



Department
of Health &
Social Care

Independent report

JCVI statement on COVID-19 vaccination in 2025 and spring 2026

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Introduction

The aim of the COVID-19 immunisation programme is to prevent serious disease (hospitalisation and/or mortality) arising from COVID-19.

Over the last 4 years, population immunity to SARS-CoV-2 has been increasing due to a combination of naturally acquired immunity following recovery from infection and vaccine-derived immunity (this combination is termed 'hybrid immunity'). COVID-19 is now a relatively mild disease for most people, though it can still be unpleasant, with rates of hospitalisation and death from COVID-19 having reduced significantly since SARS-CoV-2 first emerged. Age has always been strongly associated with the risk of hospitalisation and mortality from COVID-19, with the oldest in the population being the most vulnerable.

As COVID-19 becomes an endemic disease, and with a move towards standard assessment of cost-effectiveness, the focus of the programme is shifting towards targeted vaccination of the oldest adults and individuals who are immunosuppressed. These are the 2 groups who continue to be at higher risk of serious disease, including mortality.

Background on JCVI methodology

From 2020 to 2022, the Joint Committee on Vaccination and Immunisation (JCVI) provided advice on the use of COVID-19 vaccines without the use of cost-effectiveness assessments. This was possible because the UK government had signed contracts to receive substantial quantities of vaccine during the acute pandemic phase, and because of the potential for vaccination to allow the UK to end the use of non-pharmaceutical interventions, including social distancing measures. As the UK population was initially immunologically naïve to the novel SARS-CoV-2 virus, eligibility for COVID-19 vaccination was broad at the outset with the oldest and most vulnerable population groups prioritised for earlier vaccination.

In autumn 2023 during the pandemic recovery phase, JCVI moved to using a bespoke, [non-standard method of cost-effectiveness analysis](https://www.gov.uk/government/publications/covid-19-autumn-2023-vaccination-programme-cost-effectiveness-impact-assessment) (<https://www.gov.uk/government/publications/covid-19-autumn-2023-vaccination-programme-cost-effectiveness-impact-assessment>) developed by the Department of Health and Social Care (DHSC) to reflect the ongoing uncertainty around COVID-19 and the availability of pandemic pre-procured COVID-19 vaccines. This method has been used in the development of advice on a spring 2025 programme, which marks the last time point when pre-procurement arrangements for COVID-19 vaccines apply. This approach led to programmes targeted towards those at higher risk of hospitalisation and/or mortality. However, the flexibility afforded to JCVI to

formulate advice outside of the cost-effectiveness constraints of its standard methodology permitted JCVI to advise vaccination on a more precautionary basis, such as for younger aged people with underlying health conditions.

For the development of advice relating to COVID-19 vaccination from autumn 2025, JCVI has resumed the use of a standard cost-effectiveness assessment, in line with other routine vaccinations in the national immunisation programme and the JCVI code of practice. The advice is based on modelling of the impact and cost-effectiveness of vaccination where clinical outcomes are stratified by age, high-risk clinical disease groups and patients with immunosuppression.

The use of cost-effectiveness is a key pillar in the consideration of immunisation programmes, ensuring that the substantial investments in the programmes are a good use of public money, and that those funds would not be better spent on other healthcare interventions. This has led to a more refined approach to the targeting of the COVID-19 immunisation programme, with a focus on individuals where there is good evidence of a high risk of hospitalisation and/or mortality.

Further details on the standard cost-effectiveness analysis considered by JCVI are set out in annex 5 of the JCVI code of practice, available on the [JCVI webpage \(https://www.gov.uk/government/groups/joint-committee-on-vaccination-and-immunisation\)](https://www.gov.uk/government/groups/joint-committee-on-vaccination-and-immunisation).

