



Epidemiology of COVID-19 in Ireland

Report prepared by HPSC on 27/05/2020 for National Public Health Emergency Team

Summary characteristics of confirmed COVID-19 cases notified in Ireland up to midnight 25/05/2020

	Number	Percent
Total number of confirmed cases	24,730	
National cumulative incidence of confirmed cases per 100,000 population	519.33	
Total number of cases hospitalised	3,251	13.15
Total number of cases admitted to ICU	399	1.61
Total number of deaths among confirmed cases	1,368	5.53
Case fatality ratio (CFR, %)	5.53	
National cumulative incidence of confirmed deaths per 100,000 population	28.73	
Total number of outbreaks/clusters	846	
Total number of cases associated with clusters	9,676	39.13
Total number of imported cases	359	1.45
Number of cases in healthcare workers	7,891	31.91
Males	10,548	42.65
Females	14,145	57.2
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 09:20 on 27/05/2020 and are provisional and subject to ongoing review, validation and update. As a result, figures in this report may differ from previously published figures.

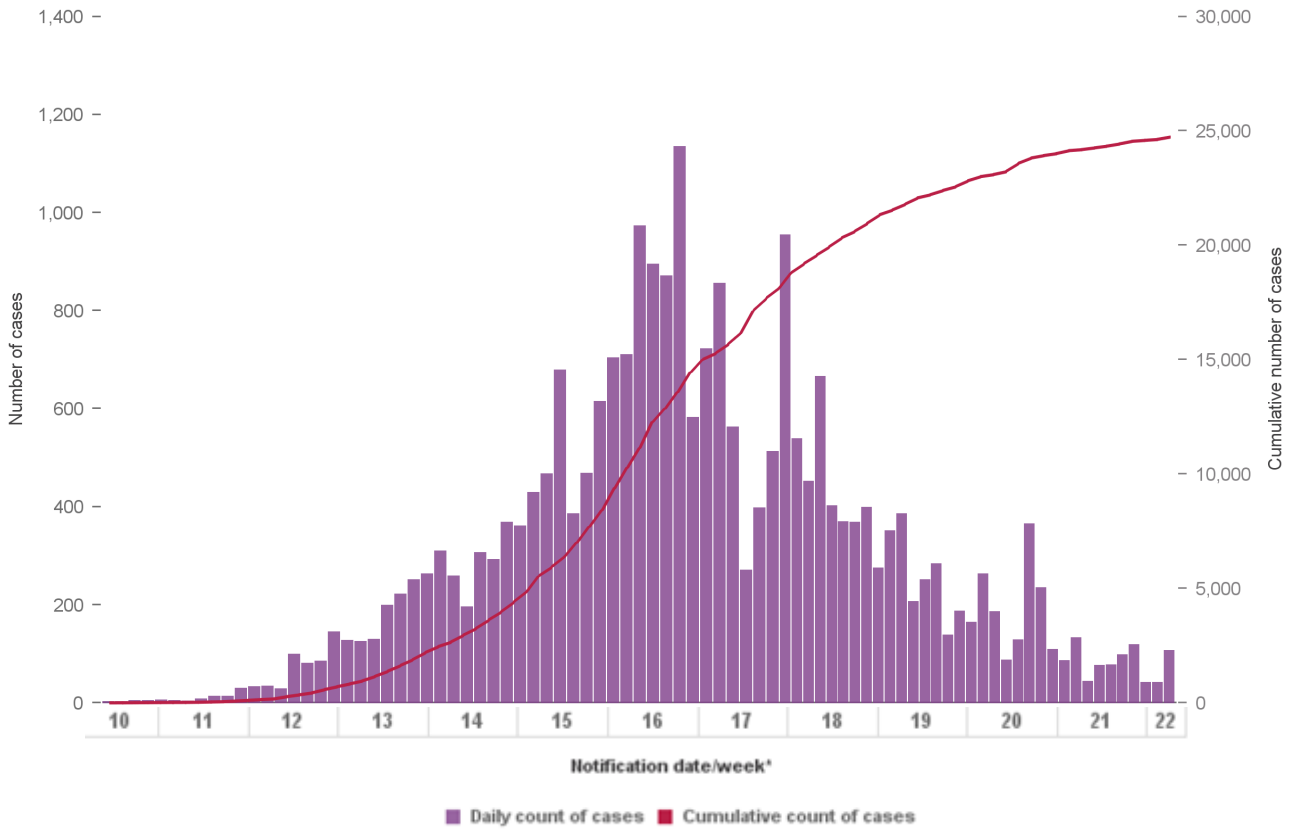


Figure 1a: Number* and cumulative number of confirmed COVID-19 cases notified in Ireland by notification date* to midnight 25/05/2020

