

Scotland's COVID-19 Vaccine Deployment Plan 2021

Update – July 2021

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1. Ministerial Foreword

I am pleased to present the second update to Scotland's COVID-19 Deployment Plan, which provides an outline of the progress in delivering the largest vaccination programme in history.

The COVID-19 pandemic continues to affect daily life in Scotland, and we are continuing to deal with a surge in new cases, currently driven by the dominance of the Delta variant of the virus. Vaccination remains the prime reason that the gap in infection and hospitalisation rates is growing. As we move towards reassessing lockdown restrictions across Scotland we must remember that the fight against COVID-19 is likely to be with us for some time ahead.

Vision

We released our first COVID-19 Vaccine Deployment Plan in January 2021 and published a subsequent update in March.

I am publishing this updated plan to provide an overview of our progress since March, outline next steps in the programme including our approach to vaccinating 12-17 year olds, and the potential COVID-19 booster programme in autumn.

We have purposefully adopted a Human Rights Based approach and are committed to delivering a quality, inclusive vaccination programme that is: Person-centred; Safe; Efficient; Effective; Equitable; Timely; and Local.

What we have done

We have worked with all relevant stakeholders to deliver an efficient programme that has responded to emerging clinical advice provided by the Joint Committee on Vaccination and Immunisation (JCVI) including how best to respond to more transmissible variants. All the while keeping pace with available supply to ensure maximum protection has been provided to the most clinically vulnerable.

We are extremely grateful to everyone involved in delivering the programme including NHS, local government and volunteers who continue to play an important role in the programme. I also want to thank the numerous groups that have stepped up to support us including faith, third sector and community groups who have all supported our efforts to deliver an inclusive national programme.

We reached a significant milestone in our COVID-19 vaccination programme on 18 July 2021 when all eligible adults in Scotland had been invited to receive a first dose of a COVID-19 vaccination. We continue to vaccinate as many people as we can. By 23 July, 89% of all eligible adults had received their first dose.

Where we are now

The vaccination programme continues to be responsive to peoples' needs and I was pleased to be able to see staff in the vaccination bus delivering to hard-to-reach communities. We are also working closely with Health Boards to plan for the potential COVID-19 booster vaccination programme, guided by the JCVI's interim advice. We look forward to receiving the Committee's final advice in due course which will inform the approach in the autumn.

We have confirmed that further funding for COVID-19 matters is being made available to Health Boards from the beginning of July. A further £380 million is being allocated to help with the additional costs this year. This includes additional support for the vaccination programme and is over and above the £1.7 billion allocated last year to Health Boards and Health and Social Care Partnerships. We will make further funding available, as necessary, over the course of the year.

Thank you to everyone across the country who has taken up their offer of a vaccine, and thank you to all those involved in helping to make our vaccination programme a success so far. I urge everyone who is offered a vaccination to take up the offer as this remains the best way for us to get back to normal.

Humza Yousaf
Cabinet Secretary for Health and Social Care

2. Where we have got to so far

Our COVID-19 Vaccine Deployment Plan

We published our [COVID-19 Vaccine Deployment Plan in January 2021](#). This set out our COVID-19 vaccination plans for how we will work, as fast as supplies allow, to vaccinate everyone in Scotland over the age of 18, and those aged 16 and 17 who are frontline health and social care workers, unpaid carers or have particular underlying health conditions. In total, this equates to just under 4.5 million people across Scotland¹.

[Our updated Plan published in March 2021](#) outlined plans for Phase 1 of the programme which focuses on vaccinating priority groups 1 to 9 as identified by the Joint Committee on Vaccination and Immunisation (JCVI). The Plan also set out our plans for Phase 2 to vaccinate all remaining adults (those between the ages of 18 to 49) who had not already been offered a vaccination in Phase 1.

This update aims to reflect on the progress against our March Plan for Phases 1 and 2 and looks ahead to operationalising recent advice from the JCVI on vaccination of those under 18 years old, and the potential COVID-19 booster vaccination programme this autumn.

The offer of a COVID-19 vaccination remains open for all those who are eligible, as supplies allow. In addition to scheduled appointments, on the 28 June 2021 we [opened the self-registration system to all adults](#). Currently, anyone over the age of 18, who has not yet had their first dose – for whatever reason – can also attend a drop-in clinic without an appointment. People who are waiting for their second dose can turn up as long as they received their first dose of the COVID-19 vaccine at least eight weeks before.

How we have prioritised

Phase 1

Our March update outlined the latest advice from the JCVI on who should be initially prioritised for vaccination, as part of Phase 1 of the vaccination programme. The JCVI concluded that evidence strongly indicated the single greatest risk of death from COVID-19 is increasing age. Additionally, the JCVI highlighted that frontline health and social care workers who provide care to vulnerable people are a high priority for initial vaccination. More details about this are set out in the [JCVI's advice on who should be initially prioritised for vaccination](#).

The groups identified by the JCVI as part of Phase 1 are set out below in order of priority:

1. residents in care homes for older adults and their carers
2. all those 80 years of age and over and frontline health and social care workers
3. all those 75 years of age and over

¹The total adult population aged 18 and over in Scotland is around 4.43 million. The data published on PHS dashboard is based on the latest NRS mid-2019 population estimates which cover the population as at June 2019 for all age based groups. PHS plan to update to NRS mid-year estimates for 2020 in June of this year.

4. all those 70 years of age and over and 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, and unpaid carers
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

This approach to prioritisation in the first phase of the vaccination programme was supported by all four UK Nation Chief Medical Officers. This is in line with the advice from the JCVI, which agreed this approach was most likely to achieve the initial aims of reducing mortality from COVID-19 and maintaining our health and social care systems.

The JCVI advised that people experiencing homelessness and rough sleeping should be offered vaccination alongside group 6. We followed JCVI advice and included this cohort within group 6.

Phase 2

On 13 April 2021, the JCVI provided advice for Phase 2 of the vaccination programme, focussing on the vaccination of adults under the age of 50 not already vaccinated as part of priority groups 1 to 9 during Phase 1. This advice reaffirmed that there was good evidence that the risks of hospitalisation and critical care admission from COVID-19 increase with age and that rapid vaccine deployment is the most important way to maximise public health benefits against severe adverse outcomes from COVID-19.

