

Letter 38: COVID Reaches Our Family

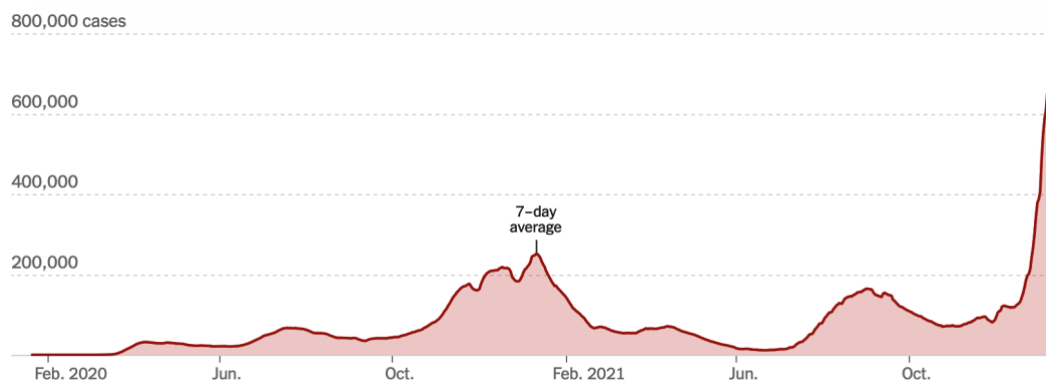
January 13, 2022

Dear Daughters,

After two years of relentless expansion, the Covid-19 pandemic has breached the safety walls of vaccination and face-masking we have maintained to protect our family. Upon returning to NYC after spending Christmas with us in Saint Louis, Nikki had a routine PCR test done before a medical visit – and tested positive for Covid. Shocked, as she had no symptoms, she called us, fearing she may have infected her Saint Louis parents. We had a PCR test done, and were relieved to get a negative result. So, only Nikki has been infected with the virus, almost certainly upon her return to NYC and probably with the Omicron variant. Isolated in her apartment, she is not enjoying her fight with Omicron. She has chest tightness and oxygen fluctuations, and remains at home convalescing in her second week of infection. We all hope she gets well soon.

An Explosive Surge

Wherever I look, others close to me are becoming Covid-infected. A close friend of your mother and I tested positive last week, and my personal trainer of 20 years is just recovered from a three-week bout with the Delta variant. Nationwide, the Omicron variant has rapidly infected every county in the country, infecting far more Americans than any previous variant. The graph below of 7-day averages of new cases (plotting for each day the average of the last 7 days evens out day-to-day variations) makes this point clearly. Some individual days are positively scary - there were 888,352 new cases yesterday.



