



Epidemiology of COVID-19 in Ireland

Report prepared by HPSC on 23/11/2020 for National Public Health Emergency Team

Summary characteristics of confirmed COVID-19 cases notified in Ireland up to midnight 21/11/2020

	Number	Percent
Total number of confirmed cases	70,458	
National cumulative incidence of confirmed cases per 100,000 population	1,479.63	
Total number of cases hospitalised	5,053	7.17
Total number of cases admitted to ICU	604	0.86
Total number of deaths among confirmed cases	1,763	2.5
Case fatality ratio (CFR, %)	2.5	
National cumulative incidence of confirmed deaths per 100,000 population	37.02	
Total number of outbreaks/clusters	9,062	
Total number of cases associated with clusters	38,098	54.07
Total number of imported cases	657	0.93
Number of cases in healthcare workers	11,659	16.55
Males	33,121	47.01
Females	37,306	52.95
M:F ratio	0.89	
Median age (years)	39	
Mean age (years)	41	
Age range (years)	0 - 108	

Note: Data were extracted from Computerised Infectious Disease Reporting (CIDR) system at 09:30 on 23/11/2020 and are provisional and subject to ongoing review, validation and update. As a result, figures in this report may differ from previously published figures.

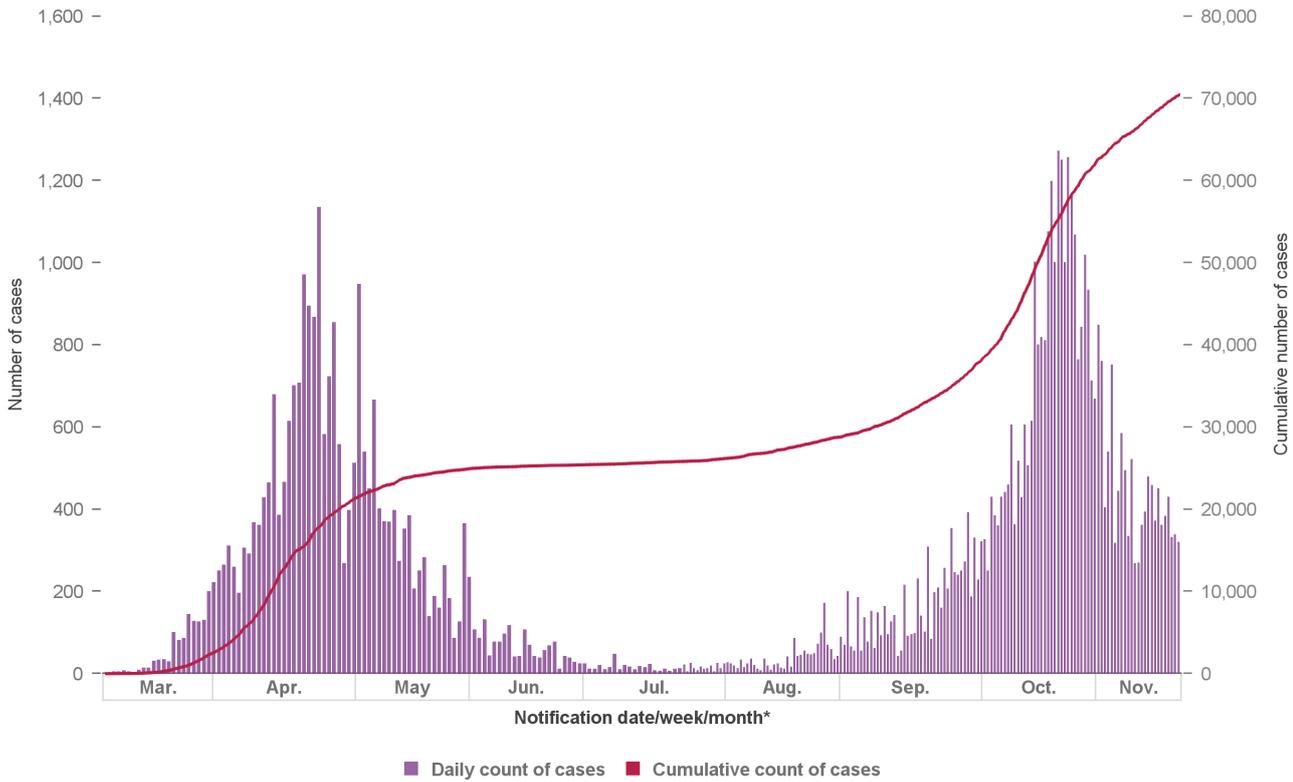


Figure 1a: Number* and cumulative number of confirmed COVID-19 cases notified in Ireland by notification date* to midnight 21/11/2020

