



Epidemiology of COVID-19 in Ireland

Report prepared by HPSC on 30/11/2020 for National Public Health Emergency Team

Summary characteristics of confirmed COVID-19 cases notified in Ireland up to midnight 28/11/2020

	Number	Percent
Total number of confirmed cases	72,238	
National cumulative incidence of confirmed cases per 100,000 population	1,517.01	
Total number of cases hospitalised	5,212	7.22
Total number of cases admitted to ICU	619	0.86
Total number of deaths among confirmed cases	1,795	2.48
Case fatality ratio (CFR, %)	2.48	
National cumulative incidence of confirmed deaths per 100,000 population	37.7	
Total number of outbreaks/clusters	9,400	
Total number of cases associated with clusters	39,575	54.78
Total number of imported cases	659	0.91
Number of cases in healthcare workers	11,896	16.47
Males	34,021	47.1
Females	38,184	52.86
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 12:12 on 30/11/2020 and are provisional and subject to ongoing review, validation and update. As a result, figures in this report may differ from previously published figures.

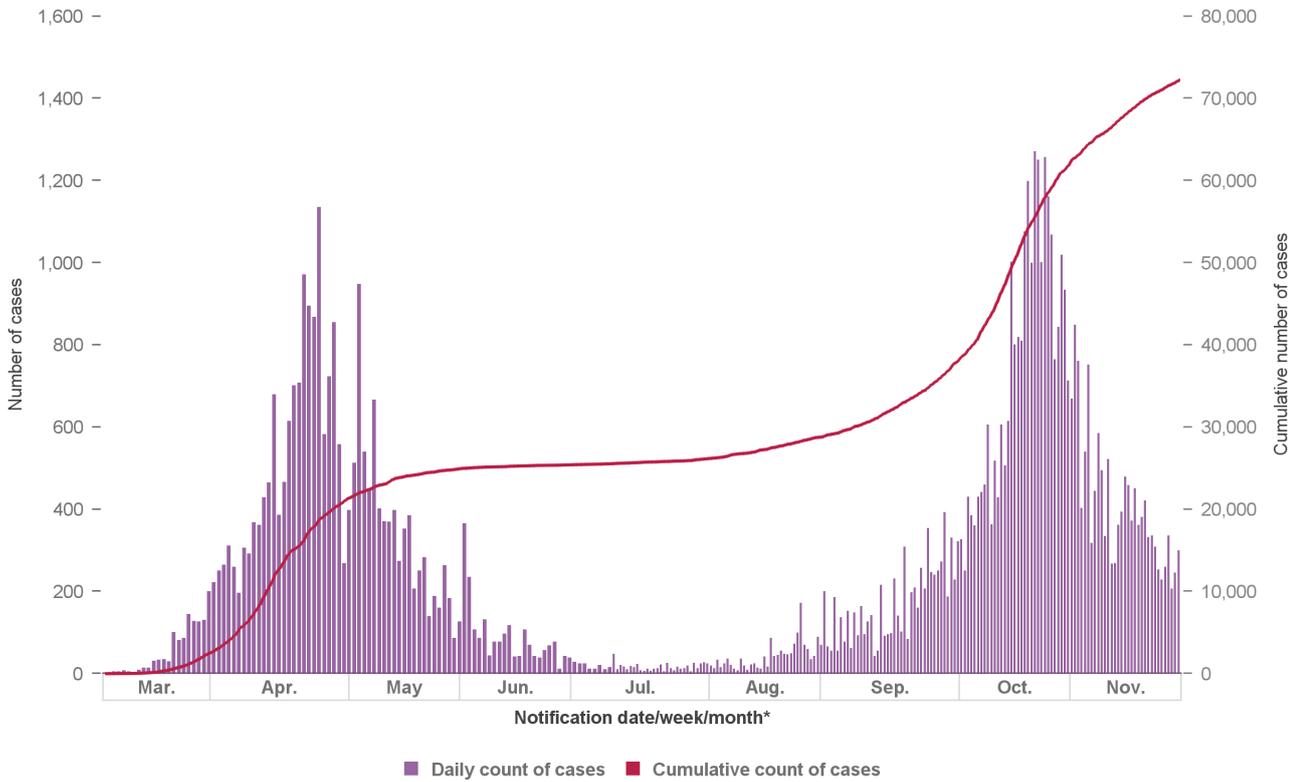


Figure 1a: Number* and cumulative number of confirmed COVID-19 cases notified in Ireland by notification date* to midnight 28/11/2020

