

Weekly Report on the Epidemiology of COVID-19 in Ireland

Week 3

Health Protection Surveillance Centre, HPSC

COVID-19 Epidemiology Team, 25/01/2021

Dates to note:

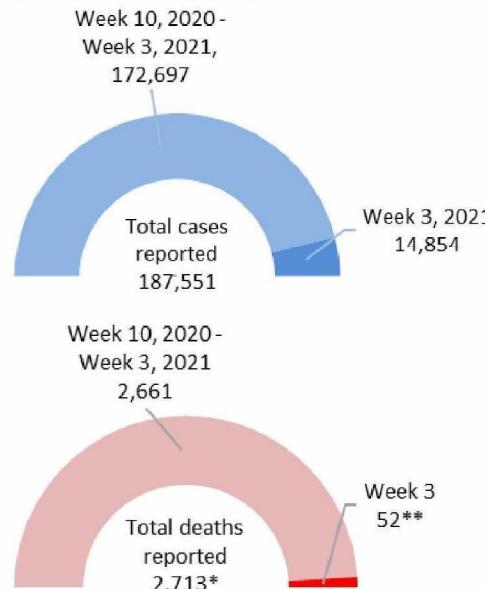
- Week 2 (17th to 23rd January 2021)
- Week 48 (22nd to 28th November 2020)
- Week 10 (1st to 7th March 2020) – The beginning of the pandemic in Ireland

Due to the large volume of COVID-19 cases in the past three weeks, the availability of surveillance data on cases is limited. Therefore some data in this report is incomplete.

Note: The epidemiological weeks in this report, run from Sunday to Saturday, please refer to appendix 1 for a complete list of epidemiological weeks with start and end dates.

Note: Data were extracted from Computerised Infectious Disease Reporting (CIDR) system on 25/01/2021 and are provisional and subject to ongoing review, validation and update. As a result, figures in this report may differ from previously published figures.

Summary characteristics of COVID-19 cases notified in Ireland



* Total deaths reported include deaths from only confirmed cases

**The number of deaths relate only to cases notified and died in week 3. It does not include cases notified prior to week 3 and died in week 3.



	Total (week 10, 2020-week 3, 2021)		Week 3, 2021	
	Number	Percent	Number	Percent
Total number of confirmed cases	187,551		14,854	
Incidence rate of confirmed cases per 100,000 population	3938.6		311.9	
Number of cases hospitalised	10,303	5.49	910	6.13
Number of cases admitted to ICU	1,011	0.54	34	0.23
Number of deaths among confirmed cases	2,713	1.45	52	0.35
Case fatality ratio (CFR %)	1.45		0.35	
Incidence rate of confirmed deaths per 100,000 population	56.97		1.09	
Number of cases associated with clusters	52,325	27.90	1,240	8.35
Number of imported cases	727	0.39	5	0.03
Number of cases in healthcare workers	22,610	12.06	1,957	13.17
Males	88,733	47.31	6,920	46.59
Females	98,751	52.65	7,918	53.31
M:F ratio	0.90		0.87	
Median (years)	38		41	
Mean age (years)	40		43	
Age range (years)	0 - 120		0 - 104	

***The number of cases hospitalised and admitted to ICU relate only to cases notified and admitted to hospital or ICU in week 3. It does not include cases notified prior to week 3 and admitted to hospital or ICU in week 3.

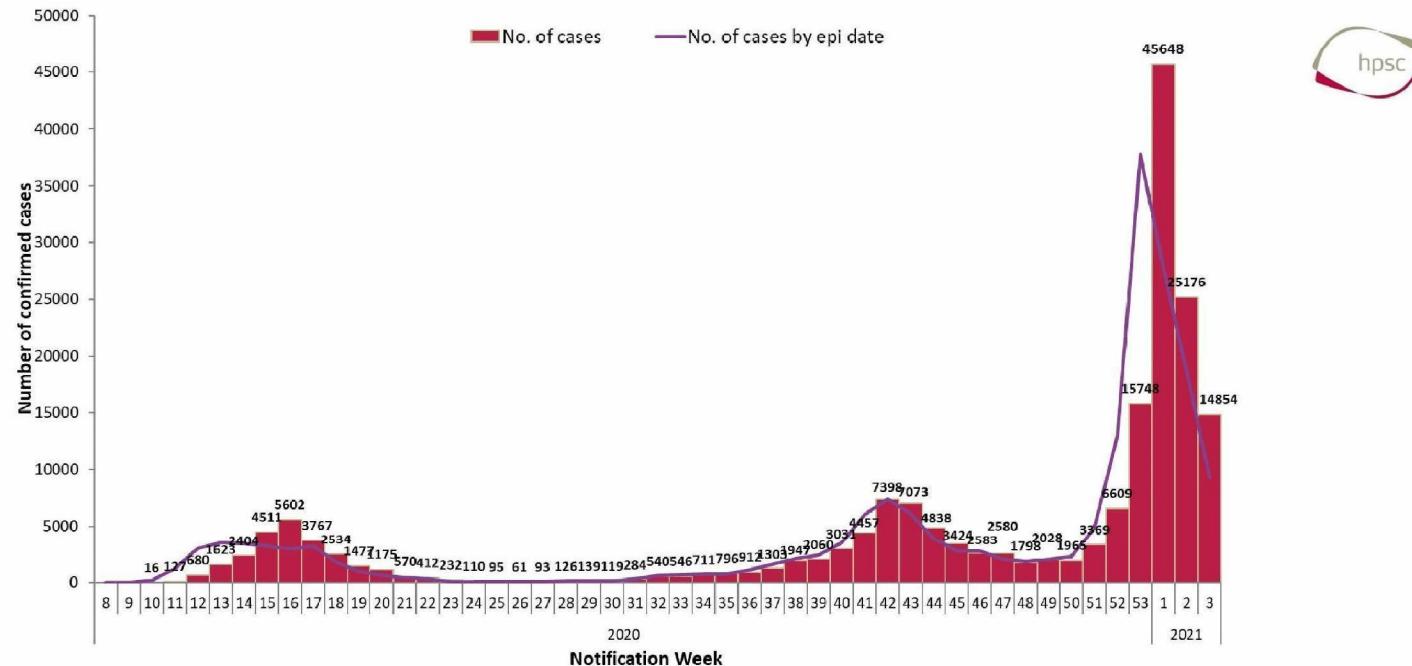


Figure 1: Number of confirmed COVID-19 cases by notification week and epidemiological week in Ireland between week 8, 2020 and week 3, 2021.

