



COVID-19 UPDATE: Daily cases rise over weekend, yet hospitalizations + death in persistent downtrend (both 90% down from peak). Past 4 US pandemics saw vaccines developed 4-9 months, vs 12-18 expected for COVID-19. 32 Epicenter stock ideas

THIS MESSAGE IS BEING SENT SOLELY TO CLIENTS OF FS INSIGHT

In the US, today is Father's Day. The holiday originated in Spokane, WA at the YMCA in 1910 by Sonora Smart Dodd, who herself was born in Arkansas. Her father was a Civil War veteran and a single parent who raised 6 kids. So, Happy Father's Day to everyone who is a parent, has a parent (or knows a parent).

The improving narrative around COVID-19 has been setback because many states in the US are seeing a rise in cases. There has been some alarm raised recently given the rise in US COVID-19 cases. In fact, cases have also risen in Western Europe (Germany, see below). But cases alone is not the reason to be wary -- it is the risk that cases drive hospitalizations, which drive ICUs/deaths and therefore, further health and economic tragedy.

Notably, the states seeing sustained rises in cases are not seeing a proportionate rise in healthcare utilization (hospitalization rate) -- Texas, Florida, Arizona, California, Utah and to a decreasing extent, Arkansas (looks like it has already peaked). This continues to be the case, even for states like California.

And while some see this as an indictment of state openings, the timeline for the case increases is more consistent with the nationwide protests (>3 weeks now), rather than economic re-opening. 6 states account for 94% increase in cases over the past week --> TX, FL, AZ, CA, OK and Iowa. Hence, why would closing the states be the solution? Mitigation steps certainly need to be taken, but among the menu of options, closing a state seems the least likely. Even Germany, which is seeing its R0 surge to 2.9 is not planning to rollback any easing of restrictions (see below).

As markets focus on 2H2020, we thought it would be useful to take quick stock of where our analysis drives differing views relative to a consensus baseline. We list 7 items below, which collectively, suggest we are more optimistic than baseline for a US recovery.

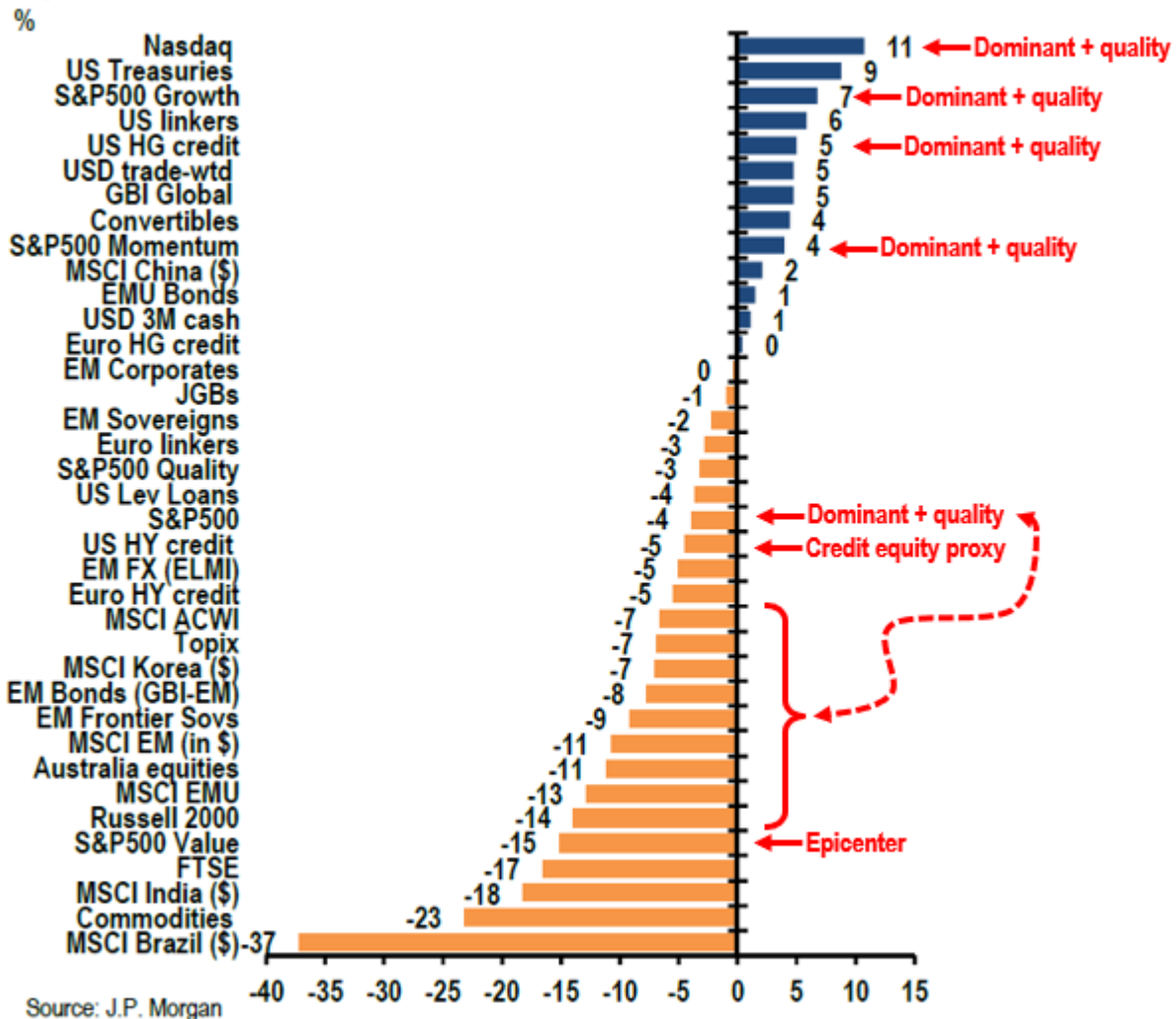
- rise in US cases more attributable to nationwide protests >350 cities rather than state re-opening
- mitigation measures do not require states to "close" but course correction needed
- curious divergence as US cases rising but hospitalizations and death falling, unusual divergence
- consensus vaccine timeline 12-18 conservative given last 4 US pandemics saw vaccine

developed 4-9 months from virus ID

- US economy showing ever more "V" shape recoveries
- employment losses > income losses, so the US consumer recovers more quickly
- corporates will find deep cost savings in 2021, hence, 2021 EPS likely to surpass 2019 EPS

The US remains the best performing asset class in 1H2020 (YTD, really) and NASDAQ is even beating the almighty Treasury bond. In an ironic way, the NASDAQ is a better safety trade than bonds, when it comes to pricing in a global pandemic and global depression. Even S&P 500 Growth stocks (65% of S&P 500) is almost as good a proxy as a US bond. If this is the case, it further reinforces our view that US corporates likely get re-rated higher post-crisis, because they are not only "unkillable" but have proven considerable resilience. This is a stress test for markets that we have not seen for 5 lifetimes and likely never see again.

Figure 1: Year-to-date returns

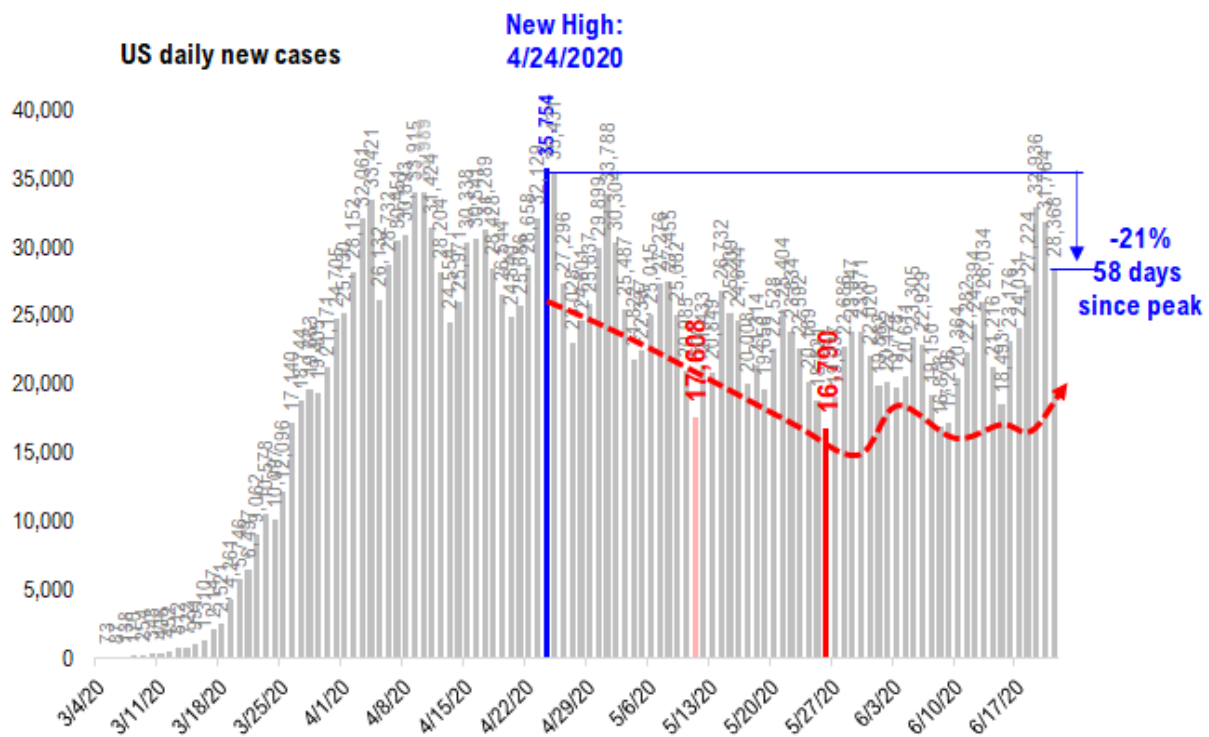


POINT #1: US Daily cases are rising, but curious divergence as hospitalizations and daily deaths trending down

