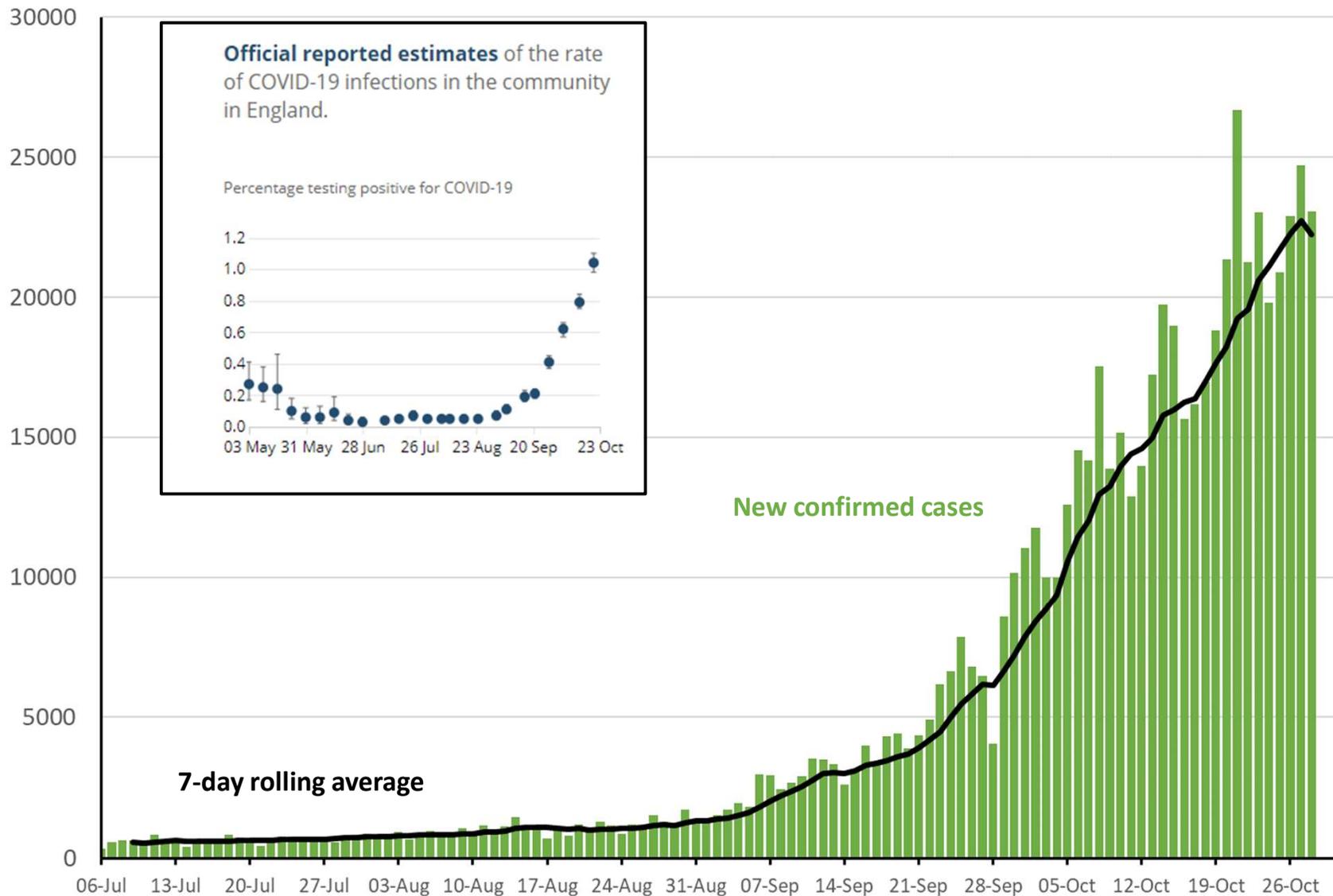


Mostly bad.

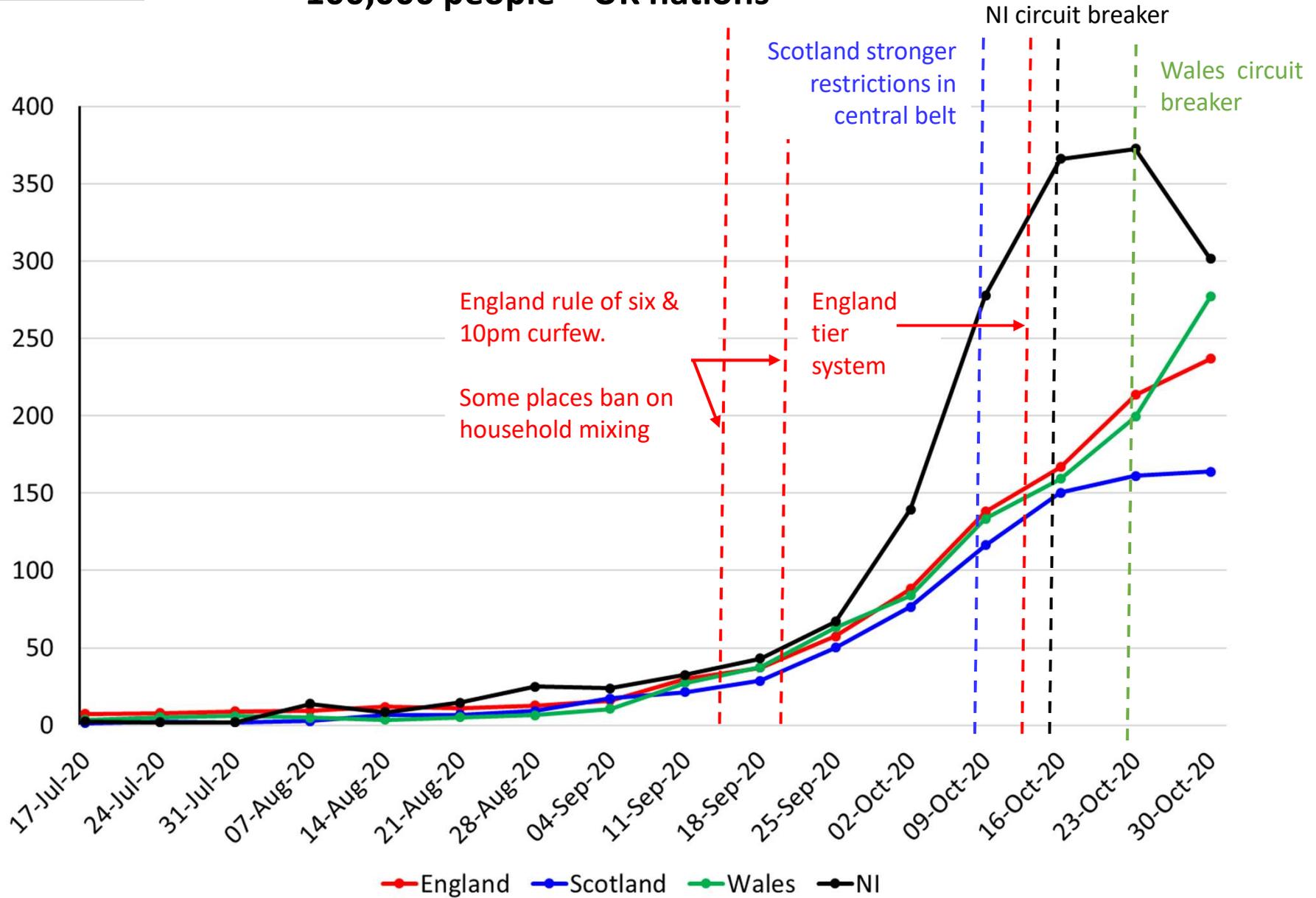
1. Growth of cases, hospitalisations and deaths
2. What do we know about how it's spreading?
3. How can we reverse growth?

