





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

Report prepared by HPSC on 10/07/2020 for National Public Health Emergency Team

Summary characteristics of confirmed COVID-19 cases notified in Ireland up to midnight 08/07/2020

	Number	Percent
Total number of confirmed cases	25,564	
National cumulative incidence of confirmed cases per 100,000 population	536.85	
Total number of cases hospitalised	3,328	13.02
Total number of cases admitted to ICU	436	1.71
Total number of deaths among confirmed cases	1,485	5.81
Case fatality ratio (CFR, %)	5.81	
National cumulative incidence of confirmed deaths per 100,000 population	31.19	
Total number of outbreaks/clusters	1,896	
Total number of cases associated with clusters	13,050	51.05
Total number of imported cases	413	1.62
Number of cases in healthcare workers	8,268	32.34
Males	10,930	42.76
Females	14,604	57.13
M:F ratio	0.75	
Median age (years)	48	
Mean age (years)	51	
Age range (years)	0 - 106	

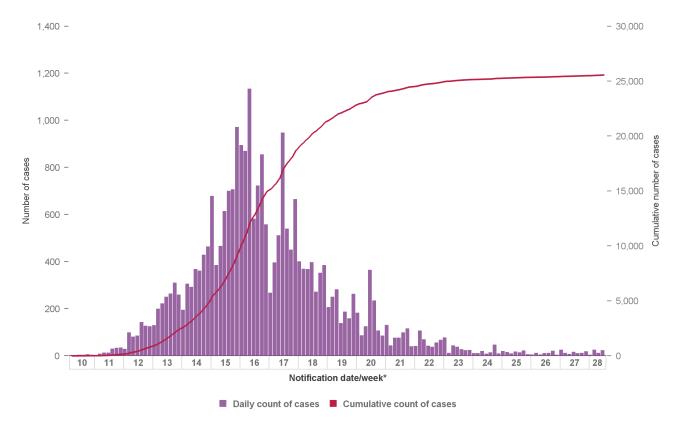


Figure 1a: Number\* and cumulative number of confirmed COVID-19 cases notified in Ireland by notification date\* to midnight 08/07/2020

\*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

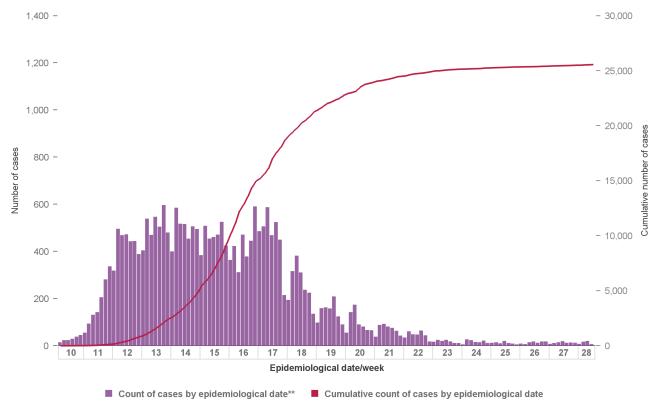


Figure 1b: Number and cumulative number of confirmed COVID-19 cases notified in Ireland by epidemiological date\*\* to midnight 08/07/2020

<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.

