Whitney Tilson's Coronavirus E-mail
October 1, 2020

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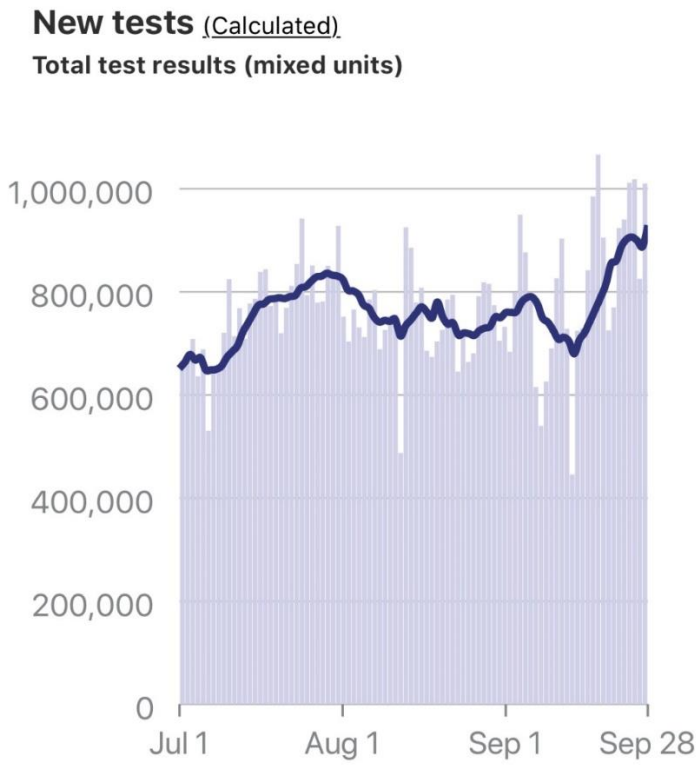
I'm sorry for being so delinquent in sending out my coronavirus emails – I've been enjoying time with my family on Lake Sunapee, NH (it's spectacular peak foliage – I posted 16 pics on Facebook here). My parents (aka the Kenyan honey badgers; see pic of them here) are flying home this afternoon, so we're driving back to NYC tonight ☹

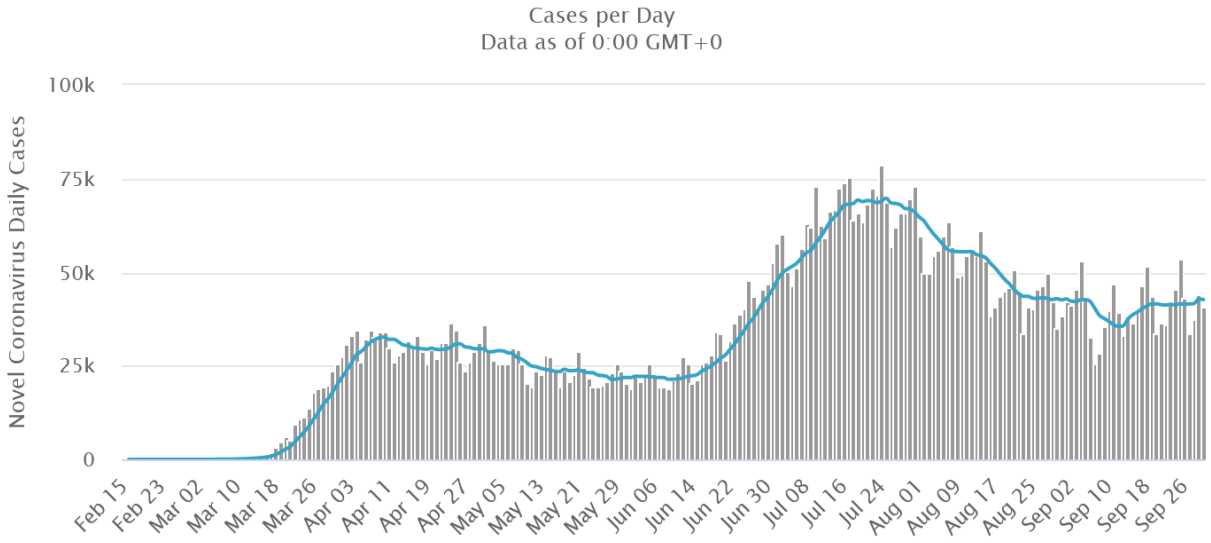
I'm so far behind that I could make this a 50-item email, so I'll try to focus on the highlights…

Latest U.S. and NYC data; Covid mortality by age; Debate over herd immunity; Why Are Markets So Calm About the Second Wave?; Finland vs. Sweden; Spain; Your Covid Cribsheet; Articles

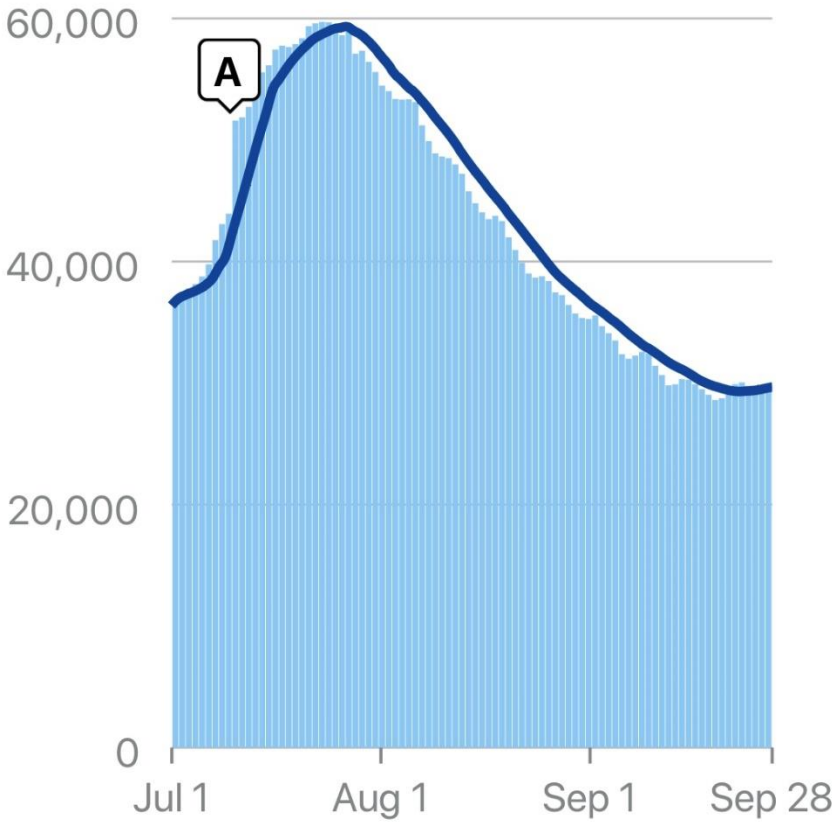
1) Overall, the news for the U.S. continues to be okay, maybe even good, but not great. As the next five charts show, tests are way up, new cases are flat, the number of people hospitalized is down by half (but flattening) and the hospitalization fatality rate is falling, and daily deaths continue to trickle down (the seven-day average is 731, way down from the peak of 2,256 on April 21, but up from the recent low of 520 on July 5):