As with earlier stages of the programme, JCVI advice continues to focus on reducing severe illness, hospitalisation and death associated with COVID-19. The prioritisation to date, has been supported by evidence that the risk of hospitalisation and critical care admission with COVID-19 increases with age. In considering the best approach to vaccinating those aged under 50 without underlying health conditions, it reflected on calls for targeting particular sectors, occupations or those who may face additional risk. However, on the basis of the available evidence, JCVI recommended an age-based programme starting with those aged 40-49 years would be the optimal way to protect individuals working in jobs with a potentially high risk of exposure to COVID-19 from severe disease related to COVID-19. The JCVI advised that, operationally, simple and easy-to-deliver programmes are critical for rapid deployment and high vaccine uptake.

Vaccination prioritisation under Phase 2 therefore continued to be age-based, starting with the oldest adults and continuing 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

In line with JCVI advice, we recognise the need for operational flexibility to maximise uptake. Our deployment teams utilise their understanding of local health systems and demographics to provide clear communication and outreach activity, promoting vaccination within identified groups where uptake has been lower. See section 3 for further information.

Focus groups

From focus group discussions with younger people we identified that messaging from experts rather than peers was regarded as more important with that audience and has greater credibility than, for example, celebrities. We worked with Professor Nicola Steedman, Deputy Chief Medical Officer, to develop a short video on the importance of vaccination and where to find accurate information – on NHS Inform – to inform their decision on vaccination.

Advice from the JCVI also guided our approach to respond to emerging evidence about the vaccines themselves and also variants of concern. During Phase 2, JCVI updated its advice to set out that, where possible, an alternative to the AstraZeneca vaccine should be preferentially offered to those under 40. For those aged 30-39, the advice also recommends this should only be where no substantial delay or barrier in access to vaccination would arise. In addition, the emergence of the Delta variant and evidence about vaccine efficacy following one and two doses, led to a change to the recommended dose interval from 12 to 8 weeks, where vaccine supply permits. These major changes to the programme and delivery systems were rapidly operationalised.

We have included the advice within our national policy, and the Chief Medical Officer has communicated this to Health Boards, recognising the dynamic approach to deploying the vaccine in Scotland.

Four UK nations approach

We continue to deliver the COVID-19 vaccination programme, informed by the advice received from the JCVI, maintaining a consistent approach wherever it is appropriate to do so across the four UK nations. Scotland's Health Boards follow the nationally agreed prioritisation schedule to vaccinate Scotland's population as quickly as possible.

Although our approach to cohorts has been consistent with the four nations approach, we have sought to clarify our definitions to reflect Scottish circumstances. For example, we expanded our definition of unpaid carers within priority group 6 to ensure all those over the age of 16 who provide vital support to those they care for were able to access the vaccine at an early stage.

Our progress

In our March Deployment Plan, we said we would aim to offer everyone in JCVI priority groups 1 to 9 a first dose of vaccine by early May 2021. We went beyond offering the vaccine and vaccinated 98% of those aged over 50 as at Friday 7 May 2021, with their first dose.

The vaccination programme has been – thanks to the dedication of staff and volunteers – an enormous success, exceeding expectations. Since it began on 8 December 2020, and as at 7:30 am on 23 July the programme has delivered:

- 3,992,327 people protected through their first dose of the COVID-19 vaccination; 3,966,384 of these are aged 18 and over, which represents 89%.
- 3,044,903 people provided with maximum protection by receiving their second dose; of these, 3,034,636 are aged 18 and over which is 68% of all adults.
- Given we know that risk increases with age, 2,787,450 people aged 40 have received their first dose vaccination which equates to 97% of this cohort. 2,606,112 (91%) of this group have now received their second dose vaccination.

Latest progress by age on first doses

(this includes everyone in the selected age group):

- 266,611 people aged 80 or over
- 198,317 people aged 75-79
- 284,999 people aged 70-74
- 300,270 people aged 65-69
- 354,436 people aged 60-64
- 393,376 people aged 55-59
- 378,584 people aged 50-54
- 610,857 people aged 40-49
- 584,912 people aged 30-39
- 594,022 people aged 18-29

Latest progress by age on second doses

(this includes everyone in the selected age group):

- 257,719 people aged 80 or over
- 194,711 people aged 75-79
- 280,507 people aged 70-74
- 294,663 people aged 65-69
- 345,596 people aged 60-64
- 379,542 people aged 55-59
- 360,036 people aged 50-54
- 493,338 people aged 40-49
- 250,656 people aged 30-39
- 177,868 people aged 18-29

Figure 1 shows the cumulative doses of COVID-19 vaccine – both first and second doses – administered in Scotland as at 23 July 2021.

As part of our commitment to ensure administration of the programme is fully transparent, Public Health Scotland (PHS) publishes [uptake figures \(both first and second dose\)](#) every day on its website.

In order to operationalise the latest advice from JCVI, we have changed the second dose schedule from 12 to 8 weeks. From 21 June, all mainland Health Boards scheduled future second dose appointments at 8 weeks and are continuing to actively encourage people to come forward for their second dose if they have waited more than 8 weeks since their first dose. This is in direct response to the Delta variant. It is important to note the JCVI does not recommend further reducing of this dose schedule, as this would shorten the duration of the protection provided by the vaccine.

