



Epidemiology of COVID-19 in Ireland

Report prepared by HPSC on 18/06/2020 for National Public Health Emergency Team

Summary characteristics of confirmed COVID-19 cases notified in Ireland up to midnight 16/06/2020

	Number	Percent
Total number of confirmed cases	25,339	
National cumulative incidence of confirmed cases per 100,000 population	532.12	
Total number of cases hospitalised	3,282	12.95
Total number of cases admitted to ICU	417	1.65
Total number of deaths among confirmed cases	1,453	5.73
Case fatality ratio (CFR, %)	5.73	
National cumulative incidence of confirmed deaths per 100,000 population	30.51	
Total number of outbreaks/clusters	1,005	
Total number of cases associated with clusters	10,737	42.37
Total number of imported cases	369	1.46
Number of cases in healthcare workers	8,147	32.15
Males	10,822	42.71
Females	14,487	57.17
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 09:16 on 18/06/2020 and are provisional and subject to ongoing review, validation and update. As a result, figures in this report may differ from previously published figures.

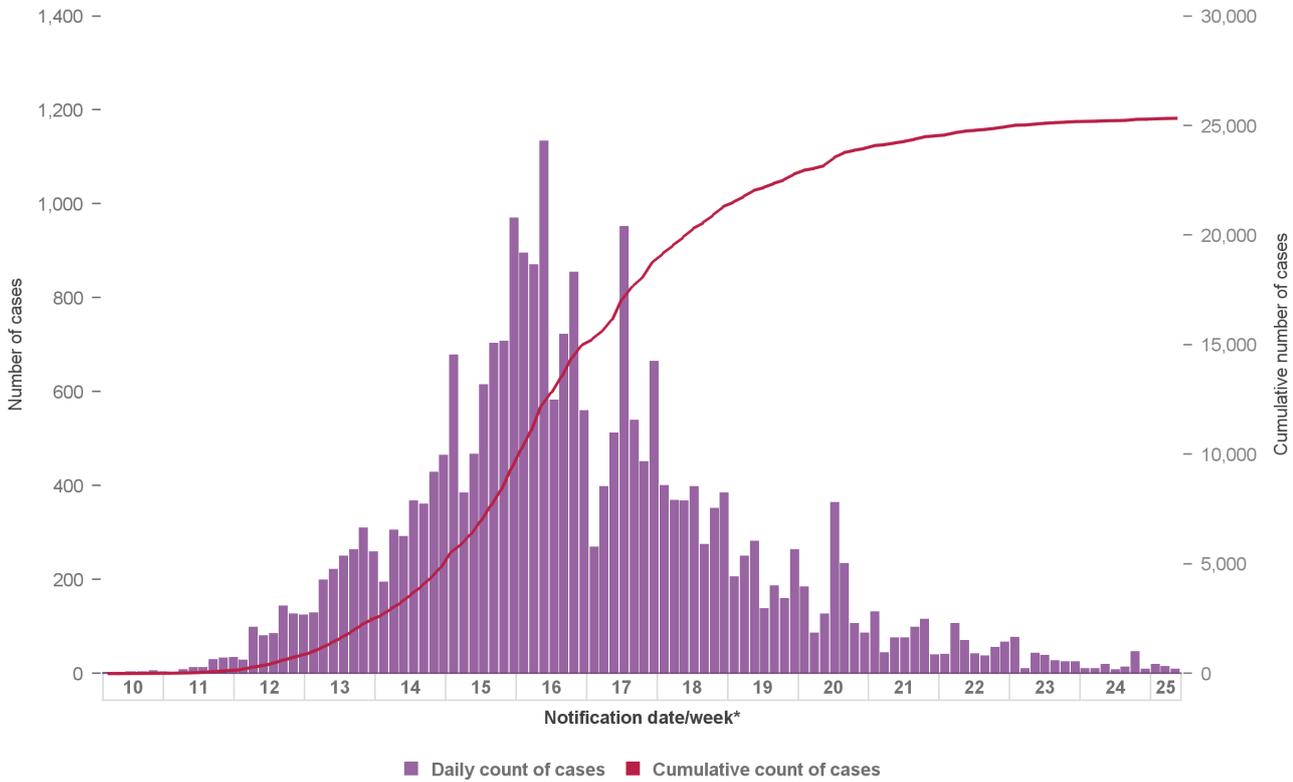


Figure 1a: Number* and cumulative number of confirmed COVID-19 cases notified in Ireland by notification date* to midnight 16/06/2020

