

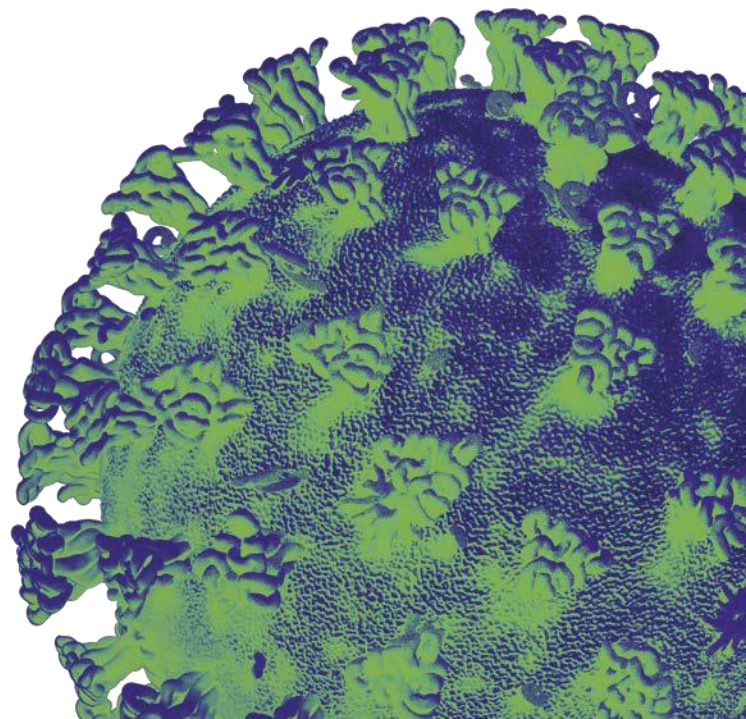
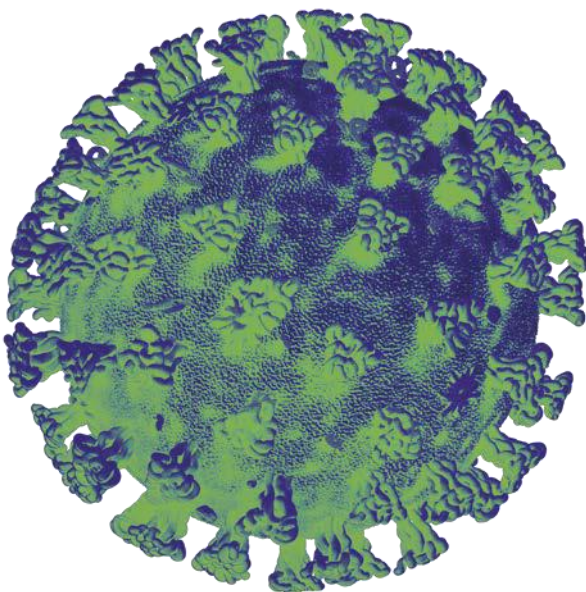
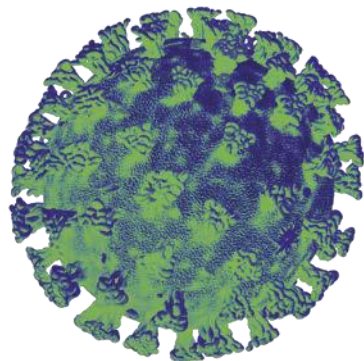


Llywodraeth Cymru
Welsh Government

Technical Advisory Cell

Summary of advice

22 February 2021



Technical Advisory Cell: Summary Brief

22 February 2021

- The presence of the virus in Wales during the second wave continues to decline (high confidence). The most recent estimate of the reproduction number (R_t) for Wales from SAGE is between 0.6 and 0.9. Testing data from Public Health Wales and the Office for National Statistics (ONS) [COVID-19 infection survey](#), indicate that the positivity rate in Wales has decreased in the most recent week.
- There are at least two SAR-COV-2 Variants of Concern (VOC) present in Wales. As of 17 February, there were 2,631 genomically sequenced confirmed or probable cases of VOC 202012/01 (the “Kent variant”, first identified in the UK) in Wales. There were 17 confirmed or probable cases of VOC 202012/01 (the variant linked to South Africa) and no cases of the variants linked to Brazil had yet been identified in Wales.
- When considering data collected from symptomatic and asymptomatic children, it is very likely that the number of children who had COVID-19 declined over the first six weeks of 2021 (high confidence). It will be important to monitor trends in the coming weeks as more children return to school this week. An updated summary of SAGE papers relevant to children is available later in this brief.
- Modelling forecasts from TAG and [SPI-M](#) show that vaccination alone will not be sufficient to control the epidemic unless vaccine effectiveness and coverage is very high.
- Adding to evidence from healthcare workers in Israel¹ and the UK², [early evidence from Public Health England](#) suggests a greater than 50% reduction in symptomatic cases in older vaccinees, including those in care homes, from around 3 weeks after the first dose of Pfizer vaccine. Cases that do occur in older vaccinated people are shown to be around as half as likely to lead to hospitalisation and/or death. Further [preliminary data](#) from a cohort study of 5.4 million people in Scotland suggests that a single dose of the Pfizer and Oxford-AstraZeneca vaccines resulted in substantial reductions in the risk of COVID-19 related hospitalisation.

¹ Amit S, Regev-Yochay G, Afek A, Kreiss Y, Leshem E. Early rate reductions of SARS-CoV-2 infection and COVID 19 in BNT162b2 vaccine recipients. Lancet 2021, [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(21\)004487/fulltext#:~:text=All%20HCWs%2C%20excluding%20those%20with,2%E2%80%93937%20after%20dose%20two](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(21)004487/fulltext#:~:text=All%20HCWs%2C%20excluding%20those%20with,2%E2%80%93937%20after%20dose%20two).

² Hall V, Foulkes S, Saei A, et al. Effectiveness of BNT162b2 mRNA vaccine against infection and COVID-19 vaccine coverage in healthcare workers in England, multicentre prospective cohort study (the SIREN study). https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3790399

- There is an ongoing need to monitor vaccine uptake and coverage. Whilst numbers will be higher due to ongoing data entry, a total of 839,065 first doses of COVID-19 vaccine have been given in Wales, with 25,433 people having received two doses (as at 18 February). Vaccine refusals appear to be low, however evidence is limited at present.
- Survey data suggests greater vaccine hesitancy in younger adults, people with fewer qualifications, people living in more deprived areas and some ethnic minority groups. The reasons for refusals or hesitancy are complex and varied, including distrust in vaccines, potential side effects and perceived low benefits.
- [Public Health Wales](#) has reported emerging inequalities in COVID-19 vaccine coverage with lower coverage in groups at increased risk of severe COVID-19 outcomes, including minority ethnic groups and those living in more deprived areas. The reasons for these differences may relate to individual, community or service characteristics.
- Identifying both the likely effectiveness of the vaccine and areas of inequality present an opportunity to address the challenges for groups who may be otherwise disproportionately impacted as restrictions are relaxed.
- As of 19 February, hospital occupancy and ICU occupancy continues to decrease, but remains high. COVID-19 ICU admissions have been stable at between 2 and 3 per day since 5 February. The number of people recovering from COVID-19 is still at around 1,000 in the most recent week.
- Deaths reported through Public Health Wales rapid surveillance have decreased, but remain high at around 125 deaths per week. Deaths reported by ONS (as of 12 February), which lag rapid surveillance but are more complete, are around 216 per week, decreasing from 314 in the previous week.
- Papers from SAGE considered by the Technical Advisory Cell are published [here](#). The Technical Advisory Group published an [evidence paper on the environmental risks associated with weddings](#).

Updates from SAGE

Exit scenarios and easing restrictions

- SPI-M-O modelling papers and notes from SAGE 81 (18 February 2021) are summarised below and published in full [here](#).
- As highlighted by SPI-M-O, “a minimum of three weeks after lifting one set of restrictions is needed to determine whether it is safe to take the next step. The

lower the prevalence when a relaxation step is taken, the more capacity and time there would be to respond if it appears that relaxation of measures is leading to an unsustainable rise in hospital admissions.”

- Consistent with previous modelling, additional modelled scenarios show an epidemic resurgence which results in a substantial number of hospital admissions and deaths, though there are differences in the scale and timing (high confidence).
- The models suggest that allowing additional indoor mixing when prevalence is higher and fewer people have been vaccinated would result in significantly higher numbers of infections. If further mixing were to be allowed, risk would be reduced if the mixing were limited to exclusive bubbles.
- As previously advised, given uncertainties about the scale and timing of resurgence, decisions about changes to restrictions are best made based on epidemiological data rather than based on predetermined dates. Retaining a baseline set of policies to reduce transmission after restrictions have been lifted would reduce the scale of a resurgence (high confidence). Some of these policies are likely to be needed in the longer term.
- There will continue to be heterogeneity in the epidemic and therefore it is important for careful monitor to continue at a local level.

Antibody prevalence in close-knit communities

- Very high levels of seroprevalence shown in a study in a UK strictly-Orthodox Jewish population show that where transmission is not well-controlled, a very high proportion of the population can become infected. This is consistent with findings from some university halls of residence and care homes in the UK, as well as some international evidence.

Growth rate and Reproduction number

- The Reproduction number (R_t) is the average number of secondary infections produced by a single infected individual. R_t is an average value over time, geographies, and communities. This should be considered when interpreting the R_t estimate for the UK given the differences in policies across the four nations. The estimate of R_t is shown as a range (90 or 95% confidence intervals) without a central estimate and is a lagging indicator.

