



COVID-19 UPDATE: Major news on HCQ Wed? Latest GH consumer survey shows increase in willingness to leave home. Hispanics are 31% of US COVID-19 cases, nearly 2X population.

THIS MESSAGE IS BEING SENT SOLELY TO CLIENTS OF FS INSIGHT

Protests that are still raging in >75 cities across the US are breaking the COVID-19 progress timeline. We have mass gathering, which is 1000X mass transmission events. So, a factual observation is that after ~3 months of shelter-at-home, all discipline was cast aside. But it is not a guarantee that we see a second wave, despite the fact that Italy's and Spain's massive outbreaks began with a Champions League soccer match. If it does not lead to a second wave, it is the most significant worldwide event for COVID-19.

The first protests started 5 days ago and according to multiple studies (below) ~92% of those exposed to COVID-19 are symptomatic by day 14 (50% by Day 7). Day 14 is June 11th. So if no massive second wave starts by June 11th, we have a definitive break in the transmissibility of COVID-19. So the best case is no surges in the next 11 days.

We are presenting race/ethnicity COVID-19 data in this commentary. 47 states report consistent information and our data science team, led by tireless Ken, ingested this data (collected and reported by COVID-19 Tracking Project). I was pretty shocked at the data. Blacks and Hispanics are 53% of COVID-19 cases in the US and about 30% of the population. Asians and Whites are far less likely to have COVID-19.

| | <u>% pop</u> | <u>% COVID</u> | Delta | |
|------------|--------------|----------------|-------|------|
| - White | 60% | 40% | -20% | |
| - Hispanic | 17 | 31 | +13 | <-2x |
| - Black | 13 | 22 | +10 | <-2x |
| - Asian | 6 | 4 | -2 | |
| - Other | 3 | 2 | -1 | |

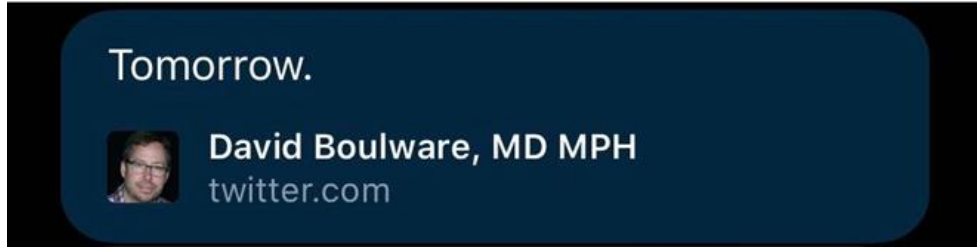
So as we are now >125 days into this pandemic, COVID-19 has hit the following particularly hard:

- NYC / NY tri-state
- Nursing homes (45% of deaths)
- Blacks/Hispanics (53% of cases)

Is this latter issue due to Vitamin D deficiencies? Last week, we wrote about how Vitamin D deficiency is worse in Black/Hispanic communities. As we highlight below, this concentration of cases with Black/Hispanic is throughout the US. So, there is something odd about this.

Potentially some major peer-reviewed announcement on hydroxychloroquine on Wednesday -- could be market moving...

Could this move markets Wednesday? See this cryptic tweet below, which has since been deleted. This tweet was shared with me by Xuan Yong, CEO of Rig-Up, before it was deleted.



He is an infectious disease specialist at the University of Minnesota and he has been conducting multiple studies on hydroxychloroquine, both as a treatment and as a preventative drug for COVID-19. And his studies are being peer reviewed. There is a lot of secrecy on his work and this cryptic tweet might suggest some big news on COVID-19 Wednesday.

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AIDS Related Opportunistic Infections
Tropical Medicine

Summary

Dr. Boulware is an infectious disease physician-scientist with formal training in clinical trials, public health, and tropical medicine. Dr. Boulware combines his clinical research with nested basic science investigations into disease pathogenesis to conduct translational research. His primary research interests are in meningitis in resource-limited areas including diagnosis, prevention, treatment, and quality improvement initiatives incorporating cost-effectiveness analyses in order to translate knowledge into improved care. Dr. Boulware's current research is focused on improving the clinical outcomes of HIV-infected persons with cryptococcal meningitis, the second most common AIDS-defining opportunistic infection in Sub-Saharan Africa and the most common cause of adult meningitis. Additionally, Dr. Boulware has been motivated to improve the diagnostics for TB meningitis, and now that TB meningitis can be promptly diagnosed, to also improve the treatment of tuberculous meningitis. Dr. Boulware

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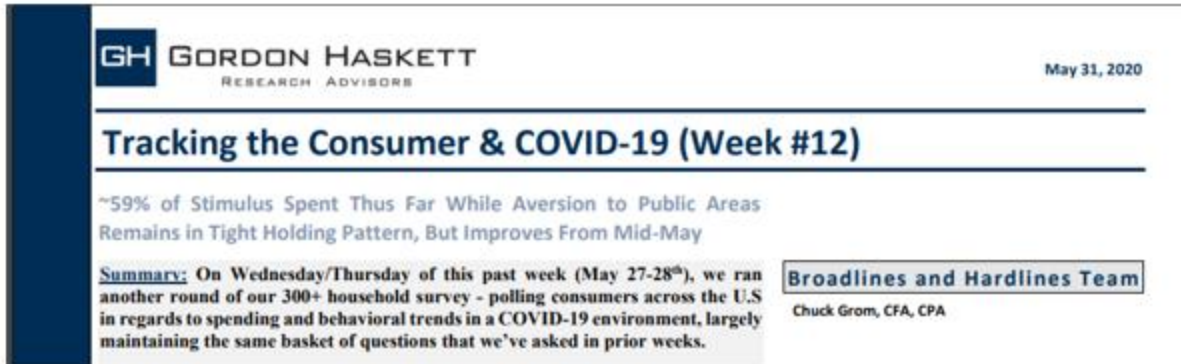
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HCQ is a relatively cheap drug and readily available. And if a peer-reviewed study shows it is effective, this could massively kick start a healthcare treatment regimen for COVID-19. And this would thus negate the "timeline" issue noted above.

Latest Gordon Haskett Consumer survey shows notable increase in willingness to leave home...

Chuck Grom, Broadlines and Hardlines Retail analyst at Gordon Haskett, published his latest consumer survey of >300 households. This is the 12th week for the survey and has asked consumer specific questions related to behavior and willingness among a variety of questions. It is an extensive survey with 45 questions. A few weeks ago, we published the survey results around question #43 (willingness to...) and back then, I was surprised to see the relatively high willingness of consumers to do some social activities.



It turns out that in week 12 (now), consumers have become even less "risk averse" and more willing to venture out of their homes. The 6 categories where we see a meaningful increase are below:

A month from now, w/o vaccine willing to (% YES):

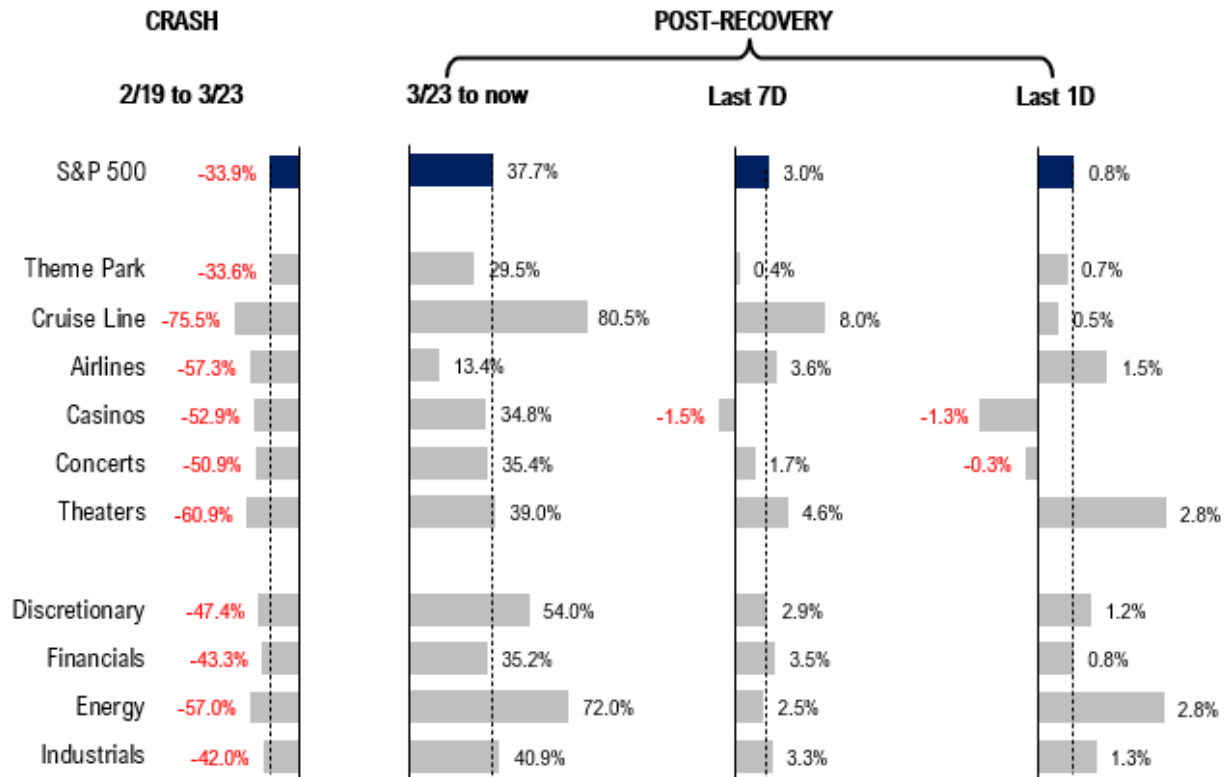
| | week 10 | week 12 (now) | change |
|------------------|---------|---------------|--------------|
| - Restaurant | 59.3% | 61.6% | +2.3% <--wow |
| - Off-mall store | 51.6 | 58.9 | +7.3 |
| - Malls | 51.6 | 58.3 | +6.7 |
| - Gym/fitness | 43.0 | 49.7 | +6.7 |
| - Bar/club | 43.0 | 47.7 | +4.7 |

