



Epidemiology of COVID-19 in Ireland

Report prepared by HPSC on 29/10/2020 for National Public Health Emergency Team

Summary characteristics of confirmed COVID-19 cases notified in Ireland up to midnight 27/10/2020

	Number	Percent
Total number of confirmed cases	59,431	
National cumulative incidence of confirmed cases per 100,000 population	1,248.06	
Total number of cases hospitalised	4,302	7.24
Total number of cases admitted to ICU	539	0.91
Total number of deaths among confirmed cases	1,642	2.76
Case fatality ratio (CFR, %)	2.76	
National cumulative incidence of confirmed deaths per 100,000 population	34.48	
Total number of outbreaks/clusters	6,372	
Total number of cases associated with clusters	28,514	47.98
Total number of imported cases*	623	1.05
Number of cases in healthcare workers*	10,405	17.51
Males	27,830	46.83
Females	31,568	53.12
M:F ratio	0.88	
Median age (years)	40	
Mean age (years)	42	
Age range (years)	0 - 106	

* Data is incomplete for these variables

Note: Data were extracted from Computerised Infectious Disease Reporting (CIDR) system at 09:15 on 29/10/2020 and are provisional and subject to ongoing review, validation and update. As a result, figures in this report may differ from previously published figures.

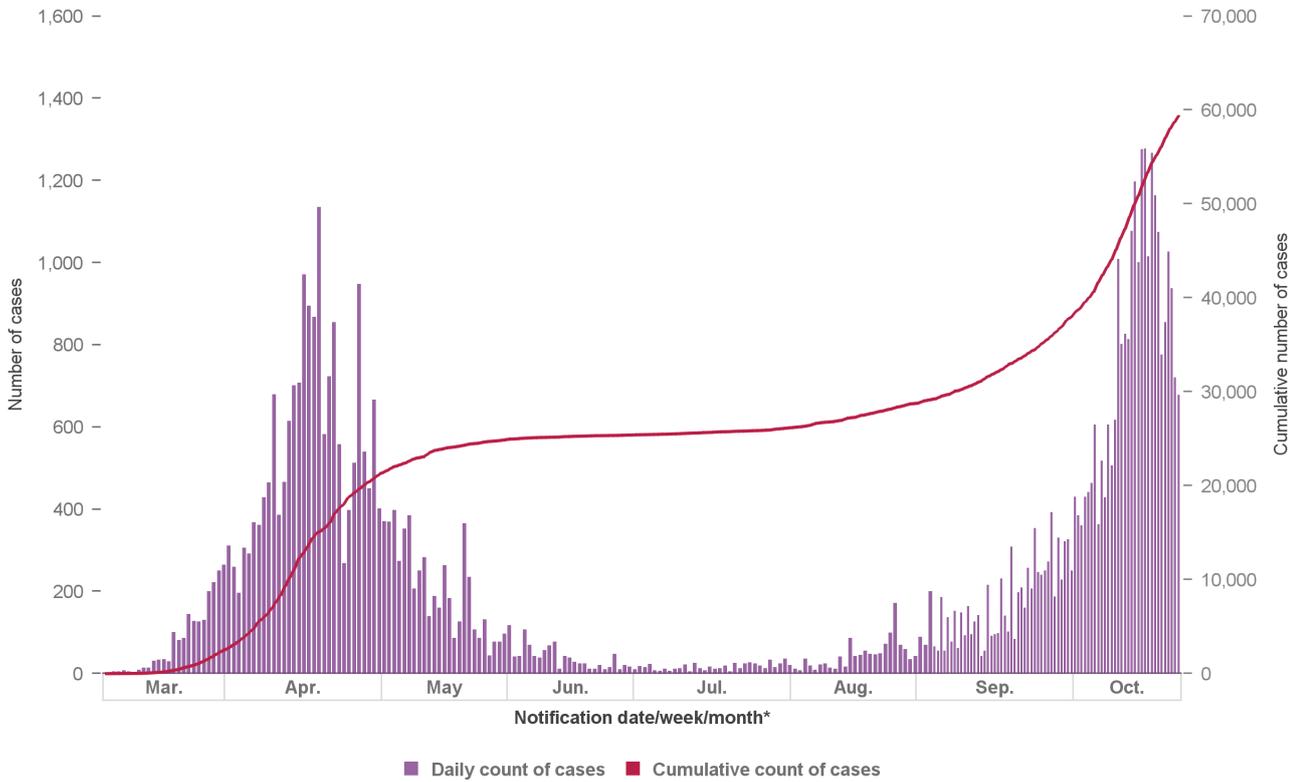


Figure 1a: Number* and cumulative number of confirmed COVID-19 cases notified in Ireland by notification date* to midnight 27/10/2020

