SPI-M-O Medium Term Projections

As at 15/09/2020

SPI-M-O medium term projections

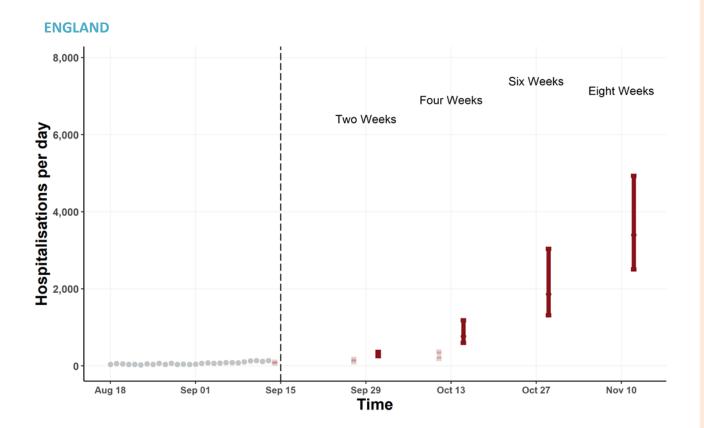
- These projections are under development and represent SPI-M-O's best assessment of the potential trajectory of the epidemic over the next 8 weeks, based on the patterns seen and data available up to 15th of September 2020. Projections for hospitalisations are provided for England, Scotland, Wales, Northern Ireland and NHS England regions.
- These **portray a range of possible futures** and are produced by fitting epidemiological models to trends in the past data. SPI-M-O members extrapolate forwards and use their expert judgements about how viral transmission will change **in the absence of additional government intervention or behavioural changes**.
- Modelling groups have made assumptions about the likely impact of opening schools on viral transmission.
- Further work is required on these projections; currently only one modelling group and the Scottish Government have submitted results for hospital admissions. Other groups are developing their methodologies and will provide results over the coming weeks and that will lead to more robust combined results in the future. Until this point, these projections should be considered as drafts for discussion and a work in progress.
- Making projections at the turning point of an epidemic is particularly challenging; this was the situation in the UK at the time these projections were developed. The lagged nature of many data streams makes it difficult to detect and interpret changes.

Metrics:

• New hospitalisations per day: Number of individuals admitted with COVID-19 and inpatients newly diagnosed with COVID-19. Data definitions differ slightly across all four nations.

New hospitalisations per day

As at 15/09/2020





Model

Individual model predictions from each respective SPI-M participant.



Key

- • Real data
- ••• Unconfirmed data
- --- Today's date

Notes:

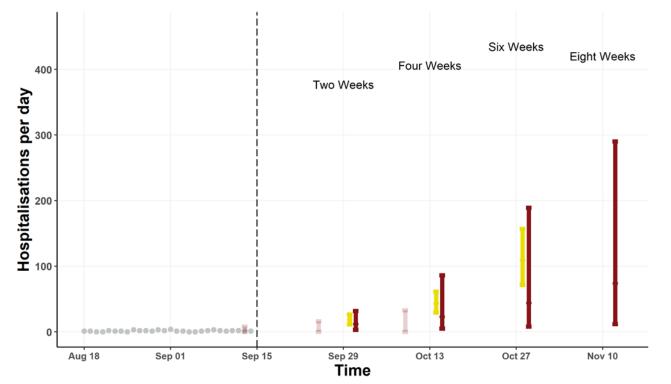
Number of patients admitted with confirmed COVID-19 and the number of inpatients diagnosed with COVID-19 in the past 24 hours.



New hospitalisations per day

As at 15/09/2020

SCOTLAND





Model

Individual model predictions from each respective SPI-M participant.



BAYESIAN MECHANISTIC

Key

- • Real data
- ••• Unconfirmed data
- --- Today's date

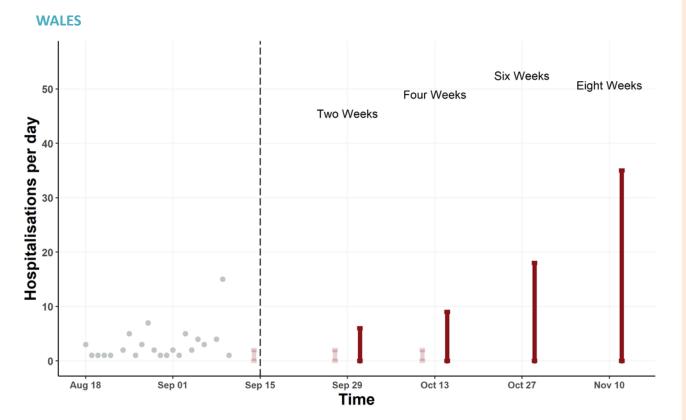
Notes:

Number of patients admitted with confirmed COVID-19 and inpatients diagnosed with COVID-19 within 7 days of admission.



New hospitalisations per day

As at 15/09/2020





Model

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Key

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- --- Today's date

Notes:

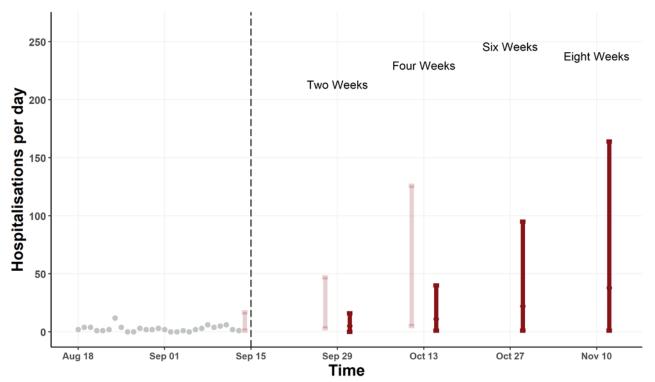
Number of patients admitted with confirmed COVID-19 and the number of patients diagnosed with COVID-19 on the day of admission.



New hospitalisations per day

As at 15/09/2020

NORTHERN IRELAND





Model

Individual model predictions from each respective SPI-M participant.



Key

- • Real data
- ••• Unconfirmed data
- --- Today's date

Notes:

Number of patients admitted with confirmed COVID-19 and the number of inpatients diagnosed with COVID-19.



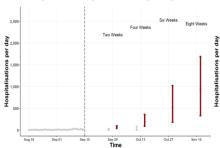
Annex: Regional Projections

New hospitalisations per day

As at 15/09/2020

LONDON Six Weeks Eight Week Four Weeks Two We day De a **Hospitalisations** Hospi $_{1}$ H $_{1}$ Sep 29 Time

NORTH EAST AND YORKSHIRE



SOUTH WEST Six Weeks Eight Weeks Four Weeks Two Weel dav **Hospitalisations** H Sep 29 Time





Model

Individual model predictions from each respective SPI-M participant.



Key

- Real data • • •
- **Unconfirmed data** •.•
- Today's date - - -

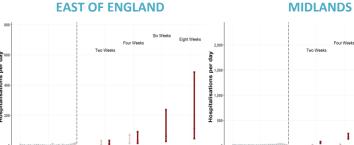
Notes:

Number of patients admitted with confirmed COVID-19 and the number of inpatients diagnosed with COVID-19 in the past 24 hours.



Six Weeks

Eight Weeks



NORTH WEST

Four Wee

Six Week

Eight Week

Sep 29 Time

Two Wee

Sep 29 Time Oct 1

Sep 29 **SOUTH EAST**

