



Epidemiology of COVID-19 in Ireland

Report prepared by HPSC on 09/11/2020 for National Public Health Emergency Team

Summary characteristics of confirmed COVID-19 cases notified in Ireland up to midnight 07/11/2020

	Number	Percent
Total number of confirmed cases	65,389	
National cumulative incidence of confirmed cases per 100,000 population	1,373.18	
Total number of cases hospitalised	4,664	7.13
Total number of cases admitted to ICU	571	0.87
Total number of deaths among confirmed cases	1,689	2.58
Case fatality ratio (CFR, %)	2.58	
National cumulative incidence of confirmed deaths per 100,000 population	35.47	
Total number of outbreaks/clusters	7,266	
Total number of cases associated with clusters	31,818	48.66
Total number of imported cases	630	0.96
Number of cases in healthcare workers	10,906	16.68
Males	30,691	46.94
Females	34,657	53
M:F ratio	0.89	
Median age (years)	39	
Mean age (years)	42	
Age range (years)	0 - 106	

Note: Data were extracted from Computerised Infectious Disease Reporting (CIDR) system at 09:18 on 09/11/2020 and are provisional and subject to ongoing review, validation and update. As a result, figures in this report may differ from previously published figures.

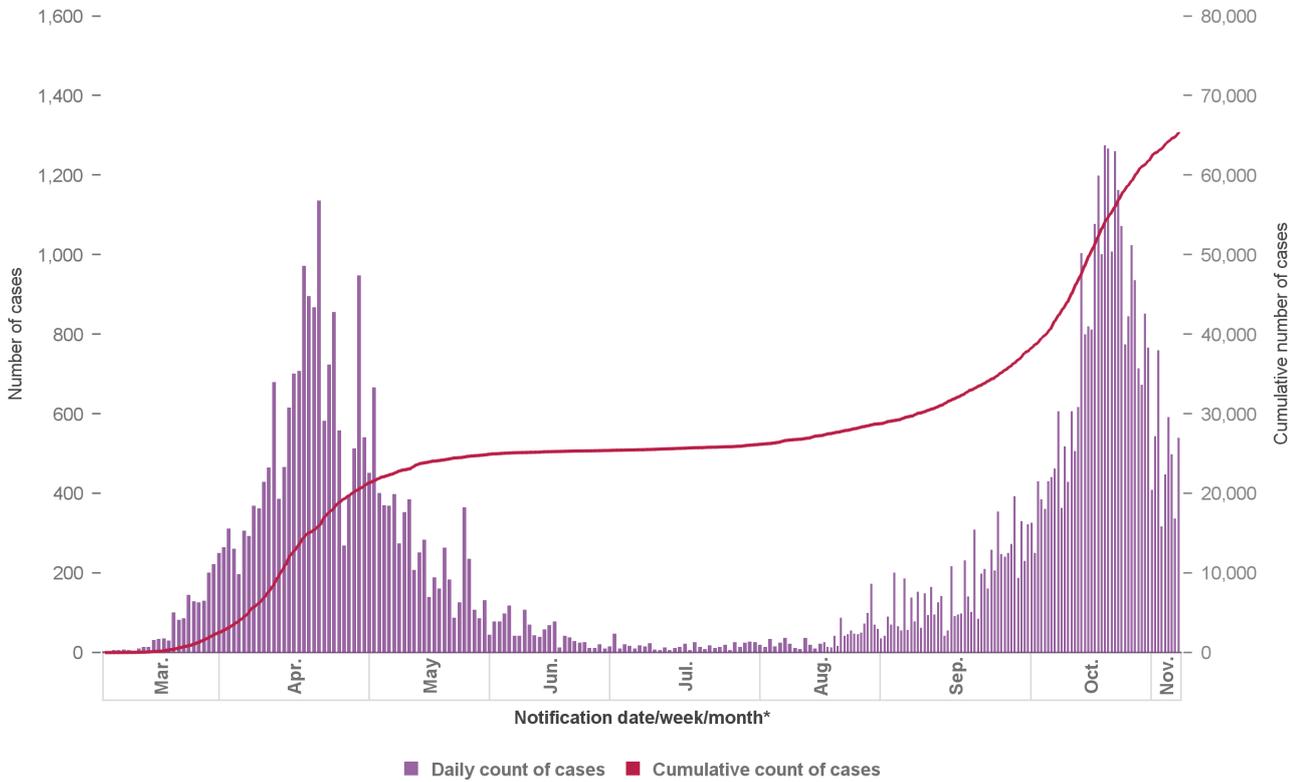


Figure 1a: Number* and cumulative number of confirmed COVID-19 cases notified in Ireland by notification date* to midnight 07/11/2020

