



Epidemiology of COVID-19 in Ireland

Report prepared by HPSC on 06/07/2020 for National Public Health Emergency Team

Summary characteristics of confirmed COVID-19 cases notified in Ireland up to midnight 04/07/2020

	Number	Percent
Total number of confirmed cases	25,527	
National cumulative incidence of confirmed cases per 100,000 population	536.07	
Total number of cases hospitalised	3,309	12.96
Total number of cases admitted to ICU	437	1.71
Total number of deaths among confirmed cases	1,481	5.8
Case fatality ratio (CFR, %)	5.8	
National cumulative incidence of confirmed deaths per 100,000 population	31.1	
Total number of outbreaks/clusters	1,823	
Total number of cases associated with clusters	12,836	50.28
Total number of imported cases	388	1.52
Number of cases in healthcare workers	8,234	32.26
Males	10,919	42.77
Females	14,578	57.11
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 09:17 on 06/07/2020 and are provisional and subject to ongoing review, validation and update. As a result, figures in this report may differ from previously published figures.

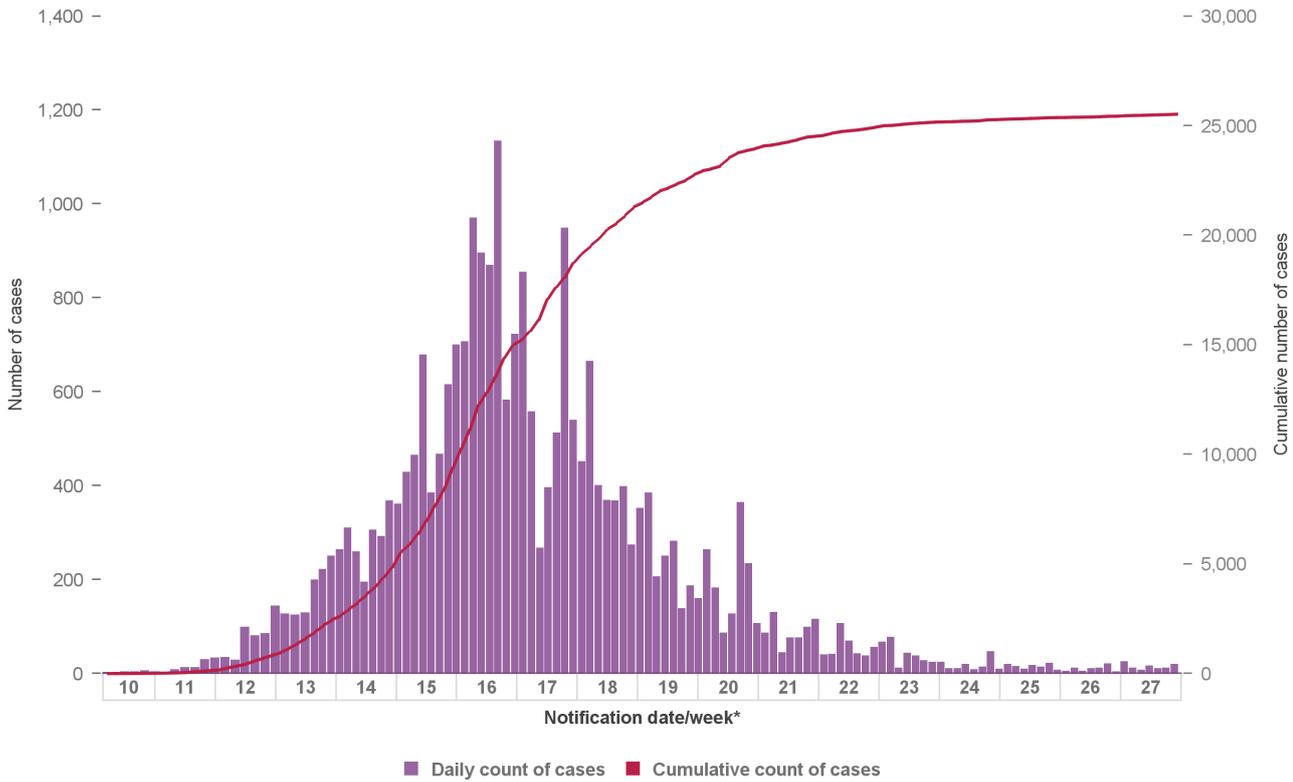


Figure 1a: Number* and cumulative number of confirmed COVID-19 cases notified in Ireland by notification date* to midnight 04/07/2020

