



Epidemiology of COVID-19 in Ireland

Report prepared by HPSC on 14/10/2020 for National Public Health Emergency Team

Summary characteristics of confirmed COVID-19 cases notified in Ireland up to midnight 12/10/2020

	Number	Percent
Total number of confirmed cases	44,158	
National cumulative incidence of confirmed cases per 100,000 population	927.33	
Total number of cases hospitalised	3,877	8.78
Total number of cases admitted to ICU	503	1.14
Total number of deaths among confirmed cases	1,580	3.58
Case fatality ratio (CFR, %)	3.58	
National cumulative incidence of confirmed deaths per 100,000 population	33.18	
Total number of outbreaks/clusters	5,022	
Total number of cases associated with clusters	23,252	52.66
Total number of imported cases	613	1.39
Number of cases in healthcare workers	9,719	22.01
Males	20,315	46.01
Females	23,799	53.9
M:F ratio	0.85	
Median age (years)	42	
Mean age (years)	44	
Age range (years)	0 - 106	

Note: Data were extracted from Computerised Infectious Disease Reporting (CIDR) system at 09:17 on 14/10/2020 and are provisional and subject to ongoing review, validation and update. As a result, figures in this report may differ from previously published figures.

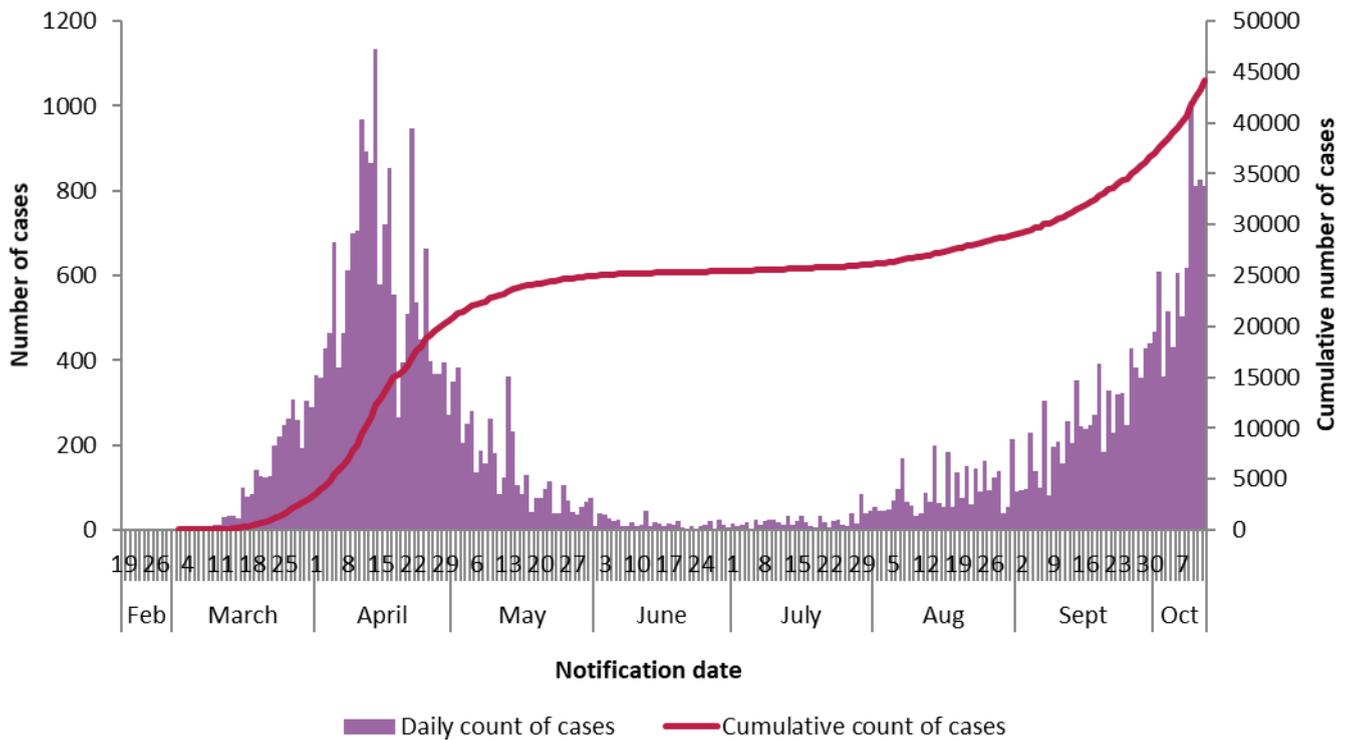


Figure 1a: Number* and cumulative number of confirmed COVID-19 cases notified in Ireland by notification date* to midnight 12/10/2020

