



Epidemiology of COVID-19 in Ireland

Report prepared by HPSC on 19/08/2020 for National Public Health Emergency Team

Summary characteristics of confirmed COVID-19 cases notified in Ireland up to midnight 17/08/2020

	Number	Percent
Total number of confirmed cases	27,493	
National cumulative incidence of confirmed cases per 100,000 population	577.36	
Total number of cases hospitalised	3,389	12.33
Total number of cases admitted to ICU	442	1.61
Total number of deaths among confirmed cases	1,517	5.52
Case fatality ratio (CFR, %)	5.52	
National cumulative incidence of confirmed deaths per 100,000 population	31.86	
Total number of outbreaks/clusters	2,520	
Total number of cases associated with clusters	14,979	54.48
Total number of imported cases	473	1.72
Number of cases in healthcare workers	8,523	31
Males	11,956	43.49
Females	15,508	56.41
M:F ratio	0.77	
Median age (years)	47	
Mean age (years)	49	
Age range (years)	0 - 106	

Note: Data were extracted from Computerised Infectious Disease Reporting (CIDR) system at 09:18 on 19/08/2020 and are provisional and subject to ongoing review, validation and update. As a result, figures in this report may differ from previously published figures.

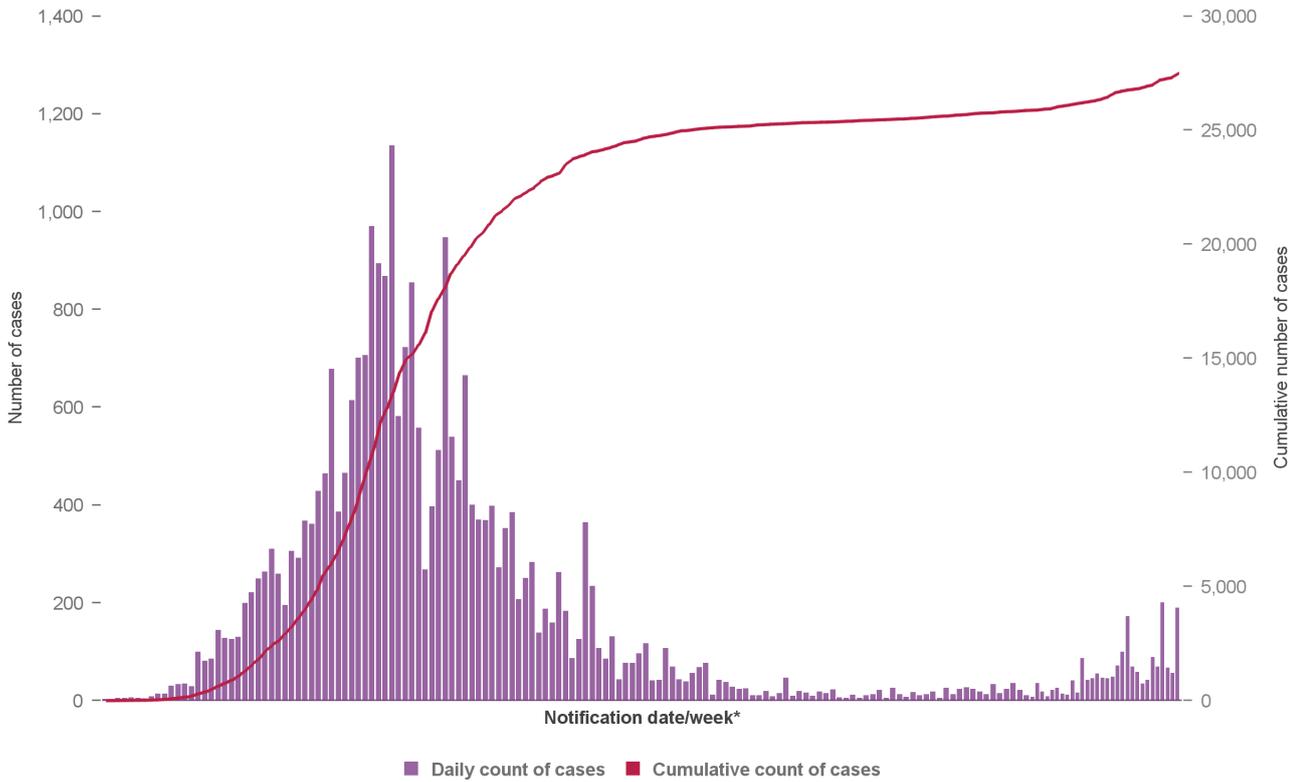


Figure 1a: Number* and cumulative number of confirmed COVID-19 cases notified in Ireland by notification date* to midnight 17/08/2020

