



# Epidemiology of COVID-19 in Ireland

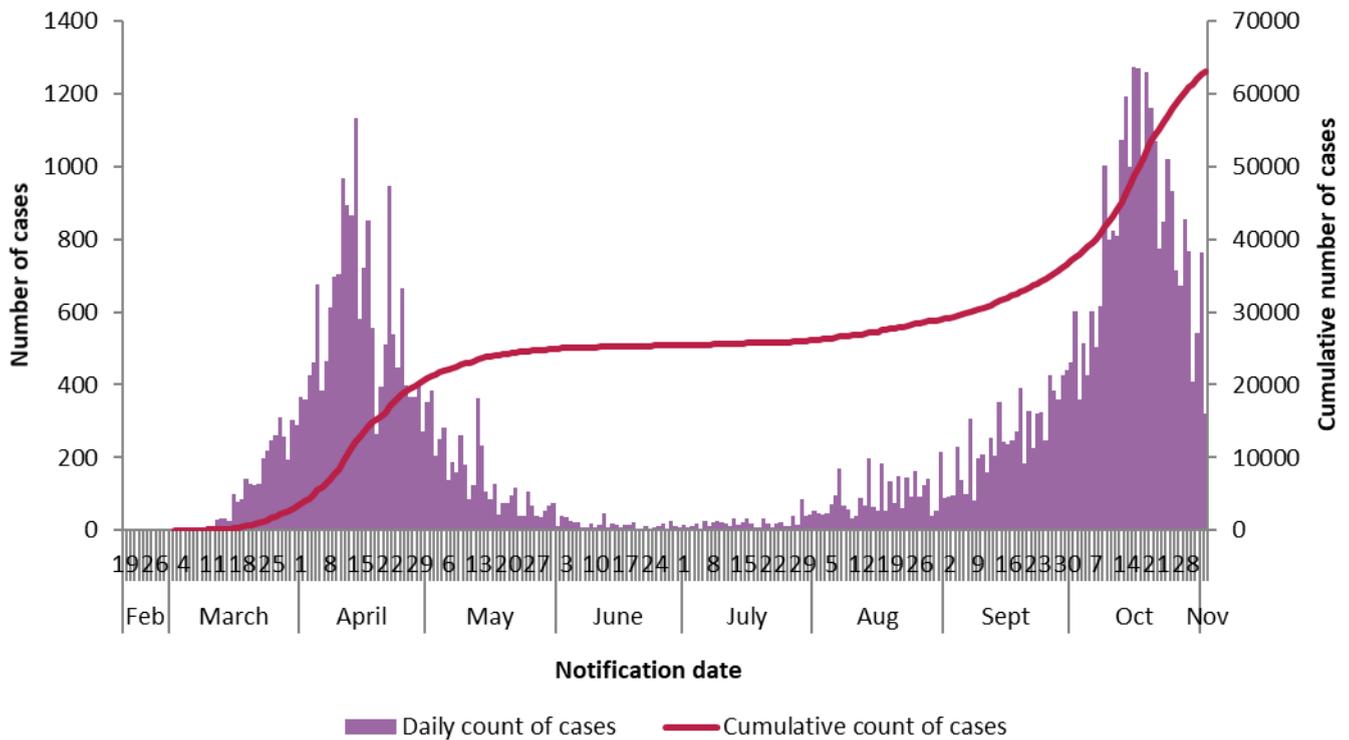
Report prepared by HPSC on 04/11/2020 for National Public Health Emergency Team

Summary characteristics of confirmed COVID-19 cases notified in Ireland up to midnight 02/11/2020

