



Epidemiology of COVID-19 in Ireland

Report prepared by HPSC on 16/10/2020 for National Public Health Emergency Team

Summary characteristics of confirmed COVID-19 cases notified in Ireland up to midnight 14/10/2020

	Number	Percent
Total number of confirmed cases	46,427	
National cumulative incidence of confirmed cases per 100,000 population	974.98	
Total number of cases hospitalised	3,936	8.48
Total number of cases admitted to ICU	508	1.09
Total number of deaths among confirmed cases	1,586	3.42
Case fatality ratio (CFR, %)	3.42	
National cumulative incidence of confirmed deaths per 100,000 population	33.31	
Total number of outbreaks/clusters	5,265	
Total number of cases associated with clusters	24,257	52.25
Total number of imported cases	614	1.32
Number of cases in healthcare workers	9,839	21.19
Males	21,450	46.2
Females	24,931	53.7
M:F ratio	0.86	
Median age (years)	41	
Mean age (years)	44	
Age range (years)	0 - 106	

Note: Data were extracted from Computerised Infectious Disease Reporting (CIDR) system at 09:18 on 16/10/2020 and are provisional and subject to ongoing review, validation and update. As a result, figures in this report may differ from previously published figures.

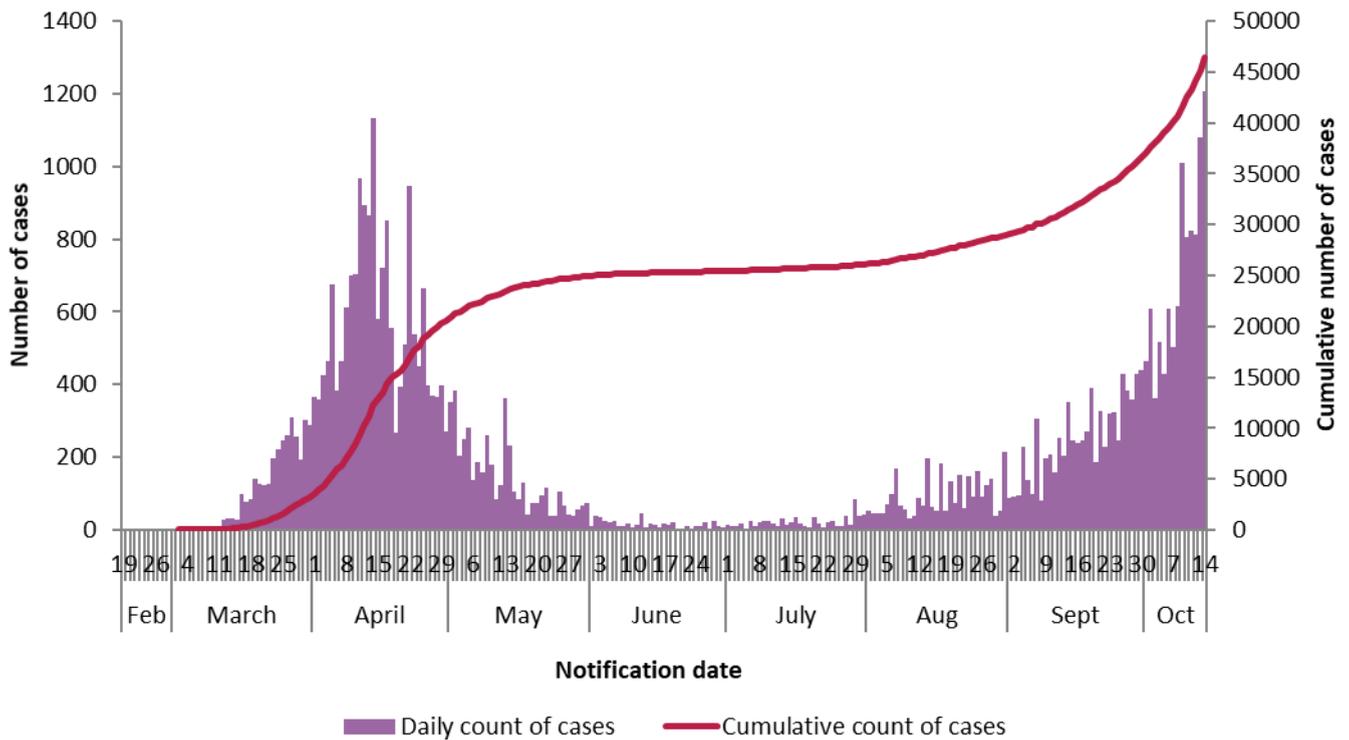


Figure 1a: Number* and cumulative number of confirmed COVID-19 cases notified in Ireland by notification date* to midnight 14/10/2020