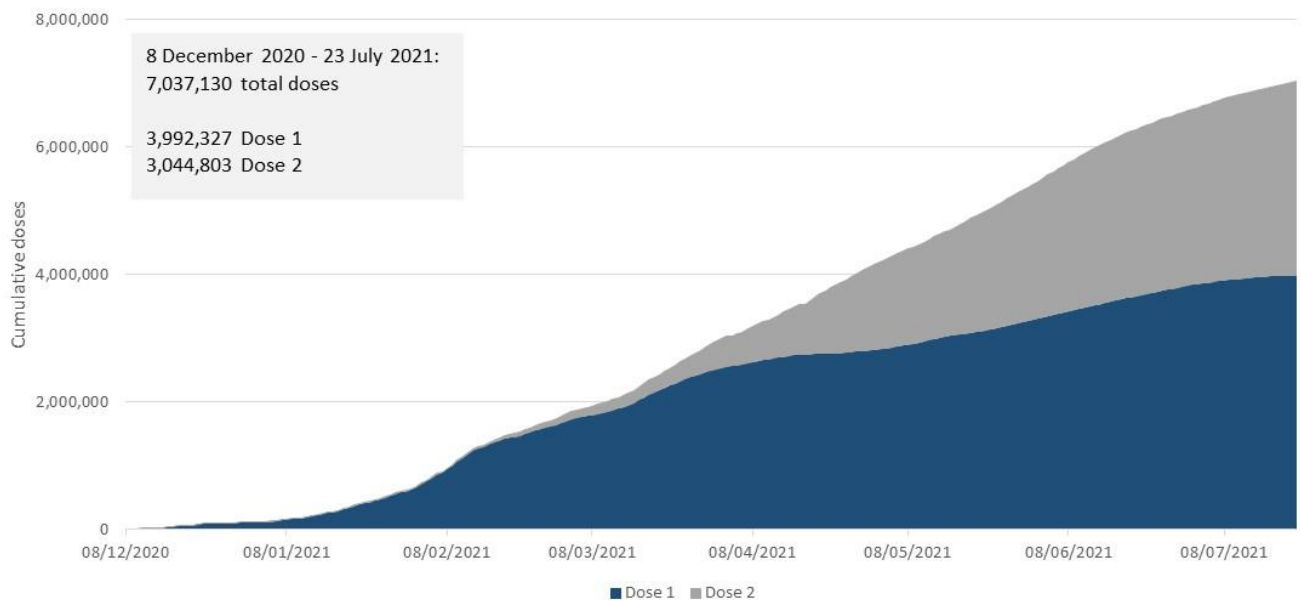


Figure 1 – Cumulative doses in Scotland by day, as at 23 July 2021

Going beyond our original plans

In our March Deployment Plan, we confirmed our planning assumption of 80% vaccination uptake by those in JCVI priority groups 1 to 9. This means we were planning for around 80% of people who were offered vaccination to take up the invitation. Latest progress as at 23 July 2021 shows we have now provided first dose vaccinations far in excess of our original aim of 80% for these priority age groups.

Progress for age based JCVI priority groups shows we have provided first dose vaccinations for:

(this includes everyone in the selected age group)

- 98% of people aged 80 or over
- (complete) people aged 75-79*
- 99.7% people aged 70-74
- 99.9% people aged 65-69
- (complete) people aged 60-64*
- 99% of people aged 55-59
- 96% of people aged 50-54
- 91% of people aged 40-49
- 80% of people aged 30-39
- 71% of people aged 18-29

*Vaccination uptake for groups marked complete are considered complete based on the estimated eligible population at a set point in time.

Progress for age-based JCVI priority groups shows we have provided second dose vaccinations for:
(this includes everyone in the selected age group)

- 95% of people aged 80 or over
- 98% of people aged 75-79
- 98% of people aged 70-74
- 98% of people aged 65-69
- 98% of people aged 60-64
- 95% of people aged 55-59
- 92% of people aged 50-54
- 73% of people aged 40-49
- 34% of people aged 30-39
- 21% of people aged 18-29

Progress for the non-age based JCVI priority groups shows we have provided first dose vaccinations for:

- 98% of current residents of care homes for older adults with 94.5% having received both doses
- we have vaccinated in excess of the initial target population estimate of staff working in all care homes for both first and second doses.
- 96% of those who were advised to shield, part of the clinically extremely vulnerable group
- 90% of people aged 16-64 with underlying health conditions
- 94.5% of people in specified frontline healthcare roles have received their first dose and 89.8% have had both doses*
- 88.8% of people in specified frontline social care roles have received their first dose and 81% have had both doses*

*Specified frontline health care workers and specified frontline social care workers figures provide a more precise measure of vaccine uptake in key frontline roles including registered NHS staff within the job family nursing/midwifery, medical and dental, ambulance services, Allied Health Professions and registered GPs; and registered Scottish Social Services Council staff.

These percentages include all people in the selected age group/JCVI priority group.

Figure 2 shows as at 23 July 2021 the percentage of people vaccinated in the age groups prioritised in phase 1, based on the latest available mid-2020 population estimates published by National Records of Scotland. The initial estimate of 80% vaccination take up by those in JCVI priority groups 1 to 9 is shown by a red line.

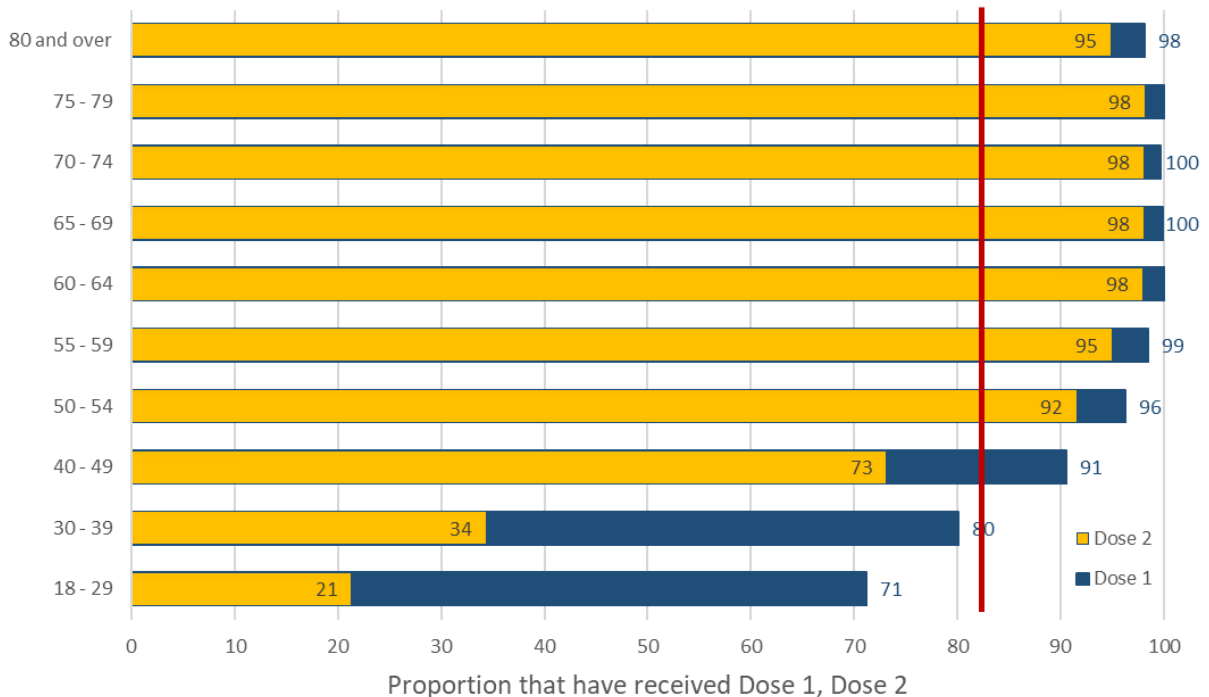


Figure 2 – Coverage by age group as at 23 July 2021 (percentage vaccinated)

There are a number of reasons we have been able to continue to move more quickly through the programme than originally planned. The huge support and responsiveness from the people of Scotland, who have come forward when invited to be vaccinated, has been incredible. We have also seen a monumental response from the dedicated staff and volunteers in the NHS and wider partners, including local authorities and the third sector including the Red Cross. This has been an inspiring example of the flexibility and professionalism demonstrated in the excellent working practices by Health Boards and other partners, to respond to this unprecedented health challenge to safeguard lives and public health.

