



Weekly Report on the Epidemiology of COVID-19 in Ireland Week 1, 2022

Health Protection Surveillance Centre, HPSC

COVID-19 Epidemiology Team, 10/01/2022

Please note:

- The epidemiological weeks in this report, run from Sunday to Saturday. Please refer to the <u>HPSC website</u> for a complete list of epidemiological weeks with start and end dates for 2020-2022.
- Reference dates:
 - Week 10, 2020 (1st to 7th March 2020) the beginning of the pandemic in Ireland, also the start of the first wave
 - Week 32, 2020 (2nd to 8th August 2020) the beginning of the 2nd wave
 - Week 48, 2020 (22nd to 28th November 2020) the beginning of the 3rd wave
 - Week 26, 2021 (27th June to 3rd July 2021) the beginning of the 4th wave
 - Week 51, 2021 (19th to 25th December) the beginning of the 5th wave
 - Week 1, 2022 (2nd January 2022 to 08th January 2022) most recent epidemiological week
- Data for this report is based on cases notified on the Computerised Infectious Disease Reporting system (CIDR)
- Data was extracted from CIDR system on 10/01/2022
- Data are provisional and subject to ongoing review, validation and update. As a result, figures in this report may differ from previously published figures.

Notes on data during this surge period

- hpsc
- Since 22/12/2021 the daily COVID-19 case number reported publicly is an estimate based on positive SARS-CoV-2 results uploaded to
 the HSE COVID Care Tracker the preceding day. This transition was in anticipation of a large volume of cases and decreased capacity
 among surveillance partners over the Christmas period. Given the ongoing surge in cases, the daily case number reported continues to
 be an estimate. These data are provisional and do not represent notified cases. They serve to provide an up-to-date picture of trends
 during this surge period. The notification of cases on the Computerised Infectious Disease Reporting system (CIDR) has continued.
- <u>Figure 1</u> displays the daily COVID-19 case number reported since 1st December, 2021, including the estimated daily case number.
- All other case-based data in this report are based on confirmed cases notified on CIDR.
- The weekly number of notifications on CIDR since week 51 (19th to 25th December 2021) and the cumulative number of cases reported here, will differ from those obtained by adding the reported daily COVID-19 case number due to the reporting of an estimate daily case number since 22/12/2022.
- Due to the current surge in case numbers the overall reporting time (time from when a case is diagnosed to when they are notified) has increased since week 51. Data on cases diagnosed in the past week is subject to reporting delays and therefore may not be complete.
- A technical issue experienced over the Christmas weekend and reduced surveillance capacity over the Christmas period contributed to the increased reporting time. However, the current case numbers continue to exceed capacity leading to the increased reporting time. Work is ongoing among surveillance partners to increase capacity and reduce reporting time.
- To account for this increased reporting time, additional trend data on total cases (Figure 14) are presented by <u>epidemiological date</u>.
 Epidemiological date is based on the earliest of dates available on the case. Analysis by epidemiological date provides a more accurate picture of trends as it removes the impact of reporting time. However, data for the most recent week may still not be complete and are provisional.
- Notifications among those aged 4 to 39 years in week 1, 2022 may have been affected by the change in testing policy since 3rd January 2022. Symptomatic people aged 4 to 39 years were advised to undertake antigen self-testing, and to book a PCR test if an antigen test is positive. This likely increased the time between onset of symptoms, PCR diagnosis, and notification. However, due to the current reporting time, any impact will be more apparent next week.
- The overall access to PCR testing during this surge period will also impact notifications.



Figure 1: Number of reported cases* of COVID-19 in Ireland by day, 1st December 2021 to 11th January 2022

* Since 21/12/2021 the daily COVID-19 case number reported is an estimate based on positive SARS-CoV-2 results uploaded to the HSE COVIDCare Tracker the preceding day.

The following figures and tables are based on cases notified on CIDR and presented by week of notification.

Due to the current surge in case numbers the overall reporting time (time from when a case is diagnosed to when they are notified) has increased since week 51. Notifications since week 51, 2021 are therefore artificially reduced due to the increased reporting time.