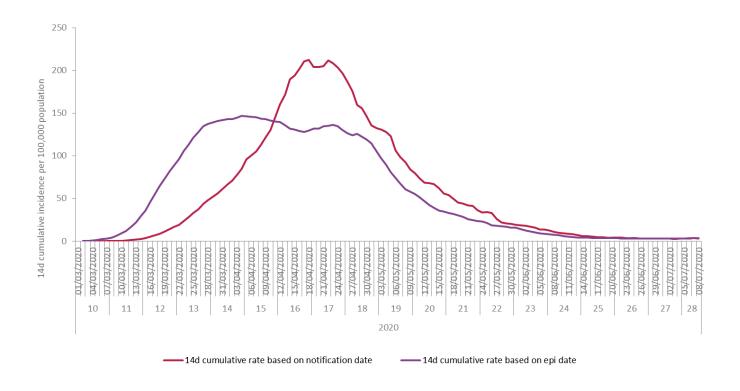


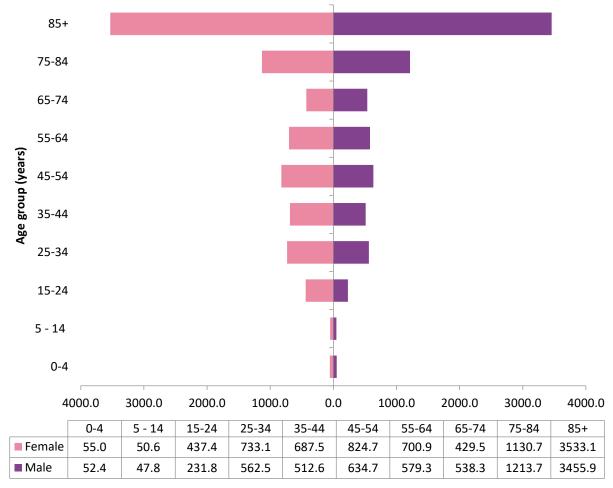
Figure 2: Cumulative 14 day incidence rate of confirmed COVID-19 cases per 100,000 population notified in Ireland by notification\* and epidemiological date\*\* to midnight 08/07/2020

<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 08/07/2020

Characteristic		Number of cases	Percent
Total number of confirmed cases		25,564	100
Sex	Male:Female ratio	0.75	
	Male	10,930	42.76
	Female	14,604	57.13
	Unknown	30	0.12
Age	Median age (years)	48	
	Mean age (years)	51	
	Age range (years)	0 - 106	
	0-4 yrs	178	0.7
	5-14 yrs	332	1.3
	15-24 yrs	1,922	7.52
	25-34 yrs	4,299	16.82
	35-44 yrs	4,500	17.6
	45-54 yrs	4,580	17.92
	55-64 yrs	3,260	12.75
	65-74 yrs	1,805	7.06
	75-84 yrs	2,296	8.98
	85+ yrs	2,370	9.27
	Unknown	22	0.09



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 08/07/2020 (excluding 22 cases for whom age is unknown and 30 cases for whom sex is unknown and 1 case for whom both is unknown)

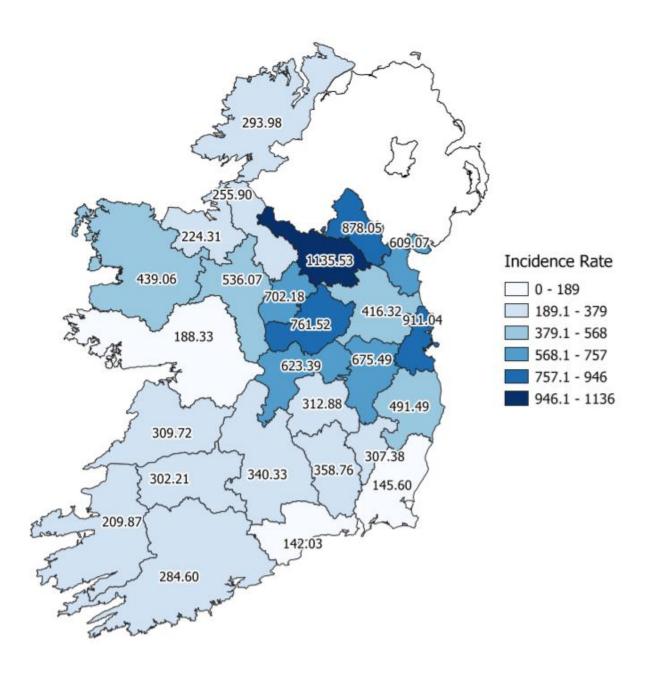


Figure 4: Cumulative incidence rates of confirmed cases of COVID-19 per 100,000 population notified in Ireland to midnight 08/07/2020