At the end of week 53 a significant number of cases were awaiting processing, as a result the number of cases reported in week 53 is reduced and the number of cases reported in week 1 is inflated.

Between week 15 and 16 (05/04/2020 – 19/04/2020) the daily number of COVID-19 events notified in Ireland is inflated due to batch reporting of cases with specimen dates between from 19/03/2020 – 01/04/2020 in addition to real-time reporting of cases with contemporaneous specimen dates

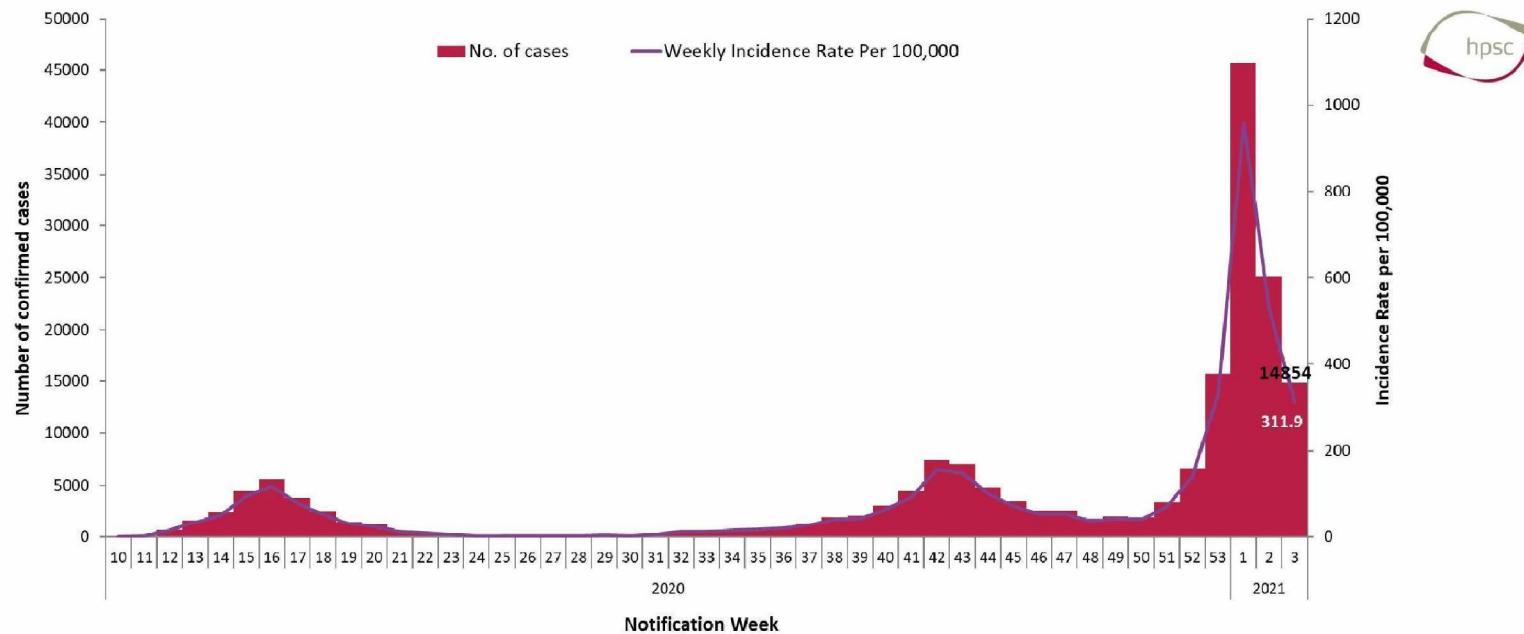


Figure 2: Number of confirmed COVID-19 cases by notification week and weekly incidence rate per 100,000 population in Ireland between week 10, 2020 and week 3, 2021.

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population data were taken from Census 2016

Data source: CIDR January 25th 2021

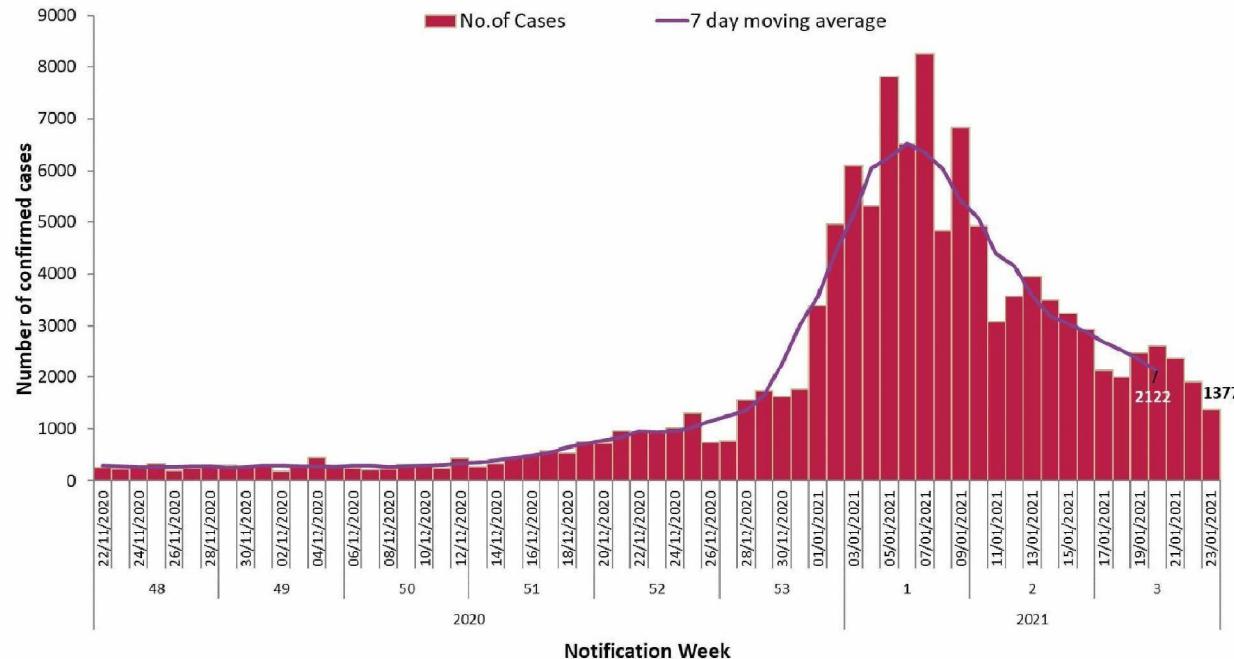


Figure 3: Number of confirmed COVID-19 cases , and 7-day moving average, by notification date in Ireland between week 48, 2020 and week 3, 2021.