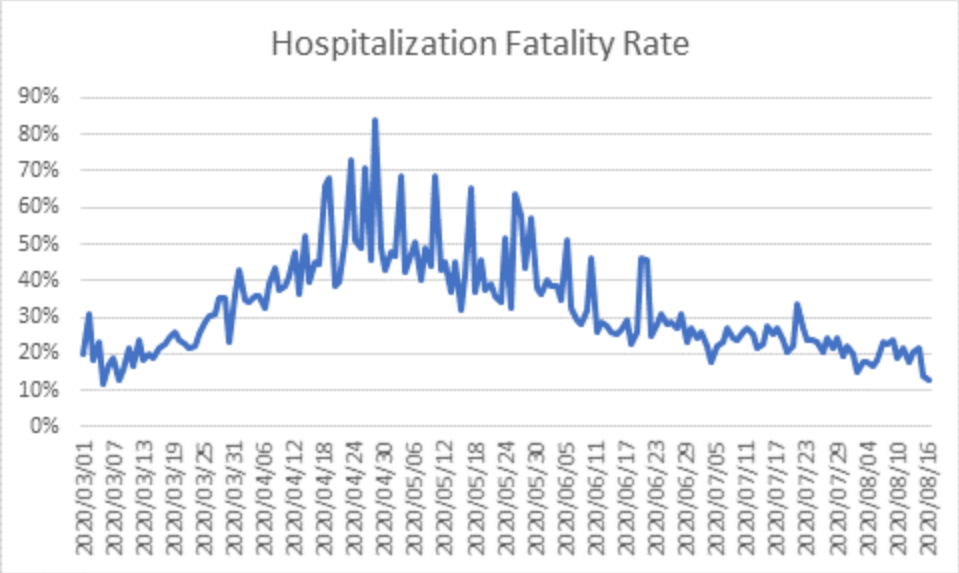


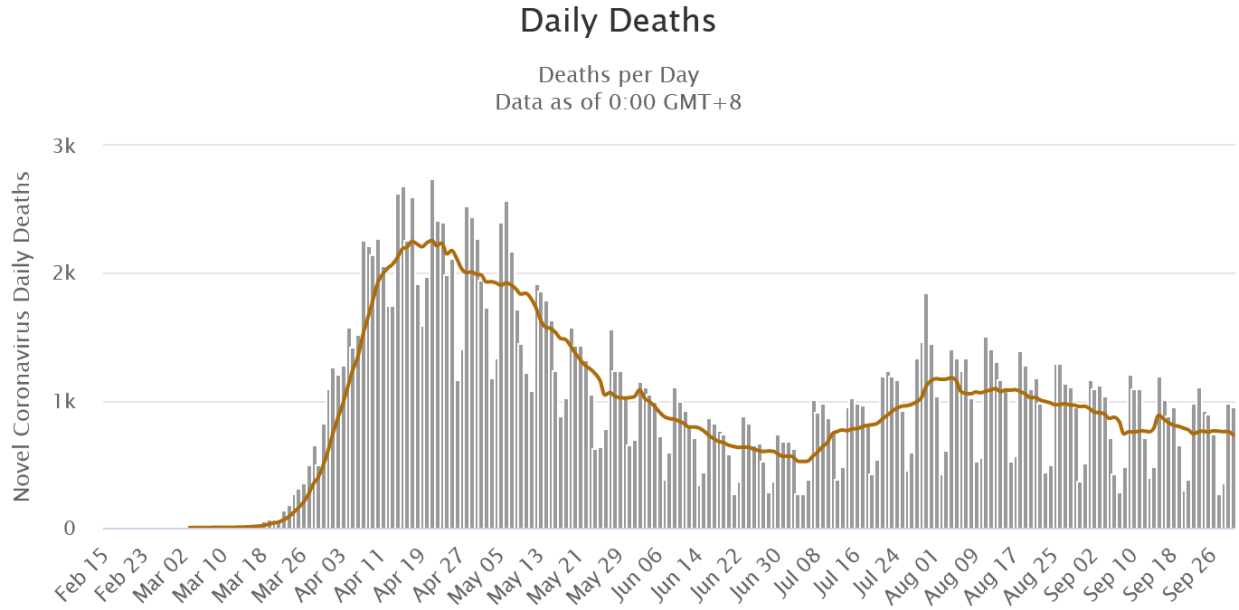
Daily New Cases



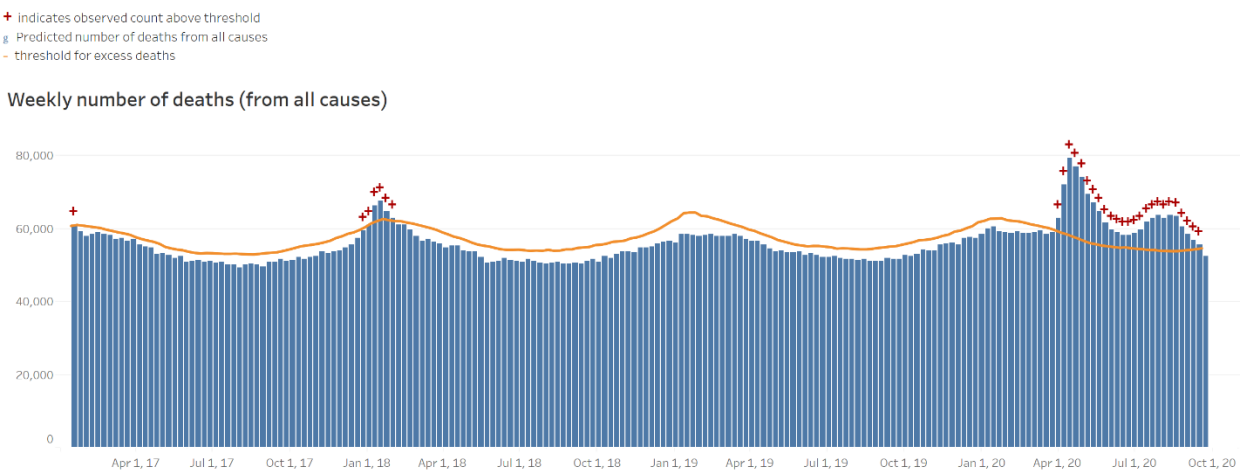
Current hospitalizations (Notes)