*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

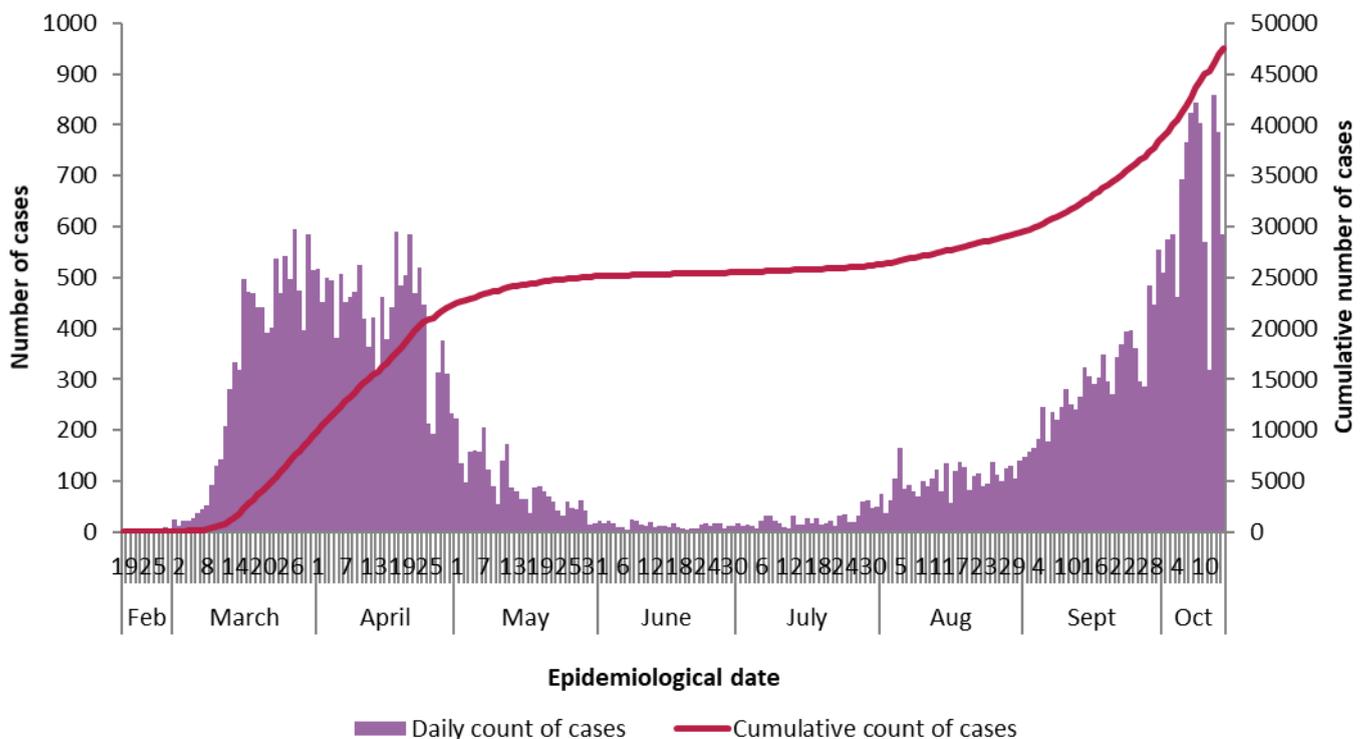


Figure 1b: Number and cumulative number of confirmed COVID-19 cases notified in Ireland by epidemiological date to midnight 14/10/2020**

