



COVID-19 UPDATE: Daily cases keep plunging and >70% of US sees cases 50% off their highs (highest ever).

THIS MESSAGE IS BEING SENT SOLELY TO CLIENTS OF FS INSIGHT

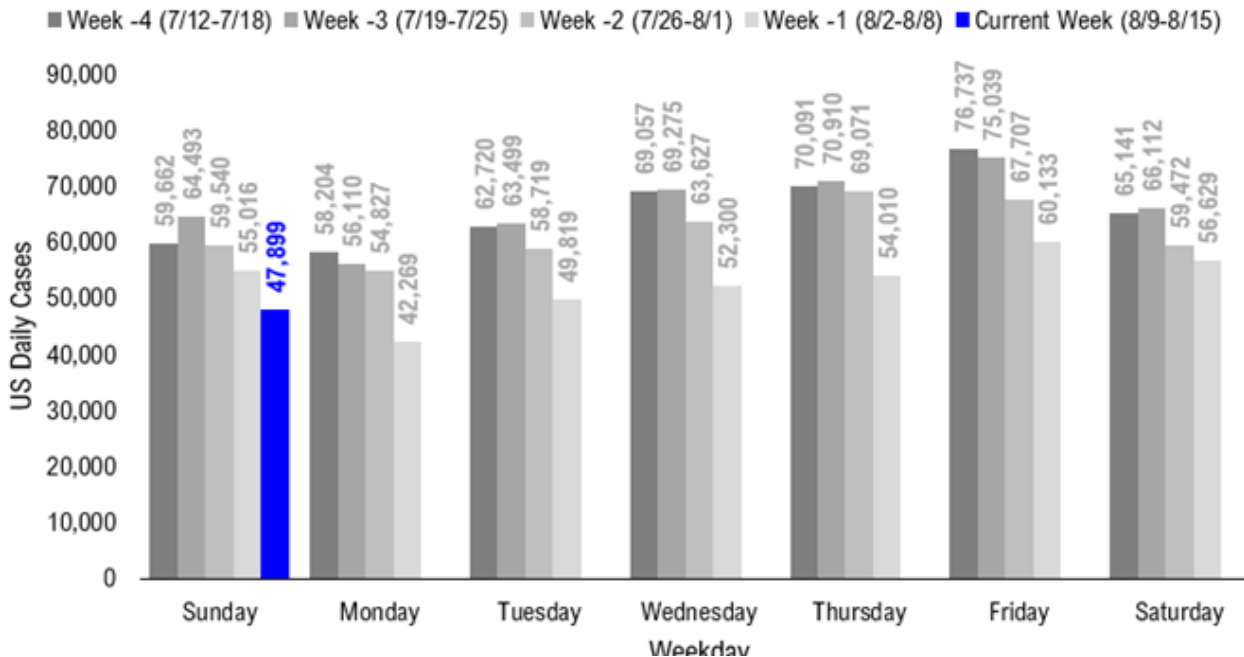
STRATEGY: The daily 'seasonality' is so pronounced, looking vs 7D is the only way to see trends...

Over the past 10 days, many of our clients have questioned whether daily cases trends are falling -- the reason is that day by day, we see fluctuations in daily cases. There are several reasons for this:

- weekend lags due to lab closures
- weekend lags as people seek testing during midweek
- general seasonality

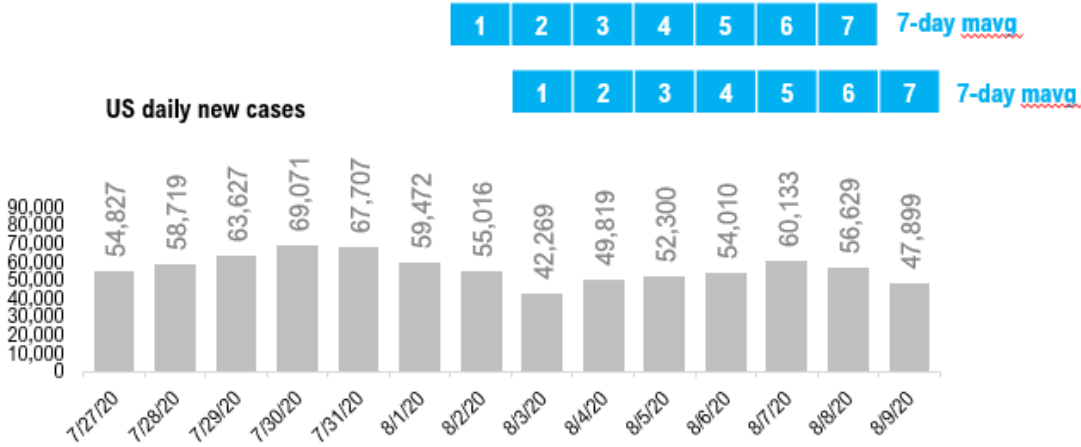
But as we have been saying for >10 days now, we believe daily cases peaked on 7/24 and are now in a steep decline. To really appreciate this, we re-arranged daily cases, but based upon the "day of the week" -- this way, you can see how each day of the week compared to the same period in prior weeks.

