

State of the Epidemic in Scotland – 30th April 2021

Background

This report summarises the current situation on the COVID-19 epidemic in Scotland. It brings together the different sources of evidence and data about the epidemic in Scotland at this point in time, why we are at that place, and what is likely to happen next. This summarises the data up to and including the 29 April 2021 on COVID-19 in Scotland. This updates the previous publication published on 23 April 2021¹. The information in this document helps the Scottish Government, the health service and the wider public sector respond to the epidemic and put in place what is needed to keep us safe and treat people who have the virus.

This edition of the state of the epidemic, summarises current data on COVID-19 at a national level, at a local level and how Scotland currently compares to the rest of the UK. It looks at the vaccination program in Scotland and the effects which are beginning to be seen from this. Information is provided about variants of concern and what impact these may have. Bringing this information together in one place gives the opportunity to better understand the current state of the epidemic in Scotland.

Key Points

- The reproduction rate R in Scotland is currently estimated as being between 0.8 and 1.0. This is higher than last week.
- An average of 181 cases were reported per day in the 7 days to 29 April, which is an 18% decrease in reported cases since the 22 April.
- There were 25 weekly cases per 100,000 in the week to 26 April, which is a decrease since last week. This compares to 302 weekly

¹ Scottish Government: [Coronavirus \(COVID-19\): state of the epidemic - gov.scot \(www.gov.scot\)](https://www.gov.scot/publications/state-of-the-epidemic-2021-04-23/pages/1-1-introduction.aspx)

cases per 100,000 on 8 January and is similar to the weekly case rate observed on 14 September.

- Case rates saw the sharpest decrease in those aged 20-39, however a slight increase in case rates in those aged 00-19 this week.
- The estimated proportion of people becoming infected with Covid in Scotland has continued to decrease in the most recent week and is currently above England, Northern Ireland and Wales as determined through the latest weekly ONS survey.
- Latest modelled estimates suggest there are currently between 1 and 15 new daily infections per 100,000 people in Scotland.
- Deaths involving coronavirus have declined most in those aged 75-84 over the 3 weeks to 25 April, having gone down by 69%. Deaths in those aged 15-44 and 65-74 have declined by 50% over the same period.
- Average daily deaths per 100,000 population in Scotland (0.03) are level with England, Wales and Northern Ireland (0.03 each).
- North Lanarkshire and Moray currently have the highest weekly case rates in Scotland reporting 47 and 46 cases per 100,000 respectively in the last week, while Highland, Argyll and Bute, Aberdeenshire, Orkney, Angus, Scottish Borders and Midlothian reported fewer than 10 weekly cases per 100,000 each in the same time. Shetland and Na h-Eileanan Siar had 0 cases per 100,000 in the last week.
- At a national level hospital bed and ICU occupancy are projected to fall over the next few weeks, but these both may plateau or increase as a result of schools reopening and other relaxations of non-pharmaceutical interventions.
- Over 2.7 million people in Scotland have been given a first vaccine against SARS-CoV-2, and over 1.1 million have now received a second dose.
- The current UK variant of concern remains the dominant strain.