At the end of week 53 a significant number of cases were awaiting processing, as a result the number of cases reported in week 53 is reduced and the number of cases reported in week 1 is inflated.

*on the 04/12/2020 the number of COVID-19 cases notified in Ireland is inflated due to the inclusion of cases notified earlier in week 49 which were batch reported following an IT issue on 02/12/2020

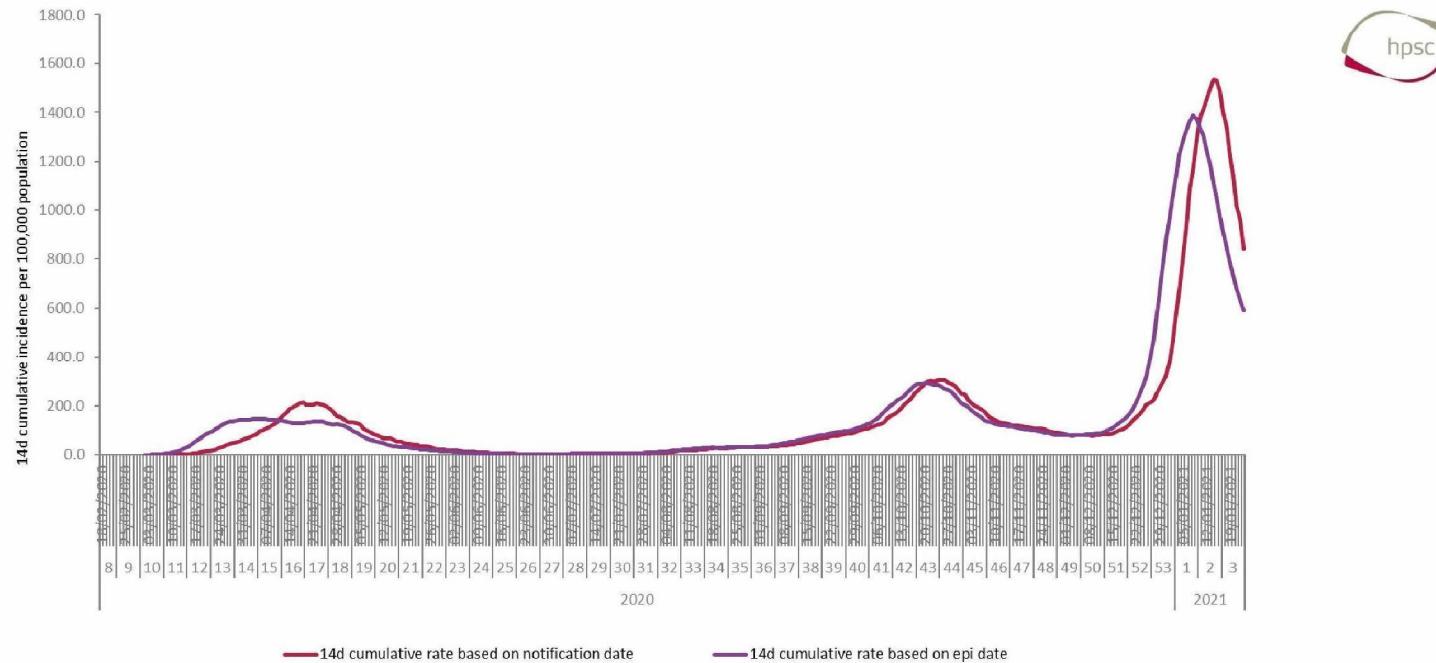


Figure 4a: Cumulative 14-day incidence rate of confirmed COVID-19 cases per 100,000 population notified in Ireland by notification and epidemiological date* between week 8, 2020 and week 3, 2021.

*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. Please note that the trend in cases by epidemiological date will show a lag for recent days and therefore should be interpreted with caution.