- as this chart shows, the daily cases have fallen 4 weeks in a row (same day)
- cases reported to be highest on Thursday/Friday in any given week



Source: Fundstrat

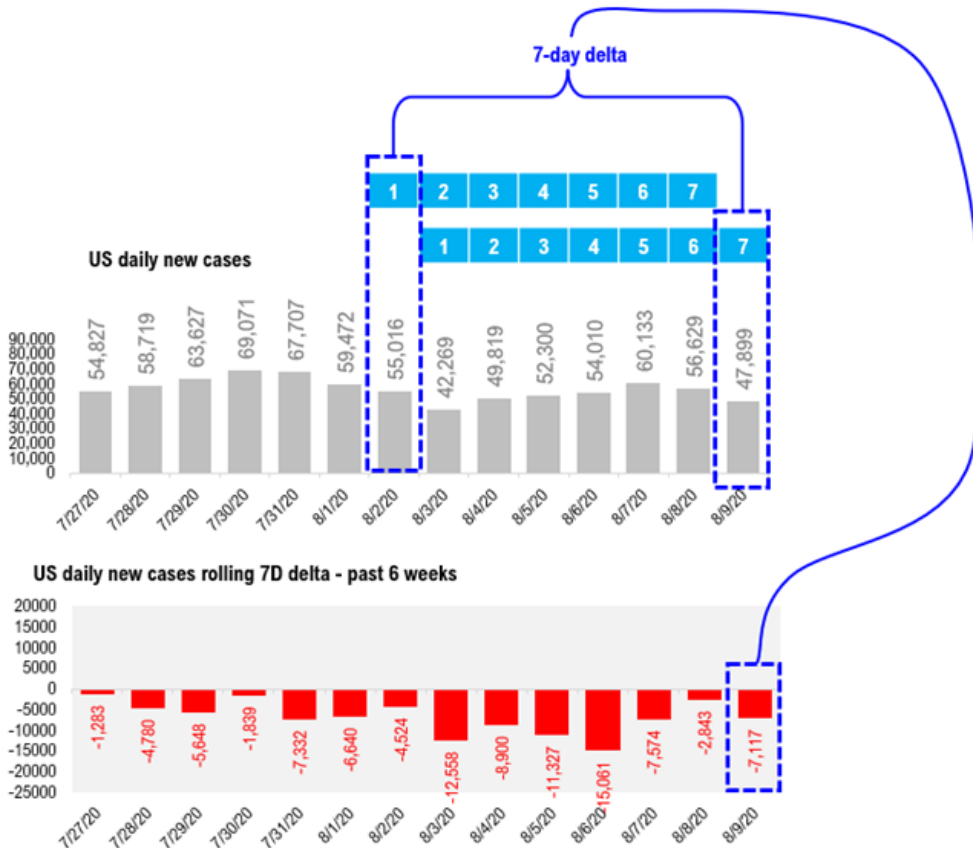
Now some prefer to look at 7-day moving average, and we think this is good for smoothing out the lumps, but it is also slower moving. That is, it is not necessarily going to reflect changes quickly. The 7-day moving averages are highlighted in the blue boxes above the daily cases.