Advice on vaccination in spring 2025

Using the bespoke, non-standard cost-effectiveness assessment developed by DHSC, JCVI advises that the following groups should be offered COVID-19 vaccination in spring 2025:

- adults aged 75 years and over
- residents in a care home for older adults
- individuals aged 6 months and over who are immunosuppressed (as defined in the 'immunosuppression' sections of tables 3 or 4 in the [COVID-19 chapter of the Green Book \(https://www.gov.uk/government/publications/covid-19-the-green-book-chapter-14a\)](https://www.gov.uk/government/publications/covid-19-the-green-book-chapter-14a))

Advice on vaccination in autumn 2025 and spring 2026

Using the standard cost-effectiveness assessment, with an example price of £25 for the combined cost of vaccine and delivery, JCVI advises that vaccination should be offered to the following groups in autumn 2025 and spring 2026:

- adults aged 75 years and over (see adult eligibility section below)
- residents in a care home for older adults
- individuals aged 6 months and over who are immunosuppressed (as defined in the 'immunosuppression' sections of tables 3 or 4 in the [COVID-19 chapter of the Green Book](https://www.gov.uk/government/publications/covid-19-the-green-book-chapter-14a) (<https://www.gov.uk/government/publications/covid-19-the-green-book-chapter-14a>))

Adult eligibility

Adult eligibility should be based on the willingness-to-pay approach that is subject to procurement and delivery at a cost-effective price. The advice for universal vaccination from age 75 years is an example. JCVI has no role in the procurement or delivery of COVID-19 vaccines or any other vaccine.

The exact price paid for vaccines used in future programmes will be dependent on the procurement process run by the UK Health Security Agency (UKHSA) and these commercially confidential prices will not be made available to JCVI. The deployment costs of the programme per person are also variable, with the minimum cost being the relevant item of service fee (for example £10.04). Given these variables, the actual size of a cost-effective programme may be slightly smaller or larger than this advice specifies. DHSC should aim to deliver a programme which is cost-effective, as determined by the latest modelling results from the University of Warwick and based on the price of the vaccine and the cost of delivery.

Timing of vaccination

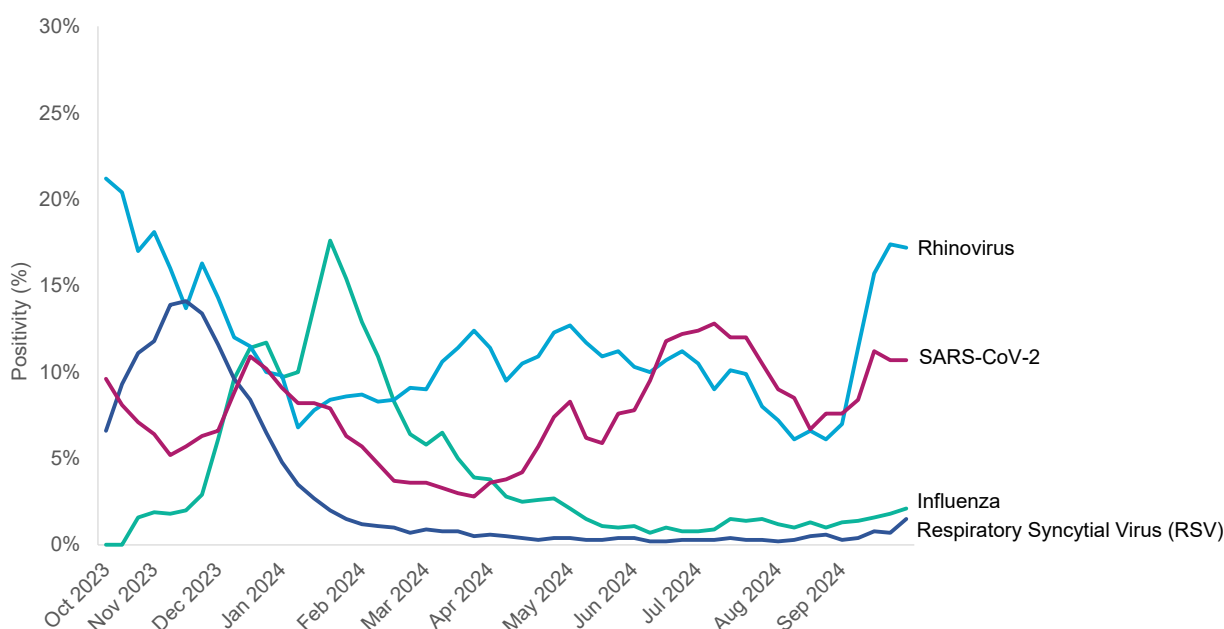
The vaccine should usually be offered no earlier than around 6 months after the last vaccine dose, although operational flexibility around the timing of vaccination in relation to the last vaccine dose is considered appropriate (with a minimum interval of 3 months between doses). More information on operational flexibility will be provided in the COVID-19 chapter of the Green Book.

