



Epidemiology of COVID-19 in Ireland

Report prepared by HPSC on 06/10/2020 for National Public Health Emergency Team

Summary characteristics of confirmed COVID-19 cases notified in Ireland up to midnight 04/10/2020

	Number	Percent
Total number of confirmed cases	38,541	
National cumulative incidence of confirmed cases per 100,000 population	809.37	
Total number of cases hospitalised	3,676	9.54
Total number of cases admitted to ICU	476	1.24
Total number of deaths among confirmed cases	1,558	4.04
Case fatality ratio (CFR, %)	4.04	
National cumulative incidence of confirmed deaths per 100,000 population	32.72	
Total number of outbreaks/clusters	4,457	
Total number of cases associated with clusters	21,231	55.09
Total number of imported cases	607	1.57
Number of cases in healthcare workers	9,387	24.36
Males	17,452	45.28
Females	21,051	54.62
M:F ratio	0.83	
Median age (years)	43	
Mean age (years)	46	
Age range (years)	0 - 106	

Note: Data were extracted from Computerised Infectious Disease Reporting (CIDR) system at 09:15 on 06/10/2020 and are provisional and subject to ongoing review, validation and update. As a result, figures in this report may differ from previously published figures.

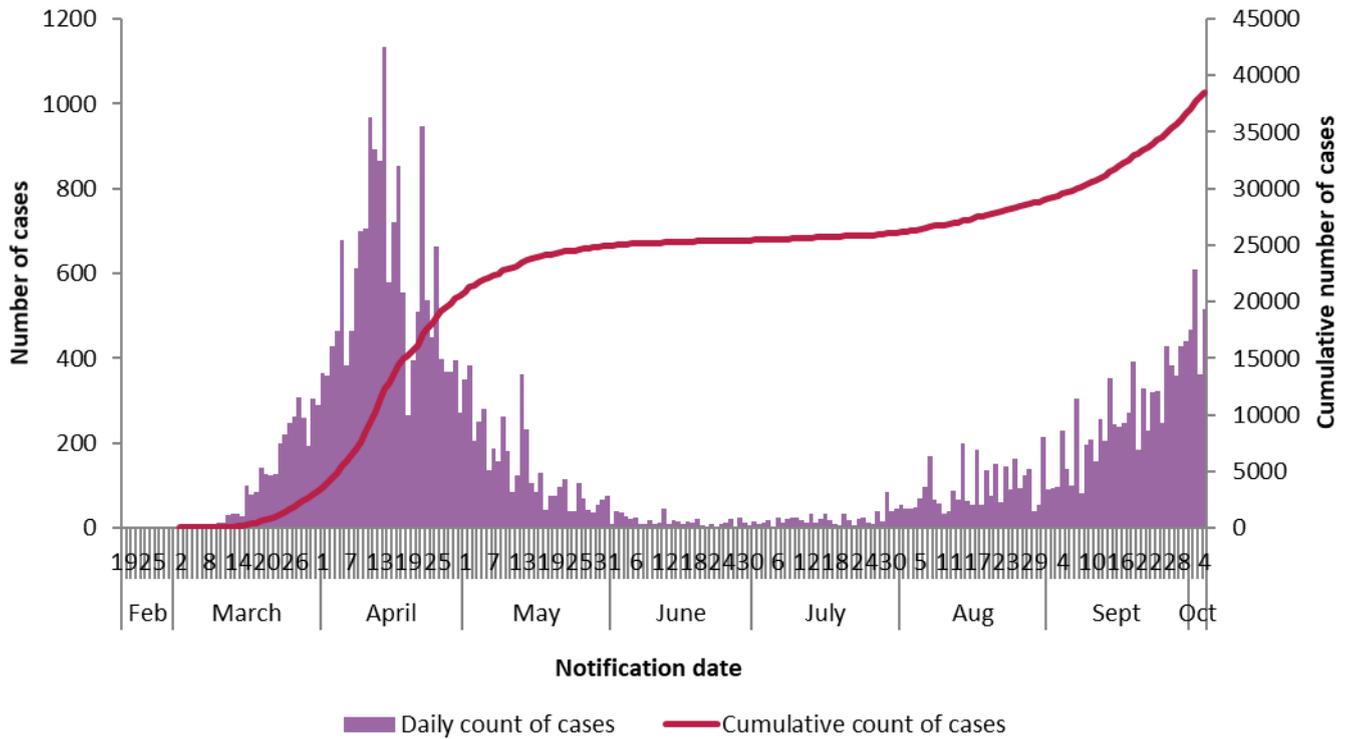


Figure 1a: Number* and cumulative number of confirmed COVID-19 cases notified in Ireland by notification date* to midnight 04/10/2020

