



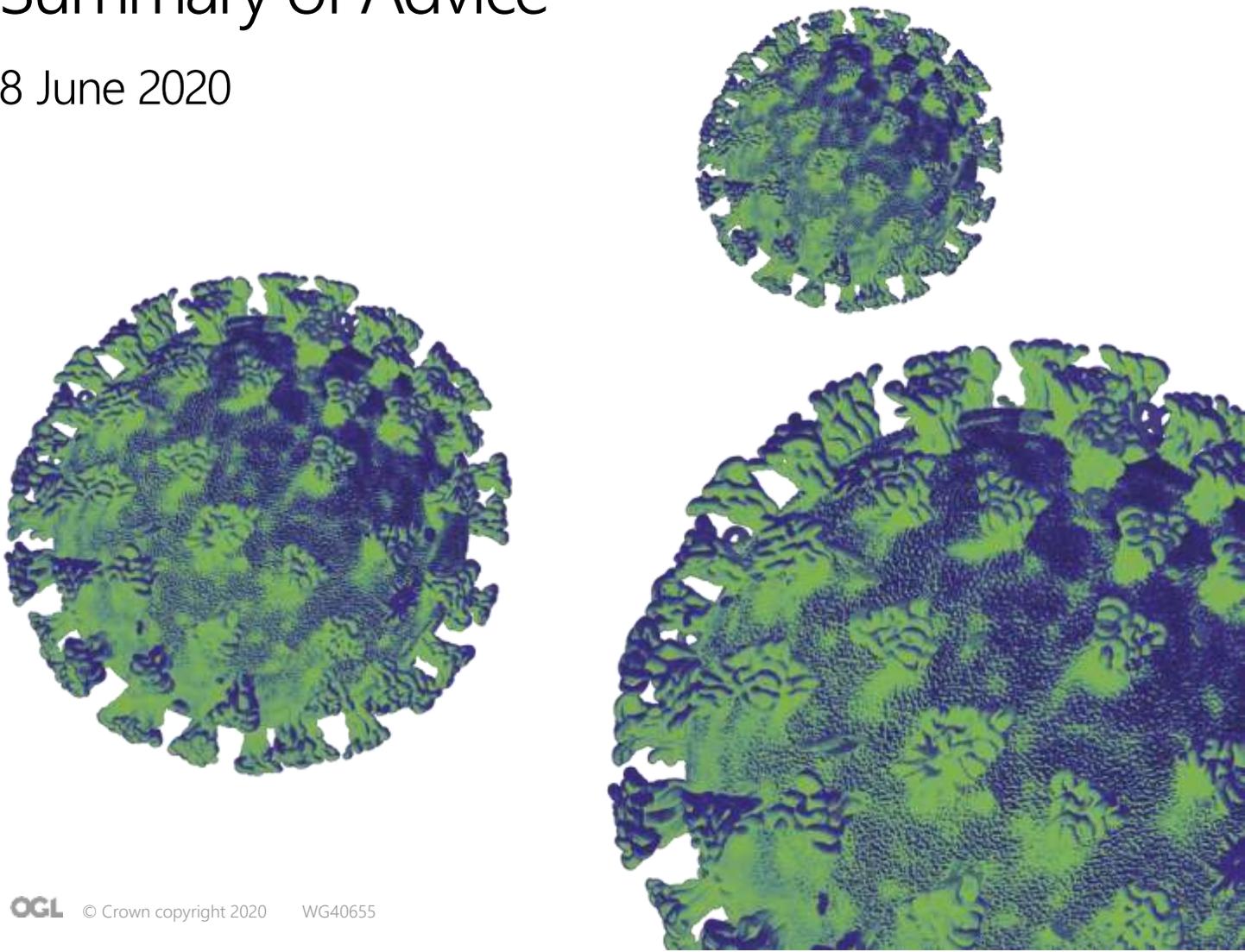
Llywodraeth Cymru  
Welsh Government

# Technical Advisory Cell

## Impact of European measures to ease lockdown restrictions on R value

### Summary of Advice

8 June 2020



# Technical Advisory Cell: Impact of European measures to ease lockdown restrictions on R values

## Summary of Advice

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### Summary:

1. Wales and the UK were behind many countries in Europe in the early development of the COVID-19 pandemic, with initial estimates of a delay of 2 to 3 weeks in the rapid spread of the disease.
2. The imposition of lockdown requirements lagged many countries in Europe by 2 to 3 weeks.
3. Consequently, lessons learnt from European countries are applicable only after consideration of the 2 to 3 weeks lag.
4. Many countries in Europe showed a sharp decline in the CV19 infection rate following lockdown.
5. The UK did not show the same sharp drop in infection rate following the lockdown and it has taken longer for the UK to approach levels of infection typical of several European countries.
6. Consequently, it could be concluded the UK's lockdown measures were not as successful as those of several other European countries, as evidenced further by the larger number of deaths in the UK than any other European country of comparable population size (France, Germany, Italy).
7. It is likely that the number of people in the UK who have been exposed to the CV19 virus is higher than in other European countries of comparable population size (France, Germany)
8. Release from lockdown in many European countries has not resulted in a rapid rise in R values as evidenced by the declining infection rate in Germany, France and other countries.
9. In most countries, the R value has fallen to a 'flat-line' at, or slightly below 1.
10. Some European countries (e.g. France) show strong hints that the R value might be rising in the most recent time period (up to early June) as a result of unlocking measures, but this needs to be taken with caution because the infection rate is very small and the R value will be disturbed by 'random noise'.
11. It is too early to tell whether the hints at increasing R values in some countries are a result of random variation or are an indication of a real and sustained increase.
12. The modelled estimation of R values lag real time by about 2 to 3 weeks because of the delay from the point of transmission to the point of tested confirmation of infection.
13. If more than one unlocking action is taken at one time, it is very difficult to attribute any detrimental change in R value to any one action taken.

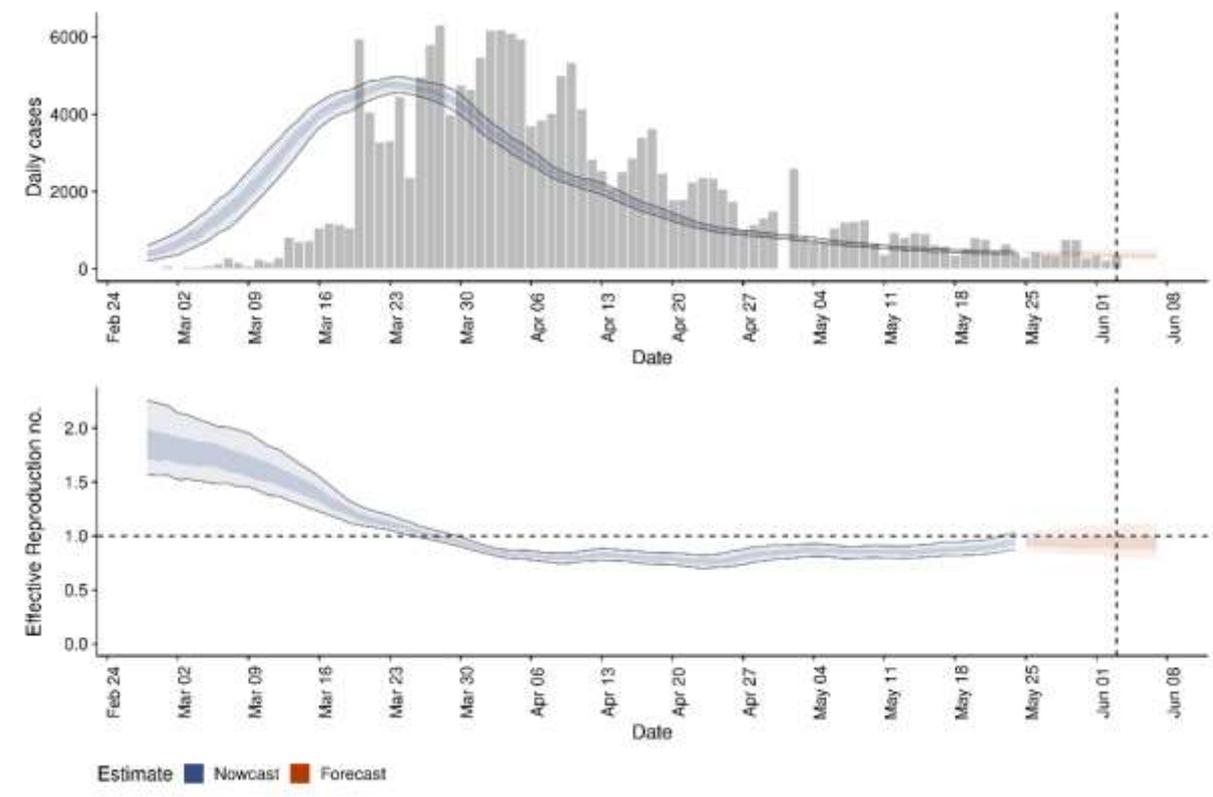
14. Conclusion: when unlocking the UK, caution is required when making comparisons with other European countries, so a cautious approach to further unlocking measures would be prudent.

