



Epidemiological update
1st July 2022

- A total of 13,584 confirmed PCR cases have been reported in the 7 days to 29th June 2022 (cases notified to midnight 28th June 2022), which is a 36% increase from last week when 10,010 PCR positive cases were reported in the 7 days to 22nd June.
- There were 17,640 positive antigen test results reported in the 7 days to 29th June 2022 (results uploaded to HSE portal in the week to 28th June 2022), which is a 21% increase from last week when 14,589 positive antigen test results were reported in the 7 days to 22nd June.
- As of 29th June 2022, the 14-day incidence rate (PCR) per 100,000 population is 495; an increase of 26% from a week previously (394). Incidence rates are likely to be underestimates.
- Nationally, the 7-day incidence (PCR) per 100,000 population as a proportion of 14-day incidence (PCR) per 100,000 population is 58%, demonstrating that there were more confirmed cases identified through PCR testing in laboratories in the 7 days to 29th June, compared with the preceding 7 days.
- The 5-day rolling average of daily reported cases (PCR) is 1,678 as of 29th June, a 24% increase from that reported on 22nd June (1,354).
- Regarding national SARS-CoV-2 wastewater surveillance, in week 25 (to 25th June), of the 66 catchment areas for which a change from the previous week could be calculated, the viral load remained stable (within +/- 10%) in 34 of them, while none experienced decreases of 10% or more, and 32 saw increases of at least 10%. Of these, 27 had an increase from 10 to 50%, and 5 had an increase of more than 50%.
- There were 812 confirmed COVID-19 cases in hospital this morning (1st July), compared with 697 last week on 24th June. There have been 134 newly confirmed cases in hospital in the 24 hours preceding this morning. On average, there have been 112 new COVID-19 hospitalisations per day observed in the seven days to 1st July.
- As of 28th June 2022, 52% of hospitalised cases were categorised as hospitalised for COVID-19, with the remaining 48% categorised as asymptomatic COVID-19 cases and potentially infectious.
- As of 28th June 2022, the age breakdown of cases hospitalised for COVID-19 (N=450): 178 (39%) aged 80 and older, 165 (37%) aged 65-79, 55 (12%) aged 50-64, 38 (8%) aged 15-49 and 14 (3%) aged 0-14 years old.
- According to the latest HSE data on cases hospitalised for COVID-19 (N=450), as of 28th June 2022, 42% had received booster vaccination, 22% had completed their primary vaccination course and 36% had not completed their primary vaccination course.
- There were 32 confirmed cases in critical care as of this morning (1st July 2022), compared with 21 a week ago (24th June). There were 8 new admissions to critical care in the 24 hours preceding this morning. Of the 32 cases in critical care this morning, 11 were invasively ventilated.
- The number of COVID-19 cases in ICU whose primary reason for admission to ICU was COVID-19 has decreased from 11 on 21st June to 9 on 28th June. The proportion of COVID-19 cases in ICU for whom the primary reason for admission to ICU was COVID-19 decreased from 44% on 21st June to 32% on 28th June.

- According to National Office of Clinical Audit (NOCA) data as of 28th June 2022, where vaccination status was known (N=25), 4% of COVID-19 cases in ICU were unvaccinated and 96% were fully vaccinated. Of those COVID-19 cases in ICU who were fully vaccinated, 83% were recorded as having received a booster/additional dose.
- As of 28th June, 142 patients were in receipt of non-invasive ventilation/Continuous Positive Airway Pressure (CPAP) or High-Flow Oxygen in non-critical care settings, of whom 29 patients were COVID-19 cases.
- There continues to be a significant number of cases of hospital acquired infection (note this is based on data to the week ending 19th June 2022). There were 195 hospital acquired COVID-19 infections reported in the week ending 19th June, compared to 187 in the week ending 12th June, and 61 in the week ending 5th June.
- As of 29th June 2022, there have been 7,499 COVID-19 related deaths reported in Ireland since the outset of the pandemic. As of midnight 28th June 2022, there have been 44 COVID-19 related deaths notified which occurred in June 2022, 108 in May 2022, 336 in April, and 320 in March.
- In total, approximately 87% of TaqPath assay samples were S-gene target negative (indicating BA.4 and/or BA.5 infection) as of week 25 2022 (week ending 25th June), suggesting approximately 13% of infections were BA.2 (or sub-lineages of same). As of 21st June 2022, 209 BA.4 cases, 558 BA.5 cases, and 415 BA.2.12.1 cases have been confirmed in Ireland through whole genome sequencing. BA.2 lineage variants with amino acid substitutions at the spike protein L452 site have been added to the ECDC list of variants of interest due to preliminary evidence that suggests its impact on immunity. In Ireland as of 21st June, there have been 459 cases detected with the majority (n=397, 86.5%) associated with the BA.2.12.1 lineage and the L452Q substitution.
- As of 29th June 2022, 71% of children aged 12-15 years have received their primary course of vaccination. Of those aged 5-11 years, 26% have received one dose of their primary course of vaccination.
- As of 29th June, approximately 64% of the population aged 35-44 years, 58% of those aged 25-34 years, and 51% of those aged 16-24 years have received a first booster vaccine dose.
- As of 29th June, approximately 51% of the population aged 85 years and older, 55% of those aged 75-84 years and 45% of those aged 65-74 years have received a second booster dose.