Number of new UK confirmed COVID-19 cases by reported date (people who have had a positive test)



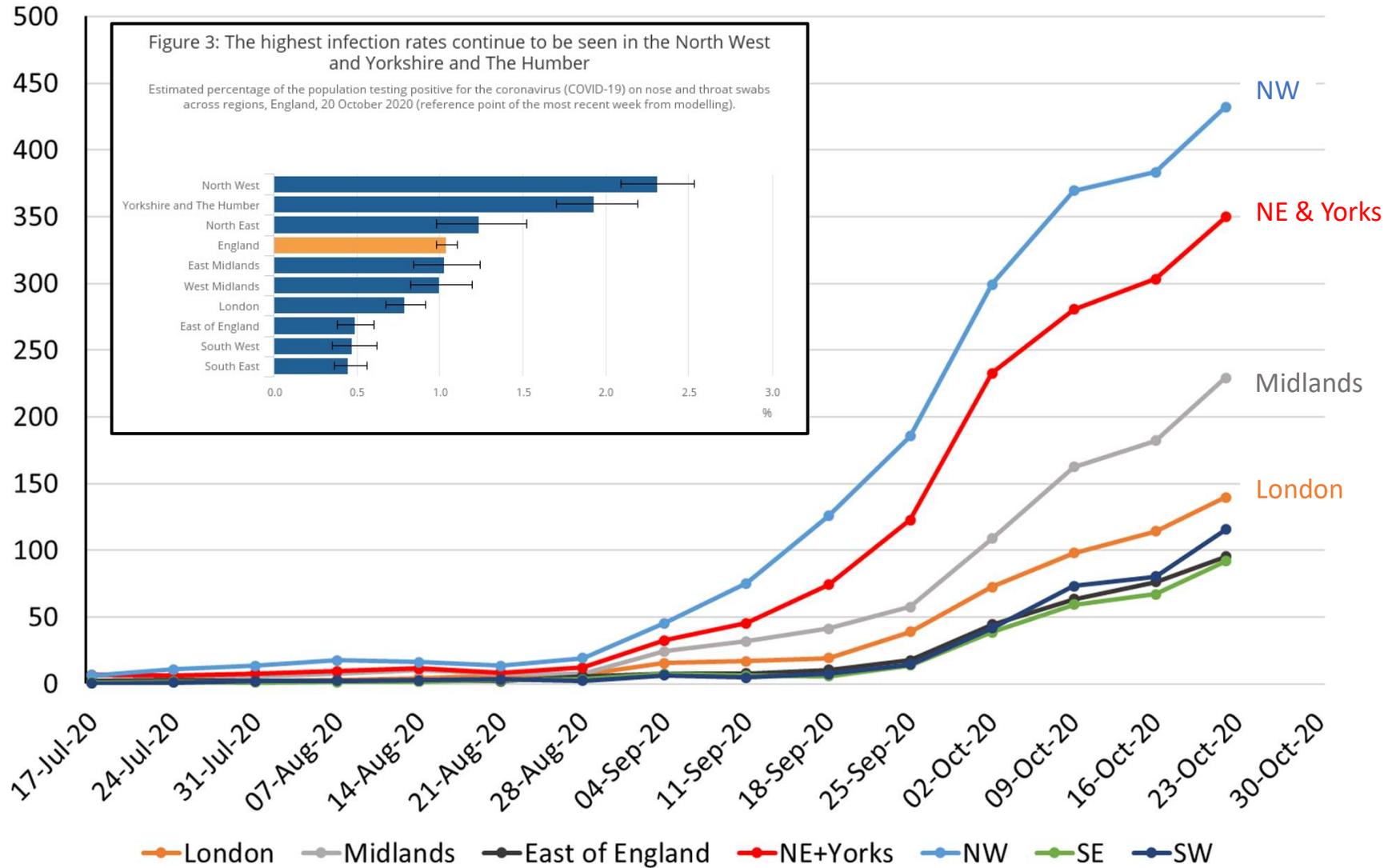
Data from <https://coronavirus.data.gov.uk> and <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/bulletins/coronaviruscovid19infectionsurveyreport/latest>

Number of new confirmed COVID-19 cases / 100,000 people – UK nations

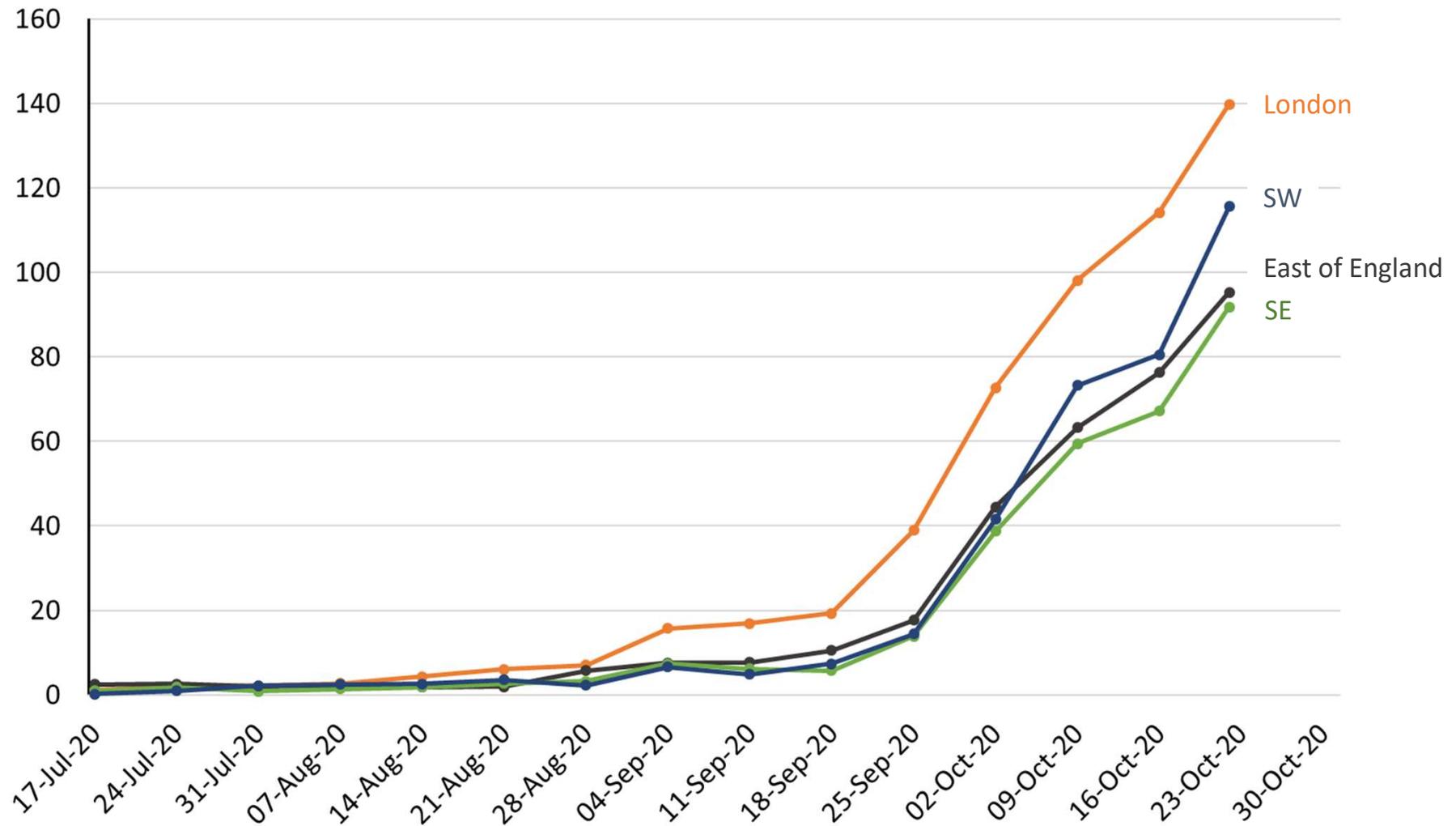


Data from <https://coronavirus.data.gov.uk>.

