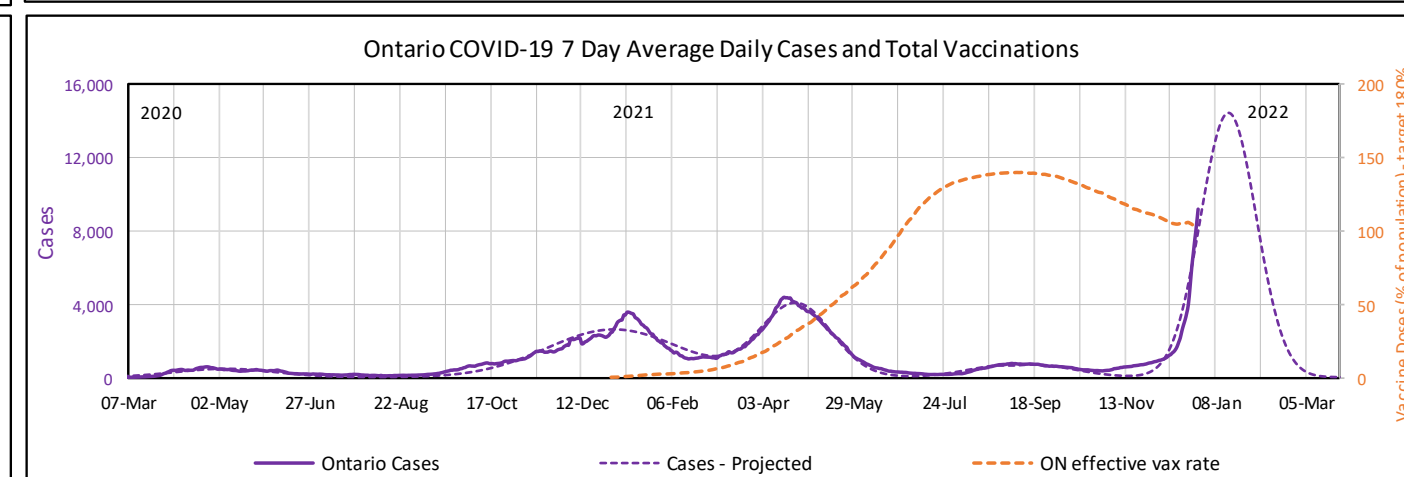
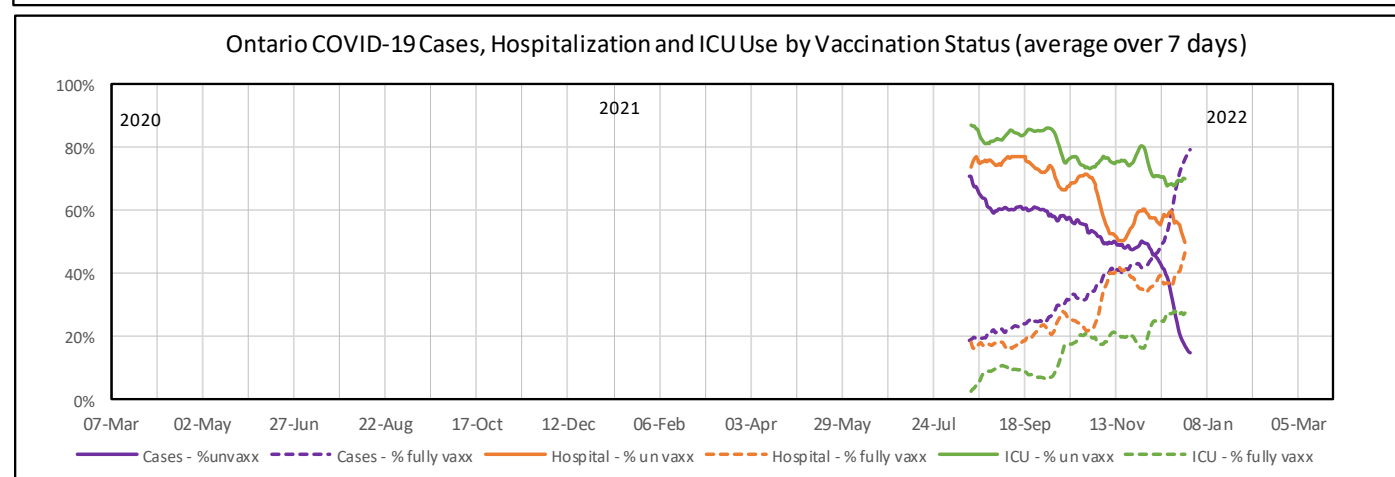
