An Roinn Sláinte
Department of Health
Office of the Chief Medical Officer



**Epidemiological update**
**14th October 2022**

- A total of 2,274 confirmed PCR cases have been reported in the 7 days to 11th October 2022 (cases notified to midnight 10th October 2022), which is a 6% decrease from last week when 2,410 PCR positive cases were reported in the 7 days to 4th October.
- There were 4,092 positive antigen test results reported in the 7 days to 11th October 2022 (results uploaded to HSE portal in the week to 10th October), which is an 8% increase from last week when 3,786 positive antigen test results were reported in the 7 days to 4th October 2022.
- As of 11th October 2022, the 14-day incidence rate (PCR) per 100,000 population is 98 which is 15% higher than a week previously (85). 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%, demonstrating that there were fewer confirmed cases identified through PCR testing in laboratories in the 7 days to 11th October, compared with the preceding 7 days.
- The 5-day rolling average of daily reported cases (PCR) is 299 as of 11th October, which is 1% higher than that reported on 4th October (297).
- Regarding national SARS-CoV-2 wastewater surveillance, in week 40 (to 8th October), of the 65 catchment areas for which a change from the previous week could be calculated, the viral load remained stable (within +/- 10%) in 33 of them, while 32 experienced decreases of 10% or more, and 0 had an increase of at least 10%. When data across catchments areas was pooled and normalised for the population, the weekly distribution of SARS-CoV-2 viral load showed a decreasing trend.
- There were 434 confirmed COVID-19 cases in hospital this morning (14th October 2022), compared with 421 last week on 7th October. There have been 56 newly confirmed cases in hospital in the 24 hours preceding this morning. On average, there have been approximately 67 new COVID-19 hospitalisations per day observed in the seven days to 14th October.
- As of 11th October, 41% (N=234) of hospitalised cases were categorised as hospitalised for COVID-19, with the remaining 59% (N=341) categorised as asymptomatic COVID-19 cases and potentially infectious.
- The age breakdown of cases hospitalised for COVID-19 (N=234) as of 11th October: 180 (76.9%) aged 65 years and older, 23 (9.8%) aged 50-64, 21 (9%) aged 15-49 and 10 (4.3%) aged 0-14 years old.
- The vaccination profile of cases aged 15 years and older hospitalised for COVID-19 (N=224) was:
    - Of those aged 65 years and older (N=180): 34% had received a second booster; 29% had received a first booster; 5% had completed primary vaccination; and 32% had not completed their primary vaccination course.
    - Of those aged 50-64 (N=23): 9% had received a second booster; 48% had received a first booster; 4% had completed primary vaccination; and 39% had not completed their primary vaccination course.
    - Of those aged 15-49 (N=21): 33% had received a first booster; 10% had completed primary vaccination; and 57% had not completed their primary vaccination course.

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- There were 14 confirmed cases in critical care as of this morning (14th October 2022), compared with 7 a week ago (7th October). There was 1 new admission to critical care in the 24 hours preceding this morning. On average, there has been approximately 2 new COVID-19 admissions per day observed in the seven days to 14th October.
- The number of COVID-19 cases in ICU whose primary reason for admission to ICU was COVID-19 was 6 on 11th October, up from 5 a week previously on 4th October. The proportion of COVID-19 cases in ICU for whom the primary reason for admission to ICU was COVID-19 decreased from 50% on 4th October to 46% on 11th October.
- According to National Office of Clinical Audit (NOCA) data, as of 11th October 2022, where vaccination status was known (N=11), no COVID-19 cases in ICU were unvaccinated. Of those COVID-19 cases in ICU who had completed their primary course of vaccination (N=11), 100% were recorded as having received a booster/additional dose.
- As of 12th October, 155 patients were in receipt of non-invasive ventilation/Continuous Positive Airway Pressure (CPAP) or High-Flow Oxygen in non-critical care settings, of whom 14 patients were COVID-19 cases.
- There continues to be a significant number of cases of hospital acquired infections (note this is based on data to the week ending 2nd October 2022). There were 143 hospital acquired COVID-19 infections reported in the week ending 2nd October, compared to 100 in the week ending 25th September, and 89 in the week ending 18th September.
- As of 11th October 2022, there have been 7,988 COVID-19 related deaths reported in Ireland since the outset of the pandemic. As of midnight 10th October 2022, there have been 9 COVID-19 related deaths notified which occurred in October 2022, 43 which occurred in September 2022, and 102 which occurred in August 2022.
- In total, as of week 40 2022 (to 8th October), approximately 6% of TaqPath assay samples were S-gene target positive (indicating BA.2 lineage infection), suggesting approximately 94% of infections were BA.4/BA.5 lineages. Recent whole genome sequencing results (to 8th October 2022) indicate BA.5 (including its sub-lineages) is the dominant Omicron variant in Ireland. As of 8th October, the Health Protection Surveillance Centre (HPSC) has reported that 46 cases of Omicron lineage BA.2.75 (including descendant lineages), 241 cases of lineages BA.4 and BA.5 with the spike mutation R346X, and 108 cases of BF.7 have been identified in Ireland through whole genome sequencing (WGS). As of 13th October 2022, 32 B.1.1.529 sequences with both the K444X and N460X mutations have been submitted to GISAID (genomic sequencing database) from Ireland, of which 25 are BQ.1 lineages.
- As of 11th October 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 11th October, approximately 65% of the population aged 35-44 years, 59% of those aged 25-34 years, and 52% of those aged 16-24 years have received a first booster vaccine dose.
- As of 11th October, approximately 20% of the population aged 50-64 years have received a second booster dose, while 72% of the population aged 65 years and older have received a second booster dose.