Over the weekend, US daily cases surged to >30,000 on both Friday and Saturday, before falling to +28,368 on Sunday. The overall trend has been rising in cases, and we know a few things:

- 5 states account for the bulk of the increase --> TX, CA, AZ, FL and NC
- the timeline for this surge fits the nationwide protests >350 cities which have been ongoing for >3 weeks

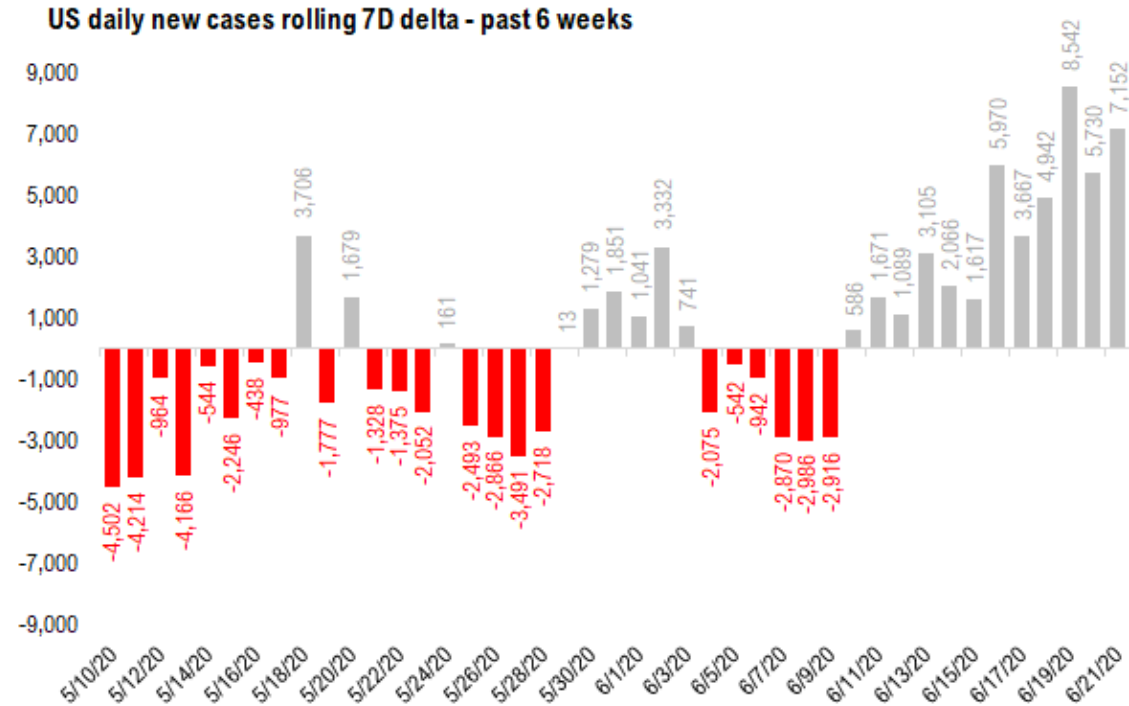
The reason we highlight this latter point is that some will point to the economic re-opening as the primary factor, rather than protests. And if the latter is the driver, it would not justify closing the economy. Moreover, as we discuss below, the fact that >70% incremental cases in CA are Latino/Hispanic is a strong contra-argument that this is due to economic re-opening. After all, if there is greater overall movement, the demographics of incremental cases should mirror that of the state/US overall.



Source: COVID-19 Tracking Project

Looking at daily cases today vs daily cases 7 days ago...

Daily cases are up +7,152 vs 7 days ago, so we can see a pronounced increase in the past week. Again, the timeline fits well with the nationwide protests causing a surge in cases.



Source: COVID-19 Tracking Project

6 states account for 94% of the +7,152 increase:

United States	28,368 vs 21,216 (-7D)	+7,152
Texas	3,866 vs 1,843	+2,023
Florida	3,494 vs 2,016	+1,478
Arizona	2,592 vs 1,233	+1,359
California	4,515 vs 3,212	+1,303
Oklahoma	478 vs 158	+320
Iowa	467 vs 209	+258
Total 6 states		+6,741

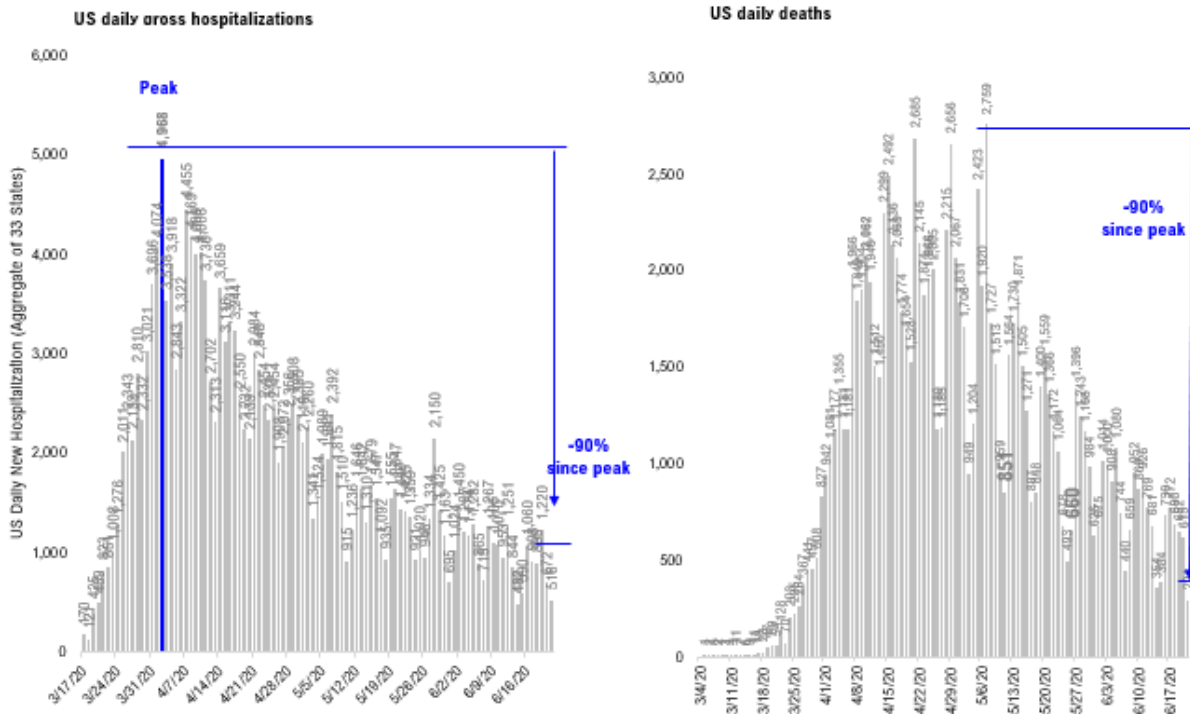
6 States with Largest Daily Cases decrease in past 7D

Alabama	472 vs 1,014	-542
Tennessee	656 vs 891	-235
Virginia	551 vs 637	-86
Massachusetts	125 vs 208	-83
Oregon	187 vs 259	-72
Connecticut	40 vs 94	-54
Total 6 states		-1,072

But a greater curiosity is the fact that hospitalizations and daily deaths are still 90% off their highs, despite this surge in cases...

The strange divergence remains that cases are up but hospitalizations and deaths are down. This is true in most of the 5 states which are accounting for the bulk of the increase in cases.

