

## Autumn booster update

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**COVID-19 Actuaries Response Group – Learn. Share. Educate. Influence.**

### Latest key findings

- The Autumn booster programme began on 12 September 2022 for those aged 75+ and vulnerable patients. It was rolled out to those aged 65-74 from 26 September, and to those aged 50-64 from 14 October.
- As of 9 November, 73% of over 65s in England have received an Autumn booster this year.
- Booster take-up has been notably lower in London than other parts of England. Less than half of over 50s in the capital have received a dose. Uptake is 32% below the rest of the country.
- Only 40% of those aged 50-64 have received their Autumn booster. Take-up in this age range has been noticeably lower than for other age groups, despite the booster having been available for almost a month.
- Take-up for those aged 75+ has been similar to the Spring booster (78%). Recent weeks have seen a steady decrease in the number of new over 65s being vaccinated. We expect the take-up rate among over 75s to level off at or just below 80% in the next couple of weeks.

### Background

Over 45m people in England have been vaccinated with at least one dose against COVID-19. As immunity wanes from previous booster programmes, and as we enter the Winter months, which historically see high rates of viral respiratory illness, the NHS have launched the Autumn booster program to provide protection to those most vulnerable to illness.

As of 9 November 2022, over 12.8m people have received an Autumn booster. Uptake however has not been equal across ages and regions.

### Who is eligible for an Autumn booster?

Boosters can be [booked online](#) for anyone who is:

- aged 50 or over;
- pregnant;
- aged 5 and over and at high risk due to a health condition;
- aged 5 and over and at high risk because of a weakened immune system;
- aged 16 and over and lives with someone who has a weakened immune system;
- aged 16 and over and is a carer, either paid or unpaid; or
- a frontline health and social care worker.

*Source: NHS England*

Additionally, those who have not had their first or second dose are eligible to book vaccinations. Importantly, it is not necessary to have received any or all of the previous doses of the COVID-19 vaccine to receive an Autumn booster. If you have recently received a previous dose of the vaccine, you will have to wait three months from receiving that dose before receiving an Autumn booster.

### Why is it important to receive a booster?

Older groups continue to be most at risk of hospitalisation from COVID-19. Case and hospitalisation rates have been highest among older people in recent months. More than 1-in-5 over 90-year-olds have had COVID in the last three months (Figure 1). Higher case rates are strongly correlated with older age, although some of the observed correlation may be explained by less testing among younger people. Looking at hospitalisations the age gradient is even starker (Figure 2).

Figure 1: New cases per 100,000 by age band – 1 August to 31 October 2022 – England