Source: Fundstrat

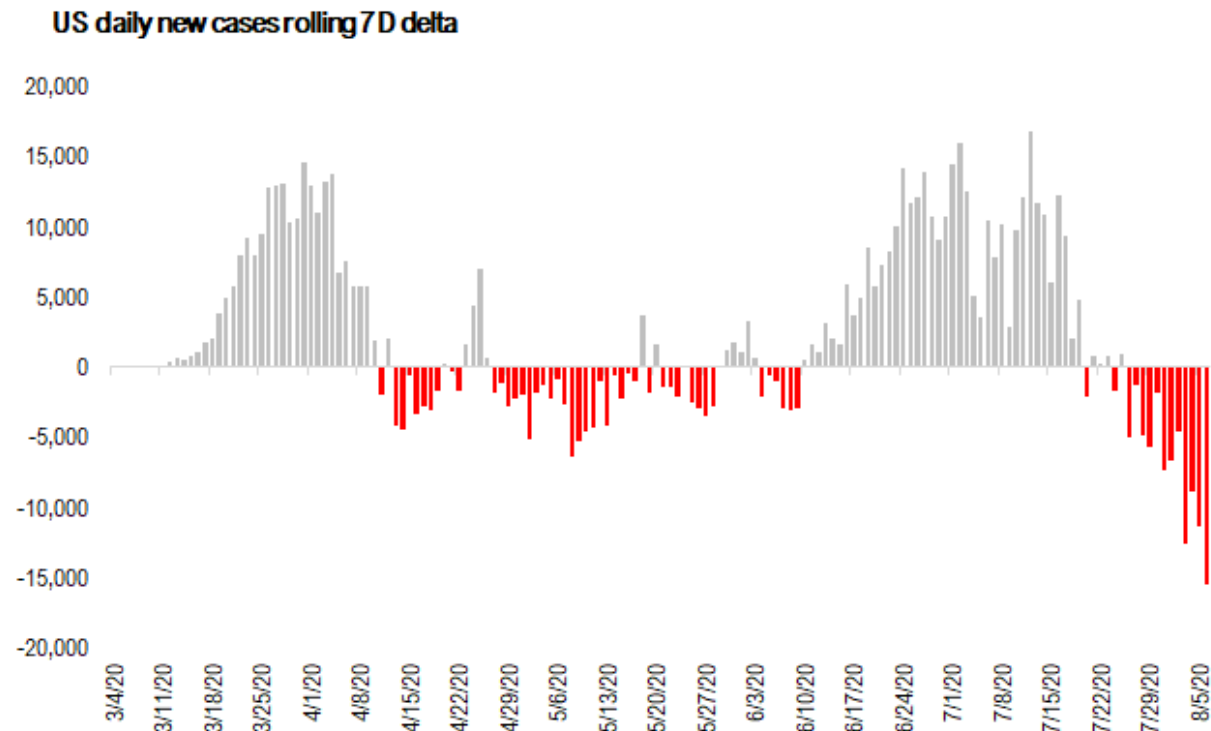
But if we compared the 2 7-day moving average, I want to highlight the end points. This is what is different between the two 7D moving averages -- one day to the next.

- this is simply the 7D delta
- that is why we prefer to look at 7D delta



Source: Fundstrat

If the 7D delta is negative, daily cases are trending lower. And as a proxy for R0, it is saying that R0 is less than 1.0. As the chart below highlights, the 7D delta is falling faster than it was in April/May. So, this means we are seeing an even faster collapse in daily case trends.



Source: COVID-19 Tracking Project

Why does this matter? The US economy has remained largely open. But cases are collapsing. They are collapsing because a lot of mitigation steps were taken:

- closed bars
- mandated masks
- enforced social distance

But the economy remained open. This is a win for the US because it shows the US can deal with a surge, by enforcing measures. Granted, there will be new challenges in the Fall -- reopening schools and flu season. But we are also that much closer to a vaccine.

Ultimately, this is a better situation than what investors perceived in June/July. And as a consequence, we think if this trend continues, this further justifies a surge in epicenter stocks.

That is not the only issue the market is grappling with, however. Passage of fiscal package is key. But our Head of Policy Strategy, Tom Block, believes Donald Trump's Executive Order (over the weekend) is actually moving the ball forward.



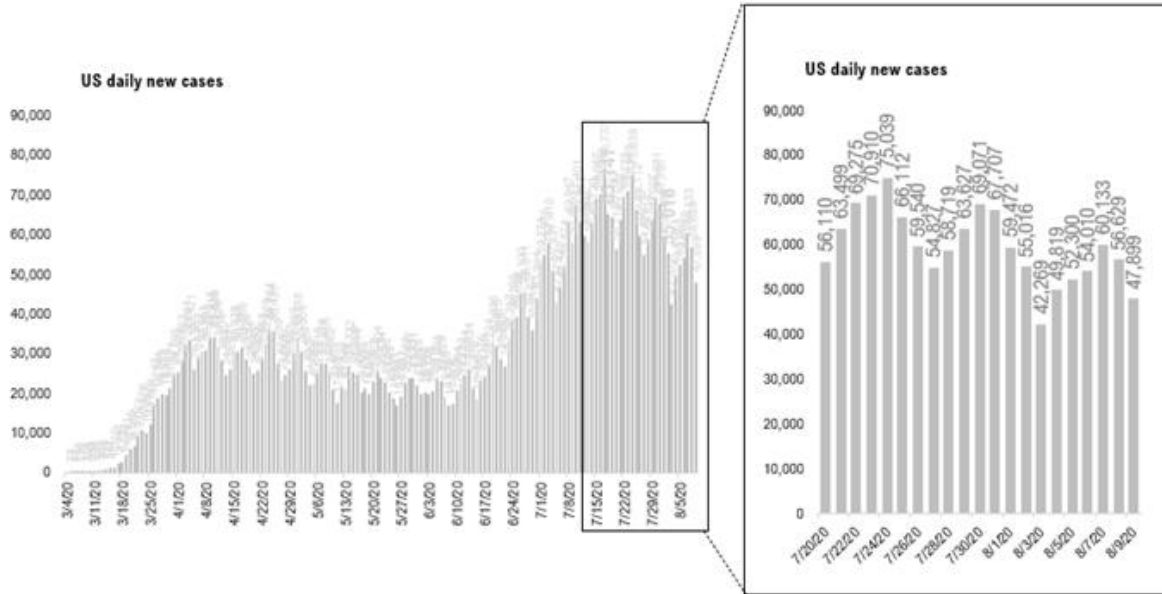
https://twitter.com/TomBlock_FS/status/1292533439477014531

So we could see progress this week. We remain positive on markets and see new all-time highs before the end of the year and perhaps before September.