*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

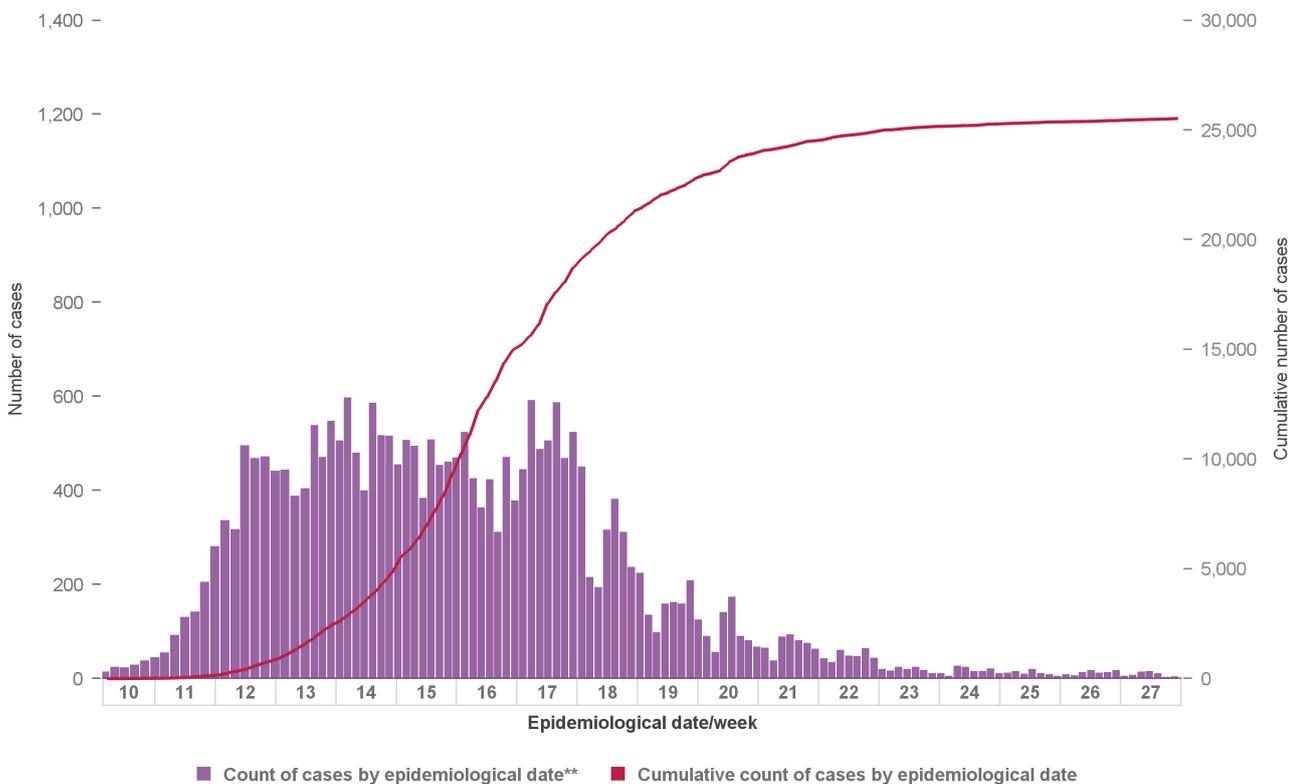


Figure 1b: Number and cumulative number of confirmed COVID-19 cases notified in Ireland by epidemiological date to midnight 04/07/2020**

