

THE VIRAL ECONOMY™

PERSONAL AND FINANCIAL
HEALTH DURING COVID-19

BEDDING DOWN

A STRATEGIC NEWS SERVICE®

EXCLUSIVE PUBLICATION





The Viral Economy

Week of June 22, 2020
Part 18

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OVERVIEW: BEDDING DOWN

By Evan Anderson

Publisher's Note: *Since February, we have provided you with these weekly updates free of charge. We hope that they've helped you to navigate these very difficult times. When we started, it was not yet clear how the coronavirus pandemic would progress. Given the global missteps in response and ongoing complications, the world will clearly be dealing with the ongoing spread of COVID-19 for some years to come. To*

date, you have received 17 free issues of The Viral Economy. However, adding a permanent publication to our workload requires resources. Starting with Issue 19, in one week, we will begin charging for this series.

Current readers and Standard SNS members can sign up now for \$14.99 / month, a 40% discount from the public price of \$24.99 / month. Premium SNS Members will continue to receive The Viral Economy free of charge (no action required).

We want to thank you all for reading, and for helping us to continue covering these critical issues.

Standard-level SNS subscribers: **This is your last free issue.**
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The Ladder Up

In last week's issue, we discussed some of the reasoning behind lockdowns. Of note was the fact that they were intended to provide a time buffer allowing us to expand infrastructure, from PPE manufacturing to pharmaceutical supplies to hospital capacity, around the world. Hospital capacity has not greatly expanded as of yet (it is a high-cost, long-term project). This week, we are beginning to see how far the US is from being ready for the next surge.

"In the hard-hit Houston region, hospitals have begun moving coronavirus patients from crowded ICUs to other facilities. A local children's hospital said this week it is admitting transfer patients, with and without the virus, to help other facilities manage their capacity. 'We appear to be near the tipping point,' Dr. Marc Broom, head of the Houston Methodist hospital system, wrote in an email to employees Friday. 'Should the number of cases grow too rapidly, it will eventually challenge our ability to treat both COVID-19 and non-COVID-19 patients.'" –Texas Tribune

Since last week, a number of states have begun hitting daily highs of new case numbers that vastly exceed what we have seen previously outside of a few Northeastern hotspots. Notably, Arizona, California, Florida, Georgia, Louisiana, South Carolina, and Texas are all recording thousands of new cases each day. California neared 7,000 cases per day early this week, while Arizona, Florida, and Texas are all hanging in the 3,000-5,000 range.

It is hardly surprising that a combination of the country's most populous and least locked-down states are experiencing such rises. But what is their capacity to address them?

On Capacity and Current Trends

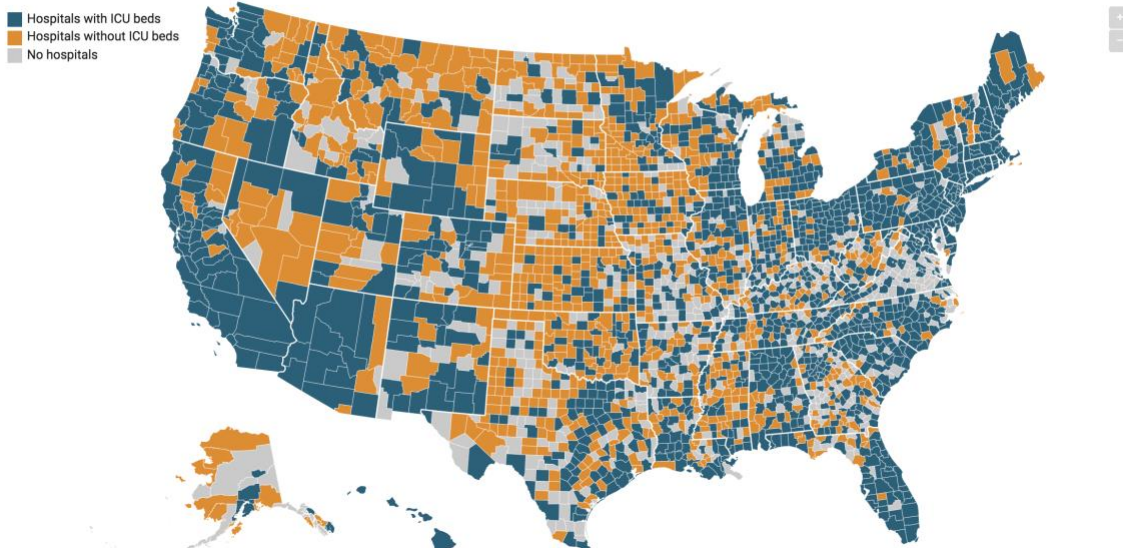
In general, hospitals around the United States [range from operating at between roughly 50% and 70% capacity](#) (rural and urban, respectively) in a normal year. This means that during a crisis (unless others

are forcibly discharged from a facility), the remaining capacity is available for a surge, with a supposed added ICU capacity of 20%, which is federally mandated. As many COVID patients require ICU beds, in locales with rising numbers the first question is, What is the ICU capacity?

The below map, courtesy of Kaiser, shows a total lack of ICU capacity in orange. [Accessible here](#), the interactive tool shows that many rural hospitals lack any ICU capacity at all. Indeed, many counties have no hospitals, as shown in gray.

Where The ICU Beds Are

More than half of counties have no hospital ICU beds, a growing concern as the novel coronavirus spreads throughout the nation. This map shows counties with no hospitals, counties with hospitals but no ICU beds, and counties that do have ICU beds. You can scroll over the map or, better yet, do a more comprehensive search on [KHN's interactive table](#), where you can search by either county or state.

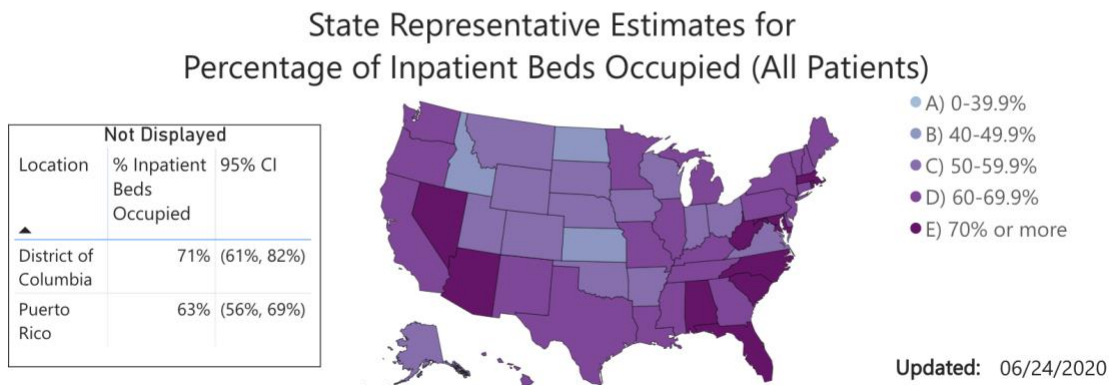


Note that Idaho, Mississippi, Montana, Nevada, Texas, Utah, and Wisconsin are experiencing rising case counts (readers can refer to the *Viral Economy* weekly state map at the end of this section) with limited ICU capacity. The same goes for parts of some states, including eastern Oregon and eastern Washington, which adds the necessity for complex patient transfers during any surge.

