





# **Epidemiology of COVID-19 in Ireland**

Report prepared by HPSC on 15/10/2020 for National Public Health Emergency Team

Summary characteristics of confirmed COVID-19 cases notified in Ireland up to midnight 13/10/2020

	Number	Percent
Total number of confirmed cases	45,224	
National cumulative incidence of confirmed cases per 100,000 population	949.71	
Total number of cases hospitalised	3,916	8.66
Total number of cases admitted to ICU	505	1.12
Total number of deaths among confirmed cases	1,583	3.5
Case fatality ratio (CFR, %)	3.5	
National cumulative incidence of confirmed deaths per 100,000 population	33.24	
Total number of outbreaks/clusters	5,173	
Total number of cases associated with clusters	23,872	52.79
Total number of imported cases	614	1.36
Number of cases in healthcare workers	9,792	21.65
Males	20,837	46.08
Females	24,342	53.83
M:F ratio	0.86	
Median age (years)	42	
Mean age (years)	44	
Age range (years)	0 - 106	

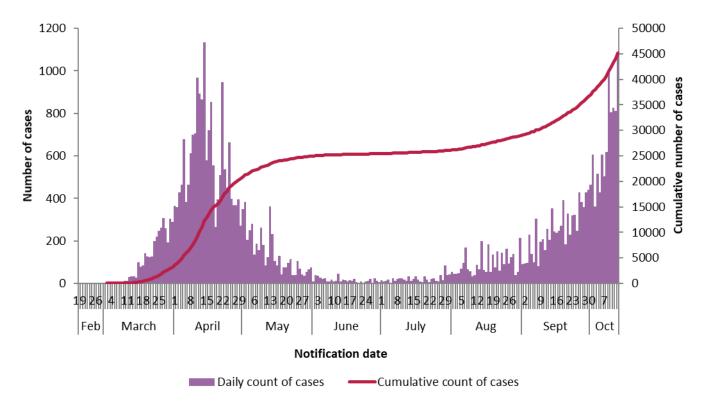


Figure 1a: Number\* and cumulative number of confirmed COVID-19 cases notified in Ireland by notification date\* to midnight 13/10/2020

<sup>\*</sup>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

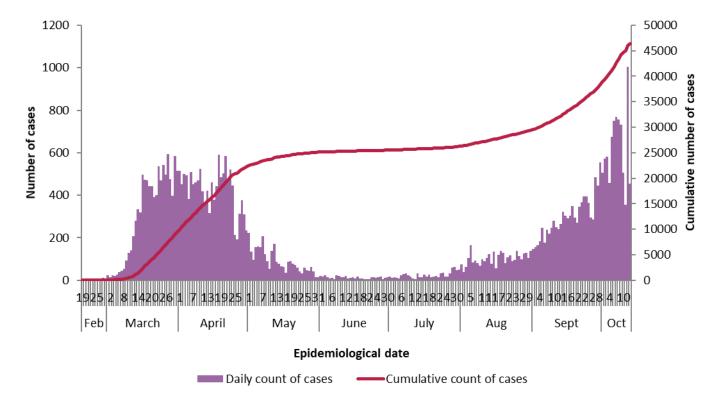


Figure 1b: Number and cumulative number of confirmed COVID-19 cases notified in Ireland by epidemiological date\*\* to midnight 13/10/2020

<sup>\*\*</sup>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.

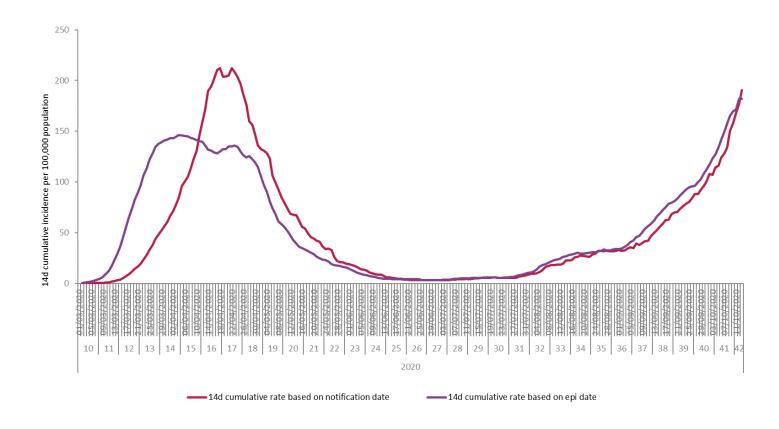


Figure 2: Cumulative 14 day incidence rate of confirmed COVID-19 cases per 100,000 population notified in Ireland by notification\* and epidemiological date\*\* to midnight 13/10/2020