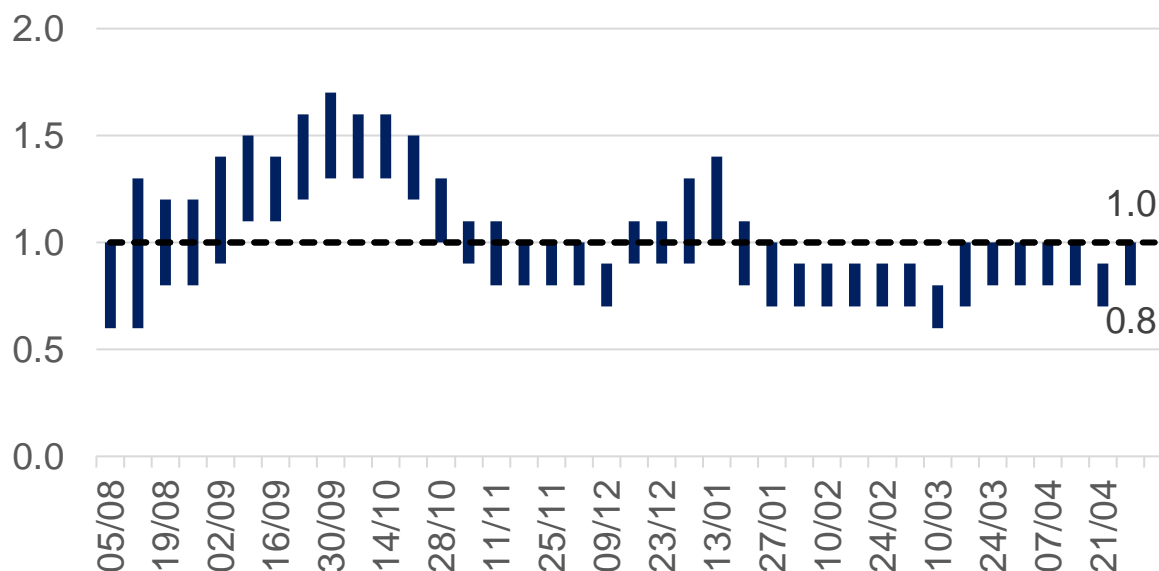
Method

This report brings together a wide range of publically available figures from a range of data sources. These include publications by Scottish Government, Public Health Scotland, National Records of Scotland, Office for National Statistics along with scientific publications and SAGE summaries where appropriate to summarise the state of the epidemic in Scotland in a given week. We also provide information on public attitudes to the virus from weekly YouGov polling surveys.

The national picture

The latest R value for Scotland (published on 29 April)² was between 0.8 and 1.0 (Figure 1), with a growth rate of between -4% and -1%.

Figure 1. R in Scotland over time



As Scotland started to move out of national level stay at home measures, an average of 181 cases were reported per day in the 7 days to 29 April. This is an 18% decrease from the daily average cases recorded a week earlier to 22 April³. Average daily cases reported are now under a tenth of the peak of 2,323 in the week to 7 January. Our current position is 25 weekly cases per 100,000 in the week to 26 April⁴. This compares to 302 weekly cases per 100,000 on 8 January and is similar to the weekly case rate observed on 14 September (see Figure 2)⁴.

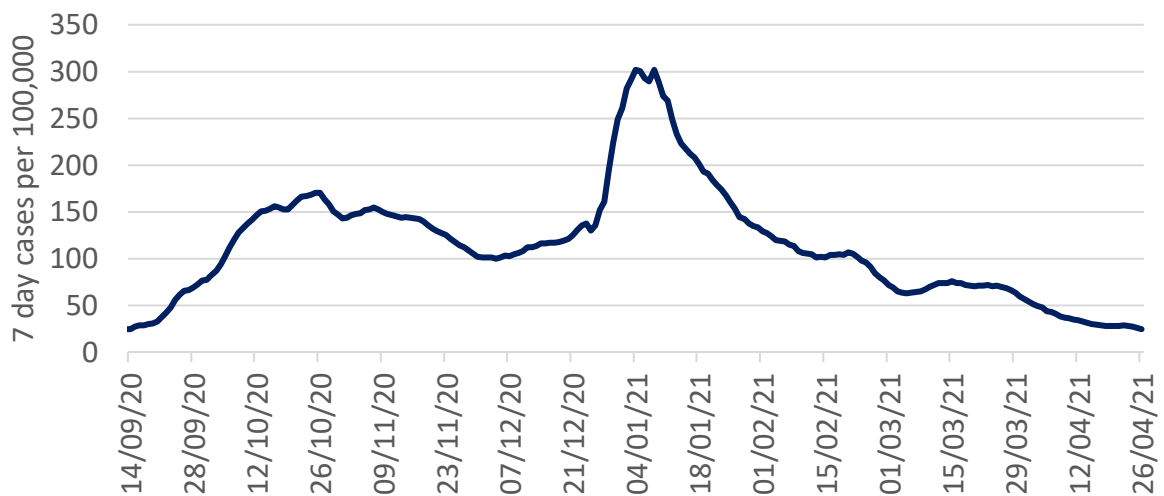
² Scottish Government:

<https://www.gov.scot/publications/?term=modelling&cat=filter&topics=Coronavirus%20in%20Scotland&publicationTypes=research-and-analysis&page=1>

³ Scottish Government: <https://www.gov.scot/publications/coronavirus-covid-19-daily-data-for-scotland/>