POINT 1: Daily cases plunge below 50,000 and -7,117 vs 7D ago

Daily cases continue to fall and at a pretty substantial pace. While there will be ebbs and flows, it certainly looks like daily cases indeed peaked on 7/24/2020 or 16 days ago. The US economy did not shut down and is already ~40% off their highs. And as we wrote last week, the pace of the decline in daily cases is faster than what we saw in April/May.

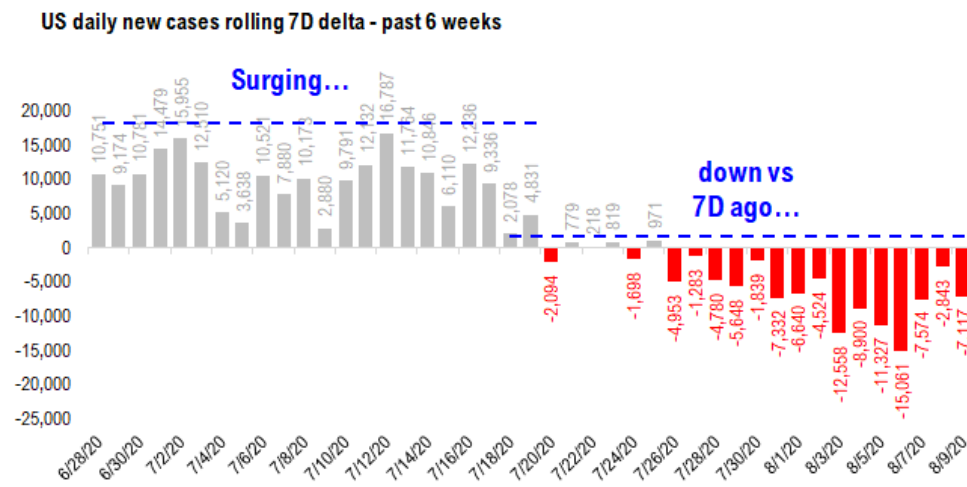
- Daily cases for Sunday came in at 47,899, and this is down from 54,000 on Friday



Source: COVID-19 Tracking Project

The key figure, in our view, is watching 7D delta. As we discussed above, we believe this matters more than 7D moving average -- simply because 7D delta leads the moving average. And this smooths out seasonality. To really gauge how case trends are doing, it makes sense to look at 7D delta.

- 7D delta is solidly negative and reflects the fact that R0 has now become <1.0 for COVID-19.
- This is a good thing



Source: COVID-19 Tracking Project

Daily Case Increases (by State) (08/09)

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

Sorted

Last 3-day trend growth rates

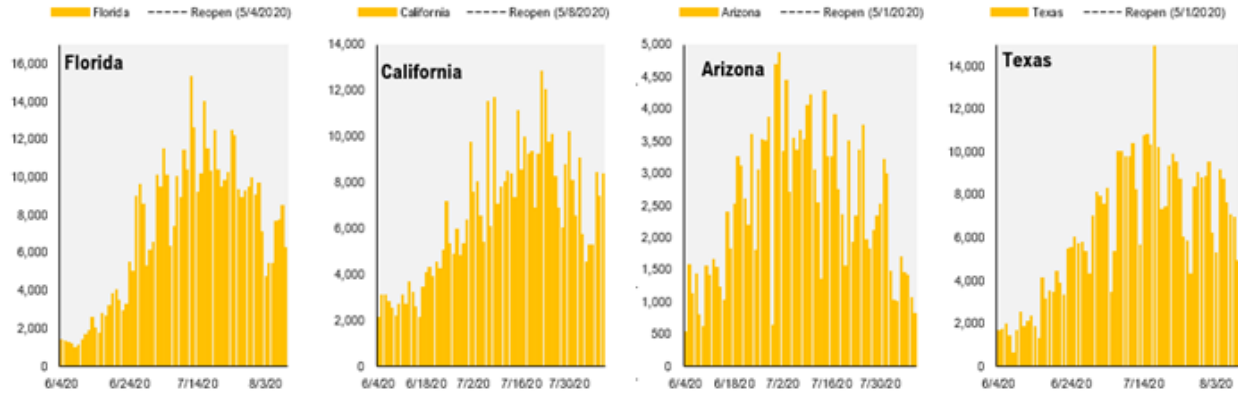
CT, RI, MO and KS do not report stats over the weekend...