*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

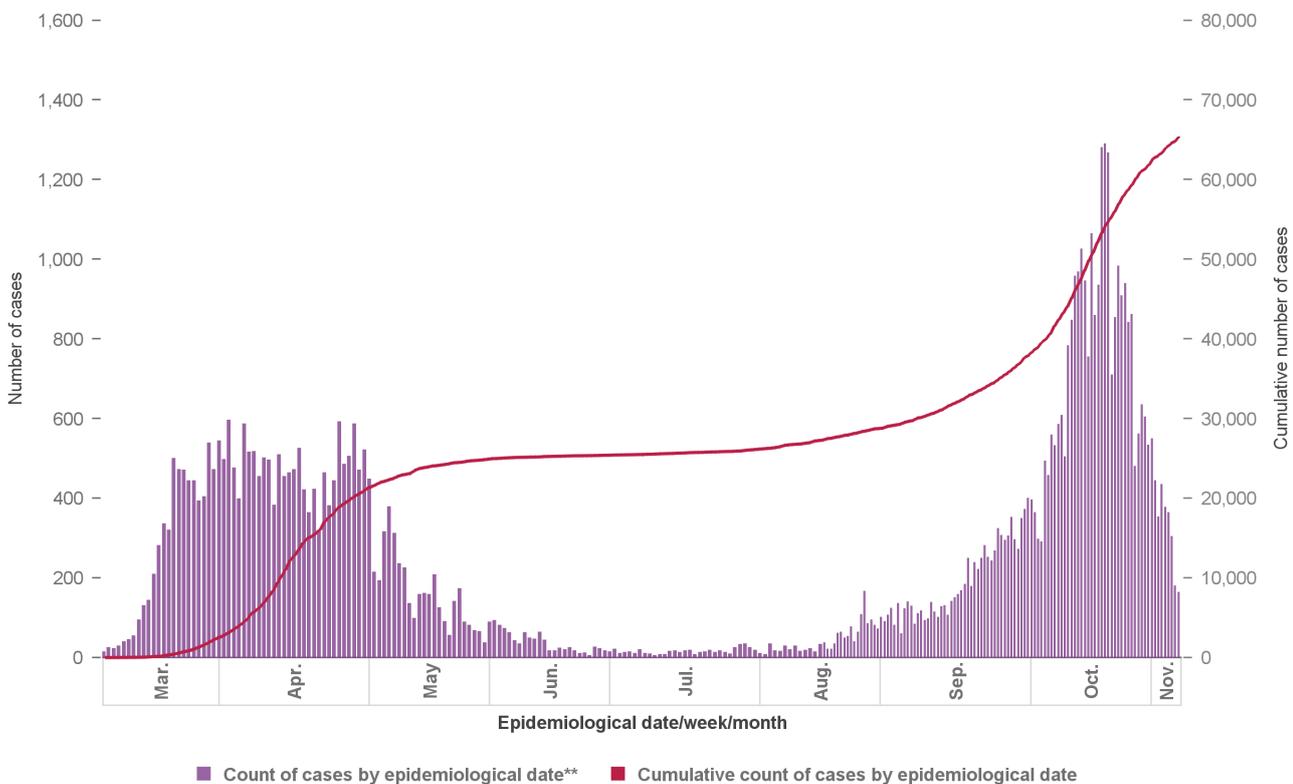


Figure 1b: Number and cumulative number of confirmed COVID-19 cases notified in Ireland by epidemiological date to midnight 07/11/2020**