Of our states with massive surges, California, Arizona, Texas, Florida, South Carolina, and Georgia all have strong hospital systems with high capacity. So how are they performing so far?

The below map from CDC shows capacity statewide.

State Representative Estimates for Percentage of Inpatient Beds Occupied (All Patients)



Again, the [interactive tool](#) reveals a bit more nuance. Of the states over 70%, none shows more than 75% occupancy of inpatient beds, slightly higher than an average urban hospital. There are reports, however, of capacity running out, so what gives?

Surges and Specifics

The statewide picture, however, does not tell the whole story. In my home state of Washington, for example, Yakima County in the eastern part of the state ran out of ICU beds some days ago, and neighboring counties are getting close to that point, while western Washington remains far from capacity. Unfortunately, a drive across a mountain pass is required to move excess patients to open beds in Seattle.

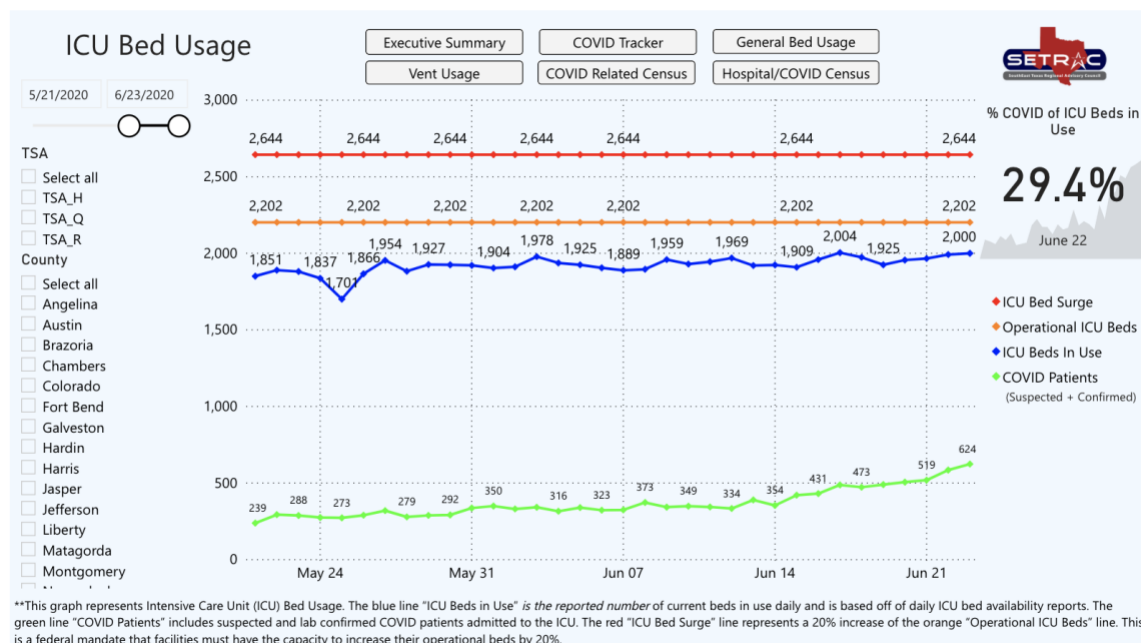
Similarly, across the states currently struggling with capacity there is also an uneven distribution of case surges. Any large surge in a rural area will quickly overrun local capacity. Troublingly, large urban hospitals in hard-hit areas are already nearing capacity, meaning rural overflows will have nowhere to go. As hospitalized COVID-19 patients can spend a month or more undergoing treatment, beds also do not turn over as fast as they would have pre-pandemic.

In California, hospitals in most counties - even cities - still have somewhere in the neighborhood of [30%-40% of their ICU capacity available](#). While the state's rapidly rising cases may change this, capacity is not yet at a critical level. Arizona, Texas, and Florida, however, are not so fortunate.

In Arizona, state health authorities report that [88% of ICU beds are in use](#), and that number is rising. The state reports the total number as 1,472, implying that roughly 1,700 beds exist, with about 230 available. With close to 4,000 new cases a day, and 7% - or 280 - requiring hospitalization, the state clearly cannot hold out for much longer at these rates. If too many of those patients need an ICU bed, Arizona has days, not weeks or months, before patients are left on the hospital floor. With an aged population implying greater risk of severe cases, this is not a distant reality, but a near-certainty at this stage.

Nor can Florida hold out for long. With 3,000-4,000 new cases a day, ICUs are rapidly filling, with northern Nassau County already at 100% and a number of western counties in the 90% range. Strangely enough, [data is unavailable for Dade County](#), though the state's [COVID tracker](#) shows the area as being hard-hit (the tracker does not have a metric for hospital capacity), and there are reports of some [local hospitals running out of room](#).

In Texas, state health authorities reported hospitalizations jumped from 2,500 to 4,000 in the week of June 15-June 22. The last two days have reportedly been even worse, though the state hasn't published numbers yet. With almost 1,500 ICU beds and 14,000 general-use beds available, Texas appears better off. But zooming-in shows problem areas.



The above chart is for Houston specifically. With climbing patient numbers, the relatively flat current ICU usage will likely begin to increase. There are only 200 extra ICU beds left in a city of 2.3 million, with the supposed surge capacity adding roughly 440 more. In short, if 1,000 people in Houston became gravely ill, or the surrounding counties ran out of beds, such a surge would still quickly overwhelm capacity in one of the world's largest hospital systems.

Texas is now reinstating a soft lockdown, with Governor Abbott noting Tuesday: "We want to make sure that everyone reinforces the best safe practices of wearing a mask, hand sanitization, maintaining safe distance, but importantly, because the spread is so rampant right now, there's never a reason for you to have to leave your home.... Unless you do need to go out, the safest place for you is at your home."

