

SPI-M-O: Consensus Statement on COVID-19

Date: 7th July 2021

All probability statements are in line with the framework given in the Annex.

Summary

1. SPI-M-O's best estimate for **R in England is between 1.2 and 1.5. R is estimated to be between 1.2 and 1.5 for Scotland, 1.2 and 1.5 for Wales, and 1.3 and 1.6 for Northern Ireland.** These estimates are based on data available up to 5th July, including hospitalisations, deaths, symptomatic testing, and longitudinal studies.
2. SPI-M-O estimates that there are between **21,000 and 42,000 new infections** per day in England.

Incidence and prevalence

3. Combined estimates from four SPI-M-O models, using data available up to 5th July, suggest there are between **21,000 and 42,000 new infections per day in England.**
4. During its most recent week (27th June to 3rd July), the ONS community infection survey estimates that an average of **332,900 people had COVID-19** in the community in England (95% credible interval **296,700 to 368,700**). The survey does not include people in care homes, hospitals, or prisons. Estimates from across the four nations of the UK are:

England	332,900 (95% credible interval 296,700 to 368,700)
Scotland	53,200 (95% credible interval 41,300 to 67,000)
Wales	9,000 (95% credible interval 5,300 to 13,600)
Northern Ireland	6,100 (95% credible interval 3,000 to 10,500)

Growth rate and reproduction number

5. 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 speed at which an epidemic is growing or shrinking¹.
6. SPI-M-O's consensus estimates for the **growth rates in the four nations are:**
England is between **+3% to +7% per day**,
Scotland is between **+3% to +7% per day**,
Wales is between **+3% to +7% per day**, and
Northern Ireland is between **+4% to +10% per day**.

¹ Further technical information on the growth rate can be found in [Plus magazine](#)

SPI-M-O's national and regional estimates of growth rates are summarised in Table 1 and Figure 2.

7. The reproduction number (R) is the average number of secondary infections produced by a single infected individual; it is an average over time, geographies, viral variants, and communities.
8. SPI-M-O's best estimate for **R in England is between 1.2 and 1.5. R is estimated to be between 1.2 and 1.5 for Scotland, 1.2 and 1.5 for Wales, and 1.3 and 1.6 for Northern Ireland.** SPI-M-O's agreed national estimates are summarised in Table 1 and Figure 1, and these are based on the latest data available up to 5th July.
9. R is an indicator that lags by two to three weeks and therefore does not reflect any behavioural changes that have happened during this time. Regional estimates can be seen in Table 1 and Figure 3.
10. Although there are differences in the prevalence of infection across the UK, the prevalence of infection is growing similarly in all areas and spatial scales.

Table 1: Combined estimates of R values and growth rates in the four nations of the UK and NHS England regions (90% confidence interval)².

Nation	R	Growth rate per day	Doubling time ³
England	1.2 to 1.5	+3% to +7%	11 to 20 days
Scotland	1.2 to 1.5	+3% to +7%	11 to 18 days
Wales	1.2 to 1.5	+3% to +7%	10 to 22 days
Northern Ireland ⁴	1.3 to 1.6	+4% to +10%	7 to 15 days
NHS England region	R	Growth rate per day	Doubling time ³
East of England	1.1 to 1.5	+2% to +7%	11 to 33 days
London	1.1 to 1.4	+2% to +6%	13 to 33 days
Midlands	1.2 to 1.5	+4% to +8%	9 to 16 days
North East and Yorkshire	1.3 to 1.6	+5% to +8%	8 to 13 days
North West	1.1 to 1.2	+1% to +4%	19 to 35 days
South East	1.3 to 1.6	+4% to +9%	8 to 16 days
South West	1.3 to 1.6	+5% to +8%	9 to 14 days

² The estimated intervals for R and growth rate may not exactly correspond to each other due to the submission of different independent estimates and rounding in presentation.

³ As R approaches 1, halving time (less than 1) or doubling time (greater than 1) rapidly tend towards infinity. Any estimates with a halving or doubling time of more than 40 days have been described as flat.

⁴ Particular care should be taken when interpreting these estimates as they are based on low numbers of cases, hospitalisations, or deaths and / or are dominated by clustered outbreaks and so should not be treated as robust enough to inform policy decisions alone.