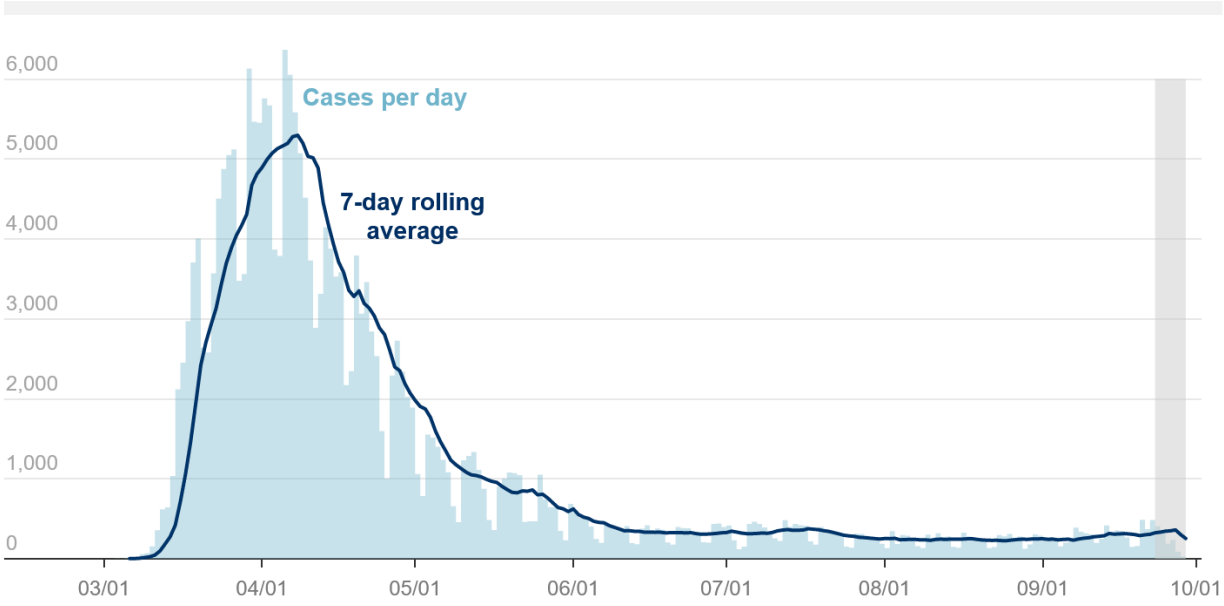




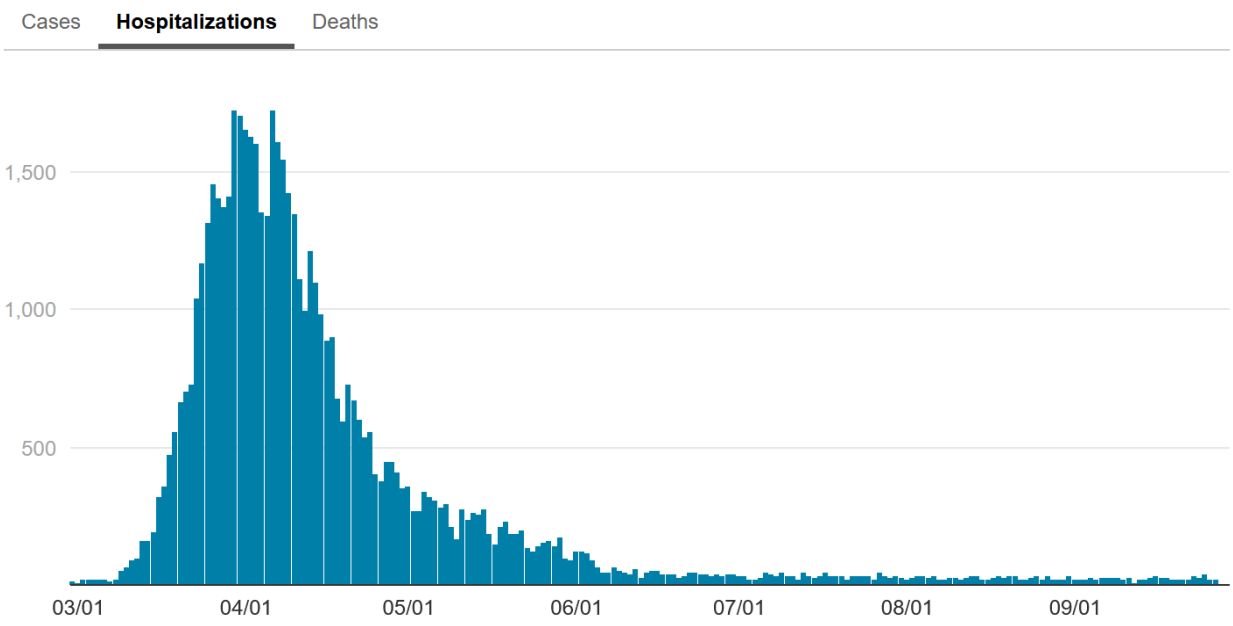
2) Here's a new chart I've never seen before, from the CDC's website: Excess Deaths Associated with COVID-19. It shows that the U.S. is now below the "average expected number of deaths" for the first time since the end of March – great news!

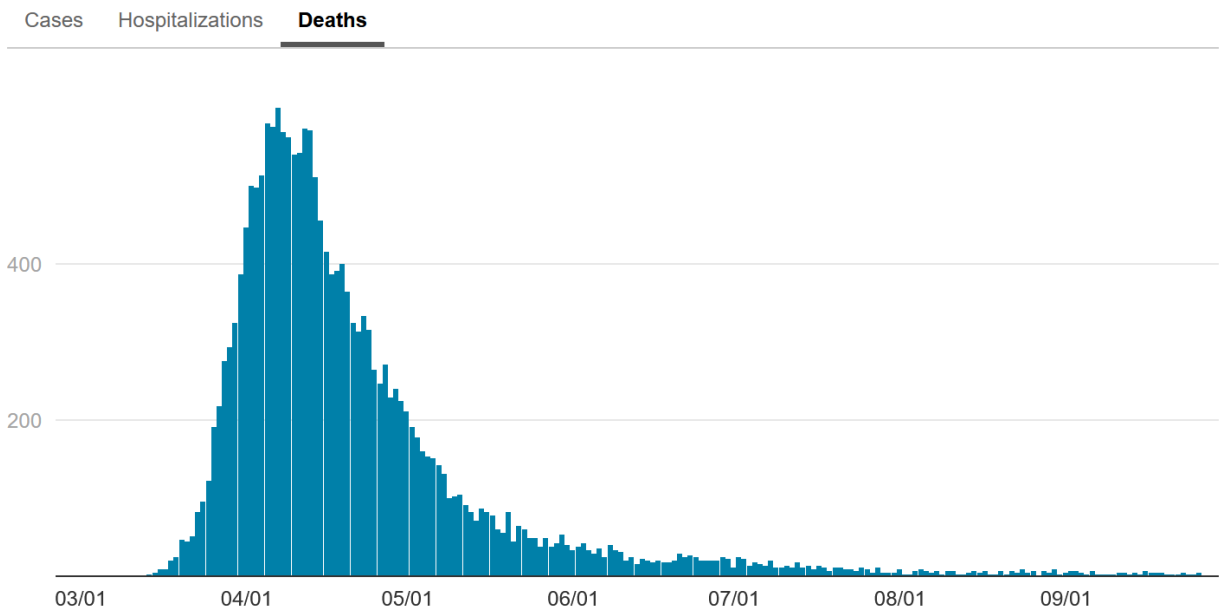


3) As for my hometown of NYC, there are scary headlines (New York City's Average Positivity Climbs as Hot Spot Cases Continue to Rise), but the flareups are limited to a few neighborhoods. Overall, the numbers remain excellent, with cases, hospitalizations and deaths are extremely low levels (from the NYC Health website):



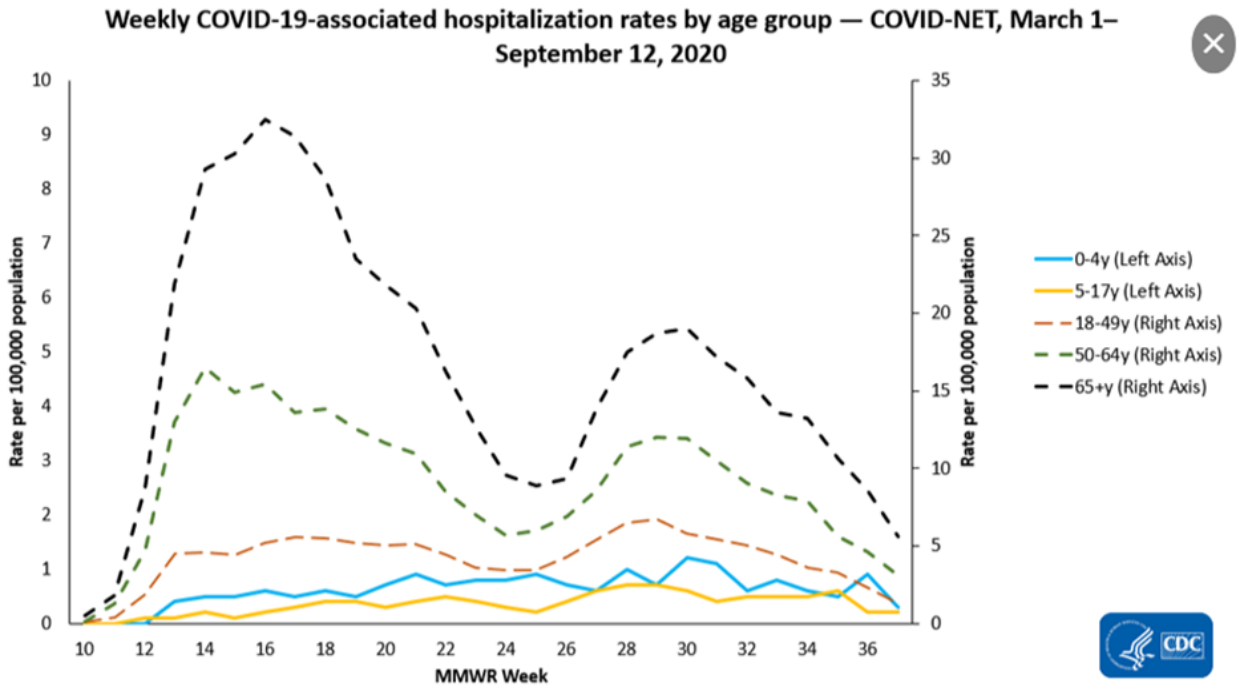
Seven-day rolling average is the average of the day and the six days before. Gray bar indicates data from most recent days are incomplete.





