



Epidemiology of COVID-19 in Ireland

Report prepared by HPSC on 16/07/2020 for National Public Health Emergency Team

Summary characteristics of confirmed COVID-19 cases notified in Ireland up to midnight 14/07/2020

	Number	Percent
Total number of confirmed cases	25,677	
National cumulative incidence of confirmed cases per 100,000 population	539.22	
Total number of cases hospitalised	3,339	13
Total number of cases admitted to ICU	437	1.7
Total number of deaths among confirmed cases	1,490	5.8
Case fatality ratio (CFR, %)	5.8	
National cumulative incidence of confirmed deaths per 100,000 population	31.29	
Total number of outbreaks/clusters	2,019	
Total number of cases associated with clusters	13,425	52.28
Total number of imported cases	420	1.64
Number of cases in healthcare workers	8,324	32.42
Males	10,976	42.75
Females	14,674	57.15
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 09:15 on 16/07/2020 and are provisional and subject to ongoing review, validation and update. As a result, figures in this report may differ from previously published figures.

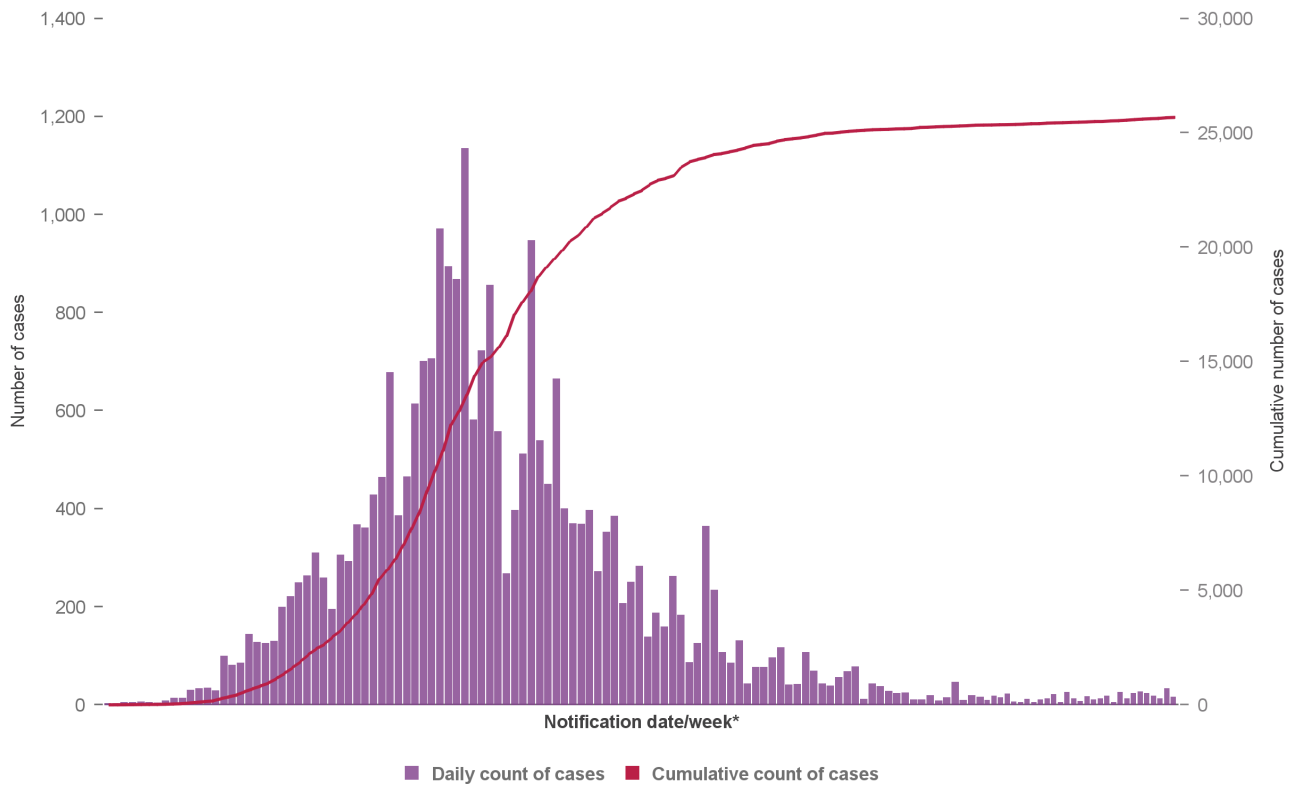


Figure 1a: Number* and cumulative number of confirmed COVID-19 cases notified in Ireland by notification date* to midnight 14/07/2020

