



Weekly Report on the Epidemiology of COVID-19 in Ireland

Week 45, 2021

Health Protection Surveillance Centre, HPSC
COVID-19 Epidemiology Team, 15/11/2021

Please note:

- The epidemiological weeks in this report, run from Sunday to Saturday. Please refer to the [HPSC website](#) 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 45, 2021 (7th November to 13th 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 13th November
- Data was extracted from CIDR system on 15/11/2021
- 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



	Total (week 10, 2020-week 45, 2021)		Week 45, 2021	
	Number	Percent	Number	Percent
Total number of confirmed cases	498,443		27,883	
Incidence rate of confirmed cases per 100,000 population	10467.4		585.5	
Number of cases hospitalised	19,603	3.9	307*	1.1
Number of cases admitted to ICU	2,074	0.4	9*	0.03
Number of deaths among confirmed cases	5,320	1.1	5*	0.02
Case fatality ratio (CFR %)	1.1		0.02	
Incidence rate of confirmed deaths per 100,000 population	111.7		0.11	
Number of cases in healthcare workers	36834	7.4	346	1.2
% where HCW is known		8.7		3.6
Males	243,458	48.8	13,834	49.6
Females	254,809	51.1	14,012	50.3
M:F ratio	0.96		0.99	
Median (years)	33		34	
Mean age (years)	36		34	
Age range (years)	0-108		0-102	

* 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

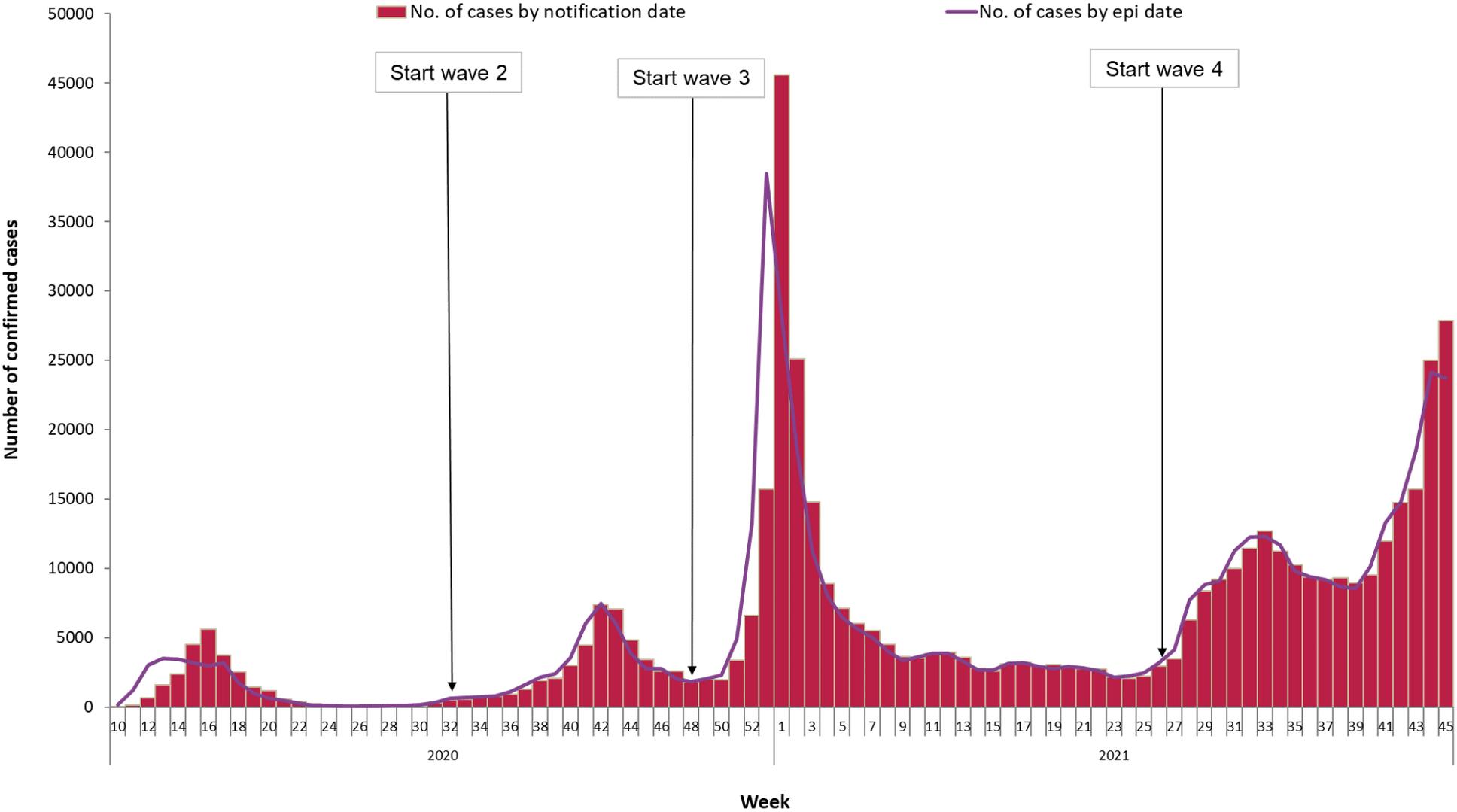


Figure 1: Number of confirmed COVID-19 cases by notification week and [epidemiological date](#) in Ireland between week 10, 2020 and week 45, 2021

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

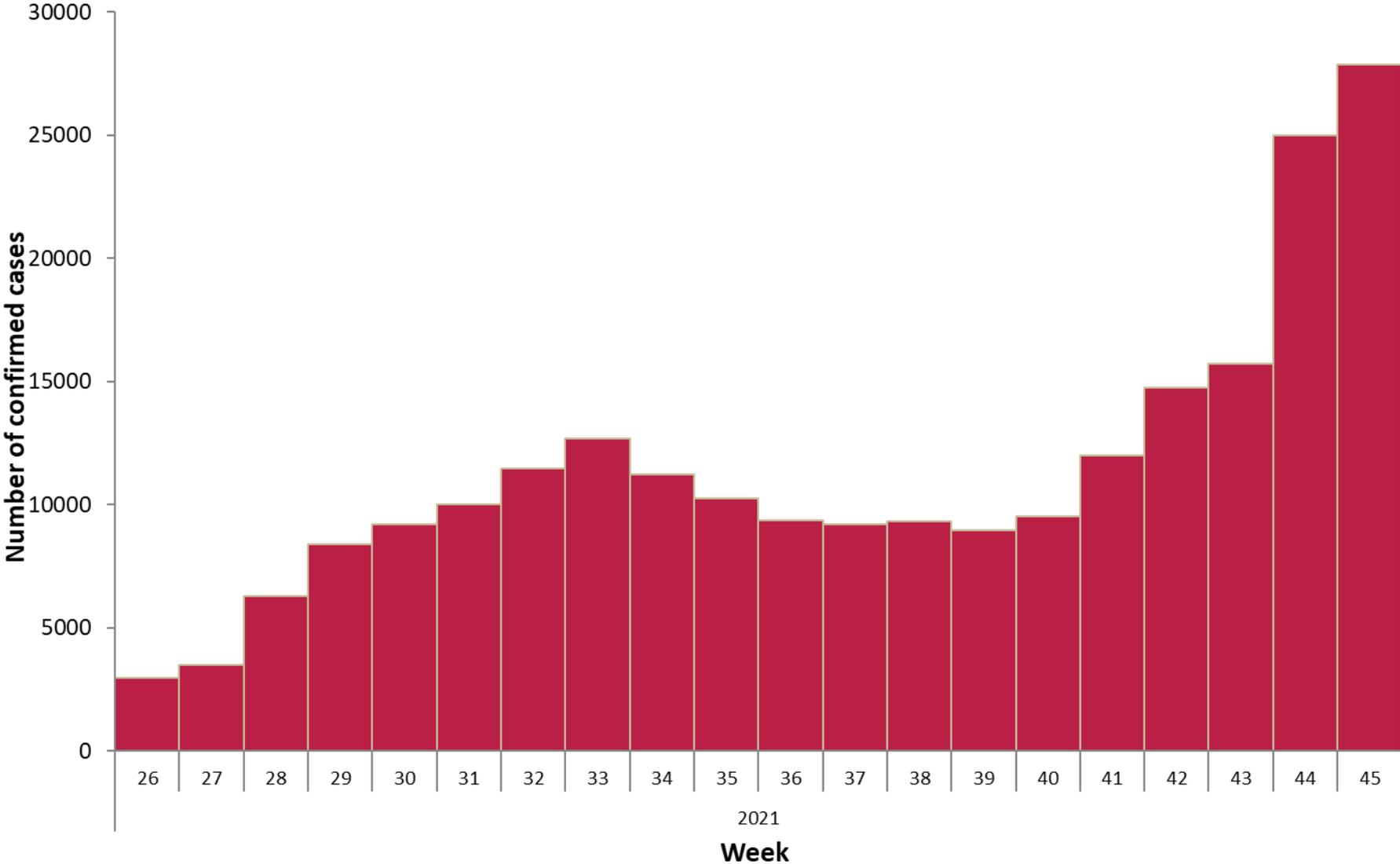


Figure 2: Number of confirmed COVID-19 cases by notification week in Ireland for the 4th wave from week 26, 2021 to week 45, 2021

