



Epidemiology of COVID-19 in Ireland

Report prepared by HPSC on 09/07/20 for National Public Health Emergency Team

Summary characteristics of confirmed COVID-19 cases notified in Ireland up to midnight 07/07/2020

	Number	Percent
Total number of confirmed cases	25,543	
National cumulative incidence of confirmed cases per 100,000 population	536.41	
Total number of cases hospitalised	3,328	13.03
Total number of cases admitted to ICU	436	1.71
Total number of deaths among confirmed cases	1,484	5.81
Case fatality ratio (CFR, %)	5.81	
National cumulative incidence of confirmed deaths per 100,000 population	31.16	
Total number of outbreaks/clusters	1,884	
Total number of cases associated with clusters	13,019	50.97
Total number of imported cases	394	1.54
Number of cases in healthcare workers	8,265	32.36
Males	10,922	42.76
Females	14,591	57.12
M:F ratio	0.75	
Median age (years)	48	
Mean age (years)	51	
Age range (years)	0 - 106	

Note: Data were extracted from Computerised Infectious Disease Reporting (CIDR) system at 09:16 on 09/07/2020 and are provisional and subject to ongoing review, validation and update. As a result, figures in this report may differ from previously published figures.

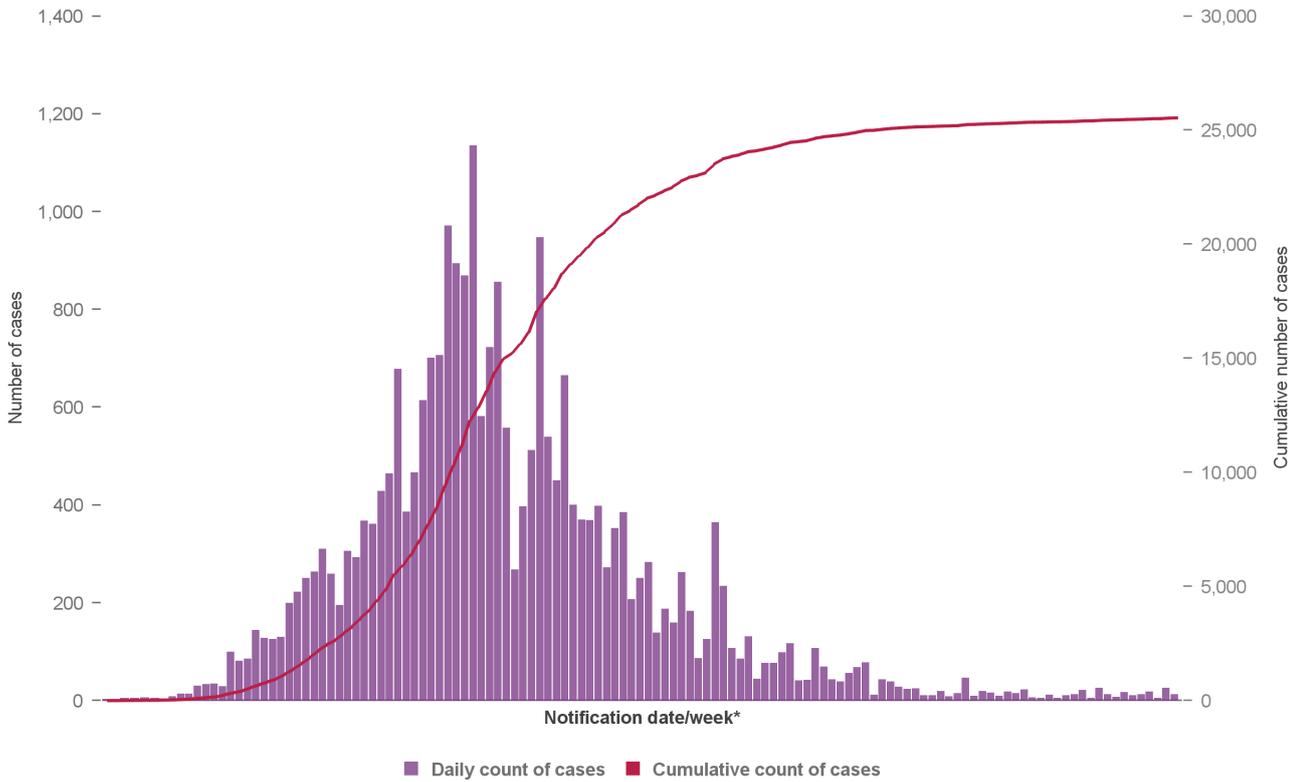


Figure 1a: Number* and cumulative number of confirmed COVID-19 cases notified in Ireland by notification date* to midnight 07/07/2020