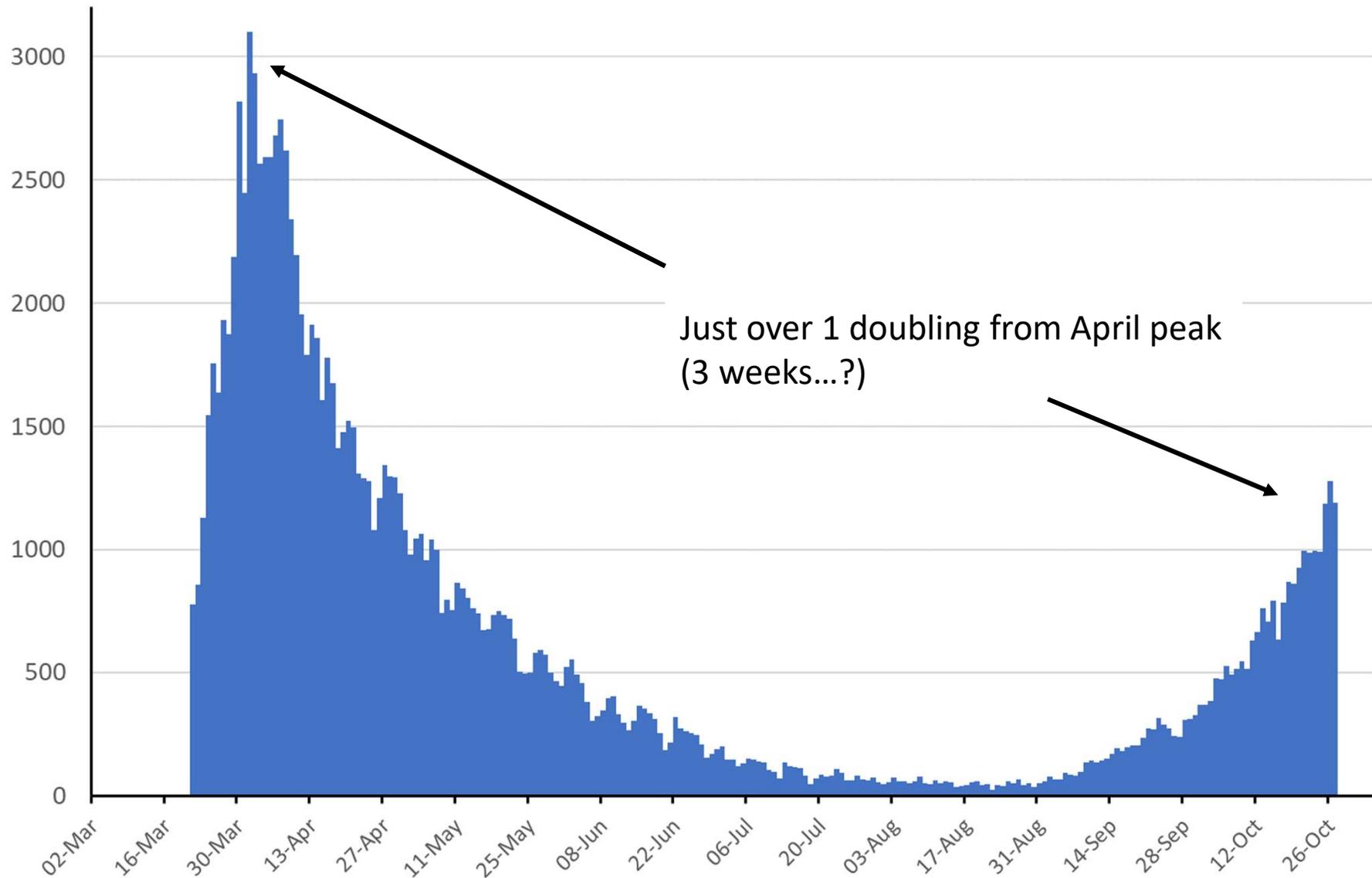
Number of new confirmed COVID-19 cases / 100,000 people – England regions