**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.

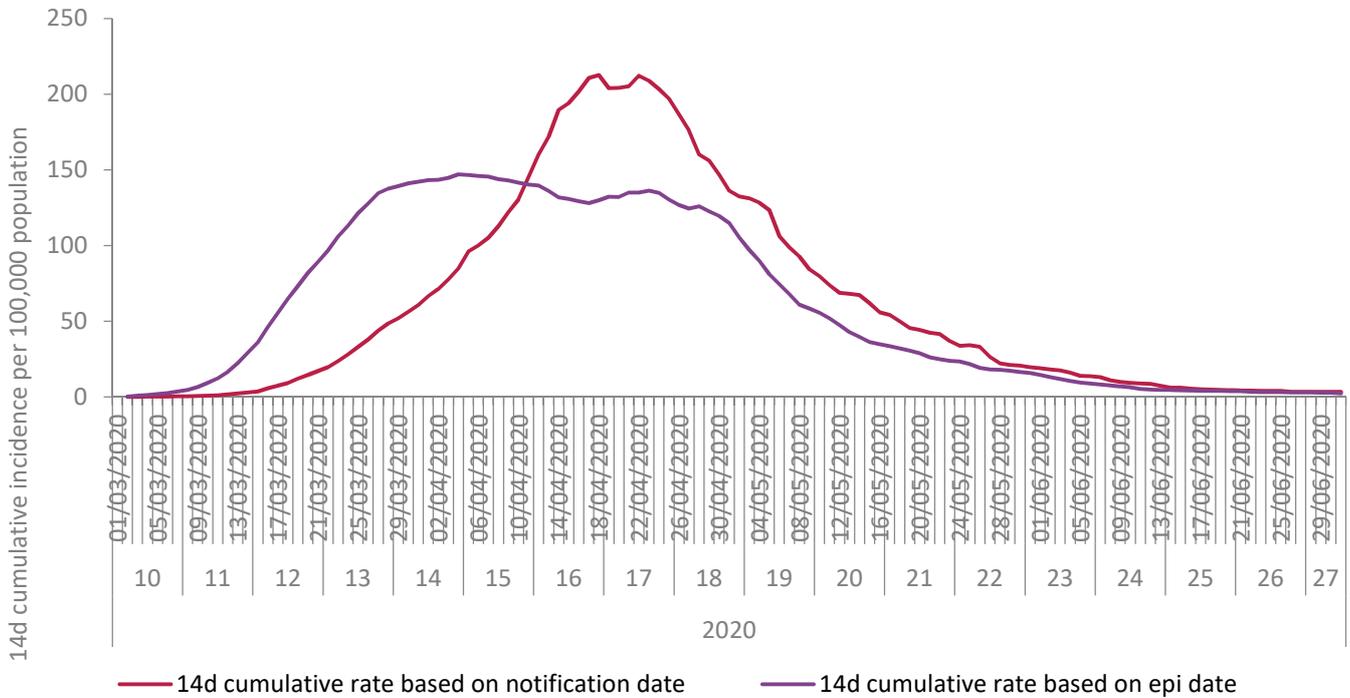


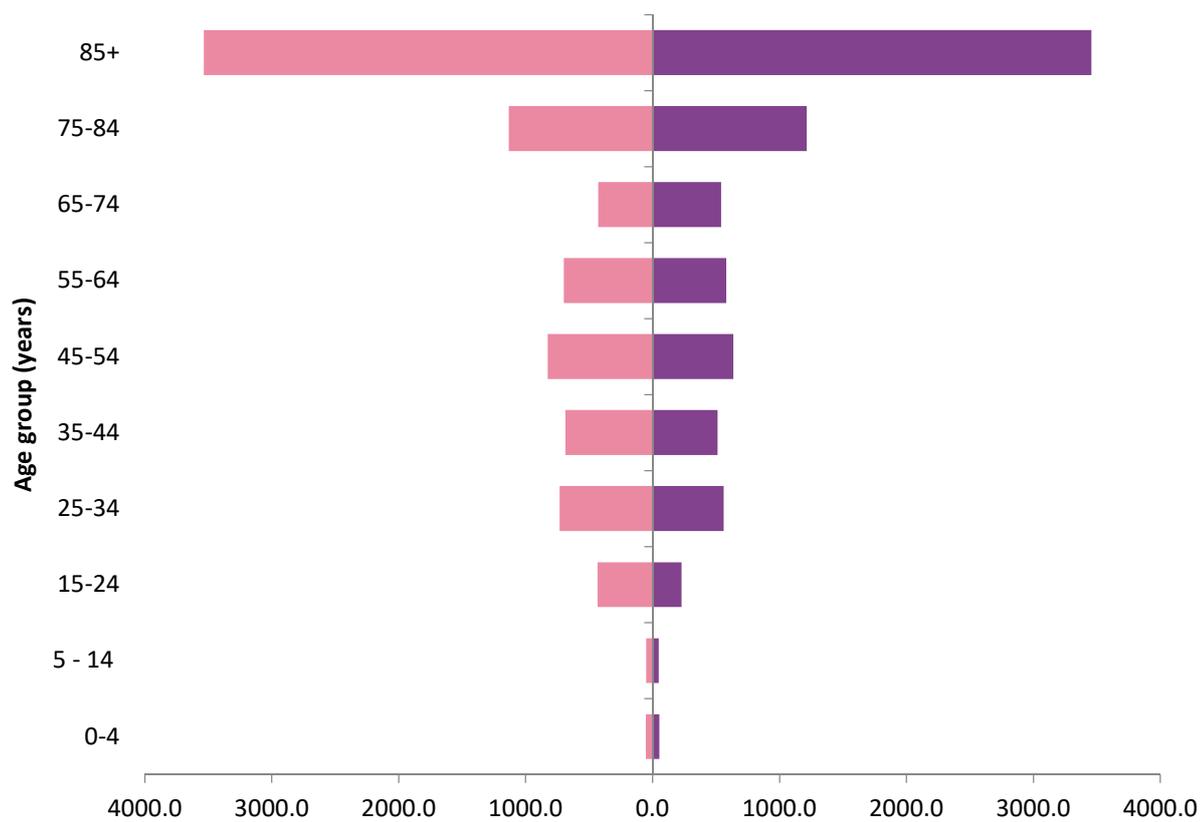
Figure 2: Cumulative 14 day incidence rate of confirmed COVID-19 cases per 100,000 population notified in Ireland by notification* and epidemiological date to midnight 04/07/2020**

* 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

**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 04/07/2020

Characteristic		Number of cases	Percent
Total number of confirmed cases		25,527	100
Sex	Male:Female ratio	0.75	
	Male	10,919	42.77
	Female	14,578	57.11
	Unknown	30	0.12
Age	Median age (years)	48	
	Mean age (years)	51	
	Age range (years)	0 - 106	
	0-4 yrs	175	0.69
	5-14 yrs	330	1.29
	15-24 yrs	1,902	7.45
	25-34 yrs	4,291	16.81
	35-44 yrs	4,493	17.6
	45-54 yrs	4,583	17.95
	55-64 yrs	3,257	12.76
	65-74 yrs	1,805	7.07
	75-84 yrs	2,297	9
	85+ yrs	2,371	9.29
	Unknown	23	0.09



	0-4	5 - 14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	85+
Female	53.2	50.3	433.5	731.9	685.9	825.1	699.7	429.0	1131.6	3535.4
Male	52.4	47.6	228.7	561.2	512.3	635.3	579.3	538.9	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 04/07/2020 (excluding 22 cases for whom age is unknown and 30 cases for whom sex is unknown and 1 cases for whom both is unknown)