*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

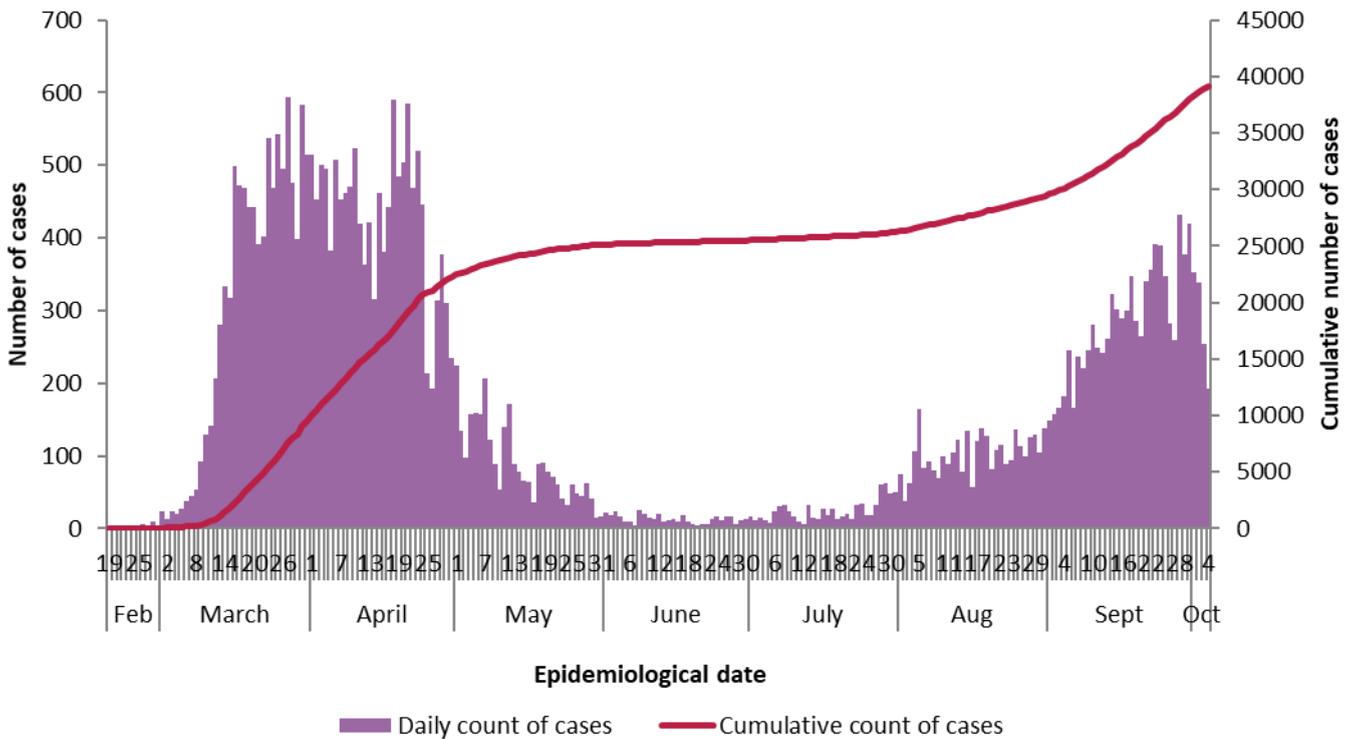


Figure 1b: Number and cumulative number of confirmed COVID-19 cases notified in Ireland by epidemiological date to midnight 04/10/2020**

