



Epidemiology of COVID-19 in Ireland

Report prepared by HPSC on 30/05/2020 for National Public Health Emergency Team

Summary characteristics of confirmed COVID-19 cases notified in Ireland up to midnight 28/05/2020

	Number	Percent
Total number of confirmed cases	24,870	
National cumulative incidence of confirmed cases per 100,000 population	522.27	
Total number of cases hospitalised	3,279	13.18
Total number of cases admitted to ICU	408	1.64
Total number of deaths among confirmed cases	1,388	5.58
Case fatality ratio (CFR, %)	5.58	
National cumulative incidence of confirmed deaths per 100,000 population	29.15	
Total number of outbreaks/clusters	861	
Total number of cases associated with clusters	9,916	39.87
Total number of imported cases	360	1.45
Number of cases in healthcare workers	7,955	31.99
Males	10,601	42.63
Females	14,235	57.24
M:F ratio	0.74	
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 30/05/2020 and are provisional and subject to ongoing review, validation and update. As a result, figures in this report may differ from previously published figures.

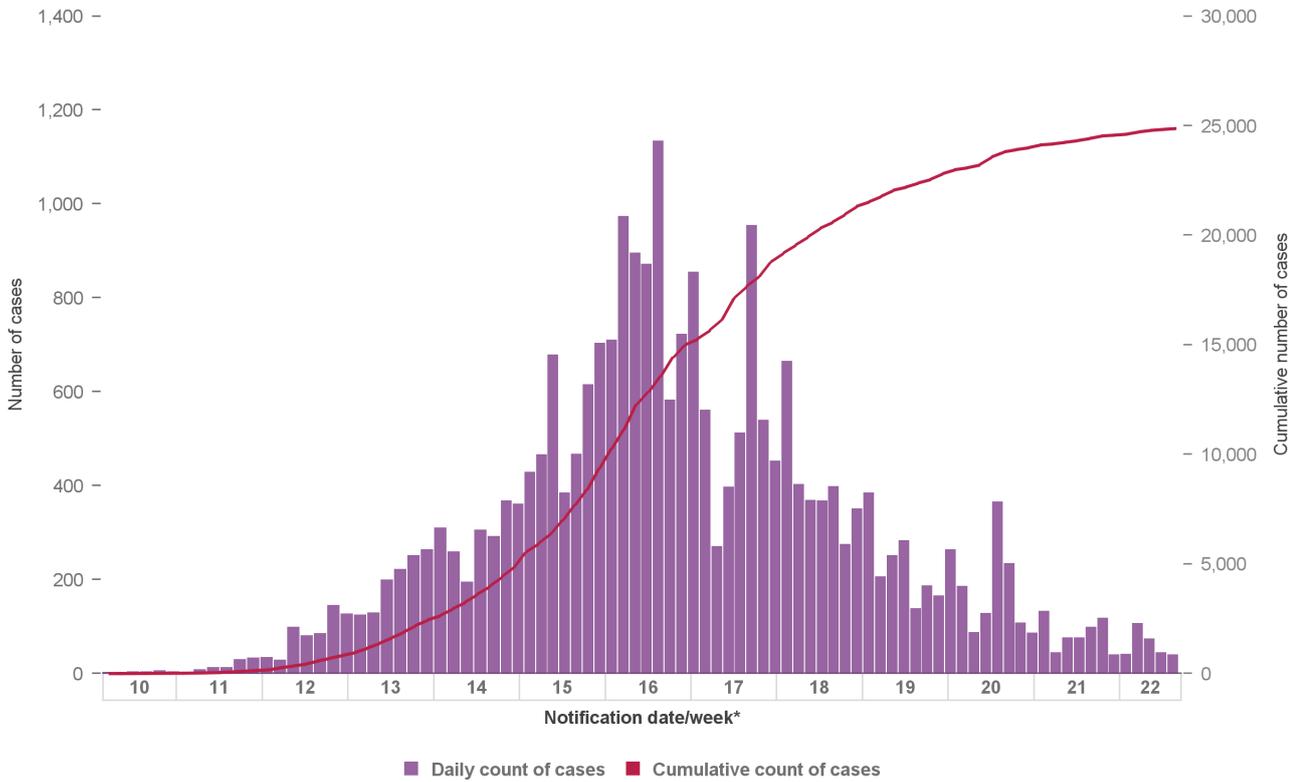


Figure 1a: Number* and cumulative number of confirmed COVID-19 cases notified in Ireland by notification date* to midnight 28/05/2020

