



Epidemiological update
15th July 2022

- A total of 14,187 confirmed PCR cases have been reported in the 7 days to 13th July 2022 (cases notified to midnight 12th July 2022), which is a 1% decrease from last week when 14,374 PCR positive cases were reported in the 7 days to 6th July.
- There were 16,531 positive antigen test results reported in the 7 days to 13th July 2022 (results uploaded to HSE portal in the week to 12th July 2022), which is a 22% decrease from last week when 21,284 positive antigen test results were reported in the 7 days to 6th July.
- As of 13th July 2022, the 14-day incidence rate (PCR) per 100,000 population is 600; an increase of 2% from a week previously (587). 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 49.7%, demonstrating that there were slightly less confirmed cases identified through PCR testing in laboratories in the 7 days to 13th July, compared with the preceding 7 days.
- The 5-day rolling average of daily reported cases (PCR) is 1,916 as of 13th July, which is similar to that reported on 6th July (1,911).
- Regarding national SARS-CoV-2 wastewater surveillance, in week 26 (to 2nd July), of the 66 catchment areas for which a change from the previous week could be calculated, the viral load remained stable (within +/- 10%) in 37 of them, while none experienced decreases of 10% or more, and 29 saw increases of at least 10%. Of these, 27 had an increase from 10 to 50%, and 2 had an increase of more than 50%. When data across catchments areas is pooled and normalised for the population, the weekly distribution of SARS-CoV-2 viral load continued to show an increasing trend.
- There were 943 confirmed COVID-19 cases in hospital this morning (15th July), compared with 905 last week on 8th July. There have been 126 newly confirmed cases in hospital in the 24 hours preceding this morning. On average, there have been 140 new COVID-19 hospitalisations per day observed in the seven days to 15th July. As of 12th July, 47% of hospitalised cases were categorised as hospitalised for COVID-19, with the remaining 53% categorised as asymptomatic COVID-19 cases and potentially infectious.
- As of 12th July 2022, the age breakdown of cases hospitalised for COVID-19 (N=609): 240 (39%) aged 80 and older, 213 (35%) aged 65-79, 84 (14%) aged 50-64, 56 (9%) aged 15-49 and 16 (3%) aged 0-14 years old.
- According to the latest HSE data on cases hospitalised for COVID-19 (N=609), as of 12th July 2022, 44% had received booster vaccination, 20% had completed their primary vaccination course and 37% had not completed their primary vaccination course.
- As of 12th July, according to the latest HSE data on cases hospitalised for COVID-19, of the 240 persons aged 80 and older, 16% had received their second booster. Of the 213 cases aged 65-79 years, 15% had received their second booster.
- There were 35 confirmed cases in critical care as of this morning (15th July 2022), compared with 35 a week ago (8th July). There were 3 new admissions to critical care in the 24 hours preceding this morning. On average, there have been approximately 7 new COVID-19 admissions per day.

observed in the seven days to 15th July. Of the 35 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 increased from 12 on 5th July to 16 on 12th July. The proportion of COVID-19 cases in ICU for whom the primary reason for admission to ICU was COVID-19 decreased from 38% on 5th July to 35% on 12th July.
- According to National Office of Clinical Audit (NOCA) data as of 12th July 2022, where vaccination status was known (N=44), 11% of COVID-19 cases in ICU were unvaccinated and 89% were fully vaccinated. Of those COVID-19 cases in ICU who were fully vaccinated, 85% were recorded as having received a booster/additional dose.
- As of 12th July, 160 patients were in receipt of non-invasive ventilation/Continuous Positive Airway Pressure (CPAP) or High-Flow Oxygen in non-critical care settings, of whom 38 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 3rd July 2022). There were 212 hospital acquired COVID-19 infections reported in the week ending 3rd July, compared to 199 in the week ending 26th June, and 195 in the week ending 29th June.
- As of 13th July 2022, there have been 7,571 COVID-19 related deaths reported in Ireland since the outset of the pandemic. As of midnight 12th July 2022, there have been 18 COVID-19 related deaths notified which occurred in July 2022, 73 which occurred in June, 119 in May and 344 in April.
- In total, approximately 96% of TaqPath assay samples were S-gene target negative (indicating BA.4 and/or BA.5 infection) as of week 27 2022 (week ending 9th July), suggesting approximately 4% of infections were BA.2 (or sub-lineages of same). As of 4th July 2022, 439 BA.4 cases, 794 BA.5 cases, and 667 BA.2.12.1 cases have been confirmed in Ireland through whole genome sequencing (WGS). Recent WGS results indicate BA.5 is the dominant Omicron sub-lineage.
- As of 12th July 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 12th July, approximately 65% 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 12th July, approximately 56% of the population aged 85 years and older, 61% of those aged 75-84 years and 51% of those aged 65-74 years have received a second booster dose.

Outbreaks for week 27 (3rd July – 9th July) are based on those reported up to midnight on 9th July 2022.

There was a total of 116 COVID-19 outbreaks notified in week 27. 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 27 new nursing home and 7 new community hospital/long-stay unit outbreaks reported in week 27. The case range of these outbreaks was 2-25 cases.
- There were 30 new acute hospital outbreaks reported in week 27, with a range of 0-8 cases.

- There were 31 new outbreaks reported in a residential institution setting (24 in centres for disabilities, 5 in mental health facilities, 1 in Children's/TUSLA centres, 1 in other residential settings) in week 27, with 0-10 cases.
- There were 5 new outbreaks in 'other healthcare services' (4 in services for people with disabilities and 1 in clients of home care services) in week 27, with a range of 0-3 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 been stable (PCR) or has decreased (self-reported antigen) in the last week compared to the previous week. PCR testing volumes and test positivity have slightly reduced. 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, although the total number of hospitalised cases has remained at approximately 1,000 for a number of days (943 as of this morning), while data also suggest the daily average number of newly confirmed cases in hospital has not increased further over recent days. These trends will continue to be monitored. Data for COVID-19 cases in hospital on 12th July show that just under half were hospitalised for COVID-19 disease (47%), with the remainder categorised as asymptomatic infectious cases.