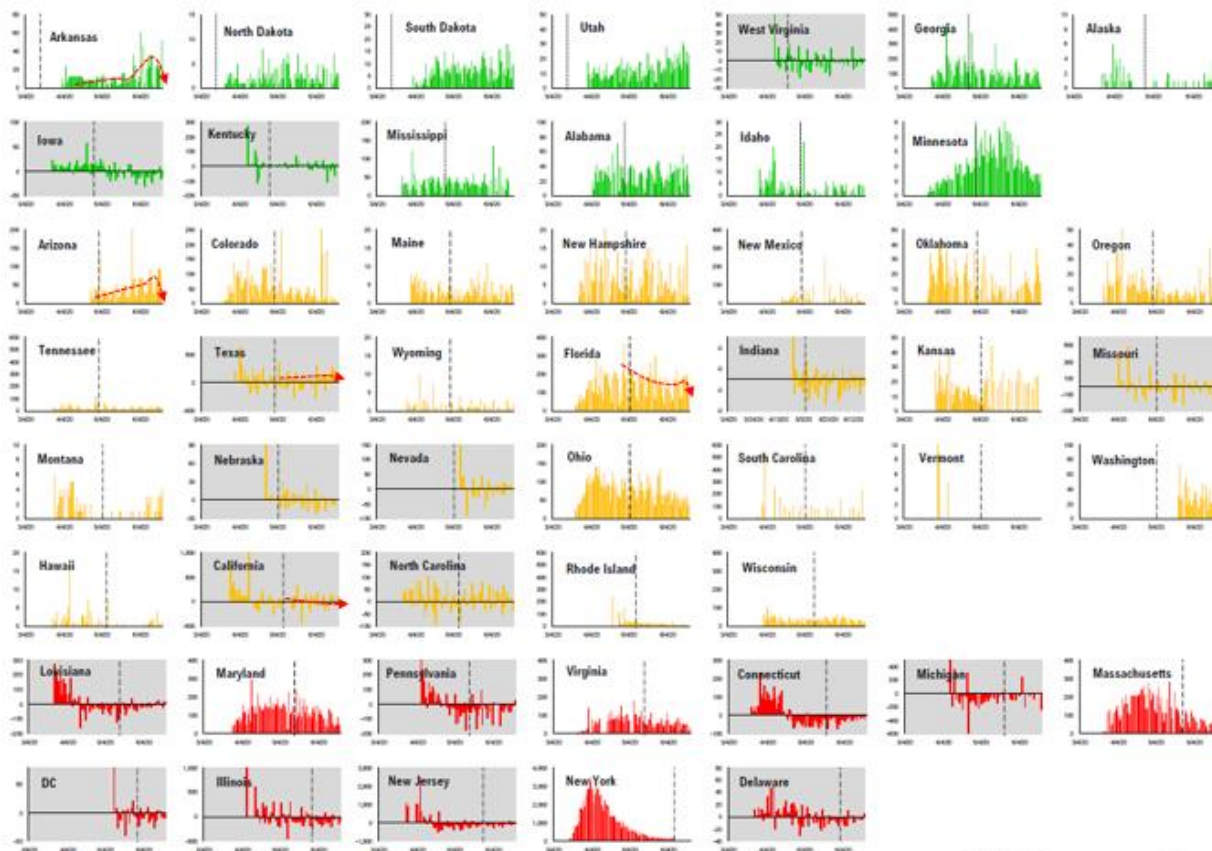
- in other words, the rise in reported cases is troubling
- but it seems like healthcare severity of cases today vs cases two months ago is vastly different
- the ratio of incremental hospitalizations seems much lower



Take a look at the state by state hospitalization data (page 4 of PDF). The grey charts are those which report "net hospitalizations" not daily admissions. But you can see the trend. There is not a sustained surge, even in the states reporting a surge in cases.

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

fundstrat



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

6/21/2020

4

Source: COVID-19 Tracking Project

Below is the state breakdown of the daily COVID-19 cases reported today and the last few days. As you can see, the same states dominate the top 5-10 states in overall cases. It is pretty amazing to see how the NY-tristate area has improved. Earlier in the crisis, these 3 states were consistently among the top 5 states. Now:

- NY 664
- NJ 308
- CT 40

Very few reported cases here now.

Daily Case Increases (by State) (06/21)

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

Sorted
Last 3-day trend growth rates

	6/19/20	6/20/20	6/21/20	
United States	32,936	31,764	28,368	-3,396
States:				
1 California	4,317	3,893	4,515	
2 Texas	3,454	4,430	3,866	
3 Florida	3,822	4,049	3,494	
4 Arizona	3,246	3,109	2,592	
5 North Carolina	1,652	1,549	1,412	
6 South Carolina	1,083	1,155	907	
7 Georgia	1,097	1,800	892	
8 New York	796	716	664	
9 Illinois	831	634	658	
10 Tennessee	1,188	429	656	
11 Washington	408	409	624	<-higher
12 Virginia	555	650	551	
13 Ohio	609	531	546	
14 Oklahoma	352	331	478	<-higher
15 Alabama	796	547	472	
16 Iowa	421	221	467	
17 Pennsylvania	526	504	464	
18 Minnesota	356	436	453	
19 Arkansas	703	511	419	
20 Missouri	293	389	413	
21 Utah	586	643	394	
22 Louisiana	1,547	870	393	
23 Indiana	308	315	362	
24 Maryland	319	408	350	
25 New Jersey	389	338	308	
26 Wisconsin	278	385	280	
27 Nevada	410	445	274	
28 Colorado	286	162	190	
29 Oregon	206	178	187	
30 Michigan	211	255	146	
31 New Mexico	107	170	135	
32 Massachusetts	228	286	125	
33 Kentucky	257	176	120	
34 Nebraska	176	116	103	
35 Delaware	112	70	94	
36 South Dakota	49	67	72	
37 West Virginia	17	51	57	
38 Connecticut	117	158	40	
39 North Dakota	33	25	37	
40 District of Columbia	49	32	36	
41 New Hampshire	36	32	26	
42 Montana	11	31	20	
43 Maine	35	25	19	
44 Wyoming	29	6	18	
45 Vermont	9	3	12	<-higher
46 Alaska	14	21	12	
47 Hawaii	27	14	11	
48 U.S. Virgin Islands	1	0	2	<-higher
49 Puerto Rico	3	32	2	
50 Rhode Island	68	0	0	
51 Mississippi	0	0	0	
52 Northern Mariana Islands	0	0	0	
53 Kansas	378	0	0	
54 Idaho	128	135	0	
55 Guam	7	22	0	
56 American Samoa	0	0	0	

Source: COVID-19 Tracking Project

POINT #2: Even as R0 rise in Europe and US, does not necessitate "shutting down" economy

Germany saw its R0 jump to 2.88 is not planning on instituting lockdowns again...
Germany's R0 jumped in recent days to 2.88, including +1,300 workers at a single meat processing plant. But the nation is not considering re-instituting lockdowns again. Instead, they are relying on other measures to mitigate spread.



Coronavirus latest: German reproduction rate spikes 60% in a day

The rate at which the virus spreads from an infected person to others has risen significantly above a critical level for keeping the pandemic in check. Germany's R-rate now stands at 2.88. Follow DW for the latest.



13:00 Despite 1,300 workers at a meat processing plant in northwestern Germany testing positive for the coronavirus, the state premier of North Rhine-Westphalia Armin Laschet said a new comprehensive lockdown for the district is not yet required.

There is "an enormous pandemic risk," Laschet told a news conference on Sunday. However, the infection is, for the time being, localized at the Tönnies slaughterhouse in Rheda-Wiedenbrück, near Bielefeld, and there's been no "significant jump" to the wider community.

While "we cannot rule out a comprehensive lockdown, as long as we do everything we can to ensure that it does not skip over to the general population, we can make use of other, more targeted measures," he added.

As of Sunday, 1,331 of the plant's employees — many of whom are from Romania or Bulgaria — had tested positive, according to local health authorities. Some 6,500 employees and their families have been ordered into quarantine

Local authorities said the virus may have spread quickly among workers because many of them live together in cramped company-provided accommodation.

Germany's reproduction rate of novel coronavirus infections jumped to 1.79 on Saturday, a sharp increase from 1.06 the day before, the Robert Koch Institute (RKI) for public health, far above the level needed to contain it over the longer term.