*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

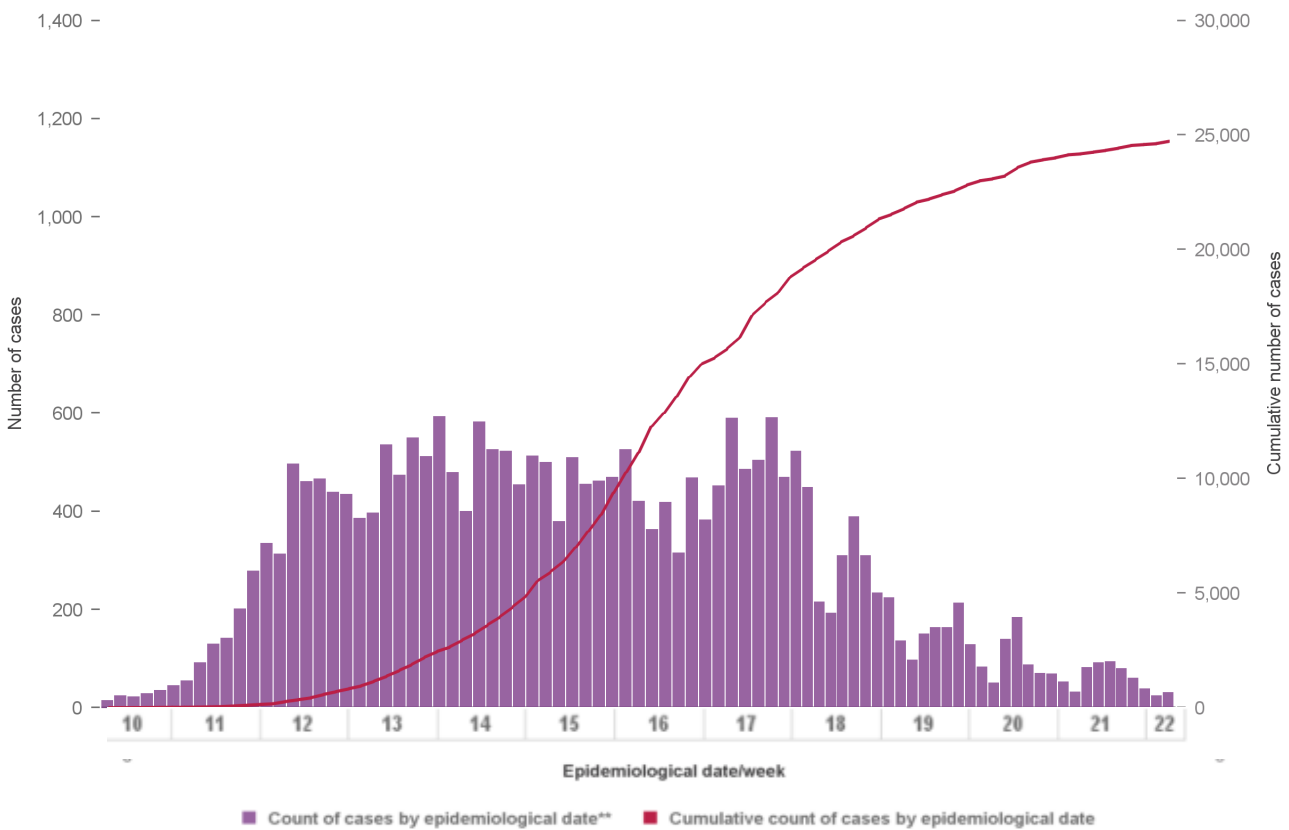


Figure 1b: Number and cumulative number of confirmed COVID-19 cases notified in Ireland by epidemiological date to midnight 25/05/2020**

