

THE REAL ECONOMY

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**CURTAILING THE
SECOND WAVE: THE
CASE FOR A STAGGERED
REOPENING OF THE
ECONOMY**

**INDUSTRY SPOTLIGHT: NEW RELIEF IS APPROVED
FOR HOSPITALS, BUT CHALLENGES REMAIN**

**MIDDLE MARKET TREND WATCH: DIGITAL
VULNERABILITIES UNDERSCORED AMID COVID-19**

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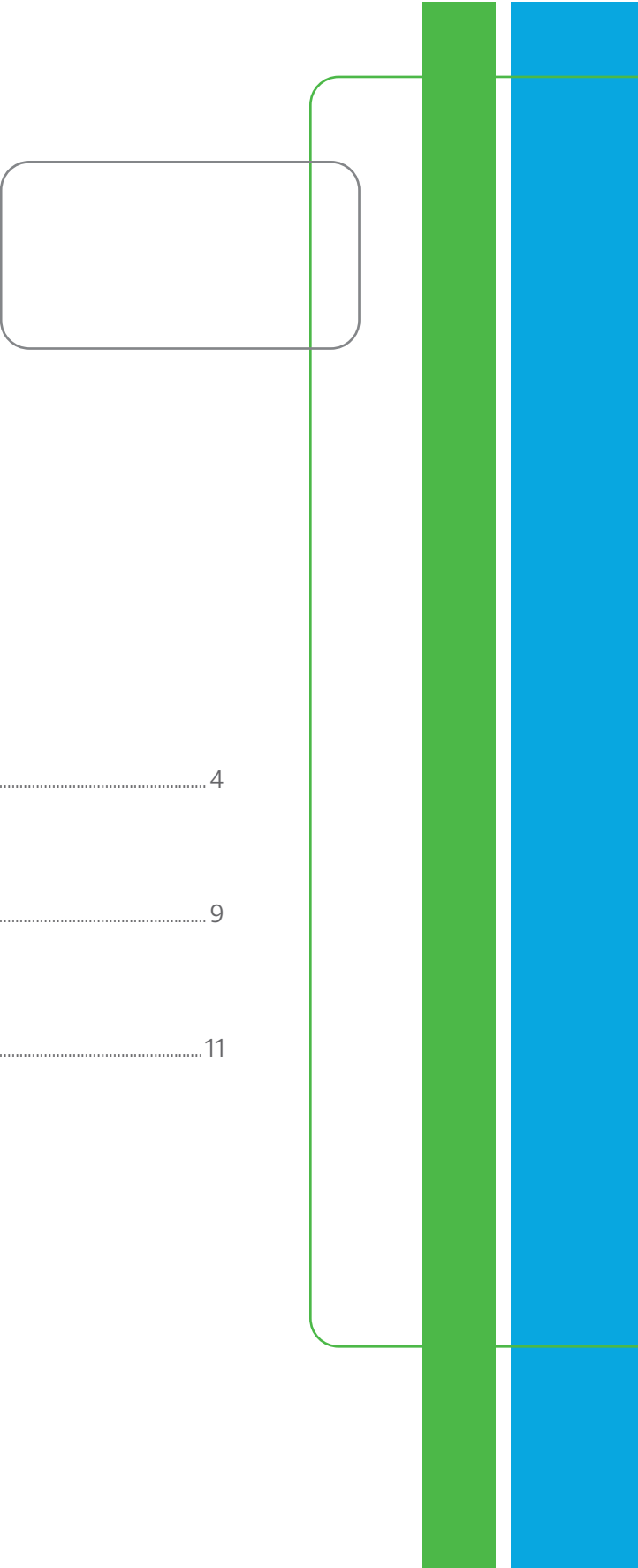


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CURTAILING THE SECOND WAVE: THE CASE FOR A STAGGERED REOPENING OF THE ECONOMY

BY JOSEPH BRUSUELAS

THE UNITED STATES is on target to reach 75,000 deaths from the novel coronavirus as we go to press in the first week of May, with the number of infections set to approach 1.3 million. These figures present a sobering reality; despite the recent incremental decline in newly reported cases, Americans remain at risk of catching the new disease.