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



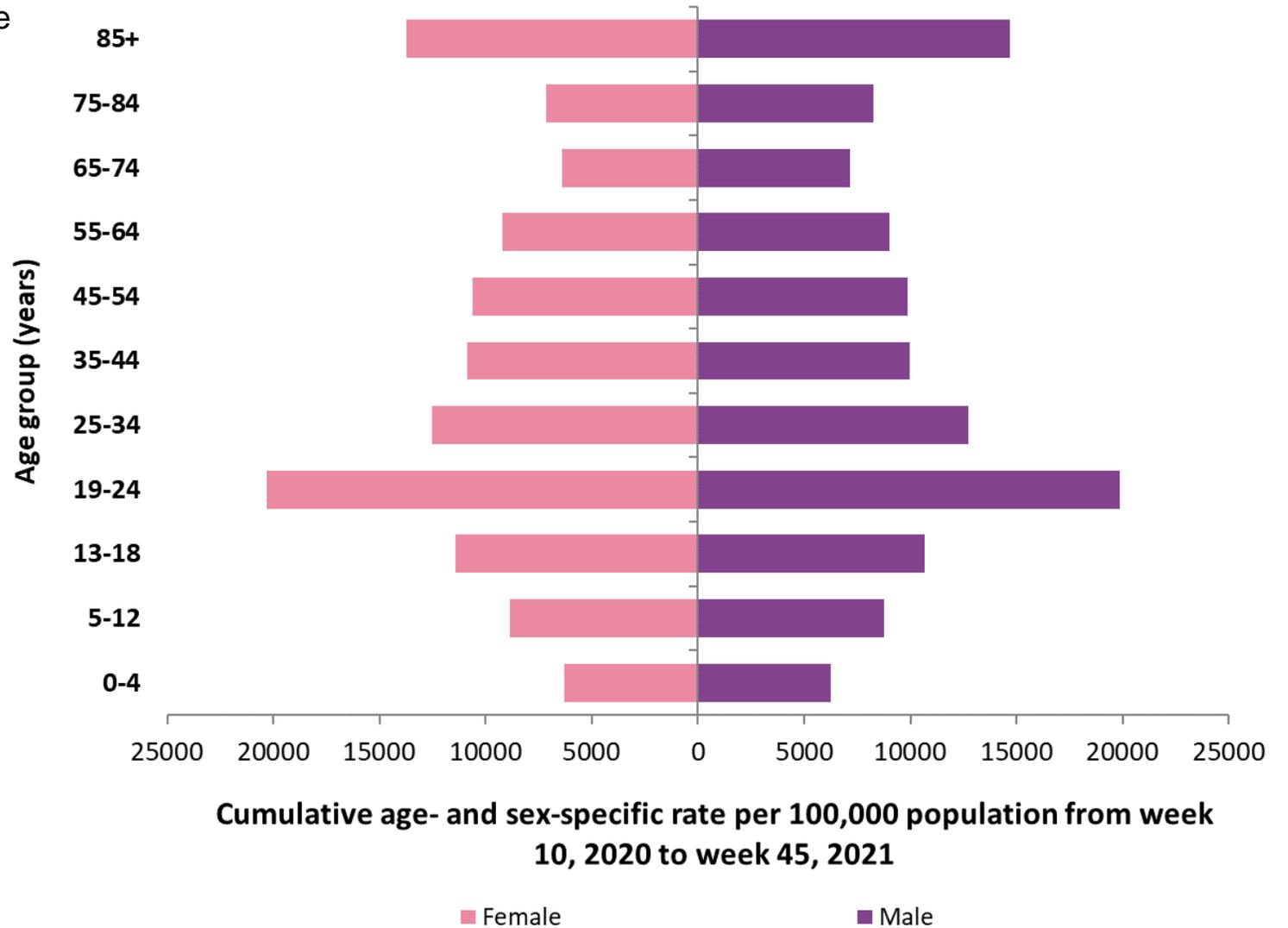
Table 1: Characteristics of confirmed COVID-19 cases notified in Ireland during week 45, 2021

Characteristic		Week 45	Percent
Total number of confirmed cases		27,883	100
Sex	Male:Female ratio	0.99	
	Male	13,834	49.6
	Female	14,012	50.3
	Unknown	37	0.2
Age	Mean age (years)	34	
	Median age (years)	34	
	Age range (years)	0-102	
	0-4 yrs	1346	4.8
	5-12 yrs	4,211	15.1
	13-18 yrs	1,595	5.7
	19-24 yrs	2,998	10.8
	25-34 yrs	4,213	15.1
	35-44 yrs	4,723	16.9
	45-54 yrs	3,645	13.1
	55-64 yrs	2,764	9.9
	65-74 yrs	1,675	6.0
	75-84 yrs	604	2.2
	85+ yrs	109	0.4
	Unknown	0	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 45, 2021

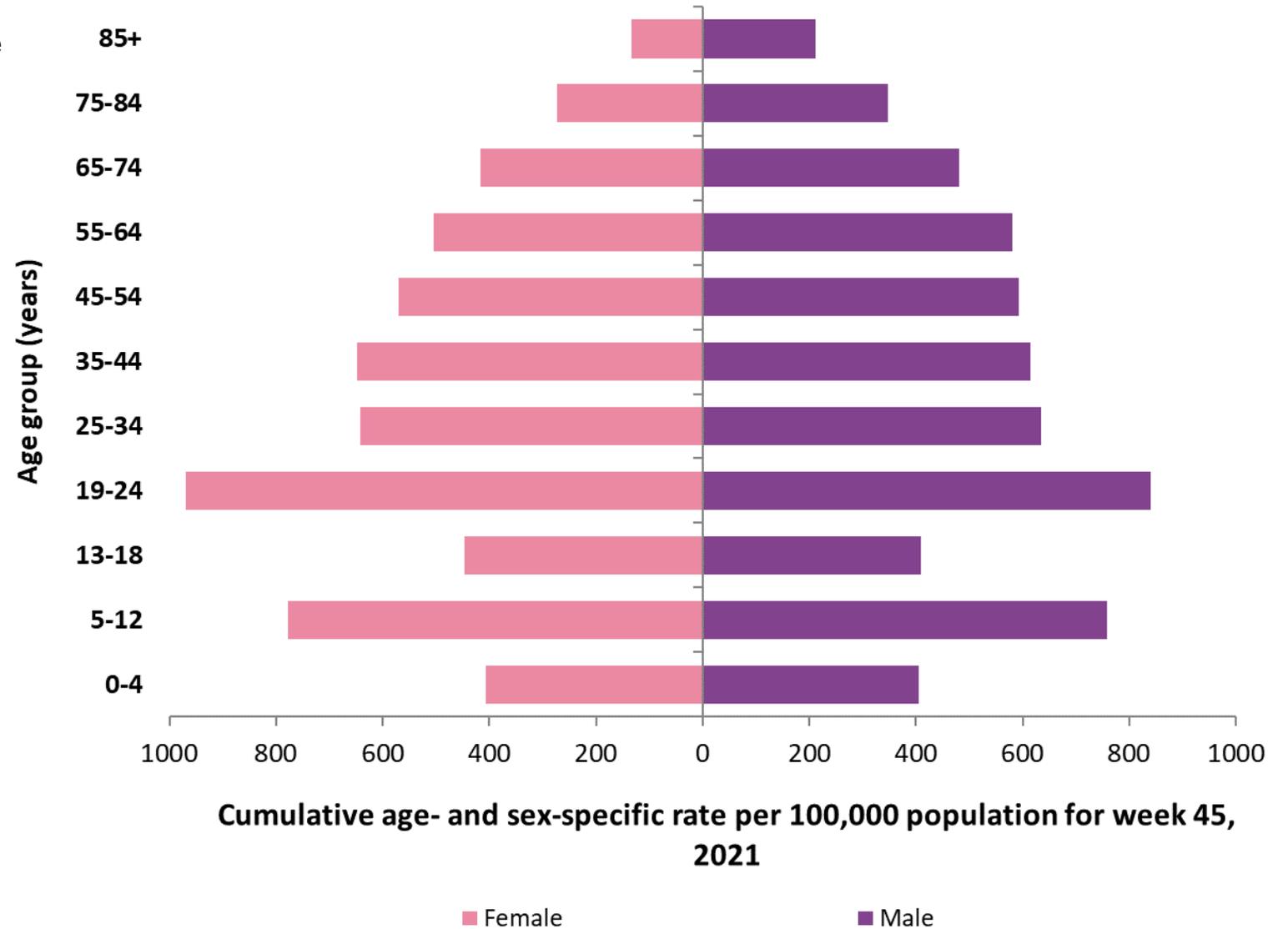
(excluding 60 cases for whom age is unknown, 175 cases for whom sex is unknown and one case for whom both are unknown)



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 45, 2021

(excluding 37 cases for whom sex is unknown)