**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.

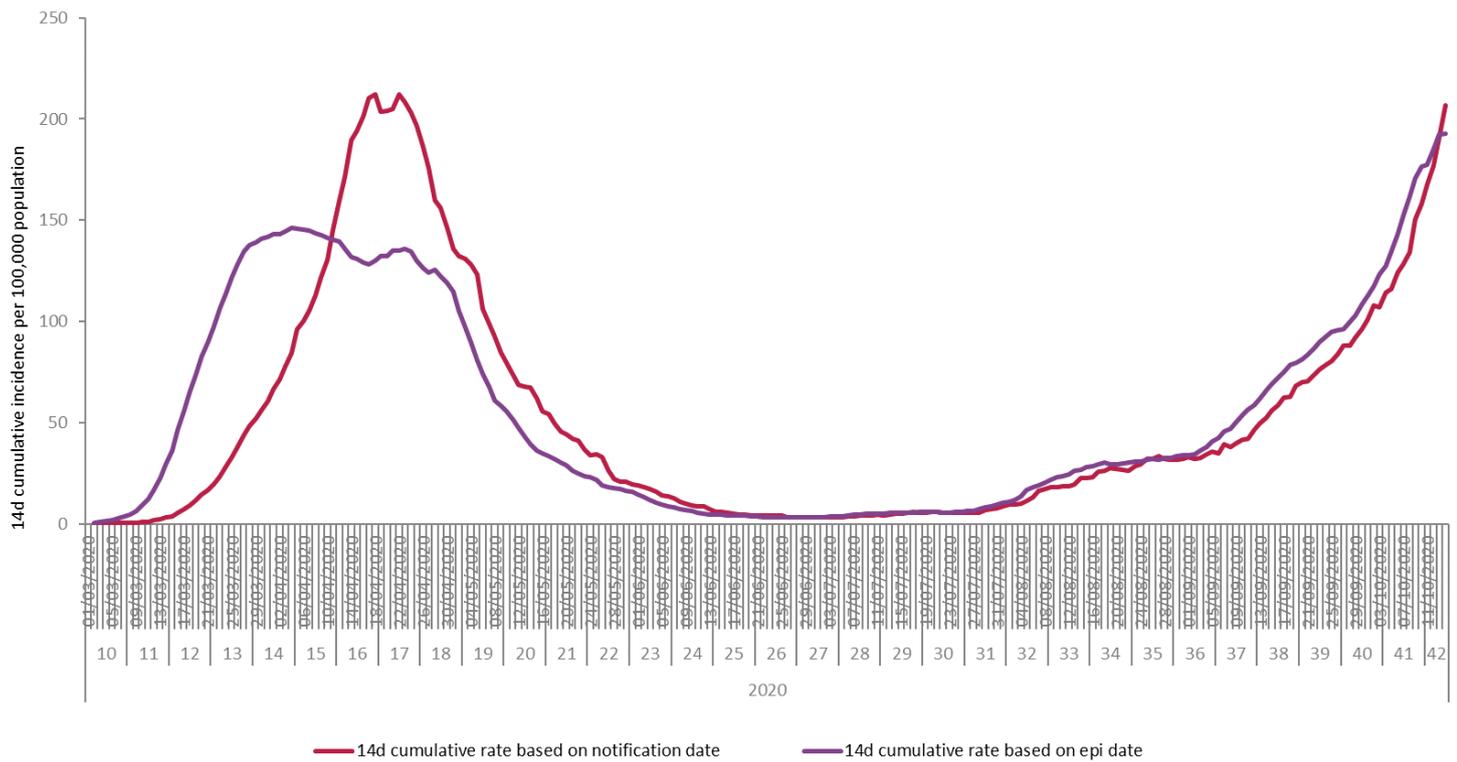


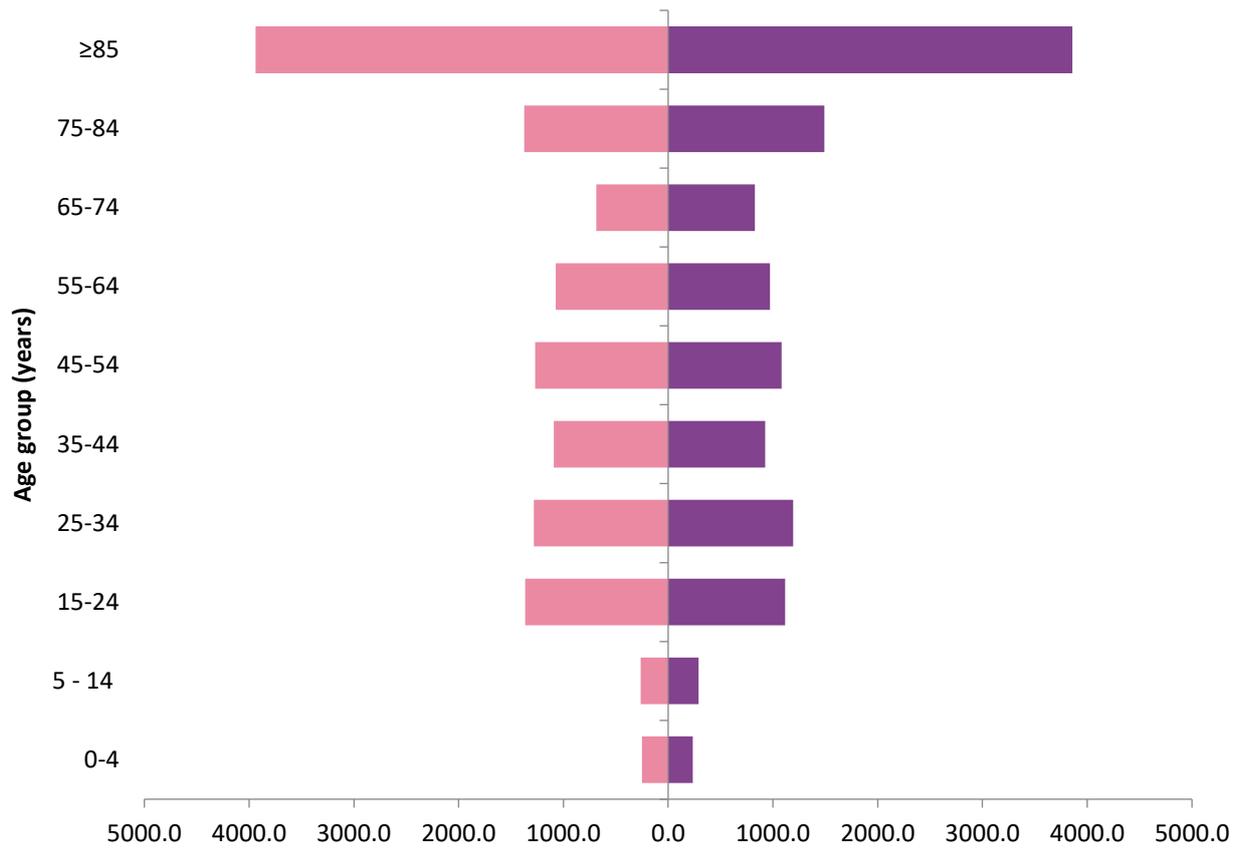
Figure 2: Cumulative 14 day incidence rate of confirmed COVID-19 cases per 100,000 population notified in Ireland by notification* and epidemiological date to midnight 14/10/2020**