*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 19/03/2020 – 01/04/2020 in addition to real-time reporting of cases with contemporaneous specimen dates

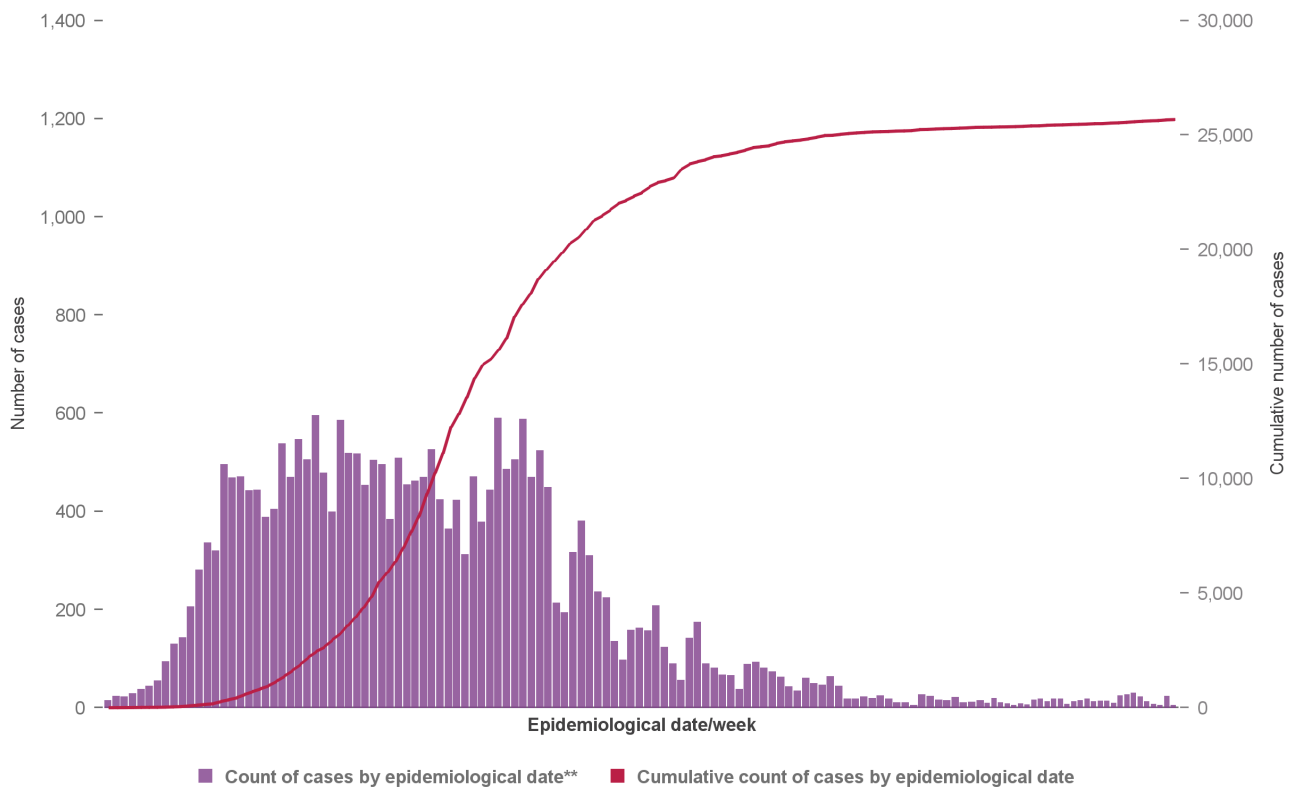


Figure 1b: Number and cumulative number of confirmed COVID-19 cases notified in Ireland by epidemiological date to midnight 14/07/2020**

