



Epidemiology of COVID-19 in Ireland

Report prepared by HPSC on 23/06/2020 for National Public Health Emergency Team

Summary characteristics of confirmed COVID-19 cases notified in Ireland up to midnight 21/06/2020

	Number	Percent
Total number of confirmed cases	25,381	
National cumulative incidence of confirmed cases per 100,000 population	533.01	
Total number of cases hospitalised	3,285	12.94
Total number of cases admitted to ICU	434	1.71
Total number of deaths among confirmed cases	1,461	5.76
Case fatality ratio (CFR, %)	5.76	
National cumulative incidence of confirmed deaths per 100,000 population	30.68	
Total number of outbreaks/clusters	1,100	
Total number of cases associated with clusters	11,050	43.54
Total number of imported cases	377	1.49
Number of cases in healthcare workers	8,172	32.2
Males	10,849	42.74
Females	14,502	57.14
M:F ratio	0.75	
Median age (years)	48	
Mean age (years)	51	
Age range (years)	0 - 106	

Note: Total admitted to ICU includes 13 people who were admitted to ICU in a single hospital between 19/03/2020 and 30/04/2020. These cases were previously reported as COVID-19 cases on CIDR and are included in the COVID-19 case total. HPSC became aware of their ICU admission status in recent days and this was retrospectively updated on CIDR on 22/06/2020. Of the 13 people, 12 were discharged alive from ICU and one died in ICU (this death was previously reported on CIDR on 05/04/2020)

Note: Data were extracted from Computerised Infectious Disease Reporting (CIDR) system at 09:16 on 23/06/2020 and are provisional and subject to ongoing review, validation and update. As a result, figures in this report may differ from previously published figures.