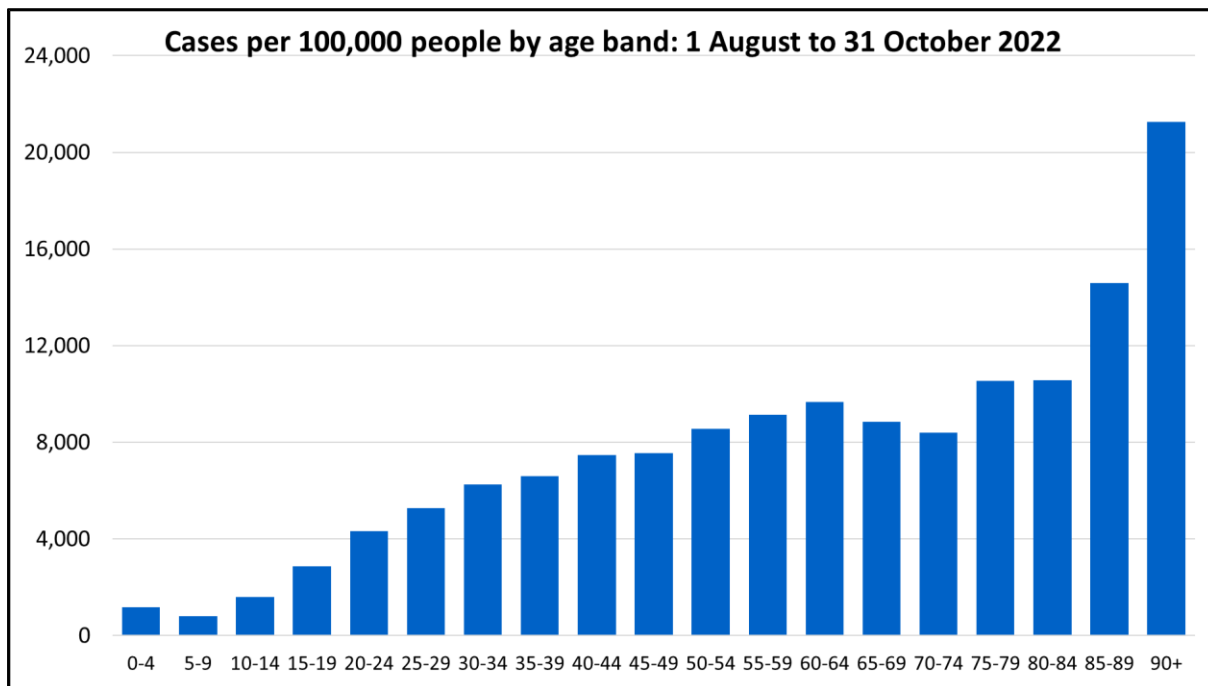
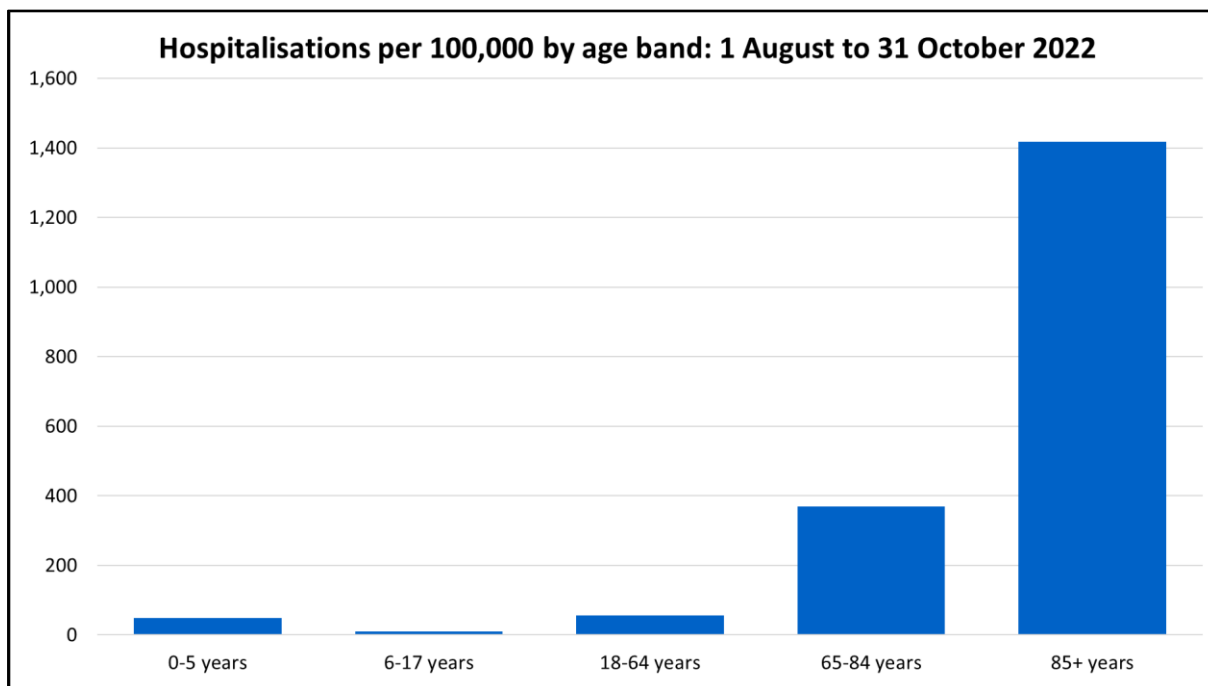


Figure 2: Hospital admissions per 100,000 by age band – 1 August to 31 October 2022 – England