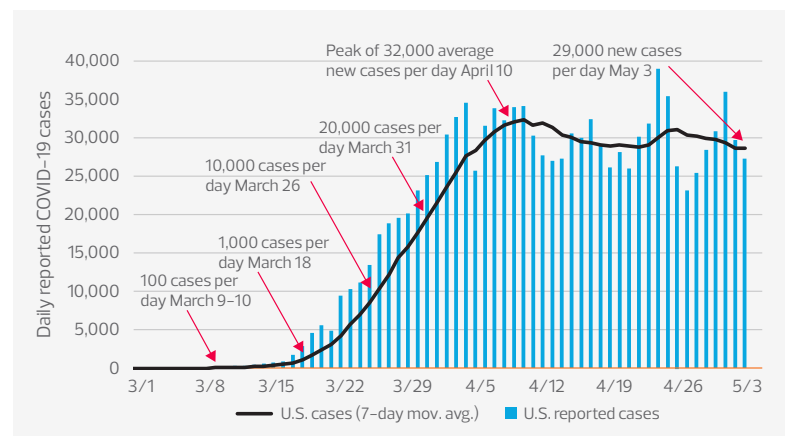
Relaxation of shelter-in-place orders now being implemented by some states presents a clear risk for a second wave of the pandemic, according to epidemiological studies and related research. But with 30 million people joining the ranks of the unemployed since late March, urgency to reopen the U.S. economy is mounting.

The idea of reopening is somewhat of a misnomer. The economy will not return to its prior state all at once, but instead in stops and starts marked by the staggered restart of essential businesses, schools, hospitals and government services. The so-called new normal that will define life amid the ongoing threat of a yet-to-be-cured disease will call for cautious steps, testing, evaluation and retesting.

RSM's mathematical fitted curve model, which identifies the U.S. infection and mortality rates of the coronavirus, provides further insight.

U.S. newly reported coronavirus cases

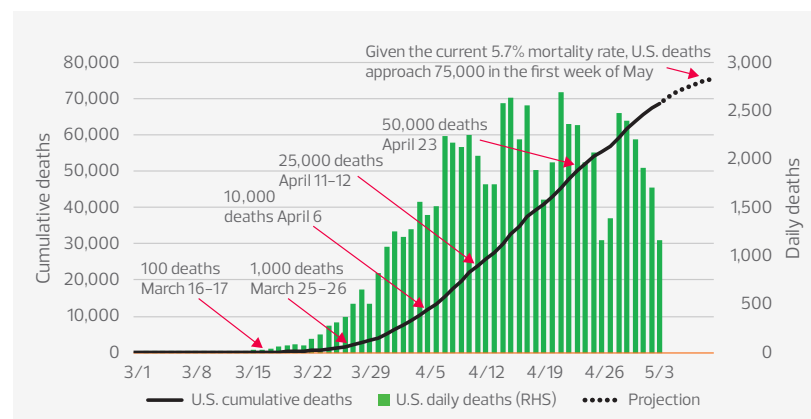
DAILY AND 7-DAY MOVING AVERAGE OF NEWLY REPORTED CASES OF COVID-19 INFECTIONS



Source: Worldometers.info; RSM US LLP

U.S. deaths during the coronavirus outbreak

CUMULATIVE AND REPORTED DAILY DEATHS OF THE COVID-19 VIRUS



Source: Worldometers.info; RSM US LLP

THE SO-CALLED NEW NORMAL THAT WILL DEFINE LIFE AMID THE ONGOING THREAT OF A YET-TO-BE-CURED DISEASE WILL CALL FOR CAUTIOUS STEPS, TESTING, EVALUATION AND RETESTING.

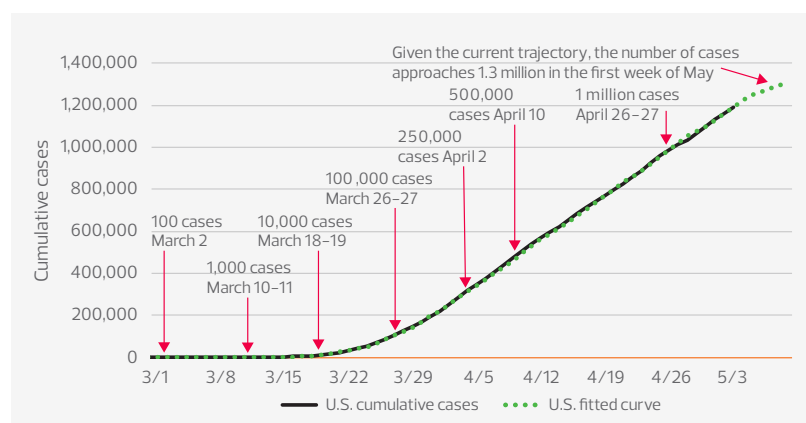
The New York Times has reported on several U.S. pandemic models; most suggest there is a long way to go before the virus and the subsequent deaths are brought to an end.