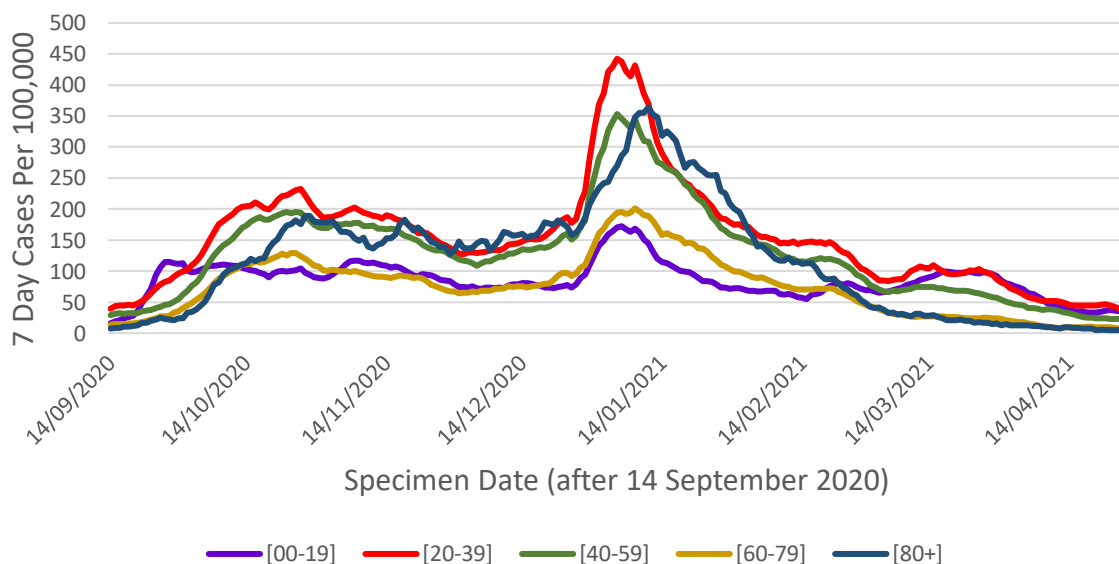
⁴ Public Health Scotland Covid dashboard: https://public.tableau.com/profile/phs.covid.19#!/vizhome/COVID-19DailyDashboard_15960160643010/Overview

Figure 2. Seven day case rate for Scotland by specimen date. Refers to PCR testing only.



Case rates saw the sharpest decline in those aged 20-39, however a slight increase in 7 day cases per 100,000 in those aged 00-19 this week (Figure 3).

Figure 3. Seven day case rate in Scotland by age group by specimen date⁵. Refers to PCR testing only.



Not everyone who has the virus will be tested, as many people do not realise they have COVID, or have mild symptoms and do not come forward. Latest modelled estimates suggest there are currently

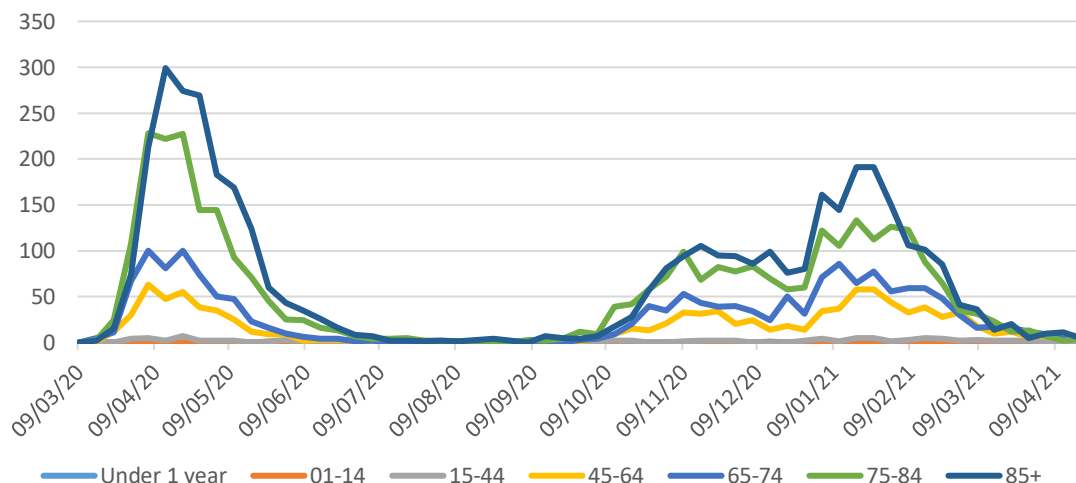
⁵ Source: Public Health Scotland

anywhere between 50 and 800 people infected in Scotland each day². This means that as of 28 April there were between 1 and 15 new daily infections per 100,000 people.

The number of people in hospital with confirmed Covid for less than 28 days is declining. After peaking at 2,053 on 22 January, this figure has decreased and as of 29 April there were 70 patients in hospital with COVID-19. In addition, there was a fall in daily hospital admissions for people with Covid from a peak of 241 on 11 January to 8 on 25 April⁶.

There were 23 deaths registered where Covid was mentioned on the death certificate in the week to 25 April. This is a 4% decrease on the week before, and 97% lower than the peak in April 2020 (663 deaths). The proportion of deaths in care homes has decreased from 36% in mid-December to 13% of total deaths in the week to 25 April. This has also increased from 8% in the week to 22 March, but this needs to be interpreted with caution due to low numbers. Deaths involving coronavirus have declined most in those aged 75-84 and have gone down by 69% in this age group over the 3 weeks to 25 April⁷ (Figure 4). Deaths in those aged 15-44 and 65-74 have declined by 50% over this period. Deaths have remained low in those aged 85+ with no change observed in the 3 week period, whereas a 17% increase (from 6 to 7 deaths) has been recorded amongst 45-64 age group in the 3 weeks to 25 April.