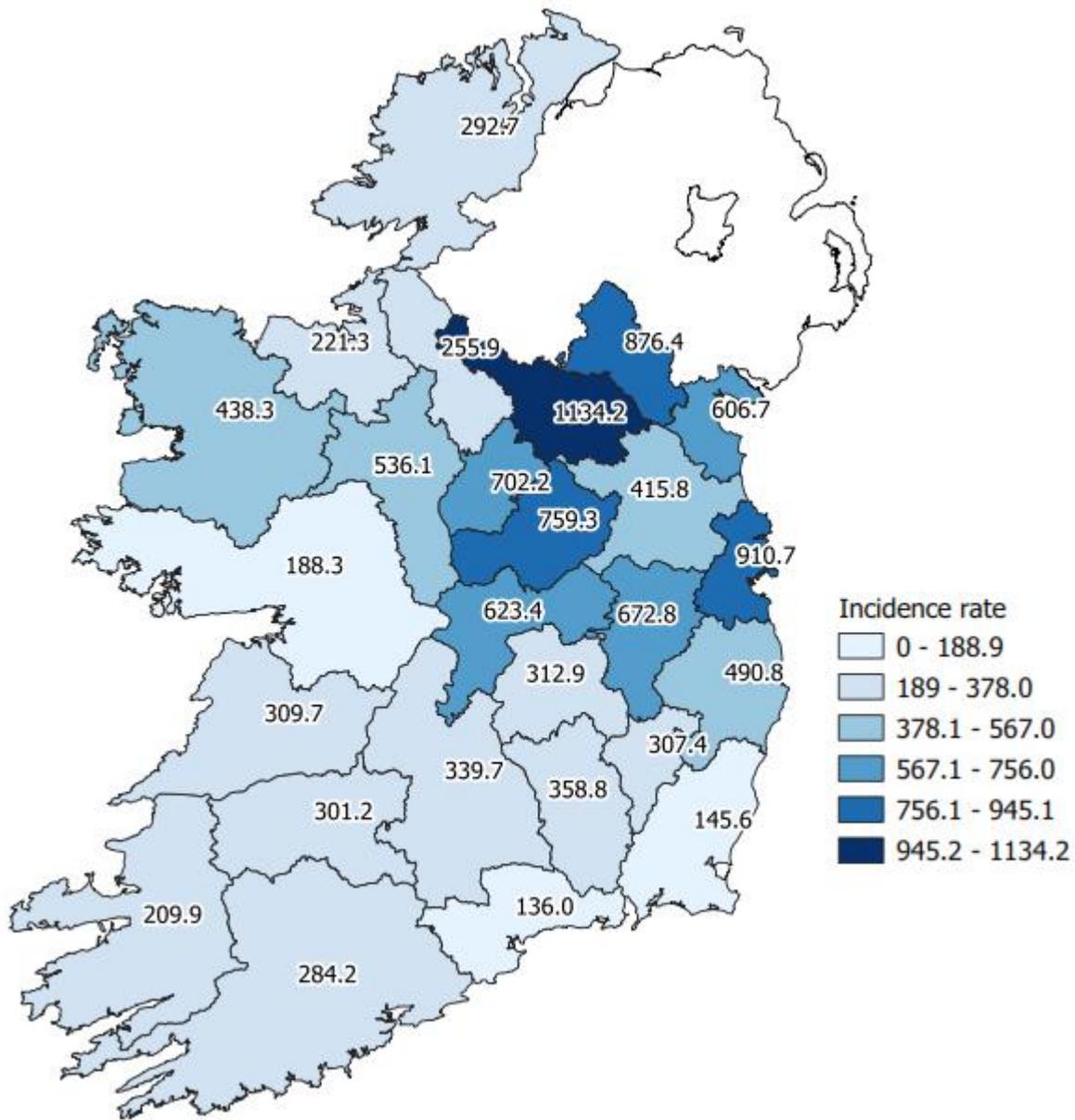


Figure 4: Cumulative incidence rates of confirmed cases of COVID-19 per 100,000 population notified in Ireland to midnight 04/07/2020