Number of new confirmed COVID-19 cases / 100,000 people – England regions

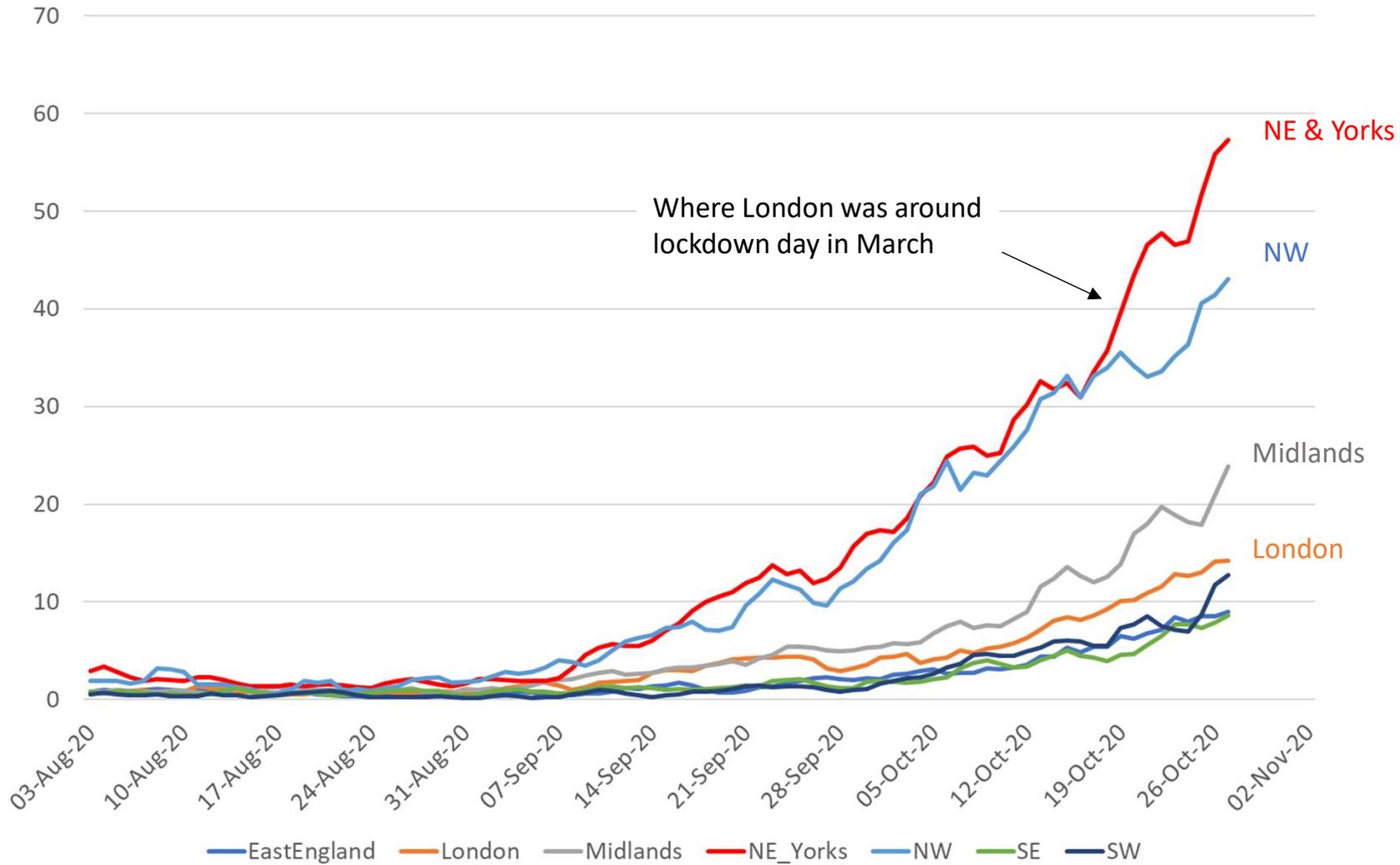


Number of new hospital admissions with COVID-19 per day in England



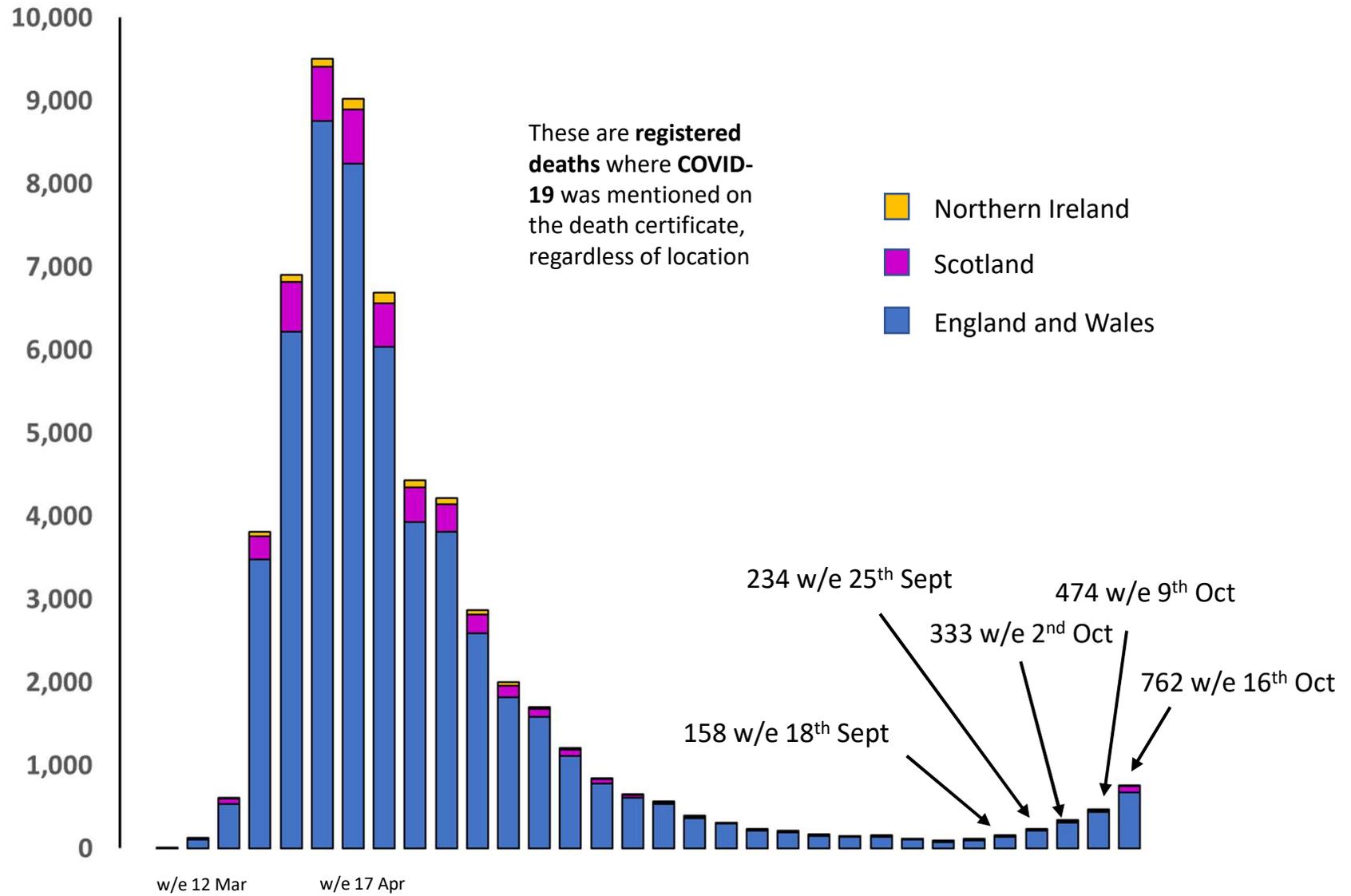
Data from <https://coronavirus.data.gov.uk/>

3-day average of daily number of new hospital admissions with COVID-19 per day / million people across different regions in England