*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

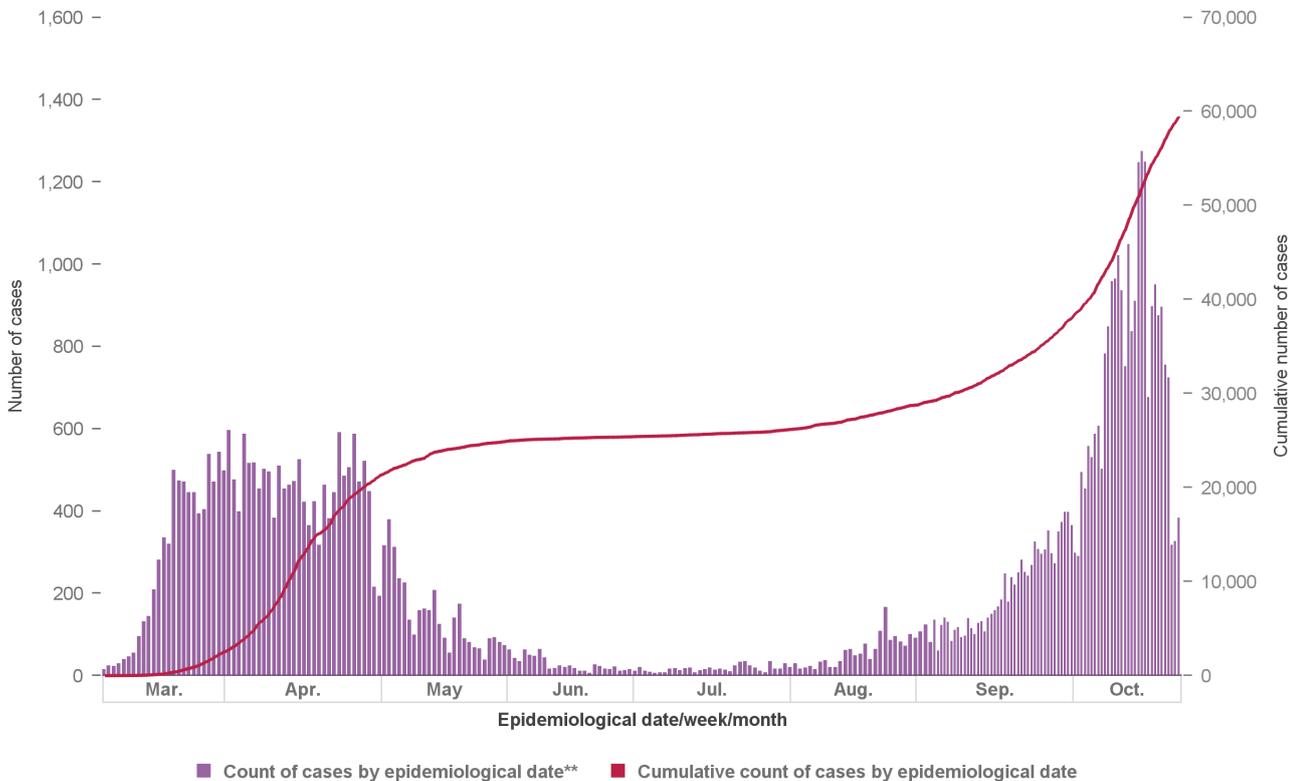


Figure 1b: Number and cumulative number of confirmed COVID-19 cases notified in Ireland by epidemiological date to midnight 27/10/2020**

