



Weekly Report on the Epidemiology of COVID-19 in Ireland Week 47, 2021

Health Protection Surveillance Centre, HPSC COVID-19 Epidemiology Team, 29/11/2021

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 2020/2021.
- · 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 47, 2021 (21st November to 27th November 2021) most recent epidemiological week
- Data for this report is based on cases notified on the Computerised Infectious Disease Reporting (CIDR) up to the 27th November
- Data was extracted from CIDR system on 29/11/2021
- Data 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



	(week 10,	otal 2020-week 2021)	Week 4	7, 2021	
	Number	Percent	Number	Percent	
Total number of confirmed cases	560,050		31,093		
Incidence rate of confirmed cases per 100,000 population	11761.1		653.0		
Number of cases hospitalised	20,377	3.6	220*	0.7	
Number of cases admitted to ICU	2,158	0.4	8*	0.03	
Number of deaths among confirmed cases	5,404	1.0	4*	0.01	
Case fatality ratio (CFR %)	1.0		0.01		
Incidence rate of confirmed deaths per 100,000 population	113.5		0.08		
Males	274,115	48.9	15,427	49.6	
Females	285,687	51.0	15,627	50.3	
M:F ratio	0.96		0.99		
Median (years)	33		32		
Mean age (years)	35		32		
Age range (years)	0-108		0-99		

^{*} 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

Epidemic curve of COVID-19 cases notified in Ireland



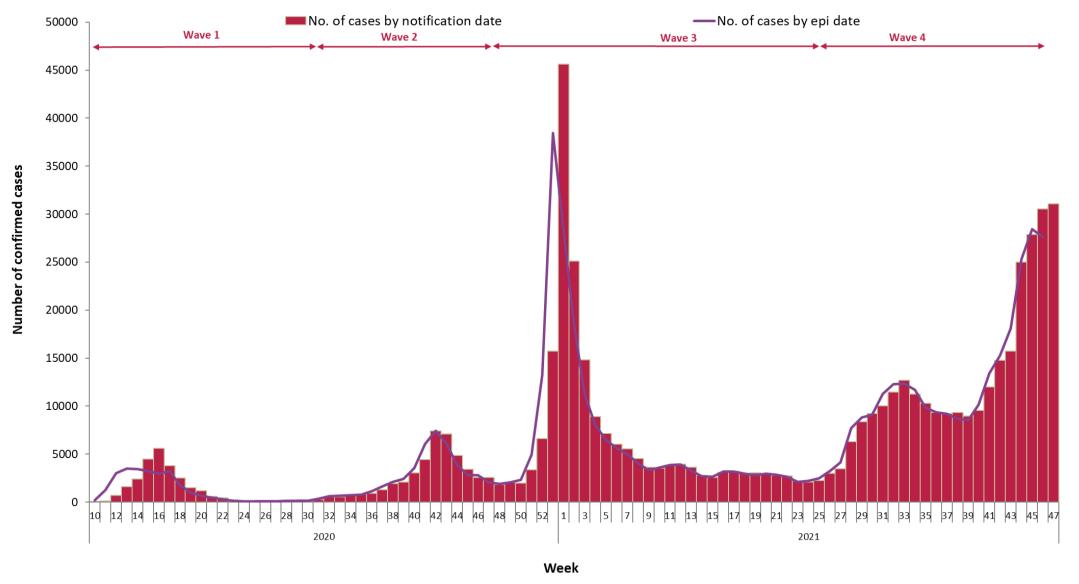


Figure 1: Number of confirmed COVID-19 cases by notification week and epidemiological date in Ireland between week 10, 2020 and week 47, 2021

Epidemic curve of COVID-19 cases notified in Ireland during the 4th wave



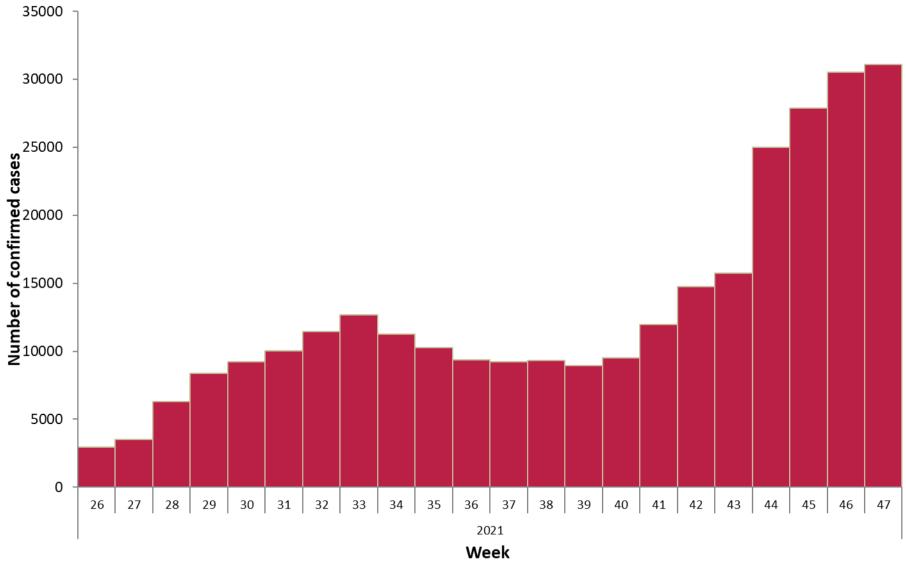


Figure 2: Number of confirmed COVID-19 cases by notification week in Ireland for the 4th wave from week 26, 2021 to week 47, 2021