A month from now, w/o vaccine willing to (% NO):

| | week 10 | week 12 (now) | change |
|----------------|---------|---------------|--------|
| - Cruise ships | 67.0% | 66.9% | -0.1% |
| - Planes | 61.2 | 62.3 | +1.1 |
| - Stadiums | 59.0 | 59.3 | +0.3 |

But it also looks like US consumers are less willing to take a cruise (OK, that is flat), get on an airplane and also go to a stadium. These still have the majority of the respondents unwilling to do these things, without a vaccine. This speaks positively about the pace of a US recovery as restrictions end.

But this is kind of moot, in the sense that the COVID-19 timeline is broken (I feel like I am talking about time travel). In any case, as we mentioned yesterday, if there is a second wave, "social distance victim" companies would be hit the hardest. Conversely, the price behavior of these stocks could inform us about the risks of a second wave. As you can see below, on a 1D and 7D basis, these groups are still outperforming the S&P 500. The exception are casinos.

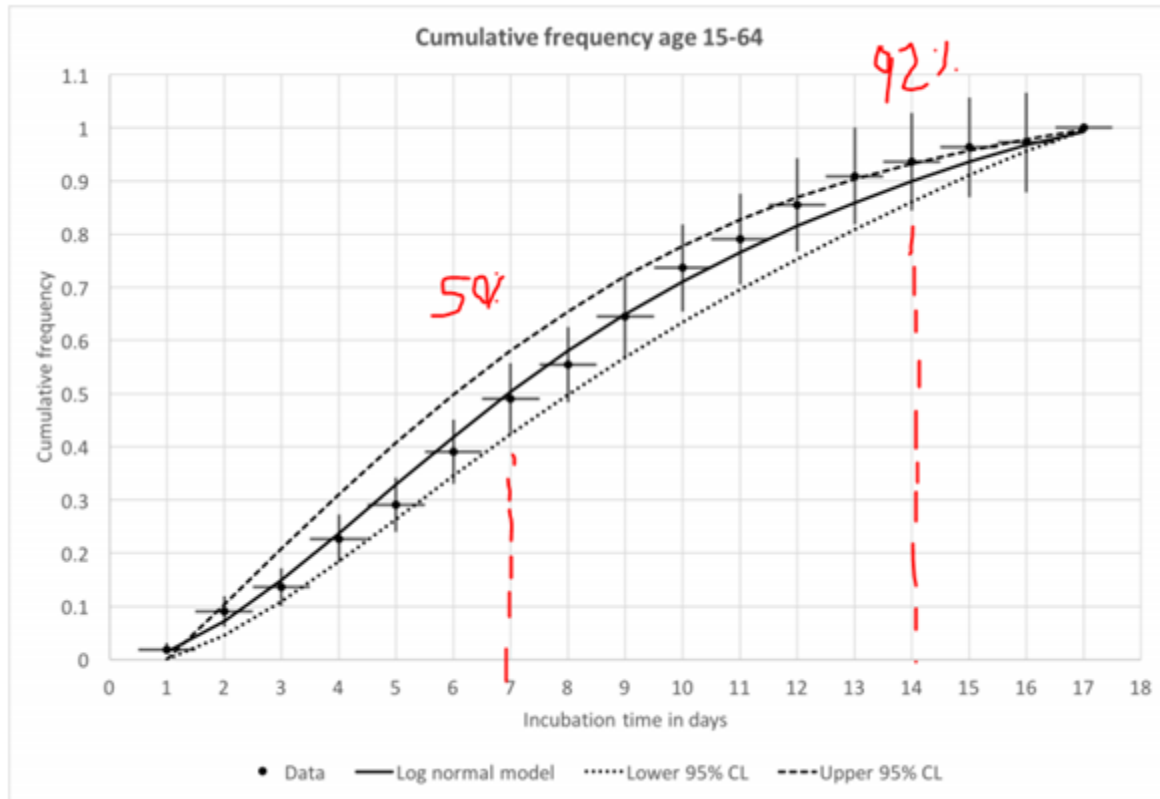


Source: Fundstrat and Bloomberg

We have had many client conversations this week. And we still find little change in our institutional clients' perception about equities. The move in prices seems far beyond their comprehension of contemporaneous fundamentals. And their forward views remain filled with uncertainty, which by the way, is clearly natural and logical. But if we were to reconcile the gap between our client views of markets (lower) vs current prices (higher), this gap seems to be a result of a market seeing more "visibility" than we individually recognize. By the way, credit markets, high-yield especially, are also more optimistic. So given this gap, we still see stocks in the hands of buyers ("half-full") and see the real opportunity in the "epicenter" stocks.

POINT #1: New US timeline, day 5 (protests -5D) of the "14 day" clock for second wave verdict --> June 11th. AZ + TX cases explode today (more imported cases from Mexico)

The US just had a massive COVID-19 mass transmission event, the nationwide protests over the death of George Floyd. In fact, these protests are continuing. Because it takes 14 days from transmission to symptomatic (for 92% of cases, see below), by June 11th we will know if there is indeed a massive second wave (14 days post-May 29th). More importantly, we believe daily cases data over the next week is essentially not useful.



<https://www.medrxiv.org/content/10.1101/2020.04.14.20065896v1.full.pdf+html>

June 11th is the "verdict" date for a second wave... if no second wave, the BIGGEST development in COVID-19

According to the University of Alabama study (chart above), about 50% of those exposed are symptomatic by Day 7 and 92% by Day 14. So, by June 11th, the verdict will be in, regarding a second wave.

Transmission timeline:

- May 29th protests start
- June 2nd Day 5 >75 cities
- June 4th Day 7 50% of exposed symptomatic
- June 11th Day 14 92% of exposed symptomatic

| | | | | | | | | | | | | | |
|--------|--------|--------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|
| Day 1 | Day 2 | Day 3 | Day 4 | Day 5 | Day 6 | Day 7 | Day 8 | Day 9 | Day 10 | Day 11 | Day 12 | Day 13 | Day 14 |
| May 29 | May 30 | May 31 | Jun 1 | Jun 2 | Jun 3 | Jun 4 | Jun 5 | Jun 6 | Jun 7 | Jun 8 | Jun 9 | Jun 10 | Jun 11 |

But the key date is June 11th. If there is no second wave in cases by June 11th, this is a transformational outcome. The mass exposures did not lead to a 2nd wave.

USA daily cases steady vs 1D ago at 20,183 but Arizona and Texas accounted for the entire surge.

Total USA cases came in flat vs yesterday with 20,183 cases. 2 states saw sizable surges, Arizona and Texas. Arizona cases 5X compared to a day ago and Texas saw a 3X in cases. We discuss AZ below, but there is not a lot of explanation given by the state for the surge, other than a 240% increase in testing. Texas looks to be a case of jails reporting case data.

There as the usual churn (yesterday, MA had a massive surge because of adding probable cases).