The total number of confirmed cases in critical care (35 as of 15th July) is the same as a week ago, although there has been day-to-day variation with higher numbers on some days in the last week. The average number of COVID-19 ICU admissions has increased. 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 35% as of 12th July. The number of COVID-19 patients in receipt of advanced respiratory support in hospital settings outside of ICU has slightly increased.

There has been an increase in the number of notified outbreaks in some vulnerable settings. 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 943 COVID-19 inpatients on 15th July, the acute hospital system remains under considerable pressure with COVID-19 continuing to impact on acute capacity.

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, the Omicron lineages BA.2 and BA.2.12.1 show reducing trends, while BA.4 and BA.5 are increasing. A comparison of sequences submitted to GISAID (genomic sequencing database) in epidemiological week 25 (19th to 25th June 2022) and week 26 (26th June to 7th July) demonstrates a decrease in BA.2 sequences from 7% to 4% and a decrease in BA.2.12.1 sequences from 13% to 7%. For the same period, the proportion of reported sequences of BA.4 has increased from 11% to 14% and BA.5 from 42% to 50%. BA.5 sequences have been reported from 89 countries.

The European Centre for Disease Prevention and Control (ECDC) has reported that an increase in COVID-19 cases driven mainly by the BA.4 and BA.5 variants is currently observed in several European Union (EU)/European Economic Area (EEA) countries. ECDC has indicated that increasing transmission

among older age groups is starting to translate into severe disease, with a number of countries reporting an increasing trend in hospital and/or ICU admissions/occupancy. Compared to maximum levels observed during the pandemic, current levels of ICU indicators remain low for the majority of countries. While the EU/EEA death rate has remained stable for a number of weeks, a number of countries have reported recent increases in death rates. As of 14th July 2022, ECDC designated the SARS-CoV-2 variant BA.2.75 as a variant of interest (VOI) due to the increasing number of detections in India and worldwide and the mutation profile of the variant. Within the EU/EEA, a small number of BA.2.75 variant cases have been reported to GISAID from several countries as of 15th July 2022. BA.2.75 is a newly designated sub-lineage of BA.2, mainly circulating in India. The proportion of BA.2.75 shows an increasing trend in India, where the infection background is mostly BA.2, suggesting that this variant may have increased transmissibility compared to this variant. BA.4/BA.5 constitute a lower proportion of circulating variants in India. Whether BA.2.75 has a growth advantage over these two variants, which are currently dominant in the EU/EEA remains to be determined. The data available at this time is very limited and should be interpreted carefully. WHO and ECDC continue to closely monitor the situation.

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 27 (9th July) suggesting that 96% 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 4th July 2022, 439 BA.4 cases, 794 BA.5 cases, and 667 BA.2.12.1 cases have been confirmed in Ireland through whole genome sequencing (WGS). Recent WGS results indicate BA.5 is the dominant Omicron sub-lineage.

In summary, a number of epidemiological indicators have deteriorated in recent weeks suggesting that levels of SARS-CoV-2 transmission have increased, although some indicators may be showing signs of slowing of the week on week increases or potentially stabilisation. These trends require further monitoring. The numbers of detected and reported infections have been stable or decreased while the number of hospitalised cases has not increased further over recent days. The total number of confirmed cases in critical care is the same as a week ago although there has been day-to-day variation with higher numbers on some days in the last week. The number of COVID-19 cases in receipt of advanced respiratory support in hospital settings outside of ICU has slightly increased. The circulation of the BA.4 and BA.5 Omicron sub-lineages in Ireland is likely contributing significantly to the current epidemiological profile, with recent WGS results indicating BA.5 is the dominant sub-lineage.

The HPSC Seroepidemiology Unit (SEU) has announced the launch of the HPSC Seroepidemiology of COVID-19 Data Hub, which presents a summary of COVID-19 seroprevalence due to vaccination or infection in Ireland over time, by age and quantitative antibody levels. The data hub is a collaborative project between HPSC SEU, Irish Blood Transfusion Service (IBTS) and staff seconded from National University of Ireland Maynooth. The dashboard provides data on trends in overall seroprevalence (the proportion with antibodies to COVID-19) and seroprevalence due to infection or vaccination in blood donors 20-79 years of age, from Dublin and Cork from October 2021 to June 2022. Overall seroprevalence is currently 99% among blood donors. As of 19th June 2022, seroprevalence indicating infection is relatively high at 69% for all ages (87% in 20-29-year-olds, 71% in 30-49-year-olds, 59% in 50-79-year olds). This means that for example 87% of young blood donors (20-29-year-olds) have evidence of natural infection with COVID-19 at some time, indicating a high level of transmission in the population. There is no threshold antibody level that offers complete protection against infection,

but higher antibody levels are likely to be associated with a lower probability of infection. Median overall antibody levels in blood donors aged 20-59 years have plateaued or decreased since peaking in mid to late January, whereas antibody levels in individuals aged 60-79 started to increase again in late April, likely due to the second COVID-19 booster vaccination campaign for those aged over 65 years. For individuals (all age groups) with evidence of antibodies due to vaccination only, median antibody levels peaked in late January and have declined since.

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. 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 most cases hospitalised for COVID-19 who are aged 65 years and older have not received a second booster vaccine. 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.