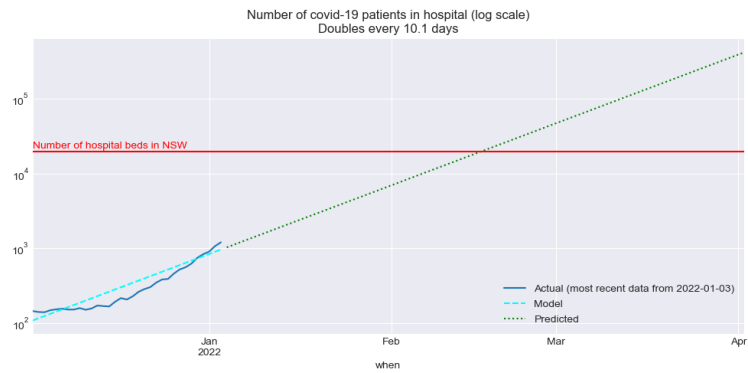# NSW Covid Update for 2022-01-03
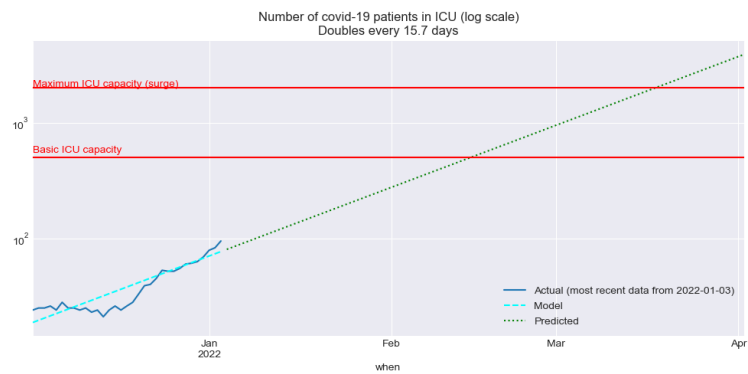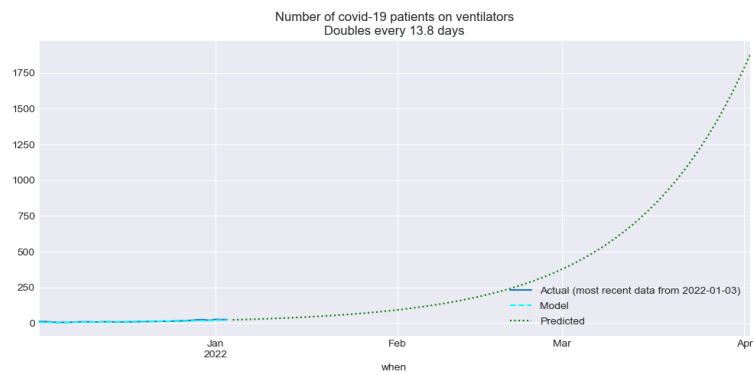
Hospitalisation
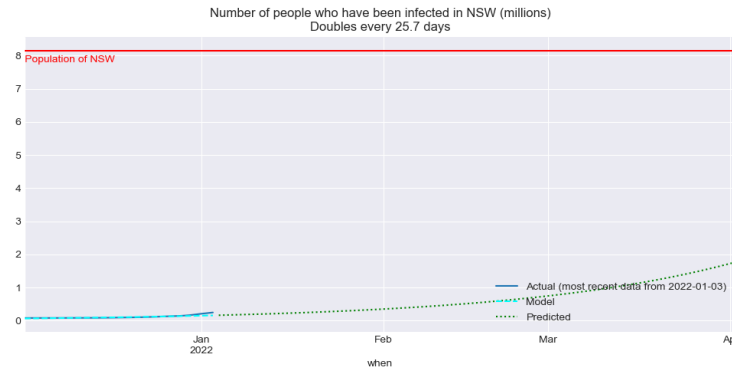
Number of covid-19 patients in hospital (log scale)
Doubles every 10.1 days

Number of hospital beds in NSW

- Actual (most recent data from 2022-01-03)
- Model
- Predicted

when

ICU

Number of covid-19 patients in ICU (log scale)
Doubles every 15.7 days

Maximum ICU capacity (surge)

Basic ICU capacity

- Actual (most recent data from 2022-01-03)
- Model
- Predicted

when

Number of people on ventilators

Number of covid-19 patients on ventilators
Doubles every 13.8 days

- Actual (most recent data from 2022-01-03)
- Model
- Predicted

when

1

Number of confirmed infections

Number of people who have been infected in NSW (millions)
Doubles every 25.7 days