Summary characteristics of COVID-19 cases notified in Ireland during the latest

epidemiological week

Table 1: Characteristics of confirmed COVID-19 cases notified in Ireland during week 47, 2021

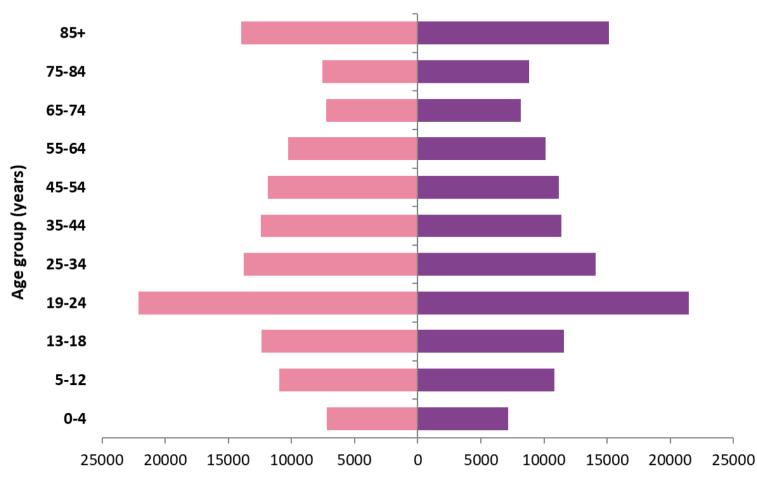
Characteristic		Week 47	Percent
Total number of confirmed cases		31,093	100
Sex	Male:Female ratio	0.99	
	Male	15,427	49.6
	Female	15,627	50.3
	Unknown	39	0.2
Age	Mean age (years)	32	
	Median age (years)	32	
	Age range (years)	0-99	
	0-4 yrs	1577	5.1
	5-12 yrs	6,077	19.5
	13-18 yrs	1,779	5.7
	19-24 yrs	2,880	9.3
	25-34 yrs	4,388	14.1
	35-44 yrs	5,598	18.0
	45-54 yrs	3,972	12.8
	55-64 yrs	2,606	8.4
	65-74 yrs	1,659	5.3
	75-84 yrs	445	1.4
	85+ yrs	99	0.3
	Unknown	13	0.0

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 47, 2021

(excluding 74 cases for whom age is unknown, 247 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 47, 2021

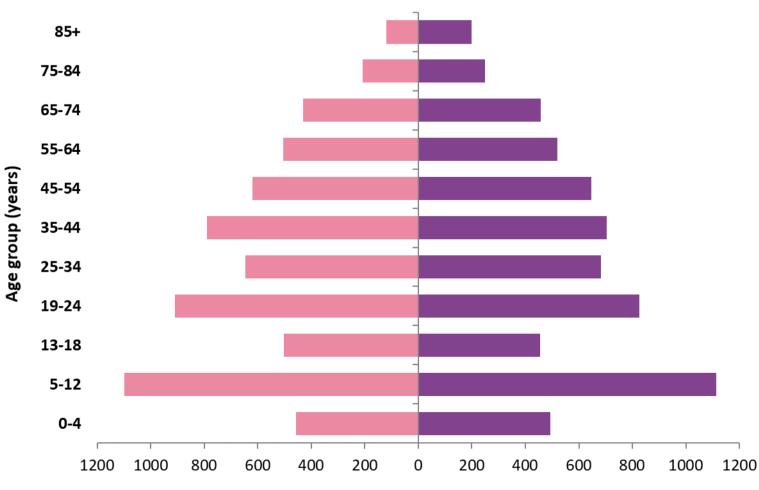
■ Female ■ Male

Age and sex pyramid for COVID-19 cases notified in Ireland for the latest epidemiological week



Figure 3b: Cumulative age and sex-specific incidence rates of confirmed COVID-19 cases per 100,000 population notified in Ireland during week 47, 2021

(excluding 13 cases for whom age is unknown and 39 cases for whom sex is unknown)