**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.

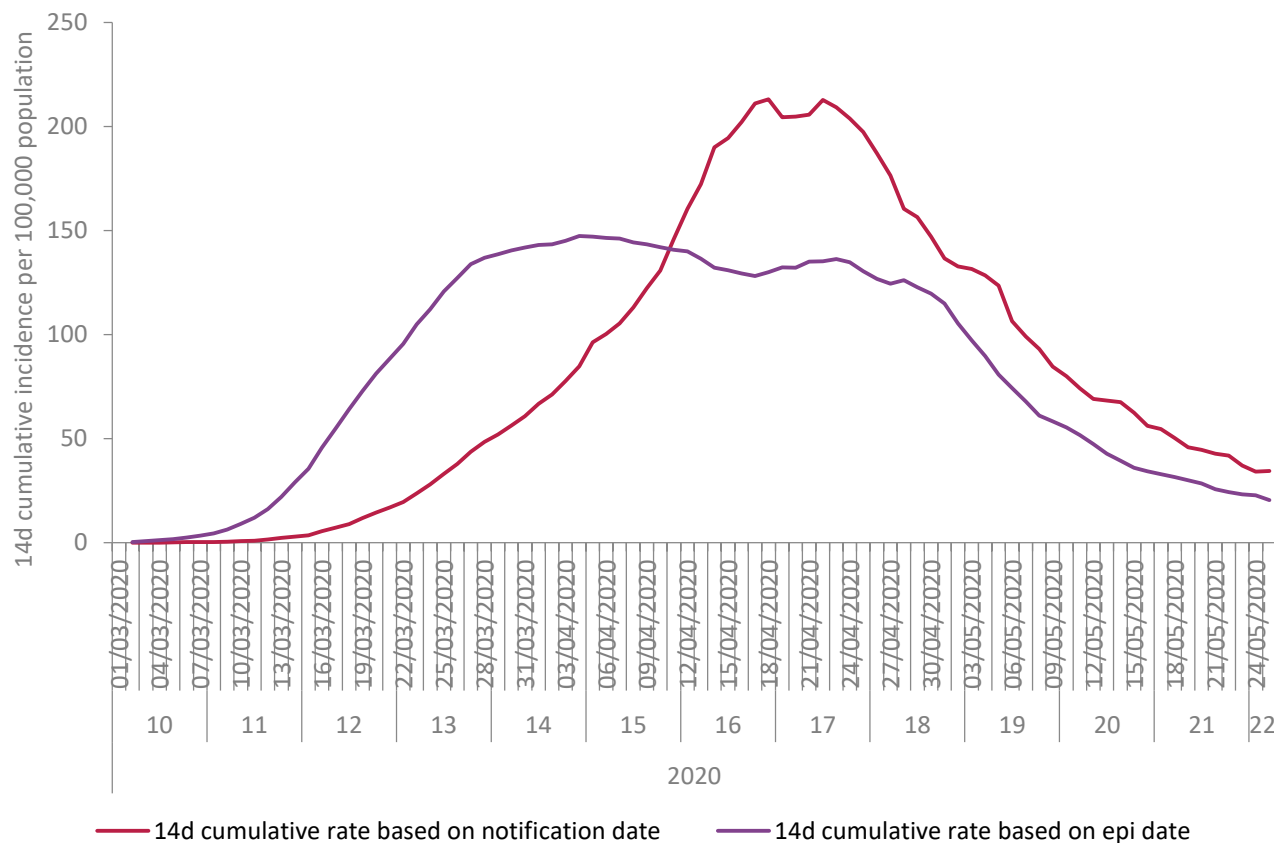


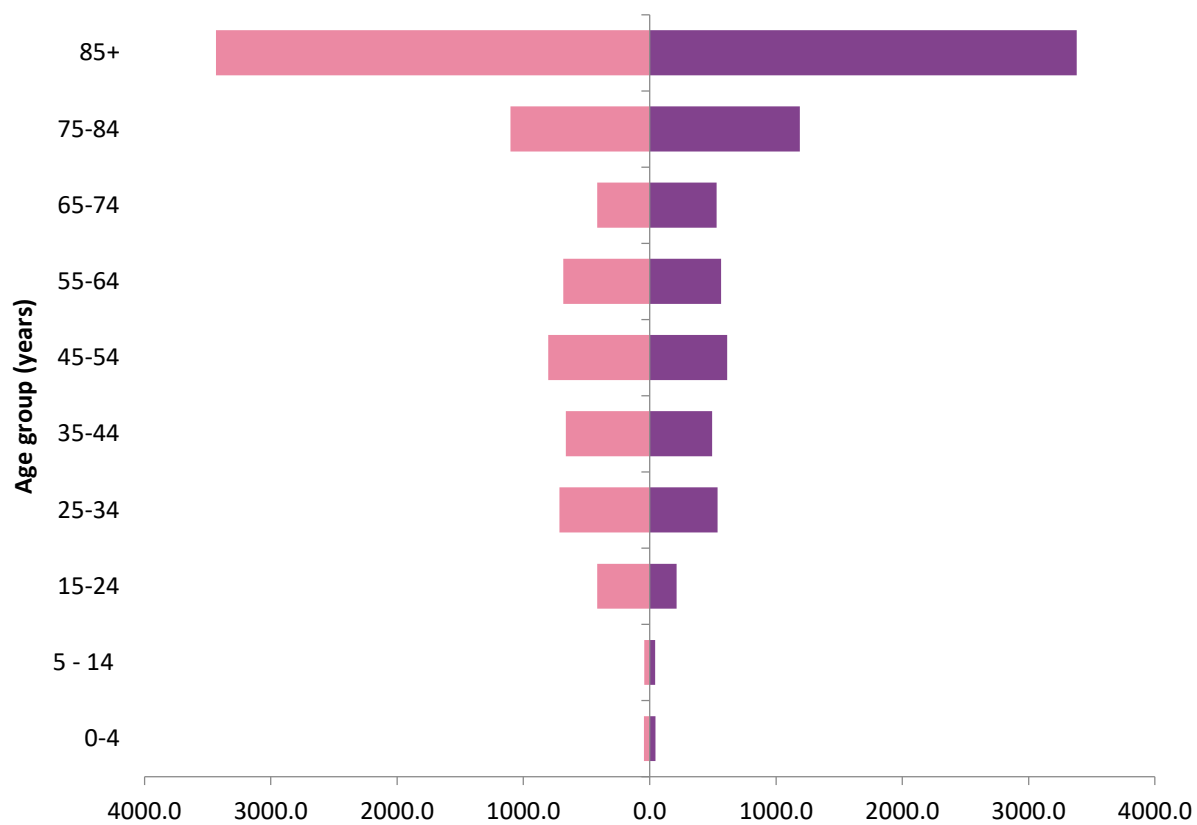
Figure 2: Cumulative 14 day incidence rate of confirmed COVID-19 cases per 100,000 population notified in Ireland by notification* and epidemiological date to midnight 25/05/2020**

* 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 25/05/2020

Characteristic		Number of cases	Percent
Total number of confirmed cases		24,730	100
Sex	Male:Female ratio	0.75	
	Male	10,548	42.65
	Female	14,145	57.2
	Unknown	37	0.15
Age	Median age (years)	48	
	Mean age (years)	51	
	Age range (years)	0 - 106	
	0-4 yrs	148	0.6
	5-14 yrs	297	1.2
	15-24 yrs	1,810	7.32
	25-34 yrs	4,162	16.83
	35-44 yrs	4,349	17.59
	45-54 yrs	4,444	17.97
	55-64 yrs	3,180	12.86
	65-74 yrs	1,762	7.12
	75-84 yrs	2,244	9.07
	85+ yrs	2,309	9.34
	Unknown	25	0.1



	0-4	5 - 14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	85+
Female	44.5	43.6	416.6	715.2	664.2	802.5	683.7	416.3	1103.6	3434.2
Male	44.8	43.8	213.7	538.3	495.2	612.8	565.0	528.6	1188.0	3382.2