**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.

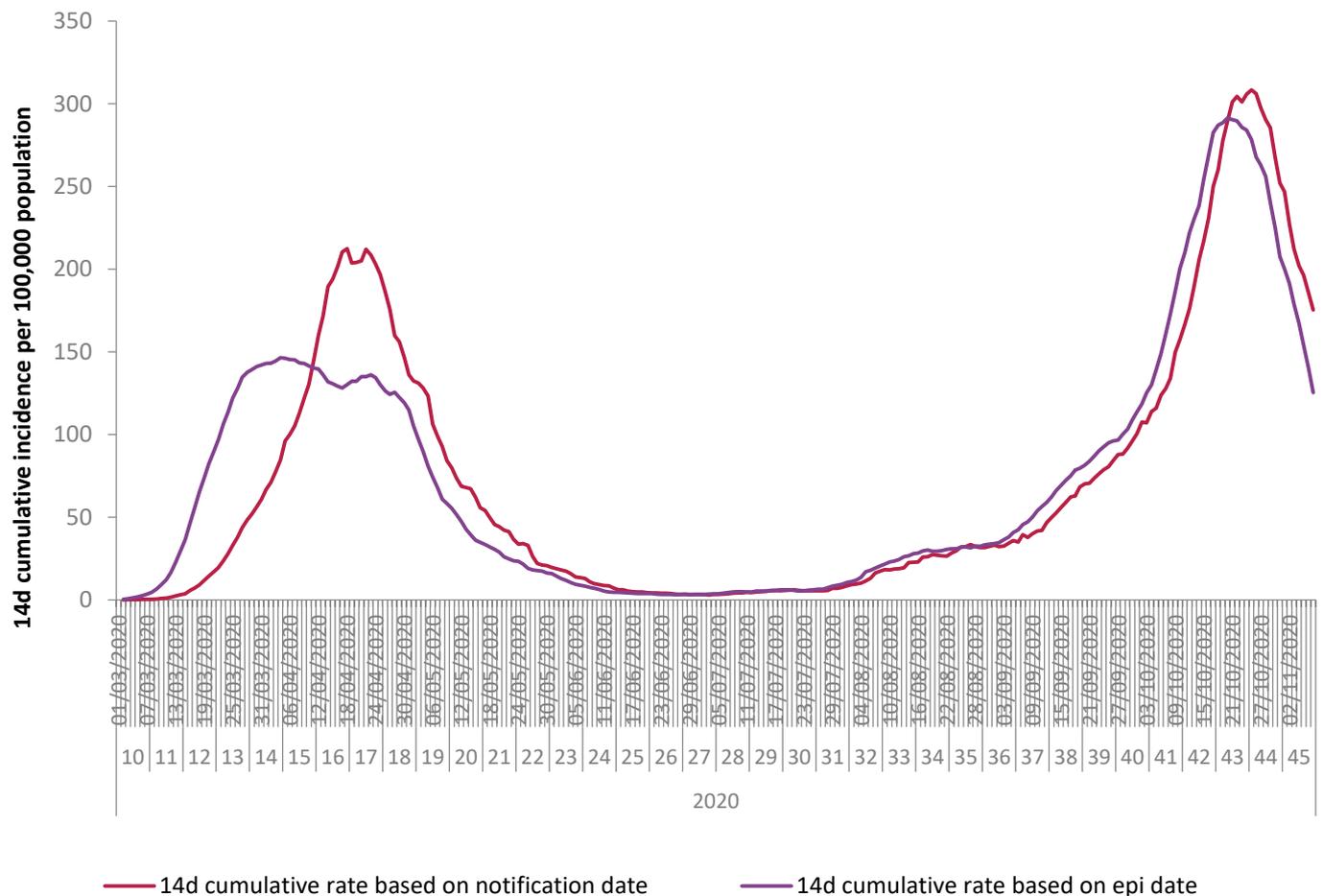


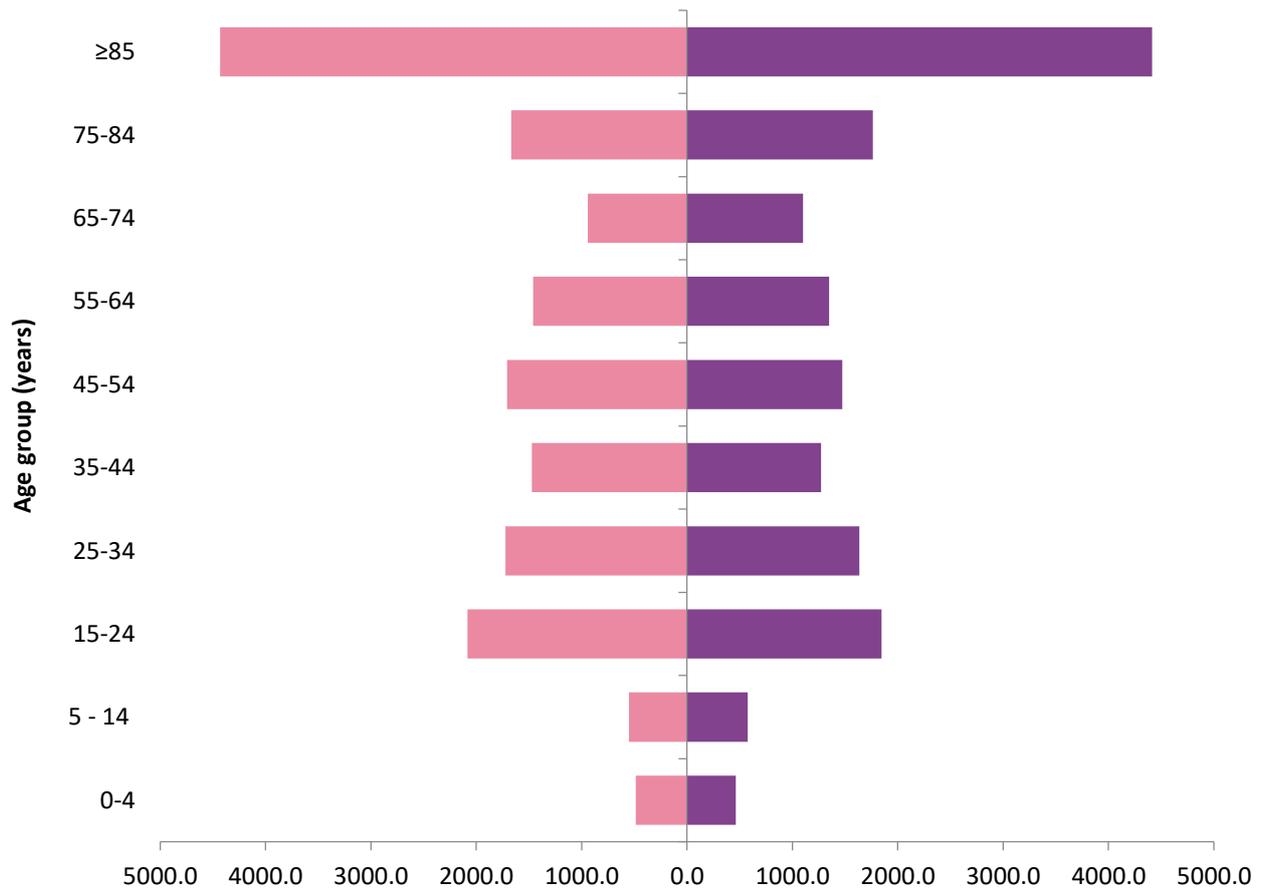
Figure 2: Cumulative 14 day incidence rate of confirmed COVID-19 cases per 100,000 population notified in Ireland by notification* and epidemiological date to midnight 07/11/2020**

* 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 07/11/2020

Characteristic		Number of cases	Percent
Total number of confirmed cases		65,389	100
Sex	Male:Female ratio	0.89	
	Male	30,691	46.94
	Female	34,657	53
	Unknown	41	0.06
Age	Median age (years)	39	
	Mean age (years)	42	
	Age range (years)	0 - 106	
	0-4 yrs	1,576	2.41
	5-14 yrs	3,809	5.83
	15-24 yrs	11,328	17.32
	25-34 yrs	11,090	16.96
	35-44 yrs	10,266	15.7
	45-54 yrs	9,971	15.25
	55-64 yrs	7,151	10.94
	65-74 yrs	3,812	5.83
	75-84 yrs	3,363	5.14
	85+ yrs	2,991	4.57
	Unknown	32	0.05



	0-4	5 - 14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	≥85
Female	487.1	551.8	2084.8	1722.8	1471.4	1707.6	1461.4	941.0	1668.1	4432.2
Male	463.1	574.7	1847.6	1634.4	1272.6	1474.4	1347.0	1102.1	1763.5	4414.2

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 07/11/2020 (excluding 31 cases for whom age is unknown, 40 cases for whom sex is unknown and 1 case for whom both are unknown)