*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

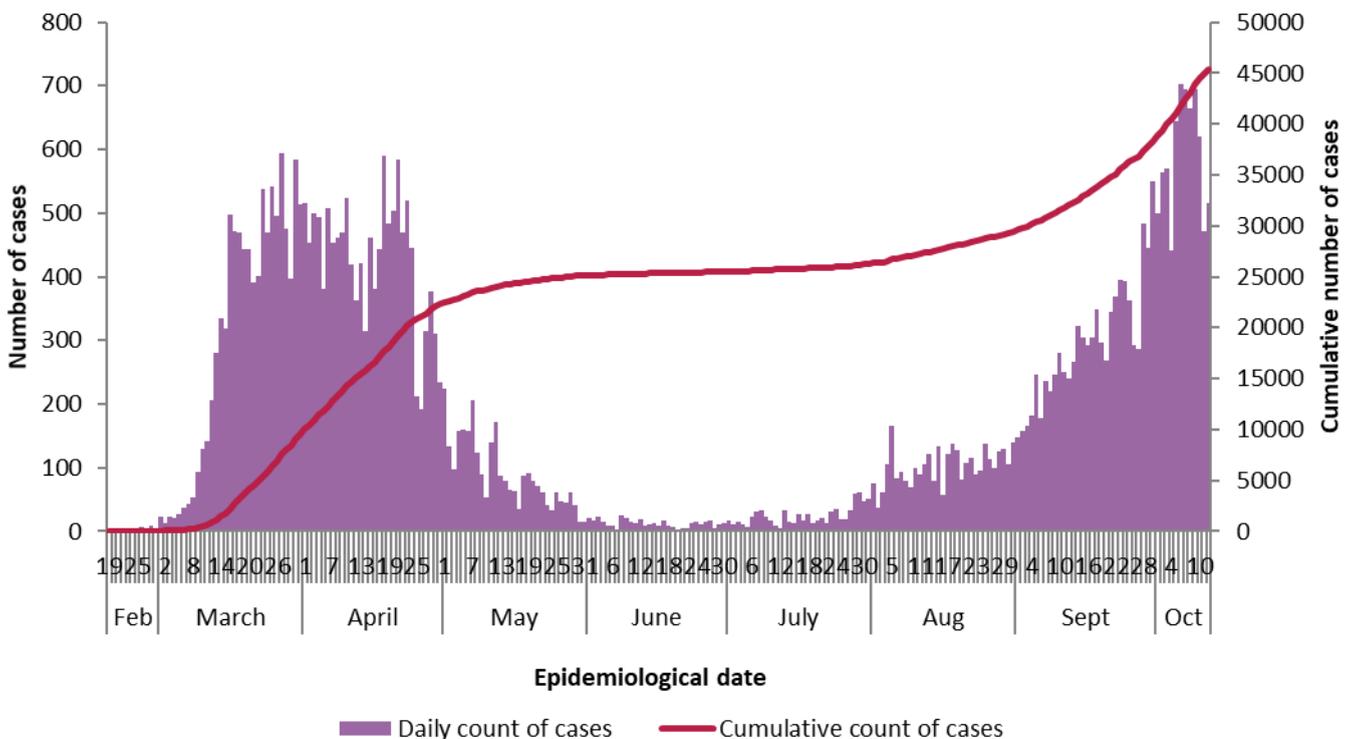


Figure 1b: Number and cumulative number of confirmed COVID-19 cases notified in Ireland by epidemiological date to midnight 12/10/2020**