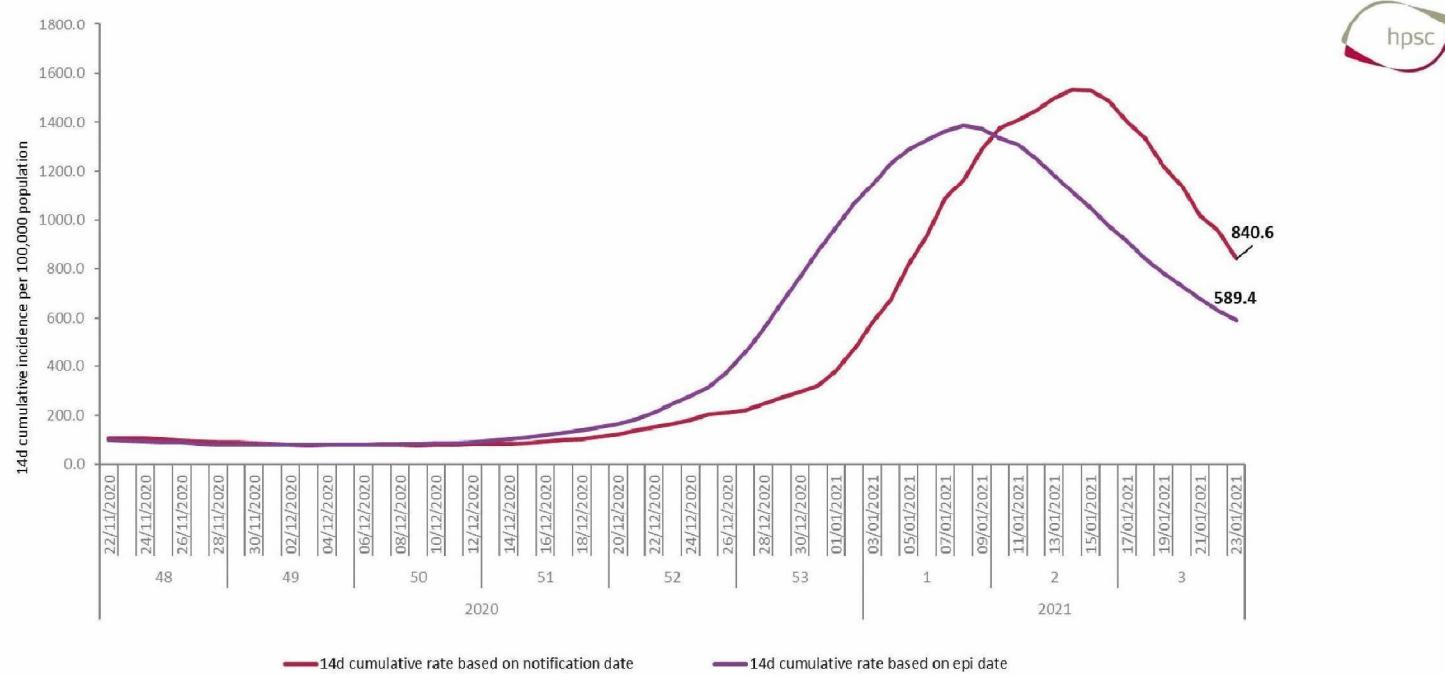


Figure 4b: Cumulative 14-day incidence rate of confirmed COVID-19 cases per 100,000 population notified in Ireland by notification and epidemiological date between week 48, 2020 and week 3, 2021.



Table 1: Characteristics of confirmed COVID-19 cases notified in Ireland during week 3, 2021.

Characteristic	Week 3	Percent
Total number of confirmed cases	14,854	100
Sex		
Male:Female ratio	0.9	
Male	6,920	46.6
Female	7,918	53.3
Unknown	16	0.1
Age		
Mean age (years)	41	
Median age (years)	43	
Age range (years)	0 - 104	
0-4 yrs	322	2.2
5-12 yrs	502	3.4
13-18 yrs	733	4.9
19-24 yrs	1,517	10.2
25-34 yrs	2,630	17.7
35-44 yrs	2,585	17.4
45-54 yrs	2,433	16.4
55-64 yrs	1,782	12.0
65-74 yrs	876	5.9
75-84 yrs	796	5.4
85+ yrs	658	4.4
Unknown	20	0.1
Underlying clinical conditions		
Yes	888	6.0
No	10,533	70.9
Unknown	3,433	23.1
Symptomatic*		
Yes	9,527	64.1
No	1,714	11.5
Unknown	3,613	24.3

*Symptom status is recorded at the time of test and is not updated; therefore, a proportion of the asymptomatic cases may subsequently develop symptoms however this will not be captured in the data.



Figure 5a: 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 3, 2021.

(excluding 81 cases for whom age is unknown and 66 cases for whom sex is unknown and 1 cases for whom both are unknown)

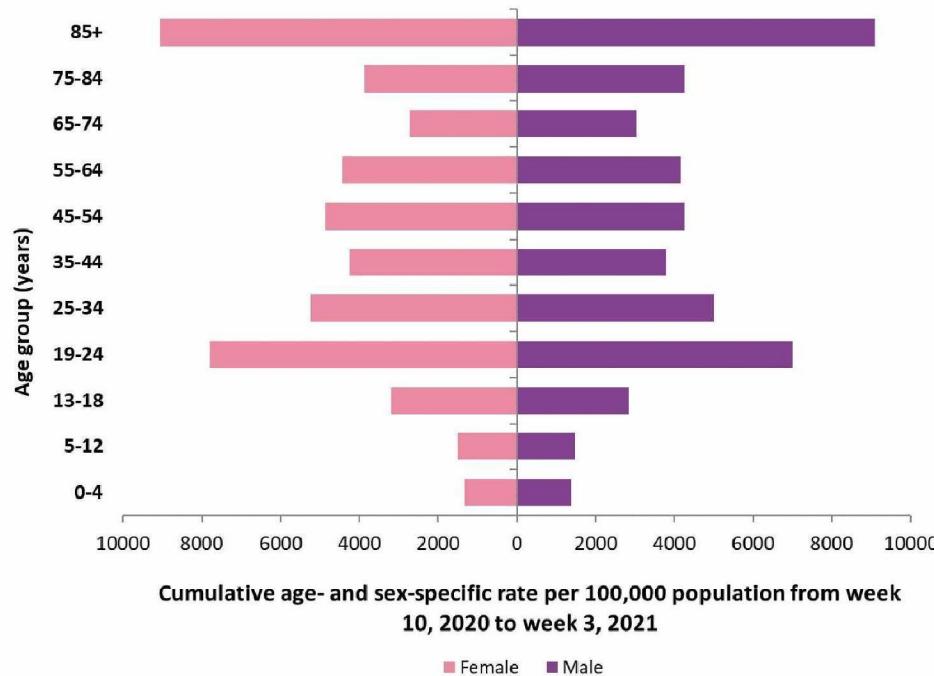




Figure 5b: Cumulative age- and sex-specific incidence rates of confirmed COVID-19 cases per 100,000 population notified in Ireland between week 48, 2020 and week 3, 2021.

(excluding 56 cases for whom age is unknown, and 53 cases for whom sex is unknown)