Figure 4. Deaths by age group (weekly total by week beginning, NRS)⁷



⁶ Public Health Scotland dashboard: [COVID-19 Daily Dashboard - PHS COVID-19 | Tableau Public](#)

⁷ NRS Scotland: <https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/vital-events/general-publications/weekly-and-monthly-data-on-births-and-deaths/deaths-involving-coronavirus-covid-19-in-scotland>

How Scotland compares with the rest of the UK

The latest ONS survey estimates that the proportion of the population infected in the community in Scotland (0.16% people currently testing positive for Covid-19 from 18-24 April) has continued to decrease in the most recent week. However this is still above England (0.10%), Northern Ireland (0.11%) and Wales (0.06%). In the week to the 24 April the estimated rate of community infection was 1 in 640 people in Scotland, compared to 1 in 1,010 for England, 1 in 1,570 for Wales and 1 in 940 for Northern Ireland⁸. Average daily deaths in Scotland (0.03 per 100,000 in the week to 29 April) are level with England, Wales and Northern Ireland (0.03 each). The Coronavirus Infection Survey estimated that in the week to 11 April, 57.8% of the adult population in Scotland would have tested positive for antibodies against Covid-19, as a result of having the infection in the past or being vaccinated. This compares to 68.3% in England, 61.0% in Wales, and 62.5% in Northern Ireland⁹.

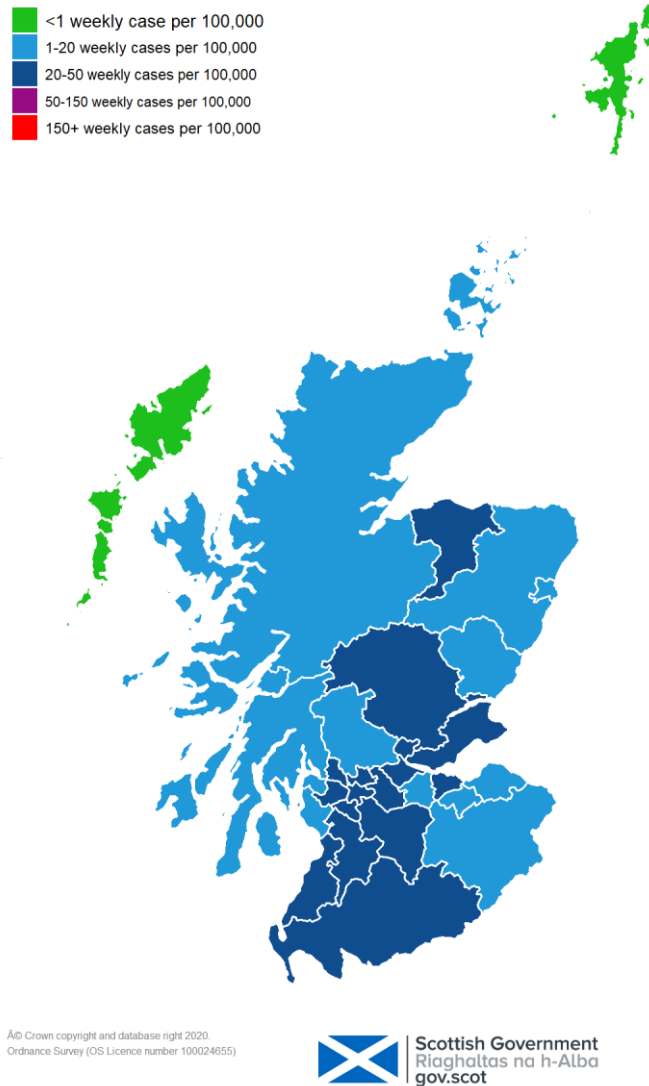
Situation by local authority within Scotland

North Lanarkshire and Moray currently have the highest case rates in Scotland with 47 and 46 weekly cases respectively being reported per 100,000 in the week to 26 April. There was a 21% decrease in cases per 100,000 in North Lanarkshire from the week to 19 April, whereas Moray has recorded a 38% increase in case rates in the same time⁴. There are mostly moderate and low levels of cases across Scotland, with moderate levels of cases observed across the central belt (Figure 5). Highland, Argyll and Bute, Aberdeenshire, Orkney, Angus, Scottish Borders, and Midlothian each had fewer than 10 weekly cases per 100,000 in the week to 26 April. Shetland and Na h-Eileanan Siar had 0 cases per 100,000 in the last week⁴.

