

Coronavirus (COVID-19): Analysis

State of the Epidemic in Scotland (26th February 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 25 February 2021 on COVID-19 in Scotland. This updates the previous publication published on 19 February 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 below 1, (i.e. between 0.7 and 0.9).

¹ Scottish Government: [State+of+the+epidemic+report+-+19th+February+2021.pdf](https://www.gov.scot/publications/state-of-the-epidemic-report-19th-february-2021/pdf) (www.gov.scot)

- An average of 779 cases were reported per day in the 7 days to 25 February, which is a 6% decrease in reported cases since the 18 February.
- There were 102 weekly cases per 100,000 in the week to 22 February. This is similar to last week suggesting the decline in the weekly case rate, since the stay at home measures were introduced, is now slowing.
- Cases and deaths are declining the most in the over 80s suggesting an impact from vaccination in this age group.
- The estimated proportion of people infected remains below England, Northern Ireland and Wales as determined through the weekly ONS survey.
- Latest modelled estimates suggest there are currently between 700 and 2,000 people being infected each day.
- Average daily deaths are level with England and higher than those reported for Wales and Northern Ireland.
- Falkirk currently has the highest weekly case rate in Scotland reporting over 200 cases per 100,000 in the last week, while the Orkney and Shetland Islands have reported no cases this week.
- At a national level hospital bed and ICU occupancy are also projected to continue to fall over the next few weeks, but with the potential to plateau if infection numbers rise.
- Over 1.5 million people in Scotland have now been vaccinated against SARS-CoV-2 including 97.6% of all care home residents, with the initial target for older care home residents having been surpassed.
- The current UK variant of concern has been increasing its share of confirmed cases since it was first detected in Scotland in mid-December and is now the dominant strain.

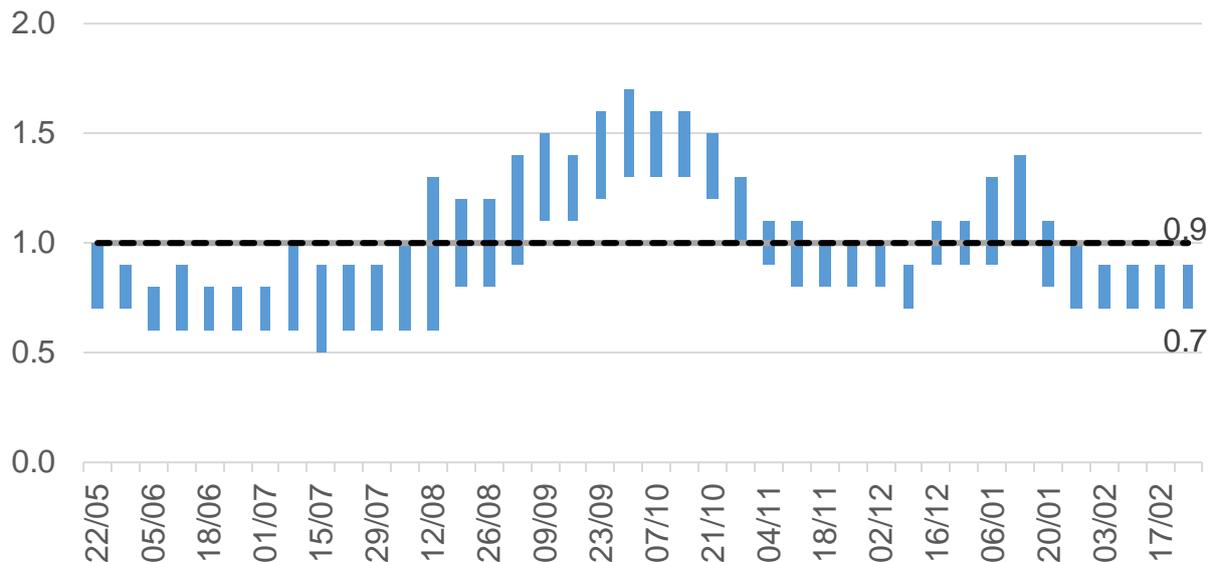
Method

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 You Gov polling surveys.

The national picture

The latest R value for Scotland (published on 25 February)² has remained the same as the previous three weeks and was between 0.7 and 0.9 (Figure 1), with a growth rate of between -5% and -2% .

