



Epidemiology of COVID-19 in Ireland

Report prepared by HPSC on 04/08/2020 for National Public Health Emergency Team

Summary characteristics of confirmed COVID-19 cases notified in Ireland up to midnight 02/08/2020

	Number	Percent
Total number of confirmed cases	26,209	
National cumulative incidence of confirmed cases per 100,000 population	550.39	
Total number of cases hospitalised	3,358	12.81
Total number of cases admitted to ICU	437	1.67
Total number of deaths among confirmed cases	1,506	5.75
Case fatality ratio (CFR, %)	5.75	
National cumulative incidence of confirmed deaths per 100,000 population	31.63	
Total number of outbreaks/clusters	2,321	
Total number of cases associated with clusters	14,087	53.75
Total number of imported cases	455	1.74
Number of cases in healthcare workers	8,438	32.2
Males	11,266	42.99
Females	14,915	56.91
M:F ratio	0.76	
Median age (years)	47	
Mean age (years)	50	
Age range (years)	0 - 106	

Note: Data were extracted from Computerised Infectious Disease Reporting (CIDR) system at 09:16 on 04/08/2020 and are provisional and subject to ongoing review, validation and update. As a result, figures in this report may differ from previously published figures.

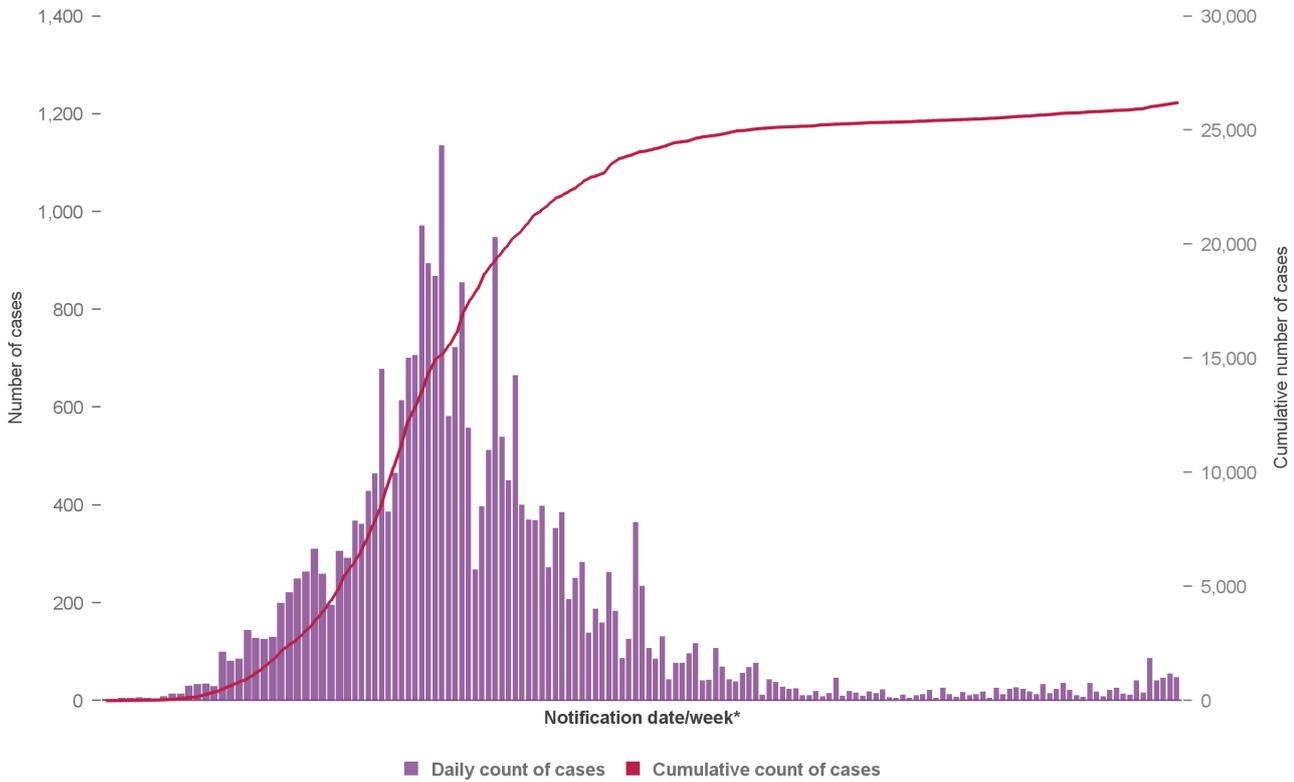


Figure 1a: Number* and cumulative number of confirmed COVID-19 cases notified in Ireland by notification date* to midnight 02/08/2020