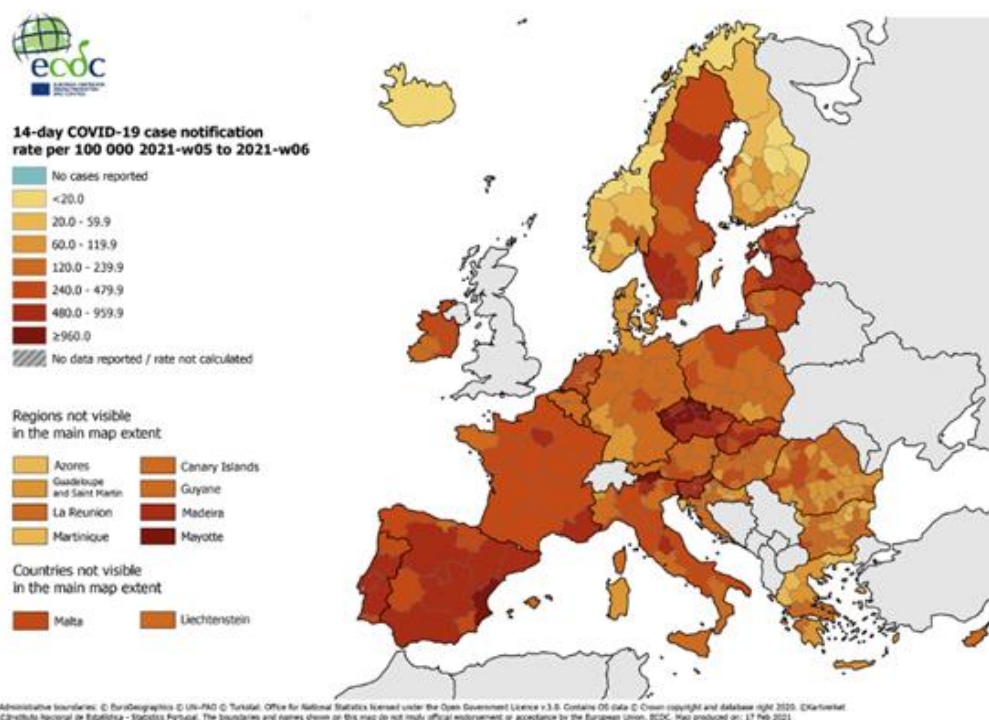
- The most recent estimate of the R_t for Wales from SAGE (as approved on 18 February) is predicted to be between 0.6 and 0.9 (90% confidence interval), based on the latest data available up to 15 February.
- Growth rate reflects how quickly the numbers of infections are changing day by day. It is an approximation of the percentage change in the number of infections each day. Growth rate is also a lagging indicator and shown as a range (90 or 95% confidence intervals) without a central estimate.
- The current daily growth rate estimated by SAGE (as approved on 18 February) is between -0.06 and -0.03 (90% confidence interval) in Wales, indicating that infections could be shrinking by between -6% and -3% per day.
- Public Health Wales also estimate R_t for Wales using data on the number of positive cases only. These figures should be interpreted with caution as the number of positive cases detected can be a reflection of the amount of testing. It is assumed there is no change in testing patterns for the duration of these estimates. As at 12 February, R_t (95% confidence interval) in Wales is estimated to be 0.8 (0.8 to 0.8).
- Care should still be taken when interpreting R_t and growth rate estimates for the UK, due to their inherently lagged nature, testing availability and, as these figures mask variation in the number of infections, how rates of transmission are changing in some parts of the country.

Halving time

- As at 16 February, Public Health Wales estimated the halving time (the time it takes for the number of cases to half) to be 27 days, using data from 30/01/2021 to 12/02/2021 (see Figure below). The 95% confidence interval for this estimate is between a halving time of 14 days and a doubling time of 706 days. It should be noted that as the growth rate of cases tends to zero, the estimates of doubling times tends to infinity.
- Halving time (and R_t and growth rates), gives an indication of the rate of change and therefore it should be treated with caution for the reasons outlined above.

International update

- The map below shows the 14-day average notification rate per 100,000 people in Europe. The UK is not included following the UK's departure from the European Union.



- Cases continue to decrease across Europe and the world, but hospital occupancy is still high in Europe. This decrease is due to continued restrictions rather than vaccine roll out even though preliminary findings in Israel are promising with over 30% of their population fully vaccinated. The next nearest to Israel is America with almost 5% fully vaccinated.
- Variant of Concern (VOC) 202012/01, first identified in the UK, is now verified in 88 countries, up from 83 last week.
- The European Centre for Disease Control and Prevention (ECDC) highlights that while a number of European countries have been reporting an overall decrease in the incidence of COVID-19, likely due to a strong combination of public health and social measures, the majority of countries in Europe continue to experience high or increasing notification rates among older age groups and/or high death rates. Moreover, among samples tested in Europe by PCR-based screening and whole genome sequencing, the proportion of cases infected with VOC 202012/01 has increased in the past weeks, indicating community transmission in a number of countries.³
- VOC 202012/02 (first identified in South Africa) has been verified in 37 countries. This has not changed from last week, however 9 countries are under investigation which is 2 up on last week. VOC B.1.351 has now been reported from in a total 46 countries, across all six World Health Organisation (WHO)

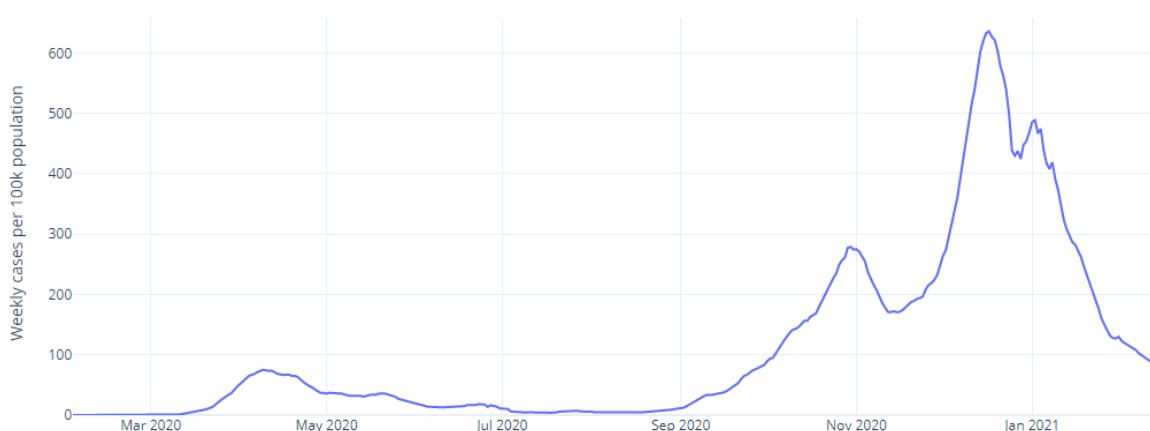
³ European Centre for Disease Prevention and Control, Risk assessment on COVID-19, 15 February 2021.
Available at : <https://www.ecdc.europa.eu/en/current-risk-assessment-novel-coronavirus-situation>

regions. Local transmission has been reported in at least 12 countries across four WHO regions.

- Data on the picture across Europe, including caveats around data lags and variable testing policies is available [here](#).

Case numbers

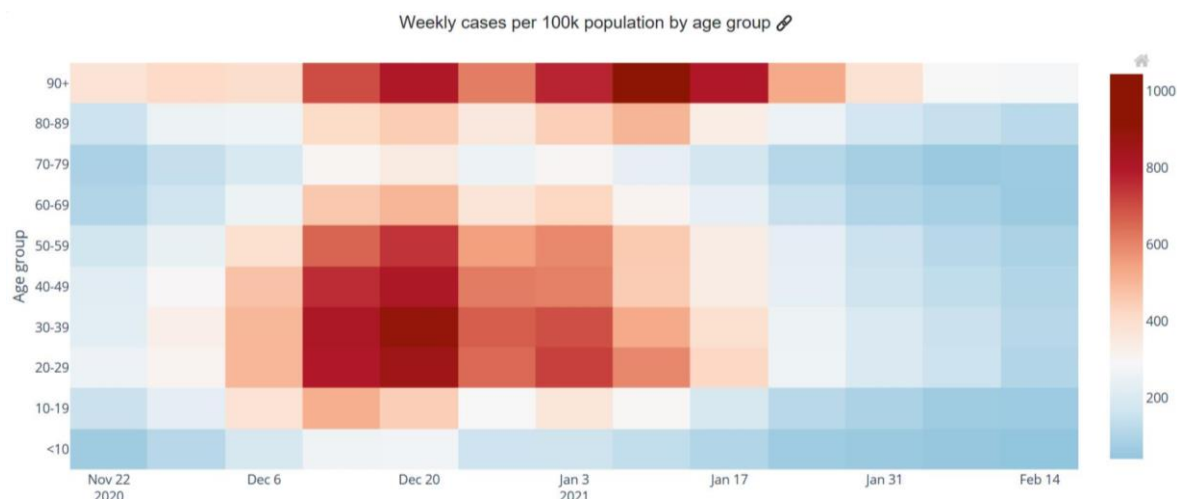
- The figure below shows that numbers of confirmed COVID-19 cases per day (7 day rolling sum, per 100,000 of the population). Cases continue to show a downward trend.



Source: Data from Public Health Wales as of 15 February

Age profile

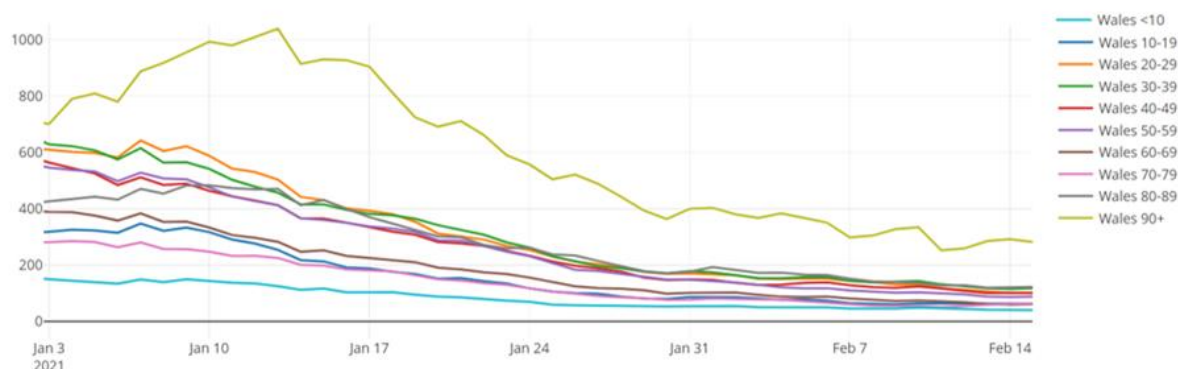
- The Figure below shows the number of confirmed COVID-19 episodes per 100,000 population, by week of sample collection and age group. The darker red indicates an increased number of weekly cases.
- According to Public Health Wales, during week 06, incidence decreased in most age groups, with the exception of those aged 65-84 years where incidence was stable. Incidence was highest in those aged 85+.



Source: Welsh Government dashboard, data from Public Health Wales as at 19 February.