*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

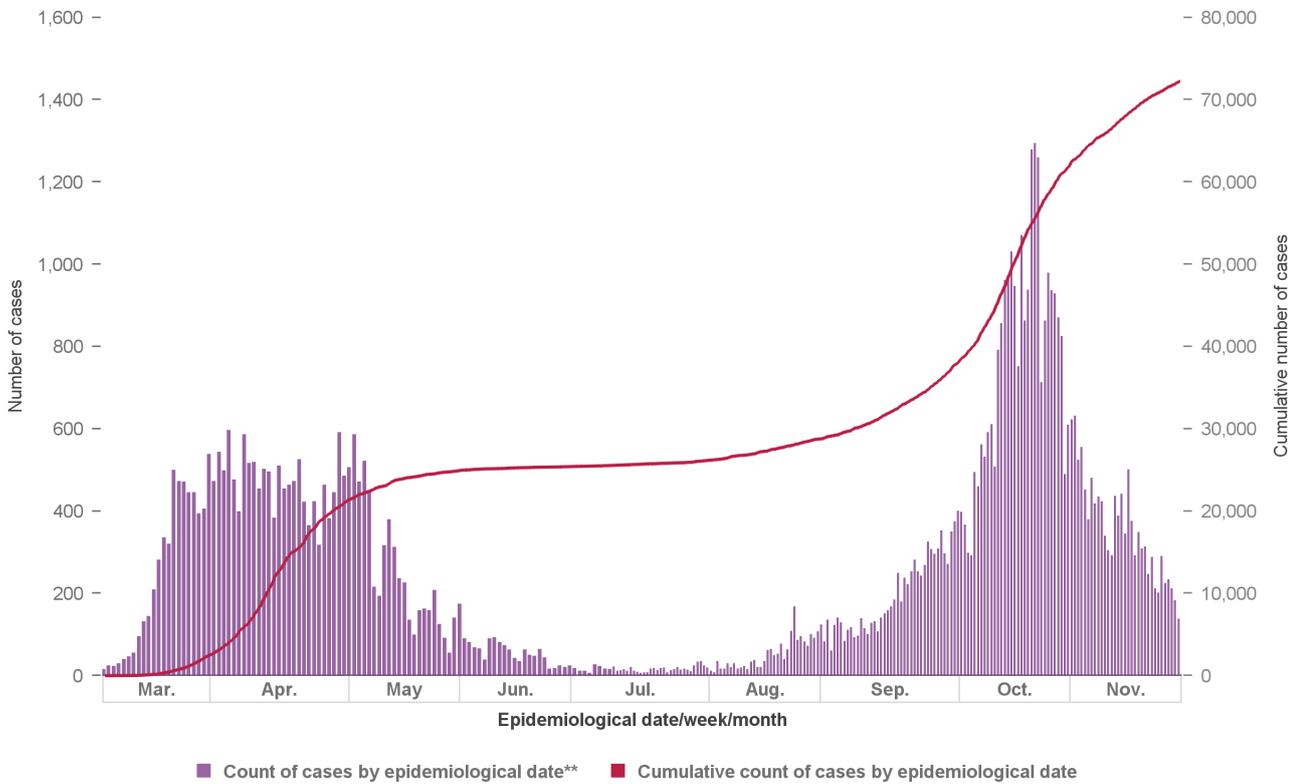


Figure 1b: Number and cumulative number of confirmed COVID-19 cases notified in Ireland by epidemiological date to midnight 28/11/2020**