*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

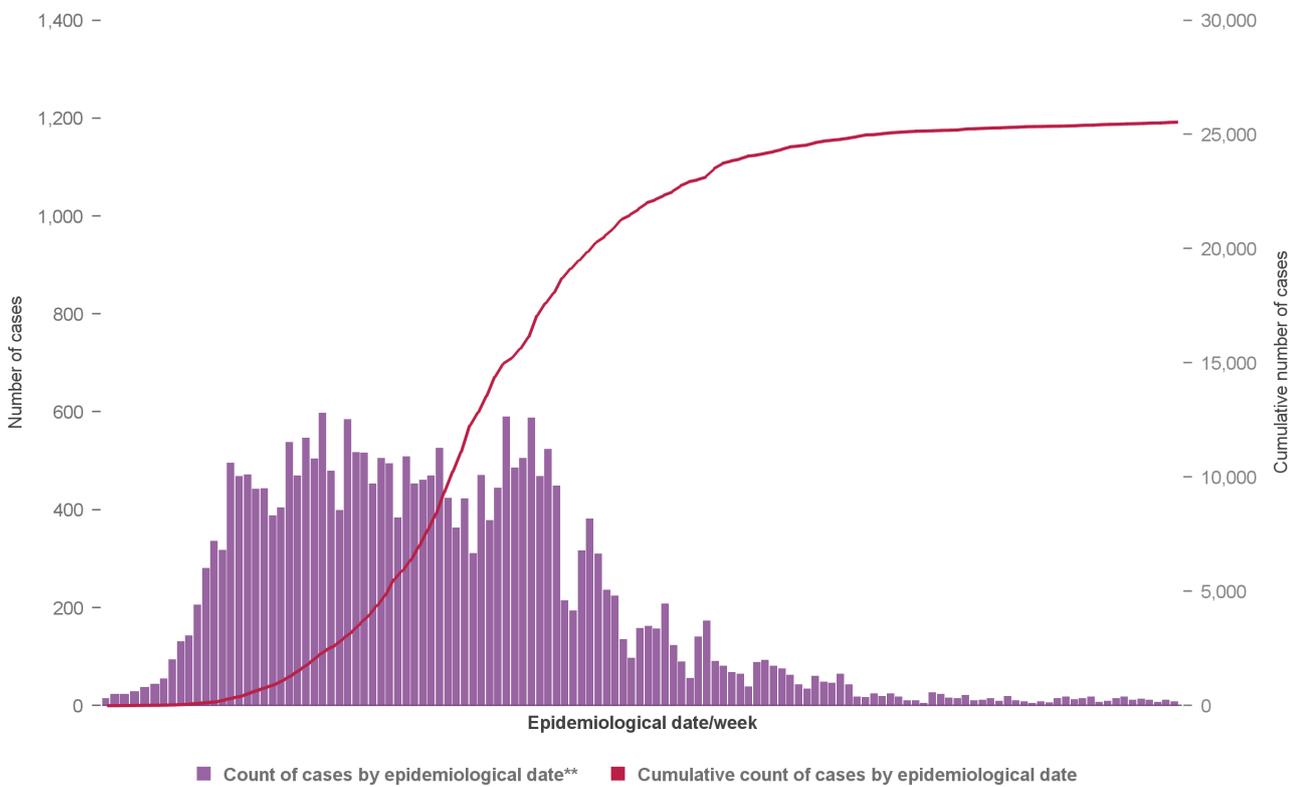


Figure 1b: Number and cumulative number of confirmed COVID-19 cases notified in Ireland by epidemiological date to midnight 07/07/2020**