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 04/07/2020

County Name	Number of cases	Percent
Carlow	175	0.69
Cavan	864	3.38
Clare	368	1.44
Cork	1,543	6.04
Donegal	466	1.83
Dublin	12,270	48.07
Galway	486	1.9
Kerry	310	1.21
Kildare	1,497	5.86
Kilkenny	356	1.39
Laois	265	1.04
Leitrim	82	0.32
Limerick	587	2.3
Longford	287	1.12
Louth	782	3.06
Mayo	572	2.24
Meath	811	3.18
Monaghan	538	2.11
Offaly	486	1.9
Roscommon	346	1.36
Sligo	145	0.57
Tipperary	542	2.12
Waterford	158	0.62
Westmeath	674	2.64
Wexford	218	0.85
Wicklow	699	2.74
Total	25,527	100

Table 3: Number of confirmed COVID-19 cases by WHO transmission classification notified to midnight 04/07/2020

Transmission classification*	Count of Events	%
Community transmission, incl. possible community transmission	8,474	33.20%
Local transmission, incl. possible local transmission	16,452	64.45%
Travel abroad, incl. possible travel abroad	595	2.33%
Unknown	6	0.02%
Total	25,527	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 04/07/2020

Age Group (years)	Number of cases (n)	Cases hospitalised (n)	Cases hospitalised (%)	Cases admitted to ICU (n)	Cases admitted to ICU (%)
0-4 yrs	175	22	0.66	0	0
5-14 yrs	330	17	0.51	2	0.46
15-24 yrs	1902	72	2.18	5	1.14
25-34 yrs	4291	197	5.95	15	3.43
35-44 yrs	4493	267	8.07	35	8.01
45-54 yrs	4583	447	13.51	92	21.05
55-64 yrs	3257	492	14.87	126	28.83
65-74 yrs	1805	579	17.5	110	25.17
75-84 yrs	2297	741	22.39	46	10.53
85+ yrs	2371	473	14.29	6	1.37
Unknown	23	2	0.06	0	0
Total	25,527	3,309	100	437	100

Table 5: Number and proportion of confirmed cases of COVID-19 notified in Ireland by age-group, hospitalisation and ICU admission 04/07/2020

	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)	175	330	1,902	4,291	4,493	4,583	3,257	1,805	2,297	2,371	23
Cases hospitalised (n)	22	17	72	197	267	447	492	579	741	473	2
Cases hospitalised (%)	12.57	5.15	3.79	4.59	5.94	9.75	15.11	32.08	32.26	19.95	8.7
Cases admitted to ICU (n)	0	2	5	15	35	92	126	110	46	6	0
Cases admitted to ICU (%)	0	0.61	0.26	0.35	0.78	2.01	3.87	6.09	2	0.25	0
Deaths (n)	0	0	1	5	11	23	64	221	506	650	0
Case fatality ratio (%)	0	0	0.05	0.12	0.24	0.5	1.96	12.24	22.03	27.41	0

Outbreaks of COVID-19

Table 6: Number of clusters/outbreaks COVID-19 by location and HSE area notified to midnight 04/07/2020

Outbreak Location	E	M	MW	NE	NW	S	SE	W	Total
Private house	755	6	52	118	28	108	28	26	1,121
Nursing home	121	10	16	38	5	11	17	37	255
Residential institution	99	9	7	17	4	21	10	4	171
Hospital	61	3	3	14	2	10	4	6	103
Other*	11	8	26	6	7	21	6	9	94
Workplace	7	5	5	14	1	8	3	4	47
Comm. Hosp/Long-stay unit	4	3	2		4	6	5	5	29
Unknown	2					1			3
Total	1,060	44	111	207	51	186	73	91	1,823