The programme has been delivered with less vaccine wastage than estimated (see section 9), with a clear focus on protecting as many people as quickly as possible. The pace and effectiveness of the vaccination programme is a tribute to the monumental efforts of every single person involved.

Importantly, Health Boards have ensured their approach is fully inclusive by embedding inclusion throughout the programme to ensure the programme has a wide reach into all communities. This is another important factor in why we have been able to reach more people than we originally planned.

PHS now includes [vaccinations data](#) on its COVID-19 dashboard, which is updated every day with the latest available figures including those related to the vaccination programme. This includes daily vaccination figures by sex, age, location (NHS Health Board and local authority) and JCVI priority group. This includes both first dose and second dose vaccinations. PHS has also [published data on those who Did Not Attend \(DNA\) a scheduled appointment and on COVID-19 vaccine uptake by ethnicity and deprivation](#). However, it should be noted DNAs do not equate to

building up stock levels or an increased risk of wastage. NHS Boards take account of the potential for these in planning clinics and have been overbooking appointments and using drop-ins to use up any free capacity. Please see section 8 for further information on DNAs.

Impact of the vaccination programme

Emerging evidence demonstrates the effectiveness of vaccination against hospitalisation from COVID-19. A Public Health England study published in June showed two vaccine doses are highly effective at preventing hospitalisation from the Delta variant (96% and 92% effective for Pfizer and AstraZeneca respectively). PHS is also conducting analysis to estimate [vaccine effectiveness in preventing COVID-19 infection in Scotland](#).

The vaccination programme is helping to weaken the link between new cases and serious health harms. For example, the proportion of people who get COVID-19 and require hospital treatment fell from around 13% in January, to 2% in the most recent week commencing 28 June 2021. Further information is available in the [PHS COVID-19 weekly report](#) published on 21 July 2021.

PHS has recently published analysis on COVID-19 related hospital admissions by vaccine status, to help understand the characteristics of those being admitted to hospital. In the period 19 June to 16 July 2021, there has been an increase in the overall number of COVID-19 related acute hospital admissions, with the largest number among unvaccinated individuals, providing further evidence that vaccination is weakening the link between the rise in new cases and a rise in hospitalisations and serious illness. Over the same period, 49% of COVID-19 related acute hospital admissions were in unvaccinated individuals, of which 68% were in the under 40s age group, highlighting that the people who require hospital care are – on average – younger than during previous stages of the pandemic. Further information is available in the [PHS COVID-19 weekly report](#) published on 21 July 2021.

3. Making sure the vaccination programme is inclusive

It is vital our current COVID-19 vaccination programme is designed to reach everyone and no-one is left behind, to protect individuals and the wider population.

To achieve this, we have embedded inclusion as a key aspect of our national COVID-19 vaccination programme, working alongside partners to respond to evidence of low uptake in certain communities. In order for this to be a success, inclusion and equalities has been at the heart of our planning across the entire programme, at both local and national level.

We continue to gather and share insights on vaccination uptake and reasons for hesitancy and work with Health Boards, faith and community groups and the third sector to find new approaches and solutions. We have therefore established and used feedback from the National Inclusive Steering Group, the Expert Reference Group on Ethnicity and COVID-19, and an analysis of the newly published PHS [data on ethnicity, deprivation and levels of COVID-19 vaccination uptake to inform delivery](#).

Ongoing work to respond to the insights gathered has included:

- tailored messaging co-produced with and delivered by faith representatives from ethnic minority communities such as Black, Asian, Polish, and other minority communities
- PHS's COVID-19 vaccine 'Statement of Facts' prepared in partnership with the Scottish Refugee Council, including films of community representatives reading them in their own languages circulated
- information sessions and resources circulated around Ramadan to provide advice to those who were fasting and concerned about taking up the offer of the vaccine
- resources produced and a recorded Q&A session with the National Clinical Director for those in prison and on remand to provide them with information about the programme
- outreach undertaken to engage with Gypsy/Travellers, those experiencing homelessness, seasonal migrant workers and seafarers who may not otherwise be able to access the programme; and
- a dedicated and supportive pathway to access vaccinations for those with learning disabilities

Our approach to national communications has also evolved so more people are able to engage with the programme. Currently, [information is available in over 20 languages](#) on NHS Inform, with other formats also available such as easy-read, British Sign Language (BSL) and audio. We introduced a QR code on all vaccination appointment letters which takes people to this information so they are fully informed ahead of their vaccine. Furthermore, our new [vaccine explainer video](#), informed by third sector and community partners, provides information and answers common questions people may have, for example whether the vaccines are halal. It is available in a range of languages, including BSL. We continue to work with partners to develop our materials, adding new translations and assets where required, to ensure our information is accessible and suitable for everyone.

We have adapted our engagement and delivery models which has included using mobile units to reach those in remote and rural areas, including many of those in under-served communities. See section 5 for further information.

The high-level of vaccine uptake so far has only been possible due to the dedication of a range of partners. As we move into future programmes, we will continue to ensure everyone is included, especially those less likely to consider vaccination, and those most at risk.

4. Supply and distribution

How we receive our supply

There are now four COVID-19 vaccines currently authorised for use by the medicines regulator, the Medicines and Healthcare products Regulatory Agency: AstraZeneca, Moderna, Pfizer and Janssen, although the JCVI has not yet provided advice on use of Janssen. Due to worldwide pressure on manufacture and supply, supply has been a limiting factor for the programme. Vaccines are procured on a four nations basis via the UK Vaccines Taskforce with Scotland receiving a Barnett formula proportion (8.28 per cent) of all available supply as it arrives into the UK. The UK Vaccines Taskforce has worked alongside suppliers to increased stability and

security of supply to the four nations. Vaccines allocated to Scotland are distributed to a wide range of sites, including vaccine holding centres in hospitals, GP practices and mass vaccination centres.

Delivery model

The delivery model is highly dynamic, having to respond to variable supply and changes in demand forecasts. Health Boards therefore plan on a weekly basis based on forecasted supply projections provided by the UK Vaccines Taskforce. A multi-disciplinary team meets weekly to review the plans and supply allocation is adjusted accordingly. The national programme analyses individual Health Board plans against projected stock and our national modelling of predicated demand.