Figure 1. R in Scotland over time



Since they were introduced in early January at a national level we have seen the impact of stay at home measures in reducing the level of SARS-CoV-2 in Scotland. However, in the last fortnight there has been a levelling off in the average number of cases reported daily. An average of 779 cases were reported per day in the 7 days to 25 February³, which is a 6% decrease in reported cases since the 18th February³. Average daily cases reported have reduced by two thirds since the peak of 2,323 in the week to 7 January. Our current position is 102 weekly cases per 100,000⁴ in the week to 22 February⁵. This compares to 302 weekly cases per 100,000 on 8 January and is now similar to the weekly case rate observed at the beginning of December (see Figure 2). Test positivity has decreased since stay at home

² Scottish Government:

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

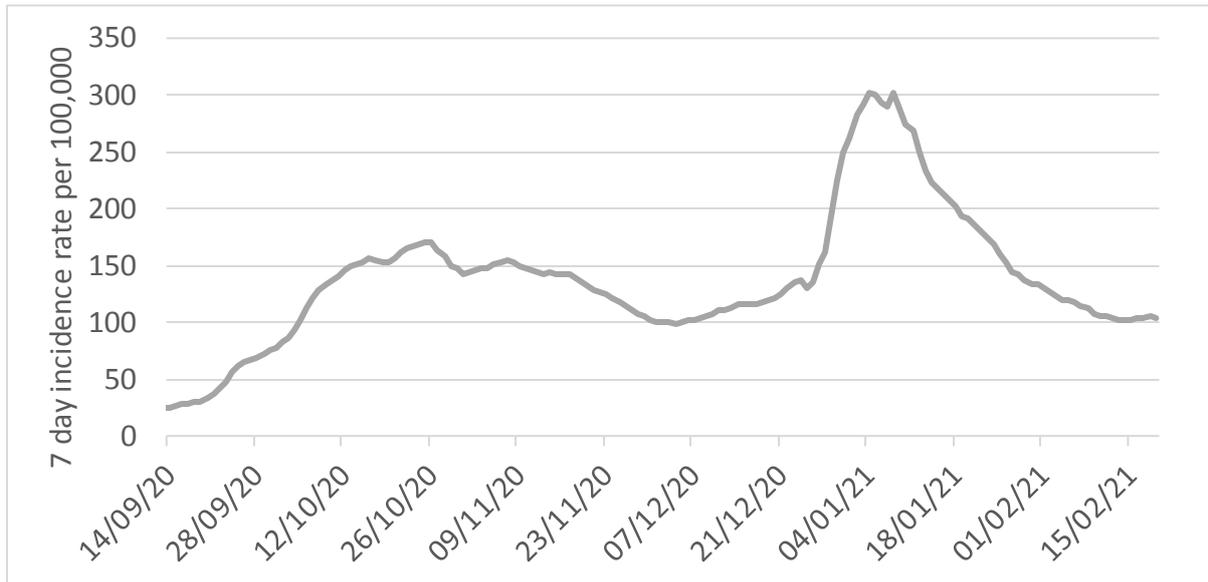
³ Scottish Government: <https://www.gov.scot/publications/coronavirus-covid-19-daily-data-for-scotland/>

⁴ The incidence rate of diagnosed infection is defined as the number of newly reported, laboratory confirmed cases of SARS - CoV-2 per 100,000 population.

⁵ Public Health Scotland Covid dashboard: https://public.tableau.com/profile/phs.covid.19#!/vizhome/COVID-19DailyDashboard_15960160643010/Overview