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 08/07/2020

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County Name	Number of cases	Percent
Carlow	175	0.68
Cavan	865	3.38
Clare	368	1.44
Cork	1,545	6.04
Donegal	468	1.83
Dublin	12,275	48.02
Galway	486	1.9
Kerry	310	1.21
Kildare	1,503	5.88
Kilkenny	356	1.39
Laois	265	1.04
Leitrim	82	0.32
Limerick	589	2.3
Longford	287	1.12
Louth	785	3.07
Mayo	573	2.24
Meath	812	3.18
Monaghan	539	2.11
Offaly	486	1.9
Roscommon	346	1.35
Sligo	147	0.58
Tipperary	543	2.12
Waterford	165	0.65
Westmeath	676	2.64
Wexford	218	0.85
Wicklow	700	2.74
Total	25,564	100

Table 3: Number of confirmed COVID-19 cases by WHO transmission classification notified to midnight 08/07/2020

Transmission classification*	Count of Events	%
Community transmission, incl. possible community transmission	8,345	32.64%
Local transmission, incl. possible local transmission	16,599	64.93%
Travel abroad, incl. possible travel abroad	605	2.37%
Unknown	15	0.06%
Total	25,564	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 08/07/2020

Age Group (years)	Number of cases (n)	Cases hospitalised (n)	Cases hospitalised (%)	Cases admitted to ICU (n)	Cases admitted to ICU (%)
0-4 yrs	178	23	0.69	0	0
5-14 yrs	332	17	0.51	2	0.46
15-24 yrs	1922	74	2.22	5	1.15
25-34 yrs	4299	197	5.92	15	3.44
35-44 yrs	4500	271	8.14	36	8.26
45-54 yrs	4580	447	13.43	91	20.87
55-64 yrs	3260	495	14.87	126	28.9
65-74 yrs	1805	583	17.52	109	25
75-84 yrs	2296	743	22.33	46	10.55
85+ yrs	2370	476	14.3	6	1.38
Unknown	22	2	0.06	0	0
Total	25,564	3,328	100	436	100

Table 5: Number and proportion of confirmed cases of COVID-19 notified in Ireland by age-group, hospitalisation and ICU admission 08/07/2020

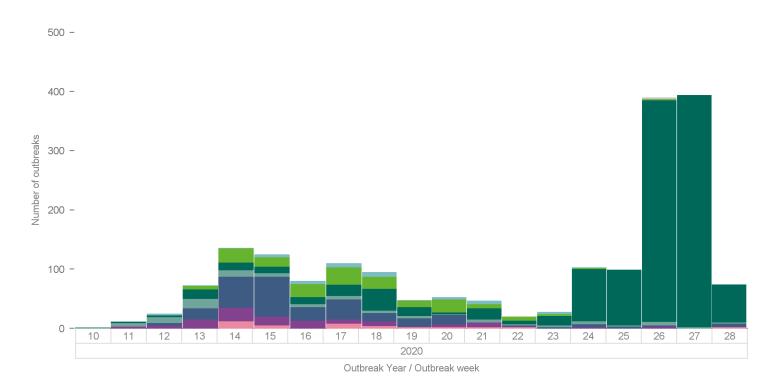
	0-4 yrs	5-14 yrs	15-24 yrs	25-34 yrs	35-44 yrs	45-54 yrs	55-64 yrs	65-74 yrs	75-84 yrs	85+ yrs	Unknow n
Number of cases (n)	178	332	1,922	4,299	4,500	4,580	3,260	1,805	2,296	2,370	22
Cases hospitalised (n)	23	17	74	197	271	447	495	583	743	476	2
Cases hospitalised (%)	12.92	5.12	3.85	4.58	6.02	9.76	15.18	32.3	32.36	20.08	9.09
Cases admitted to ICU (n)	0	2	5	15	36	91	126	109	46	6	0
Cases admitted to ICU (%)	0	0.6	0.26	0.35	0.8	1.99	3.87	6.04	2	0.25	0
Deaths (n)	0	0	1	5	12	22	65	221	510	649	0
Case fatality ratio (%)	0	0	0.05	0.12	0.27	0.48	1.99	12.24	22.21	27.38	0

## **Outbreaks of COVID-19**

Table 6: Number of clusters/outbreaks COVID-19 by location and HSE area notified to midnight 08/07/2020

