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Coronavirus: Covid-19 vaccine roll-out frequently asked questions



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Summary

On 2 December 2020, the Medicines and Healthcare products Regulatory Agency (MHRA) granted a [‘temporary authorisation’](#) for the first Covid-19 vaccine in the UK (the [Pfizer/BioNTech vaccine](#)) meaning that it could be administered to patients. Roll-out of the vaccine began the following week, with the [first NHS patient](#) receiving the first of two doses of the vaccine on 8 December 2020. The MHRA has since granted a temporary authorisation to a second Covid-19 vaccine (the [AstraZeneca vaccine](#)) and it is now being [rolled out](#) across the UK, while a third vaccine (the [Moderna vaccine](#)) received a temporary authorisation from the MHRA on 8 January 2021. Deployment of the [Moderna vaccine](#) began in Wales on 7 April 2021, with England following the week after. Most recently, on 28 May 2021, Janssen became the first ‘single dose’ Covid-19 vaccine to receive [regulatory approval](#) from the MHRA. It will be rolled out later this year.

The Government has published a [UK COVID-19 vaccines delivery plan \(11 January 2021\)](#). The plan sets out how Covid-19 vaccines will be supplied, prioritised for those most at risk, made accessible across the country and administered by the healthcare professionals. It has also published a [COVID-19 vaccination uptake plan](#) (13 February 2021), explaining how it intends to make sure that as many people as possible take up the offer of vaccination.

Below are links to resources and guidance on the Covid-19 vaccine programme published by Public Health England, the NHS and other health bodies. Background information on vaccination, published by the House of Commons and Lords Libraries and the Parliamentary Office of Science and Technology (POST), is also included. These sources and others have been used to address commonly asked questions about the Covid-19 vaccine programme. These will be updated as needed.

Please note that [NHS guidance](#) emphasises:

All adults aged 18 or over can now get vaccinated against COVID-19. You do not need to wait to be contacted by the NHS. If you were contacted but have not booked your appointments, you're still eligible and can book your appointments anytime.

The [NHS advises](#) that those that aged 16-17 years will be contacted by a local NHS service, such as a GP surgery, to book their vaccination appointments. Some walk-in COVID-19 vaccination sites are offering the vaccine to people aged 16 and 17. Covid-19 vaccination for those aged 12-15 years will be delivered via the school age vaccination programme.

The information in this briefing is not medical advice, or a substitute for medical advice. Individuals seeking advice on their own medical treatment should consult their GP or use the [NHS 111 service](#) (in England). For the latest official guidance on coronavirus and the Covid-19 vaccination programme, please consult the NHS and Public Health England guidance linked to in section 1 of this briefing.

1 Key resources

Public Health

- British Medical Association, [COVID-19 vaccination programme](#), 4 June 2021 (guidance for GPs)
- Department of Health and Social Care, [UK COVID-19 vaccines delivery plan](#), 11 January 2021
- HM Government, [COVID-19 Response - Spring 2021](#), 22 February 2020
- HM Government, [Covid-19 Response: Autumn and Winter Plan](#), September 2021
- NHS England and NHS Improvement, [COVID-19 vaccination programme](#)
- NHS England and NHS Improvement, [COVID-19 Vaccination Centres: Operating Framework Information and guidance on operating Vaccination Centres](#), 20 January 2021
- NHS, [Coronavirus \(COVID-19\) vaccine](#), last reviewed 2 September 2021
- Public Health England, [Chapter 14a COVID-19 - SARS-CoV-2, Immunisation against infectious disease](#) (commonly known as 'The Green Book'), 3 September 2021
- Public Health England, [COVID-19 vaccination programme: Information for healthcare practitioners](#), 6 August 2021
- Public Health England, [COVID-19 vaccine surveillance strategy in England](#), 29 March 2021.
- Public Health England, [COVID-19 vaccination: British Sign Language resources](#), 17 June 2021
- Public Health England, [Guidance: What to expect after your COVID-19 vaccination](#), 2 July 2021
- Public Health England, [Guidance: COVID-19 vaccination: guide for healthcare workers](#), 1 March 2021
- Public Health England, [COVID-19 vaccination: guide for adults](#), 14 June 2021
- Public Health England, [COVID-19 vaccination: a guide for social care staff](#), 1 March 2021
- Public Health England, [Guidance: COVID-19 vaccination: a guide for women of childbearing age, pregnant or breastfeeding](#), 29 July 2021
- Public Health England, [PHE monitoring of the early impact and effectiveness of COVID-19 vaccination in England](#), 22 February 2021

Data

- Data on the number of people who have received a first and second vaccination dose can be found on the Government's [Coronavirus \(Covid-19\) in the UK Data Dashboard](#). Since 14 January 2020 NHS England has also provided a breakdown of [Covid vaccinations in England by region](#), age band, ethnicity, NHS Region, and Sustainability and Transformation Partnership/Integrated Care System area.

Parliamentary briefing material

- House of Commons Library, [Coronavirus: Access to vaccines in developing countries](#), 25 November 2020
- House of Commons Library, [UK Vaccination Policy](#), 21 January 2021
- House of Commons Library, [Coronavirus: Returning to work](#), 5 May 2021 (see section 2.6 on vaccines and employment)
- House of Commons Library, [Coronavirus: Self-isolation and Test and Trace Support Payments](#), 26 July 2021 (see Q5 on vaccination and self-isolation)
- House of Commons Library, [Covid-19 status certification](#), 28 July 2021
- House of Lords Library, [Covid-19 vaccine: Winter update](#), 10 November 2020
- Parliamentary Office of Science and Technology, [Immunising children against COVID-19](#), 29 July 2021
- Parliamentary Office of Science and Technology, [How does the virus that causes COVID-19 spread?](#) 16 July 2021
- Parliamentary Office of Science and Technology, COVID-19 vaccine coverage and targeted interventions to improve vaccination uptake, 2 July 2021
- Parliamentary Office of Science and Technology, [COVID-19 vaccines: effectiveness against the B.1.617.2 variant and latest updates from trials](#), 26 May 2021
- Parliamentary Office of Science and Technology, [What is the real-world impact of COVID-19 vaccines on community transmission?](#), 25 May 2021
- Parliamentary Office of Science and Technology, [COVID-19 vaccines safety and blood clots](#), 19 May 2021
- Parliamentary Office of Science and Technology, [COVID-19 vaccine misinformation](#), 26 April 2021
- Parliamentary Office of Science and Technology, [Which SARS-CoV-2 variants reduce the effectiveness of vaccines?](#) 22 April 2021
- Parliamentary Office of Science and Technology, [COVID-19 vaccines and virus transmission](#), 1 April 2021
- Parliamentary Office of Science and Technology, [Changing the UK COVID-19 vaccine dosing schedule](#), 24 February 2021

- Parliamentary Office of Science and Technology, [The performance of COVID-19 vaccines in clinical trials and in real world conditions](#), 8 February 2021
- Parliamentary Office of Science and Technology, [Manufacturing COVID-19 vaccines](#), 14 January 2021
- Parliamentary Office of Science and Technology, [Monitoring COVID-19 vaccine safety in national immunisation programmes](#), 17 December 2020
- Parliamentary Office of Science and Technology, [Regulatory approval of COVID-19 vaccines in the UK](#), 2 December 2020
- Parliamentary Office of Science and Technology, [COVID-19 vaccines November update: progress of clinical trials](#), 6 November 2020

Parliamentary Committees

- On 11 January 2021 the [Public Accounts Committee](#) held an evidence session on planning for Covid-19 vaccines.
- On 13 January 2021 the [House of Commons Science and Technology Committee](#) held an evidence session to explore the roll-out of Covid-19 vaccines in England and the UK.
- In February and March 2021, the Commons Science and Technology Committee has also held a number of evidence sessions on [UK science, research and technology capability and influence in global disease outbreaks](#).

2

FAQs: vaccine costs and quantities

2.1

What Covid-19 vaccines has the Government purchased?

A Government press release on 7 May 2021 states that the UK has access to a total of 517 million doses of vaccines from 8 different developers, each of which are at varying stages of clinical trials. They include:

- 100 million doses of University of Oxford/AstraZeneca vaccine (Approved and in deployment)
- 30 million doses of Janssen vaccine (Approved but not yet deployed)
- 100 million doses of BioNTech/Pfizer vaccine (Approved and in deployment)
- 17 million doses of Moderna vaccine (Approved and in deployment)
- 60 million doses of GlaxoSmithKline/Sanofi Pasteur (Phase 2 trials)
- 60 million doses of Novavax (Phase 3 trials)
- 50 million doses of CureVac (Phase 3 trials)
- 100 million doses of Valneva (Phase 2/3 trials).¹

In August 2021, the Government announced that it had agreed an additional contract for 35 million more doses of the Pfizer/BioNTech vaccine, to be delivered from the second half of next year.² It was also reported, in mid-September 2021, that the Government had cancelled its contract with Valneva, citing both “commercial reasons” and that the vaccine would “not get approval by the Medicines and Healthcare Products Regulatory Agency”.³

¹ [Press release: Two-thirds of UK adults receive first dose of a COVID-19 vaccine](#), Department of Health and Social Care, 7 May 2021

² [UK signs deal with Pfizer/BioNTech for 35 million vaccines](#), Department of Health and Social Care, 23 August 2021

³ [HC Deb, 14 September 2021, c820](#)

The National Audit Office (NAO) reported in December 2020 that, in the case of both the GSK/Sanofi and Janssen vaccines, “non-binding agreements that form the basis of formal contracts” are in place which the Department of Business, Energy and Industrial Strategy (BEIS) “expects to advance to agreed contracts”.⁴

2.2

How much has the Government paid for each Covid-19 vaccine?

Responses to Parliamentary Questions (PQs) state that the Government is not able to disclose details of agreements with vaccine manufacturers because of the commercially confidential nature of the contracts while commercial negotiations are ongoing (see PQ 115828, [Coronavirus: Vaccination](#), 19 November 2020). The NAO reported in December 2020 that the “seven deals” with pharmaceutical companies (that had been entered into at that point in time) could provide “357 million doses of different vaccines to the UK at an anticipated cost of £3.7 billion”.⁵ The Spending Review report published on the 25 November 2020 noted that the government had made £6 billion available in total to research and procure Covid-19 vaccines.⁶

There has been some press coverage about possible costs of different vaccines – see for example: *Financial Times*, [How much will a Covid-19 vaccine cost?](#) (23 October 2020). In the UK, *Sky News* reported in January 2021 that “the Moderna vaccine [...] was pitched for \$38 (£28) a dose during the summer - much higher than Pfizer, at \$20 (£15)”. The report added that the Oxford/AstraZeneca vaccine was “much cheaper [costing] a little under £3 per dose, with two doses needed”.⁷ Costs, however, are subject to negotiations by Governments with the pharmaceutical companies and thus may vary globally.

The Belgian Budget State Secretary, Eva De Bleeker, posted a price list on Twitter in December 2020 of how much the EU had paid for each of the Covid-19 vaccines:

- Oxford/AstraZeneca: €1.78
- Johnson & Johnson: \$8.50 (€7.00)
- Sanofi/GSK: €7.56

⁴ National Audit Office, [Investigation into preparations for potential COVID-19 vaccines](#), 16 December 2020, p9

⁵ National Audit Office, [Investigation into preparations for potential COVID-19 vaccines](#), 16 December 2020, p9

⁶ HM Treasury, [Spending Review 2020](#), CP 330, 25 November 2020,

⁷ [COVID-19 vaccines: How do the Moderna, Pfizer and Oxford coronavirus jab candidates compare?](#), *Sky News* [online], 4 January 2021

- Pfizer/BioNTech: €12
- CureVac: €10
- Moderna: \$18 (€14.83).⁸

Some further background can be found in an article in the *British Medical Journal*:

- [Will covid-19 vaccines be cost effective—and does it matter?](#) (26 November 2020).

2.3

How many vaccines will be needed?

At present it is not clear how many people will need to be vaccinated for effective protection of the population and, by extension, how many vaccines will be needed. An article in the medical journal, *The Lancet*, states that further evidence is required from Covid-19 vaccine trials before the question can be answered:

The amount of vaccine required for a defined population will depend on evidence from phase 3 COVID-19 vaccine trials on efficacy and what can be assumed about the average duration of vaccine protection—it will be an assumption until the findings of phase 4 trials on duration of both protection against infection and severe disease are reported.⁹

Estimates have, however, been made; Stephen Evans, Professor of Pharmacoepidemiology at the London School of Hygiene and Tropical Medicine told *ITV News*:

we will need “about 80-90% of the population to have immunity” before the government can consider Covid-19 not a threat. He said some of that would come from immunity developed from people who have already had the virus but predicted around 70% of the population would need to be vaccinated.¹⁰

⁸ [Belgian minister tweets EU's Covid vaccine price list to anger of manufacturers](#), *The Guardian*, 18 December 2020

⁹ Roy M Anderson, [Challenges in creating herd immunity to SARS-CoV-2 infection by mass vaccination](#), *The Lancet*, Volume 396, Issue 10263, p1614-1616, 21 November 2020

¹⁰ [Covid vaccine: Will enough people in the UK be willing to be vaccinated to get rid of the virus?](#) *ITV News* [online], 10 November 2020

3 FAQs: immunity and transmission

3.1 How long after having the vaccine does immunity develop?

Guidance from [Public Health England \(PHE\)](#) states that it takes a “few weeks for your body to build up protection from the vaccine”. PHE guidance also emphasises the importance of continuing to adhere to existing measures aimed at reducing transmission of the virus:

Like all medicines, no vaccine is completely effective, so you should continue to take recommended precautions to avoid infection. Some people may still get COVID-19 despite having a vaccination, but this should be less severe. ¹¹

3.2 When will I receive the second dose of the vaccine?

‘The Green Book’ – a Public Health England publication containing information for health professionals on developments in the field of immunisation – states that the Pfizer/BioNTech Covid-19 vaccine should be administered in 2 doses, a minimum of 21 days apart, while the AstraZeneca Covid-19 and Moderna vaccines should be administered in 2 doses, a minimum of 28 days apart. ¹² It also notes, however, that for operational reasons “the second dose of both vaccines should be routinely scheduled between four and 12 weeks after the first dose”. ¹³ This represents a change to the initial dosing schedule for the second dose of the Pfizer vaccine. It follows a recommendation from the Joint Committee on Vaccination and Immunisation (JCVI) that as “many people on the JCVI priority list as possible should sequentially be offered a first vaccine dose as the initial priority”. ¹⁴

¹¹ Public Health England, [Guidance: What to expect after your COVID-19 vaccination](#), 15 June 2021

¹² Public Health England, [Chapter 14a COVID-19 - SARS-CoV-2, Immunisation against infectious disease](#) (commonly known as ‘The Green Book’) December 2020, p7

¹³ Public Health England, [Chapter 14a COVID-19 - SARS-CoV-2, Immunisation against infectious disease](#) (commonly known as ‘The Green Book’) December 2020, p7

¹⁴ [Press release: Statement from the UK Chief Medical Officers on the prioritisation of first doses of COVID-19 vaccines](#), Department of Health and Social Care, 30 December 2020; JCVI, [Optimising the COVID-19 vaccination programme for maximum short-term impact](#), 31 December 2020

The four UK Chief Medical Officers issued a joint statement on 30 December 2020, agreeing with the JCVI's approach:

at this stage of the pandemic prioritising the first doses of vaccine for as many people as possible on the priority list will protect the greatest number of at risk people overall in the shortest possible time and will have the greatest impact on reducing mortality, severe disease and hospitalisations and in protecting the NHS and equivalent health services.¹⁵

BioNTech and Pfizer have reportedly questioned the UK Government's approach of delaying the second dose of its Covid-19 vaccine. *The Independent* newspaper reported on 5 January 2021 the companies as stating that the:

safety and efficacy of the vaccine has not been evaluated on different dosing schedules as the majority of trial participants received the second dose within the window specified in the study design.¹⁶

The newspaper added that Denmark has approved a delay of up to six weeks between the administration of the first and second doses of the vaccine and that Germany is considering a similar approach.¹⁷ The German Chancellor, Angela Merkel, has since announced that there will be a 42-day gap between the administration of the first and second doses of the Pfizer vaccine and 12 weeks between the first and second doses of Oxford/AstraZeneca vaccine.¹⁸

Bringing forward second doses

At the No. 10 coronavirus press conference on 14 May 2021 the Prime Minister commented on the UK clusters of the B.1.617.2 variant – the Delta variant – first observed in India. He said that, following JCVI advice, the vaccine programme would accelerate remaining second doses to the over 50s and those clinically vulnerable so they are provided eight weeks after the first dose.¹⁹ NHS National Medical Director, Professor Stephen Powis, has said that people who are having their second doses brought forward to counter the spread of the Indian variant do not need to contact the NHS, saying “You will be told how to rebook if you need to.”²⁰

The Prime Minister subsequently announced on 14 June 2021 that the second dose of Covid-19 vaccine would also be brought forward to eight weeks for

¹⁵ [Press release: Statement from the UK Chief Medical Officers on the prioritisation of first doses of COVID-19 vaccines](#), Department of Health and Social Care, 30 December 2020

¹⁶ [No data to support delay of second Covid vaccine dose, say Pfizer and BioNTech](#), *The Independent*, 5 January 2021

¹⁷ [Revisiting the UK's strategy for delaying the second dose of the Pfizer covid-19 vaccine](#), *BMJ Opinion*, 20 January 2021

¹⁸ [Germany should have led the world at handling the pandemic. But experts slam Merkel's vaccine response as a disaster](#), *CNN* [online], 8 March 2021

¹⁹ Gov.uk, [PM statement at coronavirus press conference: 14 May 2021](#)

²⁰ NHS England, [NHS invites people aged 36 and 37 for life-saving COVID-19 jab](#), 17 May 2021

those aged over 40, to respond to the spread of the Delta variant.²¹ A month later, the Prime Minister announced that second doses for those aged under 40 would also be brought forward to eight weeks.²²

Patients with planned immunosuppressive therapy

NHS England has issued guidance stating that patients who are about to receive planned immunosuppressive therapy should – where clinically appropriate – be considered for vaccination prior to commencing therapy. According to the guidance, the first vaccine should take place:

ideally at least two weeks before [planned immunosuppressive therapy] when their immune system is better able to make a response. Where possible, it would also be preferable for the two-dose-schedule to be completed prior to commencing immunosuppression. This would entail offering the second dose at the recommended minimum for that vaccine (three or four weeks from the first dose) to provide maximum benefit that may not be received if the second dose was given during the period of immunosuppression.²³

3.3

Will I receive two doses of the same vaccine?