Data on cases diagnosed in the past week is subject to reporting delays and therefore may not be complete. Cases diagnosed during this period will be reflected in notifications during subsequent weeks.

Summary characteristics of COVID-19 cases notified in Ireland



	(week 10, 2	otal 020-week 1, 22)	Week	I, 2022 ^{\$}
	Number	Percent	Number	Percent
Total number of confirmed cases	850,773		88,926	
Incidence rate of confirmed cases per 100,000 population	17866.4		1867.5	
Number of cases hospitalised	22,821	2.7	548*	0.6
Number of cases admitted to ICU	2,366	0.3	11* [#]	0.01
Number of deaths among confirmed cases	5,754	0.7	22*#	0.02
Case fatality ratio (CFR %)	0.7		0.02	
Incidence rate of confirmed deaths per 100,000 population	120.8		0.46	
Males	414,507	48.7	41,966	47.2
Females	435,900	51.2	46,793	52.6
M:F ratio	0.95		0.90	
Median (years)	32		31	
Mean age (years)	34		33	
Age range (years)	0-108		0-105	

\$Notifications in week 1, 2022 are artificially reduced.

*The number of cases hospitalised, cases admitted to ICU and deaths described in the above table relate only to COVID-19 cases who were notified during this reporting period, and where the outcome is known at the time of reporting. It does not reflect all hospitalisations, ICU admissions and deaths related to COVID-19 which occurred during the period covered by the report. It also does not reflect the final number of cases hospitalised, admitted to ICU or deaths for these cases notified during this period as the outcome may not yet have occurred, or is yet to be notified.

[#]Notifications of deaths and ICU admissions to HPSC may be impacted by increased reporting time of cases.

Epidemic curve of COVID-19 cases notified in Ireland

The 5th pandemic wave in Ireland commenced in week 51, 2021. This time point was designated based on when the omicron variant of concern was estimated to have become the dominant circulating variant in Ireland, and when the incidence of COVID-19 markedly increased.





Week

Figure 2: Number of confirmed COVID-19 cases by week of notification in Ireland between week 10, 2020 and week 1*, 2022

Summary characteristics of COVID-19 cases notified in Ireland during week 1, 2022

Table 1: Characteristics of confirmed COVID-19 casesnotified in Ireland during week 1*, 2022

Characteristic		Week 1	Percent
Total number of confirmed cases		88,926	100
Sex	Male:Female ratio	0.90	
	Male	41,966	47.2
	Female	46,793	52.6
	Unknown	167	0.2
Age	Mean age (years)	33	
	Median age (years)	31	
	Age range (years)	0-105	
	0-4 yrs	2733	3.1
	5-12 yrs	7,363	8.3
	13-18 yrs	7,785	8.8
	19-24 yrs	13,973	15.7
	25-34 yrs	19,214	21.6
	35-44 yrs	15,955	17.9
	45-54 yrs	11,411	12.8
	55-64 yrs	6,273	7.1
	65-74 yrs	2,669	3.0
	75-84 yrs	1,141	1.3
	85+ yrs	408	0.5
	Unknown	1	0.0

*Notifications in week 1, 2022 are artificially reduced.

ากร

Age and sex pyramid for COVID-19 cases notified in Ireland



Figure 3a: Cumulative age and sex-specific incidence rates of confirmed COVID-19 cases per 100,000 population notified in Ireland between week 10, 2020 and week 1, 2022

(excluding 89 cases for whom age is unknown, 365 cases for whom sex is unknown and one case for whom both are unknown)



Cumulative age- and sex-specific rate per 100,000 population from week 10, 2020 to week 1, 2022



Male

Age and sex pyramid for COVID-19 cases notified in Ireland during week 1, 2022



Figure 3b: Cumulative age and sex-specific incidence rates of confirmed COVID-19 cases per 100,000 population notified in Ireland during week 1*, 2022

(excluding 1 case for whom age is unknown and 167 cases for whom sex is unknown)



Cumulative age- and sex-specific rate per 100,000 population for week 1, 2022

Female

Male

*Notifications in week 1, 2022 are artificially reduced.