**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.

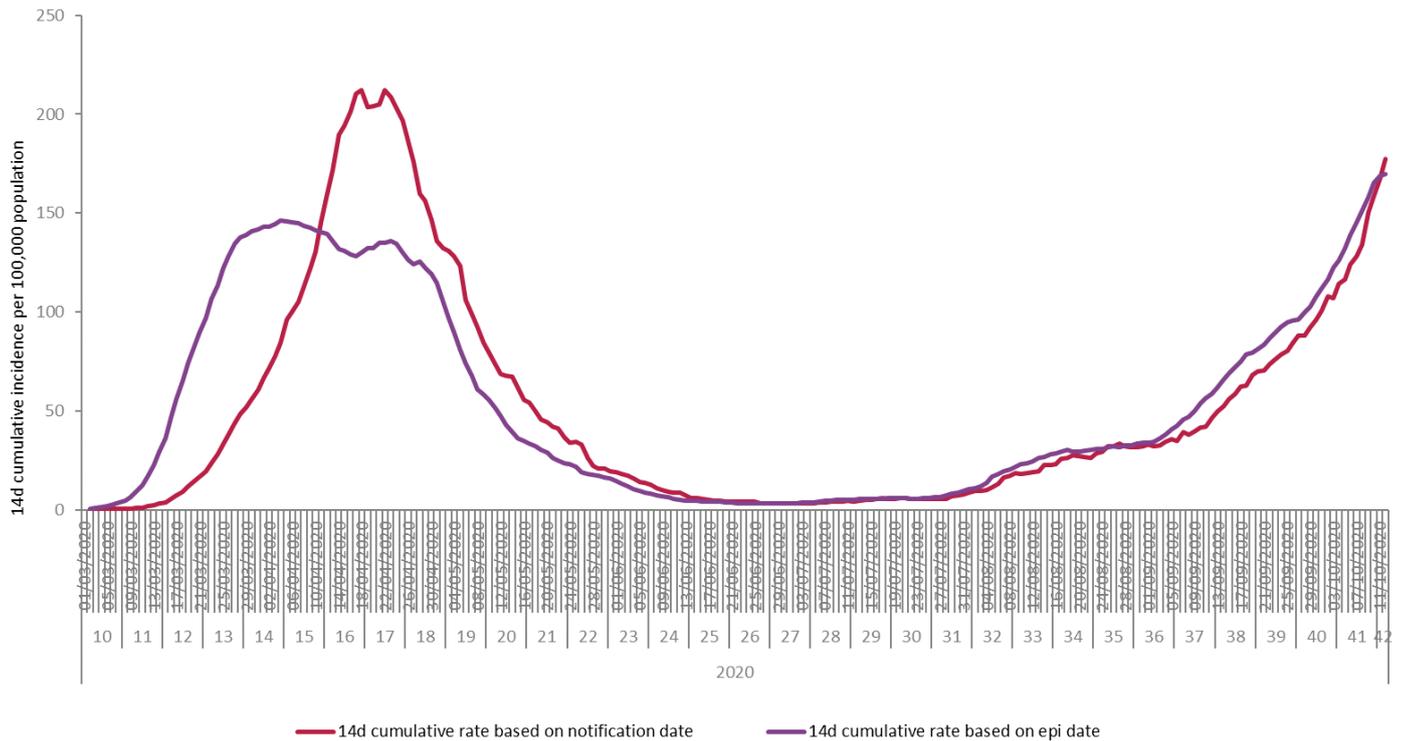


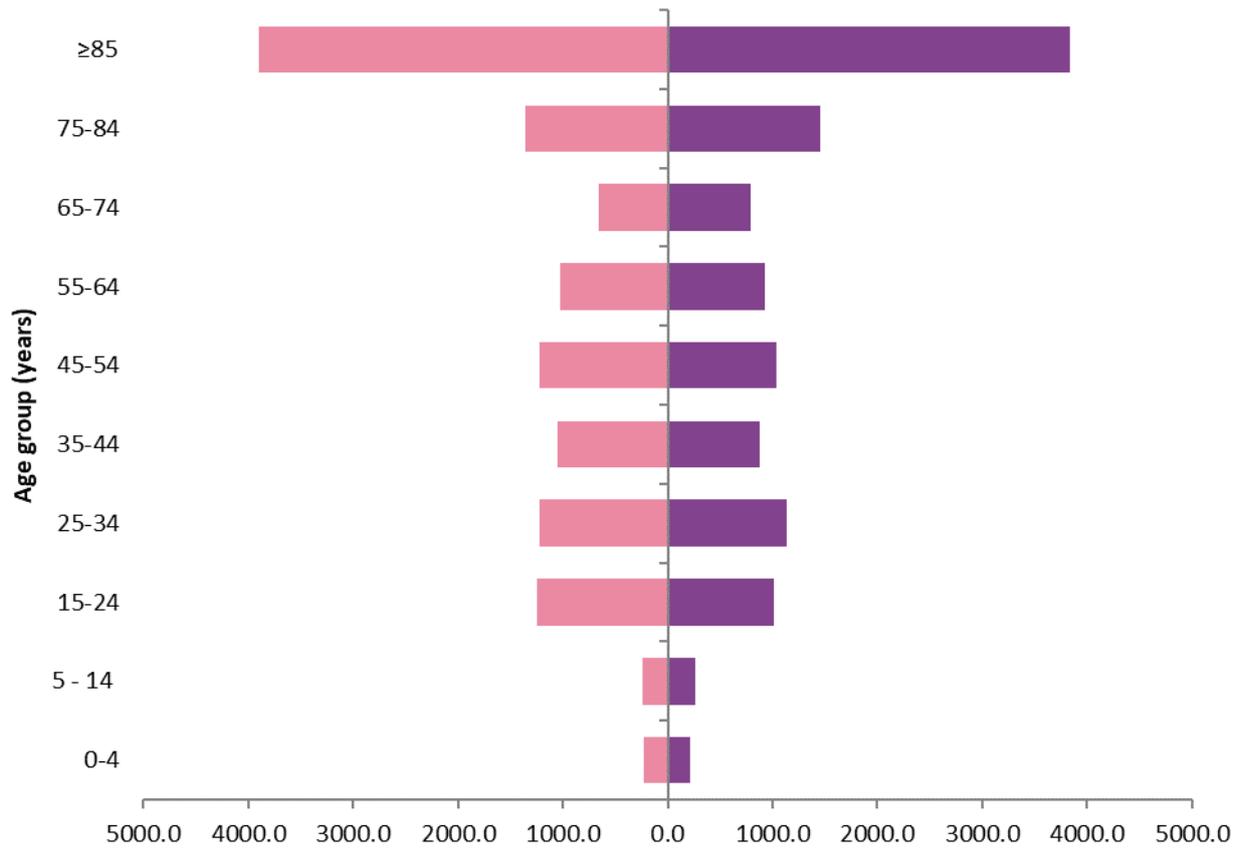
Figure 2: Cumulative 14 day incidence rate of confirmed COVID-19 cases per 100,000 population notified in Ireland by notification* and epidemiological date to midnight 12/10/2020**