Rates and estimates of coronavirus cases among children in Wales during early 2021

- Confirmed case rates among children in Wales reduced during January 2021, as they did for most other age groups, and have continued to decline slightly in the first two weeks of February 2021. See Figure below for the number of cases by age category (shown by the different coloured lines), per 100k population, over the first six weeks of 2021.



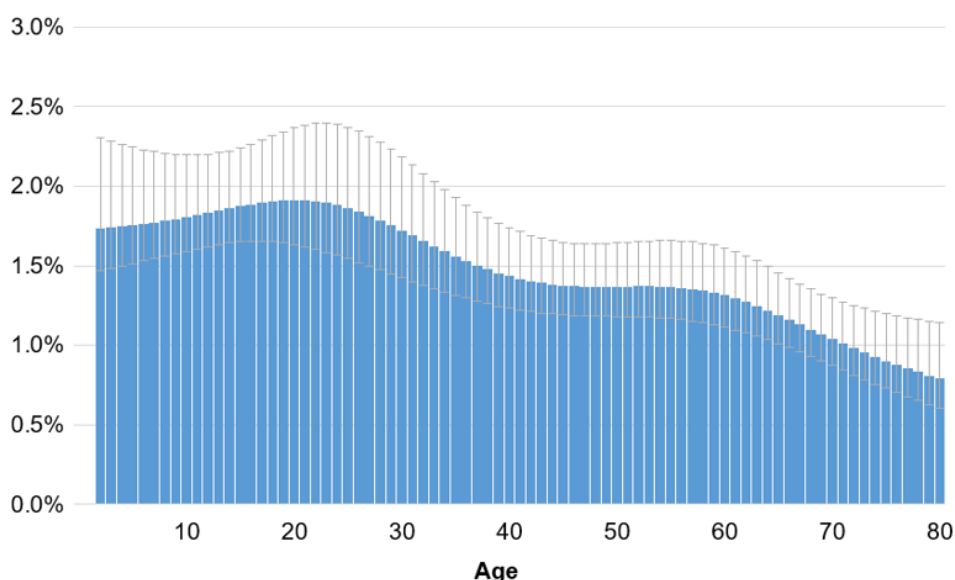
Source: Welsh Government dashboard, data from Public Health Wales as at 15 February.

- As can be seen from the figure above confirmed case rates have generally been lower in 10-19 year olds, and particularly in 0-9 year olds, than in most other age groups during this period, although as rates have come down overall there is now less of a difference between rates in most age groups.
- PHW's published weekly schools report gives a more detailed breakdown of confirmed case rates for children and young adults for the period to 17 February

2021 (at figure 5, page 8).⁴ The confirmed case rates reflect testing of symptomatic cases.

- The ONS have also begun since 12 February to publish modelled estimates in recent weeks of the percentage of the population in Wales that would have tested positive for coronavirus, by age.⁵ The ONS Coronavirus (COVID-19) Infection Survey data is used to estimate both symptomatic and asymptomatic cases.
- The ONS estimates suggest that the percentage of positive cases among children on 13 January was likely to have been relatively high compared to some other age groups (although the 95% credible intervals overlap for most age categories). See Figure below.

Estimates of the percentage of the population in Wales testing positive for the coronavirus (COVID-19) by age on 13 January 2021



Source: Coronavirus (COVID-19) Infection Survey, ONS

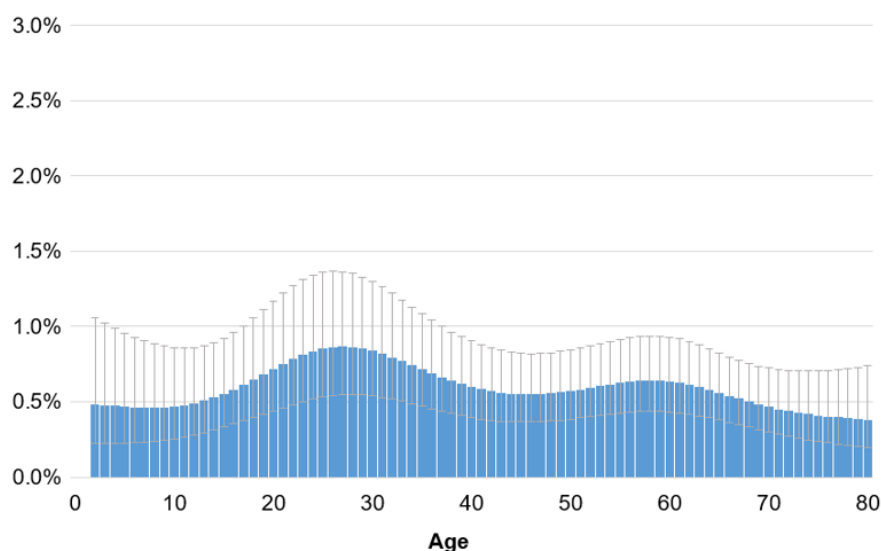
The blue bars give point estimates and the vertical lines indicate the 95% credible intervals. Modelled estimates shown for single years of age (aged 2 to 80) on 13 January 2021.

- However the ONS estimates also indicate that the percentage of positive cases would have fallen in all age groups between 13 January and 9 February 2021 including in children. See Figure below.

⁴[http://www2.nphs.wales.nhs.uk:8080/CommunitySurveillanceDocs.nsf/3dc04669c9e1eaa880257062003b246b/4fca746dd30ee1cb8025861700309039/\\$FILE/Weekly%20COVID-19%20schools%20report.pdf](http://www2.nphs.wales.nhs.uk:8080/CommunitySurveillanceDocs.nsf/3dc04669c9e1eaa880257062003b246b/4fca746dd30ee1cb8025861700309039/$FILE/Weekly%20COVID-19%20schools%20report.pdf)

⁵<https://gov.wales/coronavirus-covid-19-infection-survey-6-12-february-2021-html>

Estimates of the percentage of the population in Wales testing positive for the coronavirus (COVID-19) by age on 9 February 2021

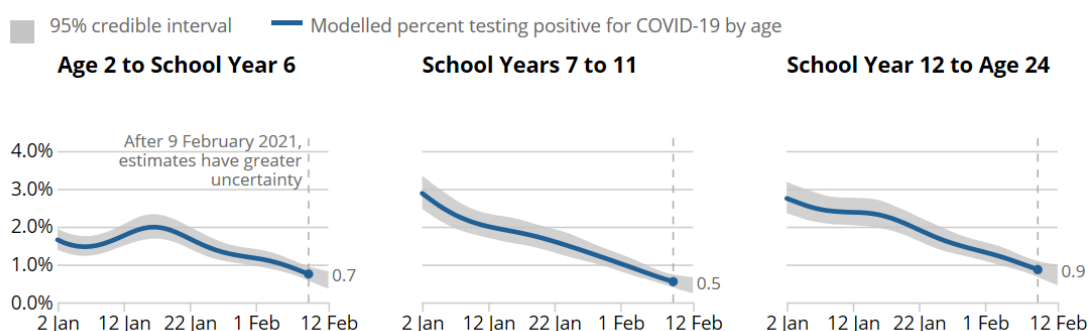


Source: Coronavirus (COVID-19) Infection Survey, ONS

The blue bars give point estimates and the vertical lines indicate the 95% credible intervals. Modelled estimates shown for single years of age (aged 2 to 80) on 9 February 2021.

- The ONS modelled estimates for age groups in Wales cannot be directly compared with the ONS age analysis of the number of people who have had COVID-19 in England for the same period, as a different approach has been used.⁶ However the latest ONS age analysis for England similarly indicates that the percentage of people testing positive in England has declined in all age groups between 2 January 2021 and 12 February 2021, including among primary school age children, secondary school age children and 16 – 24 year olds (see Figure below).

Estimated percentage of the population testing positive for the coronavirus (COVID-19) on nose and throat swabs, daily, by age group since 2 January 2021, England



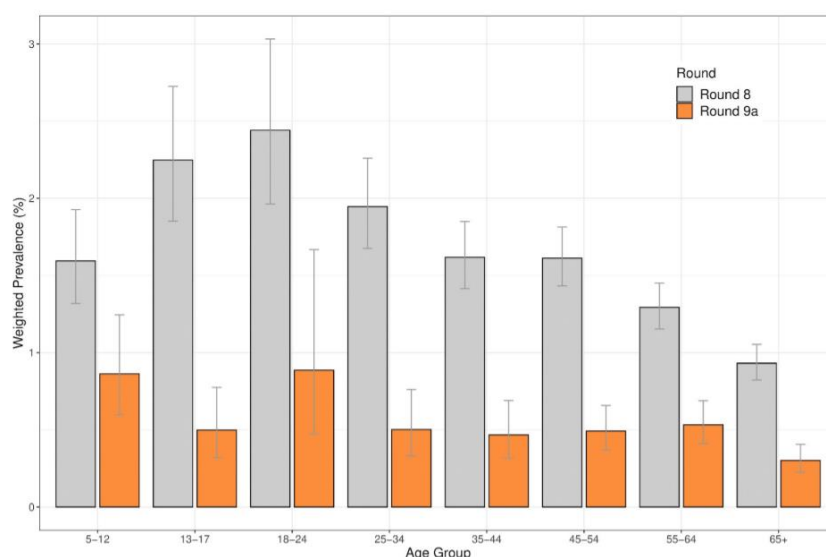
Source: Coronavirus (COVID-19) Infection Survey, ONS⁷

⁶ They can however be directly compared with modelled estimates for [Northern Ireland](#) and [Scotland](#).

⁷ <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/bulletins/coronaviruscovid19infectionsurveys/pilot/19february2021#age-analysis-of-the-number-of-people-who-had-covid-19-in-england>

- The latest interim publication of [REACT](#) data for England, another survey which seeks to estimate both symptomatic and asymptomatic cases, similarly estimates that prevalence of COVID-19 infections fell among all age groups between round 8 (covering 6-22 January 2021), and round 9a (covering 4-13 February 2021). See Figure below.

Weighted prevalence of swab-positivity by age groups for rounds 8 and 9a. Bars show 95% confidence intervals.



Source: REACT study, Imperial College London, 18 February 2021⁸

- Trends will need to be closely monitored as more children in Wales have begun to return to face-to-face learning this week.