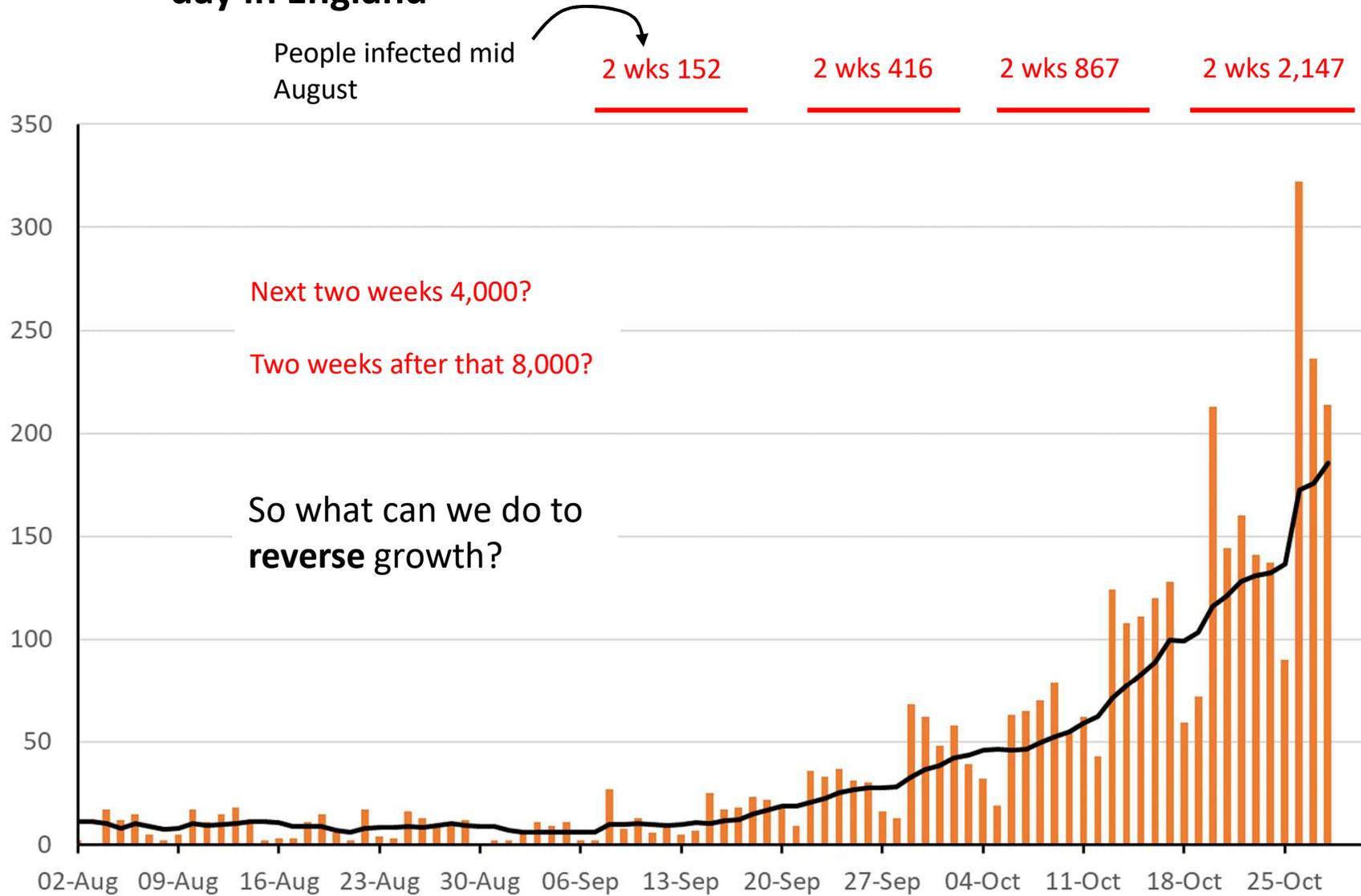


Data from <https://www.england.nhs.uk/statistics/statistical-work-areas/covid-19-hospital-activity/>

Number of new UK deaths from COVID-19 per week



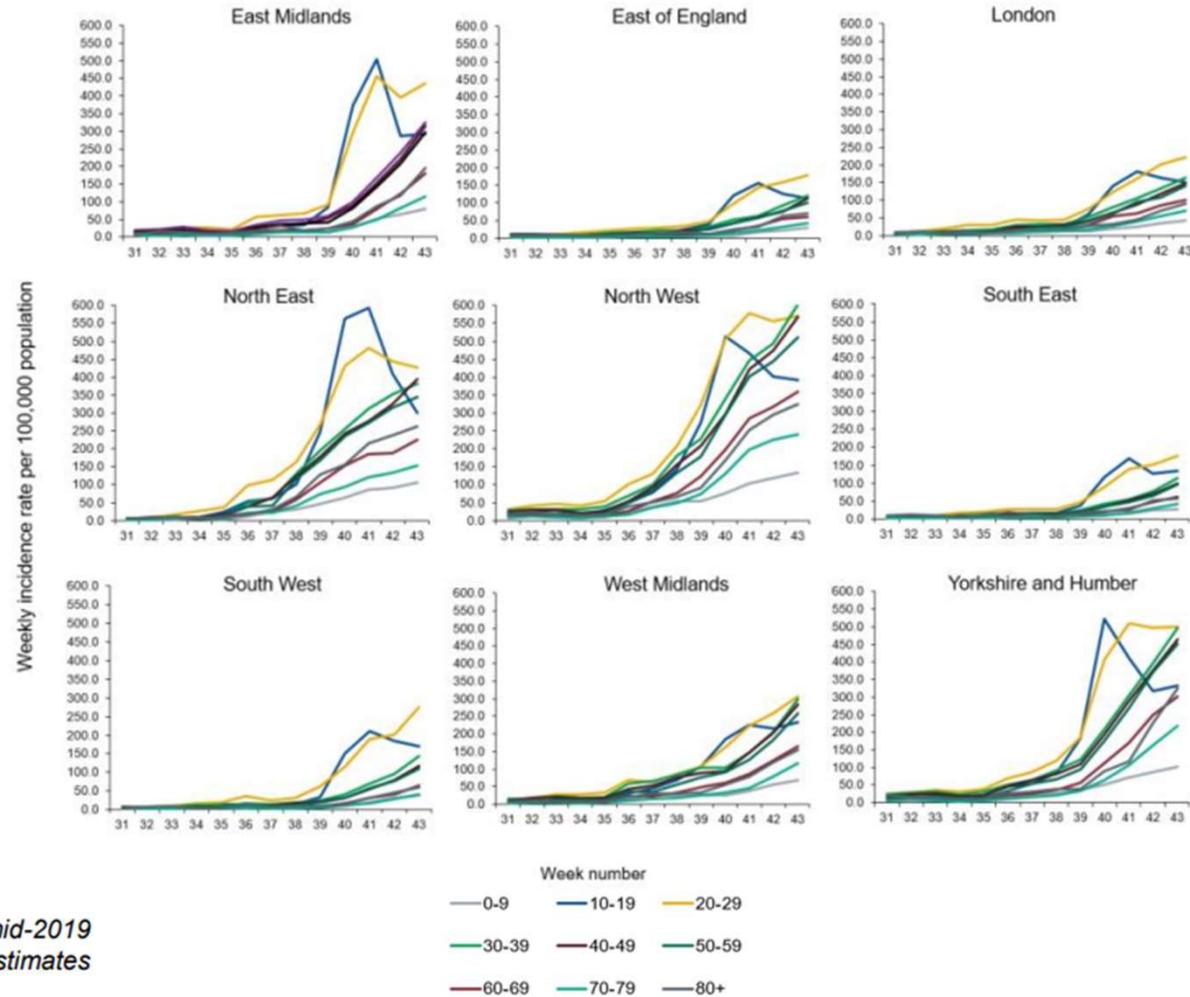
Number of deaths within 28 days of +ve COVID test reported per day in England



What do we know about current spread?



Weekly COVID-19 incidence per 100,000 population by age group and region, weeks 31-43



Big young people spike now coming down – but **older age groups** still increasing

Rates have been calculated using mid-2019 ONS population estimates

29 October 2020

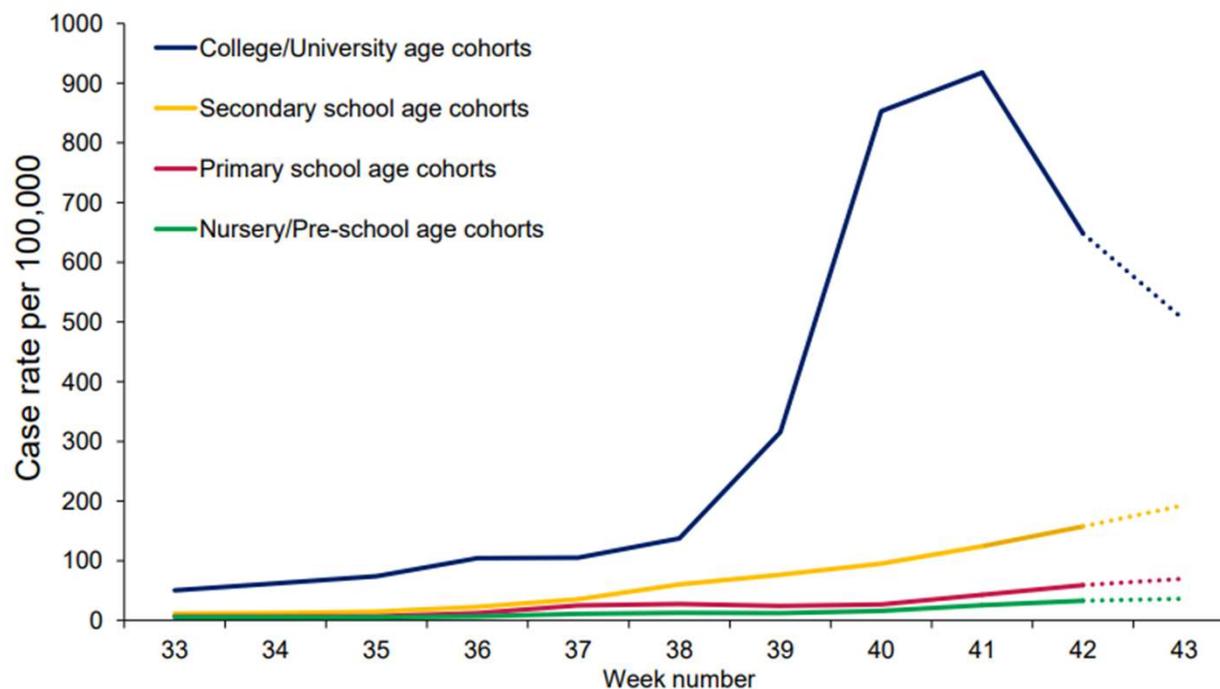
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What do we know about current spread?