6 states see sizable jumps:

| | | | |
|----------------|-------------------|--------|------------------------------|
| Texas | 1,688 vs 593 (1D) | +1,095 | <-- Texas jails report cases |
| Arizona | 1,127 vs 187 | +940 | <-- +250% rise in tests |
| Illinois | 1,614 vs 974 | +640 | |
| New York | 1,329 vs 941 | +388 | |
| Maryland | 848 vs 549 | +299 | |
| Tennessee | 821 vs 548 | +273 | |
| Total 6 states | | +3,635 | |

5 states see sizable declines:

| | | | |
|----------------|-------------------|--------|-------------------------|
| Massachusetts | 358 vs 3,840 (1D) | -3,482 | <-- 1D adjustment fades |
| Connecticut | 239 vs 539 | -300 | |
| Kentucky | 139 vs 342 | -203 | |
| Alabama | 279 vs 460 | -181 | |
| California | 2,304 vs 2,423 | -119 | |
| Total 5 states | | -4,285 | |

Daily Case Increases (by State) (06/02)

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

Sorted
Last 3-day trend growth rates

| | 5/31/20 | 6/1/20 | 6/2/20 | |
|-----------------------------|---------|--------|--------|----------|
| United States | 22,074 | 19,959 | 20,183 | +224 |
| States: | | | | |
| 1 California | 3,705 | 2,423 | 2,304 | |
| 2 Texas | 1,949 | 593 | 1,688 | |
| 3 Illinois | 1,343 | 974 | 1,614 | <-higher |
| 4 New York | 1,110 | 941 | 1,329 | |
| 5 Arizona | 681 | 187 | 1,127 | <-higher |
| 6 Maryland | 763 | 549 | 848 | |
| 7 Virginia | 996 | 791 | 841 | |
| 8 Tennessee | 440 | 548 | 821 | <-higher |
| 9 New Jersey | 837 | 473 | 627 | |
| 10 North Carolina | 916 | 674 | 626 | |
| 11 Florida | 739 | 667 | 617 | |
| 12 Pennsylvania | 511 | 356 | 612 | |
| 13 Georgia | 700 | 632 | 589 | |
| 14 Indiana | 363 | 256 | 407 | |
| 15 Louisiana | 339 | 425 | 405 | |
| 16 Arkansas | 240 | 190 | 375 | <-higher |
| 17 Wisconsin | 173 | 140 | 374 | <-higher |
| 18 Ohio | 479 | 471 | 366 | |
| 19 Massachusetts | 664 | 3,840 | 358 | |
| 20 Iowa | 308 | 145 | 319 | |
| 21 Minnesota | 660 | 358 | 300 | |
| 22 Alabama | 544 | 460 | 279 | |
| 23 Washington | 278 | 353 | 275 | |
| 24 Mississippi | 272 | 251 | 268 | |
| 25 South Carolina | 467 | 287 | 267 | |
| 26 Nebraska | 196 | 244 | 266 | |
| 27 Missouri | 185 | 180 | 248 | <-higher |
| 28 Connecticut | 179 | 539 | 239 | |
| 29 New Mexico | 65 | 111 | 224 | <-higher |
| 30 Colorado | 280 | 199 | 211 | |
| 31 Utah | 264 | 202 | 203 | |
| 32 Michigan | 513 | 135 | 199 | |
| 33 Nevada | 98 | 95 | 142 | <-higher |
| 34 Kentucky | 0 | 342 | 139 | |
| 35 Rhode Island | 109 | 63 | 121 | |
| 36 Oklahoma | 88 | 67 | 119 | <-higher |
| 37 Delaware | 76 | 107 | 80 | |
| 38 New Hampshire | 106 | 34 | 64 | |
| 39 Puerto Rico | 58 | 97 | 62 | |
| 40 South Dakota | 33 | 41 | 33 | |
| 41 Oregon | 58 | 59 | 33 | |
| 42 District of Columbia | 84 | 56 | 29 | |
| 43 Maine | 43 | 24 | 28 | |
| 44 Idaho | 57 | 10 | 27 | |
| 45 West Virginia | 36 | 7 | 24 | |
| 46 North Dakota | 23 | 48 | 21 | |
| 47 Alaska | 26 | 7 | 20 | |
| 48 Vermont | 4 | 2 | 5 | |
| 49 Montana | 10 | 4 | 4 | |
| 50 Wyoming | 5 | 7 | 2 | |
| 51 Guam | 0 | 2 | 2 | |
| 52 Northern Mariana Islands | 0 | 0 | 1 | |
| 53 Hawaii | 1 | 0 | 1 | |
| 54 U.S. Virgin Islands | 0 | 1 | 0 | |
| 55 Kansas | 0 | 292 | 0 | |
| 56 American Samoa | 0 | 0 | 0 | |

Source: COVID-19 tracking project

Several Texas counties reported big surges today... with Jones and Walker reporting jumps

The surge in TX is a result of some counties reporting a 1D jump in cases, such as Jones and Walker. According to tireless Ken, these two counties have jails which reported case data in the past day.

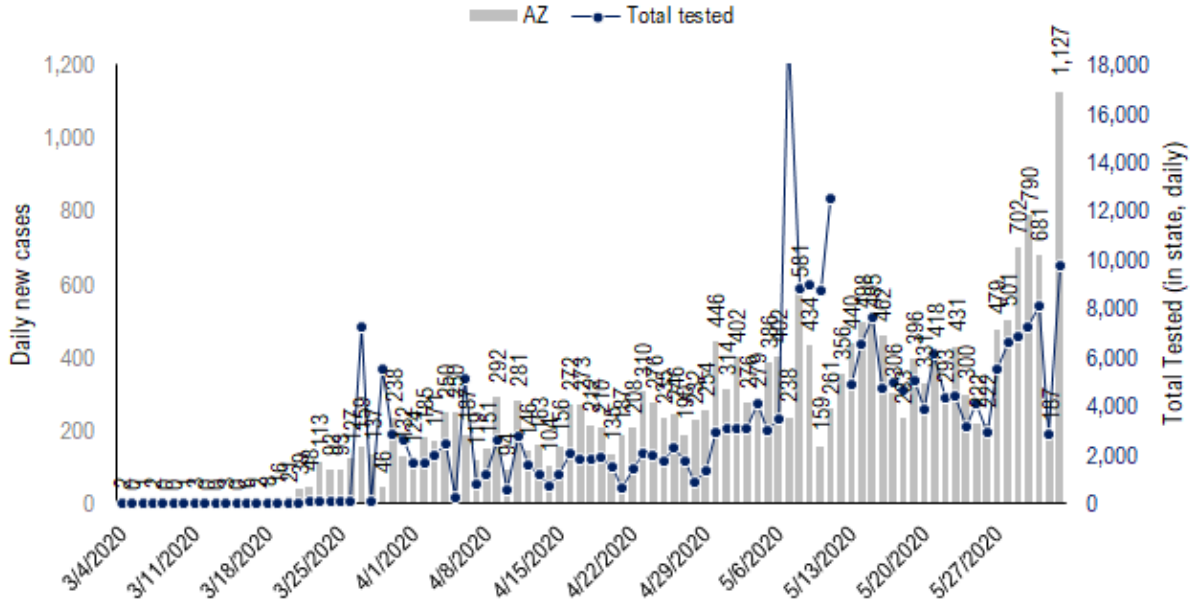
Daily Cases in Past 5 Days (Report Date)...