**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.

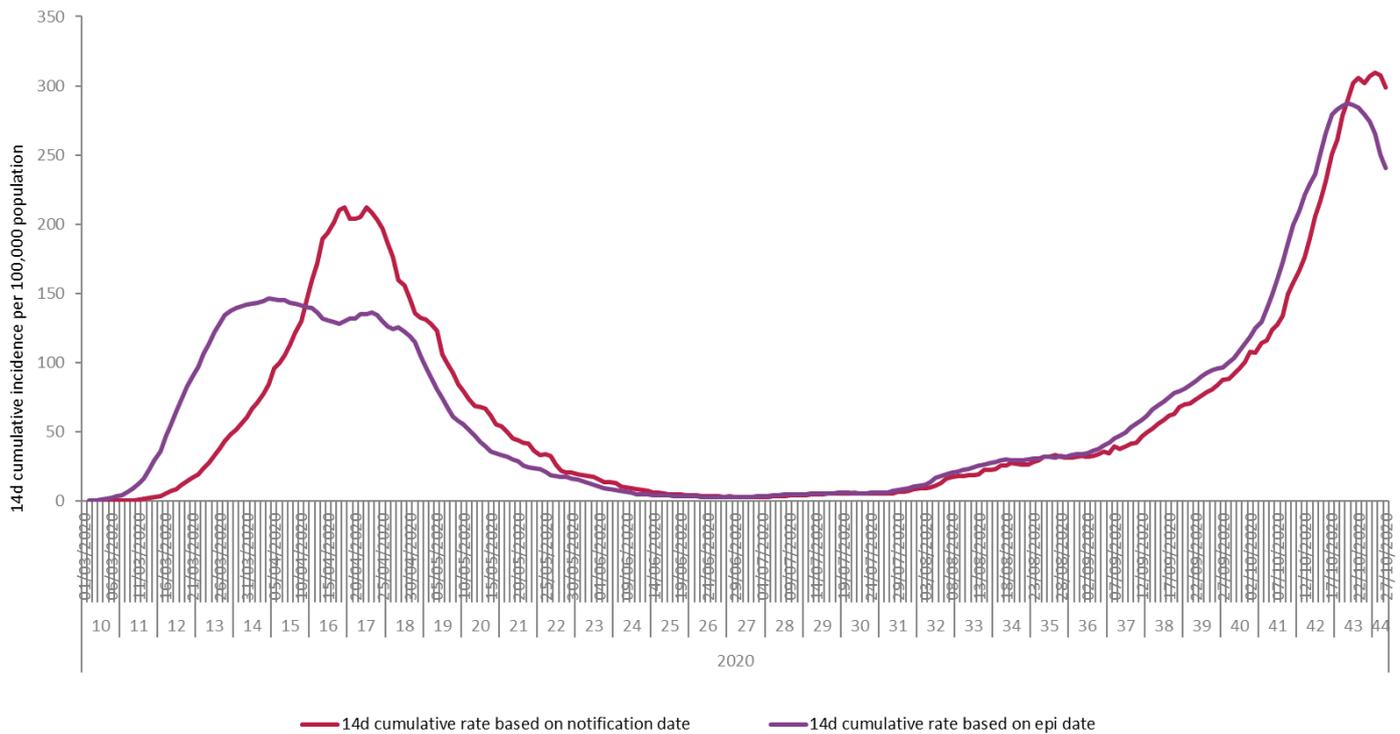


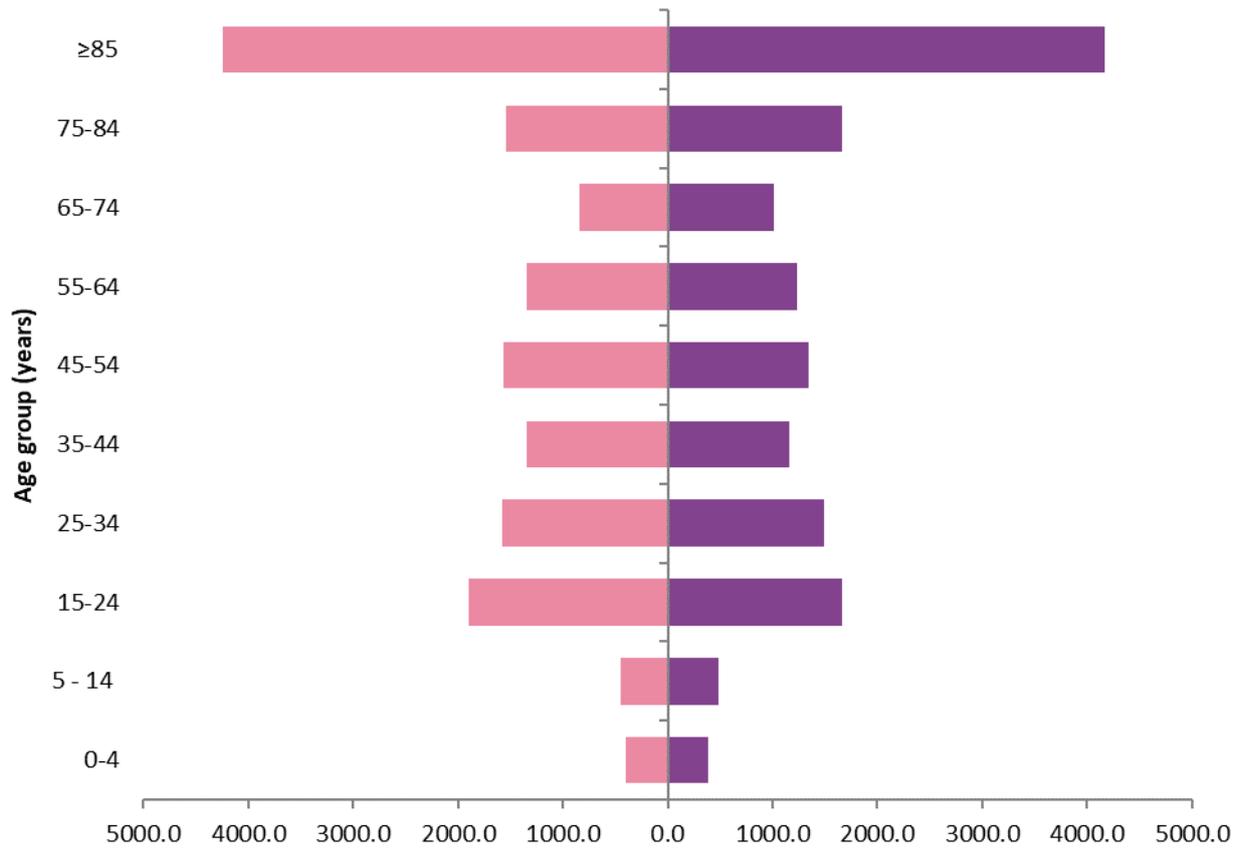
Figure 2: Cumulative 14 day incidence rate of confirmed COVID-19 cases per 100,000 population notified in Ireland by notification* and epidemiological date to midnight 27/10/2020**