**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.

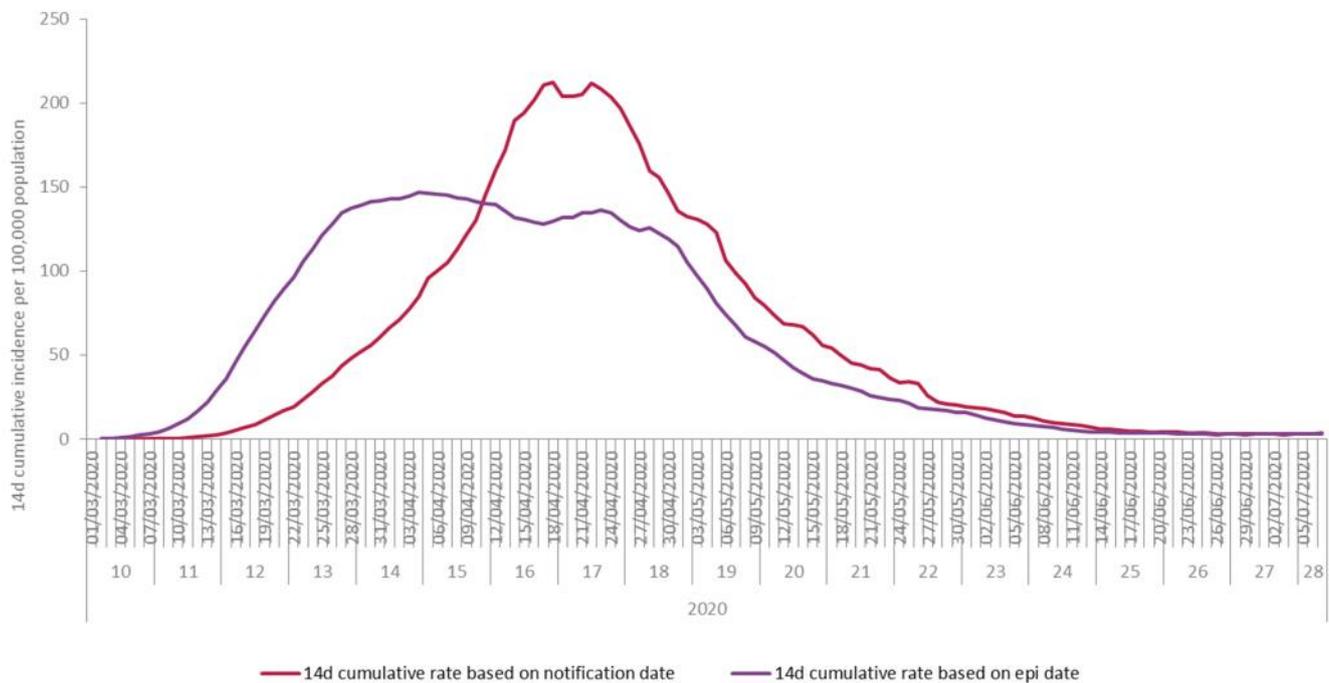


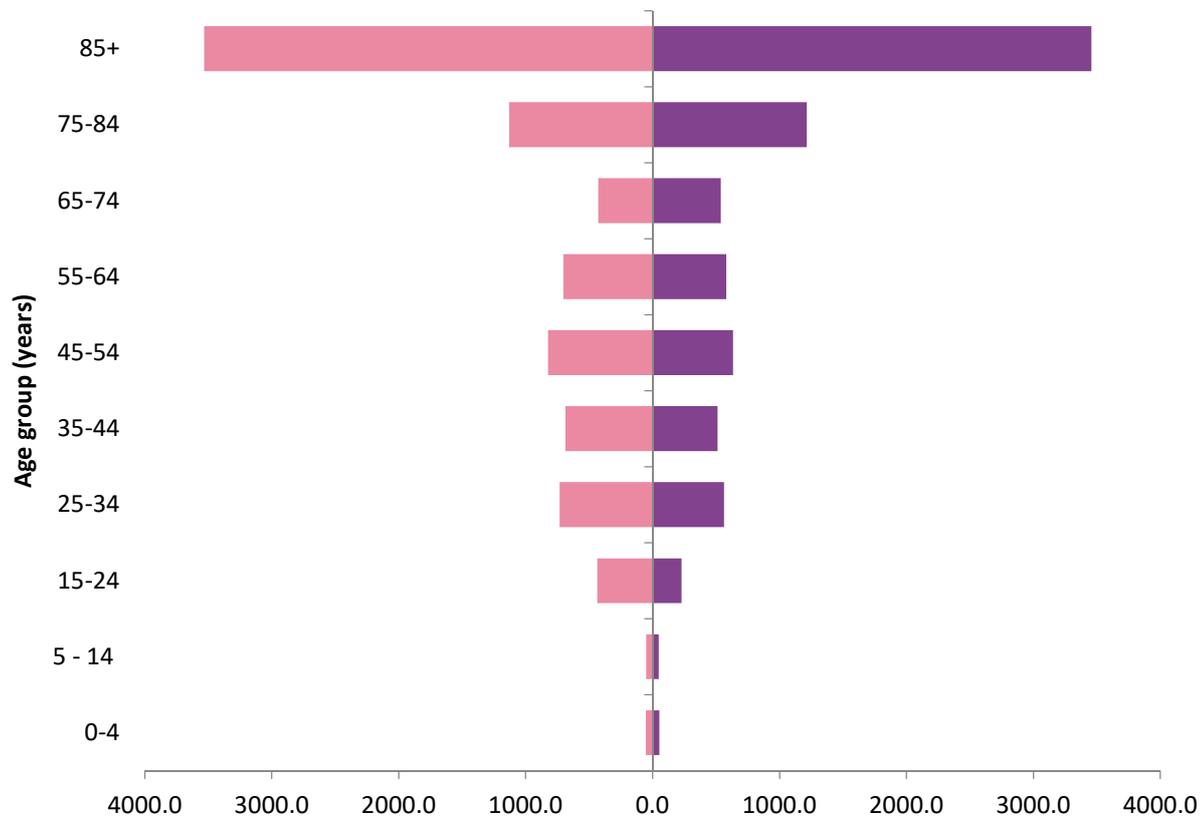
Figure 2: Cumulative 14 day incidence rate of confirmed COVID-19 cases per 100,000 population notified in Ireland by notification* and epidemiological date to midnight 07/07/2020**

* 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 07/07/2020

Characteristic		Number of cases	Percent
Total number of confirmed cases		25,543	100
Sex	Male:Female ratio	0.75	
	Male	10,922	42.76
	Female	14,591	57.12
	Unknown	30	0.12
Age	Median age (years)	48	
	Mean age (years)	51	
	Age range (years)	0 - 106	
	0-4 yrs	177	0.69
	5-14 yrs	330	1.29
	15-24 yrs	1,908	7.47
	25-34 yrs	4,296	16.82
	35-44 yrs	4,499	17.61
	45-54 yrs	4,580	17.93
	55-64 yrs	3,260	12.76
	65-74 yrs	1,805	7.07
	75-84 yrs	2,296	8.99
	85+ yrs	2,370	9.28
	Unknown	22	0.09



	0-4	5 - 14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	85+
Female	54.4	50.3	434.9	732.5	686.9	824.7	700.9	429.5	1130.7	3533.1
Male	52.4	47.6	229.4	562.2	512.9	634.7	579.3	538.3	1213.7	3455.9

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 07/07/2020 (excluding 22 cases for whom age is unknown and 30 cases for whom sex is unknown and 1 case for whom both is unknown)

Table 2: Number of confirmed COVID-19 cases by county notified to midnight 07/07/2020

County Name	Number of cases	Percent
Carlow	175	0.69
Cavan	865	3.39
Clare	368	1.44
Cork	1,545	6.05
Donegal	467	1.83
Dublin	12,266	48.02
Galway	487	1.91
Kerry	310	1.21
Kildare	1,500	5.87
Kilkenny	356	1.39
Laois	265	1.04
Leitrim	82	0.32
Limerick	588	2.3
Longford	287	1.12
Louth	785	3.07
Mayo	572	2.24
Meath	812	3.18
Monaghan	539	2.11
Offaly	486	1.9
Roscommon	346	1.35
Sligo	146	0.57
Tipperary	543	2.13
Waterford	160	0.63
Westmeath	676	2.65
Wexford	218	0.85
Wicklow	699	2.74
Total	25,543	100