*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

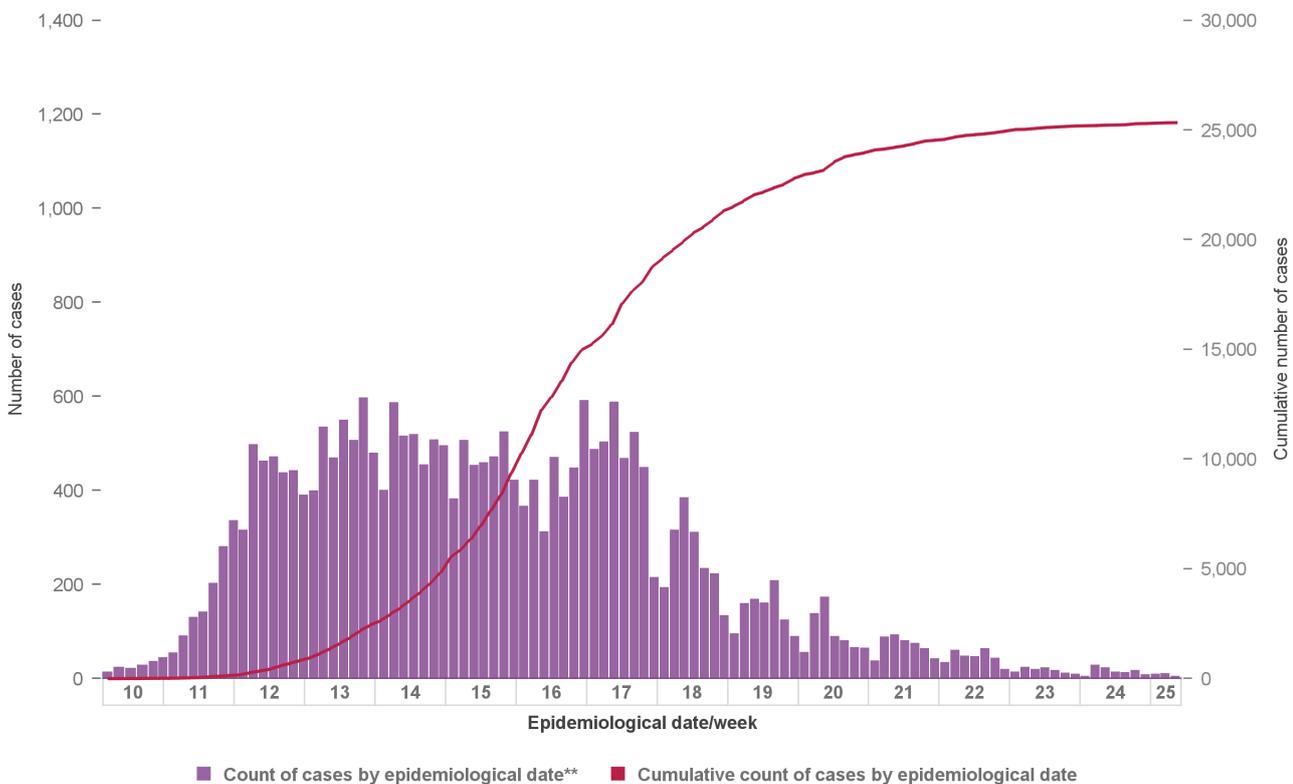


Figure 1b: Number and cumulative number of confirmed COVID-19 cases notified in Ireland by epidemiological date to midnight 16/06/2020**