Proportion of COVID-19 cases notified in Ireland across age groups during the 4th and 5th waves





Figure 4: Proportion of confirmed COVID-19 cases by age group in Ireland by week of notification from week 26, 2021 to week 1*, 2022

Incidence rates by age group for COVID-19 cases notified in Ireland during the 4th and 5th waves



Figure 5: Weekly age-specific incidence rates of confirmed COVID-19 cases per 100,000 population in Ireland by week of notification from week 26, 2021 to week 1*, 2022



	Age Range												
		0-4	5-12	13-18	19-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	National
	ጟ 46	437.1	979.4	468.8	832.4	670.9	735.1	640.2	555.8	477.9	271.2	182.1	640.8
	46 47	475.7	1106.6	478.8	869.2	665.0	749.0	634.3	511.4	442.8	225.9	145.1	652.5
~	40	546.0	1340.8	546.8	832.7	718.2	865.5	689.2	550.9	394.4	177.6	112.5	717.8
2021	Notification 65 20 21	482.9	1047.8	472.0	730.7	725.0	771.1	606.0	459.4	256.5	103.8	134.7	618.5
	50 50	484.7	861.0	526.1	1141.3	1040.8	838.6	655.5	479.2	252.2	113.5	152.5	693.1
	<u>9</u> 51	440.1	718.4	729.0	1957.4	1548.1	967.2	711.5	499.1	217.9	142.5	167.3	844.9
	52	595.1	993.1	1549.3	3345.3	2226.1	1547.8	1278.3	850.6	391.7	295.2	251.6	1365.9
2022	1	824.4	1341.9	2095.1	4218.8	2913.8	2136.2	1822.7	1232.5	714.6	580.6	604.0	1867.5

Figure 6: Heat map of weekly age-specific incidence rates of confirmed COVID-19 cases per 100,000 population in Ireland by week of notification from week 46, 2021 to week 1*, 2022

COVID-19 cases in children 18 years and under by notification date





Figure 7: Weekly number of age-specific confirmed COVID-19 cases by week of notification in Ireland from week 26, 2021 to week 1*, 2022

COVID-19 weekly incidence rate among children aged 0-18 years in Ireland during the 4th and 5th waves



Figure 8: Weekly age-specific incidence rates of confirmed COVID-19 cases per 100,000 population among children aged 0-18 years in from week 26, 2021 to week 1*, 2022

Characteristics for COVID-19 cases notified in Ireland by county during week 1, 2022

County

Westmeath

Cases

%

3.5

Ν

3090

Table 2: Characteristics of confirmedCOVID-19 cases by county notified inIreland, during week 1*, 2022

During this surge period data validation is limited. In some instances, the county is inferred from the county of the test centre or the county of the laboratory, and may not be the county of residence of the case. Data by county should therefore be interpreted with caution.

Carlow 0.9 29 1520 1.7 2669.9 Clare 3120 3.5 0.9 29 2625.9 Louth 3286 3.7 0.9 32 2549.6 Offalv 1765 2.0 1.0 31 2264.0 Donegal 3521 4.0 0.9 31 2211.8 Lonaford 884 1.0 0.9 29 2162.8 Kilkennv 2121 2.4 1.0 29 2137.4 Dublin 27906 0.9 32 2071.2 31.4 Sligo 1303 1.5 1.0 30 1988.3 1249 1.4 0.9 31 1935.1 Roscommon Meath 3774 4.2 0.9 32 1934.9 Wicklow 2752 3.1 0.9 30 1932.2 Kildare 1903.8 4236 4.8 0.9 30 Tipperarv 2754 3.1 0.9 30 1726.1 2.5 2232 1.0 31 1710.3 Mavo Leitrim 528 0.6 0.9 30 1647.7 Monaghan 998 1.1 0.9 30 1625.8 30 Laois 1358 1.5 0.9 1603.4 Galwav 4089 4.6 0.9 1584.5 31 Limerick 3.3 0.9 1513.1 2949 30 Cavan 1096 1.2 0.7 30 1438.8 Wexford 2148 2.4 0.9 30 1434.7 Waterford 1575 1.8 0.7 29 1355.7 Cork 7012 7.9 0.9 30 1291.7 Kerry 1660 1.9 0.8 28 1123.8

M:F ratio

1.0

Median age

(vears)

29

Incidence Rate

per 100.000

3480.9



*Notifications in week 1, 2022 are artificially reduced.