4) It's very important to understand that Covid is essentially a non-issue for young people, whether measured by hospitalizations (first chart) or deaths (second table):

Hospitalizations By Age Group



And there have been far fewer Covid deaths in the U.S. for those aged 0-17 (92) than from swine flu in 2009 (317) or a normal flu season (CDC data here):

CDC estimated deaths from #COVID19 vs annual influenza, United States, children ages 0-17:
Covid in 2020: 92
Flu 2018/19: 477
Flu 2017/18: 643
Flu 2016/17: 251
Flu 2015/16: 268
Flu 2014/15: 803

5) The single biggest, most important debate going on right now is whether we (collectively, the world) are close to some sort of herd immunity threshold, as Adam Patinkin and my colleagues Enrique Abeyta and Alex Griese believe. I'm not 100% sure they're right, but I think the odds are getting better as data emerges and time passes.

The New York Times, however, is still running stories that this line of thinking is some sort of Trumpian/right-wing fringe view: Trump Allies Say the Virus Has Almost Run Its Course. 'Nonsense,' Experts Say. Excerpt:

> In the last week, leading epidemiologists from respected institutions have, through different methods, reached the same conclusion: About 85 to 90 percent of the American population is still susceptible to SARS-CoV-2, the virus causing the current pandemic.
>
> The number is important because it means that "herd immunity" — the point at which a disease stops spreading because nearly everyone in a population has contracted it — is still very far off.
>
> The evidence came from antibody testing and from epidemiological modeling. At the request of The New York Times, three epidemiological teams last week calculated the percentage of the

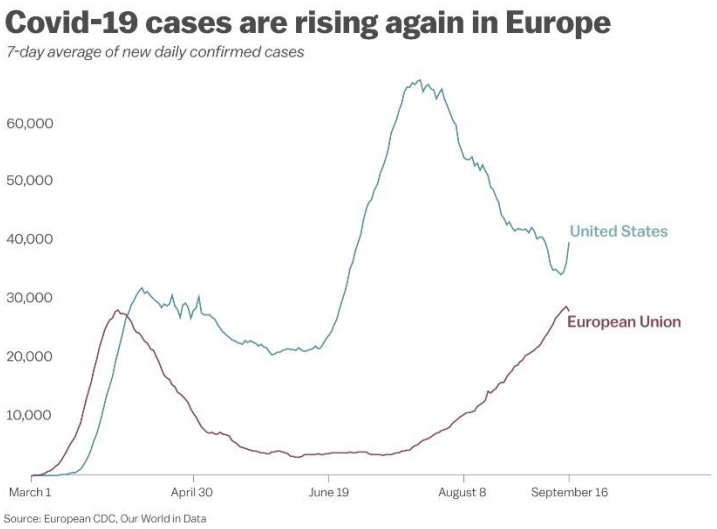
> country that is infected. What they found runs strongly counter to a theory being promoted in influential circles that the United States has either already achieved herd immunity or is close to doing so, and that the pandemic is all but over. That conclusion would imply that businesses, schools and restaurants could safely reopen, and that masks and other distancing measures could be abandoned.
>
> "The idea that herd immunity will happen at 10 or 20 percent is just nonsense," said Dr. Christopher J.L. Murray, director of the University of Washington's Institute for Health Metrics and Evaluation, which produced the epidemic model frequently cited during White House news briefings as the epidemic hit hard in the spring.
>
> That belief began circulating months ago on conservative news programs like those of Rush Limbaugh and Laura Ingraham. It has been cited several times by Dr. Scott W. Atlas, President Trump's new pandemic adviser. It appears to be behind Mr. Trump's recent remarks that the pandemic is "rounding the corner" and "would go away even without the vaccine."
>
> But it is also gaining credence on Wall Street and among some business executives, said prominent public health experts, who consider the idea scientifically unfounded as well as dangerous; its most vocal adherents are calling for mask-wearing and social distancing to end just as cold weather is shifting social activity indoors, where the risk of transmission is higher.

Here's another article in Foreign Affairs along similar lines: America Needs to Lock Down Again. Except:

> The unfolding story of the pandemic is a three-act play, in which the country is now midway through the second act.
>
> The first act saw the disease spread from China to the rest of the world and to a woefully unprepared United States. The second witnessed Americans tire of restrictions and effectively surrender to the pandemic. Infection rates across the country soared during the summer and will likely rise again in the autumn as schools and universities reopen. To truly get the novel coronavirus under control, the United States must do what it has not done so far: impose real and stringent lockdowns across the country for roughly two months. Controlling the spread of the disease in this way will save lives ahead of the eventual end of this drama in the pandemic's final act—the arrival of a safe, effective vaccine.

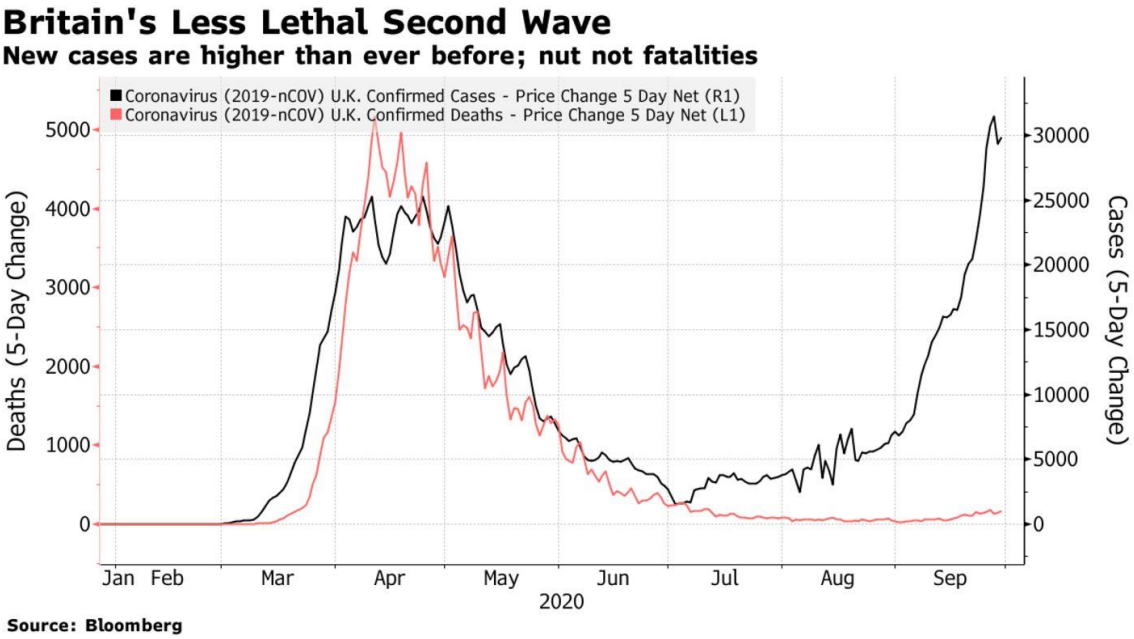
Lastly, this Vox article shows a scary Covid rise in Europe: The new Covid-19 case surge in Europe, explained. Excerpt:

> Only six months after Italy's coronavirus crisis became a warning to the West about how quickly the virus could strain even the best-resourced health systems in the world, the World Health Organization warned Thursday of a "very serious situation" unfolding again across the agency's European region, as weekly cases surpassed those reported during the first peak of the pandemic in March. This "should serve as a wake-up call for all of us," Dr. Hans Kluge, the WHO regional director for Europe, said.