**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.

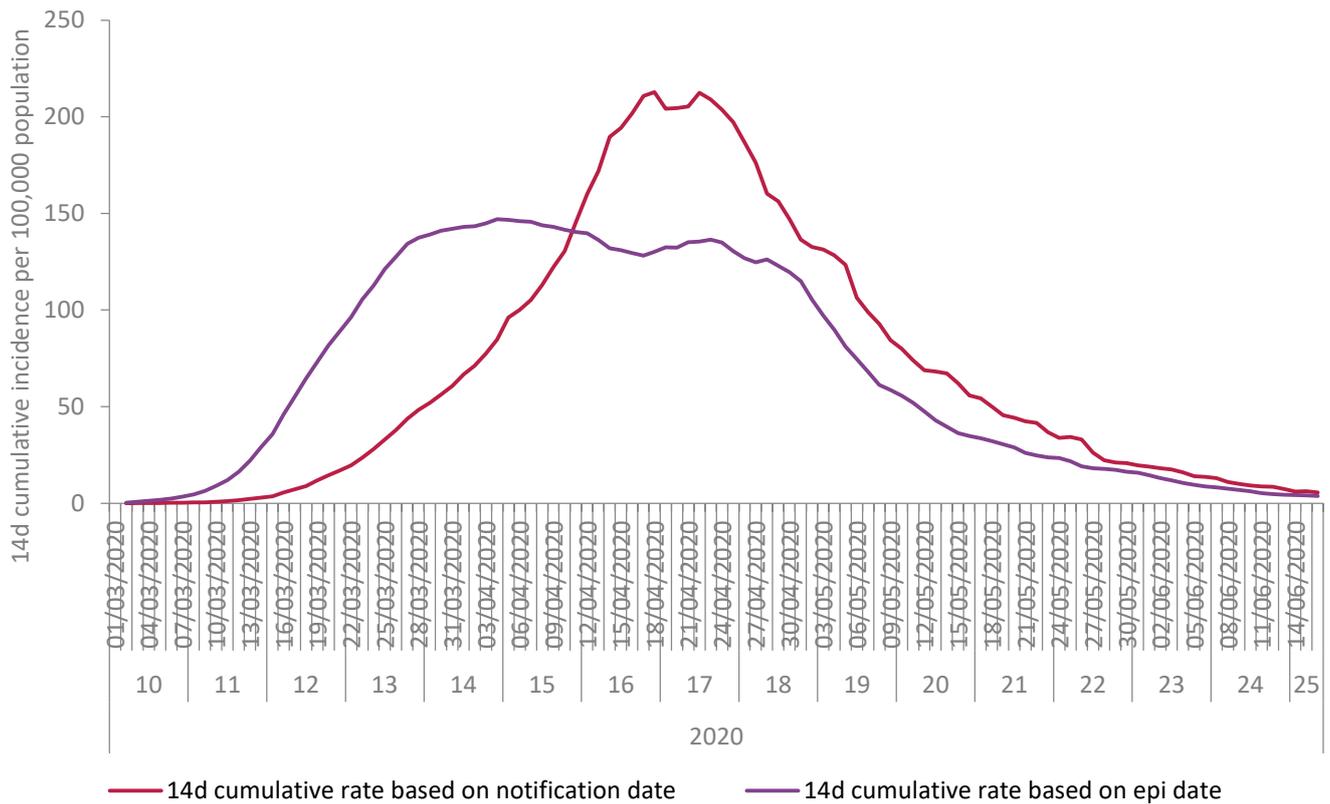


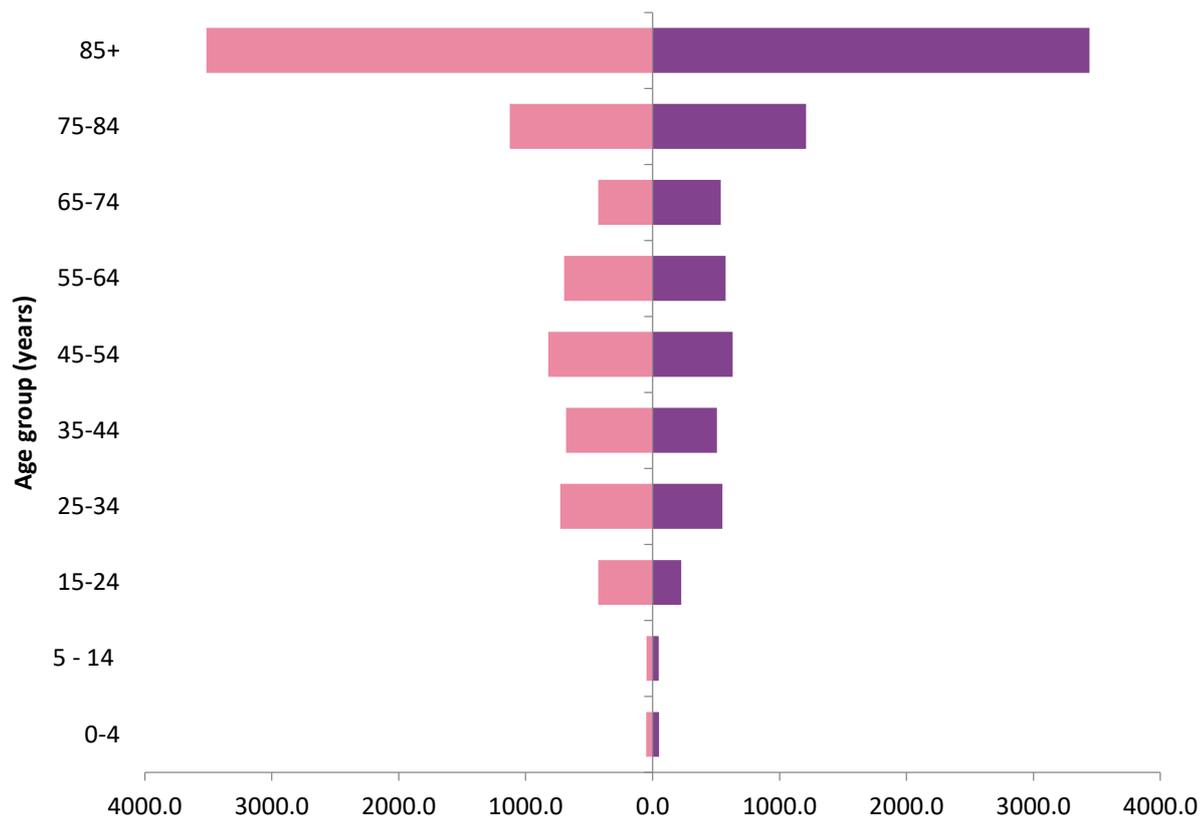
Figure 2: Cumulative 14 day incidence rate of confirmed COVID-19 cases per 100,000 population notified in Ireland by notification* and epidemiological date to midnight 16/06/2020**

* 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

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Table 1: Characteristics of confirmed COVID-19 cases notified in Ireland up to midnight on 16/06/2020

Characteristic		Number of cases	Percent
Total number of confirmed cases		25,339	100
Sex	Male:Female ratio	0.75	
	Male	10,822	42.71
	Female	14,487	57.17
	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	324	1.28
	15-24 yrs	1,875	7.4
	25-34 yrs	4,244	16.75
	35-44 yrs	4,459	17.6
	45-54 yrs	4,558	17.99
	55-64 yrs	3,239	12.78
	65-74 yrs	1,801	7.11
	75-84 yrs	2,287	9.03
	85+ yrs	2,359	9.31
	Unknown	23	0.09



	0-4	5 - 14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	85+
Female	51.3	49.1	428.2	727.8	681.4	821.6	695.8	427.4	1126.0	3515.2
Male	51.3	47.0	224.6	550.9	507.7	630.8	576.1	538.3	1209.2	3442.9