*Between 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

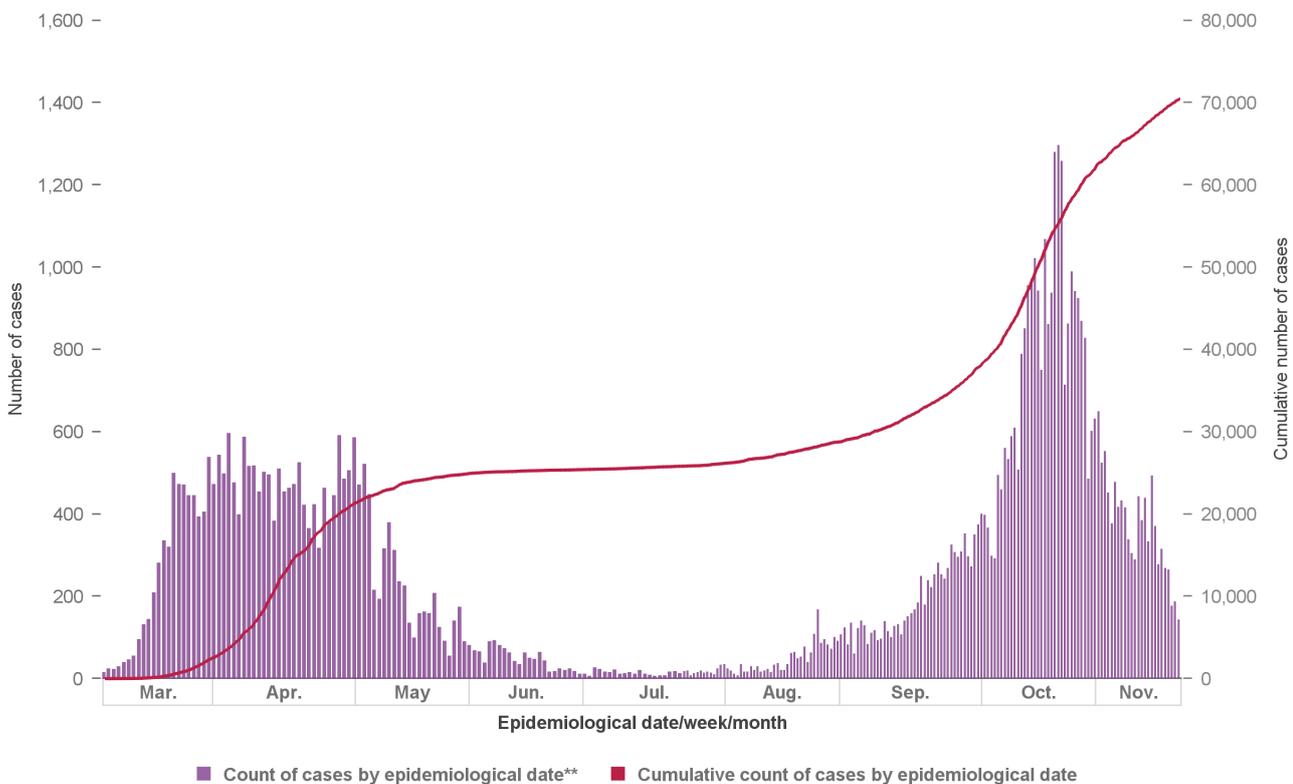


Figure 1b: Number and cumulative number of confirmed COVID-19 cases notified in Ireland by epidemiological date to midnight 21/11/2020**

**Epidemiological date is derived from epidemiological date, which is the earliest of onset date, date of diagnosis, laboratory specimen collection date, laboratory received date, laboratory reported date, event creation/notification date.