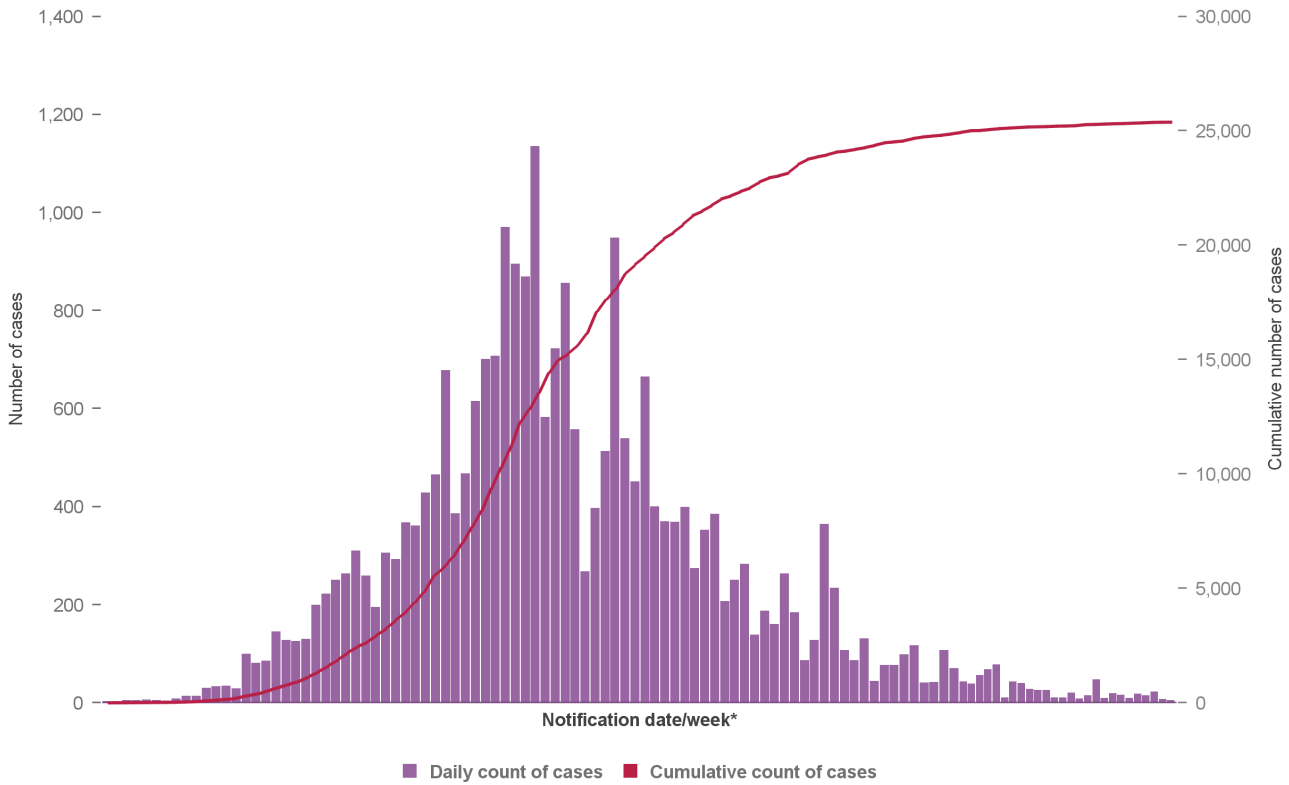


Figure 1a: Number* and cumulative number of confirmed COVID-19 cases notified in Ireland by notification date* to midnight 21/06/2020

*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

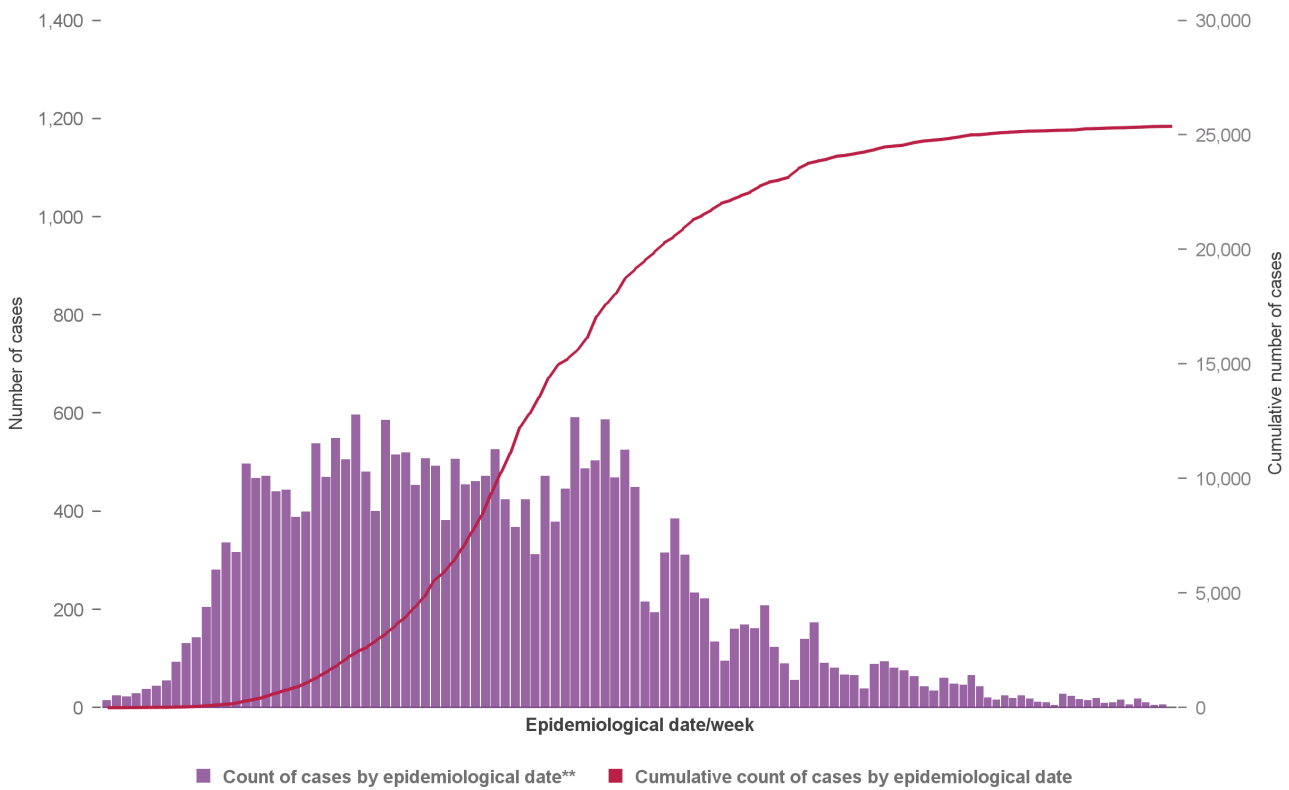


Figure 1b: Number and cumulative number of confirmed COVID-19 cases notified in Ireland by epidemiological date to midnight 21/06/2020**