* 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 27/10/2020

Characteristic		Number of cases	Percent
Total number of confirmed cases		59,431	100
Sex	Male:Female ratio	0.88	
	Male	27,830	46.83
	Female	31,568	53.12
	Unknown	33	0.06
Age	Median age (years)	40	
	Mean age (years)	42	
	Age range (years)	0 - 106	
	0-4 yrs	1,317	2.22
	5-14 yrs	3,153	5.31
	15-24 yrs	10,284	17.3
	25-34 yrs	10,142	17.07
	35-44 yrs	9,353	15.74
	45-54 yrs	9,117	15.34
	55-64 yrs	6,580	11.07
	65-74 yrs	3,460	5.82
	75-84 yrs	3,146	5.29
	85+ yrs	2,850	4.8
	Unknown	29	0.05



	0-4	5 - 14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	≥85
Female	405.5	452.5	1902.7	1580.6	1345.0	1562.8	1345.5	846.9	1545.8	4238.9
Male	388.3	479.9	1667.7	1490.3	1154.9	1346.8	1238.5	1007.8	1667.2	4175.7

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 27/10/2020 (excluding 28 cases for whom age is unknown and 32 cases for whom sex is unknown and 1 case for whom both are unknown)

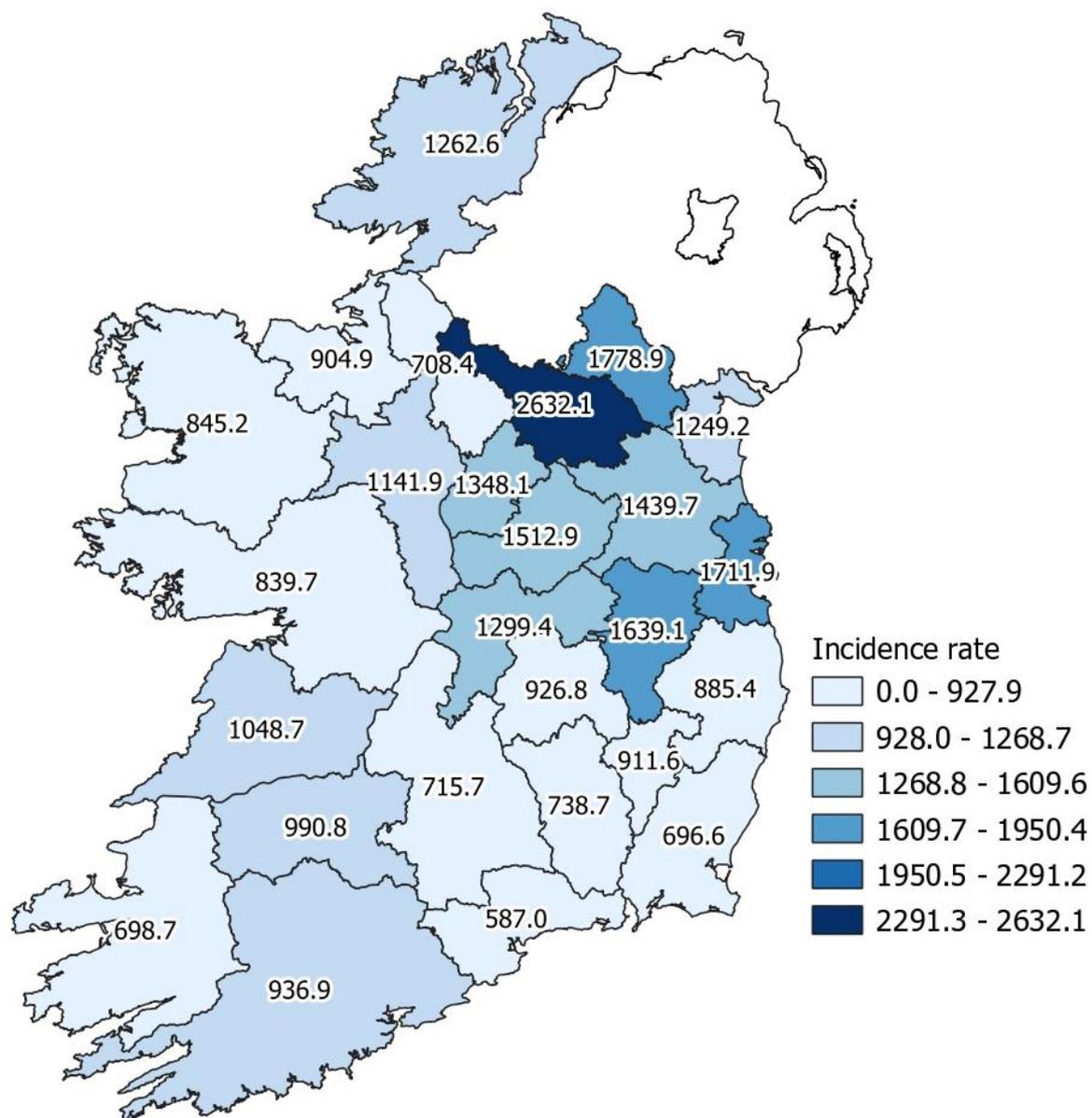


Figure 4: Cumulative incidence rates of confirmed cases of COVID-19 per 100,000 population notified in Ireland to midnight 27/10/2020

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 27/10/2020

County Name	Number of cases	Percent
Carlow	519	0.87
Cavan	2,005	3.37
Clare	1,246	2.1
Cork	5,086	8.56
Donegal	2,010	3.38
Dublin	23,065	38.81