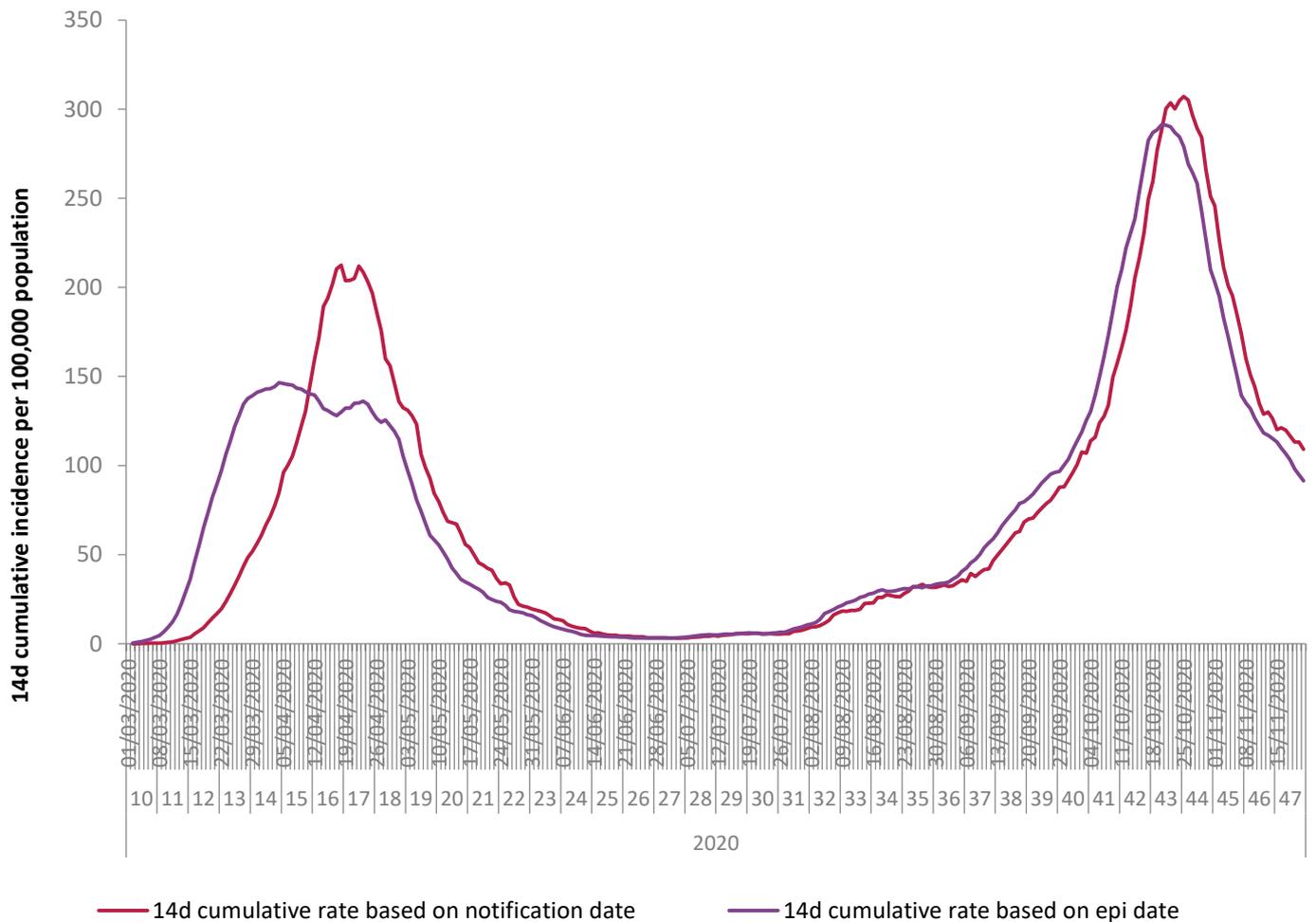


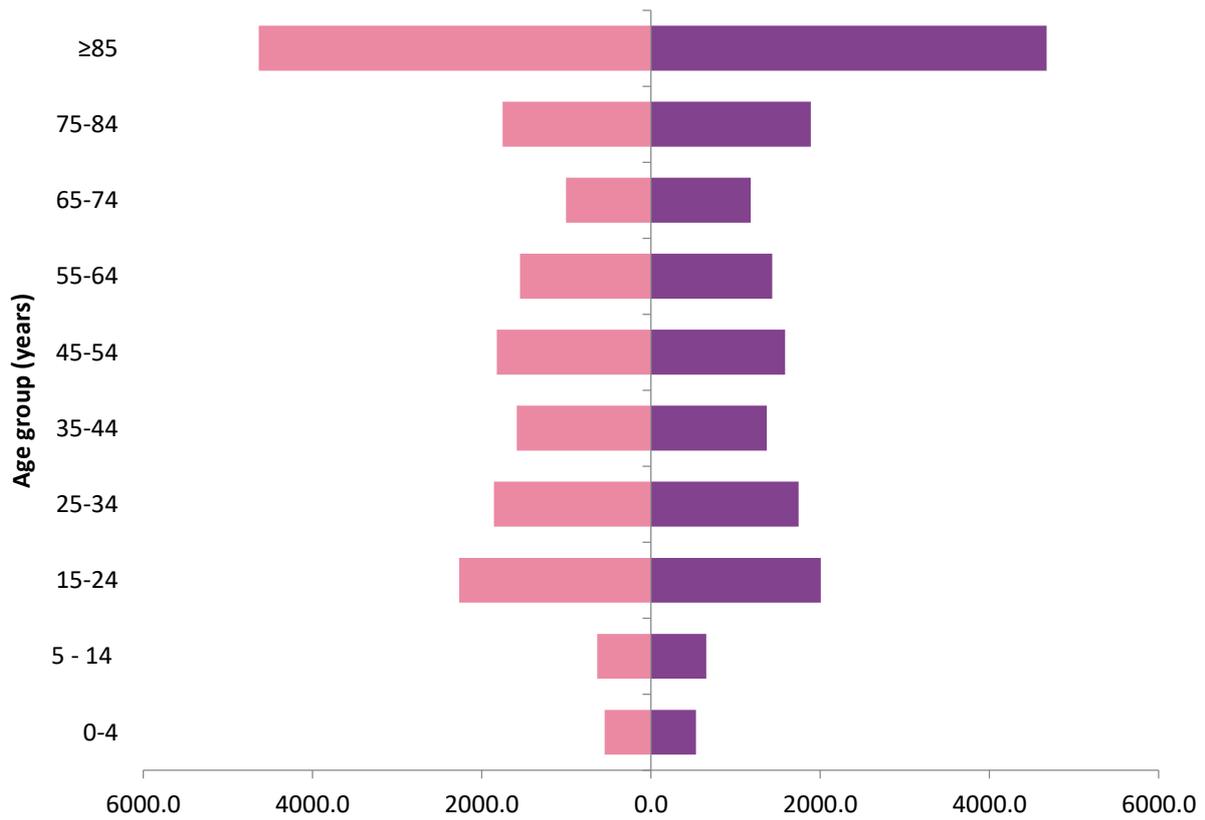
Figure 2: Cumulative 14 day incidence rate of confirmed COVID-19 cases per 100,000 population notified in Ireland by notification* and epidemiological date to midnight 21/11/2020**

