





Epidemiology of COVID-19 in Ireland

Report prepared by HPSC on 26/05/2020 for National Public Health Emergency Team

Summary characteristics of confirmed COVID-19 cases notified in Ireland up to midnight 24/05/2020

Total number of confirmed cases National cumulative incidence of confirmed cases per 100,000 population Total number of cases hospitalised 7 total number of cases admitted to ICU 7 total number of deaths among confirmed cases 7 total number of deaths among confirmed cases 7 total number of cases admitted to ICU 8 total number of deaths among confirmed cases 7 total number of cases 8 total number of outbreaks/clusters 8 total number of cases associated with clusters 8 total number of imported cases 8 total number of imported cases 9 total number of imported cases		Number	Percent
Total number of cases hospitalised 3,233 13.13 Total number of cases admitted to ICU 395 1.6 Total number of deaths among confirmed cases 1,354 5.5 Case fatality ratio (CFR, %) 5.5 National cumulative incidence of confirmed deaths per 100,000 population 28.43 Total number of outbreaks/clusters 846 Total number of cases associated with clusters 9,579 38.89 Total number of imported cases 359 1.46	Total number of confirmed cases	24,629	
Total number of cases admitted to ICU 395 1.6 Total number of deaths among confirmed cases 1,354 5.5 Case fatality ratio (CFR, %) 5.5 National cumulative incidence of confirmed deaths per 100,000 population 28.43 Total number of outbreaks/clusters 846 Total number of cases associated with clusters 9,579 38.89 Total number of imported cases 359 1.46		517.21	
Total number of deaths among confirmed cases 1,354 5.5 Case fatality ratio (CFR, %) 5.5 National cumulative incidence of confirmed deaths per 100,000 population 28.43 Total number of outbreaks/clusters 846 Total number of cases associated with clusters 9,579 38.89 Total number of imported cases 359 1.46	Total number of cases hospitalised	3,233	13.13
Case fatality ratio (CFR, %) 5.5 National cumulative incidence of confirmed deaths per 100,000 population 28.43 Total number of outbreaks/clusters 846 Total number of cases associated with clusters 9,579 38.89 Total number of imported cases 359 1.46	Total number of cases admitted to ICU	395	1.6
National cumulative incidence of confirmed deaths per 100,000 population Total number of outbreaks/clusters Total number of cases associated with clusters 9,579 38.89 Total number of imported cases 359 1.46	Total number of deaths among confirmed cases	1,354	5.5
Total number of outbreaks/clusters Total number of cases associated with clusters Total number of imported cases 359 1.46	Case fatality ratio (CFR, %)	5.5	
Total number of cases associated with clusters 9,579 38.89 Total number of imported cases 359 1.46		28.43	
Total number of imported cases 359 1.46	Total number of outbreaks/clusters	846	
Total number of imported edece	Total number of cases associated with clusters	9,579	38.89
	Total number of imported cases	359	1.46
Number of cases in healthcare workers 7,852 31.88	Number of cases in healthcare workers	7,852	31.88
Males 10,510 42.67	Males	10,510	42.67
Females 14,081 57.17	Females	14,081	57.17
M:F ratio 0.75	M:F ratio	0.75	
Median age (years) 48	Median age (years)	48	
Mean age (years) 51	Mean age (years)	51	
Age range (years) 0 - 106	Age range (years)	0 - 106	

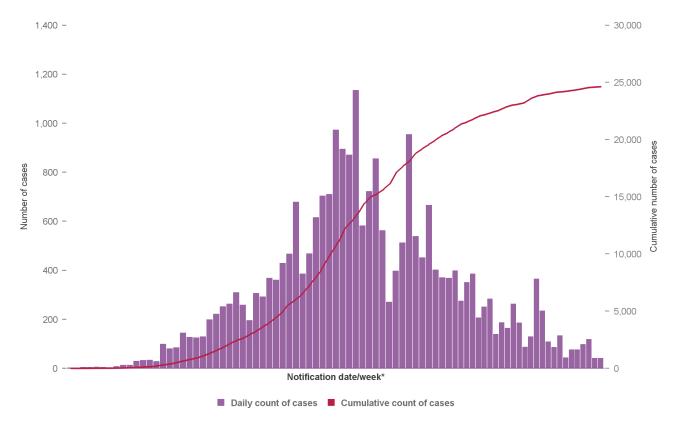


Figure 1a: Number* and cumulative number of confirmed COVID-19 cases notified in Ireland by notification date* to midnight 24/05/2020