*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

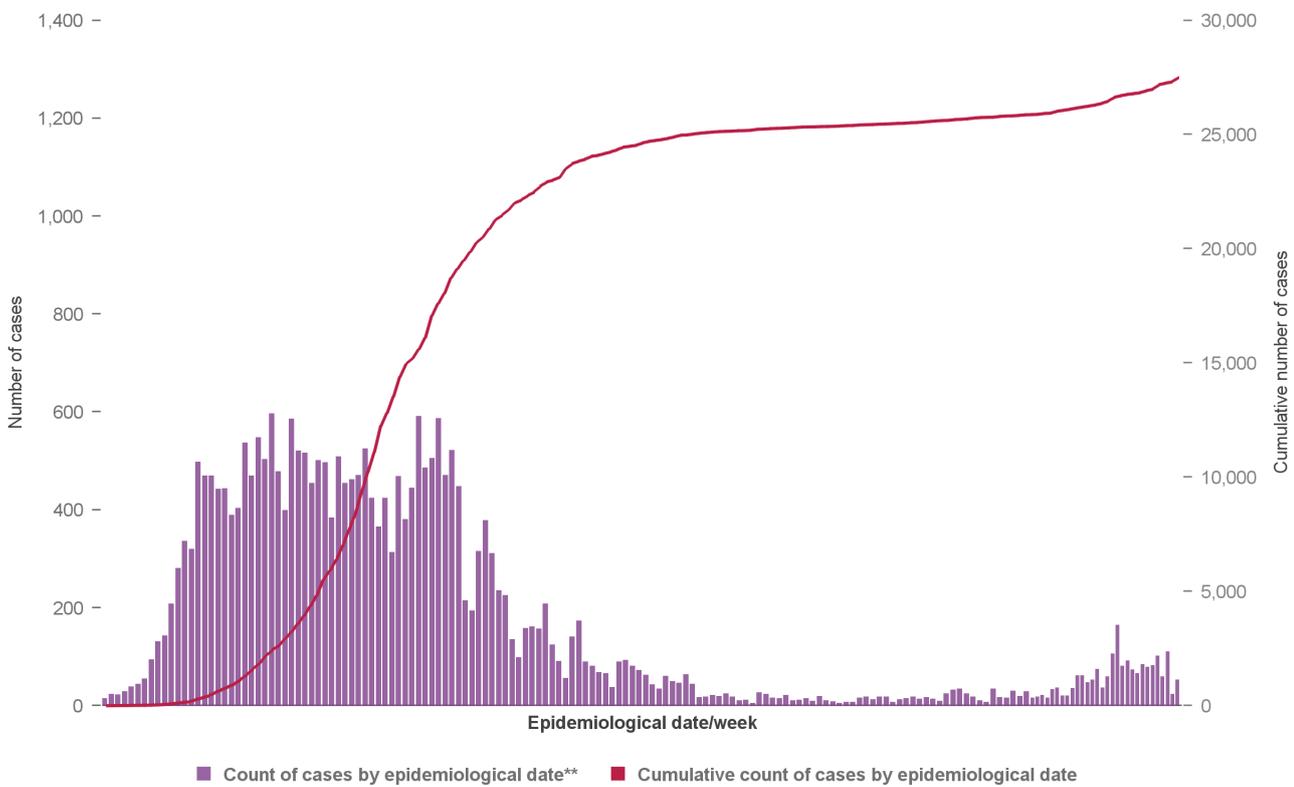


Figure 1b: Number and cumulative number of confirmed COVID-19 cases notified in Ireland by epidemiological date to midnight 17/08/2020**