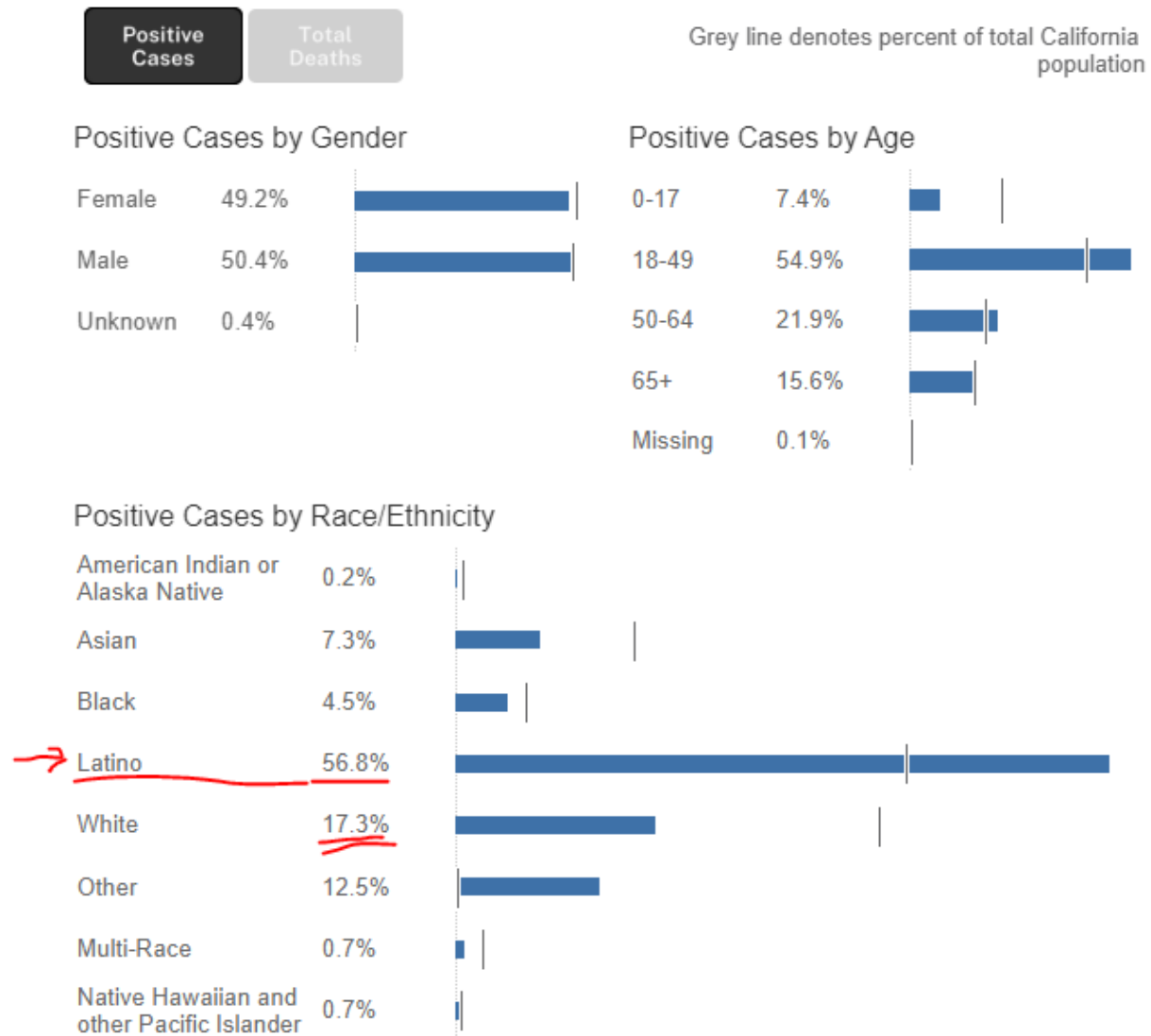
<https://www.dw.com/en/coronavirus-latest-german-reproduction-rate-spikes-60-in-a-day/a-53886880>

California, per their data, 57% of their cumulative COVID-19 cases are Latino--how is this a consequence of re-opening?

According to data from the CA Dept of Health, 57% of their cumulative COVID-19 cases (70% in the past week) are Latino/Hispanic. How is this disproportionate representation stemming from opening the economy?

- after all, if this was a consequence of mobility and movement, the cases, particularly, incrementally, should be representative of the state overall.

Again, I view this as more contra-evidence against the idea that opening the economy is contributing to the spread of cases.



<https://update.covid19.ca.gov/#top>

Plus, while not scientifically proven, is COVID-19 weakening?

For several weeks, Italian doctors and scientists have made a somewhat controversial suggestion that the COVID-19 virus may be weakening. These assertions have been met with widespread criticism, mainly because there is not a great understanding around the disease. So to consider the possibility the disease is weakening can be viewed as too optimistic.

The image is a screenshot of a news article from the Daily Mail website. The article title is "Coronavirus is weakening, could die out on its own without a vaccine and patients now survive infections that would have killed them at start of the pandemic, claims Italian expert". The author is identified as SAM BLANCHARD, a senior health reporter. The article was published on June 21, 2020, at 04:12 EDT and updated at 05:40 EDT. The article includes a list of bullet points summarizing the key points of the report.

Daily Mail
.com

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Coronavirus is weakening, could die out on its own without a vaccine and patients now survive infections that would have killed them at start of the pandemic, claims Italian expert

- Professor Matteo Bassetti has again claimed the virus is getting weaker
- Said it may have mutated and weakened or people infected with small amounts
- But scientists have hit back at the claim in the past, saying no evidence for belief
- [Here's how to help people impacted by Covid-19](#)

By SAM BLANCHARD SENIOR HEALTH REPORTER FOR MAILONLINE

PUBLISHED: 04:12 EDT, 21 June 2020 | UPDATED: 05:40 EDT, 21 June 2020

<https://www.dailymail.co.uk/news/article-8444151/Coronavirus-withered-aggressive-tiger-wild-cat-Italian-scientist-claims.html?ITO=applenews>

But still, the comments that doctors in Italy make around the disease is quite telling. For instance, Professor Matteo Bassetti, Chief of Infectious Diseases at San Martino Hospital (Genoa, Italy) speaks about how the elder COVID-19 infected patients they see today are in considerably better health, compared to few months ago.

- a few months ago, they might have passed away after 2-3 days, and now they are breathing on their own.



Professor Matteo Bassetti, the chief of infectious diseases at San Martino General Hospital in Genoa, Italy, said the virus has changed since March and April

Professor Bassetti, the chief of infectious diseases at San Martino General Hospital in Genoa, Italy, told **The Sunday Telegraph** the virus could wither away on its own.

He said: 'It was like an aggressive tiger in March and April but now it's like a wild cat. Even elderly patients, aged 80 or 90, are now sitting up n bed and they are breathing without help. The same patients would have died in two or three days before.'

<https://www.dailymail.co.uk/news/article-8444151/Coronavirus-withered-aggressive-tiger-wild-cat-Italian-scientist-claims.html?ITO=applenews>

A client recently shared an article from Pittsburgh's Pennlive.com where the UPMC Hospital in Pittsburgh, Emergency Medicine Chair, Dr. Donald Yealy, commented that the COVID-19 disease seems to be weakening and the patients now seem to have a smaller viral load.

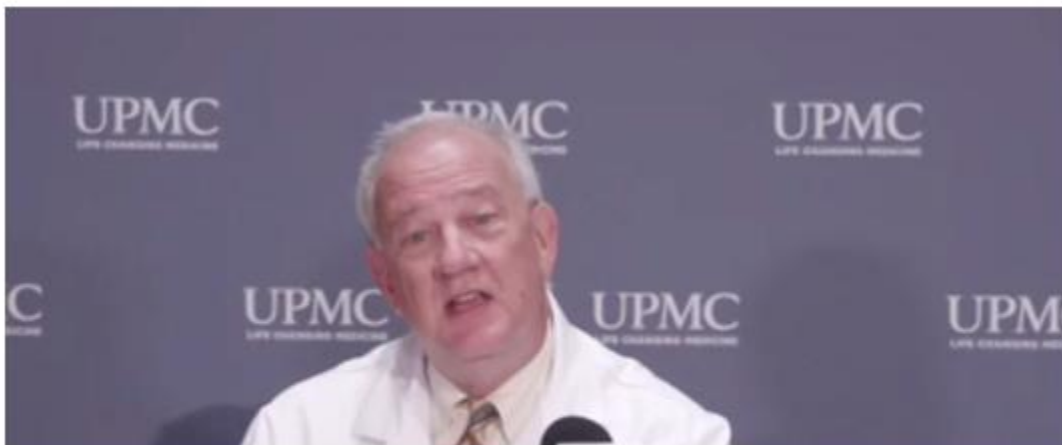
- this bears watching --> cases are rising but if hospitalizations and deaths do not surge, this is less worrisome.



Pennsylvania Real-Time News

UPMC doctor says COVID-19 has become 'less prevalent' and isn't making people as sick

Updated Jun 05, 2020; Posted Jun 04, 2020



Yealy further said, among people who test positive, "the total amount of the virus the patient has is much less than in the earlier stages of the pandemic."