*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

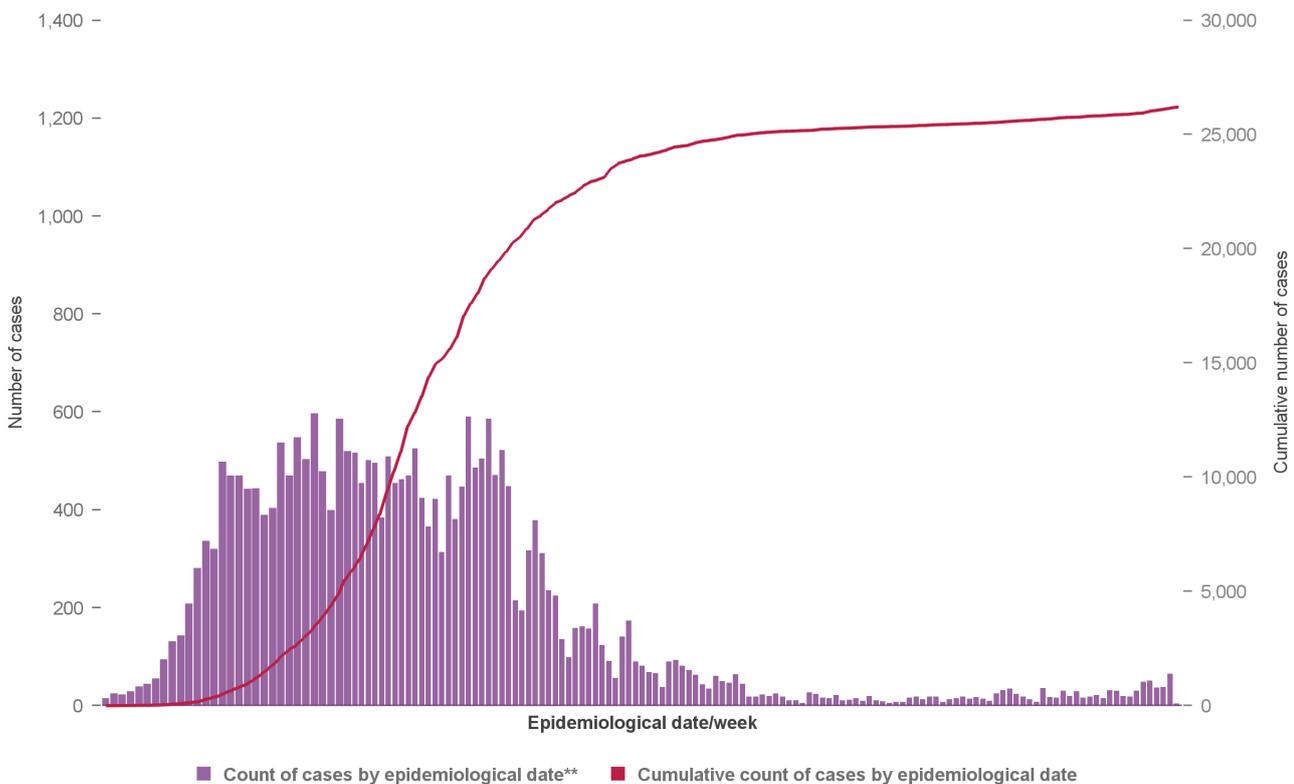


Figure 1b: Number and cumulative number of confirmed COVID-19 cases notified in Ireland by epidemiological date to midnight 02/08/2020**