| County | Population | % State Pops | Total Cases | Case Per 1MM Residents | Border with Mexico | 5/29/20 | 5/30/20 | 5/31/20 | 6/1/20 | 6/2/20 |
|---------------|---------------|--------------|--------------|------------------------|--------------------|-----------|-----------|------------|----------|------------|
| Texas | 29,677,668 | 100% | 59,104 | 1,992 | | 1,230 | 1,332 | 1,949 | 593 | 1,688 |
| Harris | 4,978,845 | 16.8% | 12,664 | 2,544 | | 228 | 239 | 211 | 56 | 388 |
| Dallas | 2,734,111 | 9.2% | 10,462 | 3,826 | | 202 | 200 | 219 | 228 | 228 |
| Jones | 19,735 | 0.1% | 606 | 30,707 | | 31 | 47 | 0 | 0 | 205 |
| Moore | 21,575 | 0.1% | 838 | 38,841 | | 37 | 2 | 82 | 3 | 149 |
| Walker | 73,997 | 0.2% | 1,574 | 21,271 | | 0 | 76 | 510 | 1 | 118 |
| Travis | 1,291,502 | 4.4% | 3,360 | 2,602 | | 67 | 62 | 46 | 40 | 88 |
| El Paso | 876,120 | 3.0% | 2,833 | 3,234 | x | 54 | 81 | 60 | 30 | 39 |
| Potter | 122,706 | 0.4% | 2,354 | 19,184 | | 10 | 41 | 4 | 0 | 33 |
| Galveston | 355,196 | 1.2% | 847 | 2,385 | | 9 | 7 | 12 | 10 | 30 |
| Denton | 897,953 | 3.0% | 1,398 | 1,557 | | 33 | 11 | 28 | 16 | 25 |
| Hays | 234,896 | 0.8% | 353 | 1,503 | | 17 | 15 | 0 | 0 | 24 |
| Gregg | 125,730 | 0.4% | 236 | 1,877 | | 2 | 10 | 0 | 0 | 23 |
| Tarrant | 2,143,755 | 7.2% | 5,534 | 2,581 | | 104 | 85 | 84 | 50 | 21 |
| Randall | 138,104 | 0.5% | 688 | 4,982 | | 3 | 13 | 3 | 0 | 14 |
| Bell | 353,629 | 1.2% | 391 | 1,106 | | 10 | 11 | 6 | 16 | 13 |
| Brazoria | 375,869 | 1.3% | 929 | 2,472 | | 21 | 12 | 13 | 10 | 12 |
| Cameron | 427,881 | 1.4% | 776 | 1,814 | x | 12 | 11 | 10 | 0 | 12 |
| Jefferson | 258,678 | 0.9% | 562 | 2,173 | | 6 | 9 | 11 | 6 | 12 |
| Lubbock | 317,210 | 1.1% | 704 | 2,219 | | 3 | 8 | 3 | 1 | 12 |
| Montgomery | 613,951 | 2.1% | 966 | 1,573 | | 14 | 14 | 0 | 0 | 12 |
| Angelina | 90,437 | 0.3% | 215 | 2,377 | | 2 | 2 | 0 | 0 | 10 |
| Bexar | 2,093,502 | 7.1% | 2,839 | 1,356 | | 58 | 53 | 189 | 5 | 9 |
| Hidalgo | 870,366 | 2.9% | 584 | 671 | x | 0 | 11 | 12 | 15 | 9 |
| Titus | 32,953 | 0.1% | 467 | 14,172 | | 21 | -18 | 5 | 7 | 9 |
| Williamson | 589,914 | 2.0% | 630 | 1,068 | | 8 | 9 | 7 | 9 | 9 |
| Bastrop | 86,105 | 0.3% | 220 | 2,555 | | 4 | 4 | 7 | 1 | 8 |
| Ellis | 177,721 | 0.6% | 325 | 1,829 | | 4 | 8 | 0 | 0 | 8 |

Source: TX health dept

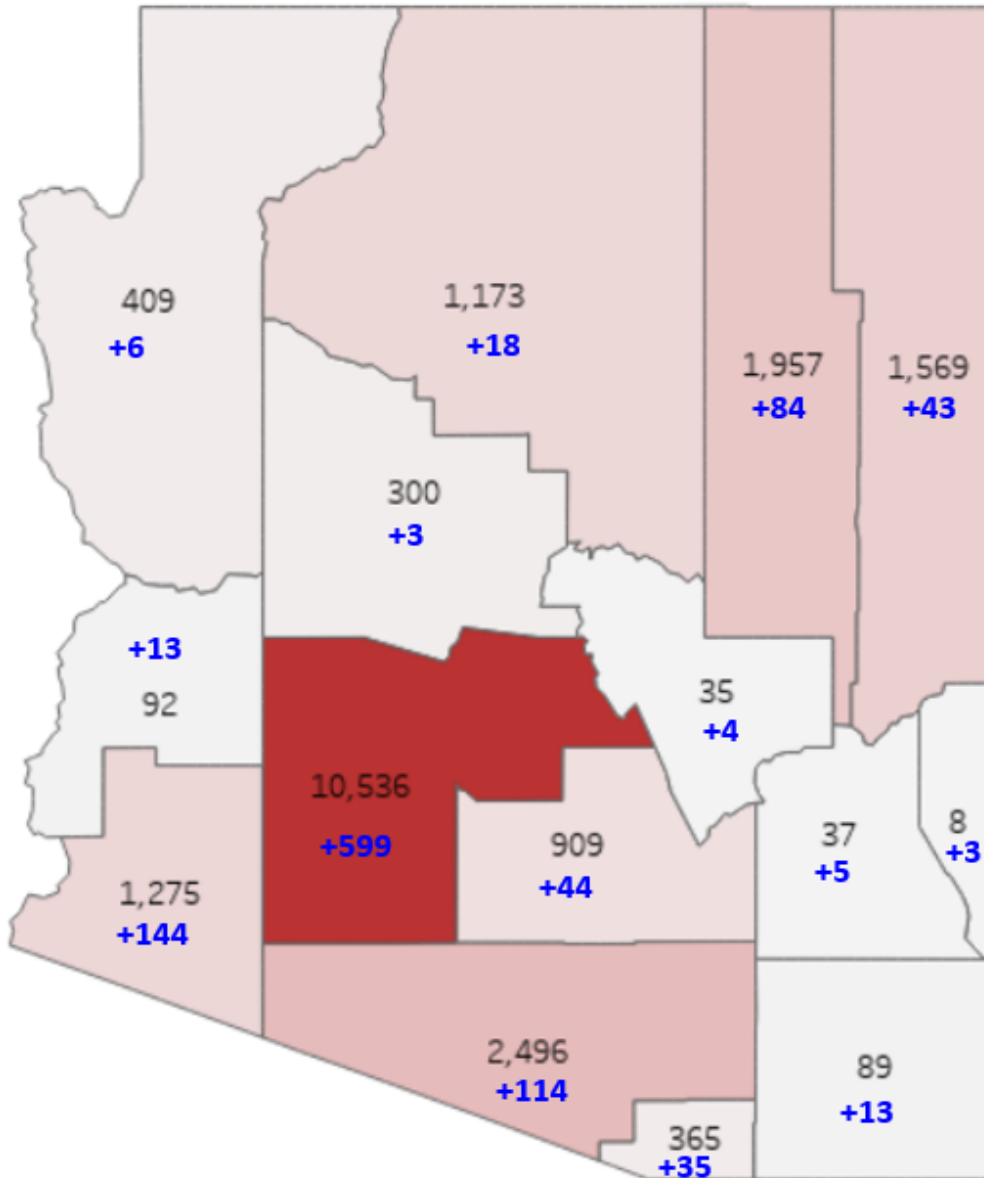
Most of AZ cases are near US-Mexico border but also a massive rise in tests...

The state did not provide much explanation for the surge in cases today. But as shown below, total tests rose 250% compared to a day ago. And the state's stay-at-home orders are set to expire today.



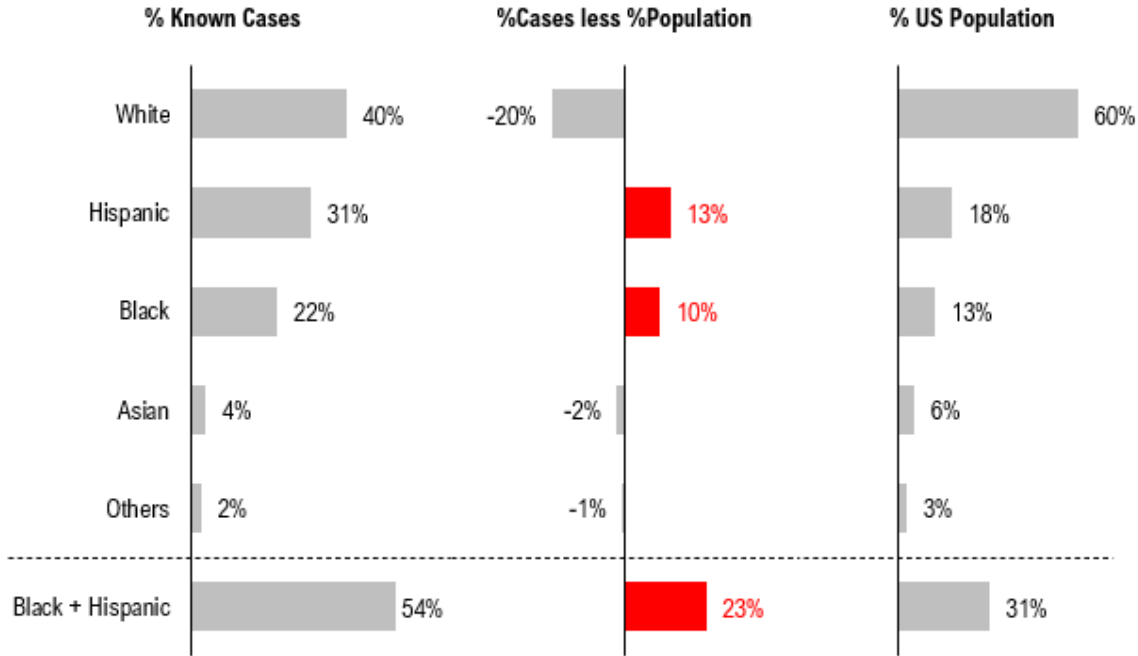
Source: COVID-19 tracking project

As shown below, most of the new cases in AZ are near the Mexico border. Again, suggesting the further increase in "imported" cases.