* 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 14/10/2020

Characteristic		Number of cases	Percent
Total number of confirmed cases		46,427	100
Sex	Male:Female ratio	0.86	
	Male	21,450	46.2
	Female	24,931	53.7
	Unknown	46	0.1
Age	Median age (years)	41	
	Mean age (years)	44	
	Age range (years)	0 - 106	
	0-4 yrs	809	1.74
	5-14 yrs	1,860	4.01
	15-24 yrs	7,148	15.4
	25-34 yrs	8,184	17.63
	35-44 yrs	7,555	16.27
	45-54 yrs	7,369	15.87
	55-64 yrs	5,204	11.21
	65-74 yrs	2,822	6.08
	75-84 yrs	2,805	6.04
	85+ yrs	2,643	5.69
	Unknown	28	0.06



	0-4	5 - 14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	≥85
Female	251.0	261.1	1365.0	1281.5	1091.6	1269.2	1071.8	686.6	1375.1	3937.7
Male	235.7	288.8	1116.6	1193.8	926.4	1081.2	972.1	826.2	1490.3	3859.2

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 14/10/2020 (excluding 27 cases for whom age is unknown and 45 cases for whom sex is unknown and 1 case for whom both are unknown)

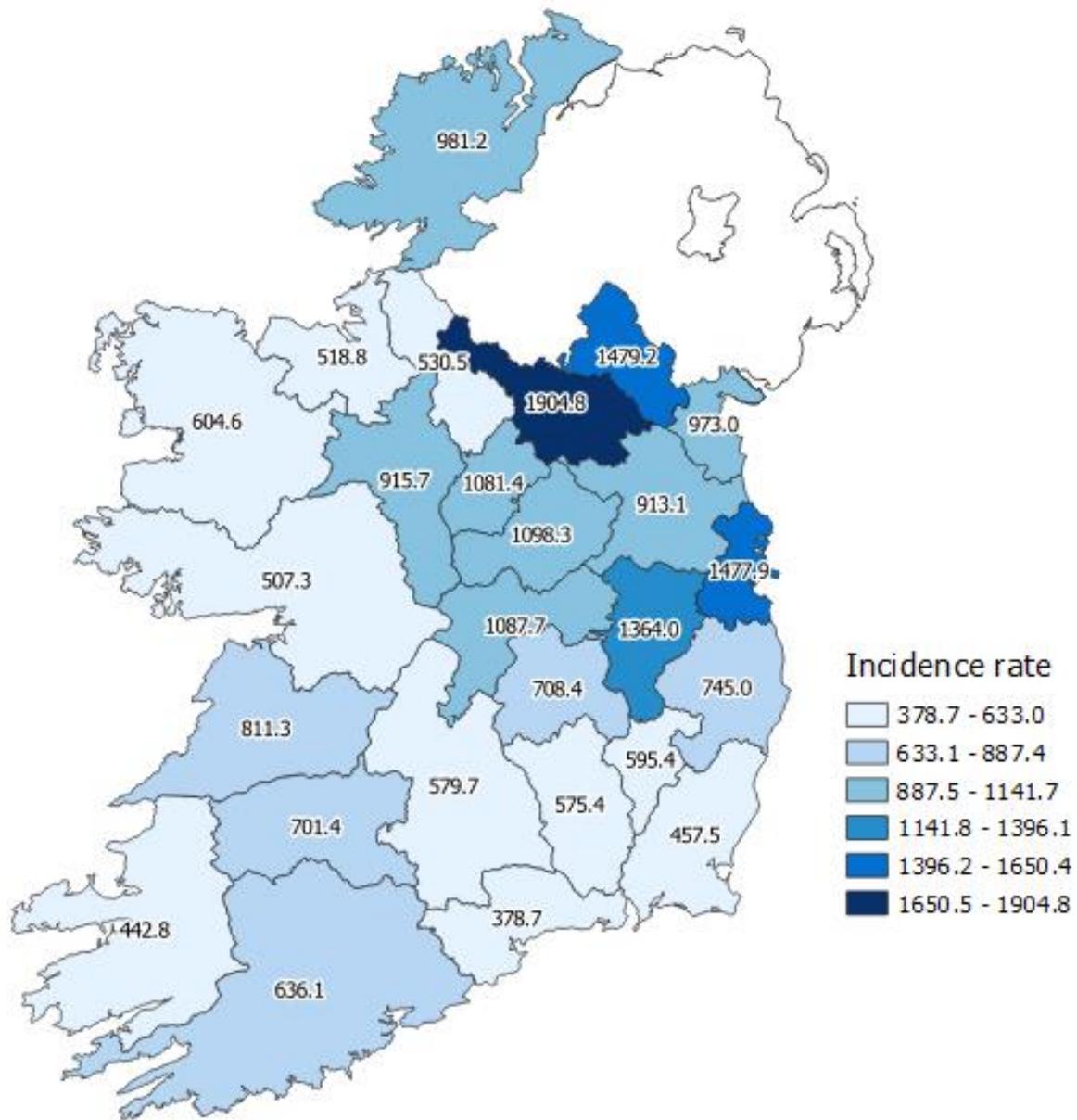


Figure 4: Cumulative incidence rates of confirmed cases of COVID-19 per 100,000 population notified in Ireland to midnight 14/10/2020

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 14/10/2020

County Name	Number of cases	Percent
Carlow	339	0.73
Cavan	1,451	3.13
Clare	964	2.08
Cork	3,453	7.44
Donegal	1,562	3.36
Dublin	19,913	42.89
Galway	1,309	2.82
Kerry	654	1.41
Kildare	3,035	6.54
Kilkenny	571	1.23
Laois	600	1.29
Leitrim	170	0.37
Limerick	1,367	2.94
Longford	442	0.95
Louth	1,254	2.7
Mayo	789	1.7
Meath	1,781	3.84
Monaghan	908	1.96
Offaly	848	1.83
Roscommon	591	1.27
Sligo	340	0.73
Tipperary	925	1.99
Waterford	440	0.95
Westmeath	975	2.1
Wexford	685	1.48
Wicklow	1,061	2.29
Total	46,427	100

Table 3: Number of confirmed COVID-19 cases by WHO transmission classification notified to midnight 14/10/2020

Transmission classification*	Count of Events	%
Community transmission, incl. possible community transmission	12,629	27.20%
Local transmission, incl. possible local transmission	30,432	65.55%
Travel abroad, incl. possible travel abroad	896	1.93%
Unknown	2,470	5.32%
Total	46,427	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 14/10/2020

Age Group (years)	Number of cases (n)	Cases hospitalised (n)	Cases hospitalised (%)	Cases admitted to ICU (n)	Cases admitted to ICU (%)
0-4 yrs	809	41	1.04	1	0.2
5-14 yrs	1860	31	0.79	2	0.39
15-24 yrs	7148	118	3	6	1.18
25-34 yrs	8184	250	6.35	17	3.35
35-44 yrs	7555	315	8	45	8.86
45-54 yrs	7369	518	13.16	97	19.09
55-64 yrs	5204	588	14.94	144	28.35
65-74 yrs	2822	692	17.58	137	26.97
75-84 yrs	2805	851	21.62	53	10.43
85+ yrs	2643	530	13.47	6	1.18
Unknown	28	2	0.05	0	0
Total	46,427	3,936	100	508	100