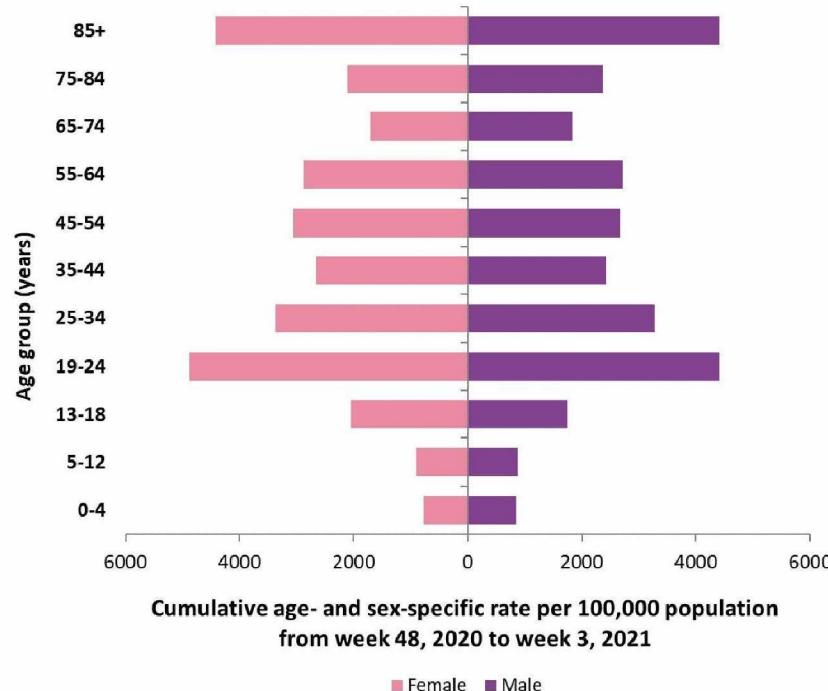
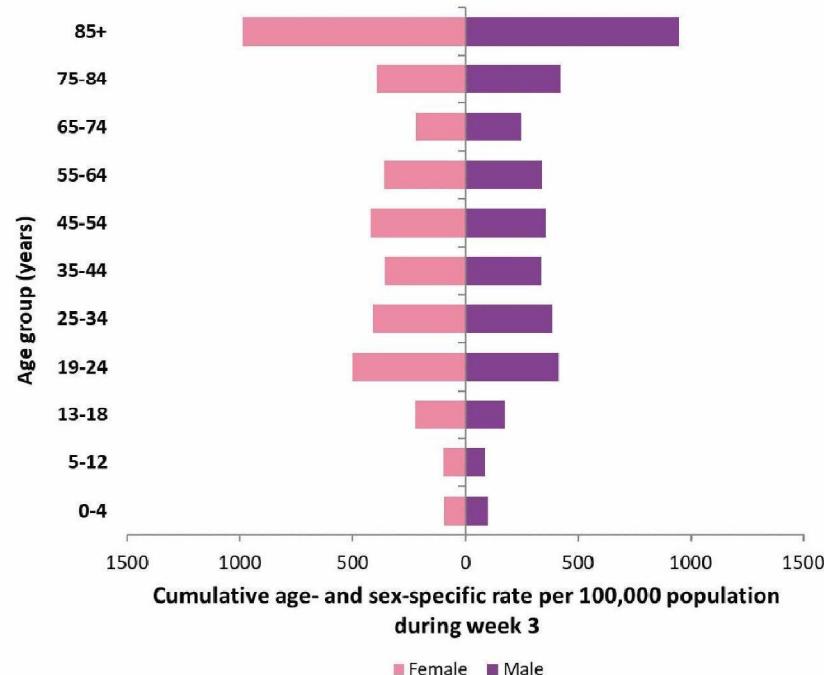


Figure 5c: Cumulative age- and sex-specific incidence rates of confirmed COVID-19 cases per 100,000 population notified in Ireland during week 3, 2021.

(excluding 20 cases for whom age is unknown, and 16 cases for whom sex is unknown)



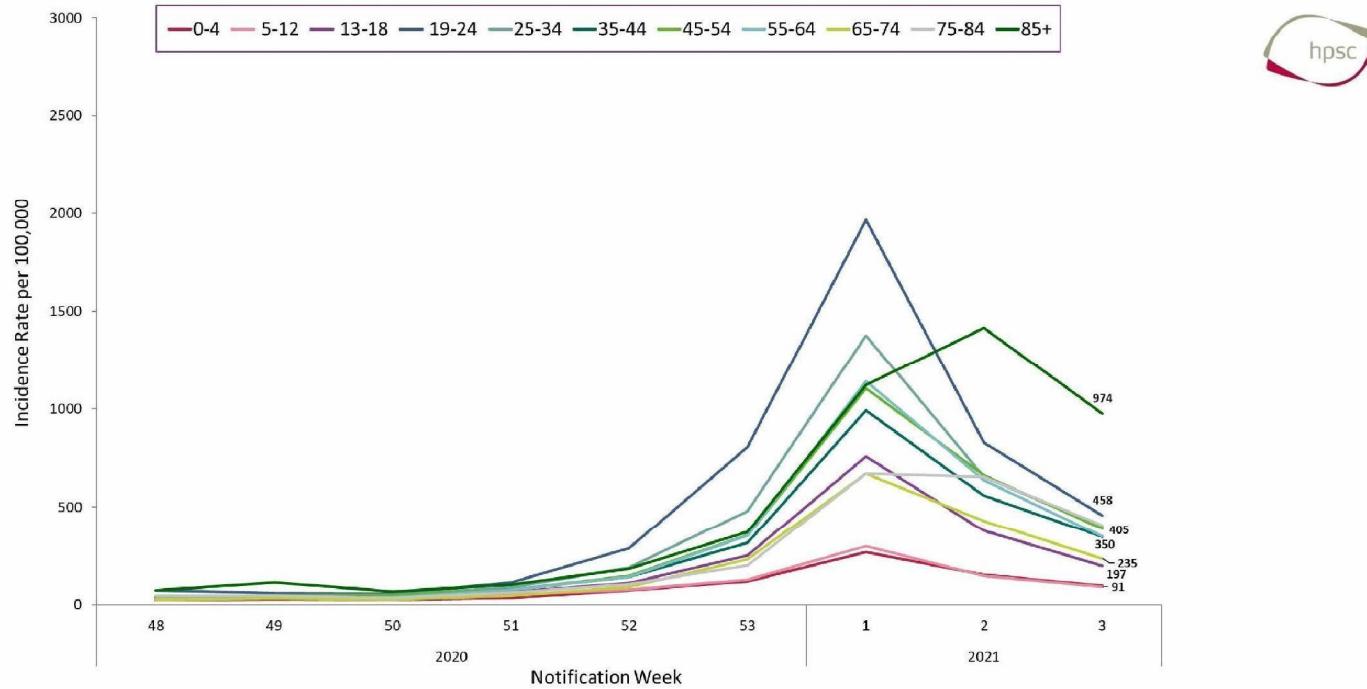


Figure 6a: Weekly age-specific incidence rates of confirmed COVID-19 cases per 100,000 population in Ireland between week 48, 2020 and week 3, 2021.

