



Epidemiology of COVID-19 in Ireland

Report prepared by HPSC on 06/11/2020 for National Public Health Emergency Team

Summary characteristics of confirmed COVID-19 cases notified in Ireland up to midnight 04/11/2020

	Number	Percent
Total number of confirmed cases	64,038	
National cumulative incidence of confirmed cases per 100,000 population	1,344.81	
Total number of cases hospitalised	4,580	7.15
Total number of cases admitted to ICU	569	0.89
Total number of deaths among confirmed cases	1,677	2.62
Case fatality ratio (CFR, %)	2.62	
National cumulative incidence of confirmed deaths per 100,000 population	35.22	
Total number of outbreaks/clusters	7,071	
Total number of cases associated with clusters	31,055	48.49
Total number of imported cases	629	0.98
Number of cases in healthcare workers	10,757	16.8
Males	30,028	46.89
Females	33,976	53.06
M:F ratio	0.88	
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 09:15 on 06/11/2020 and are provisional and subject to ongoing review, validation and update. As a result, figures in this report may differ from previously published figures.

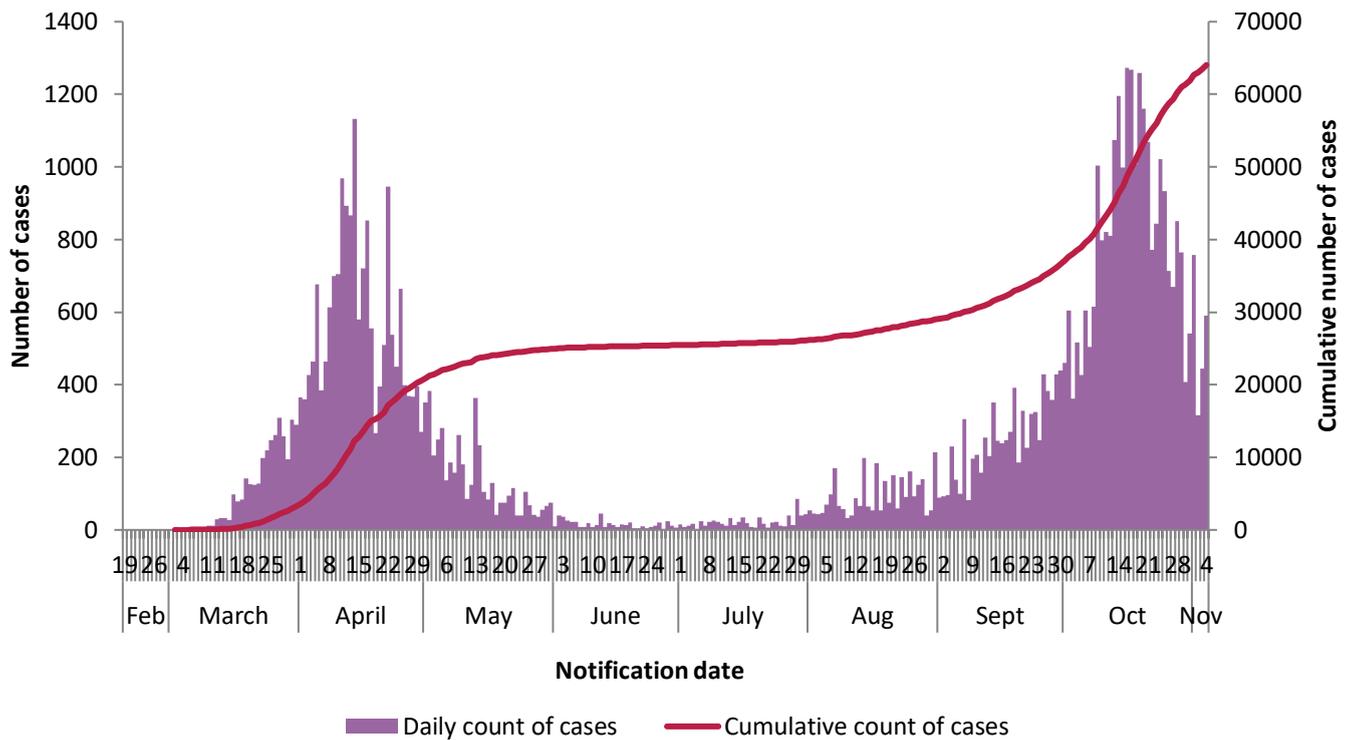


Figure 1a: Number* and cumulative number of confirmed COVID-19 cases notified in Ireland by notification date* to midnight 04/11/2020