Galway	2,167	3.65
Kerry	1,032	1.74
Kildare	3,647	6.14
Kilkenny	733	1.23
Laois	785	1.32
Leitrim	227	0.38
Limerick	1,931	3.25
Longford	551	0.93
Louth	1,610	2.71
Mayo	1,103	1.86
Meath	2,808	4.72
Monaghan	1,092	1.84
Offaly	1,013	1.7
Roscommon	737	1.24
Sligo	593	1
Tipperary	1,142	1.92
Waterford	682	1.15
Westmeath	1,343	2.26
Wexford	1,043	1.75
Wicklow	1,261	2.12
Total	59,431	100

Table 3: Number of confirmed COVID-19 cases by WHO transmission classification notified to midnight 27/10/2020

Transmission classification*	Count of Events	%
Community transmission, incl. possible community transmission	17,475	29.40%
Local transmission, incl. possible local transmission	36,143	60.82%
Travel abroad, incl. possible travel abroad	919	1.55%
Unknown	4,894	8.23%
Total	59,431	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 27/10/2020

Age Group (years)	Number of cases (n)	Cases hospitalised (n)	Cases hospitalised (%)	Cases admitted to ICU (n)	Cases admitted to ICU (%)
0-4 yrs	1317	44	1.02	1	0.19
5-14 yrs	3153	39	0.91	4	0.74
15-24 yrs	10284	128	2.98	6	1.11
25-34 yrs	10142	268	6.23	17	3.15
35-44 yrs	9353	347	8.07	46	8.53
45-54 yrs	9117	561	13.04	100	18.55
55-64 yrs	6580	643	14.95	148	27.46
65-74 yrs	3460	765	17.78	150	27.83
75-84 yrs	3146	928	21.57	60	11.13
85+ yrs	2850	577	13.41	7	1.3
Unknown	29	2	0.05	0	0
Total	59,431	4,302	100	539	100