During this surge period data validation is limited. In some instances, the county is inferred from the county of the test centre or the county of the laboratory, and may not be the county of residence of the case. Data by county should therefore be interpreted with caution.

		Carlow	Cavan	Clare	Cork	Donegal	Dublin	Galway	Kerry	Kildare	Kilkenny	Laois	Leitrim	Limerick	Longford	Louth	Mayo	Meath	Monaghan	Offaly	Roscommon	Sligo	Tipperary	Waterford	Westmeath	Wexford	Wicklow	National
بند ج	46	894.0	718.1	606.0	630.9	592.4	684.7	536.3	590.4	604.9	795.1	473.5	586.7	527.5	704.6	748.7	639.0	703.9	540.8	581.1	571.7	547.8	667.5	713.6	867.4	533.7	492.2	640.8
ee ee	46 47	901.1	531.7	572.3	654.9	523.3	756.9	550.7	463.1	671.9	723.6	609.2	527.4	499.7	753.6	753.4	498.1	611.7	462.6	469.5	484.9	505.1	745.8	738.5	911.3	620.5	495.7	652.5
_	48	1024.0	539.5	596.7	743.6	550.3	755.0	615.8	595.1	879.5	742.7	830.0	586.7	513.1	672.8	834.9	541.7	758.3	594.6	637.5	653.8	660.7	843.0	711.9	941.8	676.6	746.4	717.8
202. ON	49	714.9	452.9	565.6	636.3	486.8	745.1	488.3	499.0	778.0	654.0	746.2	480.6	407.9	467.3	602.1	358.6	598.8	496.9	555.4	350.1	401.3	637.4	649.9	761.5	523.0	519.6	618.5
202 ation	50	683.3	442.4	478.9	725.2	457.3	911.6	560.7	586.3	729.0	673.2	621.0	605.4	554.1	584.7	745.6	380.1	692.7	480.6	538.7	429.2	383.0	611.1	748.0	654.5	527.6	598.9	693.1
ca C	51	706.1	623.6	678.4	662.2	789.0	1092.3	858.3	647.9	1004.9	1153.9	562.0	686.6	717.8	841.6	1141.3	567.0	806.5	995.3	534.9	734.4	547.8	733.9	480.3	1301.1	408.8	595.4	844.9
tifi	52	1798.6	1058.1	1975.3	1110.6	1591.8	1412.1	1524.1	884.2	1134.4	1855.2	1728.5	1320.1	1251.4	1822.7	1546.4	1190.7	1233.6	1207.1	1689.3	1397.5	1176.5	1227.2	1042.4	3054.0	956.4	1127.6	1365.9
Notific 7025	1	2669.9	1438.8	2625.9	1291.7	2211.8	2071.2	1584.5	1123.8	1903.8	2137.4	1603.4	1647.7	1513.1	2162.8	2549.6	1710.3	1934.9	1625.8	2264.0	1935.1	1988.3	1726.1	1355.7	3480.9	1434.7	1932.2	1867.5

Figure 9: Heat map of weekly incidence rates by county of confirmed COVID-19 cases per 100,000 population in Ireland by week of notification between week 46, 2021 and week 1*, 2022



Data is not unavailable due to the current surge in cases.



Table 4: Summary ofhospitalisations, ICUadmissions and deaths byage group and wave.