Cumulative age- and sex-specific rate per 100,000 population for week 47, 2021

■ Female ■ Male

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

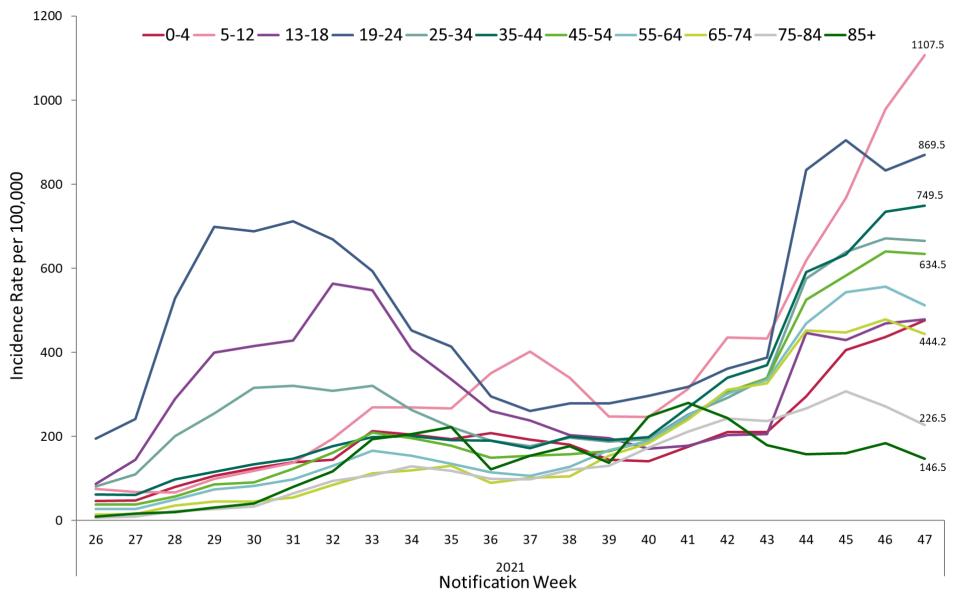


Figure 4: Weekly age-specific incidence rates of confirmed COVID-19 cases per 100,000 population in Ireland for the 4th wave from week 26, 2021 to week 47, 2021

Incidence by age groups for COVID-19 cases notified in Ireland during the 4th wave



	Age Range												
		0-4	5-12	13-18	19-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	National
	26	45.5	74.7	86.7	194.7	81.0	61.2	38.2	27.1	13.9	6.6	8.9	62.3
	27	46.8	67.3	144.2	241.8	109.8	60.1	38.0	27.3	14.7	9.2	16.3	73.4
	≾ 28	79.9	66.9	288.8	529.0	200.0	97.6	57.3	50.3	34.8	21.9	19.2	132.5
	Notification Week 30 30 31 32 33 33	105.6	98.8	399.4	698.4	254.8	115.7	85.9	73.7	44.7	27.0	31.1	176.1
	<u>_</u> 30	124.0	118.5	415.0	688.4	315.4	133.2	90.2	82.3	45.5	33.1	40.0	193.3
	.g 31	138.2	137.1	428.4	711.6	320.1	146.9	122.8	98.0	54.3	64.1	79.9	210.4
	<u>:</u> 32	144.2	194.1	563.8	668.8	308.3	177.1	161.5	129.7	84.1	94.1	116.9	240.6
	∑ 33	213.0	269.2	547.6	593.3	320.1	198.6	209.4	166.4	111.6	106.9	193.9	266.6
	34	203.9	268.8	406.1	452.6	263.3	200.8	195.5	153.8	118.9	128.8	205.8	236.0
	35	194.0	266.1	335.3	413.6	222.2	190.7	177.6	135.0	130.1	117.6	222.0	215.8
2021	36	207.8	350.5	261.0	295.6	189.6	190.3	149.5	114.0	89.2	98.7	121.4	196.5
8	37	191.8	402.0	237.6	260.3	176.1	172.2	154.3	105.9	101.5	98.2	153.9	193.5
	38	179.8	340.1	203.5	278.1	197.0	199.0	157.3	127.9	105.2	120.6	176.2	195.6
	39	144.2	247.1	195.9	278.4	187.3	191.2	164.7	167.6	153.7	130.3	137.7	188.1
	40	140.9	245.7	171.2	296.2	193.5	198.2	189.9	188.4	183.4	173.0	247.2	200.1
	41	175.0	312.7	177.6	318.2	252.7	268.6	245.0	248.5	240.4	211.2	279.8	251.7
	42	209.6	435.8	202.9	360.5	292.1	339.8	305.9	300.8	310.3	242.7	244.2	309.6
	43	209.6	432.7	205.3	387.1	339.4	368.9	338.3	335.0	326.4	236.1	179.1	330.5
	44	295.0	618.4	445.9	834.5	575.2	590.7	525.4	469.2	451.9	266.2	156.9	524.8
	45	405.7	767.3	429.2	905.2	638.9	632.4	582.1	543.1	447.6	306.9	159.9	585.4
	46	437.1	979.4	469.1	832.4	670.9	735.2	640.5	556.4	479.0	271.8	183.6	641.1
	47	475.7	1107.5	478.8	869.5	665.4	749.5	634.5	512.0	444.2	226.5	146.5	653.0

Age Range

Figure 5: Heat map of weekly age-specific incidence rates of confirmed COVID-19 cases per 100,000 population in Ireland for the 4th wave between week 26, 2021 and week 47, 2021