Table 5: Number and proportion of confirmed cases of COVID-19 notified in Ireland by age-group, hospitalisation and ICU admission 27/10/2020

	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)	1,317	3,153	10,284	10,142	9,353	9,117	6,580	3,460	3,146	2,850	29
Cases hospitalised (n)	44	39	128	268	347	561	643	765	928	577	2
Cases hospitalised (%)	3.34	1.24	1.24	2.64	3.71	6.15	9.77	22.11	29.50	20.25	6.90
Cases admitted to ICU (n)	1	4	6	17	46	100	148	150	60	7	0
Cases admitted to ICU (%)	0.08	0.13	0.06	0.17	0.49	1.10	2.25	4.34	1.91	0.25	0
Deaths (n)	0	0	1	7	12	29	78	246	563	706	0
Case fatality ratio (%)	0	0	0.01	0.07	0.13	0.32	1.19	7.11	17.90	24.77	0

Outbreaks of COVID-19

Table 6: Number of clusters/outbreaks COVID-19 by location and HSE area notified to midnight 27/10/2020

Outbreak Location	E	M	MW	NE	NW	S	SE	W	HPSC	Total
Private house	2,764	66	155	337	228	348	314	387		4,599
Other*	177	55	134	48	77	155	47	92	2	787
Nursing home	161	15	20	49	8	19	19	43		334
Residential institution	135	14	13	32	8	26	12	8		248
Workplace	76	15	19	39	26	18	17	18		228
Hospital	78	7	6	19	4	16	5	7		142
Comm. Hosp/Long-stay unit	6	4	2		4	7	5	5		33
Unknown					1					1
Total	3,397	176	349	524	356	589	419	560	2	6,372