(This does not include 90 cases for whom the age is unknown, of these 6 were indicated to be hospitalised and 1 was indicated to have died)

Age group	Wave	Number of cases	Number of cases hospitalised		Number of cases admitted to ICU	% admitted to ICU	Number of cases who died*	% deaths
	1	19612	1523	7.8	277	1.4	109	0.6
	2	39954	875	2.2	80	0.2	29	0.1
<65 yrs	3	179381	4612	2.6	570	0.3	275	0.2
	4	358598	4036	1.1	462	0.1	178**	0.05
	5	186556	894	0.5	27	0.0	6**	0.00
	Total	784101	11940	1.5	1416	0.2	597	0.1
	1	6524	1803	27.6	161	2.5	1421	21.8
	2	4229	963	22.8	104	2.5	360	8.5
05	3	20928	5067	24.2	401	1.9	2602	12.4
65+ yrs	4	27263	2713	10.0	274	1.0	738**	2.7
	5	7638	329	4.3	10	0.1	35**	0.5
	Total	66582	10875	16.3	940	1.4	5156	7.7

* Deaths in confirmed cases only

**Hospitalisations, ICU admissions, and deaths may be underestimated for recent weeks as the outcome may not yet have occurred or may not yet have been reported to CIDR. Notifications of ICU admissions and deaths to HPSC may be impacted by the extended Christmas and New Year weekends in particular.

[#]Notifications since week 51, 2021 (wave 5) are artificially reduced due to the increased reporting time.

Hospitalisations among COVID-19 cases during waves 3, 4 and 5



Figure 10: Number* of hospitalised COVID-19 cases* and 3 week moving average (%) of overall cases hospitalised in Ireland between week 45, 2020 and week 1**, 2022 based on week of notification

*Hospitalisations may be underestimated for recent weeks as the outcome may not yet have occurred or may not yet have been reported to CIDR. **Notifications since week 51, 2021 (wave 5) are artificially reduced due to the increased reporting time.

ICU admissions among COVID-19 cases during waves 3, 4 and 5



Week Notified

Figure 11: Number of ICU admissions* in COVID-19 cases and 3 week moving average (%) of ICU admissions of overall case numbers in Ireland between week 45, 2020 and week 1, 2022 based on week of notification

*ICU admissions may be underestimated for recent weeks as the outcome may not yet have occurred or may not yet have been reported to CIDR. The increased reporting time of cases may also impact the reporting of ICU admissions. The greyed area indicates that data for these weeks in particular is likely not complete and an underestimate. **Notifications since week 51, 2021 (wave 5) are artificially reduced due to the increased reporting time.

hpsc

	Number	Percent
Total number of deaths	6,028	
confirmed	5,754	95.5
probable	97	1.6
possible	177	2.9
Number hospitalised who died	3,425	56.8
admitted to ICU who died	766	12.7
not admitted to ICU who died	5,262	87.3
Number of imported cases who died	19	0.3
Number of HCWs who died	20	0.3
Number with underlying conditions who died	5,084	84.3
Males who died	3,236	53.7
M:F ratio	1.16	
Median age (years)	82	
Mean age (years)	80	

Table 5: Summary of deaths in all COVID-19 cases notified inIreland between week 10, 2020 and week 1, 2022

Age group (years)	Female	Male	Total	Percent
<45 yrs	34	41	75	1
45-54 yrs	50	100	150	2
55-64 yrs	138	247	385	6
65-74 yrs	368	646	1014	17
75-84 yrs	850	1154	2004	33
85+ yrs	1348	1048	2396	40
Unknown	3	0	3	0
Total	2791	3236	6027	100.0
Percent	46.3	53.7		

Table 6: Number of deaths in all COVID-19 cases by sex andage group notified in Ireland between week 10, 2020 and week1, 2022

Deaths among COVID-19 cases



Figure 12: Total number* of COVID-19 deaths notified in and cumulative number **by week of death**, cases with a date of notification from 01/03/2020 to 08/01/2021. Date of death was not available for 36 deaths.

*Deaths may be underestimated for recent weeks as the outcome may not yet have occurred or may not yet have been reported to CIDR.

Data source: CIDR, January 12th 2022

Deaths among COVID-19 cases during waves 3, 4 and 5



Figure 13: Number of deaths* in confirmed COVID-19 cases and 3 week moving average (%) of deaths of overall case numbers in Ireland between week 45, 2020 and week 1*, 2022 based on week of notification

*Deaths may be underestimated for recent weeks as the outcome may not yet have occurred or may not yet have been reported to CIDR. The increased reporting time of cases may also impact the reporting of deaths. The greyed area indicates that data for these weeks in particular is likely not complete and an underestimate.



Due to current surge in case numbers the overall reporting time has increased.