POINT #2: Hispanics are a shocking 31% of COVID-19 cases in the US (overall 17% of US)

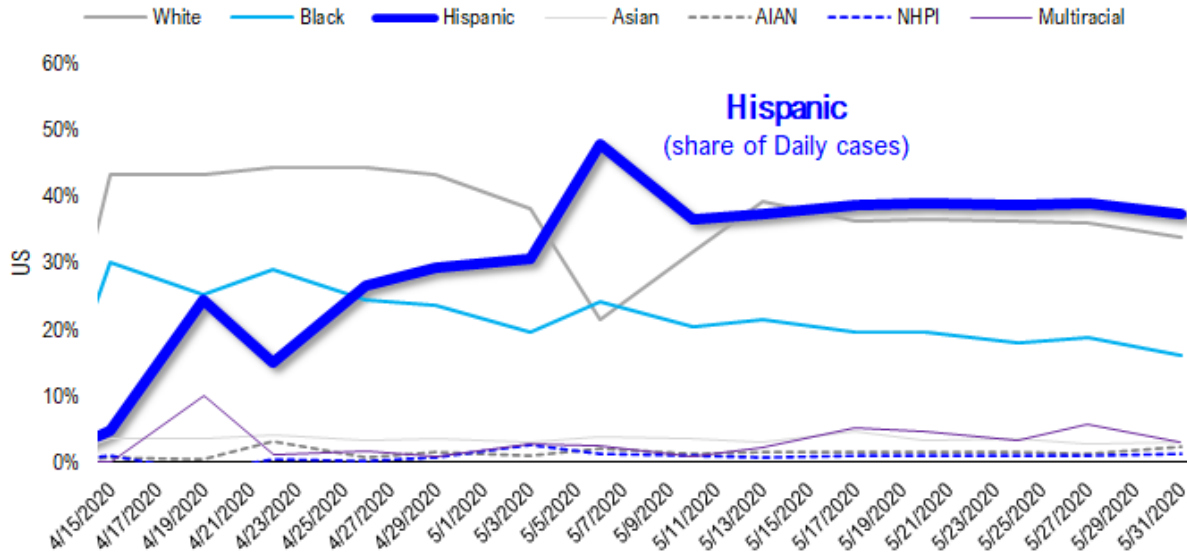
We have not heard a lot about COVID-19's nationwide on impact ethnic/racial groups. Using data from COVID-19 Tracking Project, we found 47 states report case data and 43 states report death for ethnicity/race. As noted from above, Hispanics and Blacks are disproportionately impacted by COVID-19. Conversely, Whites and Asians are less likely to be suffering from COVID-19.



Source: COVID-19 Tracking Project

Hispanic share of cases has been high since the beginning of the crisis...

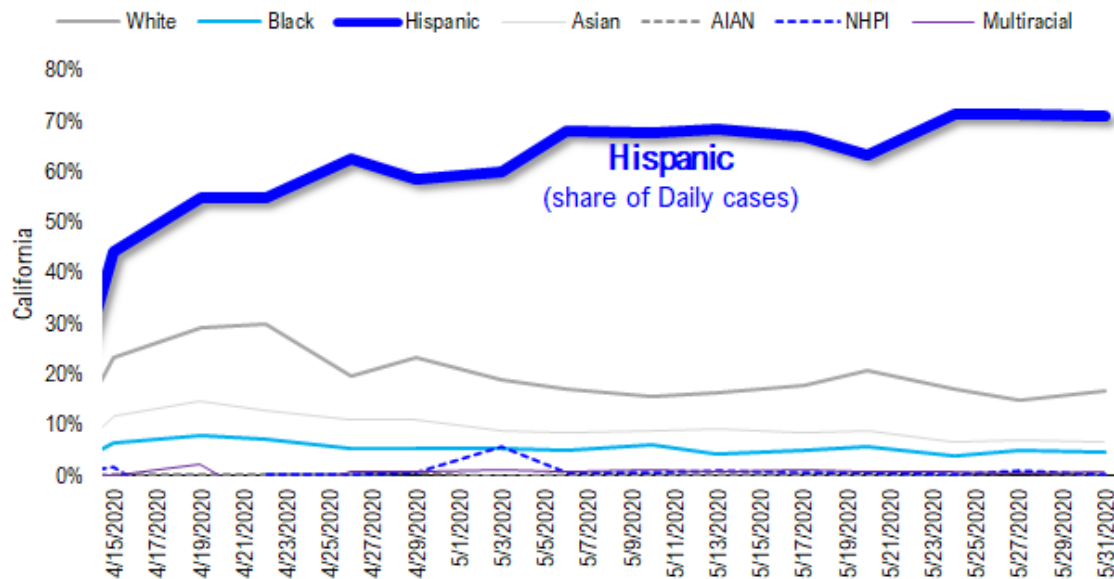
Since the onset of the pandemic, Hispanic share of COVID-19 cases has been high and remained high. So, this is not a function of a recent surge, or a secondary transmission. This has been the case nationwide from virtually the beginning.



Source: COVID-19 Tracking Project

Hispanic share has been rising recently in CA...

Hispanic cases are now ~70% of the daily cases in California. And this figure has been increasing in that state over the past few weeks. We wrote about Imperial County, CA and San Diego, CA seeing an overflow of cases imported from Mexico. And this partially explains this increase.



Hispanic skew is highest in Virginia, Rhode Island, Utah and Washington State...

Ethnicity and race data is not collected for every case, so tireless Ken only reflects the statistics and data for the cases which identified race/ethnicity. This is a high percentage of tested cases in most states. We have provided the snapshot of the data below, sorting by the Hispanic "delta" (cases less population share). The numbers are really staggering. Shocking.

- Virginia cases 41% vs pops 10%
- Rhode Island 46 vs 16
- Utah 44 vs 14
- Washington 40 vs 13