**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.

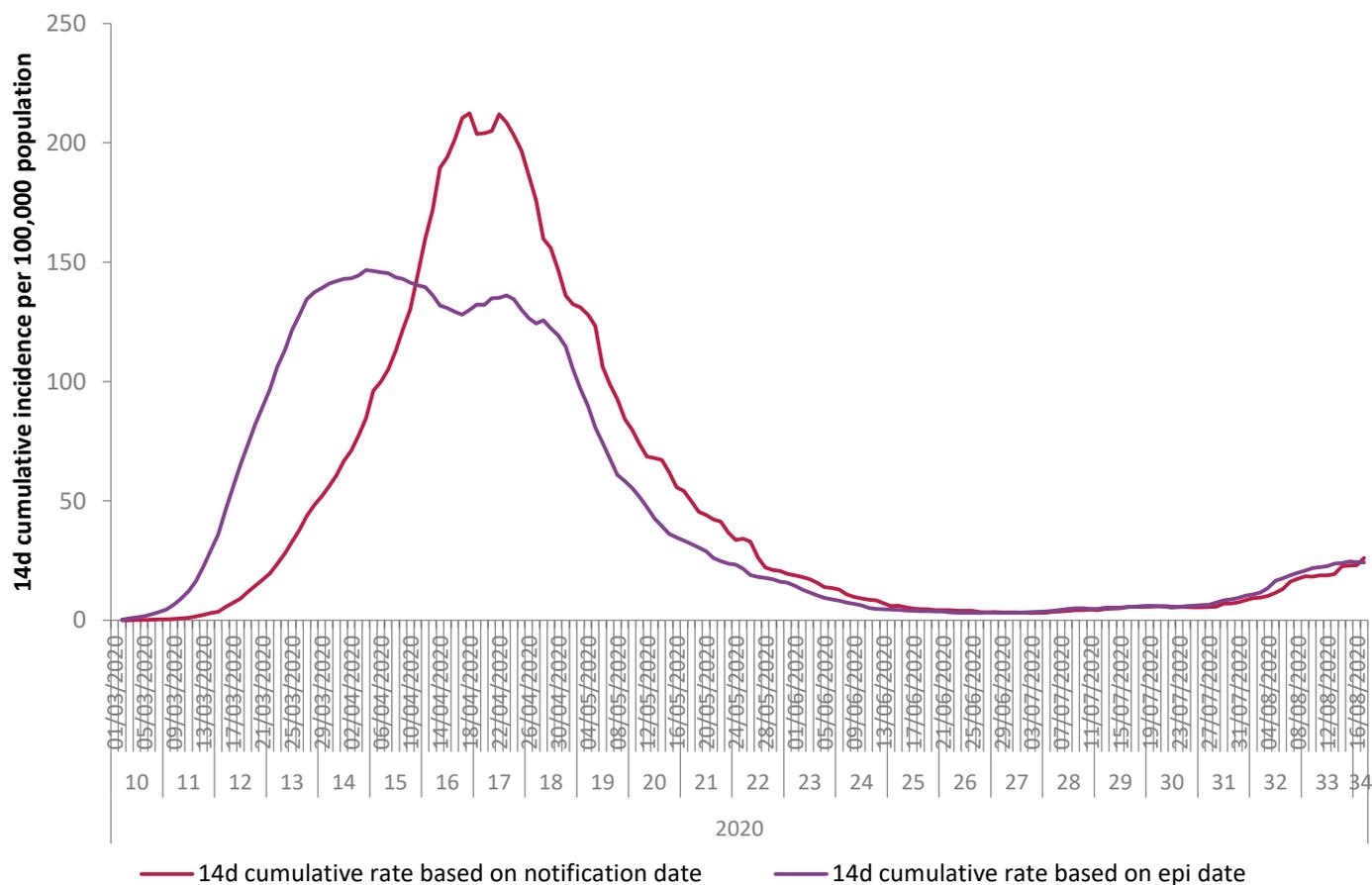


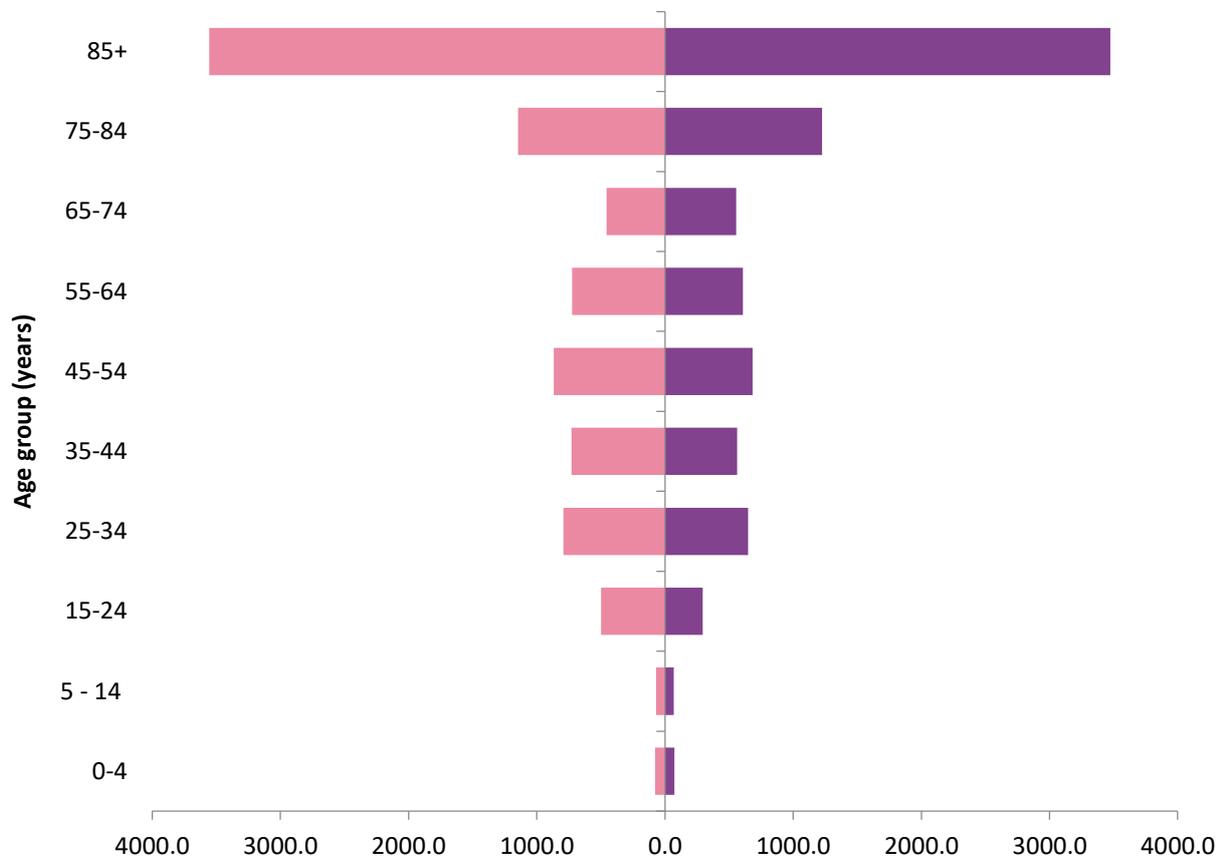
Figure 2: Cumulative 14 day incidence rate of confirmed COVID-19 cases per 100,000 population notified in Ireland by notification* and epidemiological date to midnight 17/08/2020**

* 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 17/08/2020

Characteristic		Number of cases	Percent
Total number of confirmed cases		27,493	100
Sex	Male:Female ratio	0.77	
	Male	11,956	43.49
	Female	15,508	56.41
	Unknown	29	0.11
Age	Median age (years)	47	
	Mean age (years)	49	
	Age range (years)	0 - 106	
	0-4 yrs	251	0.91
	5-14 yrs	464	1.69
	15-24 yrs	2,278	8.29
	25-34 yrs	4,774	17.36
	35-44 yrs	4,848	17.63
	45-54 yrs	4,868	17.71
	55-64 yrs	3,395	12.35
	65-74 yrs	1,887	6.86
	75-84 yrs	2,323	8.45
	85+ yrs	2,384	8.67
	Unknown	21	0.08



	0-4	5 - 14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	85+
Female	76.6	69.7	497.3	793.2	729.7	867.9	723.9	456.0	1146.6	3555.6
Male	74.2	67.9	295.4	647.6	563.6	683.8	609.4	555.7	1224.9	3473.2

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 17/08/2020 (excluding 20 cases for whom age is unknown and 28 cases for whom sex is unknown and 1 case for whom both are unknown)