Table 5: Number and proportion of confirmed cases of COVID-19 notified in Ireland by age-group, hospitalisation and ICU admission 14/10/2020

	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)	809	1,860	7,148	8,184	7,555	7,369	5,204	2,822	2,805	2,643	28
Cases hospitalised (n)	41	31	118	250	315	518	588	692	851	530	2
Cases hospitalised (%)	5.07	1.67	1.65	3.05	4.17	7.03	11.3	24.52	30.34	20.05	7.14
Cases admitted to ICU (n)	1	2	6	17	45	97	144	137	53	6	0
Cases admitted to ICU (%)	0.12	0.11	0.08	0.21	0.6	1.32	2.77	4.85	1.89	0.23	0
Deaths (n)	0	0	1	7	12	29	76	237	544	680	0
Case fatality ratio (%)	0	0	0.01	0.09	0.16	0.39	1.46	8.4	19.39	25.73	0

Outbreaks of COVID-19

Table 6: Number of clusters/outbreaks COVID-19 by location and HSE area notified to midnight 14/10/2020

Outbreak Location	E	HPSC	M	MW	NE	NW	S	SE	W	Total
Private house	2,384		66	149	328	164	282	208	169	3,750
Other*	127	2	65	120	32	60	118	34	67	625
Nursing home	150		14	20	46	7	16	18	36	307
Residential institution	127		12	11	28	5	23	10	5	221
Workplace	65		14	18	31	20	15	14	16	193
Hospital	76		7	5	18	4	15	5	6	136
Comm. Hosp/Long-stay unit	6		4	2		4	7	5	5	33
Total	2,935	2	182	325	483	264	476	294	304	5,265