Outbreak Location	E	M	MW	NE	NW	S	SE	W	Total
Private house	809	6	52	118	33	109	31	26	1,184
Nursing home	125	10	16	40	5	11	17	37	261
Residential institution	99	9	7	17	4	21	10	4	171
Hospital	61	3	3	14	2	10	4	6	103
Other*	12	8	26	6	7	21	7	9	96
Workplace	7	5	5	14	1	9	3	4	48
Comm. Hosp/Long-stay unit	4	4	2		4	6	5	5	30
Unknown	2					1			3
Total	1,119	45	111	209	56	188	77	91	1,896

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



■ Comm. Hosp/Long-stay unit
■ Hospital
■ Nursing home
■ Other\*
■ Private house
■ Residential institution
■ Unknown
■ Workplace

Figure 5: Trend in number of COVID-19 clusters by location and week notified to midnight 08/07/2020

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

Note: In week 24 and 25, 200 new COVID-19 outbreaks were reported on CIDR, of which 187 were family outbreaks. Of these, 79 family outbreaks occurred in March, 66 family outbreaks occurred in April, 16 family outbreaks occurred in May 2020 and 2 occurred in June.

In week 26, 389 new COVID-19 outbreaks were reported on CIDR, of which 376 were family outbreaks. Of these, 172 family outbreaks occurred in March, 129 family outbreaks occurred in April and 22 family outbreaks occurred in May 2020.

In week 27, 393 new COVID-19 outbreaks were reported on CIDR, of which all 393 were family outbreaks. Of these, 196 family outbreaks occurred in March, 97 family outbreaks occurred in April, 44 family outbreaks occurred in May and 5 family outbreaks occurred in June 2020.

To date in week 28 (05/07/2020-11/07/2020), 99 new COVID-19 outbreaks were reported on CIDR, of which 89 were family outbreaks. Of these, 39 family outbreaks occurred in March, 33 family outbreaks occurred in April, 2 family outbreaks occurred in May and 2 family outbreaks occurred in June 2020.

# **Deaths among COVID-19 cases**

Table 7: Summary of deaths in all COVID-19 cases notified in Ireland up to midnight 08/07/2020

	Number	Percent
Total number of deaths	1,744	
Confirmed	1,485	85.15
Probable	100	5.73
Possible	159	9.12
Total number of cases hospitalised	739	42.37
Cases admitted to ICU	91	5.22
Cases not admitted to ICU	648	37.16
Total number of imported cases	5	0.29
Number of cases in healthcare workers	7	0.4
Number with underlying clinical conditions	1,641	94.09
Total number of male cases	859	49.25
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 08/07/2020

Age group (years)	Female	Male	Total	Percent
15-24 yrs	<5	<5	1	0.06
25-34 yrs	<5	<5	5	0.29
35-44 yrs	6	7	13	0.75
45-54 yrs	9	15	24	1.38
55-64 yrs	25	45	70	4.01
65-74 yrs	90	156	246	14.11
75-84 yrs	273	323	596	34.17
85+ yrs	477	310	787	45.13
Unknown	<5	<5	2	0.11
Total	885	859	1,744	100
Percent	50.75	49.25		

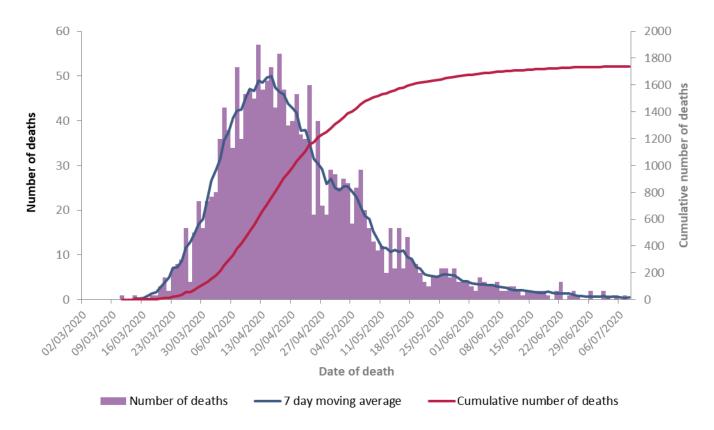


Figure 6: Daily and 7 day moving average number of deaths among COVID-19 cases notified in Ireland by date of death and cumulative total to midnight 08/07/2020

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

<sup>\*</sup> 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 09:19 on 7/10/20. 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.