*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

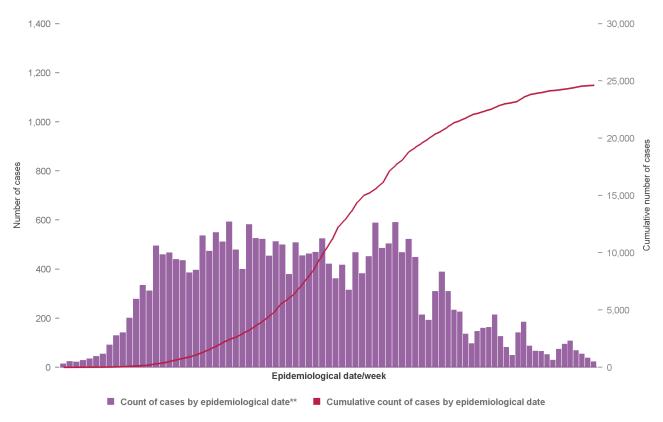


Figure 1b: Number and cumulative number of confirmed COVID-19 cases notified in Ireland by epidemiological date** to midnight 24/05/2020

^{**}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.

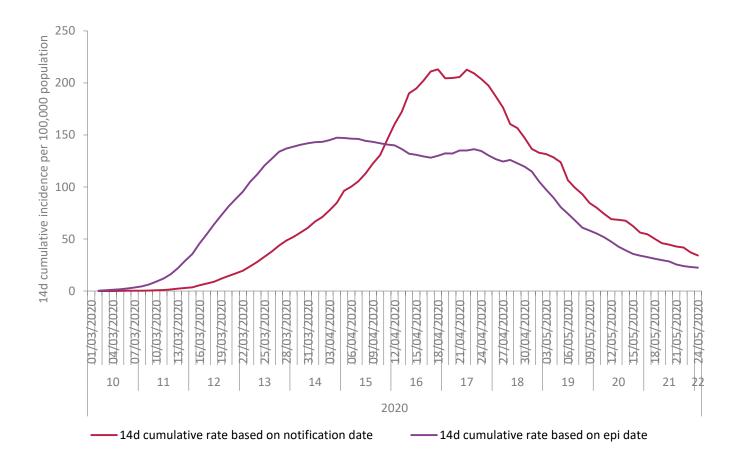


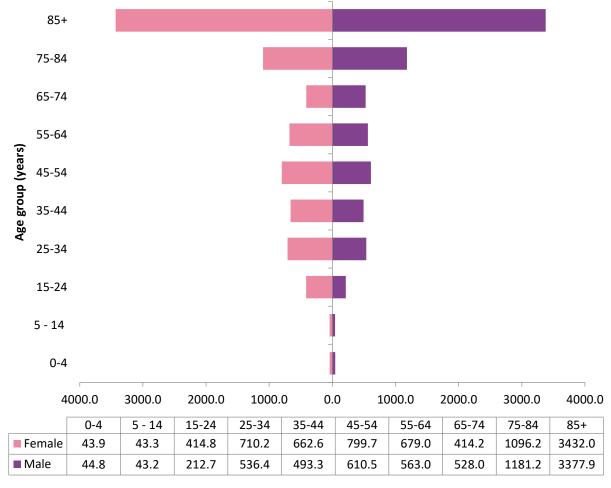
Figure 2: Cumulative 14 day incidence rate of confirmed COVID-19 cases per 100,000 population notified in Ireland by notification* and epidemiological date** to midnight 24/05/2020

^{*} 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 24/05/2020

Characteristic		Number of cases	Percent
Total number of confirme	d cases	24,629	100
Sex	Male:Female ratio	0.75	
	Male	10,510	42.67
	Female	14,081	57.17
	Unknown	38	0.15
Age	Median age (years)	48	
	Mean age (years)	51	
	Age range (years)	0 - 106	
	0-4 yrs	147	0.6
	5-14 yrs	294	1.19
	15-24 yrs	1,802	7.32
	25-34 yrs	4,139	16.81
	35-44 yrs	4,337	17.61
	45-54 yrs	4,428	17.98
	55-64 yrs	3,163	12.84
	65-74 yrs	1,757	7.13
	75-84 yrs	2,230	9.05
	85+ yrs	2,307	9.37
	Unknown	25	0.1