What to Do

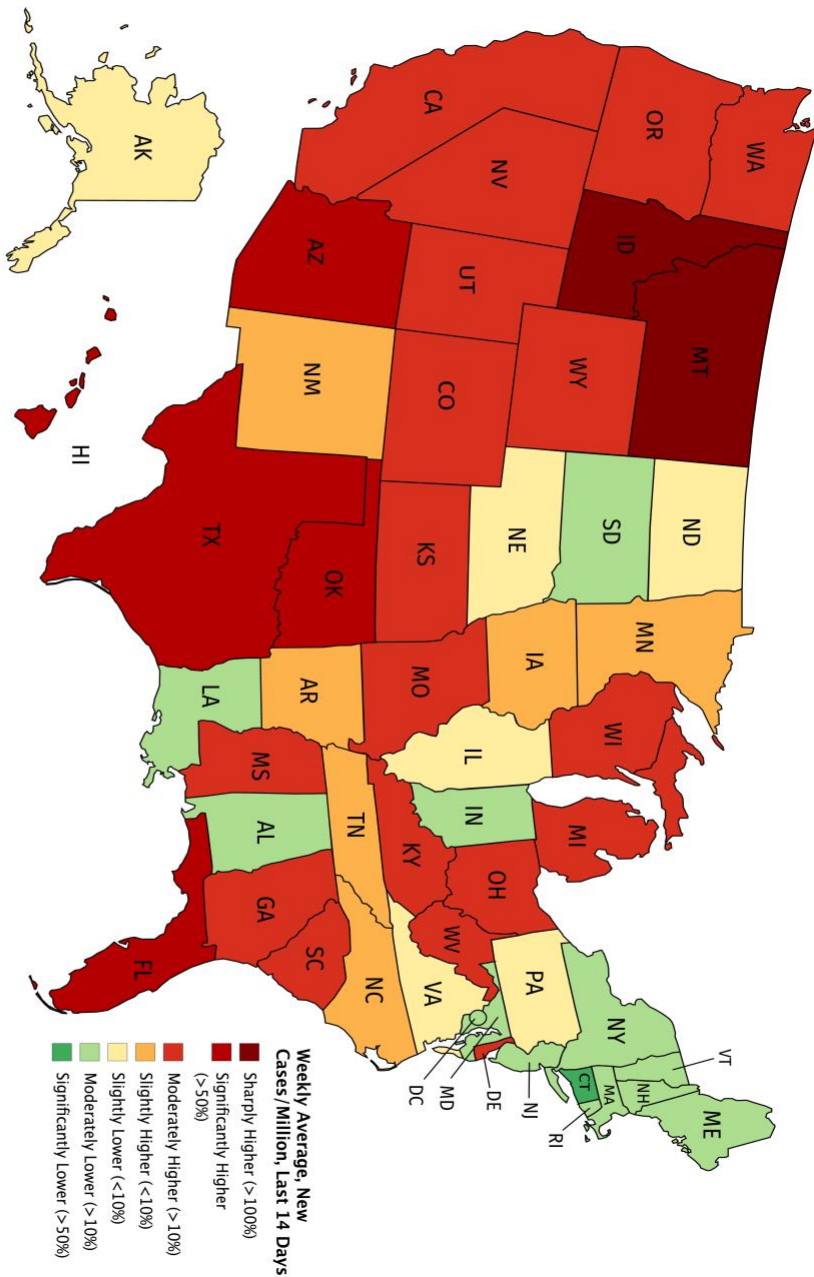
With the behavior that led to these surges already far in the past, Arizona, Florida, Georgia, South Carolina, and Texas are all now locked into rising case counts for some time to come. The only way to avoid massive hospital overload is to enact strong rules for mask-wearing and distancing, while continuing to try to bolster contact-tracing and quarantine, and helping hospitals get the resources they need to deal with surges.

This does not mean the whole country has to go back to lockdowns. Texas is now learning the true cost of pushing early-opening strategies without careful attempts to change behavior. If other states take this lesson, bolster hospital capacity (including placing field hospitals in areas that will clearly need them), and work hard now to adjust citizen behavior toward a virus-conscious approach, re-opening does not have to stop.

If things continue as they have so far, with citizens and politicians alike ignoring public health recommendations, the tragic experiences of some states, some cities, and some counties will eventually become the American experience writ large.

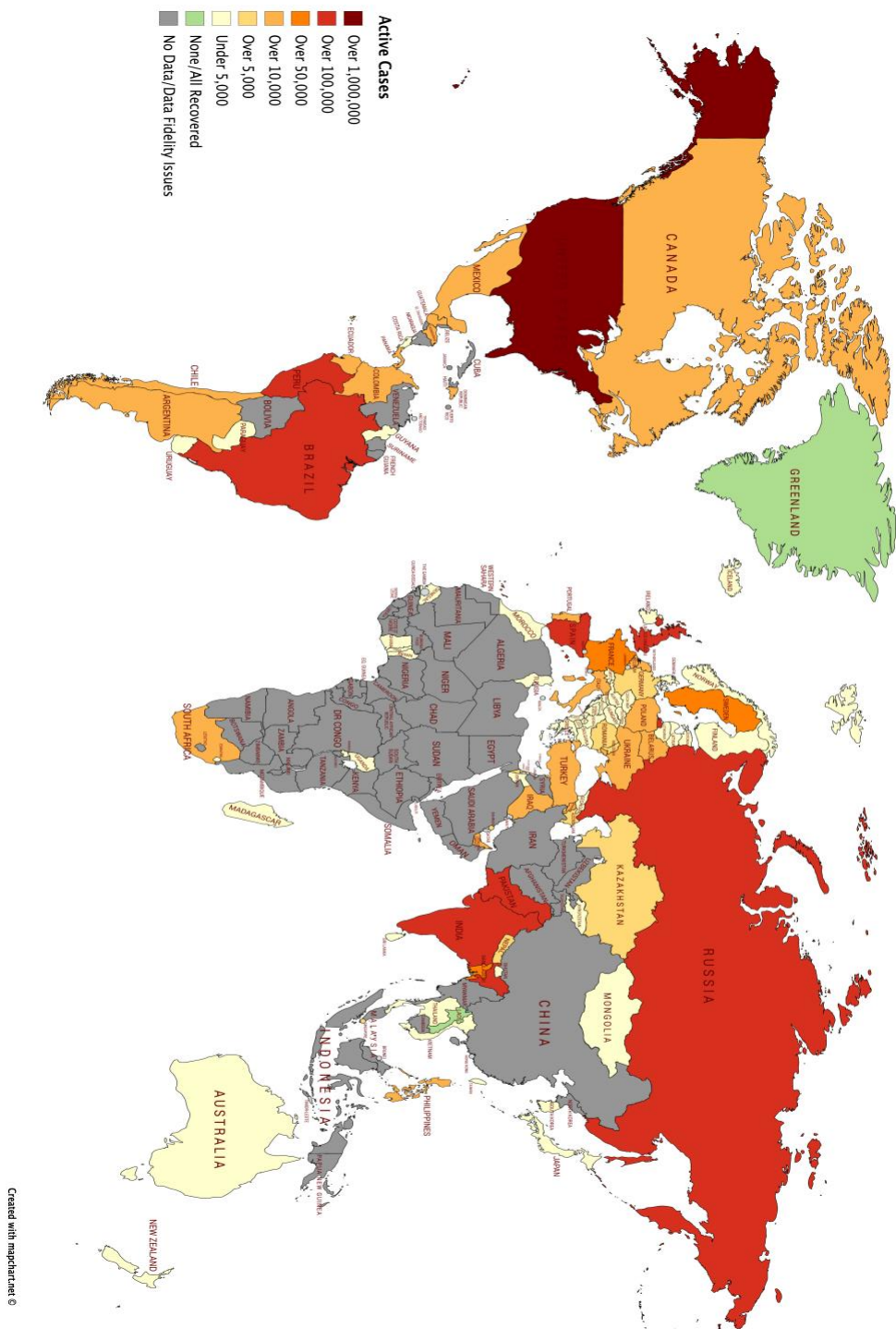
If we want to [be allowed to enter Europe anytime soon](#), we should advocate sensible public health measures, including mandatory mask policies, wherever we live. A brighter future during the pandemic is always possible if we collectively commit to the basics. (Instead, as of Wednesday, the US administration has followed through on [the president's threat to limit funding for testing](#), including in hard-struck Texas, a move that is hard to interpret as anything but homicidal.