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 25/05/2020 (excluding 25 cases for whom age is unknown and 37 cases for whom sex is unknown)

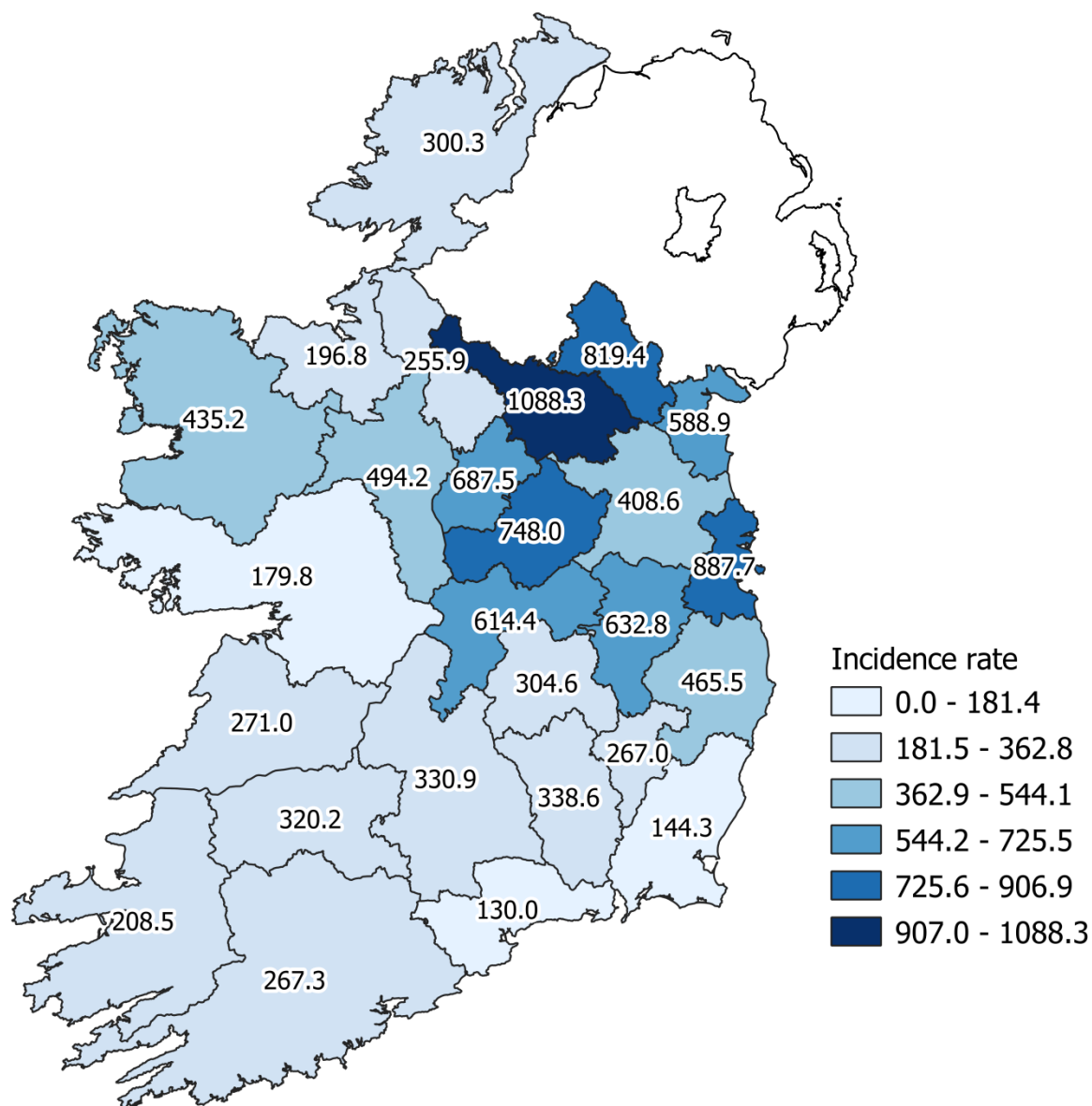


Figure 4: Cumulative incidence rates of confirmed cases of COVID-19 per 100,000 population notified in Ireland to midnight 25/05/2020