Table 3: Number of confirmed COVID-19 cases by WHO transmission classification notified to midnight 07/07/2020

Transmission classification*	Count of Events	%
Community transmission, incl. possible community transmission	8,385	32.83%
Local transmission, incl. possible local transmission	16,542	64.76%
Travel abroad, incl. possible travel abroad	601	2.35%
Unknown	15	0.06%
Total	25,543	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 07/07/2020

Age Group (years)	Number of cases (n)	Cases hospitalised (n)	Cases hospitalised (%)	Cases admitted to ICU (n)	Cases admitted to ICU (%)
0-4 yrs	177	23	0.69	0	0
5-14 yrs	330	17	0.51	2	0.46
15-24 yrs	1908	74	2.22	5	1.15
25-34 yrs	4296	197	5.92	15	3.44
35-44 yrs	4499	271	8.14	36	8.26
45-54 yrs	4580	447	13.43	91	20.87
55-64 yrs	3260	495	14.87	126	28.9
65-74 yrs	1805	583	17.52	109	25
75-84 yrs	2296	743	22.33	46	10.55
85+ yrs	2370	476	14.3	6	1.38
Unknown	22	2	0.06	0	0
Total	25,543	3,328	100	436	100

Table 5: Number and proportion of confirmed cases of COVID-19 notified in Ireland by age-group, hospitalisation and ICU admission 07/07/2020

	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)	177	330	1,908	4,296	4,499	4,580	3,260	1,805	2,296	2,370	22
Cases hospitalised (n)	23	17	74	197	271	447	495	583	743	476	2
Cases hospitalised (%)	12.99	5.15	3.88	4.59	6.02	9.76	15.18	32.3	32.36	20.08	9.09
Cases admitted to ICU (n)	0	2	5	15	36	91	126	109	46	6	0
Cases admitted to ICU (%)	0	0.61	0.26	0.35	0.8	1.99	3.87	6.04	2	0.25	0
Deaths (n)	0	0	1	5	12	22	65	221	509	649	0
Case fatality ratio (%)	0	0	0.05	0.12	0.27	0.48	1.99	12.24	22.17	27.38	0

Outbreaks of COVID-19

Table 6: Number of clusters/outbreaks COVID-19 by location and HSE area notified to midnight 07/07/2020

Outbreak Location	E	M	MW	NE	NW	S	SE	W	Total
Private house	797	6	52	118	33	109	31	26	1,172
Nursing home	125	10	16	40	5	11	17	37	261
Residential institution	99	9	7	17	4	21	10	4	171
Hospital	61	3	3	14	2	10	4	6	103
Other*	12	8	26	6	7	21	7	9	96
Workplace	7	5	5	14	1	9	3	4	48
Comm. Hosp/Long-stay unit	4	4	2		4	6	5	5	30
Unknown	2					1			3
Total	1,107	45	111	209	56	188	77	91	1,884