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

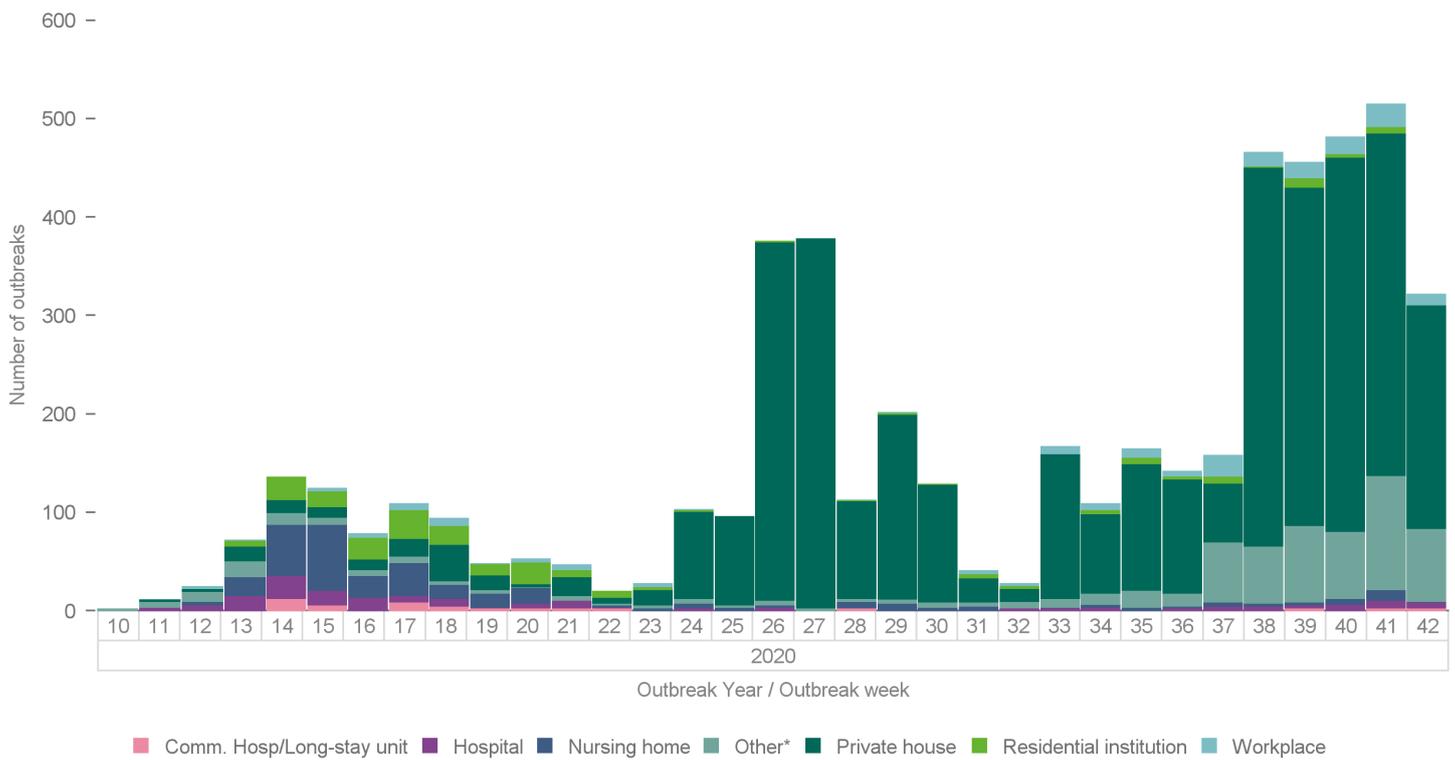


Figure 5: Trend in number of COVID-19 clusters by location and week notified to midnight 14/10/2020

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

Note: 4,526 COVID-19 outbreaks were reported on CIDR between week 24 and week 42 2020 to date (9th June to 14th October). Of these, 3,634 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, 641 in March, 487 in April, 97 in May, 126 in June, 127 in July, 532 in August, 1,391 in September and 232 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 14/10/2020

	Number	Percent
Total number of deaths	1,841	
Confirmed	1,586	86.15
Probable	95	5.16
Possible	160	8.69
Total number of cases hospitalised	790	42.91
Cases admitted to ICU	102	5.54
Cases not admitted to ICU	688	37.37
Total number of imported cases	6	0.33
Number of cases in healthcare workers	8	0.43
Number with underlying clinical conditions	1,736	94.3
Total number of male cases	918	49.86
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 14/10/2020

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	1.68
55-64 yrs	27	55	82	4.45
65-74 yrs	98	165	263	14.29
75-84 yrs	285	340	625	33.95
85+ yrs	491	326	817	44.38
Unknown	<5	<5	2	0.11
Total	923	918	1,841	100
Percent	50.14	49.86		

