- 7. SPI-M-O's best estimate is that R is between 1.3 and 1.5 in the UK. SPI-M-O's agreed national and regional estimates are summarised in Table 1 and Figures 1, 2, and 4. These suggest R is almost certainly above 1 in England, Scotland, Wales, Northern Ireland, and all regions in England.
- 8. SPI-M-O's consensus R and growth rate estimates are based on a range of models that use a variety of data sources including deaths, hospital admissions, and number of individuals testing positive. The delay between initial infection, developing symptoms and the need for hospital care, means that, such estimates cannot yet fully reflect the most recent changes in transmission from the past two to three weeks, including any impact from the measures recently announced.
- 9. There is consensus that it is almost certain the epidemic continues to grow across the country. SPI-M-O's R and growth rate estimates for the UK and England are in line with previous weeks any differences are explained by reporting delays, rounding and the inclusion of different models in the statistical combination for estimates.

## Growth rates and doubling times

- 10. For small daily changes, the growth rate is approximately the proportion by which the number of infections increases or decreases per day, i.e. the rate at which an epidemic is growing or shrinking<sup>1</sup>.
- 11. SPI-M-O's consensus estimate is that growth rate in the UK is between +4% to +7% per day. SPI-M-O's national and regional estimates are summarised in Table 1 and Figure 3. This growth rate suggests the number of new daily infections was doubling in the recent past every 10 to 15 days in the UK. As above, these estimates cannot fully reflect any changes in transmission which might have occurred over the past two to three weeks. As with R, there is uncertainty in estimates of growth rate and doubling time.

## Reliability

12. As the number of infections is increasing across the UK, SPI-M-O's view is that there is less variability in the R and growth rate estimates compared to those made two to three months ago. There may still be high degrees of variability in, for example, a localised outbreak, however, SPI-M-O considers all this week's estimates to be reliable.

<sup>&</sup>lt;sup>1</sup> Further technical information on the growth rate can be found in Plus magazine.