* 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 12/10/2020

Characteristic		Number of cases	Percent
Total number of confirmed cases		44,158	100
Sex	Male:Female ratio	0.85	
	Male	20,315	46.01
	Female	23,799	53.9
	Unknown	44	0.1
Age	Median age (years)	42	
	Mean age (years)	44	
	Age range (years)	0 - 106	
	0-4 yrs	747	1.69
	5-14 yrs	1,701	3.85
	15-24 yrs	6,499	14.72
	25-34 yrs	7,790	17.64
	35-44 yrs	7,228	16.37
	45-54 yrs	7,077	16.03
	55-64 yrs	4,990	11.3
	65-74 yrs	2,716	6.15
	75-84 yrs	2,757	6.24
	85+ yrs	2,624	5.94
	Unknown	29	0.07



	0-4	5 - 14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	≥85
Female	233.0	239.3	1247.4	1225.5	1046.9	1223.8	1029.6	658.6	1357.4	3906.2
Male	216.8	263.6	1008.9	1130.0	883.8	1033.3	930.1	797.5	1457.8	3837.5

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 12/10/2020 (excluding 28 cases for whom age is unknown and 43 cases for whom sex is unknown and 1 case for whom both are unknown)

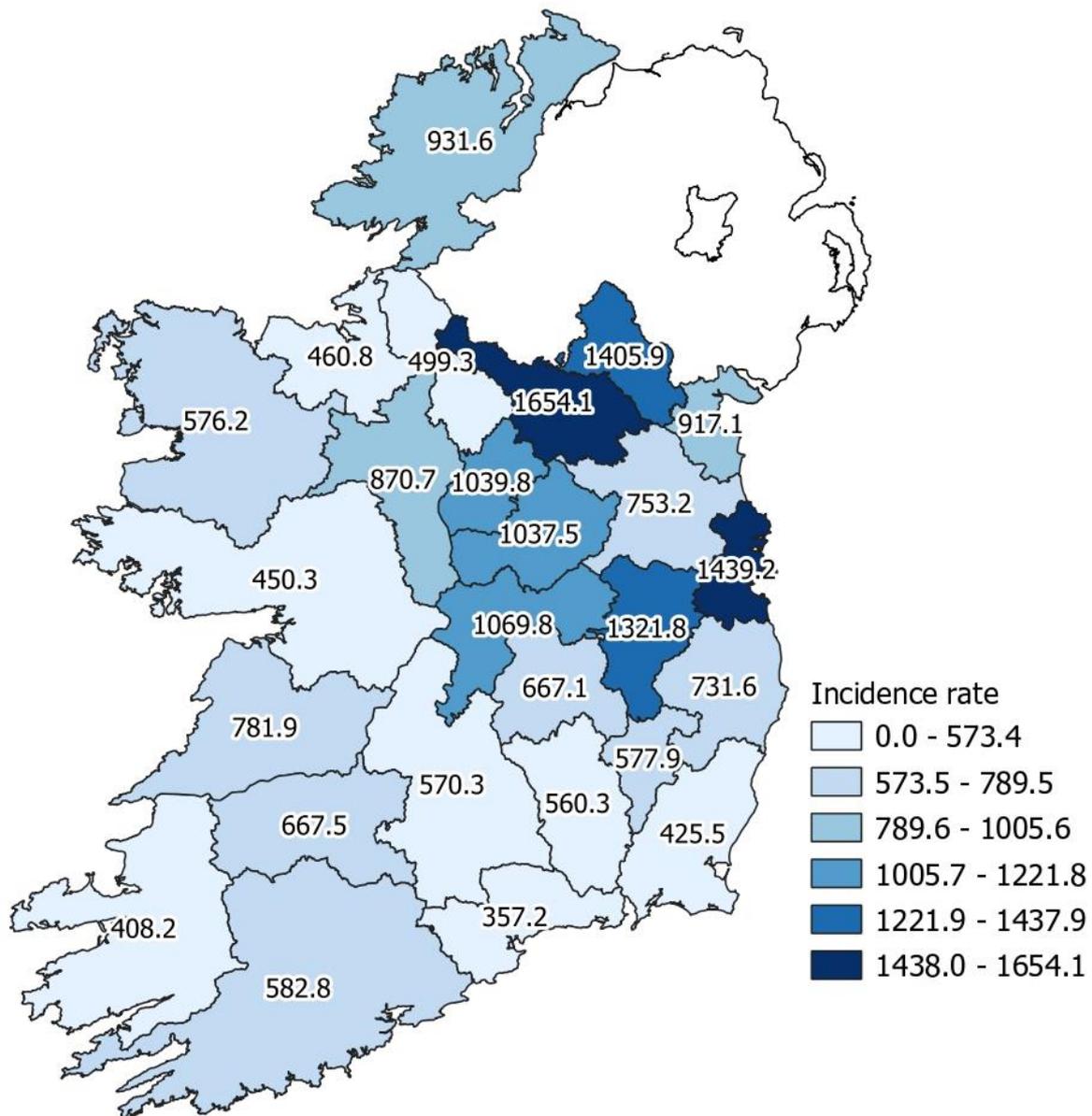


Figure 4: Cumulative incidence rates of confirmed cases of COVID-19 per 100,000 population notified in Ireland to midnight 12/10/2020

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 12/10/2020

County Name	Number of cases	Percent
Carlow	329	0.75
Cavan	1,260	2.85
Clare	929	2.1
Cork	3,164	7.17
Donegal	1,483	3.36
Dublin	19,391	43.91
Galway	1,162	2.63
Kerry	603	1.37
Kildare	2,941	6.66
Kilkenny	556	1.26
Laois	565	1.28
Leitrim	160	0.36