⁸ Office for National Statistics: <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/bulletins/coronaviruscovid19infectionsurveysurvey/pilot/previousReleases>

⁹ Office for National Statistics: [Coronavirus \(COVID-19\) Infection Survey, antibody and vaccination data for the UK - Office for National Statistics](#)

Figure 5. Map of weekly new positive cases per 100,000 people in Scotland



The most recent modelling predicts that for the week ending 15 May, there are no local authorities with at least a 75% probability exceeding 50 cases per 100,000 population (Figure 6)². This is unchanged from last week.

Figure 6. Maps of probability of Local Authorities exceeding 50, 100, 300 and 500 cases per 100,000 population in the period 9-15 May 2021¹⁰



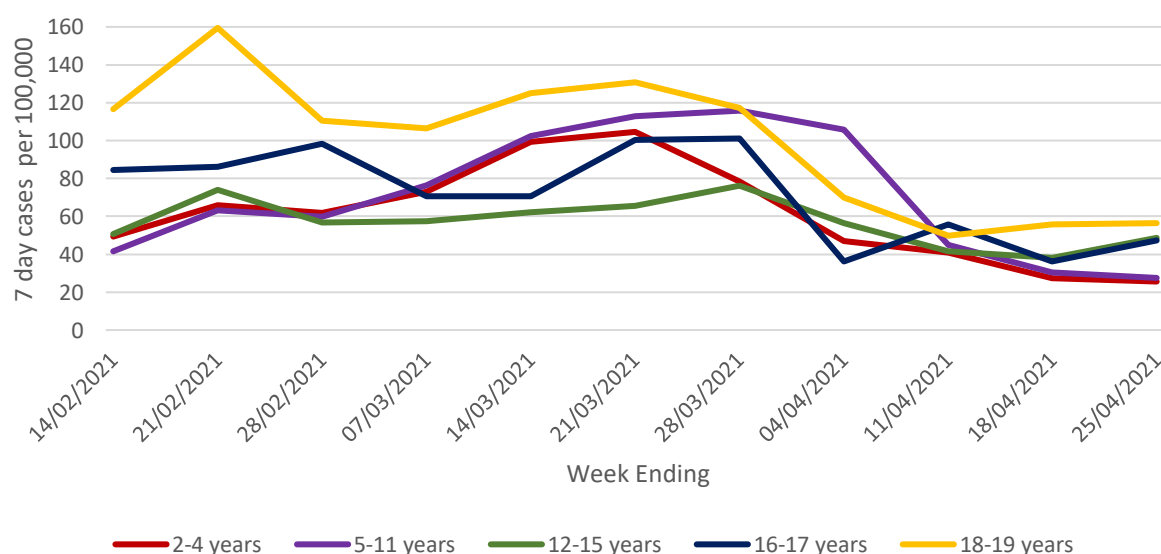
¹⁰ The local estimates should be interpreted with caution as they are based on fewer models than previous reports.

Children and Education

Children in early learning and childcare and those in primaries 1-3 went back to school or nursery on 22 February, and all children in primaries 4-7 went back on the 15 March. There has also been a phased return to secondary schools, with some Senior Phase (S4-S6) pupils returning to school on a part-time basis to attend practical lessons from the 22 February and all secondary school pupils (S1-S6) returning on a part-time basis from the 15 March. Most children and young people returned to full time education on the 12th or 19th April.

Over the last week there was a slight increase in the total number of COVID-19 cases in children, which has gone up from 366 cases in the week to 18 April to 388 cases in the week ending 25 April. This is still low compared to all other weeks since mid-September. 7 day cases per 100,000 have increased slightly in the over 12 year olds in the week ending 25 April, and the highest proportion of cases still observed in those under 12 (159 cases). However, there was a fall in 7 day cases per 100,000 in those aged 5-11 (Figure 7)¹¹. There has been an increase in testing amongst all age groups, except for 18-19 year olds, in week ending 25 April. Test positivity rates have increased in those aged 16-19, however decreased in those aged 2-15 the same period¹¹. Overall, the proportion of school, early learning and childcare settings with incidents remains low.

Figure 7. Seven day case rate in Scotland by age group by specimen date for children. Refers to PCR testing only.