*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

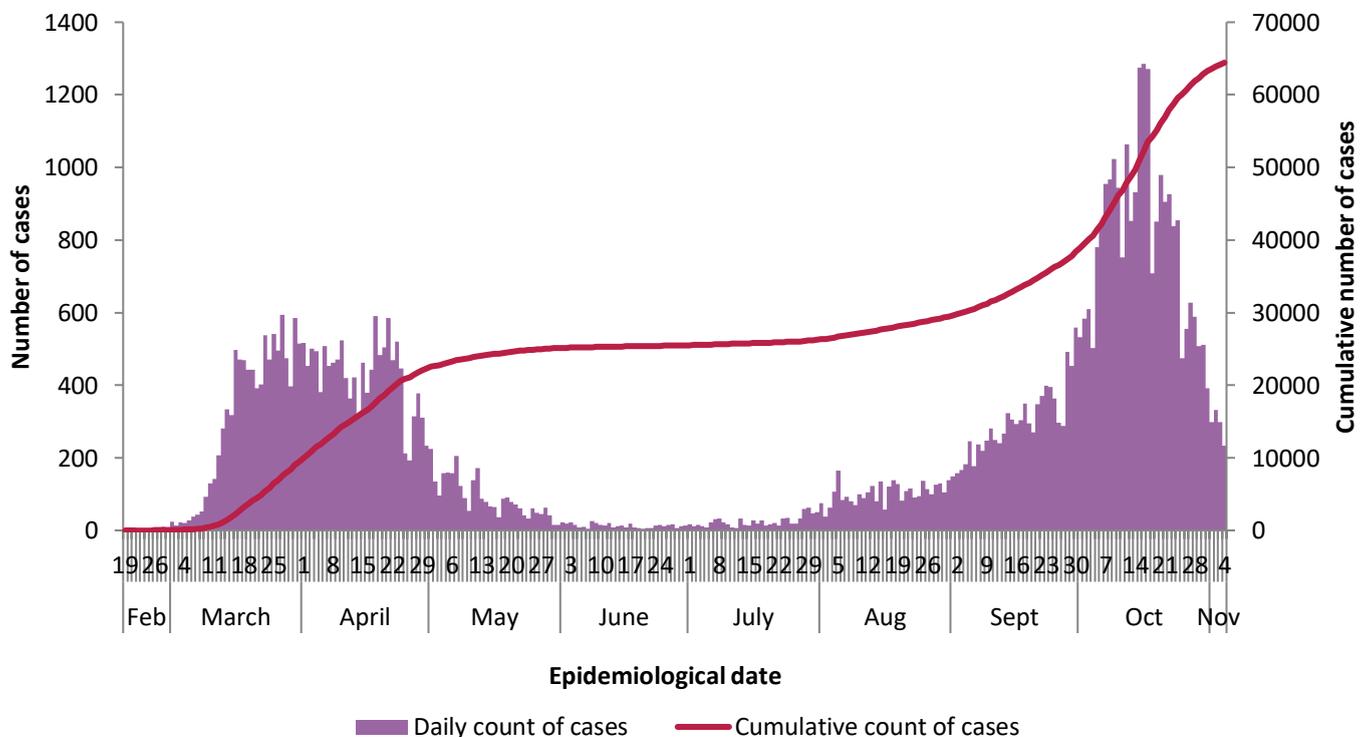


Figure 1b: Number and cumulative number of confirmed COVID-19 cases notified in Ireland by epidemiological date to midnight 04/11/2020**