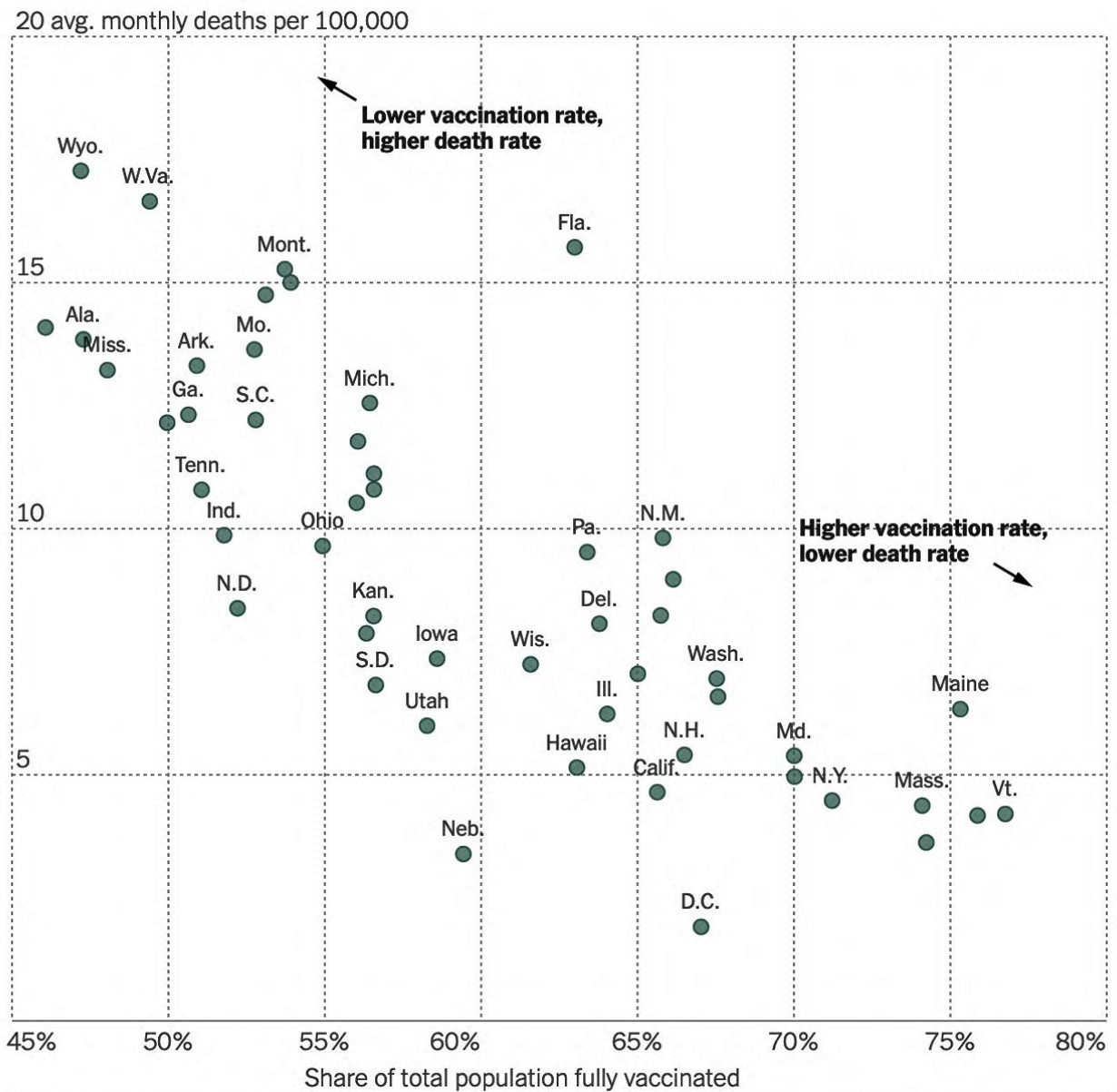
The lesson we as a family must take from recent events is that we must be very, very careful. Nikki was as protected as an individual can be, fully vaccinated and “boosted” and always wearing an N-95 face mask whenever indoors with people. If she can be infected despite these precautions, none of us can relax even for a minute. A few seconds near an infected individual without you wearing an N-95 face mask, that’s all the window this virus needs.

Over 85% of Covid-19 cases in this country are now Omicron cases. Three-quarters of the Omicron cases are in people like Nikki who have received two vaccine doses, which is about the same fraction of the entire country that’s fully vaccinated. This high percentage of breakthrough infections indicates that the Pfizer and Moderna vaccines, both developed to combat the alpha variant, are providing little protection from the Omicron variant. While a third “booster” shot may offer a bit more protection, it is no safeguard – Nikki was boosted.

A Less Deadly Variant

This week, two years into the pandemic, we are averaging over 600,000 new coronavirus cases a day. Over 830,000 Americans have died of the disease. The Delta variant of Covid-19 had become the dominant variant here last fall, sending many of the infected to the hospital. As many as 2% of these unfortunate individuals die as a result of their Delta infection. Fortunately, studies reported last week by Case Western Reserve University School of Medicine researchers confirm earlier hints from South African researchers: The Omicron variant is less deadly than the Delta variant. The large and carefully-controlled study gathered data from doctors, hospitals and public health units all over the country, comparing outcomes from Omicron cases of late December 2021 with outcomes from Delta cases from earlier in the fall of 2021. They found that the risk of hospitalization was less than half for the late December cases, compared to what had been seen in the fall before Omicron emerged. There was an even greater drop in more serious outcomes -- ICU risk was one third that for the fall period, and the risk of mechanical ventilation was just one-sixth. Importantly, this drop in serious risk was seen in all age groups.