SAGE: Recent evidence on children, schools and transmission

- SAGE has previously provided advice on children, schools and transmission most recently in papers from SAGE meeting 65 on 4 November 2020 and SAGE meetings 73 and 74, on 17 and 22 December 2020.
- During January and February 2021, SAGE considered a number of papers on these topics, which were published on 22 February 2021. Some key points from these papers are summarised below.

⁸ https://spiral.imperial.ac.uk/bitstream/10044/1/86126/2/react1_r9_interim_preprint.pdf (figure 7)

Direct impacts of COVID-19 on children

- As set out in an [update](#) to previous advice, evidence continues to suggest that children are susceptible to COVID-19 infection, with primary aged children being at lower risk of infection than older children (medium confidence). Children and younger people (<19 years) are much less susceptible to severe clinical disease than older people (high confidence).
- There is no change to the assessment that the risk to children is low.
- ONS CIS data suggest that the B.1.1.7 variant (VOC202012/01, the variant first detected in Kent in the UK) leads to higher infection rates, but is not particularly adapted to any age group (medium confidence). There is limited information on the severity of B.1.1.7 infection in children relative to other variants, due to the very small numbers of children affected by severe disease.
- There is ethnicity-specific variation in testing, with children from minority ethnic groups having lower uptake of testing and being more likely to test positive than those from White population groups. Whilst rates are very low, Asian children were more likely to be admitted to hospital and intensive care for COVID-19 than White children and Black and Mixed/other children are more likely to have had longer hospital admissions (medium confidence).

Evidence on transmission in school settings

- The same update set out evidence from multiple Public Health England surveillance and outbreak data sources (which are likely to underestimate asymptomatic cases and transmission, particularly among children) which suggests that the levels of risk of infections and outbreaks in educational settings is strongly associated with community infection rates (weak evidence, low-medium confidence).
- Differences in school settings and structures and the number of mitigations in place influence the potential for transmission. As with other settings, appropriate mitigations such as ventilation, social distancing and handwashing are important in school settings to reduce transmission (high confidence).

Wider impacts of the pandemic on children

- The update also reiterated that there is still clear evidence of the negative educational impact of missing school, particularly for younger children (high confidence); and that the pandemic has had a negative impact on the mental

health of children and young people, with adolescents being particularly affected (high confidence).⁹

Modelling of school re-opening across the UK

- SPI-M's consensus view on [27 January](#), and reaffirmed on [10 February](#), was that the opening of primary and secondary schools is likely to increase effective R by a factor of 1.1 to 1.5 (10% to 50%). This relative impact on R is highly sensitive to assumptions on susceptibility and infectivity by age – particularly any distinction between primary and secondary school-aged children.
- The relative impact on R of schools opening for more on-site learning increases as additional cohorts of children return to school. This largely results from compounding the impact from other groups of pupils who have already returned. Therefore, the risk is not linear and the groups which return latest may have the greatest impact on R.
- The consensus view was based on modelling of exploratory scenarios (which also considered the impact of the ongoing vaccination programme), looking at the position for England or the UK as a whole.¹⁰ SPI-M concluded on 27 January, *“These scenarios suggest that a partial return to school for some pupils **may be possible** next month if R is currently, and remains, below 1 **and** the prevalence of infection and hospital occupancy have demonstrably fallen **and** vaccines are effective against transmission **and** people's behaviours do not become riskier as more of the population is vaccinated.”* SPI-M noted that if changes are made before prevalence and hospital occupancy reach low and sustainable levels, it may risk immediate re-imposition of restrictions.
- In their meeting on 11 February, SAGE also [agreed](#) that reopening schools needs to be considered in the wider context. Opening schools will interact with other NPIs, and affects the activities and behaviours of parents and other adults as well as children. Targeting communications at adults about the risks associated with these changes in behaviour could help people to reduce them.
- At the same time SAGE noted that there are a number of uncertainties in the modelling including the potential network implications of reopening schools, and

⁹ The conclusion, based on the SAGE, SPI-B and UK Government Department for Education paper on the ‘[Benefits of remaining in education](#)’ from 4 November 2020, also took into account a draft [systematic review](#) of the impacts of school closures on the physical and mental health of children and young people, put online in preprint on 12 February 2021.

¹⁰ Some of the modelling has been put online in preprint (CoMix, ‘[The effect of school opening or closure on social contacts in England from the CoMix social contact survey. Report for survey week 43b](#)’ and ‘[Estimating the impact of reopening schools on the reproduction number of SARS-CoV-2 in England, using weekly contact survey data](#)’, last updated 15 February 2021) or on the SAGE webpages (Juniper consortium, ‘[Impact of partial school openings](#)’, 10 February 2021) since the meetings when it was considered took place.

that a phased reopening would allow the effects to be assessed which would be particularly valuable if schools were one of the first things to reopen, as there will be more uncertainties in the early stages of releasing measures (e.g. around the impact of vaccines).

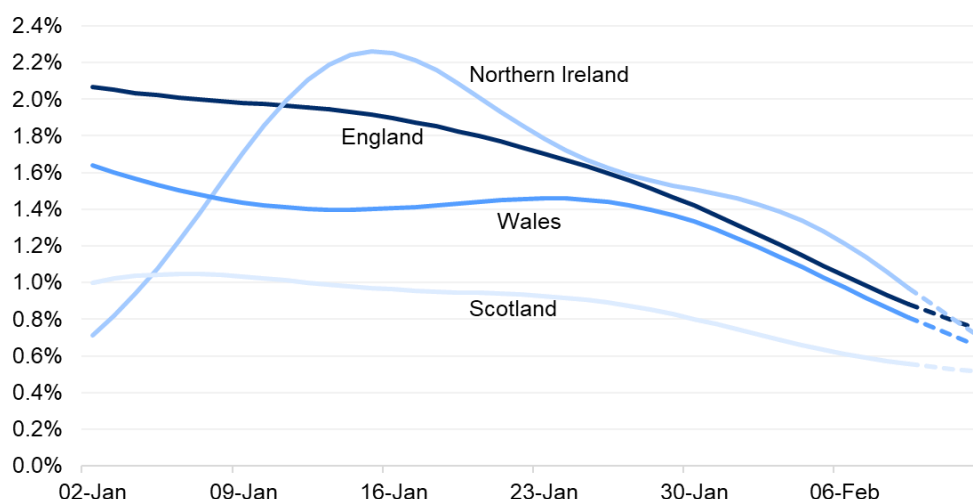
- The full papers discussed at SAGE are available [here](#).

Covid-19 Infection Study results (Office for National Statistics)

- Analysis of data from the ONS infection survey is helpful because it provides the only estimates of infection covering asymptomatic as well as symptomatic cases, and they are not affected by other factors such as testing capacity or the number of people coming forward for testing. The results are for private households only – the ‘community population’ – and do not apply to those in hospitals, care homes or other institutional settings.
- However there is a greater lag in data from the infection survey than from other sources such as Public Health Wales. It is also important to stress the uncertainty around these estimates. Since the survey picks up relatively few positive tests overall, the results can be sensitive to small changes in the number of these positive tests. The sequencing data from Public Health Wales for positive cases may be more robust and less subject to a time lag, even though it generally only includes people who have chosen to be tested.
- Work is underway to understand the current differences between results from the Covid Infection Survey and figures published by PHW.

Estimated positivity

- For the week 6 to 12 February 2021, an average of 0.81% of the [community population](#) had COVID-19 (95% credible interval: 0.66% to 0.97%).
- This equates to approximately 1 person in every 125 (95% credible interval: 1 in 150 to 1 in 105), or 24,600 people during this time (95% credible interval: 20,100 to 29,400).
- The positivity rate in Wales has continued to decrease in the most recent week.
- The Figure below shows the latest estimates for positivity rates (%) since 2 January 2021 across the 4 UK Nations. There is some uncertainty around the individual point estimates for the nations. Estimates for the last few days of the series, shown as dashed lines in the chart below, have more uncertainty.

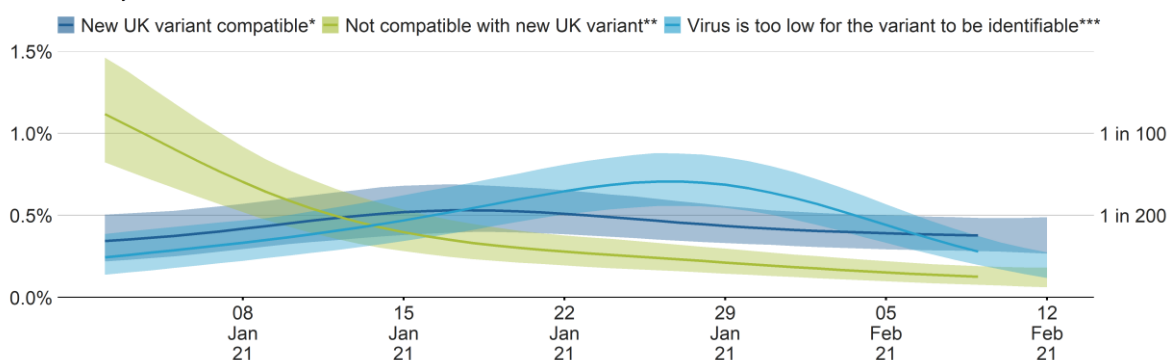


Source: Coronavirus (COVID-19) Infection Survey, ONS, 17/02/21

- In Wales, there were decreases in cases not compatible with the new variant and cases where the virus was too low for the variant to be identifiable. Cases compatible with the new variant, did not decrease in the most recent week. See Figure below.
- Any cases of the South African variant would fall into the 'clearly not compatible with the new UK variant' category, because cases compatible with the South African variant would test positive on all 3 genes.

Percentage of people testing positive for COVID-19 in Wales

Modelled daily estimates



The area to the right of the where the central estimate ends has a lower level of certainty due to lab results still being processed for this period

*New UK variant compatible = gene pattern ORF1ab + N

**Not compatible with new UK variant = gene pattern S + ORF1ab + N

***Virus is too low for the variant to be identifiable = all other gene patterns

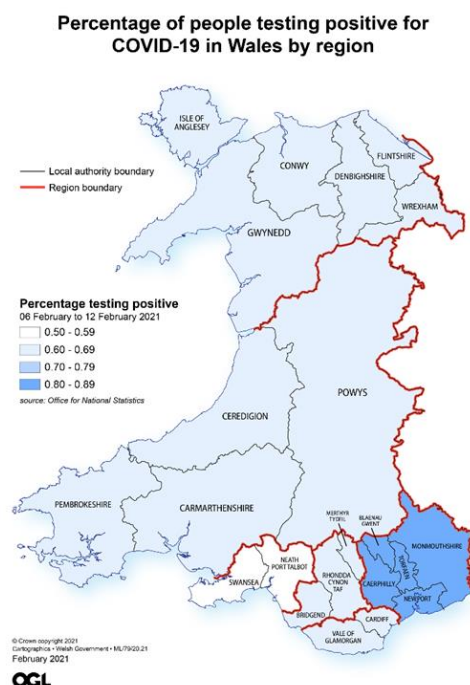
Data from 02 January 2021 to 12 February 2021

Source: Coronavirus Infection Survey, ONS, 17/02/21

- Rates of positive cases vary by age, and appear to have decreased in all age groups in recent weeks.
- See [here](#) for full analysis from the ONS.