	8/7/20	8/8/20	8/9/20	
United States	60,133	56,629	47,899	-8,730
States:				
1 California	8,436	7,371	8,373	
2 Florida	7,686	8,502	6,229	
3 Texas	7,039	6,959	4,879	
4 Georgia	4,109	4,423	3,169	
5 Louisiana	1,500	0	2,653	<-higher
6 Tennessee	2,432	1,803	2,127	
7 North Carolina	1,545	1,954	1,452	
8 Illinois	2,103	2,190	1,382	
9 Alabama	1,709	1,872	1,161	
10 Indiana	1,239	1,033	1,041	
11 South Carolina	1,422	1,241	975	
12 Washington	833	670	936	
13 Maryland	801	775	922	
14 Virginia	2,015	1,307	897	
15 Ohio	1,204	1,294	879	
16 Arizona	1,406	1,054	816	
17 Nevada	976	886	811	
18 Minnesota	545	916	797	
19 Pennsylvania	758	813	760	
20 Wisconsin	989	1,165	621	
21 Arkansas	1,011	772	572	
22 Mississippi	1,036	1,210	527	
23 New York	714	703	515	
24 Michigan	0	1,460	514	
25 Iowa	504	418	506	
26 Oklahoma	854	825	486	
27 Kentucky	542	782	404	
28 Utah	460	376	376	
29 Puerto Rico	406	343	361	
30 New Jersey	360	368	344	
31 Colorado	457	431	336	
32 Massachusetts	417	420	329	
33 Oregon	411	374	262	
34 New Mexico	192	150	200	
35 Nebraska	283	141	187	
36 Idaho	523	573	176	
37 Hawaii	201	231	152	
38 West Virginia	156	130	131	
39 South Dakota	98	106	128	<-higher
40 District of Columbia	71	64	100	<-higher
41 Alaska	52	77	98	<-higher
42 North Dakota	150	181	88	
43 Delaware	80	57	73	
44 Montana	155	131	64	
45 Wyoming	42	13	37	
46 U.S. Virgin Islands	21	6	19	
47 Maine	17	12	16	
48 New Hampshire	37	39	13	
49 Vermont	3	6	5	
50 Rhode Island	127	0	0	
51 Northern Mariana Islands	0	1	0	
52 Missouri	996	0	0	
53 Kansas	921	0	0	
54 Guam	14	1	0	
55 Connecticut	75	0	0	
56 American Samoa	0	0	0	

Source: COVID-19 Tracking Project

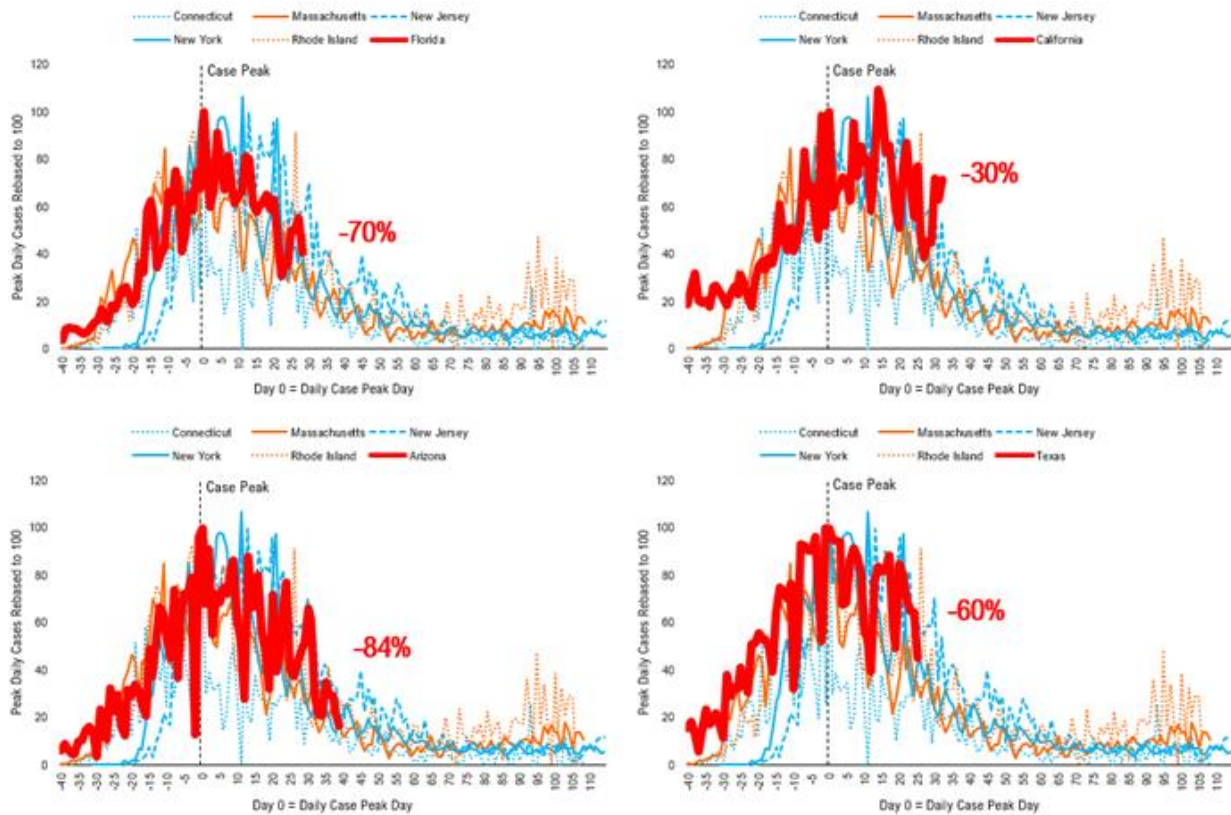
POINT 2: Trends improving in epicenter states, F-CAT, plus new high in % counties with cases 50% off highs...