Limerick	1,301	2.95
Longford	425	0.96
Louth	1,182	2.68
Mayo	752	1.7
Meath	1,469	3.33
Monaghan	863	1.95
Offaly	834	1.89
Roscommon	562	1.27
Sligo	302	0.68
Tipperary	910	2.06
Waterford	415	0.94
Westmeath	921	2.09
Wexford	637	1.44
Wicklow	1,042	2.36
Total	44,158	100

Table 3: Number of confirmed COVID-19 cases by WHO transmission classification notified to midnight 12/10/2020

Transmission classification*	Count of Events	%
Community transmission, incl. possible community transmission	12,127	27.46%
Local transmission, incl. possible local transmission	29,144	66.00%
Travel abroad, incl. possible travel abroad	888	2.01%
Unknown	1,999	4.53%
Total	44,158	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 and hospital, ICU and vital status as of midnight 12/10/2020

Age Group (years)	Number of cases (n)	Cases hospitalised (n)	Cases hospitalised (%)	Cases admitted to ICU (n)	Cases admitted to ICU (%)
0-4 yrs	747	38	0.98	1	0.2
5-14 yrs	1701	31	0.8	2	0.4
15-24 yrs	6499	113	2.91	5	0.99
25-34 yrs	7790	246	6.35	17	3.38
35-44 yrs	7228	313	8.07	45	8.95
45-54 yrs	7077	508	13.1	97	19.28
55-64 yrs	4990	581	14.99	142	28.23
65-74 yrs	2716	686	17.69	135	26.84
75-84 yrs	2757	836	21.56	53	10.54
85+ yrs	2624	523	13.49	6	1.19
Unknown	29	2	0.05	0	0
Total	44,158	3,877	100	503	100

Table 5: Number and proportion of confirmed cases of COVID-19 notified in Ireland by age-group, hospitalisation and ICU admission 12/10/2020