**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.

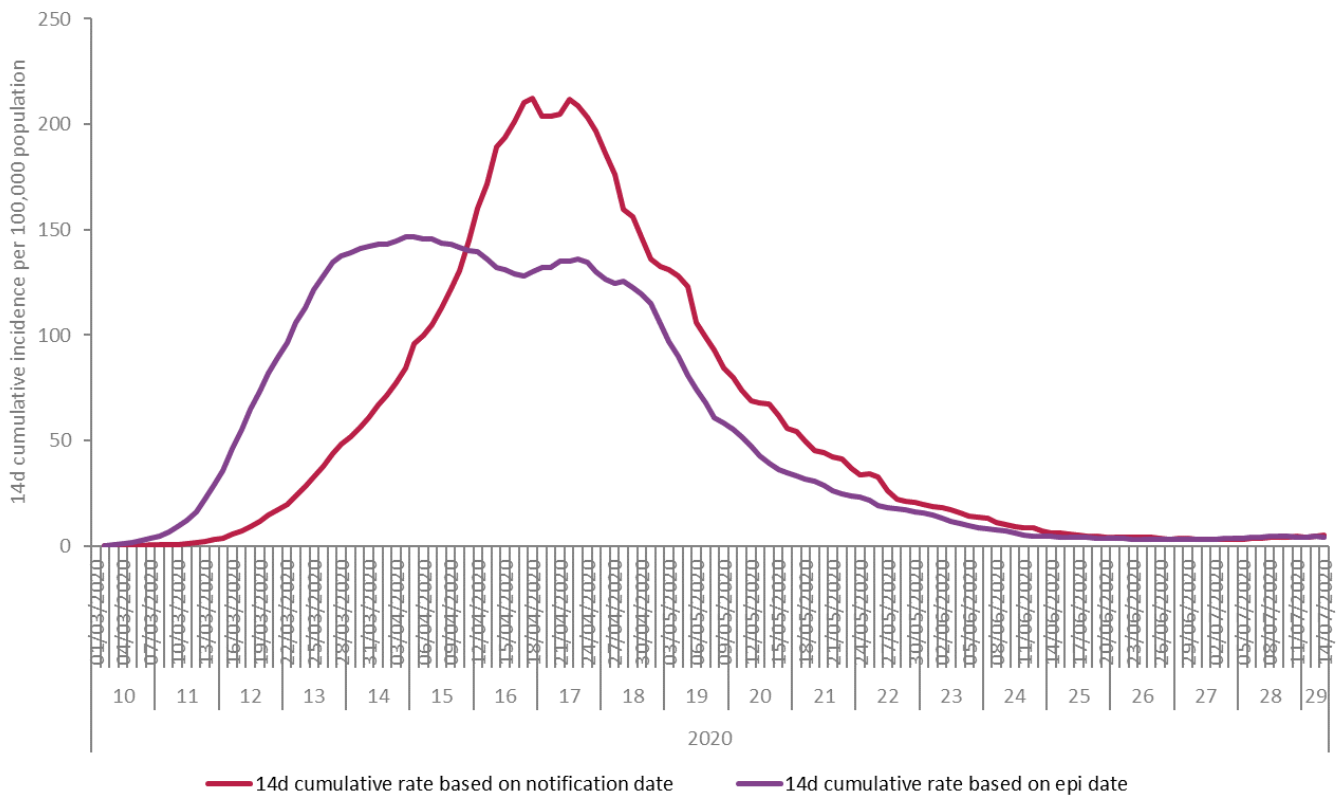


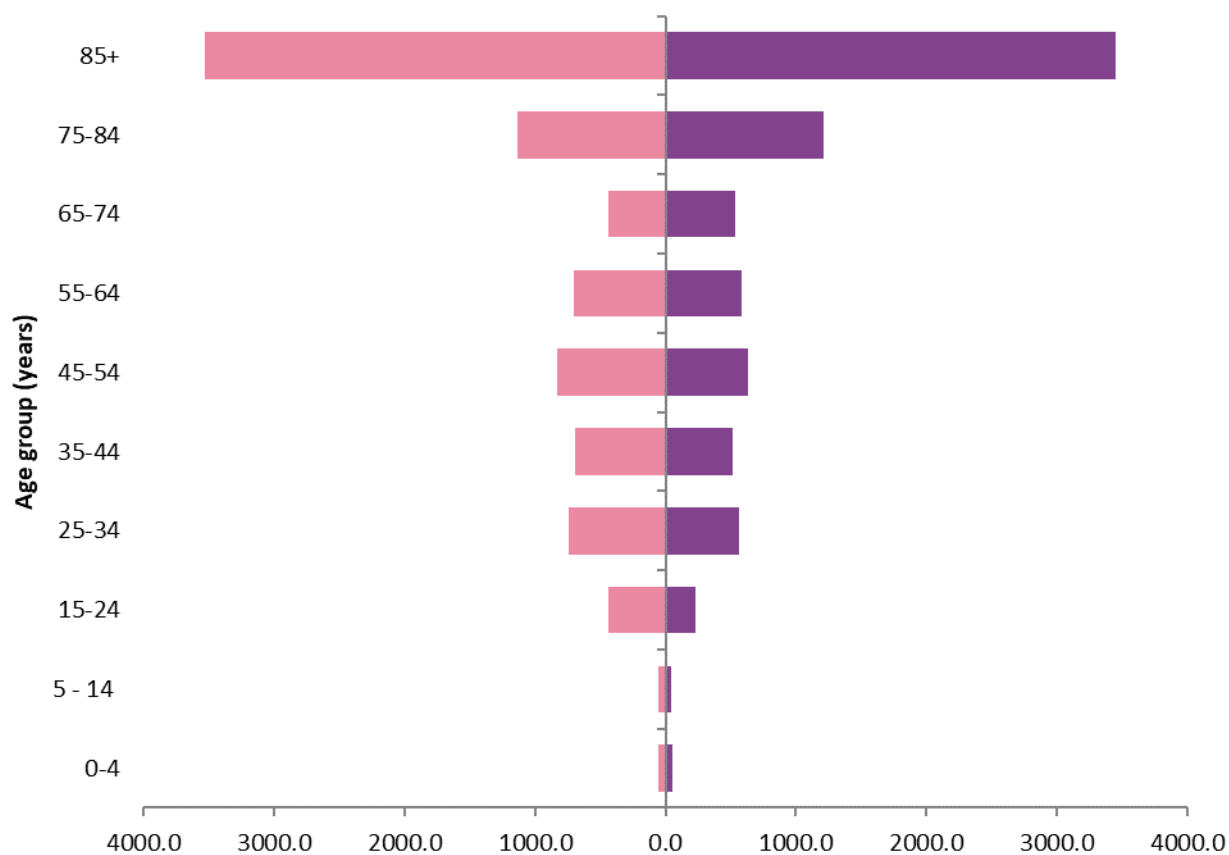
Figure 2: Cumulative 14 day incidence rate of confirmed COVID-19 cases per 100,000 population notified in Ireland by notification* and epidemiological date to midnight 14/07/2020**

* 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 14/07/2020

Characteristic		Number of cases	Percent
Total number of confirmed cases		25,677	100
Sex	Male:Female ratio	0.75	
	Male	10,976	42.75
	Female	14,674	57.15
	Unknown	27	0.11
Age	Median age (years)	48	
	Mean age (years)	50	
	Age range (years)	0 - 106	
	0-4 yrs	179	0.7
	5-14 yrs	336	1.31
	15-24 yrs	1,946	7.58
	25-34 yrs	4,329	16.86
	35-44 yrs	4,518	17.6
	45-54 yrs	4,598	17.91
	55-64 yrs	3,267	12.72
	65-74 yrs	1,813	7.06
	75-84 yrs	2,299	8.95
	85+ yrs	2,372	9.24
	Unknown	20	0.08



	0-4	5 - 14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	85+
Female	55.6	51.2	442.3	738.1	690.6	827.9	702.4	433.2	1132.6	3537.6
Male	52.4	48.4	235.6	566.9	514.5	637.2	580.5	538.9	1214.8	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 14/07/2020 (excluding 20 cases for whom age is unknown and 26 cases for whom sex is unknown and 1 case for whom both are unknown)