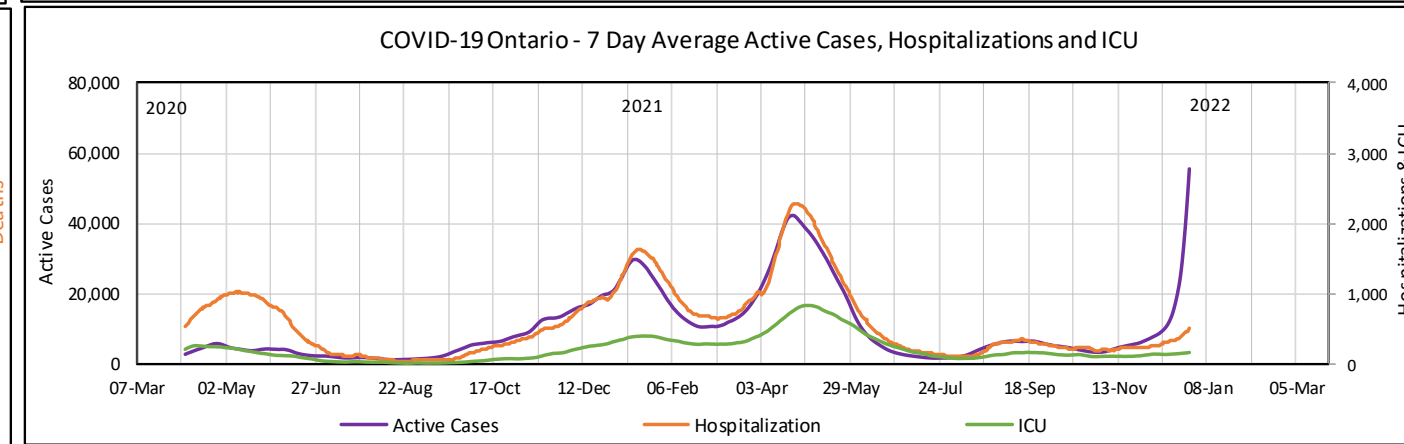
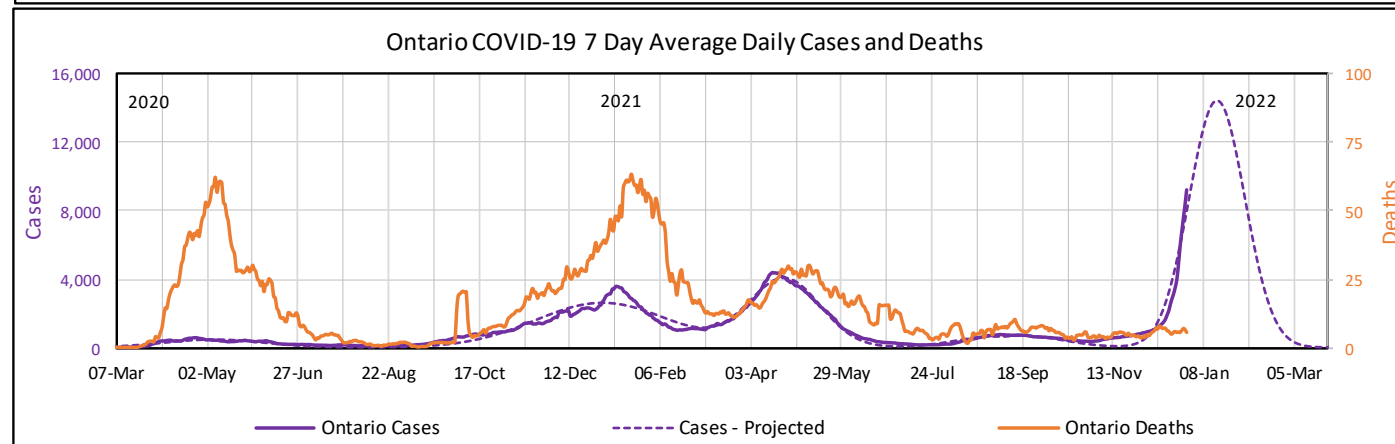
