



Epidemiology of COVID-19 in Ireland

Report prepared by HPSC on 20/10/2020 for National Public Health Emergency Team

Summary characteristics of confirmed COVID-19 cases notified in Ireland up to midnight 18/10/2020

	Number	Percent
Total number of confirmed cases	50,987	
National cumulative incidence of confirmed cases per 100,000 population	1,070.74	
Total number of cases hospitalised	4,021	7.89
Total number of cases admitted to ICU	517	1.01
Total number of deaths among confirmed cases	1,610	3.16
Case fatality ratio (CFR, %)	3.16	
National cumulative incidence of confirmed deaths per 100,000 population	33.81	
Total number of outbreaks/clusters	5,617	
Total number of cases associated with clusters	25,647	50.3
Total number of imported cases	615	1.21
Number of cases in healthcare workers	9,973	19.56
Males	23,700	46.48
Females	27,240	53.43
M:F ratio	0.87	
Median age (years)	40	
Mean age (years)	43	
Age range (years)	0 - 106	

Note: Data were extracted from Computerised Infectious Disease Reporting (CIDR) system at 14:25 on 20/10/2020 and are provisional and subject to ongoing review, validation and update. As a result, figures in this report may differ from previously published figures.

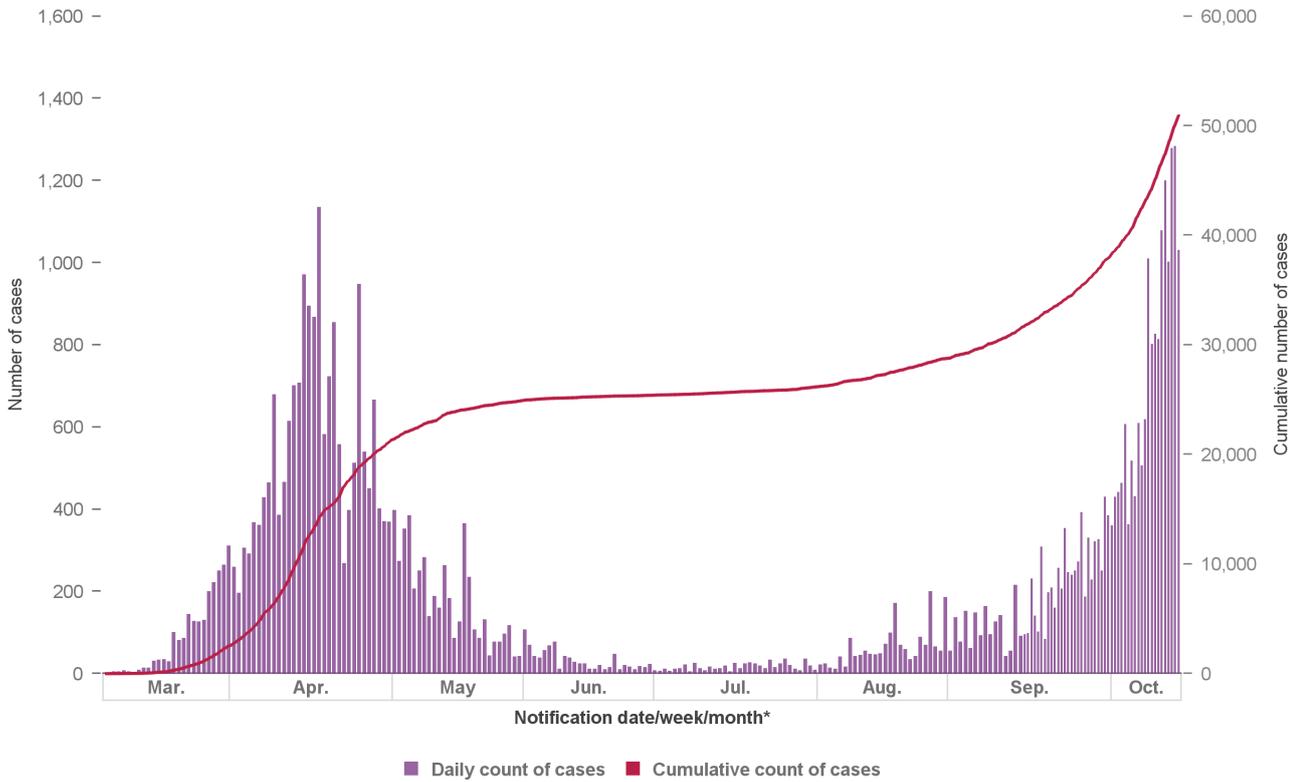


Figure 1a: Number* and cumulative number of confirmed COVID-19 cases notified in Ireland by notification date* to midnight 18/10/2020