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



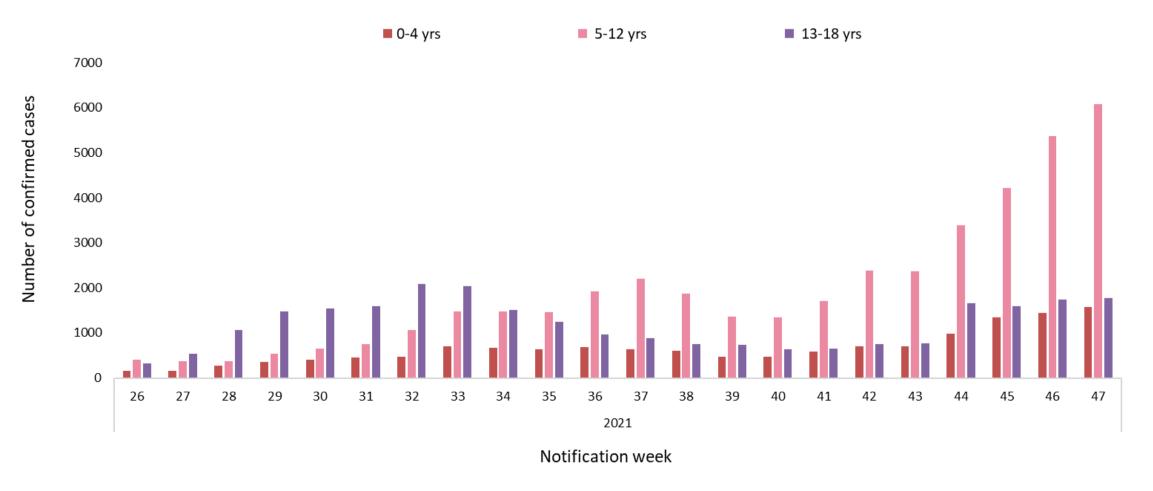


Figure 6a: Weekly number of age-specific confirmed COVID-19 cases by notification week in Ireland for the 4th wave between week 26, 2021 and week 47, 2021

COVID-19 incidence rate by HSE area in children 18 years and under



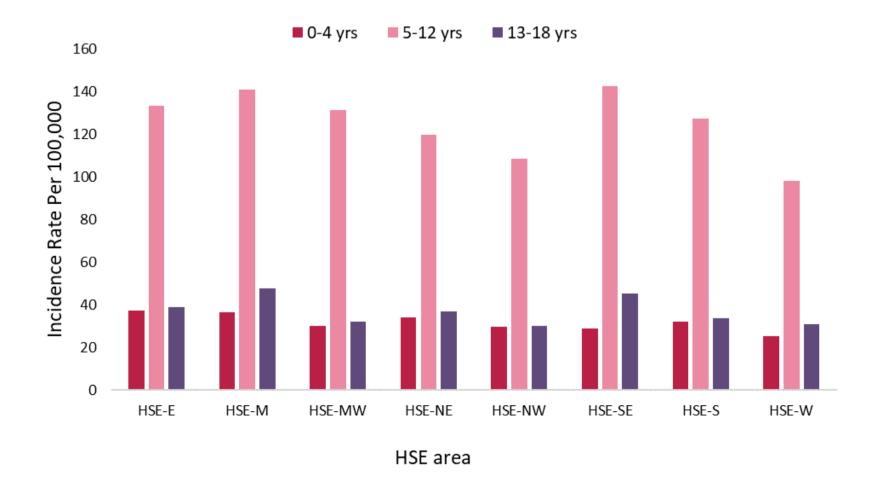
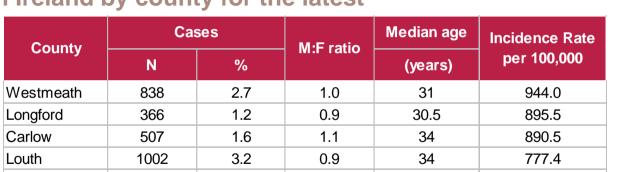


Figure 6b: Age-specific incidence rates of confirmed COVID-19 cases per 100,000 population, by HSE area, notified in Ireland during week 47, 2021

Characteristics for COVID-19 cases notified in Ireland by county for the latest

epidemiological week

Table 2: Characteristics of confirmed COVID-19 cases by county notified in Ireland, during week 47, 2021





VVCStillCatil	000	2.1	1.0	J 1	J-70
Longford	366	1.2	0.9	30.5	895.5
Carlow	507	1.6	1.1	34	890.5
Louth	1002	3.2	0.9	34	777.4
Dublin	10237	32.9	1.0	31	759.8
Tipperary	1179	3.8	1.1	33	738.9
Waterford	854	2.7	1.0	35	735.1
Kilkenny	717	2.3	1.0	32	722.5
Cork	3528	11.3	1.0	32.5	649.9
Laois	541	1.7	1.1	31	638.7
Kildare	1406	4.5	1.1	34	631.9
Wexford	928	3.0	0.9	33	619.8
Cavan	424	1.4	1.2	32	556.6
Clare	659	2.1	1.1	28	554.6
Galway	1427	4.6	1.0	31	553.0
Meath	1078	3.5	1.0	34	552.7
Limerick	1042	3.4	1.0	32	534.6
Donegal	832	2.7	0.9	31	522.6
Roscommon	335	1.1	1.1	34	519.0
Sligo	327	1.1	1.0	32	499.0
Wicklow	699	2.2	0.9	35	490.8
Offaly	380	1.2	1.0	33	487.4
Mayo	635	2.0	0.9	31	486.6
Monaghan	298	1.0	1.0	33	485.5
Kerry	704	2.3	1.0	33	476.6
Leitrim	150	0.5	0.9	28.5	468.1

Incidence rates by county for COVID-19 cases notified in Ireland during the 4th wave