**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.

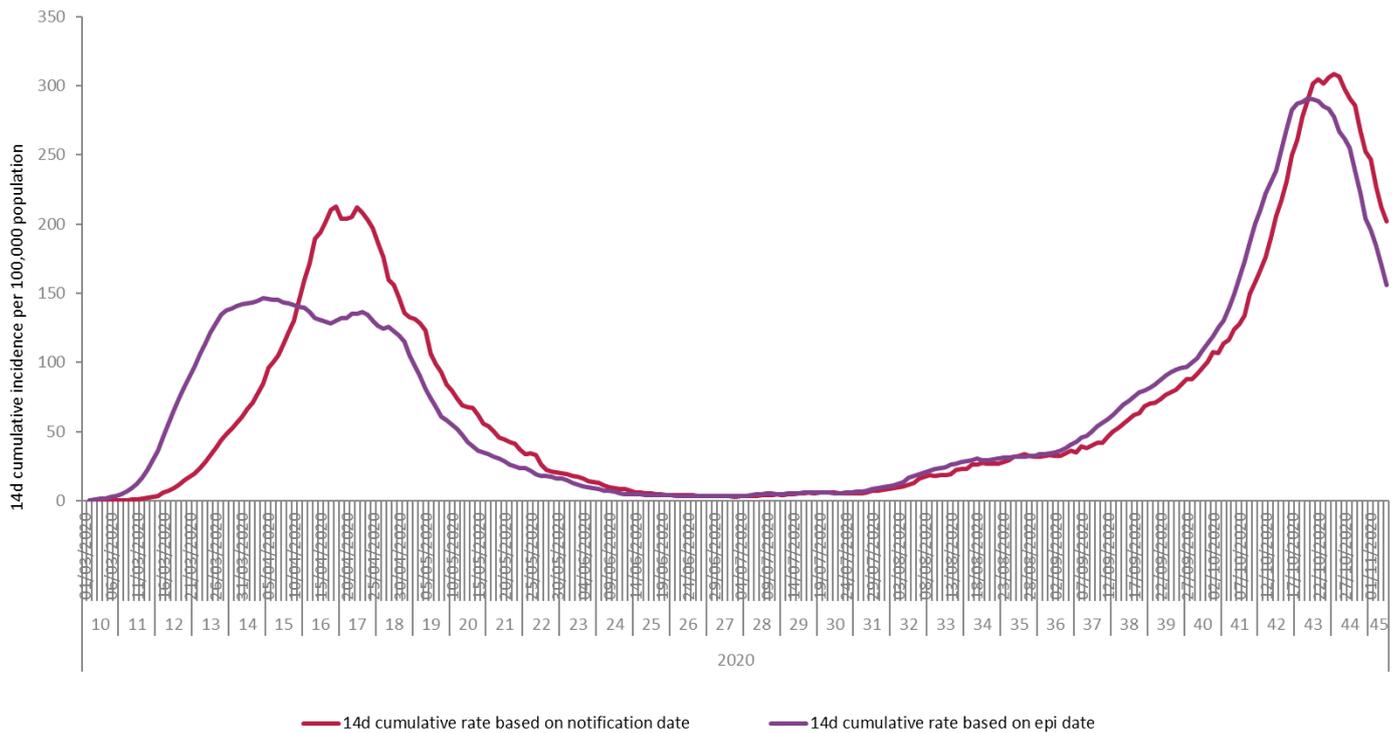


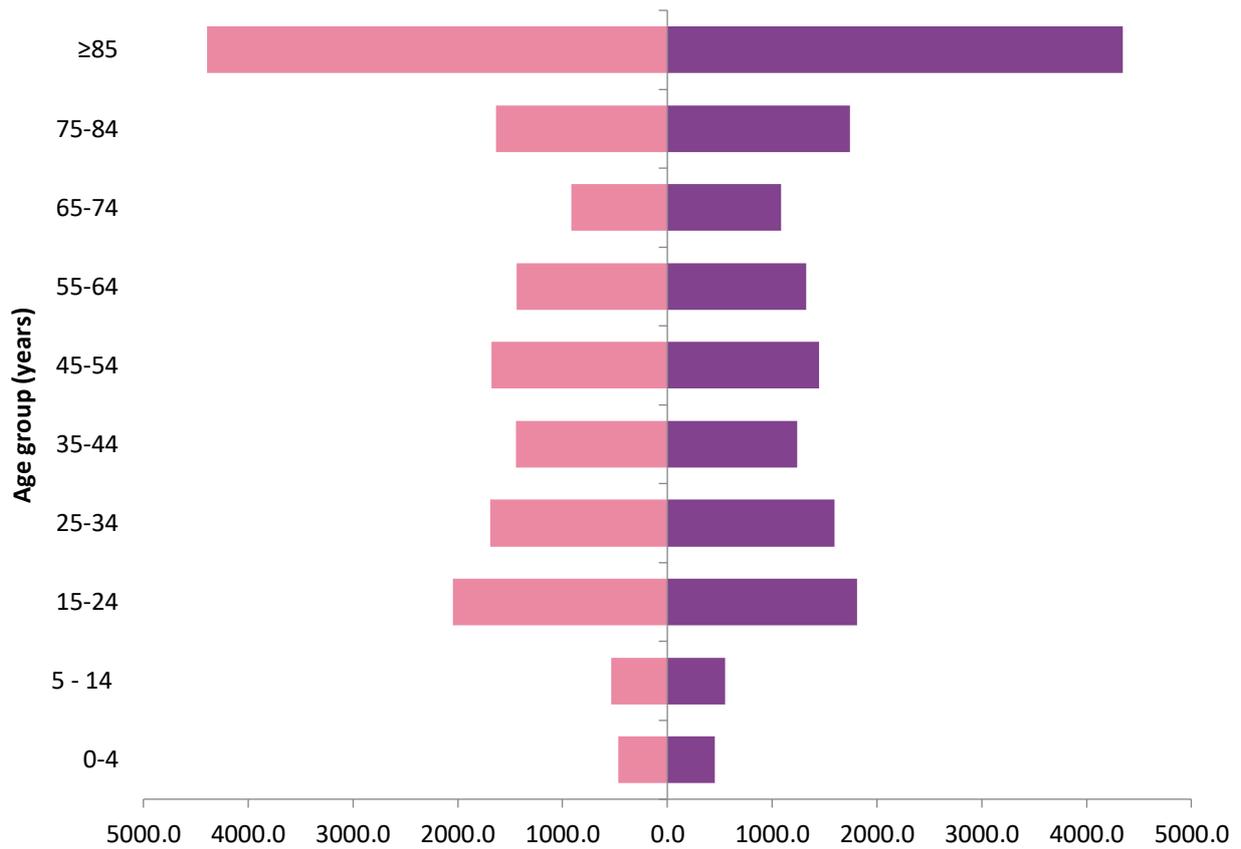
Figure 2: Cumulative 14 day incidence rate of confirmed COVID-19 cases per 100,000 population notified in Ireland by notification* and epidemiological date to midnight 04/11/2020**