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

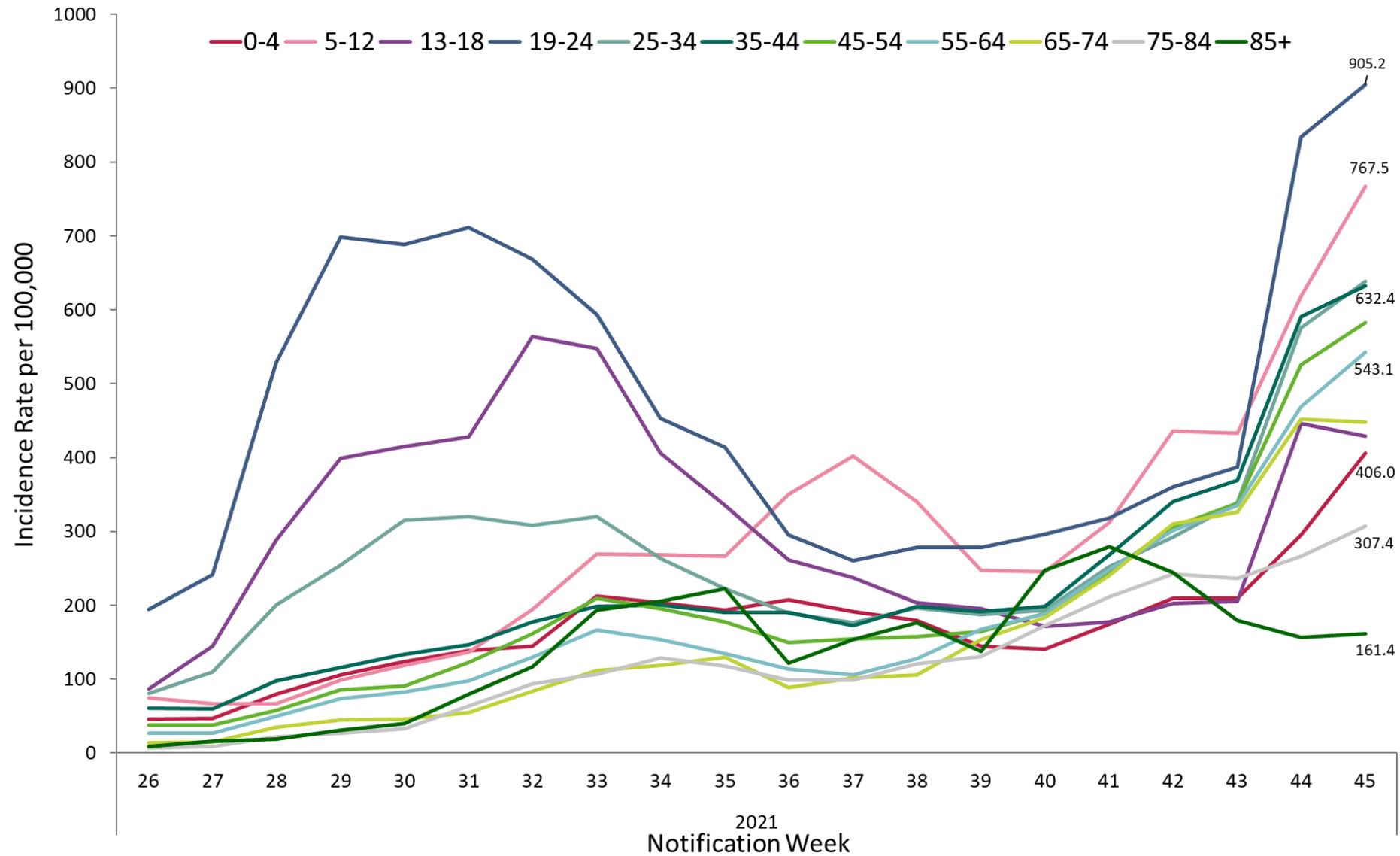


Figure 4: Weekly age-specific incidence rates of confirmed COVID-19 cases per 100,000 population in Ireland for the 4th wave from week 26, 2021 to week 45, 2021

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

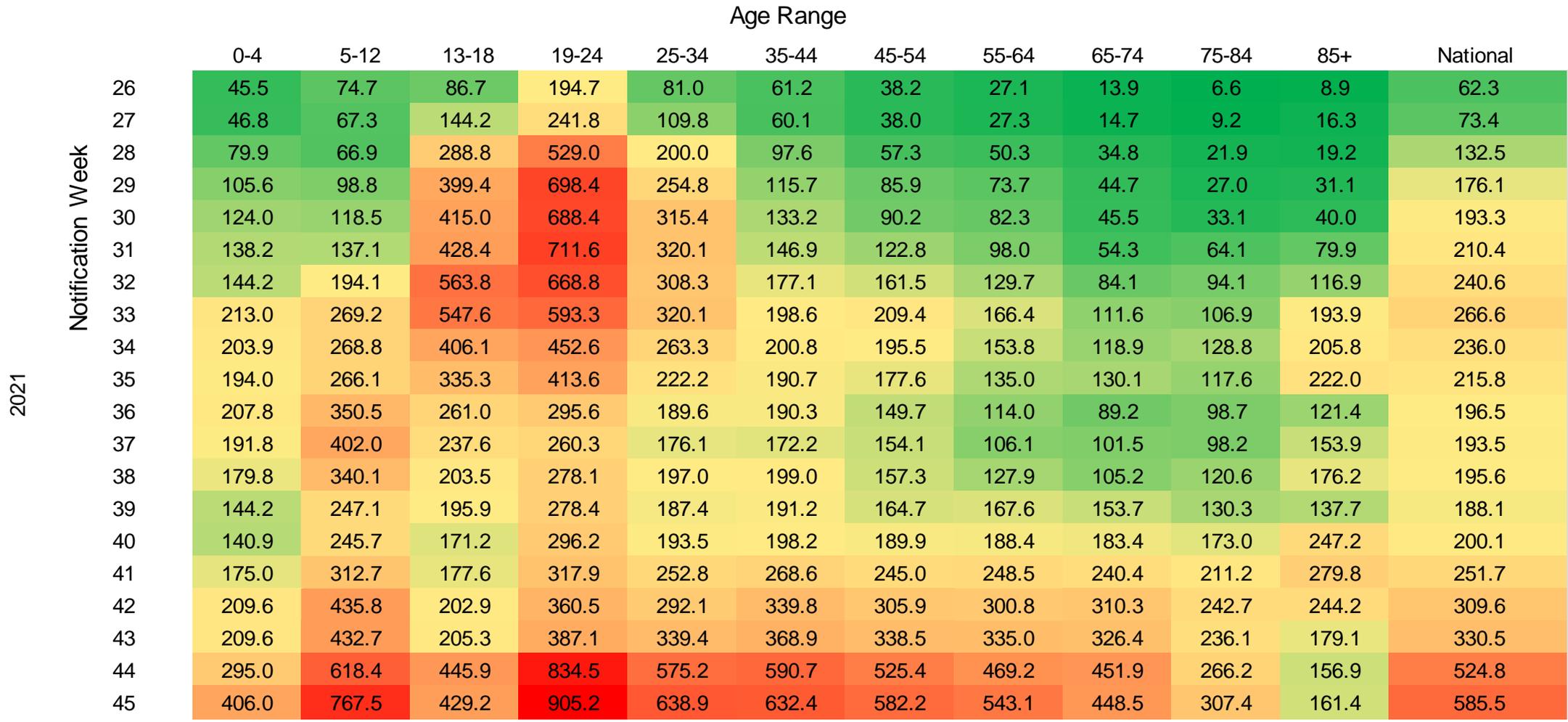


Figure 5: Heat map of weekly age-specific incidence rates of confirmed COVID-19 cases per 100,000 population in Ireland for the 4th wave between week 26, 2021 and week 45, 2021