In all but “extremely rare occasions”, a person should receive two doses of the same Covid-19 vaccine. Dr Mary Ramsay, Head of Immunisations at Public Health England told *BBC News Online*: “We do not recommend mixing the Covid-19 vaccines - if your first dose is the Pfizer vaccine you should not be given the AstraZeneca vaccine for your second dose and vice versa”. Dr Ramsay added that on the “extremely rare occasions” where the same vaccine is unavailable, or it is unknown which vaccine the patient received, it was “better to give a second dose of another vaccine than not at all”.²⁴

The guidance from Public Health England is that, if a vaccination course is “incomplete” – namely that the person has not received a second dose because the course has been interrupted or delayed – then it should:

be resumed using the same vaccine but the first dose should not be repeated. There is no evidence on the interchangeability of the COVID-19 vaccines although studies are underway. Therefore, every effort should be made to determine which vaccine the individual received and to complete with the same vaccine. For individuals who started the schedule and who attend for vaccination at a site where

²¹ [Press release: Vaccination programme accelerated as Step 4 is paused](#), Prime Minister's Office, 14 June 2021

²² [Press release: Prime Minister to urge caution ahead of move to step 4](#), Prime Minister's Office, 10 Downing Street, 12 July 2021

²³ NHS England, [COVID-19 vaccination programme: FAQs on second doses](#), Version 1 – 19 March 2021

²⁴ [Coronavirus: BMJ urges NYT to correct vaccine 'mixing' article](#), *BBC News Online*, 3 January 2021

the same vaccine is not available, or if the first product received is unknown, it is reasonable to offer one dose of the locally available product to complete the schedule. This option is preferred if the individual is likely to be at immediate high risk or is considered unlikely to attend again.²⁵

Further information about the “exceptional circumstances in which a different second vaccine to the first can be given” are set out in:

- Public Health England, [COVID-19 vaccination programme: Information for healthcare practitioners](#), 9 June 2021 (p13-14)

A study supported by the National Institute for Health Research (NIHR)²⁶ has recently begun in England to “determine the effects of using a different approved vaccine for the second dose to the first dose” while also examining the “efficacy of two different time intervals between doses”.²⁷ In Budget 2021, the Government committed £22 million to fund the expansion of this “world first trial” combining different vaccines as part of a two-dose regime.²⁸ The NIHR stresses, however, that the research will not affect the current Covid-19 vaccine roll-out; those who have already received their first dose of a Pfizer or AstraZeneca vaccine will “receive their second dose from the same source and over the same 12 week interval”.²⁹

3.4

Do Covid-19 vaccines prevent the transmission of the SARS-CoV-2 virus?

It is not currently known if Covid-19 vaccines prevent transmission of the SARS-CoV-2 virus responsible for Covid-19 disease, though initial data on the topic is beginning to emerge. At present, use of Covid-19 vaccines is aimed at providing direct protection to vulnerable individuals. While the Pfizer/BioNTech vaccine trials have shown that it has stopped people developing symptoms of the disease, it was not tested to see whether it prevents people from being infected with the virus. It is therefore unclear whether those who are vaccinated could develop an asymptomatic infection (and thus transmit the virus to others).³⁰ Pfizer expects to report data on

²⁵ Public Health England, [Chapter 14a COVID-19 - SARS-CoV-2, Immunisation against infectious disease](#) (commonly known as 'The Green Book') December 2020, p11-12

²⁶ The NIHR is the nation's largest funder of health and care research. Its funds predominately come from the Department of Health and Social Care.

²⁷ NIHR, [World's first COVID-19 vaccine alternating dose study launches in UK](#), 4 February 2021

²⁸ HM Treasury, [Budget 2021](#), March 2021, HC 1226, p59

²⁹ NIHR, [World's first COVID-19 vaccine alternating dose study launches in UK](#), 4 February 2021

³⁰ [The UK has approved a COVID vaccine — here's what scientists now want to know](#), *Nature*, 3 December 2020

whether or not its vaccine stops virus transmission in the first quarter of 2021.³¹

On 29 March 2021, the Centers for Disease Control and Prevention (CDC) in the United States reported the interim findings of a study examining the effectiveness of Pfizer/BioNTech and Moderna Covid-19 vaccines in preventing SARS-CoV-2 infections. The study took place over a 13-week period from 14 December 2020 to 13 March 2021 among 3,950 study participants in six states. The CDC reported that the Pfizer and Moderna vaccines not only prevented infections with symptoms, but also reduced asymptomatic infections, thus reducing the likelihood of transmission:

Among unvaccinated participants, 1.38 SARS-CoV-2 infections were confirmed by reverse transcription–polymerase chain reaction (RT-PCR) per 1,000 person-days. In contrast, among fully immunized (≥ 14 days after second dose) persons, 0.04 infections per 1,000 person-days were reported, and among partially immunized (≥ 14 days after first dose and before second dose) persons, 0.19 infections per 1,000 person-days were reported [...] These findings indicate that authorized mRNA COVID-19 vaccines are effective for preventing SARS-CoV-2 infection, regardless of symptom status, among working-age adults in real-world conditions. COVID-19 vaccination is recommended for all eligible persons.³²

Public Health England (PHE) has also published several reports on vaccine effectiveness that have covered transmission. On 22 February 2021, it published a report on [the early impact and effectiveness of COVID-19 vaccination in England](#) and highlighted data from the SIREN ([Sarscov2 Immunity and REinfection Evaluation](#)) study in UK healthcare workers under 65 years old. The findings “suggested that protection against infection from a single dose of the Pfizer vaccine was 72%”. It added that the data “suggests the vaccine may also help to interrupt virus transmission, as you cannot spread the virus if you do not have infection”.³³

PHE has also published data covering older age groups showing that the Pfizer and Oxford-AstraZeneca vaccines are effective in reducing Covid-19 infections among those aged 70 years and over:

Since January, protection against symptomatic Covid-19 [in the over 70s], 4 weeks after the first dose, ranged between 57 and 61% for

³¹ [Pfizer Vaccine’s Effect on Transmission Still Unknown, FDA Says](#), *Bloomberg*, 8 December 2020

³² Mark G. Thompson et al, [Interim Estimates of Vaccine Effectiveness of BNT162b2 and mRNA-1273 COVID-19 Vaccines in Preventing SARS-CoV-2 Infection Among Health Care Personnel, First Responders, and Other Essential and Frontline Workers — Eight U.S. Locations](#), December 2020–March 2021, CDC Morbidity and Mortality Weekly Report (MMWR) Early Release 29 March 2021. Please note, it is not clear if these findings have yet been peer reviewed.

³³ Public Health England, [Guidance: PHE monitoring of the effectiveness of COVID-19 vaccination](#), 22 February 2021

one dose of Pfizer and between 60 and 73% for the Oxford-AstraZeneca vaccine.

[...]

In the over 80s, data suggest that a single dose of either vaccine is more than 80% effective at preventing hospitalisation, around 3 to 4 weeks after the jab. There is also evidence for the Pfizer vaccine, which suggests it leads to an 83% reduction in deaths from COVID-19.³⁴

Most recently, PHE has published the findings of a study which examined whether individuals who have “received one dose of [Pfizer or AstraZeneca] vaccine, but still become infected with SARS-COV-2 up to 60 days after the first dose, are less likely than unvaccinated cases to transmit to their unvaccinated household contacts”. The results show that the likelihood of household transmission is “40-50% lower for households in which the index [first] cases are vaccinated 21 days or more prior to testing positive”, when compared to an index case that has not been vaccinated.³⁵

It should be noted that these PHE publications are at the ‘pre-print’ stage, meaning that the findings have not yet been peer-reviewed.

Interim trial data from the Oxford/AstraZeneca Phase III vaccine trials indicated that the half dose and full dose regimen “could help to prevent transmission of the virus, evidenced by lower rates of asymptomatic infection in the vaccines” though the report notes that further information will become available “when trial data are next evaluated”.³⁶ A primary analysis of the Phase III trials (which has not yet been peer-reviewed) found that, in those who had received one dose of the AstraZeneca vaccine, there was an overall reduction in those testing positive for Covid-19 of 67% which, the researchers state, indicates the “potential for a substantial reduction in transmission”.³⁷

The Parliamentary Office on Science and Technology has produced two briefings on the matter:

- [COVID-19 vaccines and virus transmission](#) (1 April 2021);

³⁴ [News story: New data show vaccines reduce severe COVID-19 in older adults](#), Public Health England, 1 March 2021; Jamie Lopez Bernal et al, [Early effectiveness of COVID-19 vaccination with BNT162b2 mRNA vaccine and ChAdOx1 adenovirus vector vaccine on symptomatic disease, hospitalisations and mortality in older adults in England](#), medRxiv Pre-print, 2 March 2021

³⁵ Ross J Harris et al, [Impact of vaccination on household transmission of SARS-COV-2 in England](#), Public Health England, April 2021

³⁶ [Oxford University breakthrough on global COVID-19 vaccine](#), University of Oxford News, 23 November 2020

³⁷ Merryn Voysey et al, [Single dose administration, and the influence of the timing of the booster dose on immunogenicity and efficacy of ChAdOx1 nCoV-19 \(AZD1222\) vaccine](#), *Preprints with The Lancet*, 3 February 2021; AstraZeneca, [COVID-19 Vaccine AstraZeneca confirms 100% protection against severe disease, hospitalisation and death in the primary analysis of Phase III trials](#), 3 February 2021

- [What is the real-world impact of COVID-19 vaccines on community transmission?](#) (25 May 2021).

3.5

Will people need repeated vaccinations, and, if so, how often?

The ‘Pfizer/BioNTech’, AstraZeneca and Moderna vaccines each require two doses to be given (for more information about the intervals between each dose, please see section 3.2).³⁸ The Janssen vaccine only requires a single dose.

It is not yet clear how long immunity to the SARS-CoV-2 virus will last following vaccination. An article in the *New Scientist*, published in December 2020, notes that it is hard to say how long “immune memory” will last because “the clinical trials weren’t set up to answer that question, and in any case, they only began dispensing second doses of the vaccine four months ago [...] It will become clearer as time marches on and the volunteers continue to be monitored”.³⁹

Data on immunity to other coronaviruses suggest that immunity to the SARS-CoV-2 virus (which is responsible for Covid-19 disease) might be short lived, “perhaps 12–18 months in duration”.⁴⁰ An article in the journal *Nature* notes that monitoring immunity in the months and years ahead will be vital:

There is no quick way to determine how long immunity to the SARS-CoV-2 virus will last, and researchers will need to monitor this closely in the coming months and years [...] it will be important for public-health officials to monitor immunity — and to know when it begins to wane. One way to do that, in addition to keeping track of infections among people who have received the shots, is to assess their levels of antibodies and immune cells periodically.⁴¹

There is some emerging, though not yet conclusive, evidence that vaccine effectiveness may wane over time. In a study by the [University of Oxford and the Office for National Statistics](#), which has yet to be peer reviewed, researchers examined the effectiveness of the Pfizer, AstraZeneca and Moderna Covid-19 vaccines in a large community-based survey of randomly selected households across the UK.

³⁸ [Which COVID-19 vaccines are lined up for roll-out on the NHS?](#), *GP Online*, 30 November 2020; BMA, [COVID-19 vaccination programme](#), 8 December 2020

³⁹ [Everything you need to know about the Pfizer/BioNTech covid-19 vaccine](#), *New Scientist*, 3 December 2020

⁴⁰ Roy M Anderson, [Challenges in creating herd immunity to SARS-CoV-2 infection by mass vaccination](#), *The Lancet*, Volume 396, Issue 10263, p1614-1616, 21 November 2020

⁴¹ [The UK has approved a COVID vaccine — here’s what scientists now want to know](#), *Nature*, 3 December 2020

The study involved analysing the results of 2,580,021 PCR tests to check for SARS-CoV-2 from 384,543 UK adults between 1 December 2020 and 16 May 2021 — when the Alpha variant of the virus was dominant — and 811,624 test results from 358,983 people between 17 May and 1 August 2021, when the Delta variant was more prevalent. A ‘pre-print’ of the results was published on 19 August 2021.

The researchers reported that the effectiveness of the Pfizer and AstraZeneca vaccines against any infections (new cases identified by a positive PCR test) fell over time. For the Pfizer vaccine, vaccine effectiveness (VE) was 85% 14 days after receiving a second dose, but “reduced by 22% [...] for every 30 days from second vaccination in those aged 18 to 64 years”. For the AstraZeneca vaccine, VE in the same age group was 68% 14 days after receiving a second dose, with VE reducing by 7% every 30 days. There was insufficient data to assess the Moderna vaccine.⁴²

It is important to note that the study examined ‘infection’ with SARS-CoV-2 (i.e. a positive PCR test); it did not look at the severity of the infection, such as whether a person had mild symptoms or if they suffered severe illness / required hospitalisation.

3.6

What are the Government’s plans for Covid-19 vaccine boosters?

In its [COVID-19 Response – Spring 2021](#) document, the Government stated that it is planning for a revaccination campaign, which is likely to run later this year in autumn or winter:

Any revaccination is likely to consist of a single ‘booster’ dose of a COVID-19 vaccine: the ideal booster may be a new vaccine specifically designed against a variant form of the virus. Over the longer term, revaccination is likely to become a regular part of managing COVID-19.⁴³

Speaking at a Downing Street press conference on 23 March 2021, the Government Chief Scientific Adviser, Sir Patrick Vallance, said that there was a need to consider “booster jabs for vaccines in the autumn” in order to reach a “high level of immunity to cover things over the winter”.⁴⁴ In May 2021, the Government’s Vaccines Taskforce announced that it had purchased an additional 60 million doses of the Pfizer/BioNTech vaccine, to be used

⁴² Koen B. Pouwels et al, [Impact of Delta on viral burden and vaccine effectiveness against new SARS-CoV-2 infections in the UK](#), August 2021

⁴³ HM Government, [COVID-19 Response – Spring 2021](#), 22 February 2021

⁴⁴ [COVID-19 vaccine boosters could be needed later in the year, UK chief scientist says](#), *Reuters*, 23 March 2021

alongside other approved Covid-19 vaccines, in preparation for “the booster COVID-19 vaccination programme beginning from the autumn”.⁴⁵

Interim advice issued by the JCVI in June 2021 stated that the purpose of any booster programme should be to “reduce the occurrence of serious COVID-19 disease” and that it should begin in September 2021, in order to “maximise protection in those who are most vulnerable to serious COVID-19 ahead of the winter months”.⁴⁶ The JCVI also recommended that boosters be offered in two stages:

Stage 1. The following persons should be offered a third dose COVID-19 booster vaccine and the annual influenza vaccine as soon as possible from September 2021:

- adults aged 16 years and over who are immunosuppressed
- those living in residential care homes for older adults
- all adults aged 70 years or over
- adults aged 16 years and over who are considered clinically extremely vulnerable
- frontline health and social care workers

Stage 2. The following persons should be offered a third dose COVID-19 booster vaccine as soon as practicable after stage 1, with equal emphasis on deployment of the influenza vaccine where eligible:

- all adults aged 50 years and over
- adults aged 16 to 49 years who are in an influenza or COVID-19 at-risk group. (Refer to the [Green Book](#) for details of at-risk groups)
- adult household contacts of immunosuppressed individuals.⁴⁷

The Government has stated that the “final decisions on the timing and scope and cohort eligibility of any COVID-19 vaccine booster programme will be confirmed once the JCVI has provided their final advice”.⁴⁸

⁴⁵ [Press release: UK secures extra 60 million Pfizer/BioNTech COVID-19 vaccines](#), Department of Health and Social Care, 28 April 2021

⁴⁶ JCVI, [Interim advice: potential COVID-19 booster vaccine programme winter 2021 to 2022](#), 30 June 2021

⁴⁷ JCVI, [Interim advice: potential COVID-19 booster vaccine programme winter 2021 to 2022](#), 30 June 2021

⁴⁸ [PQ 34548](#) [on Coronavirus: Vaccination], 26 July 2021

On 1 September 2021, the JCVI issued advice on a [Third primary COVID-19 vaccine dose for people who are immunosuppressed](#). Noting that those who are immunosuppressed (due to underlying health conditions or medical treatment) may not produce a full immune response to a primary course of Covid-19 vaccination, it advised that a “third primary dose be offered to individuals aged 12 years and over with severe immunosuppression”.⁴⁹ The Green Book (a Public Health England publication containing information for health professionals on developments in the field of immunisation) advises that the timing of a third dose should “be undertaken by the specialist involved in the care of the patient” and given “ideally at least 8 weeks after the second dose, with special attention paid to current or planned immunosuppressive therapies”.⁵⁰

A study assessing the effectiveness of a third dose of vaccine to improve the response against current and future variants of Covid-19 is also underway and has received a funding share of £22 million from the Government as part of Budget 2021.⁵¹ Initial findings from the ‘Cov-Boost’ study are expected in September 2021.