Vaccine security

Security is a key consideration within the Scottish programme. It contains a security workstream with the goal to instil an appropriate, proportionate and collaborative security-minded culture. We continue to work with colleagues across the four nations to share learning and intelligence, which has proven to be a key success of the programme. This includes monitoring misinformation and disinformation which could adversely affect the success of the COVID-19 vaccination programme.

5. Workforce and facilities

Our workforce

The delivery of the COVID-19 vaccination programme has been a collaborative success, involving Health Boards, NHS Education for Scotland, NHS National Services Scotland, PHS, and wider partners, including the third sector, working together to equip and develop the vaccination workforce. This has been an exemplar of a national effort grounded in community empowerment.

As at 22 July 2021, over 14,000 vaccinators have administered and recorded a COVID-19 vaccination using the national Vaccination Management Tool. This workforce includes vaccinators from a variety of professions, including nurses, dentists, general practitioners, optometrists, pharmacists, allied health professionals, healthcare students, and healthcare support workers. At its peak, more than 700 General Practices were participating in the programme.

Our national Vaccination Management Tool

NHS Education for Scotland in collaboration with NHS Greater Glasgow and Clyde, NHS National Services Scotland and PHS, have developed an innovative tool to help ensure the smooth running of the vaccination programme.

Turas Vaccination Management is a web-based tool that enables front line Health & Social Care staff to capture and create real-time patient vaccination records, and for information to be shared safely and accurately.

The tool has supported programme delivery by:

- enhancing the safe delivery of the vaccine through providing vaccinators with a real-time digital vaccination history of the person being vaccinated.
- reducing administrative requirements and simplifying reporting.

The scale of the programme has required a workforce which extends beyond those directly involved in the administration of vaccination, and we are particularly grateful for the contribution volunteers have made. The British Red Cross continues to work with the volunteer, third and community sector via our National Volunteer Coordination Hub, supporting Health Boards by providing non-clinical personnel to undertake a wide range of activities, augmenting local arrangements between Boards and other volunteer agencies and local authorities.

As of 20 July 2021, the Hub has coordinated volunteers from 17 different organisations to assist in the programme, with more than 65% of volunteers completing more than one session. Since 1 February, there have been more than 4,400 deployments providing in excess of 35,000 hours of volunteering service.

As restrictions ease and services recover, we recognise there is a need to develop a long-term permanent and sustainable vaccination service workforce. Health Boards continue to plan on this basis and have been evaluating new induction programme resources developed by NHS Education for Scotland and PHS, to support newly recruited COVID-19 Healthcare Support Worker Vaccinators. It is anticipated these individuals will form a key element of the workforce going forward.

Throughout the programme, we have engaged with Health Boards to understand the workforce and the pressures placed upon them, including staff wellbeing. We have offered support and direction to support this, including launching a series of posters for use at vaccine centres and on social media to encourage all those getting vaccinated to treat vaccination staff with respect.

Our infrastructure

Health Boards have used an array of infrastructure throughout the vaccination programme to ensure they reach all members of society. For example, sport stadiums and conference centres have been used as mass vaccination sites in large cities, General Practices and town halls in small community and rural settings, as well as places of worship and universities to reach all members of the community. These locations have been reviewed over the course of the programme and on occasion alternative locations sourced as restrictions lifted and some of these locations started to reopen to the public i.e. sports centres and community halls. Any alternative locations were always selected to ensure ease of access and capacity is maintained for the local population. In locations where it is difficult for individuals to reach a vaccination centre, either outreach teams have gone to them or, for larger numbers, such as seasonal farm workers, transport has been provided to ensure an inclusive vaccination programme.

Mobile and pop-up centres

Our approach to vaccinating has included adapting our engagement and delivery models where necessary.

Specially-adapted bus

The Scottish Ambulance Service (SAS) supported this outreach activity by taking the vaccine out to communities on a specially-adapted bus to deliver COVID-19 vaccinations to residents living in remote or rural areas. More recently, the SAS bus has provided pop-up services within Greater Glasgow and Lothian, visiting sites like shopping centres, bingo halls, football stadiums and busy city centre locations including the Grassmarket in Edinburgh.

Health Boards have also vaccinated rough sleepers and people experiencing homelessness who are in emergency and supported accommodation through outreach work, which has included taking mobile units to food banks. This is in partnership with frontline local authority and third sector services. In partnership with community leaders, we have also delivered vaccines at religious sites such as Churches, Mosques, Gurdwaras, Gypsy/Travellers sites and Fishermen's Missions.

Health Boards opened drop-in vaccination clinics for people aged over 40 years. From 5 July all mainland Health Boards have offered drop-in facilities for all those eligible to receive a first dose of the COVID-19 vaccine, and second doses for those who have waited more than eight weeks since their first dose. In addition, a range of outreach activity, including the SAS mobile capability, has been deployed to support vaccination of younger people, with the focus on locations with high potential uptake and where travel to large centres may be difficult due to cost or time.

Military support

To complement the workforce, when demand has increased at short notice for a limited timeframe, we have worked with the Ministry of Defence (MoD) through a Military Aid to Civil Authorities Agreement (MACA) to deploy military vaccinator and planning teams, like other parts of the UK. These teams have integrated with Health Boards to boost productivity and capitalise on opportunities to push the programme forwards. NHS Scotland and MoD colleagues have worked together seamlessly, delivering accelerated vaccination throughput beyond set targets when required, and developing and sharing best practice to increase efficiencies. The military are always an option for enhanced capability in times of national crisis when all other options have been exhausted.

6. Ongoing clinical advice

Latest recommendations from the Joint Committee on Vaccination and Immunisation, the Chief Medical Officer and national protocols

JCVI advice

The JCVI has issued advice on a number of topics since the publication of the last Deployment Plan. This illustrates the highly dynamic nature of the programme and the need to pivot to align with emerging clinical advice. Advice has included:

- COVID-19 vaccine and adults living with adults who are immunosuppressed, 29 March 2021
- use of the AstraZeneca COVID-19 vaccine, 8 April 2021
- COVID-19 vaccination for pregnant women, 16 April 2021

- COVID-19 vaccine for people ages under 40, 7 May 2021
- mitigation of the impact of B.1.617.2 variant, 14 May 2021
- potential COVID-19 booster vaccine programme (interim advice), 30 June 2021
- vaccinating children and young people under 18, 19 July 2021

[JCVI's publications and statements on COVID-19](#) are available on the UK Government's website.