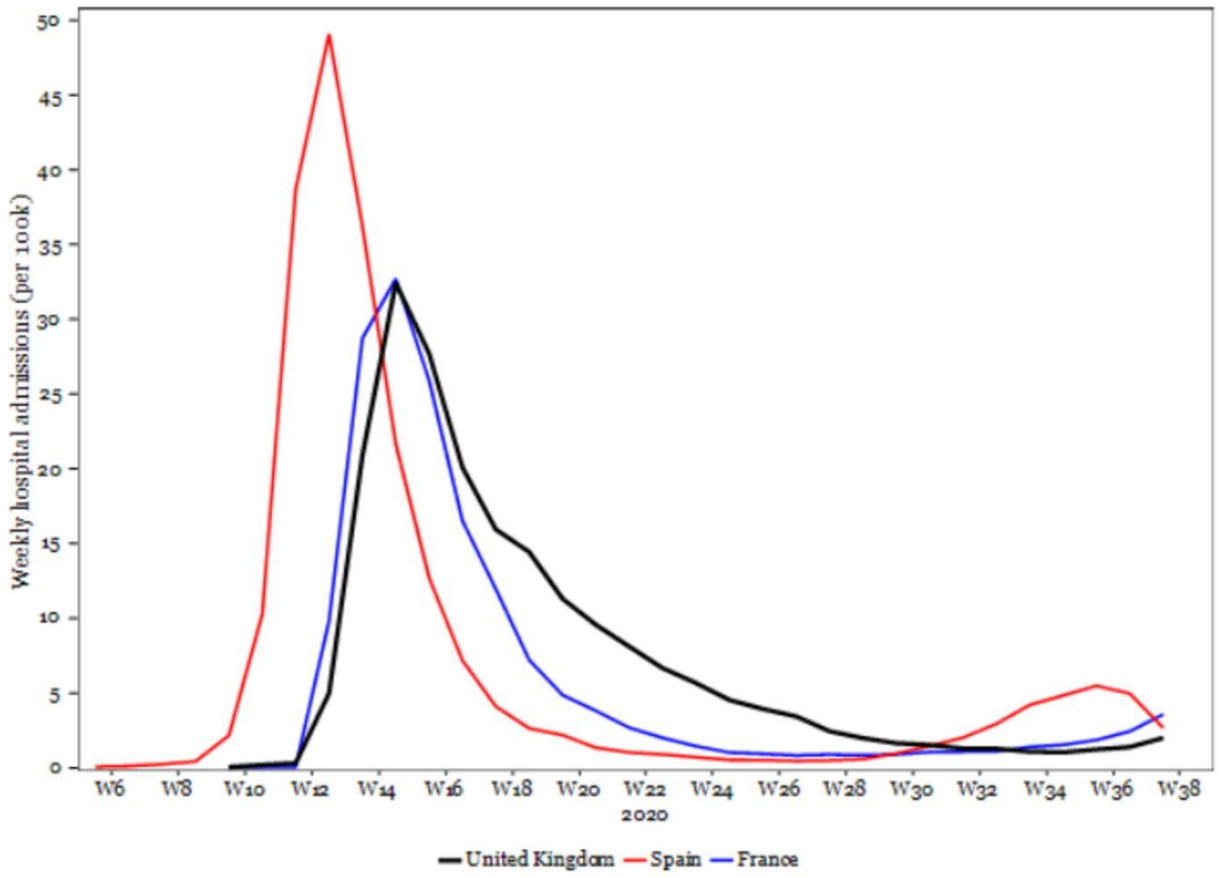
Below are various rebuttals to this, starting with this Bloomberg article, which has some great charts (some of which I've sent out before) (the article also quotes Adam Patinkin): [Why Are Markets So Calm About the Second Wave?] Excerpt:

> Is there a deeper wave than this? Britain is once again tearing itself apart over how to respond to Covid-19, with Prime Minister Boris Johnson facing an insurrection from his own MPs over plans for sweeping second lockdowns to combat the coronavirus. Worries about an uptick in cases in the U.S. have contributed to the market turbulence over the last few weeks.
>
> Why then are the markets managing to maintain their relative calm? Obviously, central banks have much to do with this. But critically, it is still reasonable to hope that there won't be a true "second wave." Scientists are divided on the issue, and even the most alarming data of the last few weeks don't establish that one is under way.
>
> To start with the U.K., where the politics are currently most intense, the latest data show new cases running at a higher level than they did during the first wave in the spring:



The critical ground for hope is that deaths are far lower, and have barely risen as yet. Death is a lagging indicator (to use cold but accurate language), so it is helpful instead to look at hospitalizations, as charted here by Longview Economics:

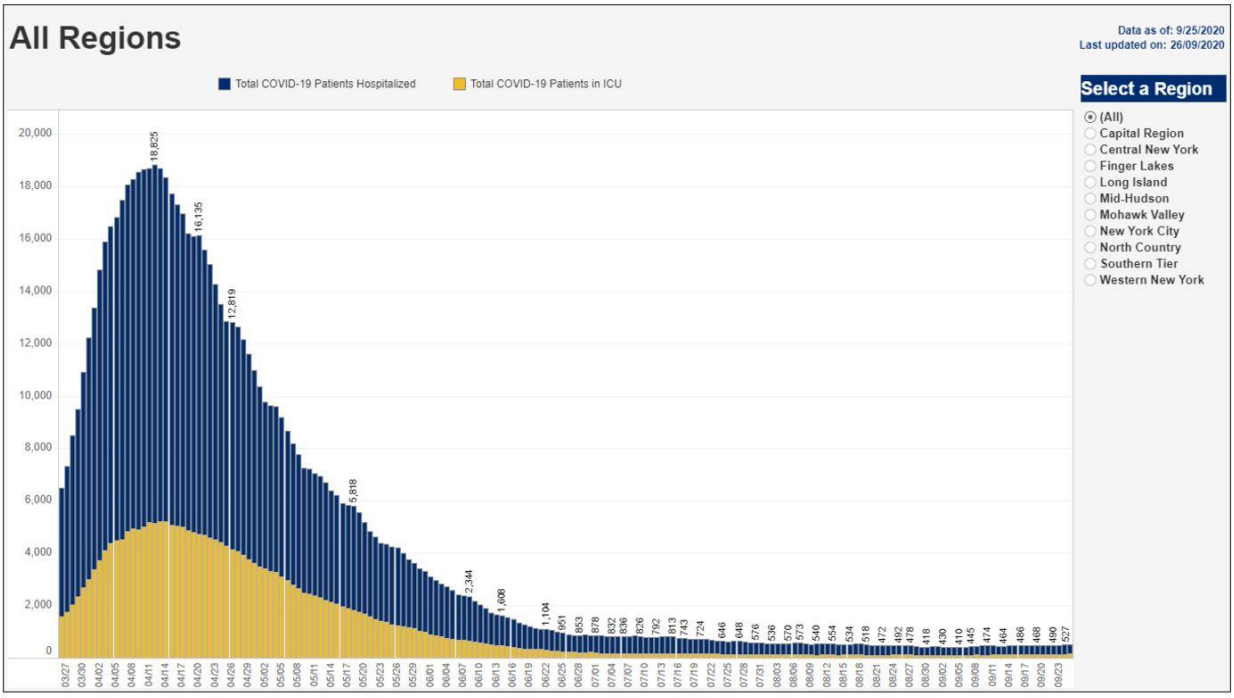
Fig 1d: COVID-19 hospital admissions (per 100k people)