Most recently, in its [Covid-19 Response: Autumn and Winter Plan](#), the Government stated that it would be offering booster doses to individuals who received vaccination in Phase 1 of the Covid-19 vaccination programme (priority groups 1-9), no earlier than 6 months after completion of their primary course. It added that the NHS was preparing to offer booster doses from 20 September 2021.⁵²

This followed updated advice from the JCVI that a booster vaccine dose is “offered no earlier than 6 months after completion of the primary vaccine course, in the same order as during Phase 1” of the vaccine roll-out.⁵³ The JCVI added that it had a “preference for the Pfizer-BioNTech vaccine for the booster programme, regardless of which vaccine brand someone received for their primary doses”. It stated that the recommendation was based on data from the “COV-BOOST trial that indicates the Pfizer-BioNTech vaccine is well tolerated as a third dose and provides a strong booster response”.⁵⁴ The MHRA has also concluded that the Moderna vaccine “can be used as a safe and effective booster dose, including in a half dose”.⁵⁵

⁴⁹ JCVI, [Joint Committee on Vaccination and Immunisation \(JCVI\) advice on third primary dose vaccination](#), 1 September 2021

⁵⁰ Public Health England, [Chapter 14a COVID-19 - SARS-CoV-2, Immunisation against infectious disease](#) (commonly known as ‘The Green Book’) 3 September 2021, p19

⁵¹ HM Treasury, [Budget 2021](#), March 2021, HC 1226, p68

⁵² HM Government, [Covid-19 Response: Autumn and Winter Plan](#), 13 September 2021, p7-8

⁵³ [Press release: JCVI issues updated advice on COVID-19 booster vaccination](#), Public Health England, 14 September 2021

⁵⁴ *ibid*

⁵⁵ MHRA, [MHRA statement on COVID-19 booster vaccines](#), 14 September 2021

3.7

Will Covid-19 vaccines protect against variant strains of SARS-CoV-2?

Detailed information about Covid-19 variants can be found in the Parliamentary Office of Science and Technology briefing on [SARS-CoV-2 virus variants: a year into the COVID-19 pandemic](#) (published 27 January 2021). Research is still being conducted to establish the extent to which existing Covid-19 vaccines are effective against new variants of the SARS-CoV-2 virus. In response to a Parliamentary Question on the matter, the Government stated:

Industry led studies are ongoing to understand the level of protection the Pfizer and AstraZeneca vaccines will provide against variant strains of COVID-19. This will include immunological studies to understand the potential for protection from COVID-19 vaccines against variants and follow up of phase three trial participants in geographical areas where variants are circulating. Global surveillance systems, including systems within Public Health England, will be able to provide observational data on vaccine effectiveness against COVID-19 variants. These will be reviewed by the Joint Committee on Vaccination and Immunisation as they become available. ⁵⁶

Speaking at the Government’s daily Covid-19 press briefing in early February 2021, the Deputy Chief Medical Officer for England, Professor Van-Tam, encouraged people not to let fears about new variants stop them from having a Covid-19 vaccine, adding “please don't delay if you're called, take the advantage to protect yourself against the [...] immediate threat”. ⁵⁷

In its [COVID-19 Response – Spring 2021](#) document, published on 22 February 2021, the Government announced that it had established a partnership to help develop vaccines against new strains of Covid-19, should they be needed:

A new partnership has also been established with vaccine manufacturer CureVac. The agreement will leverage the UK’s world-leading expertise on genomics and virus sequences to allow new varieties of vaccines based on messenger RNA (mRNA) technology to be developed quickly against new strains of COVID-19 should they be needed. Vaccines based on mRNA can potentially generate vaccines more quickly than other approaches and be more flexible and durable against germs that tend to evolve through mutation, such as coronaviruses and influenza. An initial order of 50 million doses of this vaccine has been placed for delivery later this year if required.

⁵⁶ [PQ 149183](#) [on Coronavirus: Vaccination] 15 February 2021

⁵⁷ [Get a vaccine to protect yourself from 'immediate threat', says Jonathan Van Tam](#), *The Daily Telegraph*, 8 February 2021

This will help ensure the Government can rapidly develop and deploy vaccines against any new variants, or similar new diseases, in the future.⁵⁸

In Budget 2021, the Government announced a £28 million investment to increase the UK's capacity for vaccine testing and to improve the UK's ability to acquire rapidly samples of new variants of Covid-19.⁵⁹ A further £5 million was also announced for the Centre for Process Innovation in Darlington to support the "creation of a 'library' of mRNA vaccines for Covid-19 variants for possible rapid response deployment to allow the UK to get ahead of potential virus variants".⁶⁰

AstraZeneca reported in early February 2021 that a modified version of its Covid-19 vaccine – designed to address variant strains of the SARS-CoV-2 virus, such as that found in South Africa – would be ready by autumn 2021.⁶¹

At [the No. 10 coronavirus press conference on 14 May 2021](#), the Chief Medical Officer, Chris Whitty, said there was no evidence that the new B.1.617.2 variant (the Delta variant) first observed in India, is resistant to vaccines.⁶² More details about vaccine effectiveness against the Delta variant can be found in the Parliamentary Office of Science and Technology publication [COVID-19 vaccines: effectiveness against the B.1.617.2 variant and latest updates from trials](#) (26 May 2021).

⁵⁸ HM Government, [COVID-19 Response – Spring 2021](#), 22 February 2021, p22

⁵⁹ News Story: [Budget 2021: What you need to know](#), HM Treasury, 3 March 2021

⁶⁰ HM Treasury, [Budget 2021](#), March 2021, HC 1226, p59

⁶¹ [AstraZeneca aims to accelerate adaptation of vaccine for new Covid variants](#), *Financial Times*, 11 February 2021; [Covid: Scientists developing vaccine boosters to tackle variants](#), *BBC News Online*, 8 February 2021

⁶² [Boris Johnson warns Indian variant could cause 'significant disruption' to easing of lockdown](#), *The Times*, 14 May 2021

4 FAQs: vaccine safety

4.1 How is the safety of a Covid-19 vaccine assessed?

Vaccines must be tested through a series of clinical trials to establish their efficacy and safety, and have a product licence, known as a “marketing authorisation”, before they can be made available for widespread use in humans. The Medicines and Healthcare products Regulatory Agency (MHRA) is responsible for regulating all medicines and medical devices in the UK by ensuring they work and are acceptably safe. A press release from the MHRA, following its granting of a temporary authorisation for the first Covid-19 vaccine in the UK, explains its review process:

A dedicated team of MHRA scientists and clinicians carried out a rigorous, scientific and detailed review of all the available data, starting in October 2020.

This was done using a regulatory process known as a ‘rolling review’. A ‘rolling review’ can be used to complete the assessment of a promising medicine or vaccine during a public health emergency in the shortest time possible. This is done as the packages of data become available from ongoing studies on a staggered basis.

The MHRA expert scientists and clinicians reviewed data from the laboratory pre-clinical studies, clinical trials, manufacturing and quality controls, product sampling and testing of the final vaccine and also considered the conditions for its safe supply and distribution.⁶³

The MHRA also seeks advice from the Commission on Human Medicines, the Government’s independent advisory body, who critically assess the data before advising the UK government on the safety, quality and effectiveness of any potential vaccine.⁶⁴

Dr June Raine, the Chief Executive of the MHRA, has written a piece [explaining the process behind the Agency's approval of the Pfizer/BioNTech vaccine](#) (8

⁶³ [Press release: UK medicines regulator gives approval for first UK COVID-19 vaccine](#), Medicines and Healthcare products Regulatory Agency, 2 December 2020

⁶⁴ [The roles of the MHRA and JCVI in COVID-19 vaccines](#), Public Health England blog, 2 December 2020

December 2020).⁶⁵ The MHRA has also published the [Conditions of Authorisation for Pfizer/BioNTech COVID-19 vaccine](#) (updated 9 March 2021).

4.2 How will the safety of vaccines be monitored?

Medicine safety (including vaccines) is monitored by the MHRA on an ongoing basis through the [Yellow Card scheme](#), whereby reports of suspected side effects are sent to the MHRA by health professionals, drug companies and by patients. The purpose of the scheme is to provide “an early warning that the safety of a product may require further investigation”. Further details can also be found in [Chapter 9 Surveillance and monitoring for vaccine safety](#) of Public Health England's [Immunisation against infectious disease](#) (commonly known as ‘The Green Book’), 20 March 2013.

In the specific case of Covid-19 vaccines, the Chief Executive of the MHRA, Dr June Raine, stated that there is in place “a robust and proactive safety monitoring strategy for COVID-19 vaccines which allows for rapid, real-time safety monitoring at population level”, including a dedicated [Coronavirus Yellow Card reporting site](#).⁶⁶ This is supplemented with “safety monitoring with analysis of data on national vaccine usage and anonymised GP-based electronic healthcare records, linked to other healthcare data, to proactively monitor safety.”⁶⁷ The MHRA publishes a summary of Covid-19 vaccine yellow card reporting at this link:

<https://www.gov.uk/government/publications/coronavirus-covid-19-vaccine-adverse-reactions/coronavirus-vaccine-summary-of-yellow-card-reporting>

The MHRA has also stated that [The National Institute for Biological Standards and Control](#), part of the agency, “has been and will continue doing, independent laboratory testing so that every batch of the vaccine meets the expected standards of safety and quality”.⁶⁸

In addition, the MHRA is performing [Near real time vaccine safety monitoring for COVID-19 vaccines](#):

Once a COVID-19 vaccine is introduced it is important that the risk of rare events is actively monitored in order to both provide evidence on

⁶⁵ See also Elisabeth Mahase, [Vaccinating the UK: how the covid vaccine was approved, and other questions answered](#), *British Medical Journal* 2020; 371, Published 9 December 2020; [How the U.K. Approved Pfizer's COVID-19 Vaccine Faster Than the U.S. and Europe](#), *Time Magazine*, 2 December 2020

⁶⁶ [Press release: Confirmation of guidance to vaccination centres on managing allergic reactions following COVID-19 vaccination with the Pfizer/BioNTech vaccine](#), Medicines and Healthcare products Regulatory Agency, 9 December 2020

⁶⁷ [Press release: Confirmation of guidance to vaccination centres on managing allergic reactions following COVID-19 vaccination with the Pfizer/BioNTech vaccine](#), Medicines and Healthcare products Regulatory Agency, 9 December 2020

⁶⁸ [Press release: UK medicines regulator gives approval for first UK COVID-19 vaccine](#), Medicines and Healthcare products Regulatory Agency, 2 December 2020

vaccine safety, mitigating the impact of unfounded scares which can discourage people from being vaccinated and provide them with reassurance, as well as to rapidly detect any true safety concerns. This monitoring study will include weekly analyses to generate signals of potential rare risks where we see higher rates of an event occurring in patients than is expected given the natural occurrence of such events in unvaccinated people. Any concerns will then be further explored to ascertain if they are related to the vaccine and changes made to the vaccination programme to ensure safety if necessary. ⁶⁹

The companies responsible for producing Covid-19 vaccines have obligations regarding vaccine safety. As part of the MHRA's [Conditions of Authorisation for Pfizer/BioNTech COVID-19 vaccine](#):

Pfizer/BioNTech must operate a comprehensive pharmacovigilance system for this product in accordance with UK legislation for licensed products, as if they were market authorisation holders. ⁷⁰

The same clause is part of the MHRA's [Conditions of Authorisation for COVID-19 Vaccine AstraZeneca](#) and its [Conditions of Authorisation for COVID-19 Vaccine Moderna](#).

In February 2021, the MHRA published its [safety surveillance strategy](#) for monitoring the safety of all UK-approved Covid-19 vaccines which has been reviewed, and informed, by the Government's independent advisory body, the Commission on Human Medicines. ⁷¹ The law firm Bristows has outlined the four pillars to the strategy:

- **Enhanced passive surveillance** - 'observed vs expected analysis': the MHRA will perform enhanced statistical analysis on data generated through the existing Yellow Card scheme (which allows members of the public and healthcare professionals to voluntarily report suspected side effects to the MHRA). A specific Covid-19 interface has been added to the Yellow Card scheme to also allow for more targeted reporting. The MHRA will use various statistical methods to evaluate 'observed' versus 'expected' event reports, to determine whether more events are occurring after vaccination than might be expected ordinarily. This will assist the MHRA in identifying when and where vaccine-related side effects are signalled.

⁶⁹ Clinical Practice Research Datalink (CPRD), [Near real time vaccine safety monitoring for COVID-19 vaccines](#), MHRA, 10 October 2020

⁷⁰ MHRA, [Decision Conditions of Authorisation for Pfizer/BioNTech COVID-19 vaccine](#), Updated 8 December 2020

⁷¹ MHRA, [Report of the Commission on Human Medicines Expert Working Group on COVID-19 vaccine safety surveillance](#), 5 February 2021

- **Rapid Cycle Analysis and Ecological Analysis:** to supplement the Yellow Card scheme (which relies on direct reporting), the MHRA will also analyse anonymised electronic healthcare records, particularly by way of the CPRD Aurum dataset, which captures data from 13 million registered GP patients in the UK. The MHRA will perform Rapid Cycle Analysis on this data to track a range of theoretical side effects, in order to detect safety signals. The MHRA will also perform ecological analysis to monitor trends in high priority vaccination population cohorts (e.g. increased trends among the elderly).
- **Targeted active monitoring - Yellow Card Vaccine Monitor:** the MHRA has developed a new, voluntary, follow-up platform for a randomly selected group of those vaccinated through the NHS (several thousand in number). This group will be contacted at set intervals to determine the frequency and severity of any vaccine side effects.
- **Formal epidemiological studies:** The above methods detect signals and patterns, but do not necessarily confirm vaccine causation. As such, where necessary, formal epidemiological studies will be undertaken to solidify causal links identified through other vigilance activities.⁷²

Further information can be found in: Parliamentary Office of Science and Technology, [Monitoring COVID-19 vaccine safety in national immunisation programmes](#), 17 December 2020.

MHRA statement on the Covid-19 vaccine AstraZeneca, March 2021

Following suspensions by some countries of the AstraZeneca Covid-19 vaccine over suspected blood clots, the MHRA issued a statement on the matter on 18 March 2021:

the UK regulator, following a rigorous scientific review of all the available data, said that the available evidence does not suggest that blood clots in veins (venous thromboembolism) are caused by COVID-19 Vaccine AstraZeneca. This follows a detailed review of report cases as well as data from hospital admissions and GP records. This has been confirmed by the Government's independent advisory group, the Commission on Human Medicines, whose expert scientists and clinicians have also reviewed the available data.⁷³

The MHRA added that work was ongoing to conduct a further, detailed review into a specific type of blood clot – sinus vein thrombosis – occurring with lowered platelets. It emphasised that this occurrence had been reported in

⁷² Bristows LLP, [Vaccine safety: MHRA releases surveillance strategy](#)

⁷³ MHRA, [Government response: UK regulator confirms that people should continue to receive the COVID-19 vaccine AstraZeneca](#), 18 March 2021

“less than 1 in a million people vaccinated so far in the UK, and can also occur naturally – a causal association with the vaccine has not been established”. The regulator also emphasised that its advice remains that the “benefits of the vaccines against COVID-19 continue to outweigh any risks and that the public should continue to get their vaccine when invited to do so”.⁷⁴

Similar statements were also published by the [European Medicines Agency](#) (EMA) and the [World Health Organization](#).

4.3

Why has the JCVI recommended that those under 40 should be offered an alternative to the AstraZeneca Covid-19 vaccine?

JCVI statement on use of the AstraZeneca COVID-19 vaccine in those aged under 30 years

On 7 April 2021, the JCVI issued a statement following “reports of an extremely rare adverse event of concurrent thrombosis (blood clots) and thrombocytopenia (low platelet count) following vaccination with the first dose of AstraZeneca”. While recognising that there was still “a high level of uncertainty in estimates of the incidence of this extremely rare adverse event by age group” it stated that the available evidence suggests that there:

may be a trend for increasing incidence of this adverse event with decreasing age, with a slightly higher incidence reported in the younger adult age groups. In contrast, the risks of severe disease associated with COVID-19 increases steeply with age, with the youngest adults at lowest risk. There are currently no known risk factors for this extremely rare condition, which appears to be an idiosyncratic reaction on first exposure to the AstraZeneca COVID-19 vaccine.⁷⁵

After weighing up the relative risks and benefits, the JCVI advised that it was “preferable” that those under 30 years of age, with no underlying conditions, “be offered an alternative to the AstraZeneca vaccine where available. This weighs up the risks of being seriously ill or dying from COVID-19 against the extremely small risk of a serious adverse event.”⁷⁶

⁷⁴ MHRA, [Government response: UK regulator confirms that people should continue to receive the COVID-19 vaccine AstraZeneca](#), 18 March 2021

⁷⁵ Department of Health and Social Care, [JCVI statement on use of the AstraZeneca COVID-19 vaccine](#), 7 April 2021

⁷⁶ [Press release: New JCVI advice on use of the AstraZeneca COVID-19 vaccine](#), Public Health England, 8 April 2021

JCVI statement on use of the AstraZeneca COVID-19 vaccine in those aged under 40 years

An updated statement was made by the JCVI on the matter on 7 May 2021, extending its earlier advice to the 30-39 years age group:

in addition to those aged under 30, unvaccinated adults aged 30 to 39 years who are not in a clinical priority group at higher risk of severe COVID-19 disease, should be preferentially offered an alternative to the AstraZeneca COVID-19 (AZD1222) vaccine, where possible and only where no substantial delay or barrier in access to vaccination would arise.⁷⁷

The JCVI emphasised that there continues to be “no safety concerns for this extremely rare adverse event following receipt of a second dose of AstraZeneca (AZD1222) vaccine”.⁷⁸

In light of concerns over the extent of the spread of the B.1.617.2 or Delta variant (first observed in India) Professor Adam Finn, a member of the JCVI, said the Committee could look again at the recommendation that people under 40 should be offered alternatives to the AstraZeneca vaccine:

...if the evidence shows that the risk benefit balance for people in their 30s is to be offered [the AstraZeneca] vaccine then absolutely that recommendation will be changed. At the moment we don't think that's necessary, but it could well become a recommendation in the future.⁷⁹

The MHRA has not subsequently recommended any age restriction in Covid-19 Vaccine AstraZeneca vaccine use. The MHRA has issued [updated guidance for healthcare professionals](#) on how to minimise risks, as well as further advice on symptoms for vaccine recipients to look out for four or more days after vaccination.⁸⁰

4.4

Are there any side effects?