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

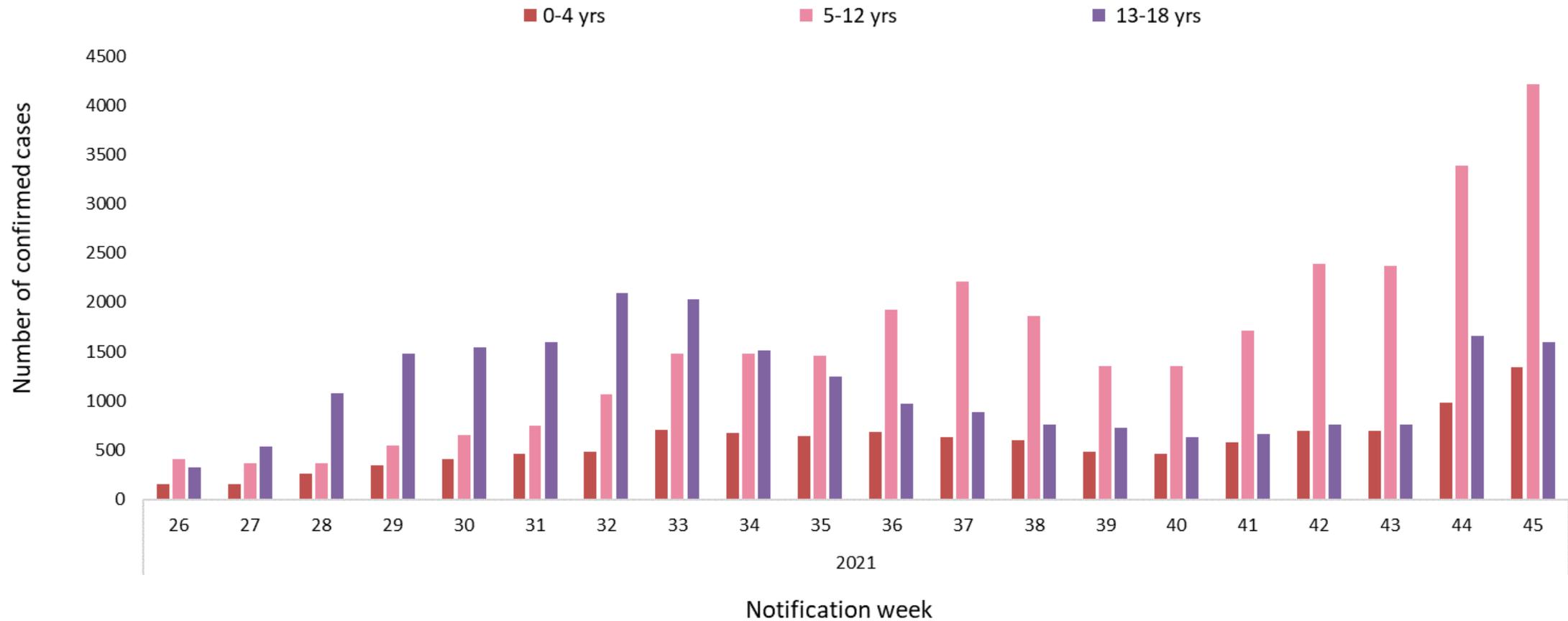


Figure 6a: Weekly number of age-specific confirmed COVID-19 cases by notification week in Ireland for the 4th wave between week 26, 2021 and week 45, 2021

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

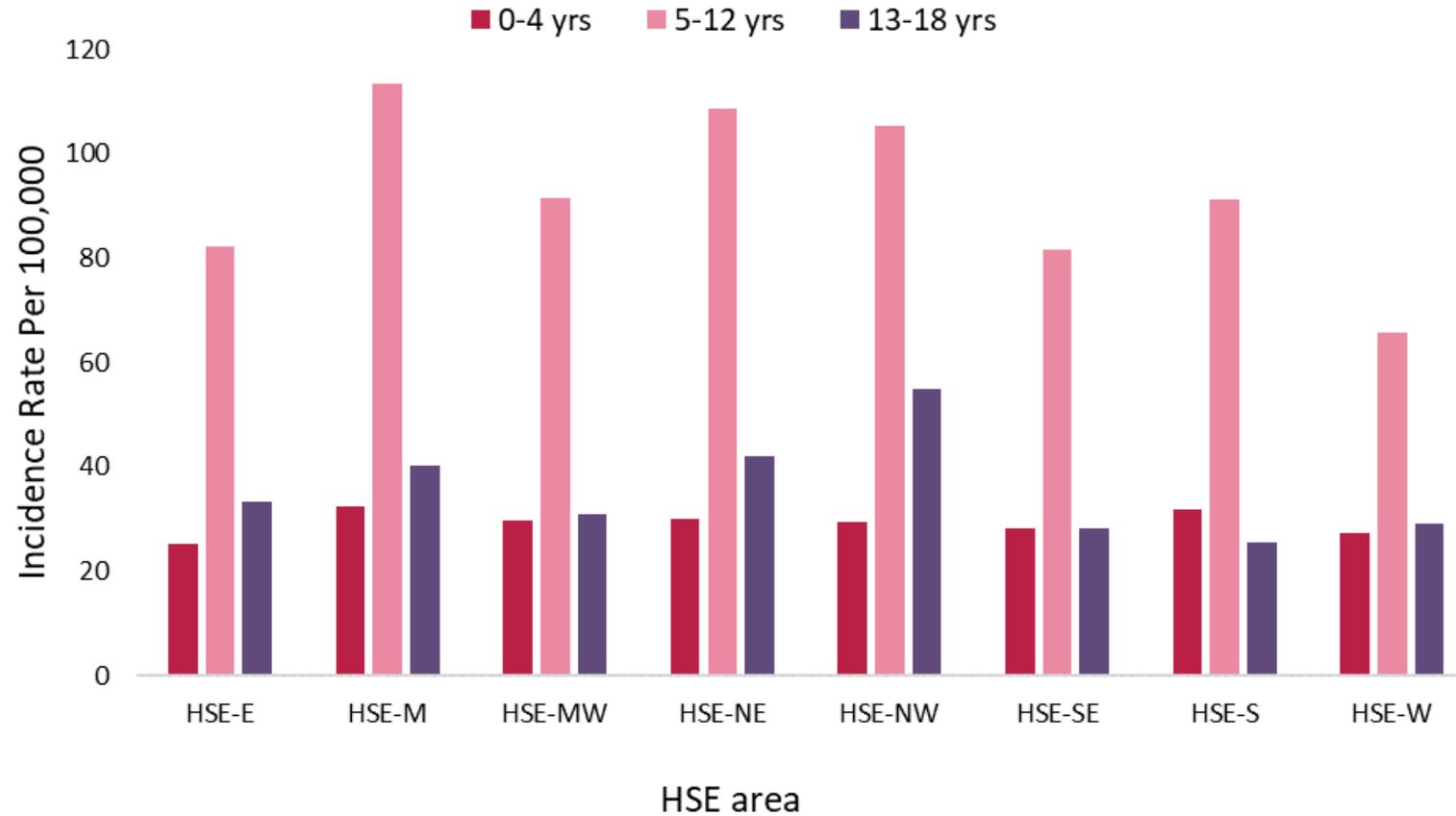


Figure 6b: Age-specific incidence rates of confirmed COVID-19 cases per 100,000 population, by HSE area, notified in Ireland during week 45, 2021

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 45, 2021

County	Cases		M:F ratio	Median age	Incidence Rate per 100,000
	N	%		(years)	
Louth	1150	4.1	1.1	36	892.3
Westmeath	778	2.8	0.9	31	876.4
Leitrim	247	0.9	1.2	31	770.8
Laois	638	2.3	1.1	34	753.3
Carlow	426	1.5	1.0	36	748.3
Offaly	531	1.9	1.1	35	681.1
Longford	277	1.0	1.0	37	677.7
Kilkenny	619	2.2	1.0	33	623.8
Cavan	475	1.7	1.0	35	623.6
Sligo	406	1.5	1.0	35	619.5
Meath	1195	4.3	1.0	32	612.7
Dublin	8022	28.8	0.9	33	595.4
Waterford	682	2.4	1.0	34	587.0
Kerry	851	3.1	1.1	36	576.1
Cork	3110	11.2	1.0	35	572.9
Galway	1477	5.3	0.9	32	572.4
Donegal	904	3.2	1.0	32	567.9
Tipperary	860	3.1	1.0	34	539.0
Limerick	1046	3.8	1.0	29	536.7
Clare	629	2.3	0.9	33	529.4
Mayo	659	2.4	0.9	33	505.0
Kildare	1110	4.0	1.1	35	498.9
Wicklow	665	2.4	1.1	35	466.9
Monaghan	257	0.9	0.9	36	418.7
Roscommon	267	1.0	0.9	33	413.7
Wexford	602	2.2	1.1	37	402.1

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
2021	Notification Week 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	182.5	104.4	120.5	378.2	220.3	283.7	199.7	137.1	99.8	178.3	227.8	191.4	124.8	378.6	301.1	178.4	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	314.9	189.7	351.9	170.6	292.8	175.5	129.1	125.7	149.8	173.0	193.8	210.4
	32	205.5	467.3	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	651.6	201.4	444.7	288.4	168.0	171.3	287.3	187.0	181.1	240.6
	33	226.6	737.8	155.7	191.0	599.3	253.3	256.1	286.4	204.0	135.0	230.2	221.6	296.6	205.5	377.1	272.8	238.9	830.8	202.7	379.6	196.8	296.5	218.6	252.3	167.6	183.3	266.6
	34	175.6	502.8	131.3	163.4	557.2	214.9	239.9	305.3	181.1	199.5	126.3	330.8	254.0	327.8	237.4	287.3	231.2	777.1	238.6	350.1	273.1	246.9	158.4	210.7	146.3	163.6	236.0
	35	230.1	334.8	196.1	185.3	498.8	207.7	193.8	225.4	151.5	166.3	211.3	402.6	228.8	259.3	262.3	245.2	196.9	498.5	225.8	311.4	172.4	185.5	99.0	167.8	156.3	161.5	215.8
	36	216.0	292.7	149.8	130.8	409.6	223.3	171.7	142.2	171.2	168.3	263.3	221.6	181.1	305.8	251.4	212.2	186.6	478.9	219.3	233.9	149.5	137.3	127.4	152.1	108.9	102.5	196.5
	37	242.4	216.6	140.6	144.2	389.5	211.0	119.7	173.3	196.4	163.3	229.1	137.3	193.9	215.3	345.3	185.4	222.0	423.5	160.3	159.6	135.8	162.3	148.9	201.6	145.6	74.4	193.5
	38	254.7	248.1	109.4	146.4	321.6	234.2	144.5	146.2	247.6	140.1	186.5	221.6	203.7	249.6	252.2	252.9	202.0	290.0	136.0	141.0	151.1	145.4	169.6	187.0	82.8	95.5	195.6
	39	274.0	259.9	186.0	142.2	282.7	200.8	156.6	257.3	163.6	108.8	165.3	215.3	225.8	393.9	173.0	113.4	208.7	247.6	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	182.9	285.8	195.0	220.5	265.4	168.1	182.4	222.0	171.6	245.8	313.2	212.6	160.9	179.4	259.0	151.4	164.2	152.6	146.0	357.2	164.5	142.3	159.4	200.1
	41	354.8	274.4	291.2	221.4	302.8	236.5	194.5	426.5	229.2	198.5	321.1	309.0	284.8	494.2	296.4	187.7	287.1	263.9	146.2	257.2	221.3	209.3	461.4	273.7	162.3	181.9	251.7
	42	511.1	304.6	367.8	291.6	328.5	280.2	277.8	561.2	255.3	273.1	418.0	330.8	364.3	606.8	346.0	180.8	314.8	257.4	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	288.7	490.8	294.8	311.4	388.4	480.6	362.8	508.9	409.7	241.4	305.1	228.1	239.9	255.6	245.7	299.6	643.0	306.4	307.9	320.2	330.5
	44	671.0	485.7	434.3	562.8	593.6	517.9	496.4	532.1	417.1	422.2	649.4	795.8	530.5	535.8	674.2	496.5	581.9	407.3	375.8	354.8	456.2	483.9	684.3	566.6	515.0	498.5	524.8
	45	748.3	623.6	529.4	572.9	567.9	595.4	572.4	576.1	498.9	623.8	753.3	770.8	536.7	677.7	892.3	505.0	612.7	418.7	681.1	413.7	619.5	539.0	587.0	876.4	402.1	466.9	585.5