Outbreaks for week 40 (2nd to 8th October) are based on those reported up to midnight on 8th October 2022.

There was a total of 44 COVID-19 outbreaks notified in week 40. 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 21 new nursing home and no new community hospital/long-stay unit outbreaks reported in week 40. The case range of these outbreaks was 2-26 cases.
- There were 10 new acute hospital outbreaks reported in week 40, with a range of 2-8 cases.
- There were 12 new outbreaks reported in a residential institution setting (7 in centres for disabilities, 3 in mental health facilities, 1 in a homeless facility and 1 in 'other') in week 40, with 0-11 cases.
- There was 1 new outbreak reported in a 'other healthcare settings' in week 40, with fewer than 5 cases.

Noting that national SARS-CoV-2 testing guidance may influence trends, the number of infections detected and reported daily based on PCR testing has slightly reduced while the number of self-reported positive antigen tests has increased. PCR testing volumes have been stable while, following a recent increase, PCR test positivity has also been broadly stable. A significant proportion of detected infections continues to be identified in older age groups.

The COVID-19 burden on acute hospital care remains significant. The total number of hospitalised COVID-19 cases has increased compared to a week ago (from 421 on 7th October to 434 as of this morning). The daily average number of newly confirmed cases in hospital has also increased (67 per day observed in the seven days to 14th October). Data for COVID-19 cases in hospital as of 11th October show that 41% were hospitalised for COVID-19 disease, with the remainder categorised as asymptomatic infectious cases.

The total number of confirmed cases in critical care (14 as of 14th October) has been stable. The number of ICU COVID-19 cases requiring mechanical ventilation has also been stable. The proportion of cases whose primary reason for admission to ICU was COVID-19 was 46% as of 11th October. The number of COVID-19 patients in receipt of advanced respiratory support in hospital settings outside of ICU has been stable.

Following a recent increase, the number of notified outbreaks has been broadly stable across a number of key vulnerable settings. COVID-19 mortality has remained broadly 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 the acute hospital system remains under considerable pressure, with COVID-19 continuing to impact on acute capacity (434 COVID-19 inpatients on 14th October).

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 as of epidemiological week 37 (12th-18th September 2022), based on sequences submitted to GISAID (genomic sequencing database), BA.5 descendant lineages continue to be dominant globally representing approximately

76% of sequences, with BA.4 lineages (including BA.4.6) at approximately 7% and BA.2 lineages (including BA.2.75) at approximately 4% of sequences.

The United Kingdom Health Security Agency (UKHSA) has reported (7th October 2022) that, based on early data and analysis, a number of novel variants have recently begun to circulate in the UK, and that the development of these additional lineages has occurred rapidly. These variants possess varying Omicron backbones but some convergent receptor-binding domain mutations which are likely to produce a degree of escape from current immunity in the UK. UKHSA has further noted that these new variants are at relatively low individual prevalence but at least 3 (BA.2.75.X, BF.7, BQ.X) show evidence of positive growth compared to BA.5, with the magnitude of growth advantage in some cases estimated to be in the same range as other variants which have caused increased incidence. UKHSA has assessed that variants may be contributing to the current increase in COVID-19 incidence, however, given the age mix and the timing of the increase compared to the variant prevalence, it is likely that other factors are contributing. Recent whole genome sequencing results (to 8th October 2022) indicate BA.5 (including its sub-lineages) is the dominant Omicron variant in Ireland. As of 8th October, the Health Protection Surveillance Centre (HPSC) has reported that 46 cases of Omicron lineage BA.2.75 (including descendant lineages), 241 cases of lineages BA.4 and BA.5 with the spike mutation R346X, and 108 cases of BF.7 have been identified in Ireland through whole genome sequencing (WGS). As of 13th October 2022, 32 B.1.1.529 sequences with both the K444X and N460X mutations have been submitted to GISAID (genomic sequencing database) from Ireland, of which 25 are BQ.1 lineages.

In regard to the epidemiological situation in the European Union (EU)/European Economic Area (EEA), at the end of week 40 2022 (week ending 9th October), the European Centre for Disease Prevention and Control (ECDC) reported widespread increases were being observed in all indicators. The pooled EU/EEA notification rate of COVID-19 cases in people aged 65 years and older increased by 33% compared with the previous week, as part of a three-week increasing trend. Increases of 1–6 weeks' duration were observed in 16 of the 25 countries reporting data on this indicator. Increases in overall (all-age) notification rates were reported by 13 countries. Pooled EU/EEA rates of hospital occupancy, ICU occupancy and ICU admissions for COVID-19 have been increasing for the last 2–3 weeks. Of 26 countries reporting data, 14 observed increasing trends of 1–5 weeks' duration in at least one hospital or ICU indicator. No significant changes in the variant distribution in the region have been reported.

In summary, the overall epidemiological situation in Ireland indicates a recent increase in infection in the community, while cases receiving general hospital care have continued to slowly increase placing further burden on the hospital system. In addition, the total number of confirmed cases in critical care is currently stable. Recent WGS results continue to indicate BA.5 (including sub-lineages) is the dominant variant.

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. It is important that the existing key public health advice continues to be communicated 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 (first, second and third) 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.

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. 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 earlier in 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 50 years to 64 years, pregnant women (from 16 weeks), healthcare workers, people aged 12 or older with a condition that puts them at high risk of serious illness from COVID-19 (for example, diabetes or heart disease) are now eligible to register for their second COVID-19 booster vaccine. People aged 65 years or older and people aged 12 or older who have a weak immune system are now eligible to register for their third booster dose. It is not too late to receive a primary course of COVID-19 vaccine. Vaccines remain the most effective way of protecting ourselves from the worst effects of COVID-19.