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

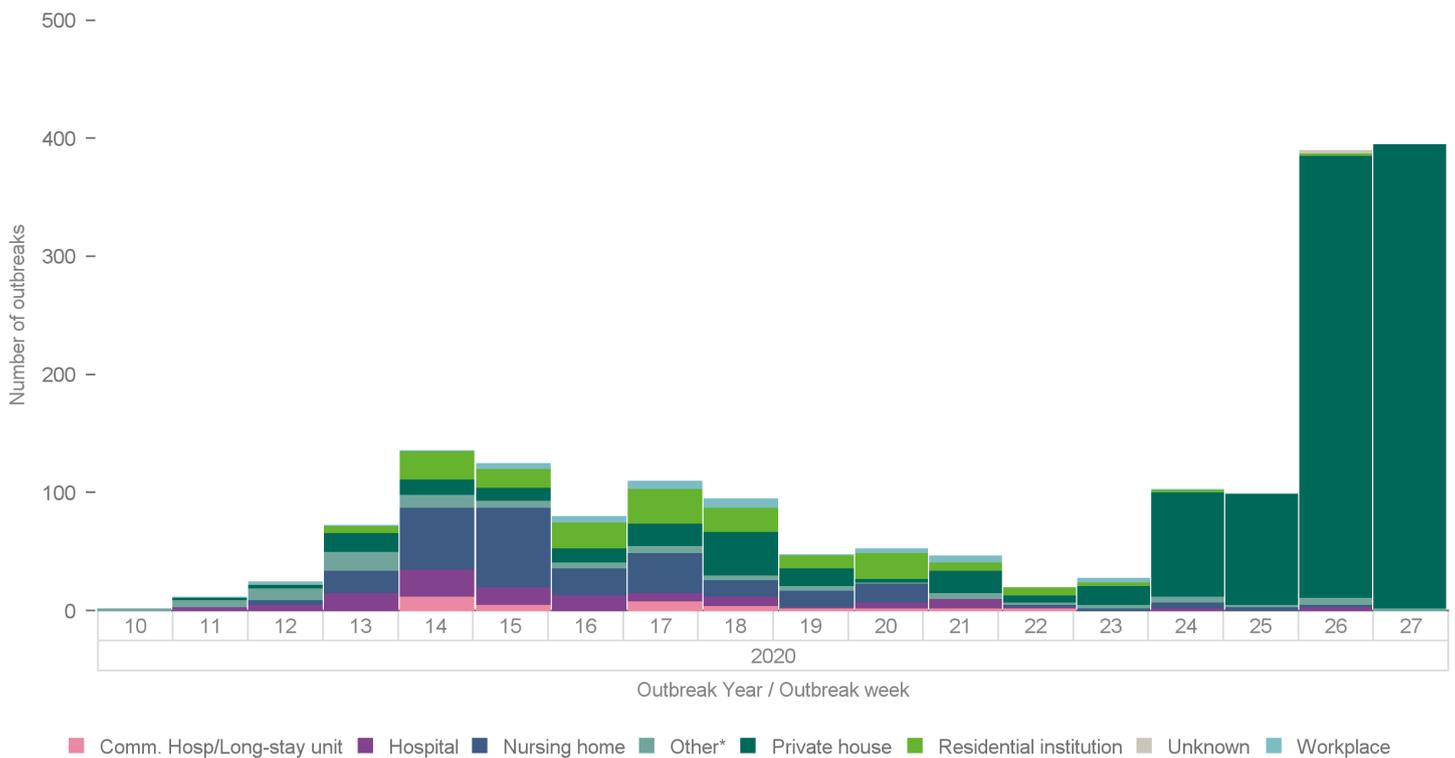


Figure 5: Trend in number of COVID-19 clusters by location and week notified to midnight 04/07/2020

*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 (28/06/2020- 04/07/2020), 394 new COVID-19 outbreaks were reported on CIDR, of which all 394 were family outbreaks. Of these, 196 family outbreaks occurred in March, 98 family outbreaks occurred in April, 43 family outbreaks occurred in May and 5 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 04/07/2020