Outbreaks for week 25 (19th – 25th June) are based on those reported up to midnight on 25th June 2022.

There was a total of 96 COVID-19 outbreaks notified in week 25. Regional departments of public health are currently prioritising the reporting of outbreak investigations in settings that would benefit most from public health and clinical intervention.

Healthcare setting outbreaks:

- There were 23 new nursing home and 6 new community hospital/long-stay unit outbreaks reported in week 25. The case range of these outbreaks was 2-20 cases.
- There were 24 new acute hospital outbreaks reported in week 25, with a range of 0-10 cases.
- There were 30 new outbreaks reported in a residential institution setting (21 in centres for disabilities, 3 in mental health facilities, 2 in a centre for older people and 3 in 'other' facility) in week 25, with 0-8 cases.
- There were 8 new outbreaks in 'other healthcare services' (7 in services for people with disabilities and 1 in clients of home care services) in week 25, with a range of 2-7 cases.

Noting that national SARS-CoV-2 testing guidance may influence trends, the number of infections detected and reported daily (based on PCR and self-reported antigen tests) has increased over recent weeks. PCR testing volumes have been stable, while test positivity has continued to rise. A significant proportion of detected infections continues to be identified in older age groups.

The COVID-19 burden on acute hospital care has increased considerably over recent weeks, from 167 on 28th May to 812 as of this morning (1st July), while the daily average number of newly confirmed cases in hospital has also continued to increase. Data for COVID-19 cases in hospital on 28th June show that just over half were hospitalised for COVID-19 disease (52%), with the remainder categorised as asymptomatic infectious cases.

As of 28th June, 76% of cases hospitalised for COVID-19 were aged 65 and older. According to HSE data on cases hospitalised for COVID-19, as of 28th June 2022, 42% had received booster vaccination, 22% had completed their primary vaccination course and 36% had not completed their primary vaccination course.

The total number of confirmed cases in critical care (32 as of 1st July) has slightly increased. The average number of COVID-19 ICU admissions has also increased in recent days. The number of ICU COVID-19 cases requiring mechanical ventilation has been broadly stable. The proportion of cases whose primary reason for admission to ICU was COVID-19 was 32% as of 28th June. As of 28th June, according to NOCA data, where vaccination status was known, 4% of COVID-19 cases in ICU were unvaccinated and 96% were fully vaccinated, of whom 83% were recorded as having received a booster/additional dose. The number of COVID-19 patients in receipt of advanced respiratory support in hospital settings outside of ICU remains broadly stable.

There has been a recent increase in the number of notified outbreaks in some vulnerable settings which continues to be monitored. COVID-19 mortality has remained relatively stable, although it is noted that there can be a lag in reporting of deaths.

You will be aware from colleagues in the Department that, with 812 COVID-19 inpatients on 1st July, the acute hospital system remains under considerable pressure. If the recent rising trend in hospitalised cases continues, we are likely to see increased pressure on the hospital system over the coming weeks. This will further reduce hospital capacity to admit patients for scheduled and unscheduled care.

We continue to closely monitor emerging SARS-CoV-2 variants and assess any potential threat to population health. The World Health Organization (WHO) has reported that internationally, among Omicron sequences submitted to GISAID (genomic sequencing database), as of epidemiological week 24 (13th to 19th June 2022) the prevalence of BA.2 was 25%, while BA.2.12.1 was 11%, BA.4 was 12%, and BA.5 was 43%. Comparing the proportions of Omicron sequences submitted during epidemiological weeks 23 (6th to 12th June) and 24, BA.2 reduced from 30% to 25%, BA.2.12.1 reduced from 18% to 11%, while BA.4 increased from 9% to 12% and BA.5 increased from 28% to 43%.

The European Centre for Disease Prevention and Control (ECDC) has reported that, as of 26th June, a sustained increase of BA.4 and BA.5 proportions continues to be observed for most countries in the European Union (EU)/European Economic Area (EEA) and that BA.5 is already the dominant sub-

lineage in many countries in the region, including Belgium, Denmark, France, Germany, Portugal and Spain. Overall case notifications remain high in the EU/EEA and have been increasing for the past three weeks. Case rates among people aged 65 years and older have increased in most countries where data are available. ECDC reports that these indicators signal the beginning of a widespread wave driven by BA.4 and BA.5 but that early indications are that the growth rate is substantially lower than during the earlier BA.2 wave. ECDC has also reported that a number of countries in the region have experienced increasing trends in hospital and/or ICU admissions/occupancy. ECDC further highlights that the BA.4/BA.5 wave has peaked in Portugal, which has reported a sharply reducing trend in case rates among people aged 65 years and older for the last four weeks.