### Individual Countries' Data

For comparison purposes, the new cases per day and the calculated R values for some European countries are illustrated below.

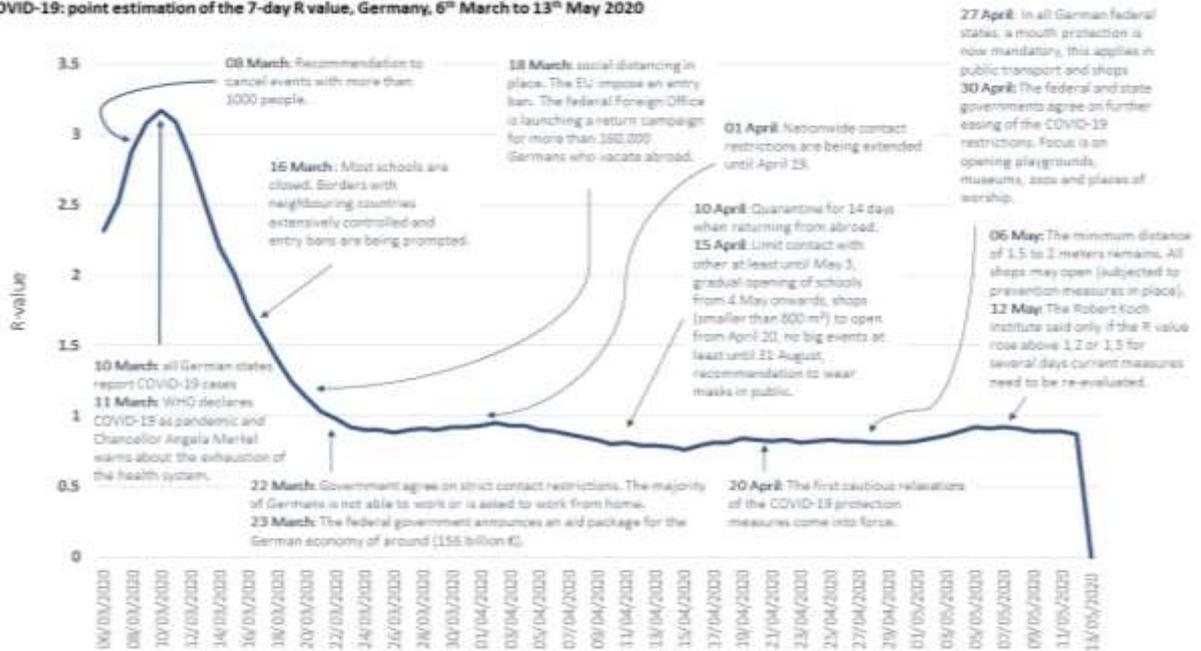
To illustrate the effects on R of unlocking actions, Germany has been selected as a more detailed case study. (Note: there are minor detailed differences in the R values illustrated below in the two Germany graphs because each comes from a different R value model).