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 45, 2021

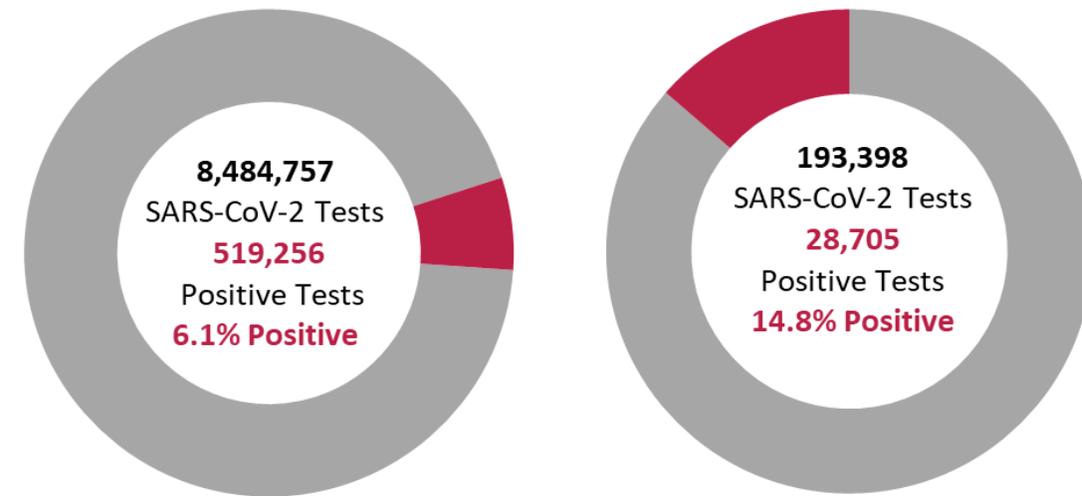


Figure 8a: Number of SARS-CoV-2 tests and positive tests* in Ireland between week 13, 2020 and week 45, 2021

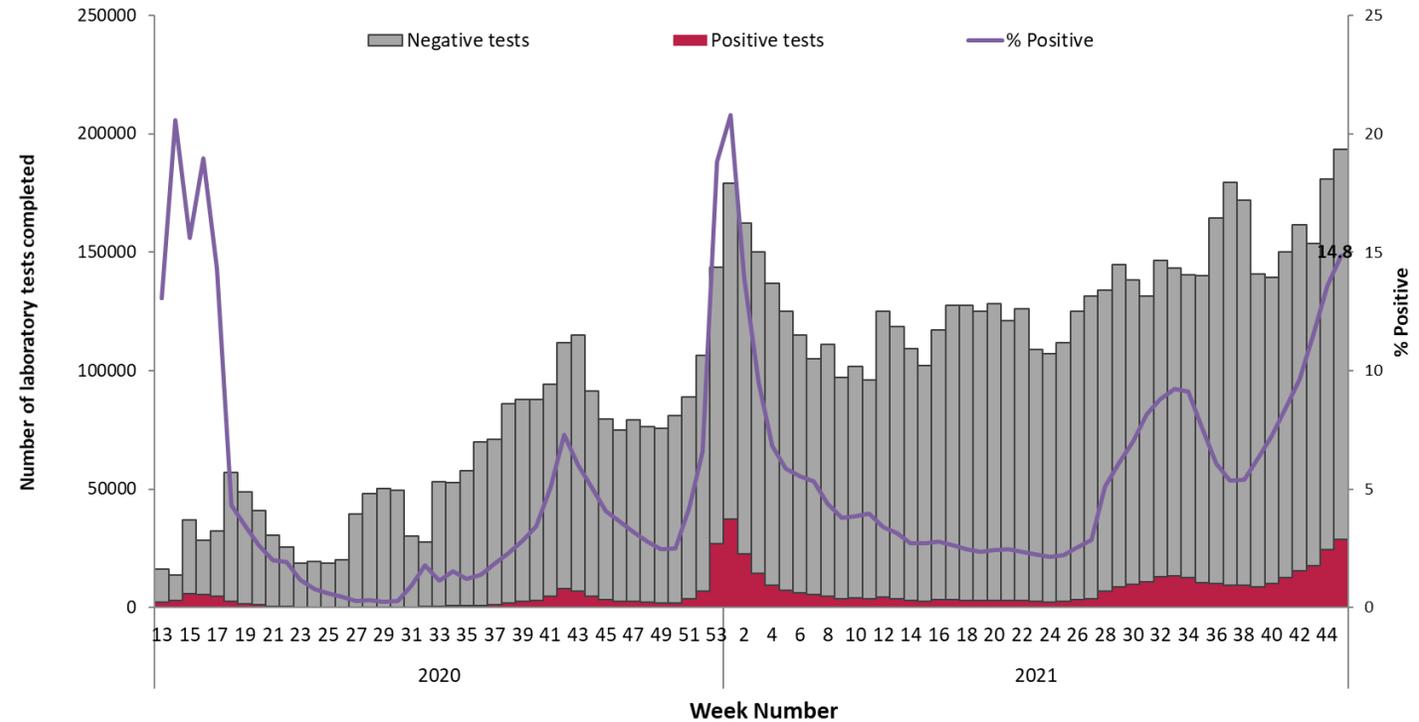


Figure 8b: Number of SARS-CoV-2 negative and positive tests* completed in Ireland between week 13, 2020 and week 45, 2021

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

Most likely transmission source of COVID-19 cases

Table 3: Most likely transmission source for cases notified in week 45, 2021.

Most likely transmission source for 45, 2021	Number of cases	Percent
Close contact with a known confirmed case	4679	16.8
Travel related	85	0.3
Community transmission	3978	14.3
Healthcare setting acquired: patient	46	0.2
Healthcare setting acquired: staff	48	0.2
Under investigation*	19047	68.3
Total	27883	100

*Data for the most recent week were not complete at the time of data extraction

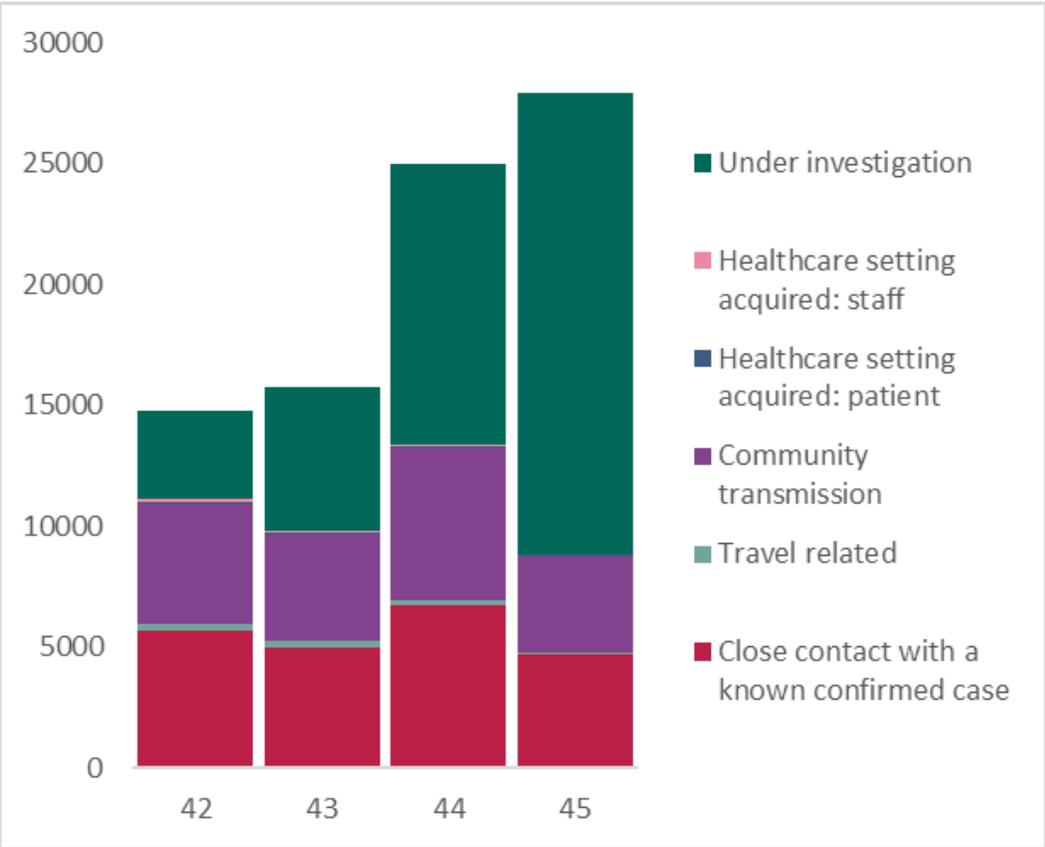


Figure 9: Most likely transmission source by week, from week 42 - week 45, 2021.