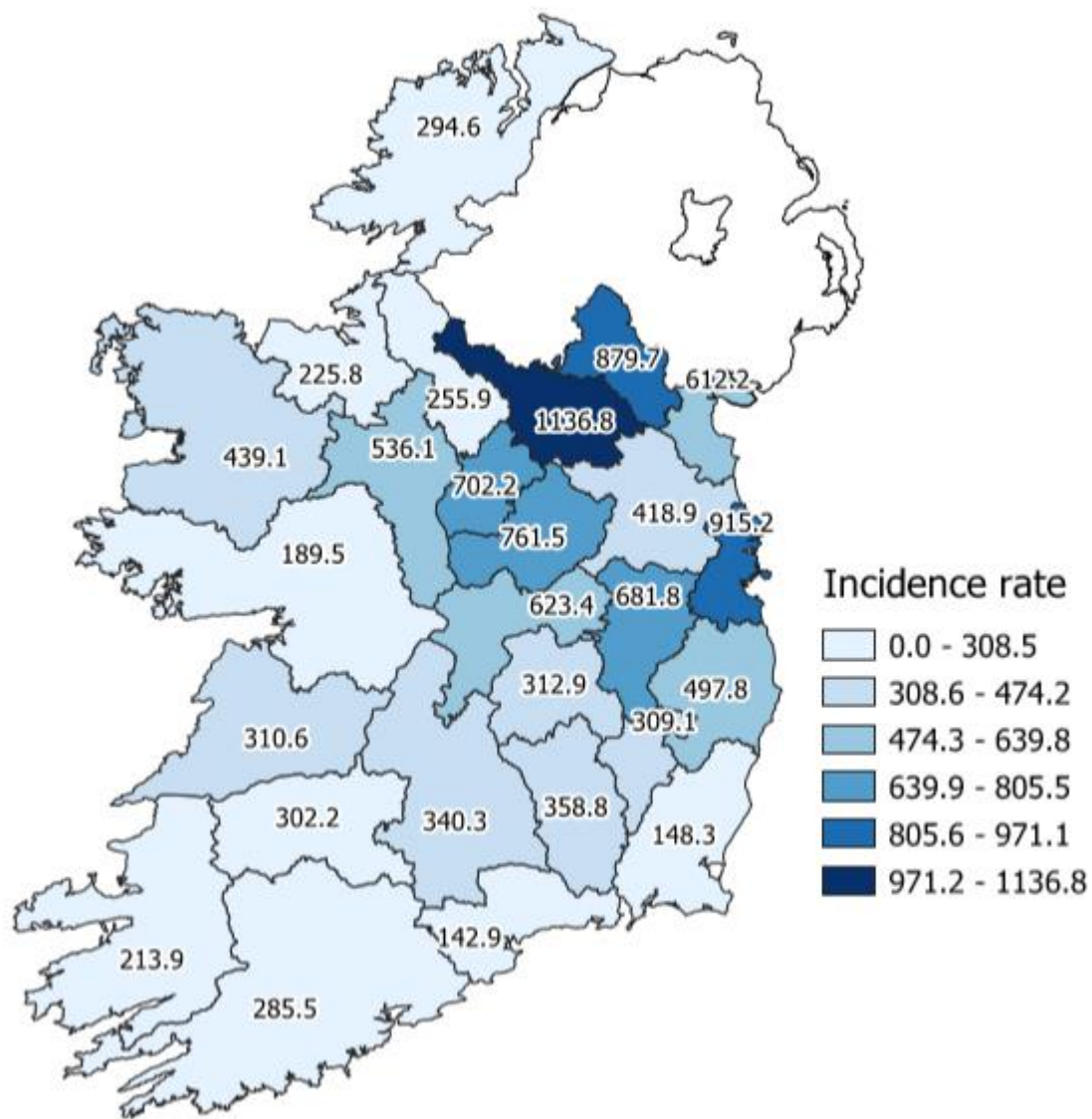


Figure 4: Cumulative incidence rates of confirmed cases of COVID-19 per 100,000 population notified in Ireland to midnight 14/07/2020