Deaths

Number of covid-19 related deaths
Doubles every 436.0 days
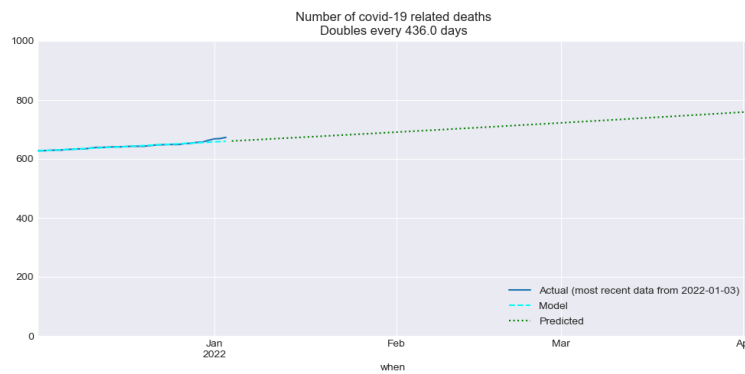
What could be wrong with this model?

- Maybe unvaccinated people are catching Omicron first, and then having the worst outcomes, and going to hospital. So maybe once Omicron has churned through them, the number of hospital places will stop rising.

- Maybe there are vastly more cases than have been reported (e.g. people who took a RAT test and then stayed home until they recovered without telling anyone and without taking a PCR test); so maybe Omicron will saturate the population sooner than my model predicts and so we'll never get to filling the hospitals.

- Maybe the booster doses will have an unexpected effect on the number of people in hospitals, etc. That is, if the booster makes you 8 times less likely to need to go to hospital, then that just delays the date when the hospitals are overloaded by 3 weeks. But if the booster dose has super

powers (1000 times less likely to need to go to hospital), then we might never saturate.
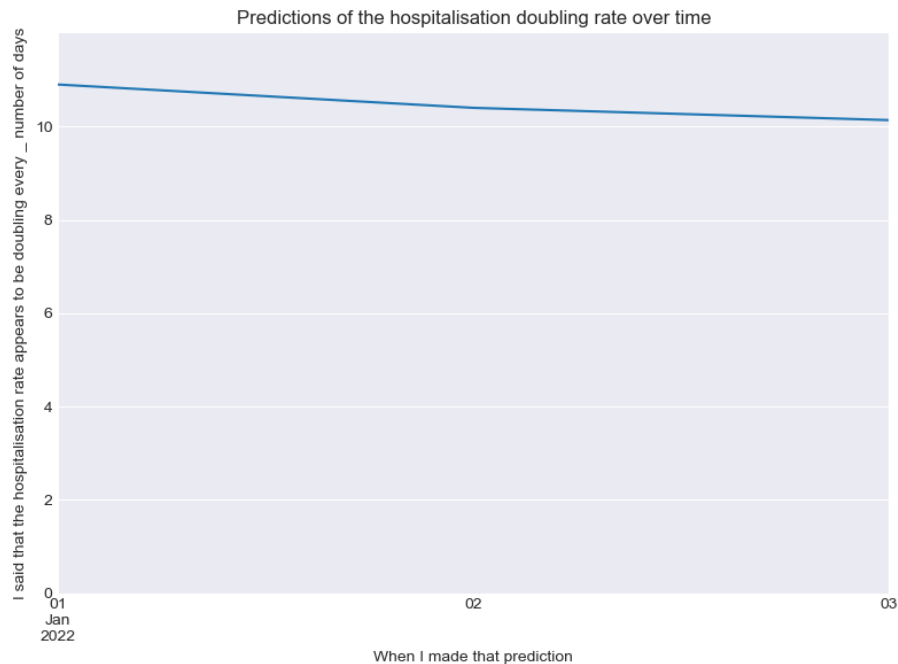
- I'm calculating everything independently of each other (hospitalisations aren't modelled as having a relationship to the number of cases). The further out you go the less accurate it is. Perhaps my inaccuracies are piling up so that even predicting 7 weeks into the future is wrong.
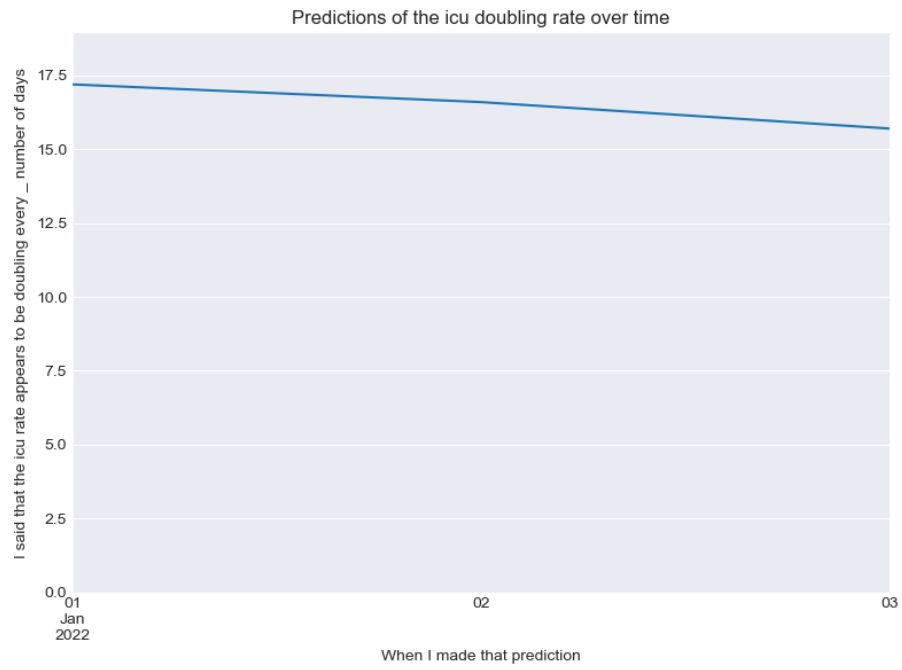
How trustworthy is this?