Trending: U.S. States by Percentage Increase in New Cases/Million (Weekly average, new daily cases/million population, last 14 days)



Created with mapchart.net ©

Reported Active Cases by Country (Excluding those with fewer than 1,000 tests/million or that score lower than 6 on the CATO Institute Human Freedom Index)



Severity

Beginning with the June 17, 2020, issue we have replaced some metrics with others more useful in the short term. Instead of R_0 , which smooths out super-spreader events and is most useful in the long term, we are currently reporting percentage change in active global cases. Case fatality rate (CFR) has been removed, as without clean, full international data it cannot be calculated accurately.

1. Total Confirmed Cases

The official number of reported confirmed cases, as of press time (per Johns Hopkins).

2. Global Active Cases

The number of people worldwide infected and unrecovered.

3. Global Recoveries

Based on the latest guidance from Imperial College London's COVID-19 Response Team.

June 24, 2020

Total Confirmed Cases:

9,412,381

Global Active Cases: 3,846,341

Global Recoveries: 5,084,945

Official Death Count:

481,095

Most-Affected Regions

Countries / regions experiencing the highest deaths per million

1. San Marino (1,238)	11. St. Maarten (350)	21. Montserrat (200)
2. Belgium (839)	12. Ireland (348)	22. Mexico (181)
3. Andorra (673)	13. Isle of Man (282)	23. Luxembourg (176)
4. UK (635)	14. Channel Islands (270)	24. Portugal (151)
5. Spain (606)	15. Peru (255)	25. Bermuda (145)
6. Italy (573)	16. Brazil (248)	26. Armenia (130)
7. Sweden (511)	17. Ecuador (242)	27. N. Macedonia (124)
8. France (455)	18. Chile (236)	28. Panama (124)
9. USA (374)	19. Switzerland (226)	29. Moldova (123)
10. Netherlands (356)	20. Canada (224)	30. Iran (119)

In Summary

Case surges are beginning to explode across certain US states, with hospital capacity in both ICU and non-ICU categories falling quickly in heavily affected areas. The return of lockdowns is beginning to show as local governments, at a loss as to what else to do, turn to ratcheting down new mobility in an attempt to stem the tide.

Markets, for once, are responding slightly, with drops across the board beginning Tuesday. More important, the Fed is already easing off its monetary stimulus. The combination could be powerful, while it remains to be seen whether increased Fed spending will be the immediate result. With case counts far from under control and businesses still struggling, the market drops this publication has called for during the rally are likely imminent.

As we have observed around the globe as of late, markets in Asia and Europe will likely follow those in the US. In Europe, the mixed results (countries like Italy and Germany have largely gotten the virus under control, while the UK, Spain, and France seem to have had limited success at best) will continue to harm the economy as the year wears on.

RECOMMENDATIONS

1. Stay home if possible; we are actively experiencing new highs in the US.
2. Children appear to be susceptible to strange symptoms. Act accordingly.
3. Do not visit hospitals unless absolutely necessary.
4. Expect the current market bump to lose momentum as lower earnings continue to be reported. Despite the Fed's ongoing, multitrillion-dollar injections, the virus continues to spread. Fundamentals are hurting.
5. Wash your hands frequently.
6. Practice social distancing, avoid crowds, and stay 10 feet away from others.
7. Wear a mask when in shared spaces, always.



EVAN ANDERSON is the CEO of INVNT/IP and a senior staff writer at SNS. Infectious-disease epidemiology has been a strong interest since his work with tuberculosis in Haiti.

Appendix:

SNS Severity Tracker for Major Economies

The SNS Virus Severity Tracker© for major economies measures the trajectory of SARS-CoV-2 and its effect on the economy of each of the largest countries (by nominal GDP) whose data can be trusted. Notable exceptions in the top global economies are China, India, and Brazil, whose virus data cannot be trusted for varied reasons, running from lack of press freedom (China, Brazil) to evidence of tampering (China) to a simple lack of testing capabilities and robust medical infrastructure (India).

This tracker uses proprietary Viral and Economic indexes to serve as a guide for the global viral and economic outlook of these countries individually and in combination. The countries tracked represent more than 890 million people generating over \$44 trillion in annual GDP.