What we've found interesting in the RSM model is that the parameters of the disease's spread and the morbidity rate change over time, as the public response and the location of the disease move from state to state. For this reason, we are reluctant to predict a long-term course for the infections; it is also why we limit our projections to about a week.

For instance, although the spread of the virus decelerated as the public adopted social distancing practices, the pace of infection could accelerate if more governors attempt to roll back the economic shutdown. The virus's rapid spread in Seattle, considered ground zero for infection in the United States, suggests that just one ill-conceived gathering could re-ignite the spread through other communities.

Actual and hypothetical spread of U.S. COVID-19 cases

CUMULATIVE CASES OF COVID-19 VIRUS FROM FEBRUARY TO MAY 2020



Source: Actual Cases; Worldometers.info; Johns Hopkins/CSSE; Fitted Curve; RSM US LLP

A measured approach to reopening

So when will it be safe and productive to reopen the economy? And how do we get there?

We can use the basic SIR compartmental model of epidemiology to divide the population into three groups:

- S, for those who are susceptible to the virus
- I, for those who are infectious
- R, for those who have recovered

Here's what we know:

First, it's unwise to believe in unproven medical treatments such as the anti-malarial drug, hydroxychloroquine, which until recently was aggressively promoted as a possible treatment. Preliminary results from a recent study of U.S. veterans funded by the National Institutes of Health, and the University of Virginia found "no evidence" that the use of hydroxychloroquine, on its own or in conjunction with other drugs, "reduced the risk of mechanical ventilation in patients hospitalized with COVID-19."

Second, a national and state program of testing is needed—first to determine who is infected and who remains susceptible—the S in the SIR model—so that those people can be isolated, and then to determine if those who have recovered—the R—have developed an immunity that would allow them to safely return to the workforce. At the same time, that test would provide the basis for research that leads to careful distribution of the vaccine so that susceptible people—even if they cannot safely take the vaccine themselves—could reenter the community without fear of infection.

In [an article](#) in the *Journal of the American Medical Association*, the microbiologist, Florian Krammer of Mount Sinai's Icahn School of Medicine in New York, discussed the development of a test and

said, "What we've found with our test is that basically everybody's naïve. There's no preexisting immunity. And that makes it very easy to distinguish between people who have been infected and those who haven't been infected."



Two types of testing: Molecular and antibody

Two types of testing exist. The first is molecular testing (swabs of the mouth and nose) for the diagnosis of COVID-19 in symptomatic patients. In the same JAMA article, Elitza Theel, director of the Mayo Clinic's Infectious Diseases Serology Laboratory, said that these test kits were "cheap and easy to use, and depending on how they're employed, may be helpful for disease surveillance." Theel added, "Molecular testing is still going to be the go-to preferred method for diagnosis of COVID-19 in symptomatic patients."

The second test type, antibody testing, requires a blood sample to detect previous exposure to the disease. A virus emits a toxin (a molecule known as an antigen) that attacks the body's functions, in this case the lungs. The

immune system responds to the attack by producing antibodies to counter the antigen's attack. An antibody test can reveal "markers of immune response... that for most people show up in blood more than a week after they start to feel sick, when symptoms may already be waning," the JAMA article said.

The consensus of experts is that antibody testing should not be used to diagnose active cases. Rather, the purpose is to find antibodies that can be used to formulate a vaccine, and to identify and continue to provide testing for the immunity of members of the population who might safely return to normal activity. For example, if 50% of the population were exposed to the virus and had developed an immunity, conceivably that could be enough to restart half the economy.

EVEN IF THE CORONAVIRUS WERE TO BEHAVE LIKE A TYPICAL INFLUENZA AND RETREAT FOR A TIME, THE PROBABILITY OF A SECOND WAVE OF THE PANDEMIC CANNOT BE IGNORED.

Is there a model for a program of antibody testing? Look to Germany

A [recent NPR report](#) listed a broad program of antibody testing in Germany, “which produces most of its own high-quality test kits” and “is testing for COVID-19 on a greater scale than most countries: an estimated 120,000 tests a day in a nation of 83 million.” There is no reason why the U.S. industry cannot be asked to do the same.