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 25/05/2020

County Name	Number of cases	Percent
Carlow	152	0.61
Cavan	829	3.35
Clare	322	1.3
Cork	1,451	5.87
Donegal	478	1.93
Dublin	11,961	48.37
Galway	464	1.88
Kerry	308	1.25
Kildare	1,408	5.69
Kilkenny	336	1.36
Laois	258	1.04
Leitrim	82	0.33
Limerick	624	2.52
Longford	281	1.14
Louth	759	3.07
Mayo	568	2.3
Meath	797	3.22
Monaghan	503	2.03
Offaly	479	1.94
Roscommon	319	1.29
Sligo	129	0.52
Tipperary	528	2.14
Waterford	151	0.61
Westmeath	664	2.68
Wexford	216	0.87
Wicklow	663	2.68
Total	24,730	100

Table 3: Number of confirmed COVID-19 cases by WHO transmission classification notified to midnight 25/05/2020

Transmission classification*	Count of Events	%
Community transmission, incl. possible community transmission	9,794	39.60%
Local transmission, incl. possible local transmission	14,244	57.60%
Travel abroad, incl. possible travel abroad	572	2.31%
Unknown	120	0.49%
Total	24,730	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 25/05/2020

Age Group (years)	Number of cases (n)	Cases hospitalised (n)	Cases hospitalised (%)	Cases admitted to ICU (n)	Cases admitted to ICU (%)
0-4 yrs	148	19	0.58	0	0
5-14 yrs	297	17	0.52	2	0.5
15-24 yrs	1810	71	2.18	5	1.25
25-34 yrs	4162	196	6.03	15	3.76
35-44 yrs	4349	249	7.66	33	8.27
45-54 yrs	4444	433	13.32	82	20.55
55-64 yrs	3180	479	14.73	115	28.82
65-74 yrs	1762	569	17.5	101	25.31
75-84 yrs	2244	741	22.79	40	10.03
85+ yrs	2309	474	14.58	6	1.5
Unknown	25	3	0.09	0	0
Total	24,730	3,251	100	399	100

Table 5: Number and proportion of confirmed cases of COVID-19 notified in Ireland by age-group, hospitalisation and ICU admission 25/05/2020

	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)	148	297	1,810	4,162	4,349	4,444	3,180	1,762	2,244	2,309	25
Cases hospitalised (n)	19	17	71	196	249	433	479	569	741	474	3
Cases hospitalised (%)	12.84	5.72	3.92	4.71	5.73	9.74	15.06	32.29	33.02	20.53	12
Cases admitted to ICU (n)	0	2	5	15	33	82	115	101	40	6	0
Cases admitted to ICU (%)	0	0.67	0.28	0.36	0.76	1.85	3.62	5.73	1.78	0.26	0
Deaths (n)	0	0	2	5	10	23	59	196	469	604	0
Case fatality ratio (%)	0	0	0.11	0.12	0.23	0.52	1.86	11.12	20.9	26.16	0

Outbreaks of COVID-19

Table 6: Number of clusters/outbreaks COVID-19 by location and HSE area notified to midnight 25/05/2020

Outbreak Location	E	M	MW	NE	NW	S	SE	W	Total
Nursing home	120	16	13	38	6	10	15	36	254
Other*	20	13	40	22	9	80	31	30	245
Residential institution	105	12	6	15	4	20	10	4	176
Hospital	61	2	2	14	2	12	3	6	102
Workplace	7	5	4	11	1	8	3	2	41
Comm. Hosp/Long-stay unit	4	4	1		4	6	5	4	28
Total	317	52	66	100	26	136	67	82	846

*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.