| State | % Known Cases... | | | | | | %Cases less %Population | | | | | |
|----------------------|------------------|----------|-------|-------|--------|------------------|-------------------------|----------|-------|-------|--------|------------------|
| | White | Hispanic | Black | Asian | Others | Black + Hispanic | White | Hispanic | Black | Asian | Others | Black + Hispanic |
| United States | 40% | 31% | 22% | 4% | 2% | 54% | -20% | 13% | 10% | -2% | -1% | 23% |
| Virginia | 40% | 41% | 18% | - | 0% | 60% | -21% | 32% | -1% | - | -3% | 31% |
| Rhode Island | 37% | 46% | 13% | - | 3% | 60% | -35% | 30% | 7% | - | 0% | 38% |
| Utah | 41% | 44% | 4% | 3% | 8% | 48% | -37% | 30% | 2% | 0% | 4% | 32% |
| Washington | 40% | 40% | 7% | 8% | 6% | 47% | -28% | 27% | 3% | -1% | -0% | 30% |
| Illinois | 28% | 44% | 23% | 4% | 1% | 68% | -33% | 27% | 9% | -2% | -1% | 36% |
| Colorado | 42% | 46% | 7% | 3% | 2% | 53% | -26% | 24% | 3% | -0% | -1% | 27% |
| Wisconsin | 47% | 31% | 18% | 3% | 1% | 48% | -34% | 24% | 11% | 0% | -2% | 35% |
| Kansas | 51% | 35% | 8% | 5% | 0% | 44% | -25% | 23% | 2% | 2% | -3% | 26% |
| Delaware | 34% | 33% | 31% | 2% | 0% | 64% | -28% | 23% | 10% | -2% | -3% | 33% |
| Maryland | 26% | 34% | 38% | 3% | 0% | 72% | -25% | 23% | 8% | -4% | -3% | 31% |
| Oregon | 53% | 36% | 3% | 4% | 5% | 38% | -23% | 22% | 1% | -1% | 0% | 23% |
| Massachusetts | 47% | 34% | 16% | 3% | 0% | 50% | -25% | 21% | 9% | -4% | -2% | 30% |
| California | 22% | 60% | 6% | 10% | 2% | 66% | -15% | 21% | 0% | -5% | -2% | 21% |
| North Carolina | 44% | 29% | 24% | 2% | 1% | 53% | -19% | 19% | 3% | -1% | -2% | 22% |
| Iowa | 56% | 25% | 11% | 9% | 0% | 36% | -30% | 19% | 7% | 6% | -2% | 26% |
| Tennessee | 49% | 24% | 25% | 2% | 0% | 49% | -25% | 18% | 9% | 0% | -2% | 27% |
| District of Columbia | 17% | 29% | 52% | 1% | 1% | 81% | -20% | 18% | 7% | -3% | -2% | 25% |
| Minnesota | 40% | 23% | 26% | 7% | 3% | 50% | -39% | 18% | 20% | 2% | 0% | 38% |
| Florida | 33% | 43% | 24% | - | 0% | 67% | -20% | 17% | 8% | - | -2% | 25% |
| South Dakota | 35% | 20% | 21% | 13% | 11% | 41% | -46% | 16% | 18% | 12% | 1% | 34% |
| New Jersey | 40% | 34% | 20% | 6% | 0% | 54% | -15% | 14% | 7% | -4% | -2% | 20% |
| Idaho | 63% | 26% | 2% | 2% | 8% | 28% | -19% | 13% | 1% | 0% | 4% | 14% |
| Nevada | 35% | 41% | 12% | 11% | 1% | 53% | -13% | 12% | 3% | 3% | -4% | 14% |
| Connecticut | 52% | 27% | 19% | 2% | 0% | 46% | -15% | 10% | 9% | -3% | -2% | 20% |
| Indiana | 62% | 17% | 19% | 2% | 0% | 36% | -17% | 9% | 10% | -0% | -2% | 19% |
| Kentucky | 65% | 13% | 13% | 5% | 5% | 26% | -20% | 9% | 5% | 3% | 3% | 14% |
| Georgia | 35% | 18% | 45% | 2% | 0% | 63% | -17% | 8% | 14% | -2% | -2% | 22% |
| Oklahoma | 63% | 19% | 9% | 3% | 6% | 28% | -2% | 8% | 2% | 0% | -8% | 10% |
| Pennsylvania | 57% | 14% | 25% | 3% | 0% | 40% | -19% | 7% | 14% | -1% | -2% | 21% |
| Texas | 32% | 46% | 18% | 4% | 0% | 64% | -10% | 6% | 6% | -1% | -2% | 13% |
| New Hampshire | 81% | 10% | 6% | 3% | 0% | 16% | -9% | 6% | 5% | 0% | -2% | 10% |
| Alabama | 43% | 10% | 47% | 1% | 0% | 57% | -23% | 6% | 20% | -1% | -2% | 26% |
| Missouri | 51% | 10% | 37% | - | 3% | 47% | -29% | 5% | 25% | - | 0% | 31% |
| South Carolina | 42% | 11% | 44% | 2% | 0% | 56% | -21% | 5% | 18% | 0% | -2% | 23% |
| Ohio | 57% | 8% | 28% | 3% | 5% | 36% | -22% | 4% | 15% | 1% | 2% | 19% |
| Arizona | 37% | 35% | 5% | 2% | 22% | 40% | -18% | 3% | 1% | -2% | 16% | 4% |
| Michigan | 43% | 8% | 36% | 2% | 10% | 44% | -32% | 3% | 22% | -1% | 7% | 25% |
| Mississippi | 31% | 6% | 58% | 0% | 5% | 64% | -26% | 3% | 21% | -1% | 3% | 24% |
| Wyoming | 50% | 12% | 1% | 1% | 36% | 13% | -34% | 2% | 0% | -0% | 32% | 2% |
| Maine | 74% | 3% | 20% | 2% | 1% | 23% | -19% | 2% | 18% | 0% | -2% | 20% |

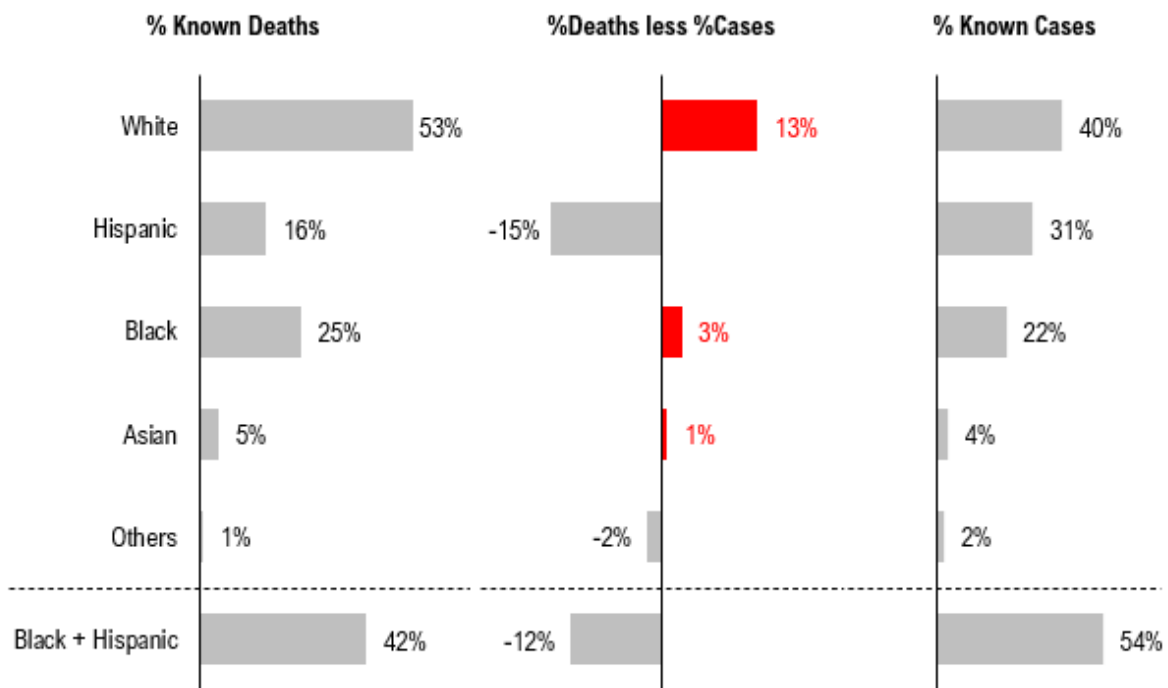
Source: COVID-19 Tracking Project

Regarding Deaths, Hispanics are far fewer share and Whites are much higher share of deaths...

The share of deaths does not mirror the share of cases. In other words, the implied mortality rate is much different. Whites and Blacks are much more likely to die from COVID-19.

- Whites are 53% of the deaths and 40% of cases
- Black are 25% of deaths and 22% of cases
- Hispanics are 16% of reported deaths but 31% of the cases.

So, the implied Hispanic mortality is half of the overall US. There are many factors, such as age, and health, and pre-conditions (obesity, diabetes, smoker, etc.). And perhaps the prevalence of these risk factors plays into this mix.