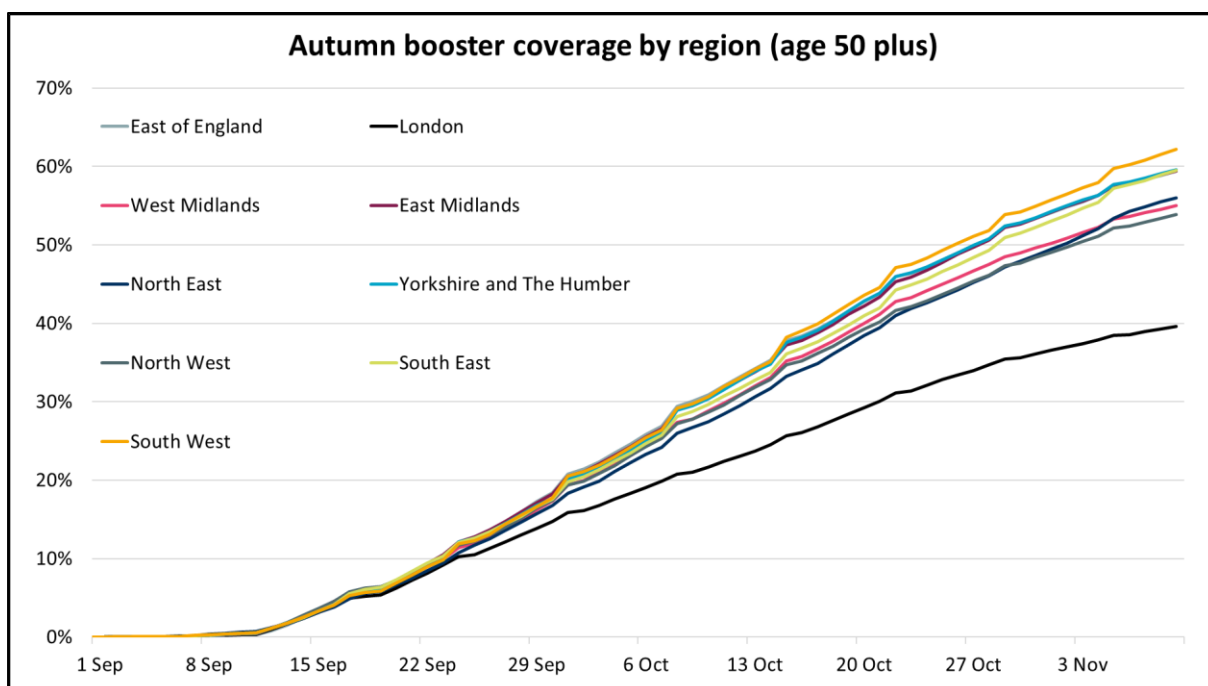


Vaccines reduce the risk of infection from COVID-19 and substantially reduce the risk of hospitalisation or severe disease. This protection however has been shown to reduce steadily over time after receiving each dose. This is especially important for those that have not received any or all previous doses, as their existing immunity may already be lower than for the vaccinated population.

### Take-up rates by region

As was the case for the Spring booster, London has had a consistently lower take-up rate than the rest of the country (Figure 3). This applies across all age groups. As of 9 November, less than half (40%) of those over 50 in London have received an Autumn booster. This is 32% below the rest of the country. All other regions have over half of their over-50s population boosted. Yorkshire and the Humber and the South West have seen some of the highest take-up rates.

**Figure 3: Proportion of people who have received an Autumn booster by English region**



The lower proportion of those vaccinated in London may be partly explained by use of the National Immunisation Management Service (NIMS) database to calculate uptake. NIMS may include patients multiple times if they have multiple addresses. However, this will not account for all the disparity. The results indicate a worrying trend that there could be a lower level of protection within the capital over Winter.