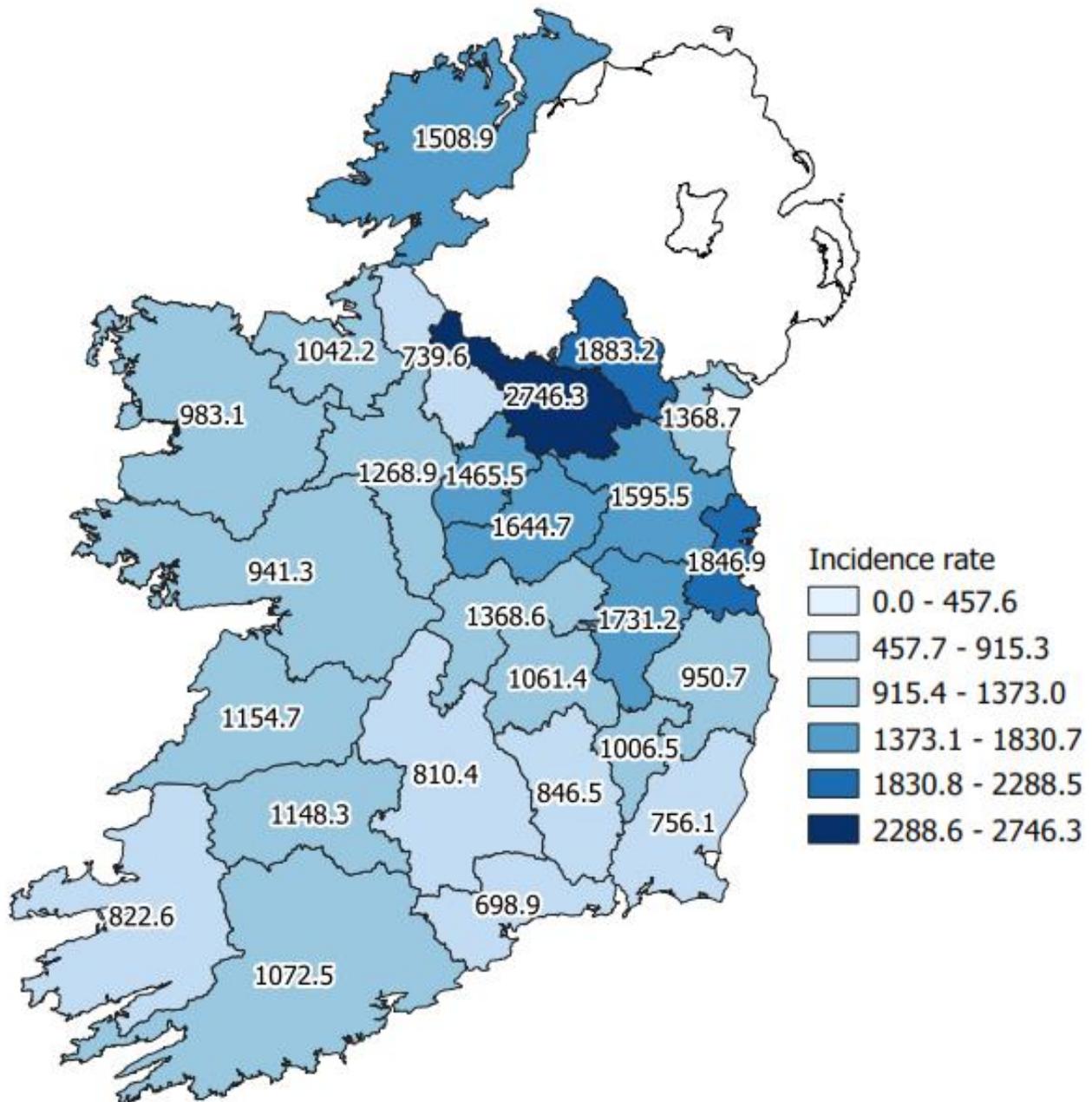


Figure 4: Cumulative incidence rates of confirmed cases of COVID-19 per 100,000 population notified in Ireland to midnight 07/11/2020

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 07/11/2020

County Name	Number of cases	Percent
Carlow	573	0.88
Cavan	2,092	3.2
Clare	1,372	2.1
Cork	5,822	8.9
Donegal	2,402	3.67
Dublin	24,884	38.06
Galway	2,429	3.71
Kerry	1,215	1.86
Kildare	3,852	5.89
Kilkenny	840	1.28
Laois	899	1.37
Leitrim	237	0.36
Limerick	2,238	3.42
Longford	599	0.92
Louth	1,764	2.7
Mayo	1,283	1.96
Meath	3,112	4.76
Monaghan	1,156	1.77
Offaly	1,067	1.63
Roscommon	819	1.25
Sligo	683	1.04
Tipperary	1,293	1.98
Waterford	812	1.24
Westmeath	1,460	2.23
Wexford	1,132	1.73
Wicklow	1,354	2.07
Total	65,389	100

Table 3: Number of confirmed COVID-19 cases by WHO transmission classification notified to midnight 07/11/2020

Transmission classification*	Count of Events	%
Community transmission, incl. possible community transmission	21,634	33.09%
Local transmission, incl. possible local transmission	40,427	61.83%
Travel abroad, incl. possible travel abroad	934	1.43%
Unknown	2,394	3.66%
Total	65,389	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 07/11/2020

Age Group (years)	Number of cases (n)	Cases hospitalised (n)	Cases hospitalised (%)	Cases admitted to ICU (n)	Cases admitted to ICU (%)
0-4 yrs	1576	48	1.03	1	0.18
5-14 yrs	3809	46	0.99	4	0.7
15-24 yrs	11328	143	3.07	7	1.23
25-34 yrs	11090	294	6.3	17	2.98
35-44 yrs	10266	375	8.04	48	8.41
45-54 yrs	9971	600	12.86	105	18.39
55-64 yrs	7151	689	14.77	154	26.97
65-74 yrs	3812	837	17.95	163	28.55
75-84 yrs	3363	1,011	21.68	64	11.21
85+ yrs	2991	619	13.27	8	1.4
Unknown	32	2	0.04	0	0
Total	65,389	4,664	100	571	100