**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.

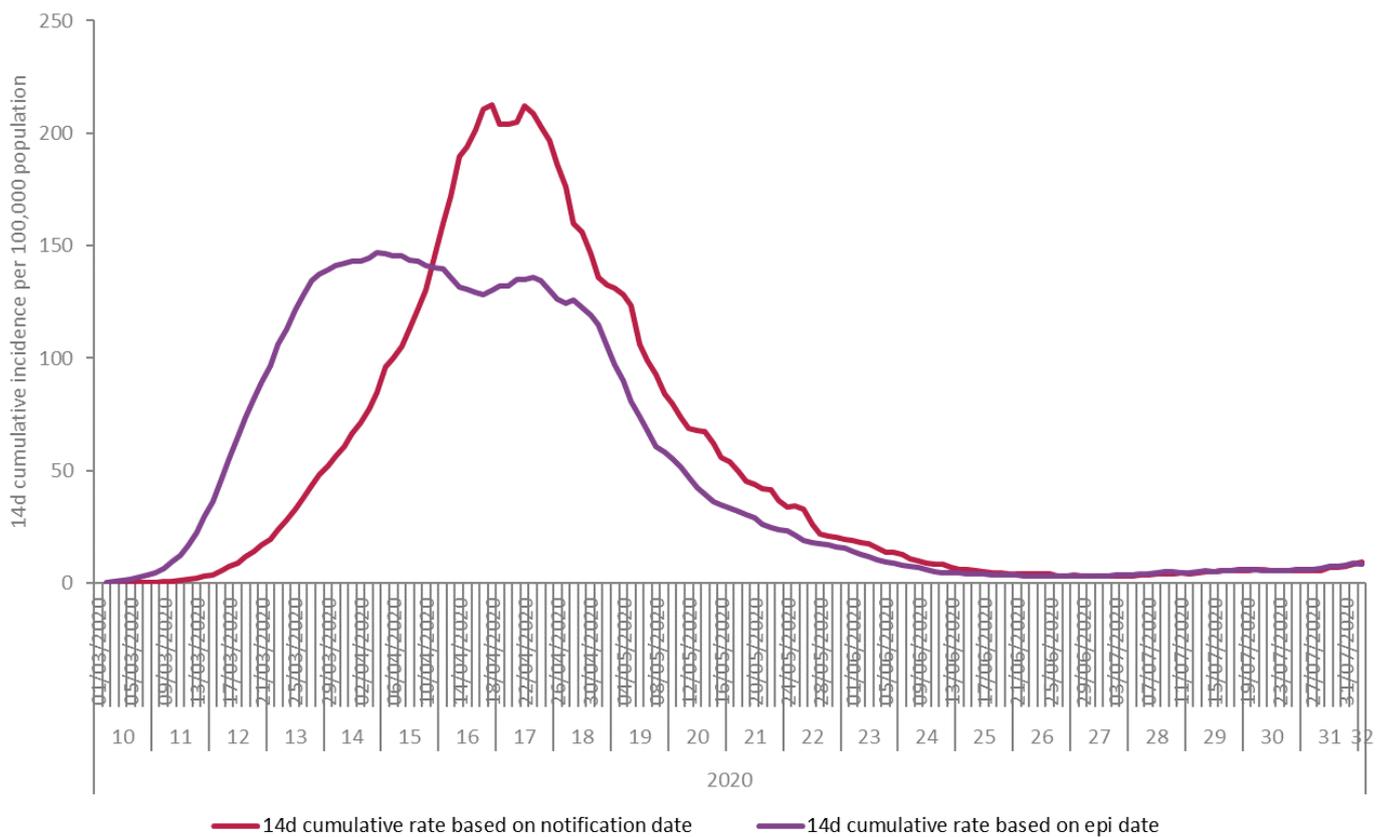


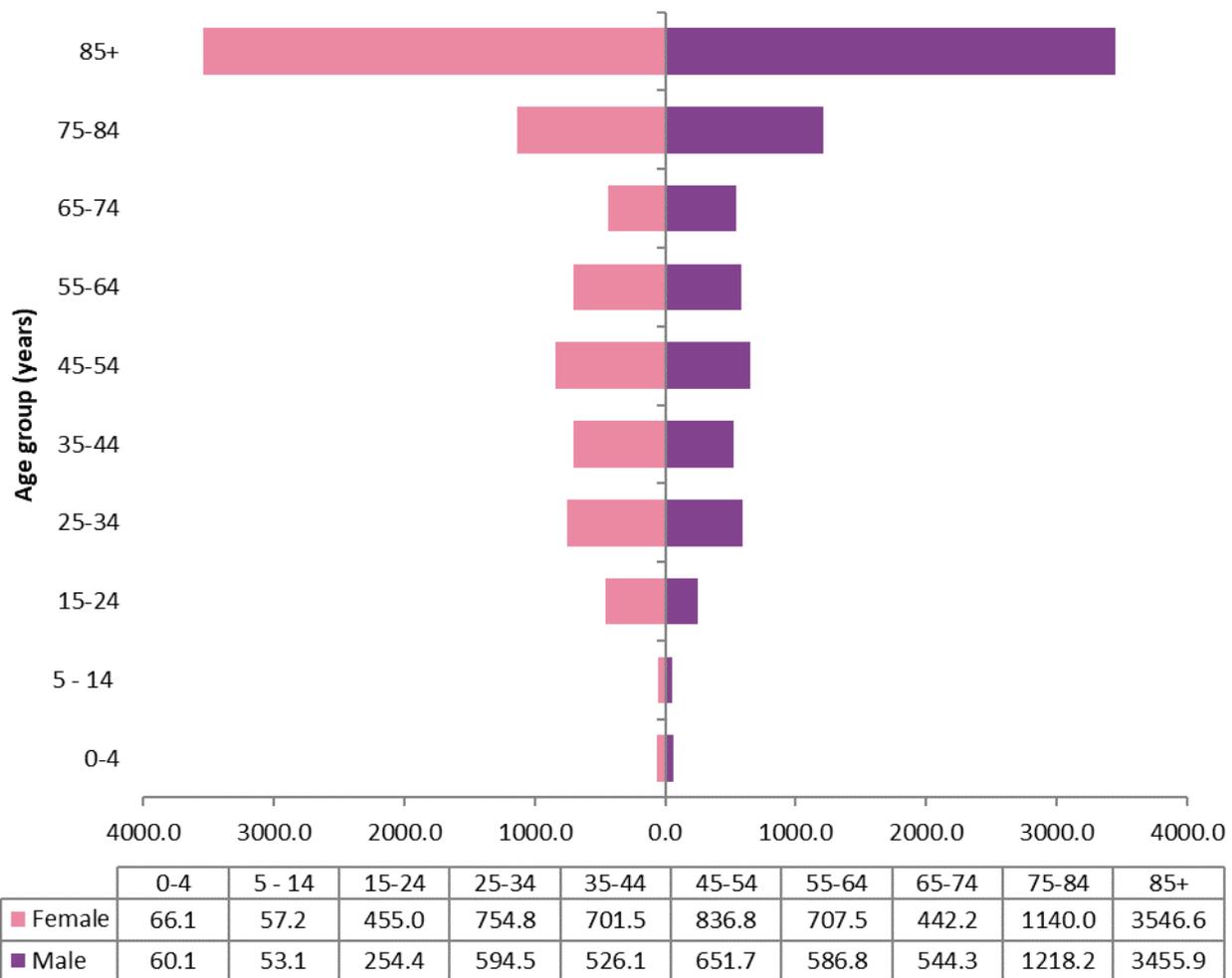
Figure 2: Cumulative 14 day incidence rate of confirmed COVID-19 cases per 100,000 population notified in Ireland by notification* and epidemiological date to midnight 02/08/2020**

* 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 02/08/2020

Characteristic		Number of cases	Percent
Total number of confirmed cases		26,209	100
Sex	Male:Female ratio	0.76	
	Male	11,266	42.99
	Female	14,915	56.91
	Unknown	28	0.11
Age	Median age (years)	47	
	Mean age (years)	50	
	Age range (years)	0 - 106	
	0-4 yrs	209	0.8
	5-14 yrs	372	1.42
	15-24 yrs	2,037	7.77
	25-34 yrs	4,474	17.07
	35-44 yrs	4,603	17.56
	45-54 yrs	4,671	17.82
	55-64 yrs	3,296	12.58
	65-74 yrs	1,840	7.02
	75-84 yrs	2,310	8.81
	85+ yrs	2,376	9.07
	Unknown	21	0.08