Sentinel GP referrals for COVID-19 testing

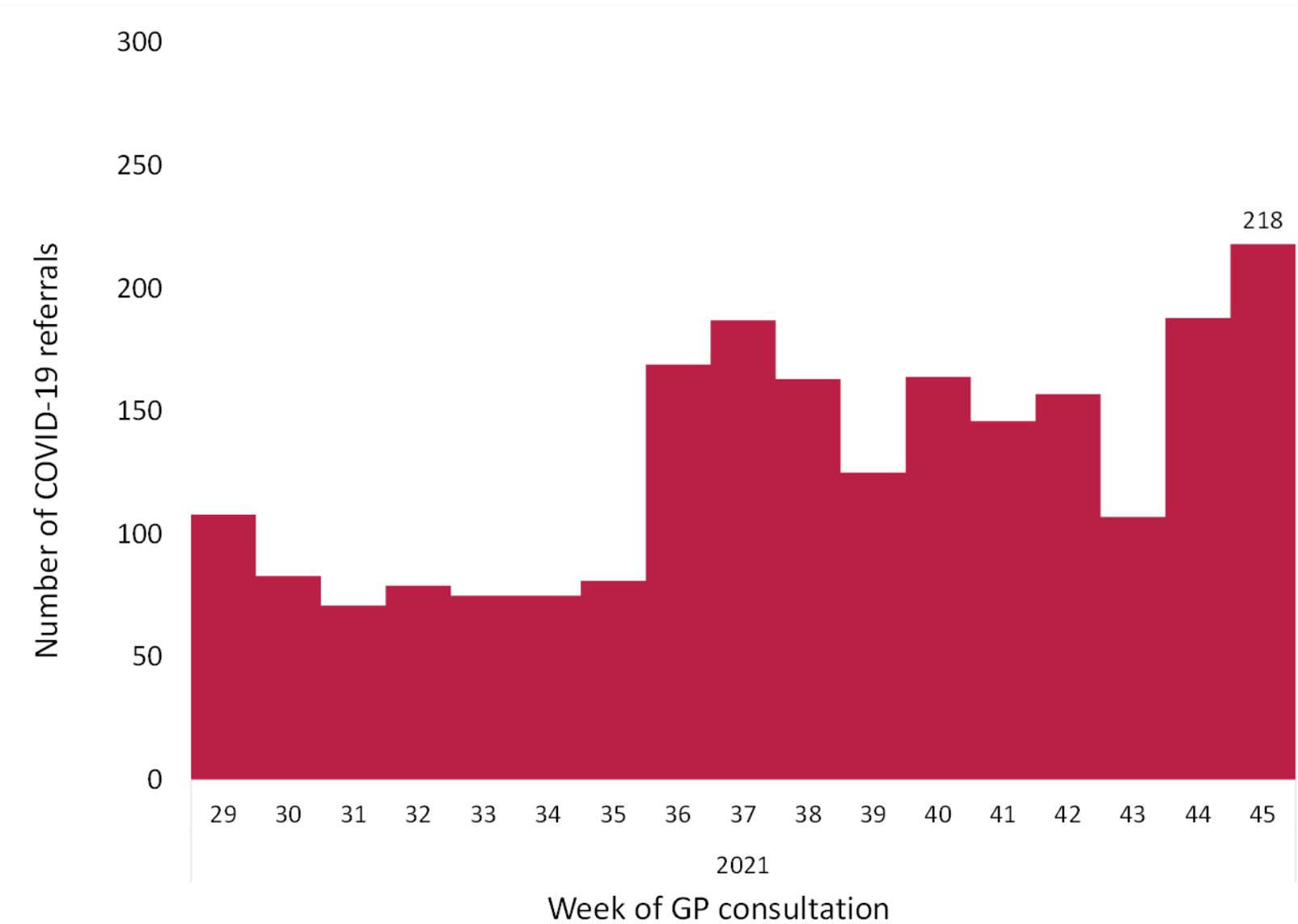


Figure 10: Number of sentinel GP COVID-19 referrals by week of consultation, week 29, 2021 – week 45, 2021



Sentinel GP referrals for COVID-19 testing

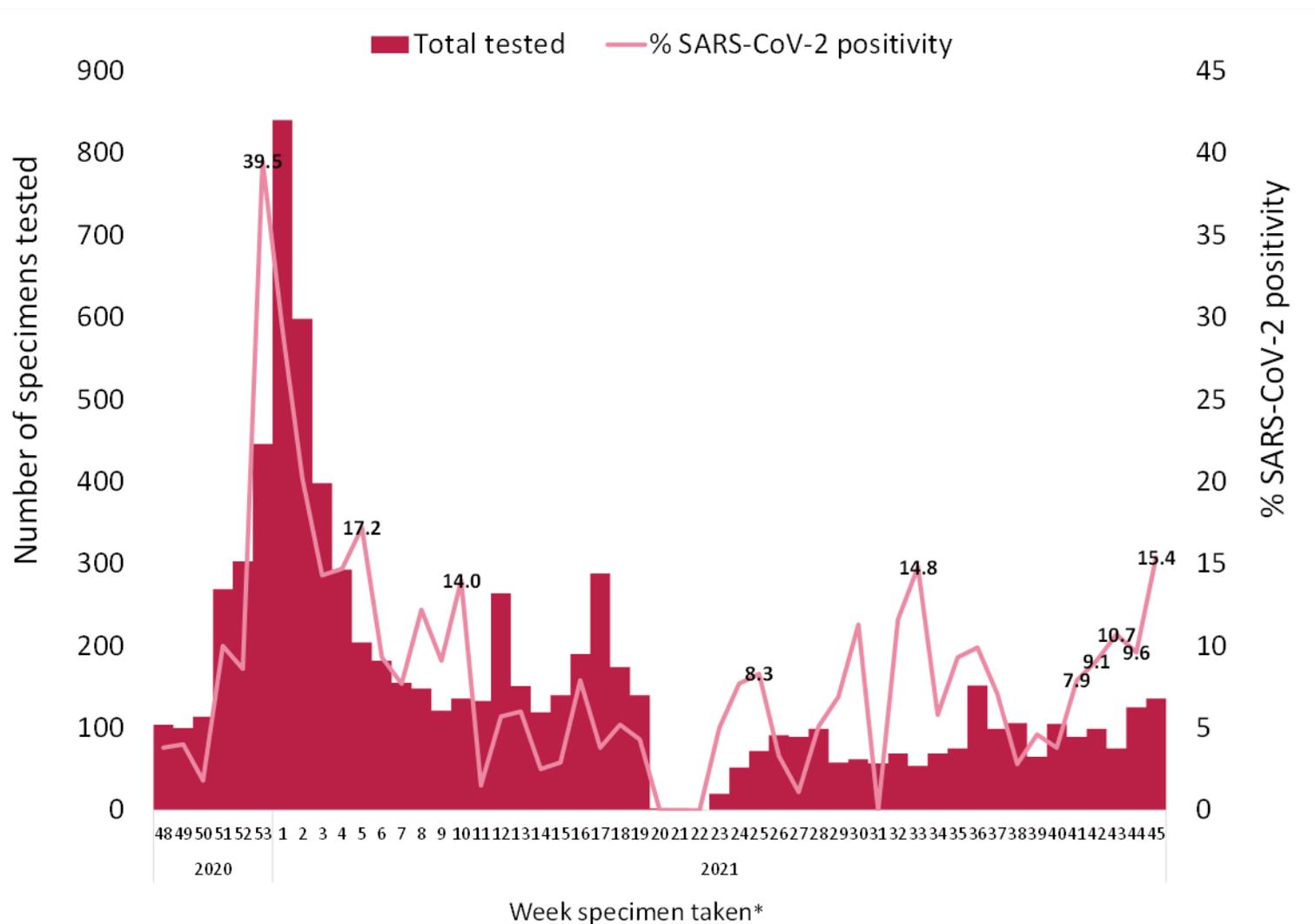


Figure 11: % SARS-CoV-2 positivity data from sentinel GP COVID-19 referrals tested by NVRL/ENFER, 2020-2021