Table 5: Number and proportion of confirmed cases of COVID-19 notified in Ireland by age-group, hospitalisation, ICU admission and vital status 07/11/2020

	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)	1,576	3,809	11,328	11,090	10,266	9,971	7,151	3,812	3,363	2,991	32
Cases hospitalised (n)	48	46	143	294	375	600	689	837	1,011	619	2
Cases hospitalised (%)	3.05	1.21	1.26	2.65	3.65	6.02	9.64	21.96	30.06	20.7	6.25
Cases admitted to ICU (n)	1	4	7	17	48	105	154	163	64	8	0
Cases admitted to ICU (%)	0.06	0.11	0.06	0.15	0.47	1.05	2.15	4.28	1.9	0.27	0
Deaths (n)	0	0	1	7	12	29	79	260	575	726	0
Case fatality ratio (%)	0	0	0.01	0.06	0.12	0.29	1.1	6.82	17.1	24.27	0

Outbreaks of COVID-19

Table 6: Number of clusters/outbreaks COVID-19 by location and HSE area notified to midnight 07/11/2020

Outbreak Location	E	M	MW	NE	NW	S	SE	W	HPSC	Total
Private house	2934	67	176	387	302	417	516	486		5285
Other*	211	57	145	59	96	190	56	110	2	926
Nursing home	163	15	20	50	8	21	19	43		339
Residential institution	138	16	16	33	10	29	14	9		265
Workplace	84	16	20	43	30	20	18	22		253
Hospital	89	7	8	20	6	16	5	7		158
Comm. Hosp/Long-stay unit	6	4	2		4	6	5	5		32
Unknown	7				1					8
Total	3632	182	387	592	457	699	633	682	2	7266