**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.

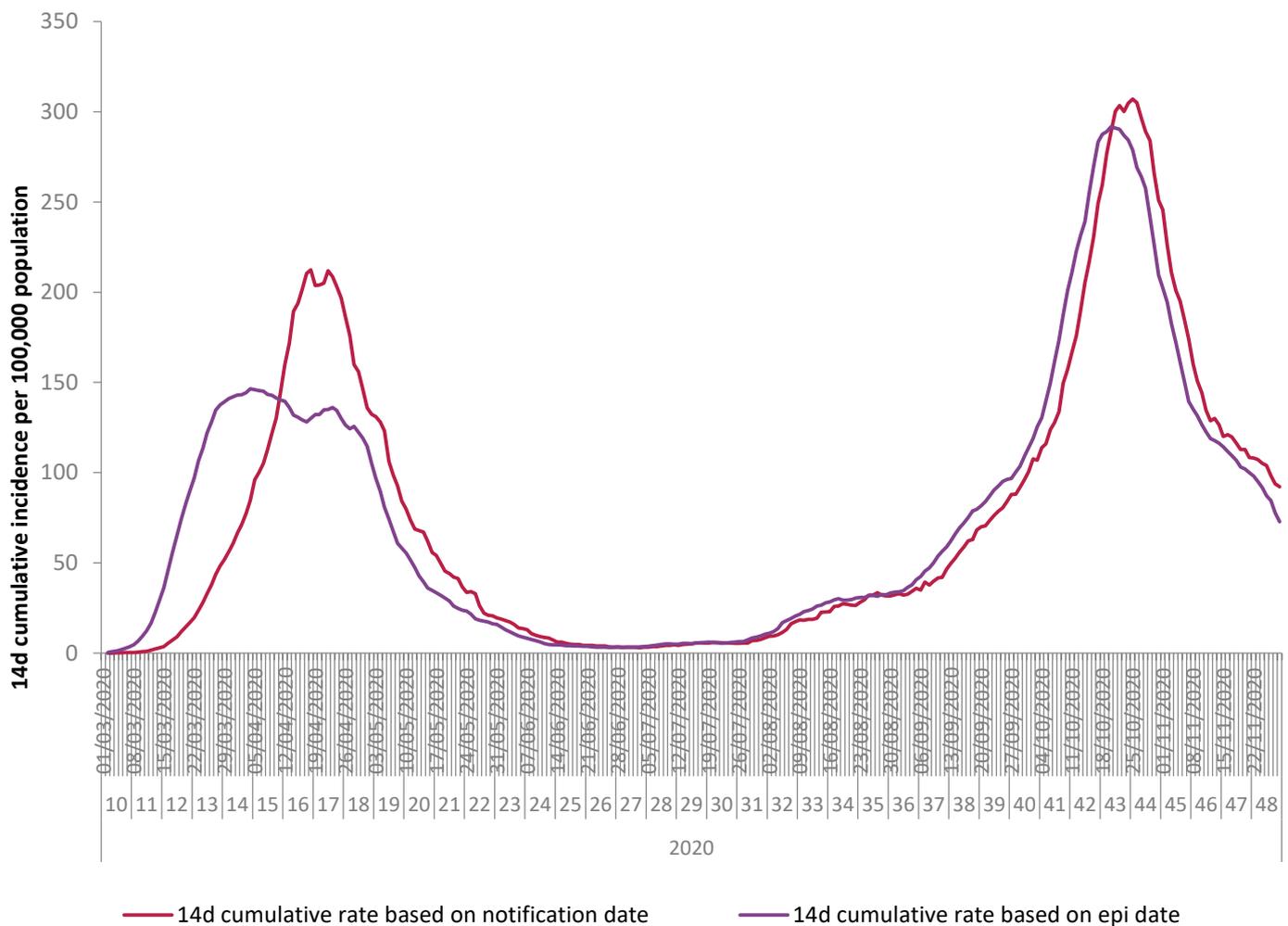


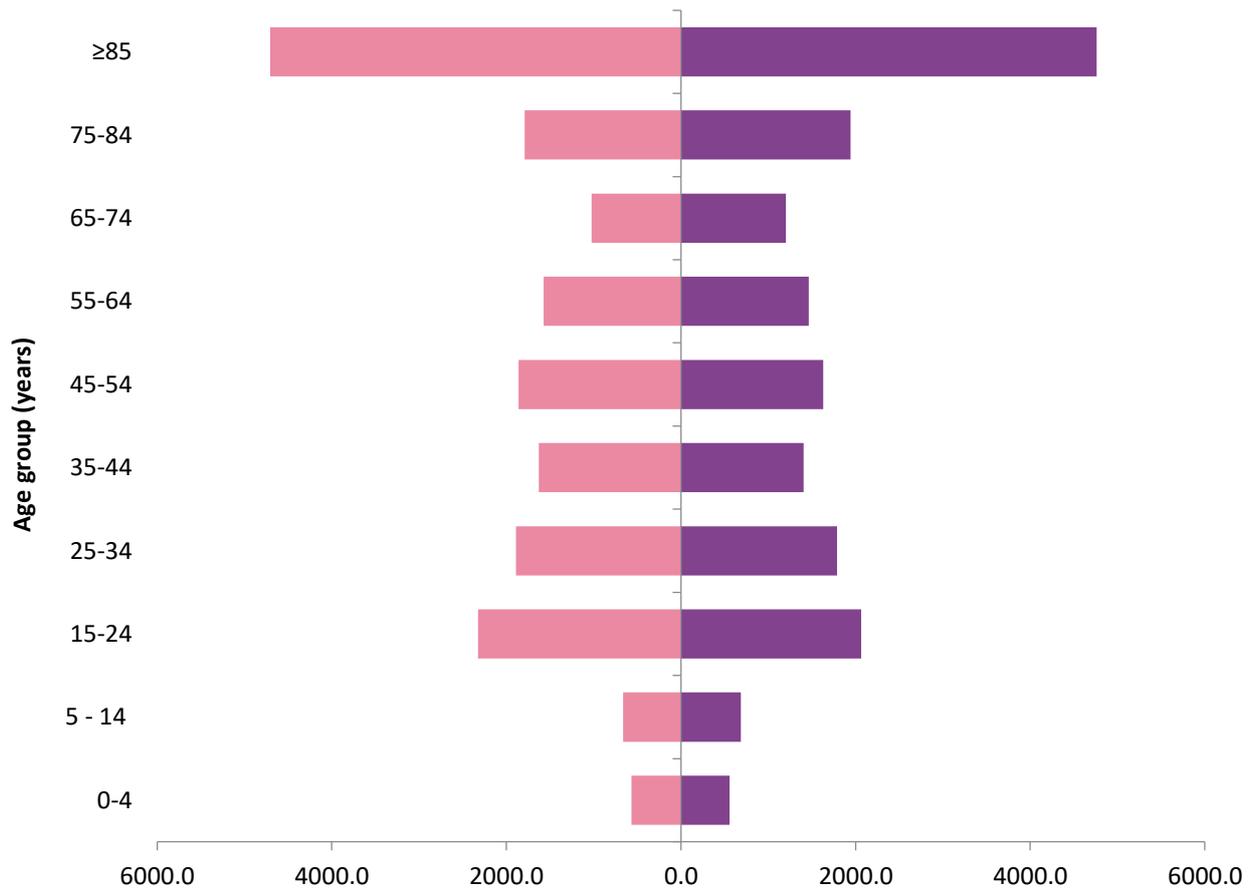
Figure 2: Cumulative 14 day incidence rate of confirmed COVID-19 cases per 100,000 population notified in Ireland by notification* and epidemiological date to midnight 28/11/2020**