Chief Medical Officer letters

Following consideration of JCVI advice, Scottish Ministers have set out the policy position for the vaccination programme in Scotland via a series of letters issued by the Chief Medical Officer (CMO). CMO letters have covered topics such as:

- update in response to concerns raised in some European nations about a potential link between rare blood clots and the AstraZeneca COVID-19 vaccine, 19 March 2021
- Moderna vaccine rollout, 1 April 2021
- change in recommended use of AstraZeneca vaccine, 8 April 2021
- update on use of AstraZeneca and JCVI advice on 18 years and over, 7 May 2021
- need to accelerate vaccines for those over 50 and that second dose should be brought forward from 12 weeks to 8 weeks, 18 May 2021

The [CMO letters](#) are published on the NHS website.

Vaccine protocols

The national protocols for each vaccine reflect the most up to date clinical and regulatory information. New protocols are also developed for each new vaccine that becomes available. Protocol updates since the last Deployment Plan have included:

- 20 April 2021
 - Inclusion – Update to include those requiring different second dose to first dose when clinically indicated
 - Exclusion – Update to include those bone marrow and peripheral blood stem cell donors guidance
 - Frequency section - Update to remove advice that second dose should be same as second dose
- 24 May 2021
 - Frequency – Updated to include the JCVI advice to bring forward second dose from 12 weeks to 8 weeks
- 2 June 21
 - Approved vaccinators – Update to include Military General Duties Vaccinators (to speed up roll out)

In addition to these there were the following updates to individual protocols:

- AstraZeneca: warning on use for adults under 40 years following a review of safety data, 20 April 2021

- Pfizer: inclusion - all eligible adults over 16 in line with JCVI recommendations on or before 31 July 2021, 24 June 2021

Further information on [national protocols for the supply and administration of COVID-19 vaccines to individuals in accordance with the national COVID-19 vaccination programme](#) is available online.

Vaccination of children and young people

We continue to roll out the vaccination programme in Scotland guided by advice from the JCVI, which advises all four nations across the UK on vaccine deployment and prioritisation.

On 19 July 2021, the JCVI provided advice on the vaccination of children and young people under 18 years of age.

JCVI guidance does not advise routine universal vaccination of children and young people under 18 years of age. It states it will keep this advice under review as more safety and effectiveness information becomes available on the use of COVID-19 vaccines in children and young people. It is important to note that the JCVI have considered the clinical risks to children of vaccinating them at this time. They have therefore been clear that, based on the evidence currently available, the potential benefits of vaccination do not outweigh the risks for the majority of children and young people. However, JCVI does recommend vaccination for three key groups of children and young people under 18 years of age:

- Children aged 12 to 15 years of age with severe neuro-disabilities, Down's Syndrome, underlying conditions resulting in immunosuppression, and those with profound and multiple learning disabilities, severe learning disabilities or who are on the learning disability register are considered at increased risk for serious COVID-19 disease and should be offered COVID-19 vaccination
- Young people aged 16 to 17 years of age who are at higher risk of serious COVID-19, as currently set out in the [COVID-19 Green Book, chapter 14a](#), should continue to be offered COVID-19 vaccination in line with the current programme approach
- 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

We will continue to work with all relevant stakeholders to effectively deliver this emerging clinical advice provided by the JCVI.

Vaccine safety

The MHRA is the UK agency responsible for the approval of clinical trials in the UK and responsible for temporary authorisation for supply and marketing authorisation (licences) for new medicinal products.

All our decision making in responding to Covid-19 is guided by the [latest scientific evidence from the Scientific Advisory Group for Emergencies \(SAGE\), advice from](#)

[Health Protection Scotland and our Chief Medical Officer](#). In addition, the JCVI provides advice on immunisation to all UK Health Departments, including on the efficacy and safety of vaccines.

The safety of all vaccines and medicines is monitored by MHRA on a UK-wide basis. This includes reports from the [Yellow Card Scheme](#) which allows health professionals and patients across the UK to flag up suspected adverse reactions to any vaccine or medicine, as well as reports from worldwide use and on-going scientific evidence.

Concerns about the safety of vaccines are not taken lightly. The MHRA keeps the safety of all vaccines under close and continual review. They would take appropriate regulatory action if new evidence emerged calling into question the safety of any vaccines currently in use in Scotland.

Safety remains paramount in our vaccination programme and we will continue to follow JCVI advice in deploying vaccines in Scotland. We maintain a consistent approach wherever it is appropriate to do so across the four nations.

Use of AstraZeneca in under 40s

In May, the JCVI advised that unvaccinated adults aged 30 – 39 years 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 vaccine where possible, and only, where no substantial delay or barrier in access to vaccination would arise. This advice came following a review of the safety data in relation to the use of the AstraZeneca vaccine and the extremely rare adverse events of concurrent thrombosis (blood clots) and thrombocytopenia (low platelet count) following vaccination with the first dose of the AstraZeneca COVID-19 vaccine. This followed advice in April recommending those under the age of 30 should be offered an alternative to the AstraZeneca vaccine, if available.

Everyone who has received their first dose of the AstraZeneca vaccine safely should receive their second dose as this gives greater and longer lasting protection against the virus. The benefits of using AstraZeneca continue to outweigh the risks for most age groups providing protection against the harm from COVID-19. It remains crucial that everyone who is offered a vaccination takes up the offer.

Reducing the time between first and second doses

Following an increase in prevalence of the Delta variant across the UK, we brought forward the schedule for second doses from 12 to 8 weeks in line with JCVI advice. This is because the emerging evidence suggests that a first dose of the vaccine may not offer the same protection against this variant as it does against some earlier strains of the virus. Analysis published by Public Health England in May, shows two vaccine doses are highly effective at preventing hospitalisation from the Delta variant (96 and 92% effective for Pfizer and AstraZeneca respectively). PHS is also conducting analysis to estimate [vaccine effectiveness in preventing COVID-19 infection in Scotland](#). Offering second doses more quickly may therefore maximise protection. As outlined above though, JCVI do not routinely recommend reducing the dose schedule lower than eight weeks.

From 21 June 2021, all Health Boards began to routinely schedule all second doses 8 weeks after first doses as standard. In addition to this, we are using social media and other channels to encourage individuals who have an appointment scheduled for beyond 8 weeks to go online or call the helpline to request that their appointment is rescheduled in line with the eight-week schedule. From 5 July all mainland Health Boards have offered drop-in facilities for all those eligible to receive a first dose of the COVID-19 vaccine but who have not received a first dose yet, and second doses for those who have waited more than eight weeks since their first dose.