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

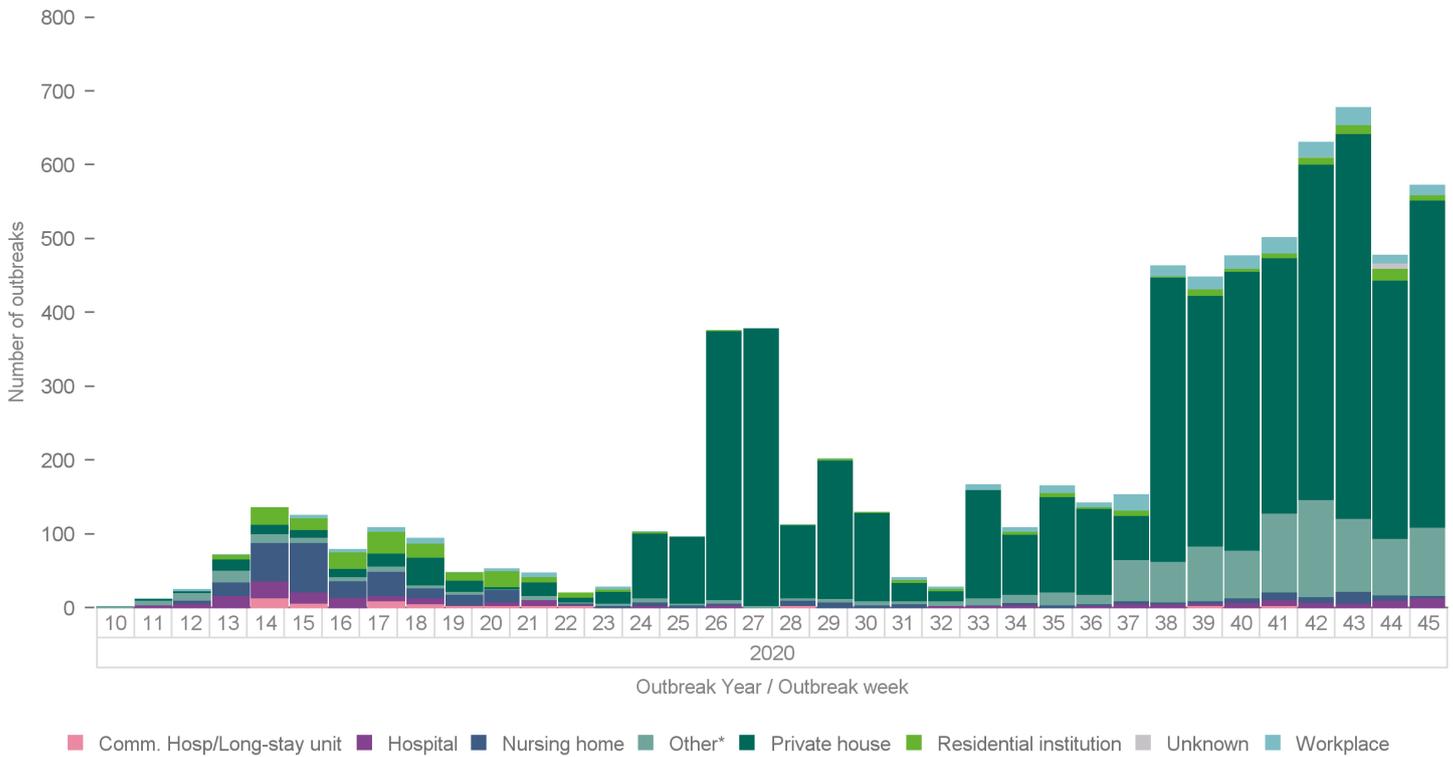


Figure 5: Trend in number of COVID-19 clusters by location and week notified to midnight 07/11/2020

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

Note: 6,430 COVID-19 outbreaks were reported on CIDR between week 24 and week 45 2020 (9th June to 7th Nov). Of these, 5,012 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 45 as a result of data validation: 1 occurred in February, 636 in March, 474 in April, 94 in May, 126 in June, 127 in July, 533 in August, 1,499 in September, 1,455 in October and 67 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 07/11/2020

	Number	Percent
Total number of deaths	1,948	
Confirmed	1,689	86.7
Probable	95	4.88
Possible	164	8.42
Total number of cases hospitalised	855	43.89
Cases admitted to ICU	119	6.11
Cases not admitted to ICU	736	37.78
Total number of imported cases	7	0.36
Number of cases in healthcare workers	8	0.41
Number with underlying clinical conditions	1,809	92.86
Total number of male cases	984	50.51
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 07/11/2020

Age group (years)	Female	Male	Total	Percent
15-24 yrs	<5	<5	1	0.05
25-34 yrs	<5	5	7	0.36
35-44 yrs	6	7	13	0.67
45-54 yrs	11	20	31	1.59
55-64 yrs	27	58	85	4.36
65-74 yrs	105	183	288	14.78
75-84 yrs	296	361	657	33.73
85+ yrs	514	350	864	44.35
Unknown	<5	<5	2	0.1
Total	964	984	1,948	100
Percent	49.49	50.51		