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



Table 4: 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 hospitalised	% hospitalised	Number of cases admitted to ICU	% admitted to ICU	Number of cases who died*	% deaths
<65 yrs	1	19612	1522	7.8	277	1.4	109	0.6
	2	39954	873	2.2	79	0.2	29	0.1
	3	179393	4616	2.6	571	0.3	269	0.1
	4	209515	2775	1.3	301	0.1	84**	0.04
	Total	448474	9786	2.2	1228	0.3	491	0.1
65+ yrs	1	6524	1803	27.6	161	2.5	1420	21.8
	2	4229	961	22.7	104	2.5	359	8.5
	3	20928	5067	24.2	401	1.9	2600	12.4
	4	18227	1980	10.9	180	1.0	449**	2.5
	Total	49908	9811	19.7	846	1.7	4828	9.7

* Deaths in confirmed cases only

** Wave 4 is still ongoing and deaths from this wave may therefore be underestimated.

Hospitalisations among COVID-19 cases during waves 3 and 4

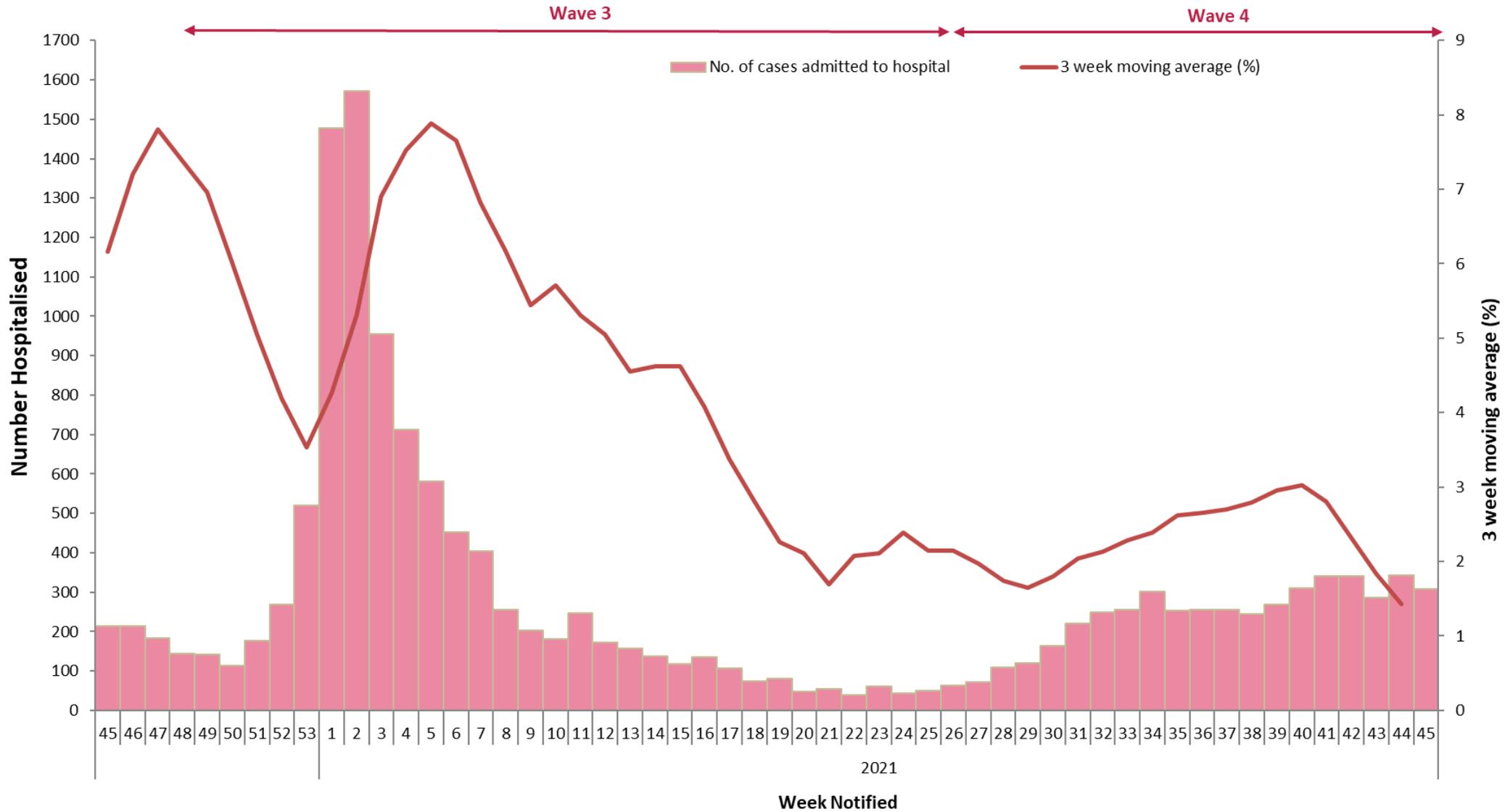


Figure 12: Number of hospitalised COVID-19 cases and 3 week moving average (%) of overall cases hospitalised in Ireland between week 45, 2020 and week 45, 2021 based on week of notification

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

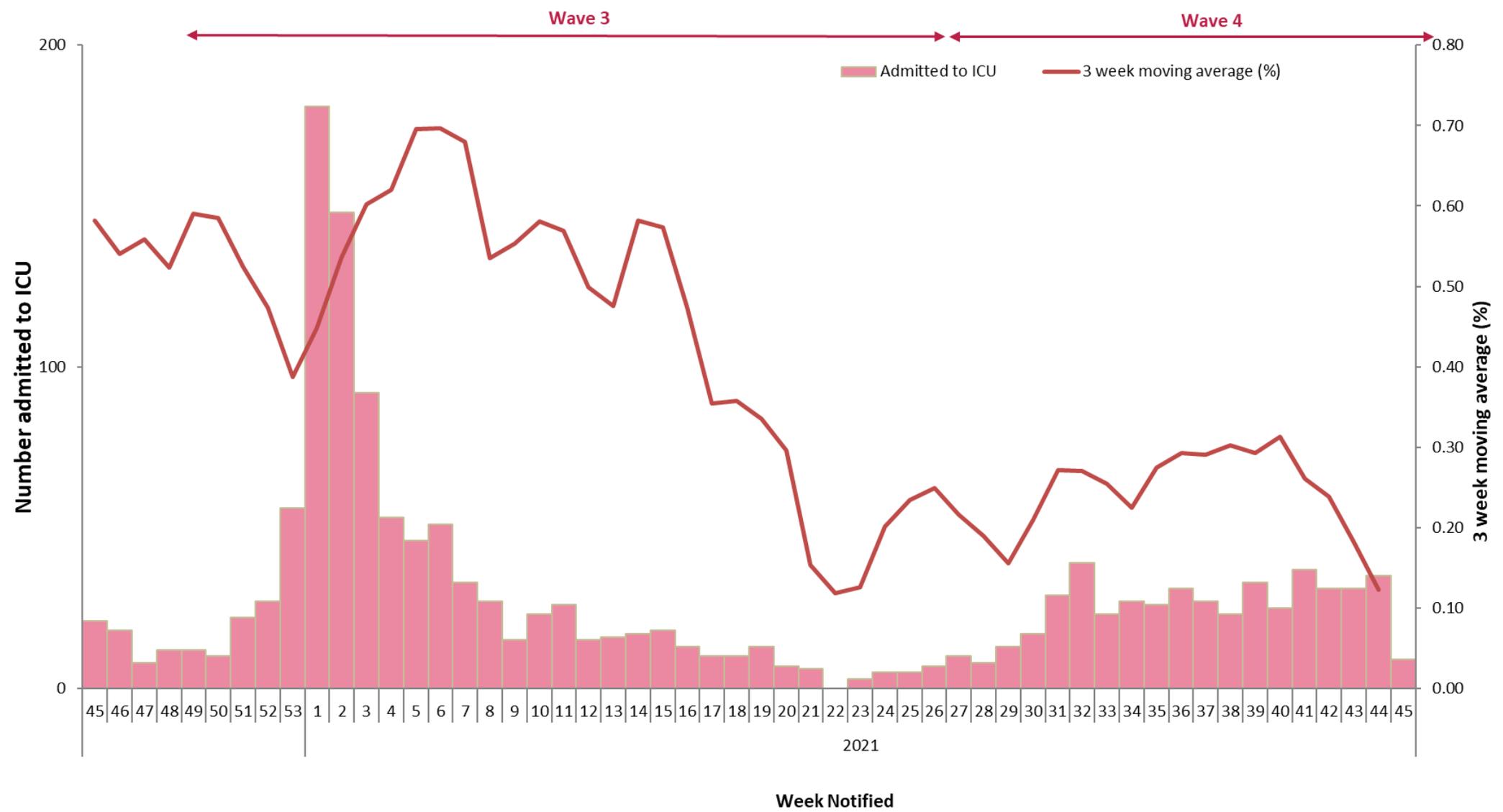


Figure 13: Number of ICU admissions in COVID-19 cases and 3 week moving average (%) of ICU admissions of overall case numbers in Ireland between week 45, 2020 and week 45, 2021 based on week of notification

Deaths among COVID-19 cases

	Number	Percent
Total number of deaths	5,592	
confirmed	5,320	95.1
probable	97	1.7
possible	175	3.1
Number hospitalised who died	3,103	55.5
admitted to ICU who died	632	11.3
not admitted to ICU who died	4,960	88.7
Number of imported cases who died	15	0.3
Number of HCWs who died	19	0.3
Number with underlying conditions who died	4,793	85.7
Males who died	2,976	53.2
M:F ratio	1.14	
Median age (years)	82	
Mean age (years)	80	
Age range (years)	14-105	