The United Kingdom Health Security Agency (UK HSA) has recently reported (24th June) that BA.4 and BA.5 are now dominant in England and COVID-19 incidence is increasing there. Updated modelling shows that BA.4 and BA.5 continue to demonstrate a growth advantage over BA.2 with a relatively high degree of certainty. UK HSA indicates that the relative growth advantage for BA.5 is larger than BA.4 and it is therefore most likely that BA.5 will become the dominant variant in the UK. UK HSA further highlights that countries which have experienced BA.4 and BA.5 waves have not experienced apparent high severity of disease and hospitalisation rates have tended to remain lower than previous waves.

In Ireland, the prevalence of S-gene target failure amongst samples tested using the TaqPath assay has increased over recent weeks, with data as of week 25 (25th June) suggesting that 87% of SARS-CoV-2 cases are likely to be BA.4 and/or BA.5 (variants which test negative for the S-gene target). As of 21st June 2022, 209 BA.4 cases, 558 BA.5 cases, and 415 BA.2.12.1 cases have been confirmed in Ireland through whole genome sequencing. BA.5 represents the largest proportion of sequenced cases in recent weeks.

In summary, a number of epidemiological indicators have deteriorated in recent weeks suggesting that levels of SARS-CoV-2 transmission have increased. The numbers of detected and reported infections and hospitalised cases have continued to increase, while the numbers of COVID-19 cases in ICU have increased slightly. The number of COVID-19 cases in receipt of advanced respiratory support in hospital settings outside of ICU remains broadly stable. The increasing prevalence of the BA.4 and BA.5 Omicron sub-lineages in Ireland is likely contributing significantly to the current epidemiological profile.

It remains important to provide clear guidance and communication with the public on the evolving disease profile and a cultural shift towards embedding individual and collective personal behaviours to mitigate against COVID-19 and other respiratory infections. Both the Department of Health and the HSE continue to run multi-platform awareness campaigns encouraging adherence to the public health advice and uptake of vaccinations. It is important that the excellent cross-Departmental and cross-Agency support and amplification of these messages continues in a meaningful and ongoing way.

In consideration of any implications for personal protective measures arising from the current epidemiological situation including as relates to emerging SARS-CoV-2 variants, there is no indication for any change in the current public health advice. However, the recently observed deterioration in the disease profile further emphasises the importance of communicating the existing key public health advice to the general public so that individuals may optimally protect themselves from severe health

outcomes associated with COVID-19. It is particularly important that eligible groups for primary and booster doses (both first and second) continue to be encouraged to avail of vaccination in order to confer optimal protection against the risk of severe disease as well as against other potential long-term consequences of infection. Current hospitalisation data indicates that an increasing proportion of cases hospitalised for COVID-19 are aged 65 years and older. The uptake of second booster vaccine in this population is sub-optimal currently and it is strongly recommended that individuals in this age group avail of this dose if they have not yet done so.

The current key public health advice is as follows:

- Anyone who has symptoms of COVID-19 should self-isolate until 48 hours after symptoms have substantially or fully resolved – please do not attend any social events, work, school or college if you have symptoms.
- Anyone diagnosed with COVID-19 should self-isolate for 7 days from date of onset of symptoms, or if asymptomatic, date of first positive test. Anyone exiting self-isolation at day seven should continue to adhere to other public health protective measures.
- Mask wearing is advised on public transport and in healthcare settings. Mask wearing is also advised based on individual risk assessment, particularly now as we experience a BA.4/BA.5 surge. Anyone who wishes to wear a mask should not be discouraged from doing so. Individuals who are vulnerable to COVID-19 are further advised to be aware of the risk associated with activities they may choose to engage in and to take measures to optimally protect themselves. Vulnerable individuals are advised to consider wearing masks in crowded indoor settings, such as may relate, for example, to social gatherings or other activities and events.
- Continue to practise good hand and respiratory hygiene by washing and sanitising hands regularly and coughing/sneezing into your elbow. Maintain a physical distance where possible.
- Meet up outdoors if possible. When meeting indoors, avoid poorly ventilated spaces and keep windows open.
- Many people who were infected with COVID-19 in late 2021 and early 2022 will now be eligible for a first booster dose of COVID-19 vaccine. Book a first booster appointment on www.hse.ie if you are 12 years or older. People aged 65 years and over are now eligible for their second COVID-19 booster vaccine. Those with a weak immune system aged 12 and over can also get their second booster, when it is due. It is not too late to receive a primary dose of COVID-19 vaccine. Vaccines remain the most effective way of protecting ourselves from the worst effects of COVID-19.