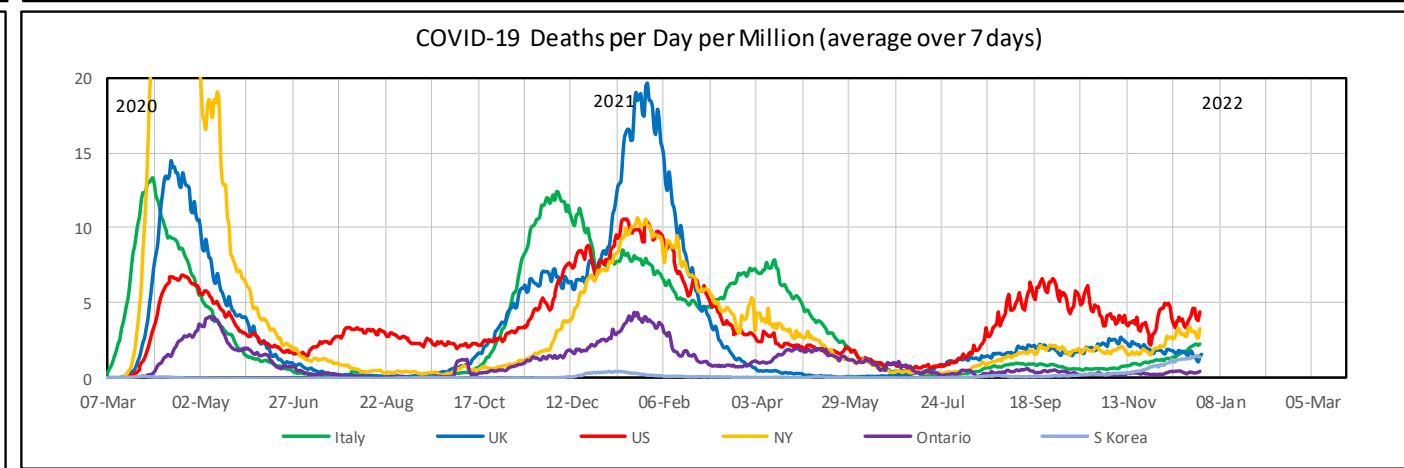
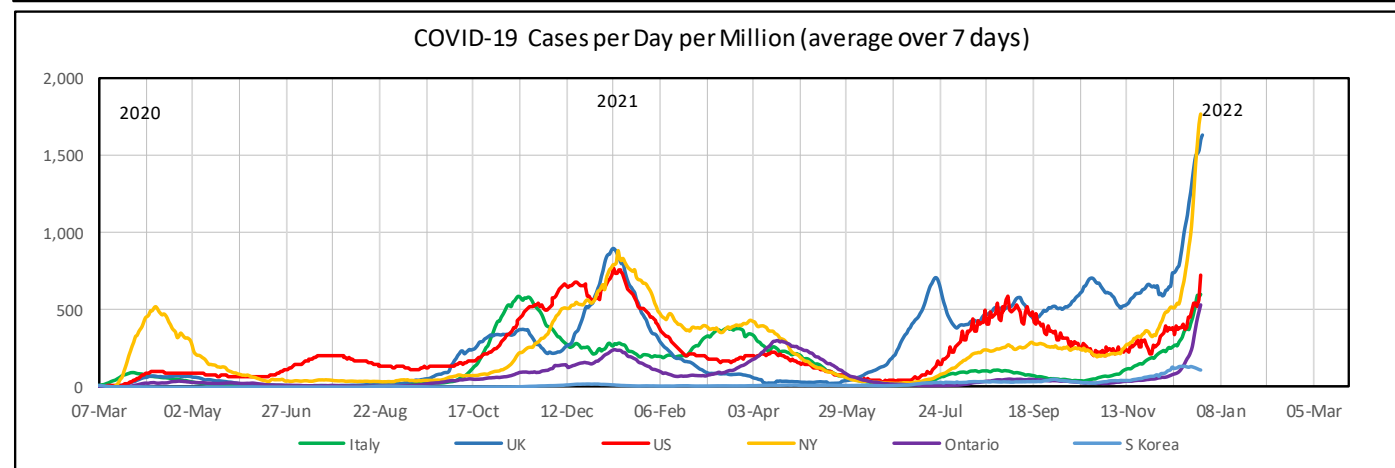
