essentially in flu. And in the prior year (see week 40), we can see flu was already building up quite a number of cases. As shown below, the heart of flu season is still about 10 weeks away, or mid- to late-November.

- but it is encouraging to see flu season so mild.

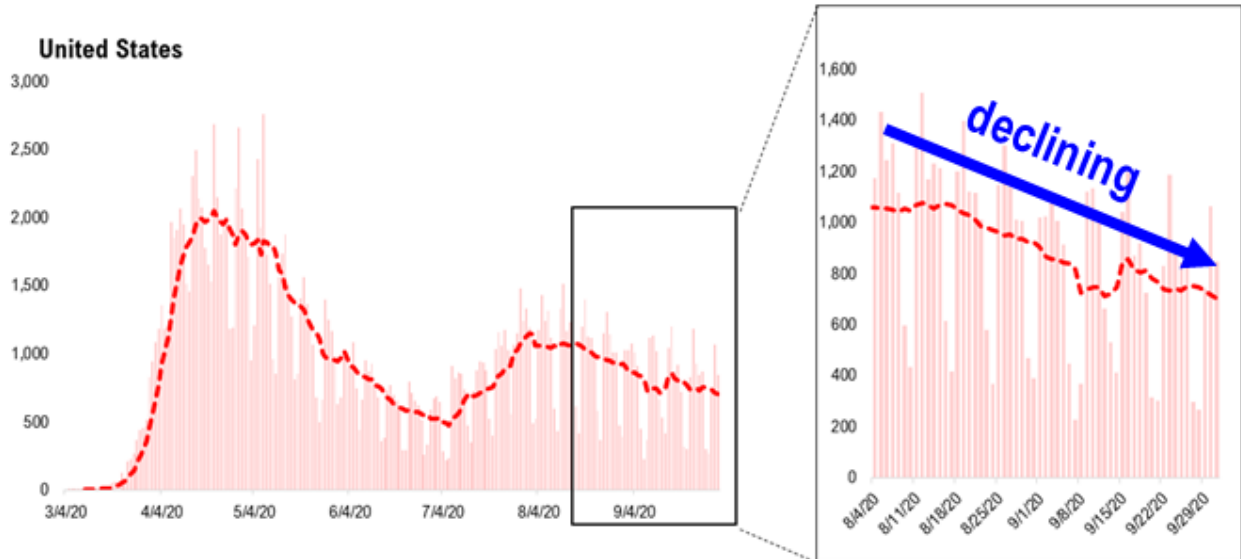


Source: CDC

Daily deaths are muted... but no guarantee this remains the trend

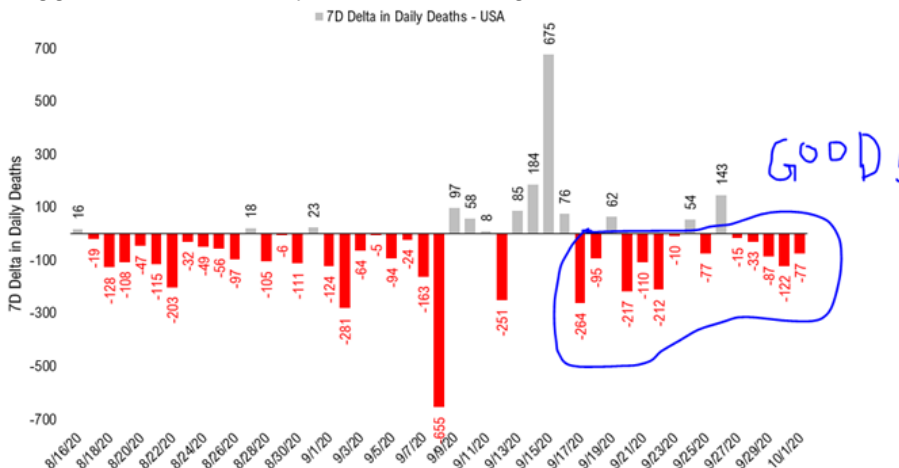
With daily COVID-19 cases rising, we are naturally concerned about the potential rise in severe healthcare outcomes, including rising deaths as well as hospitalizations. The daily deaths from COVID-19 are shown below as well as the 7D moving average. The 7D mavg is around 730 per day.