*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

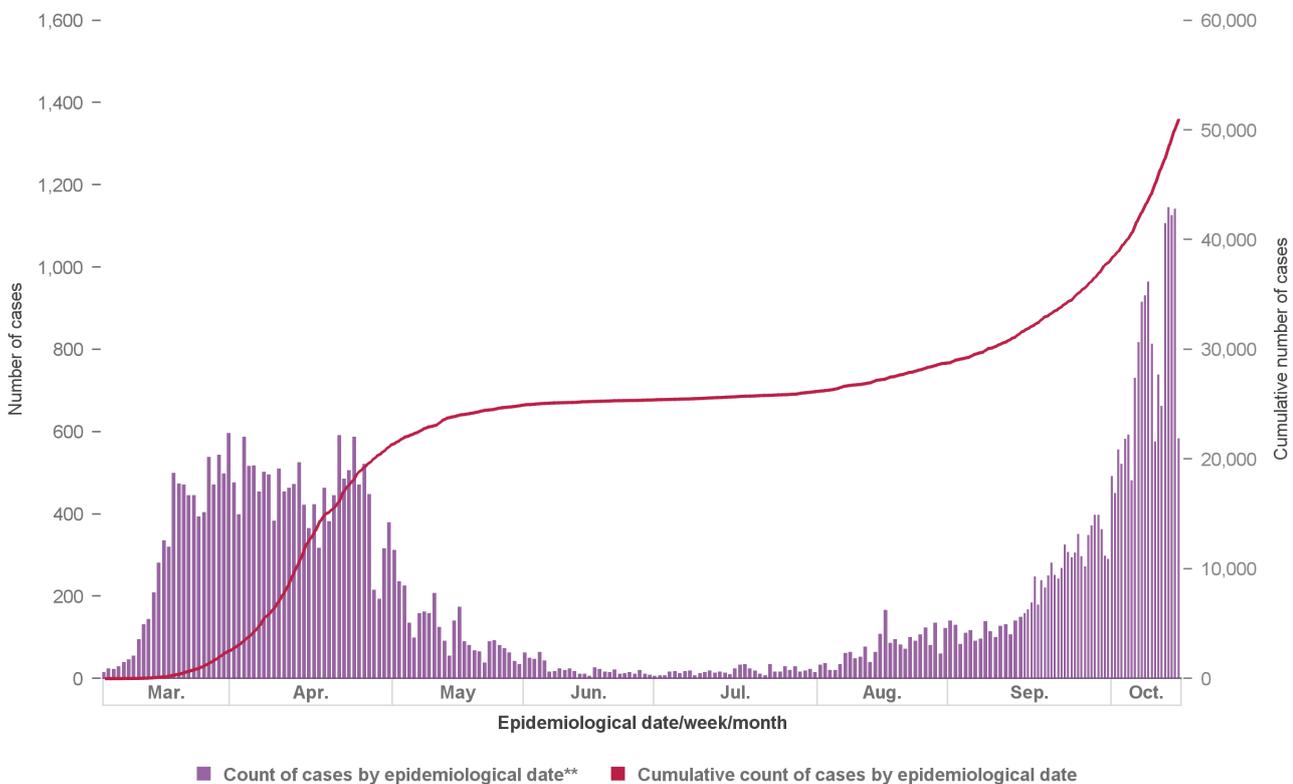


Figure 1b: Number and cumulative number of confirmed COVID-19 cases notified in Ireland by epidemiological date to midnight 18/10/2020**