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 16/06/2020 (excluding 23 cases for whom age is unknown, 29 cases for whom sex is unknown and one case for whom both age and sex are unknown)

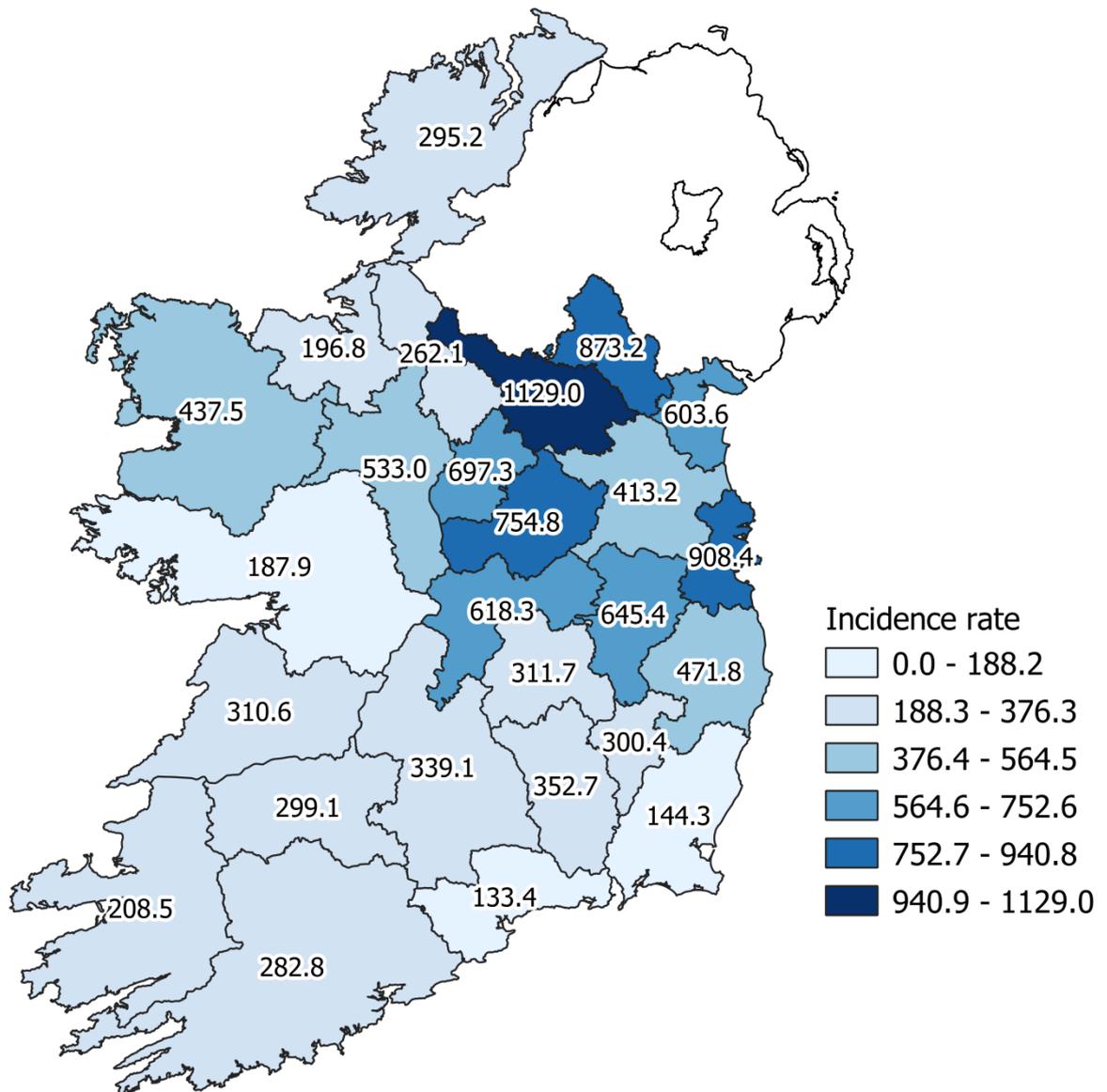


Figure 4: Cumulative incidence rates of confirmed cases of COVID-19 per 100,000 population notified in Ireland to midnight 16/06/2020