*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

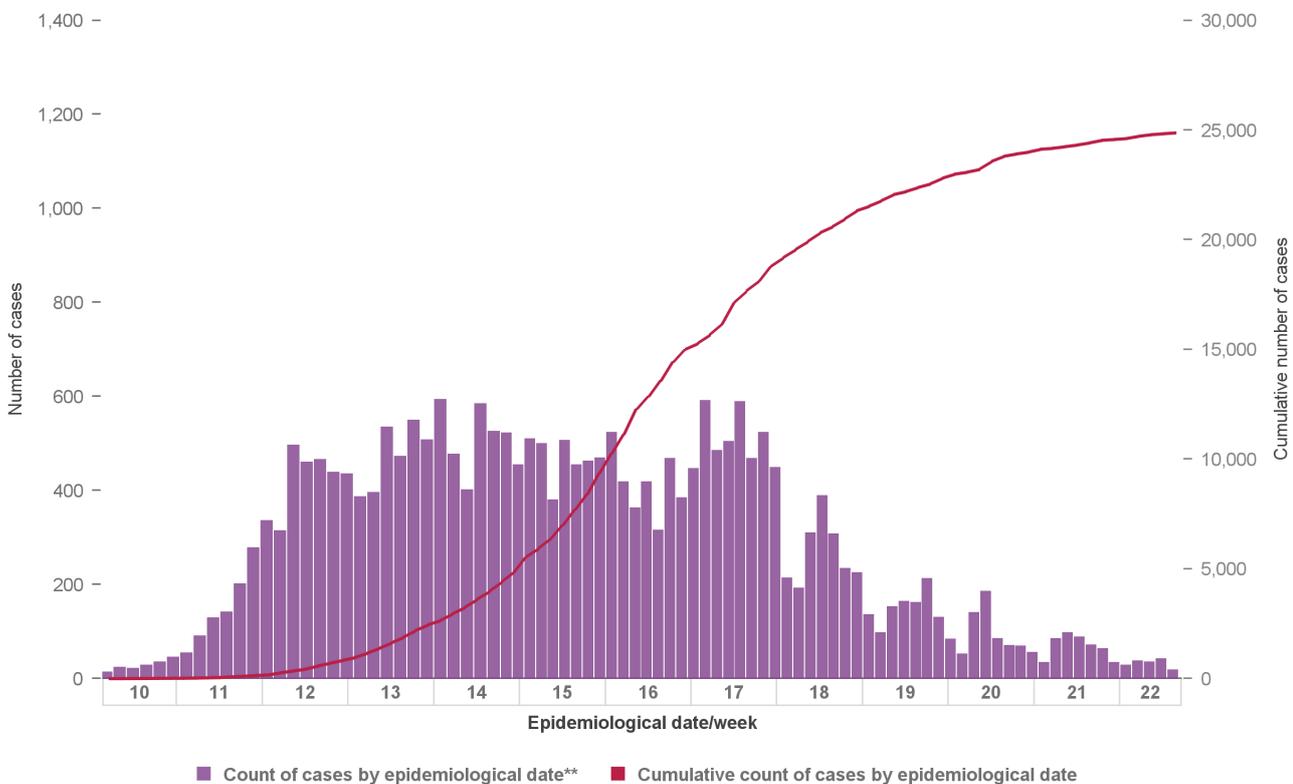


Figure 1b: Number and cumulative number of confirmed COVID-19 cases notified in Ireland by epidemiological date to midnight 28/05/2020**