<https://www.pennlive.com/news/2020/06/upmc-doctor-says-covid-19-has-become-less-prevalent-and-less-severe.html>

POINT #3: Is a vaccine a lot closer than 12-18 months? The last 4 US pandemics saw vaccines developed 4-9 months after identification of virus... +27 new candidates in past 3 weeks

Consensus expects a vaccine 12-18 months from now, but past 4 US pandemics saw a commercial vaccine 4-9 after virus ID, and China already offering workers coronavirus vaccine...

There seems to be a consensus that a COVID-19 vaccine is 12-18 months away, which in practical terms, means that such a vaccine would not be widely available until Summer/Fall 2021.

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LAUNCHING INTO IT WITH HEARTFELT FERVOR

MEDICAL EXAMINER

It Will Probably Take Longer Than 12 to 18 Months to Get a Vaccine

We have never done this before. A lot could go wrong.

By SHANNON PALUS

MAY 01, 2020 • 5:30 AM

<https://slate.com/technology/2020/05/vaccine-timeline-coronavirus.html>

This is a central issue, if an investor believes a vaccine is the key solution. While we have not commented on this for some time, one could argue a vaccine is secondary to treatment, given the general reluctance of the general population to use a vaccine broadly:

- treatment > vaccine, as this targets those who actually contract a disease
- vaccines might be more useful to protect essentially workers and vulnerable
- in the 4 most recent global flu-related pandemics since 1957, a commercial vaccine was developed 4-9 months after identifying virus (vs 12-18 months current consensus)
- WHO lists 13 vaccines under clinical evaluation + 128 in pre-clinical evaluation --> 141 total "shots at goal" and +27 compared to 3 weeks ago
- China is already administering a coronavirus vaccine to workers in Beijing (developed by China National Biotec Group Co, CNBG).
- CNBG has two vaccines under trial, and neither is under Phase III trials yet. And as the

Bloomberg article notes, it is not clear which of these will be administered and offered to the workers.



The screenshot shows a Bloomberg news article. At the top, there is a navigation bar with a hamburger menu icon on the left, the word "Bloomberg" in the center, and a circular icon on the right. Below the navigation bar, the word "Technology" is displayed. The main headline reads "China Offers Vaccines Under Development to Beijing Workers". Below the headline, it says "Bloomberg News", "June 18, 2020, 5:34 AM EDT", and "Updated on June 18, 2020, 8:58 PM EDT". There are two bullet points: "▶ Government expands program offered to workers going overseas" and "▶ Shots may give solace to those in high-risk areas of Beijing". Below the bullet points, there is a link: "Sign up for Next China, a weekly email on where the nation stands now and where it's going next." The main body of the article starts with "China is offering coronavirus vaccines under development to workers at state-owned companies in Beijing as the capital city experiences the nation's biggest flare-up since Wuhan."

<https://www.bloomberg.com/news/articles/2020-06-18/china-extends-vaccine-offer-to-beijing-workers-amid-outbreak?sref=NVS0rEaE>

Since May 27th (~3 weeks ago), Vaccines in clinical evaluation 13 (+3) and 128 in pre-clinical evaluation (+14), or +27 new "shots at goal" in past 3 weeks...

The number of vaccine candidates continues to rise, or at least those tracked by the World Health Organization (WHO). Their latest document shows:

- 13 vaccines in clinical evaluation, +3 vs 3 weeks ago
- 128 in pre-clinical evaluation, +14 vs 3 weeks ago

DRAFT landscape of COVID-19 candidate vaccines – 18 June 2020

13 candidate vaccines in clinical evaluation

Platform	Type of candidate vaccine	Developer	Coronavirus target	Current stage of clinical evaluation/regulatory status-Coronavirus candidate	Same platform for non-Coronavirus candidates
Non-Replicating Viral Vector	ChAdOx1-S	University of Oxford/AstraZeneca	SARS-CoV2	Phase 2b/3 2020-001228-32 Phase 1/2 2020-001072-15	MERS, influenza, TB, Chikungunya, Zika, MenB, plague
Non-Replicating Viral Vector	Adenovirus Type 5 Vector	CanSino Biological Inc./Beijing Institute of Biotechnology	SARS-CoV2	Phase 2 ChiCTR2000031781 Phase 1 ChiCTR2000030906	Ebola
RNA	LNP-encapsulated mRNA	Moderna/NIAID	SARS-CoV2	Phase 2 NCT04405076 Phase 1 NCT04283461	multiple candidates
Inactivated	Inactivated	Wuhan Institute of Biological Products/Sinopharm	SARS-CoV2	Phase 1/2 ChiCTR2000031809	
Inactivated	Inactivated	Beijing Institute of Biological Products/Sinopharm	SARS-CoV2	Phase 1/2 ChiCTR2000032459	
Inactivated	Inactivated + alum	Sinovac	SARS-CoV2	Phase 1/2 NCT04383574 NCT04352608	SARS
Protein Subunit	Full length recombinant SARS CoV-2 glycoprotein nanoparticle vaccine adjuvanted with Matrix M	Novavax	SARS-CoV2	Phase 1/2 NCT04368988	RSV; CCHF, HPV, VZV, EBOV
RNA	3 LNP-mRNAs	BioNTech/Fosun Pharma/Pfizer	SARS-CoV2	Phase 1/2 2020-001038-36 NCT04368728	
Inactivated	Inactivated	Institute of Medical Biology, Chinese Academy of Medical Sciences	SARS-CoV2	Phase 1 NCT04412538	
DNA	DNA plasmid vaccine with electroporation	Inovio Pharmaceuticals	SARS-CoV2	Phase 1 NCT04336410	multiple candidates
Non-Replicating Viral Vector	Adeno-based	Gamaleya Research Institute	SARS-CoV2	Phase 1	
RNA	saRNA	Imperial College London	SARS-CoV2	Phase 1	EBOV; LASV, MARV, Inf (H7N9), RABV
RNA	mRNA	Curevac	SARS-CoV2	Phase 1	RABV, LASV, YFV; MERS, InfA, ZIKV, DENV, NIPV

128 candidate vaccines in preclinical evaluation

<https://www.who.int/publications/m/item/draft-landscape-of-covid-19-candidate-vaccines>

The 4 most recent US flu-related pandemics saw a vaccine developed within 4-9 months...

Our data science team, led by tireless Ken, put together a timeline for the 3 pandemics pre-dating H1N1 (2009) as these earlier episodes are not as commonly discussed in the media. We did not include the 1918 Spanish flu, partly because modern vaccination programs were not developed until well into the 1920s (polio vaccine, etc.).

- the 1957 Asian flu killed ~120,000 Americans of 172 million Americans, or 0.07% of the population
- the 1968 Hong Kong flu killed 1 million worldwide and 100,000 Americans, of 200mm, or 0.05% of US citizens
- COVID-19 has killed 122,000 Americans, of 330 million population, or 0.035% of US citizens

Thus, the 1957 and 1968 pandemics were larger in scope (share of the US population) than COVID-19 and thus, the vaccine timelines are potentially the most relevant. Keep in mind, the technology to develop vaccines has vastly improved in the 70 years since scientists were trying to create the 1957 Asian flu vaccine.

- But surprisingly, a commercial vaccine was developed in 4 months for both 1957 and 1968 pandemics.
- Even H1N1, the 2009 Swine Flu, saw a vaccine developed within 5 months of virus ID

**1957 Asian flu
+4 months**

Date	1957 Asian Flu Event
February 1957	New flu emerged in East Asia
April 1957	~10% HK population were infected
May 1957	First cultures of virus released to manufacturer
June 1957	First flu vaccine lots produced
July 1957	Vaccinations started

**1968 Hong Kong flu
+4 months**

Date	1968 Hong Kong Flu Event
Early July 1968	Outbreak in Southeast China*
July 1968	First case reported in HK
Late July 1968	More than 500K infections in Hong Kong
August 1968	Cases reported in Singapore, Philippine, Thailand, Taiwan
September 1968	Cases reported in Australia, Iran, India, USA
November 1968	First flu vaccine produced
December 1968	All US states had cases

**1976 Swine Flu
+9 months**

Date	1976 Swine Flu Event
January 1976	Outbreak in Fort Dix, NJ
March 1976	National Swine Flu Immunization Program launched
...	Delayed due to the liability protection demanded by manufacturer
September 1976	First vaccine sample approved by FDA
October 1976	Vaccine distribution, 40m people received flu shot within 3 mos
December 1976	Program suspended due to side effect - Guillain-Barré syndrome
March 1977	National Swine Flu Immunization Program officially ended

**2009 H1N1 Swine Flu
+5 months**

Date	1976 Swine Flu Event
April 2009	Infections with new influenza A H1N1 virus were detected
Late April 2009	The WHO declared a public health emergency
May-June 2009	2009 H1N1 influenza summer activity peaked in the United States.
June 2009	The virus was spreading worldwide. The WHO declared a pandemic.
July 2009	Clinical trial test for the vaccine began.
September 2009	The FDA announced approved four 2009 H1N1 influenza vaccines
Early October 2009	First dose of vaccine was given
December 2009	Vaccination had been available to anyone who wanted it.