Weekly incidence of laboratory confirmed COVID-19 cases per 100,000 population in nursery/preschool, primary school, secondary school and college/university age cohorts, week 33 to 43

But, when you look closer, **school age children** are increasingly catching COVID



29 October 2020

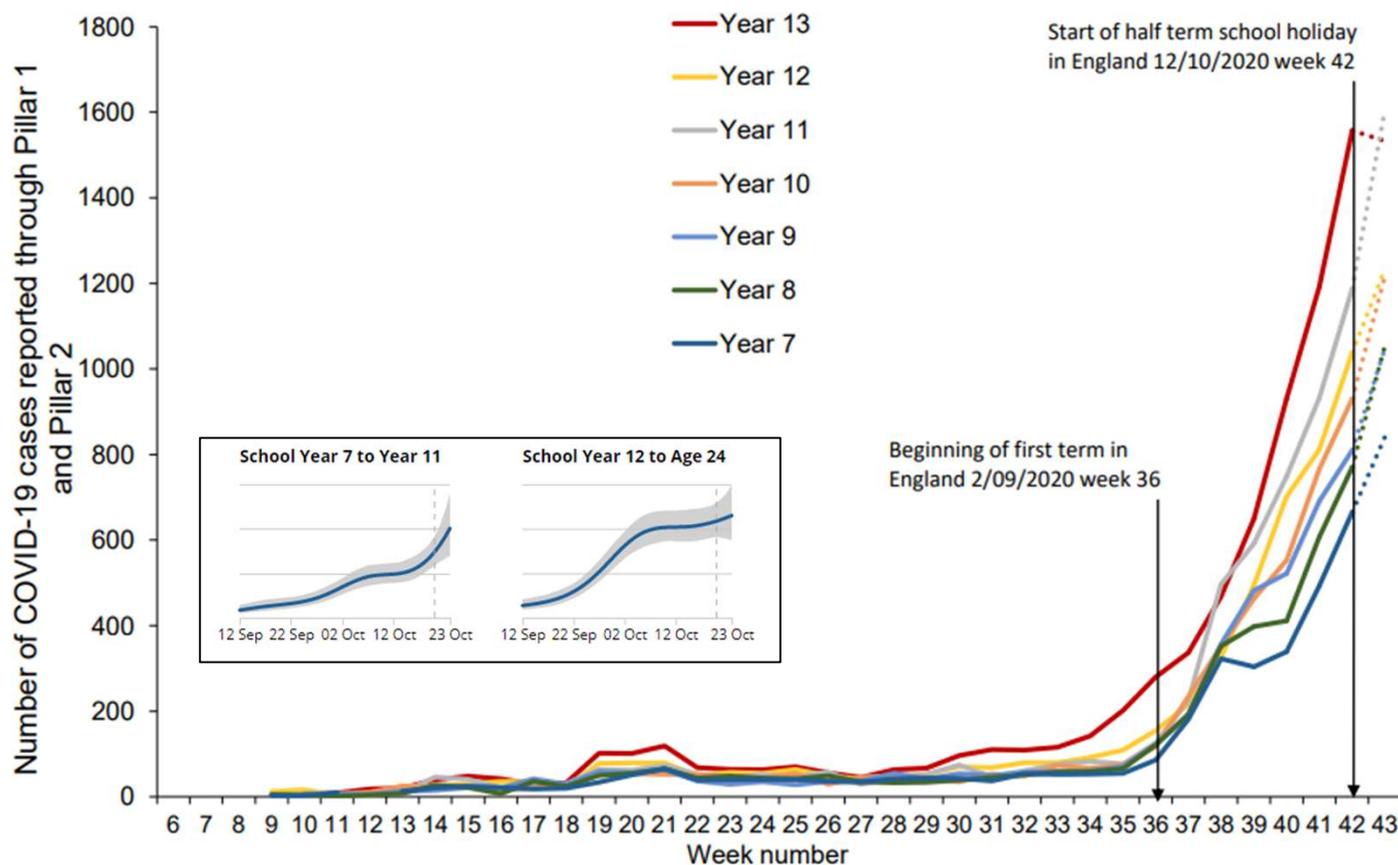
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What do we know about current spread?



Weekly number of new laboratory confirmed COVID-19 cases in educational age groups presented by secondary school year groups (Year 7 to Year 13)

Secondary schools



29 October 2020

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Graphics from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/930819/Weekly_COVID-19_and_Influenza_Surveillance_Graphs_W44.pdf

Data from <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/bulletins/coronaviruscovid19infectionsurveys/latest>

What do we know about current spread?



Public Health
England

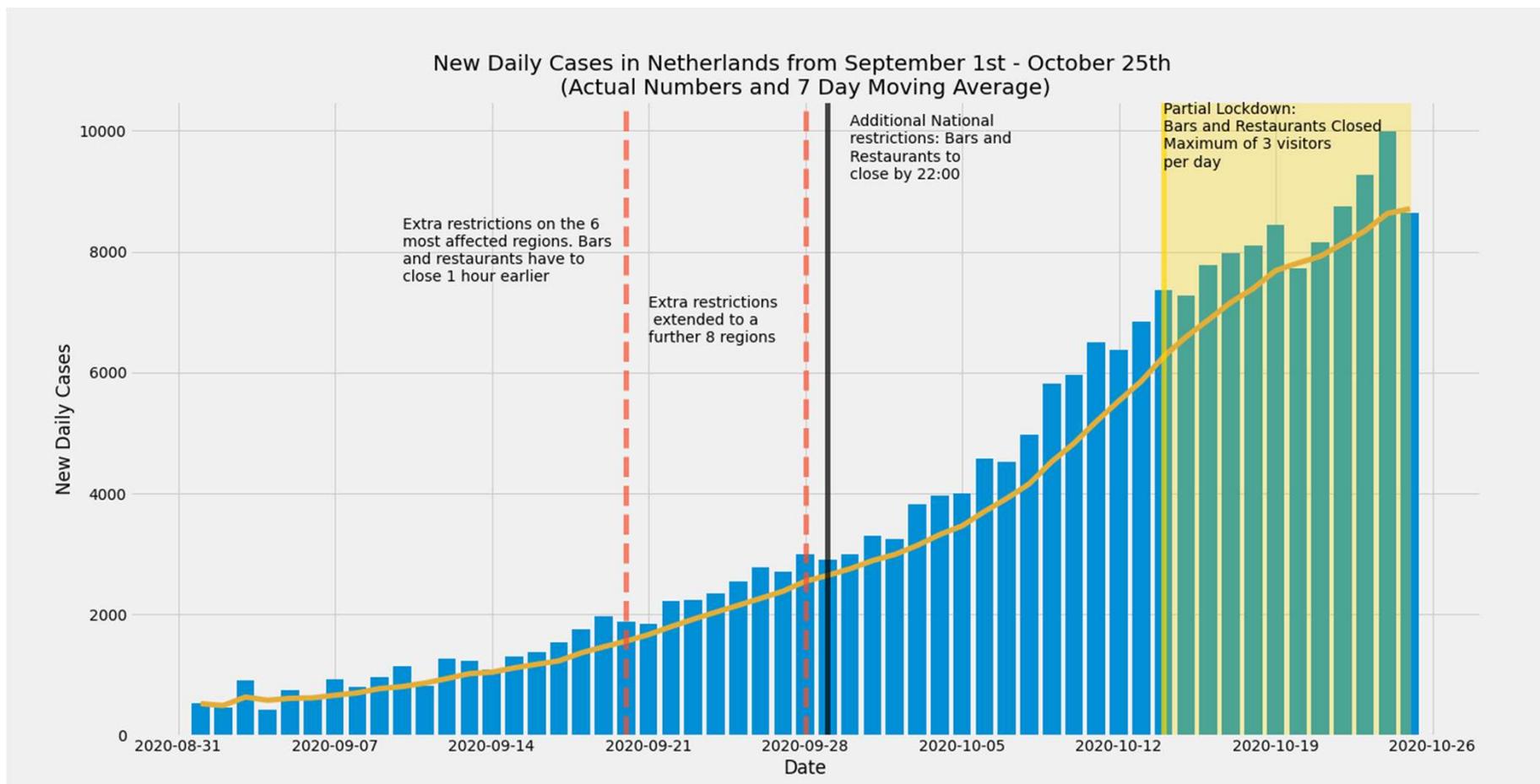
Common locations reported by people testing positive in week 43, England
(Data source: NHS Test and Trace)