Side effects associated with the COVID-19 mRNA Vaccine BNT162b2 (the ‘Pfizer/BioNTech’ vaccine) are set out in the [Package leaflet: Information for the recipient](#). It states the following:

Side effects may occur with following frequencies:

⁷⁷ Department of Health and Social Care, [Independent report: Use of the AstraZeneca COVID-19 \(AZD1222\) vaccine: updated JCVI statement](#), 7 May 2021

⁷⁸ *ibid*

⁷⁹ [Ridge on Sunday. Sky News, 16 May 2021](#)

⁸⁰ [Press release: MHRA issues new advice, concluding a possible link between COVID-19 Vaccine AstraZeneca and extremely rare, unlikely to occur blood clots](#), MHRA, 7 April 2021

Very common: may affect more than 1 in 10 people

- pain at injection site
- tiredness
- headache
- muscle pain
- chills
- joint pain
- fever

Common: may affect up to 1 in 10 people

- injection site swelling
- redness at injection site
- nausea

Uncommon: may affect up to 1 in 100 people

- enlarged lymph nodes
- feeling unwell ⁸¹

Rare side effects: may affect up to 1 in 1,000 people

- temporary one sided facial drooping

Not known (cannot be estimated from the available data)

- severe allergic reaction (anaphylaxis)

The package leaflet for the [Covid-19 Vaccine AstraZeneca](#) states the following about possible side effects:

Very Common (may affect more than 1 in 10 people)

- tenderness, pain, warmth, redness, itching, swelling or bruising where the injection is given
- generally feeling unwell

⁸¹ MHRA, [Decision: Information for UK recipients on Pfizer/BioNTech COVID-19 vaccine](#), 31 December 2020

- feeling tired (fatigue)
- chills or feeling feverish
- headache
- feeling sick (nausea)
- joint pain or muscle ache

Common (may affect up to 1 in 10 people)

- a lump at the injection site
- fever
- being sick (vomiting)
- flu-like symptoms, such as high temperature, sore throat, runny nose, cough and chills

Uncommon (may affect up to 1 in 100 people)

- feeling dizzy
- decreased appetite
- abdominal pain
- enlarged lymph nodes
- excessive sweating, itchy skin or rash ⁸²

Not known (cannot be estimated from the available data)

- severe allergic reaction (anaphylaxis)

The package leaflet for the [Covid-19 Vaccine Moderna](#) states the following about possible side effects:

Very common (may affect more than 1 in 10 people):

- Tenderness and swelling of the underarm glands on the same side as the injection site
- Headache
- Nausea

⁸² MHRA, [Decision: Information for UK recipients on COVID 19 Vaccine AstraZeneca](#), 5 January 2021

- Vomiting
- Muscle ache, joint aches, and stiffness
- Pain or swelling at the injection site
- Feeling very tired
- Chills
- Fever

Common (may affect up to 1 in 10 people):

- Rash
- Rash, redness, or hives at the injection site

Uncommon (may affect up to 1 in 100 people):

- Itchiness at the injection site

Rare (may affect up to 1 in 1000 people):

- Temporary one sided facial drooping (Bell's palsy)
- Swelling of the face (Swelling of the face may occur in patients who have had facial cosmetic injections.)

Frequency unknown

- Severe allergic reactions (anaphylaxis)
- Hypersensitivity⁸³

The package leaflet for the [Covid-19 Vaccine Janssen](#) states the following about possible side effects:

Very common (may affect more than 1 in 10 people):

- headache
- nausea
- muscle aches
- pain where the injection is given

⁸³ MHRA, [Decision: Information for UK recipients on COVID-19 Vaccine Moderna](#), 8 January 2021

- feeling very tired

Common (may affect up to 1 in 10 people):

- redness where the injection is given
- swelling where the injection is given
- chills
- joint pain
- cough
- fever

Uncommon (may affect up to 1 in 100 people):

- rash
- muscle weakness
- arm or leg pain
- feeling weak
- feeling generally unwell
- sneezing
- sore throat
- back pain
- tremor
- excessive sweating

Rare (may affect up to 1 in 1000 people)

- allergic reaction
- hives

Very Rare: may affect up to 1 in 10 000 people

- Following widespread use of the vaccine there have been extremely rare reports of blood clots in combination with low level of blood platelets. When these blood clots do occur, they may be in unusual or atypical locations (e.g. brain, liver, bowel, spleen).

Unknown (cannot be estimated from the available data)

- severe allergic reaction

The MHRA states that vaccine recipients “should be monitored for 15 minutes after vaccination, with a longer observation period when indicated after clinical assessment”.⁸⁴ Recipients are also encouraged in the patient information leaflet to talk to their doctor, pharmacist or nurse if they get any side effects, including any possible side effects not listed in the leaflet.⁸⁵

Further information on possible adverse reactions can also be found in Public Health England, [COVID-19 vaccination programme: Information for healthcare practitioners](#) (9 June 2021) and Public Health England, [Guidance: What to expect after your COVID-19 vaccination](#), 15 June 2021.

4.5

Can those who are pregnant or breastfeeding have the vaccine?

The JCVI’s recommendation on the use of Covid-19 vaccines in pregnancy changed in April 2021.

Initially, in December 2020, the JCVI advised that there was “insufficient evidence to recommend routine use of Covid-19 vaccines during pregnancy”, though it added that “the available data does not indicate any safety concern or harm to pregnancy”.⁸⁶ It recommended that vaccination should only be contemplated in instances where the risk of exposure to SARS-CoV2 infection was “high and cannot be avoided, or where the woman has underlying conditions that put them at very high risk of serious complications of Covid-19”. The JCVI emphasised that, if these circumstances apply, “clinicians should discuss the risks and benefits of vaccination with the woman, who should be told about the absence of safety data for the vaccine in pregnant women”.⁸⁷

On 16 April, the JCVI advised that, based on 'real-world' safety data from the United States (where approximately “90,000 pregnant women have been vaccinated, mainly with mRNA vaccines including Pfizer-BioNTech and Moderna, without any safety concerns being raised”) pregnant women should be “offered the COVID-19 vaccine at the same time as the rest of the population, based on their age and clinical risk group”.

⁸⁴ [Press release: Confirmation of guidance to vaccination centres on managing allergic reactions following COVID-19 vaccination with the Pfizer/BioNTech vaccine](#), Medicines and Healthcare products Regulatory Agency, 9 December 2020

⁸⁵ MHRA, [Decision: Information for UK recipients on Pfizer/BioNTech COVID-19 vaccine](#), updated 31 December 2020

⁸⁶ JCVI, [Advice on priority groups for COVID-19 vaccination](#), 30 December 2020

⁸⁷ JCVI, [Advice on priority groups for COVID-19 vaccination](#), 30 December 2020

It added that it was preferable for pregnant women to be offered the Pfizer-BioNTech or Moderna vaccines on the grounds that there is “more real-world safety data from the US in relation to [these two brands] in women who are pregnant”, though it emphasised that “there have been no specific safety concerns from any brand of COVID-19 vaccines in relation to pregnancy”.⁸⁸

Public Health England continues to advise in its ‘Green Book’ that clinicians should discuss the risks and benefits of vaccination with pregnant women, and that women “should be told about the limited evidence of safety for the vaccine in pregnancy”.⁸⁹

Following the changes to the JCVI's advice, pregnant women reported that the online booking system did not allow them to specify that they wished to access a Pfizer or Moderna Covid-19 vaccine.⁹⁰ Amendments to the online booking system have since been made. The national medical director for England, Professor Stephen Powis, said:

NHS Digital will be amending the national booking service in the coming days to allow pregnant women to book into specific vaccine appointments in line with JCVI guidance.⁹¹

Current advice from the JCVI is that women who are breastfeeding, and who fall within one of the priority groups, may be offered vaccination with Covid-19 vaccines.⁹²

For further information see: Public Health England, [COVID-19 vaccination: a guide for all women of childbearing age, pregnant or breastfeeding](#), updated 14 June 2021

Other vaccine contraindications

The Covid-19 chapter of the ‘Green Book’ (*Immunisation against infectious disease*) advises that “there are very few individuals who cannot receive the COVID-19 mRNA Vaccine BNT162b2 Pfizer BioNTech or AstraZeneca COVID-19 vaccines”. It states that the vaccine should not be given to those who have had:

- a confirmed anaphylactic reaction to a previous dose of COVID-19 vaccine

⁸⁸ [Press release: JCVI issues new advice on COVID-19 vaccination for pregnant women](#), Public Health England, 16 April 2021

⁸⁹ Public Health England, [Chapter 14a COVID-19 - SARS-CoV-2, Immunisation against infectious disease](#) (commonly known as ‘The Green Book’), April 2021, p17

⁹⁰ [I’m 30 weeks pregnant and clinically vulnerable but cannot access the recommended coronavirus vaccine](#), *The Independent*, 11 May 2021

⁹¹ [NHS to allow pregnant women to book specific Covid vaccines](#), *The Guardian*, 7 May 2021

⁹² Public Health England, [COVID-19 vaccination: a guide for all women of childbearing age, pregnant or breastfeeding](#), updated 12 May 2021

- a confirmed anaphylactic reaction to any components of the vaccine.⁹³

After initially stating that any person with a history of anaphylaxis to a vaccine, medicine or food should not receive the Pfizer/BioNTech vaccine, the MHRA revised its guidance regarding **allergic reactions**:

A very small number of individuals have experienced anaphylaxis when vaccinated with the Pfizer BioNTech COVID-19 vaccine. Following close surveillance of the initial roll-out, the MHRA has advised that individuals with a history of anaphylaxis to food, an identified drug or vaccine, or an insect sting can receive any COVID-19 vaccine, as long as they are not known to be allergic to any component (excipient) of the vaccine. All recipients of the Covid-19 vaccine should be kept for observation and monitored for a minimum of 15 minutes. Facilities for management of anaphylaxis should be available at all vaccination sites.

The British Society for Allergy and Clinical Immunology (BSACI) has advised that:

- individuals with a history of immediate onset-anaphylaxis to multiple classes of drugs or an unexplained anaphylaxis should not be vaccinated with the Pfizer BioNTech vaccine. The AstraZeneca vaccine can be used as an alternative (if not otherwise contraindicated);
- individuals with a localised urticarial (itchy) skin reaction (without systemic symptoms) to the first dose of a COVID-19 vaccine should receive the second dose of vaccine with prolonged observation (30 minutes) in a setting with full resuscitation facilities (e.g. a hospital);
- individuals with non-allergic reactions (vasovagal episodes, non-urticarial skin reaction or non-specific symptoms) to the first dose of a COVID-19 vaccine can receive the second dose of vaccine in any vaccination setting.⁹⁴

Additional vaccine precautions are set out on pages 18-20 of Public Health England, [COVID-19 vaccination programme: Information for healthcare practitioners](#) (February 2021).

⁹³ Public Health England, [Chapter 14a COVID-19 - SARS-CoV-2, Immunisation against infectious disease](#) (commonly known as 'The Green Book') December 2020, p14

⁹⁴ NHS England, [Novel coronavirus \(COVID-19\) standard operating procedure COVID-19 local vaccination services deployment in community settings](#), Version 3, 4 January 2021, p17-18

4.6

What is being done to combat vaccine disinformation?

[Public health specialists](#) have voiced concerns that anti-vaccination messages, particularly those circulated on social media, could have a negative impact on the effectiveness of a mass roll-out of Covid-19 vaccines. ⁹⁵ On the 8 November 2020, the Government agreed a [package of measures](#) with social media companies to address vaccine disinformation, while the Opposition has suggested that further, [legislative steps](#) need to be taken in this area. ⁹⁶

In response to a question from the Leader of the Opposition, Sir Kier Starmer, about countering disinformation about vaccines, the Prime Minister stated on 2 December 2020 that the Government was “working to tackle all kinds of disinformation across the internet”, adding “we will be publishing a paper very shortly on online harms designed to tackle the very disinformation that he speaks of”. ⁹⁷

During a debate on the Government’s Response to the Online Harms Consultation on 15 December 2020, the Culture Secretary, Oliver Dowden, stated that vaccine disinformation would be covered by forthcoming legislation:

if disinformation—for example, anti-vax content—causes harm to individuals, it will be covered by the legislation, and I very much expect to set that out as one of the priority areas that would have to be addressed in secondary legislation. ⁹⁸

In addition, the Government has published its UK COVID-19 vaccine uptake plan which explains its approach to making sure that as many people as possible take up the offer of vaccination. It highlights the work of hundreds of ‘vaccine champions’ in Slough who are working in their communities to ensure “as many residents as possible are vaccinated, whilst at the same time helping dispel any vaccine myths and disinformation”. ⁹⁹

The Government has also noted the work of its cross-Whitehall Counter Disinformation Unit which, it states, has been looking “for trends on social media platforms” so that the Government can “work with them and other partners to respond to misleading content rapidly”. ¹⁰⁰ The Minister for COVID

⁹⁵ [How anti-vaxxers are threatening the UK’s Covid programme](#), *Financial Times*, 30 November 2020

⁹⁶ [Social media giants agree package of measures with UK Government to tackle vaccine disinformation](#), Department for Digital, Culture, Media & Sport, Department of Health and Social Care, 8 November 2020; [Covid-19: Stop anti-vaccination fake news online with new law says Labour](#), *BBC News Online*, 15 November 2020

⁹⁷ [HC Deb 2 December 2020 c304](#)

⁹⁸ [HC Deb, 15 December 2020, c151](#)

⁹⁹ Department of Health and Social Care, [UK COVID-19 vaccine uptake plan](#), 13 February 2021

¹⁰⁰ [PQ 138947](#) [on Coronavirus: Vaccination], 16 February 2021

Vaccine Deployment, Nadhim Zahawi MP, has spoken of a “tsunami of disinformation” relating to Covid-19 vaccines which he said the Government is working with “technology platforms” to take down.¹⁰¹

For further information see: POST, [COVID-19 vaccine misinformation](#), 26 April 2021

What role are local ‘Community Champions’ playing in tackling misinformation and encouraging vaccine take-up?

Community Champions are described by the Government as:

groups of people with local knowledge of an area, including the culture, concerns and sentiments of people living in the community [who] work to empower and support people in the local community to stay up-to-date on Covid-19 advice, and to foster trust and a sense of strong community in the locality.¹⁰²

The Government has allocated £23 million to over 60 local authorities and voluntary groups, across England, to support community champions in those communities at the greatest risk from Covid-19. The funding is particularly targeted at “areas with plans to reach groups such as older people, disabled people, and people from ethnic minority backgrounds”.¹⁰³

Some of the funding is aimed at supporting local areas to:

to tackle misinformation and encourage take-up as the vaccination programme continues in the UK. The Community Champions scheme builds on wider, cross-government measures to engage communities to provide accurate information about Covid-19 and the vaccination programme. This also aims to tackle the disproportionate impact the pandemic has had on certain demographic groups.

Examples of how different local authorities have worked with community champions can be found in the Department of Health and Social Care’s [UK COVID-19 vaccine uptake plan](#) (13 February 2021).

¹⁰¹ [COVID-19: ‘Tsunami of disinformation’ around COVID jabs, vaccines minister says](#), *Sky News* [online], 16 February 2021

¹⁰² [What is the Community Champions scheme and how is it supporting local communities?](#), Disability Unit Blog, gov.uk, 25 May 2021

¹⁰³ [Press release: Community Champions to give COVID-19 vaccine advice and boost take up](#), Ministry of Housing, Communities & Local Government, 25 January 2021

5 FAQs: vaccine roll-out

5.1 Who is responsible for the vaccine roll-out?

On 2 December 2020, the former Secretary of State for Health and Social Care, Matt Hancock, told the Commons that he had chaired a meeting of Health Ministers from the devolved administrations to co-ordinate the roll-out of the Covid-19 vaccine across the UK. He noted that the roll-out “will be one of the biggest civilian logistical efforts that we have faced as a nation.”¹⁰⁴

The responsibility for deployment in England sits with the Department of Health and Social Care, working with NHS England and NHS Improvement, and Public Health England. Vaccination deployment in the rest of the UK is managed by the health services in each nation: NHS Wales, NHS Scotland, and Health and Social Care Northern Ireland. The UK Government has procured vaccines on behalf of all parts of the country and has said it is working with the devolved administrations and UK overseas territories to ensure they are deployed fairly.¹⁰⁵

Nadhim Zahawi was appointed as minister for Covid-19 vaccination deployment (as a Parliamentary Under Secretary of State at the Department of Health and Social Care) on 28 November 2020. The Institute for Government has noted the importance of the different teams involved in the vaccine roll-out working well together. For example, while the NHS and DHSC lead on the vaccine roll-out, the Vaccine Task Force, which supports purchasing Covid vaccines, and further research and development, falls under the Department for Business, Energy & Industrial Strategy.¹⁰⁶

The [UK COVID-19 vaccines delivery plan](#), published on 11 January 2021, notes that at “national, regional and local level we are working in partnership with local authorities, the voluntary and community sector, local resilience forum, communities, staff and patients to ensure that simple accessible advice and information is available to everyone who needs it and that local implementation plans are tailored to support uptake in all communities.”¹⁰⁷

In the March 2021 Budget, the Government committed £1.65 billion for 2021-22 to continue the vaccine deployment programme in England (with the

¹⁰⁴ [Hansard, HC Deb, 2 December 2020](#)

¹⁰⁵ PQ133109, [Coronavirus: Vaccination](#), 11 January 2021

¹⁰⁶ Institute for Government, [Five things the government needs to get right on the vaccine rollout](#), 22 December 2020

¹⁰⁷ Gov.uk, [UK COVID-19 vaccines delivery plan](#), 11 January 2021

devolved nations receiving additional funding through the Barnett formula).¹⁰⁸

5.2

Where will vaccinations take place?