Regional analysis:

- For the first time, regional modelled estimates are provided for Wales. Rates of positive cases were highest in Caerphilly; Blaenau Gwent; Torfaen; Monmouthshire and Newport between 6 and 12 February (see map below).



Source: Coronavirus (COVID-19) Infection Survey, ONS

- Due to smaller sample sizes, there is a higher degree of uncertainty in estimates for individual regions

Characteristics for people testing positive

- Early analysis shows that for 25 occupations, the likelihood of testing positive for COVID-19 at some time between 1 September 2020 and 7 January 2021 ranged from 2.1% to 4.8.% and that the different occupations were largely distributed uniformly across this continuum.
- After adjusting for differences across occupations and reported ability to socially distance in the workplace and work from home, there was no statistical evidence of a difference in the likelihood of testing positive for the coronavirus (COVID-19) between the majority of occupations. For nearly all occupations there is no statistical evidence of difference with at least 15 of the other 24 occupation groups.
- During this period of time, there was a national lockdown in England between 5 November and 1 December 2020 and varying local tier restrictions in place; there was also a significant rise in the positivity rate across the country, including that

related to the new variant. This analysis should be understood in that context as opposed to the reducing prevalence currently being experienced.

- The general contact individuals have with others both in and out of work will contribute to their likelihood of testing positive. Within every occupation group, there were people who were working from home, some who found social distancing at work easy and those who found it hard. These factors in part explain the differences in testing positive between occupations.
- Further information on this analysis is available [here](#).

Symptoms

- There is no further update on symptoms. See [here](#) for latest symptoms profile from the ONS.

Antibodies

- There is no update this week as antibody data is updated fortnightly.
- See [here for Wales](#) and [here from the ONS](#).

Vaccination in Wales

- As at 18 February, a total of 839,065 first doses of COVID-19 vaccine have been given in Wales. 25,433 people have received two doses.
- The actual number of doses will be higher due to ongoing data entry.
- Vaccinations data, including coverage, is available from the [PHW tableau](#).

Vaccine coverage

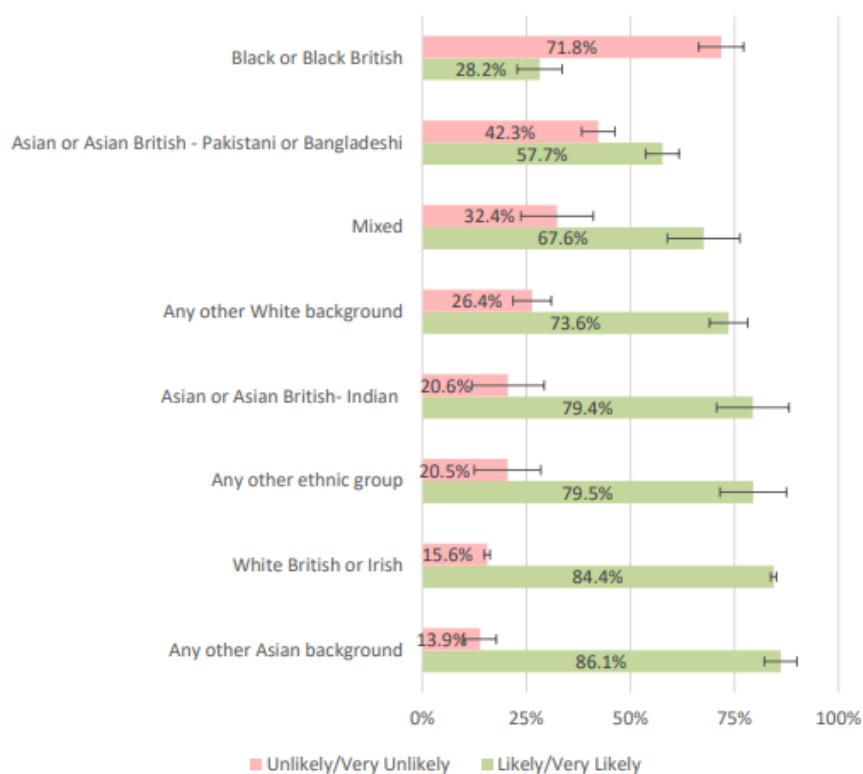
- Public Health Wales have summarised equality in coverage of COVID-19 vaccination in Wales, from 8th December 2020 up to 14th February 2021, by sex, socioeconomic deprivation and ethnic group. The report is available [here](#).
- There are emerging inequalities in coverage of COVID-19 vaccine in Wales.
- The largest inequality in coverage was seen between ethnic groups in adults aged 80+ years. Coverage for the combined Black, Asian, Mixed and Other ethnic groups in this age-group was 71.5% compared to 85.6% in the White

ethnic group, a gap of 14.1%. The gap in coverage between these groups was 12.8% for adults aged 75 to 79 years, and 10% for adults aged 70 to 74 years.

- Inequalities were also apparent between adults living in the most and least deprived areas of Wales. In older adults, the inequality gap between those living in the most deprived and least deprived quintiles of areas in Wales was 5.7%, 4.4% and 5.2% for adults aged 80y and older, 75 to 79 and 70 to 74 years respectively.
- Little difference was seen in uptake between those with a recorded sex of male or female.
- These inequalities show that vaccination coverage was lower in groups who are at increased risk of severe COVID-19 outcomes.
- The reasons for these differences may relate to individual, community or service characteristics.
- The programme is ongoing and coverage figures are not final, therefore there remains opportunity to reduce inequities.

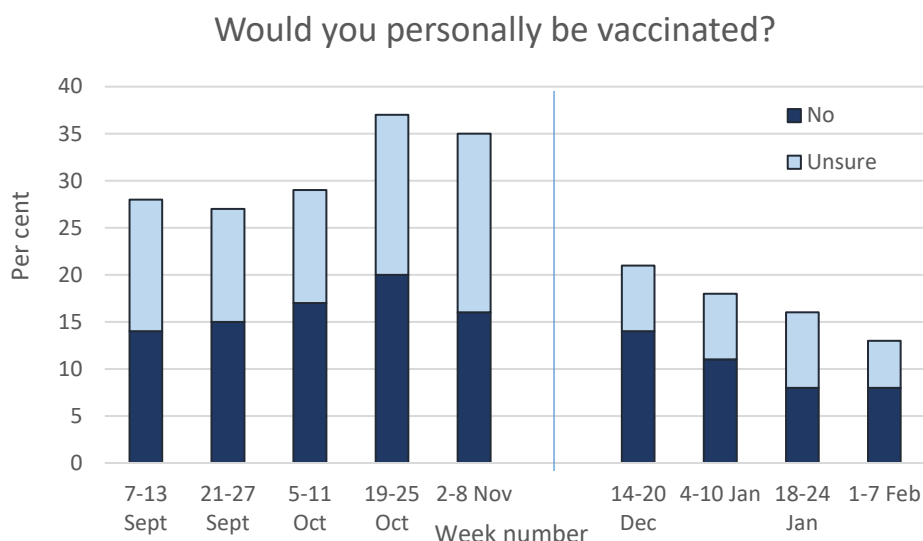
Vaccine hesitancy

- The [Understanding Society](#) survey gathered data from over 12,000 people in the UK in late November/early December. Overall, 82% of people said they were likely or very likely to be vaccinated.
- Vaccine hesitancy was higher in women (21.0% vs 14.7%), younger age groups (26.5% in 16-24 year olds vs 4.5% in 75+) and less educated (18.6% no qualifications vs 13.2% degree qualified). Vaccine hesitancy was particularly high in Black (71.8%), Pakistani/Bangladeshi (42.3%), Mixed (32.4%) and non-UK/Irish White (26.4%) ethnic groups. Fully adjusted models showed gender, education and ethnicity were independently associated with vaccine hesitancy. The main reason for hesitancy was fears over unknown future effects.



Source: Understanding Society survey, [Robertson et al; 2021](#)

- The [ONS Opinions and Lifestyle Survey](#) found in early February that over 90% of adults in GB said they had accepted or would accept the coronavirus vaccine. This varied by age, with older age groups more likely to accept the vaccine. The same survey found that less than 1% of people who had been offered the vaccine had declined it.
- In Wales, in the latest week, 8% of respondents to the [fortnightly Public Health Wales survey](#) said they would not be vaccinated. Since the vaccine roll-out began, the number of people answering no or saying they were unsure has been falling. See figure below.



Source: ‘How are we doing in Wales?’ survey, [Public Health Wales](#)

- The most common reasons given for responding ‘no’ or ‘unsure’ were related to a lack of trust in the vaccines due to the speed of their development and unknown side effects.
- Other reasons included: not feeling a need to be vaccinated due to perceived low risk; perceiving low benefit from vaccination; having insufficient information on the vaccines; having existing health conditions such as allergies; having had bad reactions to vaccines in the past; concern about impacts on fertility; having heard about adverse reactions to the vaccines; and not agreeing with vaccinations in general.

