

To my valued patients

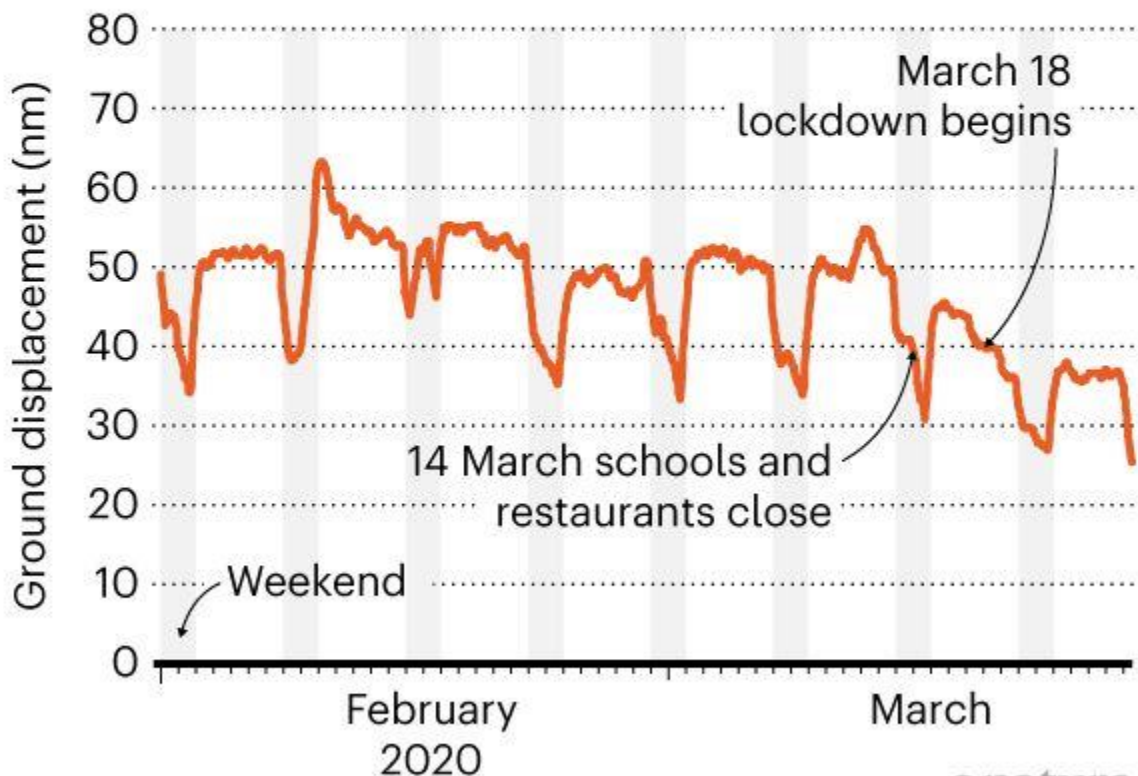
I believe this issue of the newsletter is a little less rigid in science but just as interesting. Let me know what you think. We will return to science and medicine as things continue to change.

Coronavirus has changed the way earth moves

Because we are all in lockdown, seismologists have detected a change in how the earth moves. According to Nature magazine, researchers are reporting a drop in seismic noise. This is the hum or vibration of the earth's crust. A noise reduction like this is usually experienced very briefly around Christmas. Like natural events such as earthquakes that cause the crust to move, vibrations of moving vehicles and industrial machinery all over the world add to together to cause background noise.