Considerations

Epidemiology

Epidemiological analyses continue to indicate multiple, small waves throughout the year, with no firm evidence of seasonality. The Respiratory DataMart sentinel system indicated that SARS-CoV-2 peak positivity was lower than the peaks of influenza, respiratory syncytial virus (RSV), and rhinovirus in winter season 2023 to 2024 (figure 1).

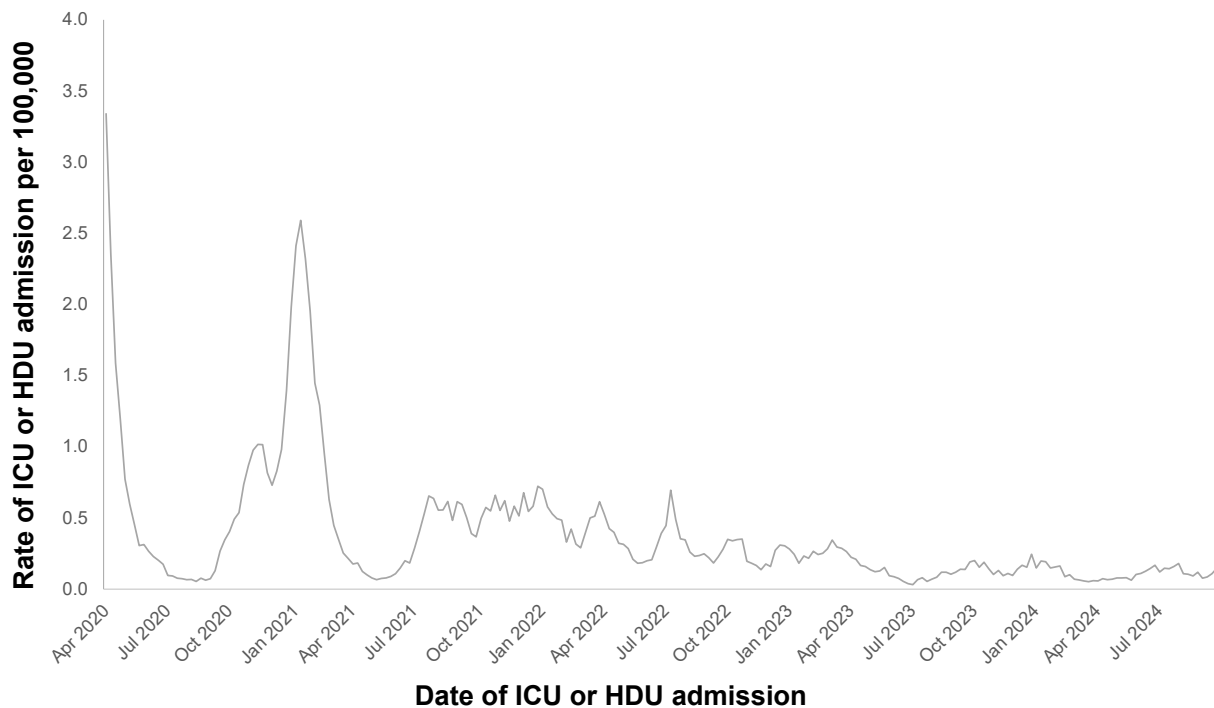
Figure 1: Respiratory DataMart weekly percentage of tests positive for influenza, SARS-CoV-2, RSV and rhinovirus, between October 2023 and 2024, England



Hospital admission rates were lower overall in the 2023 to 2024 season than previous years, with flatter peaks of hospitalisations over longer time periods, continuing the declining trend seen since 2020 as population immunity has increased.