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 02/08/2020 (excluding 20 cases for whom age is unknown and 27 cases for whom sex is unknown and 1 case for whom both are unknown)

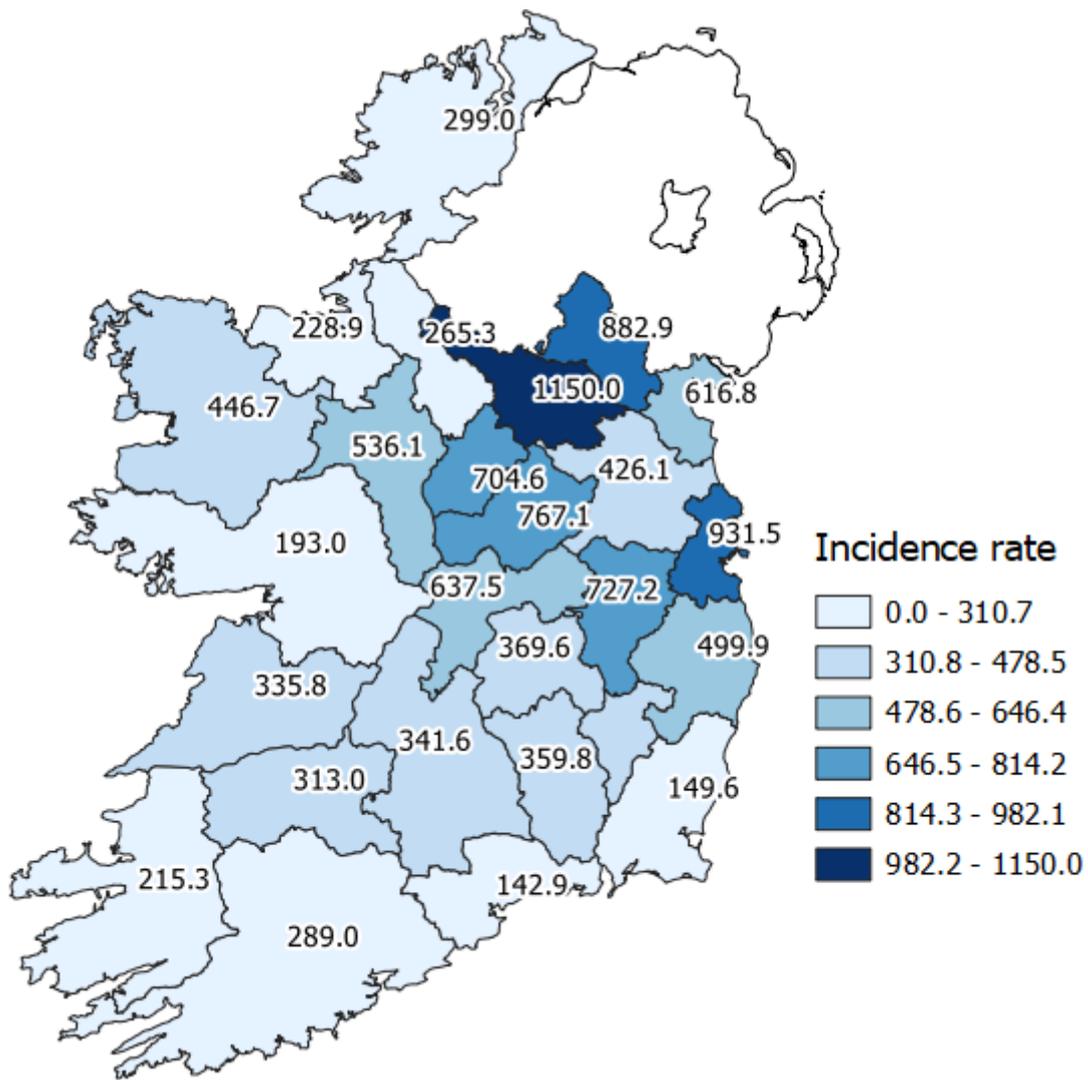


Figure 4: Cumulative incidence rates of confirmed cases of COVID-19 per 100,000 population notified in Ireland to midnight 02/08/2020