Below are the daily case trends for the 4 states at the epicenter, FL, CA, AZ and TX. And the daily case trends have been making lower highs (seasonality).



Source: COVID-19 Tracking Project

The daily case declines in F-CAT are tracking the NY tristate pretty closely. And if this analog continues, daily cases would be down -75% in the 4 states by the end of August. It is already -84% in Arizona.

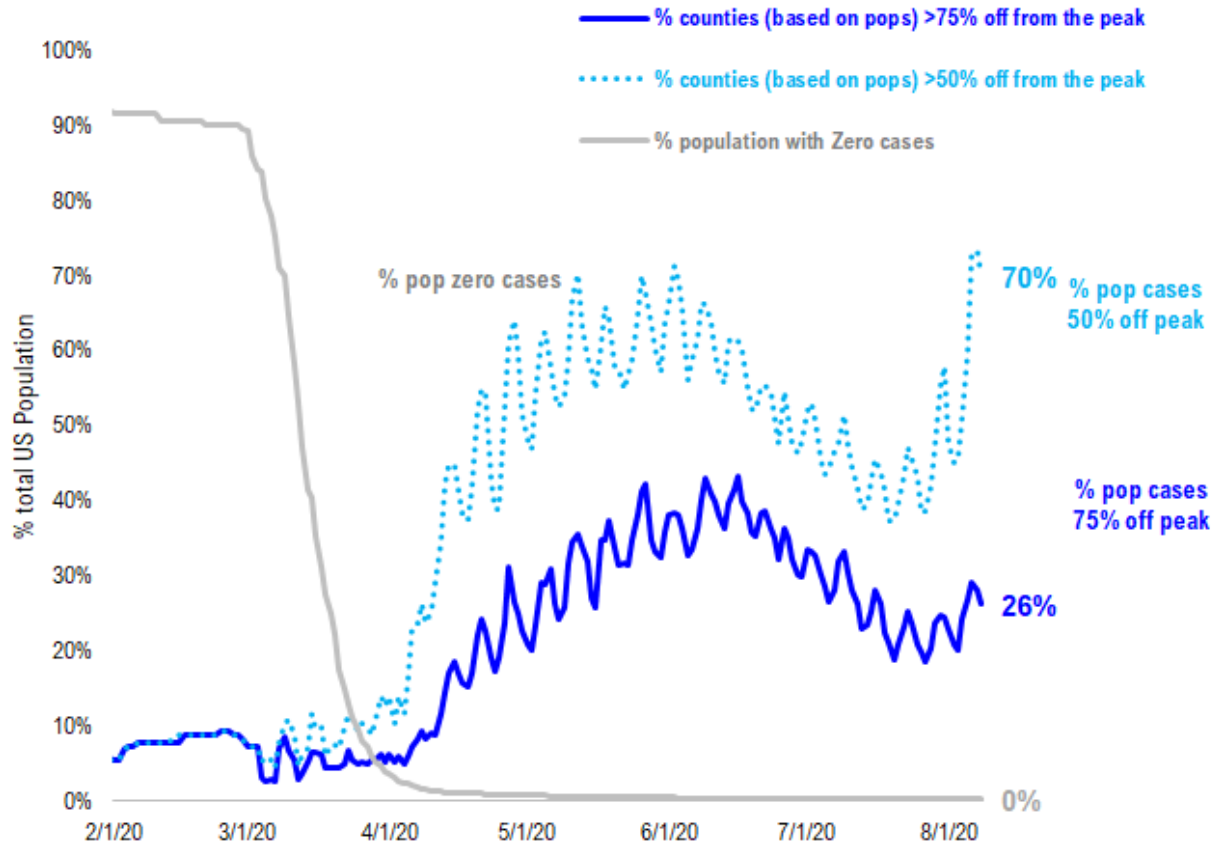


Source: COVID-19 Tracking Project

And looking at a broader diffusion measure, the number of US counties with cases >50% off their highs is now 70%. This is the highest ever recorded figure.