**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.

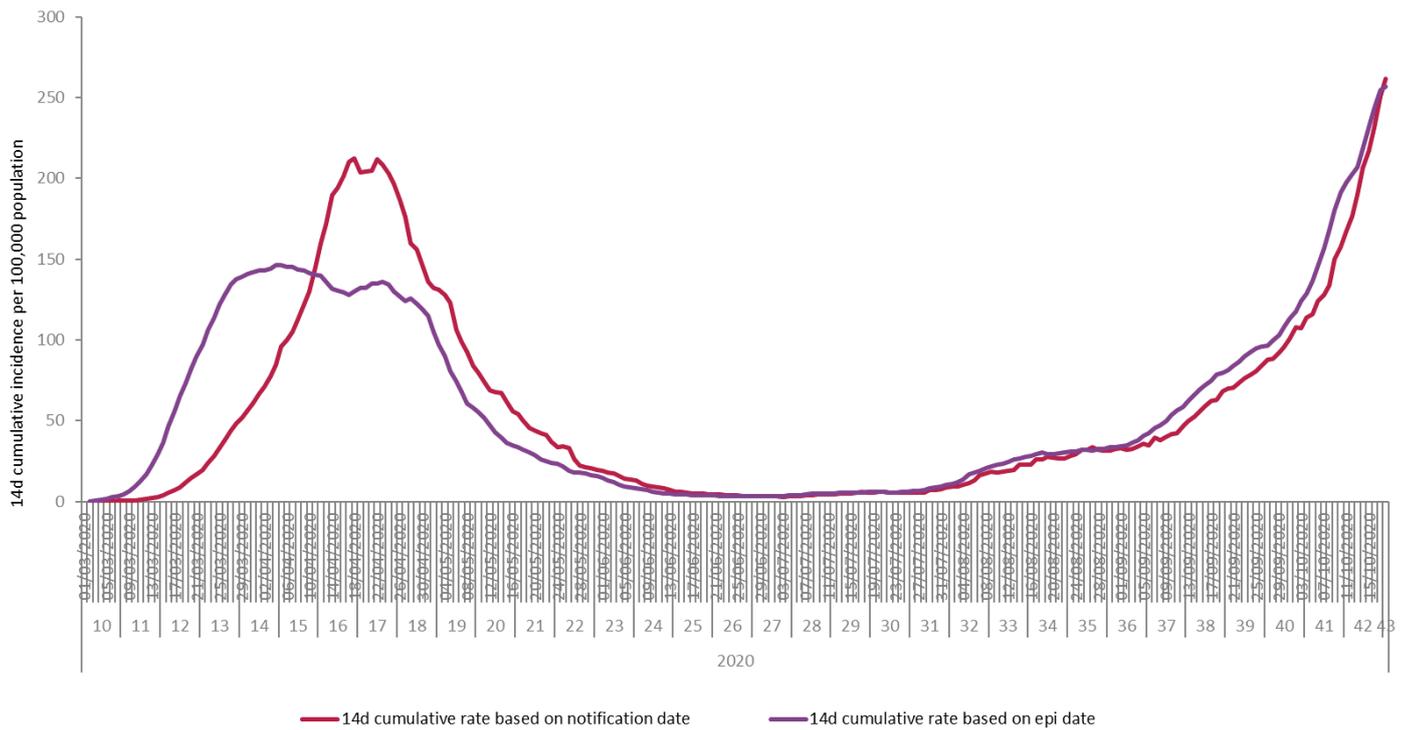


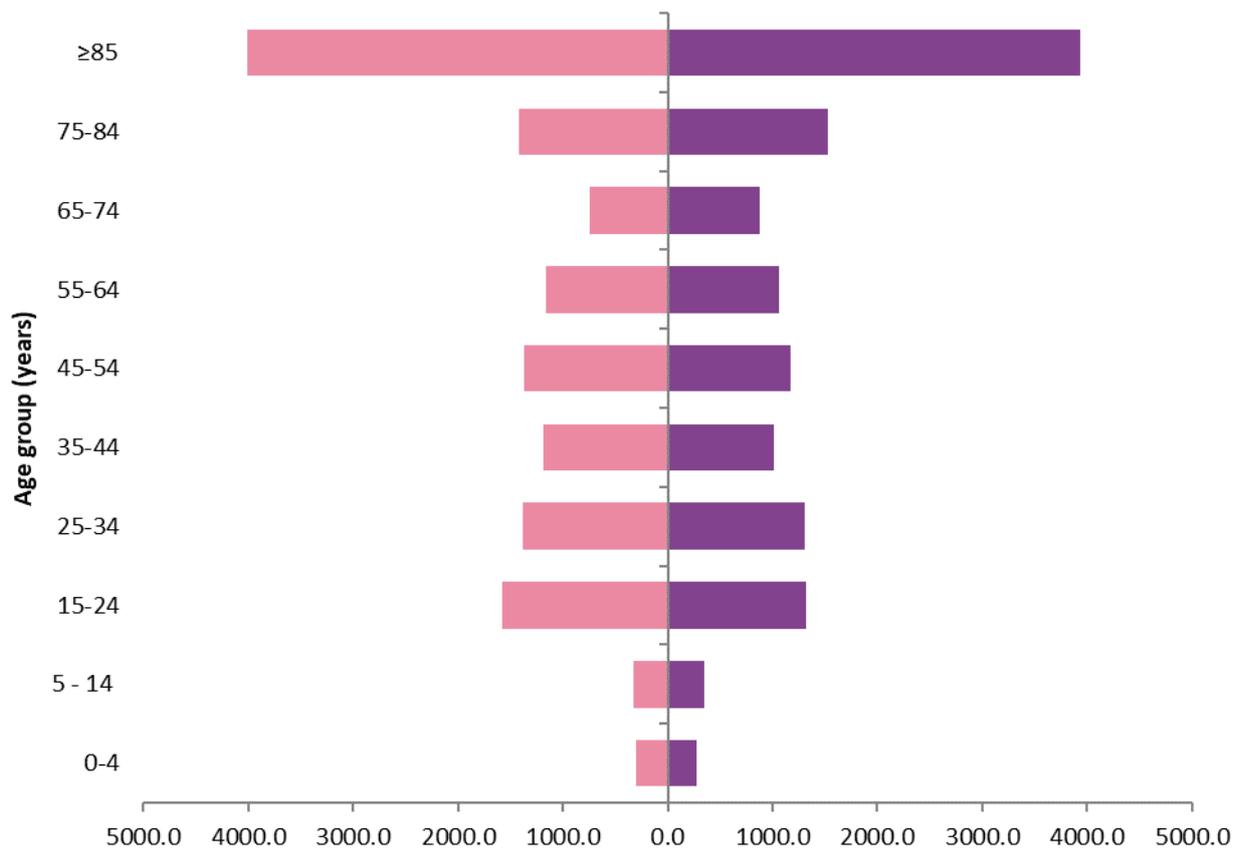
Figure 2: Cumulative 14 day incidence rate of confirmed COVID-19 cases per 100,000 population notified in Ireland by notification* and epidemiological date to midnight 18/10/2020**