**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.

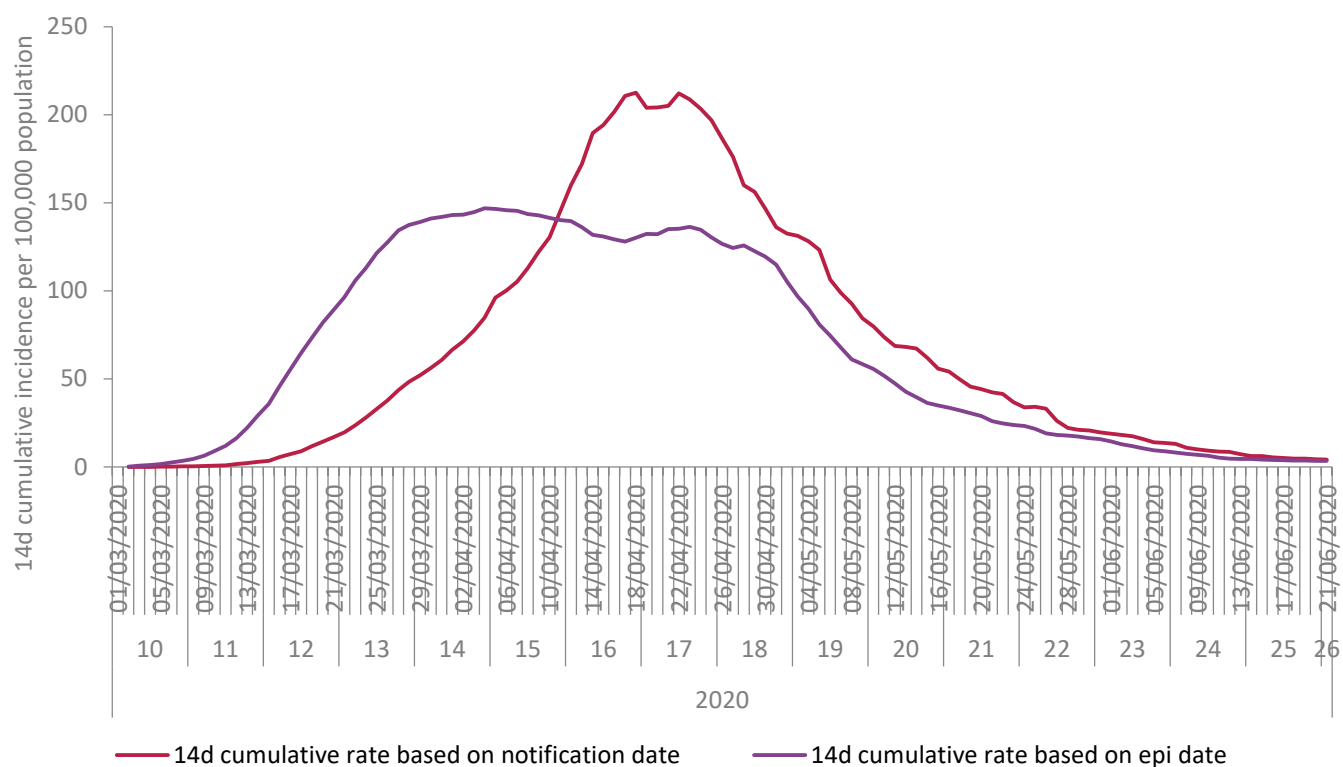


Figure 2: Cumulative 14 day incidence rate of confirmed COVID-19 cases per 100,000 population notified in Ireland by notification* and epidemiological date to midnight 21/06/2020**

* 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 21/06/2020

Characteristic		Number of cases	Percent
Total number of confirmed cases		25,381	100
Sex	Male:Female ratio	0.75	
	Male	10,849	42.74
	Female	14,502	57.14
	Unknown	30	0.12
Age	Median age (years)	48	
	Mean age (years)	51	
	Age range (years)	0 - 106	
	0-4 yrs	170	0.67
	5-14 yrs	326	1.28
	15-24 yrs	1,884	7.42
	25-34 yrs	4,255	16.76
	35-44 yrs	4,468	17.6
	45-54 yrs	4,562	17.97
	55-64 yrs	3,243	12.78
	65-74 yrs	1,801	7.1
	75-84 yrs	2,287	9.01
	85+ yrs	2,363	9.31
	Unknown	22	0.09