- this leads the second series, % counties with cases >75% off their highs

Thus, this is further confirmation that the downtrend in cases is now accelerating.



Source: COVID-19 Tracking Project

POINT 3: Duke University publishes study on effectiveness of masks -- N95 + Cotton = good

Duke University published a study on the effectiveness of masks. They looked at 14 types of masks and they measured the droplets that came through the mask. So it seems like it was a reverse study because it measures how much a mask prevents the spread of respiratory droplets exhaled -- versus inhaled.

NEWS

Scientists tested 14 types of masks — here are the ones that worked and didn't

By Tamar Lapin
August 9, 2020 | 3:40pm

Emma Fischer, Duke University

https://nypost.com/2020/08/09/scientists-tested-14-types-of-masks-in-preventing-spread-of-covid-19/?utm_campaign=iphone_nyp

I was surprised at some of the conclusions. The link to the full study is below.

AAAS [Become a Member](#) [Log In](#) [ScienceMag.org](#)

Science Advances

[Read our COVID-19 research and news.](#)

Advertisement

PETSMART We see you the way she sees you. [APPLY NOW](#)

RESEARCH ARTICLE

Low-cost measurement of facemask efficacy for filtering expelled droplets during speech

Emma P. Fischer¹, Martin C. Fischer^{2,3,*}, David Grass², Isaac Henrion⁴, Warren S. Warren^{2,3,5...}
+ See all authors and affiliations

Science Advances 07 Aug 2020: eabd3083
DOI: 10.1126/sciadv.abd3083

[Article](#) [Figures & Data](#) [Info & Metrics](#) [eLetters](#) [PDF](#)

Abstract

Mandates for mask use in public during the recent COVID-19 pandemic, worsened by global shortage of commercial supplies, have led to widespread use of homemade masks and mask alternatives. It is assumed that wearing such masks reduces the likelihood for an infected person to spread the disease, but many of these mask designs have not been tested in practice. We have demonstrated a simple optical measurement method to evaluate the efficacy of masks to reduce the transmission of respiratory droplets during regular speech. In proof-of-principle studies, we compared a variety of commonly available mask types and observed that some mask types approach the performance of standard surgical masks, while some mask alternatives, such as neck fleece or bandanas, offer very little protection. Our measurement setup is inexpensive and can be built and operated by non-experts, allowing for rapid evaluation of mask performance during speech, sneezing, or coughing.

<https://advances.sciencemag.org/content/early/2020/08/07/sciadv.abd3083>

The 14 masks are shown below. Not surprisingly, surgical and N95 masks were proven to be quite effective.

- but they also found cotton masks quite effective.
- I am surprised at this, given cotton is not a densely woven fabric.

But apparently, the thickness of the material ends up capturing droplets.

Other materials which were not effective "split" droplets, making their spread even greater.



Fig. 2 Pictures of face masks under investigation.

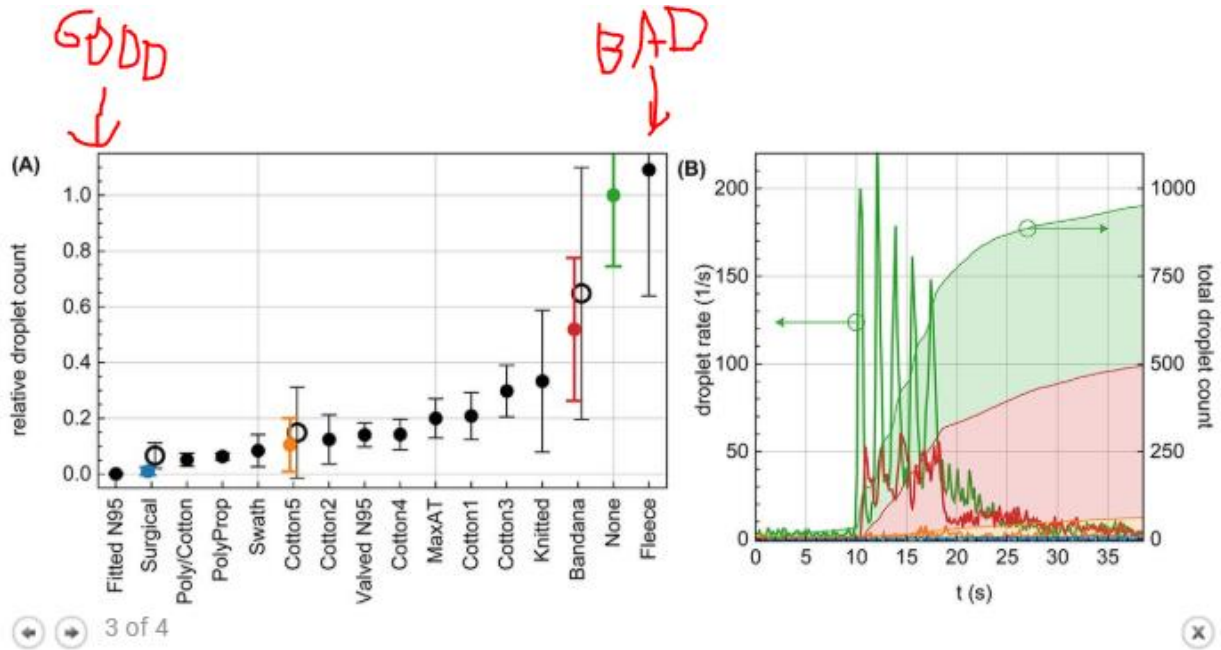
We tested 14 different face masks or mask alternatives and one mask material (not shown). Photo Credit: Emma Fischer, Duke University.