* Between 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

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Table 1: Characteristics of confirmed COVID-19 cases notified in Ireland up to midnight on 21/11/2020

Characteristic		Number of cases	Percent
Total number of confirmed cases		70,458	100
Sex	Male:Female ratio	0.89	
	Male	33,121	47.01
	Female	37,306	52.95
	Unknown	31	0.04
Age	Median age (years)	39	
	Mean age (years)	41	
	Age range (years)	0 - 108	
	0-4 yrs	1,789	2.54
	5-14 yrs	4,352	6.18
	15-24 yrs	12,309	17.47
	25-34 yrs	11,884	16.87
	35-44 yrs	11,052	15.69
	45-54 yrs	10,678	15.16
	55-64 yrs	7,587	10.77
	65-74 yrs	4,068	5.77
	75-84 yrs	3,566	5.06
	85+ yrs	3,140	4.46
	Unknown	33	0.05



	0-4	5 - 14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	≥85
Female	546.4	634.2	2266.5	1854.5	1587.1	1821.9	1548.0	1001.9	1752.0	4634.4
Male	532.0	653.3	2006.2	1743.4	1369.0	1586.6	1431.8	1178.0	1890.0	4674.4

Cumulative age- and sex-specific rate per 100,000 population

Female Male

Figure 3: Cumulative age- and sex-specific incidence rates of confirmed cases of COVID-19 per 100,000 population notified in Ireland to midnight 21/11/2020 (excluding 32 cases for whom age is unknown, 30 cases for whom sex is unknown and 1 case for whom both are unknown)