	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)	747	1,701	6,499	7,790	7,228	7,077	4,990	2,716	2,757	2,624	29
Cases hospitalised (n)	38	31	113	246	313	508	581	686	836	523	2
Cases hospitalised (%)	5.09	1.82	1.74	3.16	4.33	7.18	11.64	25.26	30.32	19.93	6.9
Cases admitted to ICU (n)	1	2	5	17	45	97	142	135	53	6	0
Cases admitted to ICU (%)	0.13	0.12	0.08	0.22	0.62	1.37	2.85	4.97	1.92	0.23	0
Deaths (n)	0	0	1	7	12	29	74	237	542	678	0
Case fatality ratio (%)	0	0	0.02	0.09	0.17	0.41	1.48	8.73	19.66	25.84	0

Outbreaks of COVID-19

Table 6: Number of clusters/outbreaks COVID-19 by location and HSE area notified to midnight 12/10/2020

Outbreak Location	E	HPSC	M	MW	NE	NW	S	SE	W	Total
Private house	2,317		59	150	302	156	251	193	141	3,569
Other*	120	2	60	118	30	58	96	31	62	577
Nursing home	149		14	20	46	7	16	18	36	306
Residential institution	127		12	11	28	5	23	10	5	221
Workplace	62		13	17	29	18	15	14	15	183
Hospital	74		7	5	18	4	15	5	6	134
Comm. Hosp/Long-stay unit	6		4	2		4	6	5	5	32
Total	2,855	2	169	323	453	252	422	276	270	5,022

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

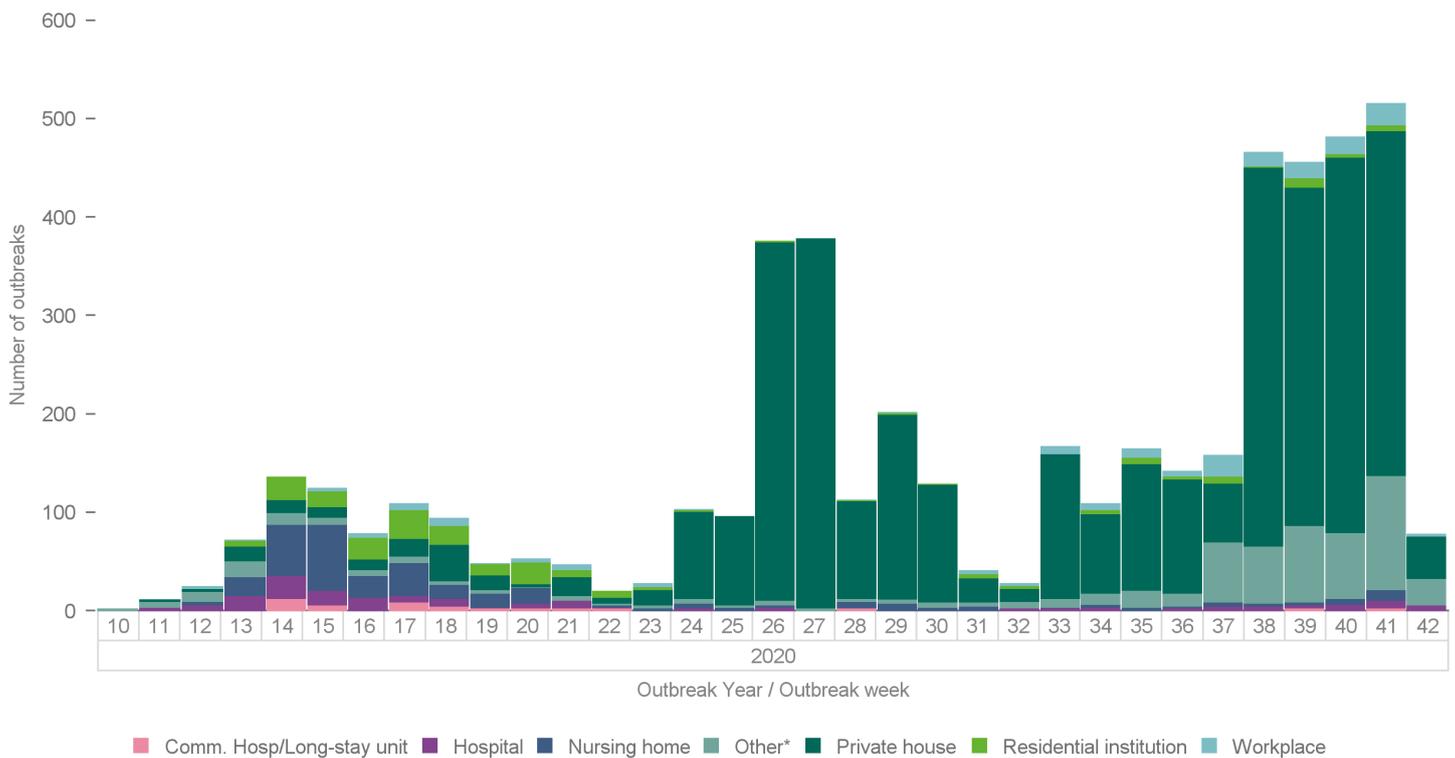


Figure 5: Trend in number of COVID-19 clusters by location and week notified to midnight 12/10/2020

