



Epidemiology of COVID-19 in Ireland

Report prepared by HPSC on 22/07/20 for National Public Health Emergency Team

Summary characteristics of confirmed COVID-19 cases notified in Ireland up to midnight 20/07/2020

	Number	Percent
Total number of confirmed cases	25,802	
National cumulative incidence of confirmed cases per 100,000 population	541.85	
Total number of cases hospitalised	3,340	12.94
Total number of cases admitted to ICU	438	1.7
Total number of deaths among confirmed cases	1,497	5.8
Case fatality ratio (CFR, %)	5.8	
National cumulative incidence of confirmed deaths per 100,000 population	31.44	
Total number of outbreaks/clusters	2,153	
Total number of cases associated with clusters	13,669	52.98
Total number of imported cases	433	1.68
Number of cases in healthcare workers	8,355	32.38
Males	11,049	42.82
Females	14,725	57.07
M:F ratio	0.75	
Median age (years)	48	
Mean age (years)	50	
Age range (years)	0 - 106	

Note: Data were extracted from Computerised Infectious Disease Reporting (CIDR) system at 09:11 on 22/07/2020 and are provisional and subject to ongoing review, validation and update. As a result, figures in this report may differ from previously published figures.

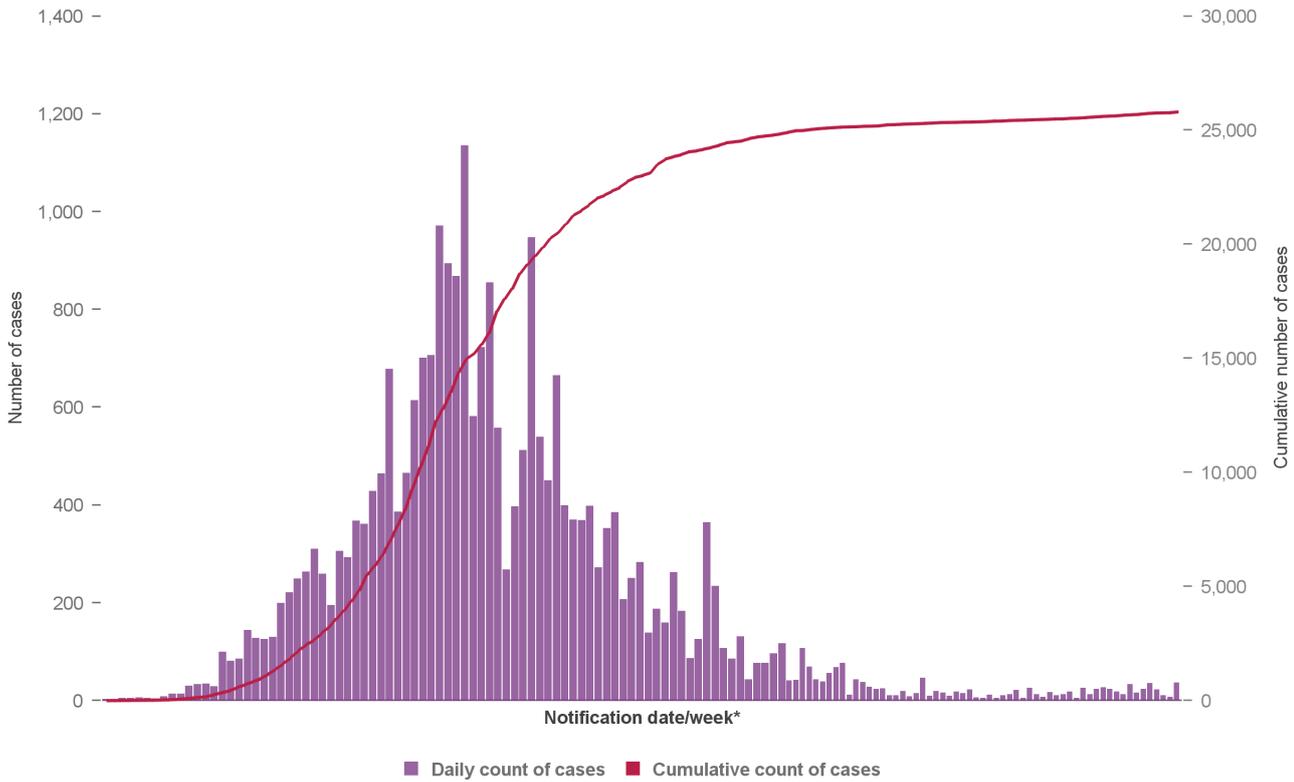


Figure 1a: Number* and cumulative number of confirmed COVID-19 cases notified in Ireland by notification date* to midnight 20/07/2020