<sup>\*</sup> 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

<sup>\*\*</sup>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 13/10/2020

Characteristic		Number of cases	Percent
Total number of confirmed cases		45,224	100
Sex	Male:Female ratio	0.86	
	Male	20,837	46.08
	Female	24,342	53.83
	Unknown	45	0.1
Age	Median age (years)	42	
	Mean age (years)	44	
	Age range (years)	0 - 106	
	0-4 yrs	772	1.71
	5-14 yrs	1,769	3.91
	15-24 yrs	6,814	15.07
	25-34 yrs	7,974	17.63
	35-44 yrs	7,378	16.31
	45-54 yrs	7,204	15.93
	55-64 yrs	5,094	11.26
	65-74 yrs	2,770	6.13
	75-84 yrs	2,787	6.16
	85+ yrs	2,634	5.82
	Unknown	28	0.06



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 13/10/2020 (excluding 27 cases for whom age is unknown and 44 cases for whom sex is unknown and 1 case for whom both are unknown)

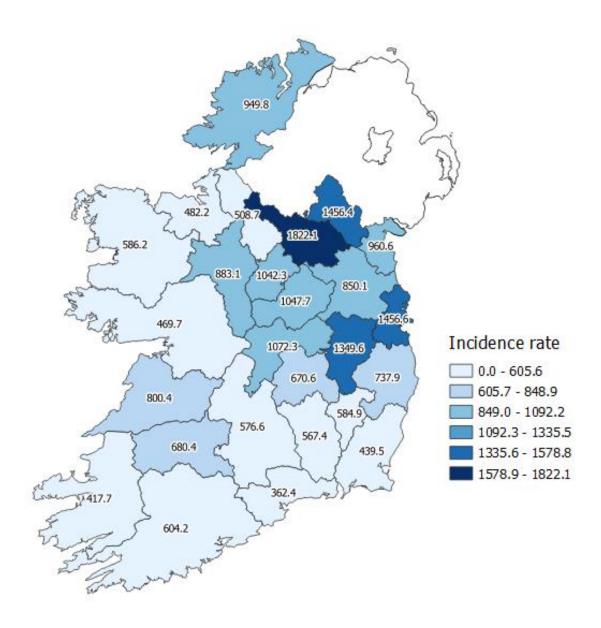


Figure 4: Cumulative incidence rates of confirmed cases of COVID-19 per 100,000 population notified in Ireland to midnight 1 13/10/2020

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 13/10/2020

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County Name	Number of cases	Percent
Carlow	333	0.74
Cavan	1,388	3.07
Clare	951	2.1
Cork	3,280	7.25
Donegal	1,512	3.34
Dublin	19,625	43.4
Galway	1,212	2.68
Kerry	617	1.36
Kildare	3,003	6.64
Kilkenny	563	1.24
Laois	568	1.26
Leitrim	163	0.36
Limerick	1,326	2.93
Longford	426	0.94
Louth	1,238	2.74
Mayo	765	1.69
Meath	1,658	3.67
Monaghan	894	1.98
Offaly	836	1.85
Roscommon	570	1.26
Sligo	316	0.7
Tipperary	920	2.03
Waterford	421	0.93
Westmeath	930	2.06
Wexford	658	1.45
Wicklow	1,051	2.32
Total	45,224	100

Table 3: Number of confirmed COVID-19 cases by WHO transmission classification notified to midnight 13/10/2020

Transmission classification*	Count of Events	%
Community transmission, incl. possible community transmission	12,362	27.34%
Local transmission, incl. possible local transmission	29,781	65.85%
Travel abroad, incl. possible travel abroad	892	1.97%
Unknown	2,189	4.84%
Total	45,224	100.00%