The British Broadcasting Corporation reported that while antibody testing is in the works, a reliable test kit still needs to be found, and there are important caveats that should not be ignored. Those caveats would include those outlined by Theel, indicating: “I think that it is very important that we understand the limitations of serologic testing, recognizing that it takes time to mount a detectable immune response, and to use them for the right reasons... a false-negative serologic result in an acutely symptomatic patient with a replicating and shedding virus has serious public health consequences.”

The takeaway: There is not enough evidence to simply assume that an antibody's past response to the coronavirus will prevent reinfection or that the test result is not biased because of the presence of other immune-system characteristics.

The JAMA article told of clinical antibody testing taking place at New York's Mount Sinai Hospital and the Mayo Clinic, which could lead to wider testing and the eventual, gradual reopening of the economy. But there should be caution. Krammer said. The United States is just at the “beginning of a large epidemic,” Krammer said, which implies a recovering population of insufficient size to support the return to normal activity.

Pulse ox: The simple step that could save lives

Dr. Richard Levitan of Bellevue Hospital in New York offered one solution in [an opinion piece](#) in *The New York Times*: “There is a way we could identify more patients who have COVID-19 pneumonia sooner and treat them

more effectively—and it would not require waiting for a coronavirus test at a hospital or doctor's office,” he wrote. “It requires detecting silent hypoxia early through a common medical device that can be purchased without a prescription at most pharmacies: a pulse oximeter.

“Pulse oximetry is no more complicated than using a thermometer. These small devices turn on with one button and are placed on a fingertip. In a few seconds, two numbers are displayed: oxygen saturation and pulse rate. Pulse oximeters are extremely reliable in detecting oxygenation problems and elevated heart rates.”

One solution is for the U.S. government to use its powers to compel American industries to produce a pulse oximeter for every household. Even if the coronavirus were to behave like a typical influenza and retreat for a time, the probability of a second wave of the pandemic cannot be ignored.

The need to get the economy reopened and instill confidence among the public is paramount.

Finding an optimal policy with an MR-SIR model

A recent paper from MIT economists supports a targeted-lockdown of the most vulnerable group (age 65 and above) as a means of reducing death and minimizing economic damage. The authors' multi-risk SIR model accounts for the different rates of infection and death among various segments of the population. Their findings suggest that “group distancing” of older people until a vaccine arrives “can release the young and middle-aged groups back into the economy much more quickly, and still achieve a much lower fatality rate in the population” while reducing economic loss “from 24.3% to 12.8% of one year's GDP.”

For more information on how the coronavirus is affecting midsize businesses, please visit the [RSM Coronavirus Resource Center](#). ■

HEALTH CARE



INDUSTRY SPOTLIGHT

NEW RELIEF IS APPROVED FOR HOSPITALS, BUT CHALLENGES REMAIN

BY RICK KES

OVER THE PAST FEW WEEKS, we have been reaching out to our clients as well as hosting several virtual chief financial officer forums. Through these interactions, our clients in the health care sector have been painting a grim picture of the financial effects of the coronavirus.

As patients infected with the virus have flooded into hospitals, health care providers have made room for them by delaying surgeries and other elective procedures, all while accommodating patients with lower ability to pay. No one disputes how vital and necessary this work is. But the result, providers are telling us, is a financial squeeze in which volumes are decreasing and expenses are increasing. Now, that squeeze is showing up in the data.

Take HCA Healthcare Inc., the large for-profit hospital system, which recently announced its earnings for the first quarter. By any measure—admissions, emergency room visits, surgeries—its business has fallen significantly from a year earlier.

	March 15 – March 31, 2020	Thus far in April 2020*
Facility admissions	-20%	-30%
Emergency room visits	-30%	-50%
In-patient surgery	-20%	NA
Hospital based out-patient surgery	-30%	-70%
HHS provider relief payment (round 1)		\$700M
Medicare advanced payments		\$4B

Source: HCA Healthcare Inc. earnings transcript via Bloomberg

*Note: HCA did not define the time period in April 2020.

The pain is being felt across the industry. Kaufman Hall, a health care consulting firm, found a similar year-over-year downturn among the more than 800 hospitals it surveyed nationwide in March.

	March 2020
Adjusted discharges	-13%
Emergency room visits	-15%
Operating room minutes	-19%
Operating margin	-150%

Source: Kaufman Hall

We expect that these results will only continue as the burden of treating infected patients increases for health care providers.