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 14/07/2020

County Name	Number of cases	Percent
Carlow	176	0.69
Cavan	866	3.37
Clare	369	1.44
Cork	1,550	6.04
Donegal	469	1.83
Dublin	12,331	48.02
Galway	489	1.9
Kerry	316	1.23
Kildare	1,517	5.91
Kilkenny	356	1.39
Laois	265	1.03
Leitrim	82	0.32
Limerick	589	2.29
Longford	287	1.12
Louth	789	3.07
Mayo	573	2.23
Meath	817	3.18
Monaghan	540	2.1
Offaly	486	1.89
Roscommon	346	1.35
Sligo	148	0.58
Tipperary	543	2.11
Waterford	166	0.65
Westmeath	676	2.63
Wexford	222	0.86
Wicklow	709	2.76
Total	25,677	100

Table 3: Number of confirmed COVID-19 cases by WHO transmission classification notified to midnight 14/07/2020

Transmission classification*	Count of Events	%
Community transmission, incl. possible community transmission	8,221	32.02%
Local transmission, incl. possible local transmission	16,829	65.54%
Travel abroad, incl. possible travel abroad	612	2.38%
Unknown	15	0.06%
Total	25,677	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 14/07/2020

Age Group (years)	Number of cases (n)	Cases hospitalised (n)	Cases hospitalised (%)	Cases admitted to ICU (n)	Cases admitted to ICU (%)
0-4 yrs	179	23	0.69	0	0
5-14 yrs	336	17	0.51	2	0.46
15-24 yrs	1946	75	2.25	5	1.14
25-34 yrs	4329	198	5.93	15	3.43
35-44 yrs	4518	274	8.21	36	8.24
45-54 yrs	4598	448	13.42	91	20.82
55-64 yrs	3267	497	14.88	127	29.06
65-74 yrs	1813	586	17.55	109	24.94
75-84 yrs	2299	744	22.28	46	10.53
85+ yrs	2372	476	14.26	6	1.37
Unknown	20	1	0.03	0	0
Total	25,677	3,339	100	437	100

Table 5: Number and proportion of confirmed cases of COVID-19 notified in Ireland by age-group, hospitalisation and ICU admission 14/07/2020

	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)	179	336	1,946	4,329	4,518	4,598	3,267	1,813	2,299	2,372	20
Cases hospitalised (n)	23	17	75	198	274	448	497	586	744	476	1
Cases hospitalised (%)	12.85	5.06	3.85	4.57	6.06	9.74	15.21	32.32	32.36	20.07	5
Cases admitted to ICU (n)	0	2	5	15	36	91	127	109	46	6	0
Cases admitted to ICU (%)	0	0.6	0.26	0.35	0.8	1.98	3.89	6.01	2	0.25	0
Deaths (n)	0	0	1	5	12	23	65	221	511	652	0
Case fatality ratio (%)	0	0	0.05	0.12	0.27	0.5	1.99	12.19	22.23	27.49	0

Outbreaks of COVID-19

Table 6: Number of clusters/outbreaks COVID-19 by location and HSE area notified to midnight 14/07/2020

Outbreak Location	E	M	MW	NE	NW	S	SE	W	Total	
Private house	898	6	55	118	41	109	42	27	1,296	
Nursing home	127	10	16	41	5	13	17	37	266	
Residential institution	100	9	7	17	4	21	10	4	172	
Hospital	61	3	3	14	2	10	4	6	103	
Other*	13	8	26	6	7	21	8	9	99	
Workplace	7	5	5	14	1	9	3	4	48	
Comm. Hosp/Long-stay unit	4	4	2		4	6	5	5	30	
Unknown	3				1	1			5	
Total	1,213	45	114	210	65	190	89	92	1	2,019