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

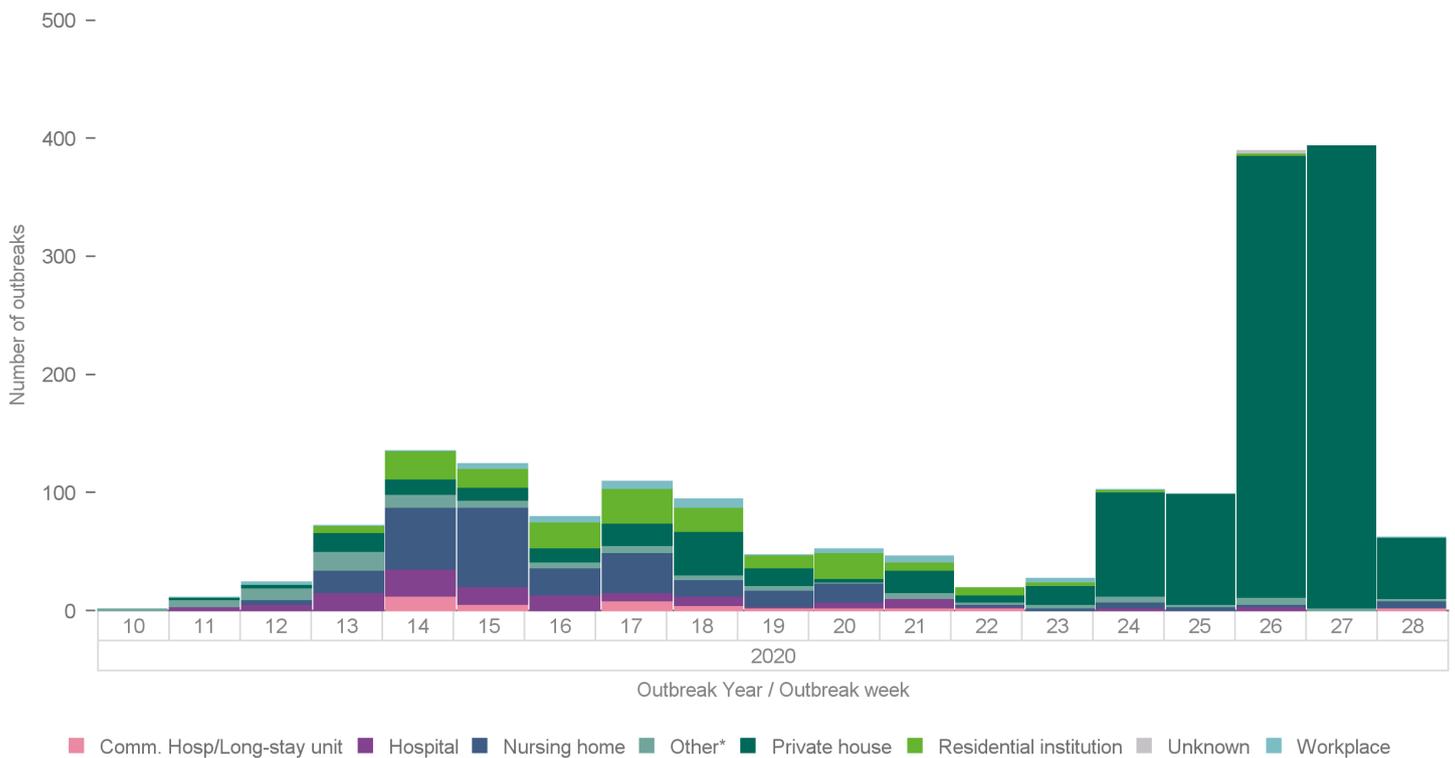


Figure 5: Trend in number of COVID-19 clusters by location and week notified to midnight 07/07/2020

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

Note: In week 24 and 25, 200 new COVID-19 outbreaks were reported on CIDR, of which 187 were family outbreaks. Of these, 79 family outbreaks occurred in March, 66 family outbreaks occurred in April and 16 family outbreaks occurred in May 2020.

In week 26, 389 new COVID-19 outbreaks were reported on CIDR, of which 377 were family outbreaks. Of these, 173 family outbreaks occurred in March, 130 family outbreaks occurred in April and 22 family outbreaks occurred in May 2020.

In week 27, 393 new COVID-19 outbreaks were reported on CIDR, of which all 393 were family outbreaks. Of these, 196 family outbreaks occurred in March, 97 family outbreaks occurred in April, 44 family outbreaks occurred in May and 5 family outbreaks occurred in June 2020.

To date in week 28 (05/07/2020-11/07/2020), 74 new COVID-19 outbreaks were reported on CIDR, of which 65 were family outbreaks. Of these, 33 family outbreaks occurred in March, 22 family outbreaks occurred in April, 1 family outbreaks occurred in May and 2 family outbreaks occurred in June 2020.

Deaths among COVID-19 cases

Table 7: Summary of deaths in all COVID-19 cases notified in Ireland up to midnight 07/07/2020

	Number	Percent
Total number of deaths	1,743	
Confirmed	1,484	85.14
Probable	100	5.74
Possible	159	9.12
Total number of cases hospitalised	738	42.34
Cases admitted to ICU	91	5.22
Cases not admitted to ICU	647	37.12
Total number of imported cases	5	0.29
Number of cases in healthcare workers	7	0.4
Number with underlying clinical conditions	1,640	94.09
Total number of male cases	859	49.28
M:F ratio	0.97	
Median age (years)	84	
Mean age (years)	82	
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 07/07/2020