A similar pattern was seen in intensive care unit (ICU) and high dependency unit (HDU) admission rates (figure 2), with very low baseline rates of COVID-19 and no obvious sharp peaks in admission. This is in contrast to influenza admissions data, which signals a large seasonal peak in the winter that declines to near zero for the rest of the year.

Figure 2: weekly overall COVID-19 ICU or HDU admission rates per 100,000 trust catchment population reported between April 2020 and September 2024 through SARI-Watch mandatory surveillance, England



Note: data extracted on 8 October 2024 and accurate at the time of extraction.

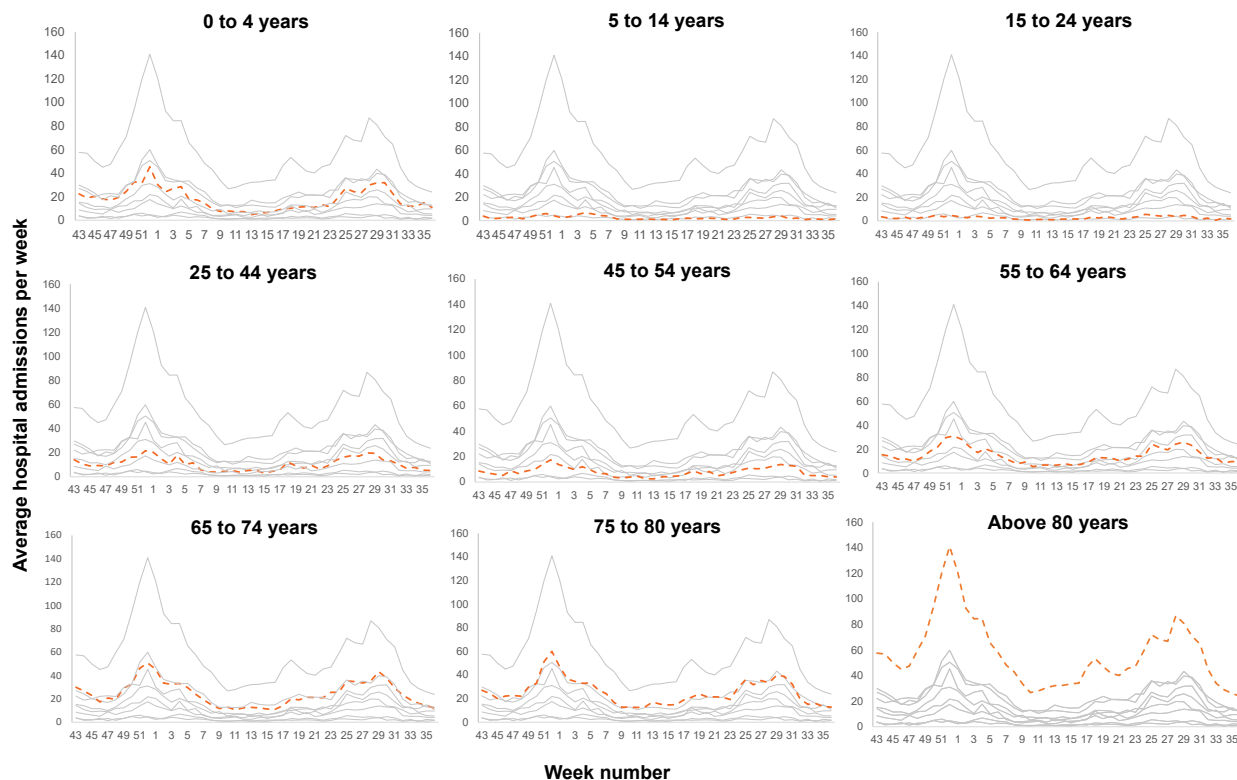
Population groups

Data on COVID-19 in specific population groups requires careful interpretation. As the SARS-CoV-2 virus is highly transmissible and COVID-19 vaccines have limited to no effectiveness against infection, COVID-19 is relatively common and may manifest as a mild illness for most individuals. Consequently, many people who are hospitalised or who die during a period when SARS-CoV-2 is circulating in the community may have a concurrent SARS-CoV-2 infection that may not be the primary cause of their serious illness.

Age

Available data continues to demonstrate that older people are more likely to experience hospitalisation and mortality if infected by SARS-CoV-2 (Aziz NA, 2024). Data on hospital admissions in the UK is consistent with the clinical risk being highest in those aged 80 years and older (figure 3).

Figure 3: smoothed-out weekly average of COVID-19 hospital admissions (October 2023 to September 2024) by age group in England



Immunosuppressed

Individuals who are immunosuppressed are at higher risk of hospitalisation and/or mortality following SARS-CoV-2 infection. Recent data indicates that many individuals who are immunosuppressed can mount an immune response to COVID-19 vaccines, providing them with some protection from serious disease in the future (OpenSAFELY data, unpublished).

There is limited data on COVID-19 in individuals under the age of 45 years who are immunosuppressed, as this is a relatively small population. JCVI noted that there was a need for more granular and accurate clinical data on COVID-19 outcomes across all age groups within the immunosuppressed population to better inform future advice, particularly in children.

Pregnancy, neonates and young infants