Figures 14 includes data presented by <u>epidemiological date</u>. Epidemiological date is based on the earliest of dates available on the case. In recent weeks it is primarily the date of specimen collection (i.e. the date the case was swabbed).

Analysis by epidemiological date provides a more accurate picture of trends as it removes the impact of reporting time. However, data for the most recent week are not complete and are provisional.

7 incidence rate of COVID-19 cases by epi date in Ireland



Figure 14: 7 day incidence rate of cases of COVID-19 per 100,000 population in Ireland by week of notification* and week of <u>epidemiological date</u>**, week 10, 2020 and week 1*, 2022. The dashed line indicates that data are incomplete.

*Notifications since week 51, 2021 (wave 5) are artificially reduced due to the increased reporting time.

^{**}The increased discrepancy between the incidence rate by notification date and epidemiological date since week 51 relates is due to the increased processing time during this surge period. Data by epidemiological date is still incomplete for the last 7 days (dashed purple line).

Sentinel GP referrals for COVID-19 testing



Figure 15: Number of sentinel GP COVID-19 referrals by week of consultation, week 48, 2020 – week 52, 2021, week 1 2022

*Sentinel GP ILI consultation rates are reflecting community COVID-19 incidence AND changes to health seeking behaviour regarding use of online COVID-19 test booking systems. GP consultations for week 49 2021 may also have been impacted by storm Barra.



Figure 16: % SARS-CoV-2 positivity data from sentinel GP COVID-19 referrals tested by NVRL/ENFER*, 2020-2021, 2022.

*Including laboratories under the clinical governance of the NVRL

Please note, from week 19-23 2021, the GP sentinel virology data were incomplete due to the HSE cyber-attack





Figure 17a: Number of SARS-CoV-2 tests and positive tests* in Ireland between week 13, 2020 and week 1, 2022

Figure 17b: Number of SARS-CoV-2 negative and positive tests* completed in Ireland between week 13, 2020 and week 1, 2022

*Positive tests refers to all positive specimens and includes duplicates and individuals who were retested

Please refer to the Health Protection Surveillance (HPSC) website for specific reports on

- <u>14 Day report</u> epidemiology of COVID-19 in Ireland
- Outbreaks/clusters in Ireland COVID-19 weekly report
- <u>Weekly report on COVID-19</u> deaths reported in Ireland
- SARS-CoV-2 wastewater surveillance programme weekly reports
- Healthcare Workers COVID-19 cases in Ireland monthly reports
- Weekly reports on vaccination status of COVID-19 deaths and cases admitted to ICU
- <u>Epidemiology of COVID-19 in Ireland</u> cases aged 0-18 years
- <u>Epidemiology of intensive care admissions</u> in cases of COVID-19 in Ireland

Acknowledgements

Sincere thanks are extended to all those who are participating in the collection of data and reporting of data used in these reports. This includes the HSE COVID-19 Contact Management Programme (CMP), staff in ICU units, notifying clinicians, laboratory staff, public health doctors, nurses, surveillance scientists, microbiologists and administrative staff.



Technical Notes





- Data are based on statutory notifications and were extracted from Computerised Infectious Disease Reporting (CIDR) system and the HSE COVID care tracker. Data are provisional and subject to ongoing review, validation and update. As a result, figures in this report may differ from previously published figures.
- Slide with Laboratory testing for SARS-CoV-2 data provided by Deloitte Ireland LLP

2. Epidemiological date

Epidemiological date is based on the earliest of dates available on the case and taken from date of onset of
symptoms, date of diagnosis, laboratory specimen collection date, laboratory received date, laboratory reported date
or event creation date/notification date on CIDR. By using this date rather than event creation/ notification date, adjusts for
any delays in testing/notification. Further information on epidemiological dates and weeks can be found on the <u>HPSC</u>
website.

3. Population data

Population data were taken from Census 2016. Data were aggregated into the following age groups for the analysis: 0-4 years, 5-12 years, 13-18 years, 19-24 years, 25-34 years, 35-44 years, 45-54 years, 55-64 years, 65-74 years, 75-84 years and ≥ 85 years.