**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.

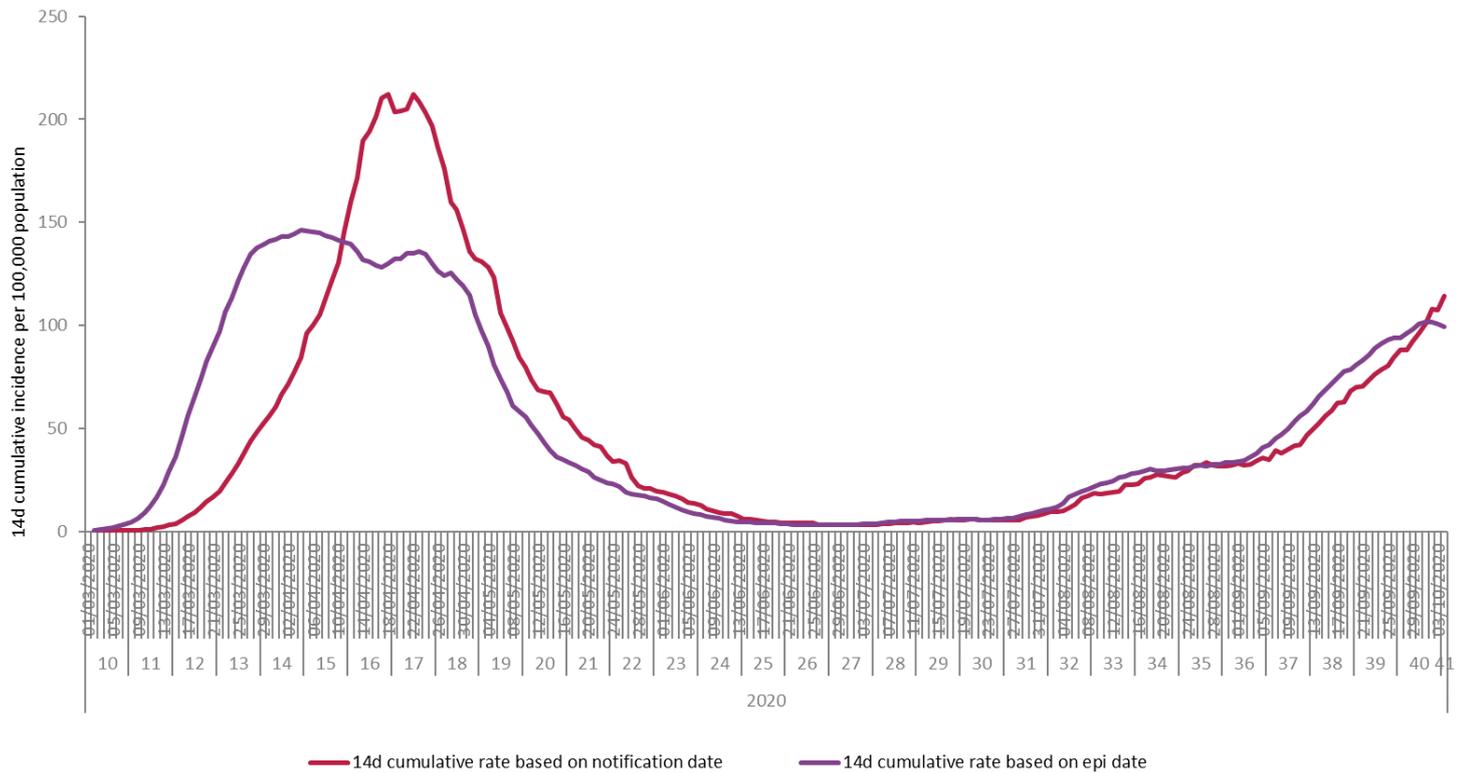


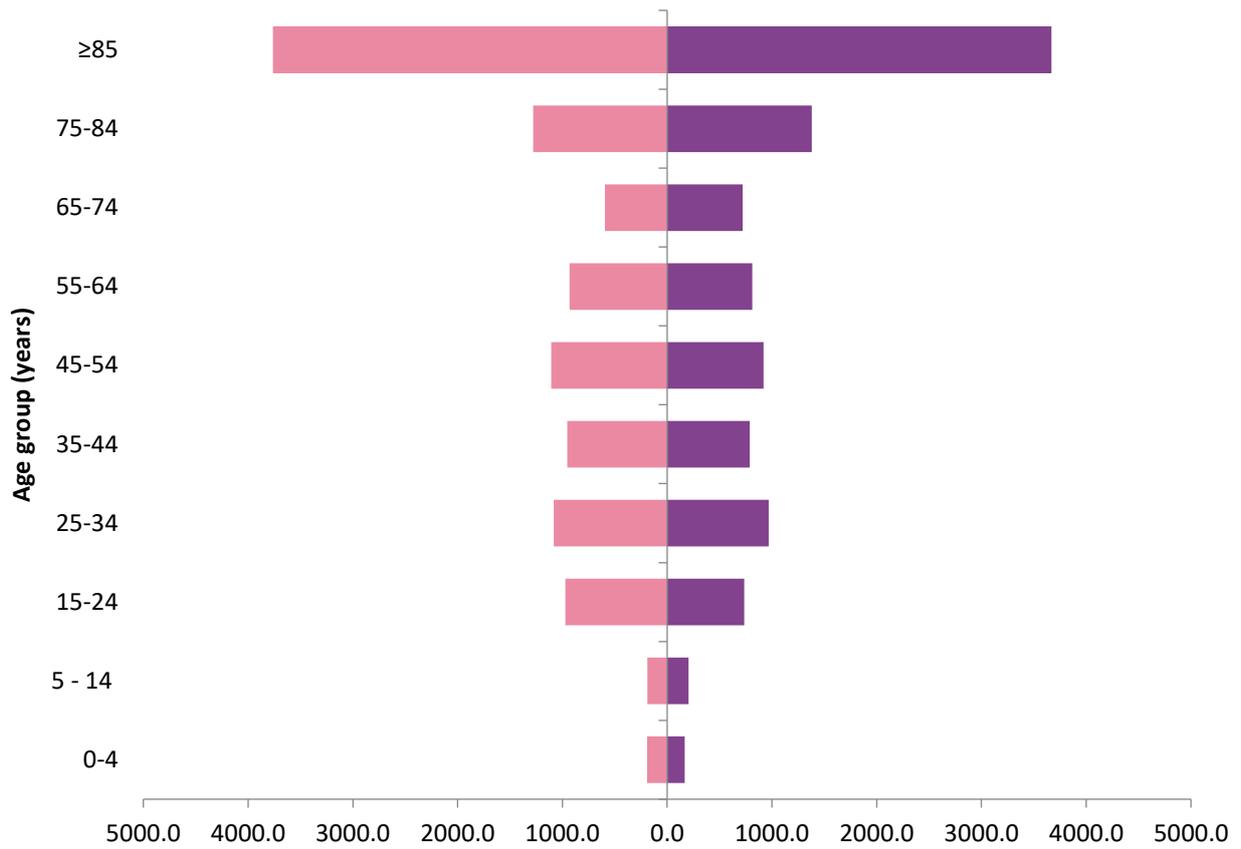
Figure 2: Cumulative 14 day incidence rate of confirmed COVID-19 cases per 100,000 population notified in Ireland by notification* and epidemiological date to midnight 04/10/2020**

* 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 04/10/2020

Characteristic		Number of cases	Percent
Total number of confirmed cases		38,541	100
Sex	Male:Female ratio	0.83	
	Male	17,452	45.28
	Female	21,051	54.62
	Unknown	38	0.1
Age	Median age (years)	43	
	Mean age (years)	46	
	Age range (years)	0 - 106	
	0-4 yrs	597	1.55
	5-14 yrs	1,323	3.43
	15-24 yrs	4,915	12.75
	25-34 yrs	6,788	17.61
	35-44 yrs	6,518	16.91
	45-54 yrs	6,355	16.49
	55-64 yrs	4,439	11.52
	65-74 yrs	2,457	6.38
	75-84 yrs	2,604	6.76
	85+ yrs	2,521	6.54
	Unknown	24	0.06



	0-4	5 - 14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	≥85
Female	191.6	187.5	973.0	1081.8	953.9	1108.2	930.6	595.6	1278.1	3762.4
Male	167.9	203.9	734.4	969.5	786.6	918.5	812.9	721.6	1381.7	3668.4