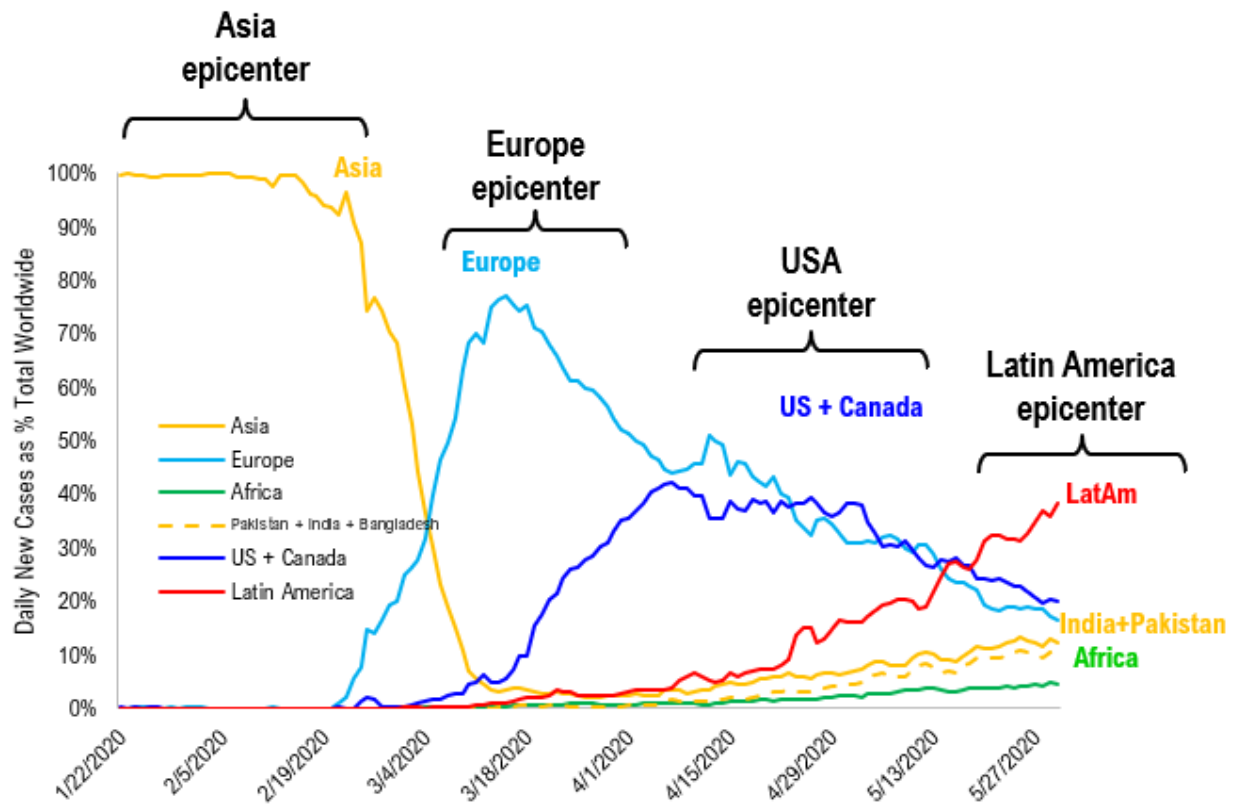


Source: COVID-19 Tracking Project

POINT #3: Latin America is the new epicenter and seeing accelerating in case growth

We will periodically visit developments in Latin America and as we highlight below, case growth is still accelerating down in Latin America. The region is entering their "winter" months, and cooler weather means weaker immune systems and less vitamin D as well.

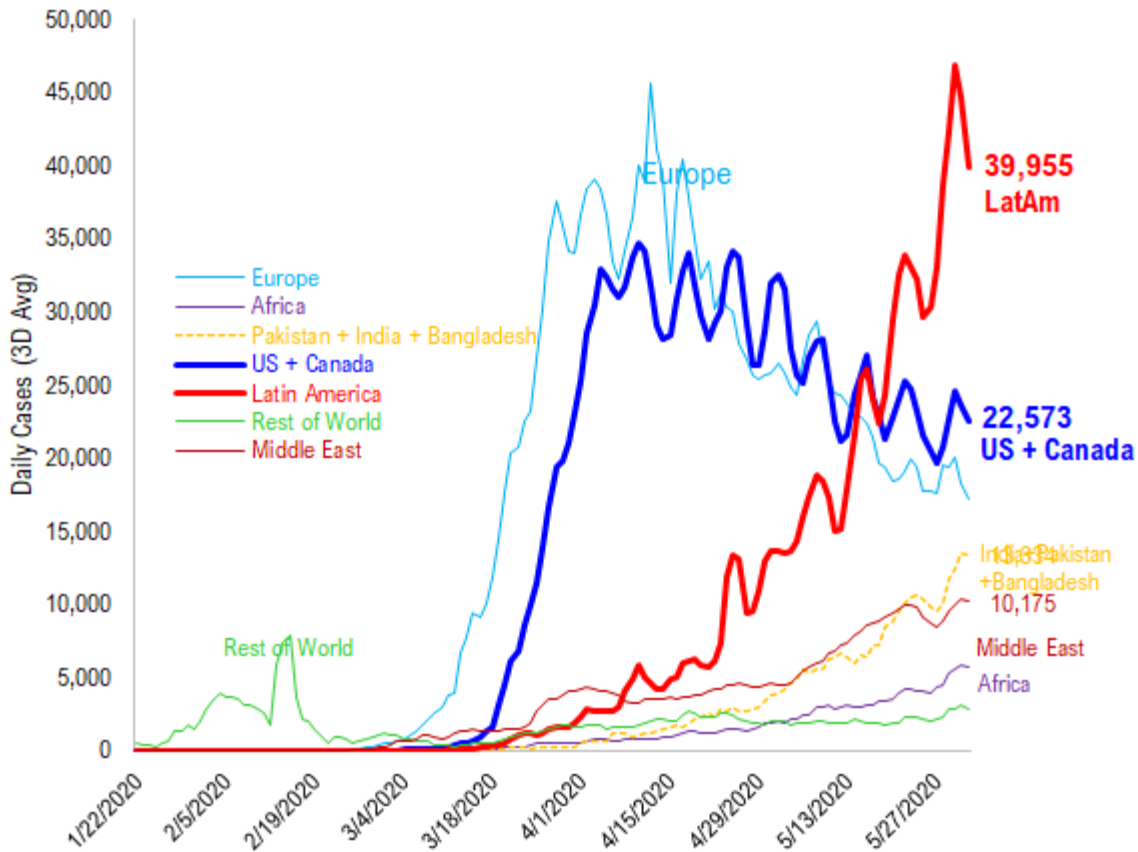
- The % share of daily COVID-19 global cases is shown below. And as we annotated, the largest share of COVID-19 cases is not seen in Latin America. The share of Latin America cases vs RoW is meaningfully higher.



Source: Johns Hopkins data

Latin America daily cases ~40,000 per day are 2X the US...

In reported daily cases, Latin America is reporting about 40,000 cases per day (2X USA) with Brazil representing half of that total. Brazil is 1.8X larger than the US and its daily case numbers are already well above the US.



Source: Johns Hopkins data

The same four nations dominate case growth in Latin America -- Brazil, Peru, Chile and Mexico. These four nations account for 75% of all reported cases. And have nearly 900,000 confirmed cases in total. The region as a whole should be exceeding 1 million cases by next week.

- Brazil and Peru have reported lower cases today vs 1-2D ago (see table) and so it could be possible they are past peak cases.
- But 1 or 2 or even 7 days is hardly sufficient to judge a peak. This was an issue in the US.