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

Note: 4,186 COVID-19 outbreaks were reported on CIDR between week 24 and week 42 2020 to date (9th June to 12th October). Of these, 3,451 were family outbreaks. Based on the earliest date associated with each outbreak, a large proportion of these family outbreaks occurred earlier and were reported between weeks 24 and 42 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, 531 in August, 1,348 in September and 114 in October to date.

Deaths among COVID-19 cases

Table 7: Summary of deaths in all COVID-19 cases notified in Ireland up to midnight 12/10/2020

	Number	Percent
Total number of deaths	1,834	
Confirmed	1,580	86.15
Probable	95	5.18
Possible	159	8.67
Total number of cases hospitalised	786	42.86
Cases admitted to ICU	102	5.56
Cases not admitted to ICU	684	37.3
Total number of imported cases	6	0.33
Number of cases in healthcare workers	8	0.44
Number with underlying clinical conditions	1,733	94.49
Total number of male cases	913	49.78
M:F ratio	0.99	
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 12/10/2020

Age group (years)	Female	Male	Total	Percent
15-24 yrs	<5	<5	1	0.05
25-34 yrs	<5	5	7	0.38
35-44 yrs	6	7	13	0.71
45-54 yrs	11	20	31	1.69
55-64 yrs	26	53	79	4.31
65-74 yrs	98	165	263	14.34
75-84 yrs	284	339	623	33.97
85+ yrs	491	324	815	44.44
Unknown	<5	<5	2	0.11
Total	921	913	1,834	100
Percent	50.22	49.78		