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 16/06/2020

County Name	Number of cases	Percent
Carlow	171	0.67
Cavan	860	3.39
Clare	369	1.46
Cork	1,535	6.06
Donegal	470	1.85
Dublin	12,239	48.3
Galway	485	1.91
Kerry	308	1.22
Kildare	1,436	5.67
Kilkenny	350	1.38
Laois	264	1.04
Leitrim	84	0.33
Limerick	583	2.3
Longford	285	1.12
Louth	778	3.07
Mayo	571	2.25
Meath	806	3.18
Monaghan	536	2.12
Offaly	482	1.9
Roscommon	344	1.36
Sligo	129	0.51
Tipperary	541	2.14
Waterford	155	0.61
Westmeath	670	2.64
Wexford	216	0.85
Wicklow	672	2.65
Total	25,339	100

Table 3: Number of confirmed COVID-19 cases by WHO transmission classification notified to midnight 16/06/2020

Transmission classification*	Count of Events	%
Community transmission, incl. possible community transmission	9,396	37.08%
Local transmission, incl. possible local transmission	15,345	60.56%
Travel abroad, incl. possible travel abroad	583	2.30%
Unknown	15	0.06%
Total	25,339	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 16/06/2020

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	324	16	0.49	2	0.48
15-24 yrs	1875	70	2.13	5	1.2
25-34 yrs	4244	199	6.06	15	3.6
35-44 yrs	4459	262	7.98	34	8.15
45-54 yrs	4558	445	13.56	84	20.14
55-64 yrs	3239	487	14.84	123	29.5
65-74 yrs	1801	579	17.64	106	25.42
75-84 yrs	2287	734	22.36	42	10.07
85+ yrs	2359	467	14.23	6	1.44
Unknown	23	2	0.06	0	0
Total	25,339	3,282	100	417	100

Table 5: Number and proportion of confirmed cases of COVID-19 notified in Ireland by age-group, hospitalisation and ICU admission 16/06/2020

	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	324	1,875	4,244	4,459	4,558	3,239	1,801	2,287	2,359	23
Cases hospitalised (n)	21	16	70	199	262	445	487	579	734	467	2
Cases hospitalised (%)	12.35	4.94	3.73	4.69	5.88	9.76	15.04	32.15	32.09	19.8	8.7
Cases admitted to ICU (n)	0	2	5	15	34	84	123	106	42	6	0
Cases admitted to ICU (%)	0	0.62	0.27	0.35	0.76	1.84	3.8	5.89	1.84	0.25	0
Deaths (n)	0	0	2	5	11	23	63	211	499	639	0
Case fatality ratio (%)	0	0	0.11	0.12	0.25	0.5	1.95	11.72	21.82	27.09	0

Outbreaks of COVID-19

Table 6: Number of clusters/outbreaks COVID-19 by location and HSE area notified to midnight 16/06/2020

Outbreak Location	E	M	MW	NE	NW	S	SE	W	Total
Private house	5	6	49	117	6	59	28	25	295
Nursing home	131	10	15	38	5	9	16	36	260
Residential institution	113	9	7	17	4	20	10	4	184
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	332	44	105	206	26	131	72	89	1,005