* 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

**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.

Table 1: Characteristics of confirmed COVID-19 cases notified in Ireland up to midnight on 18/10/2020

Characteristic		Number of cases	Percent
Total number of confirmed cases		50,987	100
Sex	Male:Female ratio	0.87	
	Male	23,700	46.48
	Female	27,240	53.43
	Unknown	47	0.09
Age	Median age (years)	40	
	Mean age (years)	43	
	Age range (years)	0 - 106	
	0-4 yrs	962	1.89
	5-14 yrs	2,294	4.5
	15-24 yrs	8,349	16.37
	25-34 yrs	8,910	17.48
	35-44 yrs	8,212	16.11
	45-54 yrs	7,959	15.61
	55-64 yrs	5,669	11.12
	65-74 yrs	3,020	5.92
	75-84 yrs	2,890	5.67
	85+ yrs	2,694	5.28
	Unknown	28	0.05



	0-4	5 - 14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	≥85
Female	297.3	325.3	1573.5	1387.9	1182.8	1364.7	1164.6	739.0	1421.8	4011.9
Male	281.6	353.2	1324.8	1307.8	1011.1	1173.8	1061.9	879.9	1529.5	3937.2

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 18/10/2020 (excluding 27 cases for whom age is unknown and 46 cases for whom sex is unknown and 1 case for whom both are unknown)