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 02/08/2020

County Name	Number of cases	Percent
Carlow	179	0.68
Cavan	876	3.34
Clare	399	1.52
Cork	1,569	5.99
Donegal	476	1.82
Dublin	12,551	47.89
Galway	498	1.9
Kerry	318	1.21
Kildare	1,618	6.17
Kilkenny	357	1.36
Laois	313	1.19
Leitrim	85	0.32
Limerick	610	2.33
Longford	288	1.1
Louth	795	3.03
Mayo	583	2.22
Meath	831	3.17
Monaghan	542	2.07
Offaly	497	1.9
Roscommon	346	1.32
Sligo	150	0.57
Tipperary	545	2.08
Waterford	166	0.63
Westmeath	681	2.6
Wexford	224	0.85
Wicklow	712	2.72
Total	26,209	100

Table 3: Number of confirmed COVID-19 cases by WHO transmission classification notified to midnight 02/08/2020

Transmission classification*	Count of Events	%
Community transmission, incl. possible community transmission	8,239	31.44%
Local transmission, incl. possible local transmission	17,293	65.98%
Travel abroad, incl. possible travel abroad	647	2.47%
Unknown	30	0.11%
Total	26,209	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 02/08/2020

Age Group (years)	Number of cases (n)	Cases hospitalised (n)	Cases hospitalised (%)	Cases admitted to ICU (n)	Cases admitted to ICU (%)
0-4 yrs	209	23	0.68	0	0
5-14 yrs	372	18	0.54	2	0.46
15-24 yrs	2037	78	2.32	5	1.14
25-34 yrs	4474	200	5.96	15	3.43
35-44 yrs	4603	276	8.22	36	8.24
45-54 yrs	4671	451	13.43	91	20.82
55-64 yrs	3296	499	14.86	127	29.06
65-74 yrs	1840	588	17.51	109	24.94
75-84 yrs	2310	746	22.22	46	10.53
85+ yrs	2376	478	14.23	6	1.37
Unknown	21	1	0.03	0	0
Total	26,209	3,358	100	437	100

Table 5: Number and proportion of confirmed cases of COVID-19 notified in Ireland by age-group, hospitalisation and ICU admission 02/08/2020

	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)	209	372	2,037	4,474	4,603	4,671	3,296	1,840	2,310	2,376	21
Cases hospitalised (n)	23	18	78	200	276	451	499	588	746	478	1
Cases hospitalised (%)	11	4.84	3.83	4.47	6	9.66	15.14	31.96	32.29	20.12	4.76
Cases admitted to ICU (n)	0	2	5	15	36	91	127	109	46	6	0
Cases admitted to ICU (%)	0	0.54	0.25	0.34	0.78	1.95	3.85	5.92	1.99	0.25	0
Deaths (n)	0	0	1	5	12	24	67	225	514	658	0
Case fatality ratio (%)	0	0	0.05	0.11	0.26	0.51	2.03	12.23	22.25	27.69	0

Outbreaks of COVID-19

Table 6: Number of clusters/outbreaks COVID-19 by location and HSE area notified to midnight 02/08/2020

Outbreak Location	E	HPSC	M	MW	NE	NW	S	SE	W	Total
Private house	1,085		6	90	119	53	113	77	27	1,570
Nursing home	131		10	17	41	5	13	17	36	270
Residential institution	104		10	8	17	4	21	10	4	178
Other*	14	2	8	31	6	7	27	9	9	113
Hospital	61		3	3	14	2	10	4	6	103
Workplace	11		7	5	14	1	8	2	4	52
Comm. Hosp/Long-stay unit	4		4	2		4	7	5	5	31
Unknown	2					1	1			4
Total	1,412	2	48	156	211	77	200	124	91	2,321