The UK COVID-19 vaccines delivery plan, published on 11 January 2021, set out that vaccinations are being offered in three main ways: in hospital hubs; through local community services, including GP practices and pharmacies; and in larger vaccination centres in conference centres and sports venues:

Larger vaccination centres

A new approach in the NHS, these are large-scale venues, with higher throughput, using re-purposed venues, including sports stadiums, theatres, and hotels, located within communities to vaccinate large numbers of people. People will be offered an invitation and can book a slot that suits them using the National Booking Service.

Hospital hubs

These are based at NHS trusts, including acute, community mental health and ambulance trusts. They are targeting our health and care workers and will work closely with local authorities, local resilience forums and providers to coordinate rapid vaccination of the workforce. They are also excellent locations for initial deployment of new vaccines, so that all clinical safety issues can be identified and managed before wider roll-out. This has been the approach taken with the launch of the Pfizer/BioNTech and the Oxford/AstraZeneca vaccines.

Local vaccination services

These mobilise general practice, working together in groups of primary care networks plus large and small community pharmacy sites. These services provide the largest number of locations and are well placed to support our highest risk individuals, many of whom already have a trusted relationship with their local health services. They also coordinate and deliver vaccination to people who are unable to attend a vaccination site, including visiting care homes, the homes of housebound individuals and other settings such as residential facilities for people with learning disabilities or autism and prisons and to reach vulnerable groups such as those who are experiencing homelessness.

¹⁰⁸ HM Treasury, [Budget 2021](#), March 2021, HC 1226, p47. Details on the Barnett formula can be found in an article on the Institute for Government website, see [Barnett formula](#), 25 November 2020

The plans for the right mix of vaccination sites have been developed jointly between national, regional and local teams to ensure the mix is right for the population and communities it serves. The needs of rural and urban communities will be very different, and the needs of individual groups and communities need to be reflected in the local mix of sites.¹⁰⁹

On 8 December 2020 around 70 sites (including around 50 hospitals in England) which were designated as vaccine hubs, began vaccinating patients in the highest priority group with the Pfizer/BioNTech Covid-19 vaccine.¹¹⁰ The first wave of [GP-led vaccinations](#) started in the week beginning 14 December.¹¹¹ Some further information on the start of the roll-out of the Oxford University/AstraZeneca Covid-19 vaccine was announced by the Government on 4 January 2021.¹¹² The DHSC noted that the first Oxford/AstraZeneca vaccinations would be delivered at hospitals for the first few days, as standard practice, before the bulk of supplies were sent to GP-led services and care homes.¹¹³

Speaking in the Commons on 6 January 2021, the Prime Minister said the first seven mass vaccination centres would be opening “in the following week.”¹¹⁴ The first seven centres were located in Manchester, Epsom, Stevenage, Newcastle, Bristol, Birmingham and London.¹¹⁵ Ten further mass Covid vaccination centres opened across England from 18 January 2021.¹¹⁶

To mark the opening up of vaccine booking to all over 18s on 21 June 2021, NHS England highlighted the ranges of vaccination sites being used, from pop up clinics at universities to vaccine centres in mosques, museums and sports stadiums.¹¹⁷

The UK COVID-19 vaccines delivery plan, published on 11 January 2021, outlined that by the end of January 2021 the following vaccination sites would be operational:

- 206 active hospital hub sites

¹⁰⁹ *Ibid.*

¹¹⁰ NHS England and NHS Improvement wrote to the Chief Executives of all NHS Trusts and Foundation Trusts on 20 November 2020 with details of its [COVID-19 vaccination deployment strategy and operational readiness](#). The letter states that “the current expectation is that the first phase of the vaccine deployment will be undertaken by a number of NHS Trusts”. An initial list of NHS Trust Vaccine Hubs was listed in Annex 1 to the letter but this is likely to be subject to change.

¹¹¹ Some further background on the distribution of vaccines to GP practices can be found in response to PQ 107752, [Coronavirus: Vaccination](#), 22 December 2020

¹¹² DHSC press release, [First people to receive Oxford University/AstraZeneca COVID-19 vaccine today](#), 4 January 2021

¹¹³ The Oxford/AstraZeneca vaccine can be stored at fridge temperatures, between two to eight degrees, making it easier to distribute to GP practices and care homes.

¹¹⁴ [HC Deb, Covid-19, 6 January 2021, c733-4](#)

¹¹⁵ [Covid: Seven mass vaccination hubs announced for England](#), *BBC News Online*, 6 January 2021

¹¹⁶ [Covid: 10 new mass vaccination centres to open in England](#), *BBC News Online*, 17 January 2021

¹¹⁷ [NHS England press release 21 June 2021](#)

- around 1,200 local vaccination service sites (including primary care networks, community pharmacy sites, and including the ability to travel to those who cannot come to a centre)
- 50 vaccination centres.¹¹⁸

NHS England and NHS Improvement publish a [spreadsheet and map showing locations](#) of hospital vaccination hubs and local vaccination services. The [Health Service Journal](#) has also mapped the locations across England which have begun delivering the Covid-19 vaccination, based on the data from NHS England.¹¹⁹

The Covid-19 vaccines delivery plan stated that by the end of January 2021, everyone in England would be within 10 miles of a vaccination site, or, for a small number of highly rural areas, the vaccine would be delivered via mobile teams.¹²⁰

Because of the need for the Pfizer/BioNTech vaccine to be stored at minus 70C the roll out of this vaccine started at hospitals and other hubs with the necessary storage facilities. On 4 December 2020 a letter from the Care Minister, Helen Whately, set out how the Government planned to get the Pfizer/BioNTech vaccine into care homes.¹²¹

5.3 How long will the roll-out take?

The first Pfizer/BioNTech vaccines were administered on Tuesday 8 December 2020 and on 7 December it was reported that a Downing Street source had said they expected the “majority” of vulnerable people to be vaccinated in January and February.¹²² NHS national medical director, Professor Stephen Powis, cautioned that the roll out of the vaccine will be a marathon not a sprint.¹²³

On the 6 January 2021 the Prime Minister told the Commons the NHS was committed to offering a vaccination to everyone in the top four priority groups by 15 February 2021, including older care home residents and staff, everyone over 70, all frontline NHS and care staff and all those who are clinically extremely vulnerable.¹²⁴ Further detail is set out in the Department of Health and Social Care’s [UK Covid-19 vaccines delivery plan](#) (11 January 2021).

¹¹⁸ Gov.uk, [UK COVID-19 vaccines delivery plan](#), 11 January 2021

¹¹⁹ [Mapped: England’s 1,000 covid vaccination sites](#), *HSJ*, 12 January 2021

¹²⁰ Department of Health and Social Care, [UK COVID-19 vaccines delivery plan](#), 11 January 2021

¹²¹ DHSC, [COVID-19 vaccinations and care homes: programme launch](#), 4 December 2020

¹²² [Coronavirus: ‘Majority’ of vulnerable to be vaccinated by end of February, says No 10](#), *The Independent*, 8 December 2020

¹²³ NHS England and NHS Improvement, [NHS vaccine programme ‘turning point’ in battle against the pandemic](#), 8 December 2020

¹²⁴ [HC Deb. Covid-19, 6 January 2021, c733-4](#)

[A letter from NHS England dated 13 January 2021](#) said GPs should ensure the first vaccine dose is given to all care home residents in their area by 24 January at the latest.

[A letter from NHS England on 7 January 2021](#) set out that NHS Trusts should complete vaccination of all frontline health and social care workers as quickly as possible, with the expectation to have made significant progress by the first week of February, and to provide vaccinations 7 days a week.

It has been estimated that there are 13.9 million individuals in England in the top four priority groups (15 million in the UK), and that meeting the Government's 15 February deadline required up to two million vaccinations a week.¹²⁵ On 15 February the Government reported that, as of Sunday 14 February, it had met its target for all care home residents and staff, health and social care workers, people aged 70 and over, and the clinically extremely vulnerable to have been offered a vaccine. From 15 February NHS England started offering vaccines to people in the next 2 priority groups – those aged 65 and over and people with underlying health conditions which mean they are clinically vulnerable to Covid-19.¹²⁶

The Covid-19 vaccines delivery plan states that everyone else in the nine high risk groups identified by the Joint Committee on Vaccination and Immunisation should be offered a vaccine by Spring 2021. It also confirms that by late January “we aim to have the capacity to vaccinate at least 2 million people each week... We will expand the programme so all adults can be vaccinated by the autumn.”¹²⁷

On 22 February the Government's [COVID-19 Response - Spring 2021](#) document stated that all adults aged 50 and over, as well as younger people with underlying health conditions that put them at higher risk (cohorts 5 to 9), should be offered their first dose of the vaccine by 15 April 2021, and a second dose by mid-July. This document also set out that phase 2, all those aged 18 and 50 who are not otherwise a priority, should be offered their first vaccine by 31 July.

In a statement to the Commons on 18 March 2021, Matt Hancock told MPs invitations had been extended to all people aged 50 and above. While noting some issues with supply, he also re-committed to the target of offering the vaccine to everyone aged 50 and over by 15 April and to all adults by the end of July.¹²⁸

On 13 April 2021 the Government announced the UK had met its 15 April target that everybody in cohorts 1 to 9 – those aged 50 and over, the clinically vulnerable and health and social care workers – had been offered a vaccine. The announcement noted that, in England, around 95% of people aged 50

¹²⁵ [PM sets target for NHS to vaccinate up to 11m in six weeks](#), *HSJ*, 5 January 2021

¹²⁶ Gov.uk, [The most vulnerable and health and care workers offered COVID-19 jab as government hits target to protect those most at risk](#), 15 February 2021

¹²⁷ Gov.uk, [UK COVID-19 vaccines delivery plan](#), 11 January 2021

¹²⁸ [Commons Hansard, 18 March 2021](#)

and over have received a first dose, while 92% of people who are clinically extremely vulnerable to Covid-19 have also received a vaccine.¹²⁹ On 13 April the Government also confirmed that it was moving into the next phase of the COVID-19 vaccination programme for under 50s, and that people aged 45 to 49 in England could, from 13 April, book appointments.¹³⁰ The announcement coincided with the Joint Committee on Vaccination and Immunisation (JCVI) publishing its [final advice on phase 2](#), which the Government has accepted. In line with the JCVI advice, people under 50 will be invited to receive their vaccines in order of age.¹³¹

This second phase of the vaccine programme will cover the first dose for everyone aged between 18 and 49, around 18 million people in England (21 million in the UK). There is also expected to be a particular focus on the provision of second doses to the highest priority groups during this second phase of the roll-out.¹³² The *British Medical Journal* has also noted that the vaccine roll-out will become more complex as vaccinators are also tasked with administering millions of second doses on schedule.¹³³

Section 4.2 of this briefing refers to the JCVI advice that it is now preferable for adults aged 18 to 39 years without underlying health conditions that put them at higher risk of severe Covid-19, to be offered an alternative to the AstraZeneca vaccine, if available.¹³⁴

Deployment of the [Moderna vaccine](#) began in Wales on 7 April 2021, with England following the week after.

At the No. 10 coronavirus press conference on 14 May 2021 the Prime Minister commented on the UK clusters of the B.1.617.2 variant (the Delta variant) first observed in India. He said that there would be targeted new activity in Bolton and Blackburn to accelerate vaccine take-up among eligible cohorts – including longer opening hours at vaccination sites.¹³⁵ Similar measures have been announced for Greater Manchester and some other areas of England.¹³⁶

The media have reported calls from local leaders to allow immediate vaccination of all over-18s in cluster areas of the new variant.¹³⁷ In addition to new measures to boost response to the Delta variant, including surge testing, on 14 May 2021 the Government said it is considering how best to utilise the vaccine roll-out to best protect the most vulnerable in the context of the

¹²⁹ Gov.uk press release, [UK moves into next phase of vaccine roll-out as government target hit early](#), 13 April 2021

¹³⁰ Ibid.

¹³¹ Ibid.

¹³² [Coronavirus: April will be 'second dose month', says UK vaccines minister](#), *the Guardian*, 28 March 2021

¹³³ [Covid-19: How the UK vaccine rollout delivered success, so far](#), *BMJ*, 18 February 2021

¹³⁴ Department of Health and Social Care, [JCVI final statement on phase 2 of the COVID-19 vaccination programme](#), 13 April 2021

¹³⁵ Gov.uk, [PM statement at coronavirus press conference: 14 May 2021](#)

¹³⁶ Gov.uk, [Further measures in additional areas to tackle Delta \(B.1.617.2\) variant](#), 8 June 2021

¹³⁷ See for example, [Politics Home, Minister Rejects Andy Burnham's Call For Extra Vaccines In Greater Manchester, As Covid Cases Surge](#), 9 June 2021

current epidemiology.¹³⁸ In a statement to the Commons on 17 May 2021, the then Health Secretary, Matt Hancock, said that the JCVI advice was that more lives would be saved by prioritising first and second doses for over 50s, rather than by offering a first dose to younger people earlier than planned.¹³⁹

On the 17 June 2021 NHS England confirmed that everyone aged 18 and over would be contacted to arrange their first Covid-19 vaccination dose, with texts being sent to people aged 18-20 from the following morning.¹⁴⁰

Following changes in the guidance from the Joint Committee on Vaccination and Immunisation (JCVI) on 4 August 2021, NHS England announced that it would rapidly extend the vaccination programme to 16 and 17 year olds. Initially, young people should wait to be contacted by their GP to arrange an appointment although walk-in services were subsequently made available to everyone aged 16 and over. The NHS has set out how vaccines will also be offered to some children aged 12 to 15:

Children aged 12 to 15 who are clinically vulnerable to COVID or live with adults who are at increased risk of serious illness from the virus will also be contacted by the NHS and invited to be vaccinated. Those who are eligible include those with Down's syndrome, or undergoing many cancer treatments, have had organ or bone marrow transplants or who are on the learning disability register.

The COVID-19 vaccine will also be offered to children aged 12 years and over who live with someone who is immunosuppressed, such as those receiving chemotherapy or who have had a transplant.¹⁴¹

Most recently, following advice from the JCVI and Chief Medical Officers, the Covid-19 vaccination programme has been extended to offer all those aged 12-15 years a first dose of Pfizer Covid-19 vaccine from 20 September 2021.¹⁴²

Data on the number of people who have received a first vaccination dose can be found on the [Coronavirus \(Covid-19\) in the UK Data Dashboard](#). From 14 January 2020 NHS England have also provided a breakdown of [Covid vaccinations in England by region](#).

5.4

What is the guidance for general practice on providing Covid-19 vaccines?

On 9 November 2020 a [letter](#) regarding the Covid-19 vaccination programme, from NHS England and NHS Improvement (NHSEI), was sent to GPs, general

¹³⁸ Gov.uk press release, [New measures to boost response to the B.1.617.2 variant](#), 14 May 2021

¹³⁹ [Commons Hansard, Covid-19 update, 17 May 2021](#)

¹⁴⁰ NHS England, [NHS invites all adults to get a COVID jab in final push](#), 17 June 2021

¹⁴¹ NHS England, [One million children and young people can get NHS COVID jab](#), 6 August 2021

¹⁴² HM Government, [Covid-19 Response: Autumn and Winter Plan](#), September 2021, p8

practice teams and clinical commissioning groups (CCGs). This noted that the British Medical Association (BMA) General Practitioners Committee in England had agreed that a ‘general practice Covid-19 vaccination service’ would be commissioned in line with agreed national terms and conditions as an enhanced service.

Due to the likelihood of complex logistics in this new supply chain, the letter set out that practices will need to work collaboratively with other practices to deliver vaccinations in their [Primary Care Network](#) (PCN) groupings.¹⁴³ NHSEI anticipated at least one site being designated initially per PCN grouping. Annex B set out the process for designating sites nominated by PCNs to administer vaccinations. An [Enhanced Service Specification: COVID-19 vaccination programme 2020/21](#), was published on 1 December 2020.

Further guidance for GPs on the Covid-19 vaccination programme is available on the [NHSEI website](#) and the BMA has also published a [COVID-19 vaccination programme webpage for GPs](#).

5.5 Who can administer the Covid-19 vaccine?

The Covid-19 vaccines delivery plan, published on 11 January 2021, stated that there was a workforce of around 80,000 people supporting the roll-out, including current and returning NHS staff, St John Ambulance personnel and volunteers.

The British Medical Association has noted that a registered healthcare professional will need to carry out the clinical assessment and consent for patient receiving the vaccine. However, a suitably trained non-registered member of staff will be able to administer the vaccine itself under clinical supervision. Members of staff already qualified to provide vaccinations, such as practice nurses, are likely to be the main part of the workforce administering the COVID-19 vaccine in general practice.¹⁴⁴

Returning clinicians have been recruited through the [NHS England Bring Back Staff scheme](#) and there are similar schemes across the devolved Administrations.¹⁴⁵ The NHS webpage ‘[Clinicians considering a return to the NHS](#)’ includes a section ‘Interested in joining the NHS COVID-19 vaccination team?’. The NHS Professionals webpage also provides a link for healthcare professionals to register an interest to ‘[Join the Covid-19 Vaccine Team](#)’.

A [letter](#) dated 9 November 2020 sent to GPs, general practice teams and CCGs from NHS England and NHS Improvement regarding the Covid-19

¹⁴³ Primary Care Networks are based on GP registered lists in around 1,250 geographical networks across England, covering populations of approximately 30–50,000.

¹⁴⁴ BMA, [COVID-19 vaccination programme: extra workforce](#), 12 January 2021

¹⁴⁵ Gov.uk, [UK COVID-19 vaccines delivery plan](#), 11 January 2021

vaccination programme outlined the staffing resources practices may be able to draw to support the vaccination programme.