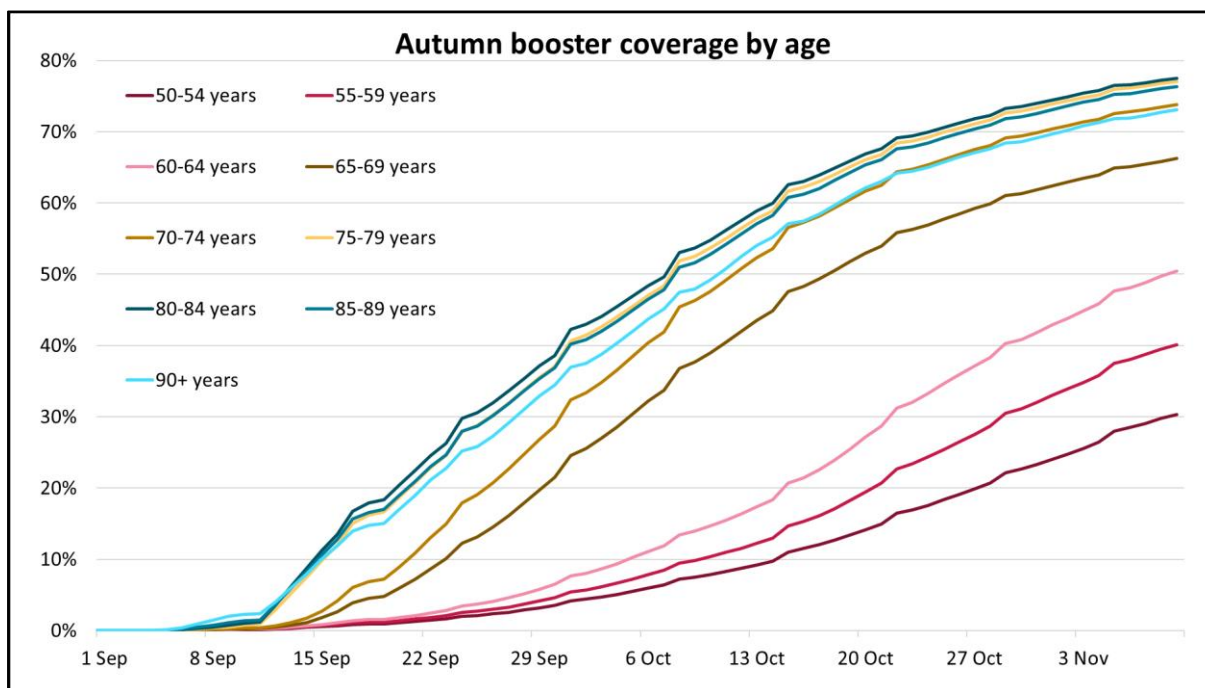
### Take-up rates by age band

The rate of uptake of vaccinations has tended to decrease as the booster is offered to each successive age band (Figure 4). Mid-September saw high initial take-up in the over-75s population, followed by the 65-74 population, as boosters were made available to all over 65s on 26 September. The initial take-up among those aged 50-64 has been notably slower than for the older population. Since the booster programme was extended to over 50s on 14 October, only 40% of people in the 50-64 age band have received a dose of the Autumn booster. This compares to 60% of those aged 65-74 four weeks after vaccination was offered. This suggests that there is a long way to go to ensure high coverage in the younger age group.

The number of new patients being vaccinated is levelling off over time, and we expect booster coverage to level off among over 65s in the coming weeks at or just below 80% of the 75+ age range, just over 75% of the 70-74 age range, and around 70% of the 65-69 age range. This compares with an overall take-up rate of 78% for the Spring booster campaign, which targeted over 75s.

We expect the number vaccinated in the 50-64 age band will continue to increase over the coming months; however, at the current rates it is likely the ultimate coverage within this age group will be much lower than others.

**Figure 4: Proportion of people who have received an Autumn booster by age band – England**



### Vaccinations are part of the public health protection plan

It has been very evident from early in the pandemic that, rather than eliminating it, we were going to have to “learn to live with COVID-19”. Vaccination programmes have been implemented as part of this plan. Ongoing concerted effort is required to increase uptake across regions and age groups to ensure the most vulnerable populations are adequately protected. This includes ethnic minorities and those living in more deprived areas, groups which saw lower vaccine uptake in previous waves.

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