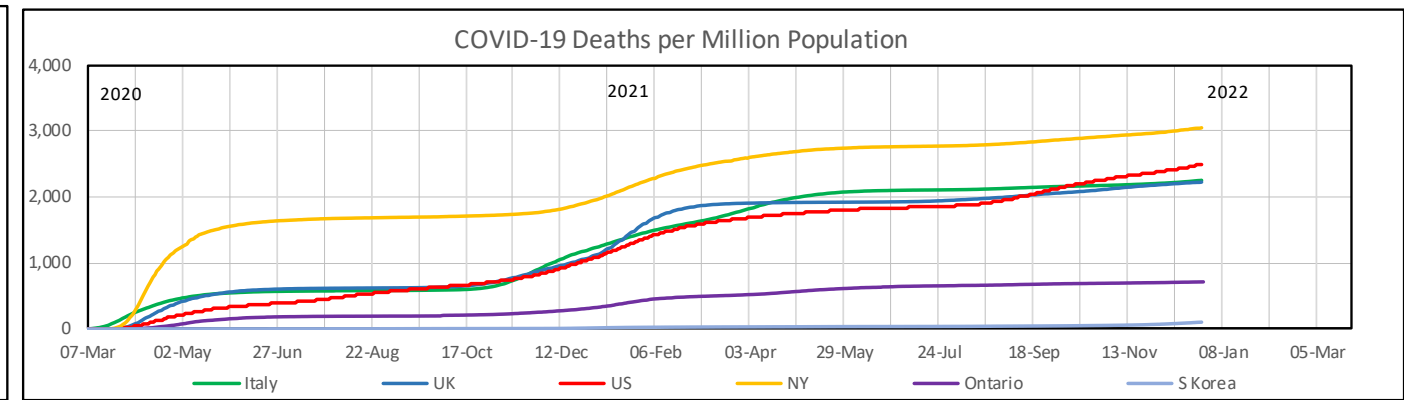
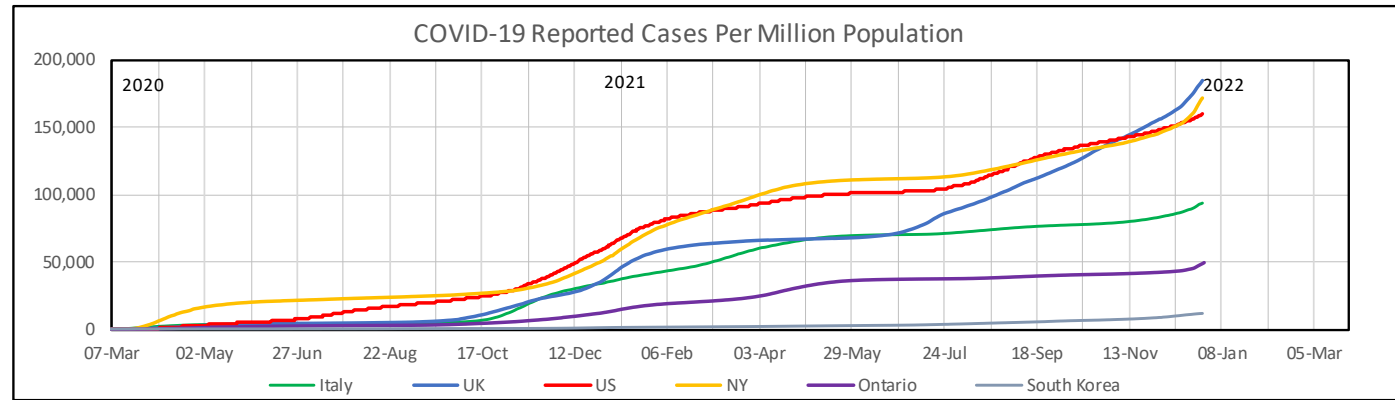