At the end of Week 53 a significant number of cases were awaiting processing, as a result the incidence rates reported in Week 53 are reduced and the incidence rates reported in Week 1 are inflated.



		Age Range											
		0-4	5-12	13-18	19-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	National
2020	48	23.2	29.7	40.9	72.2	39.0	37.2	39.6	30.5	24.1	44.8	74.0	37.8
	49	28.7	38.1	43.1	60.7	49.0	40.3	44.2	35.6	30.3	46.3	114.0	42.6
	50	24.7	36.5	40.9	55.3	50.3	41.6	49.2	37.3	24.9	34.6	68.1	41.3
	51	35.3	51.4	65.1	111.7	88.0	75.8	75.4	75.3	44.2	62.6	100.7	70.7
	52	72.1	74.9	110.9	287.1	190.3	140.5	146.0	141.1	89.2	103.3	182.1	138.8
	53	118.2	125.6	250.0	807.3	478.6	316.2	356.4	353.7	232.1	201.0	371.5	330.7
	1	266.7	299.8	759.7	1965.5	1375.3	992.0	1105.0	1140.8	671.2	669.7	1120.6	958.6
2021	2	152.9	146.0	377.6	828.2	652.9	557.9	661.8	637.0	427.3	654.9	1415.1	528.7
	3	97.1	91.5	197.3	458.0	398.8	346.1	388.6	350.1	234.5	405.1	974.0	311.9

Figure 7: Heat map of weekly age-specific incidence rates of confirmed COVID-19 cases per 100,000 population in Ireland between week 48, 2020 and week 3, 2021.

At the end of Week 53 a significant number of cases were awaiting processing, as a result the incidence rates reported in Week 53 are reduced and the incidence rates reported in Week 1 are inflated.



Table 2: Characteristics of confirmed COVID-19 cases by county notified in Ireland, during week 3, 2021.

County	Cases		M:F ratio	Median age (years)	Incidence Rate per 100,000
	N	%			
Monaghan	403	2.7	0.9	43	656.5
Louth	579	3.9	0.8	42	449.2
Carlow	247	1.7	1.0	41	433.9
Waterford	468	3.2	0.7	44	402.8
Wexford	589	4.0	1.0	40	393.4
Dublin	5037	33.9	0.9	38	373.8
Cavan	267	1.8	0.7	41	350.5
Mayo	455	3.1	0.8	48	348.6
Limerick	631	4.2	0.8	41	323.8
Meath	617	4.2	0.8	41	316.3
Kildare	676	4.6	1.0	42	303.8
Offaly	232	1.6	1.0	41	297.6
Donegal	468	3.2	0.8	46	294.0
Cork	1483	10.0	1.0	43	273.2
Galway	656	4.4	0.8	42	254.2
Laois	205	1.4	1.0	41	242.0
Tipperary	379	2.6	0.9	48	237.5
Wicklow	314	2.1	0.8	43	220.5
Sligo	143	1.0	0.8	39	218.2
Longford	83	0.6	0.8	42	203.1
Clare	234	1.6	0.8	47	196.9
Westmeath	170	1.1	1.1	40	191.5
Kerry	230	1.5	0.8	43	155.7
Kilkenny	151	1.0	0.9	47	152.2
Roscommon	94	0.6	0.9	45	145.6
Leitrim	43	0.3	1.0	44	134.2



		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	
	Notification Week	48	31.6	19.7	14.3	24.5	111.2	43.7	20.2	21.0	21.1	83.6	29.5	3.1	60.5	44.0	75.3	96.8	24.1	31.0	21.8	23.2	21.4	44.5	41.3	13.5	7.3	52.7	37.8
2020	49	73.8	40.7	19.4	13.4	112.4	50.9	31.0	12.2	27.4	85.7	26.0	12.5	80.6	46.5	83.0	43.7	25.1	97.7	37.2	24.8	15.3	44.5	21.5	10.1	12.0	68.1	42.6	
	50	84.3	68.3	12.6	12.9	107.4	42.2	28.7	8.1	29.7	112.9	69.7	12.5	51.3	97.9	93.1	65.9	34.4	39.1	30.8	20.1	33.6	38.2	45.6	16.9	24.7	35.8	41.3	
	51	110.7	106.3	14.3	39.1	154.5	82.2	23.3	99.5	54.8	84.7	105.1	12.5	99.5	46.5	142.8	50.6	73.8	86.3	34.6	21.7	59.5	27.0	58.5	28.2	143.6	32.3	70.7	
	52	114.2	89.3	105.2	123.4	271.4	166.8	99.6	150.3	113.3	183.4	85.0	56.2	227.8	41.6	166.8	79.7	105.1	202.0	48.7	66.6	132.8	72.1	100.7	75.5	205.0	81.4	138.8	
	53	272.3	506.7	396.4	282.4	554.7	276.8	277.5	299.2	164.5	307.4	317.6	287.1	613.7	347.4	774.3	498.1	369.7	808.5	319.4	311.4	497.4	196.2	235.8	239.9	281.9	118.7	330.7	
2021	1	1099.6	978.0	991.4	1054.8	853.1	1197.2	457.6	761.6	806.7	855.6	527.8	424.4	1225.8	555.4	1427.6	669.7	769.1	1666.5	575.9	412.1	631.7	613.0	1313.5	448.3	1178.2	494.3	958.6	
	2	669.2	449.0	471.3	527.2	532.1	563.8	635.5	281.6	334.6	316.4	430.9	149.8	645.5	176.2	810.0	978.5	457.8	1005.1	407.9	500.4	212.1	406.8	578.4	262.5	664.6	306.1	528.7	
	3	433.9	350.5	196.9	273.2	294.0	373.8	254.2	155.7	303.8	152.2	242.0	134.2	323.8	203.1	449.2	348.6	316.3	656.5	297.6	145.6	218.2	237.5	402.8	191.5	393.4	220.5	311.9	

Figure 8: Heat map of weekly incidence rates of confirmed COVID-19 cases per 100,000 population, by county, notified in Ireland between week 48, 2020 and week 3, 2021.

At the end of Week 53 a significant number of cases were awaiting processing, as a result the incidence rates reported in Week 53 are reduced and the incidence rates reported in Week 1 are inflated.