During the COVID-19 pandemic, pregnant individuals were offered vaccination to reduce their risk of hospitalisation and/or mortality from COVID-19. Recent data indicates that the risk of hospitalisation and/or mortality in pregnant individuals has significantly reduced in the Omicron period. Notably, there were no deaths in people who were pregnant in the last 18 months (Intensive Care National Audit and Research Centre data, unpublished). The peak in COVID-19 hospitalisations in currently or recently pregnant people was during the Delta variant wave.

Recent data on hospitalisations and mortality in neonates and young infants was reviewed (National Child Mortality Database data, unpublished), where length of hospital stays were short and ICU admissions were rare. JCVI

noted that it was difficult to attribute causation of hospitalisation or death with a concurrent positive SARS-CoV-2 test without data on positivity rates in a controlled population of infants.

In reviewing the cost-effectiveness of COVID-19 vaccination in pregnancy, taking into account the potential health benefits in the pregnant person and the neonate including neonatal death, JCVI advised that it was highly unlikely that vaccination in pregnancy would be cost-effective. The data was considered uncertain, but any improvement in data quality was unlikely to have a substantial impact on the cost-effectiveness of such a programme due to the extremely low mortality rates in the pregnant and neonatal populations, most of which might be attributed to an alternative cause.

Modelling

Spring 2025: cost-effectiveness assessment and number needed to vaccinate

A bespoke, non-standard method of cost-effectiveness assessment, alongside the number needed to vaccinate (NNV), was used to develop advice for spring 2025. In keeping with previous years, the NNV assessment indicated that the greatest benefits are obtained with programmes targeting the oldest age cohorts.

Overall, JCVI considered it appropriate to offer a spring 2025 vaccine dose to the same cohorts that were eligible for vaccination in spring 2024.

Autumn 2025 and spring 2026: University of Warwick and DHSC models

The University of Warwick undertook first opinion modelling of the potential impact and cost-effectiveness of COVID-19 vaccination in the UK (Keeling MJ, 2024). This work was further informed by a second opinion model prepared by DHSC.

The model developed by the University of Warwick was a static model in which the population was stratified into 5-year age bands and into 'not at-risk', 'at-risk' and 'immunosuppressed' groups. JCVI considered the UKHSA vaccine effectiveness values to be the most appropriate vaccine effectiveness estimates for use in the model.