Table 5: Summary of deaths in all COVID-19 cases notified in Ireland between week 10, 2020 and week 45, 2021

Age group (years)	Female	Male	Total	Percent
<35 yrs	7	14	21	0.4
35-44 yrs	20	20	40	0.7
45-54 yrs	41	79	120	2.1
55-64 yrs	116	207	323	5.8
65-74 yrs	328	579	907	16.2
75-84 yrs	794	1077	1871	33.5
85+ yrs	1,307	1000	2307	41.3
Unknown	3	0	3	0.1
Total	2,616	2,976	5592	100.0
Percent	46.8	53.2		

Table 6: Number of deaths in all COVID-19 cases by sex and age group notified in Ireland between week 10, 2020 and week 45, 2021

Deaths among COVID-19 cases

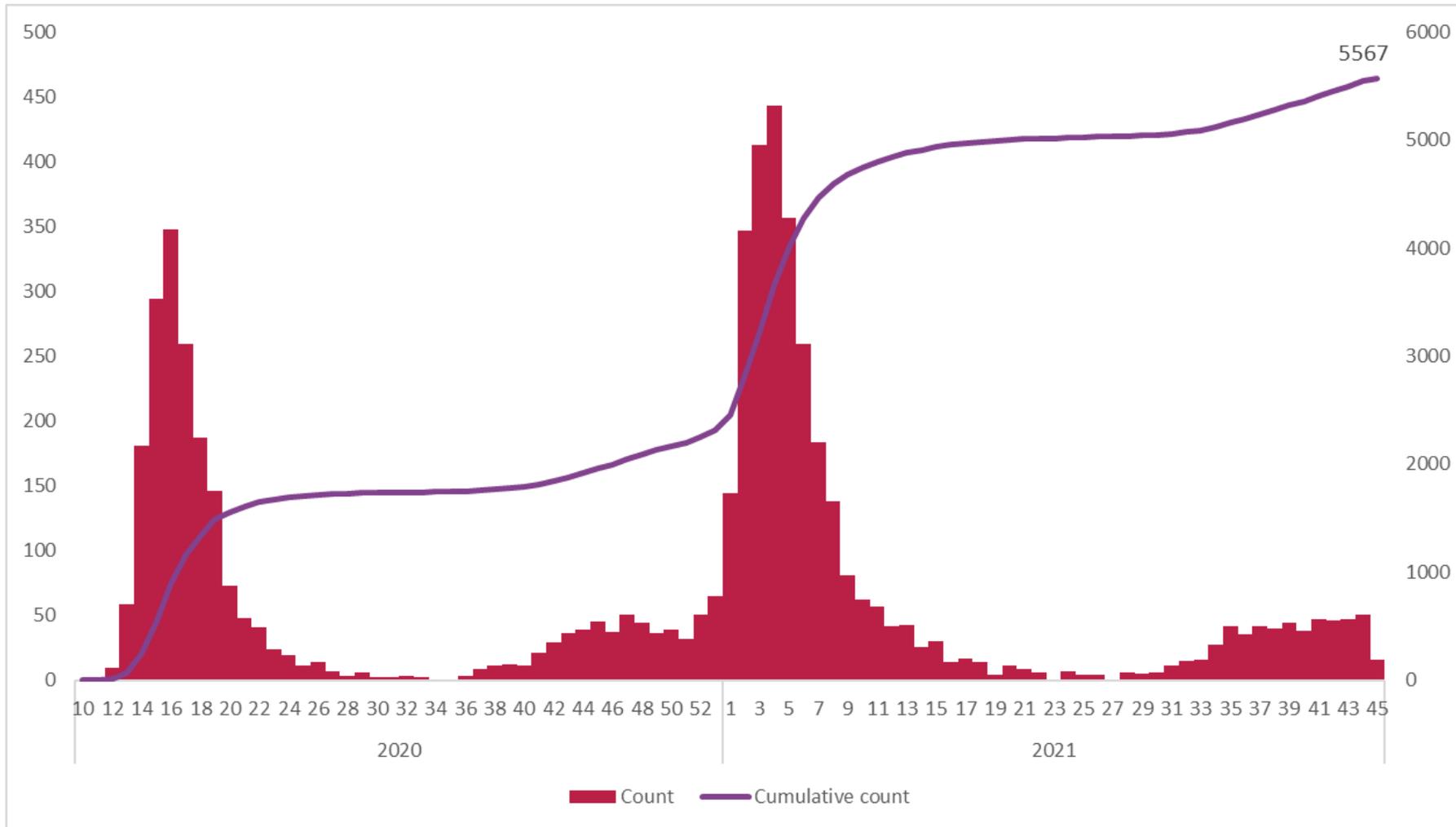


Figure 14: Total number of COVID-19 deaths notified in and cumulative number by week of death, cases with a date of notification from 01/03/2020 to 13/11/2021. Date of death reported for 5,521 of deaths.

Deaths among COVID-19 cases during waves 3 and 4

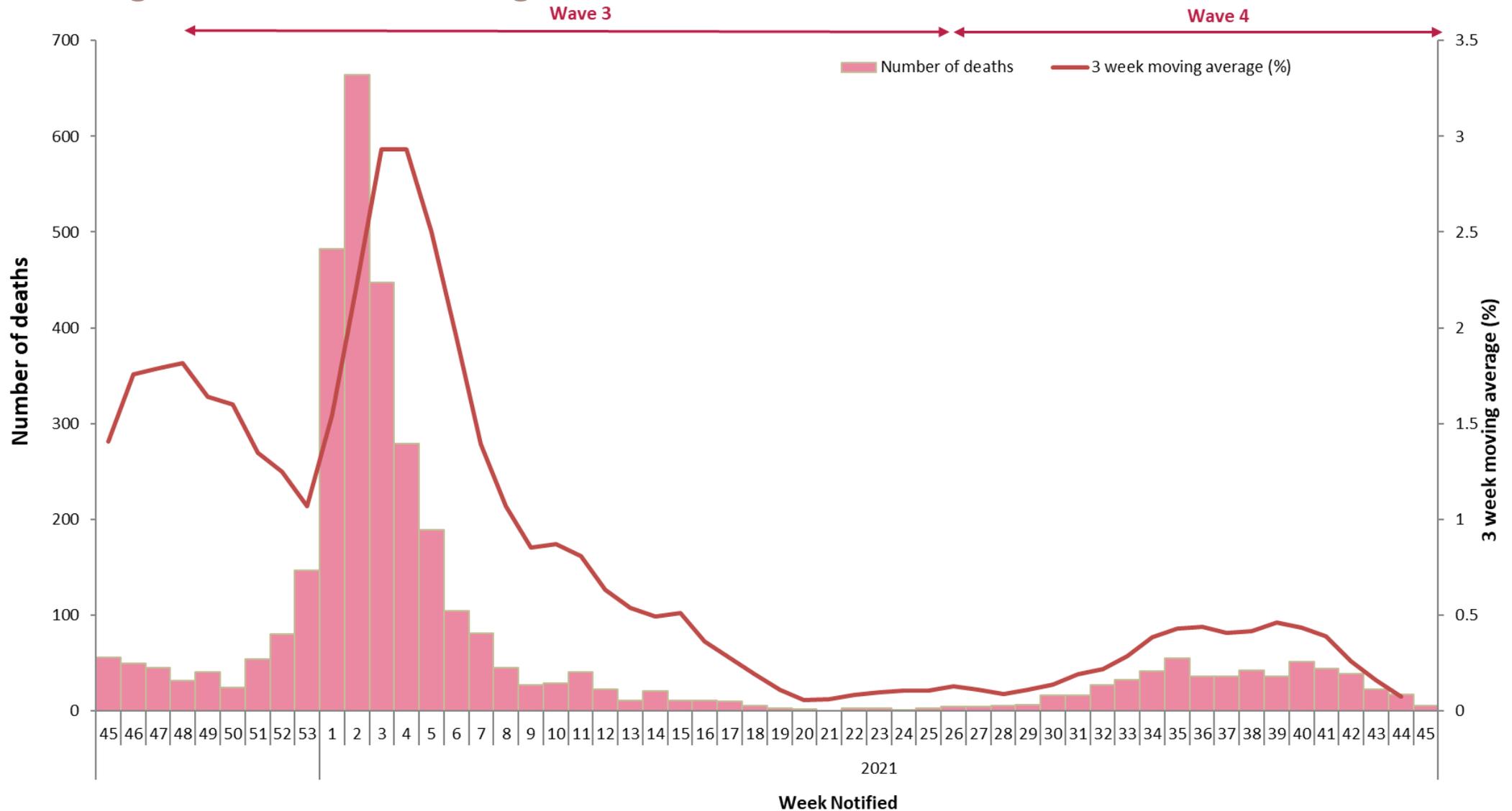


Figure 15: Number of deaths in confirmed COVID-19 cases and 3 week moving average (%) of deaths of overall case numbers in Ireland between week 45, 2020 and week 45, 2021 based on week of notification*

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
- [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
- [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.