* 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 28/11/2020

Characteristic		Number of cases	Percent
Total number of confirmed cases		72,238	100
Sex	Male:Female ratio	0.89	
	Male	34,021	47.1
	Female	38,184	52.86
	Unknown	33	0.05
Age	Median age (years)	39	
	Mean age (years)	41	
	Age range (years)	0 - 108	
	0-4 yrs	1,865	2.58
	5-14 yrs	4,560	6.31
	15-24 yrs	12,646	17.51
	25-34 yrs	12,142	16.81
	35-44 yrs	11,332	15.69
	45-54 yrs	10,924	15.12
	55-64 yrs	7,737	10.71
	65-74 yrs	4,155	5.75
	75-84 yrs	3,652	5.06
	85+ yrs	3,191	4.42
	Unknown	34	0.05



	0-4	5 - 14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	≥85
Female	566.8	663.3	2326.7	1888.8	1628.4	1860.3	1574.1	1025.7	1790.3	4704.1
Male	556.8	685.5	2063.0	1787.4	1402.6	1627.1	1464.6	1200.8	1940.4	4761.1

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 28/11/2020 (excluding 33 cases for whom age is unknown, 32 cases for whom sex is unknown and 1 case for whom both are unknown)

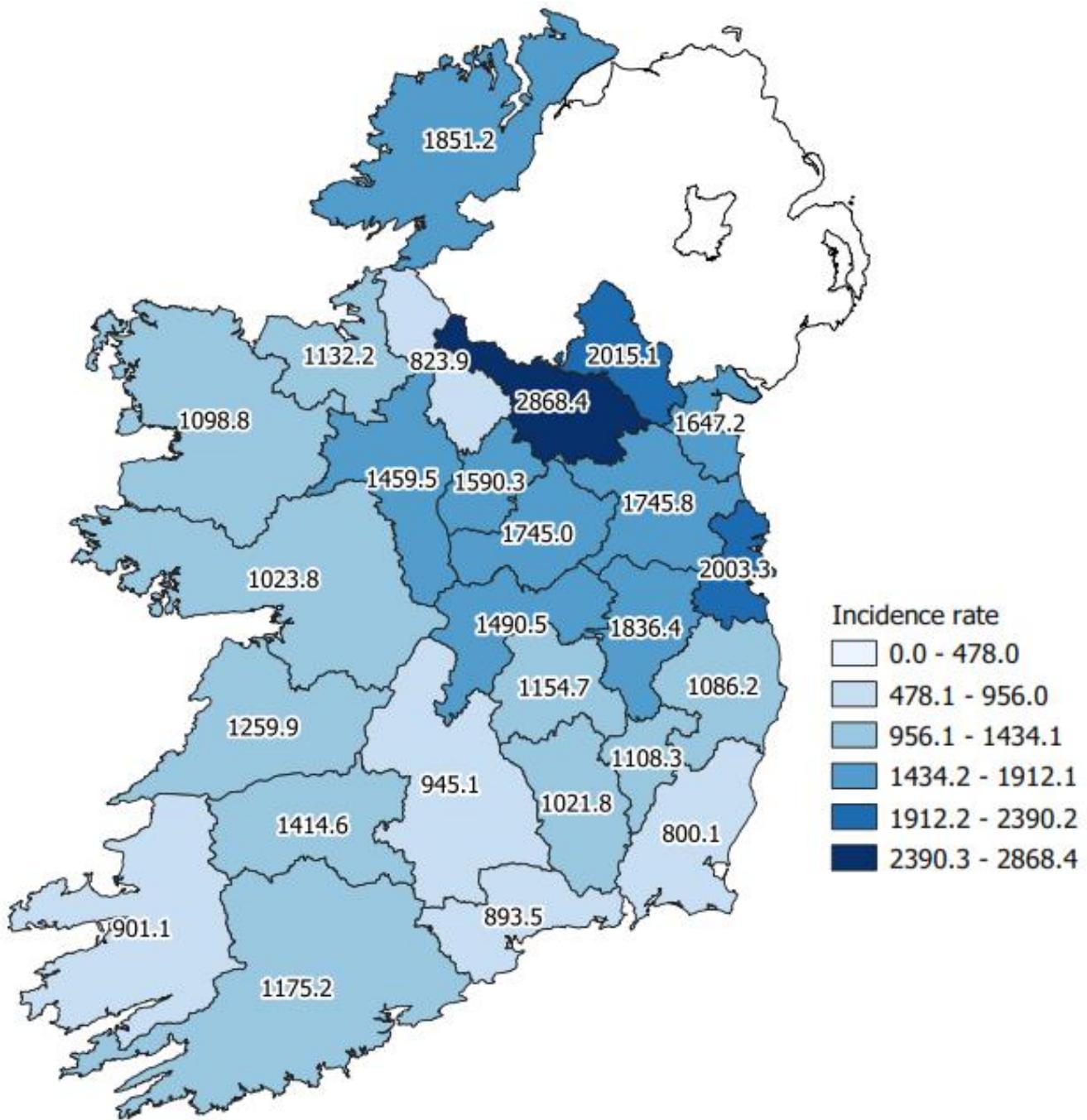


Figure 4: Cumulative incidence rates of confirmed cases of COVID-19 per 100,000 population notified in Ireland to midnight 28/11/2020

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 28/11/2020

County Name	Number of cases	Percent
Carlow	631	0.87
Cavan	2,185	3.02
Clare	1,497	2.07
Cork	6,380	8.83
Donegal	2,947	4.08
Dublin	26,991	37.36
Galway	2,642	3.66
Kerry	1,331	1.84
Kildare	4,086	5.66
Kilkenny	1,014	1.4
Laois	978	1.35
Leitrim	264	0.37
Limerick	2,757	3.82
Longford	650	0.9
Louth	2,123	2.94
Mayo	1,434	1.99
Meath	3,405	4.71
Monaghan	1,237	1.71
Offaly	1,162	1.61
Roscommon	942	1.3
Sligo	742	1.03
Tipperary	1,508	2.09
Waterford	1,038	1.44
Westmeath	1,549	2.14
Wexford	1,198	1.66
Wicklow	1,547	2.14
Total	72,238	100

Table 3: Number of confirmed COVID-19 cases by WHO transmission classification notified to midnight 28/11/2020

Transmission classification*	Count of Events	%
Community transmission, incl. possible community transmission	22,060	30.54%
Local transmission, incl. possible local transmission	48,381	66.97%
Travel abroad, incl. possible travel abroad	990	1.37%
Unknown	807	1.12%
Total	72,238	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 28/11/2020

Age Group (years)	Number of cases (n)	Cases hospitalised (n)	Cases hospitalised (%)	Cases admitted to ICU (n)	Cases admitted to ICU (%)
0-4 yrs	1865	57	1.09	2	0.32
5-14 yrs	4560	50	0.96	4	0.65
15-24 yrs	12646	170	3.26	8	1.29
25-34 yrs	12142	321	6.16	17	2.75
35-44 yrs	11332	417	8	52	8.4
45-54 yrs	10924	659	12.64	110	17.77
55-64 yrs	7737	748	14.35	163	26.33
65-74 yrs	4155	932	17.88	178	28.76
75-84 yrs	3652	1,154	22.14	77	12.44
85+ yrs	3191	702	13.47	8	1.29
Unknown	34	2	0.04	0	0
Total	72,238	5,212	100	619	100

Table 5: Number and proportion of confirmed cases of COVID-19 notified in Ireland by age-group, hospitalisation, ICU admission and vital status 28/11/2020