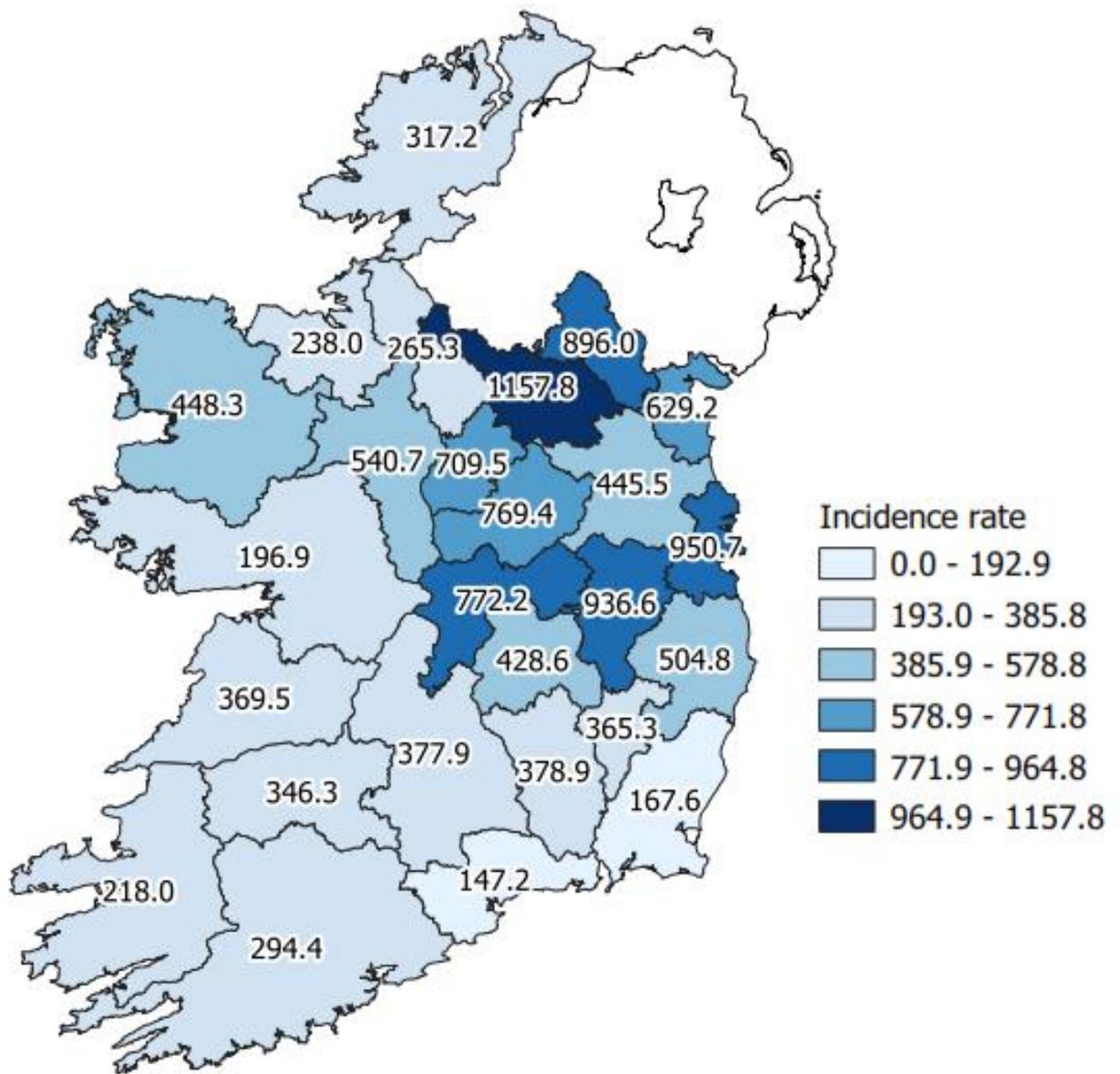


Figure 4: Cumulative incidence rates of confirmed cases of COVID-19 per 100,000 population notified in Ireland to midnight 17/08/2020

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 17/08/2020

County Name	Number of cases	Percent
Carlow	208	0.76
Cavan	882	3.21
Clare	439	1.6
Cork	1,598	5.81
Donegal	505	1.84
Dublin	12,809	46.59
Galway	508	1.85
Kerry	322	1.17
Kildare	2,084	7.58
Kilkenny	376	1.37
Laois	363	1.32
Leitrim	85	0.31
Limerick	675	2.46
Longford	290	1.05
Louth	811	2.95
Mayo	585	2.13
Meath	869	3.16
Monaghan	550	2
Offaly	602	2.19
Roscommon	349	1.27
Sligo	156	0.57
Tipperary	603	2.19
Waterford	171	0.62
Westmeath	683	2.48
Wexford	251	0.91
Wicklow	719	2.62
Total	27,493	100

Table 3: Number of confirmed COVID-19 cases by WHO transmission classification notified to midnight 17/08/2020

Transmission classification*	Count of Events	%
Community transmission, incl. possible community transmission	8,360	30.41%
Local transmission, incl. possible local transmission	18,333	66.68%
Travel abroad, incl. possible travel abroad	667	2.43%
Unknown	133	0.48%
Total	27,493	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 17/08/2020

Age Group (years)	Number of cases (n)	Cases hospitalised (n)	Cases hospitalised (%)	Cases admitted to ICU (n)	Cases admitted to ICU (%)
0-4 yrs	251	24	0.71	0	0
5-14 yrs	464	18	0.53	2	0.45
15-24 yrs	2278	80	2.36	5	1.13
25-34 yrs	4774	203	5.99	15	3.39
35-44 yrs	4848	278	8.2	37	8.37
45-54 yrs	4868	455	13.43	92	20.81
55-64 yrs	3395	503	14.84	128	28.96
65-74 yrs	1887	595	17.56	109	24.66
75-84 yrs	2323	753	22.22	48	10.86
85+ yrs	2384	479	14.13	6	1.36
Unknown	21	1	0.03	0	0
Total	27,493	3,389	100	442	100