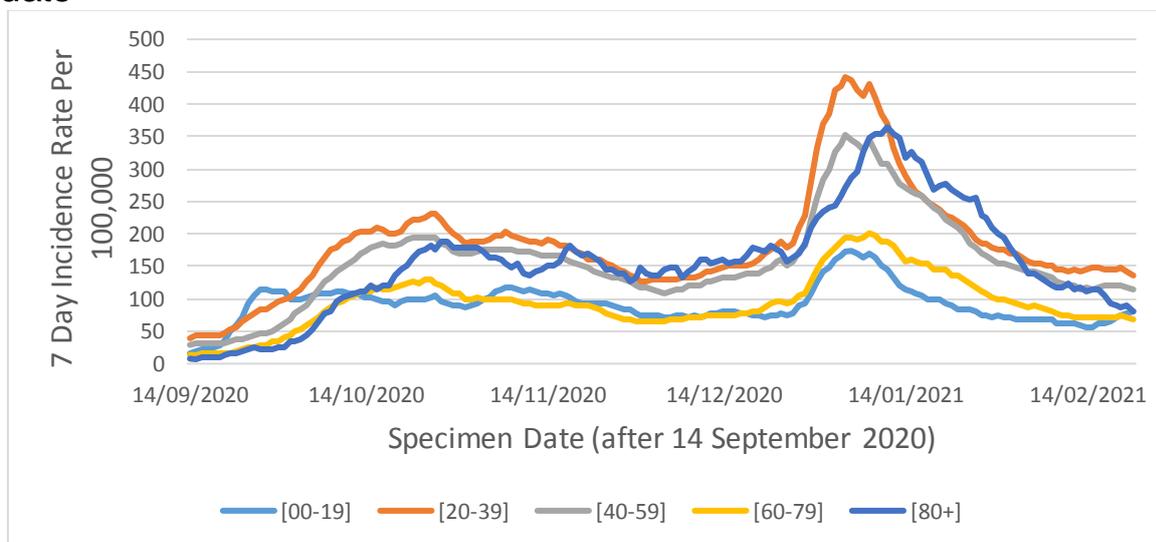
measures were introduced, and is now at 4.9% on average over the past week (to 22 February)⁶.

Figure 2. Seven day incidence rate for Scotland



Two weeks ago we saw a sharp decline in the incidence rate in the over 80s, and there has been a further drop in cases in this age group this week. A slight increase has been observed in those under 20 years old, which coincides with the partial return to school and resulting increased testing for this age group. Case rates have levelled off in other age groups this week (Figure 3).

Figure 3. Seven day incidence rate⁴ in Scotland by age group by specimen date⁷



⁶ Scottish Government: <https://www.gov.scot/publications/coronavirus-covid-19-trends-in-daily-data/>

⁷ Source: Public Health Scotland

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 anywhere between 700 and 2,000 people infected in Scotland each day². This means that as of 24 February there were between 13 and 37 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 25 February there were 967 patients in hospital with COVID-19. In addition, there was a fall in daily hospital admissions for people with Covid from a peak of 240 on 11 January to 65 on 18 February⁸.

There were 290 deaths registered where Covid was mentioned on the death certificate in the week to 21st February. This is a 11% decrease on the week before (325 deaths), and 56% lower than the peak in April (662 deaths). The proportion of deaths in care home has been gradually decreasing from 36% since mid-December to 12% of total deaths in the week to 21st February. Deaths involving coronavirus have declined most in those aged 85+ and have gone down by 47% over the 3 weeks to 21 February⁹.

How Scotland compares with the rest of the UK

The recent ONS survey estimates that proportion of the population infected in the community in Scotland (0.45% people currently testing positive for Covid on 13 – 19 Feb) is below England (0.69%), Wales (0.48%) and Northern Ireland (0.52%). In the week to the 19th February the estimated rate of community infection was 1 in 225 people in Scotland, compared to 1 in 145 for England, 1 in 205 for Wales and 1 in 195 for Northern Ireland¹⁰. Average daily deaths in Scotland (0.6 per 100,000 in the week to 24 February) are above Northern Ireland (0.2 per 100,000) and Wales (0.4 per 100,000), and in line with England (0.6 per 100,000).

⁸ Public Health Scotland weekly trends dashboard: <https://beta.isdscotland.org/find-publications-and-data/population-health/covid-19/covid-19-statistical-report/27-january-2021/dashboard/>

⁹NRS Scotland: <https://www.nrsotland.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>

¹⁰ Office for National Statistics:

<https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/bulletins/coronaviruscovid19infectionsurvey/pilot/previousReleases>

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 Covid. From this survey we can say that interactions decreased from the level observed before the festive period and has remained low throughout January and February (currently 3.1 average daily contacts)².