Cumulative age- and sex-specific rate per 100,000 population

	0-4	5 - 14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	85+
Female	51.3	49.1	429.6	728.1	683.2	821.2	697.0	427.9	1125.1	3519.7
Male	51.3	47.6	226.3	554.0	508.2	632.4	576.5	537.8	1210.4	3451.6

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 21/06/2020 (excluding 22 cases for whom age is unknown, 29 cases for whom sex is unknown and 1 case for whom both are unknown)

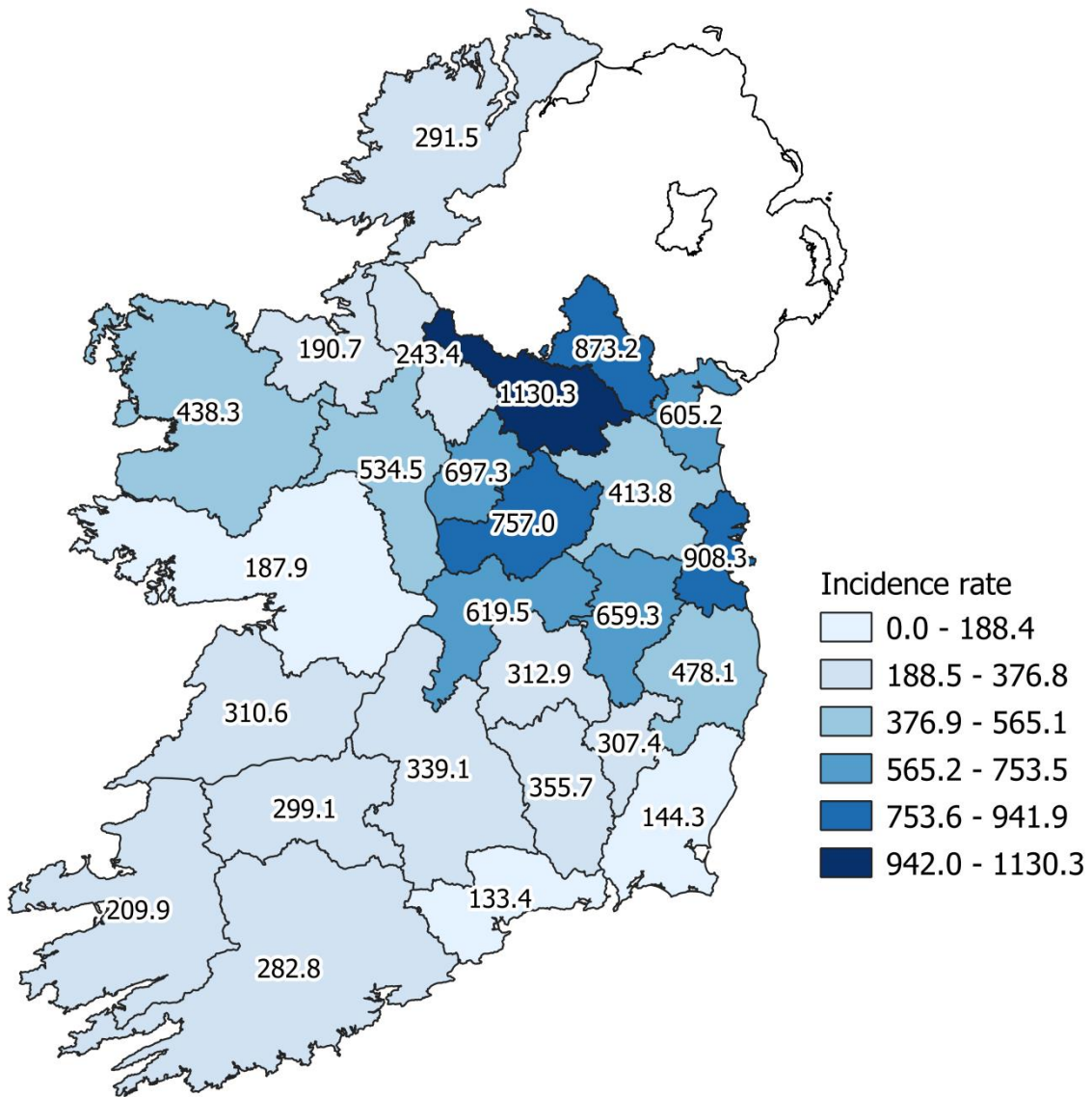


Figure 4: Cumulative incidence rates of confirmed cases of COVID-19 per 100,000 population notified in Ireland to midnight 21/06/2020