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

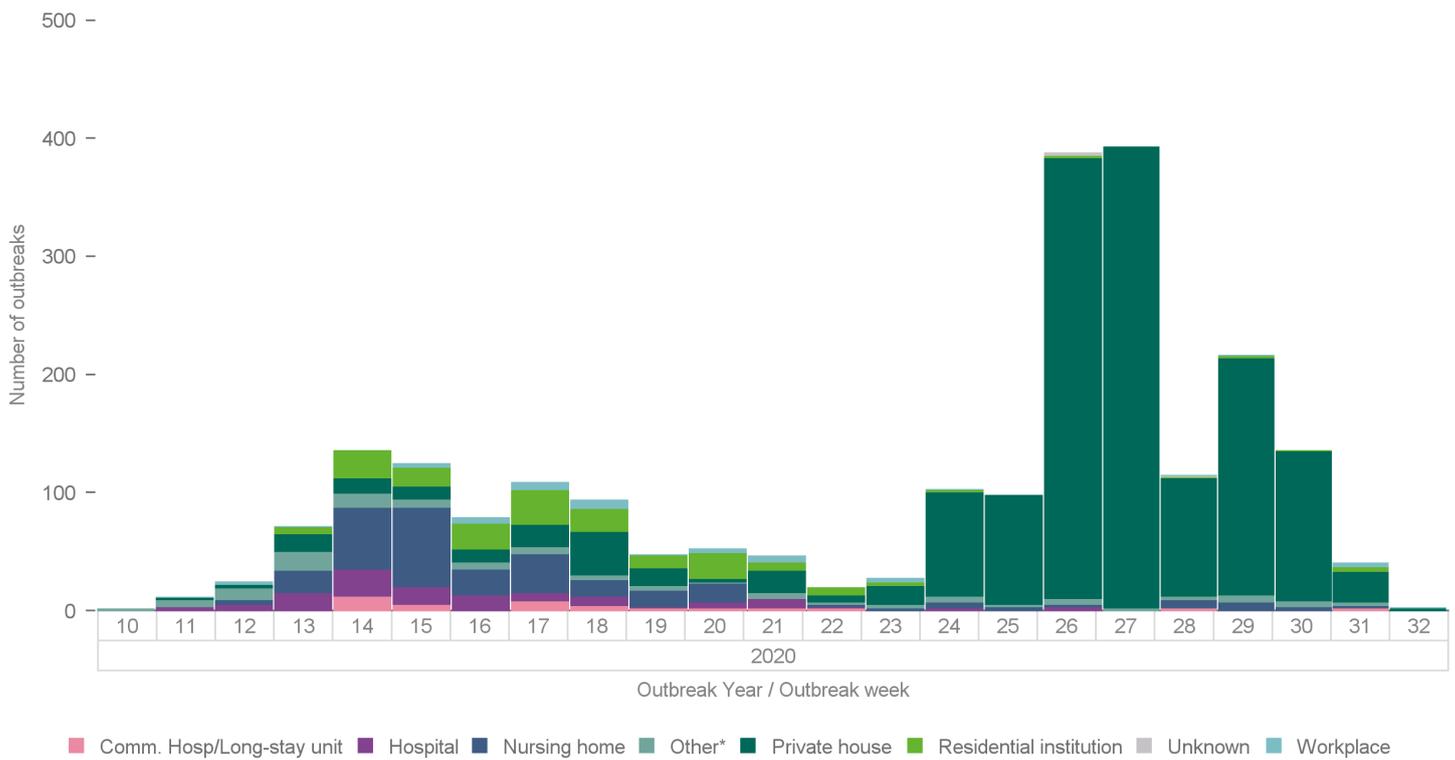


Figure 5: Trend in number of COVID-19 clusters by location and week notified to midnight 02/08/2020

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

Note: 1,487 COVID-19 outbreaks were reported on CIDR between week 24 and week 32 2020 (June 7th to August 2nd). Of these, 1,420 were family outbreaks. Most of these family outbreaks occurred earlier and were reported between weeks 24 and 32 as a result of data validation: 1 occurred in February, 614 in March, 452 in April, 98 in May, 13 in June and 18 in July.