- 7D daily deaths at 730 per day is well off the highs of ~2,000 in April/May and even down from 1,200 in early August
- But keep in mind, the IHME projects daily deaths to soar to nearly 8,000 per day if masks are not used.



Source: COVID-19 Tracking Project and Fundstrat

The 7D delta of daily deaths, which leads the moving average, continues to show negative values. Thus, compared to 7D ago, there are fewer people perishing from COVID-19. This is really one of the most important charts to watch, because if this were to turn positive, this would suggest the rise in daily cases is leading to more severe outcomes.

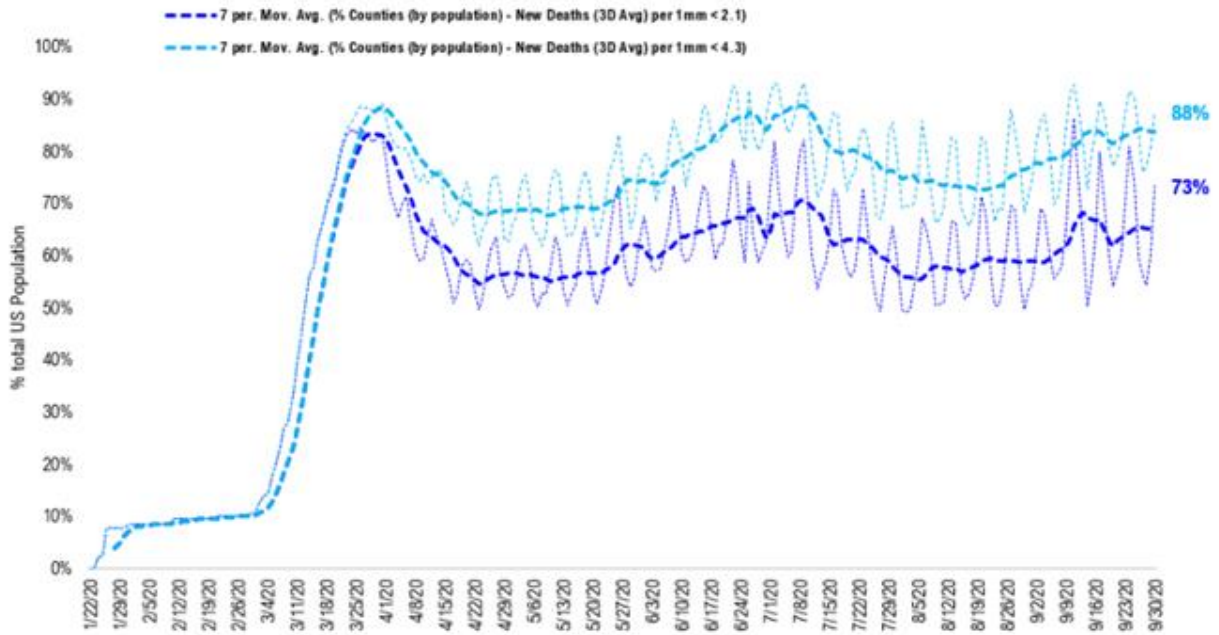


Source: COVID-19 Tracking Project and Fundstrat

And we can also look at the diffusion of deaths. This chart is the % of the US with daily deaths below two thresholds:

- 88% of the USA has daily deaths <4.3 per 1mm
- 73% of the USA has daily deaths <2.1 per 1mm

These have been rising as shown below and point to a drop in COVID-19 mortality that is fairly widespread.