	Number	Percent
Total number of confirmed cases	63,039	
National cumulative incidence of confirmed cases per 100,000 population	1,323.83	
Total number of cases hospitalised	4,490	7.12
Total number of cases admitted to ICU	564	0.89
Total number of deaths among confirmed cases	1,670	2.65
Case fatality ratio (CFR, %)	2.65	
National cumulative incidence of confirmed deaths per 100,000 population	35.07	
Total number of outbreaks/clusters	6,850	
Total number of cases associated with clusters	30,132	47.8
Total number of imported cases*	626	0.99
Number of cases in healthcare workers*	10,630	16.86
Males	29,556	46.89
Females	33,448	53.06
M:F ratio	0.88	
Median age (years)	39	
Mean age (years)	42	
Age range (years)	0 - 106	

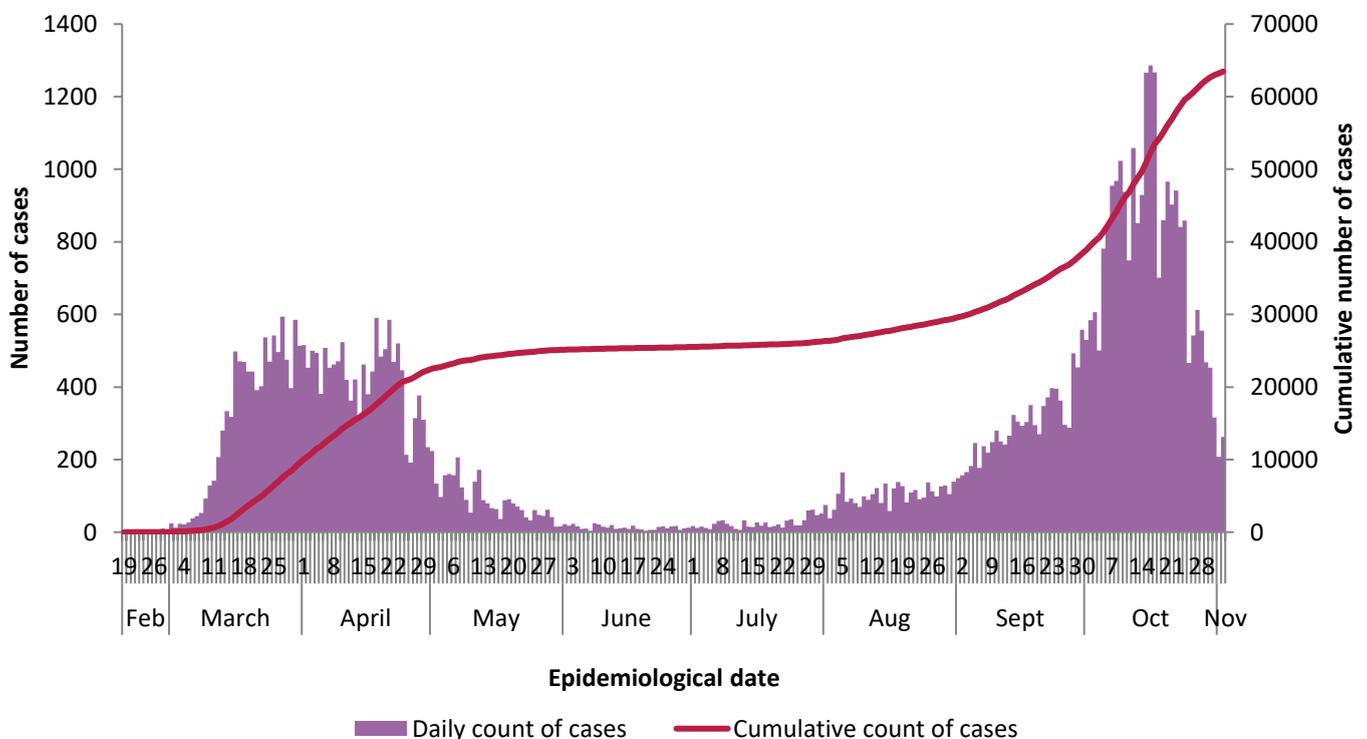
\* Data are incomplete for these variables

Note: Data were extracted from Computerised Infectious Disease Reporting (CIDR) system at 09:15 on 04/11/2020 and are provisional and subject to ongoing review, validation and update. As a result, figures in this report may differ from previously published figures.