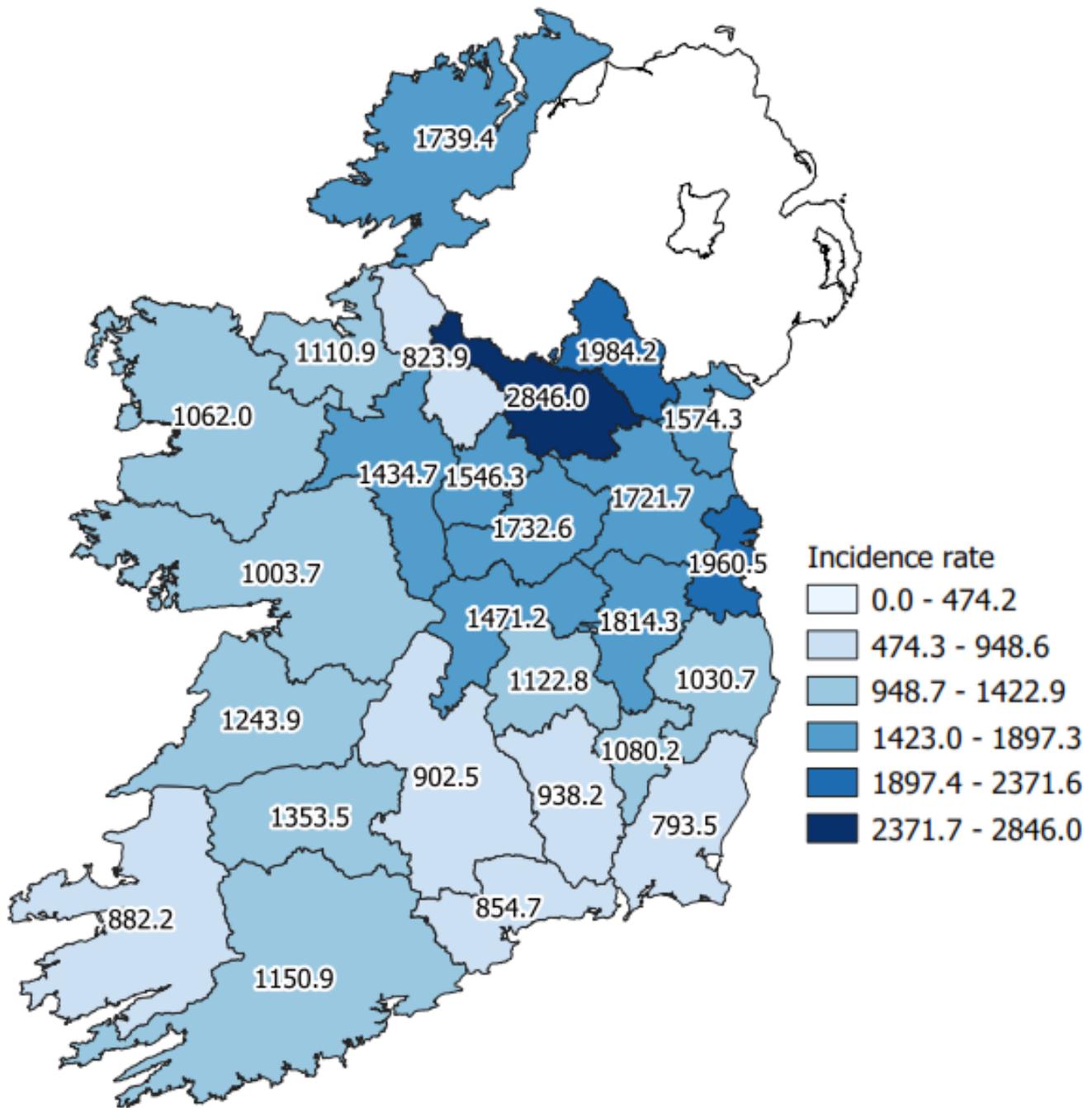


Figure 4: Cumulative incidence rates of confirmed cases of COVID-19 per 100,000 population notified in Ireland to midnight 21/11/2020

Please do not directly compare county shades to previous maps. The numbers of cases by county are increasing and as such the categories listed will broaden which may result in changes to the map shading.

Table 2: Number of confirmed COVID-19 cases by county notified to midnight 21/11/2020

County Name	Number of cases	Percent
Carlow	615	0.87
Cavan	2,168	3.08
Clare	1,478	2.1
Cork	6,248	8.87
Donegal	2,769	3.93
Dublin	26,415	37.49
Galway	2,590	3.68
Kerry	1,303	1.85
Kildare	4,037	5.73
Kilkenny	931	1.32
Laois	951	1.35
Leitrim	264	0.37
Limerick	2,638	3.74
Longford	632	0.9
Louth	2,029	2.88
Mayo	1,386	1.97
Meath	3,358	4.77
Monaghan	1,218	1.73
Offaly	1,147	1.63
Roscommon	926	1.31
Sligo	728	1.03
Tipperary	1,440	2.04
Waterford	993	1.41
Westmeath	1,538	2.18
Wexford	1,188	1.69
Wicklow	1,468	2.08
Total	70,458	100

Table 3: Number of confirmed COVID-19 cases by WHO transmission classification notified to midnight 21/11/2020

Transmission classification*	Count of Events	%
Community transmission, incl. possible community transmission	21,801	30.94%
Local transmission, incl. possible local transmission	46,706	66.29%
Travel abroad, incl. possible travel abroad	975	1.38%
Unknown	976	1.39%
Total	70,458	100.00%

*See technical note 3 for definition of WHO transmission classification

Cases which were notified more than 2 weeks ago and have not yet been reported as imported or linked to an outbreak are classified as possible community transmission.

Table 4: Cumulative number of confirmed cases of COVID-19 notified in Ireland by age group, hospitalisation and ICU admission as of midnight 21/11/2020

Age Group (years)	Number of cases (n)	Cases hospitalised (n)	Cases hospitalised (%)	Cases admitted to ICU (n)	Cases admitted to ICU (%)
0-4 yrs	1789	55	1.09	1	0.17
5-14 yrs	4352	50	0.99	4	0.66
15-24 yrs	12309	163	3.23	8	1.32
25-34 yrs	11884	311	6.15	17	2.81
35-44 yrs	11052	403	7.98	49	8.11
45-54 yrs	10678	640	12.67	109	18.05
55-64 yrs	7587	730	14.45	159	26.32
65-74 yrs	4068	904	17.89	175	28.97
75-84 yrs	3566	1,115	22.07	74	12.25
85+ yrs	3140	680	13.46	8	1.32
Unknown	33	2	0.04	0	0
Total	70,458	5,053	100	604	100

Table 5: Number and proportion of confirmed cases of COVID-19 notified in Ireland by age-group, hospitalisation, ICU admission and vital status 21/11/2020

	0-4 yrs	5-14 yrs	15-24 yrs	25-34 yrs	35-44 yrs	45-54 yrs	55-64 yrs	65-74 yrs	75-84 yrs	85+ yrs	Unknown
Number of cases (n)	1,789	4,352	12,309	11,884	11,052	10,678	7,587	4,068	3,566	3,140	33
Cases hospitalised (n)	55	50	163	311	403	640	730	904	1,115	680	2
Cases hospitalised (%)	3.07	1.15	1.32	2.62	3.65	5.99	9.62	22.22	31.27	21.66	6.06
Cases admitted to ICU (n)	1	4	8	17	49	109	159	175	74	8	0
Cases admitted to ICU (%)	0.06	0.09	0.06	0.14	0.44	1.02	2.1	4.3	2.08	0.25	0
Deaths (n)	0	0	1	6	12	30	81	272	604	757	0
Case fatality ratio (%)	0	0	0.01	0.05	0.11	0.28	1.07	6.69	16.94	24.11	0

Outbreaks of COVID-19

Table 6: Number of clusters/outbreaks COVID-19 by location and HSE area notified to midnight 21/11/2020

Outbreak Location	E	M	MW	NE	NW	S	SE	W	HPSC	Total
Private house	4059	160	184	440	371	541	587	527	0	6869
Other*	233	68	157	69	116	227	58	128	2	1058
Nursing home	166	16	20	50	10	22	20	44	0	348
Workplace	99	19	21	46	34	24	27	23	0	293
Residential institution	145	16	17	34	10	30	16	10	0	278
Hospital	99	7	9	22	10	16	9	7	0	179
Comm. Hosp/Long-stay unit	7	4	2	0	5	7	5	5	0	35
Unknown	0	0	0	0	2	0	0	0	0	2
Total	4808	290	410	661	558	867	722	744	2	9062

*Other outbreak location includes community, extended family, hotel, public house, retail outlet, travel related and all other locations.