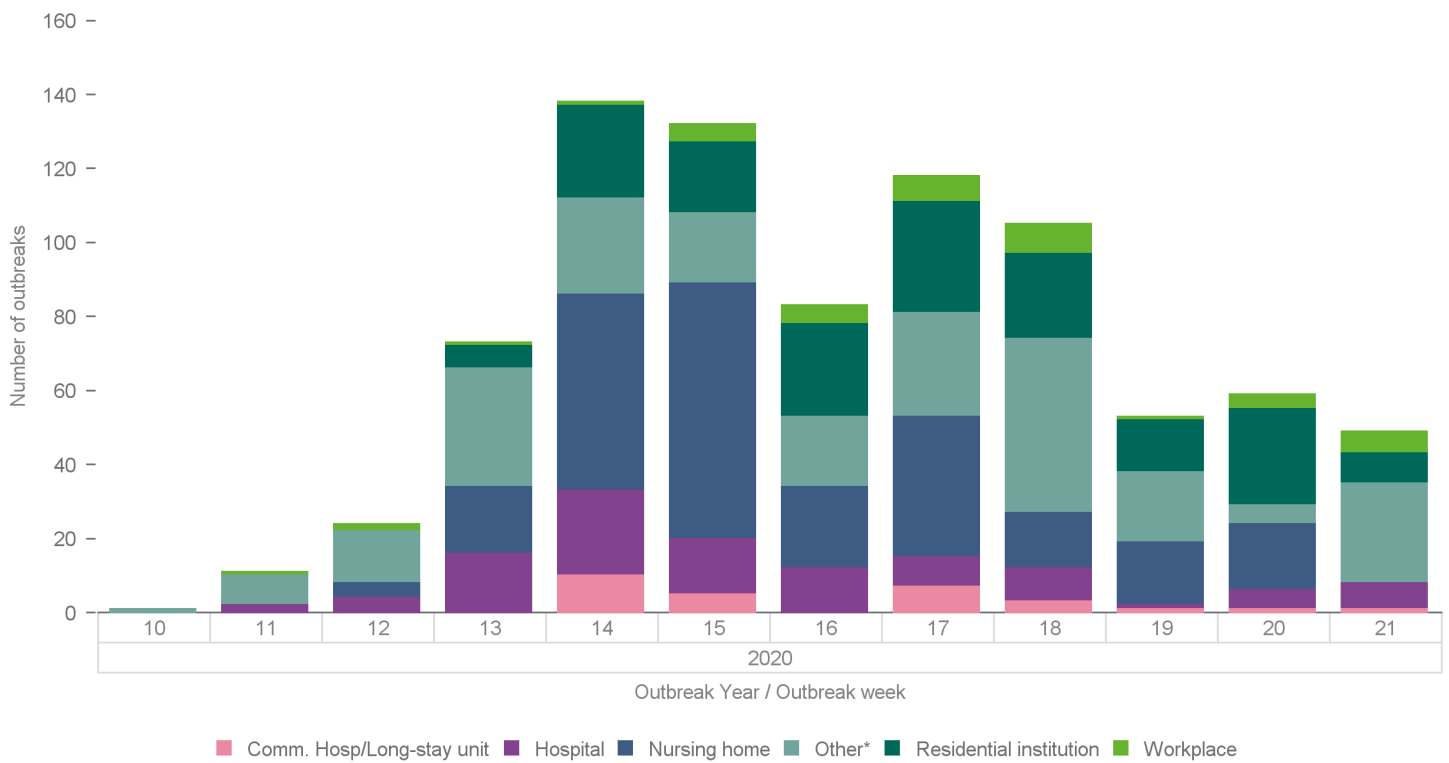


Figure 5: Trend in number of COVID-19 clusters by location and week notified to midnight 25/05/2020

*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.

Deaths among COVID-19 cases

Table 7: Summary of deaths in all COVID-19 cases notified in Ireland up to midnight 25/05/2020

	Number	Percent
Total number of deaths	1,629	
Confirmed	1,368	83.98
Probable	93	5.71
Possible	168	10.31
Total number of cases hospitalised	675	41.44
Cases admitted to ICU	77	4.73
Cases not admitted to ICU	598	36.71
Total number of imported cases	6	0.37
Number of cases in healthcare workers	7	0.43
Number with underlying clinical conditions	1,459	89.56
Total number of male cases	807	49.54
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 25/05/2020