¹¹ Public Health Scotland: [PHS COVID-19 Education report \(shinyapps.io\)](https://shinyapps.io)

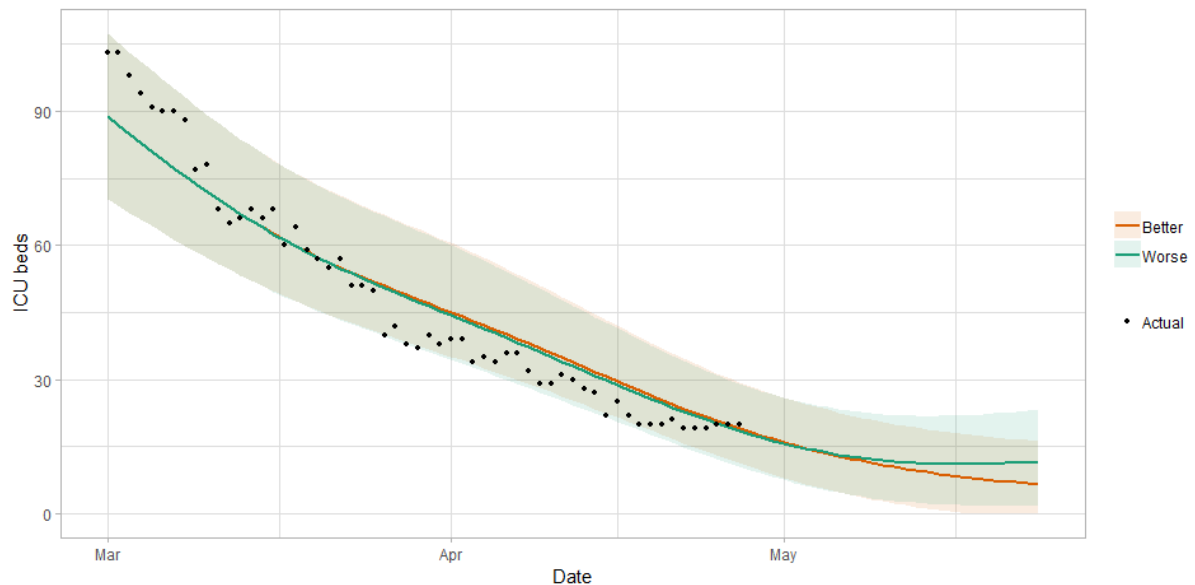
Looking ahead

Changes in patterns of mixing and adherence to restrictions will impact on future case numbers. The Scottish Contact Survey measures times and settings that people mix where they could potentially spread Covid². From this survey we can say that contacts are higher than seen during the lockdown period (averaging around 3 daily contacts) with a current level of 3.3 daily contacts. Contacts within the work and school setting have shown a decrease in the last two weeks by 32% and 88% respectively. Mean contacts within the 'other' setting (contacts outside of the school, home or work settings) have increased by approximately 11% over the same period. Individuals aged 60 and over have increased their contacts in the last two weeks, while average contacts for those aged under 60 have remained level or have shown a decrease.

Self-reported compliance with the current regulations and guidance has decreased since January but remains at a high level. On 27-28 April, 72% of people reported 'complete' or 'almost complete' compliance¹². Hospital bed and ICU occupancy are projected to fall over the next few weeks, but these both may plateau or increase as a result of schools reopening and other relaxations of non-pharmaceutical interventions (Figure 8)².

¹² Results are taken from questions run on behalf of Scottish Government on the YouGov online omnibus survey. The sample is demographically and geographically representative of adults 18+ across Scotland, with c.1000 responses each week. Fieldwork took place on 27-28 April with a total sample size of 1,008 adults. 'Complete' or 'almost complete' compliance refers to respondents who rated themselves 6 or 7 on a scale of 1-7 for the question: *Thinking about ALL of the guidance from the Scottish Government on what to do and what not to do during the Coronavirus pandemic (including distancing, protection measures and all restrictions)...On a scale of 1-7, where 1 is 'Not at all' and 7 is 'Completely', to what extent do you feel you are following the regulations and guidance?*

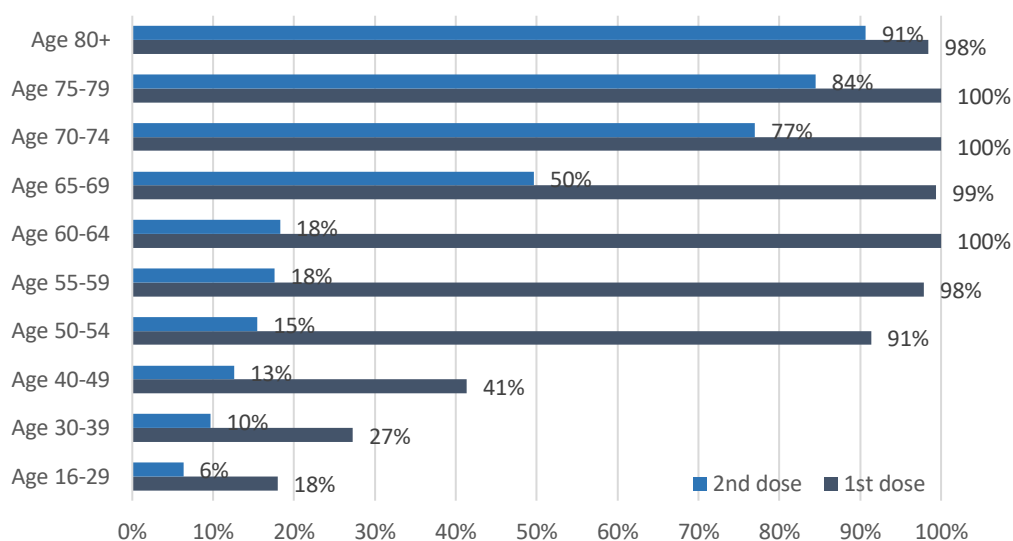
Figure 8. Medium term projections of modelled ICU bed demand, from Scottish Government modelling¹³



