SPI-M-O
Medium-Term Projections

17th February 2021

SPI-M-O Medium-term Projections

- **These projections are not forecasts or predictions**. They represent a scenario in which the trajectory of the epidemic continues to follow the trends that were seen in the data up to 15th February.

- The delay between infection, developing symptoms, the need for hospital care, and death means **they will not fully reflect the impact of behavioural changes in the two to three weeks prior to 15th February.**

- **These projections include the potential impact of vaccinations over the next six weeks.** This has been based on a rollout scenario provided by Cabinet Office for modelling purposes; it assumes an average of 2.3 million doses are administered per week across the UK.

- The projections assume vaccinations are administered according to JCVI's priority order, with 95% coverage in the over 80s and care home residents; 85% coverage in 50 to 80 year olds and care home workers and 75% coverage in under 50 year olds. **The real world effectiveness of vaccines, particularly against infection, is not yet known for certain**. The first dose effectiveness against both hospitalisation and death of the Pfizer-BioNTech and Oxford-AstraZeneca vaccines are modelled to be 88% and 70% respectively in line with JCVI's advice. Both vaccines are also modelled as reducing the risk of infection by 48% after the first dose.

- These projections do not include any effects of future policy or behavioural changes, such as the phased reopening of schools in Scotland after the 22nd February.

- Not all modelling groups produce projections for both hospitalisations and deaths so there will be some differences between the models included in the combined projections for each metric.

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 deaths per day (by date of death):** The number of COVID-19 deaths within 28 days of a positive test. Data definitions differ slightly across all four nations.

Modelled projections based on trends to 15th February 2021
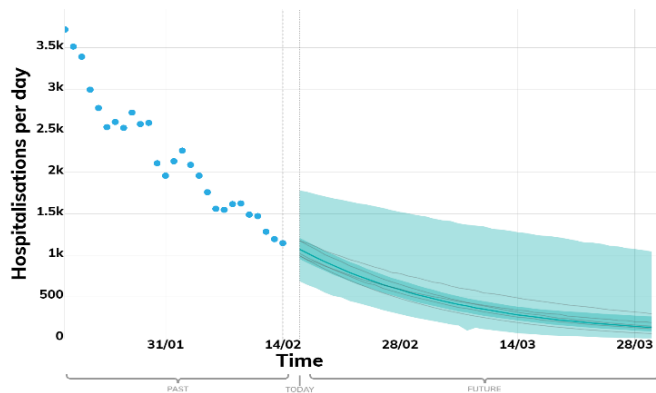
New hospital admissions per day

These projections are based on current trends and will not fully reflect the impact of behavioural changes over the past two to three weeks. They are not forecasts or predictions.
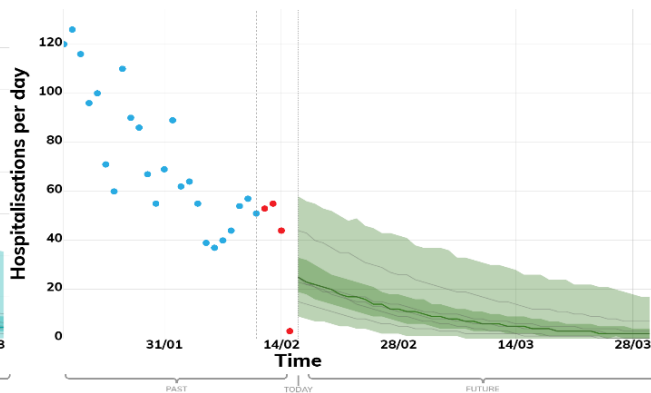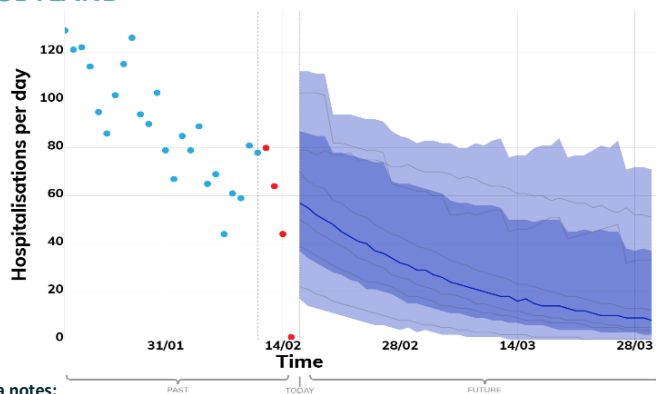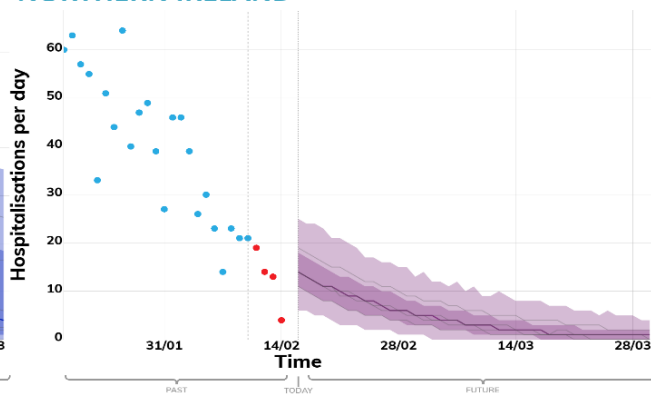
ENGLAND