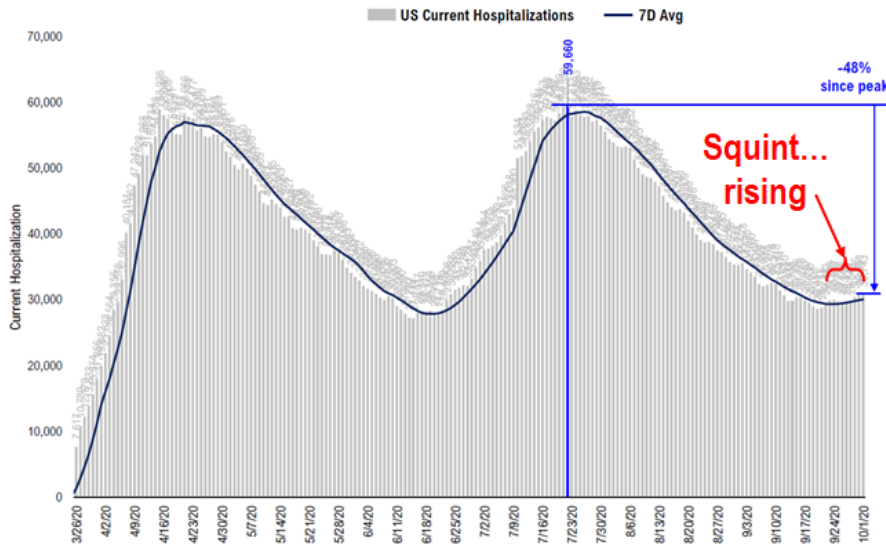


Source: COVID-19 Tracking Project and Fundstrat

But hospitalizations up 8% since early September... to 30,743 from 28,611 on 9/20

While the trend in daily deaths has been encouraging, the number of Americans hospitalized for COVID-19 is up a surprising 8% since 9/20. Yes. It is pretty hard to believe and actually quite hard to see by looking at this chart below.

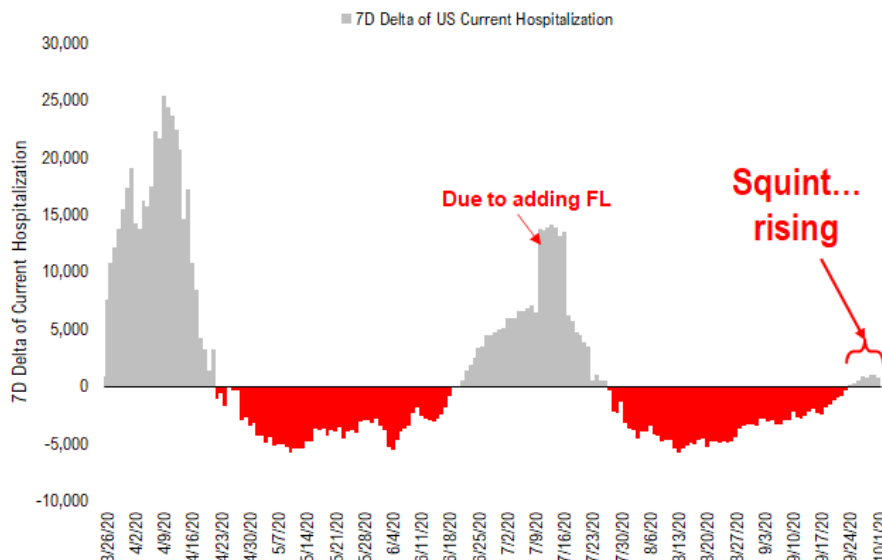
US Net Hospitalizations (aggregate of 50 states + Washington, D.C.)



Source: COVID-19 Tracking Project and Fundstrat

This should be a reminder that we cannot be dismissive of COVID-19. There has been an upturn in hospitalizations. We can see this more clearly looking at 7D delta in those currently hospitalized. This is a measure of the increase into total hospitalized for COVID-19. And this shows that there has been an upturn since late September.

- Granted, these figures are far lower than the surge we saw in July.
- But we would be wise to pay heed to this.



Source: COVID-19 Tracking Project and Fundstrat

POINT 3: Contact tracing study India: 70% people $R_0 = 0$. "super-spreaders" $R_0 = \sim 8$.
This week, one of the largest ever COVID-19 transmission studies was published. 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](https://www.science.org)) yesterday.

Sections

Los Angeles Times

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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.



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RESEARCH ARTICLE

Epidemiology and transmission dynamics of COVID-19 in two Indian states

Ramanan Laxminarayan^{1,2,3}, Brian Wahl^{3,4}, Shankar Reddy Dudala⁵, K. Gopal⁶, Chandra Mohan⁷, ...

+ See all authors and affiliations

Science 30 Sep 2020:
eabd7672
DOI: 10.1126/science.abd7672

Article

Figures & Data

Info & Metrics

eLetters

PDF

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

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

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 the result of super spreaders. If I simplified this math:

- 8% people --> 60% new infections -> $R_0 \sim 8$
- 22% people --> 40% infections -> $R_0 \sim 2$
- 70% people --> 0% infections -> $R_0 = 0$



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

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

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