Of the 107,046 cases in week 43 reported for contact tracing, 33,233 (31%) had a common exposure with at least 1 other case. 10,036 common locations/settings were reported in total (of which the table calculates % of the most frequent). Supermarkets were the most frequently reported common location, followed by pubs or bars, and then restaurants or cafes.

Setting	Number of common locations reported	Proportion of all common locations reported
Supermarket (visting and working)	1128	11.2%
Pub or bar (visting)	745	7.4%
Restaurant or cafe (visting)	698	7.0%
Secondary school (attending)	686	6.8%
Primary school (attending)	572	5.7%
Gym (visting)	283	2.8%
Hospital (visting)	242	2.4%
Food and drink (working)	213	2.1%
Care home (working)	164	1.6%
Hotel (home/shared)	154	1.5%
College (attending)	128	1.3%
Household fewer than 5 (home/shared)	127	1.3%
University (attending)	123	1.2%
Nursery preschool (attending)	118	1.2%
Warehouse (working)	110	1.1%
Home (visting)	107	1.1%
Clothes shopping (visting)	106	1.1%

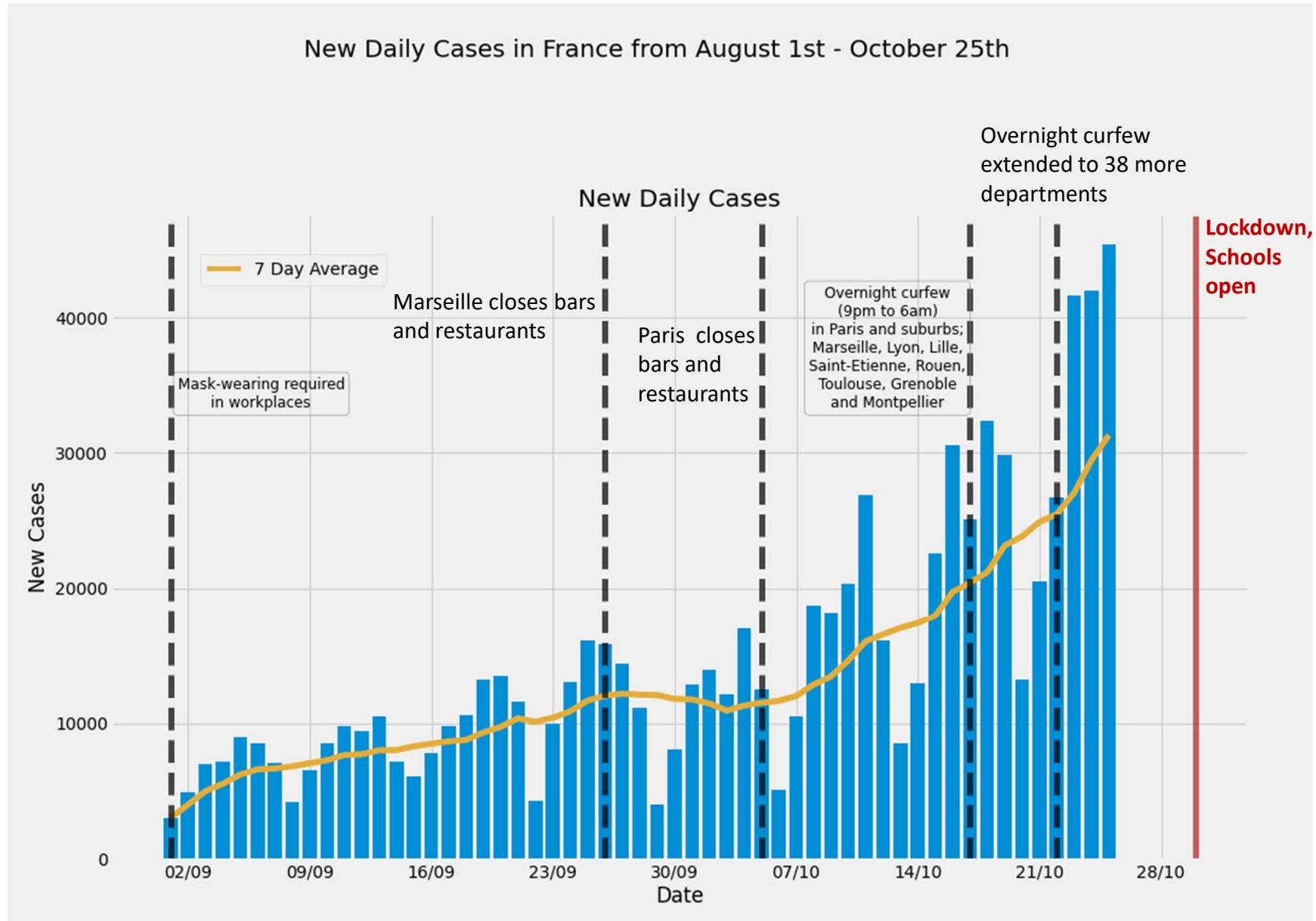
Hospitality and schools among most common locations.