	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)	1,865	4,560	12,646	12,142	11,332	10,924	7,737	4,155	3,652	3,191	34
Cases hospitalised (n)	57	50	170	321	417	659	748	932	1,154	702	2
Cases hospitalised (%)	3.06	1.1	1.34	2.64	3.68	6.03	9.67	22.43	31.6	22	5.88
Cases admitted to ICU (n)	2	4	8	17	52	110	163	178	77	8	0
Cases admitted to ICU (%)	0.11	0.09	0.06	0.14	0.46	1.01	2.11	4.28	2.11	0.25	0
Deaths (n)	0	0	1	6	12	30	84	277	618	767	0
Case fatality ratio (%)	0	0	0.01	0.05	0.11	0.27	1.09	6.67	16.92	24.04	0

Outbreaks of COVID-19

Table 6: Number of clusters/outbreaks COVID-19 by location and HSE area notified to midnight 28/11/2020

Outbreak Location	E	M	MW	NE	NW	S	SE	W	HPSC**	Total
Private house	4144	166	185	474	396	609	604	544	0	7122
Other*	243	68	159	76	122	239	59	135	2	1103
Nursing home	167	17	20	50	11	22	22	45	0	354
Workplace	104	19	22	49	36	27	29	27	0	313
Residential institution	148	16	17	34	10	30	17	10	0	282
Hospital	105	7	11	22	12	16	9	7	0	189
Comm. Hosp/Long-stay unit	6	4	2	0	5	7	5	5	0	34
Unknown	0	0	0	1	2	0	0	0	0	3
Total	4917	297	416	706	594	950	745	773	2	9400

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

**Outbreaks/clusters notified with a location of 'HPSC' are those with cases in three or more HSE areas. These are considered national outbreaks.