		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
	26	14.1	40.7	48.0	19.7	215.5	89.5	29.1	33.9	51.2	23.2	57.9	18.7	82.1	34.3	66.0	37.5	60.0	31.0	42.3	91.4	76.3	21.9	104.2	72.1	28.7	35.1	62.3
	27	49.2	51.2	38.7	29.3	213.0	96.1	50.8	63.0	79.1	40.3	42.5	34.3	122.1	29.4	94.7	76.6	72.3	58.6	55.2	85.2	126.6	23.2	36.2	66.5	48.8	43.5	73.4
	28	131.7	114.2	70.7	75.5	392.0	166.0	129.8	94.1	135.7	48.4	129.9	93.6	125.7	46.5	296.4	117.2	129.2	107.5	115.4	128.6	91.6	48.9	57.7	90.1	56.1	118.7	132.5
	29	202.0	152.3	70.7	118.4	535.2	191.5	259.2	124.6	165.4	69.5	278.6	246.5	140.6	127.2	249.8	196.2	160.0	236.2	114.2	170.4	146.5	99.7	80.9	118.3	90.2	171.3	176.1
	30	130.0	181.2	104.4	120.5	378.2	220.3	283.7	199.7	137.1	99.8	178.3	230.9	191.4	124.8	377.9	301.1	178.9	252.5	94.9	232.4	213.6	127.9	105.0	143.1	92.8	157.3	193.3
	31	172.1	236.3	143.9	163.0	321.0	238.7	303.4	205.1	152.4	105.8	181.8	152.9	179.6	181.0	269.2	314.2	189.7	351.9	170.6	292.8	177.0	129.1	125.7	149.8	173.0	193.8	210.4
×	32	205.5	468.7	137.2	149.2	578.5	247.6	295.7	203.1	202.7	145.1	194.8	187.2	190.4	156.6	245.2	315.7	213.8	650.0	201.4	444.7	288.4	168.0	171.3	287.3	187.0	181.1	240.6
eek	33	226.6	740.4	155.7	191.0	599.3	253.3	256.1	286.4	204.0	135.0	230.2	221.6	296.6	208.0	373.2	272.8	240.5	829.2	202.7	379.6	196.8	296.5	218.6	252.3	167.6	183.3	266.6
Š	34	175.6	504.1	131.3	163.4	557.2	214.9	239.9	305.3	181.1	199.5	126.3	330.8	254.0	327.8	236.6	287.3	231.7	775.4	238.6	350.1	273.1	246.9	158.4	210.7	146.3	163.6	236.0
	35	230.1	338.7	196.1	185.3	498.1	207.7	193.8	225.4	151.5	166.3	211.3	402.6	228.8	259.3	262.3	245.2	196.9	495.2	225.8	311.4	172.4	185.5	99.0	167.8	156.3	161.5	215.8
2021 catio	36	216.0	292.7	149.8	130.6	410.2	223.3	171.7	142.2	171.2	168.3	263.3	218.4	181.1	305.8	240.5	212.2	193.8	478.9	219.3	233.9	149.5	137.3	127.4	152.1	108.9	102.5	196.5
20 Ca	37	242.4	217.9	140.6	144.2	389.5	211.0	119.7	173.3	196.4	163.3	229.1	137.3	193.9	215.3	323.5	185.4	233.8	430.1	160.3	159.6	135.8	162.3	148.9	201.6	145.6	74.4	193.5
2021 Notification	38	254.7	246.8	109.4	146.4	321.6	234.2	144.5	146.2	247.6	140.1	186.5	221.6	203.7	249.6	242.9	252.9	206.6	296.5	136.0	141.0	151.1	145.4	169.6	187.0	82.8	95.5	195.6
9	39	274.0	262.5	186.0	142.2	282.7	200.8	156.6	257.3	163.6	108.8	165.3	215.3	225.8	393.9	161.4	113.4	212.3	255.8	144.9	198.3	174.0	156.1	327.1	143.1	124.2	113.0	188.1
_	40	328.5	206.1	163.3	182.5	285.8	195.0	220.5	266.7	168.1	182.4	222.0	171.6	245.3	313.2	209.5	160.9	181.5	259.0	151.4	164.2	152.6	146.7	357.2	164.5	142.3	159.4	200.1
	41	354.8	274.4	291.2	221.2	302.8	236.5	194.5	427.2	229.2	198.5	321.1	309.0	285.3	494.2	292.5	187.7	289.2	268.8	144.9	257.2	221.3	209.3	461.4	272.6	162.3	181.9	251.7
	42	511.1	303.2	367.8	291.6	328.5	280.2	277.8	561.2	255.3	273.1	418.0	330.8	364.3	606.8	344.5	180.8	315.8	259.0	274.5	303.7	221.3	259.5	643.9	341.3	193.7	236.6	309.6
	43	372.4	304.6	375.4	372.5	329.8	294.1	288.3	490.8	294.8	312.4	388.4	483.7	362.8	508.9	401.9	241.4	307.6	236.2	239.9	255.6	244.1	299.6	642.1	306.4	307.9	320.2	330.5
	44	671.0	485.7	448.6	562.9	593.6	518.0	496.8	532.1	417.1	422.2	649.4	789.5	517.7	530.9	664.2	497.3	588.6	407.3	375.8	361.0	456.2	487.0	684.3	566.6	514.3	498.5	524.8
	45	764.1	628.8	544.5	579.1	569.8	594.1	574.3	564.6	542.0	623.8	686.0	783.3	505.4	645.9	886.1	515.7	657.8	374.7	609.3	435.4	621.0	542.1	589.6	802.1	402.1	478.1	585.4
	46	895.8	727.3	608.5	630.4	591.7	689.6	537.1	592.4	592.3	795.1	473.5	564.8	528.0	743.8	751.1	639.0	681.9	553.9	578.5	571.7	546.3	668.7	713.6	878.7	533.7	476.0	641.1
	47	890.5	556.6	554.6	649.9	522.6	759.8	553.0	476.6	631.9	722.5	638.7	468.1	534.6	895.5	777.4	486.6	552.7	485.5	487.4	519.0	499.0	738.9	735.1	944.0	619.8	490.8	653.0

Figure 7: Heat map of weekly incidence rates of confirmed COVID-19 cases per 100,000 population, by county, notified in Ireland for the 4th wave between week 26, 2021 and week 47, 2021

Most likely transmission source of COVID-19 cases



Data is still being processed and is not yet available this week.