A closer look at the Netherlands

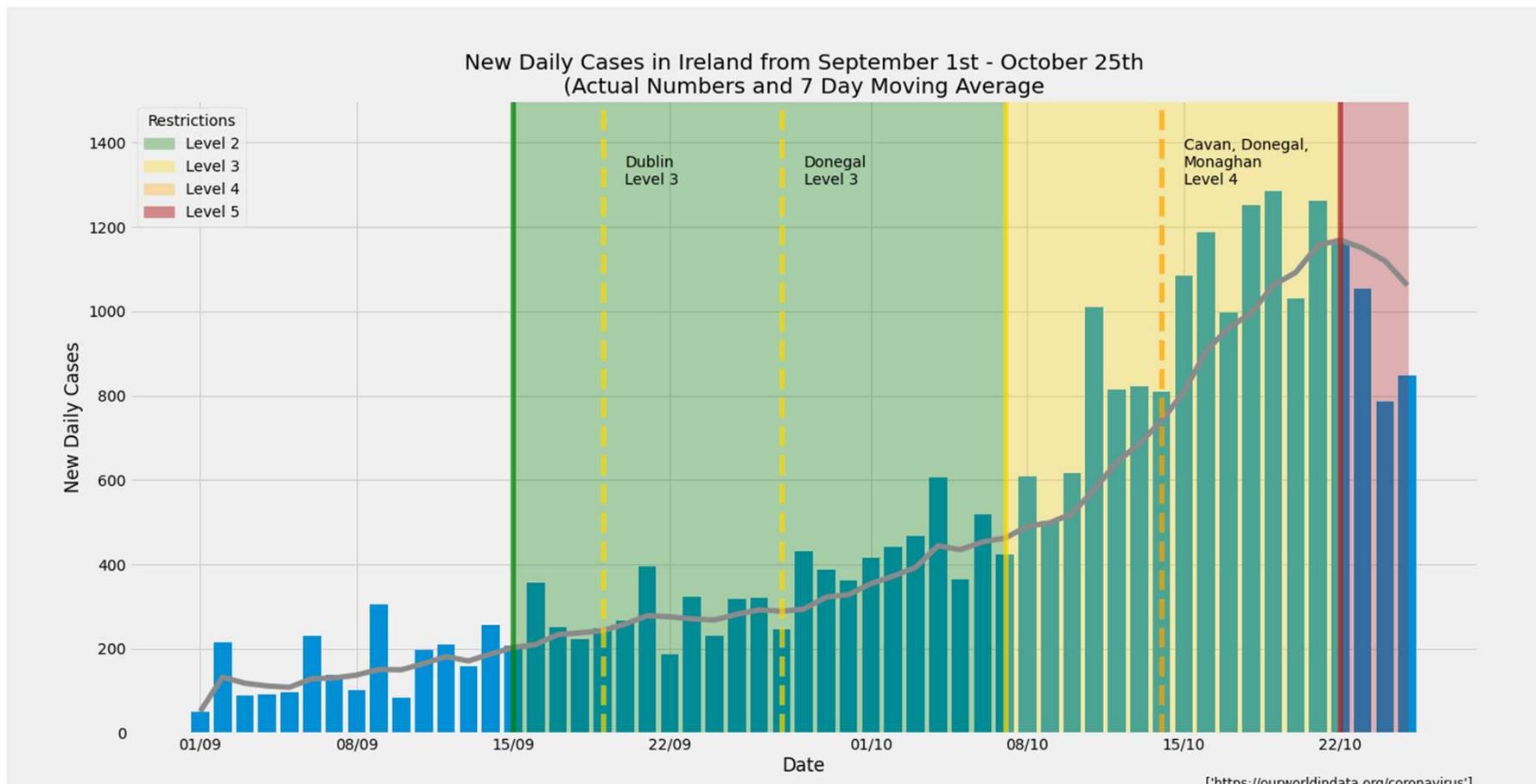


Closure of bars and restaurants **may** be slowing growth but curfew did not do much. Household mixing still allowed.

A closer look at France



A closer look at Ireland



Level 2 – rule of 6, bars + restaurants open

Level 3 – can only mix with 1 household, gyms, museum close, outdoor dining, pub restrictions

Level 4 – No household mixing, shops, hairdressers etc close, take away / outdoor only

Level 5 – Stay at home. Schools, universities, creches stay open.

What can be done?

We need to **reduce** cases **rapidly**. This means getting R below 1 (currently R somewhere between **1.2** and **1.6**).

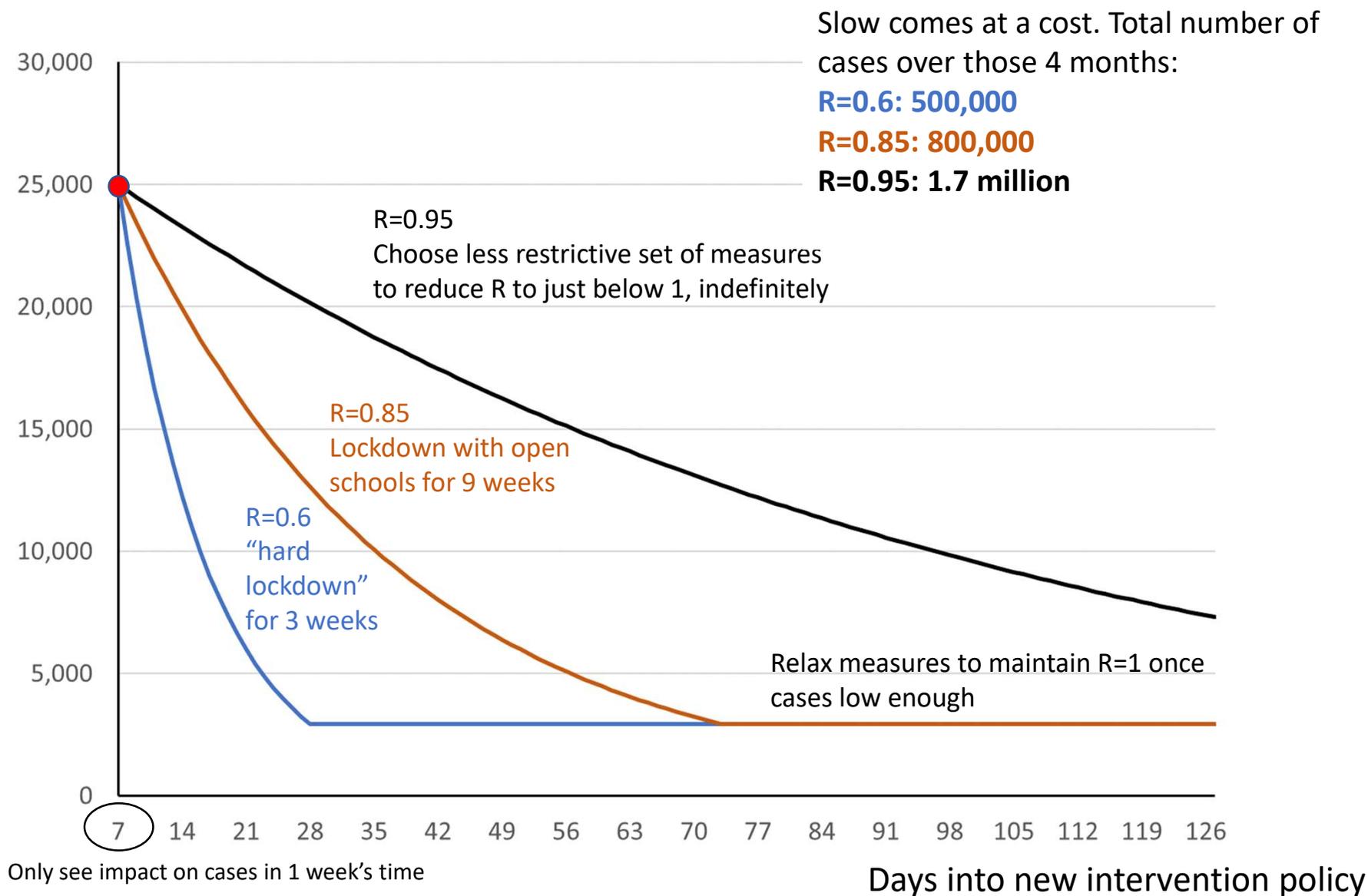
If we can get R to **0.6** (total lockdown) then cases will **halve** about every **week**.

Getting R to **0.85** means cases will **halve** about every **3 weeks**. Could do this with closing a lot of things except schools.

We believe we need to aim to get cases below 5,000 confirmed cases per day and reform test and trace to be able to cope with that number.

What should be done?

New cases per day in England



Summary

COVID continues to spread across Wales and England – but Scotland levelling off, Northern Ireland coming down. Wales should see impact from its firebreak next week.

We are just over one “doubling” away from reaching the peak of hospital admissions seen in April. This is 17-20 days at current rates.

The government **urgently** needs to halt and reverse growth.

Trade-offs between severity of circuit break and duration. Keeping schools open would require more restrictions for longer.

The **better** Test and Trace is, the **fewer** restrictions are needed once cases are below 5,000. **Supporting** people to isolate is crucial.