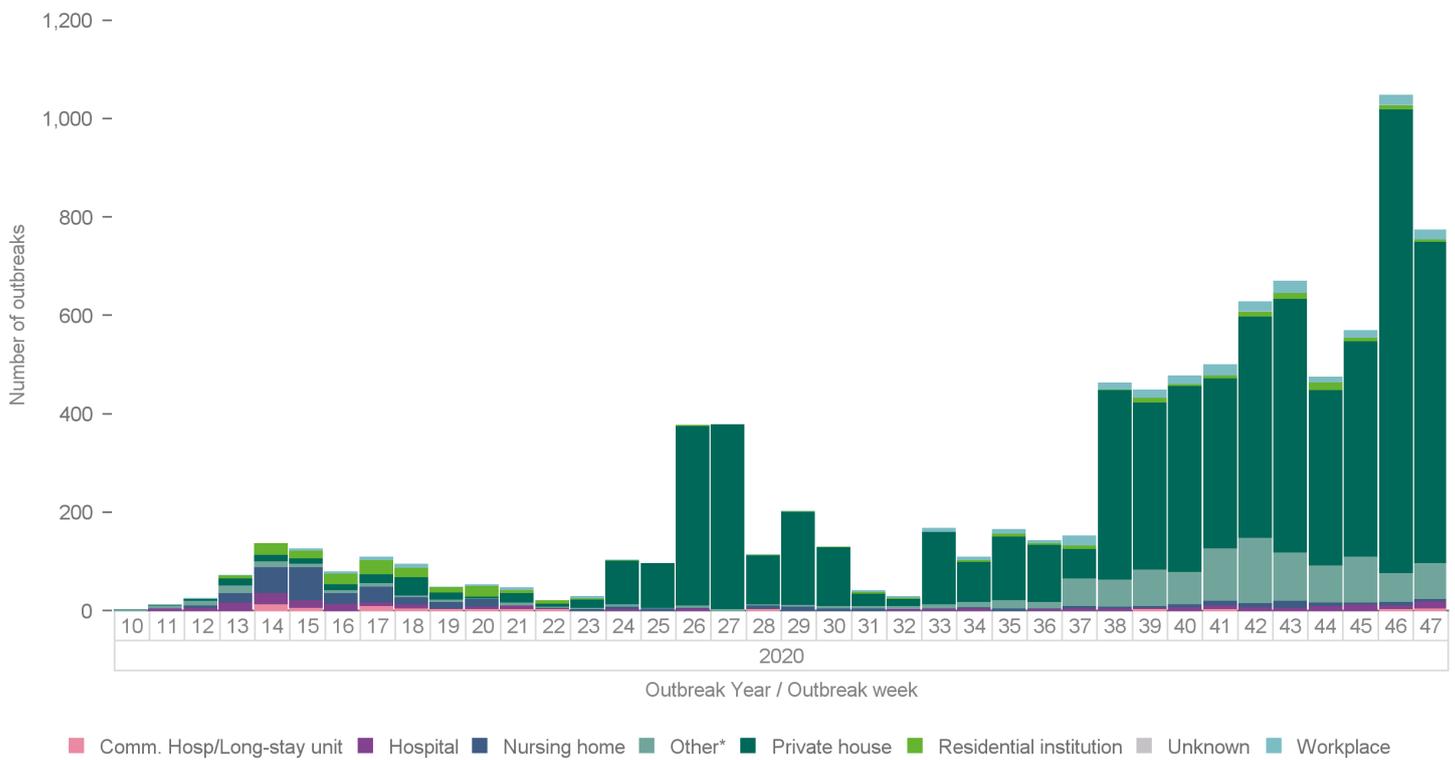


Figure 5: Trend in number of COVID-19 clusters by location and week notified to midnight 21/11/2020

*Other outbreak location includes community, extended family, hotel, public house, retail outlet, travel related and all other locations.

Note: 8,226 COVID-19 outbreaks were reported on CIDR between week 24 and week 47 2020 (9th June to 21st November). Of these, 6,554 were family outbreaks. Based on the earliest date associated with each outbreak, some of these family outbreaks occurred earlier and were reported between weeks 24 and 47 as a result of data validation: 1 occurred in February, 636 in March, 475 in April, 94 in May, 126 in June, 128 in July, 533 in August, 1,511 in September, 2,430 in October and 620 to date in November.