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 04/10/2020 (excluding 23 cases for whom age is unknown and 37 cases for whom sex is unknown and 1 case for whom both are unknown)

Table 2: Number of confirmed COVID-19 cases by county notified to midnight 04/10/2020

County Name	Number of cases	Percent
Carlow	301	0.78
Cavan	1,006	2.61
Clare	675	1.75
Cork	2,403	6.23
Donegal	1,135	2.94
Dublin	17,951	46.58
Galway	859	2.23
Kerry	445	1.15
Kildare	2,678	6.95
Kilkenny	484	1.26
Laois	508	1.32
Leitrim	122	0.32
Limerick	1,080	2.8
Longford	383	0.99
Louth	1,088	2.82
Mayo	670	1.74
Meath	1,149	2.98
Monaghan	730	1.89
Offaly	772	2
Roscommon	494	1.28
Sligo	211	0.55
Tipperary	836	2.17
Waterford	353	0.92
Westmeath	802	2.08
Wexford	432	1.12
Wicklow	974	2.53
Total	38,541	100

Table 3: Number of confirmed COVID-19 cases by WHO transmission classification notified to midnight 04/10/2020

Transmission classification*	Count of Events	%
Community transmission, incl. possible community transmission	10,872	28.21%
Local transmission, incl. possible local transmission	26,071	67.64%
Travel abroad, incl. possible travel abroad	859	2.23%
Unknown	739	1.92%
Total	38,541	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 04/10/2020

Age Group (years)	Number of cases (n)	Cases hospitalised (n)	Cases hospitalised (%)	Cases admitted to ICU (n)	Cases admitted to ICU (%)
0-4 yrs	597	34	0.92	1	0.21
5-14 yrs	1323	27	0.73	2	0.42
15-24 yrs	4915	101	2.75	5	1.05
25-34 yrs	6788	222	6.04	17	3.57
35-44 yrs	6518	299	8.13	42	8.82
45-54 yrs	6355	494	13.44	97	20.38
55-64 yrs	4439	549	14.93	135	28.36
65-74 yrs	2457	658	17.9	122	25.63
75-84 yrs	2604	796	21.65	49	10.29
85+ yrs	2521	495	13.47	6	1.26
Unknown	24	1	0.03	0	0
Total	38,541	3,676	100	476	100

Table 5: Number and proportion of confirmed cases of COVID-19 notified in Ireland by age-group, hospitalisation and ICU admission 04/10/2020

	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)	597	1,323	4,915	6,788	6,518	6,355	4,439	2,457	2,604	2,521	24
Cases hospitalised (n)	34	27	101	222	299	494	549	658	796	495	1
Cases hospitalised (%)	5.7	2.04	2.05	3.27	4.59	7.77	12.37	26.78	30.57	19.64	4.17
Cases admitted to ICU (n)	1	2	5	17	42	97	135	122	49	6	0
Cases admitted to ICU (%)	0.17	0.15	0.1	0.25	0.64	1.53	3.04	4.97	1.88	0.24	0
Deaths (n)	0	0	1	6	12	29	74	234	530	672	0
Case fatality ratio (%)	0	0	0.02	0.09	0.18	0.46	1.67	9.52	20.35	26.66	0

Outbreaks of COVID-19

Table 6: Number of clusters/outbreaks COVID-19 by location and HSE area notified to midnight 04/10/2020

Outbreak Location	E	HPSC	M	MW	NE	NW	S	SE	W	Total
Private house	2,145		55	146	245	117	212	184	100	3,204
Other*	92	2	37	101	24	39	70	26	36	427
Nursing home	146		12	19	44	7	15	17	36	296
Residential institution	125		12	11	26	5	22	10	5	216
Workplace	49		13	16	24	17	13	13	13	158
Hospital	73		5	4	16	3	12	5	6	124
Comm. Hosp/Long-stay unit	6		4	2		4	6	5	5	32
Total	2,636	2	138	299	379	192	350	260	201	4,457