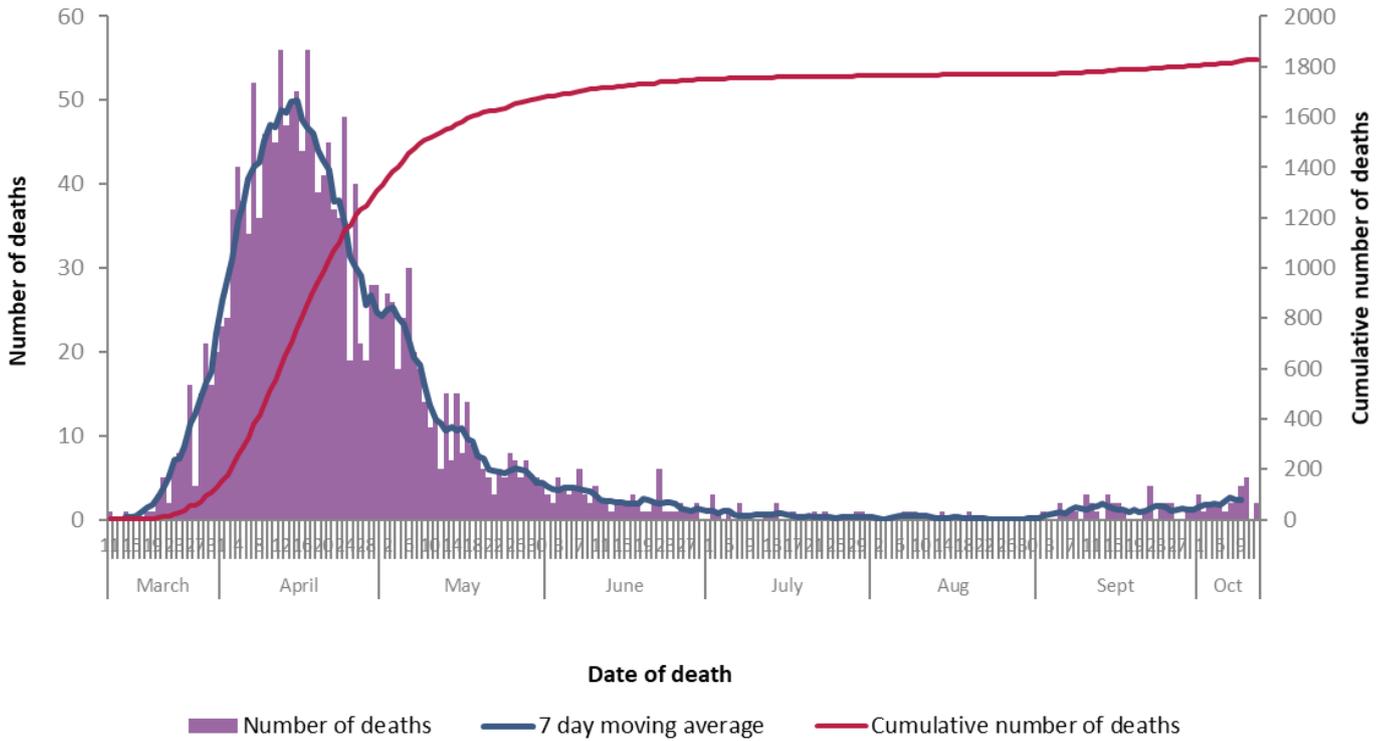


Figure 6a: Daily and 7 day moving average number of deaths among COVID-19 cases notified in Ireland by date of death and cumulative total to midnight 12/10/2020

* Date of death is not yet available for six cases

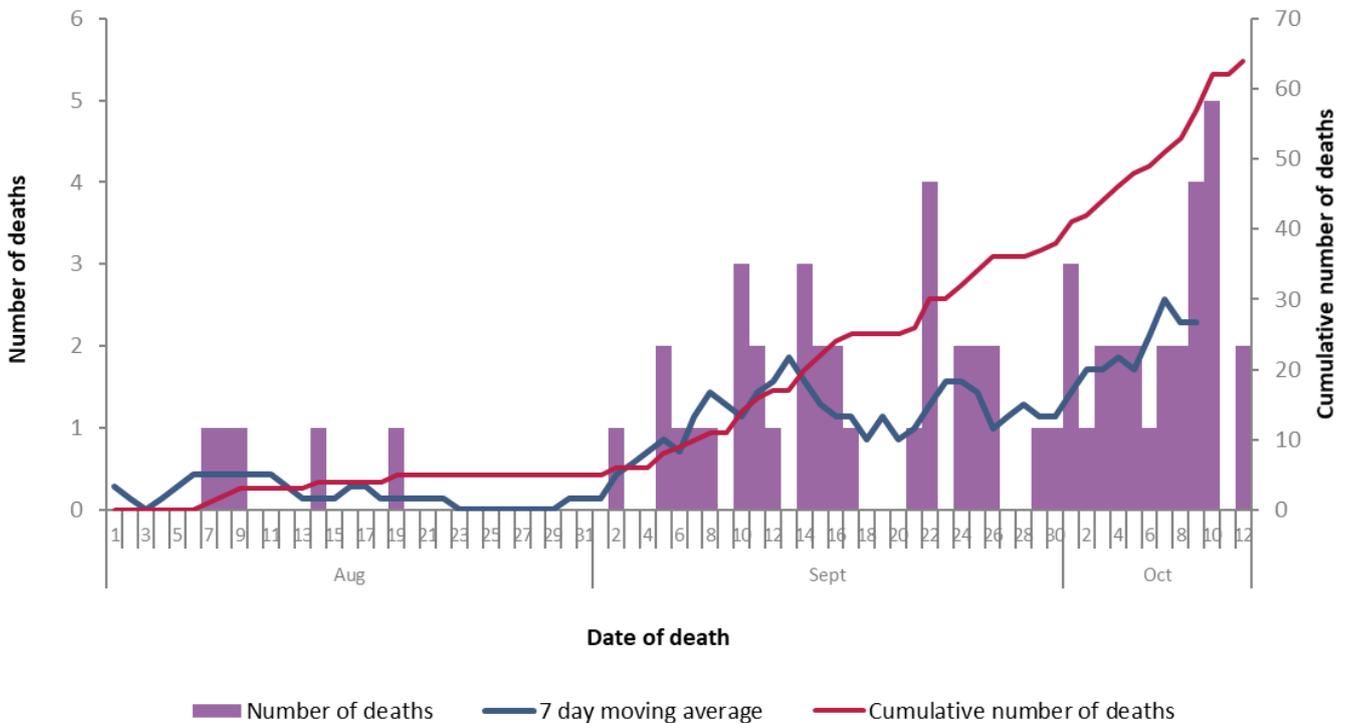


Figure 6b: Daily and 7 day moving average number of deaths among COVID-19 cases notified in Ireland by date of death and cumulative total, 01/08/2020 to midnight 12/10/2020

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 09:17 on 14/10/2020. 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 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.

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.
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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.