**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.

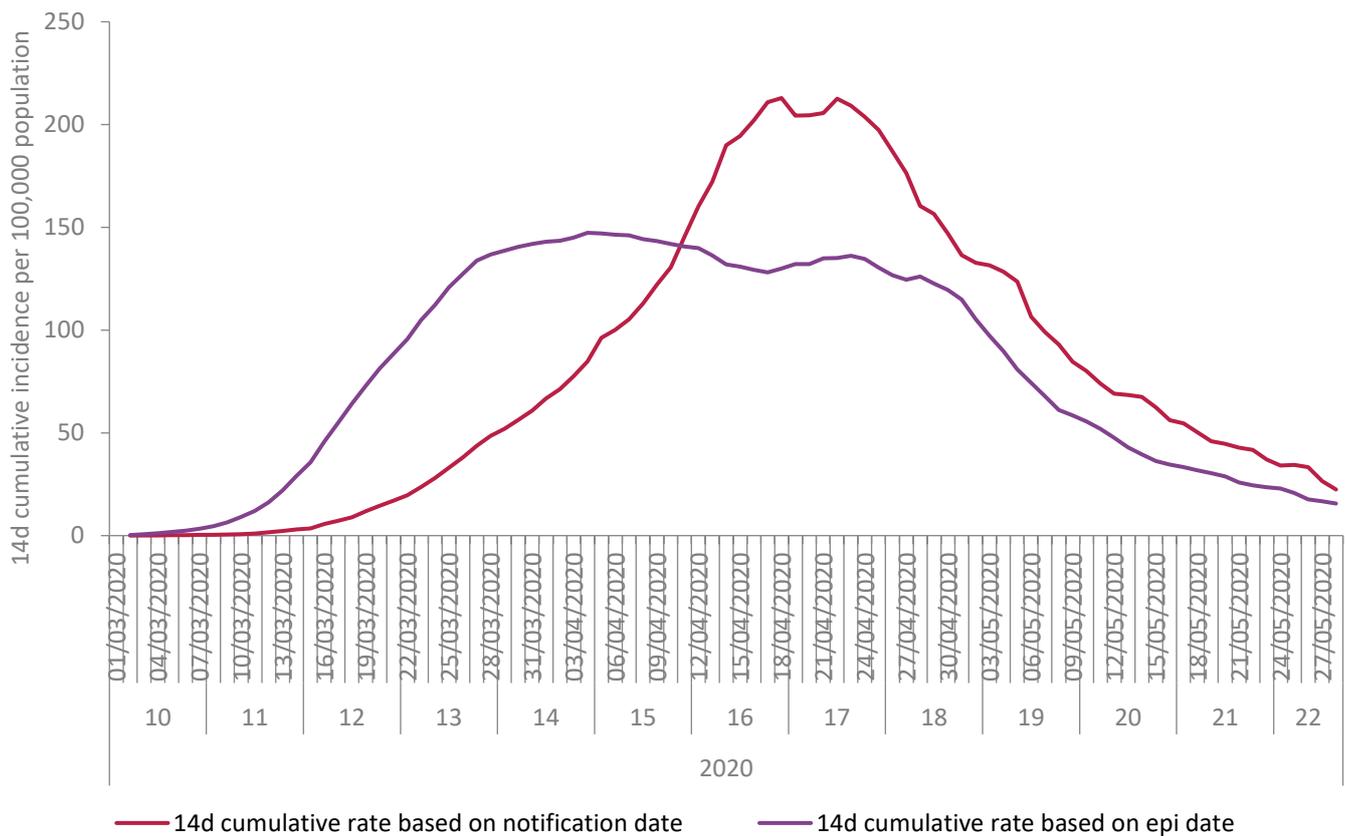


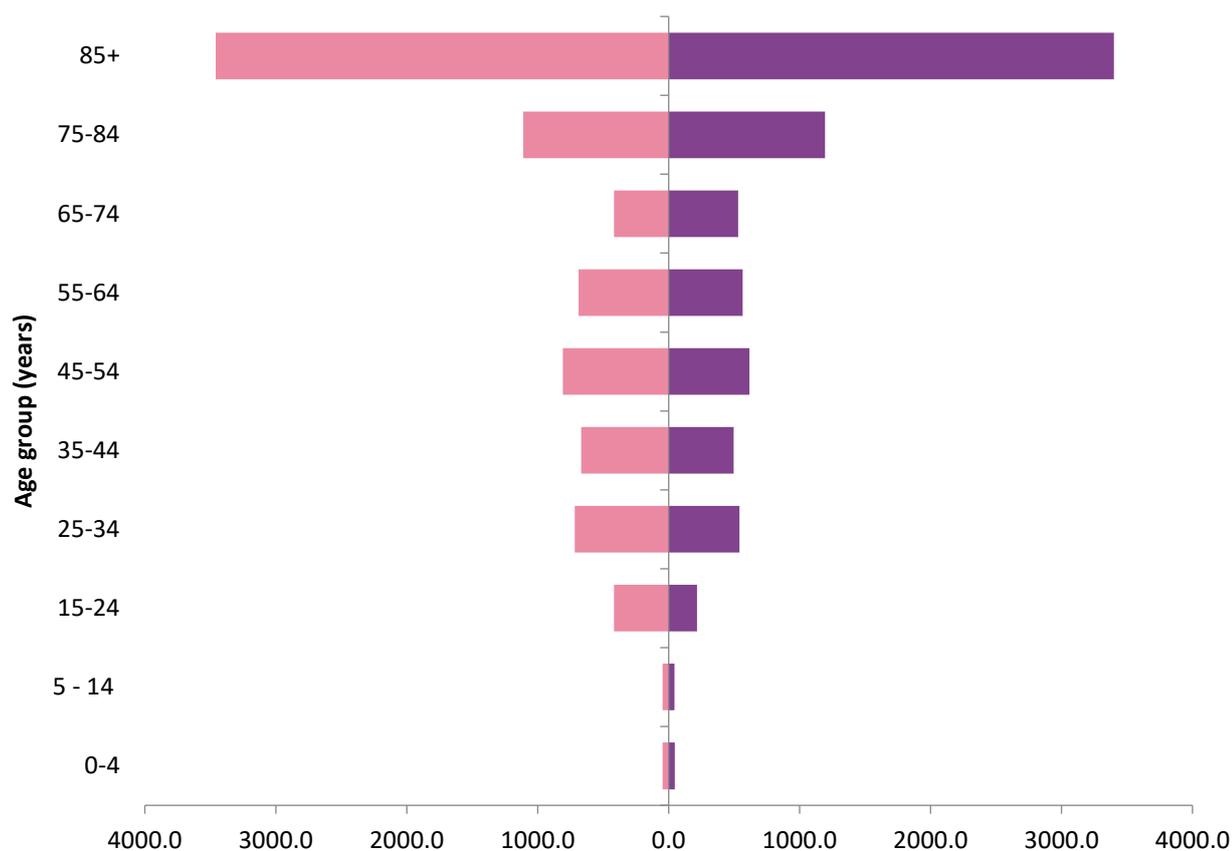
Figure 2: Cumulative 14 day incidence rate of confirmed COVID-19 cases per 100,000 population notified in Ireland by notification* and epidemiological date to midnight 28/05/2020**

* 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 28/05/2020

Characteristic		Number of cases	Percent
Total number of confirmed cases		24,870	100
Sex	Male:Female ratio	0.74	
	Male	10,601	42.63
	Female	14,235	57.24
	Unknown	34	0.14
Age	Median age (years)	48	
	Mean age (years)	51	
	Age range (years)	0 - 106	
	0-4 yrs	153	0.62
	5-14 yrs	307	1.23
	15-24 yrs	1,822	7.33
	25-34 yrs	4,177	16.8
	35-44 yrs	4,373	17.58
	45-54 yrs	4,471	17.98
	55-64 yrs	3,195	12.85
	65-74 yrs	1,768	7.11
	75-84 yrs	2,257	9.08
	85+ yrs	2,324	9.34
	Unknown	23	0.09



	0-4	5 - 14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	85+
Female	46.4	45.7	418.7	718.5	668.7	807.3	688.4	417.4	1110.2	3459.0
Male	46.0	45.2	215.7	539.6	497.1	616.6	566.2	530.7	1194.7	3399.5

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 28/05/2020 (excluding 23 cases for whom age is unknown and 34 cases for whom sex is unknown)

Table 2: Number of confirmed COVID-19 cases by county notified to midnight 28/05/2020