Table 5: Number and proportion of confirmed cases of COVID-19 notified in Ireland by age-group, hospitalisation and ICU admission 17/08/2020

	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)	251	464	2,278	4,774	4,848	4,868	3,395	1,887	2,323	2,384	21
Cases hospitalised (n)	24	18	80	203	278	455	503	595	753	479	1
Cases hospitalised (%)	9.56	3.88	3.51	4.25	5.73	9.35	14.82	31.53	32.41	20.09	4.76
Cases admitted to ICU (n)	0	2	5	15	37	92	128	109	48	6	0
Cases admitted to ICU (%)	0	0.43	0.22	0.31	0.76	1.89	3.77	5.78	2.07	0.25	0
Deaths (n)	0	0	1	5	12	24	68	227	520	660	0
Case fatality ratio (%)	0	0	0.04	0.1	0.25	0.49	2	12.03	22.38	27.68	0

Outbreaks of COVID-19

Table 6: Number of clusters/outbreaks COVID-19 by location and HSE area notified to midnight 17/08/2020

Outbreak Location	E	HPSC	M	MW	NE	NW	S	SE	W	Total
Private house	1,220		15	96	124	54	118	82	28	1,737
Nursing home	131		10	18	43	5	14	17	36	274
Residential institution	106		10	8	18	4	21	10	4	181
Other*	13	2	8	36	7	8	31	11	11	127
Hospital	62		3	3	14	2	10	5	6	105
Workplace	16		10	6	14	1	9	3	4	63
Comm. Hosp/Long-stay unit	4		4	2		4	6	5	5	30
Unknown	3									3
Total	1,555	2	60	169	220	78	209	133	94	2,520