* 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 04/11/2020

Characteristic		Number of cases	Percent
Total number of confirmed cases		64,038	100
Sex	Male:Female ratio	0.88	
	Male	30,028	46.89
	Female	33,976	53.06
	Unknown	34	0.05
Age	Median age (years)	39	
	Mean age (years)	42	
	Age range (years)	0 - 106	
	0-4 yrs	1,522	2.38
	5-14 yrs	3,670	5.73
	15-24 yrs	11,101	17.34
	25-34 yrs	10,850	16.94
	35-44 yrs	10,048	15.69
	45-54 yrs	9,781	15.27
	55-64 yrs	7,034	10.98
	65-74 yrs	3,733	5.83
	75-84 yrs	3,310	5.17
	85+ yrs	2,957	4.62
	Unknown	32	0.05



	0-4	5 - 14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	≥85
Female	467.3	535.1	2045.0	1687.9	1443.9	1675.8	1438.0	918.3	1633.5	4391.7
Male	450.1	550.7	1809.3	1597.4	1241.7	1445.5	1324.9	1082.6	1745.5	4344.8

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 04/11/2020 (excluding 31 cases for whom age is unknown and 33 cases for whom sex is unknown and 1 case for whom both are unknown)

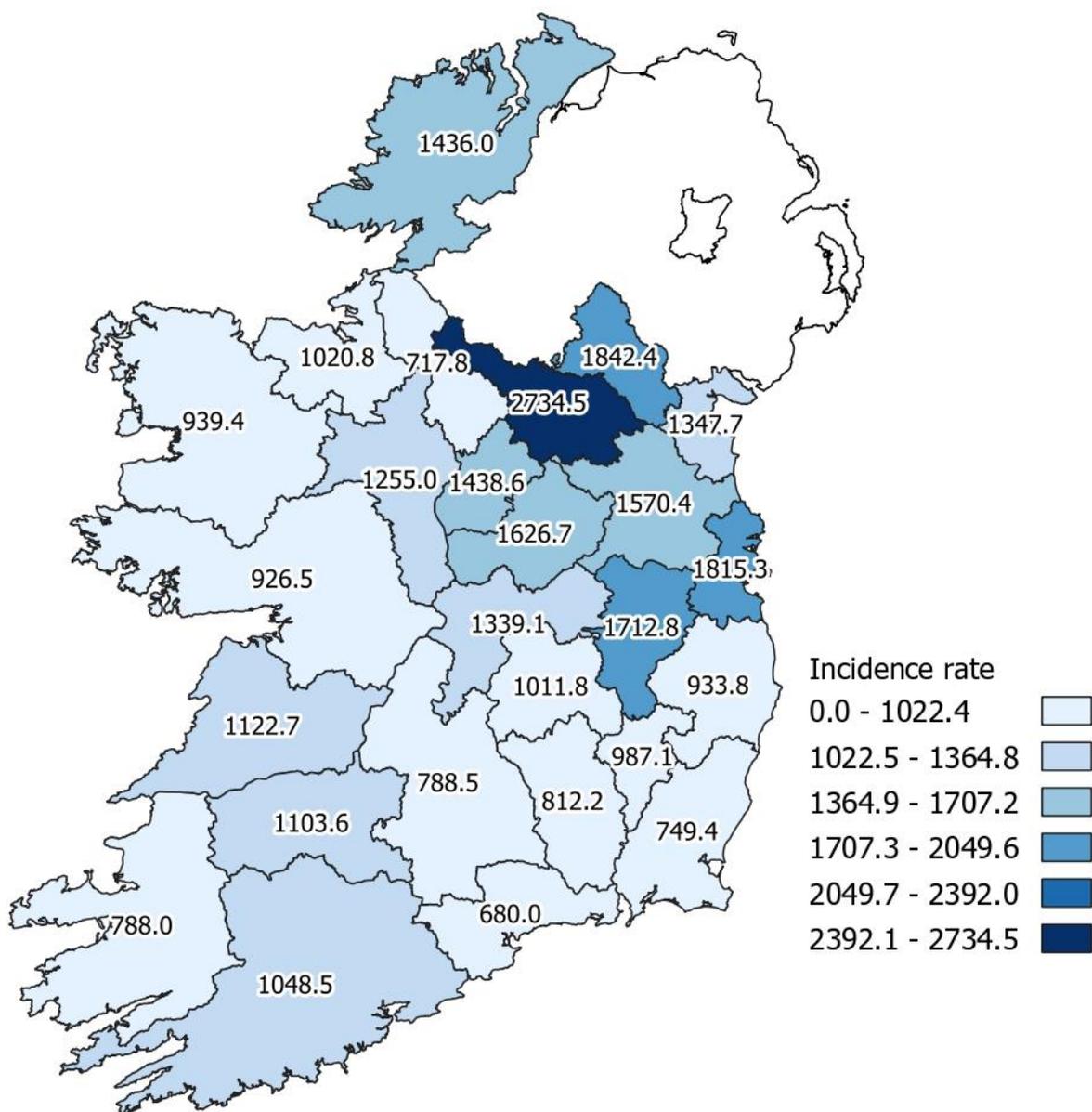


Figure 4: Cumulative incidence rates of confirmed cases of COVID-19 per 100,000 population notified in Ireland to midnight 04/11/2020

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 04/11/2020

County Name	Number of cases	Percent
Carlow	562	0.88
Cavan	2,083	3.25
Clare	1,334	2.08
Cork	5,692	8.89
Donegal	2,286	3.57
Dublin	24,459	38.19
Galway	2,391	3.73