County Name	Number of cases	Percent
Carlow	158	0.64
Cavan	833	3.35
Clare	323	1.3
Cork	1,472	5.92
Donegal	477	1.92
Dublin	12,031	48.38
Galway	476	1.91
Kerry	308	1.24
Kildare	1,416	5.69
Kilkenny	337	1.36
Laois	258	1.04
Leitrim	83	0.33
Limerick	628	2.53
Longford	281	1.13
Louth	763	3.07
Mayo	571	2.3
Meath	795	3.2
Monaghan	507	2.04
Offaly	478	1.92
Roscommon	321	1.29
Sligo	129	0.52
Tipperary	527	2.12
Waterford	152	0.61
Westmeath	667	2.68
Wexford	216	0.87
Wicklow	663	2.67
Total	24,870	100

Table 3: Number of confirmed COVID-19 cases by WHO transmission classification notified to midnight 28/05/2020

Transmission classification*	Count of Events	%
Community transmission, incl. possible community transmission	9,771	39.29%
Local transmission, incl. possible local transmission	14,458	58.13%
Travel abroad, incl. possible travel abroad	575	2.31%
Unknown	66	0.27%
Total	24,870	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 28/05/2020

Age Group (years)	Number of cases (n)	Cases hospitalised (n)	Cases hospitalised (%)	Cases admitted to ICU (n)	Cases admitted to ICU (%)
0-4 yrs	153	19	0.58	0	0
5-14 yrs	307	17	0.52	2	0.49
15-24 yrs	1822	72	2.2	5	1.23
25-34 yrs	4177	197	6.01	15	3.68
35-44 yrs	4373	255	7.78	34	8.33
45-54 yrs	4471	439	13.39	83	20.34
55-64 yrs	3195	480	14.64	119	29.17
65-74 yrs	1768	572	17.44	105	25.74
75-84 yrs	2257	748	22.81	39	9.56
85+ yrs	2324	477	14.55	6	1.47
Unknown	23	3	0.09	0	0
Total	24,870	3,279	100	408	100

Table 5: Number and proportion of confirmed cases of COVID-19 notified in Ireland by age-group, hospitalisation and ICU admission 28/05/2020

	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)	153	307	1,822	4,177	4,373	4,471	3,195	1,768	2,257	2,324	23
Cases hospitalised (n)	19	17	72	197	255	439	480	572	748	477	3
Cases hospitalised (%)	12.42	5.54	3.95	4.72	5.83	9.82	15.02	32.35	33.14	20.52	13.04
Cases admitted to ICU (n)	0	2	5	15	34	83	119	105	39	6	0
Cases admitted to ICU (%)	0	0.65	0.27	0.36	0.78	1.86	3.72	5.94	1.73	0.26	0
Deaths (n)	0	0	2	6	10	23	60	197	476	614	0
Case fatality ratio (%)	0	0	0.11	0.14	0.23	0.51	1.88	11.14	21.09	26.42	0

Outbreaks of COVID-19

Table 6: Number of clusters/outbreaks COVID-19 by location and HSE area notified to midnight 28/05/2020

Outbreak Location	E	M	MW	NE	NW	S	SE	W	Total
Nursing home	122	16	13	38	6	10	16	36	257
Other*	18	14	43	21	9	80	31	31	247
Residential institution	113	12	6	16	4	19	10	4	184
Hospital	61	2	2	14	2	12	3	6	102
Workplace	8	5	4	12	1	8	3	2	43
Comm. Hosp/Long-stay unit	4	4	1		4	6	5	4	28
Total	326	53	69	101	26	135	68	83	861

*Other outbreak location includes all outbreaks locations other than residential facilities, acute hospitals and workplaces. This includes community, extended family, hotel, private house, public house, retail outlet, travel related and all other locations.