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

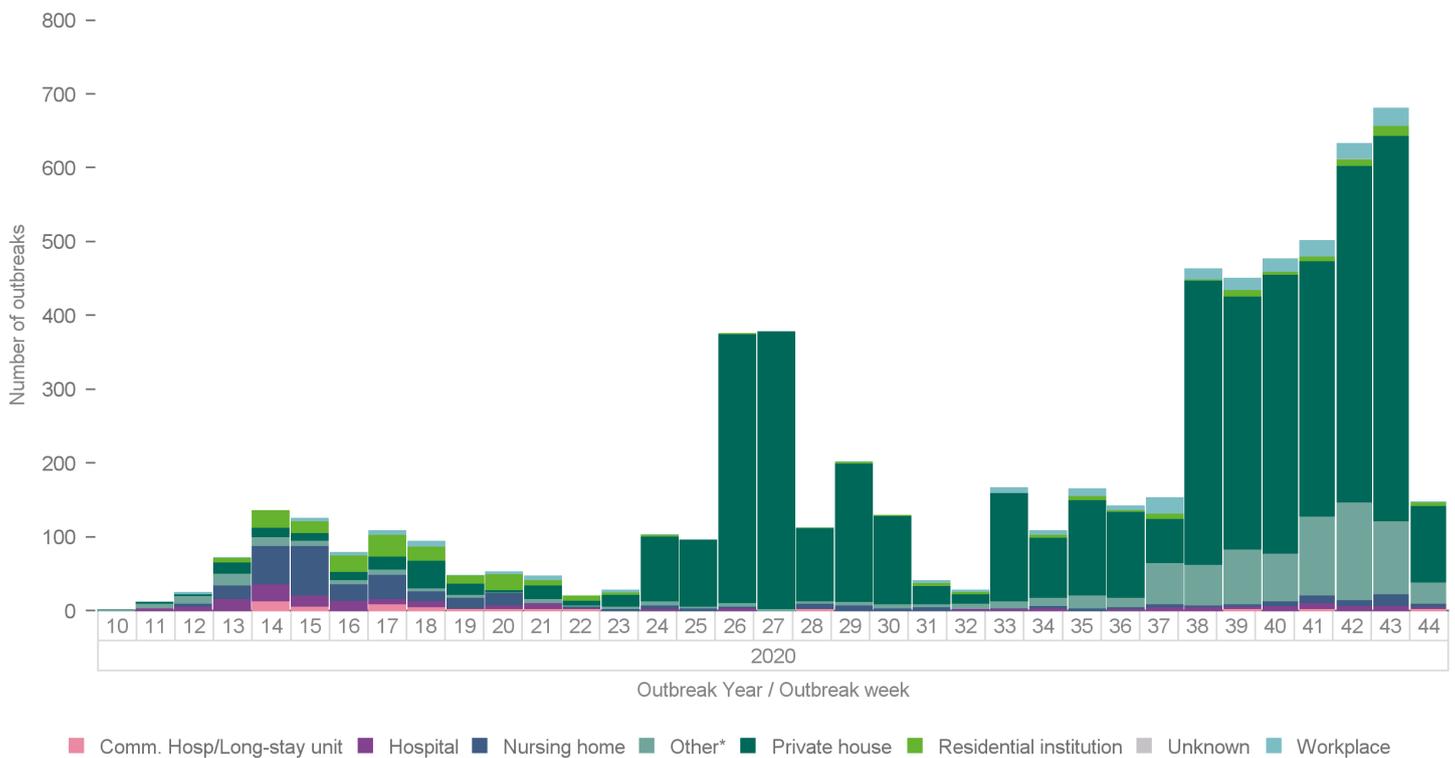


Figure 5: Trend in number of COVID-19 clusters by location and week notified to midnight 27/10/2020

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

Note: 5,536 COVID-19 outbreaks were reported on CIDR between week 24 and week 44 2020 to date (9th June to 27th October). Of these, 4,377 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 44 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, 1,488 in September and 898 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 27/10/2020

	Number	Percent
Total number of deaths	1,901	
Confirmed	1,642	86.38
Probable	95	5
Possible	164	8.63
Total number of cases hospitalised	825	43.4
Cases admitted to ICU	107	5.63
Cases not admitted to ICU	718	37.77
Total number of imported cases	7	0.37
Number of cases in healthcare workers	8	0.42
Number with underlying clinical conditions	1,780	93.63
Total number of male cases	952	50.08
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 27/10/2020

Age group (years)	Female	Male	Total	Percent
15-24 yrs	<5	<5	1	0.05
25-34 yrs	<5	5	7	0.37
35-44 yrs	6	7	13	0.68
45-54 yrs	11	20	31	1.63
55-64 yrs	27	57	84	4.42
65-74 yrs	101	173	274	14.41
75-84 yrs	294	351	645	33.93
85+ yrs	505	339	844	44.4
Unknown	<5	<5	2	0.11
Total	949	952	1,901	100
Percent	49.92	50.08		