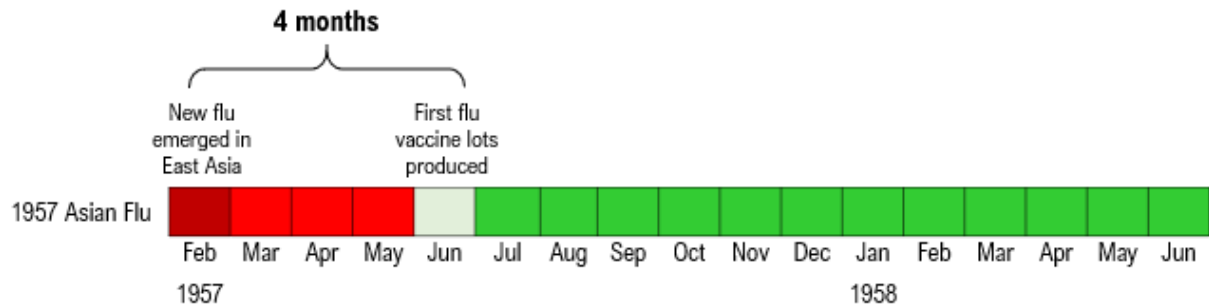
Source for 2009 H1N1: <https://www.cdc.gov/flu/pandemic-resources/2009-pandemic-influenza.html#:~:text=October%205,when%20given%20in%20the%20US.>

Source: various sources and Fundstrat

Detailed vaccine development timelines for the 3 precedent US pandemics shown below...

I was personally surprised to see how quickly these vaccines were developed. As noted above, it took 4-9 months to develop the commercial vaccine. And these were developed prior to much of the improved technology and tools available in healthcare today. In fact, this is a reason we are surprised that the consensus timeline for a COVID-19 vaccine is viewed as 12-18 months away:

- we are not scientists, so consider these comments are merely observations.
- but if you have insights as to why 12-18 months is the proper timeline, please send this to us



Date	1957 Asian Flu Event
February 1957	New flu emerged in East Asia
April 1957	~10% HK population were infected
May 1957	First cultures of virus released to manufacturer
Summer 1957	Infections detected in coastal cities in US
June 1957	First flu vaccine lots produced
July 1957	Vaccinations started
September 1957	The pandemic took hold in US and Europe as children went back to school
December 1957	Infections mitigated by Christmas
Early 1958	The second wave of outbreak

■ Ex-vaccine period
■ Vaccine available period

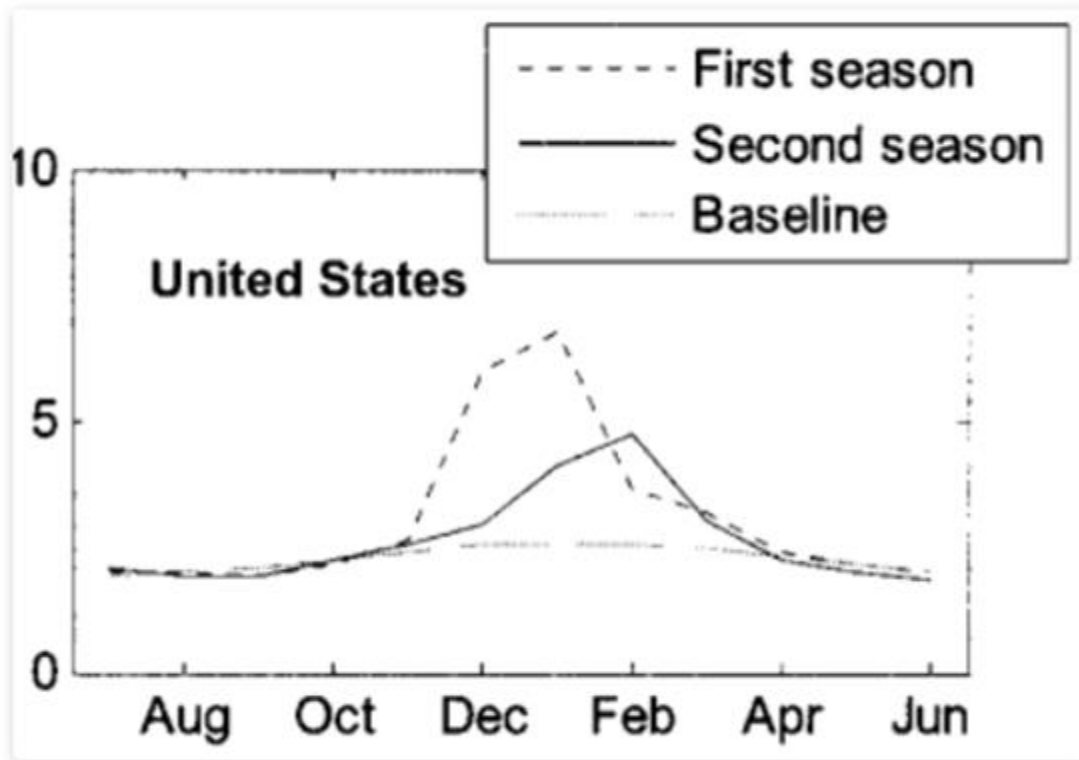
<https://www.cdc.gov/flu/pandemic-resources/1957-1958-pandemic.html>
<https://nieman.harvard.edu/wp-content/uploads/pod-assets/microsites/NiemanGuideToCoveringPandemicFlu/AHistoryOfPandemics/ACenturyOfFluPandemics.aspx.htm#asianflu>

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3291411/>

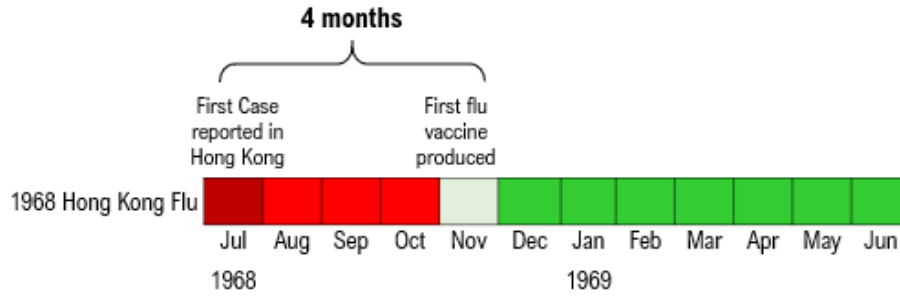
<https://daily.jstor.org/how-america-brought-the-1957-influenza-pandemic-to-a-halt/>

<https://blogs.scientificamerican.com/observations/the-man-who-beat-the-1957-flu-pandemic/>

Hong Kong flu deaths, U.S. 1968 and 1969 seasons



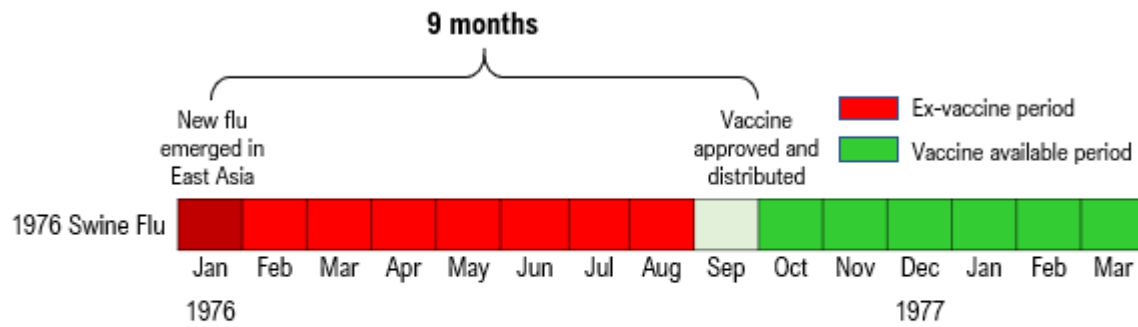
Source: Viboud et al., 2005



Date	1968 Hong Kong Flu Event
Early July 1968	Outbreak in Southeast China*
July 1968	First case reported in Hong Kong
Late July 1968	More than 500K infections in Hong Kong
August 1968	Cases reported in Singapore, Philippine, Thailand, Taiwan
September 1968	Cases reported in Australia, Iran, India, USA
November 1968	First flu vaccine produced
December 1968	The pandemic took hold as all US states had cases
Winter 1969-1970	The second wave of outbreak