*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

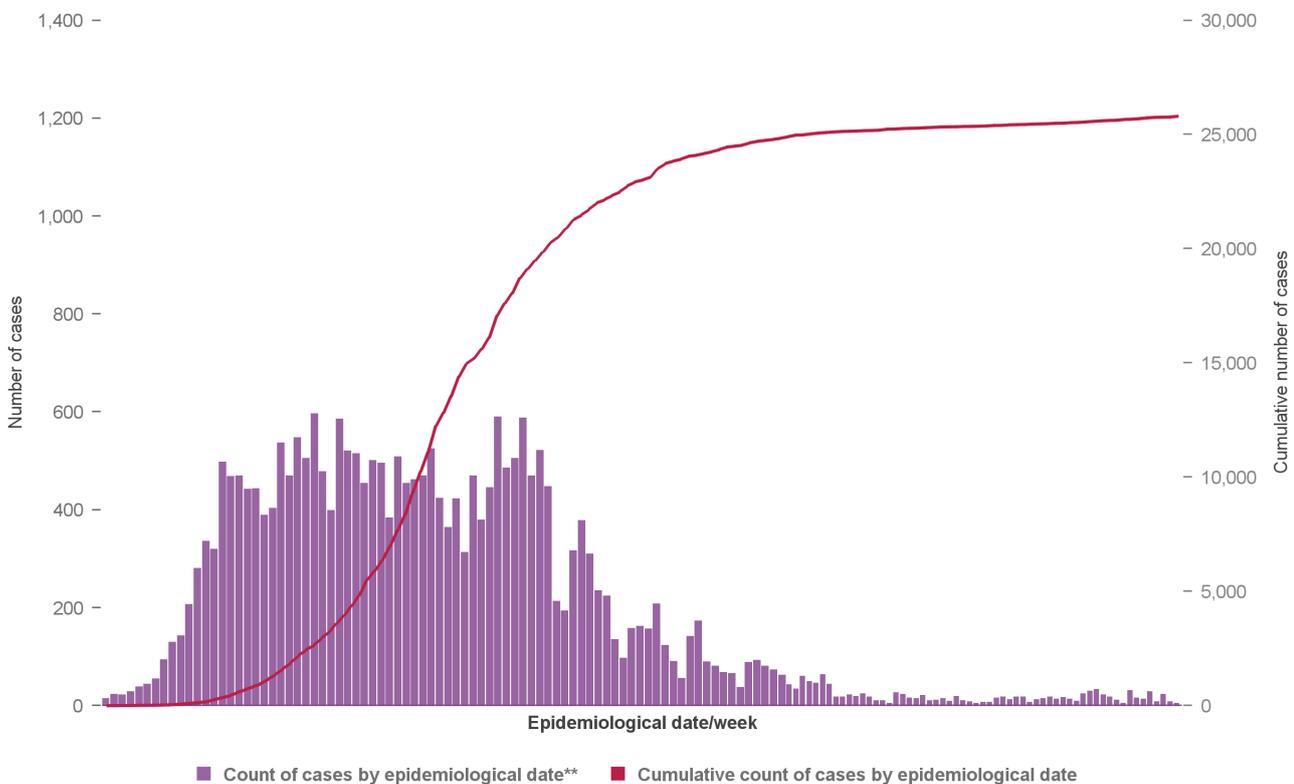


Figure 1b: Number and cumulative number of confirmed COVID-19 cases notified in Ireland by epidemiological date to midnight 20/07/2020**