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

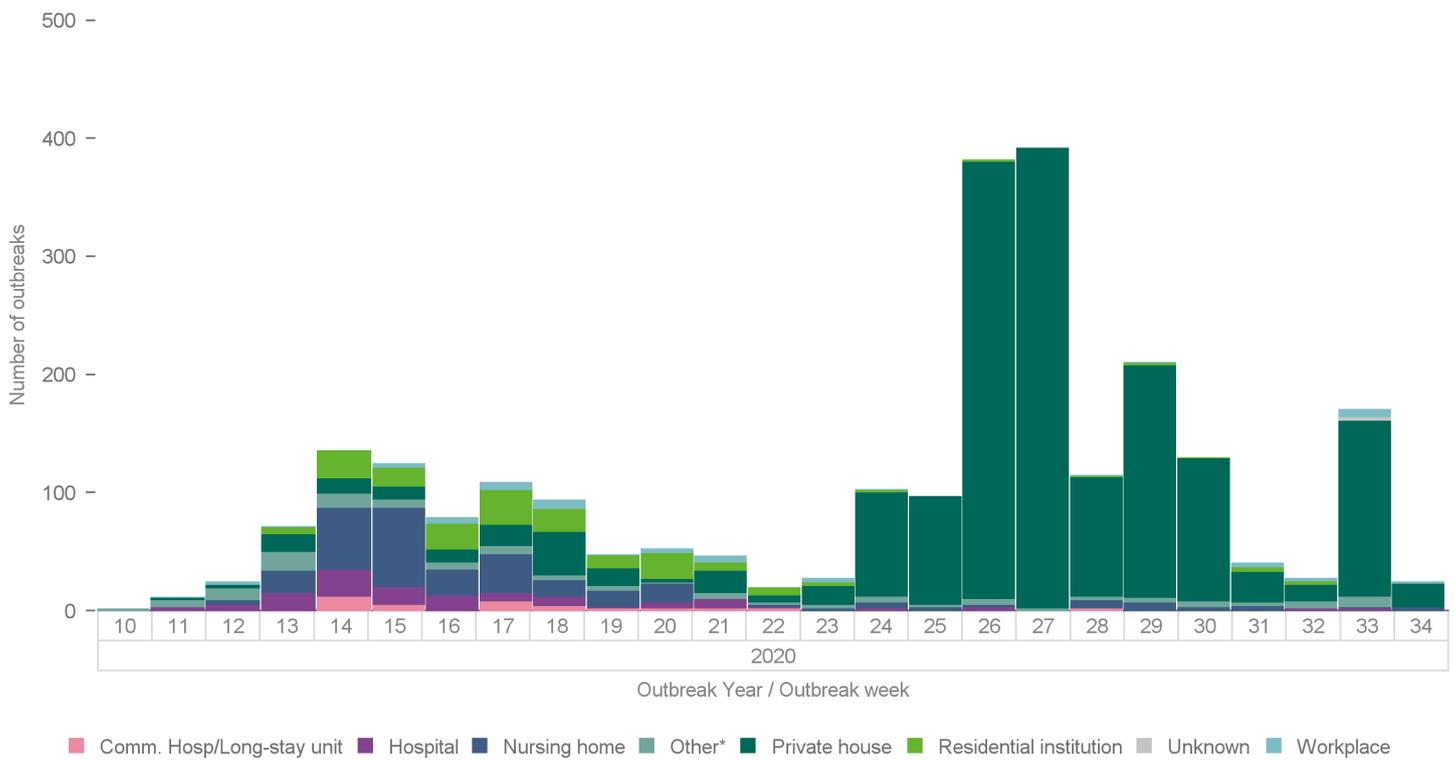


Figure 5: Trend in number of COVID-19 clusters by location and week notified to midnight 17/08/2020

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

Note: 1,684 COVID-19 outbreaks were reported on CIDR between week 24 and week 34 2020 (June 9th to 17th August). Of these, 1,591 were family outbreaks. Most of these family outbreaks occurred earlier and were reported between weeks 24 and 34 as a result of data validation: 1 occurred in February, 732 in March, 553 in April, 101 in May, 20 in June, 89 in July and 95 in August to date.

Deaths among COVID-19 cases

Table 7: Summary of deaths in all COVID-19 cases notified in Ireland up to midnight 17/08/2020

	Number	Percent
Total number of deaths	1,775	
Confirmed	1,517	85.46
Probable	99	5.58
Possible	159	8.96
Total number of cases hospitalised	753	42.42
Cases admitted to ICU	92	5.18
Cases not admitted to ICU	661	37.24
Total number of imported cases	6	0.34
Number of cases in healthcare workers	8	0.45
Number with underlying clinical conditions	1,674	94.31
Total number of male cases	873	49.18
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 17/08/2020

Age group (years)	Female	Male	Total	Percent
15-24 yrs	<5	<5	1	0.06
25-34 yrs	<5	<5	5	0.28
35-44 yrs	6	7	13	0.73
45-54 yrs	10	16	26	1.46
55-64 yrs	25	48	73	4.11
65-74 yrs	93	159	252	14.2
75-84 yrs	279	325	604	34.03
85+ yrs	484	315	799	45.01
Unknown	<5	<5	2	0.11
Total	902	873	1,775	100
Percent	50.82	49.18		