Deaths among COVID-19 cases

Table 7: Summary of deaths in all COVID-19 cases notified in Ireland up to midnight 02/08/2020

	Number	Percent
Total number of deaths	1,763	
Confirmed	1,506	85.42
Probable	100	5.67
Possible	157	8.91
Total number of cases hospitalised	749	42.48
Cases admitted to ICU	93	5.28
Cases not admitted to ICU	656	37.21
Total number of imported cases	6	0.34
Number of cases in healthcare workers	8	0.45
Number with underlying clinical conditions	1,662	94.27
Total number of male cases	868	49.23
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 02/08/2020

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	0.74
45-54 yrs	10	16	26	1.47
55-64 yrs	25	47	72	4.08
65-74 yrs	92	157	249	14.12
75-84 yrs	275	324	599	33.98
85+ yrs	482	314	796	45.15
Unknown	<5	<5	2	0.11
Total	895	868	1,763	100
Percent	50.77	49.23		

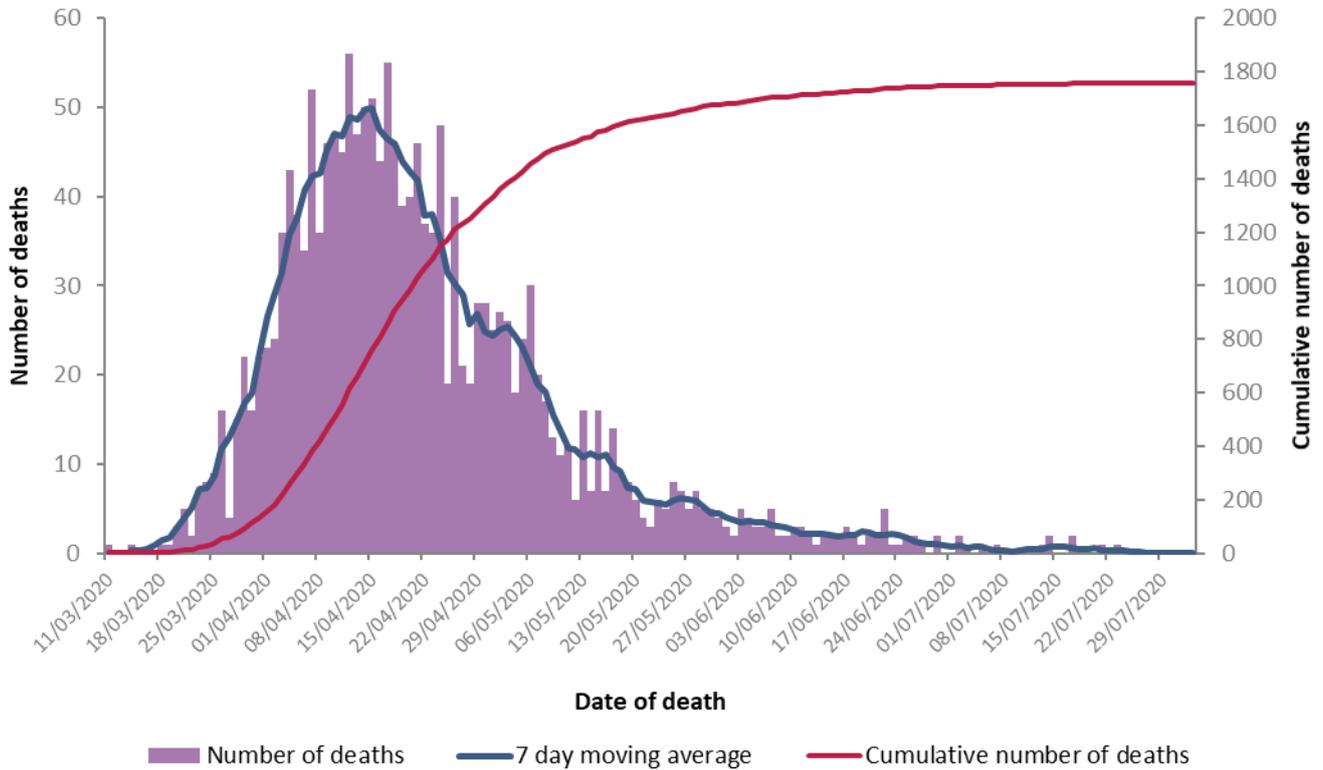


Figure 6: Daily and 7 day moving average number of deaths among COVID-19 cases notified in Ireland by date of death and cumulative total to midnight 02/08/2020

* 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 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 09:16 on 04/08/2020. 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.