### Germany – a more detailed case study

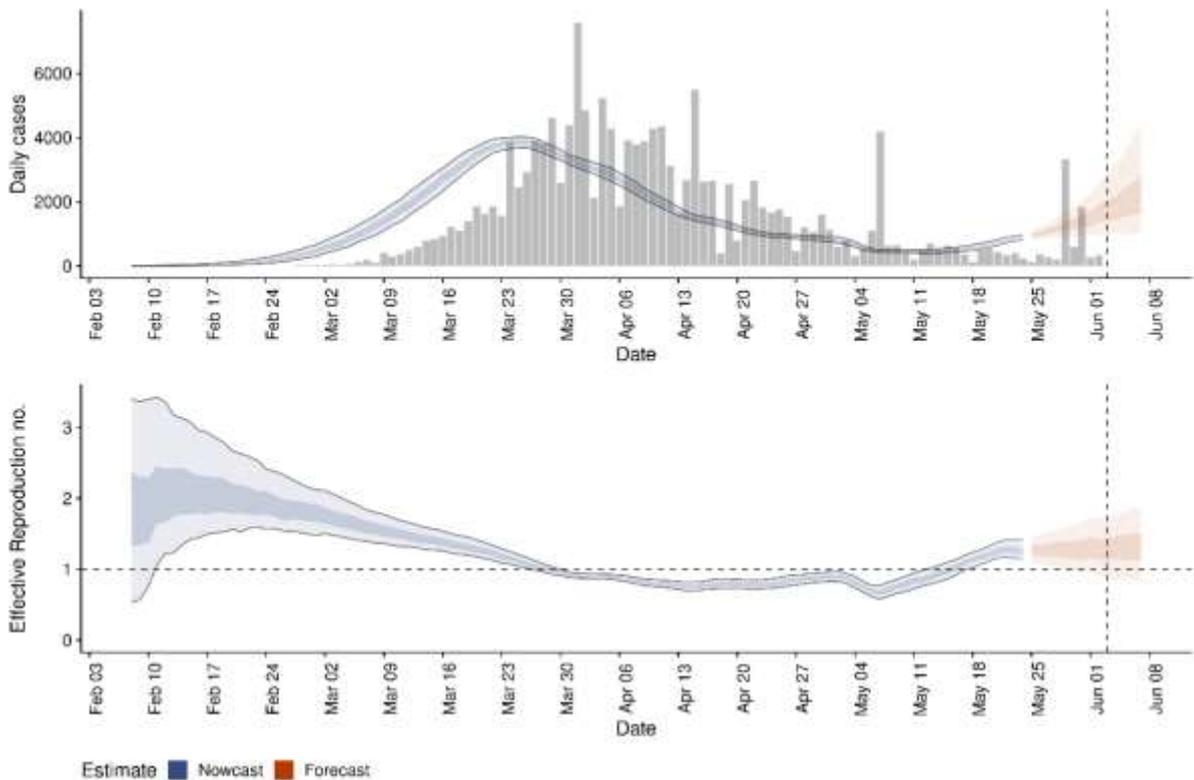


The R value is illustrated below in more detail with corresponding lockdown actions and some release measures. This graph shows that the R value has fallen from a value well above 1 (in the range approximately 2.5 to 3.2) in the early part of the pandemic to a value less than one. It should be noted that the R value, although less than 1, remains approximately steady through time (varying between about 0.75 to 0.9). What is reassuring is that there is little hint of it rising significantly in a sustained manner. The data comes from the Robert Koch institute and was illustrated in the manner below by 'Policy and International Health, WHO Collaborating Centre on Investment for Health and Well-being, Public Health Wales', with thanks.

COVID-19: point estimation of the 7-day R value, Germany, 6<sup>th</sup> March to 13<sup>th</sup> May 2020