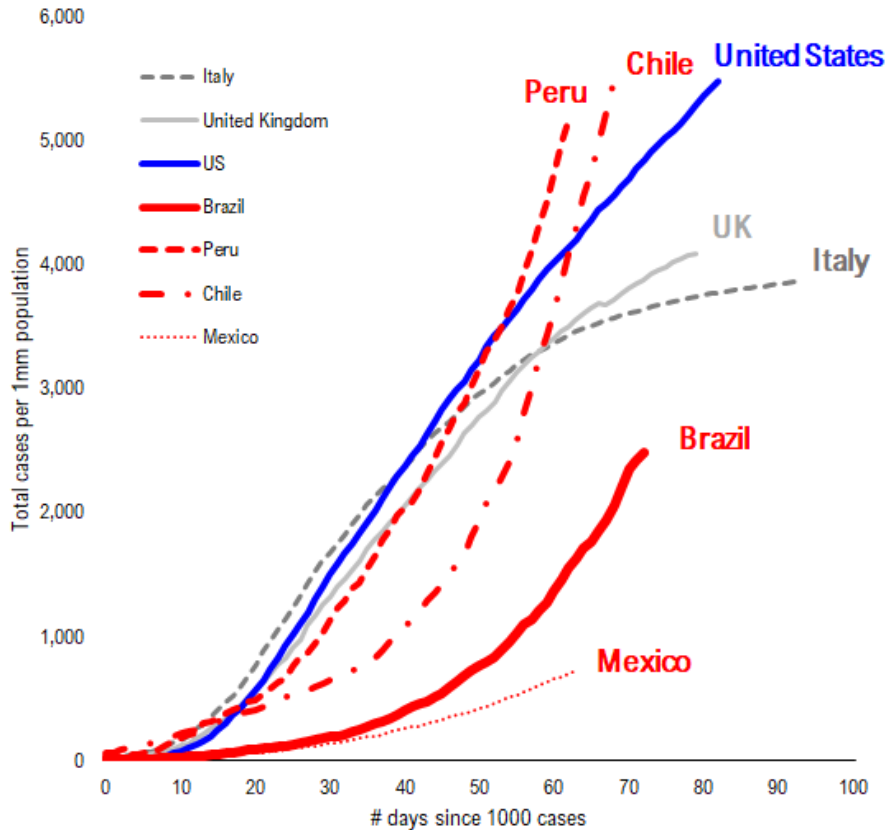
| Country | Population | Total Cases | #Cases per 1mm Residents | New Cases | New Cases (3D Avo) | New Cases per 1mm (3D Avg) | #Death | #Death per 1mm Residents | Mortality Rate | Peak Daily Cases | | # Days Since Peak | |
|-------------------------------------|-------------|-------------|--------------------------|-----------|--------------------|----------------------------|--------|--------------------------|----------------|------------------|---------|-------------------|---------------------|
| | | | | | | | | | | Date | # Cases | | % Decline from Peak |
| 1 Brazil | 212,559,417 | 526,447 | 2,477 | 11,598 | 20,427 | 96 | 29,937 | 140.8 | 5.7% | 5/30/20 | 33,274 | -65% | 2 |
| 2 Peru | 32,971,854 | 170,039 | 5,157 | 5,563 | 7,251 | 220 | 4,634 | 140.5 | 2.7% | 5/31/20 | 8,805 | -37% | 1 |
| 3 Chile | 19,116,201 | 105,158 | 5,501 | 5,470 | 4,840 | 253 | 1,113 | 58.2 | 1.1% | 6/1/20 | 5,470 | - | - |
| 4 Mexico | 128,932,753 | 93,435 | 725 | 2,771 | 2,936 | 23 | 10,167 | 78.9 | 10.9% | 5/27/20 | 3,463 | -20% | 5 |
| 5 Colombia | 50,882,891 | 29,384 | 577 | 2,165 | 1,326 | 26 | 963 | 18.9 | 3.3% | 6/1/20 | 2,165 | - | - |
| 6 Argentina | 45,195,774 | 17,415 | 385 | 564 | 665 | 15 | 556 | 12.3 | 3.2% | 5/30/20 | 795 | -29% | 2 |
| 7 Bolivia | 11,673,021 | 10,531 | 902 | 549 | 600 | 51 | 343 | 29.4 | 3.3% | 5/30/20 | 861 | -36% | 2 |
| 8 Panama | 4,314,767 | 13,837 | 3,207 | 374 | 435 | 101 | 344 | 79.7 | 2.5% | 5/30/20 | 487 | -23% | 2 |
| 9 Dominican Republic | 10,847,910 | 17,572 | 1,620 | 287 | 347 | 32 | 502 | 46.3 | 2.9% | 5/9/20 | 506 | -43% | 23 |
| 10 Guatemala | 17,915,568 | 5,336 | 298 | 249 | 243 | 14 | 116 | 6.5 | 2.2% | 5/24/20 | 370 | -33% | 8 |
| 11 Haiti | 11,402,528 | 2,226 | 195 | 102 | 214 | 19 | 45 | 3.9 | 2.0% | 5/30/20 | 281 | -64% | 2 |
| 12 Honduras | 9,904,607 | 5,362 | 541 | 160 | 203 | 21 | 217 | 21.9 | 4.0% | 5/24/20 | 473 | -66% | 8 |
| 13 Ecuador | 17,643,054 | 39,098 | 2,216 | 0 | 176 | 10 | 3,358 | 190.3 | 8.6% | 4/24/20 | 11,536 | -100% | 38 |
| 14 El Salvador | 6,486,205 | 2,582 | 398 | 65 | 101 | 16 | 46 | 7.1 | 1.8% | 5/31/20 | 122 | -47% | 1 |
| 15 Venezuela | 28,435,940 | 1,662 | 58 | 152 | 97 | 3 | 17 | 0.6 | 1.0% | 6/1/20 | 152 | - | - |
| 16 Paraguay | 7,132,538 | 995 | 140 | 9 | 26 | 4 | 11 | 1.5 | 1.1% | 5/9/20 | 126 | -93% | 23 |
| 17 Cuba | 11,326,616 | 2,083 | 184 | 38 | 26 | 2 | 83 | 7.3 | 4.0% | 5/2/20 | 74 | -49% | 30 |
| 18 Costa Rica | 5,094,118 | 1,084 | 213 | 28 | 21 | 4 | 10 | 2.0 | 0.9% | 4/9/20 | 37 | -24% | 53 |
| 19 Suriname | 586,632 | 44 | 75 | 21 | 11 | 18 | 1 | 1.7 | 2.3% | 6/1/20 | 21 | - | - |
| 20 Jamaica | 2,961,167 | 588 | 199 | 2 | 4 | 1 | 9 | 3.0 | 1.5% | 4/15/20 | 52 | -96% | 47 |
| 21 Uruguay | 3,473,730 | 825 | 237 | 2 | 3 | 1 | 23 | 6.6 | 2.8% | 3/27/20 | 36 | -94% | 66 |
| 22 Guyana | 786,552 | 153 | 195 | 0 | 1 | 1 | 12 | 15.3 | 7.8% | 3/22/20 | 12 | -100% | 71 |
| 23 Trinidad and Tobago | 1,399,488 | 117 | 94 | 0 | 0 | 0 | 8 | 5.7 | 6.8% | 3/21/20 | 40 | -100% | 72 |
| 24 Antigua and Barbuda | 97,929 | 26 | 265 | 0 | 0 | 3 | 3 | 30.6 | 11.5% | 4/3/20 | 6 | -100% | 59 |
| 25 Saint Kitts and Nevis | 53,199 | 15 | 282 | 0 | 0 | 0 | 0 | 0.0 | 0.0% | 3/30/20 | 5 | -100% | 63 |
| 26 Belize | 397,628 | 18 | 45 | 0 | 0 | 0 | 2 | 5.0 | 11.1% | 4/13/20 | 4 | -100% | 49 |
| 27 Grenada | 112,523 | 23 | 204 | 0 | 0 | 0 | 0 | 0.0 | 0.0% | 3/26/20 | 6 | -100% | 67 |
| 28 Dominica | 71,986 | 16 | 222 | 0 | 0 | 0 | 0 | 0.0 | 0.0% | 3/25/20 | 5 | -100% | 68 |
| 29 Saint Vincent and the Grenadines | 110,940 | 26 | 234 | 0 | 0 | 0 | 0 | 0.0 | 0.0% | 5/28/20 | 7 | -100% | 4 |
| 30 Saint Lucia | 183,627 | 18 | 98 | 0 | 0 | 0 | 0 | 0.0 | 0.0% | 3/29/20 | 6 | -100% | 64 |
| 31 Nicaragua | 6,624,554 | 759 | 115 | 0 | 0 | 0 | 35 | 5.3 | 4.6% | 5/26/20 | 480 | -100% | 6 |
| 32 Barbados | 287,375 | 92 | 320 | 0 | 0 | 0 | 7 | 24.4 | 7.6% | 4/2/20 | 12 | -100% | 60 |
| 33 Bahamas | 393,244 | 102 | 259 | 0 | 0 | 0 | 11 | 28.0 | 10.8% | 4/1/20 | 7 | -100% | 61 |
| Average | 19,678,071 | 31,729 | 837 | 914 | 1,211 | 28 | 1,593 | 29.5 | 3.9% | | | -73% | 33 |
| Median | 6,486,205 | 1,084 | 259 | 21 | 26 | 4 | 23 | 7.1 | 2.8% | | | -94% | 30 |
| Total | 649,376,336 | 1,047,068 | 1,612 | 30,169 | | | 52,573 | | 5.0% | | | | |

Source: Johns Hopkins data

Peru and Chile prevalence curves are much steeper than the US (cases per 1mm residents)

We rebased the case counts for the four major LatAm nations, based on the day they reached 1,000 cases. And to further improve comparability, we used cases per 1mm residents.

- Peru and Chile have seen cases per 1mm surge well past the US in fewer days as well.
- Both countries still show quite a steep slope and thus, the prevalence in these nations will likely exceed the US.
- Brazil's case count slope looks like it might have "kinked" recently, and hopefully case growth slows.



Source: Johns Hopkins data

If LatAm is the new epicenter, US essentially will be “exporting” COVID-19 healthcare and technology solutions

Interestingly, if Latin America is the new epicenter for COVID-19, then the US could become an exporter of COVID-19 solutions. We are simply just observing that the US has the most cases in the world. And thus, dedicated the most resources to solving the problems. Now these solutions will potentially be exported (profits). The solutions being:

- healthcare regimens;
- testing solutions;
- equipment and PPE;
- sanitation expertise;
- contact tracing;
- work from home technology;
- manufacturing processes;

So the economic burden of COVID-19 is mitigated in the US, to an extent, by offering these solutions to the rest of the World.

STRATEGY: The VIX fell to 10 week low of 27 and a move below 20 would represent a massive risk-on confirmation

The VIX has been rallying and made a pretty decline today, falling 1.5 points to 27 (below) and the lowest close since early March. In fact, as the 1-yr chart below shows, there is a huge gap.

- Pre-COVID-19 panic, the VIX was <20;
- Post-COVID-19 panic, the VIX is >30;

The current 27 is in the middle-ish. The "no man's land" but it is falling. And if this falls towards 20, this would be a significant risk-on confirmation. For the most part, we find many of our clients skeptical of the rise in equities. And as such, they see this move largely as a result of Central bank liquidity. This could be the case. But there has been massive central bank liquidity in Europe and Japan for much longer and even larger size, and those equity markets have not outperformed the US.



Source: Bloomberg.

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