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 21/06/2020

County Name	Number of cases	Percent
Carlow	175	0.69
Cavan	861	3.39
Clare	369	1.45
Cork	1,535	6.05
Donegal	464	1.83
Dublin	12,238	48.22
Galway	485	1.91
Kerry	310	1.22
Kildare	1,467	5.78
Kilkenny	353	1.39
Laois	265	1.04
Leitrim	78	0.31
Limerick	583	2.3
Longford	285	1.12
Louth	780	3.07
Mayo	572	2.25
Meath	807	3.18
Monaghan	536	2.11
Offaly	483	1.9
Roscommon	345	1.36
Sligo	125	0.49
Tipperary	541	2.13
Waterford	155	0.61
Westmeath	672	2.65
Wexford	216	0.85
Wicklow	681	2.68
Total	25,381	100

Table 3: Number of confirmed COVID-19 cases by WHO transmission classification notified to midnight 21/06/2020

Transmission classification*	Count of Events	%
Community transmission, incl. possible community transmission	9,130	35.97%
Local transmission, incl. possible local transmission	15,657	61.69%
Travel abroad, incl. possible travel abroad	591	2.33%
Unknown	3	0.01%
Total	25,381	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 21/06/2020

Age Group (years)	Number of cases (n)	Cases hospitalised (n)	Cases hospitalised (%)	Cases admitted to ICU (n)	Cases admitted to ICU (%)
0-4 yrs	170	21	0.64	0	0
5-14 yrs	326	16	0.49	2	0.46
15-24 yrs	1884	70	2.13	5	1.15
25-34 yrs	4255	197	6	15	3.46
35-44 yrs	4468	264	8.04	35	8.06
45-54 yrs	4562	444	13.52	90	20.74
55-64 yrs	3243	489	14.89	126	29.03
65-74 yrs	1801	577	17.56	110	25.35
75-84 yrs	2287	736	22.4	45	10.37
85+ yrs	2363	469	14.28	6	1.38
Unknown	22	2	0.06	0	0
Total	25,381	3,285	100	434	100

Table 5: Number and proportion of confirmed cases of COVID-19 notified in Ireland by age-group, hospitalisation and ICU admission 21/06/2020

	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)	170	326	1,884	4,255	4,468	4,562	3,243	1,801	2,287	2,363	22
Cases hospitalised (n)	21	16	70	197	264	444	489	577	736	469	2
Cases hospitalised (%)	12.35	4.91	3.72	4.63	5.91	9.73	15.08	32.04	32.18	19.85	9.09
Cases admitted to ICU (n)	0	2	5	15	35	90	126	110	45	6	0
Cases admitted to ICU (%)	0	0.61	0.27	0.35	0.78	1.97	3.89	6.11	1.97	0.25	0
Deaths (n)	0	0	2	5	11	23	63	214	502	641	0
Case fatality ratio (%)	0	0	0.11	0.12	0.25	0.5	1.94	11.88	21.95	27.13	0

Outbreaks of COVID-19

Table 6: Number of clusters/outbreaks COVID-19 by location and HSE area notified to midnight 21/06/2020

Outbreak Location	E	M	MW	NE	NW	S	SE	W	Total
Private house	97	6	51	118	6	59	28	25	390
Nursing home	129	10	15	38	5	9	17	36	259
Residential institution	113	9	8	17	4	20	10	4	185
Hospital	60	3	2	14	2	11	4	6	102
Other*	11	8	25	6	4	18	6	9	87
Workplace	8	5	5	14	1	8	3	4	48
Comm. Hosp/Long-stay unit	4	3	2		4	6	5	5	29
Total	422	44	108	207	26	131	73	89	1,100