Deaths among COVID-19 cases

Table 7: Summary of deaths in all COVID-19 cases notified in Ireland up to midnight 21/11/2020

	Number	Percent
Total number of deaths	2,022	
Confirmed	1,763	87.19
Probable	95	4.7
Possible	164	8.11
Total number of cases hospitalised	901	44.56
Cases admitted to ICU	133	6.58
Cases not admitted to ICU	768	37.98
Total number of imported cases	6	0.3
Number of cases in healthcare workers	8	0.4
Number with underlying clinical conditions	1,873	92.63
Total number of male cases	1,022	50.54
M:F ratio	1.02	
Median age (years)	83	
Mean age (years)	81	
Age range (years)	17 - 105	

Table 8: Number of deaths in all COVID-19 cases by sex and age group notified in Ireland up to midnight 21/11/2020

Age group (years)	Female	Male	Total	Percent
15-24 yrs	<5	<5	1	0.05
25-34 yrs	<5	<5	6	0.3
35-44 yrs	6	7	13	0.64
45-54 yrs	12	20	32	1.58
55-64 yrs	29	58	87	4.3
65-74 yrs	108	192	300	14.84
75-84 yrs	313	373	686	33.93
85+ yrs	527	368	895	44.26
Unknown	<5	<5	2	0.1
Total	1,000	1,022	2,022	100
Percent	49.46	50.54		

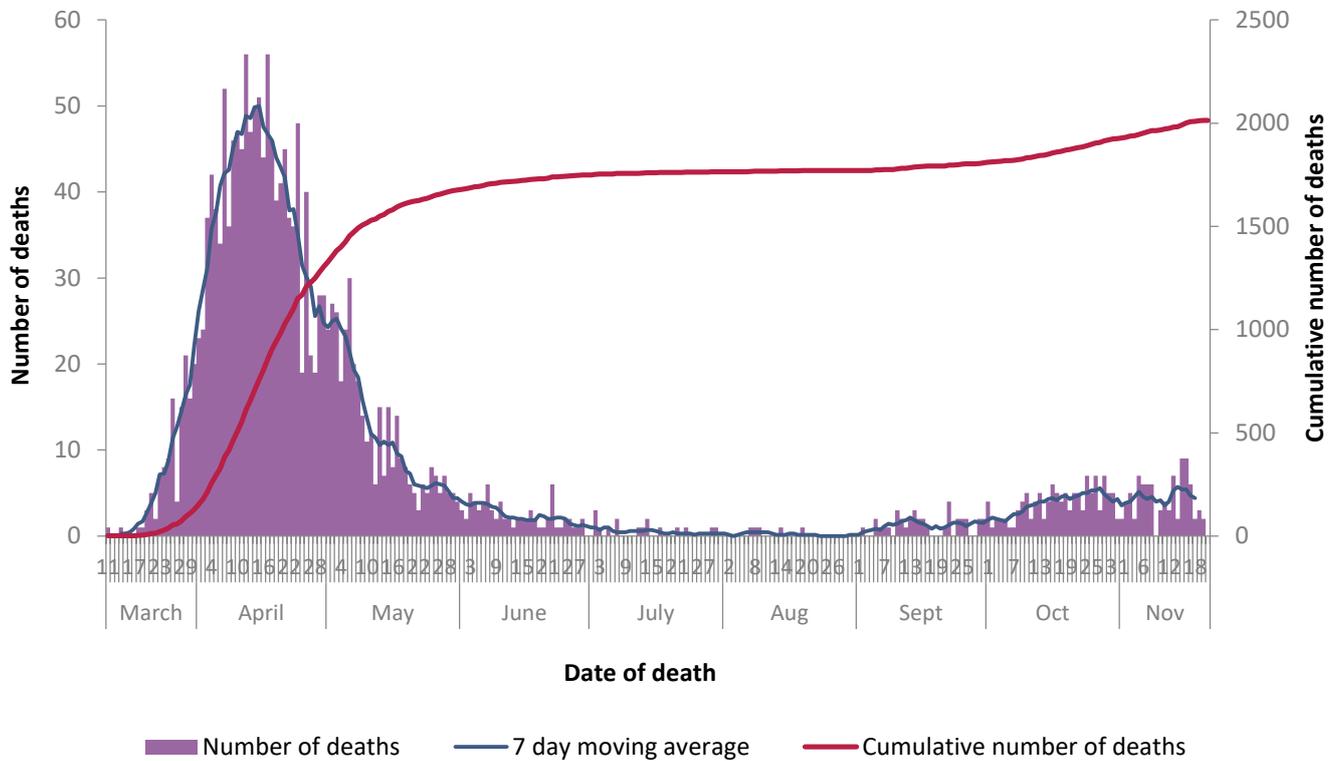


Figure 6a: Daily and 7 day moving average number of deaths among COVID-19 cases notified in Ireland by date of death and cumulative total to midnight 21/11/2020