Kerry	1,164	1.82
Kildare	3,811	5.95
Kilkenny	806	1.26
Laois	857	1.34
Leitrim	230	0.36
Limerick	2,151	3.36
Longford	588	0.92
Louth	1,737	2.71
Mayo	1,226	1.91
Meath	3,063	4.78
Monaghan	1,131	1.77
Offaly	1,044	1.63
Roscommon	810	1.26
Sligo	669	1.04
Tipperary	1,258	1.96
Waterford	790	1.23
Westmeath	1,444	2.25
Wexford	1,122	1.75
Wicklow	1,330	2.08
Total	64,038	100

Table 3: Number of confirmed COVID-19 cases by WHO transmission classification notified to midnight 04/11/2020

Transmission classification*	Count of Events	%
Community transmission, incl. possible community transmission	20,596	32.16%
Local transmission, incl. possible local transmission	39,416	61.55%
Travel abroad, incl. possible travel abroad	928	1.45%
Unknown	3,098	4.84%
Total	64,038	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, ICU admission as of midnight 04/11/2020

Age Group (years)	Number of cases (n)	Cases hospitalised (n)	Cases hospitalised (%)	Cases admitted to ICU (n)	Cases admitted to ICU (%)
0-4 yrs	1522	48	1.05	1	0.18
5-14 yrs	3670	46	1	4	0.7
15-24 yrs	11101	140	3.06	7	1.23
25-34 yrs	10850	287	6.27	17	2.99
35-44 yrs	10048	366	7.99	47	8.26
45-54 yrs	9781	594	12.97	105	18.45
55-64 yrs	7034	680	14.85	153	26.89
65-74 yrs	3733	823	17.97	163	28.65
75-84 yrs	3310	991	21.64	64	11.25
85+ yrs	2957	603	13.17	8	1.41
Unknown	32	2	0.04	0	0
Total	64,038	4,580	100	569	100