Age group (years)	Female	Male	Total	Percent
15-24 yrs	<5	<5	1	0.06
25-34 yrs	<5	<5	5	0.29
35-44 yrs	6	7	13	0.75
45-54 yrs	9	15	24	1.38
55-64 yrs	25	45	70	4.02
65-74 yrs	90	156	246	14.11
75-84 yrs	272	323	595	34.14
85+ yrs	477	310	787	45.15
Unknown	<5	<5	2	0.11
Total	884	859	1,743	100
Percent	50.72	49.28		

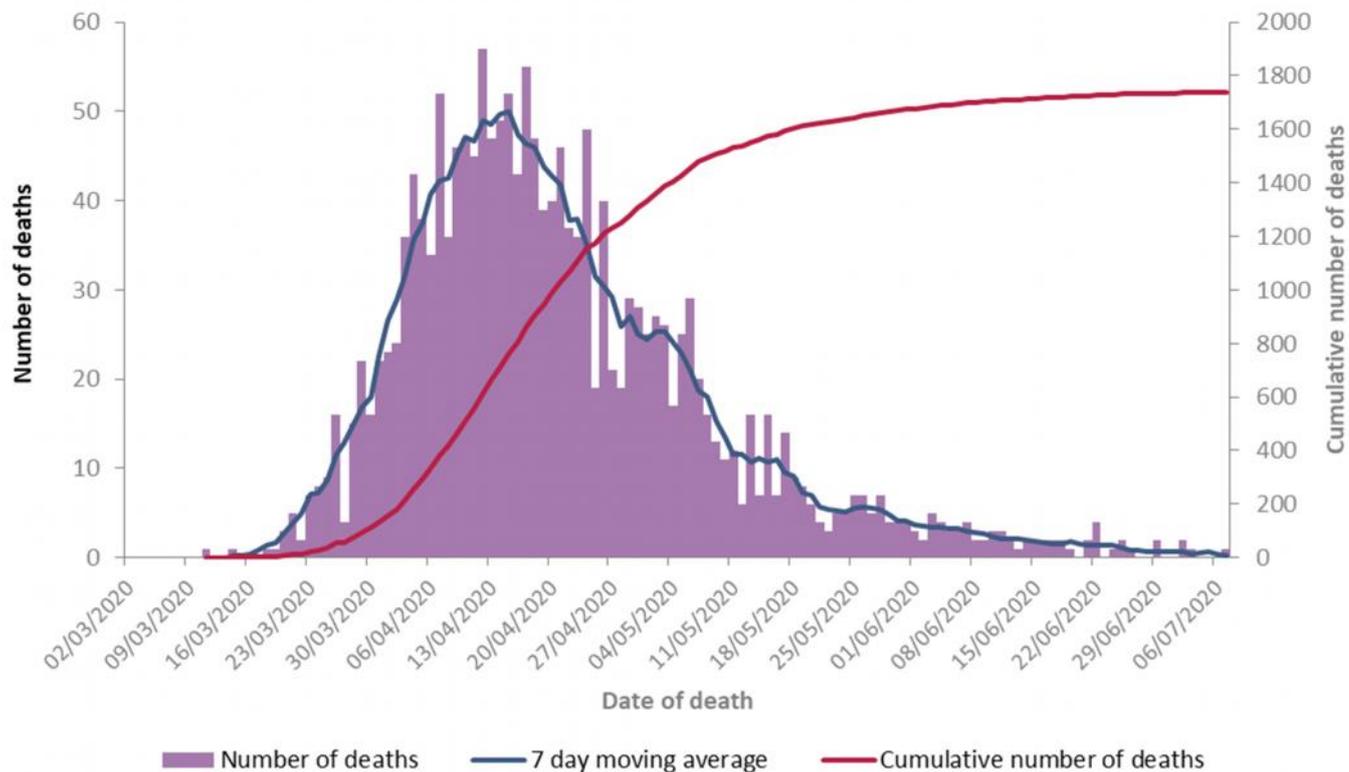


Figure 6: Daily and 7 day moving average number of deaths among COVID-19 cases notified in Ireland by date of death and cumulative total to midnight 07/07/2020

* Date of death is not yet available for five 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 this report. This includes 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 09:16 on 7/9/20. 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.