The Government consulted on changes to the Human Medicine Regulations (HMRs) between August and September 2020. One of the changes proposed was to expand the workforce eligible to administer Covid-19 and flu vaccinations. The changes to the HMRs have since been made as the [*Human Medicines \(Coronavirus and Influenza\) \(Amendment\) Regulations 2020, which came into effect on 16 October 2021*](#). The Explanatory Memorandum to the Regulations explains that they:

- [introduce] a new type of national immunisation protocol (regulation 247A), to be authorised by UK ministers and the Devolved Administrations, which will allow those who are registered healthcare professionals who do not normally vaccinate, and people who are not registered health care professionals, to safely administer a licensed or temporarily authorised COVID-19 or influenza vaccine;
- Expand the workforce legally allowed to administer vaccines under National Health Service (NHS) and local authority occupational health schemes, so that additional health care professionals in the occupational health workforce will be able to administer these particular vaccines.¹⁴⁶

This amendment to the law allows registered healthcare professionals who do not normally vaccinate to safely administer a licensed or temporarily authorised Covid-19 or flu vaccine. This includes:

- paramedics
- physiotherapists
- student doctors and nurses
- doctors and nurses working outside the NHS
- people who are not registered healthcare professionals.

The Covid-19 vaccines delivery plans notes that as well as trained vaccinators, the Covid-19 vaccination programme will include a range of non-clinical support staff to ensure quick and easy access to a vaccine. For example, administration support, logistics, stewards and first aiders, as well as those who can log, record and manage stocks. The programme will also draw on the logistical expertise of the Armed Forces.¹⁴⁷

¹⁴⁶ The Human Medicines (Coronavirus and Influenza) (Amendment) Regulations 2020: [Explanatory Memorandum to the Regulations](#), October 2020, para 7.6. Further information can be found in the NHS England and NHS Improvement guidance, [Legal mechanisms for administration of the COVID-19 Vaccine\(s\)](#).

¹⁴⁷ Gov.uk, [UK COVID-19 vaccines delivery plan](#), 11 January 2021

Further information about volunteering to support the vaccination programme can be found [here](#).

5.6

How will I know when and where to go to be vaccinated? Should I go to my GP or to a mass vaccination centre?

As noted previously, there are three main types of venue used to administer the Covid-19 vaccine: at hospital ‘vaccine hubs’, at GP surgeries and pharmacies, and at mass vaccination sites. The Gov.uk website also notes that vaccination teams will visit some people to offer the vaccine, for example in care homes.

[NHS guidance](#) states that if you're aged 18 or over (or will turn 18 within 3 months) you can:

- [book your COVID-19 vaccination appointments online](#) for an appointment at a vaccination centre or pharmacy
- [find a walk-in COVID-19 vaccination site](#) to get vaccinated without needing an appointment
- wait to be contacted by your GP surgery and book your appointments with them

If you cannot book appointments online, you can call 119 free of charge. You can speak to a translator if you need to.

If you have difficulties communicating or hearing, or are a British Sign Language (BSL) user, you can use textphone 18001 119 or the [NHS 119 BSL interpreter service](#).¹⁴⁸

From August 2021 the NHS provides the following guidance for children and young people aged 12 to 17 on accessing the Covid-19 vaccine:

People aged 16 and 17, and children aged 12 to 15 who are eligible, will be contacted by a local NHS service such as a GP surgery to book their vaccination appointments.

Some walk-in COVID-19 vaccination sites are offering the vaccine to people aged 16 and 17. You can check if a site is available near you.¹⁴⁹

¹⁴⁸ [NHS website Coronavirus \(COVID-19\) vaccines](#)

¹⁴⁹ *Ibid.*

Following the announcement on 13 September 2021 that a Covid-19 vaccine will be offered to all those aged 12-15, the Minister for COVID Vaccine Deployment, Nadhim Zahawi, confirmed that this will be delivered by the NHS through the school age vaccination programme:

I can confirm to the right hon. Gentleman that the NHS—it is incredibly efficient and well-equipped, because it has been running the school age vaccination programme for many, many years for other vaccines—will be the primary vaccination infrastructure that we will use to deliver this vaccine. If there are schools where that is unable to be delivered, we will use the rest of the covid vaccine infrastructure, including vaccination centres, to deliver that in a safe and appropriate way. My point is to reassure him and parents up and down the country that it will be the school age vaccination programme that has run in schools. Teachers and parents are well-versed in that process.¹⁵⁰

5.7

What happens if there are problems with the vaccine supply chain?

Speaking to the media on 8 December 2020, the former Health Secretary Matt Hancock commented that the Government had a number of contingency plans in place in case there are problems getting the vaccine into the country or disruption to transport within the UK. It has been reported that the military could be used to transport the vaccine. In December 2020 June Raine, chief executive of the Medicines and Healthcare products Regulatory Agency (MHRA), said they had planned for every outcome of the Brexit negotiations, ahead of the end on the Brexit implementation period on 31 December 2020.¹⁵¹

During the earlier stages of the roll-out there were reports in the media of concerns from some GPs about delays in supply of the Covid-19 vaccine to their practices.¹⁵² On 20 January 2021 *The Times* reported that Ministers are “increasingly concerned” about the pace of the coronavirus vaccine rollout after a reduction in the supply of Pfizer-Biontech vaccine (due to an upgrade to the Pfizer factory in Belgium in order to increase future production in March 2021).¹⁵³

Concerns about vaccine supply were also raised with Ministers and officials involved in deployment at the [House of Commons Science and Technology](#)

¹⁵⁰ [HC Deb, 13 September 2021, c763](#)

¹⁵¹ [Brexit deal failure won't hit UK vaccine rollout, says medicines agency chief](#), *Financial Times*, 6 December 2020. See also Dayan M, [Brexit and the Coronavirus Vaccine](#), Nuffield Trust comment, December 2020

¹⁵² See for example, [Wait for supplies forces GPs to delay Covid vaccine clinics](#), *The Times*, 7 January 2021

¹⁵³ [Fears over Covid vaccine supplies as rate drops](#), *The Times*, 20 January 2021

[Committee](#) (on 13 January 2021) and at the [Public Accounts Committee](#) (11 January 2021).

In a statement to the Commons on 18 March 2021, Matt Hancock told MPs that despite an expected dip in vaccine supplies in April, the NHS in England was still on track to offer a first dose to everyone aged 50 and over by 15 April 2021, and to all adults by the end of July 2021. He noted some delays in supply from India and the need to re-test a batch of 1.7 million doses.¹⁵⁴

In early 2021 tensions between the EU, UK and vaccine suppliers were reported, over delays in delivering the expected number of doses to Europe. There were some reports of possible export controls on vaccines manufactured in the EU, and of a potential “vaccine deal” between the UK and EU, but it is not clear that there has been any ongoing impact on the supply of vaccines.¹⁵⁵

¹⁵⁴ [Commons Hansard, 18 March 2021](#)

¹⁵⁵ See Channel 4 FactCheck, [What is happening with Britain's vaccine supply](#), and [Britain read to seal Covid vaccine deal with the EU](#), *The Times*, 27 March 2021

6 FAQs: priority groups

6.1 Who was responsible for identifying which priority groups should get the vaccine first?

The Department of Health and Social Care is advised by the [Joint Committee on Vaccination and Immunisation](#) (JCVI), an independent expert advisory committee. It provides advice on the introduction of new programmes, as well as major changes to, or the discontinuation of, an existing immunisation programme. The JCVI states that it formulates advice and recommendations based on “appraisal of the best scientific and other evidence available and reflecting current good practice and/or expert opinion”¹⁵⁶.

The JCVI published an independent report on 30 December 2020 providing [advice on priority groups for COVID-19 vaccination](#). The Committee considered the available epidemiological, microbiological and clinical information on the impact of Covid-19 when providing its advice. Based on the “current epidemiological situation in the UK” and the available evidence, the JCVI recommended that the “best option for preventing morbidity and mortality in the initial phase of the [vaccination] programme is to directly protect persons most at risk of morbidity and mortality”. It added that “the first priorities for the COVID-19 vaccination programme should be the prevention of mortality and the maintenance of the health and social care systems” and that, as the risk of mortality from Covid-19 increases with age, “prioritisation is primarily based on age”.¹⁵⁷

There were a number of press reports in February 2021 that a new Oxford University risk analysis had been commissioned by the Chief Medical Officer in England.¹⁵⁸ The [COVID-19 Response - Spring 2021](#) document (published 22 February 2021) also referred to this new ‘QCovid’ risk prediction modelling, which it said will lead to 1.7 million more people in [England](#) being advised to shield, and 800,000 being prioritised for vaccines. It notes that the model

¹⁵⁶ Joint Committee on Vaccination and Immunisation, [Code of Practice](#), June 2013

¹⁵⁷ Joint Committee on Vaccination and Immunisation, [Advice on priority groups for COVID-19 vaccination](#), 30 December 2020, updated 6 January 2021

¹⁵⁸ [Ethnicity and poverty are Covid risk factors, new Oxford modelling tool shows](#), *The Guardian*, 16 February 2021

includes factors such as age, ethnicity and body mass index, as well as certain medical conditions and treatments.

6.2

Who was offered the vaccine first?

Phase 1 of the Covid-19 vaccination programme

An “age-based programme” was envisaged by the Joint Committee on Vaccination and Immunization (JCVI) to optimise both delivery and uptake of any Covid-19 vaccine. The [priority cohorts](#), as of 30 December 2020, are set out below:

1. Residents in a care home for older adults and their carers
2. All those 80 years of age and over. Frontline health and social care workers
3. All those 75 years of age and over
4. All those 70 years of age and over Clinically extremely vulnerable individuals
5. All those 65 years of age and over
6. All individuals aged 16 years to 64 years with underlying health conditions which put them at higher risk of serious disease and mortality
7. All those 60 years of age and over
8. All those 55 years of age and over
9. All those 50 years of age and over

The JCVI stated that, as more Phase III trial data becomes available, the Committee will be able to prepare further advice for policy makers in the UK.

The Government has stated that its priority is to ensure:

everyone in cohorts 1-4 is offered the opportunity to receive their first dose of vaccination against COVID-19 by 15 February. It will likely take until Spring to offer the first dose of vaccination to the JCVI priority groups 1-9, with estimated cover of around 27 million people in England and 32 million people across the UK. ¹⁵⁹

¹⁵⁹ Department of Health and Social Care, [UK COVID-19 vaccines delivery plan](#), 11 January 2021

Phase 2 of the Covid-19 vaccination programme

On 26 February 2021, the JCVI published an [interim statement on phase 2 of the COVID-19 vaccination programme](#) and how to proceed once vaccination of nine key priority groups is complete. The Committee recommended continuing with the age-based approach, on the grounds that there is:

good evidence that the risks of hospitalisation and critical care admission from COVID-19 increase with age, and that in occupations where the risk of exposure to SARS-CoV2 is potentially higher, persons of older age are also those at highest risk of severe outcomes from COVID-19. JCVI therefore advises that the offer of vaccination during phase 2 is age-based starting with the oldest adults first and proceeding in the following order:

- all those aged 40 to 49 years
- all those aged 30 to 39 years
- all those aged 18 to 29 years.¹⁶⁰

The Department of Health and Social Care responded to the JCVI's advice, stating that "all 4 parts of the UK will follow the recommended approach, subject to the final advice given by the independent expert committee".¹⁶¹ The JCVI issued its final statement on phase 2 of the Covid-19 vaccination programme on 13 April 2021, confirming that an:

operationally simple, and thereby rapidly deliverable, age-based programme starting with those aged 40 to 49 years is the optimal way to protect individuals.¹⁶²

Section 4.3 of this briefing provides information on the JCVI advice on the use of the Astra Zeneca Covid-19 vaccine on those aged under 40.

6.3

How were health and social care staff prioritised for the vaccine?

While patients who are over the age of 80 were the first people to be vaccinated, it was also administered to some NHS staff, for example those who are carrying out the vaccinations or who are most at-risk. Care home staff are also in the highest priority group for vaccination identified by the

¹⁶⁰ JCVI, [Interim statement on phase 2 of the COVID-19 vaccination programme](#), 26 February 2021

¹⁶¹ Department of Health and Social Care, [Press release: Advice on phase 2 of the COVID-19 vaccination programme: DHSC statement](#), 26 February 2021

¹⁶² Department of Health and Social Care, [JCVI final statement on phase 2 of the COVID-19 vaccination programme](#), 13 April 2021

JCVI, and hospital hubs have begun working with care home providers to book their staff in to vaccination clinics.¹⁶³

On the matter of vaccinating health and social care workers, the JCVI stated:

Frontline health and social care workers are at increased personal risk of exposure to infection with COVID-19 and of transmitting that infection to susceptible and vulnerable patients in health and social care settings. The committee considers frontline health and social care workers who provide care to vulnerable people a high priority for vaccination. Protecting them protects the health and social care service and recognises the risks that they face in this service. Even a small reduction in transmission arising from vaccination would add to the benefits of vaccinating this population, by reducing transmission from health and social care workers to multiple vulnerable patients and other staff members. This group includes those working in hospice care and those working temporarily in the COVID-19 vaccination programme who provide face-to-face clinical care.¹⁶⁴

A NHS England and NHS Improvement [letter](#) of 7 January 2021 confirmed that hospital hubs should liaise with partner organisations to vaccinate all frontline health and social care workers.

[Chapter 14a](#) of the Department of Health and Social Care [Immunisation against infectious disease](#) guidance (commonly known as ‘The Green Book’) provides more on which NHS staff are designated as being ‘frontline’ for the purpose of vaccine prioritisation.

Identifying eligible staff

The DHSC [Covid-19 vaccines delivery plan](#) (11 January 2021) stated that employers, local authorities, social care providers and NHS organisations are best placed to identify eligible individuals and offer the vaccine.

NHS England also published a ‘Standard Operating Procedure (SOP)’ – [COVID-19 vaccine deployment programme: Frontline social care workers \(JCVI Priority Cohort 2\)](#), 14 January 2021. This set out “a framework for local systems to identify the eligible cohort of care workers in JCVI priority group 2, and the arrangements that should be put in place to enable them to access their COVID-19 vaccination”.

Guidance on vaccinations through hospital hubs, January 2021

NHS England and NHS Improvement [Operational guidance for hospital hubs](#) (7 January 2021) stated they should work with partners to:

¹⁶³ NHS England and NHS Improvement, [NHS vaccine programme ‘turning point’ in battle against the pandemic](#), 8 December 2020

¹⁶⁴ JCVI, [Advice on priority groups for COVID-19 vaccination](#), 30 December 2020

- Identify and prioritise **directly employed frontline staff** using ESR [Electronic Staff Record], as is the case for flu vaccination.
- Work with local authorities who will be responsible for the identification and prioritisation of **social care workers** and need to share information on the number of staff in this group to inform planning.
- Work with CCGs [Clinical Commissioning Groups] who will be responsible for collating information on eligible staff in all other healthcare settings **including primary care and independent providers in their systems** and will share information on the number of staff in this group to inform planning (Appendix 1, para 1.2)

Launch of programme for care homes, December 2020

The DHSC published [correspondence with the care sector on the vaccine roll out](#) on 4 December 2020. This stated that local authorities should assist the NHS by providing them with information on care home staff and residents through local resilience forums, integrated care systems and other links with hospital hubs and vaccine centres.

The correspondence stated that the NHS has identified Senior Responsible Officers to link local authorities and the social care system. The DHSC should be informed of a lead contact for each local authority to liaise directly with NHS hospital hubs or other vaccination sites.

Care home managers, the correspondence states, should assemble staff lists and take steps to secure the consent of staff to prepare for the vaccine rollout. On 8 December 2020, the NHS [confirmed](#) that hospitals have worked with care home providers to book their staff into vaccination clinics. An NHS England and NHS Improvement [letter](#) of 7 January 2021 confirmed that hospital hubs should liaise with partner organisations to vaccinate all frontline health and social care workers.

6.4

How have the clinically extremely vulnerable been prioritised?

[JCVI guidance](#) issued on 30 December 2020 “advises that persons aged less than 70 years who are clinically extremely vulnerable should be offered vaccine alongside those aged 70-74 years of age”.

However it adds that: “Many individuals who are clinically extremely vulnerable will have some degree of immunosuppression or be immunocompromised and may not respond as well to the vaccine.”

The [clinically extremely vulnerable](#) are those who have been contacted by the NHS, or their GP, telling them that they have been placed on the shielded patients list. On 16 February 2021, the Government announced that a new predictive risk model had been developed to help identify a further group of people who may be at high risk from Covid-19. The [COVID-19 Population Risk Assessment](#) seeks to flag those people with a combination of risk factors – such as age, ethnicity and body mass index (BMI), as well as certain medical conditions and treatments – which, “when combined, could mean someone is at a higher risk from COVID-19”.¹⁶⁵ The Government estimates that, through the application of the risk assessment tool, an additional 820,000 adults aged between 19 and 69 years will be added to the shielded patient list and will be prioritised to receive a vaccination.

Will those caring for the clinically extremely vulnerable be vaccinated at the same time?

The [JCVI guidance](#) from December 2020 states that:

Consideration has been given to vaccination of household contacts of immunosuppressed individuals. However, at this time there are no data on the size of the effect of COVID19 vaccines on transmission.

Evidence is expected to accrue during the course of the vaccine programme, and until that time the committee is not in a position to advise vaccination solely on the basis of indirect protection. Once sufficient evidence becomes available the committee will consider options for a cocooning strategy for immunosuppressed individuals, including whether any specific vaccine is preferred in this population.

The Committee subsequently advised the government to prioritise people for the Covid-19 vaccine who are over 16 and:

living with adults who have weakened immune systems, such as those with blood cancer, HIV or those on immunosuppressive treatment including chemotherapy.¹⁶⁶

The Health Secretary has asked NHS England and Improvement (NHSE/I) to implement the advice from the JCVI.¹⁶⁷

¹⁶⁵ [Press release: New technology to help identify those at high risk from COVID-19](#), Department of Health and Social Care, 16 February 2021

¹⁶⁶ Public Health England, [JCVI recommends that adults living with adults who are immunosuppressed should be prioritised for the COVID-19 vaccine](#), 29 March 2021

¹⁶⁷ [Household members of immunosuppressed now prioritised for Covid vaccination](#), *Pulse*, 29 March 2021

6.5

How have people with learning disabilities and mental illness been prioritised?