**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.

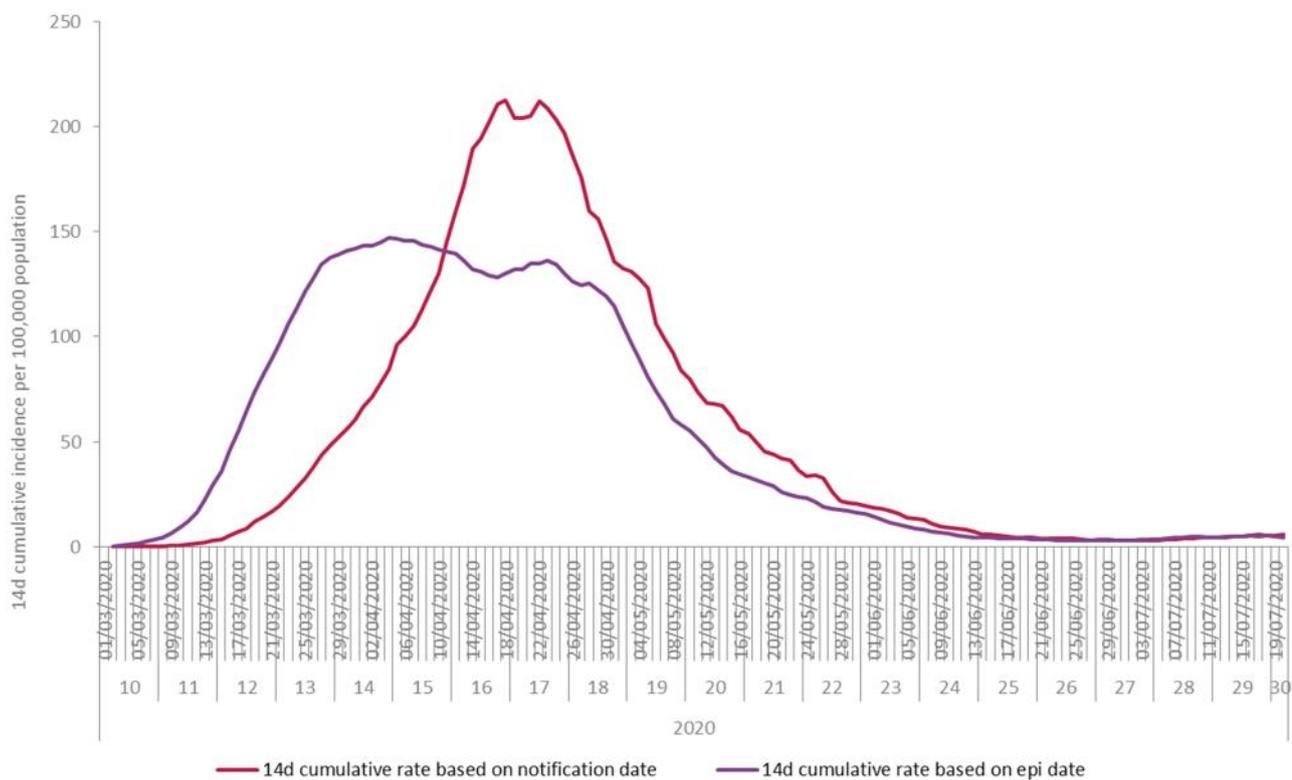


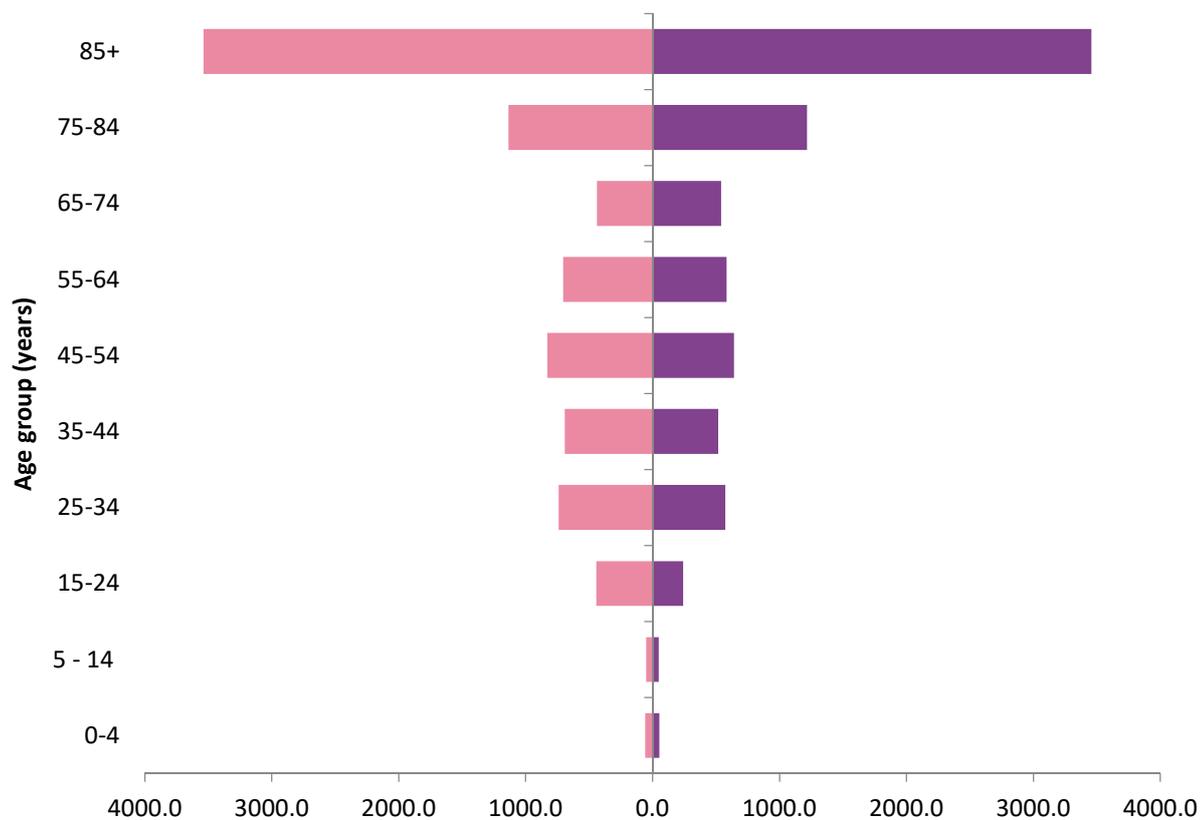
Figure 2: Cumulative 14 day incidence rate of confirmed COVID-19 cases per 100,000 population notified in Ireland by notification* and epidemiological date to midnight 20/07/2020**

* 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 20/07/2020

Characteristic		Number of cases	Percent
Total number of confirmed cases		25,802	100
Sex	Male:Female ratio	0.75	
	Male	11,049	42.82
	Female	14,725	57.07
	Unknown	28	0.11
Age	Median age (years)	48	
	Mean age (years)	50	
	Age range (years)	0 - 106	
	0-4 yrs	183	0.71
	5-14 yrs	340	1.32
	15-24 yrs	1,965	7.62
	25-34 yrs	4,359	16.89
	35-44 yrs	4,536	17.58
	45-54 yrs	4,618	17.9
	55-64 yrs	3,279	12.71
	65-74 yrs	1,826	7.08
	75-84 yrs	2,303	8.93
	85+ yrs	2,372	9.19
	Unknown	21	0.08



	0-4	5 - 14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	85+
Female	57.5	51.5	444.4	741.0	692.7	829.5	704.8	438.5	1134.4	3537.6
Male	53.0	49.3	240.0	573.2	516.9	642.0	582.8	540.5	1217.1	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 20/07/2020 (excluding 21 cases for whom age is unknown and 28 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 20/07/2020