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 24/05/2020 (excluding 25 cases for whom age is unknown and 38 cases for whom sex is unknown)

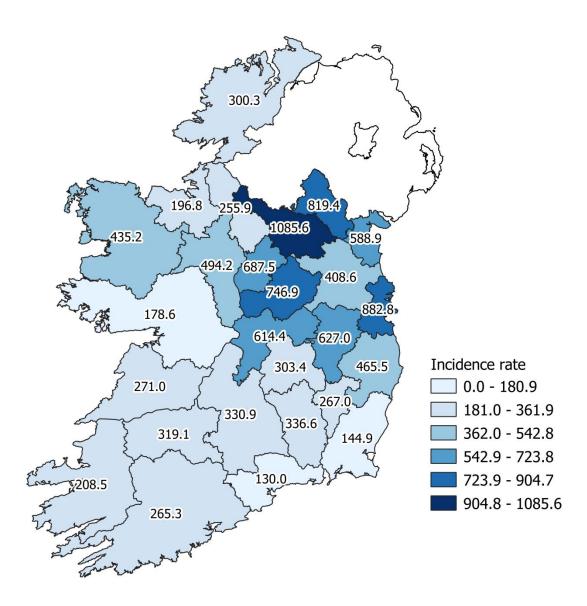


Figure 4: Cumulative incidence rates of confirmed cases of COVID-19 per 100,000 population notified in Ireland to midnight 24/05/2020

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 24/05/2020

Table 2: Italiber	31 00111111100 00 VIB 1	o cacco by county
County Name	Number of cases	Percent
Carlow	152	0.62
Cavan	827	3.36
Clare	322	1.31
Cork	1,440	5.85
Donegal	478	1.94
Dublin	11,894	48.29
Galway	461	1.87
Kerry	308	1.25
Kildare	1,395	5.66
Kilkenny	334	1.36
Laois	257	1.04
Leitrim	82	0.33
Limerick	622	2.53
Longford	281	1.14
Louth	759	3.08
Mayo	568	2.31
Meath	797	3.24
Monaghan	503	2.04
Offaly	479	1.94
Roscommon	319	1.3
Sligo	129	0.52
Tipperary	528	2.14
Waterford	151	0.61
Westmeath	663	2.69
Wexford	217	0.88
Wicklow	663	2.69
Total	24,629	100

Table 3: Number of confirmed COVID-19 cases by WHO transmission classification notified to midnight 24/05/2020

Transmission classification*	Count of Events	%
Community transmission, incl. possible community transmission	9,823	39.88%
Local transmission, incl. possible local transmission	14,110	57.29%
Travel abroad, incl. possible travel abroad	572	2.32%
Unknown	124	0.50%
Total	24,629	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 24/05/2020

Age Group (years)	Number of cases (n)	Cases hospitalised (n)	Cases hospitalised (%)	Cases admitted to ICU (n)	Cases admitted to ICU (%)
0-4 yrs	147	19	0.59	0	0
5-14 yrs	294	17	0.53	2	0.51
15-24 yrs	1802	71	2.2	5	1.27
25-34 yrs	4139	193	5.97	14	3.54
35-44 yrs	4337	249	7.7	33	8.35
45-54 yrs	4428	432	13.36	81	20.51
55-64 yrs	3163	478	14.79	114	28.86
65-74 yrs	1757	566	17.51	101	25.57
75-84 yrs	2230	733	22.67	39	9.87
85+ yrs	2307	472	14.6	6	1.52
Unknown	25	3	0.09	0	0
Total	24,629	3,233	100	395	100

Table 5: Number and proportion of confirmed cases of COVID-19 notified in Ireland by age-group, hospitalisation and ICU admission 24/05/2020