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

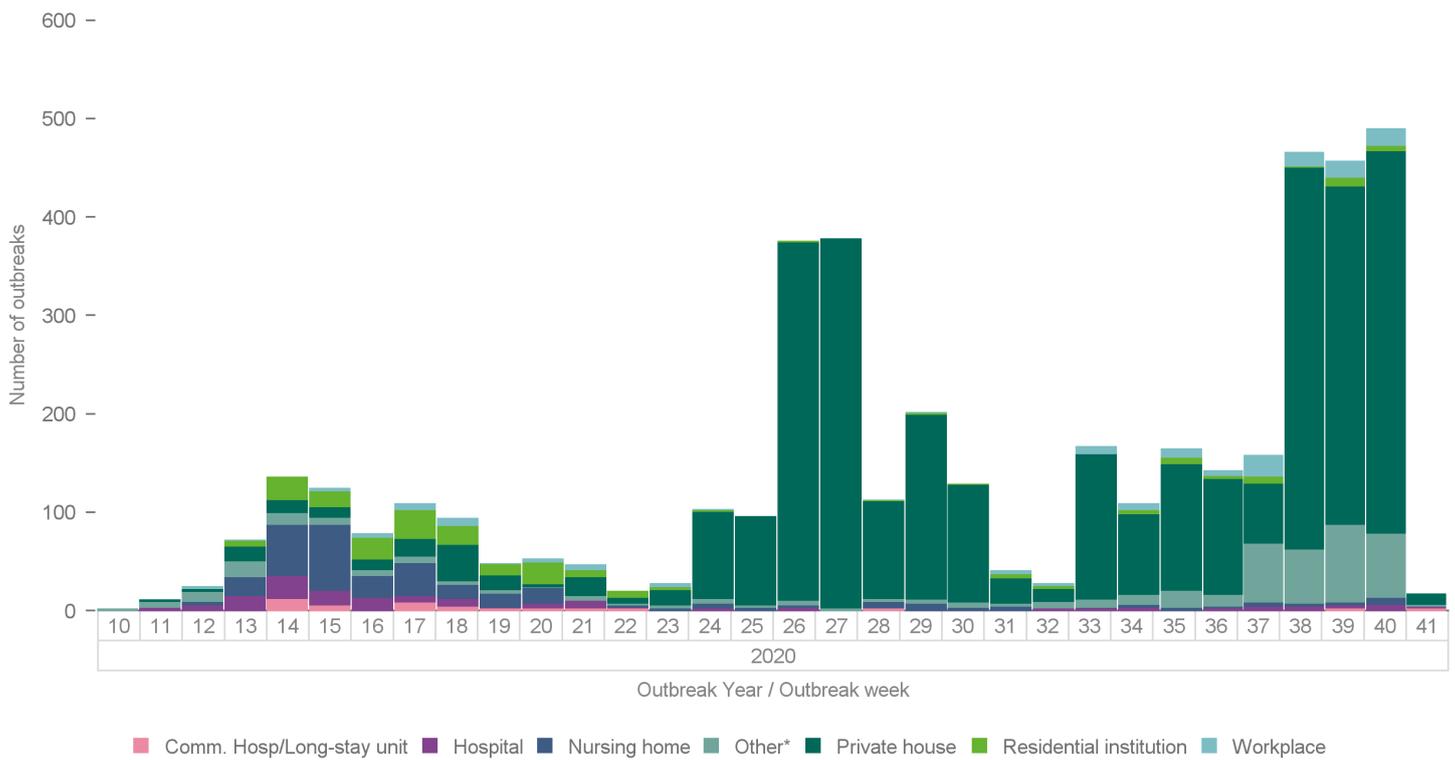


Figure 5: Trend in number of COVID-19 clusters by location and week notified to midnight 04/10/2020

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

Note: 3,619 COVID-19 outbreaks were reported on CIDR between week 24 and week 41 2020 to date (9th June to 4th October). Of these, 3,080 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 41 as a result of data validation: 1 occurred in February, 636 in March, 473 in April, 94 in May, 126 in June, 127 in July, 530 in August, 1,081 in September and 12 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 04/10/2020