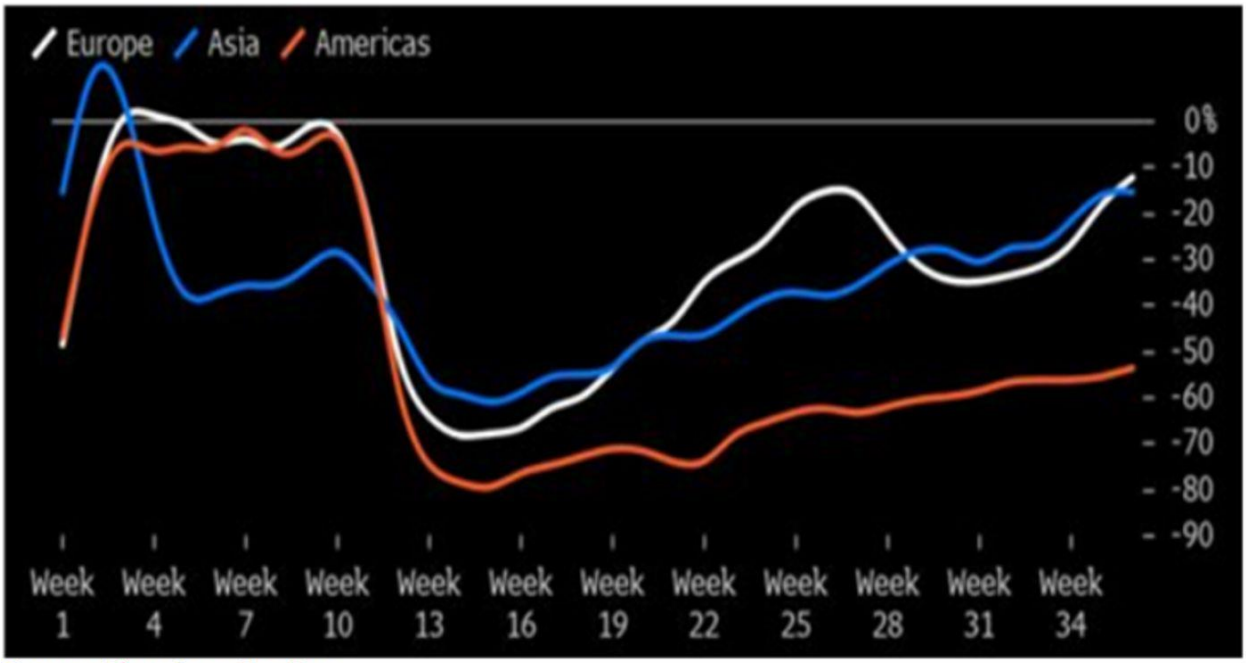
Source: Longview Economics, Macrobond

The U.K. and France suffered comparable first waves, and are both seeing negligible second waves, as measured by people admitted to hospital. Spain suffered more grievously in the first wave, and had a greater but still relatively muted second wave, at least when measured this way.

This follows a familiar pattern from other places that have already suffered one major outbreak. This is New York State's history of hospitalizations so far this year. The disease hasn't been extinguished completely, but it seems to be firmly under control:



Meanwhile, if we want to know about the impact that the disease is having on behavior, it makes sense to look at numbers for traffic congestion. The following chart, also from Longview Economics, shows congestion as a percentage of the figure for the same week last year for Europe, the Americas and Asia.



Source: Bloomberg, TomTom

In Europe and Asia, mobility is still down noticeably enough to have some effect on the economy, but there has been no sign of people cutting back on travel in recent weeks. The first wave showed that people tended to do this voluntarily, without needing to be prompted by the government, if they were in the middle of a serious outbreak. This suggests there is little sense of a second wave on the ground as yet.

> All of this is circumstantial evidence that "herd immunity" is closer than many had predicted.

For more on this, see this NYT article: As Coronavirus Cases Surge in Europe, Hospitalizations Lag But for How Long? Excerpt:

> For now, countries are betting they can suppress hospital admissions and deaths without imposing more lockdowns, even as case numbers approach peak levels from last spring.
>
> …But just how imminent is the peril?
>
> As they weigh actions to curb a second wave of the virus, Mr. Johnson and other European leaders are dealing with a confusing, fast-changing situation, with conflicting evidence on how quickly new cases are translating into hospital admissions — and how severe those cases will end up being.
>
> In Spain, where new cases have surged to more than 10,000 a day, hospitals in Madrid are close to capacity and the government said it was preparing to reopen field hospitals in hotels and in the city's largest exhibition center. Yet in France, which reported 66,000 new cases over the last seven days, hospital admissions and deaths, while also rising, are going up more slowly.
>
> There is a similar divergence between infection rates and hospitalizations in Germany and Austria. And in Britain, which reported 6,178 new coronavirus cases on Wednesday — the highest figure since May 1 — just 134 patients were admitted to hospitals on Monday, barely a tenth of those admitted in early May.
>
> Some experts argue that this shows the virus has lost potency since it first arrived in Europe, or that it is now infecting mostly younger people, who are less likely to experience severe symptoms. Others say it is a testament to social distancing, the widespread use of face masks, greater precautions for more vulnerable people and better medical treatment.

And this WSJ article: What It Would Take for Herd Immunity to Stop the Coronavirus Pandemic Excerpt:

> Reflecting these real-world effects in disease models can shift the estimated herd immunity boundary. One group of researchers estimated that threshold for Covid-19 could be as low as 10% to 20%, though many epidemiologists say that is unlikely. Other modelers have estimated it at around 40% to 50%. Christopher Murray, director of the Institute for Health Metrics and Evaluation at the University of Washington, said his group estimates the herd-immunity threshold at between 50% and 80%.
>
> If lower estimates for herd immunity are correct, then governments should consider policies to shield the elderly and other at-risk groups from the virus while relaxing restrictions on everybody else, said Paul McKeigue, professor of genetic epidemiology and statistical genetics at the University of Edinburgh, in Scotland.
>
> But most infectious-disease experts strongly advise against that, as it isn't clear how governments would shield more vulnerable people from the easily spread pathogen. Those in lower-risk groups can become seriously ill and, on rare occasions, die as a result of the disease. Doctors are just beginning to understand long-term health effects.

Here are The Lockdown Skeptics: How Likely is a Second wave? Excerpt:

> Evidence presented in this paper indicates that the severe acute respiratory syndrome coronavirus 2 pandemic as an event in the UK is essentially complete, with ongoing and anticipated challenges well within the capacity of a normalised NHS to cope. The virus infection has passed through the bulk of the population as a result of wholly natural processes and evidence indicates that in the UK and other heavily infected European countries the spread of the virus has been all but halted by a substantial reduction in the susceptible population. This has occurred because the level of infection required to introduce enough immunity into the population to reduce the reproduction number (R) permanently below 1 occurred at markedly lower infection rates and loss of life than had been initially anticipated. The evidence presented in this paper indicates that there should be no expectation of a large scale 'second wave' with smaller localised outbreaks when the virus contacts pockets of previously uninfected populations.