	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	Unknow n
Number of cases (n)	147	294	1,802	4,139	4,337	4,428	3,163	1,757	2,230	2,307	25
Cases hospitalised (n)	19	17	71	193	249	432	478	566	733	472	3
Cases hospitalised (%)	12.93	5.78	3.94	4.66	5.74	9.76	15.11	32.21	32.87	20.46	12
Cases admitted to ICU (n)	0	2	5	14	33	81	114	101	39	6	0
Cases admitted to ICU (%)	0	0.68	0.28	0.34	0.76	1.83	3.6	5.75	1.75	0.26	0
Deaths (n)	0	0	2	5	10	23	59	194	466	595	0
Case fatality ratio (%)	0	0	0.11	0.12	0.23	0.52	1.87	11.04	20.9	25.79	0

Outbreaks of COVID-19

Table 6: Number of clusters/outbreaks COVID-19 by location and HSE area notified to midnight 24/05/2020

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.

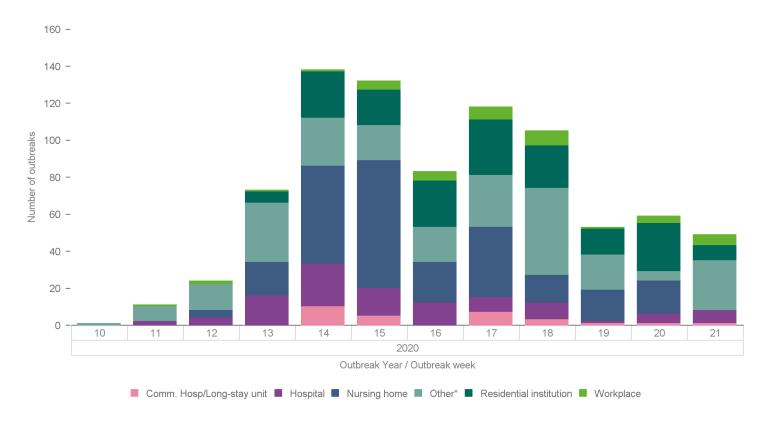


Figure 5: Trend in number of COVID-19 clusters by location and week notified to midnight 24/05/2020

*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 24/05/2020

	Number	Percent
Total number of deaths	1,615	
Confirmed	1,354	83.84
Probable	93	5.76
Possible	168	10.4
Total number of cases hospitalised	666	41.24
Cases admitted to ICU	77	4.77
Cases not admitted to ICU	589	36.47
Total number of imported cases	6	0.37
Number of cases in healthcare workers	7	0.43
Number with underlying clinical conditions	1,400	86.69
Total number of male cases	802	49.66
M:F ratio	0.99	
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 24/05/2020

Age group (years)	Female	Male	Total	Percent
15-24 yrs	<5	<5	2	0.12
25-34 yrs	<5	<5	5	0.30
35-44 yrs	5	6	11	0.68
45-54 yrs	10	15	25	1.55
55-64 yrs	21	43	64	3.96
65-74 yrs	77	141	218	13.5
75-84 yrs	249	302	551	34.12
35+ yrs	445	292	737	45.63
Unknown	<5	<5	2	0.12
Total	813	802	1615	100
Percent	50.34	49.66		

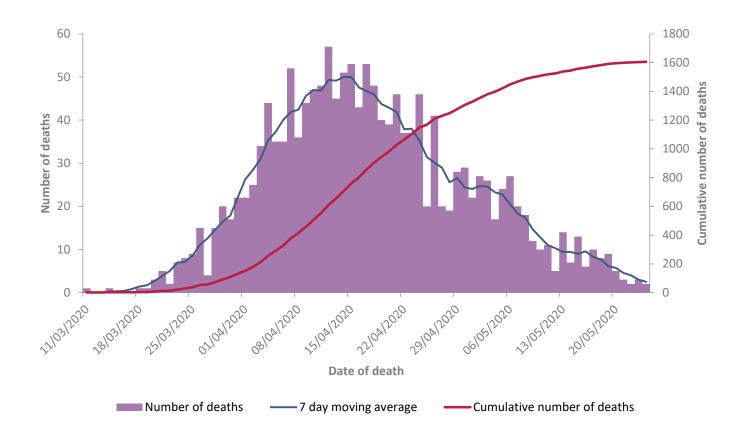


Figure 6: Daily and 7 day moving average number of deaths among COVID-19 cases notified in Ireland by date of death and cumulative total to midnight 24/05/2020

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

^{*} Date of death is not yet available for five cases

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 26/05/2020. 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.