■ Ex-vaccine period
■ Vaccine available period

<https://www.historyofvaccines.org/content/vaccine-hong-kong-influenza-pandemic>
<https://www.biospace.com/article/the-1968-pandemic-strain-h3n2-persists-will-covid-19/>
<https://www.britannica.com/event/1968-flu-pandemic>
<https://www.cup.com.hk/2020/04/09/1968-hong-kong-influenza-pandemic/>



Date	1976 Swine Flu Event
January 1976	Outbreak in Fort Dix, NJ
March 1976	National Swine Flu Immunization Program launched
...	Delayed due to the liability protection demanded by manufacturers
August 1976	Congress passed the indemnification legislation on extended liability protection
September 1976	Frist vaccine sample approved by FDA
October 1976	Vaccine distribution, 40m people received flu shot within 3 mos
December 1976	Program suspended due to side effect - Guillain-Barré syndrome
March 1977	National Swine Flu Immunization Program officially ended

<https://www.who.int/bulletin/volumes/87/6/09-040609/en/>
<https://www.fordlibrarymuseum.gov/library/exhibits/swineflu/sf.asp>
https://wwwnc.cdc.gov/eid/article/12/1/05-0965_article
https://wwwnc.cdc.gov/eid/article/12/1/05-1007_article

STRATEGY: 2H Outlook: US equities are the "dominant and quality" equity trade and US epicenter likely 2H story. 32 Epicenter stock ideas...

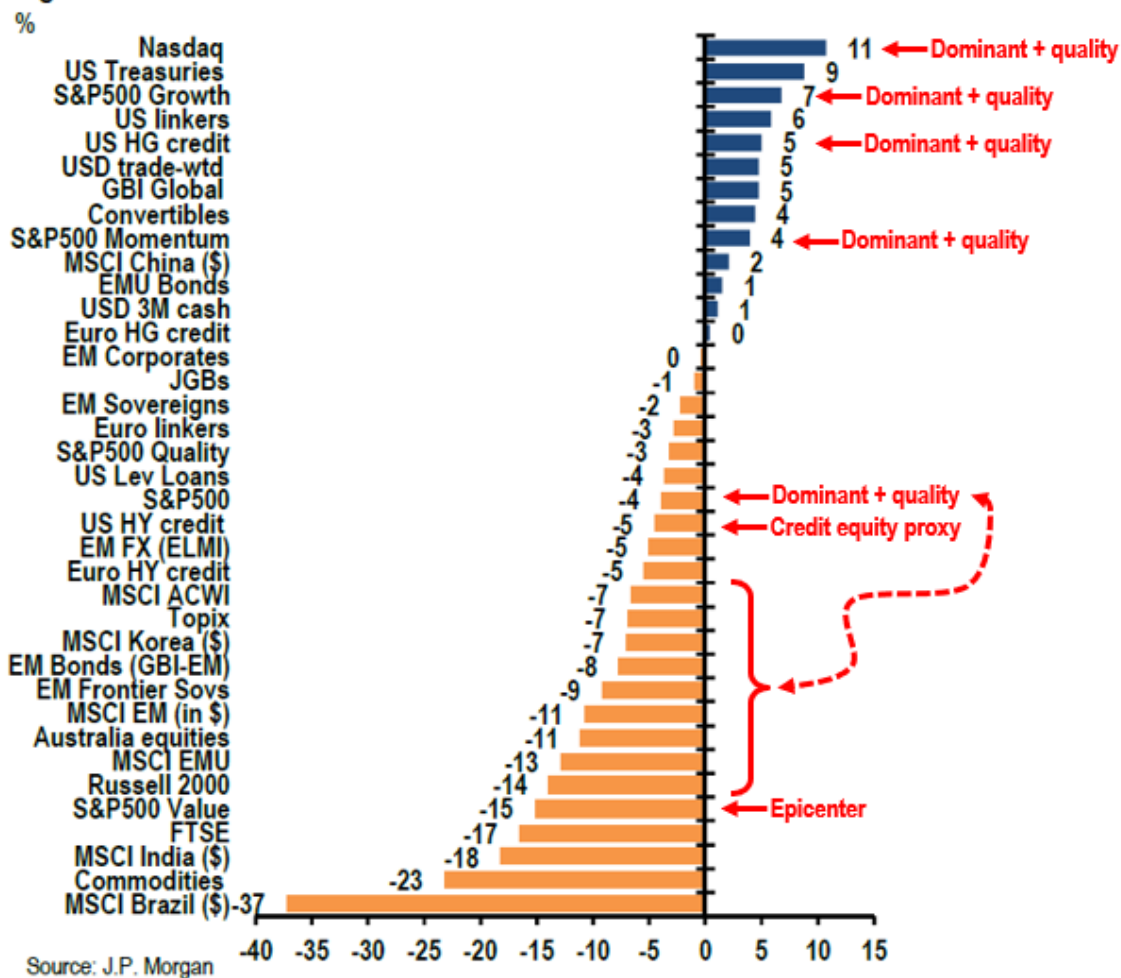
We expect a 2H2020 "continuation" trade with US equities outperforming Rest of World

With 1H2020 almost behind us, the focus will be on opportunities in 2H2020. As shown below, US equities dominated returns in 1H2020, with NASDAQ outperforming even US Treasuries. In fact, even S&P 500 Growth (65% of S&P 500 market cap) gained +7%, nearly matching the return of US Treasuries and trouncing investment grade bonds.

- The dominant asset trade in 1H2020 was US equities, particularly the "dominant + quality" groups, which are Growth and Technology
- As many are aware, the strong relative performance of US in 1H tends to lead to follow through in 2H, assuming underlying factors remain consistent.
- The variation in 2H2020, in our view, is the re-opening of the US + Global economy, leading to cyclical factors becoming more important

So if the US led in 1H2020, and likely leads in 2H2020, the change likely, is epicenter group, typically more cyclical sectors in the US (aka S&P 500 Value), will likely lead.

Figure 1: Year-to-date returns



In other words, the logic is as follows:

- S&P 500 is the "dominant + quality" equity trade
- Nasdaq + Growth is the "dominant + quality" trade in US equities
- HY is strong and credit outlook positive
- Epicenter trades (aka S&P Value) is beneficiary of HY credit + US equity performance in 2H

2021 Consensus S&P 500 EPS growth is 31%, led by Epicenter sectors +33% to +140%

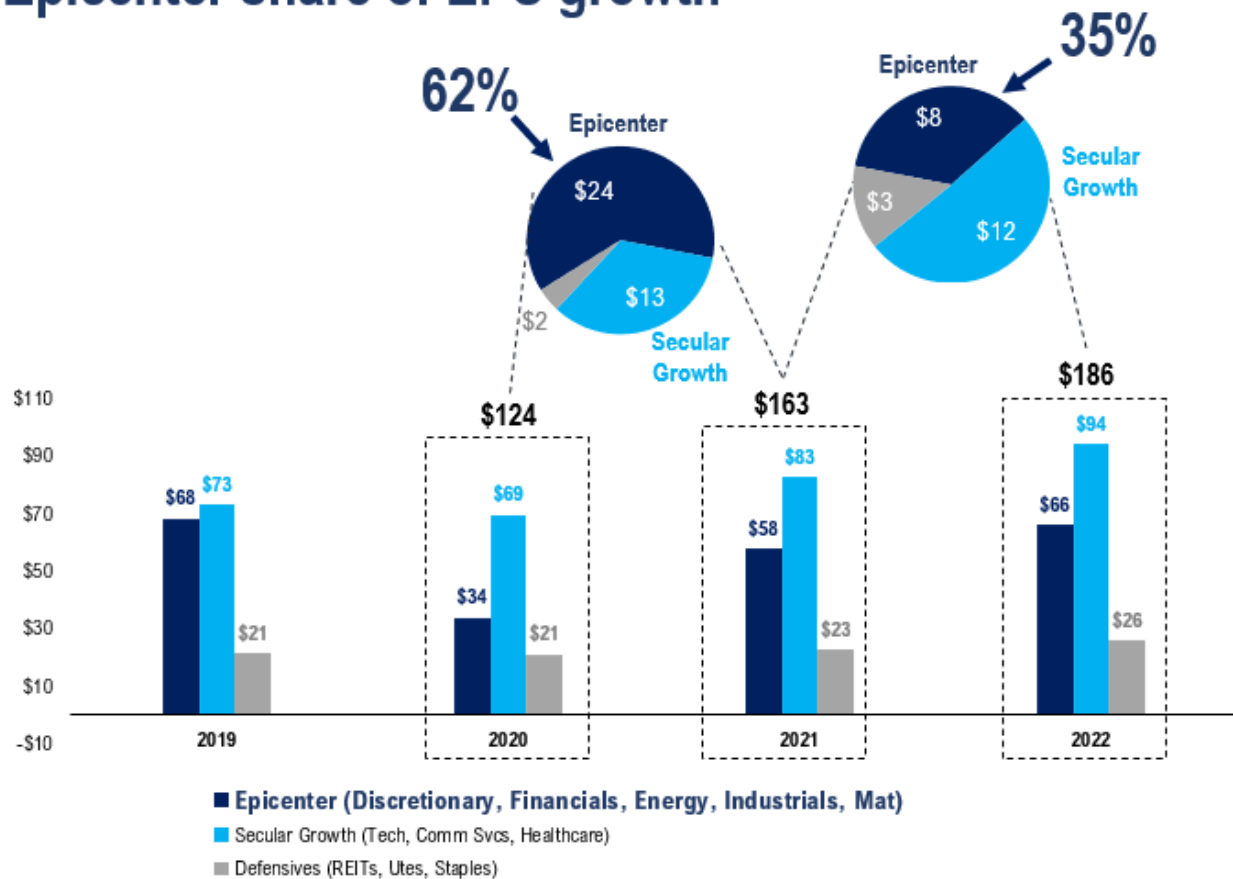
More simplistically, as we move into 2H2020, 2021 EPS growth becomes the focus. As such, those sectors driving EPS growth in 2021 will likely be more attractive to GARP and momentum investors.