<sup>\*</sup>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 13/10/2020

Age Group (years)	Number of cases (n)	Cases hospitalised (n)	Cases hospitalised (%)	Cases admitted to ICU (n)	Cases admitted to ICU (%)
0-4 yrs	772	41	1.05	1	0.2
5-14 yrs	1769	31	0.79	2	0.4
15-24 yrs	6814	115	2.94	5	0.99
25-34 yrs	7974	248	6.33	17	3.37
35-44 yrs	7378	315	8.04	45	8.91
45-54 yrs	7204	513	13.1	97	19.21
55-64 yrs	5094	586	14.96	143	28.32
65-74 yrs	2770	689	17.59	136	26.93
75-84 yrs	2787	847	21.63	53	10.5
85+ yrs	2634	529	13.51	6	1.19
Unknown	28	2	0.05	0	0
Total	45,224	3,916	100	505	100

Table 5: Number and proportion of confirmed cases of COVID-19 notified in Ireland by age-group, hospitalisation and ICU admission 13/10/2020

	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)	772	1,769	6,814	7,974	7,378	7,204	5,094	2,770	2,787	2,634	28
Cases hospitalised (n)	41	31	115	248	315	513	586	689	847	529	2
Cases hospitalised (%)	5.31	1.75	1.69	3.11	4.27	7.12	11.5	24.87	30.39	20.08	7.14
Cases admitted to ICU (n)	1	2	5	17	45	97	143	136	53	6	0
Cases admitted to ICU (%)	0.13	0.11	0.07	0.21	0.61	1.35	2.81	4.91	1.9	0.23	0
Deaths (n)	0	0	1	7	12	29	74	237	544	679	0
Case fatality ratio (%)	0	0	0.01	0.09	0.16	0.4	1.45	8.56	19.52	25.78	0

#### **Outbreaks of COVID-19**

Table 6: Number of clusters/outbreaks COVID-19 by location and HSE area notified to midnight 13/10/2020

Outbreak Location	E	HPSC	М	MW	NE	NW	S	SE	W	Total
Private house	2,360		66	149	313	164	275	208	148	3,683
Other*	123	2	63	121	32	60	109	33	65	608
Nursing home	149		14	20	46	7	16	18	36	306
Residential institution	127		12	11	28	5	23	10	5	221
Workplace	64		14	17	30	19	15	14	16	189
Hospital	74		7	5	18	4	15	5	6	134
Comm. Hosp/Long-stay unit	6		4	2		4	6	5	5	32
Total	2,903	2	180	325	467	263	459	293	281	5,173

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

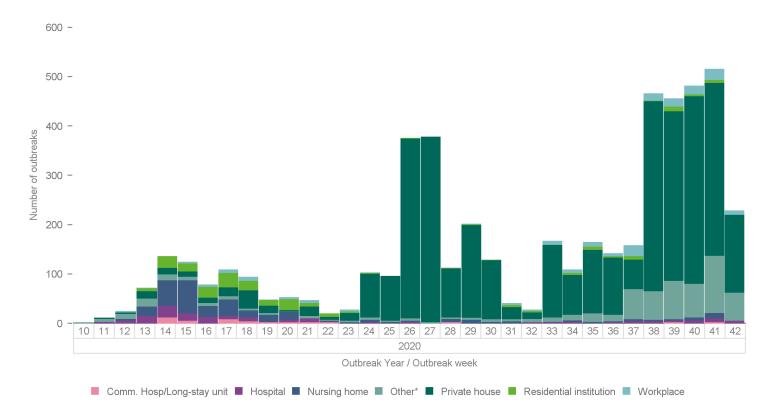


Figure 5: Trend in number of COVID-19 clusters by location and week notified to midnight 13/10/2020

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

Note: 4,335 COVID-19 outbreaks were reported on CIDR between week 24 and week 42 2020 to date (9th June to 13th October). Of these, 3,556 were family outbreaks. Based on the earliest date associated with each outbreak, a large proportion of these family outbreaks occurred earlier and were reported between weeks 24 and 42 as a result of data validation: 1 occurred in February, 636 in March, 474 in April, 94 in May, 126 in June, 127 in July, 531 in August, 1,380 in September and 187 in October to date.