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

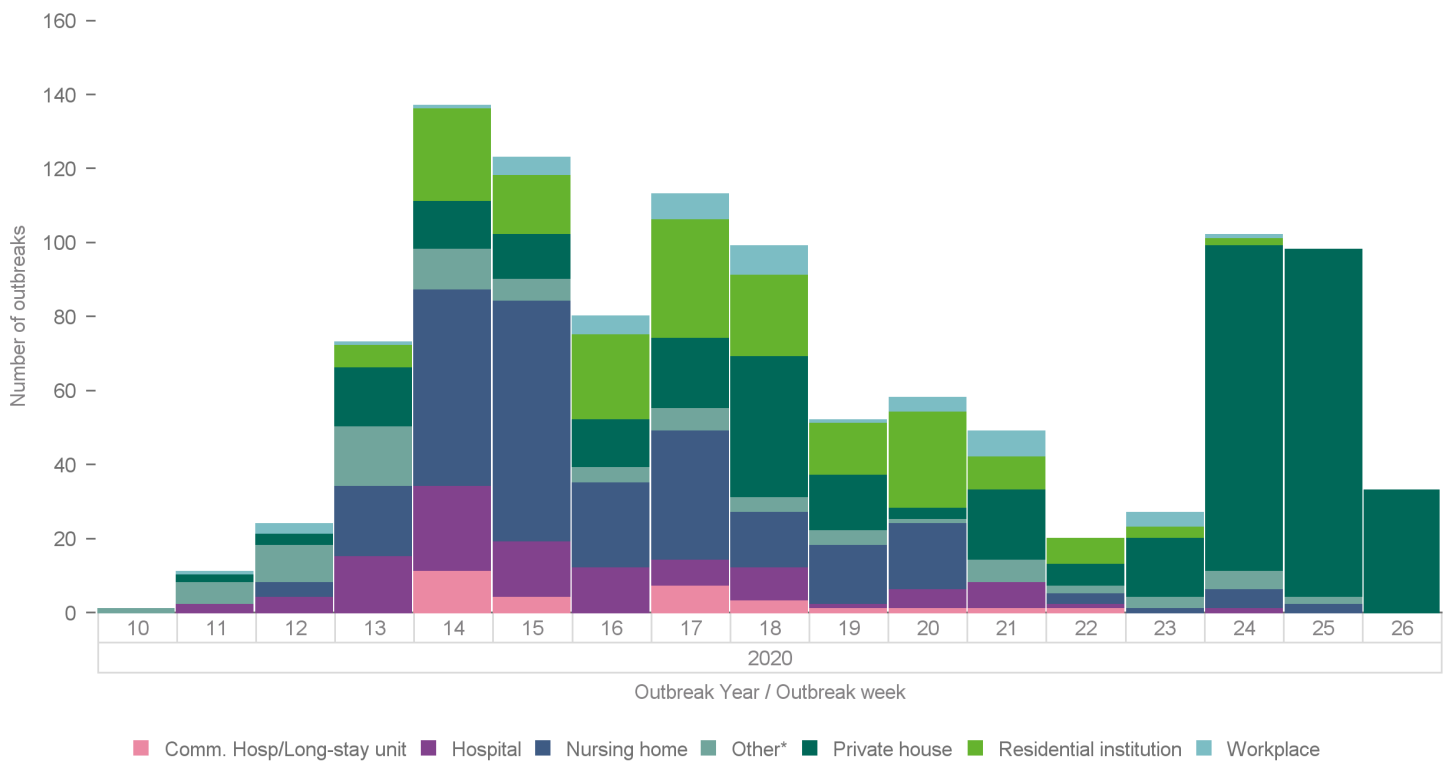


Figure 5: Trend in number of COVID-19 clusters by location and week notified to midnight 21/06/2020

*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, 78 family outbreaks occurred in March, 67 family outbreaks occurred in April and 16 family outbreaks occurred in May 2020.