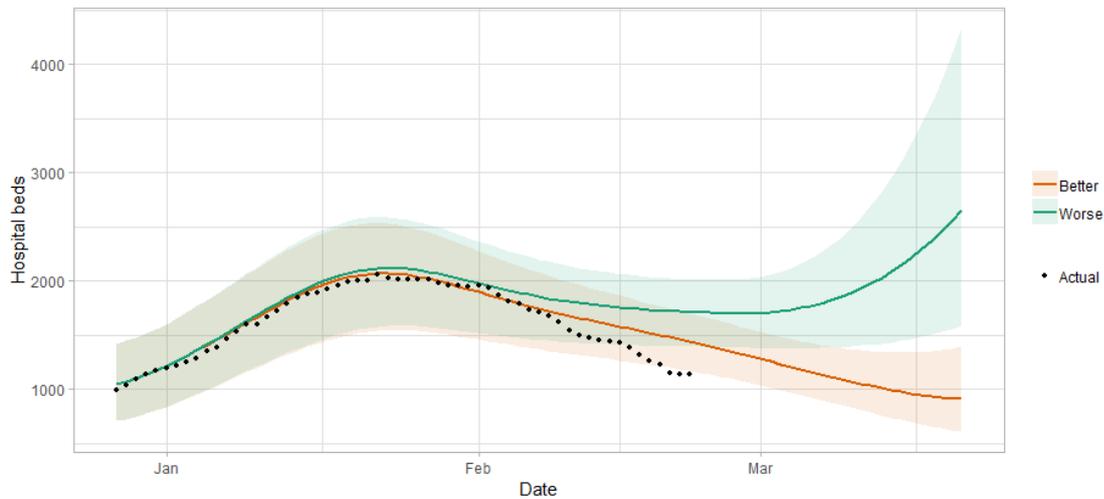
In the last two weeks increases in interactions have been reported for those under 18 with the 18-29 age group and those over 70 with the 50-59 age group. Those aged over 60 have also shown a recent increase in contacts, with those aged over 70 increasing by 20%. We are looking into whether some of these increases are due to changes in behaviour following vaccination.

There is high level of reported compliance with the Stay at Home regulations that came into effect on 5 January. On 23-25 Feb, 79% of people reported 'complete' or 'almost complete' compliance, and this number has been consistently high since the beginning of the year¹¹.

Looking ahead at the hospital and ICU capacity we see that Hospital bed and ICU occupancy are projected to continue to fall over the next few weeks, but with the potential to plateau if infection numbers rise (Figure 5)².

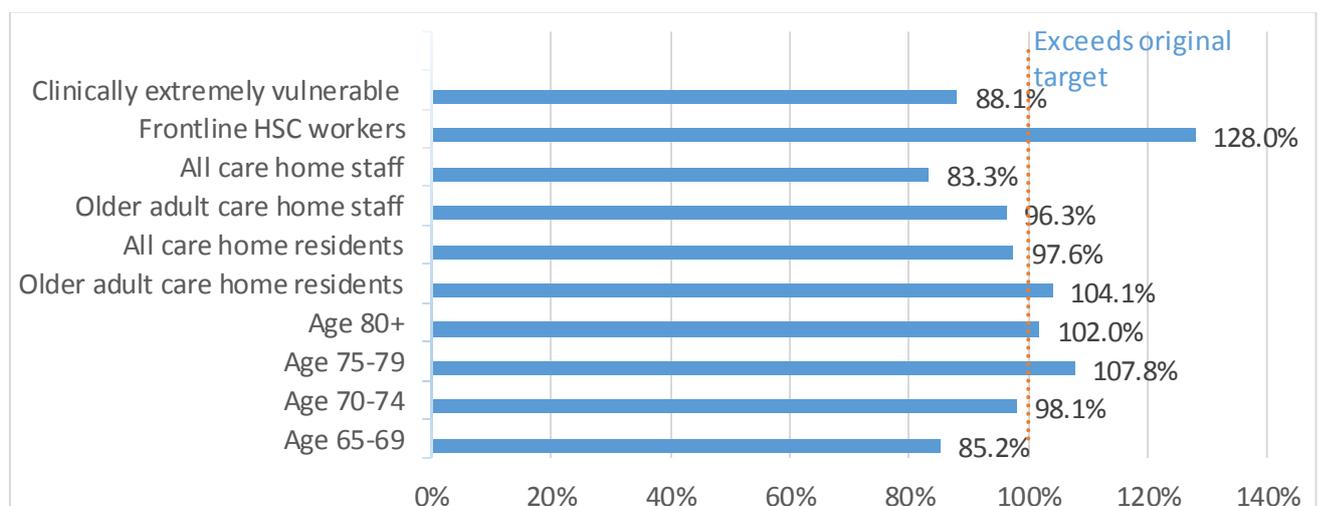
¹¹ Results are taken from questions run on behalf of Scottish Government on the YouGov online omnibus survey. The sample is demographically and geographically representative of adults 18+ across Scotland, with c.1000 responses each week. Total sample size on 23-25 February was 1000 adults. 'Complete' or 'almost complete' compliance refers to respondents who rated themselves 6 or 7 on a scale of 0-7 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 5. Medium term projections of modelled hospital bed demand, from Scottish Government modelling.