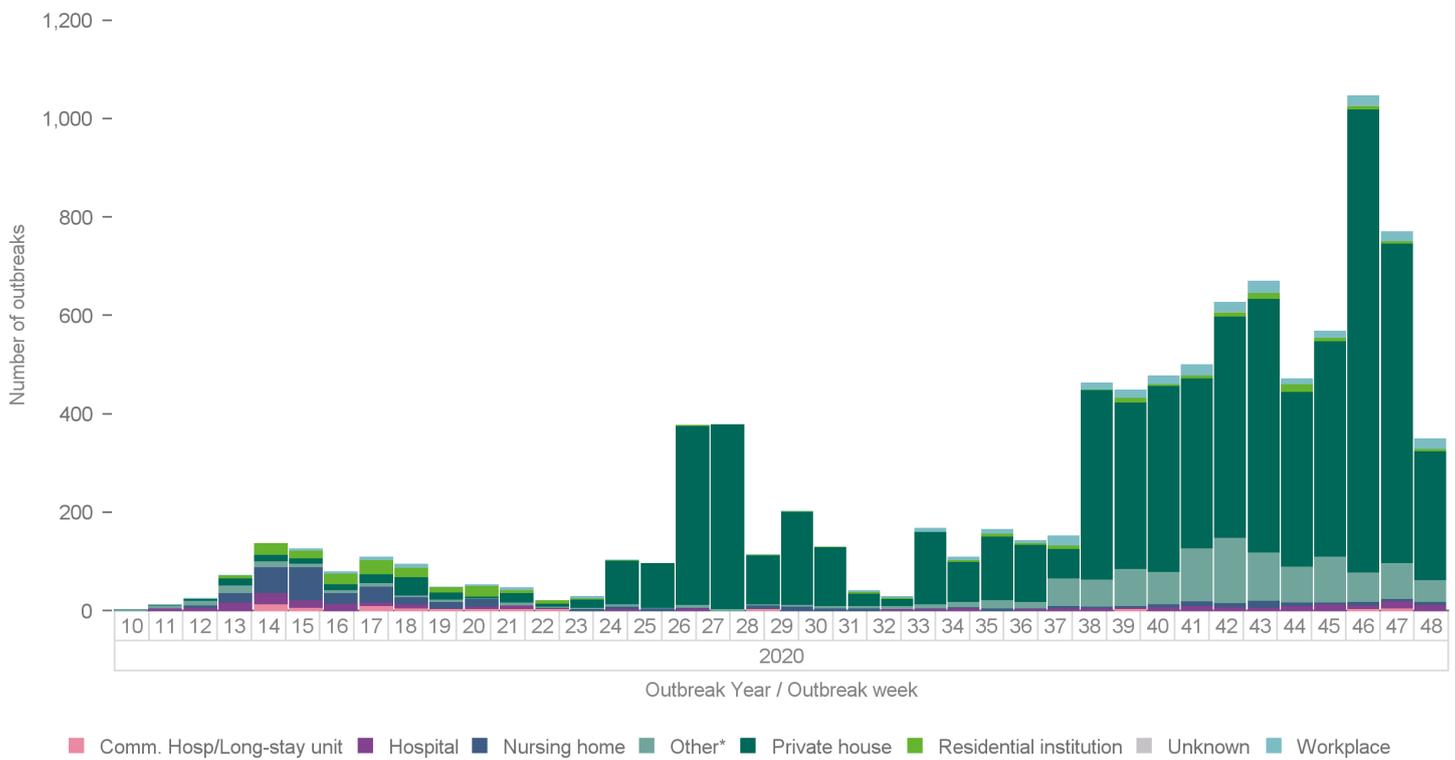


Figure 5: Trend in number of COVID-19 clusters by location and week notified to midnight 28/11/2020

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

Note: 8,564 COVID-19 outbreaks were reported on CIDR between week 24 and week 48 2020 (9th June to 28th November). Of these, 6,798 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 48 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, 1,513 in September, 2,529 in October and 763 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 28/11/2020

	Number	Percent
Total number of deaths	2,054	
Confirmed	1,795	87.39
Probable	95	4.63
Possible	164	7.98
Total number of cases hospitalised	925	45.03
Cases admitted to ICU	138	6.72
Cases not admitted to ICU	787	38.32
Total number of imported cases	6	0.29
Number of cases in healthcare workers	8	0.39
Number with underlying clinical conditions	1,911	93.04
Total number of male cases	1,045	50.88
M:F ratio	1.04	
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 28/11/2020

Age group (years)	Female	Male	Total	Percent
15-24 yrs	<5	<5	1	0.05
25-34 yrs	<5	<5	6	0.29
35-44 yrs	6	7	13	0.63
45-54 yrs	12	20	32	1.56
55-64 yrs	30	60	90	4.38
65-74 yrs	107	198	305	14.85
75-84 yrs	317	383	700	34.08
85+ yrs	532	373	905	44.06
Unknown	<5	<5	2	0.1
Total	1,009	1,045	2,054	100
Percent	49.12	50.88		