Table 5: Number and proportion of confirmed cases of COVID-19 notified in Ireland by age-group, hospitalisation, ICU Admission and vital status 04/11/2020

	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)	1,522	3,670	11,101	10,850	10,048	9,781	7,034	3,733	3,310	2,957	32
Cases hospitalised (n)	48	46	140	287	366	594	680	823	991	603	2
Cases hospitalised (%)	3.15	1.25	1.26	2.65	3.64	6.07	9.67	22.05	29.94	20.39	6.25
Cases admitted to ICU (n)	1	4	7	17	47	105	153	163	64	8	0
Cases admitted to ICU (%)	0.07	0.11	0.06	0.16	0.47	1.07	2.18	4.37	1.93	0.27	0
Deaths (n)	0	0	1	7	12	29	79	257	572	720	0
Case fatality ratio (%)	0	0	0.01	0.06	0.12	0.30	1.12	6.88	17.28	24.35	0

Outbreaks of COVID-19

Table 6: Number of clusters/outbreaks COVID-19 by location and HSE area notified to midnight 04/11/2020

Outbreak Location	E	M	MW	NE	NW	S	SE	W	HPSC	Total
Private house	2,900	67	171	349	288	394	500	462		5,131
Other*	202	56	143	57	92	184	51	108	2	895
Nursing home	163	15	20	50	8	22	19	43		340
Residential institution	138	15	16	33	10	29	14	9		264
Workplace	84	16	20	40	28	21	17	22		248
Hospital	85	7	7	20	6	16	5	7		153
Comm. Hosp/Long-stay unit	6	4	2		4	6	5	5		32
Unknown	7				1					8
Total	3,585	180	379	549	437	672	611	656	2	7,071