The JCVI recommends that vaccine priority group six should cover people with serious underlying health conditions, which includes severe or profound learning disabilities and severe mental illness, while adults with downs syndrome have been added to the JCVI's priority group four ([clinically extremely vulnerable](#)).

On 24 February 2021 the Government announced that the JCVI now recommends that everyone on the GP learning disability register should be invited for vaccination as part of priority group six, regardless of how severe their disability is.¹⁶⁸ This is based on new analysis from the [OpenSAFELY](#) team which confirmed a higher risk of mortality and morbidity in those on the GP register with learning disabilities.

The learning disability charity [Mencap](#) had called for all people with a learning disability to be included in at least priority group six. Autism charities have also called for clarification on whether people with autism should be prioritised, and the National Autistic Society has published information on [What's happening with coronavirus vaccines for autistic people](#).

Public Health England's (PHE) guidance on [Immunisation against infectious disease](#) (commonly known as 'The Green Book') sets out the "clinical risk groups 16 years of age and over who should receive COVID-19 immunisation". This guidance notes that many younger adults in residential care settings will be eligible for vaccination because they fall into one of the clinical risk groups (for example severe or profound learning disabilities). The PHE guidance also states that given the likely high risk of exposure in residential care settings, where a high proportion of the population would be considered eligible, vaccination of the whole resident population is recommended.

The PHE guidance definition of severe mental illness covers individuals with schizophrenia or bipolar disorder, or "any mental illness that causes severe functional impairment". The charity Rethink Mental Illness has an FAQ page on [COVID-19 vaccine and people living with severe mental illness](#). This states the charity will update this when they know more about exactly who will be offered the vaccine and how they will be offered it.

Prior to the announcement on 24 February the *British Medical Journal* reported that some clinical commissioning groups (CCGs) in England had already decided to vaccinate everyone with a learning disability under priority group six.¹⁶⁹ At a news conference on 22 February 2021 Scotland's First

¹⁶⁸ Gov.uk, [JCVI advises inviting people on Learning Disability Register for vaccine](#), 24 February 2021

¹⁶⁹ [Covid-19: GPs opt to prioritise all patients with learning disabilities for vaccination](#), *BMJ*, 19 February 2021

Minister, Nicola Sturgeon, also announced that people with mild or moderate learning difficulties would be vaccinated in Scotland as part of priority group six.¹⁷⁰

The [Commons Library briefing paper on learning disability](#) (CBP 7058) includes data on Covid-related mortality for people with learning disabilities.

6.6

Are BAME groups being prioritised?

The JCVI acknowledges in its advice on [priority groups for COVID-19 vaccination](#) that there is “clear evidence that certain Black, Asian and minority ethnic (BAME) groups have higher rates of infection, and higher rates of serious disease, morbidity and mortality”. It goes on to state, however, that there is:

[...] no strong evidence that ethnicity by itself (or genetics) is the sole explanation for observed differences in rates of severe illness and deaths. What is clear is that certain health conditions are associated with increased risk of serious disease, and these health conditions are often overrepresented in certain Black, Asian and minority ethnic groups. It is also clear that societal factors, such as occupation, household size, deprivation, and access to healthcare can increase susceptibility to COVID-19 and worsen outcomes following infection.

These points are reiterated in the most recent advice from the JCVI, published on 26 February 2021.¹⁷¹

While BAME groups are not being prioritised *per se*, the JCVI states:

Prioritisation of persons with underlying health conditions (see above) will also provide for greater vaccination of BAME communities who are disproportionately affected by such health conditions.

The Committee also suggests that NHS England and Improvement, the Department of Health and Social Care, Public Health England and the devolved administrations work together to ensure that:

[...] everything possible is done to promote good uptake in Black, Asian and minority ethnic groups and in groups who may experience inequalities in access to, or engagement with, healthcare services.¹⁷²

In recent advice, the JCVI adds that it:

¹⁷⁰ [Coronavirus \(COVID-19\) update: First Minister's statement](#), 22 February 2021

¹⁷¹ JCVI, [Interim statement on phase 2 of the COVID-19 vaccination programme](#), 26 February 2021

¹⁷² JCVI, [Advice on priority groups for COVID-19 vaccination](#), 30 December 2020

strongly advises that priority is given to the deployment of vaccination in the most appropriate manner to promote vaccine uptake in BAME communities. This may include planning to enable easy access to vaccination sites, supported engagement with local BAME community and opinion leaders, and tailored communication with local and national coverage. As appropriate, these efforts should consider a longer-term view beyond the current COVID-19 mass vaccination programme and seek to address inequalities which already exist across the wider immunisation programme.¹⁷³

To address lower uptake levels among BAME communities, the Government states that it is working with stakeholders to:

encourage uptake of the COVID-19 vaccine among black, Asian and minority ethnic communities. The Department is also working with community press, TV and radio stations to deliver information on vaccination in over a dozen languages. Activity is also focusing on working with trusted voices such as healthcare personnel, faith leaders, community influencers and community organisations for priority multicultural audiences, with a particular focus on Muslim, Polish, black African and Caribbean and Jewish communities. The Department is building on pre-existing relationships and established channels as well as reaching out to more influencers through virtual sessions.¹⁷⁴

There have been a number of calls for at risk BAME groups to be prioritised for vaccination. Professor Martin Marshall, chair of the Royal College of GPs, urged the Government to begin a public health campaign aimed at BAME communities, stating: “We are concerned that recent reports show that people within BAME communities are not only more likely to be adversely affected by the virus but also less likely to accept the Covid vaccine, when offered it.”¹⁷⁵

There were a number of press reports that a new Oxford University risk analysis had been commissioned by the Chief Medical Officer in England.¹⁷⁶ The [COVID-19 Response - Spring 2021](#) document also referred to this new ‘QCovid’ risk prediction modelling, which it said will lead to 1.7 million more people in England being advised to shield, and 800,000 being prioritised for vaccines. The model includes a number of factors including ethnicity.

¹⁷³ JCVI, [Interim statement on phase 2 of the COVID-19 vaccination programme](#), 26 February 2021

¹⁷⁴ [PQ 131494](#) [on Coronavirus: Vaccination], 16 February 2021

¹⁷⁵ [Call to prioritise minority ethnic groups for Covid vaccines](#), *The Guardian*, 18 January 2021

¹⁷⁶ [Ethnicity and poverty are Covid risk factors, new Oxford modelling tool shows](#), *the Guardian*, 16 February 2021

6.7

Are teachers and school-age children being prioritised?

Teachers

The JCVI has stated that the first phase of the vaccination programme should be focused on the “direct prevention of mortality and supporting the NHS and social care system” (namely vaccinating the nine categories listed in section 6.2 above). It has suggested, however, that subsequent phases of the programme could involve “vaccination of those at increased risk of exposure to SARS-CoV-2 due to their occupation [such as] first responders, the military, those involved in the justice system, teachers, transport workers, and public servants essential to the pandemic response”. The JCVI, however, is of the view that “priority occupations for vaccination are [...] an issue of policy, rather than for JCVI to advise on” and has asked that the “Department of Health and Social Care consider occupational vaccination in collaboration with other government departments”.¹⁷⁷

Some teaching unions, together with the Children’s Commissioner for England, Anne Longfield, have called on the Government to prioritise teachers and other staff working with children for vaccination.¹⁷⁸ In addition, there was a petition (hosted on the UK Government and Parliament Petitions site) to [Prioritise teachers, school and childcare staff for Covid-19 vaccination](#). The petition received over 500,000 signatures and was [debated](#) in Parliament on 11 January 2021.

For further details see House of Commons Library, [Coronavirus and schools: FAQs](#), 29 April 2021.

Children

JCVI guidance in relation to Covid-19 vaccinations for children and young people was revised in July 2021, early August 2021 and again in September 2021.

Prior to these changes, the JCVI advised that “only those children [under 16 years of age] at very high risk of exposure and serious outcomes, such as older children with severe neuro-disabilities that require residential care, should be offered vaccination with either the Pfizer-BioNTech or the AstraZeneca vaccine”. It added that clinicians “should discuss the risks and benefits of vaccination with a person with parental responsibility, who should

¹⁷⁷ JCVI, [Advice on priority groups for COVID-19 vaccination](#), 30 December 2020

¹⁷⁸ Children’s Commissioner for England, [‘Lockdown school closures mean we need to act now to save children’s education and wellbeing’](#), 5 January 2021; NASUWT, [‘NASUWT responds to the Prime Minister’s announcement of the latest lockdown’](#), 4 January 2021.

be told about the paucity of safety data for the vaccine in children aged under 16 years”.¹⁷⁹

On the 4 June 2021, the MHRA [announced an extension](#) to the current UK approval of the Pfizer/BioNTech COVID-19 vaccine to allow its use in 12- to 15-year-olds. The Government has stated that it will:

now be guided by the advice of experts, including the Joint Committee on Vaccination and Immunisation (JCVI), on any potential routine deployment of COVID-19 vaccination in children.¹⁸⁰

The JCVI issued its advice on [COVID-19 vaccination of children and young people aged 12 to 17 years](#) on 15 July 2021. It identified two additional groups of children / young people who, it advised, should be offered the Covid-19 vaccination:

- children and young people aged 12 years and over with specific underlying health conditions that put them at risk of serious COVID-19 [including those with] severe neuro-disabilities, Down’s syndrome, underlying conditions resulting in immunosuppression, and those with profound and multiple learning disabilities (PMLD)[footnote 1], severe learning disabilities or who are on the learning disability register;
- children and young people aged 12 years and over who are household contacts of persons (adults or children) who are immunosuppressed should be offered COVID-19 vaccination on the understanding that the main benefits from vaccination are related to the potential for indirect protection of their household contact who is immunosuppressed.¹⁸¹

Guidance from NHS England and NHS Improvement states that NHS and local authority delivery plans must:

ensure [eligible] children are offered a first dose vaccination before returning to school in September. Therefore, it is expected that first dose vaccinations for eligible children aged 12-15 to be operational from w/c 23 August at the latest with invitations issued in advance.¹⁸²

In addition, the JCVI stated that, from an “operational” perspective, those who are three months away from their 18th birthday should be vaccinated to

¹⁷⁹ JCVI, [Advice on priority groups for COVID-19 vaccination](#), 30 December 2020

¹⁸⁰ [PQ 10529](#) [on Coronavirus: Vaccination], 4 June 2021

¹⁸¹ JCVI, [JCVI statement on COVID-19 vaccination of children and young people aged 12 to 17 years: 15 July 2021](#), published 19 July 2021

¹⁸² [Letter from NHS England and NHS Improvement on Joint Committee on Vaccination and Immunisation \(JCVI\) guidance in relation to COVID-19 vaccinations for children and young people](#), 22 July 2021

“allow a lead-in time [...] to ensure good uptake in newly turned 18-year-olds”.¹⁸³

Additional advice was issued by the JCVI on 4 August 2021. The Committee stated that “all 16 to 17-year-olds should be offered a first dose of Pfizer-BNT162b2 vaccine”. It added that plans for offering a second dose to this age group – and the time period between doses – was contingent upon further data on the safety and effectiveness of the vaccine, as well as “the potential availability of alternative vaccine options”.¹⁸⁴ On 17 August 2021, the MHRA announced that the Moderna vaccine (now known as “Spikevax”) had been granted an extension to its current MHRA approval to authorise its use in children aged 12-17 years.¹⁸⁵ NHS England has also published an FAQ paper on [COVID-19 vaccination programme, vaccinating children and young people](#) (13 August 2021).

A [further update](#) to the JCVI’s advice, relating to those in the 12-15 years age group who “do not have underlying health conditions that put them at increased risk from COVID-19”, was published on 3 September 2021. The JCVI stated that “considerations on the potential harms and benefits of vaccination [for this group] are very finely balanced” and that “the margin of benefit, based primarily on a health perspective, is considered too small to support advice on a universal programme of vaccination of otherwise healthy 12 to 15-year-old children at this time”. Specifically, it concluded:

The available evidence indicates that the individual health benefits from COVID-19 vaccination are small in those aged 12 to 15 years who do not have underlying health conditions which put them at risk of severe COVID-19. The potential risks from vaccination are also small, with reports of post-vaccination myocarditis [inflammation of the heart muscle] being very rare, but potentially serious and still in the process of being described. Given the rarity of these events and the limited follow-up time of children and young people with post-vaccination myocarditis, substantial uncertainty remains regarding the health risks associated with these adverse events.

Overall, the committee is of the opinion that the benefits from vaccination are marginally greater than the potential known harms (tables 1 to 4) but acknowledges that there is considerable uncertainty regarding the magnitude of the potential harms. The margin of benefit, based primarily on a health perspective, is considered too small to support advice on a universal programme of vaccination of otherwise healthy 12 to 15-year-old children at this time. As longer-term data on potential adverse reactions accrue,

¹⁸³ JCVI, [JCVI statement on COVID-19 vaccination of children and young people aged 12 to 17 years: 15 July 2021](#), published 19 July 2021

¹⁸⁴ JCVI, [JCVI statement on COVID-19 vaccination of children and young people aged 12 to 17 years](#), published 4 August 2021

¹⁸⁵ [Press release: Moderna COVID-19 vaccine approved by MHRA in 12-17 year olds](#), Medicines and Healthcare products Regulatory Agency, 17 August 2021

greater certainty may allow for a reconsideration of the benefits and harms. Such data may not be available for several months.¹⁸⁶

The JCVI also set out the limits to their remit when giving advice:

The JCVI is constituted with expertise to allow consideration of the health benefits and risks of vaccination and it is not within its remit to incorporate in-depth considerations on wider societal impacts, including educational benefits. The government may wish to seek further views on the wider societal and educational impacts from the chief medical officers of the 4 nations, with representation from JCVI in these subsequent discussions.¹⁸⁷

In the same 3rd September statement, the JCVI expanded the group of 12-15 years olds, with underlying health conditions, who should be offered a course of Covid-19 vaccination, to include:

- haematological malignancy
- sickle cell disease
- type 1 diabetes
- congenital heart disease
- Chronic respiratory disease
- Chronic heart conditions
- Chronic conditions of the kidney, liver or digestive system
- Chronic neurological disease
- Endocrine disorders
- Immunosuppression
- Asplenia or dysfunction of the spleen
- Serious genetic abnormalities that affect a number of systems.¹⁸⁸

Guidance from Chief Medical Officers on vaccinating 12-15 year olds

Following the JCVI's advice, the health ministers of the four UK nations [wrote](#) to the UK's chief medical officers (CMOs) in early September 2021, asking

¹⁸⁶ JCVI, [JCVI statement on COVID-19 vaccination of children aged 12 to 15 years](#), 3 September 2021

¹⁸⁷ *ibid*

¹⁸⁸ Department of Health and Social Care, [Correspondence: Letter from UK health ministers to UK CMOs on COVID-19 vaccination of 12 to 15 year olds](#), published 3 September 2021

them to advise on the vaccination of young people aged 12 to 15 years.¹⁸⁹ The UK CMOs [responded](#) on 13 September 2021, stating that they had looked at “wider public health benefits and risks of universal vaccination in this age group to determine if this shifts the [JCVI] risk-benefit either way”. They also stressed that “issues of vaccine supply” and “benefits to other age groups” were not factors considered in the CMOs decision making. The CMOs concluded:

On balance [...] UK CMOs judge that it is likely vaccination will help reduce transmission of COVID-19 in schools which are attended by children and young people aged 12 to 15 years. COVID-19 is a disease which can be very effectively transmitted by mass spreading events, especially with Delta variant. Having a significant proportion of pupils vaccinated is likely to reduce the probability of such events which are likely to cause local outbreaks in, or associated with, schools. They will also reduce the chance an individual child gets COVID-19. This means vaccination is likely to reduce (but not eliminate) education disruption.

Set against this there are operational risks that COVID-19 vaccination could interfere with other, important, vaccination programmes in schools including flu vaccines.

Overall however the view of the UK CMOs is that the additional likely benefits of reducing educational disruption, and the consequent reduction in public health harm from educational disruption, on balance provide sufficient extra advantage in addition to the marginal advantage at an individual level identified by the JCVI to recommend in favour of vaccinating this group. They therefore recommend on public health grounds that ministers extend the offer of universal vaccination with a first dose of Pfizer-BioNTech COVID-19 vaccine to all children and young people aged 12 to 15 not already covered by existing JCVI advice.¹⁹⁰

Regarding the offer of a second dose of Covid-19 vaccine to this group, the UK CMOs stated that they would want the JCVI to give their views on “whether, and what, second doses” to give 12-15 year olds “once more data on second doses in this age group has accrued internationally”. It added that it did not expect this to occur “before the spring term”.¹⁹¹

The following day, the Government published its [Covid-19 Response: Autumn and Winter Plan](#). This confirmed that the Government would be offering those “12-15 year olds not covered by previous advice with a first dose of the Pfizer vaccine”, via school immunisation teams, beginning the week commencing 20

¹⁸⁹ Department of Health and Social Care, [Correspondence: Letter from UK health ministers to UK CMOs on COVID-19 vaccination of 12 to 15 year olds](#), published 3 September 2021

¹⁹⁰ Department of Health and Social Care, [Correspondence: Universal vaccination of children and young people aged 12 to 15 years against COVID-19](#), 13 September 2021

¹⁹¹ *ibid*

September 2021.¹⁹² It added that the Government would be consulting with professional groups on “how best to present the risk-benefit decisions about vaccination in a way that is accessible to children and young people as well as their parents”.¹⁹³

6.8

Were key workers (other than health and social care staff) being prioritised?

During phase one of the Covid-19 vaccine roll-out, eligibility for a vaccination was not tied to a person’s occupation, with the exception of frontline health and social care workers. During phase one, key workers were only eligible for a Covid-19 vaccination if they were in one of the existing 9 priority groups set out by the JCVI, based on their age or their health status.