Vaccinations are continuing across the priority groups and over 61% of the adult population in Scotland has now been vaccinated with the first dose⁴. The first vaccines were administered on Tuesday 8 of December and 2,796,810 had received their first dose by 29 April 2021, a 1.5% increase from the 22 April³. By the 29 April over 35,000 residents in care homes had received their first vaccination along with over 53,000 care home staff. In older adult care homes just over 90% of residents have now received their second dose. By age group, almost 100% of individuals aged 55+ and 91% of those aged 50-54 had received their first vaccination (Figure 9). 91% of the over 80s, 84% of those aged 75-79, 77% of those aged 70-74 and 50% of those aged 65-69 have received their second dose. Overall, 1,184,629 (26%) of those aged 16 and over had received their second dose by 29 April⁶. There are continual decreasing hospitalisations and deaths among those groups vaccinated first (Figure 4).

¹³ Both scenarios are based on current vaccine roll-out plans and efficacy assumptions. The difference between the two projections reflects uncertainty about behaviour and compliance as interventions are relaxed. Actual data does not include full numbers of CPAP. ICU bed actuals include all ICU patients being treated for Covid-19 including those over 28 days.

Figure 9. Estimated percentage of people vaccinated by 29 April 2021



The proportion of people surveyed who said they would be likely to be vaccinated for COVID-19 remains high. 63% of all respondents have already received at least their first vaccine dose. Of those not vaccinated, 74% report they are likely to be vaccinated when a vaccine becomes available to them¹⁴.

How the virus is changing

The variant of the virus commonly known as the UK variant (VOC-20DEC-01) remains the dominant strain in Scotland¹⁵. This new variant of Covid is more transmissible¹⁶. It is likely that infection with this variant is associated with an increased risk of hospitalisation and death compared to infection with non-VOC viruses¹⁷.

Other variants of concern (VOCs) are being monitored by sequencing of SARS-CoV-2 samples (Figure 10). To date there are four VOCs and nine variants under investigation¹⁸. Up to 28 April, there have been 34 genomically confirmed cases of the variant VOC-20DEC-02 (first seen in South Africa) detected in Scotland, (up two since the previous week).

¹⁴ Total sample size on 27-28 April was 1,008 adults. Sample size for those who have not yet received their first vaccine was 341 adults. 'Likely' to be vaccinated refers to respondents who rated themselves 8 to 10 on a scale of 0-10 for the question: How likely or unlikely are you to be vaccinated for COVID-19 when a vaccine becomes available to you? (Please select a number between 0 and 10, where 0 means 'extremely unlikely' and 10 means 'extremely likely')

¹⁵ Public Health Scotland: <https://beta.isdscotland.org/find-publications-and-data/population-health/covid-19/covid-19-statistical-report/9-september-2020/dashboard/>