County Name	Number of cases	Percent
Carlow	179	0.69
Cavan	867	3.36
Clare	369	1.43
Cork	1,560	6.05
Donegal	472	1.83
Dublin	12,411	48.1
Galway	492	1.91
Kerry	316	1.22
Kildare	1,525	5.91
Kilkenny	356	1.38
Laois	267	1.03
Leitrim	83	0.32
Limerick	590	2.29
Longford	287	1.11
Louth	791	3.07
Mayo	574	2.22
Meath	822	3.19
Monaghan	541	2.1
Offaly	487	1.89
Roscommon	346	1.34
Sligo	148	0.57
Tipperary	543	2.1
Waterford	166	0.64
Westmeath	676	2.62
Wexford	223	0.86
Wicklow	711	2.76
Total	25,802	100

Table 3: Number of confirmed COVID-19 cases by WHO transmission classification notified to midnight 20/07/2020

Transmission classification*	Count of Events	%
Community transmission, incl. possible community transmission	8,172	31.67%
Local transmission, incl. possible local transmission	16,974	65.79%
Travel abroad, incl. possible travel abroad	629	2.44%
Unknown	27	0.10%
Total	25,802	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 20/07/2020

Age Group (years)	Number of cases (n)	Cases hospitalised (n)	Cases hospitalised (%)	Cases admitted to ICU (n)	Cases admitted to ICU (%)
0-4 yrs	183	22	0.66	0	0
5-14 yrs	340	18	0.54	2	0.46
15-24 yrs	1965	75	2.25	5	1.14
25-34 yrs	4359	198	5.93	15	3.42
35-44 yrs	4536	274	8.2	36	8.22
45-54 yrs	4618	447	13.38	91	20.78
55-64 yrs	3279	497	14.88	127	29
65-74 yrs	1826	587	17.57	110	25.11
75-84 yrs	2303	745	22.31	46	10.5
85+ yrs	2372	476	14.25	6	1.37
Unknown	21	1	0.03	0	0
Total	25,802	3,340	100	438	100

Table 5: Number and proportion of confirmed cases of COVID-19 notified in Ireland by age-group, hospitalisation and ICU admission 20/07/2020

	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)	183	340	1,965	4,359	4,536	4,618	3,279	1,826	2,303	2,372	21
Cases hospitalised (n)	22	18	75	198	274	447	497	587	745	476	1
Cases hospitalised (%)	12.02	5.29	3.82	4.54	6.04	9.68	15.16	32.15	32.35	20.07	4.76
Cases admitted to ICU (n)	0	2	5	15	36	91	127	110	46	6	0
Cases admitted to ICU (%)	0	0.59	0.25	0.34	0.79	1.97	3.87	6.02	2	0.25	0
Deaths (n)	0	0	2	5	12	24	67	221	512	654	0
Case fatality ratio (%)	0	0	0.1	0.11	0.26	0.52	2.04	12.1	22.23	27.57	0

Outbreaks of COVID-19

Table 6: Number of clusters/outbreaks COVID-19 by location and HSE area notified to midnight 20/07/2020

Outbreak Location	E	M	MW	NE	NW	S	SE	W	HPSC	Total
Private house	1003	6	68	118	44	112	45	27		1423
Nursing home	128	10	16	41	5	13	17	37		267
Residential institution	102	9	7	17	4	21	10	4		174
Hospital	61	3	3	14	2	10	4	6		103
Other*	14	8	27	6	7	23	8	9	1	103
Workplace	8	5	5	14	1	9	3	4		49
Comm. Hosp/Long-stay unit	4	4	2		4	6	5	5		30
Unknown	2				1	1				4
Total	1322	45	128	210	68	195	92	92	1	2153

