

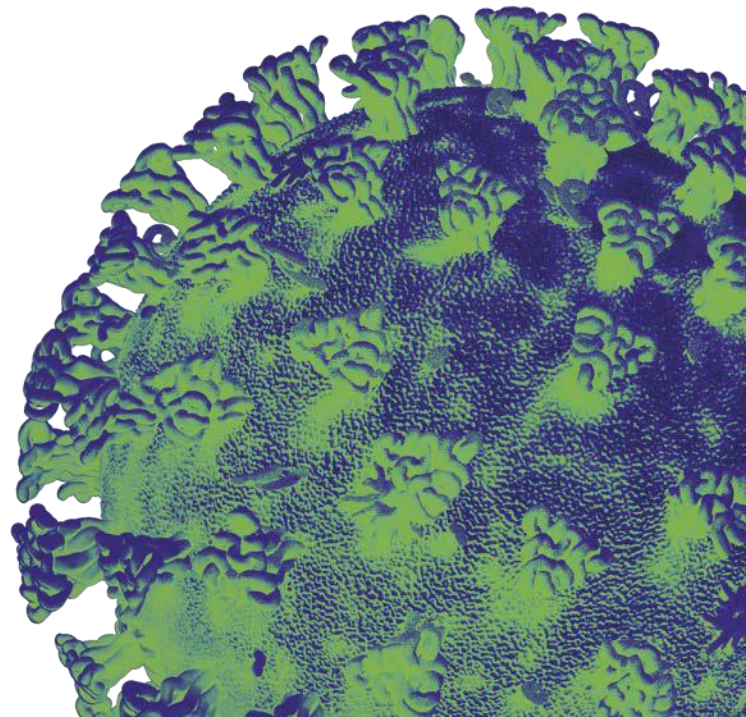
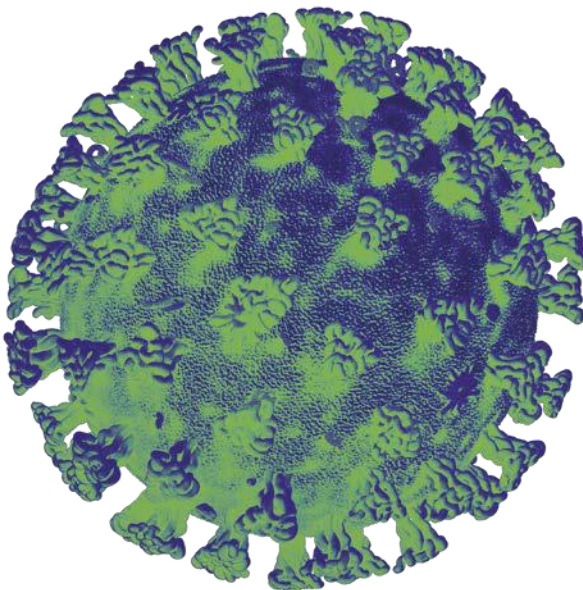
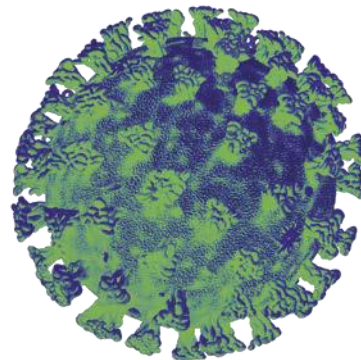


Technical Advisory Group

Advice for 3rd June

Restriction Review

25 May 2021



Advice from the Technical Advisory Group and the Chief Scientific Advisor for Health for 3 June Restriction Review – 25 May 2021

DISCLAIMER: Since this report was originally submitted to Cabinet the Situation in Wales and the UK has progressed rapidly, as additional evidence on the Delta variant has become available and the variant has continued to spread.

As a result this advice should be considered superseded by the most recent Delta Variant briefing submitted to Cabinet, available [here](#)

This report provides advice on the proposed relaxations considered as part of the 3 June 2021 review, covering:

Intended coming into force date of 5 June:

- Rule of six (not including children under 11 or carers in those households) in private dwellings, enabling people to have visitors (not just those in their 'extended household') in their home for the first time.
- Extended household can include up to three households plus a single responsible adult or child (16-17 year olds) household.

Intended coming into force date of 7 June:

- Up to 30 people can meet outdoors
- Organised activities increases to 50 indoors and 100 outdoors
- Events to restart (caps to be determined) indoors and outdoors
- Ice skating rinks can reopen

This advice is informed by a range of evidence sources, including from the Scientific Advisory Group for Emergencies (SAGE), the Welsh Government Technical Advisory Group (TAG) and subgroups, Public Health Wales, the Wales COVID-19 Evidence Centre, and the wider academic literature and surveillance data.

Advice from previous review cycles is referred to where relevant and is not repeated here.

Summary of advice

- The advice from TAG should be read in conjunction with [previous regulation review submissions](#) and considered in the context of the current epidemiological situation. The most recent [TAG Behavioural Summary Advice](#) should also be taken into account, alongside the underpinning behavioural considerations set out in this advice. The advice presented for each relaxation is based on an implicit expectation of good adherence to regulations and population public health interventions.
- The most recent situational assessment for Wales is documented in the COVID-19 Summary Report [here](#).
- **The current situation in Wales is one of low incidence. Increases of a new variant (first identified in India, B.1.617.2) have been observed in several areas of Wales (57 cases as of 25 May 2021) and are linked to travel (international and from England), households, workplaces and friendship group). Cases of B.1.617.2 are highly likely to increase in the near future.**
- Given the recent rapid increase in cases of B.1.617.2 variant in areas of England and Scotland which has led to the introduction of enhanced public health activity and guidance for travel and meeting indoors in these affected areas, careful thought should be given to indoor relaxations in Wales. **Further increases in B.1.617.2 cases are expected, with areas of Wales currently likely to be a few weeks behind England.**
- There is **high confidence that B1.617.2 is more transmissible** than the current dominant variant (B.1.1.7, first identified in Kent, UK). There is **increasing evidence that the new variant has a moderate impact on reducing the vaccine effectiveness of a single dose of vaccine and a low impact on two doses**. It remains uncertain whether this variant has the potential evade natural immunity or is associated with increased disease severity. As at 23 May, almost 50% of the adult population of Wales aged 18 years and older had received at least one dose and more than 90% of all those ages 70 years and older has received a completed two-dose course.
- **It is now less clear if continuing relaxations according to the Coronavirus Control Plan is likely to result in manageable levels of COVID-19 in Wales. In light of this, reinforcing the need for caution and adherence to (and support for) key personal protective behaviours is as important as ever.**
- **TAG modelling findings for Wales indicate that a more transmissible variant (such as the B.1.617.2 variant of concern) could produce a significant new wave in late summer or autumn.** The wave will be smaller if baseline measures and sustained changes in behaviour which reduce transmission are maintained beyond the end of the roadmap (high confidence). The speed of vaccine rollout is

also a key factor in the size of the resurgence (high confidence). The two biggest risks (aside from new variants) are that either high contact patterns emerge early, or there is low vaccine coverage amongst younger adults. The combination of these two would lead to a larger resurgence.

- Attendance numbers for indoor events are important. As previously advised¹, an increase in the number of people permitted to attend organised indoor activities (including events) is likely to represent a higher risk of transmission. It also remains important to consider the increased risks of transmission indoors more generally, including within and between households. However, indoor transmission is not inevitable and mitigations can be applied to reduce risks.
- Previous advice that indoor activities should be substituted or moved outdoors wherever possible is still relevant. Attendance numbers for outdoor activities are less important than indoors unless there are pinch points and social distancing cannot be observed.
- In light of emerging evidence and trajectory of growth of B.1.617.2 seen in other parts of the UK, one cautionary option could be to release restrictions to allow for the expansion of extended households, but to delay implementing the rule of 6 whilst awaiting more evidence.
- TAG advice² highlights the increased risk in ice rinks when compared to other indoor environments due to lower environmental temperatures and increased ability of the virus to survive, the number of high contact points and participation in athletic activities which may expose skaters to SARS-CoV-2 aerosol. Whilst ventilation is of benefit to the areas above the ice rink such as the stands, it does not have such an impact in the space immediately above the ice.
- Singing, playing of wind instruments, and high-volume speech in presentation and performance settings have been singled out as potentially high-risk activities for transmission of SARS CoV-2. Given that live performances are associated with greater likelihood of aerosol emission and reduction in social distancing, there would be an increased risk of transmission associated with these activities in confined spaces.
- The [Technical Annex](#) of this document provides further information on the new variant including recommendations for consideration including travel restrictions (areas of high incidence of a variant of concern) and accelerated vaccine delivery.
- **It is assumed that underpinning risk prevention measures will continue to be adhered to at a population level, including but not limited to the continued promotion of symptom recognition and test seeking behaviour, Test, Trace, Protect (TTP), support for self-isolation, quarantine for those**

¹ [Advice from the Technical Advisory Group and the Chief Scientific Advisor for Health: 13 May 2021 review](#)

² [Technical Advisory Group: SARS-CoV-2 infection risks at ice rinks](#)

entering the country and encouraging vaccination uptake particularly in population groups where take up has been low or hasn't started given the emergence of B.1.617.2 in Wales.

Situational Report

- The latest COVID-19 Situational Report for Wales is available [here](#), while the most recent summary of advice from the Technical Advisory Cell is available [here](#) and supplements this situational report.
- In England the national seven day case rate is 22 cases per 100K, with 11 areas of the North West over 50 cases per 100K (e.g. Bolton at 429.8, Blackburn at 253.8) and areas of East of England (Bedford at 167.3), Yorkshire and Humber (Kirklees at 95.3), London and East Midlands with over 50 cases per 100K due to expansion of the B.1.617.2 variant.³
- In Scotland, the national case rate is 43.9 cases per 100K with three areas over 100 cases per 100K (Glasgow, Clackmannanshire and East Renfrewshire).⁴
- In Wales seven day incidence is low at 8.5 cases per 100K. Newport has the highest incidence at 22 cases per 100K.

Considerations around new variants

- The first signals of the emergence of a new variant, either by evolution within the UK or by importation, are likely to manifest in an increasing proportion amongst sequenced samples.
- Increased prevalence of a new variant alone, however, is not necessarily a sign of concern but could be when seen in conjunction with higher transmission rate (growth rate or r), reduced vaccine efficacy or reduced immunity from natural infection (symptomatic and severe reinfections or hospitalisations of previously infected/vaccinated individuals), and/or increased rates of mortality.
- The most recent variant of concern (VOC) is B.1.617.2 (VOC-21APR-02), first identified in India. Transmission of this variant is currently faster than that of the B.1.1.7 variant most prevalent in the UK (high confidence) and there is evidence of uncontrolled community transmission in several places in England.⁵ Based on this it is to be expected that cases will be imported into Wales in the near future - retrospective genomic analysis suggests that over the summer of 2020

³ [Cases in England | Coronavirus in the UK \(data.gov.uk\)](#) data as of 25 May 2021

⁴ [COVID-19 Daily Dashboard - PHS COVID-19 | Tableau Public](#) data as of 25 May 2021

⁵ [Technical Advisory Group: briefing on variant of concern B.1.617.2](#), 21 May 2021

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the time lag for imported lineages from England into Wales was generally 25 days or less after initial detection.

- Compared to B.1.1.7 the new variant displays an increased growth rate, with SAGE suggesting as much as a 50% increase⁶, although this may not entirely be attributable to a change in biological transmissibility. Subsequent analysis by Public Health England of secondary attack rates for B.1.617.2 and other lineages also shows a considerably higher attack rate for B.1.617.2 compared to B.1.1.7.⁷
- There may be some reduction in protection given by vaccines or by naturally acquired immunity from past infection, with PHE analysis indicating around a 20% reduction in protection from symptomatic illness after one dose, but a smaller reduction after two doses. There is not yet any clear evidence of any difference in disease severity following infection with this variant.⁶
- A variant which either substantially escapes immunity or is highly transmissible (more so than B.1.1.7) could lead to a very significant wave of infections, potentially larger than that seen in January 2021 if there were no interventions.⁸
- Maintaining control of transmission of any such variants will be more difficult when there are fewer measures in place. Reducing the number of variant infections should be a priority for policy.⁹

Most recent modelling scenarios from TAG

- Welsh Government have previously used policy models developed by Swansea University for decision making. In recent weeks, two additional modelling groups (Imperial College London and Warwick) have produced modelling results for Wales, as part of the Scientific Pandemic Influenza Group on Modelling (SPI-M). We are currently awaiting final tabulated results which will allow us to triangulate between different model results. We are also looking at the possible impact of the B.1.617.2 variant of concern (VOC-21APR02) which originated in India, if it were to become dominant in Wales.
- There is still uncertainty about how many more cases we can expect from this VOC. It is not yet clear how much of this change is caused by increased transmissibility, with indications that the virus may grow faster in airways, and how much is through a degree of vaccine competition/immune escape. It may be a combination, whereby the variant is both more transmissible and immune escape.
- Recent estimates from SPI-M suggest that R_t (the effective reproduction number or average number of secondary cases produced by each index case)

⁶ [SAGE 89 minutes: Coronavirus \(COVID-19\) response, 13 May 2021](#)

⁷ [PHE, SARS-CoV-2 variants of concern and variants under investigation in England: technical briefing 11](#)

⁸ [SAGE 88 minutes: Coronavirus \(COVID-19\) response, 5 May 2021](#)

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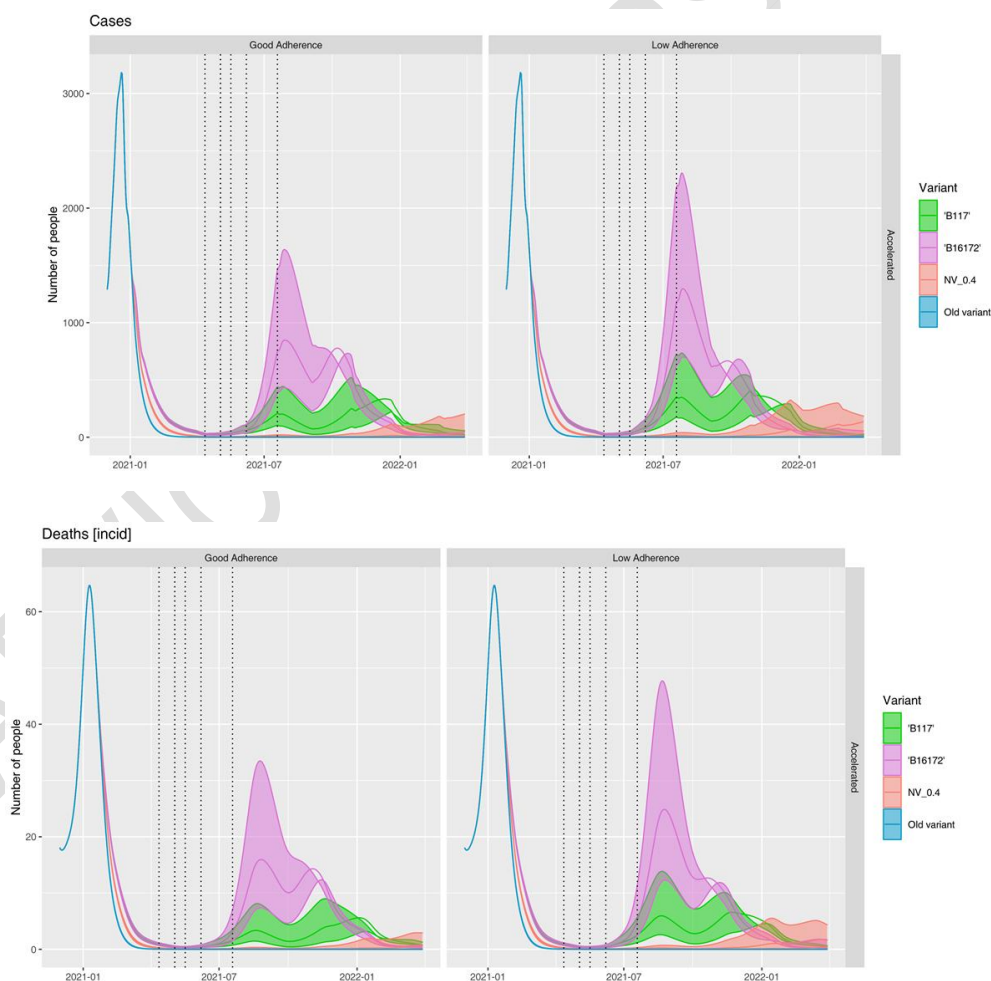
for this B.1.617.2 VOC in the population (excluding recent travellers) may be as high as 1.64 whereas R_t for the previous dominant variant, B.1.1.7, is currently below 1. This would suggest that the majority of sequenced cases in the UK would consist of this variant by mid-May 2021, under the assumption that non-B.1.617.2 variants continue to decline at 3% per day as they did in late April 2021⁸. However, this is based on observations from clusters that have occurred in places such as Bolton, England.

- It may be that once this VOC reaches a new steady state of transmission in the general population, the estimate of R_t may be lower. It should be noted that this estimate of R_t is based on cases, we may not necessarily see the same ratio of hospitalisations or deaths as vaccines currently in use provide more protection against severe illness than they do against infection.
- When the more infectious B.1.1.7 Kent variant started to become dominant in November and December, we were in a very different position in Wales. Transmission was already relatively high in November and almost no one in Wales was vaccinated, whereas now we have a large proportion of adults having had one or more vaccine doses. Vaccines may protect many from severe disease. Therefore, our response to this new VOC needs to consider the likely harms that might occur.
- There is still likely to be enough people who are: unvaccinated; have only had a single dose of the vaccine, or people for whom the vaccine is not effective (against new VOCs or other variants), to produce a substantial third wave in hospitalisations and deaths. So far in the pandemic around one quarter of hospital admissions have been in people aged under 60, so there is a risk of renewed demand for hospital beds if younger people become infected with the new variant.
- The charts below show the health outcomes: cases, deaths, and hospital admissions (not destined for ICU) and hospital admissions (destined for ICU) from the Swansea University model. They present 4 scenarios that roughly correspond to estimates of the transmission levels for different variants, based on current observed data. The model uses the most recently announced timetable of restrictions being released in Wales as part of the assumed scenario. The modelling assumes that some level of reduced transmission is continued even when restrictions are completely released – such that we do not go back to pre-covid levels of contacts and strengths of contacts. This scenario therefore assumes that mitigations like handwashing, self-isolation and testing are maintained in the longer term.
- The three ribbon bands within each colour show different levels of vaccine effectiveness - Low 65%, Moderate 80%, High 95% - where 95% effectiveness produces the smallest peak in each scenario. This is a composite measure of vaccine effectiveness on transmission and clinical events. Current evidence,

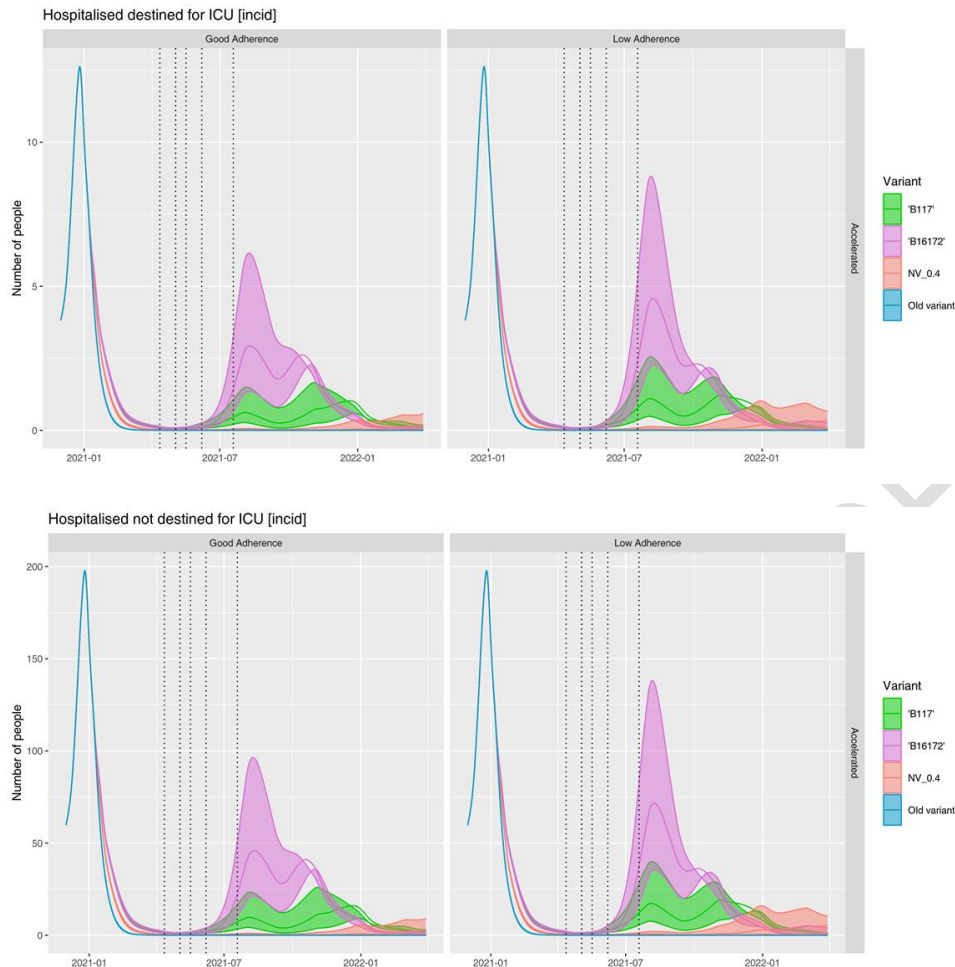
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based on the Kent variant being the dominant variant, suggests that vaccines are likely to be more effective in preventing clinical events (e.g. 80% protection with first dose) and less effective at preventing transmission (e.g. 60% reduced risk after first dose).

- This chart of $R_{t,0.4}$ with low vaccine effectiveness may be useful in understanding the potential impact of a less transmissible, but vaccine escaping variant (e.g. B.1351) if it were to become dominant.
- These models are fitted to clinical events (hospital and deaths) and are less likely to accurately predict cases. True numbers of cases will likely be higher than this and these cases may be more concentrated in younger age groups in future as younger people have more contacts, and are less vaccinated.
- It is clear from this modelling that a more transmissible variant, especially if combined with reduced vaccine effectiveness, may produce a new wave in hospital admissions and deaths, possibly in late summer.



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- These model results reinforce the need to continue to carefully monitor data on cases, secondary attack rates, hospital and deaths, including in vaccinated individuals in Wales, as well as sequencing cases to see if they are B.1.617.2 variant. This will help us to understand what trajectory we are following in Wales and to take appropriate action if needed.

Roadmap Modelling from SPI-M / SAGE^{9,10}

- Modelling shows that taking step 3 of the England roadmap is alone highly unlikely to put unsustainable pressure on the NHS. It is, however, likely to lead to R being greater than 1 in England, and therefore an increase in infections. The full impact of step 3 on hospitalisations and deaths will not be seen until mid-June at the earliest.
- It remains highly likely that there will be a further resurgence in hospitalisations and deaths at some point, however, the scale, shape, and timing remain highly uncertain.

⁹ [SAGE 88 minutes: Coronavirus \(COVID-19\) response, 5 May 2021](#)

¹⁰ [SPI-M-O: Summary of further modelling of easing restrictions – roadmap step 3, 5 May 2021](#)

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- The resurgence will be smaller if baseline measures and sustained changes in behaviour which reduce transmission are maintained beyond the end of the roadmap (high confidence). The speed of vaccine rollout is also a key factor in the size of the resurgence (high confidence). The two biggest risks (aside new variants) are that either high contact patterns emerge early, or there is low vaccine rollout amongst younger adults. The combination of these two would lead to a larger resurgence.
- Depending on its characteristics, a variant either with increased transmissibility or which substantially evades immunity could cause a significant wave of hospitalisations or deaths of a similar or larger magnitude than that seen in January 2021. Therefore, if a VOC such as B.1.617.2 becomes dominant and is more transmissible once it reaches a steady state, there may be a larger resurgence, depending partly on how effective vaccinations are in preventing severe disease.
- There remain several sources of uncertainty in the modelling, including around behavioural responses to changes in policy (after both step 3 and step 4), the impact of any seasonal variation in transmission, the extent of waning immunity, vaccine rollout speed, and the impact of vaccination on transmission (including from asymptomatic infected people).
- Two groups (Imperial and Warwick) modelled the roadmap for Wales, assuming that contacts go back to normal over a six month period after restrictions are released. Under a central scenario (so not including impact of VOCs such as B.1.617.2, both models predicted that Wales would not see a large resurgence until March 2022, which would be an exit wave approximately at the time when contacts completely go back to normal. In the Imperial model they predict a large wave in around August – October 2021 based on a range of VOC scenarios with increased transmission or immune escape. All models are sensitive to assumptions about vaccine effectiveness, and continued adherence to social distancing as restrictions are released.

Alignment across the 4 UK Nations

- As noted in previous TAG advice¹¹, it remains important to consider ‘alert fatigue’, the confusion associated with the volume and complexity of regulations and guidance in place. The need to maintain consistent messaging and transparency regarding any uncertainty is essential with clear rationales given for decision making. Where possible, it remains the case that alignment across UK nations is preferable¹².

‘Rule of 6’ and expansion of extended households

¹¹ [Technical Advisory Group: advice for 22 April restriction review | GOV.WALES](#)

¹² [The public aren't complacent, they're confused—how the UK government created “alert fatigue” - The BMJ](#)

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- TAG¹³ have previously summarised SAGE advice¹⁴ reinforcing the importance of transmission within and between households and how to mitigate this, building on advice relating specifically to VOC-202012/01¹⁵. This advice remains critical, including the need for whole population communications to increase awareness of the necessity, feasibility and effectiveness of implementing household measures (e.g. ventilation) and the necessity of information and support, particularly in disadvantaged households, that is accessible by people in a range of household circumstances and backgrounds. This advice from SAGE, which takes into account the potential impacts of a new more transmissible variant, suggests that whilst household transmission is a very common setting for SARS-CoV-2 transmission and risks of transmission are greater with a more transmissible variant (medium confidence), within-household transmission could be reduced by 25% if the measures above were followed.
- As noted on a previous review¹⁶, the protective behaviours people adopt and the characteristics of each extended household or group of six people will vary, with differing risks for transmission. For example, larger groups including people working in high-contact populations or yet to be vaccinated will likely pose a greater relative risk than small groups who limit their social contacts. However, the overarching message remains that households are an important but not inevitable setting for transmission.
- The following points summarise SAGE advice¹⁴ on how to reduce COVID-19 transmission in the home:
 - People who have to self-isolate or quarantine should not meet with anyone.
 - Consider whether meeting up is essential and cannot be postponed or replaced by safer forms of interaction.
 - Remember most infections happen indoors in private homes where people feel comfortable and get close to friends and family.
 - Take special care to protect people who are particularly vulnerable to serious consequences from infection, including people who are not vaccinated.
 - Continue to ensure people who are emotionally vulnerable have social support.
 - Limit interactions to the same small group of people as much as possible to reduce the probability that someone will come into contact with the virus and to limit how far the virus can spread if there is transmission. Meeting two groups of different people in the same week increases the risk of spreading the virus compared with meeting the same group of people twice. Limiting

¹³ [Technical Advisory Group: using behavioural science to inform policy and practice](#)

¹⁴ [EMG/SPI-B/SPI-M: Reducing within- and between-household transmission in light of new variant SARS-CoV-2, 14 January 2021](#)

¹⁵ [EMG/SPI-B/TWEG: Mitigations to reduce transmission of the new variant SARS-CoV-2 virus, 22 December 2020](#)

¹⁶ [Technical Advisory Group: advice for 22 April restriction review](#)

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or avoiding interactions with other people in the 7-14 days before meeting and reducing travel across different parts of the country can further reduce the likelihood of transmission.

- Limit the time spent together, especially if meeting indoors.
- Agree the plan with friends and family meeting so that everyone knows the safest way to meet.
- There will also be a role for clear communications to convey the difference between applying the rule of 6 to meeting indoors in private dwellings and extended households. The rationale for each, and associated level of risk, will need to be understood to encourage adherence and support risk-based decision making. While the number potentially mixing could be greater in an extended household and social distancing is not necessary, this arrangement would need to be exclusive. On the other hand, the rule of 6 will limit the size of gatherings and social distancing would be advised but potentially mixing is permitted by individuals across multiple households.
- As highlighted in previous advice¹⁷, the relative risk of an indoor collection of six households instead of four is significant (a factor of 15 versus a factor of 6), but the absolute increase in risk when prevalence is low is minimal.
- In light of emerging evidence and trajectory of growth of B.1.617.2 seen in other parts of the UK, one cautionary option could be to release restrictions to allow for the expansion of extended households, but to delay implementing the rule of 6 whilst waiting more evidence.

Increasing the number of people who can meet for organised indoor and outdoor activities, including events

- The 13 May restriction review¹⁷ provided advice on organised indoor and outdoor activities, including entertainment venues, visitor attractions and larger events/mass gatherings.
- As previously advised, settings frequently visited by many people for long periods, particularly those indoors, may have a greater impact on population level transmission than other less frequently visited settings. The risks associated with 'wrap-around' activities such as transport, entry/exit points and hospitality arrangements. This is particularly relevant to the reopening of large events and mass gatherings.
- Attendance numbers for outdoor activities are less important than indoors unless there are pinch points or social distancing is not possible.

¹⁷ [Advice from the Technical Advisory Group and the Chief Scientific Advisor for Health: 13 May 2021 review](#)

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- Appropriately targeted and behaviourally informed messaging and environmental mitigations will be key to minimising risk associated with larger groups of people.
- Consideration should be given to using face coverings in a wider range of settings where people could be asymptomatic and may be in close proximity ¹⁸
- Once findings begin to emerge, it will be important to learn from the Events Research Programme in England¹⁹ and the smaller scale observational work in Wales which has been undertaken in collaboration with Public Health Wales and Bangor University.
- Issues around international travellers and attendance at events were summarised in previous TAG advice²⁰ and highlighted that international travel and importing new infections into Wales from overseas or elsewhere remains a significant risk and that without complete closure of borders or mandatory quarantine for all travellers it is unlikely that the risk of importation of cases or new variants can be fully eliminated.

Ice skating rinks

- Previous advice²¹, whilst primarily based upon winter scenarios, highlighted the higher risk in ice rinks than in general indoor environments due to the temperature of the ice and just above the ice alongside the number of high contact points on the rink. A more recent study²² suggested it is reasonable to suspect that the use of indoor ice arenas will increase the exposure of skaters to SARS-CoV-2 aerosols. Athletic activities inside ice arenas may pose an increased risk of COVID-19 transmission compared to athletic activities in other indoor and outdoor environments. Whilst ventilation is of benefit to the areas above the ice rink such as the stands, it does not have such an impact in the space immediately above the ice. The study also found:
 - Poor air quality and movement and mixing of the air can lead to elevated levels of airborne contaminants at the breathing height of skaters on the ice pad;
 - Temperature and humidity conditions inside ice arenas are within the range of conditions that may increase the survival of SARS-CoV-2 in aerosol;

¹⁸ [Application of physical distancing and fabric face coverings in mitigating the B117 variant SARS-CoV-2 \(publishing.service.gov.uk\)](https://publishing.service.gov.uk)

¹⁹ [UK Gov- Information on the Events Research Programme](#)

²⁰ [Advice from the Technical Advisory Group and the Chief Scientific Advisor for Health: 13 May 2021 review](#)

²¹ [Technical Advisory Group: SARS-CoV-2 infection risks at ice rinks](#)

²² [Increased Risk of COVID-19 Transmission in Indoor Ice Rinks < COVID-19 & You \(yale.edu\)](#)
[Return to Play? Increased Risk of COVID-19 Transmission in Indoor Ice Rinks \(yale.edu\)](#)

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- Co-exposure to elevated levels of air pollutants, such as fine particulates and nitrogen dioxide, may worsen the severity of COVID infection;
 - Highly aerobic activity like skating will enhance respiration rate, increasing the release of potentially infectious aerosol if COVID-19 infected individuals are on the ice; and,
 - Highly aerobic activity will also enhance the risk of transmitting SARS-CoV-2 through increased breathing in of airborne contaminants.
- The importance of wearing a mask is reinforced with these modelling estimates – the probability of infection was found to be 1.5 to 2.5 greater for people not wearing a face covering compared to skaters assumed to be wearing a face covering.

Resumption of live performances can be allowed in guidance for hospitality settings

- The SARS CoV-2 virus can only be transmitted in a performance setting if there are infectious individuals present amongst the audience or performers.
- A Singing, Wind Instruments Working Group Consensus Statement²³ describes how singing, playing of wind instruments, and high-volume speech in presentation and performance settings have been singled out as potentially high-risk activities for transmission of SARS CoV-2, following several well-documented outbreaks associated with choirs and performances across the world (as of June 2020).
- Coupled with the risk of singing by the artist/band, there are also the risks associated with the activities of the crowd.
- Previous advice²⁴ has highlighted there is increased risk of transmission that is associated with increased likelihood of aerosol emission (such as loud singing/speech and aerobic activity). Breathing, speaking and singing all produce aerosol; the contribution of potential aerosol contamination from audience and performers must be considered together. As singing at high volume can generate 20-30 times more aerosol than breathing or quiet speaking/singing.
- Crowd activities such as joining in with singing and raised voices in close contact to communicate represent further risk of transmission. This, coupled

²³ [S0695 Aerosol and Droplet Generation from Singing Wind Instruments SWI and Performance Activities.pdf \(publishing.service.gov.uk\)](#)

²⁴ [Technical Advisory Group: advice for 22 April restriction review](#)

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with poor ventilation and crowding have been suggested to be factors in numerous transmission clusters, including those in bars, churches, and night clubs²⁵. Given that live performances are associated with the raising of voices, reducing social distancing to hear etc. there is an increased risk of transmission.

- As there would be limited social distancing, there would be increased risk associated with these activities in confined spaces, loud noise and subsequent activities.
- Previous advice has highlighted possible mitigations: [Theatres, Concert Halls and Other Performance Spaces \(publishing.service.gov.uk\)](#).

Behavioural considerations supporting this advice

- SAGE has previously published advice on mitigations to reduce the then new Variant of Concern (VOC), B.1.1.7, now commonly referred to as the Kent variant²⁶. This advice reinforced the importance of mitigations in place at the time (personal, procedural, engineering and societal) to reduce SARS-CoV-2 transmission, noting they would need to be adopted more rigorously and more often, given increased transmissibility. An emphasis was placed on the need to communicate this increased risk of transmission, as well as highlighting that environmental and personal measures, underpinned by effective government support, can reduce transmission, including in the home. While restrictions have been relaxed in recent months in line with the Coronavirus control plan for Wales, many of these mitigations remain in place and remain the most effective actions for breaking chains of transmission.
- In framing current and future activity to promote and support adherence in light of the emergence of the B.1.617.2 variant (and other emerging Variants of Concern), it is necessary to consider the current public health position. Rates of infection in the community have fallen, vaccines have been rolled out to the most vulnerable and many restrictions on social contact lifted. The most recent TAC summary of advice²⁷ shows, not surprisingly, that while adherence to key protective behaviours remains high (e.g. 2m distancing, use of face coverings and hand hygiene), mobility is increasing and there are more social contacts (e.g. fewer people are leaving home for essential purposes only and avoiding public transport, with more returning to workplaces). Recent SPI-B²⁸ advice notes the likelihood of perceptions of immunity growing in the population, with implications for messaging. With further relaxation of existing restrictions and

²⁵ [Technical Advisory Group: current evidence relating to weddings](#)

²⁶ [EMG/SPI-B/TWEG: Mitigations to reduce transmission of the new variant SARS-CoV-2 virus, 22 December 2020 - GOV.UK \(www.gov.uk\)](#)

²⁷ [Technical Advisory Cell: summary of advice 7 May 2021 | GOV.WALES](#)

²⁸ [SPI-B: Behavioural and social considerations when reducing restrictions, 10 February 2021 - GOV.UK \(www.gov.uk\)](#)

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others anticipated, urging caution and/or re-introducing restrictions may appear counterintuitive, although evidence does suggest around half of people believe it will be six months or longer before things are back to normal²⁹.

- Given this complexity, a continued focus on communications that present a clear rationale for the need to adhere to personal protective behaviours remains critical. The importance of support for such behaviours should not be underestimated, particularly support for self-isolation (financial, practical and social) and environmental interventions to encourage COVID-safe behaviours across society, including schools, workplaces, retail and hospitality settings. This is consistent with advice from SAGE³⁰, TAG³¹ and others³², that protective behaviours continue to have a key role to play and some are likely to be necessary in the longer-term to minimise future risk of infection when moving towards an endemic state or a 'new normal'.
- The consistent adoption of personal protective behaviours, supported by structured, tailored communications and social and environmental support as set out above, should be framed as 'easy' when compared to the larger-scale restrictions that have been in place for much of the pandemic, particularly when evidence suggests the majority of the population are already capable of maintaining them, while they take little time or resource.
- Ongoing messaging should also highlight the risk to the significant minority of the population who remain unprotected from vaccination, including younger people and some in minority ethnic communities. This is important in light of evidence that ethnic minority groups face multiple barriers in applying personal protective behaviours in their workplaces, communities and domestic spaces. Additionally there are statistically significant inequalities in vaccination uptake rates across ethnic (and socio-economic) groups³³. These factors point to the need for increased behavioural diagnostic activity, and resultant optimisation of interventions (e.g. communication, policy and services) to close these gaps. In the meantime, adherence to personal protective behaviours such as those noted above will provide a layer of protection while vaccine rollout continues.
- Emphasis on the continued need to reduce the risk of infection through minimising the number and duration of social contacts, adequate ventilation and assessing context at all times (e.g. levels of community infection, vulnerability of specific individuals, vaccination status and recent social contacts) remains critical. Reinforcing the relatively lower risk of meeting outdoors (compared with indoors) remains essential, as does the fundamental importance of seeking a test when symptomatic, self-isolating as necessary and having the vaccine,

²⁹ [Coronavirus and the social impacts on Great Britain - Office for National Statistics \(ons.gov.uk\)](https://ons.gov.uk/coronavirus/articles/socialimpacts)

³⁰ [SAGE 88 minutes: Coronavirus \(COVID-19\) response, 5 May 2021](#)

³¹ [Technical Advisory Group: using behavioural science to inform policy and practice | GOV.WALES](#)

³² See for example [Sustained behavior change is key to preventing and tackling future pandemics | Nature Medicine](#)

³³ [Wales COVID-19 vaccination enhanced surveillance - equality report.pdf](#)

including the necessity of the second dose to increase protection. Operationally and behaviourally, challenges remain with the vaccination programme, notably reaching the most vulnerable groups, the younger cohorts who perceive themselves to be less vulnerable and ongoing signals from the relaxation of restrictions.

- The broader TAG advice³⁴ on behavioural considerations to inform the lifting of restrictions also remains relevant, including the importance of co-produced³⁵ and culturally sensitive³⁶ risk communication, particularly given current evidence on the geography and demographics of new cases of the B.1.617.2 variant. Further effort is also required to improve understanding of how context, biases and other influences affect the behaviour of people and drives their decisions, in order to ensure interventions (communication, policy and service provision) reflect real needs and behaviours for greater impact and effectiveness.

International update

- The general situation for most countries in Europe is one of a steady state or improving picture. There are a few exceptions such as Denmark (which is experiencing a slow rise from a low base), Greece and Sweden (which are struggling with high levels), and the Baltic States Latvia and Lithuania (which have slowly rising cases). The vaccination programmes in several European countries are approaching levels where they will be starting to have an effect, i.e. at about a third of the population having received one dose (e.g. Germany 38%, Italy 33%, France 31%), but for many countries the levels are lower than this. Consequently, most European countries are not yet at a vaccination level which will give them significant protection. Nevertheless, several countries are relaxing their non-pharmaceutical intervention controls but at different rates depending on local circumstances. A small number of countries have higher levels of vaccination coverage (e.g. Hungary 50%, UK 55%) and these levels will impart significant protection for the population (but far from complete protection so vigilance is still required).
- The situation in India is starting to improve with daily case numbers falling but the death rate is only just peaking and it is expected to be two or three weeks before they experience any significant drop. The main variant is the B1.617.2 VOC which makes up an estimated 75% (some estimates of 80%) of cases. Confidence is rising from many sources that this variant is more transmissible than most other VOCs, indeed the early presence in India of the Kent B.1.1.7 variant (estimated at 20% in some regions) has fallen to about 3% or 4%,

³⁴ [Technical Advisory Group: statement on priority considerations relating to personal protective behaviours to inform decisions on easing of restrictions in Spring 2021 | GOV.WALES](#)

³⁵ [SPI-B: Principles for co-production of guidance relating to the control of COVID-19, 8 July 2020 - GOV.UK \(www.gov.uk\)](#)

³⁶ [SPI-B: Consensus on BAME communication, 22 July 2020 - GOV.UK \(www.gov.uk\)](#)

indicating that it has been outcompeted by the B.1.617.2 VOC. The hottest spots in that region at the moment are the Indian Ocean island groups of Seychelles.

- Elsewhere, South America has a persistent problem with most countries experiencing rises again to near record (Brazil) or new record levels (Argentina). Argentina has instigated a 'circuit breaker' lockdown because of recent very rapid increase in infection rate fuelled by complacency and a slow vaccination rollout (only 18% having received one dose). People are dying within a week of the onset of symptoms and the daily death rate per head of population is about the highest in the world. The Brazil and Kent VOCs are widespread and this is causing some hospitals' intensive care units to have mortality rates up to 75% as stress on doctors and nurses reaches unsustainable levels.
- Several other world regions are experiencing improvements, e.g. USA and Canada, whereas others are struggling, e.g. Japan where they still intend holding the Olympics.

Disclaimer

- It is important to note that due to limited evidence relevant to specific environments, it has been necessary to refer to a smaller numbers of studies conducted outside of the UK and under varying levels of restrictions. Therefore the studies may not be directly comparable to each other, or generalisable to Wales.
- Some of these studies are also published 'preprints' from sites such as MedrXiv and therefore have not been subject to the same level of independent peer-review as evidence published in scientific journals. These preprints are identified in the text.
- Moreover, outside of controlled laboratory or experimental conditions, it is very difficult to identify exactly how, where and when an individual has been infected and therefore these studies should be treated with caution. However, due to the dynamic nature of the pandemic and timelines involved, evidence is often emerging and is revisited as more substantive peer reviewed scientific papers and studies are published.