Pregnancy and breastfeeding

We continue to follow JCVI advice on vaccination of pregnant women. The JCVI updated its advice in April to state that pregnant women should be offered the COVID-19 vaccine at the same time as the rest of the adult population, based on their age and clinical risk group. Pfizer and Moderna vaccines are currently the preferred vaccines for pregnant women of any age who are attending for their first dose. Anyone who has already started vaccination and is offered a second dose whilst pregnant should have a second dose with the same vaccine, unless they had a serious side effect after the first dose. COVID-19 vaccines offer pregnant women the best protection against the virus, which can be serious in later pregnancy for some women.

Pregnant women should discuss the risks and benefits of vaccination with their clinician, including the latest evidence on safety and which vaccine they should receive. The JCVI advises that women who are breastfeeding may be offered any suitable COVID-19 vaccine. Further information on [pregnancy, breastfeeding, fertility treatment and the coronavirus](#) can be found on the NHS Inform website, and information on [vaccine uptake in pregnant women](#) is available on the PHS website.

Households of severely immunosuppressed people

The JCVI had advised that prioritisation alongside group 6 is given to those who are over 16 years of age and living with severely immunosuppressed adults in order to further protect those severely immunosuppressed adults who may not make an effective response to vaccination themselves. Following JCVI advice on children and young people under 18 published on 19 July, we will continue to work with all relevant stakeholders to consider that advice and respond accordingly. Severe-immunosuppression includes conditions such as those with blood cancer, HIV or those on treatment including chemotherapy. Adults who are severely immunosuppressed have a weaker immune system, meaning they are less able to fight infections naturally. These individuals are more likely to have poorer outcomes following COVID-19 infection and recent evidence suggests that they may not respond as well to the COVID-19 vaccine as others. There is growing evidence that the COVID-19 vaccines may reduce the chance of someone who has been vaccinated transmitting the virus.

To ensure we reach all adult household contacts of adults who are severely immunosuppressed, we have broadened this offer to adult household contacts of adults on the shielding list. The interim JCVI advice on a potential COVID-19 booster programme this autumn is that adults aged 16 years and over who are immunosuppressed should be offered a COVID-19 booster vaccination alongside the

annual seasonal flu vaccination from September. We look forward to receiving the JCVI's final advice on the potential COVID-19 booster programme in due course.

7. Students in Scotland

We are vaccinating university and college students in line with JCVI advice on priority groups, and we continue to work with local Health Boards and higher and further education institutes to ensure vaccines are accessible for all students.

We strongly encourage all students aged 18 and over awaiting vaccination to register on the [self-registration portal](#) available on the NHS Inform website. Registering on the portal will minimise the risk of students missing their paper appointment letters if moving between term-time and home addresses. Anyone can still use the portal if they do not have a Community Health Index Number, however they will need to contact the COVID-19 Helpline to book an appointment on 0800 030 8013 or visit a drop-in clinic.

In partnership with Health Boards, and Universities and Colleges Scotland, we developed an [FAQ document on COVID-19 vaccinations for international students in Scotland](#) available on the Student Information Scotland website.

8. Invitations, appointments and digital solutions

Appointment letters

The National Vaccination Scheduling System (NVSS) is the system we use for appointment scheduling in Scotland. We have worked closely with Health Boards, National Services Scotland (NSS), National Education Scotland (NES) and PHS, to provide the data and digital solution for creating clinics, appointments and the generation of letters which are printed and sent to Royal Mail for delivery.

One of the successes of the appointing process to date was the introduction of blue envelopes which clearly identify that the letter contains an invite for a vaccination. From the 1 February 2021 to 23 July 2021, nearly 4.5 million individuals in Scotland received a blue letter with their appointment details.

In order to help us reach the population of Scotland as quickly as possible, it is important anyone who has recently moved house, or due to move house in the near future, ensures their details are correct with their GP. We are proactively engaging with Health Boards to communicate the importance of updating details with the GPs to ensure that individuals do not miss their appointments.

As part of planning for the next phase of our COVID-19 vaccination programme, it has been agreed the NVSS will be used, including the option for people to book appointments online. The use of blue envelopes and letters will also continue for people who do not come forward – or are unable to – to confirm their preferred choice of digital communication.

Our approach to missed appointments

Uptake is one of the key measures of success for the national vaccination programme and the data shows high uptake across all cohorts, with an overall 89% uptake for first doses for those aged 18 and over as of 23 July. We understand not

everyone will be able to attend their vaccination appointment and, indeed, not everyone will choose to be vaccinated. It is important to recognise what can be learned from the intelligence we gather when people did not attend appointments (DNAs).

We scrutinise all the data available on vaccinations, including DNAs, as it can offer an indication of the level of vaccine hesitancy and refusal and the effectiveness of our lettering based appointment system. But as mentioned earlier, DNAs cannot be viewed in isolation as a measure of productivity of the programme. The DNA rates relate to those who have not attended a scheduled appointment but that does not mean those people have not been vaccinated. Younger people may have attended ad-hoc or drop-in vaccination clinics which have recently been established, which could result in a DNA against their scheduled appointment. We have seen high levels of overall uptake due to a combination of Health Boards overbooking and using any unmet capacity with drop in and outreach activity. DNA figures from 1 February 2021 to 6 June 2021 are included in [PHS's COVID-19 Statistical Report](#) published on 16 June.

We have taken steps to try to make the vaccination programme as accessible to all as possible. The national helpline allows people to rearrange their appointment to suit them and there is help available for anyone who is unable to leave their home. We introduced [an online appointment checker](#) to help reduce the number of DNAs. We also introduced a [self-help guide on NHS Inform for people to find out how they rearrange their appointment in their local area, or opt out.](#)

We are aware there may be some vaccine hesitancy in some communities and we are working alongside third sector and community groups to address this by developing and targeted messages to address any specific barriers people may face.

We have also created a platform for people who may have missed appointments to schedule a vaccine and this can be done through the [missed appointment form](#) on the NHS website.

COVID-19 vaccine national helpline

We launched our COVID-19 vaccine national helpline in December 2020 as an alternate channel to digital services for patients without access to the internet or who could not use our digital products available. The helpline provides access to the same content and services as on NHS Inform, such as rebooking, DNA letters and registration services. Some services, such as rebooking of a historic DNA appointment, registration of 16 and 17 year olds who are unpaid carers, adult household contacts of shielding adults, or patients who need a CHI number and are not registered with a GP practice, are currently only available on the helpline.

The helpline was initially intended to support vaccine queries only, however we soon expanded its scope to include appointment re-bookings, missing letters/appointments, registrations and other ad hoc services. An example of this is when we responded to the Glasgow surge vaccination initiative in May 2021.

Since going live, we have answered more than two million calls through the helpline, and successfully rescheduled more than 400,000 appointments.