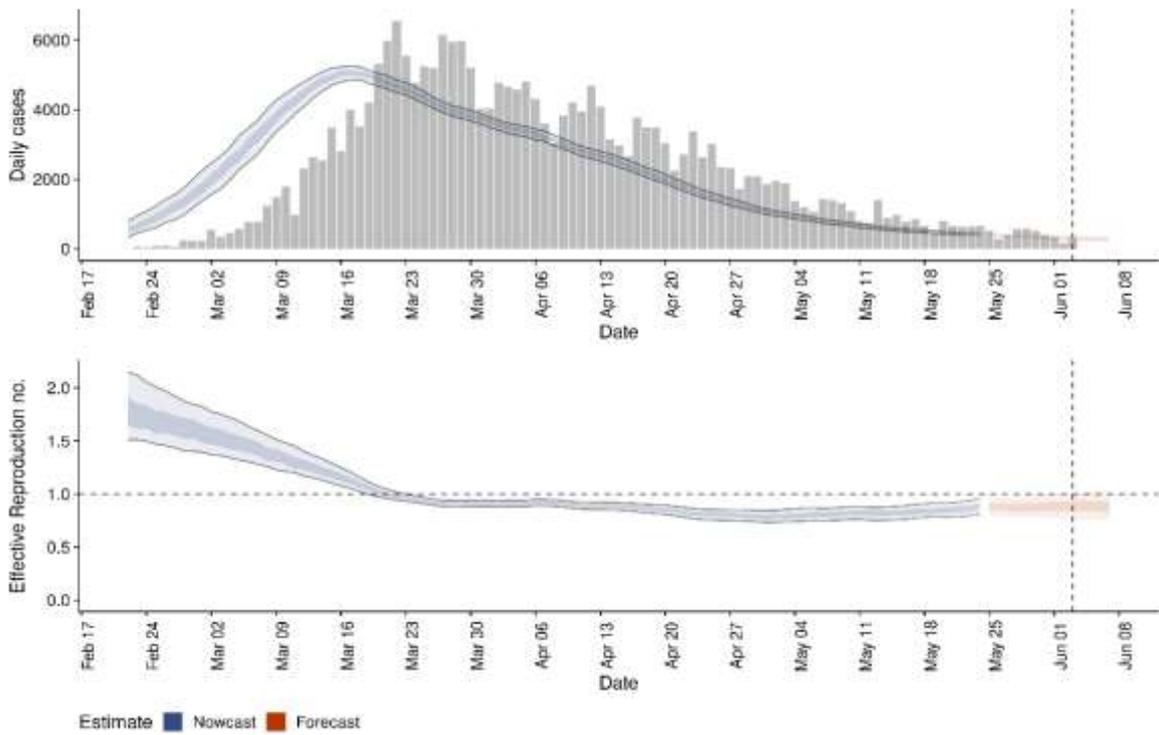


## France



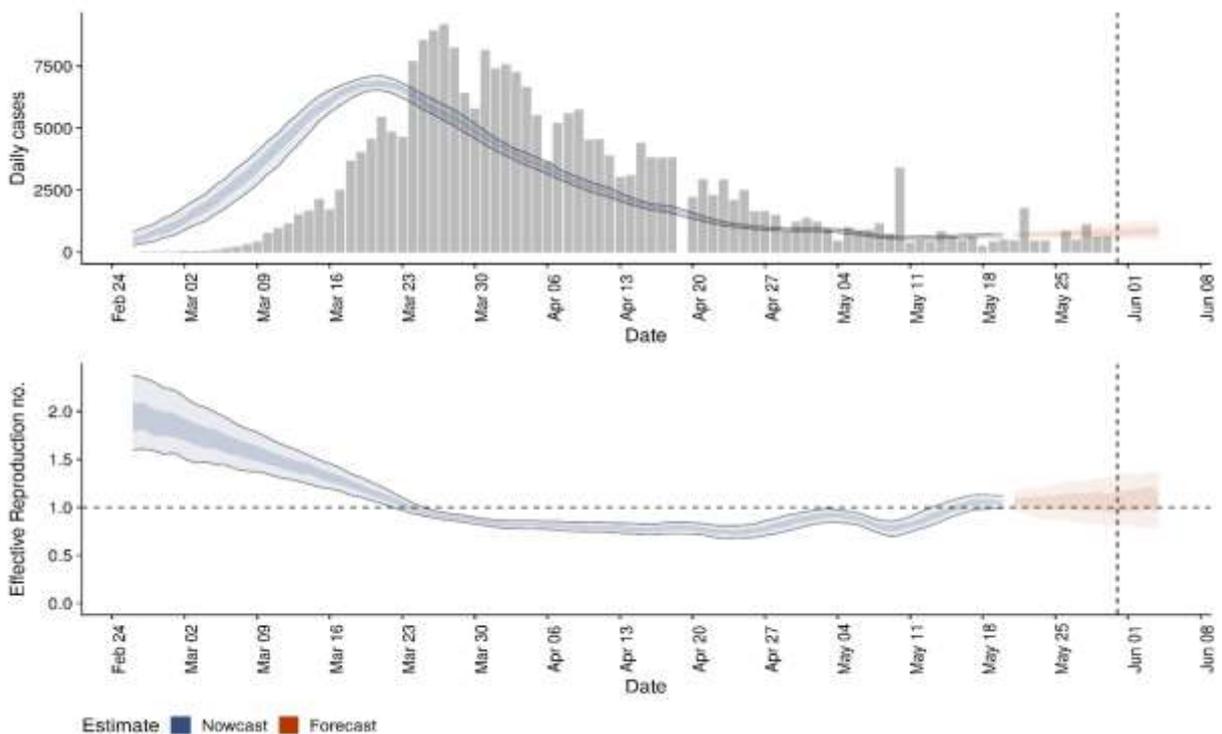
**Italy**

Date at which release from lockdown started: 4 May 2020

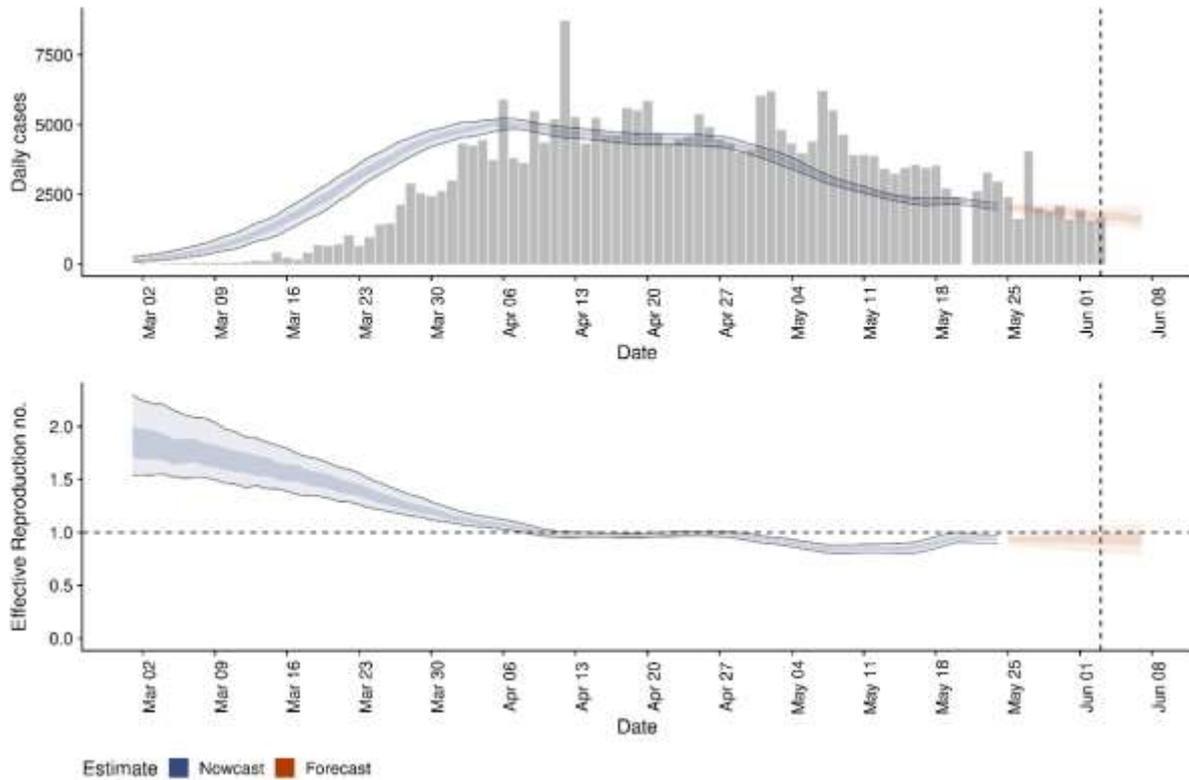


**Spain**

Date at which release from lockdown started: 13 April 2020



### The United Kingdom – National and Sub National



Date at which release from lockdown started: 11 May 2020

### Wales