	Number	Percent
Total number of deaths	1,741	
Confirmed	1,481	85.07
Probable	101	5.8
Possible	159	9.13
Total number of cases hospitalised	731	41.99
Cases admitted to ICU	90	5.17
Cases not admitted to ICU	641	36.82
Total number of imported cases	5	0.29
Number of cases in healthcare workers	7	0.4
Number with underlying clinical conditions	1,627	93.45
Total number of male cases	857	49.22
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 04/07/2020

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	5	7	12	0.69
45-54 yrs	10	15	25	1.44
55-64 yrs	24	45	69	3.96
65-74 yrs	91	156	247	14.19
75-84 yrs	270	322	592	34
85+ yrs	479	309	788	45.26
Unknown	<5	<5	2	0.11
Total	884	857	1,741	100
Percent	50.78	49.22		

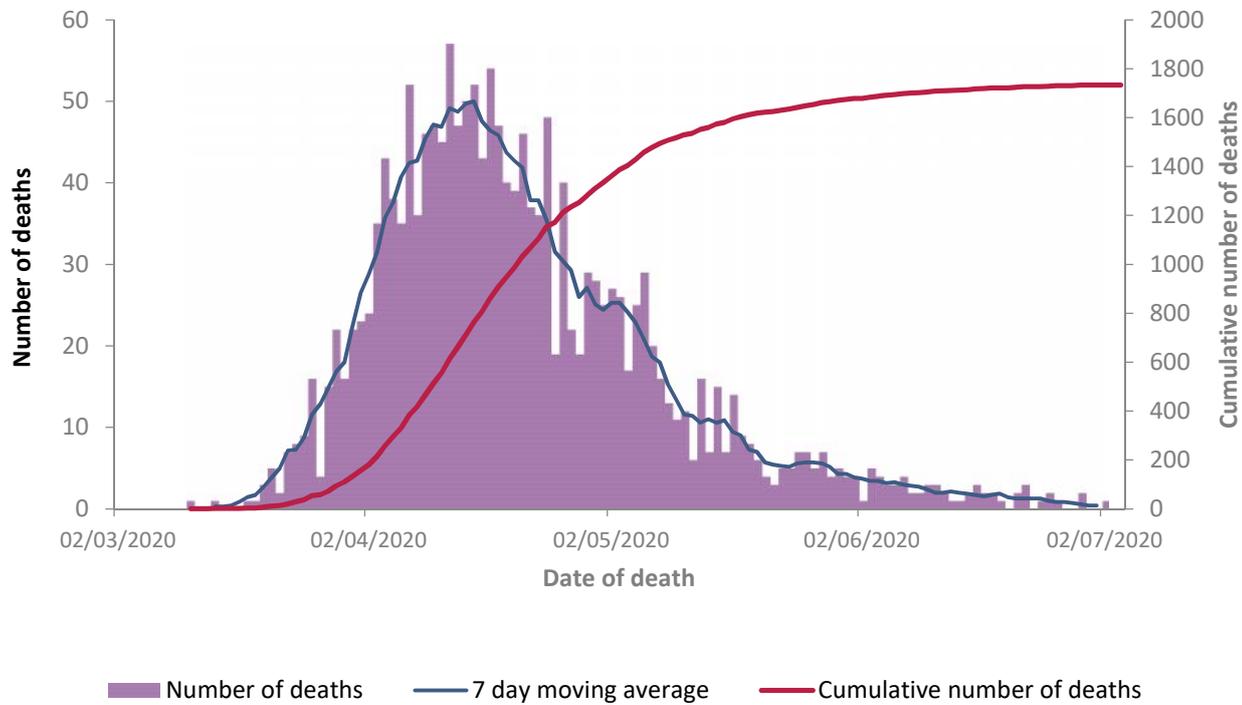


Figure 6: Daily and 7 day moving average number of deaths among COVID-19 cases notified in Ireland by date of death and cumulative total to midnight 04/07/2020

* Date of death is not yet available for seven 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 09:17 on 7/6/20. 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.