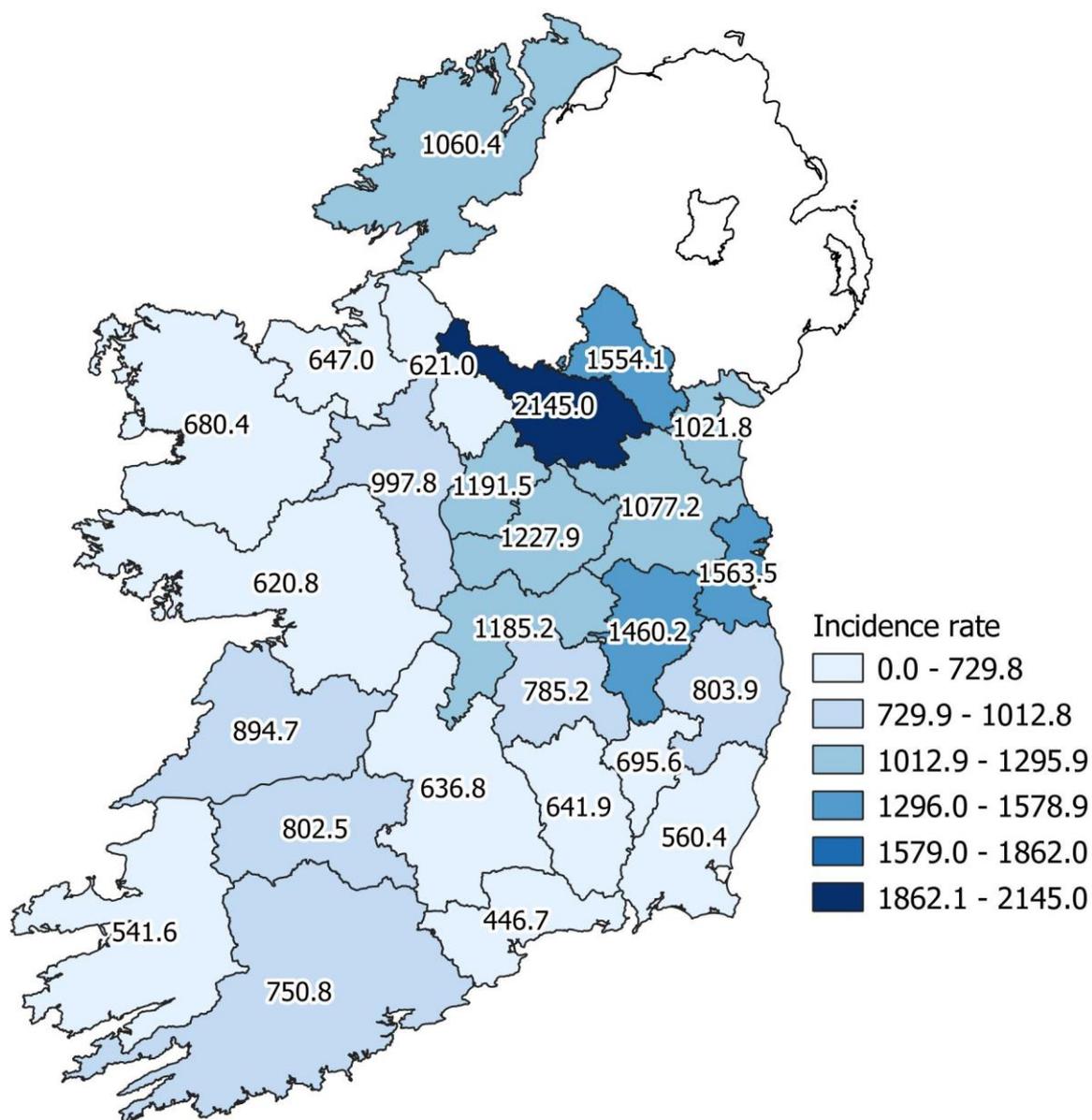


Figure 4: Cumulative incidence rates of confirmed cases of COVID-19 per 100,000 population notified in Ireland to midnight 18/10/2020

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 18/10/2020

County Name	Number of cases	Percent
Carlow	396	0.78
Cavan	1,634	3.2
Clare	1,063	2.08
Cork	4,076	7.99
Donegal	1,688	3.31
Dublin	21,066	41.32
Galway	1,602	3.14
Kerry	800	1.57
Kildare	3,249	6.37
Kilkenny	637	1.25
Laois	665	1.3
Leitrim	199	0.39
Limerick	1,564	3.07
Longford	487	0.96
Louth	1,317	2.58
Mayo	888	1.74
Meath	2,101	4.12
Monaghan	954	1.87
Offaly	924	1.81
Roscommon	644	1.26
Sligo	424	0.83
Tipperary	1,016	1.99
Waterford	519	1.02
Westmeath	1,090	2.14
Wexford	839	1.65
Wicklow	1,145	2.25
Total	50,987	100

Table 3: Number of confirmed COVID-19 cases by WHO transmission classification notified to midnight 18/10/2020

Transmission classification*	Count of Events	%
Community transmission, incl. possible community transmission	14,101	27.66%
Local transmission, incl. possible local transmission	32,208	63.17%
Travel abroad, incl. possible travel abroad	902	1.77%
Unknown	3,776	7.41%
Total	50,987	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 18/10/2020

Age Group (years)	Number of cases (n)	Cases hospitalised (n)	Cases hospitalised (%)	Cases admitted to ICU (n)	Cases admitted to ICU (%)
0-4 yrs	962	41	1.02	1	0.19
5-14 yrs	2294	34	0.85	4	0.77
15-24 yrs	8349	121	3.01	6	1.16
25-34 yrs	8910	257	6.39	17	3.29
35-44 yrs	8212	324	8.06	45	8.7
45-54 yrs	7959	525	13.06	98	18.96
55-64 yrs	5669	599	14.9	144	27.85
65-74 yrs	3020	711	17.68	140	27.08
75-84 yrs	2890	865	21.51	56	10.83
85+ yrs	2694	542	13.48	6	1.16
Unknown	28	2	0.05	0	0
Total	50,987	4,021	100	517	100