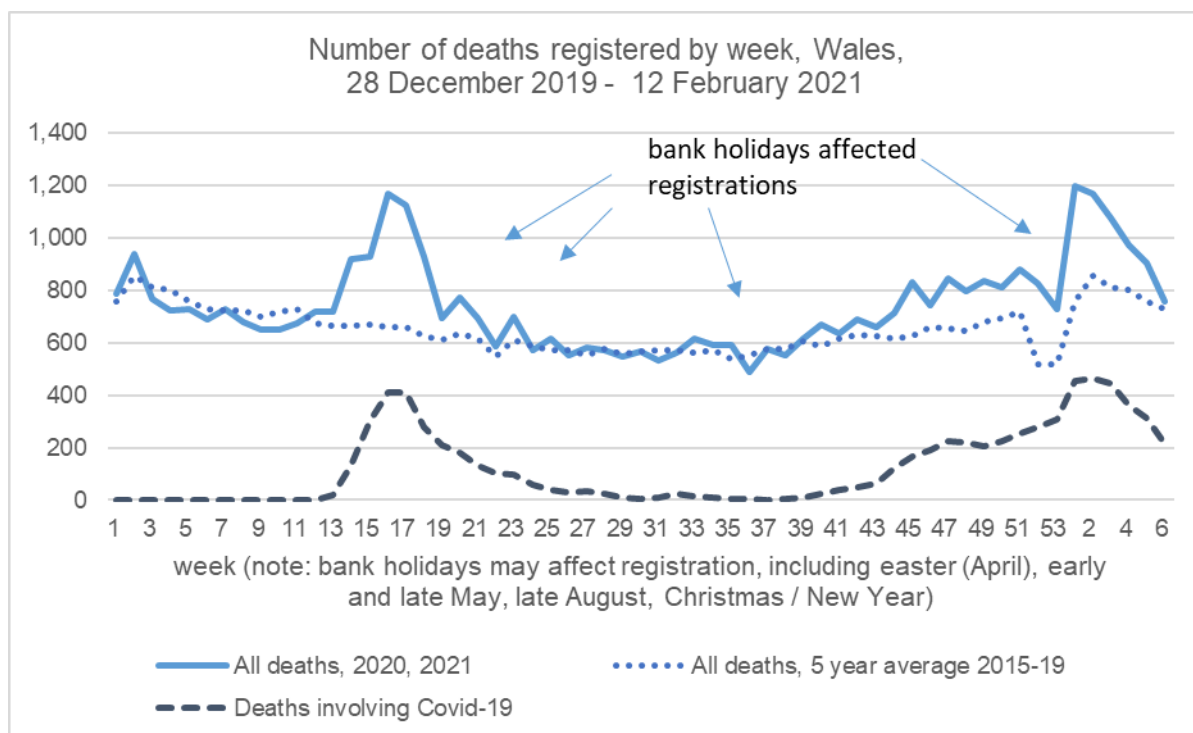
Deaths

- The Figure below shows the 7 day rolling sum of COVID-19 deaths reported by Public Health Wales rapid mortality surveillance as at 8 February. The weekly number of deaths reported has decreased in the most recent week, but remains high at over 100 per week. Care should be taken in interpreting the most recent trends.



Source: Welsh Government dashboard, data from Public Health Wales as at 16 February

- It is important to note that this data includes reports of a death of a hospitalised patients in Welsh hospitals or care homes where COVID-19 has been confirmed with a positive laboratory test and the clinician suspects COVID-19 was a factor that caused death. It does not include patients who may have died from COVID-19 but who were not confirmed by laboratory testing, those who died in other settings, or Welsh residents who died outside of Wales. The true number of deaths will be higher.
- The Office for National Statistics (ONS) reports on both suspected and confirmed COVID-19 deaths using data available on completion of the death registration process and whilst subject to a time lag, is more complete.
- Of the deaths registered in the week ending 12 February 2021, there were provisionally 216 deaths involving COVID-19 registered in Welsh residents. This was 28% of all deaths and 98 fewer than the previous week. The number of registered deaths involving Covid has declined for four successive weeks.
- Deaths have been above average since late September. However the lowest rate of excess weekly deaths since October 2020 was reported in the most recent week.
- The Figure below shows ONS data of the number of deaths involving COVID-19 registered by week in Wales and the number of all cause deaths registered by week from 28 December 2019 to 12 February 2021.



Source data: [Office for National Statistics](#)

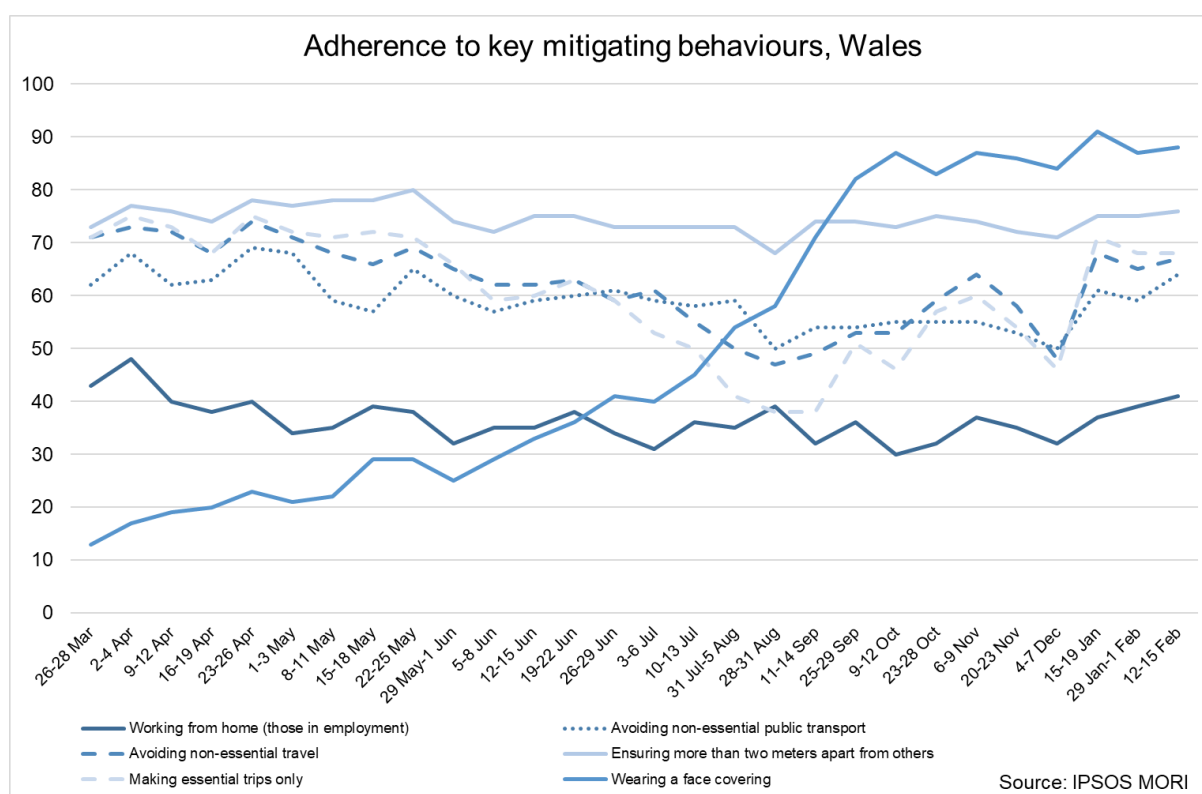
Place of death

- Most deaths involving COVID-19 registered up until 12 February occurred in hospitals (72%), followed by care homes (22%).
- Between Weeks 5 and 6, the number of deaths involving COVID-19 decreased in all settings: hospitals (941 fewer), care homes (566 fewer), hospices (58 fewer), private homes (52 fewer), other communal establishments (8 fewer) and elsewhere (4 fewer). Deaths involving COVID-19 in hospitals as a proportion of all deaths in hospitals fell to 53.5% in Week 6 (58.0% in Week 5). Deaths involving COVID-19 in care homes accounted for 37.8% of deaths, a decrease from Week 5 (45.5%). See [here](#) for further information.
- Further information on care home deaths from Care Inspectorate Wales is available [here](#). Please note these are provisional figures to help monitor the impact of COVID-19. They are not comparable with data from Public Health Wales.

Adherence and understanding of current measures

- There is new data from IPSOS MORI this week. The results from Public Health Wales are the same as last week.

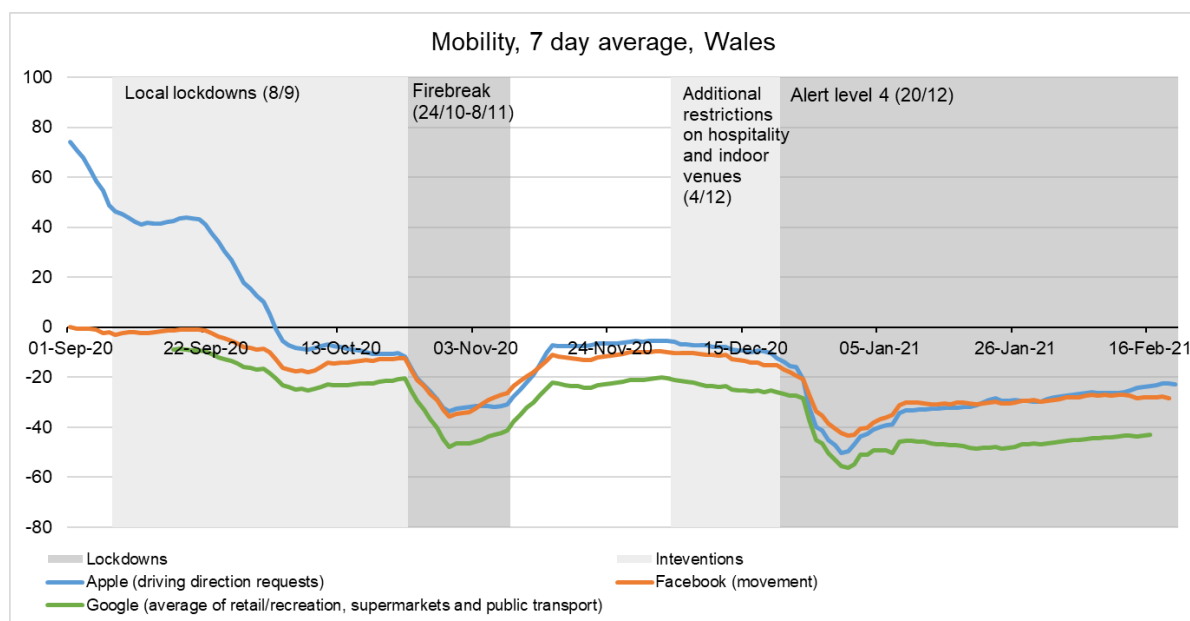
- The most recent [IPSOS MORI data](#) for the period 12 – 15 February for Wales shows a similar picture to the last survey wave which was 2 weeks prior (29 January - 1 February). It should be noted that this is self-reported adherence and will be affected by individuals understanding of the rules and the circumstances that apply to them.
- The figure below represents data collected online by IPSOS MORI as part of a multi-country survey on the Global Advisor platform. Each of the waves has included c.500 respondents in Wales. The sample is broadly representative of the adult population aged 16-74. Data is weighted to reflect the age and gender profile of the Welsh population aged 16-74. All samples have a margin of error around them. For a sample of around 500, this is +/- 4.8 percentage points.