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

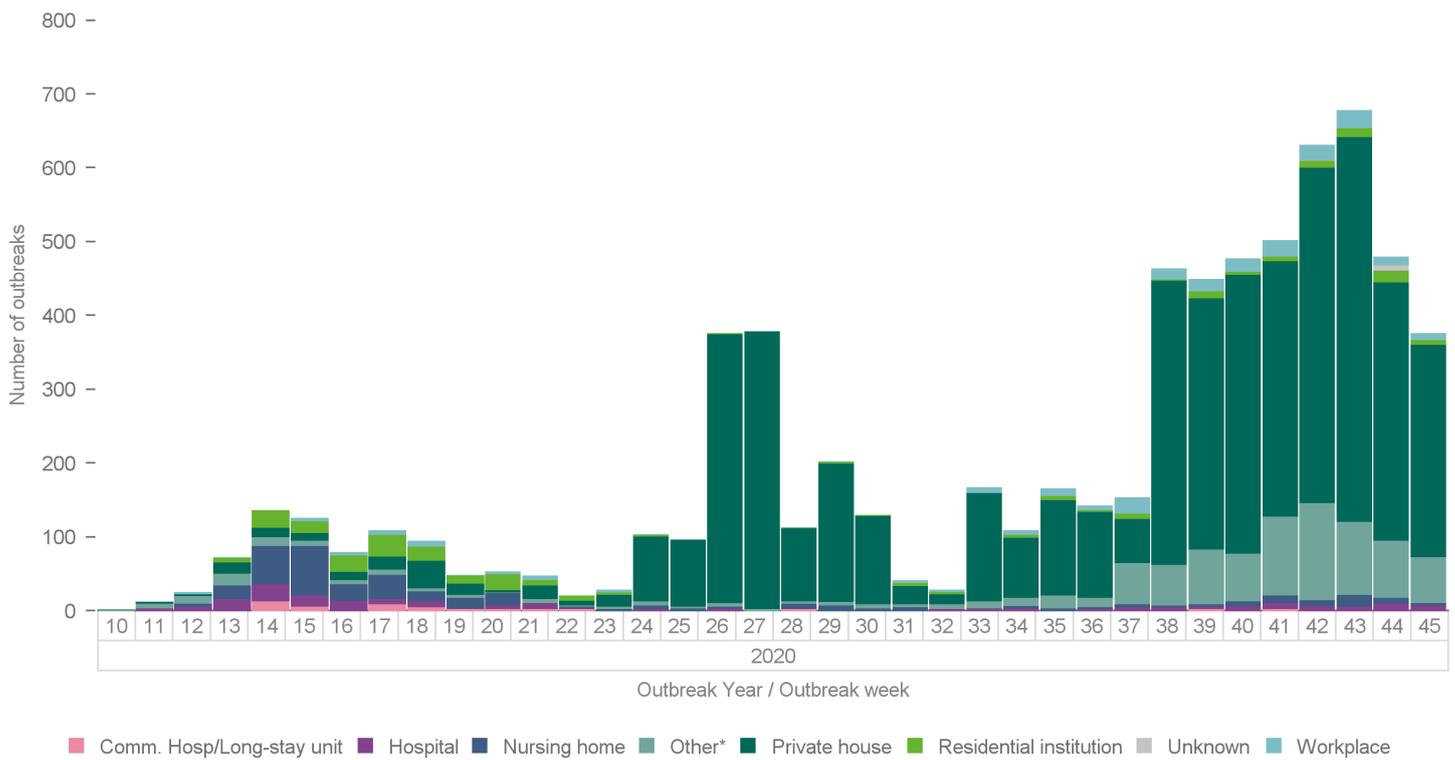


Figure 5: Trend in number of COVID-19 clusters by location and week notified to midnight 04/11/2020

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

Note: 6,235 COVID-19 outbreaks were reported on CIDR between week 24 and week 45 2020 (9th June to 4th Nov). Of these, 4,866 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, 1,498 in September, 1,339 in October and 38 in 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 04/11/2020

	Number	Percent
Total number of deaths	1,936	
Confirmed	1,677	86.62
Probable	95	4.91
Possible	164	8.47
Total number of cases hospitalised	847	43.75
Cases admitted to ICU	117	6.04
Cases not admitted to ICU	730	37.71
Total number of imported cases	7	0.36
Number of cases in healthcare workers	8	0.41
Number with underlying clinical conditions	1,800	92.98
Total number of male cases	976	50.41
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 04/11/2020

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	1.6
55-64 yrs	27	58	85	4.39
65-74 yrs	103	182	285	14.72
75-84 yrs	296	358	654	33.78
85+ yrs	512	346	858	44.32
Unknown	<5	<5	2	0.1
Total	960	976	1,936	100
Percent	49.59	50.41		