For costs and quality-adjusted life year (QALY) losses associated with hospital admission, ICU admission, length of stay and deaths, the results of both models indicated that prevention of deaths was the most important contributor to the health economic benefits of vaccination in older adults.

Hospital and ICU admissions contributed less to the health economic benefits of vaccination compared with mortality.

While hospital and ICU admission rates were generally higher in at-risk compared with not at-risk individuals, increasing age continued to be the most important risk factor associated with COVID-19 mortality. JCVI noted that clinical at-risk groups were highly heterogeneous and, therefore, more granular data on COVID-19 mortality in specific clinical at-risk groups would be appropriate to consider in future analyses, but was not currently available.

Formulation of advice

Currently, the epidemiology of SARS-CoV-2 infection in the UK does not display strong seasonal features; waves of infection are present throughout the year. There is, however, still merit in a seasonal offer of COVID-19 vaccines to reduce the risk of co-infection with other winter viruses and to reduce the impact of COVID-19 on NHS services during winter. Vaccination every 6 months remains appropriate given the durability of protection afforded by currently available vaccines. Recognising the lack of seasonality of COVID-19, JCVI agreed that the size and scope of the autumn and spring programmes should be aligned (see minutes of meeting held on 2 October 2024).

There is good evidence that universal age-based immunisation programmes achieve consistently higher vaccination coverage than more selected programmes based on identifying people in a clinical at-risk group. In older adults, a high proportion of individuals are in a COVID-19 at-risk group, and those who are not in an at-risk group are still at risk of mortality from COVID-19, which is the main driver of cost-effectiveness in the models assessed. Therefore, JCVI advises that for COVID-19, any programme in older adults should be delivered as a universal age-based programme, subject to cost-effectiveness considerations. Universal offers have advantages both in terms of delivery and communication to the public.

Using an example cost of £25 for the combined cost of vaccine product and delivery, JCVI advises COVID-19 vaccination of:

- all those aged 75 years and over
- all residents in a care home for older adults
- all individuals aged 6 months and over who are immunosuppressed

In accordance with the modelling undertaken by the University of Warwick, in the situation of a lower-than-example cost JCVI advises extending the universal offer to include people aged 70 to 74 years.

In the situation of a higher-than-example cost, JCVI advises universal vaccination of all people beginning at an age consistent with a cost-effective programme as indicated by the modelling undertaken by the University of Warwick. It is recognised that in this instance, the appropriate age threshold would be higher than 75 years.

Vaccine products

JCVI has reviewed data on all vaccine products potentially available for use in autumn 2025 and spring 2026. After careful review, JCVI considered that the data suggests minimal differences in vaccine effectiveness.

JCVI does not have a preference for a specific COVID-19 vaccine product in the adult population. However, JCVI advises a preference for having vaccine products based on more than one vaccine platform in the programme, such as mRNA and protein-based vaccines.

A programme comprising varied vaccine products would:

- be more resilient
- enable the measurement of important real-world data on relative vaccine effectiveness against hospitalisation and mortality to inform future vaccine policy
- provide an alternative for individuals in whom a particular vaccine product is considered clinically unsuitable, for example as a result of anaphylaxis following vaccination

It is expected that COVID-19 vaccines will continue to be updated to match circulating variants on a yearly basis. JCVI advises that, when possible, the latest updated vaccine should be used in a vaccination campaign, provided this does not delay the start of the campaign.

For children and young people who are immunosuppressed, JCVI continues to advise the use of the Pfizer-BioNTech COVID-19 mRNA (Comirnaty) vaccine, with the vaccine dose appropriate to the child's age:

- 12 to 17 years: 30 micrograms
- 5 to 11 years: 10 micrograms
- 6 months to 4 years: 3 micrograms

References

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The JCVI code of practice and meeting minutes are available on the [JCVI webpage](https://www.gov.uk/government/groups/joint-committee-on-vaccination-and-immunisation) (<https://www.gov.uk/government/groups/joint-committee-on-vaccination-and-immunisation>).