SEISMIC NOISE

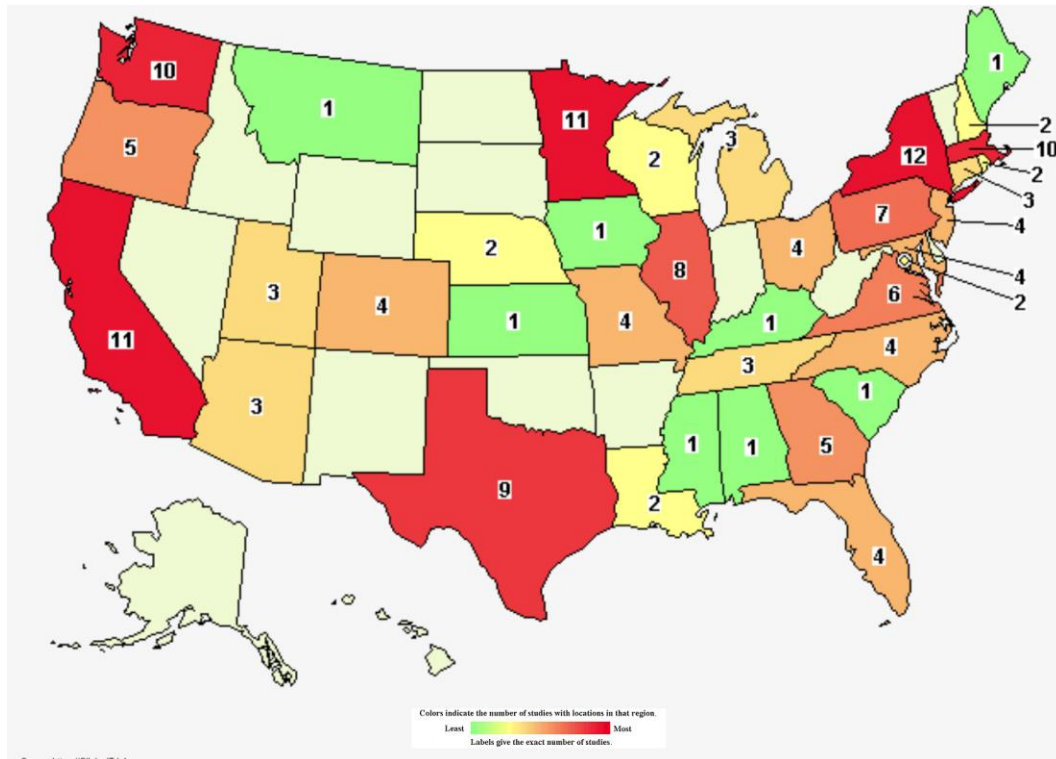
In Belgium, vibrations caused by human activity have fallen by about one-third since coronavirus containment measures were introduced.



In Brussels, a seismometer has shown that the pandemic has caused human induced seismic noise to fall by one-third. A Cal Tech geologist has seen similar findings about seismic noise in Los Angeles. If you are interested go to: <https://www.nature.com/articles/d41586-020-00965-x>.

Research and vaccines

Research around the country is really taking off for drug treatments and vaccines. Here is the map of the number of studies currently underway just in the United States alone.



Many of the trials are recruiting patients nationally, such as the National Institutes of Health's test of remdesivir, some are more local. Other trials are investigating hydroxychloroquine and Kevzara (an anti-inflammatory arthritis drug). According to my infectious disease expert, Kevzara's actual name is sarilumab.

If you are interested in some scientific detailed information, my infectious disease expert also provided some commentary about sarilumab, which is very technical. If your eyes lids start closing skip the next paragraph.

Kevzara (sarilumb) is one three anti IL6 drugs which are monoclonal antibodies being used to treat the massive lung inflammation or "cytokine storm response in the lungs" that usually occurs in the second week of coronavirus infection. It is this cytokine storm response that causes severe progressive respiratory failure. There are two other IL6 drugs under investigation, one is Actemra (tocilizamab) and the other is clazakuzimab.

I think I heard there was a contest to see who could pronounce sarilumab, tocilizumab and clazakuzimab correctly and no one has won the prize yet.

The very good news is that one researcher was quoted as saying “in my over 20 years of being a part of clinical research, we have never been able to move that quickly before.”

Even the ponderous FDA is moving fast

The FDA has issued multiple Emergency Use Authorizations (EUAs) for critically important products, including ventilators and personal protective equipment (in case you were wondering what PPE stands for). This week, the FDA rolled out a new special emergency program for accelerating research and development of potential treatments for COVID-19. There is a special program just for coronavirus treatment that is responding to requests for approval with amazing speed. Now that the FDA has gone through the initial wave of requests, they intend to respond to developers within a day and try to conduct trial protocol reviews within in 24 hours when possible. I know, it’s hard to believe because the government usually models itself after the DMV. Can you believe it, a study protocol reviewed within in 24 hours?

Toilet -paper and COVID

I know that this is not scientific, but I have been wondering why toilet paper, of all things, appears to be in short supply. The US is not alone. Similar shortages are occurring in Hong Kong, Australia and the UK.

