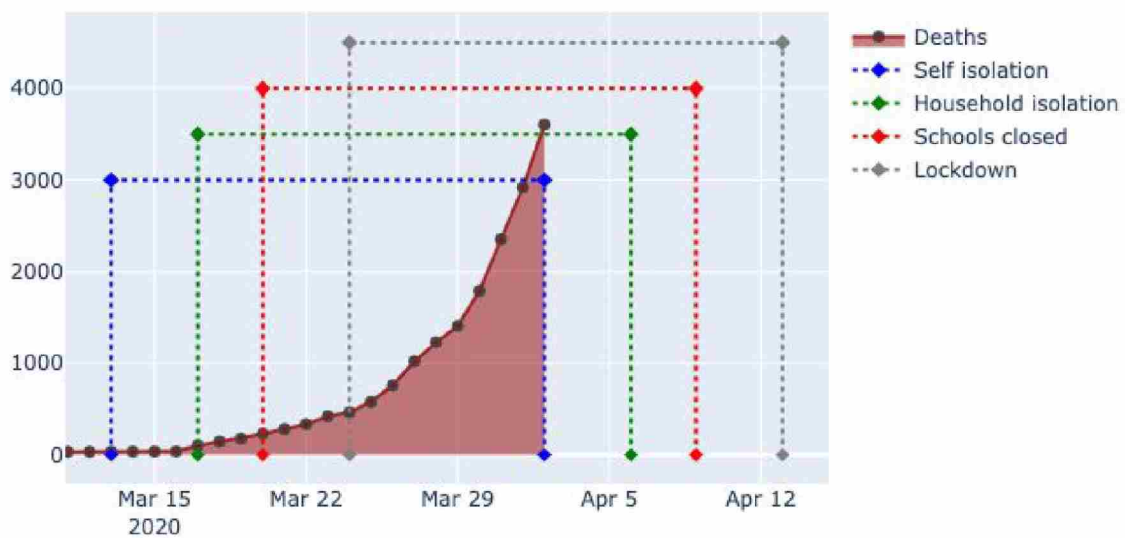


We have currently implemented a stringent set of measures in order to avoid an Italy-like scenario, in which the NHS collapses causing the death rate to double.

Because of the delay from implementation to impact we had to implement additional measures before we understood the impact of the early interventions to avoid an Italy-like scenario.

The graph below shows the number of deaths, the interventions and a rough estimate for when we would expect to see an impact on the numbers.

Story of the epidemic



Preliminary data analysis suggests that we are likely to be similar to the Italy scenario due to the combination of efforts to increase capacity and the social impact measures. We will likely see the numbers decline after the 12th (with a margin of error of a few days), when daily deaths begin declining we know that the first crisis has passed.

From the decline, we will be able to measure the effectiveness of our current measures. Preliminary results based on surveying how behaviour has changed suggest that the range for R_0 is currently around 0.6, with a max of 0.9.

Therefore, modelling suggests that lifting any of the current measures would result in the R value increasing above 1 and therefore an exponential rise in infections.

This means that in order to lift measures, we need to replace them with other measures that have a similar effect on the epidemic, but a lower cost to society more broadly (economic, societal/public service, health).

We also need to ensure that we consider the NPI interventions as a whole system for three reasons:

- 1) Some measures will have little or potentially negative impact because other measures dominate and have second-order effects.
- 2) The R value that will drive the growth of the epidemic is not the average but the highest value.
- 3) If we commission out work, then it is likely that small crucial small vulnerable groups who are indirectly affected may be missed (household quarantine and the effect on domestic abuse).

We can lay out the system that needs to exist to allow for this problem to be worked through:

