

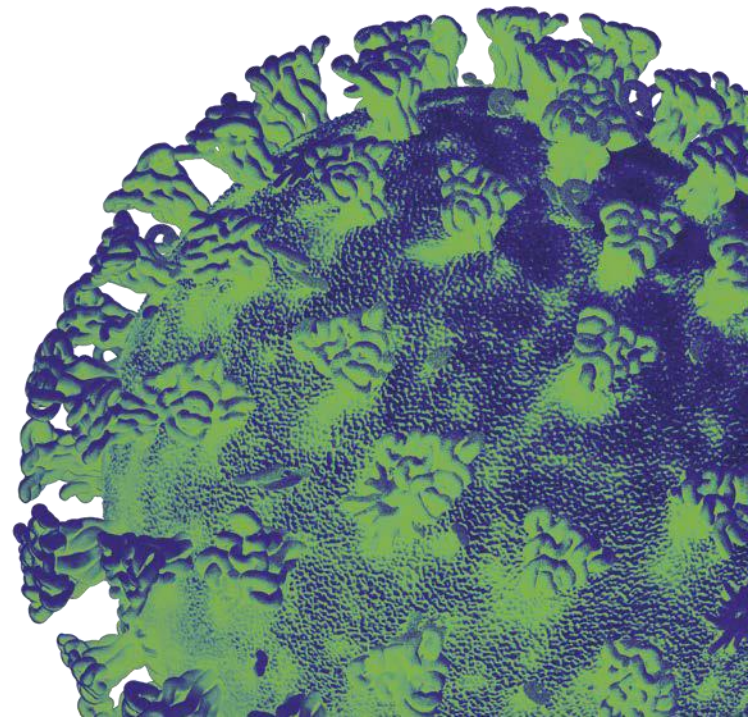
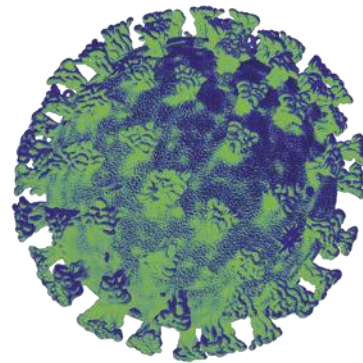
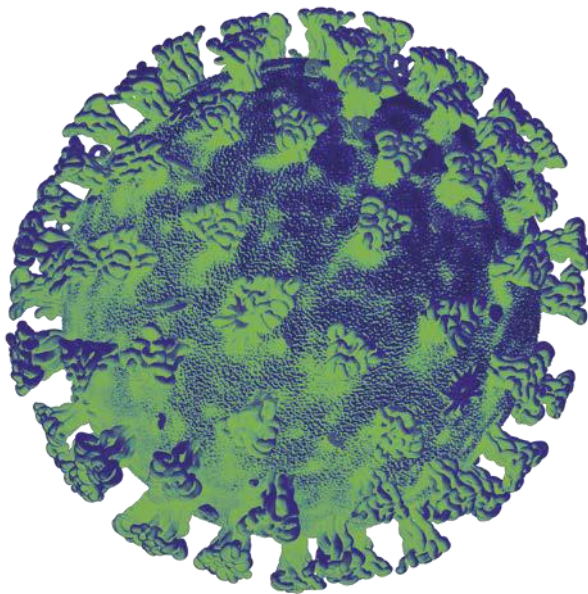


Llywodraeth Cymru  
Welsh Government

# Technical Advisory Cell

## Summary of Advice

17 June 2022



## Technical Advisory Cell: COVID-19 Summary of Advice

17 June 2022

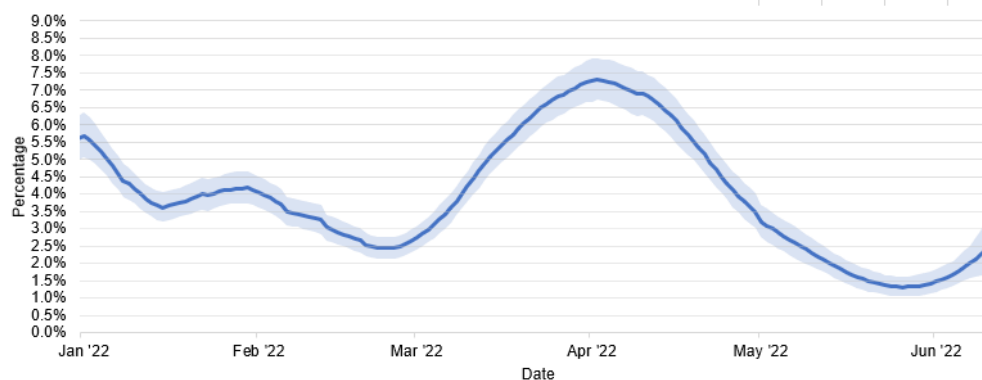
*This report looks to summarise the most recent epidemiological data on COVID-19, along with a collection of scientific and policy papers that may be useful to share. Much of the data included in this report is management information and so should be treated with caution to avoid mis- or over-interpretation.*

### Wales Sitrep

- Recent reporting from the [ONS COVID Infection Survey \(ONS CIS\)](#), which provides a relatively unbiased but lagged estimate of levels of infection, suggests the percentage of people testing positive for COVID-19 in Wales **increased** in the most recent week.
- For the week 5 to 11 June 2022, it is estimated that 2.13% of the community population had COVID-19 (95% credible interval: 1.63% to 2.74%). This equates to approximately **1 person in every 45** (95% credible interval: 1 in 60 to 1 in 35), or 64,800 people during this time (95% credible interval: 49,400 to 83,400).
- In Wales, the percentage of people testing positive has increased in people aged under 60. The trend is uncertain for those over 60. Prevalence was highest in Vale of Glamorgan and Cardiff, although differences between regions are small.

*Note that there is uncertainty around the estimates reported in the ONS CIS and credible intervals are provided to indicate the range within which we may be confident the true figure lies. Since the estimates are based on a relatively low number of positive tests, there is some uncertainty and the results should be interpreted with caution.*

### ONS Coronavirus Infection Survey estimates of the percentage of the population in Wales testing positive for the coronavirus (COVID-19) on nose and throat swabs, to 11 June 2022



- The percentage of people testing positive for COVID-19 has increased in all countries of the UK in the most recent week. During the most recent period, it is estimated that around 1 in 45 people had COVID-19 in Wales. This compares to around 1 in 50 people in England, around 1 in 45 in Northern Ireland and around 1 in 30 people in Scotland.
- [Wastewater surveillance](#) dated 16 June 2022 suggests since the last report, SARS-CoV-2 viral load has remained generally level across the country. However, the

signal increased in 8 regions, remained stable in 2 regions, and decreased in 4 regions.

- The signal increased at Carmarthen Bay and the Gower, Conwy, Dee, Meirionnydd, Teifi and North Ceredigion, Wye, Ynys Môn and Hafren Dyfrdwy.
- The signal decreased at Cleddau and Pembrokeshire Coastal Rivers, Clwyd, Llyn and Eryri and Usk.

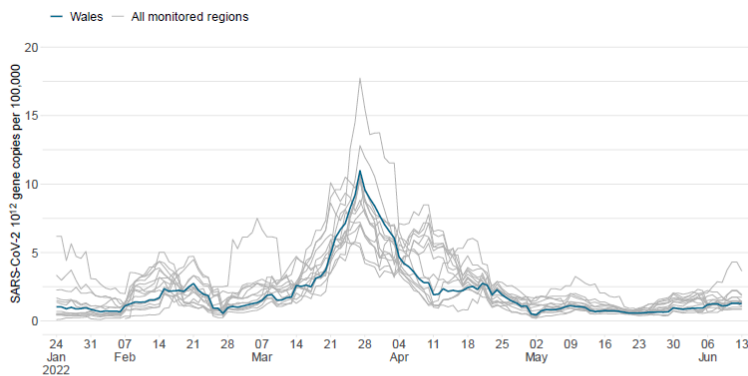


Figure 2 - National (blue lines) and Regions (grey lines) Rolling Mean SARS-CoV-2 gc/day per 100k

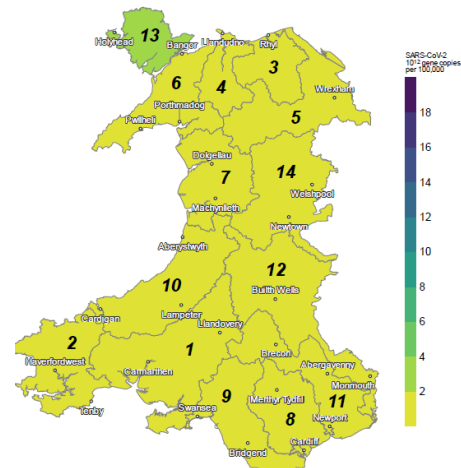


Figure 3 - National Heat Map showing Regional Mean SARS-CoV-2 gc/day per 100k

- As at 15 June NHS Wales remains under considerable pressure, reporting ambulance crews waiting outside and busy Emergency departments. In relation to COVID-19 the total number of COVID-19 related patients in hospital is 484, 16 (3%) higher than the same day last week. The number of confirmed COVID-19 patients in hospital currently occupying a bed is 205, 54 (36%) higher than the same day last week and the highest since 25 May 2022. Since 4 June the 7-day average admissions has almost doubled from 4.9 to 9.7, although numbers remain small relative to previous waves.
- The number of occupied critical care beds is 173, 21 higher than the pre-COVID-19 baseline and six lower than the same day last week. The number of COVID-19 related patients in critical care was 8 patients occupying a bed, the same as the same day last week.
- Of the 117 confirmed COVID-19 patients in an acute and major acute hospital bed (excluding Velindre), 32 patients (18%) are actively being treated for COVID-19.
- The latest figures from [StatsWales](#) show NHS staff sickness related to COVID-19 in Wales have remained generally stable/ increased slightly in the two week period ending 13 June. During this time NHS staff absence due to COVID-19 sickness increased slightly from 0.7 to 0.8%, while the self-isolation rate increased from 0.4 to 0.5. Total NHS staff absence has remained stable/ increased slightly from 5.7 to 5.8% since the previous period.

- As at 8 June 2022, the 7-day average of deaths within 28 days of a positive COVID-19 test has remained stable compared to the previous week at 1.7 deaths.
- **The number of deaths in week 22 is affected by the two bank holidays on June 2 and 3 2022; caution is needed when comparing across weeks, and with the five-year average.** Lagged [ONS death registration reporting](#) up to 3 June shows the total number of deaths registered in Wales was 43; 251 lower than the previous week and 16.7% below the five-year average (87 more deaths). 2.8% of total deaths involved COVID-19 (12 deaths), a decrease from the previous week.
- As at 8 June, 36 (+9 since previous week) adult care homes in Wales have notified the Care Inspectorate Wales (CIW) of one or more confirmed cases of COVID-19, in staff or residents, in the last 7 days and 86 (+5 since previous week) adult care homes in Wales have notified CIW of one or more confirmed cases of COVID-19, in staff or residents, in the last 20 days. In the two weeks ending 8 June there have been no reported deaths of care home residents related to suspected or confirmed COVID-19, with 231 deaths from all causes. (Source: [StatsWales](#)).
- The UKHSA's Epidemiology Modelling Review group is meeting at a reduced schedule and so no Reproduction number (Rt) estimate is available this week.
- PHW [report](#) confirmed influenza case numbers have decreased in recent weeks, while RSV confirmed cases have increased; this is unusually earlier than would be expected for the RSV season in Wales. In the week ending 12/06/2022 there were four cases of influenza confirmed, with a further three cases reported late from samples in preceding weeks. Rhinovirus and parainfluenza are the most commonly detected cause of non-COVID-19 Acute Respiratory Infection (ARI), with increasing confirmed cases in recent weeks.

## UK Summary

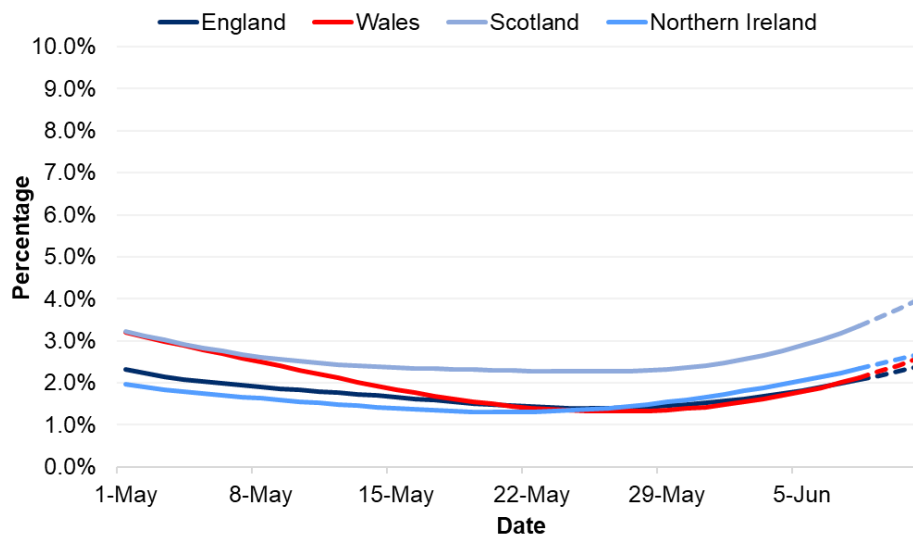
### UK Infection positivity – ONS Coronavirus Infection Survey, 5 to 11 June 2022

- The percentage of people testing positive for COVID-19 has **increased in all countries of the UK in the most recent week**. During the most recent period, it is estimated that an average of 2.13% (1.63% to 2.74%), which equates to 64,800 (49,400 to 83,400) people in Wales had COVID-19 equating to around 1 in 45 people (1 in 60 to 1 in 35). This compares to around 1 in 50 (1 in 50 to 1 in 45) people in England, around 1 in 45 (1 in 55 to 1 in 35) in Northern Ireland and around 1 in 30 (1 in 35 to 1 in 25) people in Scotland.

*Note that there is uncertainty around the estimates and credible intervals are provided in the figures above to indicate the range within which we may be confident the true figure lies. Since the estimates are based on a relatively low number of positive tests, there is some uncertainty and the results should be interpreted with caution.*

### **Positivity rates (%) across UK countries 22 April to 11 June 2022 (central estimates)**



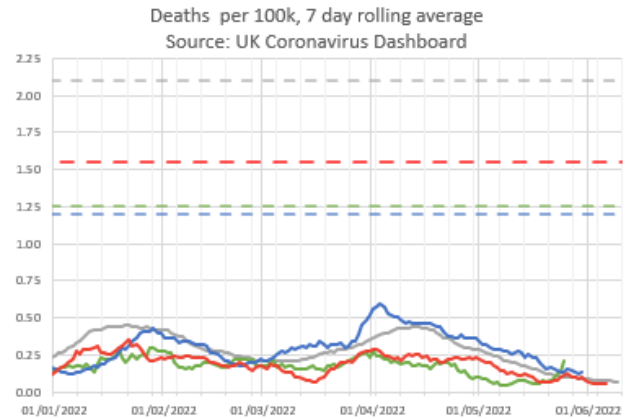
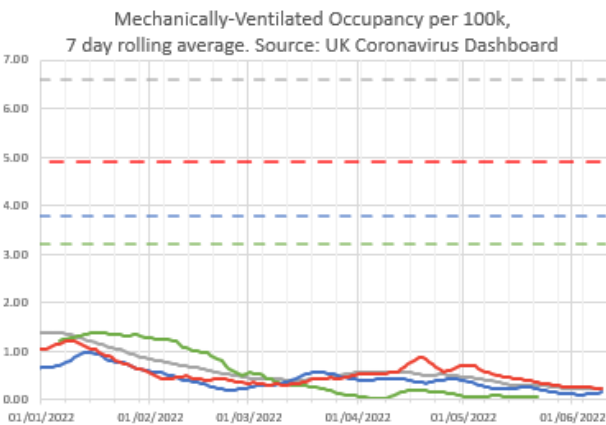
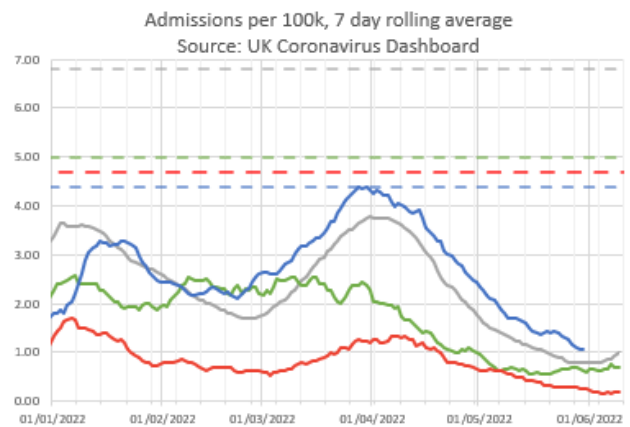
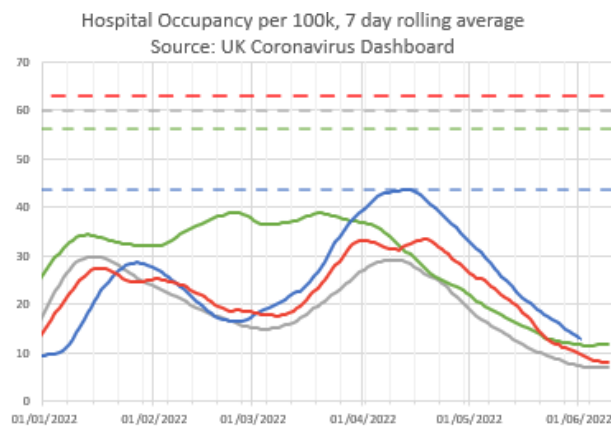


UK hospitalisations and deaths - UK Coronavirus Dashboard data up to 8 June 2022 or earlier

**Note that this data is classified as management information rather than official statistics and there may be differences in methodology between the nations.** As a result caution should be taken when interpreting this data, especially comparing between nations. Full documentation is available at [Metrics documentation | Coronavirus in the UK \(data.gov.uk\)](https://data.gov.uk/dataset/metrics-documentation-coronavirus-in-the-uk). The dotted lines in the charts below indicate peak levels.

Some UK nations have also announced they will no longer be reporting some indicators; as of 20 May Northern Ireland no longer reports COVID-19 Cases or Deaths and as of 1 June Scotland no longer reports deaths with 28 days of a positive test. Full details available at [What's new \(data.gov.uk\)](https://data.gov.uk/dataset/whats-new).

- Hospital admissions with COVID-19 are increasing in England, Scotland and Wales, although they remain at low levels. The trend is uncertain in Northern Ireland. **Note:** Wales COVID-19 admissions include suspected cases and do not include patients who tested positive while in hospital, **so comparisons of admissions with the other UK nations should be interpreted with caution.**
- COVID-19 hospital occupancy is also increasing slightly in England, Scotland and Wales. Occupancy appears to be stable in Northern Ireland. COVID-19 ICU/ Mechanically ventilated bed occupancy remains generally stable in the UK nations and is lower than previous waves.
- Deaths within 28 days of a COVID-19 test continue to decline in England and Wales. Deaths increased in the latest week in Scotland, but numbers remain at low levels.

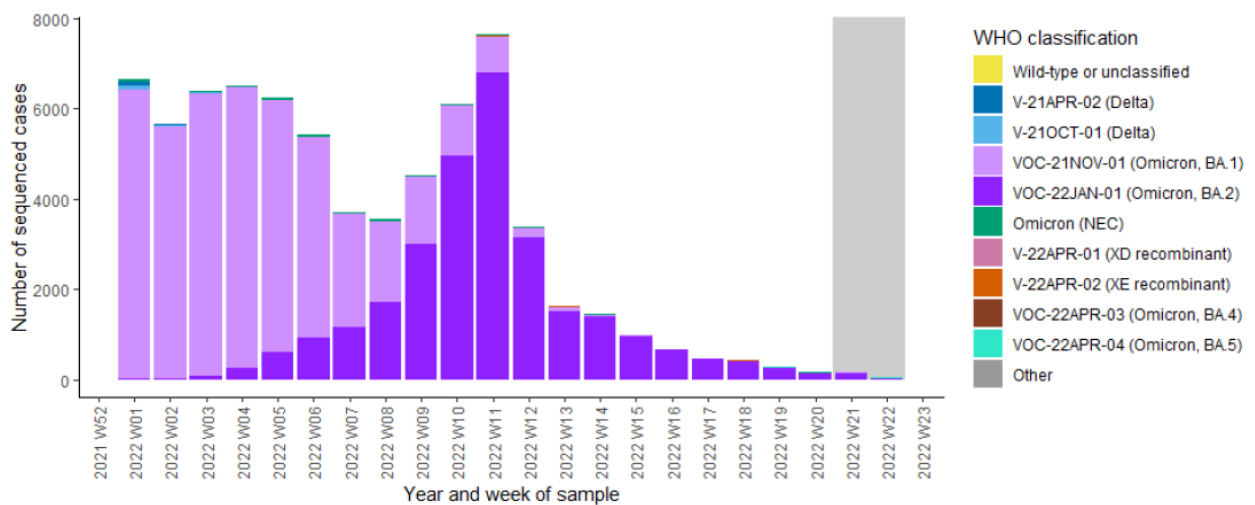


—England    —N. Ireland    —Scotland    —Wales

### **Public Health Wales variant surveillance, 15 June ([Source link](#))**

- In the latest three reporting weeks (2022 W21 to 2022 W23), 72.4% of sequenced cases were VOC-22JAN-01 (Omicron, BA.2), 7.5% of sequenced cases were VOC-21NOV-01 (Omicron, BA.4) and 15.6% were VOC-21NOV-01 (Omicron, BA.5).
- The current dominant variant in Wales is VOC-22JAN-01 (Omicron, BA.2) which accounted for 58.62% of sequenced cases in the last 14 days.
- As of 15/06/2022 there have been:
  - 57,115 cases of VOC-21NOV-01 (Omicron, BA.1)
  - 28,731 cases of VOC-22JAN-01 (Omicron, BA.2)
  - 0 cases of V-22APR-01 (Omicron, XD)
  - 49 cases of V-22APR-02 (Omicron, XE)
  - 32 cases of VOC-22APR-03 (Omicron, BA.4)
  - 47 cases of VOC-22APR-04 (Omicron, BA.5)
- In the reporting week 2022 W21 there were 2 Critical Care Admission (CCA) cases, neither having a sequencing result for Omicron. *Please note, not all CCA cases are sequenced.*

**Figure: Epicurve of all sequenced variant cases in Wales, data as at 14/06/2022, Public Health Wales Variant Surveillance Update**



Please note data in the grey shaded region is indicative of a lag in sequencing data and should be interpreted with caution.

### **International – WHO weekly COVID-19 update 15 June**

- The [WHO's Weekly COVID-19 epidemiological update](#) dated 15 June 2022 reports that globally, the number of new weekly cases has continued to decline since a peak in January 2022. During the week of 6 to 12 June 2022, over 3.2 million cases were reported, similar to the number reported during the previous week. At the regional level, the number of new weekly cases increased in the Eastern Mediterranean Region (+58%), in the South-East Asia Region (+33%) and in the Region of the Americas (+13%), while it decreased in the other three WHO regions.
- After five weeks of decline, the number of new weekly deaths has risen again, with over 8700 fatalities reported, a 4% increase as compared to the previous week. As of 12 June 2022, over 533 million confirmed cases and over 6.3 million deaths have been reported globally.
- The Omicron VOC remains the dominant variant circulating globally, accounting for 97% of sequences reported. Among Omicron lineages submitted to GISAID, BA.2 represents 39%, while BA.2.12.1 represents 28%, BA.5 represents 6%, and BA.4 represents 3%. For epidemiological week 20 (15 to 21 May 2022) and week 21 (22 to 28 May 2022), there was a 4% decline in the number of BA.2 sequences, while there were increases of 4%, 3%, and 2% in BA.5, BA.2.12.1, and BA.4 sequences, respectively.

### **Medium Term Projections, TAC modelling sub-cell**

- These medium-term projections (MTPs) are produced regularly by Swansea University. The Swansea University (SU) projections are also combined with other models to go into a consensus MTP for admissions and deaths which is agreed

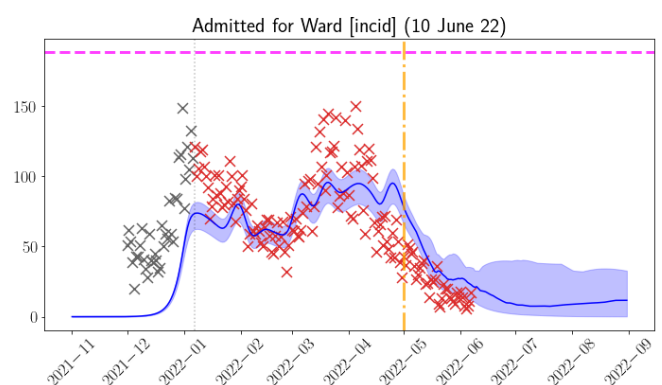
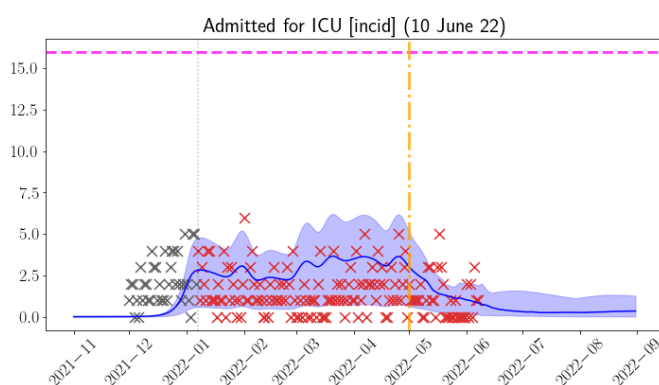
every two weeks by the UKHSA Epidemiological Modelling Review Group (EMRG), which has recently taken over from SPI-M-O in agreeing these MTPs.

- Because of the jubilee weekend, the EMRG estimates may not be produced for 4 weeks, unless the situation around COVID-19 deteriorates in those weeks. The SU projections are typically more up-to-date and include more outcomes (e.g. ICU), but may be less robust because they are based on one model only. Both MTPs are based on projecting forward from current data and do not explicitly factor in policy changes, changes in testing, changes in behaviour, or rapid changes in vaccinations.

### Swansea University MTPs, 10 June

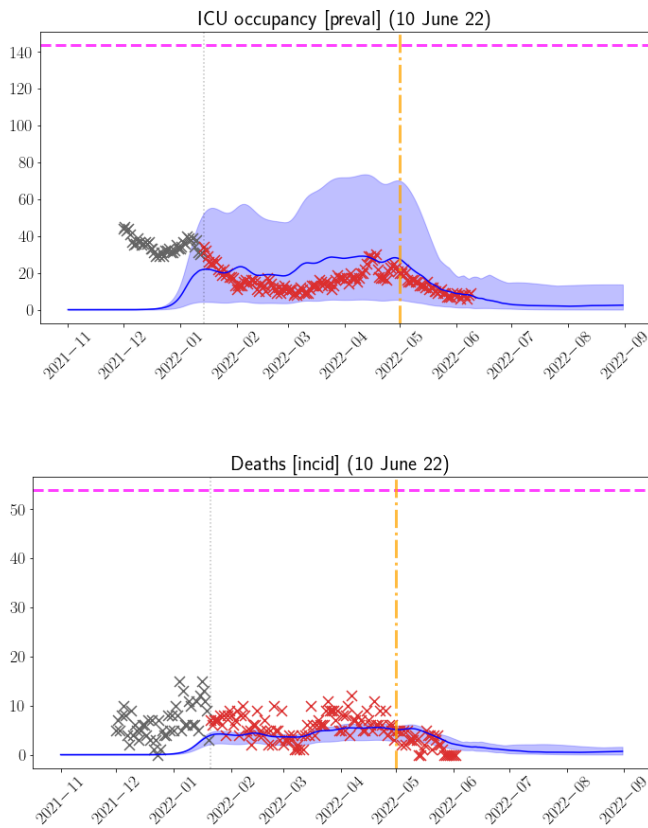
*In the figures below, the model is fitted to red observations, jointly across all the data dimensions. Each dimension is equally weighted. Horizontal lines represent pre-micron peaks. The solid line is the median fit on bootstrapped sample, and the ribbon represents 95% uncertainty regions. The vertical orange line indicates admissions and occupancy over a shorter time window.*

- This week's projections are similar to last week's MTPs. They project that NHS pressure and deaths will stabilise at a low level in the coming weeks.
- Admissions and deaths continue to decrease and have fallen to levels below that indicated by the MTP projections at this point in time. However, since these MTPs were produced, there has been a small increase in admissions. Therefore, it is anticipated that the next MTPs will project a higher number of admissions in the coming weeks compared with these MTPs.
- ICU admissions fluctuate at low levels.
- Bed occupancy and ICU bed occupancy levels agree closely with the MTP projections and are continuing to decrease at rates similar to those anticipated. However, both show increased uncertainty in coming weeks (wider confidence interval).
- Changes in hospital testing policy and length of stay can affect the models. This week, MTPs have been fitted to a shorter time period than normal (indicated by the vertical orange line) since this improved model fit to hospital admissions and occupancy considerably. This indicates that a key model parameter, such as length of stay, has changed in recent weeks, impacting model fitting. This will be investigated in the coming weeks.

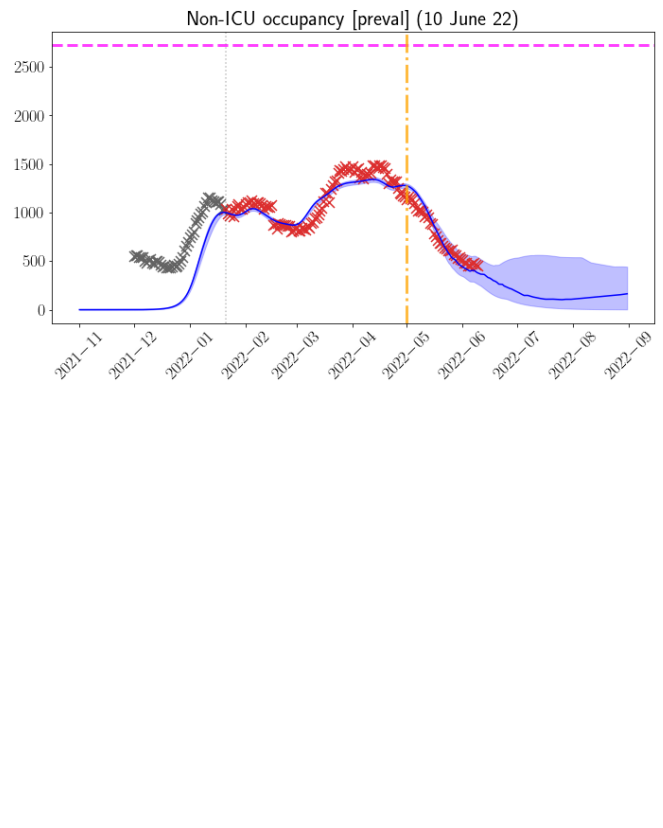




## TAC ADVICE ONLY



## NOT WELSH GOVERNMENT POLICY



### **Evidence roundup- summary:**

*This section aims to summarise a selection of the recent COVID-19 and relevant communicable disease papers, reports and articles that are relevant to a Welsh context or contain new data, insights or emerging evidence.. It may contain pre-print papers, which should be interpreted with caution as they are often not yet peer-reviewed and may be subject to change when published. The exclusion of any publication in this section should not be viewed as a rejection by the Technical Advisory Cell.*

### **Immunity and vaccine effectiveness**

#### [Interim JCVI advice on autumn COVID-19 booster](#)

The committee recognises that there is considerable uncertainty with regards to the likelihood, timing and severity of any potential future wave of COVID-19 in the UK in the year ahead. Despite these uncertainties, winter will remain the season when the threat from COVID-19 is greatest for individuals and for health communities.

- As in autumn 2021, the primary objective of the 2022 autumn booster programme will be to increase population immunity and protection against severe COVID-19 disease, specifically hospitalisation and death, over the winter period.

- The JCVI's current view is that in autumn 2022, a COVID-19 vaccine should be offered to:
  - residents in a care home for older adults and staff
  - frontline health and social care workers
  - all those 65 years of age and over
  - adults aged 16 to 64 years who are in a clinical risk group

### COVID-19 vaccine in pregnancy

- A [recent study in Switzerland reports](#) that pregnant individuals with COVID-19 are at increased risk of severe disease, prematurity, and stillbirth. The study describes early adverse events and perinatal outcomes in pregnant women who received at least one dose of mRNA vaccine. Local events (mainly local pain) were reported in 81.3% and 80.5% after the first and second doses. Rates of systemic reactions (mainly fatigue and headache) were similar after the first dose and most frequent after the second dose.
- The [SARS-CoV-2 infection and COVID-19 vaccination in pregnancy](#) reports that SARS-CoV-2 infection poses increased risks of poor outcomes during pregnancy, including preterm birth and stillbirth. There is also developing concern over the effects of SARS-CoV-2 infection on the placenta, and these effects seem to vary between different viral variants. This report suggests that whilst SARS-CoV-2 infection poses significant risks to pregnant people and their infants, COVID-19 vaccination is safe in pregnancy. This underlies the recommendation that pregnant people receive the COVID-19 vaccine, which is now being made by public health bodies all over the world. The report also suggests that strong public health messaging is needed, but more importantly midwives and obstetricians must be adequately equipped to counsel their patients on the benefits of COVID-19 vaccination.

### Variants

- The European Centre for Disease Prevention and Control (ECDC) regularly assesses new evidence on variants detected through epidemic intelligence, rules-based genomic variant screening, or other scientific sources. The table below illustrates the updated variants of concern (VOC) as of 9th June 2022.
- If a decision is made to add, remove, or change the category for any variant, the tables are updated to reflect this change. For these variants, clear evidence is available indicating a significant impact on transmissibility, severity and/or immunity that is likely to have an impact on the epidemiological situation in the EU/EEA.

WHO label	Lineage + additional mutations	Country first detected	Impact on transmissibility	Impact on immunity	Impact on severity	Transmission in EU/EEA
<b>Omicron</b>	BA.1	South Africa and Botswana	Increased (v) (1, 2)	Increased (v) (3-5)	Reduced (v) (6-8)	Community

<b>Omicron</b>	BA.2	South Africa	Increased (v) (1, 9)	Increased (v) (3)	Reduced (v) (10, 11)	Dominant
<b>Omicron</b>	BA.4	South Africa	No evidence	Increased (12, 13)	No evidence	Community
<b>Omicron</b>	BA.5	South Africa	No evidence	Increased (12, 13)	No evidence	Community

Table from ECDC report (bracketed numbers are references in the ECDC report)

- [ECDC reports that most European Union/European Economic Area \(EU/EEA\) countries](#) have detected low proportions of the BA.4 and BA.5 variants, although many have seen an increase in recent weeks.
- As of 30 May 2022, BA.5 is the dominant variant in Portugal, with an estimated proportion of around 87%. In recent weeks (week 17–21 of 2022), an increase in the proportion of BA.4 and BA.5 infections was observed in many EU/EEA countries including Austria, Belgium, Denmark, France, Germany, Ireland, Italy, Netherlands, Spain and Sweden.
- The growth advantage reported for BA.4 and BA.5 suggests these variants will become dominant throughout the EU/EEA, probably resulting in an increase in COVID-19 cases in coming weeks.
- ECDC reports there is no evidence of BA.4 and BA.5 being associated with increased infection severity compared to the circulating variants BA.1 and BA.2. However, as in previous waves, an increase in COVID-19 cases overall can result in an increase in hospitalisations, ICU admissions and deaths.
- A [recent paper pre-print paper suggests](#) a number of Omicron subvariants have evolved to extend antibody evasion. The Omicron subvariant BA.2 accounts for a large majority of the infection worldwide today. However, its recent descendants BA.2.12.1 and BA.4/5 have surged dramatically to become dominant in the United States and South Africa, respectively. The authors of this paper report that BA.2.12.1 is only modestly (1.8-fold) more resistant to vaccinated and boosted individuals than BA.2. However, BA.4/5 is substantially (4.2-fold) more resistant and thus more likely to lead to vaccine breakthrough infections. The Omicron lineage of SARS-CoV-2 continues to evolve, successively yielding subvariants that are not only more transmissible but also more evasive to antibodies.