And this article in The Telegraph by Israeli scientist Uri Gavish: Let's stop the continued self-destruction and test for Covid immunity. Excerpt:

> To date, in every single case of a medium or large population for which the infection rate crossed the 20 per cent mark, the IFR "magically" turned out to be significantly lower than the expected IFR in that population.
>
> Panic aside, if most immune systems can recognize SARS-CoV-2, it makes no sense for any government to treat or model the virus as a new infection. Any rational government should urgently invest effort in conducting surveys of cross immunity and other types of preexisting cellular immunity, which cost next-to-nothing compared to the funds spent on PCR testing, contact tracing, and of course, lockdowns.
>
> In short, it is extremely likely that most of us are at least partially immune from Covid-19. Let's accept this fact and try to quantify it. Continued self-destruction is a bad alternative.

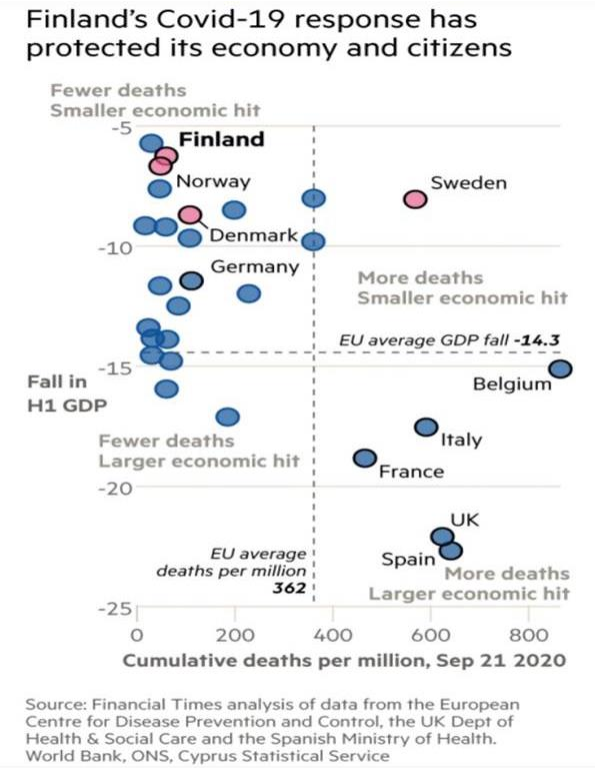
And this: "A new editorial published in the British Medical Journal points to at least half a dozen small studies that suggest up to 50 percent of people may have some pre-existing immunity against the novel coronavirus." Covid-19: Do many people have pre-existing immunity?

Lastly, check out this Twitter thread by Askeladden Capital. Excerpt:

> U.S. COVID policy has likely killed up to ~2x as many vulnerables by following feelings and intuition rather than science.
>
> Not all-cause deaths - just *COVID deaths.*
>
> Math suggests a different, better approach.
>
> … modeling by @WesPegden and @ChikinaLab has found that encouraging *normal* transmission among under-40s, while significantly protecting the vulnerable, could cut total mortality by ~45%.
>
> I want to repeat that in case you missed it: the Chikina models finds that allowing <40s to mingle normally, while reducing transmission by 70% among >40s, leads to nearly half the total mortality of reducing transmission among everyone.
>
> The usual counter is that increased transmission among low-risk young and middle-aged adults will "spill over" into older, more vulnerable populations - thereby creating more deaths.
>
> This is true in the short term, but false in the long term.

> … We here see mathematical evidence of Dr. David Katz's argument in March: the easiest way to protect the vulnerable is/was to shelter them while the low-risk young build up herd immunity.

6) Sweden's approach to combatting the CV continues to be highly controversial. For example, this chart from the Financial Times seems to show that Finland has done a much better job, with fewer deaths and less economic decline:



However, Adam Patinkin replies:

> Neither of those things are true.
>
> First, if you look at "all-cause" mortality, not just COVID, Sweden has *negative* all-cause mortality this year vs. Finland having positive all-cause mortality. More people have died this year in Finland than in a normal year and fewer have died in Sweden than in a normal year, full stop. Sweden has outperformed from a health perspective.
>
> Second, there is a massive definitional issue. You literally cannot compare COVID deaths in Sweden to Finland. In Sweden, it's marked as a COVID death if the person had COVID at any time within the 30 days of death…regardless of the actual proximate cause (car accident, suicide, murder, etc.). In Finland, COVID deaths in nursing homes were *not* counted for a substantial portion of the crisis. In nursing homes! Now, Finland has gone back and added some of those, but it is pretty clear that Finland's death count is substantially under what most other nations would count, and especially relative to Sweden.
>
> Third, remember that Sweden had an extremely light flu season in 2019. There is a meaningful correlation between the severity of flu seasons in 2019 and the impact of COVID in 2020. Sweden was already fighting with one hand behind its back, and it still came out ahead of Finland in all-cause mortality.

> Fourth, remember that Finland was one of the "lightest touch" lockdowns in the EU. It looks far more like Sweden than the UK. So it locked down, but relative to the rest of the world it was a short and light lockdown.
>
> Fifth, one area of key difference is that Finland closed its schools. That is a terrible strategy. One study showed that the school lockdown in Finland did not reduce infections vs. having no school lockdown in Sweden: https://www.folkhalsomyndigheten.se/contentassets/c1b78bffbfde4a7899eb0d8ffdb57b09/covid-19-school-aged-children.pdf. It was a wasteful, bad policy choice.
>
> Sixth, the economy. Sweden is a heavily export-dependent economy (Saab cars, forestry, etc.) whereas Finland has a much more stable, services-oriented economy. Sweden should have done far worse. I had my analyst pull H1 GDP, and he had Sweden at -3.5% in H1 2020 vs. Finland at -3.8% in H1 2020. Finland should have blown Sweden out of the water, but instead Sweden edged ahead. That is a massive win.
>
> A better economy. Fewer deaths. Schools open full-time. Sweden crushed Finland…and Finland had only a moderate lockdown. If you compare Sweden to countries that locked down harder (and/or that remain locked down, even as the disease is effectively over in Sweden and life is mostly back to normal), it's a total blow-out.