Here are some charts of how my predictions have changed over time.

A flat line means that I have been quite consistent. A line trending down means that the situation has been getting worse, and I have been too optimistic.
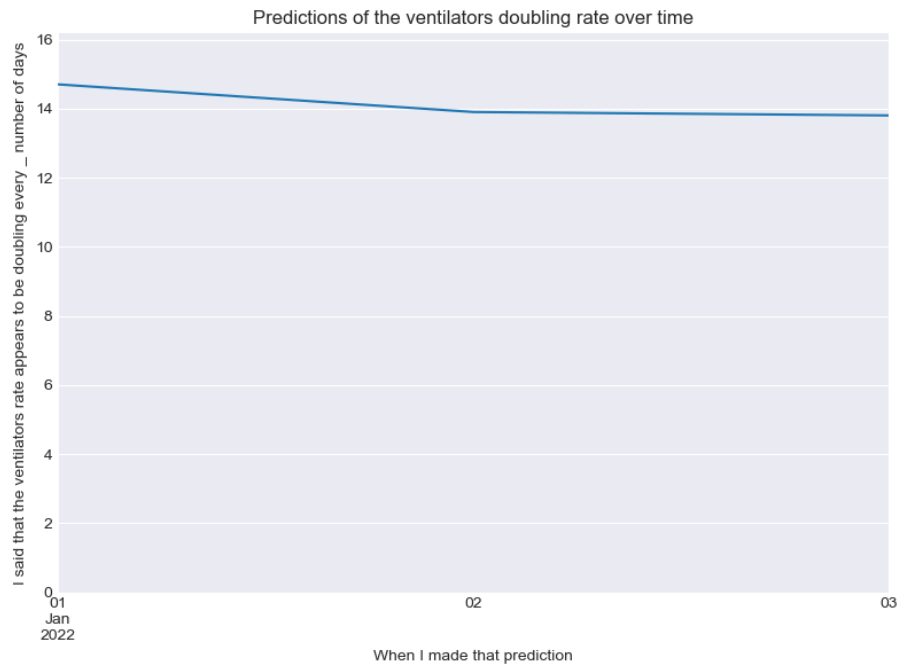
Hospitalisation

Predictions of the hospitalisation doubling rate over time

I said that the hospitalisation rate appears to be doubling every _ number of days

When I made that prediction

ICU

Predictions of the icu doubling rate over time

- y-axis: I said that the icu rate appears to be doubling every _ number of days
- x-axis: When I made that prediction

Number of people on ventilators

Predictions of the ventilators doubling rate over time

When I made that prediction

I said that the ventilators rate appears to be doubling every _ number of days

Number of confirmed infections

Predictions of the infection doubling rate over time

Deaths

Predictions of the deaths doubling rate over time