Table 5: Number and proportion of confirmed cases of COVID-19 notified in Ireland by age-group, hospitalisation and ICU admission 18/10/2020

	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)	962	2,294	8,349	8,910	8,212	7,959	5,669	3,020	2,890	2,694	28
Cases hospitalised (n)	41	34	121	257	324	525	599	711	865	542	2
Cases hospitalised (%)	4.26	1.48	1.45	2.88	3.95	6.6	10.57	23.54	29.93	20.12	7.14
Cases admitted to ICU (n)	1	4	6	17	45	98	144	140	56	6	0
Cases admitted to ICU (%)	0.1	0.17	0.07	0.19	0.55	1.23	2.54	4.64	1.94	0.22	0
Deaths (n)	0	0	1	7	12	29	76	241	555	689	0
Case fatality ratio (%)	0	0	0.01	0.08	0.15	0.36	1.34	7.98	19.2	25.58	0

Outbreaks of COVID-19

Table 6: Number of clusters/outbreaks COVID-19 by location and HSE area notified to midnight 18/10/2020

Outbreak Location	E	HPSC	M	MW	NE	NW	S	SE	W	Total
Private house	2,480		66	154	337	181	344	208	231	4,001
Other*	140	2	82	125	34	70	133	36	79	701
Nursing home	153		14	20	46	8	16	18	39	314
Residential institution	128		12	13	29	6	25	11	6	230
Workplace	70		14	19	31	20	17	15	16	202
Hospital	75		7	5	18	4	15	5	6	135
Comm. Hosp/Long-stay unit	6		4	2		4	7	5	5	33
Unknown						1				1
Total	3,052	2	199	338	495	294	557	298	382	5,617