Overall SNS Severity Index© Scores Expected Crisis Zones

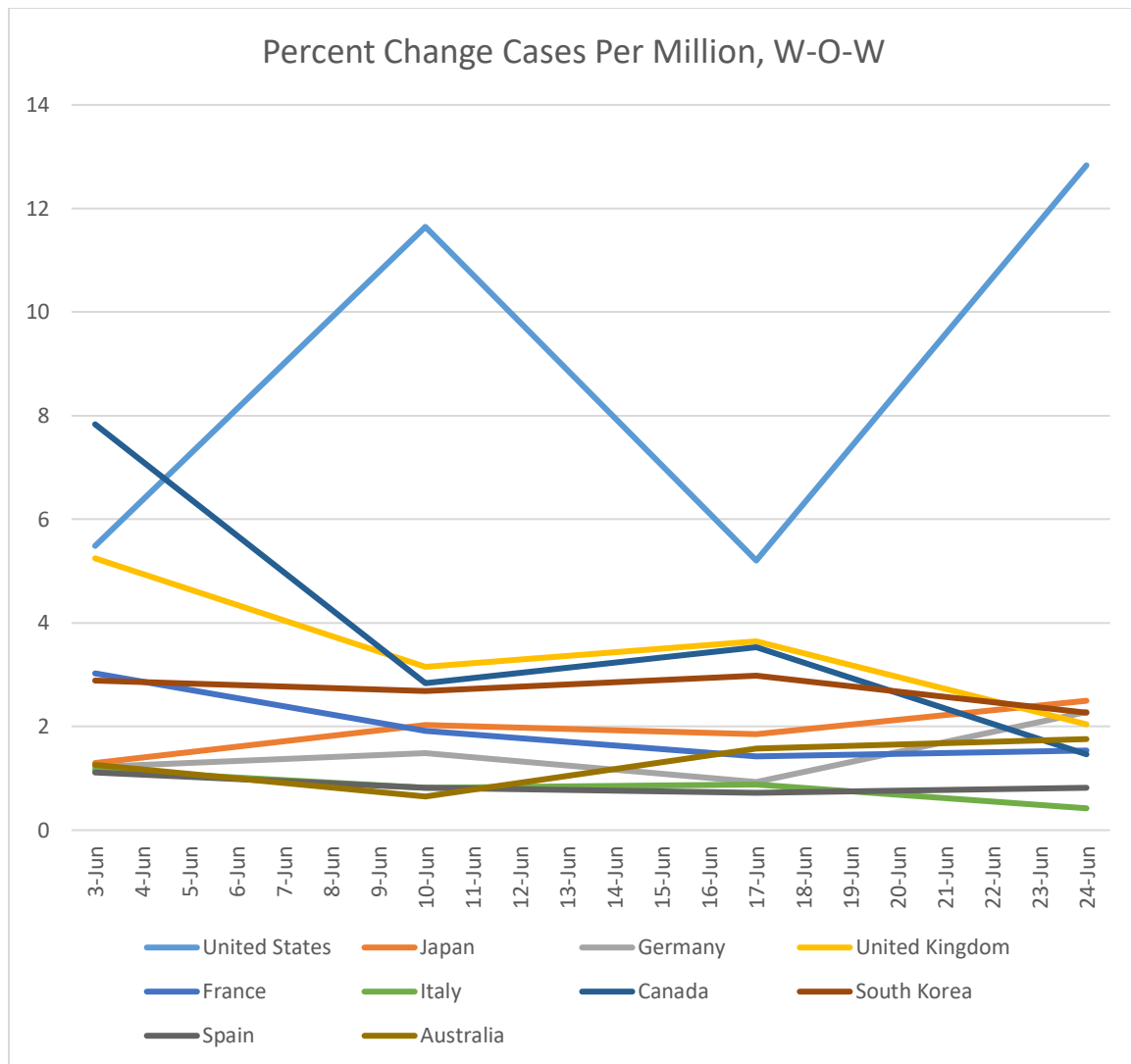
(0=Unaffected, 1=Extremely Severe)

(Hardest-hit regions with data fidelity issues, by current total case count)

Japan (0.04)
South Korea (0.05)
Germany (0.11)
Australia (0.12)
Italy (0.13)
France (0.19)
Canada (0.28)
United Kingdom (0.31)
Spain (0.37)
United States (0.37)

- 1. Brazil (1,152,066)**
- 2. Russia (606,881)**
- 3. India (465,553)**
- 4. Peru (260,810)**
- 5. Chile (250,767)**
- 6. Iran (212,501)**
- 7. Mexico (191,410)**
- 8. Turkey (190,165)**
- 9. Pakistan (188,926)**
- 10. Saudi Arabia (167,267)**
- 11. Bangladesh (122,660)**
- 12. South Africa (106,108)**
- 13. Qatar (90,778)**
- 14. China (83,430)**
- 15. Colombia (73,572)**
- 16. Belarus (59,945)**
- 17. Egypt (58,141)**
- 18. Ecuador (51,643)**

Percent Change, Cases Per Million, Week-Over-Week

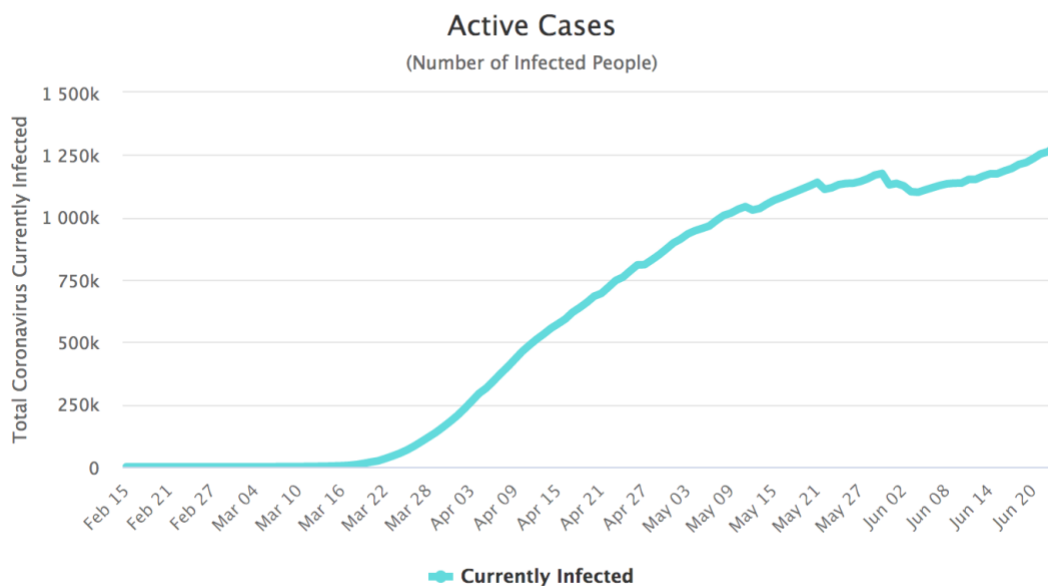


SNS Viral Severity Tracker: The United States

National outlook based on virus severity and economic indicators

Note: The United States showed a marked economic improvement in large part due to the decrease in unemployment figures last week. These figures have come under question, and it is our expectation that unemployment is understated significantly.