Age group (years)	Female	Male	Total	Percent
15-24 yrs	<5	<5	2	0.12
25-34 yrs	<5	<5	5	0.31
35-44 yrs	5	6	11	0.68
45-54 yrs	10	15	25	1.53
55-64 yrs	21	43	64	3.93
65-74 yrs	78	142	220	13.51
75-84 yrs	250	304	554	34.01
85+ yrs	452	294	746	45.79
Unknown	<5	<5	2	0.12
Total	822	807	1,629	100
Percent	50.46	49.54		

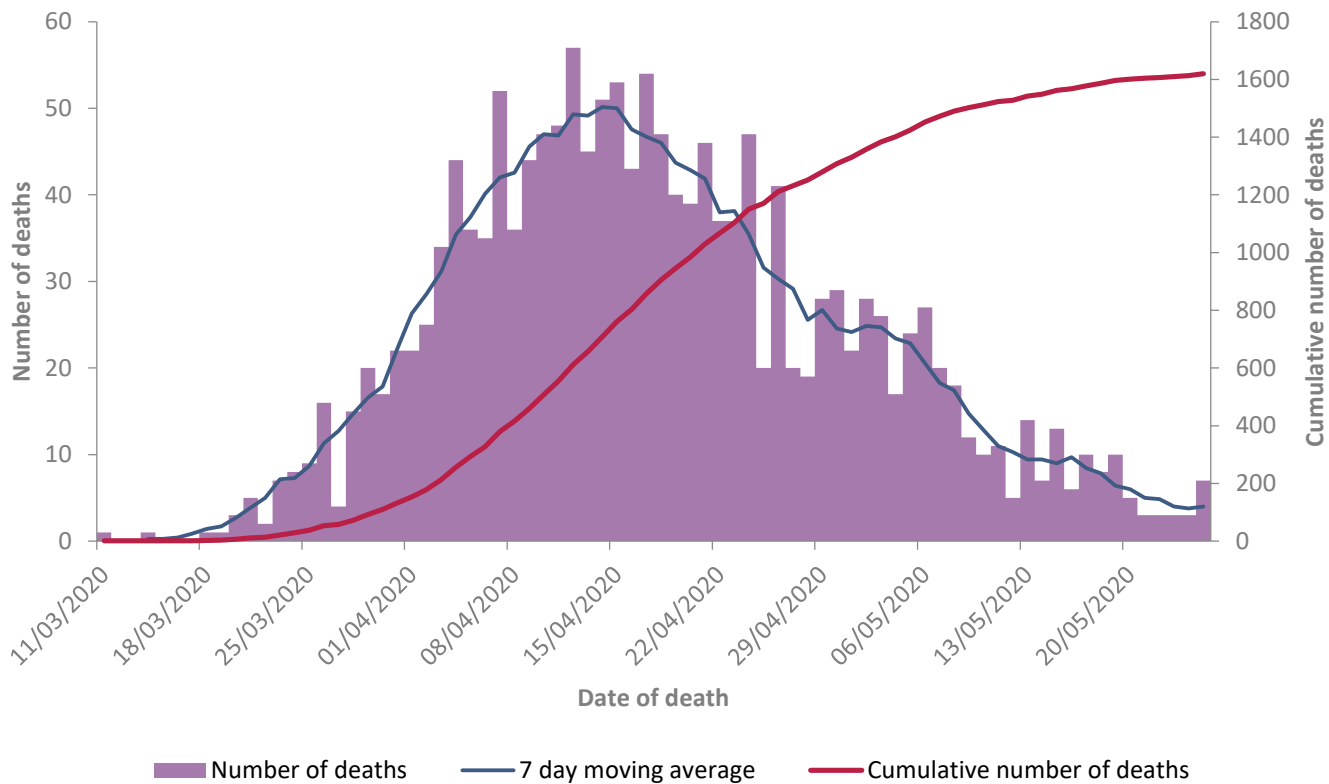


Figure 6: Daily and 7 day moving average number of deaths among COVID-19 cases notified in Ireland by date of death and cumulative total to midnight 25/05/2020

* 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 09:20 on 27/05/2020. 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.