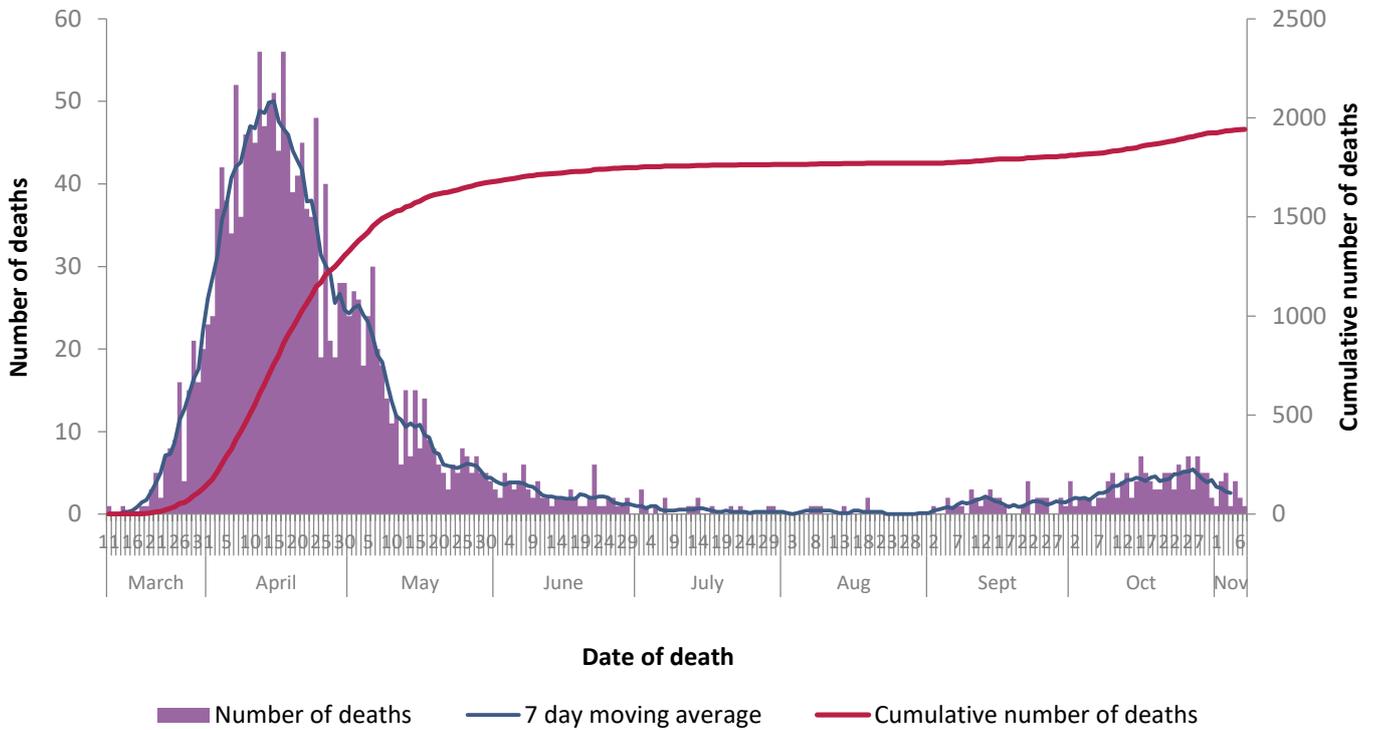


Figure 6a: Daily and 7 day moving average number of deaths among COVID-19 cases notified in Ireland by date of death and cumulative total to midnight 07/11/2020

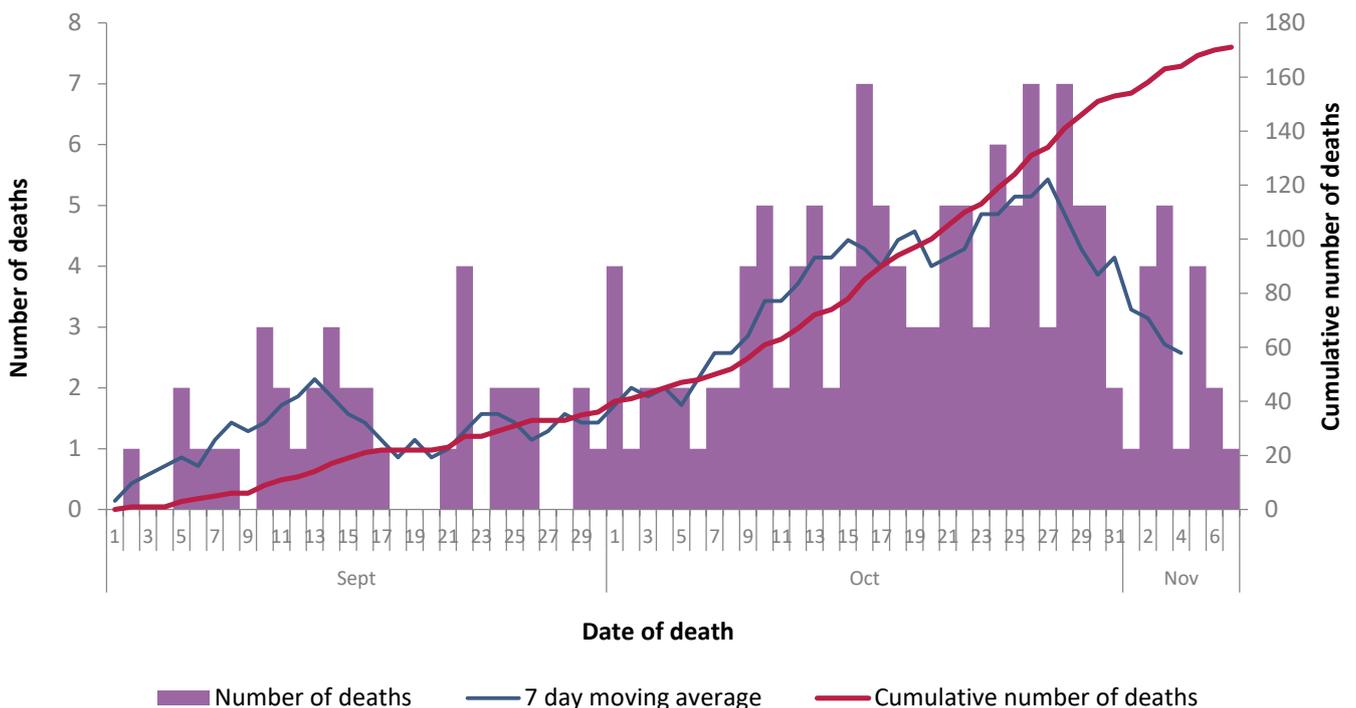


Figure 6b: Daily and 7 day moving average number of deaths among COVID-19 cases notified in Ireland by date of death and cumulative total, 01/09/2020 to midnight 07/11/2020

* Date of death is not yet available for six 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 09:18 on 09/11/2020. 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.