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

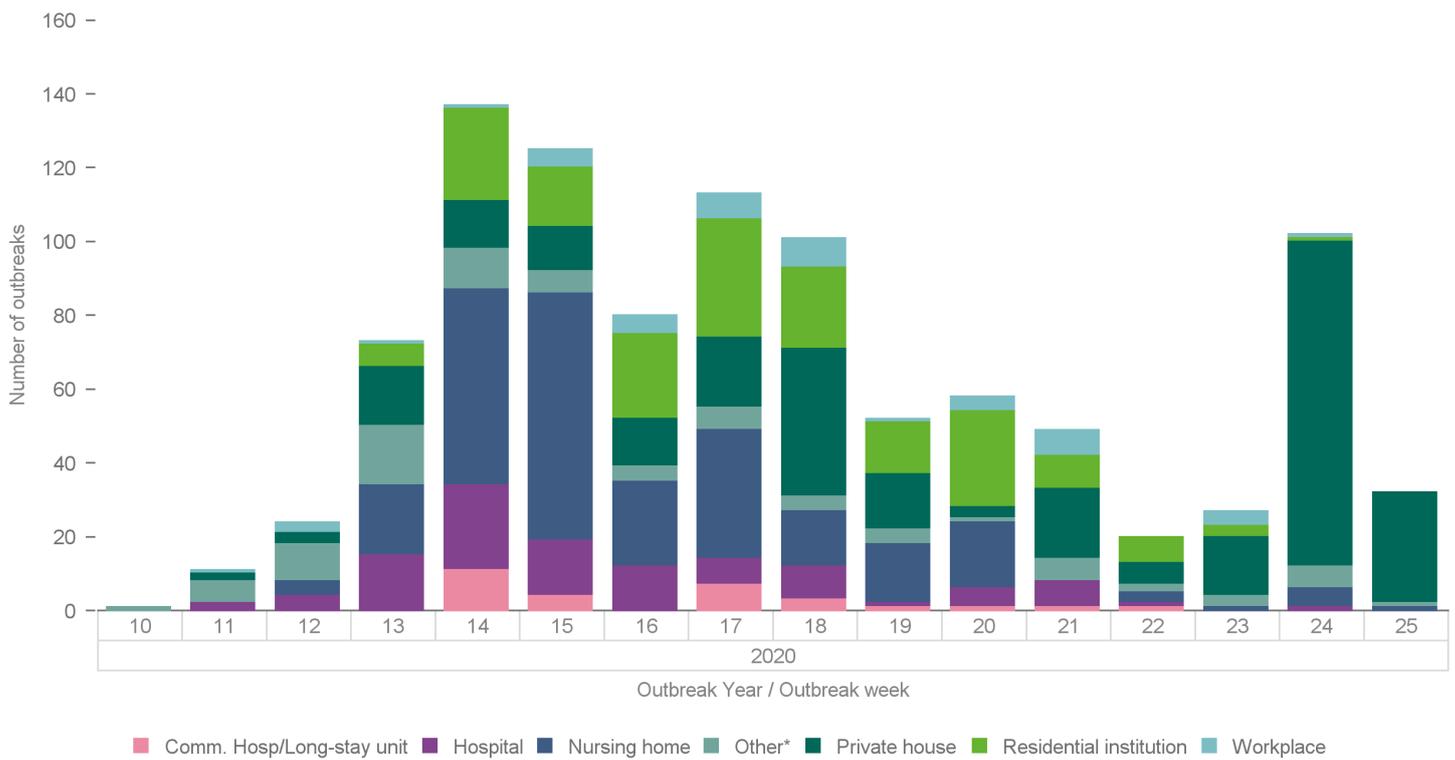


Figure 5: Trend in number of COVID-19 clusters by location and week notified to midnight 16/06/2020

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

Note: In week 24, 102 new COVID-19 outbreaks were reported on CIDR, of which 91 were family outbreaks. Of these, 38 family outbreaks occurred in March, 36 family outbreaks occurred in April and 8 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 16/06/2020

	Number	Percent
Total number of deaths	1,712	
Confirmed	1,453	84.87
Probable	95	5.55
Possible	164	9.58
Total number of cases hospitalised	713	41.65
Cases admitted to ICU	86	5.02
Cases not admitted to ICU	627	36.62
Total number of imported cases	6	0.35
Number of cases in healthcare workers	7	0.41
Number with underlying clinical conditions	1,577	92.11
Total number of male cases	846	49.42
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 16/06/2020