Active Cases in the United States



All graphs by Worldometers

SNS Virus Severity Tracker: Japan

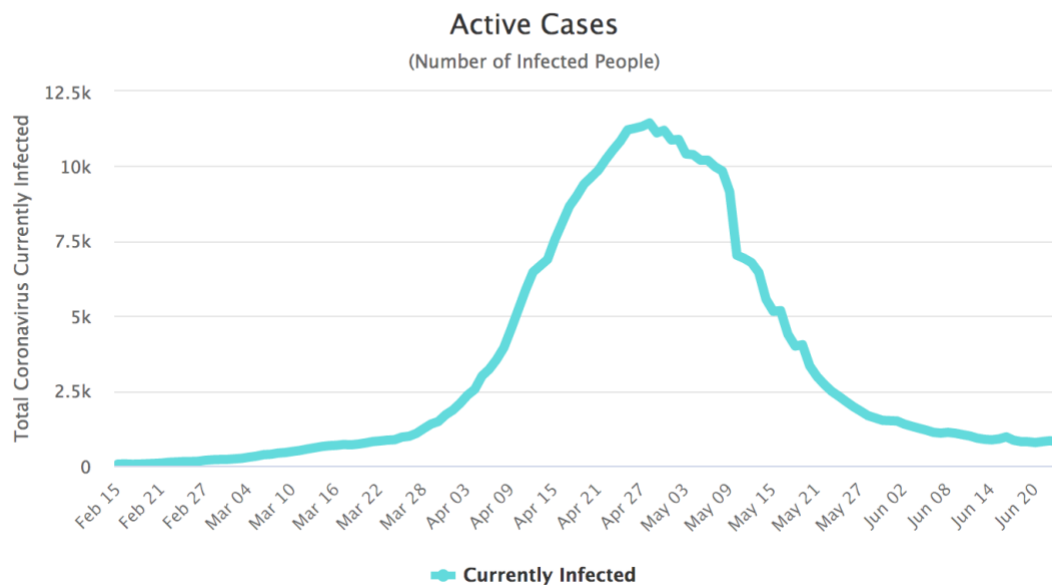
National outlook based on virus severity and economic indicators

Total Score: 0.04

SNS Viral Severity Index Score: 0.03

SNS Economic Severity Index Score: 0.05

Active Cases in Japan



SNS Virus Severity Tracker: Germany

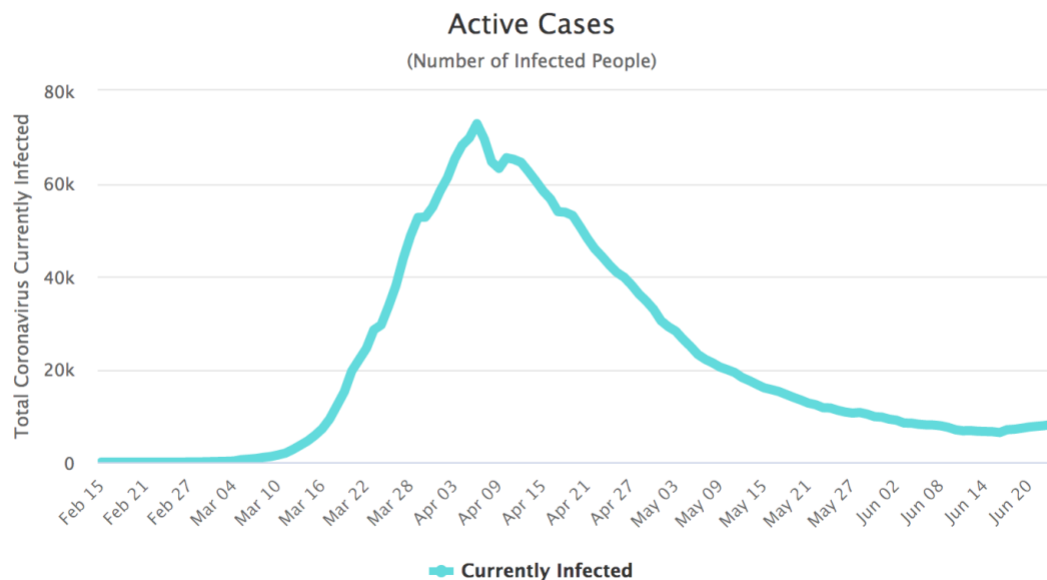
National outlook based on virus severity and economic indicators

Total Score: 0.11

SNS Viral Severity Index Score: 0.03

SNS Economic Severity Index Score: 0.18

Active Cases in Germany



SNS Virus Severity Tracker: United Kingdom

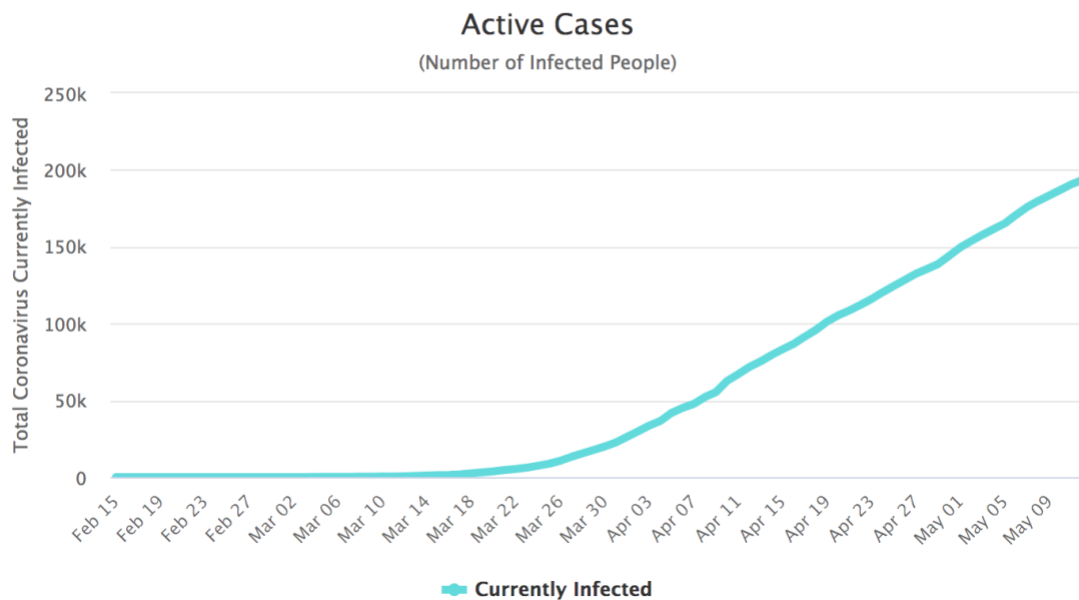
National outlook based on virus severity and economic indicators

Total Score: 0.31

SNS Viral Severity Index Score: 0.46

SNS Economic Severity Index Score: 0.16

Active Cases in the United Kingdom



NOTE: The United Kingdom has ceased to report active cases. Currently the number stands at roughly 262,000, by our count. Steadily rising.