WALES

SCOTLAND

NORTHERN IRELAND

These fan charts show the **90% credible interval** of the combined medium-term projections based on current trends. They cannot account for behavioural changes in the two to three weeks prior to 15th February, as these will not yet have been reflected in epidemiological data.

These projections *include* the potential impact of vaccinations over the next six weeks. This has been based on a rollout scenario provided by Cabinet Office for modelling purposes; with 95% coverage in the over 80s and care home residents and 85% coverage in 50 to 80 year olds and care home workers. Vaccine effectiveness assumptions are given on page 2.

These projections do not include any effects of future policy or behavioural changes, such as the phased reopening of schools in Scotland after the 22nd February.

Data notes:
England: Number of patients admitted with confirmed COVID-19 and the number of inpatients diagnosed with COVID-19 in the past 24 hours. Taken from the NHSE COVID-19 Situation reports.
Wales: Number of patients admitted with confirmed COVID-19 and the number of inpatients diagnosed with COVID-19. Provided by Public Health Wales.
Scotland: Number of patients testing positive for COVID-19 when admitted and inpatients diagnosed with COVID-19. Provided by Public Health Scotland.
Northern Ireland: Number of patients admitted with confirmed COVID-19 and the number of inpatients diagnosed with COVID-19. Provided by Health and Social Care Northern Ireland.
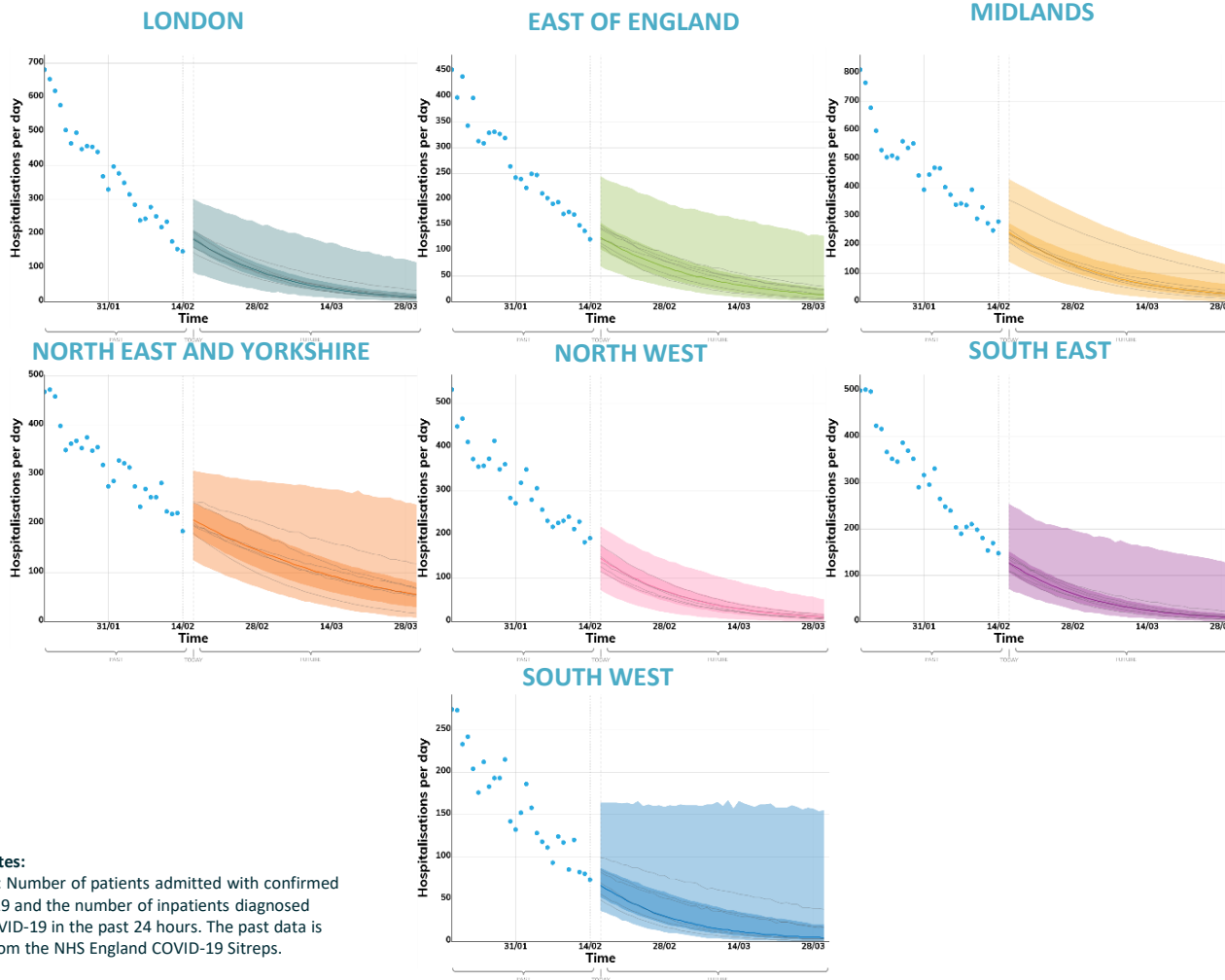
Modelled projections based on trends to 15ᵗʰ February 2021