## **Deaths among COVID-19 cases**

Table 7: Summary of deaths in all COVID-19 cases notified in Ireland up to midnight 13/10/2020

	Number	Percent
Total number of deaths	1,838	
Confirmed	1,583	86.13
Probable	95	5.17
Possible	160	8.71
Total number of cases hospitalised	789	42.93
Cases admitted to ICU	102	5.55
Cases not admitted to ICU	687	37.38
Total number of imported cases	6	0.33
Number of cases in healthcare workers	8	0.44
Number with underlying clinical conditions	1,735	94.4
Total number of male cases	916	49.84
M:F ratio	0.99	
Median age (years)	83	
Mean age (years)	81	
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 13/10/2020

Age group (years)	Female	Male	Total	Percent
15-24 yrs	<5	<5	1	0.05
25-34 yrs	<5	5	7	0.38
35-44 yrs	6	7	13	0.71
45-54 yrs	11	20	31	1.69
55-64 yrs	26	54	80	4.35
65-74 yrs	98	165	263	14.31
75-84 yrs	285	340	625	34
85+ yrs	491	325	816	44.4
Unknown	<5	<5	2	0.11
Total	922	916	1,838	100
Percent	50.16	49.84		

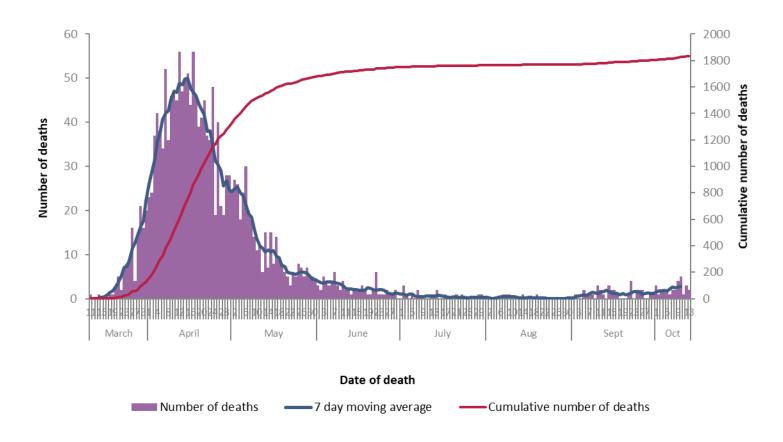
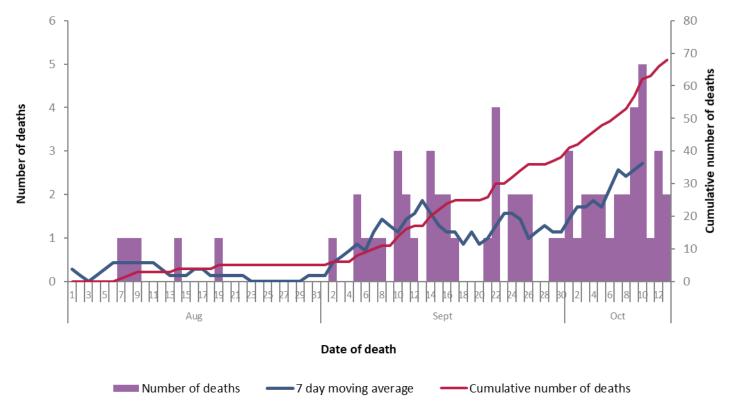


Figure 6a: Daily and 7 day moving average number of deaths among COVID-19 cases notified in Ireland by date of death and cumulative total to midnight 13/10/2020



<sup>\*</sup> Date of death is not yet available for six cases

Figure 6b: Daily and 7 day moving average number of deaths among COVID-19 cases notified in Ireland by date of death and cumulative total, 01/08/2020 to midnight 13/10/2020

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

### **Acknowledgements**

Sincere thanks are extended to all those who are participating in the collection of data and reporting of data used in these reports. This includes the HSE COVID-19 Contact Management Programme (CMP), 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 09:15 on 15/10/2020. 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 the earliest of onset date, date of diagnosis, laboratory specimen collection date, laboratory received date, laboratory reported date, and 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.