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

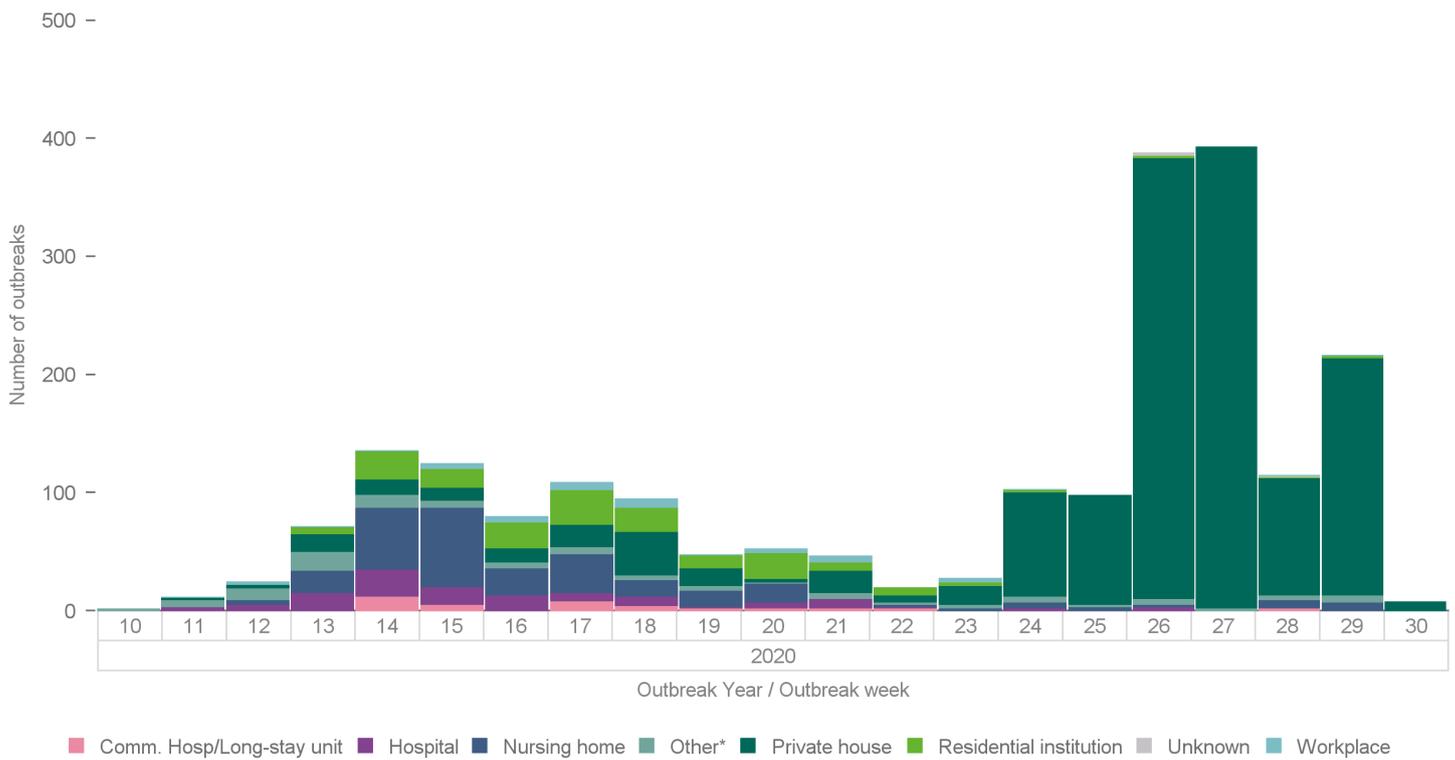


Figure 5: Trend in number of COVID-19 clusters by location and week notified to midnight 20/07/2020

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

Note: 1314 COVID-19 outbreaks were reported on CIDR between week 24 and week 30 2020 (June 7th to July 20th). Of these, 1266 were family outbreaks. Most of these family outbreaks occurred earlier and were reported between weeks 24 and 30 as a result of data validation: 1 occurred in February, 571 in March, 396 in April, 86 in May, 11 in June and 3 in July.

Deaths among COVID-19 cases

Table 7: Summary of deaths in all COVID-19 cases notified in Ireland up to midnight 20/07/2020

	Number	Percent
Total number of deaths	1,755	
Confirmed	1,497	85.3
Probable	100	5.7
Possible	158	9
Total number of cases hospitalised	744	42.39
Cases admitted to ICU	93	5.3
Cases not admitted to ICU	651	37.09
Total number of imported cases	6	0.34
Number of cases in healthcare workers	8	0.46
Number with underlying clinical conditions	1,653	94.19
Total number of male cases	865	49.29
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 20/07/2020