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	1.46
55-64 yrs	24	44	68	3.97
65-74 yrs	86	150	236	13.79
75-84 yrs	268	317	585	34.17
85+ yrs	467	310	777	45.39
Unknown	<5	<5	2	0.12
Total	866	846	1,712	100
Percent	50.58	49.42		

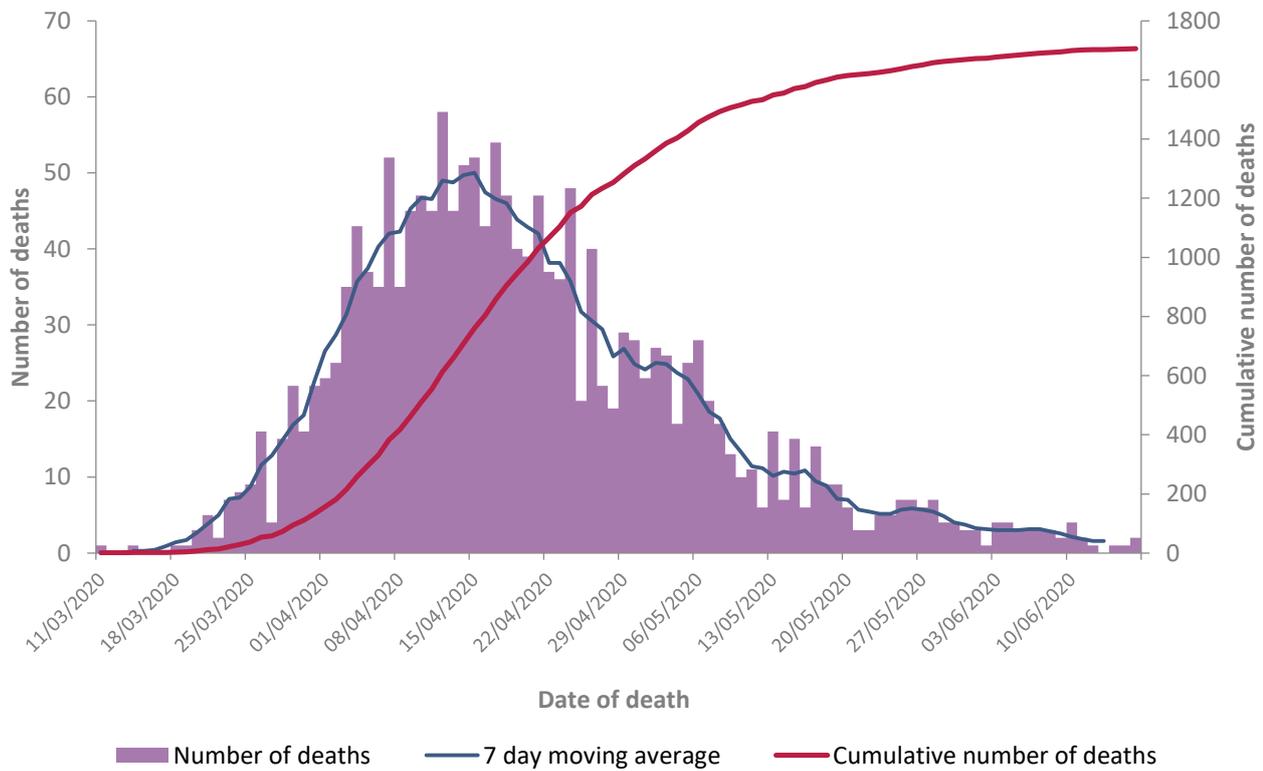


Figure 6: Daily and 7 day moving average number of deaths among COVID-19 cases notified in Ireland by date of death and cumulative total to midnight 16/06/2020

* Date of death is not yet available for six 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 18/06/2020. 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.