Annex: PHIA framework of language for discussing probabilities

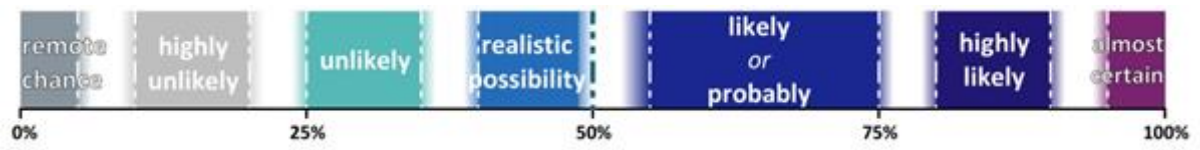


Figure 1: SPI-M-O groups estimates of median R in the four nations of the UK, including 90% confidence intervals. Bars represent different independent estimates. The grey shaded areas represent the combined numerical range and the black bars are the combined range after rounding to 1 decimal place.

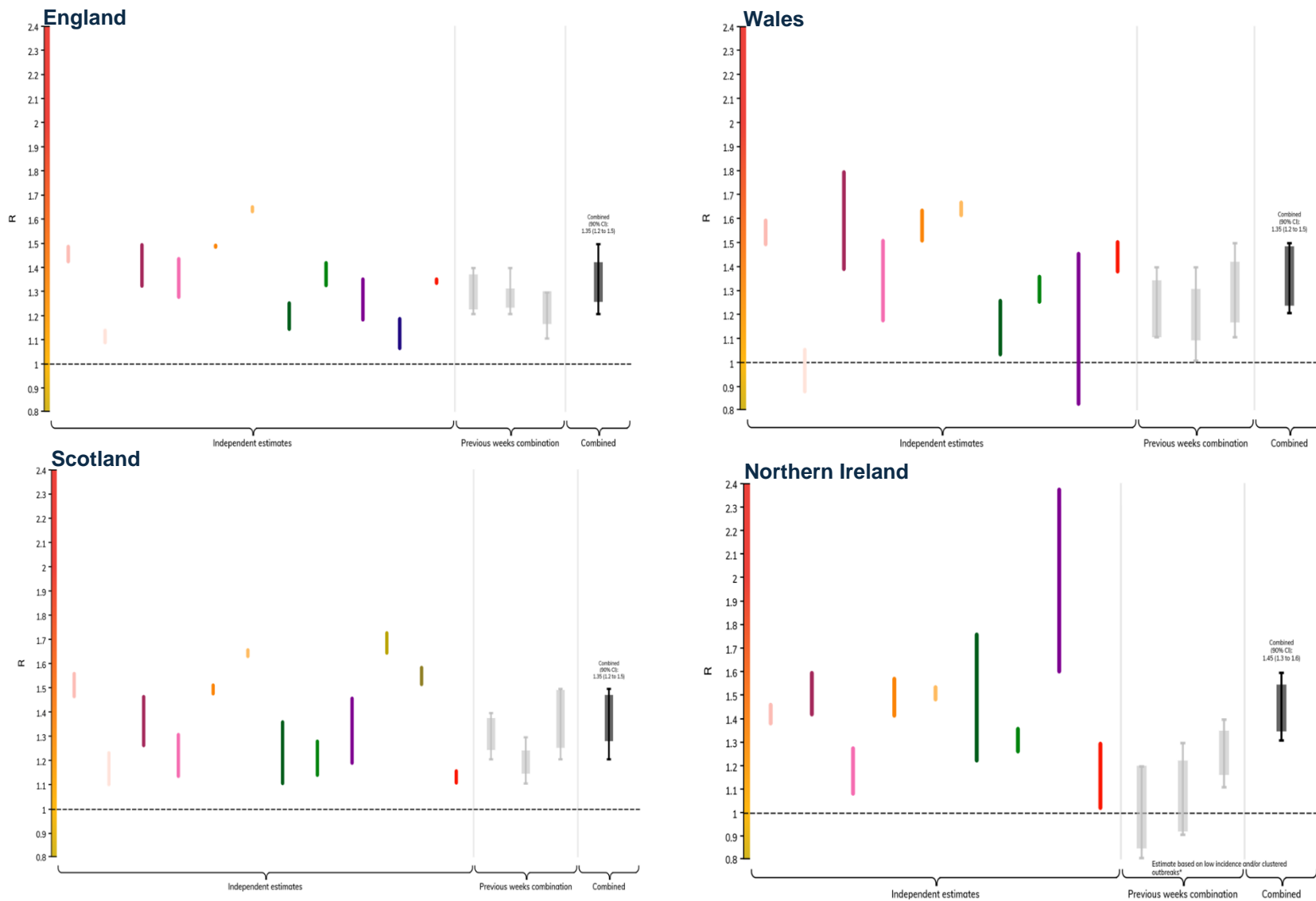


Figure 2: SPI-M-O groups' estimates of the growth rate in NHS England regions, including 90% confidence intervals. Bars represent different independent estimates. The grey shaded areas represent the combined numerical range and the black bars are the combined range after rounding to 2 decimal places.