Age group (years)	Female	Male	Total	Percent
15-24 yrs	<5	<5	2	0.11
25-34 yrs	<5	<5	5	0.28
35-44 yrs	6	7	13	0.74
45-54 yrs	10	16	26	1.48
55-64 yrs	25	47	72	4.1
65-74 yrs	90	156	246	14.02
75-84 yrs	274	323	597	34.02
85+ yrs	479	313	792	45.13
Unknown	<5	<5	2	0.11
Total	890	865	1,755	100
Percent	50.71	49.29		

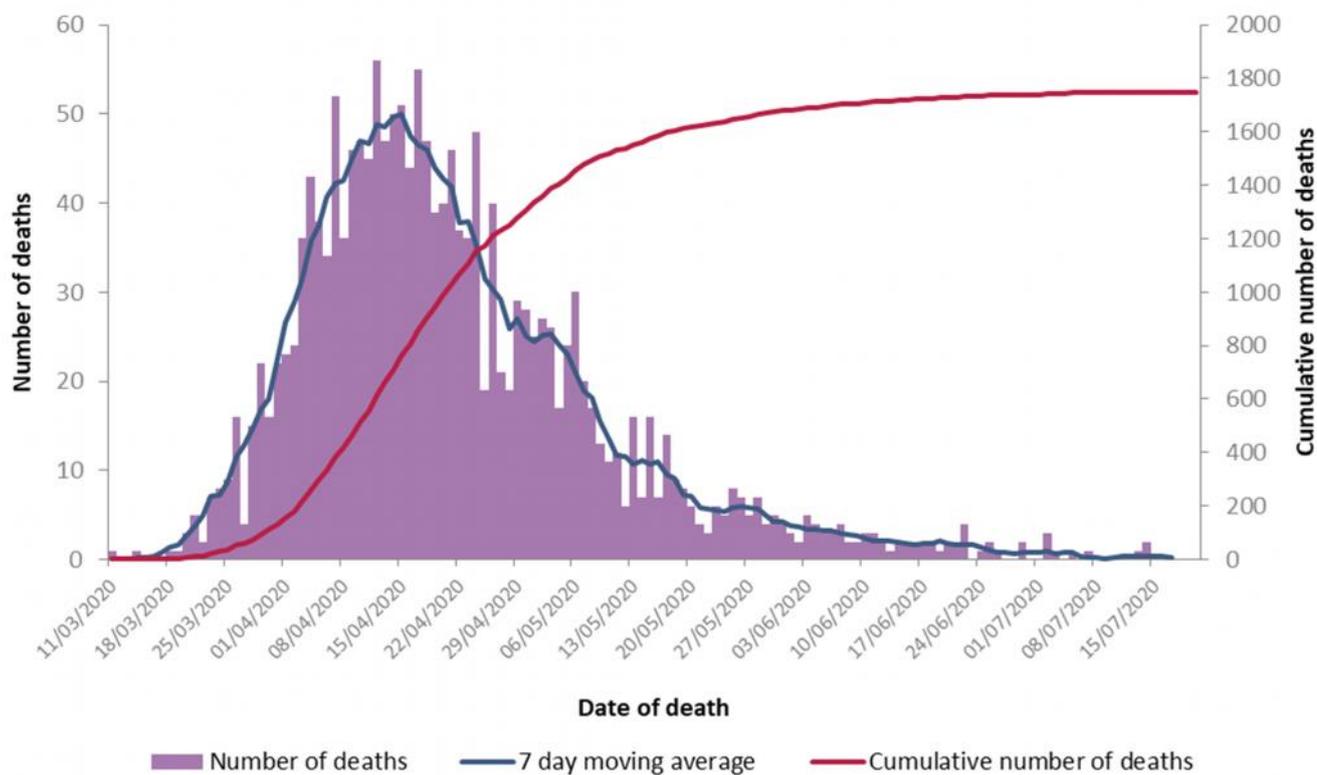


Figure 6: Daily and 7 day moving average number of deaths among COVID-19 cases notified in Ireland by date of death and cumulative total to midnight 20/07/2020

* 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

There have been no COVID-19 related death notified to the HPSC with a date of death between the 15th and the 20th of July 2020.

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 09:11 on 7/22/20. 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.