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

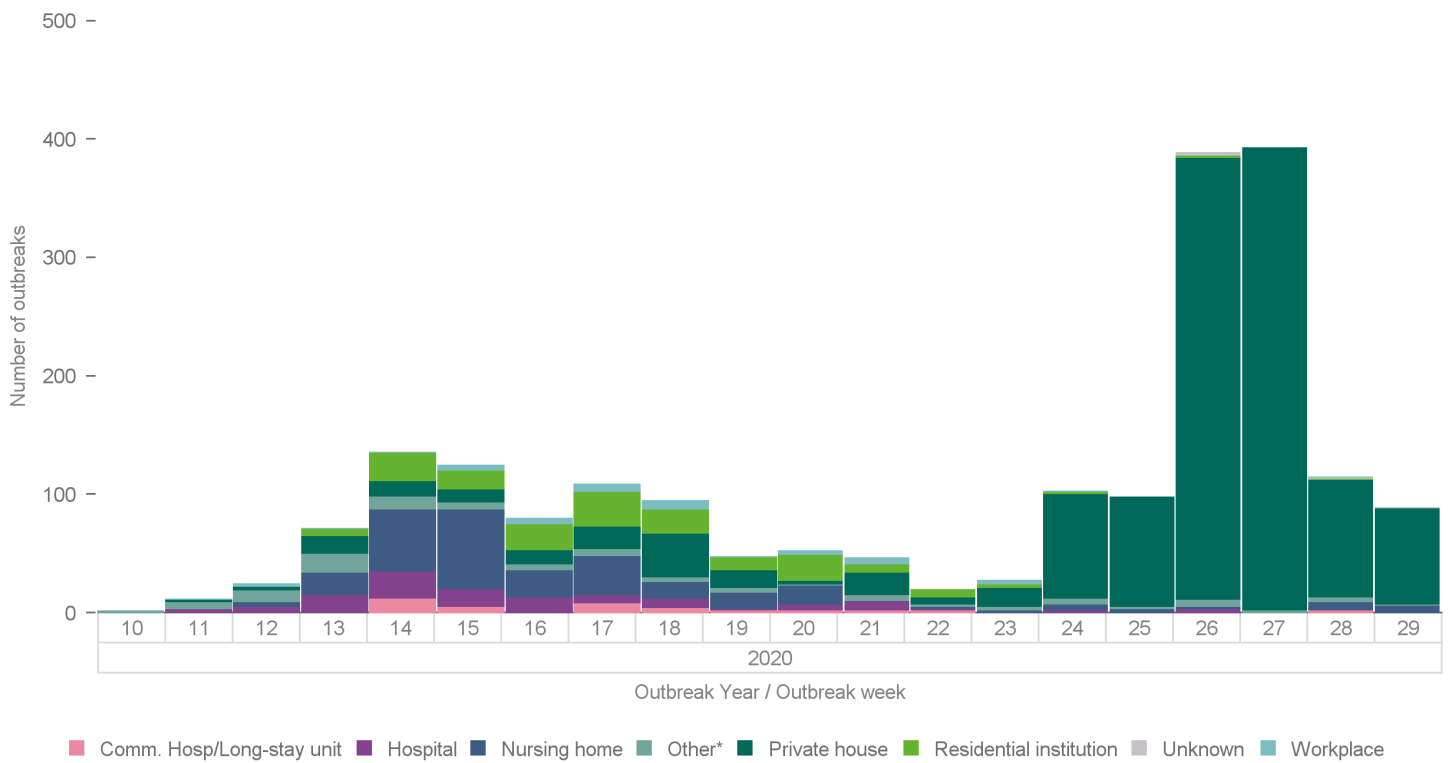


Figure 5: Trend in number of COVID-19 clusters by location and week notified to midnight 14/07/2020

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

Note: 1180 COVID-19 outbreaks were reported on CIDR between week 24 and week 29 2020 (June 7th to July 14th). Of these, 1137 were family outbreaks. Most of these family outbreaks occurred earlier and were reported between weeks 24 and 28 as a result of data validation: 1 occurred in February, 532 in March, 352 in April, 86 in May, 23 in June and 1 in July.