SNS Virus Severity Tracker: France

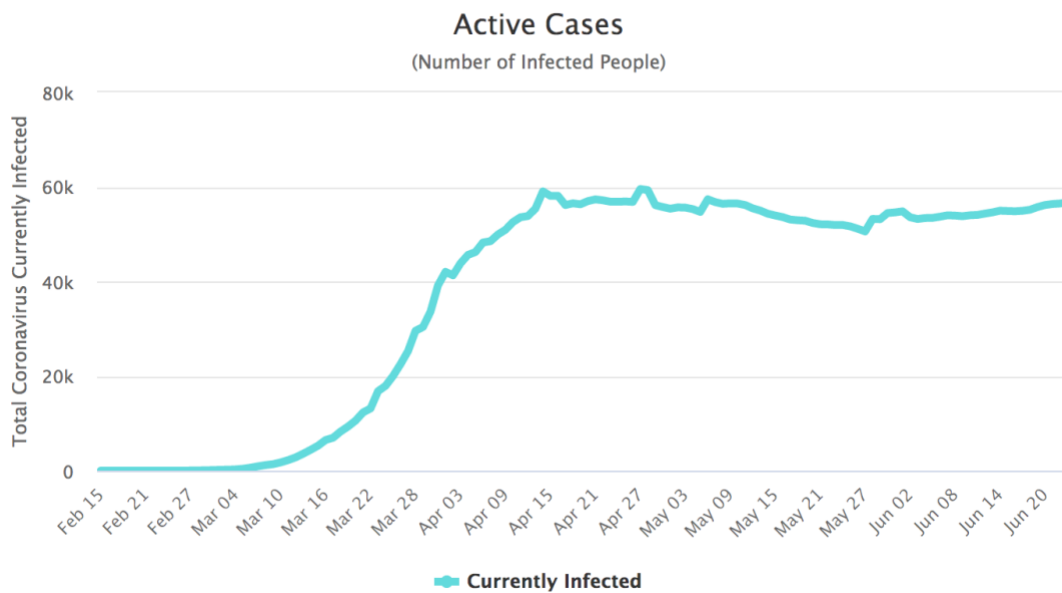
National outlook based on virus severity and economic indicators

Total Score: 0.19

SNS Viral Severity Index Score: 0.13

SNS Economic Severity Index Score: 0.26

Active Cases in France



SNS Virus Severity Tracker: Italy

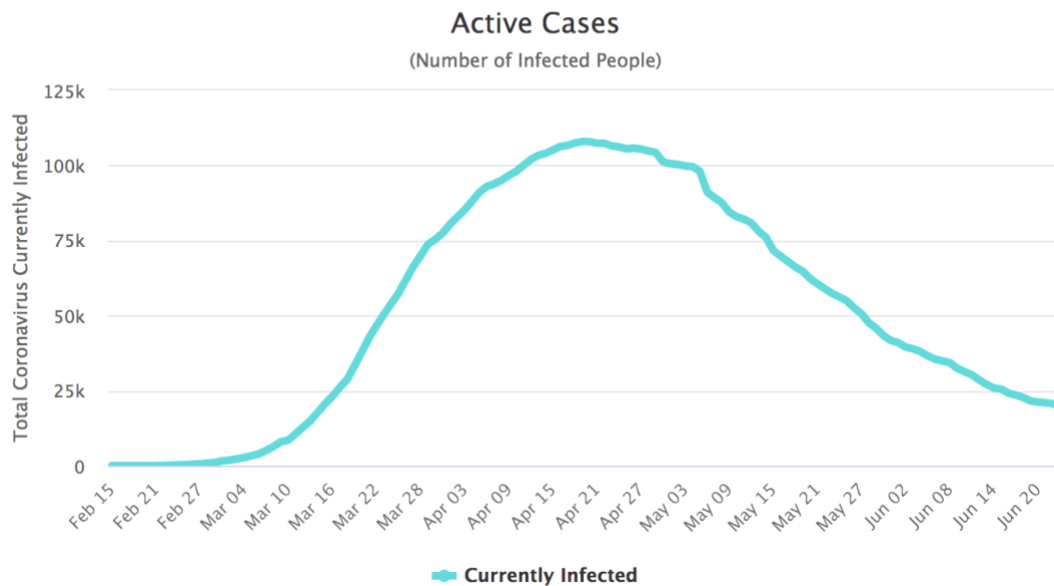
National outlook based on virus severity and economic indicators

Total Score: 0.13

SNS Viral Severity Index Score: 0.06

SNS Economic Severity Index Score: 0.20

Active Cases in Italy



SNS Virus Severity Tracker: Canada

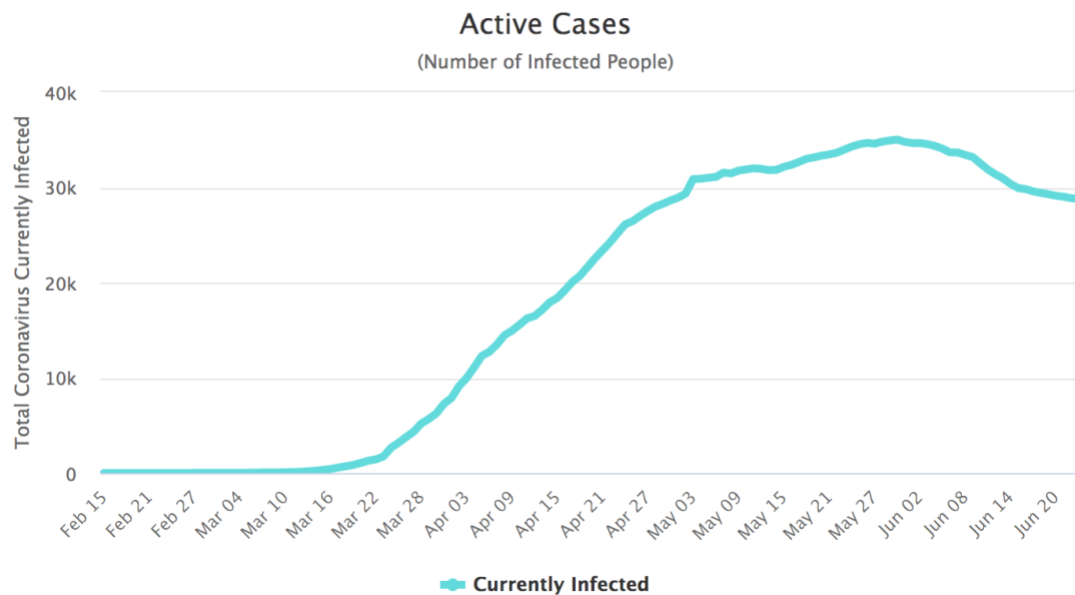
National outlook based on virus severity and economic indicators