	Number	Percent
Total number of deaths	1,811	
Confirmed	1,558	86.03
Probable	95	5.25
Possible	158	8.72
Total number of cases hospitalised	773	42.68
Cases admitted to ICU	98	5.41
Cases not admitted to ICU	675	37.27
Total number of imported cases	6	0.33
Number of cases in healthcare workers	8	0.44
Number with underlying clinical conditions	1,713	94.59
Total number of male cases	895	49.42
M:F ratio	0.98	
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 04/10/2020

Age group (years)	Female	Male	Total	Percent
15-24 yrs	<5	<5	1	0.06
25-34 yrs	<5	<5	6	0.33
35-44 yrs	6	7	13	0.72
45-54 yrs	11	20	31	1.71
55-64 yrs	27	52	79	4.36
65-74 yrs	98	162	260	14.36
75-84 yrs	279	332	611	33.74
85+ yrs	490	318	808	44.62
Unknown	<5	<5	2	0.11
Total	916	895	1,811	100
Percent	50.58	49.42		

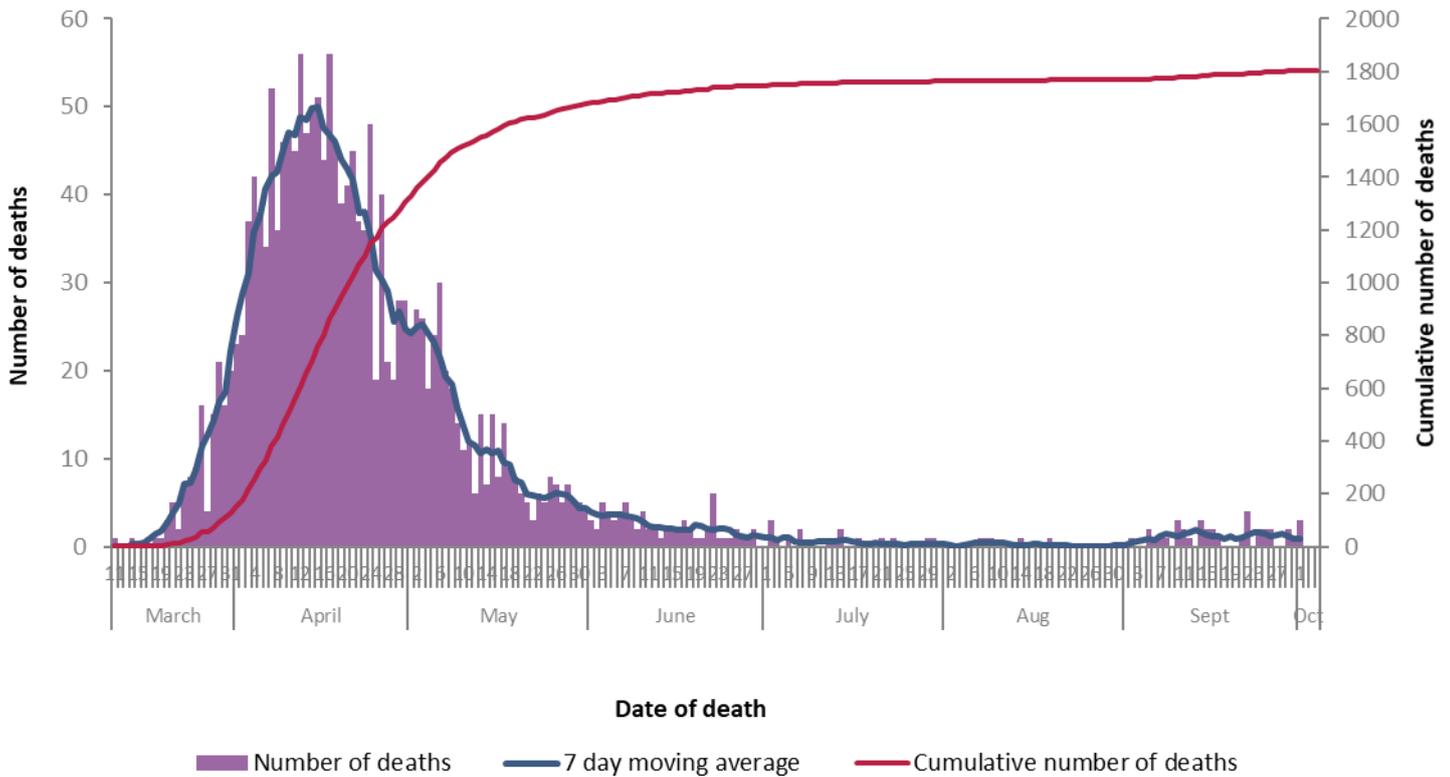


Figure 6a: Daily and 7 day moving average number of deaths among COVID-19 cases notified in Ireland by date of death and cumulative total to midnight 04/10/2020