Deaths among COVID-19 cases

Table 7: Summary of deaths in all COVID-19 cases notified in Ireland up to midnight 14/07/2020

	Number	Percent
Total number of deaths	1,749	
Confirmed	1,490	85.19
Probable	100	5.72
Possible	159	9.09
Total number of cases hospitalised	741	42.37
Cases admitted to ICU	91	5.2
Cases not admitted to ICU	650	37.16
Total number of imported cases	5	0.29
Number of cases in healthcare workers	7	0.4
Number with underlying clinical conditions	1,645	94.05
Total number of male cases	862	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 14/07/2020

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	0.74
45-54 yrs	9	16	25	1.43
55-64 yrs	25	45	70	4
65-74 yrs	90	156	246	14.07
75-84 yrs	274	323	597	34.13
85+ yrs	478	312	790	45.17
Unknown	<5	<5	2	0.11
Total	887	862	1,749	100
Percent	50.71	49.29		

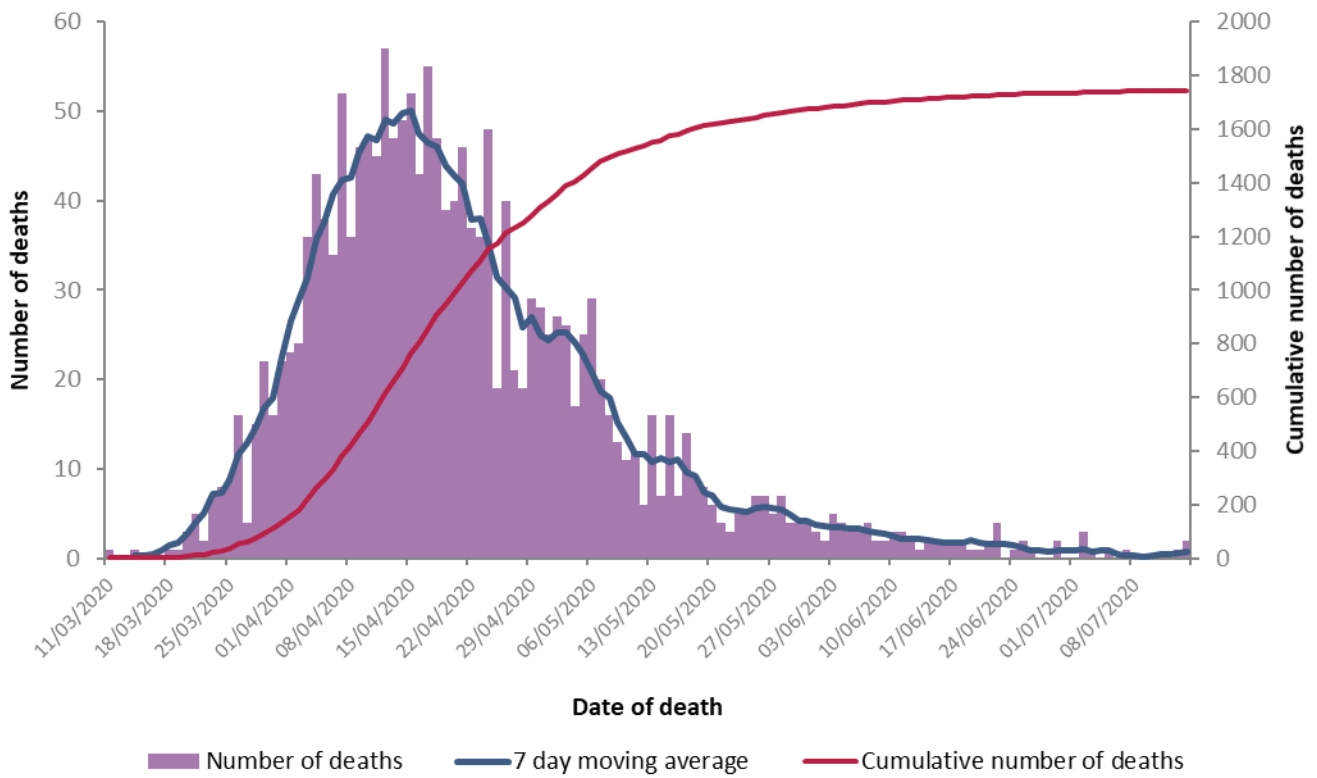


Figure 6: Daily and 7 day moving average number of deaths among COVID-19 cases notified in Ireland by date of death and cumulative total to midnight 14/07/2020

* 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 09:15 on 16/07/2020. 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.

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.