- The latest results from the [Public Engagement Survey on Health and Wellbeing during Coronavirus Measures](#) for the period 1 February – 7 February show that 53% of people say they understand the current restrictions in Wales ‘very well’. A further 37% reported understanding the restrictions ‘fairly well’. The survey also shows that 49% of people said they were following coronavirus restrictions ‘completely’ and a further 42% reported majority compliance, again similar to the last two surveys and higher than in mid-December (before alert level 4 started). 20% reported having people outside their household/permitted extended household come into their house, whilst 10% reported going into others people’s houses, both of these are lower than in mid-December and similar to the last two surveys.

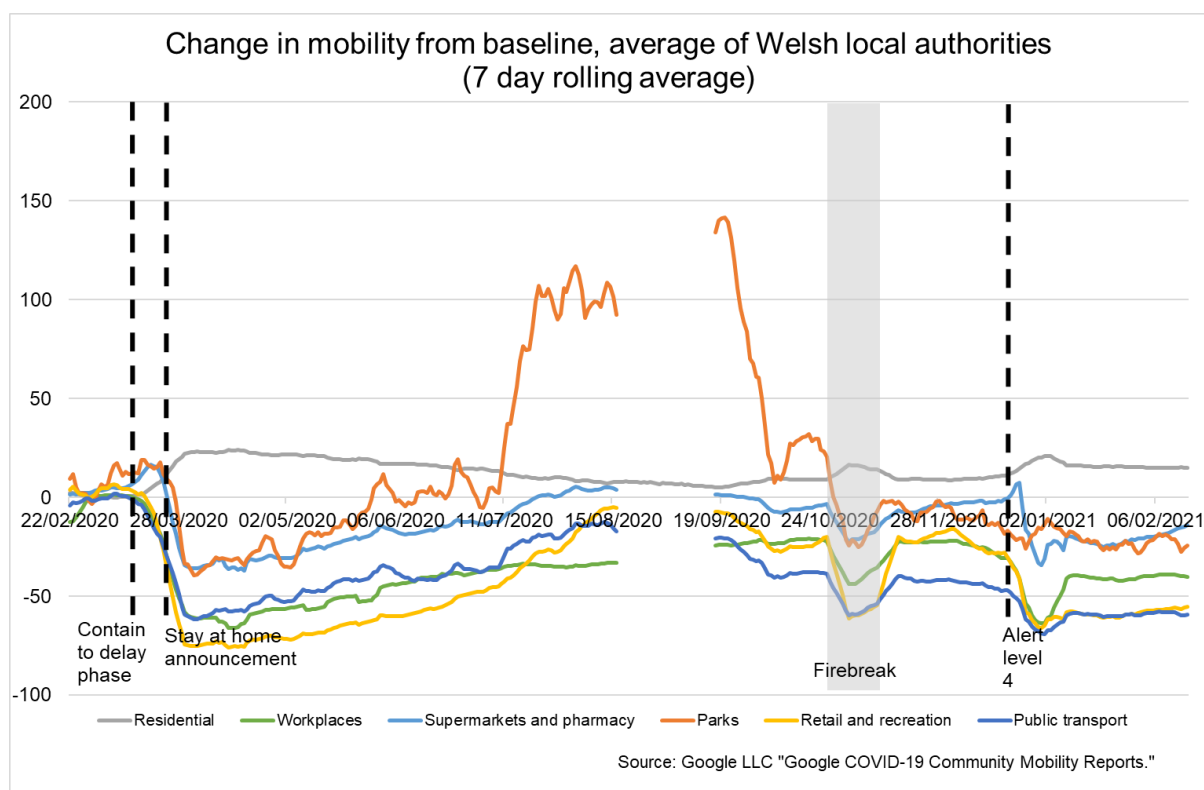
Mobility

- Mobility data for the third week in February (half term week) from Facebook shows small reductions in mobility, whilst data from Apple shows increases. Data from Google and O2 for the previous week in February also show a mixed pattern, for example with increases in retail and recreation, but reductions in workplaces. Levels of mobility continue to be mostly around the second week of the firebreak.



- Mobility of [Facebook users](#) in Wales shows movement was 28% below the baseline for the week to the 19 February. This is lower than the week before (27%). The percentage of users staying put (near to home) was 35%, higher than the week before. The baseline is the average value, for the corresponding day of the week, during the 4-week period 2 February – 29 February 2020.
- [Apple data](#) for the week to the 20 February shows that requests for driving directions in Wales were up from the previous week at 77% of the baseline (up from 75%). Requests for walking directions and requests for public transport directions increased from the previous week relative to the baseline. The baseline is the 13th of January 2020.
- The [Google mobility data](#) to the week of the 16 February for residential (i.e people spending time at home) are similar to the week before at 15% above the baseline. Workplaces were down slightly (at 40% below the baseline, down from 39%). Retail & recreation mobility was up from last week (55% below the baseline, up from 57%) whilst supermarkets & pharmacy show an increase (14% below the baseline, up from 18%). Public transport and parks decreased over the week relative to the baseline.

- The figure below shows the change in mobility in Wales using Google mobility data. The figures are based on the average of the local authorities that have data. The baseline is the median value, for the corresponding day of the week, during the 5-week period Jan 3–Feb 6, 2020. The data for several categories is not available for August 17th – September 10th due to the data not meeting quality thresholds.



- Anonymised and aggregated mobile phone data from O2 for the week to the 12 February shows an increase in trips compared to the week before. Trips starting in Wales rose by 1 percentage point to 56% of the baseline. The baseline for the O2 data is the same day of the week in the first week of March.

Research

- There are currently 12,225 Welsh patients recruited to COVID-19 urgent public health studies, an increase of 254 since last report.

COVID-19 weekly surveillance and epidemiological summary from Public Health Wales

As at 18 February

- The proportion of calls to NHS 111 and NHS Direct related to possible COVID-19 symptoms decreased compared to the previous week.

- Overall GP consultations for any Acute Respiratory Infection (ARI) and suspected COVID have decreased this week compared to the previous week.
- The number of ambulance calls possibly related to COVID-19 increased in the most recent week compared to the previous week.
- The all-Wales number of lab confirmed COVID-19 episodes has continued to decrease in the most recent week. Sample positivity for testing episodes was 7.6% in week 06.
- During week 06, incidence decreased in most age groups, with the exception of those aged 65-84 years where incidence was stable. Incidence was highest in those aged 85+.
- Confirmed case incidence and testing episode positivity has decreased in most regions of Wales in recent weeks, with the exception of Powys which has increased and Swansea Bay UHB which remains stable compared to the previous week.
- At a national level, confirmed case admissions to hospitals and confirmed cases who are inpatients in hospital decreased compared to the previous week. In the most recent week, admissions to critical care wards decreased compared to the previous weeks.
- Recent surveillance data suggest that COVID-19 infections in Wales are decreasing in most regions of Wales. Cases remain geographically widespread, however the majority of local authority (LA) areas are seeing decreasing overall trends in confirmed case incidence in the most recent week.
- There is an overall decreasing trend in incidents reported in recent weeks, with care homes still accounting for the highest proportion.
- Most school pupils are currently being taught online, with some face-to-face learning for vulnerable children and children of critical workers. Schools surveillance information is available on the [Public Health Wales dashboard](#).
- VOC 202012/01 (VOC1, identified in Kent) has been detected in all parts of Wales. Although overall confirmed case incidence is declining, the proportion accounted for by VOC1 has increased to between 63% and 100% (identified by the proxy indicator SGTF) across Health Boards. 2,631 genomically probable or confirmed cases have been identified as of 17/02/2021. There have been 17 genomically confirmed and probable cases of VOC 202012/01 (the variant linked to South Africa) in Wales (as of 17/02/2021). No cases of the variants linked to Brazil have yet been identified in Wales.

- All-cause deaths are higher compared to the 5 year average, but have decreased in the most recent week.
- Deaths in confirmed cases in hospital, reported through PHW mortality surveillance decreased in the most recent week.
- In deaths where information is available from PHW rapid mortality surveillance, chronic heart disease, diabetes and chronic respiratory disease are the most commonly reported risk factors (in 34%, 28% and 22% of deaths respectively).
- Influenza is not currently circulating in Wales.

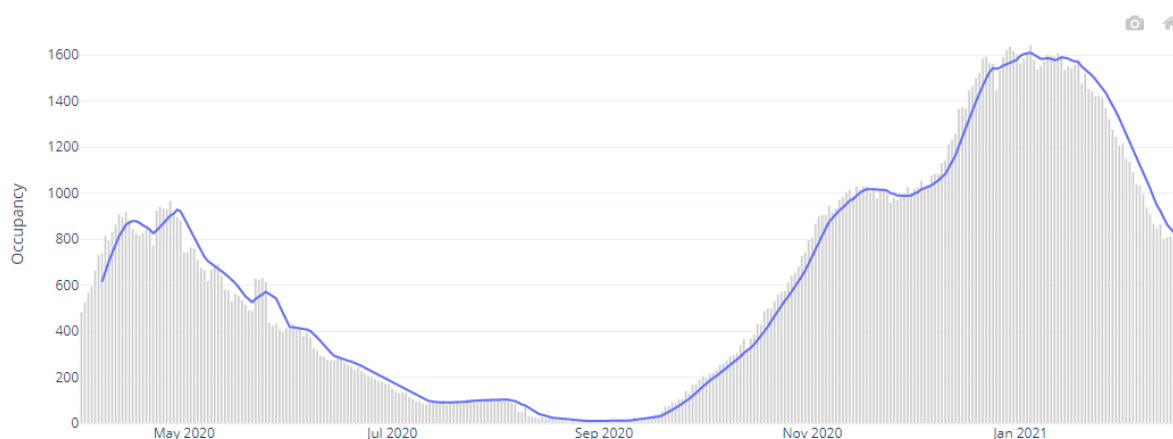
Local authority analysis from Public Health Wales

(Period covering 07 to 13 February 2021)