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

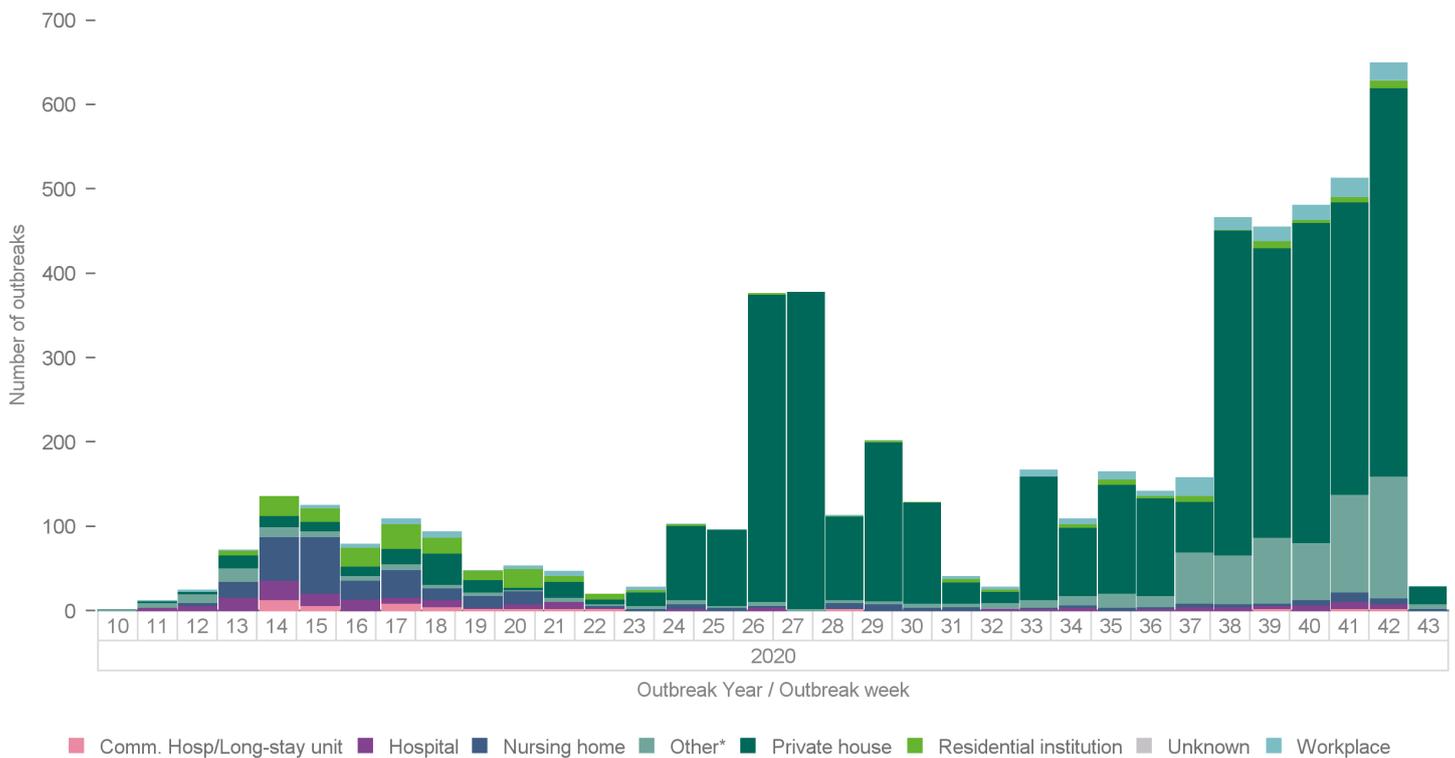


Figure 5: Trend in number of COVID-19 clusters by location and week notified to midnight 18/10/2020

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

Note: 4,781 COVID-19 outbreaks were reported on CIDR between week 24 and week 43 2020 to date (9th June to 18th October). Of these, 3,831 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 43 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, 532 in August, 1,431 in September and 410 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 18/10/2020

	Number	Percent
Total number of deaths	1,866	
Confirmed	1,610	86.28
Probable	95	5.09
Possible	161	8.63
Total number of cases hospitalised	806	43.19
Cases admitted to ICU	104	5.57
Cases not admitted to ICU	702	37.62
Total number of imported cases	6	0.32
Number of cases in healthcare workers	8	0.43
Number with underlying clinical conditions	1,755	94.05
Total number of male cases	931	49.89
M:F ratio	1	
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 18/10/2020

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	0.7
45-54 yrs	11	20	31	1.66
55-64 yrs	27	55	82	4.39
65-74 yrs	99	168	267	14.31
75-84 yrs	291	345	636	34.08
85+ yrs	496	331	827	44.32
Unknown	<5	<5	2	0.11
Total	935	931	1,866	100
Percent	50.11	49.89		