New hospital admissions per day

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Key

- Real data
- Expected to Increase
- Projection Midpoint
- High and low estimates 5ᵗʰ to 95ᵗʰ percentile
- High and low estimates 25ᵗʰ to 75ᵗʰ percentile
- Models

LONDON

EAST OF ENGLAND

MIDLANDS

NORTH EAST AND YORKSHIRE

NORTH WEST

SOUTH EAST

SOUTH WEST

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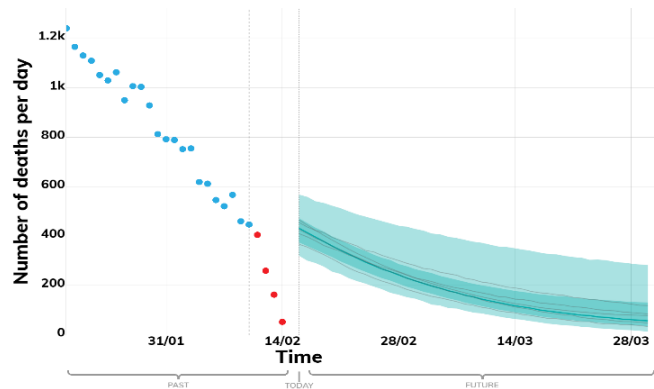# Modelled projections based on trends to 15th February 2021

New deaths per day

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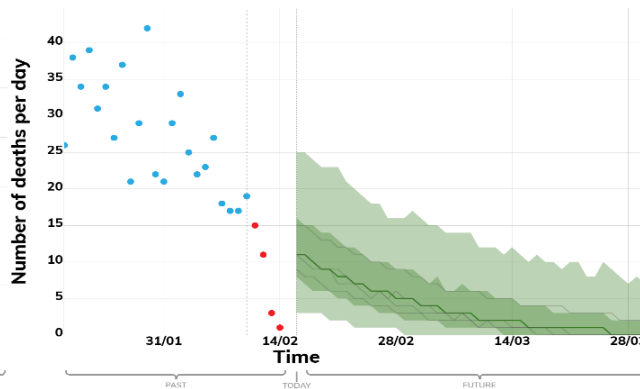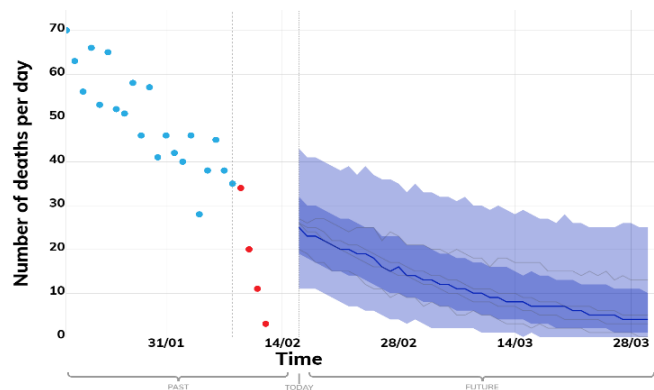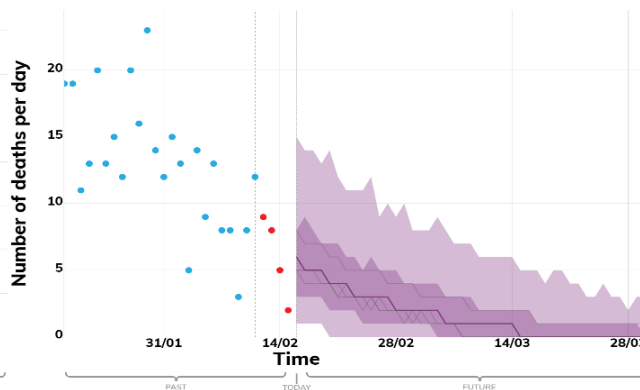
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These projections do not include any effects of future policy or behavioural changes, such as the phased reopening of schools in Scotland after the 22nd February.