More relief on the way

The payment of \$700 million to HCA from the Health and Human Services Provider Relief Program was their share of the first \$30 billion distributed through the Coronavirus Aid, Relief and Economic Security Act, the government's \$2.2 trillion relief package passed in March. The CARES Act provided \$100 billion into this fund. There has been limited information released on how the remaining \$70 billion will be paid.

More relief, though, is on the way. In April, the Senate, House and President Trump approved a supplement to the Paycheck Protection Program and the Health Care Enhancement Act. The bill will add another \$75 billion to the Provider Relief Fund. Many of our provider clients received emails from the Department of Health and Human Services asking for information related to their hospital capacity and other data. That data, the emails said, will be used for "targeted distributions to hospitals and other facilities that have been particularly affected by the increased burden of caring for those with the coronavirus."

Is it enough?

Even with the total stimulus totaling \$175 billion for the health care industry, we do not expect that to be enough to cover the lost revenue and increased expenses incurred during the pandemic. The HCA example is consistent with our other observations—that the first \$30 billion distribution was less than 2% of total revenue, which, in many cases, is a drop in the bucket, considering the decline in patient volume.

Depending on how the remaining dollars in the Provider Relief Fund are paid out, it is still possible it could be less than 10% of revenue, which, depending on the length of the delay of elective procedures and the disruption to the health care ecosystem, will not be enough.

Managing the downturn

Many of our observations have shown providers taking steps to lessen the financial impact of the downturn, including:

- Furloughs of staff
- Changes to paid-time-off policies
- Reductions in regular and incentive compensations
- Changes to defined contribution plan matches

Most providers, though, are using these options as a last resort. It was only recently, after all, that they were facing intense competition for skilled workers to fill their staffs, and they do not want to face another uphill battle for talent when the recovery arrives.

Other ways of improving margins

We are seeing many clients participating in grants and other stimulus programs from their states. In addition, nonprofit and governmental health care providers are evaluating accessing the funds distributed by the Federal Emergency Management Agency.

We are also seeing a number of our clients reevaluate their business functions as the coronavirus has shown many executives new opportunities they may not have previously considered to be a priority, including:

- Creating a more formalized and wider reaching remote workforce
- Optimizing telemedicine platforms across their enterprise
- Enabling an empowered workforce to reduce the meeting culture

CONNECTING CLIENTS IN NEED

One benefit from our recent virtual forums and meetings has been the ability to make helpful connection points among our health care clients. In one instance, that connection point fulfilled a vital need.

During one of our forums, a client mentioned some of their observations and issues with obtaining personal protective equipment. They were paying a premium price for the PPE; however, they were projecting a shortage of N-95 masks. A few days later, a children's hospital CFO reached out to us and indicated, while they had an excess of N-95 masks, they were projecting to have a potential shortage of other types of PPE equipment. Recognizing the symbiotic relationship between the two organizations, RSM connected the two hospitals' CFOs, they shared their situations and were able to discuss a potential swap of supplies.

Connections like these, in difficult times, can ease the stresses of business and restore some good faith in the power of communicating, sharing and being part of the solution.



DIGITAL VULNERABILITIES UNDERScoreD AMID COVID-19

ENSURING CYBERSECURITY across organizations remains a critical issue for middle market companies, and is underscored by digital vulnerabilities occurring amid the COVID-19 pandemic. Many businesses are challenged with new security threats due to an increased remote workforce, stresses on legacy networks and resource constraints tied to the tightening economy. RSM explored cybersecurity and related trends in a recent Middle Market Business Index special report due out in the coming weeks. Findings included:

Seventy-one percent of respondents reported having a dedicated function focused on data security and privacy, a **3%** increase from last year. Larger middle market companies are more likely to have a focused resource, with 76% listing one compared to 69% of smaller counterparts.

More than half of respondents (**55%**) indicated that an attempt to illegally access their data or systems is "very likely" or "somewhat likely" this year. This number is the same as in last year's survey, but a significant increase from just 32% six years ago.

Cyberthreats are growing. Eighteen percent of middle market executives said they experienced a data breach in the last year, up **3%** from the 2019 MMBI report and over three times the amount in 2015.

THE TAKEAWAY

To strengthen cybersecurity efforts, businesses should consider the following:

- Assess physical, cyber and personnel vulnerabilities from various attack scenarios
- Develop an enterprise security program that includes compliance with evolving data privacy regulations
- Create an agile governance structure across all facets of security that aligns with your business strategy
- Build a culture and awareness within your business around key cybersecurity considerations

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