- Epicenter sectors will be the largest drivers of EPS growth in 2021, with 33% to 140% EPS growth
- Epicenter groups will account for 62% of EPS growth in 2021, and are only 26% of market cap

	Consensus				% change	
	2019	2020	2021	2022	2020	2021
S&P 500	\$162	\$124	\$163	\$186	-24%	31%
S&P 500 (Refinitiv)	\$165	\$125	\$163	\$186	-24%	31%
Epicenter (Discretionary, Financials, Energy, Industrials,	\$68	\$34	\$58	\$66	-51%	72%
Secular Growth (Tech, Comm Svcs, Healthcare)	\$73	\$69	\$82	\$94	-5%	19%
Defensives (REITs, Utes, Staples)	\$21	\$21	\$22	\$26	-2%	8%
Discretionary	13	5	12	14	-60%	140%
Industrials	15	8	14	16	-49%	82%
Materials	4	3	4	5	-23%	33%
Financials	30	18	25	29	-40%	40%
Energy	6	(0)	2	2	-105%	-820%
Technology	32	31	36	41	-2%	17%
Comm. Services	16	14	17	20	-15%	26%
Healthcare	25	25	29	33	-3%	17%
Real Estate	4	4	5	5	-4%	8%
Staples	12	11	12	14	-4%	9%
Utilities	5	5	5	6	3%	5%

Source: Fundstrat

CONSENSUS EPS: Epicenter share of EPS growth



Source: Fundstrat

32 epicenter stock ideas meeting 3 of 3 criteria -- a trifecta

We have asked our team to find the "intersect" of stock ideas within the epicenter + Technology. We found 32 stocks within the Russell 1000 that meet 3 of 3 criteria:

- Ranked DQM quintile 1 (quant model)
- Rated OW by Brian Rauscher, Head of Global Portfolio Strategy
- Rated OW by Rob Sluymer, Head of Technical Strategy.

Discretionary: GNTX, BBY, GRMN, TPX, DHI, LEN, EBAY

Energy: CVX, XOM, COP, PXD

Financial: GS, MS, SBNY, SIVB

Industrials: GD, ALK, FBHS, MAS, CMI, OSK, ITT, GWW, MSM, SNDR

Technology: MXIM, OLED, XLNX, MSFT, AAPL

Comm Svcs: GOOGL, Z

Ticker	Company name	Sub-industry name	Current Price	Mkt Cap (\$mm)	DQM Quintile	Brian Rauscher	Robert Suyster	Performance...		
								2/19-3/23	3/23-6/18	YTD
Consumer Discretionary										
GNTX	Genlex Corp	Auto Parts & Equipment	26.75	6,550	OW	OW	OW	-35.2%	33.2%	-7.7%
BBY	Best Buy Co Inc	Computer & Electronics Retail	82.30	21,259	OW	OW	OW	-44.3%	62.4%	-6.3%
GRMN	Gamin Ltd	Consumer Electronics	95.18	18,181	OW	OW	OW	-38.6%	49.6%	-2.4%
TPX	Tempur Sealy International	Home Furnishings	73.30	3,778	OW	OW	OW	-61.6%	102.4%	-15.8%
DHI	Dr Horton Inc	Homebuilding	57.31	20,834	OW	OW	OW	-52.2%	93.9%	8.6%
LEN	Lennar Corp	Homebuilding	61.90	18,745	OW	OW	OW	-58.3%	110.9%	11.0%
EBAY	Ebay Inc	Internet & Direct Marketing Plc	48.44	34,038	OW	OW	OW	-29.8%	83.9%	34.1%
Energy										
COP	ConocoPhillips	Oil & Gas Exploration & Produ	44.45	47,669	OW	OW	OW	-58.6%	81.1%	-31.6%
XOM	Exxon Mobil Corp	Integrated Oil & Gas	46.92	198,388	OW	OW	OW	-47.9%	49.2%	-32.8%
CVX	Chevron Corp	Integrated Oil & Gas	91.94	171,650	OW	OW	OW	-51.0%	69.6%	-23.7%
PXD	Pioneer Natural Resource	Oil & Gas Exploration & Produ	94.54	15,586	OW	OW	OW	-56.6%	54.3%	-37.5%
Financials										
GS	Goldman Sachs Group Inc	Investment Banking & Brokerage	203.84	73,074	OW	OW	OW	-43.1%	51.0%	-11.3%
MS	Morgan Stanley	Investment Banking & Brokerage	47.58	74,970	OW	OW	OW	-50.6%	71.1%	-6.9%
SBNY	Signature Bank/New York	Regional Banks	107.19	5,787	OW	OW	OW	-50.1%	46.7%	-21.5%
SIVB	Sib Financial Group	Regional Banks	220.58	11,363	OW	OW	OW	-46.4%	54.0%	-12.1%
Industrials										
GD	General Dynamics Corp	Aerospace & Defense	159.06	45,629	OW	OW	OW	-42.9%	49.2%	-9.8%
ALK	Alaska Air Group Inc	Airlines	37.45	4,591	OW	OW	OW	-63.1%	55.8%	-44.7%
FBHS	Fortune Brands Home & S	Building Products	62.55	8,629	OW	OW	OW	-51.8%	79.6%	-4.3%
MAS	Masco Corp	Building Products	48.26	12,729	OW	OW	OW	-38.9%	75.3%	0.6%
CMI	Cummins Inc	Construction Machinery & Heavy	171.23	25,261	OW	OW	OW	-38.8%	66.6%	-4.3%
OSK	Oshkosh Corp	Construction Machinery & Heavy	73.78	5,022	OW	OW	OW	-42.1%	51.3%	-22.0%
ITT	Itt Inc	Industrial Machinery	56.20	4,850	OW	OW	OW	-44.4%	47.9%	-24.0%
GWW	Ww Grainger Inc	Trading Companies & Distributo	304.47	16,279	OW	OW	OW	-31.8%	45.3%	-10.1%
MSM	Msc Industrial Direct Co In	Trading Companies & Distributo	72.35	4,020	OW	OW	OW	-34.3%	54.9%	-7.8%
SNDR	Schneider National Inc	Trucking	24.19	4,287	OW	OW	OW	-22.4%	42.0%	10.9%
Technology + Comm. Services										
MXIM	Maxim Integrated Product	Semiconductors	60.56	16,147	OW	OW	OW	-27.5%	32.1%	-1.5%
OLED	Universal Display Corp	Semiconductors	154.34	7,270	OW	OW	OW	-37.8%	38.7%	-25.1%
XLNX	Xilinx Inc	Semiconductors	93.47	22,728	OW	OW	OW	-20.6%	29.8%	-4.4%
MSFT	Microsoft Corp	Systems Software	196.32	1,488,781	OW	OW	OW	-27.4%	44.4%	24.5%
AAPL	Apple Inc	Technology Hardware, Storage &	351.73	1,524,516	OW	OW	OW	-30.7%	56.8%	19.8%
GOOGL	Alphabet Inc	Interactive Media & Services	1,434.12	979,621	OW	OW	OW	-30.9%	36.0%	7.1%
Z	Zillow Group Inc	Interactive Media & Services	61.34	13,599	OW	OW	OW	-42.7%	96.5%	33.5%

Source: Fundstrat

Disclosures

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