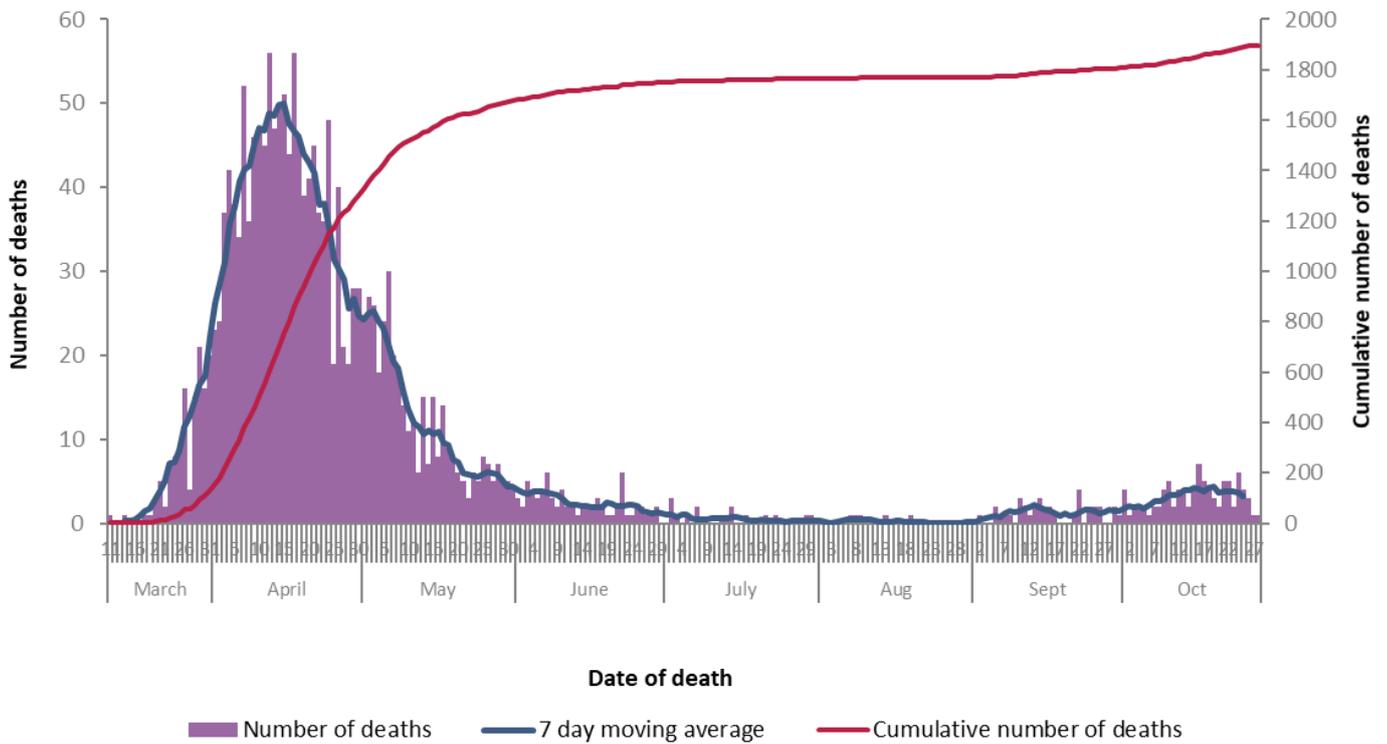


Figure 6a: Daily and 7 day moving average number of deaths among COVID-19 cases notified in Ireland by date of death and cumulative total to midnight 27/10/2020

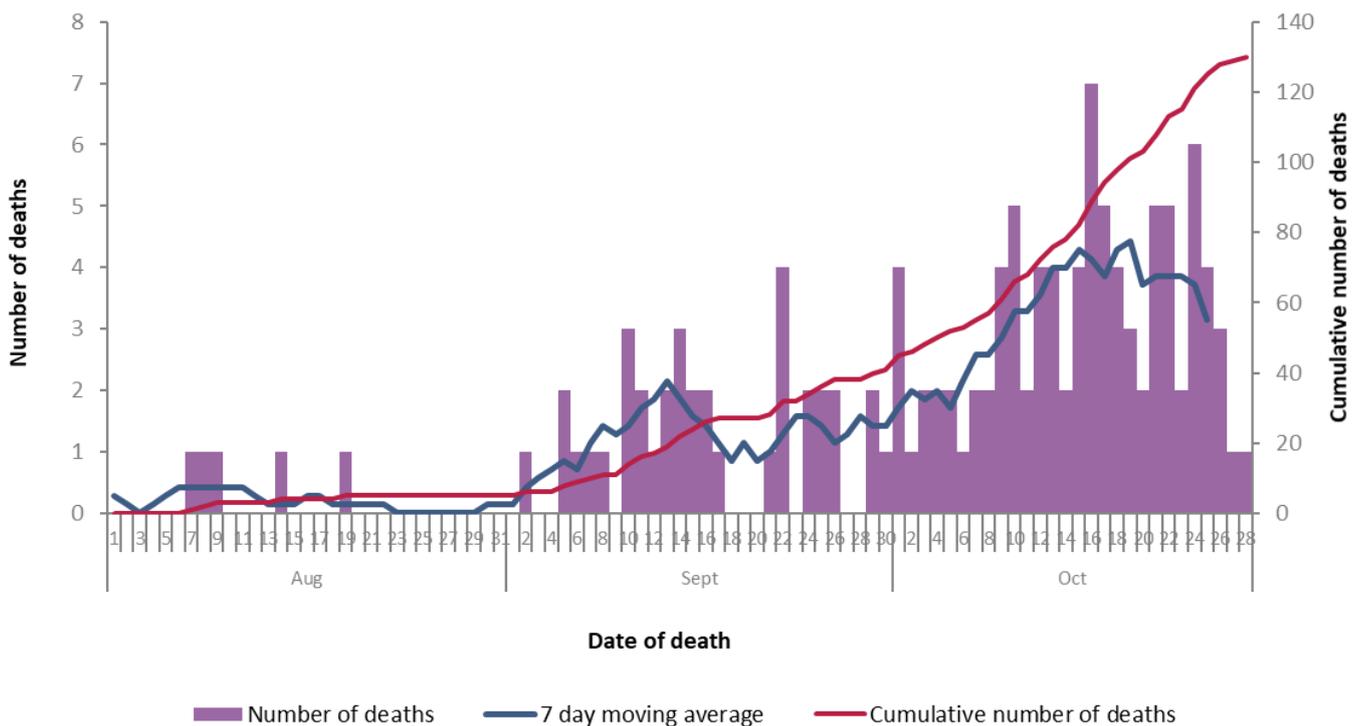


Figure 6b: Daily and 7 day moving average number of deaths among COVID-19 cases notified in Ireland by date of death and cumulative total, 01/08/2020 to midnight 27/10/2020

* 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 09:15 on 29/10/2020. 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.