COVID-19 Observations – 30 December, 2021 – by Alex Harrington



What a mishmash of things going on this week, some good, some bad, and, as usual, some just stupid. That’s probably the biggest thing we can learn from this pandemic – given the opportunity, many will always choose stupid.

Cases are exploding everywhere – I had to change the scales on some of the charts so the data would still fit. Whatever the data are telling you, it’s worse because there are probably lots of cases unreported due to people not wanting to interrupt their holiday things. On top of that, there simply aren’t enough tests to deal with all the people who want to be tested. I’ve said from the beginning of this thing that testing will be crucial to getting out of it. Time after time, we’ve failed at testing. There are still not enough tests around to keep up with demand, and it’s not as if we didn’t know they would be needed. At every turn, our so-called leaders must have figured things will be OK, so let’s not bother with things as dull as testing. As I said – if you get a chance, choose stupid. The testing chart on the right shows that our testing has hardly changed over the course of the pandemic. Even the US, whose attitude to testing has been laughable, tests more than we do on a per capita basis.

The good thing is that hospitalizations and deaths are not rising at anywhere near the rate of the cases. That has allowed us to avoid lockdowns and other restrictions that would likely meet with strong resistance at this point.

We are likely facing a changed situation in the new year. To illustrate this, I’ve added a couple of charts, above. The usual charts are there, beginning with total cases and deaths to date, per million population, then the daily cases and deaths per million. Below them are the Ontario cases and deaths, along with my model predictions shown as the dotted line on the left in the third row. Active cases, hospitalizations and ICU use are shown beside that on the right. In the fourth row, I’ve added Ontario cases, hospitalizations and ICU use by vaccination status (left) and Ontario cases and effective vaccinations (right).

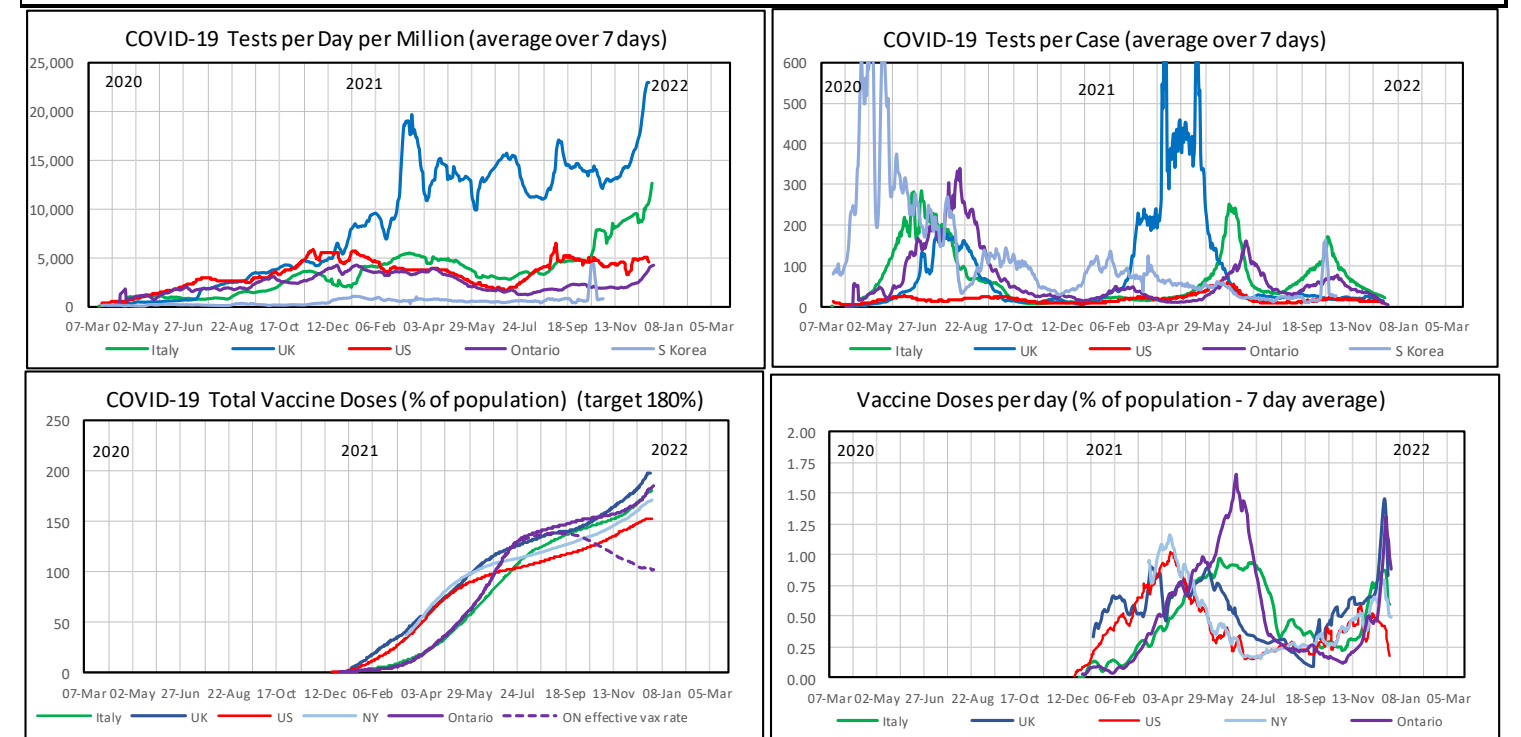
If you look at the vaccination status chart (fourth row, left) you can easily see that when second shots had started to take effect, the majority of cases were in the unvaccinated, represented by the solid graph lines. But you can also see that around the end of November vaccinations were becoming less effective at preventing infection, as the percentage of infection in the vaccinated (dotted lines) started to climb. Suddenly, by December, the omicron variant took hold and the percentage of vaccinated people in the case counts soared, while the percentage of unvaccinated plummeted. We expect that as more people get their booster shots, the situation may reverse again, but clearly being double vaccinated now is simply not providing long term protection. Time will tell if we are going to require boosters every few months to maintain protection.

