

Dear Sussan

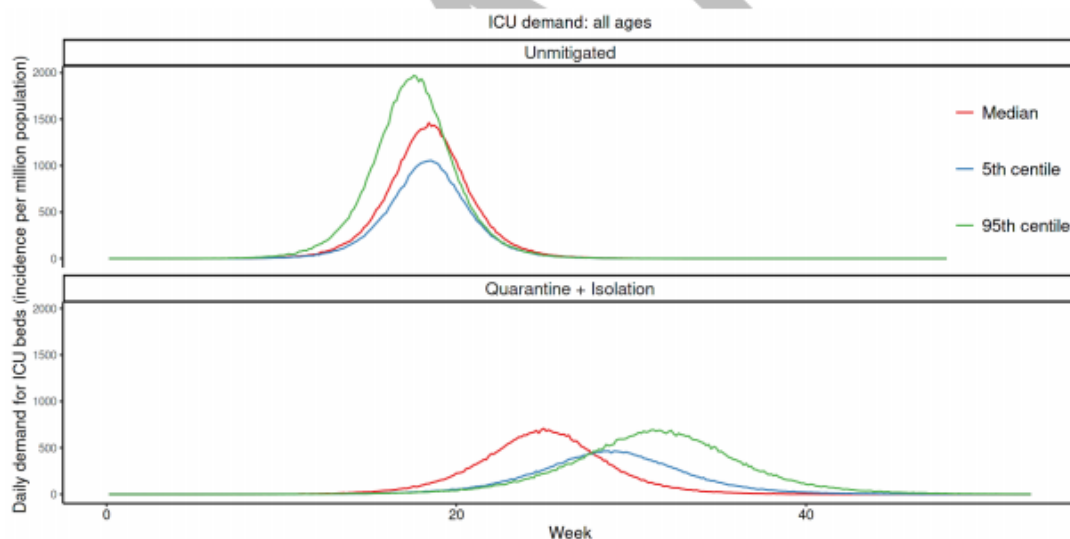
I write to you as one of your constituents regarding the government's COVID-19 response.

I commend the government on its actions and leadership, particularly provided by the Prime Minister.

As a mathematical physicist turned fund manager turned venture capitalist and farmer, I do however consider the flimsy COVID-19 modelling, released yesterday, as being nowhere near sufficient to fire off restrictions on the economy and civil liberties that require a \$320 billion support package.

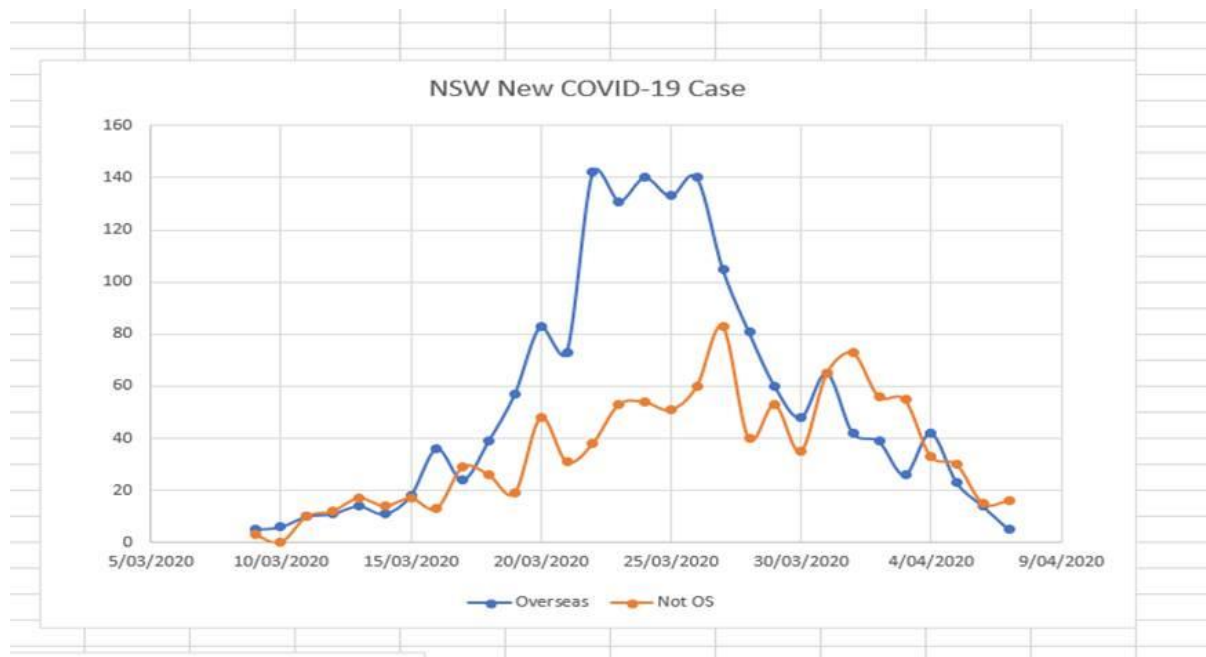
The modelling is academically rigorous and pointed to the types of interventions required but, notwithstanding Prof. Murphy and the PM's disclaimers, it was a forecast and it appears to have got its forecast badly wrong. It was especially wrong in forecasting the time to a peak in COVID-19 cases under the various scenarios, as seen in this diagram from the research paper:

Figure 2: Daily incident ICU admission demand per million population in an unmitigated (upper series) COVID-19 epidemic, compared with one mitigated by case targeted public health measures (lower series). Lines represent single simulations based on median (red), 5th (blue) or 95th (green) centile parameter assumptions.



The peak out at around 6 months, is undoubtedly what led the government to believe that it needed a six month life-line for the economy.

The problem with the modelling is that it didn't account for imported cases. (It used a so-called SEIR model. A SEIR model with imports should have been used.) All the overseas cases, including cruise ships are imported cases. Once the government took the very wise step of effectively closing our international borders and quarantining returnees, the number of imported cases dropped dramatically. This next graph is mine produced from NSW Gov data. The other states are anything but transparent in making data available for external modelling but NSW makes the point.



The blue line is new cases coming from overseas while the orange line is local cases and cases under investigation, some of which may also be from overseas. (Note there may be incomplete data for the last couple of days.)

What is clear, is that the overseas cases grew exponentially but once the borders were closed they collapsed. The domestic cases grew at a rate that isn't clearly statistically exponential and has also reduced due to social distancing etc.

Given this, I think it likely that the National Cabinet could have achieved very similar results by closing the international borders, as has occurred, and strongly promoting hand washing and 1.5 metre distancing in the domestic sector, which also would have required stopping crowd events. The cost to the economy would have been a fraction of what is now on the cards.

The government has been badly let down by the modelling that has been done for it. The point of this communication, apart from bringing this to your attention, is to suggest that going forward the government takes a much more considered approach to the inputs that it uses to get us out of this COVID-19 situation. The public health people are expert at protecting the population and tend to be very conservative at doing so. The treasury people have designed some innovative and commendable initiatives to keep the economy going. However, if the former is feeding the latter ultra conservative and incomplete information then the economy is likely to be tanked and the Morrison Government will have the equivalent of a "pink batts" situation on its hands, which I'm sure the opposition will leap at.

I hope that this analysis is of use to you and that you may have some influence in guiding us to the other side of the pandemic.

I wish you and your family a safe personal passage to the other side.

Kind regards

Nick