Different than facemask hoarding, toilet paper serves no special purpose in the coronavirus pandemic. Obviously, you don’t go the bathroom more, so what is the answer?



According to an article at <https://marker.medium.com/what-everyones-getting-wrong-about-the-toilet-paper-shortage-c812e1358fe0>, there is another explanation. The toilet paper industry is split into two, very separate large markets...the consumer market and the commercial market. With everyone at home we are all hitting the consumer market. People need more toilet paper at home because they are staying at home. People are not using restrooms at work, schools, restaurants, hotels and airports.

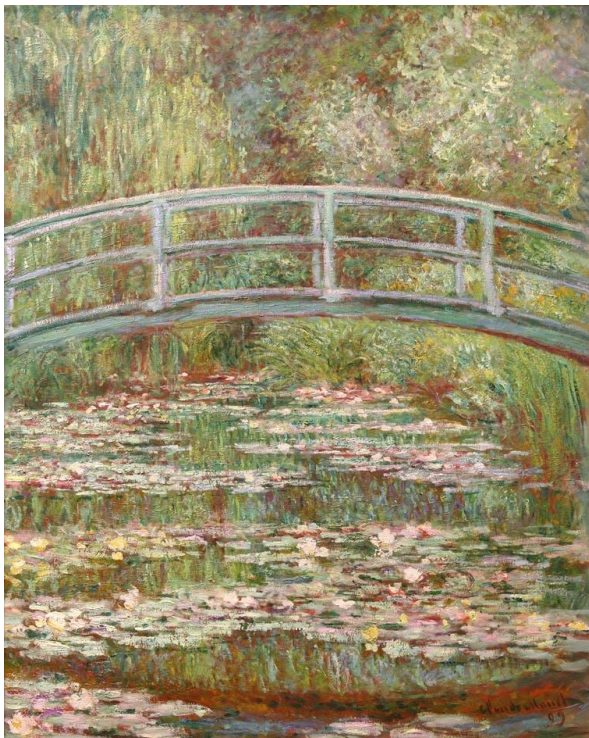
According to this article, Georgia Pacific, a leading toilet paper manufacturer, says the average household will use 40% more toilet paper than usual if everyone stays at home. That really is a big demand on the consumer market.

I guess the next question is, “why can’t they just send the commercial paper to consumers?” The answer is that commercial toilet paper is very different. It frequently comes in huge rolls that won’t fit your bathroom. The paper is markedly thinner and not as “comfortable.” It comes shipped on huge pallets, rather than in nicely packaged packs. Commercial toilet paper does not even come from the same paper mills as toilet paper intended for household use. It is really hard for the industry to just snap their fingers and begin shipping. The contracts for suppliers, distributors and stores are totally different.

Similar commercial/domestic use differences are in evidence in the food and beverage pipeline. The CEO of a fruit and vegetable supplier said that schools and restaurants are canceling banana orders, while grocery stores are selling out and want more. Again, two different distribution methods. Beer companies are trying to change from commercial kegs to retail cans and bottles. Although with everyone being stressed by staying at home, it may be of some benefit to ship commercial kegs to residential consumers.

Art and Disease

Claude Monet was an incredibly influential painter and a founder of French Impressionism. The first image below is a version of Monet’s bridge over a pond of water lilies painted in 1899, ten years before his cataract diagnosis.



He was diagnosed in 1912 with cataracts. In 1914 he noted how reds appeared dull and muddy and by 1918 was reduced to selecting colors from the label on the tube. The year before surgery he again painted a footbridge over his garden's lily pond. Notice that in the second image below, the colors are dark and murky, with almost a complete absence of blue and marked loss of detail.



Thanks for following.

It's a strange world out there with social media. If you like what you are seeing would you mind giving a nice review.

On Google, look me up in google, on the right of the screen you a picture of me, hours and other reviews, if you look just above the reviews and to the right you can lick on the button 'write a review'

On Yelp, here is the link: <https://www.yelp.com/biz/reed-s-wilson-md-facc-facp-beverly-hills>

On Healthgrades, here is the link: <https://www.healthgrades.com/physician/dr-reed-wilson-x4dr9>

On Vitals, here is the link: https://www.vitals.com/doctors/Dr_Reed_Wilson.html

On WebMD, here is the link: <https://doctor.webmd.com/doctor/reed-wilson-476dd77b-fb40-4662-b479-e18b4c23af10-overview>

Thanks