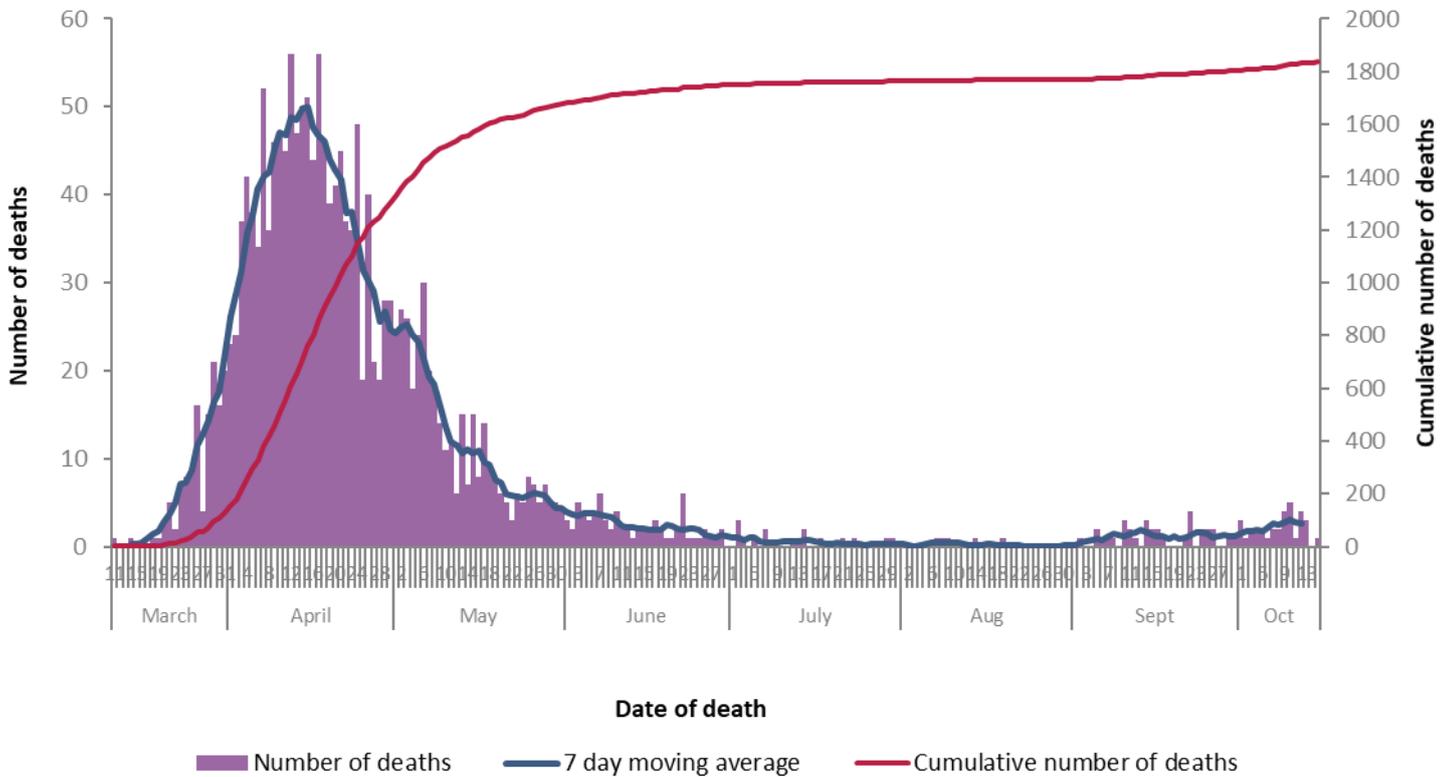


Figure 6a: Daily and 7 day moving average number of deaths among COVID-19 cases notified in Ireland by date of death and cumulative total to midnight 14/10/2020

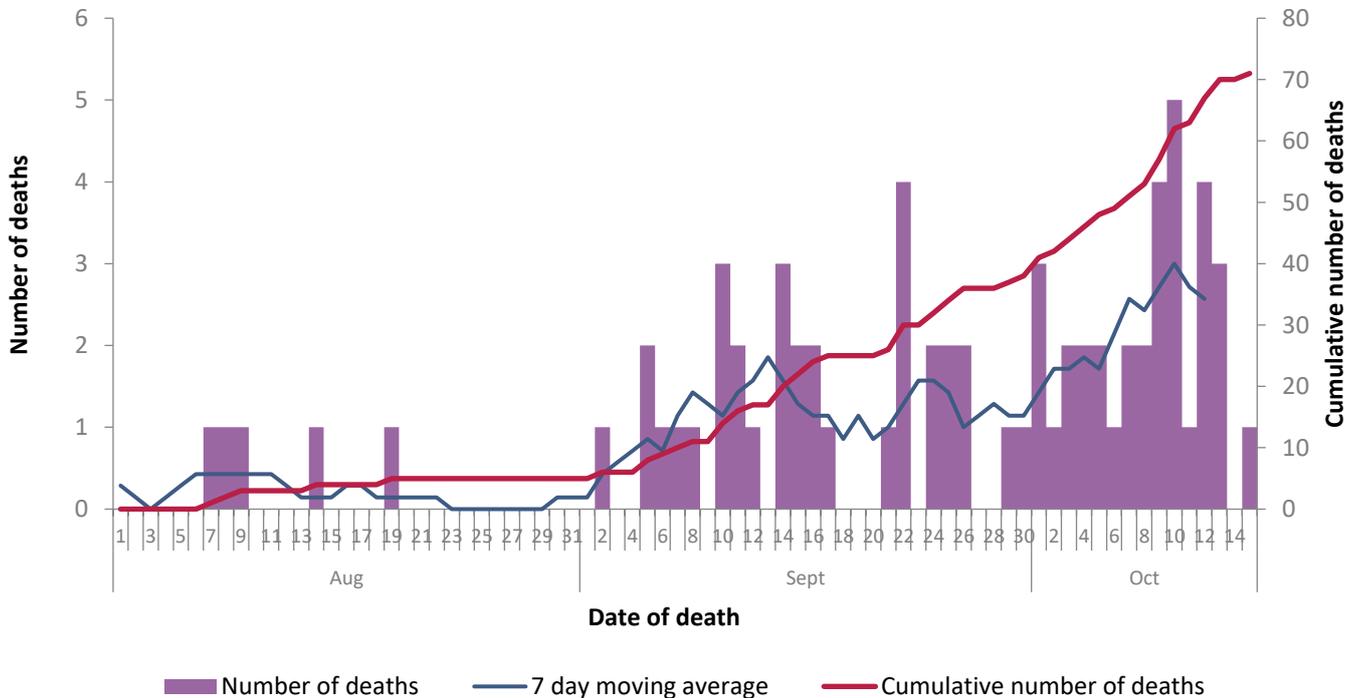


Figure 6b: Daily and 7 day moving average number of deaths among COVID-19 cases notified in Ireland by date of death and cumulative total, 01/08/2020 to midnight 14/10/2020

* 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 16/10/2020. 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 the earliest recorded date for a case, it can be the onset date, date of diagnosis, laboratory specimen collection date, laboratory received date, laboratory reported date, or 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.