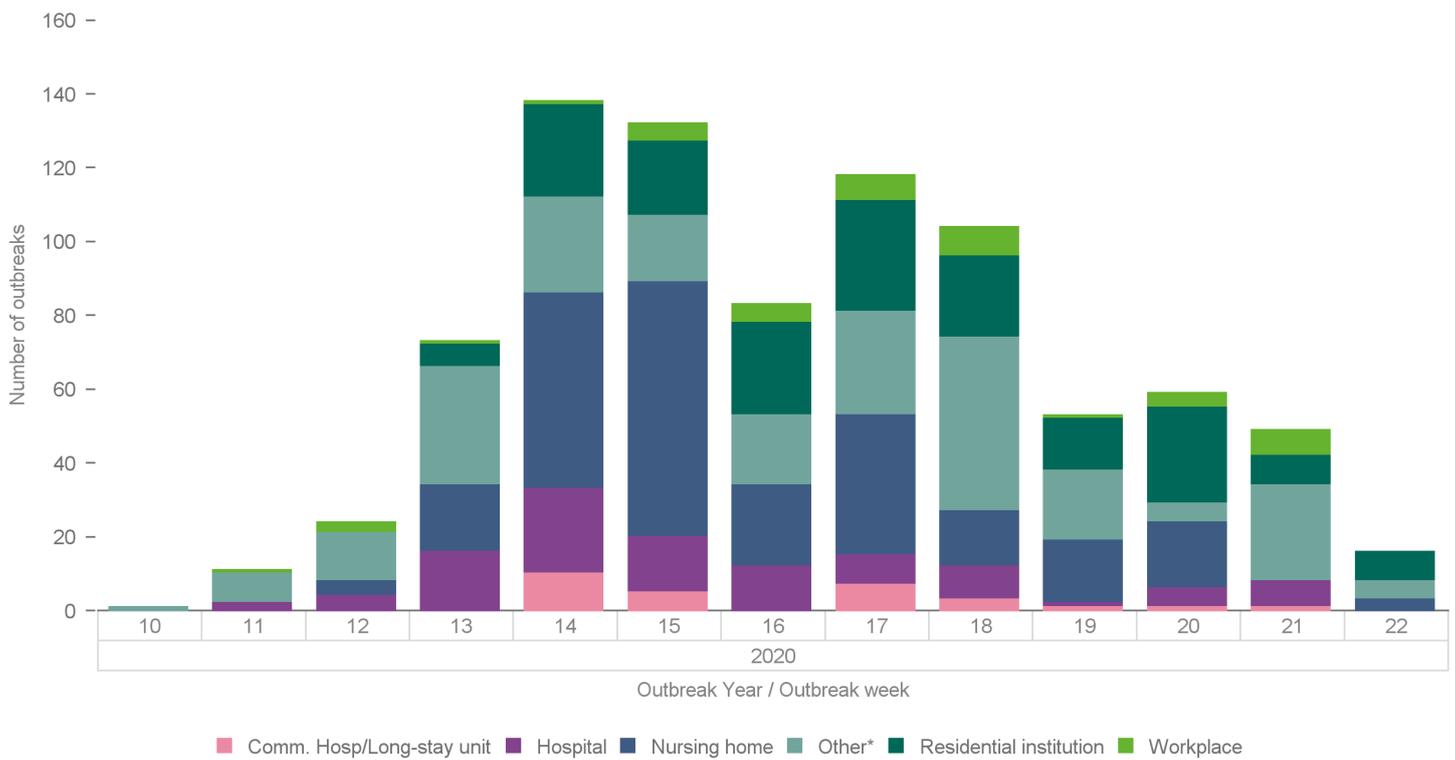


Figure 5: Trend in number of COVID-19 clusters by location and week notified to midnight 28/05/2020

*Other outbreak location includes all outbreaks locations other than residential facilities, acute hospitals and workplaces. This includes community, extended family, hotel, private house, public house, retail outlet, travel related and all other locations.