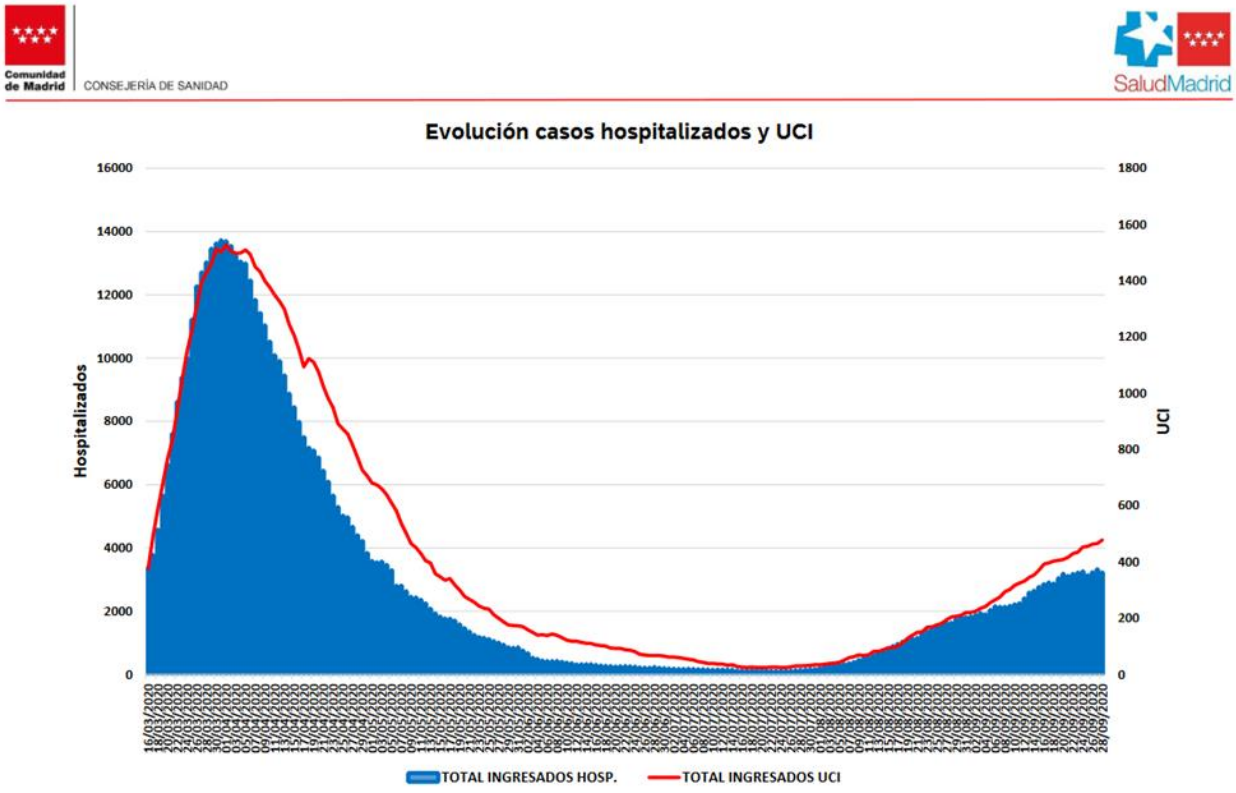
Thank you Adam!

Sweden is doing so well that even the NYT is writing about it: Vilified Early Over Lax Virus Strategy, Sweden Seems to Have Scourge Controlled. Excerpt:

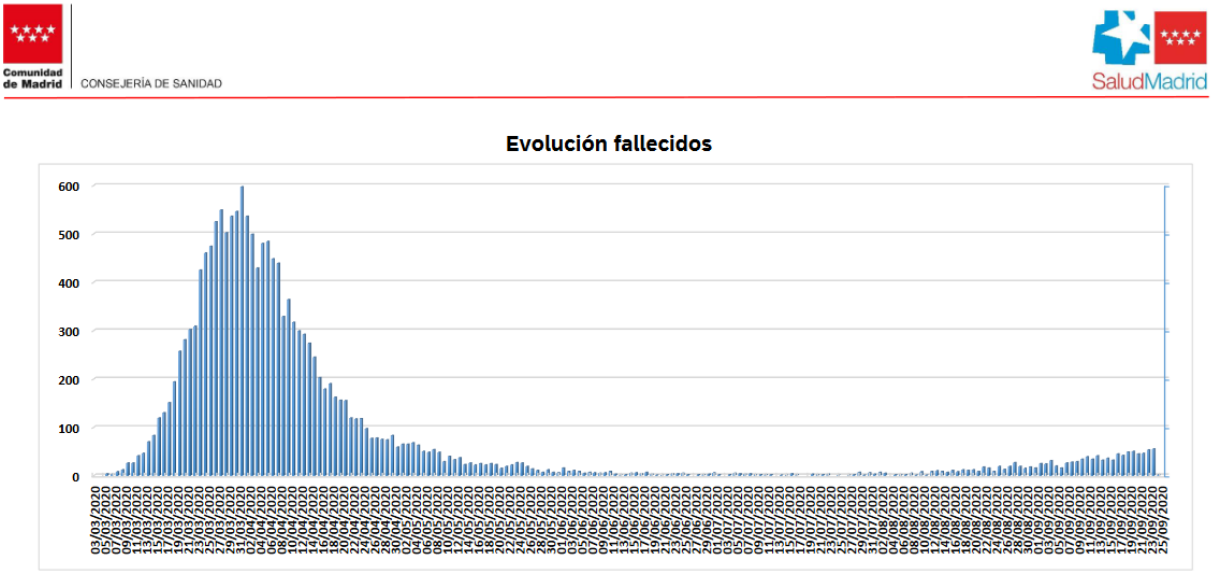
> Normalcy has never been more contentious than in Sweden. Almost alone in the Western world, the Swedes refused to impose a coronavirus lockdown last spring, as the country's leading health officials argued that limited restrictions were sufficient and would better protect against economic collapse.
>
> It was an approach that transformed Sweden into an unlikely ideological lightning rod. Many scientists blamed it for a spike in deaths, even as many libertarians critical of lockdowns portrayed Sweden as a model. During a recent Senate hearing in Washington, Dr. Anthony S. Fauci, the leading U.S. infectious disease specialist, and Senator Rand Paul, Republican of Kentucky, angrily clashed over Sweden.
>
> For their part, the Swedes admit to making some mistakes, particularly in nursing homes, where the death toll was staggering. Indeed, comparative analyses show that Sweden's death rate at the height of the pandemic in the spring far surpassed the rates in neighboring countries and was more protracted. (Others point out that Sweden's overall death rate is comparable to that of the United States.)
>
> Now, though, the question is whether the country's current low caseload, compared with sharp increases elsewhere, shows that it has found a sustainable balance, something that all Western countries are seeking eight months into the pandemic — or whether the recent numbers are just a temporary aberration.
>
> "It looks positive," said Anders Tegnell, Sweden's state epidemiologist, who gained global fame and notoriety for having kept Sweden out of lockdown in March.

7) Good news from Madrid, where hospitalizations (first chart; red line is ICU – will lag) and deaths (second chart) looks to be stabilizing:

Hospitalizations



Deaths



Here's data for the rest of Spain, also showing that it's moving past its "casedemic":
Spain's Covid-19 outbreak: regional differences and asymptomatics

8) Holman Jenkins in the WSJ: Your Covid Cribsheet, Updated. Excerpt:

> Mysteries remain but one thing is known: We will be living with the virus indefinitely.
>
> … A key question perhaps can't be mentioned yet in polite company: When will Americans start treating Covid like the flu—i.e., go about their lives dimly conscious or oblivious to a mild risk that nevertheless kills some, including children, on a regular basis?
>
> It will likely happen willy-nilly, not because somebody rings a bell. Treatments, natural immunity from previous infection, plus the gradual rolling out of a vaccine, plus a permanent adoption by a part of the population of new, more cautious ways of living—all these may inspire a habit among us of forgetting about Covid as long it's not overwhelming hospitals.

9) Last but not least, here are some good articles that I don't have time to comment on:

- Covid Grows Less Deadly as Doctors Gain Practice, Drugs Improve, Bloomberg
- How South Korea Successfully Managed Coronavirus, WSJ
- This Overlooked Variable Is the Key to the Pandemic (discusses the concept of "overdispersion"), The Atlantic
- COVID-19: All the wrong moves in all the wrong places, Science Signaling
- An idiot's guide to T cells, The Spectator
- Vaccine Chaos Is Looming, The Atlantic
- How to Ship a Vaccine at –80°C, and Other Obstacles in the Covid Fight, NYT
- Death Toll From Covid-19 Pandemic Extends Far Beyond Virus Victims, WSJ
- Belgium's Security Council introduces long-term coronavirus strategy, The Brussels Times

Best regards,

Whitney