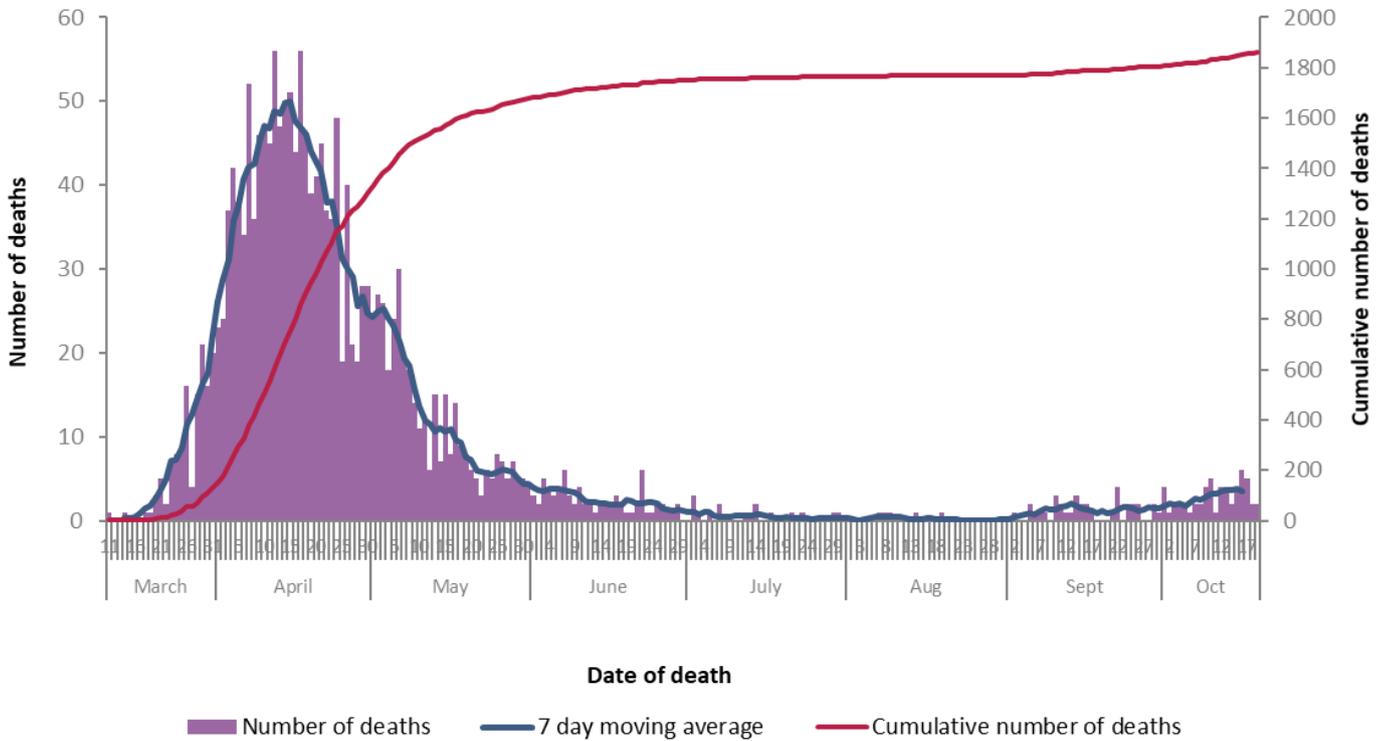


Figure 6a: Daily and 7 day moving average number of deaths among COVID-19 cases notified in Ireland by date of death and cumulative total to midnight 18/10/2020

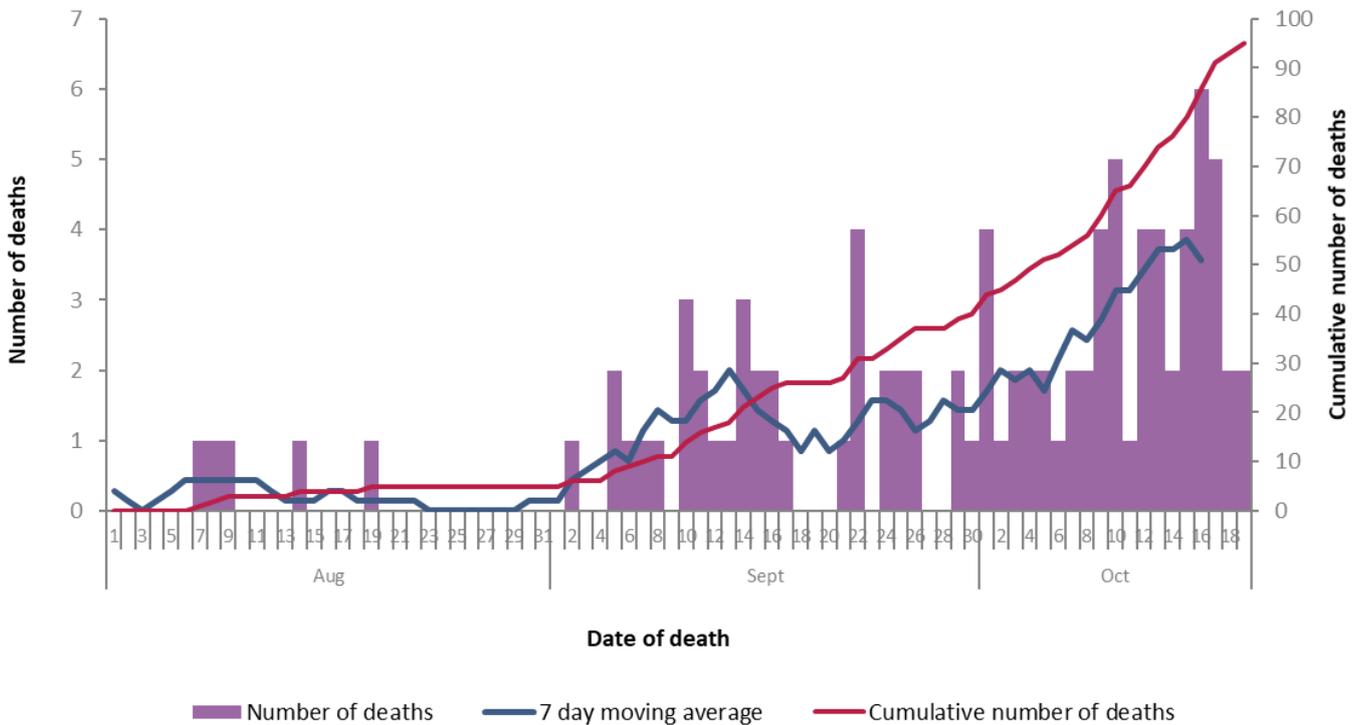


Figure 6b: Daily and 7 day moving average number of deaths among COVID-19 cases notified in Ireland by date of death and cumulative total, 01/08/2020 to midnight 18/10/2020

* 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 14:25 on 20/10/2020. 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 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.