<https://advances.sciencemag.org/content/early/2020/08/07/sciadv.abd3083>

Among the items that are essentially ineffective:

- bandanas
- knitted face coverings
- worst are neck fleeces, or neck gaiters, often worn by runners

In fact, the scientists point out that fleece actually allowed more respiratory droplets to escape than not wearing a mask at all.



<https://advances.sciencemag.org/content/early/2020/08/07/sciadv.abd3083>

Disclosures

This research is for the clients of FS Insight only. For additional information, please contact your sales representative or FS Insight at <http://www.fsinsight.com/>.

Conflicts of Interest

This research contains the views, opinions and recommendations of FS Insight. At the time of publication of this report, FS Insight does not know of, or have reason to know of any material conflicts of interest.

General Disclosures

FS Insight is an independent research company and is not a registered investment advisor and is not acting as a broker dealer under any federal or state securities laws.

FS Insight is a member of IRC Securities' Research Prime Services Platform. IRC Securities is a FINRA registered broker-dealer that is focused on supporting the independent research industry. Certain personnel of FS Insight (i.e. Research Analysts) are registered representatives of IRC Securities, a FINRA member firm registered as a broker-dealer with the Securities and Exchange Commission and certain state securities regulators. As registered representatives and independent contractors of IRC Securities, such personnel may receive commissions paid to or shared with IRC Securities for transactions placed by FS Insight clients directly with IRC Securities or with securities firms that may share commissions with IRC Securities in accordance with applicable SEC and FINRA requirements. IRC Securities does not distribute the research of FS Insight, which is available to select institutional clients that have engaged FS Insight.

As registered representatives of IRC Securities our analysts must follow IRC Securities' Written Supervisory Procedures. Notable compliance policies include (1) prohibition of insider trading or the facilitation thereof, (2) maintaining client confidentiality, (3) archival of electronic communications, and (4) appropriate use of electronic communications, amongst other compliance related policies.

FS Insight does not have the same conflicts that traditional sell-side research organizations have because FS Insight (1) does not conduct any investment banking activities, (2) does not manage any investment funds, and (3) our clients are only institutional investors.

This research is for the clients of FS Insight only. Additional information is available upon request. Information has been obtained from sources believed to be reliable, but FS Insight does not warrant its completeness or accuracy except with respect to any disclosures relative to FS Insight and the analyst's involvement (if any) with any of the subject companies of the research. All pricing is as of the market close for the securities discussed, unless otherwise stated. Opinions and estimates constitute our judgment as of the date of this material and are subject to change without notice. Past performance is not indicative of future results. This material is not intended as an offer or solicitation for the purchase or sale of any financial instrument. The opinions and recommendations herein do not take into account individual client circumstances, risk tolerance, objectives, or needs and are not intended as recommendations of particular securities, financial instruments or strategies. The recipient of this report must make its own independent decision regarding any securities or financial instruments mentioned herein. Except in circumstances where FS Insight expressly agrees otherwise in writing, FS Insight is not acting as a municipal advisor and the opinions or views contained herein are not intended to be, and do not constitute, advice, including within the meaning of Section 15B of the Securities Exchange Act of 1934. All research reports are disseminated and available to all clients simultaneously through electronic publication to our internal client **website, fsinsight.com**. Not all research content is redistributed to our clients or made available to third-party aggregators or the media. Please **contact your sales representative** if you would like to receive any of our research publications.

The Yellow Thunderlight over the "BLAST" logo is designed by rawpixel.com / cited from Freepik.

Copyright 2020 FS Insight LLC. All rights reserved. No part of this material may be reprinted, sold or redistributed without the prior written consent of FS Insight LLC.