A slightly different thing happened with hospitalizations over the fall. The proportion of fully vaccinated admitted to hospital gradually started to increase as vaccination protection wore off. But, when omicron struck, the unvaccinated remained the largest percentage of those hospitalized, as the vaccine reduced the severity of infection in vaccinated cases. We are now seeing about an even split in unvaccinated / vaccinated in hospitalizations, while we had started the summer at about an 80% / 20% split. ICU use shows a similar result. We started the summer at about a 90% / 10% split in unvaccinated / vaccinated. That has changed to about a 70% / 30% split with the omicron wave so far.

There are a few things to be concerned about. There is nothing protecting you from getting the virus right now except mask and distance. We’re assuming a booster will help. It probably will, but it’s too early to know for sure, and we don’t know how long it will be effective. If you do catch the virus, vaccination does protect you from serious illness. Some will say the hospitalizations are split evenly between vaxxed and unvaxxed so the vaccine doesn’t work. No – hospitalizations are split evenly right now, but there is a much larger number of vaccinated people, so fewer of them are going to hospital relative to the unvaxxed. The vaccine is still effective in preventing really serious cases requiring ICU admission – the split between vaxxed and unvaxxed has not changed much. What we don’t know is how “long covid” (long term effects due to covid) is affected by the omicron variant. Some of the long-term effects seen from covid so far are life changing – that is still a huge unknown with omicron, so don’t be comforted much when they say the symptoms are mild – some things we just don’t know yet.

COVID-19 Summary Data										
	Tests per Million	Tests per Day		Tests per Reported Case		Cases per Million		Deaths per Million		Deaths Per Case
	Total to Date	Average over Last 7 days		Total	Last 7 days	Total to date	Average per day Last 7 days	Total to date	Average per day Last 7 days	Total to date (%)
South Korea	307,090	41,914	818	43	26	12,016	110	104	1.4	0.9%
Italy	2,231,840	762,238	12,589	24	20	93,775	597	2,259	2.3	2.4%
UK	5,403,035	1,522,841	22,921	30	16	184,130	1,630	2,229	1.6	1.2%
US	2,140,414	1,486,244	4,517	14	8	160,435	722	2,487	4.4	1.6%
Ontario	1,448,980	60,723	4,168	29	6	49,818	529	698	0.5	1.4%

South Korea and Canada report people tested. The others report total tests. Total tests can be 10-50% higher than people tested



One last thing about data – our effective vaccination rate is bottoming (chart fourth row, right). If you compare the effective vaccination curve to my model case curve (purple dashed), you can see that it’s unlikely our booster shots will allow our vaccination curve to catch up to omicron. So you’re pretty well on your own – which has been the case all along if you think about it.

On another front, this week the US Centre for Disease Control announced a reduction in covid isolation time, from ten days to five. They said to wear a mask when going out, but said nothing about getting tested to be sure you are clear of covid after the reduced isolation time. They know there are not enough tests to meet demand right now but they will encourage people to come out of isolation early without being tested. They caved to pressure to get workers back to work faster. Given that we are dealing with one of the most infectious viruses ever seen, this has to rate almost at the Darwin Award level of stupidity. We have yet to see if our government will make a similar change – I like to think they won’t, or at least they’ll demand testing. We’ll see.

Well that’s it for this year. I’ll just sit here waiting for the results of my covid test (got a man cold, but figured I should be tested just to be sure). One thing you might want to consider is upgrading your mask to an N95, if you haven’t already. Otherwise, vaxx, mask and distance, and Happy New Year.

Take care of yourselves and don’t endanger others.