Total Score: 0.28

SNS Viral Severity Index Score: 0.07

SNS Economic Severity Index Score: 0.49

Active Cases in Canada



SNS Virus Severity Tracker: South Korea

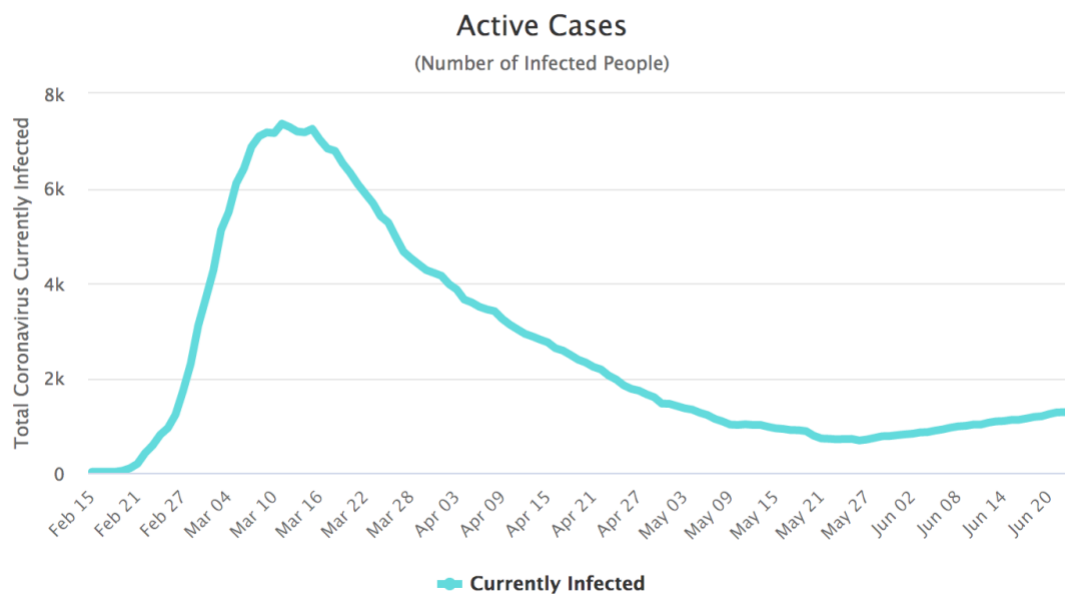
National outlook based on virus severity and economic indicators

Total Score: 0.05

SNS Viral Severity Index Score: 0.02

SNS Economic Severity Index Score: 0.09

Active Cases in South Korea



SNS Virus Severity Tracker: Spain

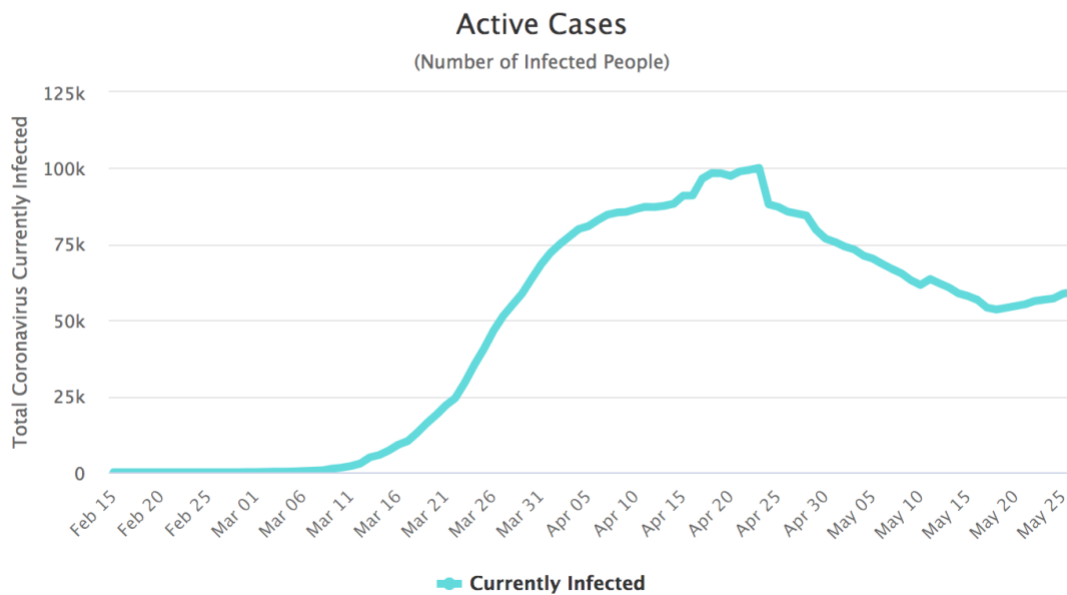
National outlook based on virus severity and economic indicators

Total Score: 0.37

SNS Viral Severity Index Score: 0.14

SNS Economic Severity Index Score: 0.61

Active Cases in Spain



NOTE: Spain has ceased to report active cases. Reported numbers on Worldometers have a large discrepancy with those from Johns Hopkins. Our best estimate now stands at roughly 115,000 (with an assessment that data being reported that informed the above chart was inaccurate). This is a steadily increasing number.

SNS Virus Severity Tracker: Australia

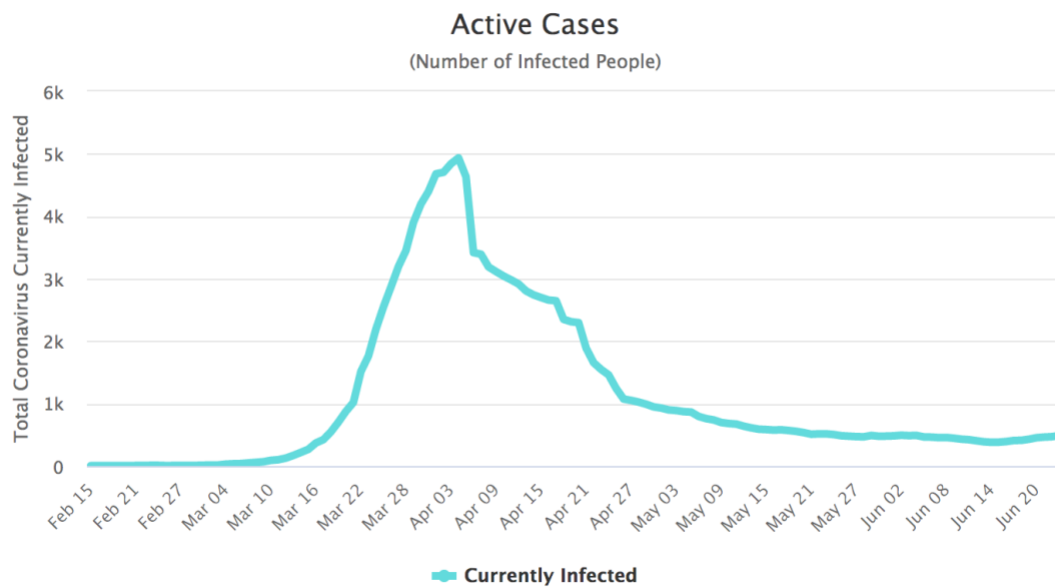
National outlook based on virus severity and economic indicators

Total Score: 0.12

SNS Viral Severity Index Score: 0.01

SNS Economic Severity Index Score: 0.22

Active Cases in Australia



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JUNE 25 | 2:30 PT / 5:30 PM ET

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- Dan Goldin, NASA's longest-running administrator, on "5G: Will the US Step Up or Cede Its Future to China?"
- Peter Warren Singer, *Burn-In* author and foreign policy expert, on "The Real Robotics Revolution," in conversation with journalist & author David Ewing Duncan

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