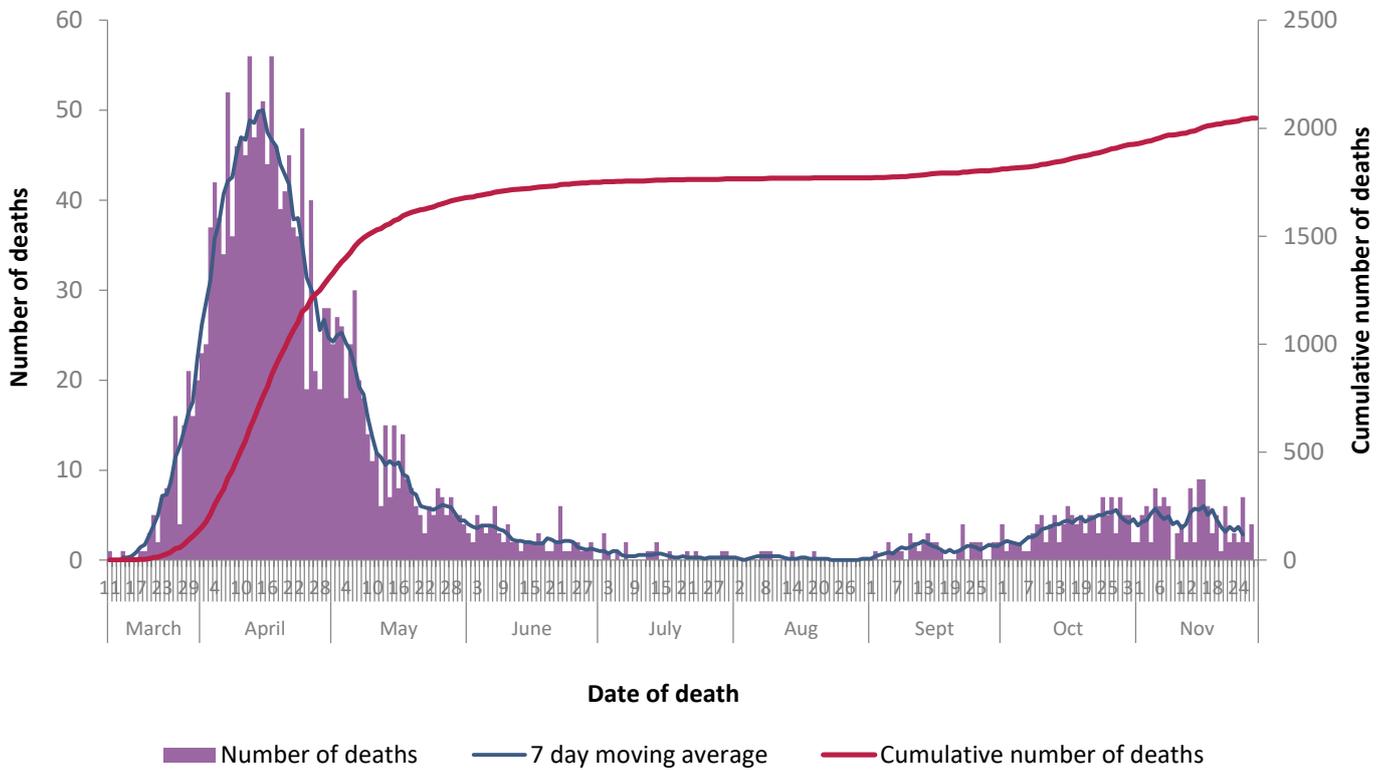


Figure 6a: Daily and 7 day moving average number of deaths among COVID-19 cases notified in Ireland by date of death and cumulative total to midnight 28/11/2020

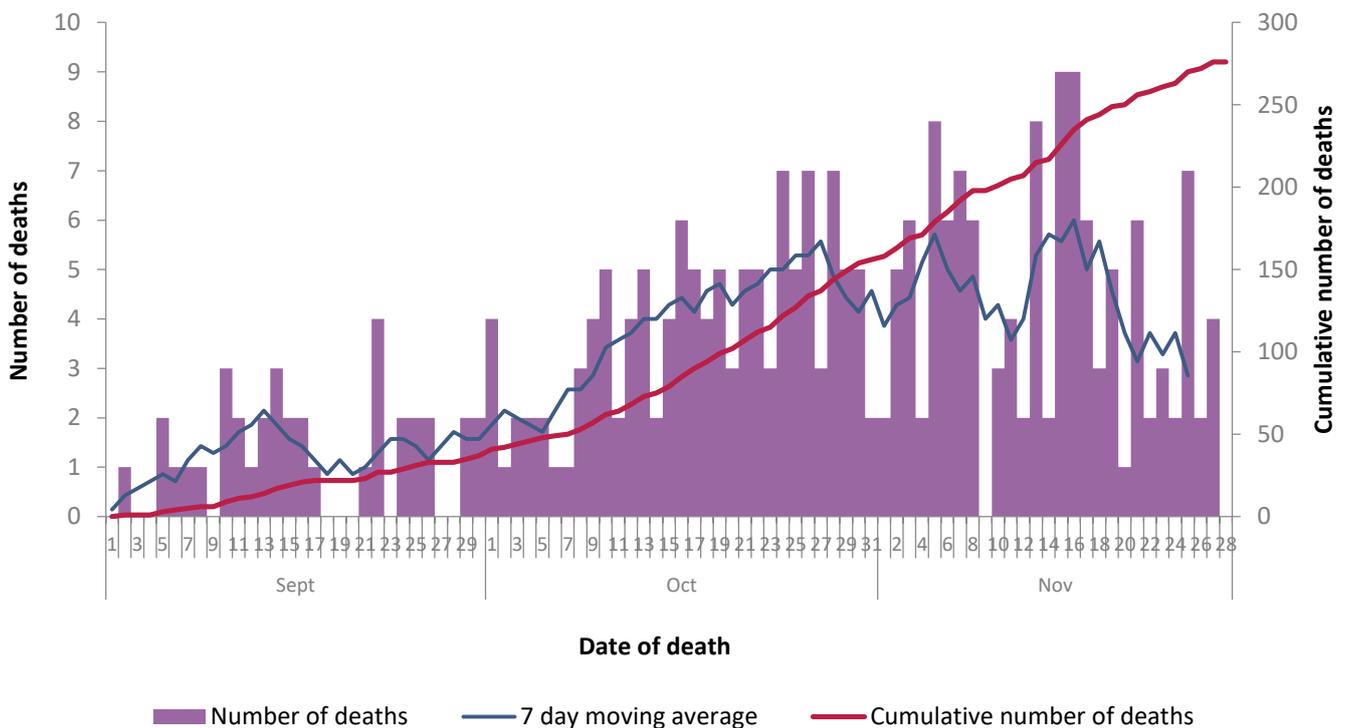


Figure 6b: Daily and 7 day moving average number of deaths among COVID-19 cases notified in Ireland by date of death and cumulative total, 01/09/2020 to midnight 28/11/2020

* 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 12:12 on 30/11/2020. 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.