Laboratory data for COVID-19 cases

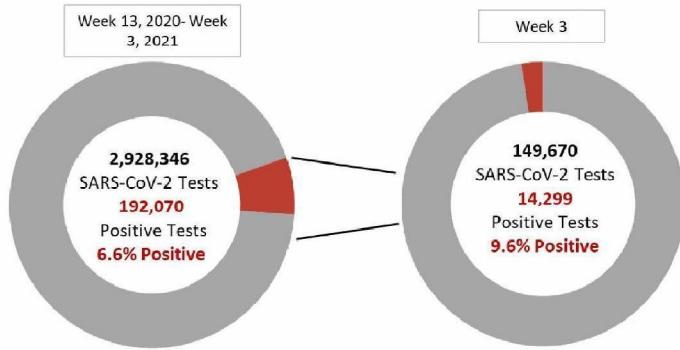


Figure 12a: Number of SARS-CoV-2 tests and positive tests* in Ireland between week 13, 2020 and week 3, 2021.

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

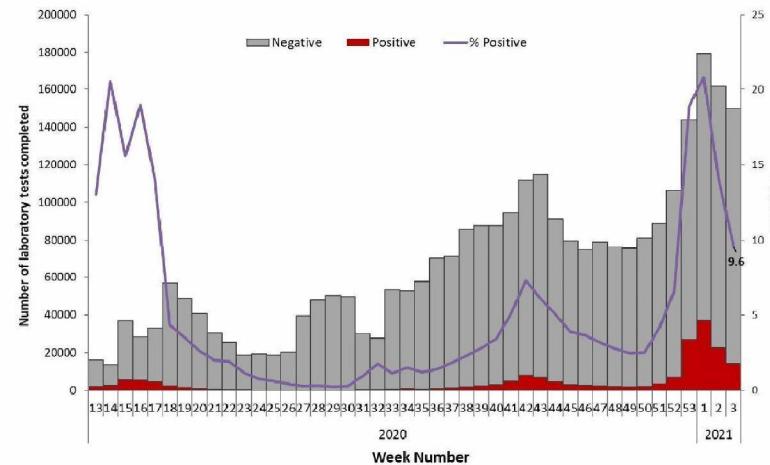


Figure 12b: Number of SARS-CoV-2 negative and positive tests* completed in Ireland between week 13, 2020 and week 3, 2021.

% SARS-CoV-2 positivity data from sentinel GP COVID-19 referrals tested by NVRL

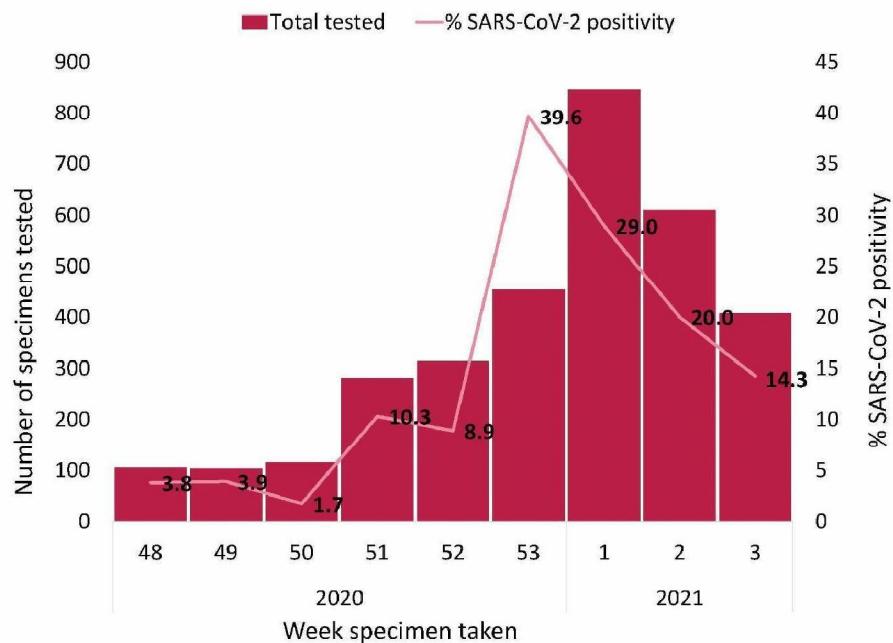


Figure 13b: % SARS-CoV-2 positivity data from sentinel GP COVID-19 referrals tested by the NVRL by week specimen was taken, weeks 48 2020 to 2 2021. The Epidemiological week is Monday to Sunday (ISO week) in line with influenza/COVID-19 international reporting to ECDC.

Hospitalisations and ICU admissions among COVID-19 cases

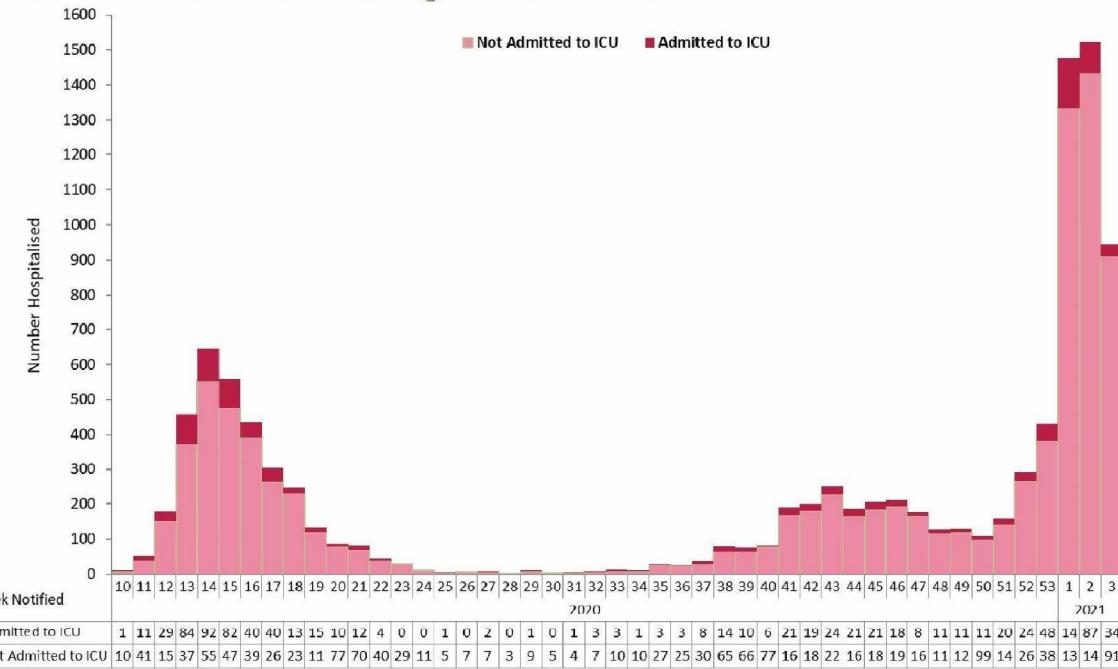


Figure 13: Number of hospitalised COVID-19 cases based on ICU admission status in Ireland between week 10, 2020 and week 3, 2021*

*Please note that the most recent weeks may not yet reflect all admissions.