The helpline operates 7 days a week from 8am to 8pm and is on an 0800 number free for anyone to call. At its peak, the helpline was regularly answering nearly 30,000 calls per day. Average wait times during June have varied between 10 seconds and 2 and half minutes.

As the programme has developed, the helpline has adapted and continuously added new services and capabilities. For example, we have provided an option for translation services. As the programme progresses, the commission of the helpline will require to be reviewed not only to take account of the inclusion of the flu programme but also if this single point of contact role is required. If so then the scope and resourcing of the helpline will require modification in order to meet these new and increased service asks.

Self-registration portal

In order to make vaccinations more accessible for unpaid carers, we opened a self-registration service for this group. This enabled around 200,000 people to identify themselves as carers, who are included in priority group 6 due to the risk of passing on COVID-19 to the person or people for whom they provide care.

Building on the success of unpaid carers, we decided to roll out self-registrations for under 30s. This self-registration service enabled those aged 18-29 to identify themselves in that age category and offered them the choice of how they were contacted.

On the 28 June 2021 we [opened the self-registration system to all adults](#) which enables anyone, for example, those new to Scotland or did not have an up-to-date registered home address, to come forward for a first appointment.

Those who sign up will receive a text or email with details of their appointment which they can change if the time or location is unsuitable. For those who have previously received an appointment and could not – or decided not to – attend, the portal provides the opportunity to now take up the offer of a vaccine and ensure protection against COVID-19

Improving the digital offer

Our long-term aim is to move to a model based on individual preference, which includes digital and traditional non-digital routes.

We have scheduled and delivered millions of appointments through the NVSS and other digital solutions early on in the programme, whilst achieving exceptionally high vaccine uptake rates and positive feedback from both Health Boards and the public.

A priority area for development for the next phase of the vaccine programme is the improvement of the digital processes and systems to enable people to book appointments at vaccination clinics and centres based on their preference and choice. We will also work to ensure our systems are as inclusive and accessible as possible so as many people as possible can access them.

One of the benefits of moving to an online booking system is the ability to quickly contact individuals with appointment details as well as being able to send out public

health information. The current paper based system takes about two weeks. This time can be reduced and give people the option to choose an appointment at a time which suits them, rather than having to change it or not attending.

The roll-out of a digital solution provides an opportunity to capture missing data with the potential for a significant digital legacy from the COVID-19 pandemic. As people engage with our digital products, it minimises the risk of a person's details not being up to date, leading to DNAs. It also provides an opportunity for us to collect important additional characteristics to support our inclusion work, such as ethnicity and disability. This is vital to the ongoing research into rapid COVID-19 responses and helpful for wider public health planning, information and service offers.

9. Minimising waste

In May 2021, the Chief Medical Officer set out our expectations of Health Boards in relation to minimising waste. Given the scale of the COVID-19 vaccination programme, some vaccine wastage has been unavoidable for a variety of reasons based on: the characteristics of the vaccine; logistical issues with cold chain supply; storage failure; and vial size and/or specific clinical situations. We reported in our March update to the deployment plan that we were operating wastage at well below the recommended 5%. Over the previous two months to mid-July, vaccine wastage averaged 0.5%. Further information on the [vaccine wastage data](#) can be found on our website. We continue to work with Health Boards to ensure we maintain wastage at a minimum, and maximise the availability of vaccines to the people of Scotland.

One aspect of a continuous process of improvement undertaken by staff within the vaccination programme was the development of a web-based vaccine waste recording tool. Vaccinators are able to record any vaccine wastage produced at any COVID-19 vaccine clinic. The web-based system was developed primarily to record the number of wasted doses along with the reason they were wasted to help understand common reasons for vaccine wastage and to support the introduction of measures designed to reduce waste.

10. Next steps

Potential COVID-19 booster programme

Interim advice published by the JCVI on 30 June 2021 outlined a core set of planning principles for any potential COVID-19 vaccine booster programme. All [JCVI publications and statements](#) are available on the UK Government's website. We are working closely with Health Boards to plan for the potential COVID-19 booster vaccination programme, guided by the JCVI advice. We look forward to receiving the Committee's final advice in due course which will inform our approach for the autumn.

New vaccines

Work to develop and manufacture COVID-19 vaccines continues worldwide and, through the UK Vaccines Taskforce's (VTF) Four Nations procurement, Scotland will be able to access any MHRA approved vaccines which have been agreed to be procured by the VTF on a four nations basis. This includes the Janssen vaccine, recently given temporary authorisation for supply in the UK by the MHRA. While

there are no guarantees, a number of other vaccines are undergoing clinical trials and could become available later this year or early next year.

11. Keeping up to date on the vaccine programme

Regular statistics are provided alongside factual information to local press and radio and to national media outlets. More detailed accessible information can be found on NHS Inform. If you have been called forward for a vaccine and you would like additional help, please call the Scottish COVID-19 Vaccination Helpline (0800 030 8013).

The Vaccination Status Scheme will allow people travelling abroad to access a record of their vaccination status. People will be able [request their Covid-19 Vaccine Status online](#), by logging on to NHS Inform. For those not online this can be requested to be sent in the post via a Freephone COVID-19 Status Helpline on 0808 196 8565.

As Scotland's vaccination programme progresses, vaccination status will be replaced by digital COVID-19 Status Certificates, which will include vaccination and testing data to be used for outbound international travel.

Useful Information Sources

- Scottish Government [COVID-19 daily data for Scotland webpages](#). This is updated each day to provide the latest available data on COVID-19 in Scotland, includes progress on first dose and second dose vaccinations.
- Public Health Scotland (PHS) [COVID-19 dashboard](#). This includes daily vaccination figures by sex, age, location (NHS Health Board and local authority) and JCVI priority group. This includes both first dose and second dose vaccinations.
- [UK coronavirus dashboard](#). This includes headline vaccinations data for Scotland and the other UK nations.
- [Up to date information on the vaccination programme on the NHS Inform website](#). For example, who is being offered the vaccine and in what order, what to do at the vaccination appointment, and more about the vaccines themselves including the ingredients in the vaccines.
- [Information and guidance on the COVID-19 vaccination programme on the Scottish Government website](#). This includes regular letters from the Cabinet Secretary for Health and Sport to the Presiding Officer of the Scottish Parliament and Members of the Scottish Parliament (MSPs) providing updates on the vaccination programme.
- [Letters from the Chief Medical Officer for Scotland to Health Boards](#)
- [Statements given by Scottish Ministers in the Scottish Parliament and at Scottish Government media briefings](#)

- [Coronavirus \(COVID-19\): Scotland's Strategic Framework update - June 2021](#)