## Clinical

- A recent [rapid review by Public Health Wales and the Welsh Covid Evidence Centre of the effectiveness of innovations to support patients on elective surgical waiting lists](#) suggests the implementation of preoperative exercise interventions, including pre-rehabilitation, could help improve preoperative and postoperative outcomes such as pain, muscle strength and function, and reduced incidence of postoperative complications, in people awaiting elective surgery. This rapid review sought to identify innovations to support patients on surgical waiting lists to inform policy and strategy to address the elective surgical backlog in Wales caused by the suspension or delay of surgery - in particular with elective and non-emergency treatments - during the COVID-19 pandemic. Prolonged waits for surgery can impact negatively on patients who may experience worse health

outcomes, poor mental health, disease progression, or even death. Time spent waiting for surgery may be better utilised in preparing patients for surgery. The authors acknowledge that considerable variation (heterogeneity) and methodological limitations across included studies may compromise the applicability of these findings. They suggest it is unclear what impact the pandemic (and any associated restrictions) could have on the conduct or effectiveness of these interventions.

- A [recent study in England detected changes in symptom profiles](#) associated with the different variants during nearly two years of the pandemic, reflecting the emergence of different variants over that period. From random population sampling to monitor the spread and manifestation of SARS-CoV-2, the study showed that most recently, infection with Omicron is associated with lower reporting of loss or change of sense of smell and taste, and higher reporting of cold-like and influenza-like symptoms. Sequence-confirmed BA.2 was associated with reporting of more symptoms and greater disruption to daily activity compared with BA.1.

## Long COVID

- [The ONS COVID-19 Schools Infection Survey](#) in England reports that nearly 1 in 50 (1.8%) primary school pupils (years from reception to year 6) and nearly 1 in 20 (4.8%) secondary school pupils (years 7 to 13) had experienced long COVID following their most recent COVID-19 infection. Significantly more secondary school pupils who reported having COVID-19 had experienced loss of smell or taste, cardiovascular symptoms, or systemic symptoms (fever or high temperature) than those who reported not having had COVID-19. Secondary school pupils in years 7 to 13 with long COVID were significantly more likely to have a probable mental disorder (28.1%) than those without long COVID (12.3%).
- ONS [reports that an estimated 2.0 million people](#) living in private households in the UK (3.1% of the population) were experiencing self-reported long COVID. Of people with self-reported long COVID, 442,000 (22%) first had (or suspected they had) COVID-19 less than 12 weeks previously, 1.4 million people (72%) at least 12 weeks previously, 826,000 (42%) at least one year previously and 376,000 (19%) at least two years previously.
- [Data analysis from the ONS COVID-19 Infection Survey](#) report that as of 6 May 2022, the odds of self-reporting long COVID symptoms four to eight weeks after a first COVID-19 infection were 49.7% lower in infections compatible with the Omicron BA.1 variant than those compatible with the Delta variant among adults who were double-vaccinated when infected. However, there was no statistical evidence of a difference in risk of long COVID between first infections compatible with the Delta and Omicron BA.1 variants among triple-vaccinated adults; the socio-demographically adjusted prevalence of self-reported long COVID was 8.5% for Delta and 8.0% for Omicron BA.1.
- The same report suggests that there was also no statistical evidence of a difference in risk of long COVID between first infections compatible with the Delta and Omicron BA.2 variants among triple-vaccinated adults; the socio-demographically adjusted prevalence of self-reported long COVID was 7.4% for Delta and 9.1% for Omicron BA.2. The odds of self-reporting long COVID symptoms four to eight weeks after a first COVID-19 infection were 21.8% higher after an infection compatible with Omicron BA.2 than Omicron BA.1 among adults who were triple-

vaccinated when infected; this was after adjusting for socio-demographic characteristics and time since last COVID-19 vaccination.

- A [recent report on Long COVID](#) suggests that vaccination against SARS-CoV-2 lowers the risk of long COVID after infection by only about 15%. This study of more than 13 million people is the largest cohort that has yet been used to examine how much vaccines protect against the condition, but it is unlikely to end the uncertainty.
- COVID-19 vaccines have proven very successful in protecting against severe disease. However, they only provide partial protection against infection, and an increasing number of individuals suffer breakthrough infections (BTIs) after vaccination. [A recent US study investigated](#) the vast US department of Veterans Affairs national health-care database to determine the level of protection vaccines provide against post-acute COVID-19 sequelae ('long COVID'). They found that individuals with BTIs, compared with unvaccinated individuals, had a lower risk of death and long COVID between of 1–6 months post-infection, particularly when comparing patients who had been hospitalized with COVID-19. However, the overall protection of the vaccine from long COVID was only ~15%, which means that the burden of long COVID is likely to be substantial even in fully vaccinated populations.

## Environmental Science

- A report from the [Royal Academy of Engineering](#) suggests that it's 'time for a major upgrade of buildings to create healthier indoor environments'. The report provides recommendations for new regulations and standards that apply throughout the lifetime of a building to create healthier environments, taking lessons from existing accessibility, legionella, or fire regulations. In addition to this, codes of practice should be introduced to make sure that the health of building occupants is a day-to-day consideration for those in the building and construction industry, from designers through to asset managers. The report makes eight recommendations to enshrine infection resilience in building regulations and improve the health of our indoor environments, which include:
  - Establishing best practice – the British Standards Institution (BSI) should convene the relevant expertise and develop meaningful standards that are embedded into existing design and operational practices.
  - Promoting building health – the UK Health Security Agency should promote the benefits of infection resilience and good indoor air quality to building and transport owners and the public through signage and ratings in a similar way to food or water standards.
  - Ensuring that buildings operate as designed in terms of infection resilience – industry bodies and public procurement must drive improvements to the commissioning and testing of building systems at handover, and subsequently over the life of a building.
  - Establishing in-use regulations with local authorities by 2030 to maintain standards of safe and healthy building performance over the building lifetime.
  - Ensuring Government departments such as BEIS, DfT and DLUHC consider incorporating infection resilience into major retrofit programmes designed to meet the commitments of the Net Zero Strategy.



## Therapeutics

- Newly emerging SARS-CoV-2 variants need to be carefully monitored for a potential increase in transmission rate, pathogenicity, and resistance to immune responses. The resistance of variants to vaccines and therapeutic antibodies can be attributed to a variety of mutations in the viral spike protein. It is reasonable to assume that these new omicron subvariants have reduced sensitivity to therapeutic antibodies. [A recent study suggests](#) that five antibodies were also less functional against new omicron subvariants and notably, BA.4/5 exhibited about 20-fold more resistance than BA.2.