Hospitalisations, ICU admissions and deaths during waves 1 - 4



Table 3: Summary of hospitalisations, ICU admissions and deaths by age group and wave.

(This does not include 6 hospitalised cases for whom the age is unknown and 1 case who died for whom the age is also unknown)

Age group	Wave	Number of cases			Number of cases admitted to ICU	s % admitted to ICU	Number of cases who died*	% deaths
	1	19612	1522	7.8	277	1.4	109	0.6
	2	39954	873	2.2	79	0.2	29	0.1
<65 yrs	3	179390	4611	2.6	570	0.3	272	0.2
	4	266466	3233	1.2	355	0.1	108**	0.04
	Total	505422	10239	2.0	1281	0.3	518	0.1
	1	6524	1803	27.6	161	2.5	1421	21.8
	2	4229	962	22.7	104	2.5	360	8.5
65+ yrs	3	20928	5067	24.2	401	1.9	2602	12.4
	4	22872	2300	10.1	211	0.9	502**	2.2
	Total	54553	10132	18.6	877	1.6	4885	9.0

^{*} 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.

Hospitalisations among COVID-19 cases during waves 3 and 4



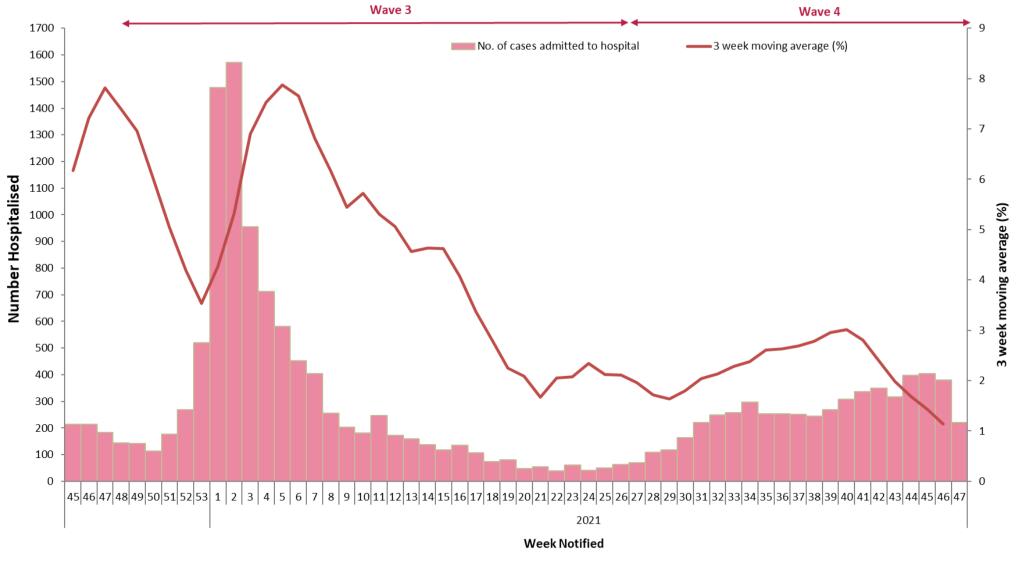


Figure 8: Number of hospitalised COVID-19 cases and 3 week moving average (%) of overall cases hospitalised in Ireland between week 45, 2020 and week 47, 2021 based on week of notification

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

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



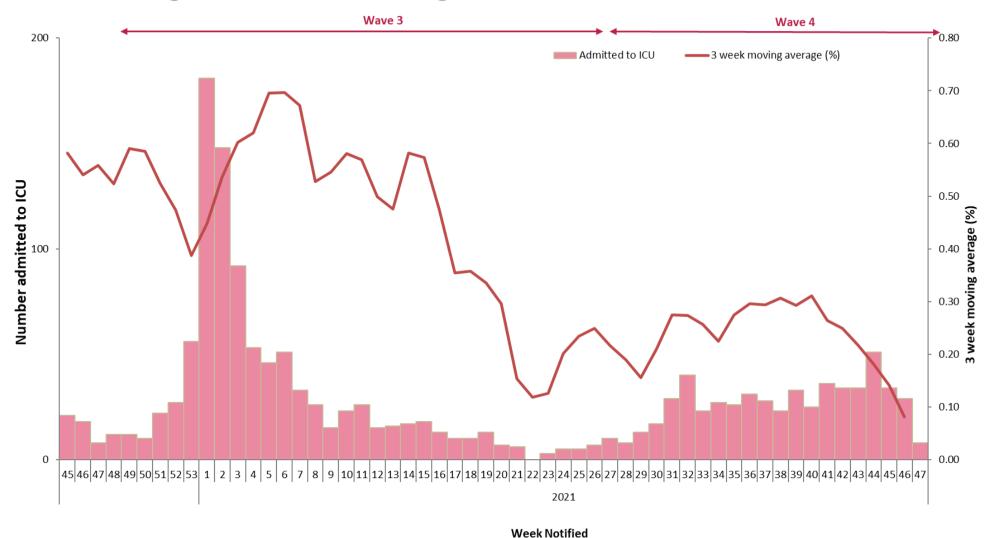


Figure 9: Number of ICU admissions in COVID-19 cases and 3 week moving average (%) of ICU admissions of overall case numbers in Ireland between week 45, 2020 and week 47, 2021 based on week of notification

*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.