In addition to calls for teachers to be prioritised for a Covid-19 vaccination, policing leaders expressed support for prioritising police officers in the roll-out. The Metropolitan Police Commissioner, Dame Cressida Dick, noted that “in many other countries, police officers and law enforcement colleagues are being prioritised and I want my officers to get the vaccine”, adding that she had been lobbying the Government on the matter for “many, many weeks”.¹⁹⁴ At the Government’s daily Covid-19 press briefing on 8 February 2021, the Health Secretary stated that police officers - as an occupational category - would not be included in the first phase of the Covid-19 vaccine roll out. The Police Federation of England and Wales has since written an open letter to the Government, stating that they felt “betrayed” by the decision.¹⁹⁵

Following the JCVI’s advice on 26 February 2021 to continue with an ‘age-based’ approach to the second phase of the vaccine roll-out (rather than according to occupational group), the Police Federation of England and Wales condemned the approach as “a deep and damaging betrayal” that showed a “complete lack of understanding about policing this pandemic”.¹⁹⁶ Similarly, the National Police Chiefs’ Council stated that it was “disappointed that frontline police officers and staff have not been prioritised in the next stage of the vaccine rollout”.¹⁹⁷

PQ responses indicated that armed forces personnel are being vaccinated in line with national priority guidelines i.e. being offered vaccination in line with JCVI guidelines prioritising those who are older or otherwise more clinically vulnerable, in step with the UK population. However, the responses also note that no Service Personnel will be disadvantaged by their Overseas Service,

¹⁹² HM Government, [Covid-19 Response: Autumn and Winter Plan](#), September 2021, p8

¹⁹³ *ibid*

¹⁹⁴ [Met chief 'baffled' by lack of Covid vaccines for police](#), *The Guardian*, 19 January 2021

¹⁹⁵ Police Federation, [Open letter to the Government over police officer vaccines](#), 9 February 2021

¹⁹⁶ Police Federation, [PFEW condemns Phase 2 plans as 'utter betrayal'](#), 26 February 2021

¹⁹⁷ National Police Chiefs’ Council, [NPCC responds to news that officers will not be prioritised in vaccine rollout](#), 26 February 2021

and that vaccines “will be made available during their deployments in line with JCVI priorities or they will be vaccinated before they deploy.”¹⁹⁸

Why are occupational groups not being prioritised?

In advice published in February 2021, the JCVI explained that it did consider whether phase 2 of the vaccination programme should target “occupational groups at higher risk of exposure” and reviewed data on the matter. It reported that the evidence indicated:

certain occupations have a higher risk of exposure, and these are more likely to be occupations involving frequent contact with multiple other people in enclosed settings. These encompass the elementary occupations, manufacturing, processing and those working in the caring, leisure and a broad range of service occupations.

It added that occupational risk associated with poorer outcomes from Covid-19 “has predominantly affected men aged 40 to 49 years” and concluded that “an operationally simple, age-based programme starting with those aged 40 to 49 years is the optimal way to protect individuals, working in jobs with a potentially higher risk of exposure to SARS-CoV2, from severe disease related to COVID-19”. This point was reiterated in the JCVI’s [final statement on phase 2 of the COVID-19 vaccination programme](#) published on 13 April 2021.

The Committee also raised concerns about some of the operational complexities associated with targeting occupations:

- robust data on the infection exposure risk for every occupational group, or in every occupational setting, are not available
- occupation is not routinely recorded within primary care records and these records may not be up-to-date
- advice to target certain occupations could be considered discriminatory towards those in occupations where no data are available or that are not accurately listed within primary care records
- workplaces that may be associated with higher exposures to infection may include individuals from multiple occupational groups.¹⁹⁹

¹⁹⁸ See for example, PQ169081, [Armed Forces: Coronavirus](#), 17 March 2021

¹⁹⁹ JCVI, [Interim statement on phase 2 of the COVID-19 vaccination programme](#), 26 February 2021

6.9

Are people who are homeless being prioritised?

In early March 2021, the JCVI advised the Government to consider vaccinating those who are homeless and rough sleeping alongside the delivery of the Covid-19 vaccination programme to priority group 6:

Having noted that many homeless individuals are likely to have underlying health conditions which would place them in group 6 of the first phase of the programme and that these conditions are likely to be under-diagnosed or incompletely recorded in primary care records, JCVI advises that local teams exercise operational judgment and consider a universal offer to people experiencing homelessness and rough sleeping, alongside delivery of the programme to priority group 6, where appropriate.²⁰⁰

Following JCVI guidance, NHS England has also stated that, to maximise coverage in this group “a first vaccine dose should be given, even if follow up for a second dose is likely to be uncertain” and that the “dosing schedule can be compressed if that makes delivery of a second dose more certain”.²⁰¹

The Health Secretary has responded to the JCVI and has asked NHS England to implement the Committee’s advice:

I welcome the advice to give flexibility to local teams to make a universal vaccine offer to those in their area who are homeless or rough sleepers alongside cohort 6 in phase 1 of the vaccine deployment programme. I have asked NHS England and Improvement (NHSEI) to take this forward alongside your recommendation on a pragmatic approach to the dosing schedule considering the likelihood of follow up for this group.²⁰²

²⁰⁰ Department of Health and Social Care, [Letter from the JCVI to the Health and Social Care Secretary on further considerations on phase 1 advice](#): 1 March 2021, Published 11 March 2021

²⁰¹ NHS England, [COVID-19 vaccination programme: FAQs on second doses](#), Version 1 - 19 March 2021

²⁰² Department of Health and Social Care, [Letter from the Health and Social Care Secretary to the JCVI: 11 March 2021](#), Published 11 March 2021

7

FAQs: Other questions

7.1

Will having a Covid-19 vaccine be mandatory?

Vaccines offered through the national immunisation programme in the UK are not mandatory. [NHS guidance](#) notes that you should be “asked for your consent before each vaccination”. Vaccinations are also not currently mandatory in the UK during a pandemic. The [Public Health \(Control of Disease\) Act 1984](#) (as amended by the [Health and Social Care Act 2008](#)) contains regulation making powers that allow a number of public health measures to be taken in situations such as the Covid-19 outbreak. Under [section 45C](#) of the 1984 Act (*Health protection regulations: domestic*) the appropriate minister:

[...] may by regulations make provision for the purpose of preventing, protecting against, controlling or providing a public health response to the incidence or spread of infection or contamination in England and Wales (whether from risks originating there or elsewhere).

[Section 45E](#) (*Medical treatment*), however, is clear that any health protection regulations put in place under s.45C “may not include provision requiring a person to undergo medical treatment.” ‘Medical treatment’ is defined in s.45E to include “vaccination and other prophylactic treatment.” There is equivalent legislation in [Scotland](#) and [Northern Ireland](#).

Speaking at the Downing Street daily coronavirus briefing on 4 May 2020, the Health Secretary said he did not think any future Covid-19 vaccine would be made mandatory:

I think the extent of the public’s reaction following the lockdown shows we will be able to achieve very, very high levels of vaccination without taking that step [...] We are proceeding on the basis that just such a huge proportion of the population are going to take this up because of the obvious benefits to individuals and their families and their communities and indeed the whole nation, that there will be enormous demand for it as and when the science is safe to proceed.²⁰³

In November 2020, the Health Secretary again stated that the Government was not proposing to make any vaccination for Covid-19 mandatory, but

²⁰³ [Coronavirus: Health secretary doesn't think future COVID-19 vaccine will need to be made compulsory](#), *Sky News* [online], 4 May 2020

added that he had “learnt not to rule things out during this pandemic because we have to watch what happens and you have to make judgments accordingly.”²⁰⁴ More recently, the Prime Minister stated “I strongly urge people to take up the vaccine, but it is no part of our culture or our ambition in this country to make vaccines mandatory. That is not how we do things”.²⁰⁵

7.2

Will I be stopped from participating in certain activities, like going to the cinema, if I am not vaccinated?

The Minister responsible for Covid-19 Vaccine Deployment, Nadhim Zahawi MP, was quoted by reporters on 30 November 2020 as saying that the Government was “looking at the technology” around “immunity passports” to show when someone had received the Covid-19 vaccine. He added that:

I think you'll probably find that restaurants and bars and cinemas and other venues, sports venues, will probably also use that system - as they have done with the app.²⁰⁶

The Minister for the Cabinet Office, Michael Gove MP, subsequently stated that the Government was not planning to introduce a “vaccine passport”. Asked about the possibility of vaccine passports, Mr Gove told BBC Breakfast:

“Let's not get ahead of ourselves, that's not the plan. What we want to do is to make sure that we can get vaccines effectively rolled out”. He added that individual businesses would “of course” have the “capacity to make decisions about who they will admit and why”. “But the most important thing that we should be doing at this stage is concentrating on making sure the vaccine is rolled out.”²⁰⁷

During a debate on Covid-19 vaccination on 14 December 2020, the Covid-19 Vaccine Deployment Minister stated that the Government had no plans to introduce vaccine passports:

First, there are currently no plans to place restrictions on those who refuse to have a covid vaccination. As my hon. Friend the Member for Carshalton and Wallington reminded us, we have no plans to introduce so-called vaccine passporting [...]

Secondly, cards that were issued after people got their first covid-19 vaccination have been mentioned on social media. Among other details, they contain the date of their second vaccination. That

²⁰⁴ [Matt Hancock refuses to rule out making Covid-19 vaccine mandatory](#), *msn news*, 16 November 2020

²⁰⁵ [HC Deb 2 December 2020, c302](#)

²⁰⁶ [Covid-19: No plans for 'vaccine passport' - Michael Gove](#), *BBC News Online*, 1 December 2020

²⁰⁷ [Covid-19: No plans for 'vaccine passport' - Michael Gove](#), *BBC News Online*, 1 December 2020

record does not constitute a so-called vaccine passport. It does mean anyone is immune. As we know, the vaccine is given as two injections, 21 days apart. The second dose is the booster dose. I am sure hon. Members will forgive me for repeating the message that patients must return as instructed for their second dose. Without the second dose, the vaccine will not be effective. That is a really important message, and I am grateful to all hon. Members who are repeating that to their constituents.

Thirdly, on completion of both vaccinations, patients will be issued with a vaccine record card, much as they are for other vaccination programmes, so there is nothing different in the way we are dealing with this vaccine. Again, that does not constitute a so-called vaccine passport; nor can it be used as a form of identification.²⁰⁸

More recently, the former Health Secretary indicated that the Government was working on plans for vaccine passports for the purposes of international travel. Matt Hancock told LBC Radio that “there are some countries which in the future want to know people are vaccinated. We are working so Britons can show this”.²⁰⁹ In addition, the Government is reported to be considering reducing restrictions on international travel for those who have received both doses of Covid-19 vaccine, though no changes to the restrictions have been made to date.²¹⁰

Proposals for an EU-wide “digital green certificate” were set out on 17 March 2021:

The Digital Green Certificate will be a proof that a person has been vaccinated against COVID-19, received a negative test result or recovered from COVID-19. It will be available, free of charge, in digital or paper format. It will include a QR code to ensure security and authenticity of the certificate. The Commission will build a gateway to ensure all certificates can be verified across the EU, and support Member States in the technical implementation of certificates.²¹¹

The Government’s COVID-19 Response – Spring 2021 document also states that the Government will review what it terms “[COVID status certification](#)” to examine whether such certification could “play a role in reopening [the] economy, reducing restrictions on social contact and improving safety”. It clarifies that COVID status certification involves “using testing or vaccination data to confirm in different settings that people have a lower risk of transmitting COVID-19 to others”. The review findings were expected to be published before 21 June 2021 – ahead of stage 4 of the Roadmap. An overview on the progress to date – the ‘[Roadmap Reviews: Update](#)’ – was

²⁰⁸ [HC Deb, 14 December 2020, c40WH](#)

²⁰⁹ [Vaccine passport for shops could happen, says Dominic Raab](#), *The Times*, 15 February 2021

²¹⁰ [COVID-19: Travel restrictions may be eased for Britons who have had both jabs, Matt Hancock hints, but not 'right now'](#), Sky News Online, 17 June 2021

²¹¹ European Commission, [Coronavirus: Commission proposes a Digital Green Certificate](#), 17 March 2021

published by the Government on 5 April 2021.²¹² The [terms of reference](#) for the review were issued on 15 March 2021 and, as part of the review, a [short consultation](#) was held by the Government, calling for evidence on the matter. It ran from 15 March 2021 to 29 March 2021.

Some employers have said they may require existing or prospective employees to be vaccinated (so-called ‘no job, no job’ policies).²¹³ This matter is covered in further detail in section 2.6 of the Commons Library briefing on [Coronavirus: Returning to work](#) (5 May 2021). The Library has also published a briefing on [Covid-19 vaccine passports](#) (11 March 2021).

On 14 April 2021, the Health Secretary announced that the Department of Health and Social Care would be running a 5-week consultation on whether the Government should require care providers to deploy only staff who have been vaccinated within older adult care homes.²¹⁴ The Health Secretary explained that this approach was being considered because:

Despite efforts, vaccine uptake amongst care home workers is not consistently at the level we know from SAGE advice is needed to minimise the risk of outbreak, which is a minimum vaccination rate of 80% staff, and 90% of residents within each home and this level must be maintained. Only 53% of older adult homes in England are currently meeting this recommendation.²¹⁵

The Government has since [responded](#) to the consultation, stating that people working in care homes must be fully vaccinated against Covid-19 from November 2021, unless they have a medical exemption.²¹⁶ [Draft regulations](#) to implement the policy have been laid in both Houses of Parliament and were signed into law on 22 July 2021. The [regulations come into force](#) from 11 November 2021. The Government also said it intends to consult on similar proposals for NHS workers and a consultation document was published on 10 September 2021 on [making vaccination a condition of deployment for frontline workers in health and care settings](#).²¹⁷

Further background on the debate around compulsory vaccination of care home staff can be found in section 8.3 of the Library briefing [Coronavirus: Adult social care key issues and sources](#).

²¹² HM Government, [COVID-19 Response – Spring 2021](#), p40; HM Government, Roadmap Reviews: Update, 5 April 2021

²¹³ “[Coronavirus: 'No job, no job' policies may be legal for new staff](#)”, *BBC News [online]*, 18 February 2021

²¹⁴ [Written Statement HCWS917](#) [on COVID-19 Vaccination Update], 14 April 2021

²¹⁵ [Written Statement HCWS917](#) [on COVID-19 Vaccination Update], 14 April 2021; Department of Health and Social Care, [Making vaccination a condition of deployment in older adult care homes](#), 14 April 2021

²¹⁶ [HC Deb, 16 June 2021, c333](#); [Everyone working in care homes to be fully vaccinated under new law to protect residents](#), Department of Health and Social Care, 16 June 2021

²¹⁷ *Ibid*; Department of Health and Social Care, [Making vaccination a condition of deployment in the health and wider social care sector](#), 9 September 2021

The Library briefing [Covid-19 status certification](#) explores the Government's policy on certification. It also provides discussion on the scientific evidence and other issues associated with the use of certification, including exemptions (see section 2.5).

7.3 How will information on who has had the vaccine be recorded and used?

The Government has said that the careful and accurate recording of vaccination status is important both in terms of ensuring priority cohorts are offered the two doses of a potential Covid-19 vaccination and to ensure robust surveillance systems are in place to support patient safety.²¹⁸

The NHS National Immunisation Management System (NIMS) will be used as the national register of COVID-19 vaccinations. At the point that someone receives their COVID-19 vaccine, the vaccinating team will record it and this information will go onto the NIMS system and onto a patient's general practitioner record.²¹⁹

[NHS Digital](#) provides guidance for vaccination centre staff on how vaccinations are recorded, how long it takes, common errors or difficulties and how to get help.

Information for the public about Covid-19 vaccination being recorded on the NHS COVID Pass can be found on the [Gov.uk](#) and [NHS](#) websites.

See also: [NHS National Booking Service – Privacy policy](#)

7.4 Are overseas visitors and temporary residents in the UK eligible for vaccination?

A number of responses to Parliamentary Questions confirm that vaccination against Covid-19 is a primary care service and is free to everyone living in England, including all overseas visitors, regardless of their immigration status or nationality. This includes anyone living in the UK without permission.²²⁰

[*The National Health Service \(Charges to Overseas Visitors\) \(Amendment\) Regulations 2020*](#) added novel coronavirus (Covid-19) into the list of diseases for which no charge is to be made for treatment (including testing and

²¹⁸ See also Public Health England [COVID-19 vaccine surveillance strategy in England](#) (11 January 2021)

²¹⁹ [PQ 120024, 2 December 2020](#)

²²⁰ See for example PQ148964, [Coronavirus: Vaccination](#), 15 February 2021

vaccination). As no charges apply to Covid-19 vaccination under the NHS overseas visitor charging regulations, immigration status checks are not required in order to assess eligibility. This message has been shared with the public through the [NHS website](#) and [Public Health England's Migrant Health Guide](#).

Advice on completing vaccination for individuals who have received their first dose overseas is available in the Public Health England guidance [COVID-19 vaccination programme. Information for healthcare practitioners](#).²²¹

7.5

How will British nationals living abroad be vaccinated?

With the exception of service personnel, UK Government staff, and their dependents who are stationed abroad, there are no plans to roll out the UK's NHS Covid-19 vaccination programme to British Nationals living abroad. Information is available through [Travel Advice pages](#) and ['Living In' guides](#) on gov.uk to inform British Nationals of healthcare options available to them and how they can receive a vaccine locally.²²²

The Foreign, Commonwealth and Development Office and the Ministry of Defence are working together to provide access to vaccines for overseas staff, and dependants for whom HMG has duty of care.²²³

The UK Government has been directly supplying the UK's Overseas Territories with COVID-19 vaccines, and aims to provide vaccines for the entire adult populations of the Territories over a similar timescale to the UK domestic rollout.²²⁴

²²¹ PHE, [COVID-19 vaccination programme. Information for healthcare practitioners](#), page 13

²²² PQ147741, [Coronavirus: Vaccination](#), 9 February 2021

²²³ PQ167926, [Coronavirus: Vaccination](#), 17 March 2021

²²⁴ PQ169986, [British Overseas Territories: Coronavirus](#), 23 March 2021

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