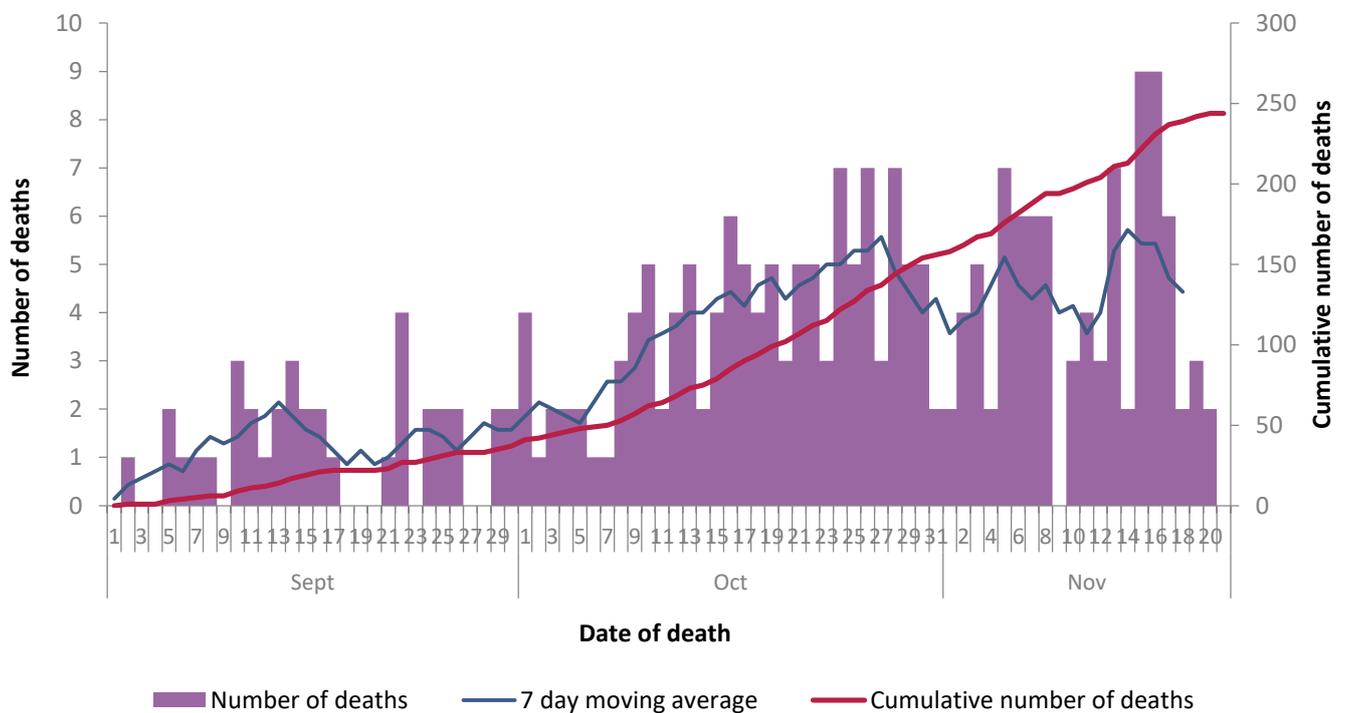


Figure 6b: Daily and 7 day moving average number of deaths among COVID-19 cases notified in Ireland by date of death and cumulative total, 01/09/2020 to midnight 21/11/2020

* Date of death is not yet available for eight cases

Please note: a lag in time between reporting of deaths and data extraction is expected and as such most recent dates will not yet reflect all deaths on that date

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 at 09:30 on 23/11/2020. Data are provisional and subject to ongoing review, validation and update. As a result, figures in this report may differ from previously published figures.

2. Epidemiological date

Epidemiological date is derived from the earliest of onset date, date of diagnosis, laboratory specimen collection date, laboratory received date, laboratory reported date, event creation/notification date.

3. Population data

Population data were taken from Census 2016. Data were aggregated into the following age groups for the analysis: 0-4 years, 5-14 years, 15-24 years, 25-34 years, 35-44 years, 45-54 years, 55-64 years, 65-74 years, 75-84 years and ≥ 85 years.

3. Transmission classification

Transmission classification is based on country of infection as well as enhanced exposure data (international travel; close contact of a case) recorded in CIDR. Transmission is classified as 'unknown' due to incomplete data on CIDR.

WHO definition of transmission classification is specified below:

- Community transmission is evidenced by the inability to relate confirmed cases through chains of transmission for a large number of cases, or by increasing positive tests through routine screening of sentinel samples.
- Local transmission indicates locations where the source of infection is within the reporting location.
- Imported cases only indicates locations where all cases have been acquired outside the location of reporting.

4. HSE areas

The counties covered by each HSE area are as follows:

HSE East (E): Dublin, Kildare & Wicklow;
HSE Midlands (M): Laois, Longford, Offaly & Westmeath;
HSE Midwest (MW): Clare, Limerick & N. Tipperary;
HSE Northeast (NE): Cavan, Louth, Meath & Monaghan;
HSE Northwest (NW): Donegal, Leitrim & Sligo;
HSE South (S): Kerry & Cork;
HSE Southeast (SE): Carlow, Kilkenny, S. Tipperary, Waterford & Wexford;
HSE West (W): Galway, Mayo & Roscommon.

5. Outbreak location

Where an outbreak location is reported as a residential facility (RF) this includes nursing homes, community hospitals, long-stay units and residential institutions including mental health facilities, prisons and direct provision centres.

Other outbreak location includes community, extended family, hotel, public house, retail outlet, travel related and all other locations.