Deaths among COVID-19 cases



	Number	Percent
Total number of deaths	5,678	
confirmed	5,404	95.2
probable	98	1.7
possible	176	3.1
Number hospitalised who died	3,164	55.7
admitted to ICU who died	660	11.6
not admitted to ICU who died	5,018	88.4
Number of imported cases who died	17	0.3
Number of HCWs who died	19	0.3
Number with underlying conditions who died	4,835	85.2
Males who died	3,031	53.4
M:F ratio	1.15	
Median age (years)	82	
Mean age (years)	80	
Age range (years)	14-105	

Table 4: Summary of deaths in all COVID-19 cases notified in Ireland between week 10, 2020 and week 47, 2021

Age group (years)	Female	Male	Total	Percent
<45 yrs	31	36	67	1
45-54 yrs	42	84	126	2
55-64 yrs	119	219	338	6
65-74 yrs	331	591	922	16
75-84 yrs	805	1093	1898	33
85+ yrs	1316	1008	2324	41
Unknown	3	0	3	0
Total	2647	3031	5678	100.0
Percent	46.6	53.4		

Table 5: Number of deaths in all COVID-19 cases by sex and age group notified in Ireland between week 10, 2020 and week 47, 2021

Deaths among COVID-19 cases



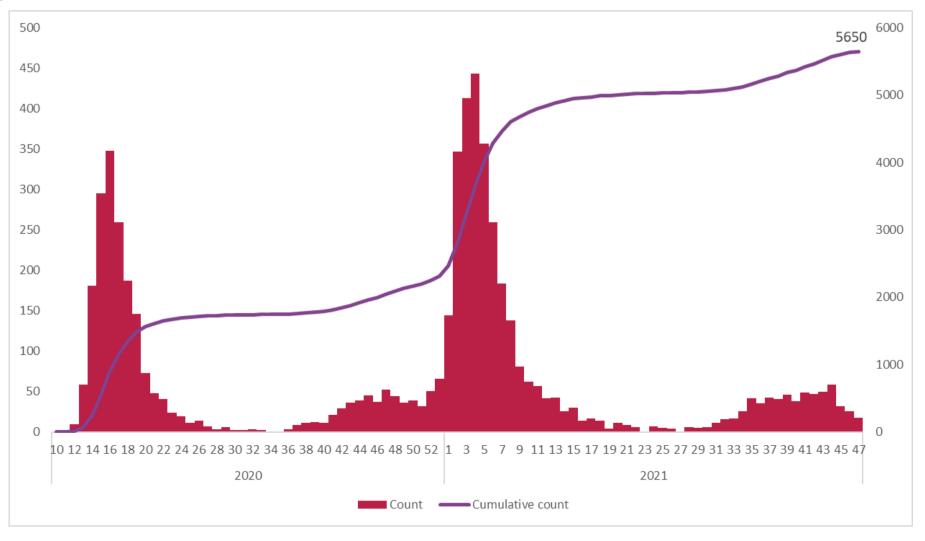


Figure 10: Total number of COVID-19 deaths notified in and cumulative number by week of death, cases with a date of notification from 01/03/2020 to 27/11/2021. Date of death reported for 5,600 of deaths.

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

Deaths among COVID-19 cases during waves 3 and 4



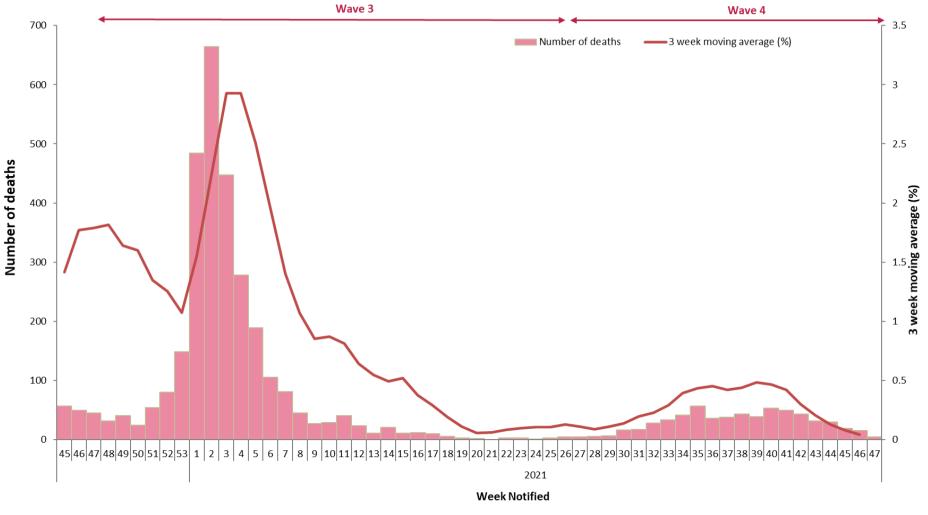
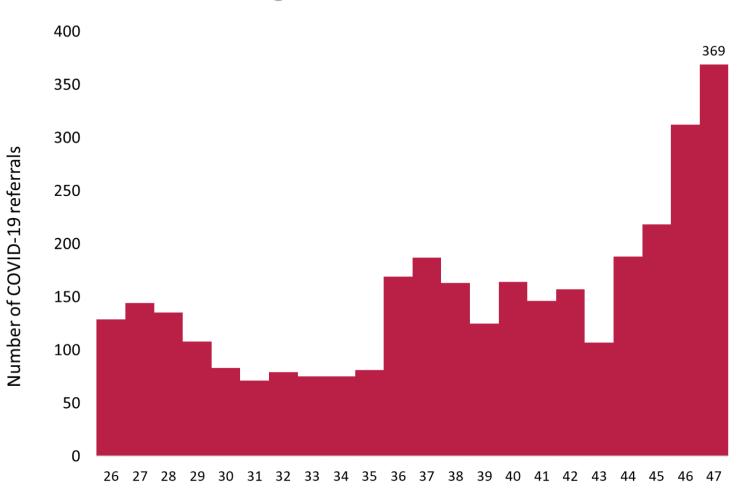