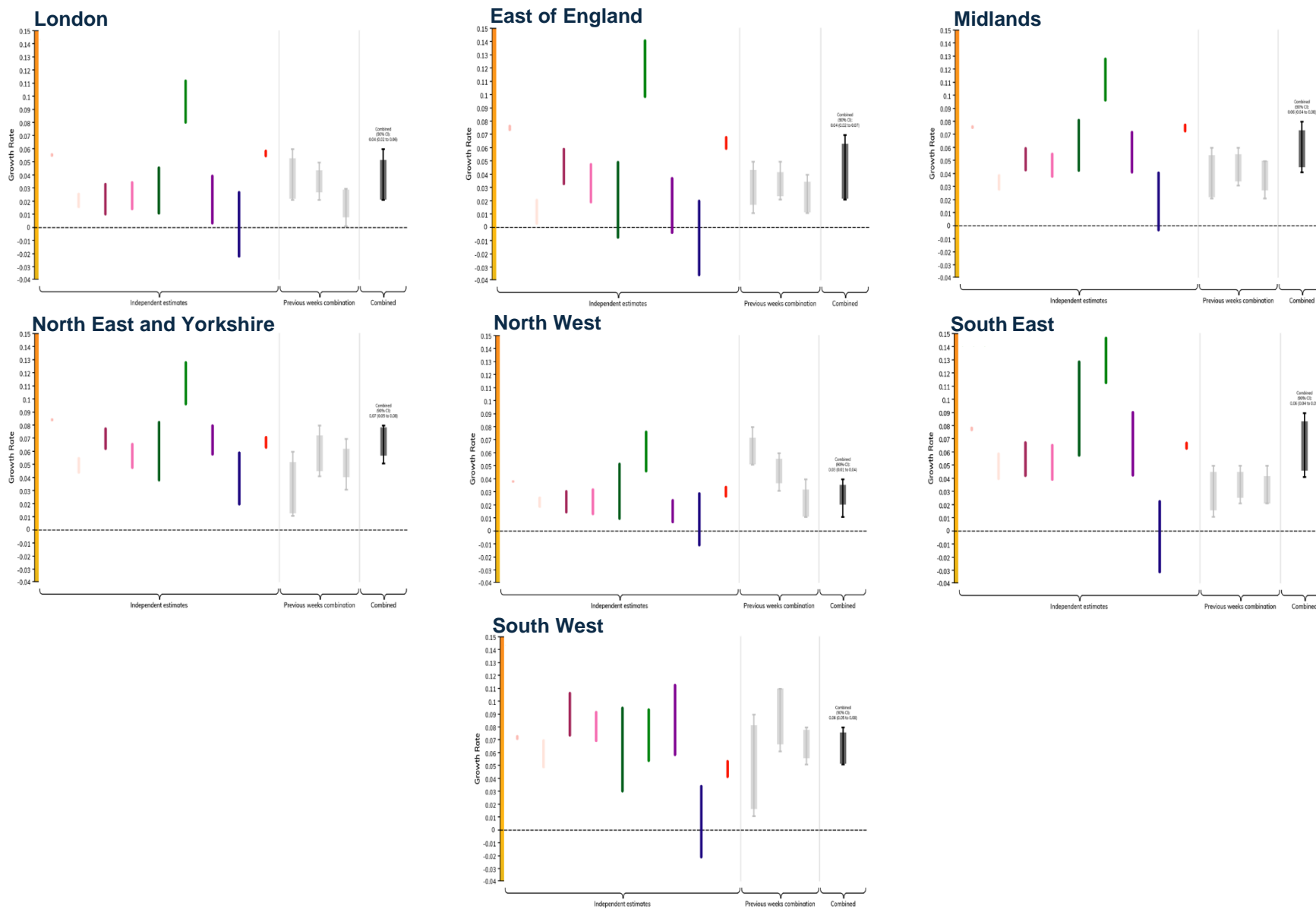


Figure 3: SPI-M-O groups' estimates of median R in the NHS England regions, including 90% confidence intervals. Bars represent different independent estimates. The grey shaded areas represent the combined numerical range and the black bars are the combined range after rounding to 1 decimal place.