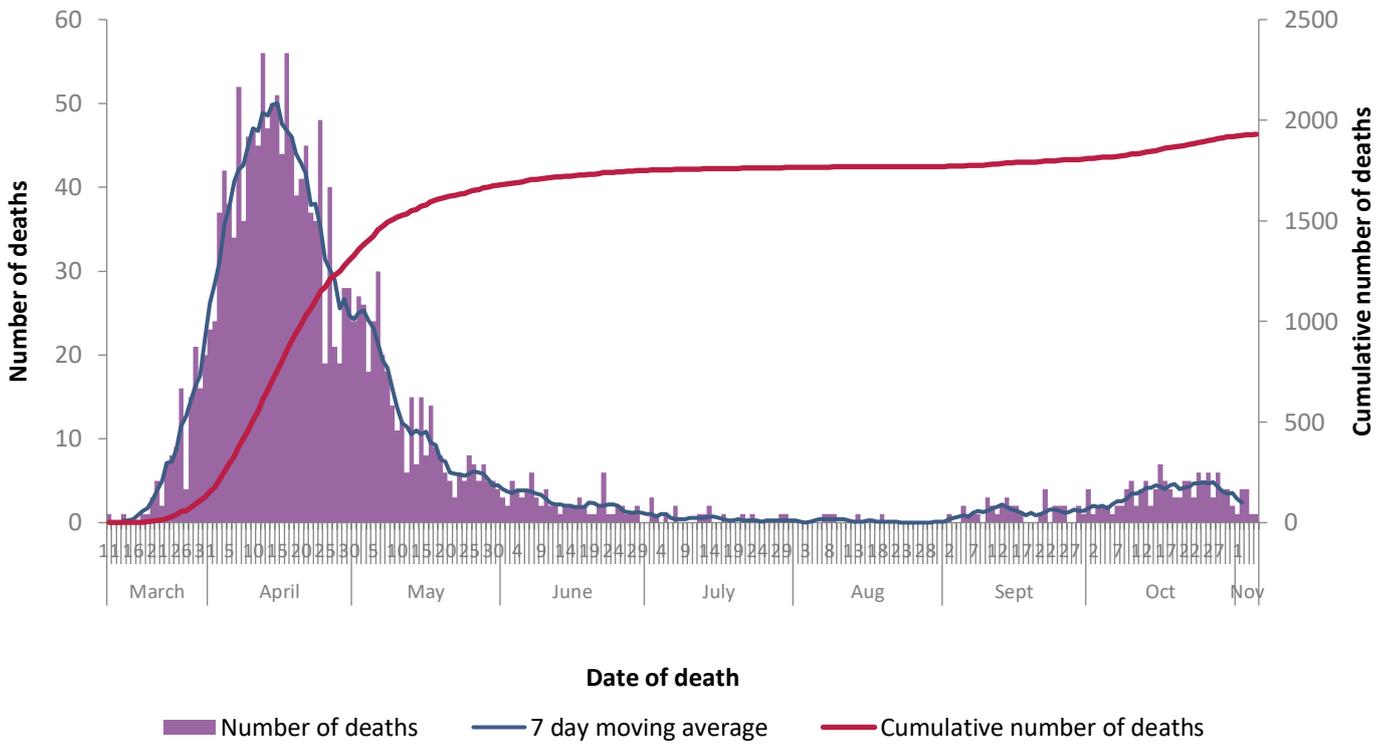


Figure 6a: Daily and 7 day moving average number of deaths among COVID-19 cases notified in Ireland by date of death and cumulative total to midnight 04/11/2020

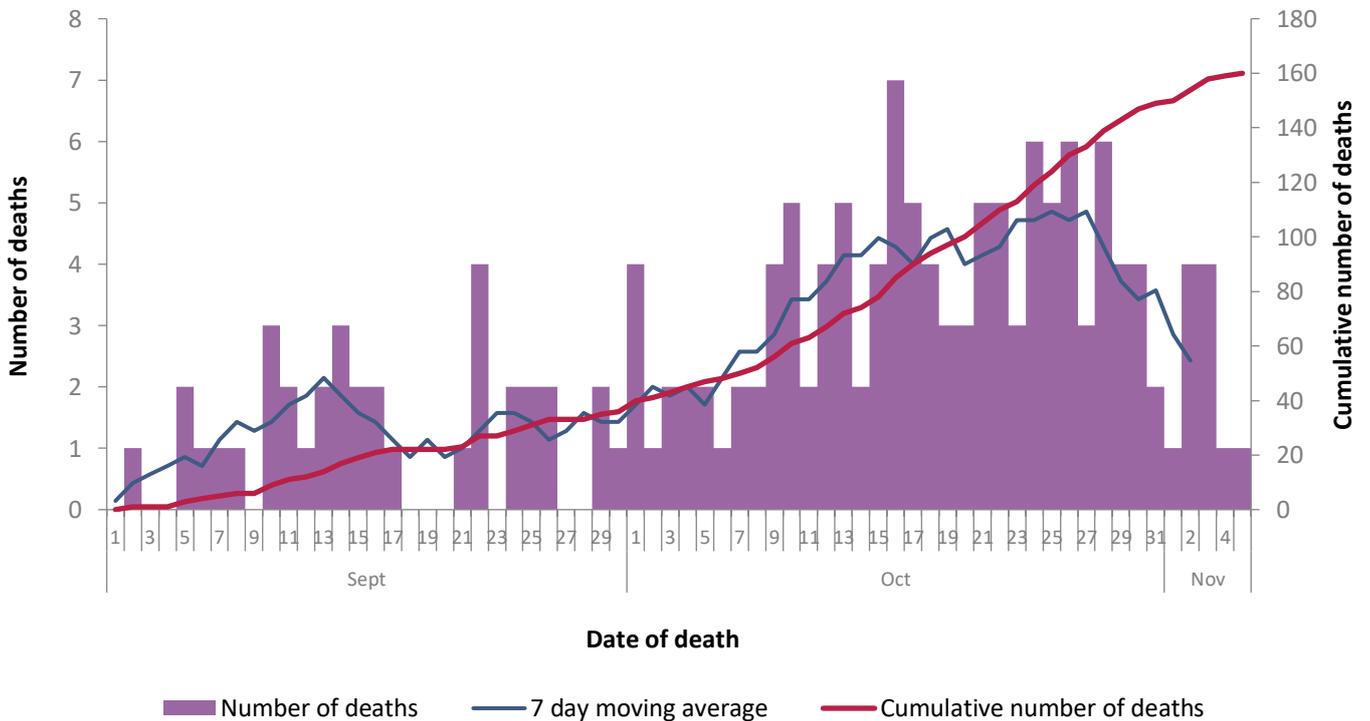


Figure 6b: Daily and 7 day moving average number of deaths among COVID-19 cases notified in Ireland by date of death and cumulative total, 01/09/2020 to midnight 04/11/2020

* Date of death is not yet available for seven 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 09:15 on 06/11/2020. 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.