Figure 11: Number of deaths in confirmed COVID-19 cases and 3 week moving average (%) of deaths of overall case numbers in Ireland between week 45, 2020 and week 47, 2021 based on week of notification*

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

Sentinel GP referrals for COVID-19 testing









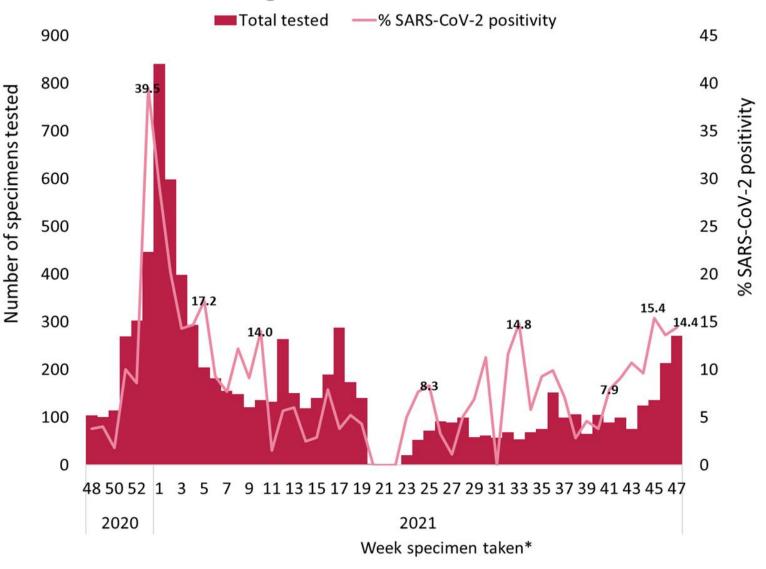


Week of GP consultation

Figure 12: Number of sentinel GP COVID-19 referrals by week of consultation, week 26, 2021 – week 47, 2021

^{*} Recent increases in sentinel GP COVID-19 referrals are reflecting community COVID-19 incidence and changes to health seeking behaviour resulting from high demands on online COVID-19 booking systems for community testing centres

Sentinel GP referrals for COVID-19 testing





*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



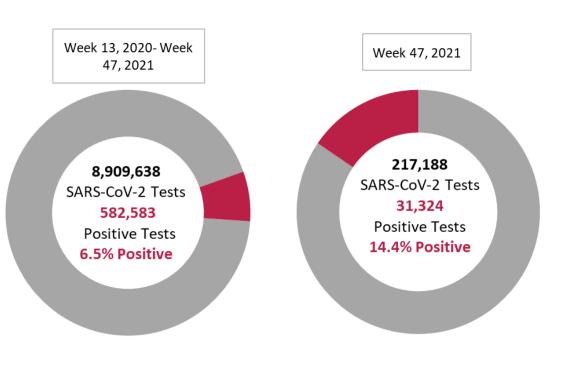






Laboratory testing for SARS-CoV-2





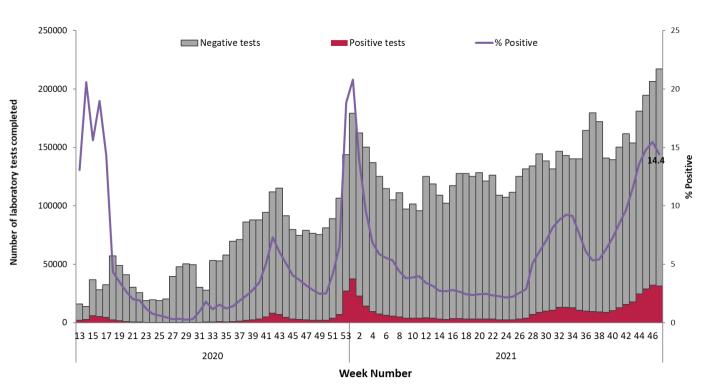


Figure 14a: Number of SARS-CoV-2 tests and positive tests* in Ireland between week 13, 2020 and week 47, 2021

Figure 14b: Number of SARS-CoV-2 negative and positive tests* completed in Ireland between week 13, 2020 and week 47, 2021

^{*}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



- 14 Day report epidemiology of COVID-19 in Ireland
- Outbreaks/clusters in Ireland COVID-19 weekly report
- Weekly report on COVID-19 deaths reported in Ireland
- <u>SARS-CoV-2 wastewater surveillance</u> 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
- Epidemiology of COVID-19 in Ireland cases aged 0-18 years

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.

Report prepared by COVID-19 Epidemiology Team, HPSC

Technical Notes



1. Data Source

- 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 HPSC 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.