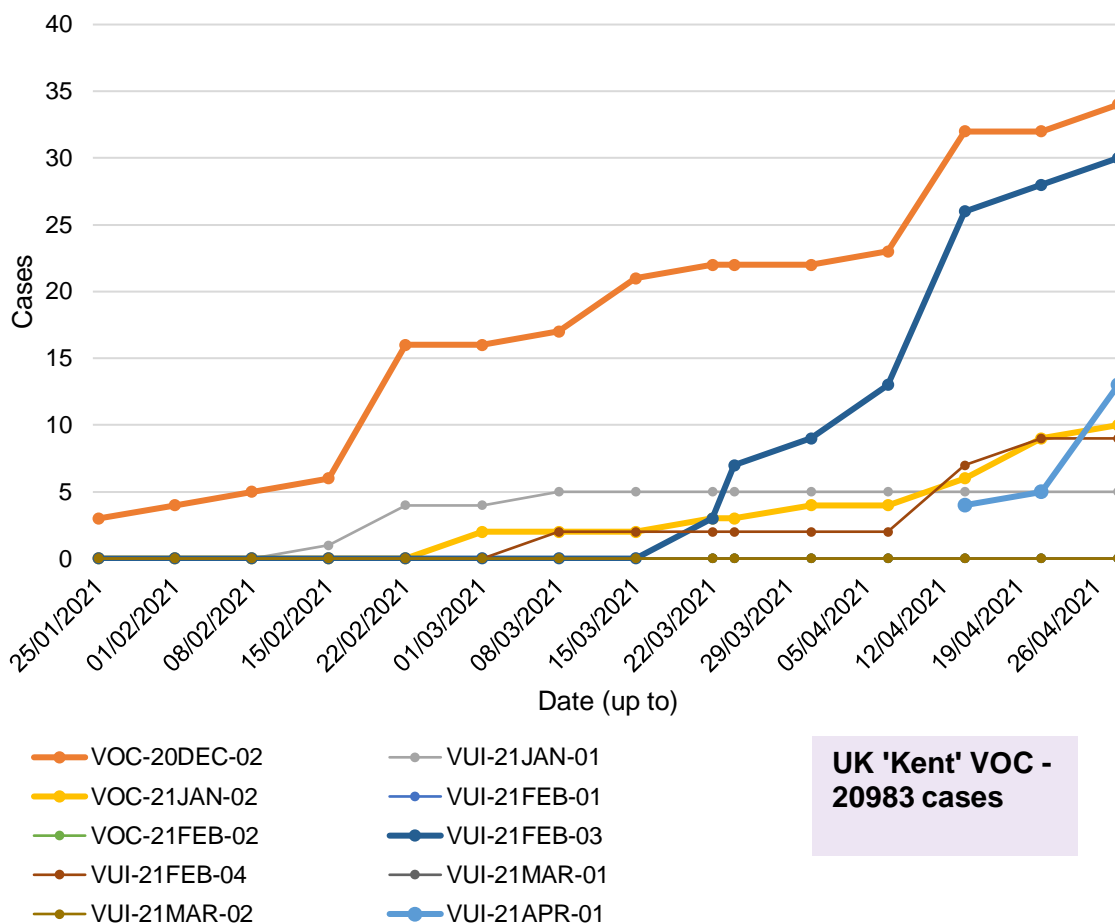
¹⁶ Investigation of novel SARS-CoV-2 variant - Variant of Concern 202012/01 (publishing.service.gov.uk)

¹⁷ S1095 NERVTAG update note on B.1.1.7 severity 20210211.pdf (publishing.service.gov.uk)

¹⁸ Variants: distribution of cases data - GOV.UK (www.gov.uk)

There have been 10 confirmed cases of the variant VOC-21JAN-02 (first identified from Brazil) which is an increase of 1 since last week. There have also been a number of cases of other variants, which are currently under investigation, including 30 cases of VUI-21FEB-03 (first seen in Nigeria) (up 2 from last week) and 13 cases of VUI-21APR-01 (first identified in India), an increase of 8 in the past week. There is some concern, that some of these new variants may partially escape immunity, from both natural infection and from vaccines currently being deployed, and we are monitoring the evidence on this^{19 20 21}.

Figure 10. Variants detected in Scotland by sequencing (data up to 28 April and reported weekly²²)



¹⁹ [Brief note on SARS-CoV-2 variants \(publishing.service.gov.uk\)](https://publishing.service.gov.uk)
²⁰ [Brief note on SARS-CoV-2 B.1.351 - 27 January 2021 \(publishing.service.gov.uk\)](https://publishing.service.gov.uk)
²¹ [Brief note on SARS-CoV-2 variant of concern P.1 \(publishing.service.gov.uk\)](https://publishing.service.gov.uk)
²² [Variants: distribution of cases data - GOV.UK \(www.gov.uk\)](http://www.gov.uk)

Next steps

The Scottish Government continues to work closely with Public Health Scotland to monitor the course of the epidemic using several data sources. Each week this report will provide an overview of current COVID-19 situation in Scotland. This will include real time data on case rates, hospitalisations and deaths and how Scotland's figures compare to those from the rest of the UK. Modelling can tell us where the epidemic is likely to be heading. Local data and data by age group can highlight where problems arise, which can help in addressing some of these issues. In the coming weeks the roll out of the vaccine will continue to be monitored along with the impact of this on case rates and deaths among different age cohorts. Investigations are ongoing by NERVTAG, SPI-M, SAGE, Public Health England and Public Health Scotland regarding the impact of new variants and of vaccination, this will be reflected here as work is undertaken.

This publication will be available in accessible HTML on the [gov.scot](http://www.gov.scot) website

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