Table 7: Summary of deaths in all COVID-19 cases notified in Ireland up to midnight 28/05/2020

	Number	Percent
Total number of deaths	1,649	
Confirmed	1,388	84.17
Probable	94	5.7
Possible	167	10.13
Total number of cases hospitalised	689	41.78
Cases admitted to ICU	80	4.85
Cases not admitted to ICU	609	36.93
Total number of imported cases	6	0.36
Number of cases in healthcare workers	7	0.42
Number with underlying clinical conditions	1,484	89.99
Total number of male cases	813	49.3
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 28/05/2020

Age group (years)	Female	Male	Total	Percent
15-24 yrs	<5	<5	2	0.12
25-34 yrs	<5	<5	6	0.36
35-44 yrs	5	6	11	0.67
45-54 yrs	10	15	25	1.52
55-64 yrs	23	42	65	3.94
65-74 yrs	79	143	222	13.46
75-84 yrs	254	306	560	33.96
85+ yrs	458	298	756	45.85
Unknown	<5	<5	2	0.12
Total	836	813	1,649	100
Percent	50.7	49.3		

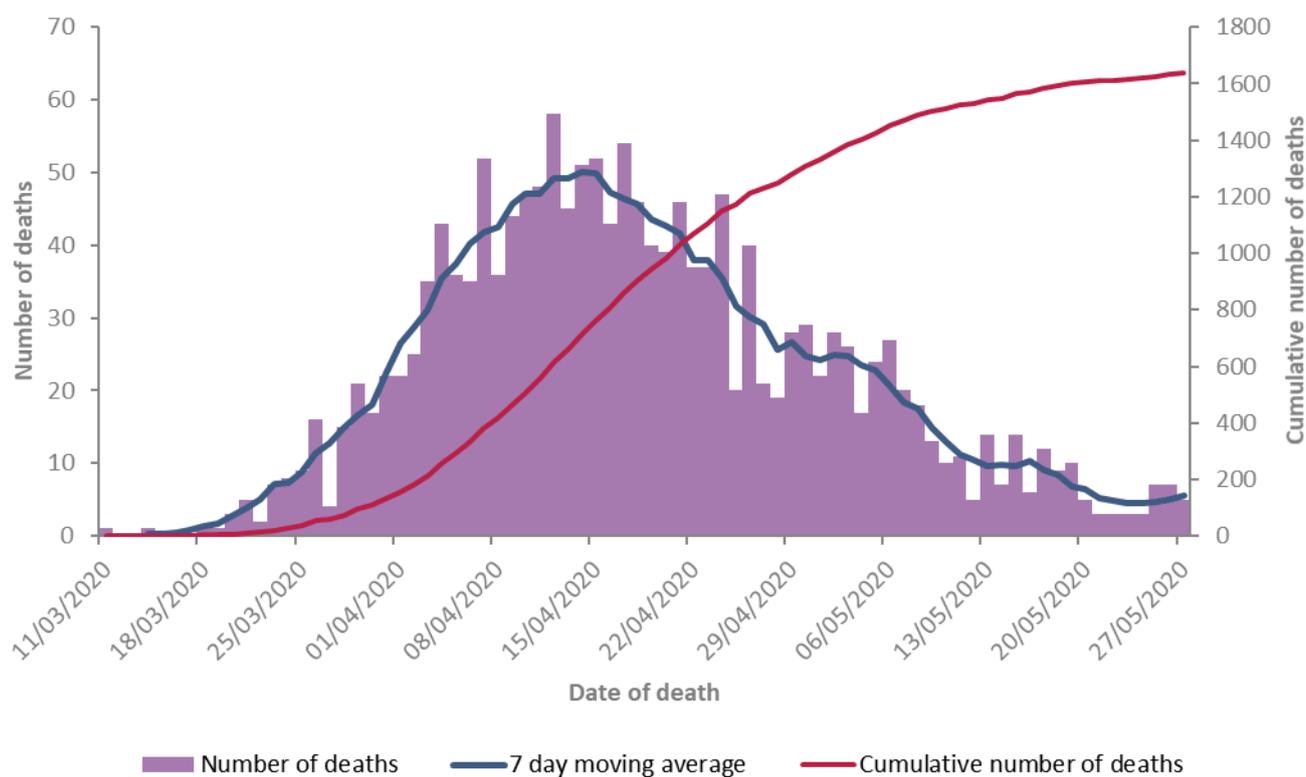


Figure 6: Daily and 7 day moving average number of deaths among COVID-19 cases notified in Ireland by date of death and cumulative total to midnight 28/05/2020

* 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 30/05/2020. 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 all outbreaks locations other than residential facilities and acute hospitals. This includes community, extended family, hotel, private house, public house, retail outlet, travel related and all other locations.