Data Notes:
The number of COVID-19 deaths (by date of death) within 28 days of a positive test.
The past data for England is taken from the PHE line list of deaths. The past data for Scotland, Wales, and Northern Ireland is taken from the Coronavirus (COVID-19) in the UK dashboard on Gov.uk.
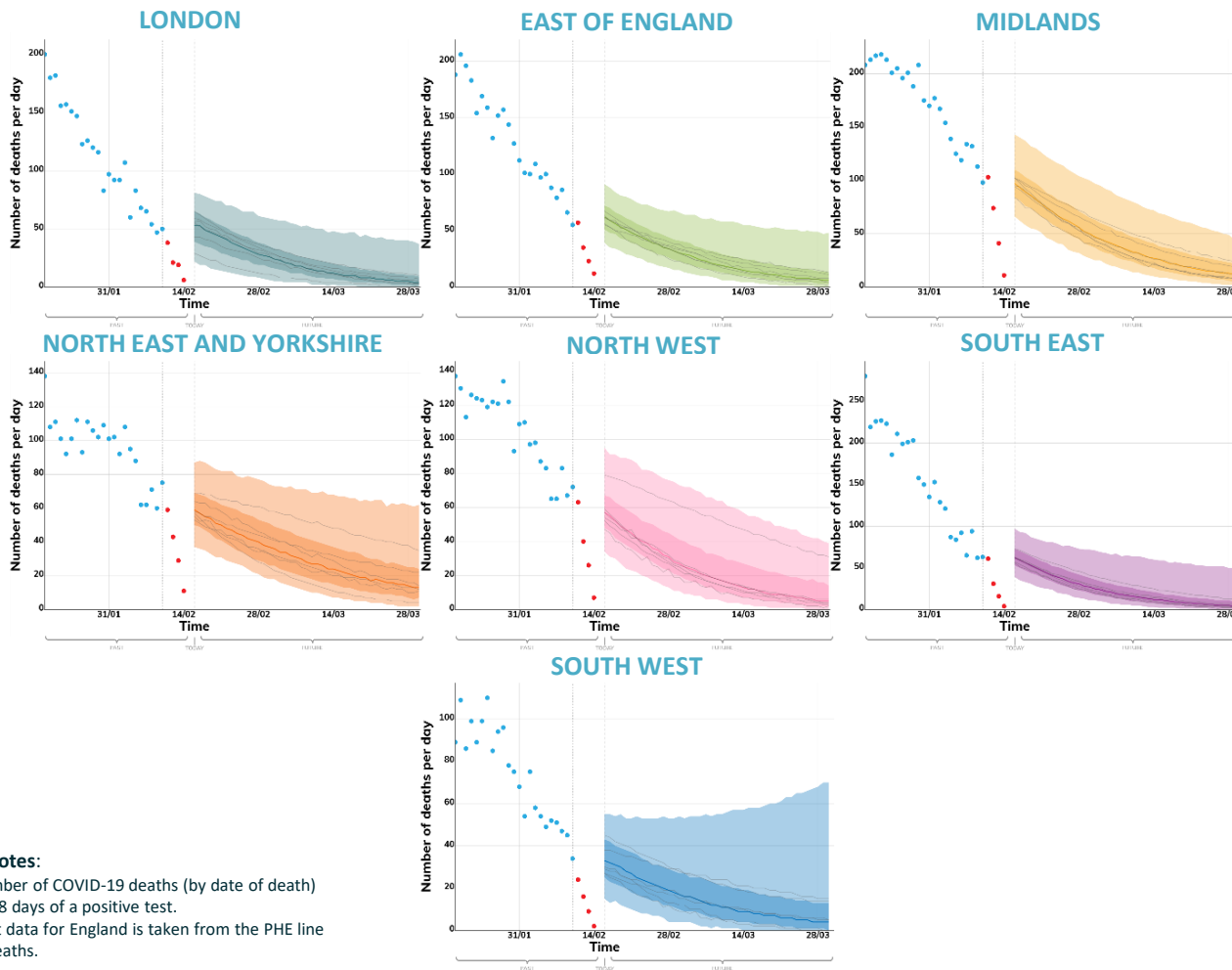
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