* Date of death is not yet available for six cases

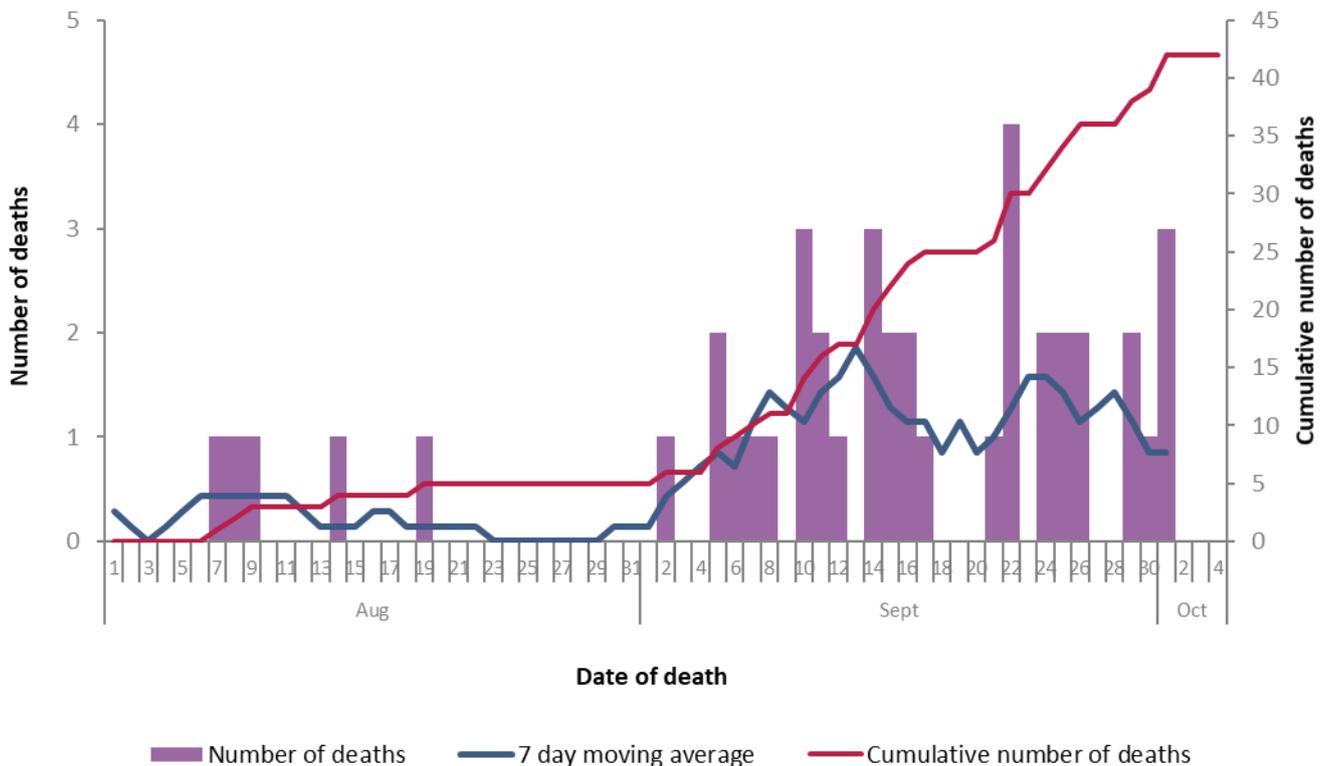


Figure 6b: Daily and 7 day moving average number of deaths among COVID-19 cases notified in Ireland by date of death and cumulative total, 01/08/2020 to midnight 04/10/2020

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 09:15 on 06/10/2020. 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.

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.