## Health economics and inequalities

- A [report from Public Health Wales](#) published on the 9 June has found that the gap in life expectancy between those living in the least and most deprived areas in Wales is increasing. While inequalities in healthy life expectancy remain stable, the gap in how long someone can expect to live between the least and most deprived populations in Wales has been generally increasing in recent years for both males and females, suggestive of growing inequality. The inequality gap was over a year greater for males than in females. The report that contains analysis of life expectancy and healthy life expectancy since 2011, has also identified a slight decrease in female life expectancy between 2018 -2020, the lowest it's been since the reporting began. Life expectancy in Wales is 82 years for females and 78 years for males in this same time-period.

## WHO Influenza update

- The [WHO influenza update dated 13<sup>th</sup> of June](#), reports that the number of new weekly cases continues to decline since the January 2022 peak. During the week of 30 May to 5 June 2022, over three million cases were reported, a 12% decrease as compared to the previous week. The number of new weekly deaths also continues to decline, with over 7,600 fatalities reported, representing a 22% decrease as compared to the previous week. The numbers of new weekly cases increased in the Eastern Mediterranean Region (+19%) and South-East Asia Region (+1%), while they decreased in the other four WHO regions. The number of new weekly deaths increased in the Western Pacific Region (+7%), while decreasing trends were observed in the other five regions. As of 5 June 2022, over 529 million confirmed cases and over six million deaths have been reported globally.

## Australia- Influenza

- The [Australian Influenza Surveillance Report dated 05th June](#) reports that Influenza-like-illness (ILI) activity in the community this year has increased since March 2022. So far in 2022, there have been 87,989 notifications reported to the National Notifiable Diseases Surveillance System (NNDSS) in Australia, of which 47,860 notifications had a diagnosis date this fortnight. People aged 5–19 years and children aged younger than 5 years have the highest notification rates.
- As of 10 of June, the Australian Department of Health reports that there is no indication of the potential impact of the 2022 season on society at this time.

## Monkey Pox

- As of 15 June 2022, the UK Health Security Agency (UKHSA) has detected 52 additional cases of monkeypox in England, one additional case in Scotland and one in Wales. This brings the total number confirmed in the UK to 524, as of 14 June. There are currently 504 confirmed cases in England, 13 in Scotland, 2 in Northern Ireland and 5 in Wales.
- The World Health Organization (WHO) and Europe and European Centre for Disease Prevention and Control (ECDC) have [recently published an interim report](#) with the aim to provide concise advice to public health authorities and guide prevention, awareness and behaviour change for the upcoming summer events. Although the primary focus is monkeypox in the context of the current multi-country outbreak, much of the report's advice addresses good public health practices.
  - Since 13 May 2022, multiple cases of monkeypox have been reported by Member States of the WHO European Region that are not endemic for monkeypox virus, including countries of the European Union/European Economic Area (EU/EEA) and beyond [1,2].
  - These recently diagnosed monkeypox cases have been identified primarily but not exclusively among men who have sex with men (MSM).
  - Human-to-human transmission of monkeypox occurs through close contact with infectious material from skin lesions of an infected person, through respiratory droplets in prolonged face-to-face contact and through fomites (e.g. linens, bedding, sex toys, clothing) [2].
  - As the pandemic restrictions related to international travel and mass gatherings have been lifted in many European countries, a large number of mass gatherings including music, culture festivals or Pride events are planned, that will bring together young, international participants during the summer months. In addition, party events and other spontaneous gatherings are likely to take place in touristic settings (e.g. hotel/beach parties, etc.) during the summer holiday season. Large gatherings may represent a conducive environment for the transmission of the monkeypox virus if they entail close, prolonged and frequent interactions among people, in particular sexual activity. Moreover, in recent years, outbreaks of other infectious diseases, including among MSM (e.g. hepatitis A, meningitis), can be linked to travel abroad and social and mass gathering events [3,4]. However, lessons from outbreaks spread through social and sexual networks have shown that cancelling organised gatherings is likely to be counterproductive to disease control efforts. Venue closure or event cancellation does not reduce sexual contacts but rather shifts the activities to other settings, including private parties, which are less accessible to community outreach or public health interventions. Liaising with

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<sup>1</sup> [Monkeypox multi-country outbreak \(europa.eu\)](#)

<sup>2</sup> [Multi-country monkeypox outbreak: situation update \(who.int\)](#)

<sup>3</sup> [Rapid risk assessment: Hepatitis A outbreak in the EU/EEA mostly affecting men who have sex with men, 3rd update, 28 June 2017 \(europa.eu\)](#)

<sup>4</sup> [Rapid risk assessment: Increase in extensively-drug resistant Shigella sonnei infections in men who have sex with men in the EU/EEA and the UK \(europa.eu\)](#)

commercial venues and events is more feasible and efficient than mapping private parties [5]. Engaging with populations through the organised events represents a powerful opportunity. By working with organisers of events, the risks related to monkeypox can be communicated and clear, practical, targeted information provided to attendees. Engagement and partnering with gay, bisexual and other MSM is essential to develop responses that are accepted and promoted by the members of these population groups. As such, appropriate actions and community consultation linked to mass gatherings and other events can help control the spread of monkeypox.

- The UK Health Security Agency (UKHSA) has recently [published its first technical briefing on the ongoing monkeypox outbreak](#).
  - Detailed case interviews show that traditional contact tracing is currently challenging, but these interviews identify transmission networks, risk factors and behaviours that can be used to tailor public health communications and target intervention delivery. Epidemiological analysis will identify if these patterns change.
  - Preliminary estimate of the serial interval is 9.8 days though with high uncertainty (95% credible interval, 5.9 to 21.4).
  - UKHSA has commenced sharing of genomic data. However, it is recommended that monkeypox genomic data conventions are agreed, including sharing of raw as well as consensus data, given the potential for variation in bioinformatics pipelines and the impact that this may have on downstream analysis.
  - The mutations specific to the current global outbreak clade are distributed across the genome. There is a small subset of mutations in proteins that are involved in virus transmission, virulence, or interaction with antiviral drugs. Structural modelling is required to assess the impact of the individual mutations on the protein in the first instance.
  - UKHSA has produced a summary of evidence gaps and is working with partners to address these. UKHSA has convened an expert group of public health, NHS and academic partners to steer a comprehensive investigation.

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<sup>5</sup> [Emergence of novel strains of Shigella flexneri associated with sexual transmission in adult men in England, 2019–2020 | Microbiology Society \(microbiologyresearch.org\)](#)