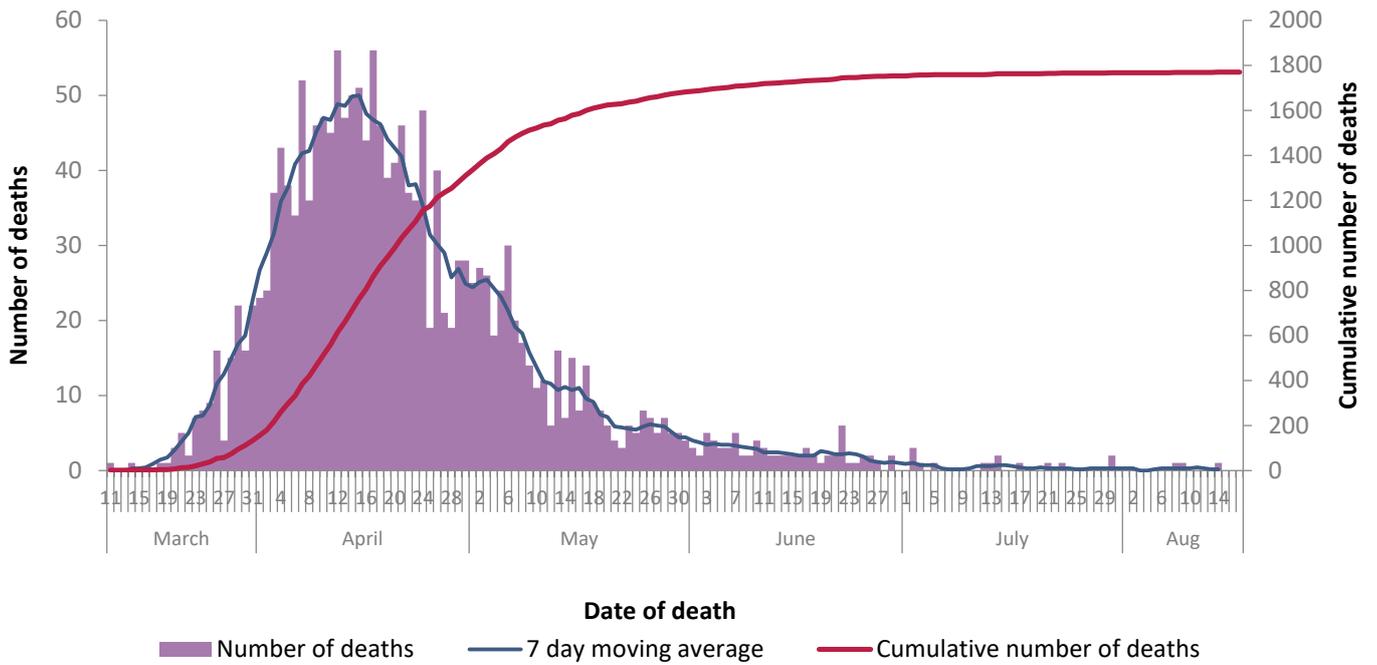


Figure 6a: Daily and 7 day moving average number of deaths among COVID-19 cases notified in Ireland by date of death and cumulative total to midnight 17/08/2020 (n=1770)

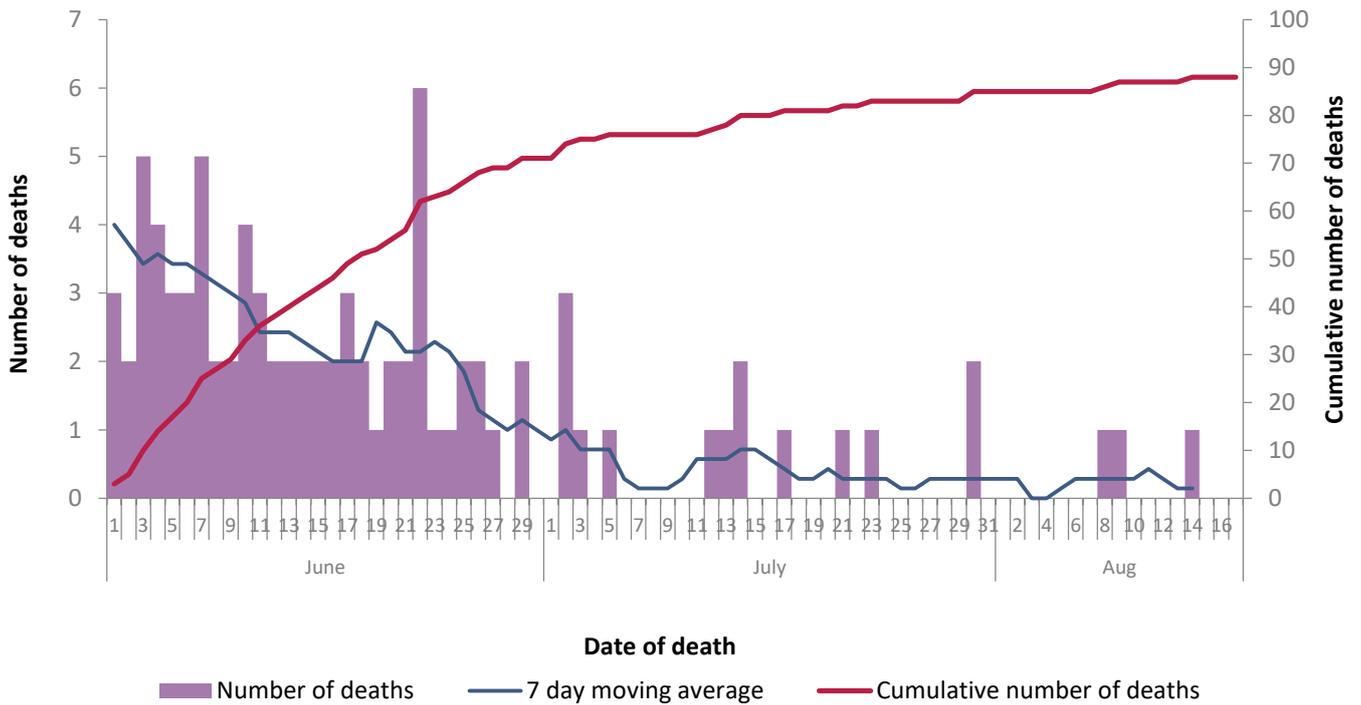


Figure 6b: Daily and 7 day moving average number of deaths among COVID-19 cases notified in Ireland by date of death and cumulative total, 01/06/2020 to midnight 17/08/2020 (n=88)

* 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 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 09:18 on 19/08/2020. 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.
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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.