Deaths among COVID-19 cases

Table 7: Summary of deaths in all COVID-19 cases notified in Ireland up to midnight 21/06/2020

	Number	Percent
Total number of deaths	1,719	
Confirmed	1,461	84.99
Probable	98	5.70
Possible	160	9.31
Total number of cases hospitalised	719	41.83
Cases admitted to ICU	90	5.24
Cases not admitted to ICU	629	36.59
Total number of imported cases	5	0.29
Number of cases in healthcare workers	7	0.41
Number with underlying clinical conditions	1,580	91.91
Total number of male cases	852	49.56
M:F ratio	0.98	
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 21/06/2020

Age group (years)	Female	Male	Total	Percent
15-24 yrs	<5	<5	2	0.12
25-34 yrs	<5	<5	5	0.29
35-44 yrs	5	7	12	0.70
45-54 yrs	10	15	25	1.45
55-64 yrs	24	44	68	3.96
65-74 yrs	87	153	240	13.96
75-84 yrs	266	321	587	34.15
85+ yrs	469	309	778	45.26
Unknown	<5	<5	2	0.12
Total	867	852	1,719	100
Percent	50.44	49.56		

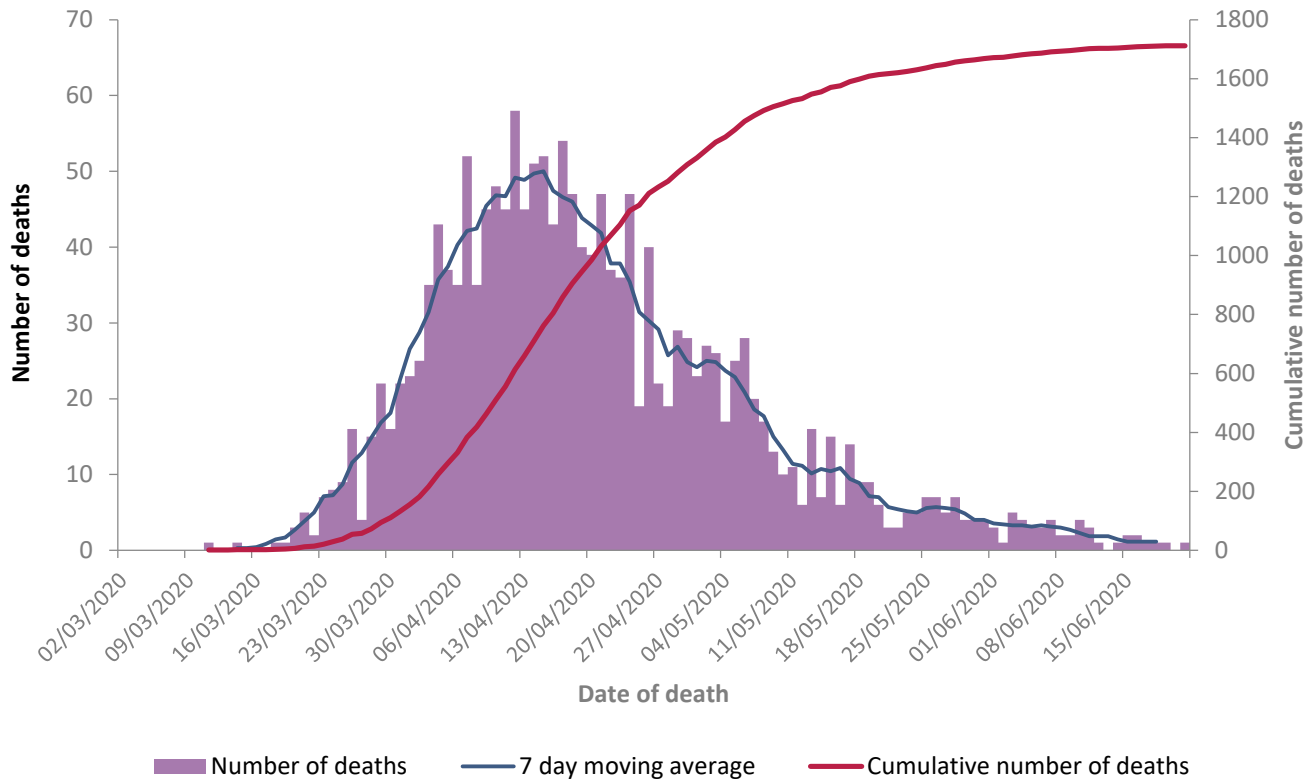


Figure 6: Daily and 7 day moving average number of deaths among COVID-19 cases notified in Ireland by date of death and cumulative total to midnight 21/06/2020

* 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 09:16 on 23/06/2020. 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.