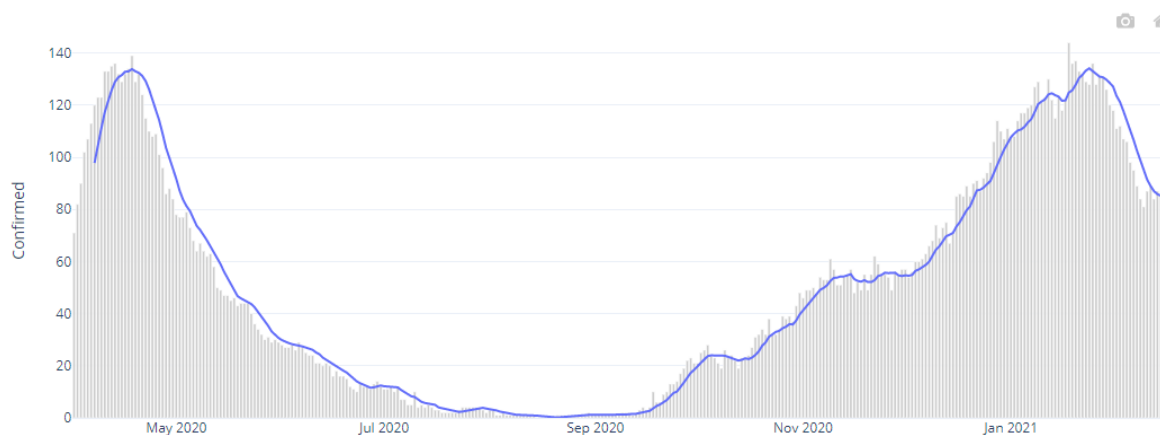
- All local authorities are in the highest threshold for 7-day incidence (> 50 per 100,000) and test positivity ($>5\%$), apart from Ceredigion and Pembrokeshire which are the lower bracket of 25 to <50 per 100,000 incidence and 2.5 to $<4\%$ positivity. Bridgend is also in the lower bracket for 7-day incidence.
- Please use caution in interpreting trends for the most recent period as testing data is not always complete and figures will be subject to future revision if late data feed through.
- Further information is available on the [Public Health Wales dashboard](#).

Hospital occupancy

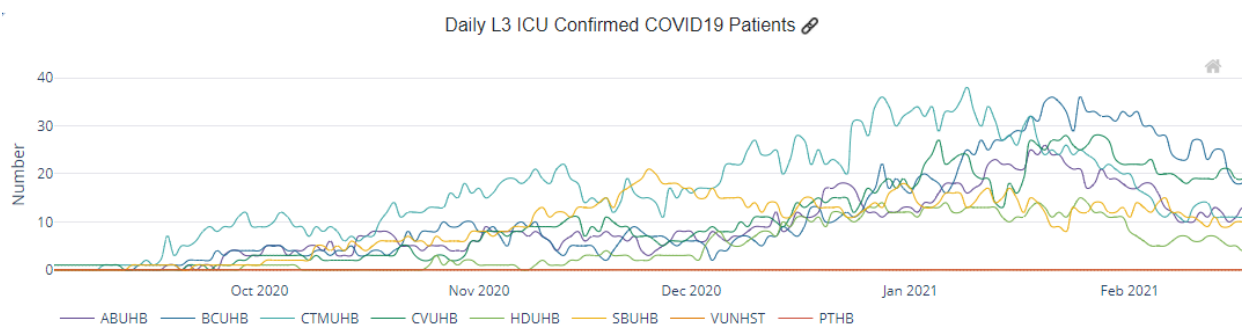
- The figure below shows the confirmed COVID-19 hospital occupancy over the first and second wave of the pandemic (7 day rolling average, as at 17 February).



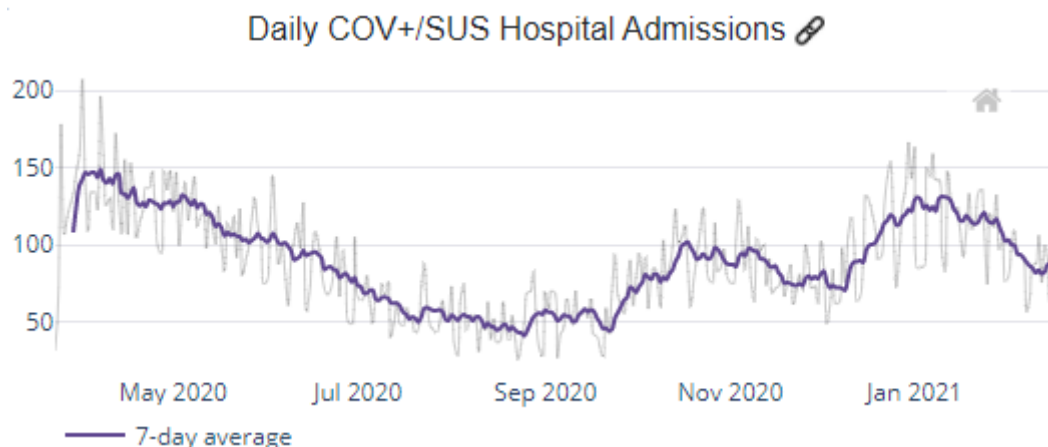
- The Figure below shows the confirmed COVID-19 intensive care unit (ICU) occupancy over the first and second wave of the pandemic (7 day rolling average, as at 17 February).



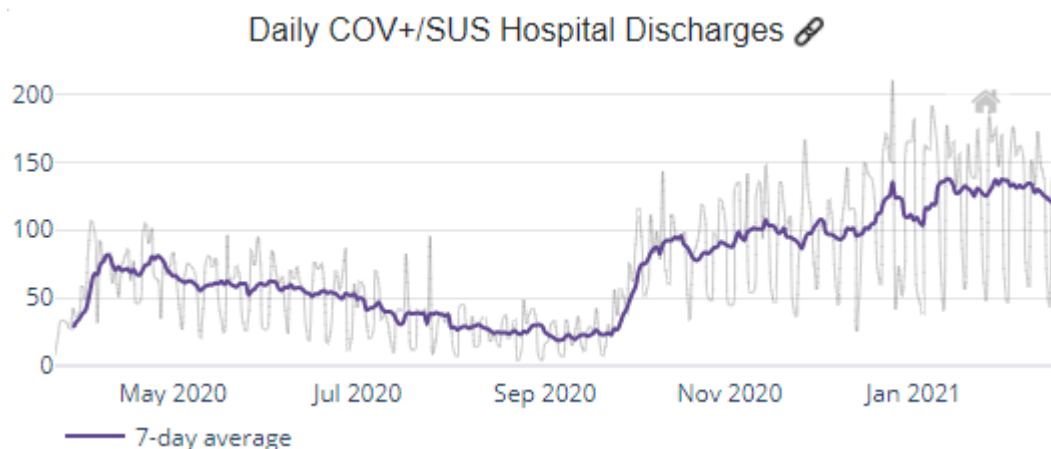
- As of 19 February the number of people with confirmed COVID-19 in hospital has decreased over recent weeks, but remains high and just below the April peak. Both overall ICU occupancy (COVID-19 and non-COVID-19 patients) and occupancy for COVID-19 patients only have shown a steady decline over but remain high. The number of people recovering from COVID-19 is high, still at around 1,000, in the most recent week.
- When considering data on capacity (203 beds) and occupancy (165 beds) reported to us by local health boards, Level 3 ICU across Wales is approximately 81% occupied with both COVID and non-COVID patients (as of 19 February). However, there are normally approximately 152 critical care beds (Level 3 ICU equivalent) and so hospitals are creating additional critical care bed capacity due to increased demand. Therefore, critical care units in Wales are at or over 100% occupied for their normal critical care capacity and 1:1 nursing staffing ratio for all critical patients may not be possible for many patients, even with non-critical care staff helping to care for patients.
- The Figure below shows the total number of people who have tested Covid-19 positive and are in ICU in hospitals across the different health boards in Wales. Data as of 19 February.



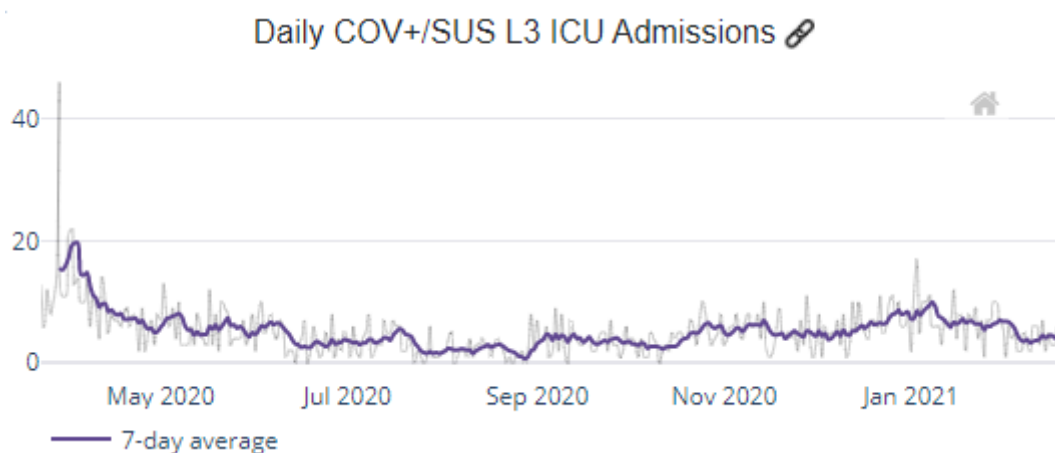
- The Figure below shows the number of people admitted to hospital and are either suspected (SUS) or confirmed as having Covid-19 (COV+). The purple line represents the total number over a rolling 7 day average, whilst the fainter grey lines show the actual figures at that time. Data as of 19 February.



- The Figure below shows the number of hospital discharges of people who are either suspected (SUS) or confirmed as having Covid-19 (COV+). The purple line represents the total number over a rolling 7 day average, whilst the fainter grey lines show the actual figures at that time. Data as of 19 February.



- The Figure below shows patients admitted to the intensive care units and are either suspected (SUS) or confirmed as having Covid-19 (COV+). The purple line represents the total number over a rolling 7 day average, whilst the fainter grey lines show the actual figures at that time. Data as of 19 February.



Professional Head of Intelligence Assessment (PHIA) probability yardstick

- Where appropriate, TAC advice will express Likelihood or confidence in the advice provided using the PHIA probability yardstick to ensure consistency across the different elements of advice.