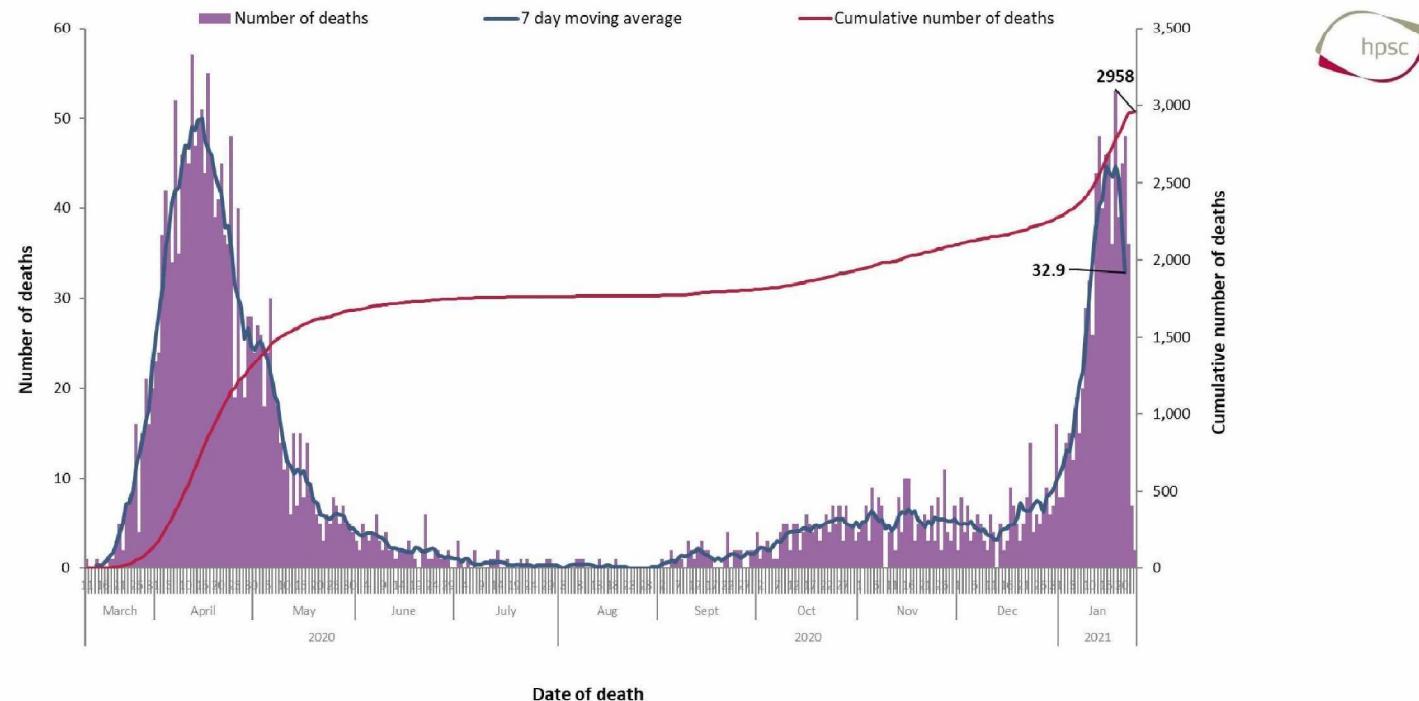


Figure 14a: Daily and 7-day moving average number of deaths among COVID-19 cases notified in Ireland by date of death and cumulative total between week 10, 2020 and week 3, 2021.

* Date of death is not yet available for twenty cases



Deaths among COVID-19 cases

	Number	Percent
Total number of deaths	2,978	
confirmed	2,713	91.1
probable	98	3.3
possible	167	5.6
Number hospitalised who died	1418	47.6
admitted to ICU who died	216	7.3
not admitted to ICU who died	1202	40.4
Number of imported cases who died	5	0.2
Number of HCWs who died	12	0.4
Number with underlying conditions who died	2,488	83.5
Males who died	1554	52.2
M:F ratio	1.09	
Median age (years)	83	
Mean age (years)	81	
Age range (years)	17 – 105	

Table 3: Summary of deaths in all COVID-19 cases notified in Ireland between week 10, 2020 and week 3, 2021.

Age group (years)	Female	Male	Total	Percent
<25	<5	<5	2	0.1
25-34 yrs	<5	<5	8	0.3
35-44 yrs	9	11	20	0.7
45-54 yrs	19	31	50	1.7
55-64 yrs	44	91	135	4.5
65-74 yrs	156	299	455	15.3
75-84 yrs	444	583	1027	34.5
85+ yrs	745	534	1279	42.9
Unknown	<5	<5	2	0.1
Total	1424	1554	2978	100.0
Percent	47.8	52.2		

Table 4: Number of deaths in all COVID-19 cases by sex and age group notified in Ireland between week 10, 2020 and week 3, 2021.



Variants of Concern

- VOC202012/01 (UK variant)
 - Dominant variant in Ireland now
- 501Y.V2 (SA variant)
 - 9 confirmed
 - 3 probable
 - insufficient viral loads for sequencing
 - 501Y amino acid change, are not S dropout
 - epi links to SA
- P1 (Brazilian) none identified to date
 - 2 possible cases with insufficient viral loads for sequencing
 - these possible cases have the 501Y amino acid change,
 - epi links to Brazil