While an individual infected with the Omicron variant faces far less risk of serious illness than someone infected by the Delta variant, the Omicron variant is infecting a LOT more people. Result? Our hospitals are rapidly filling up. And who is being infected? You guessed it. Almost all of the hospital admissions are unvaccinated individuals. And, lacking any of the T cell protection afforded to vaccinated individuals, these unvaccinated Covid patients die far more frequently:





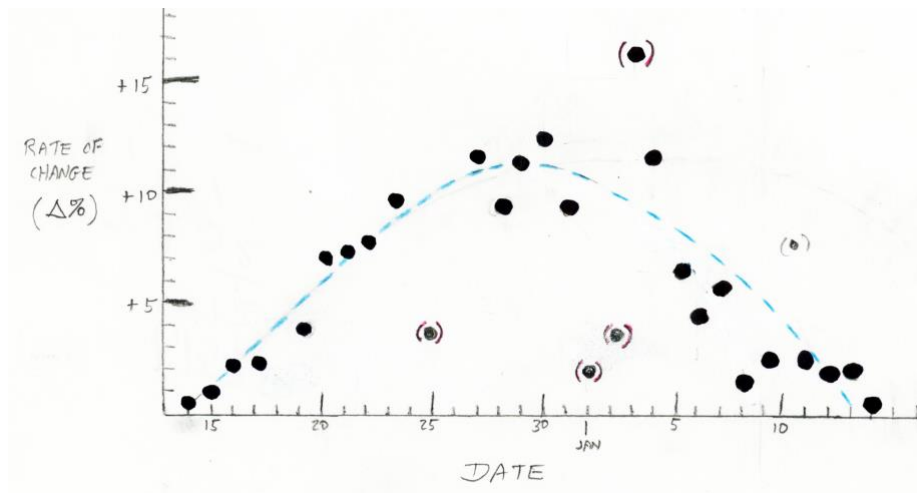
Omicron Spares the Lungs

Why is Omicron less likely to cause serious illness? Studies in hamsters (!) suggest an answer to this key question: While the Delta variant often fully infects the lungs of hamsters, causing serious breathing difficulties and scarring of lung tissue, the Omicron variant infection is typically limited to hamster upper airways: the nose, throat and windpipe. Lung infections occur, but are slight. Of course, a hamster is not a human, so the jury is still out. But until human studies are reported, this is all the data we have to go on. Looks like Omicron may be largely an upper respiratory tract disease.



End In Sight?

In mid-December, when Omicron first emerged in this country, we were looking at about 120,000 new Covid-19 cases a day, almost all of them the Delta variant. In the three weeks since then, Omicron has rapidly replaced Delta, its numbers exploding to a seven-day-average of over 600,000 new cases a day. Tracking this, I could see in the daily data that the rate of infection was accelerating, the numbers growing each day by larger and larger amounts. To get a handle on this, I plotted in the graph below the size of each day's increase on the Y-axis as the % that the daily average increased from the previous day. The data reported around Christmas and New Year's Day (the points in parentheses) are jumbled, as you might expect. Many locations failed to even report Christmas data, for example; others appear to have pooled their Jan 1 and Jan 2 data with that of Jan 3.



What do we learn from this? After accelerating ever-more-rapidly through the later weeks of December, the speed with which Omicron is infecting our country slowed after Christmas. While still increasing, the daily number of infections ceased exploding. Indeed, the rate of increase fell daily in early January, and it seems now to have fallen nearly to zero – we had practically no more new cases today than we had yesterday. I conclude that the United States has reached the peak of Omicron's winter spike of infection. Every day in future weeks, the

number of new cases will lessen. Sure hope that after this peak, infections will fall as rapidly as they rose.

Keep In Touch

So, another long Covid winter. Its nine degrees outside as I write this, but warm and cozy inside our Saint Louis home. Surrounded as we may be by the pandemic, our family life goes on here: Your mother and I cook the occasional steak, walk the dog, and argue politics. All three of our daughters phone us regularly, and text to us photos of what is going on in their lives in New York, Santa Fe and Atlanta. Thus we are able to see this week that our Atlanta granddaughter -- Little Jed --grows taller and ever-more-delightful. She even has lovely blonde curls!



And that is how we should face the coming pandemic-plagued winter – connected. My New Year’s resolution was to communicate more effectively with each of you. The secret, surely, is to stay in close touch with each other. Thank you for staying so close to parents who love you.

Dad