Vaccinations are continuing across the priority groups. The first vaccines were administered on Tuesday 8 of December and 1,515,980 had received their first dose by 25 February 2021, a 12% increase from the 18 February⁶. By the 25 of February over 31,000 residents in older adult care homes had received their first vaccination along with 96% of older adult care home staff (Figure 6). Over 275,000 individuals aged 80 or over had received their first vaccination. It is anticipated that vaccination will reduce infection levels in the most vulnerable in the coming weeks and months. There are now indications of decreasing case rates and deaths among those groups vaccinated first.

Figure 6. Estimated percentage of priority groups vaccinated by 25 February 2021



The proportion of people surveyed who said they would be likely to be vaccinated for COVID-19 remains high. 32% of all respondents have already been vaccinated and of those not yet vaccinated 80% report they are likely to be vaccinated when a vaccine becomes available to them. Of those not yet vaccinated people aged 55+ are more likely to report themselves as likely to receive the vaccine when it becomes available (87% compared with 82% among those aged 35-54 and 73% among those aged 18-34)¹².

How the virus is changing

Variant VOC-202012/01 commonly known as the UK variant has been increasing its share of confirmed cases since it was first detected in Scotland in mid-December and is now the dominant strain¹³. This new variant of Covid is more transmissible, however the age and sex distribution appears similar to other variants¹⁴. There is a realistic possibility that infection with VOC 202012/01 is associated with an increased risk of death compared to infection with non-VOC viruses¹⁵.

Other variants of concern (VOCs) are being monitored, to date there are four VOCs and three variants under investigation. Up to 24 February, there have been 16 confirmed cases and 1 probable case of the Variant VOC-202012/02 (first seen in South Africa) detected in Scotland, and four cases of Variant VUI-202101/01 (first seen in Brazil)¹⁶. There is some concern, mainly based on laboratory analysis that these variants may partially escape immunity, from both natural infection and from vaccines currently being deployed, and we are monitoring the evidence on this¹⁷.

¹² Total sample size on 23-25 February was 1000 adults. Sample size for those not yet vaccinated was 644 adults (220 18-34, 262 32-54, 162 55+). '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')

¹³ Public Health Scotland: <https://beta.isds.scotland.org/find-publications-and-data/population-health/covid-19/covid-19-statistical-report/9-september-2020/dashboard/>

¹⁴ [Investigation of novel SARS-CoV-2 variant - Variant of Concern 202012/01 \(publishing.service.gov.uk\)](https://www.gov.uk/government/publications/investigation-of-novel-sars-cov-2-variant-variant-of-concern-20201201)

¹⁵ [NERVTAG paper on COVID-19 variant of concern B.1.1.7 \(publishing.service.gov.uk\)](https://www.gov.uk/government/publications/nervtag-paper-on-covid-19-variant-of-concern-b.1.1.7)

¹⁶ [Variants: distribution of cases data - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/datasets/variants-distribution-of-cases-data)

¹⁷ [Brief note on SARS-CoV-2 variants \(publishing.service.gov.uk\)](https://www.gov.uk/government/publications/brief-note-on-sars-cov-2-variants)

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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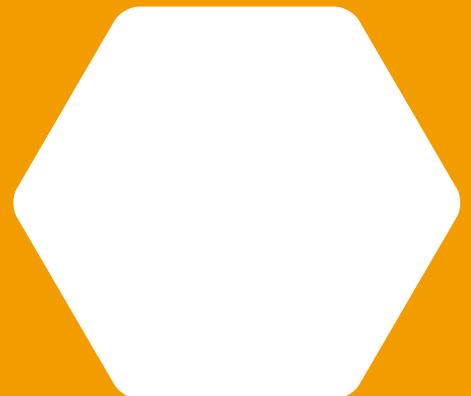
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