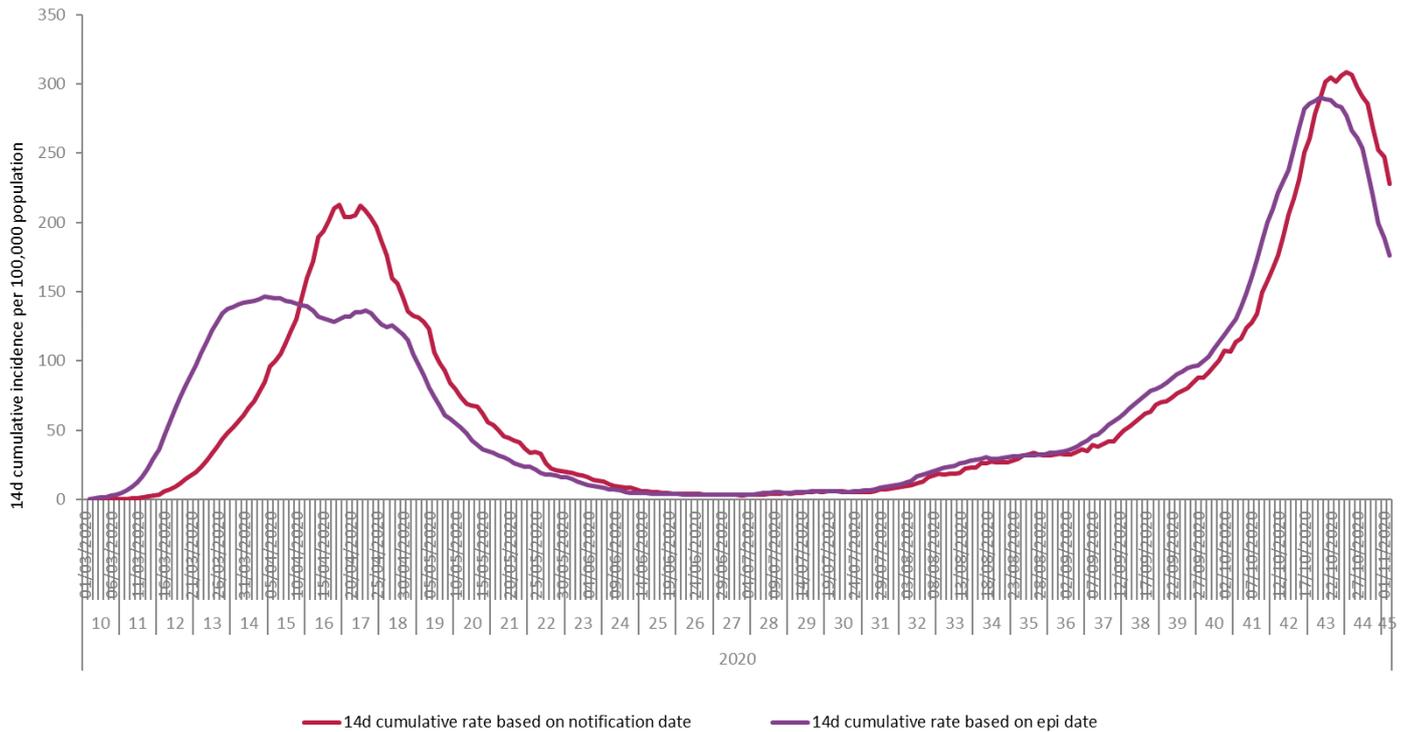
**Figure 1a: Number\* and cumulative number of confirmed COVID-19 cases notified in Ireland by notification date\* to midnight 02/11/2020**

\*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 02/11/2020**

\*\*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.



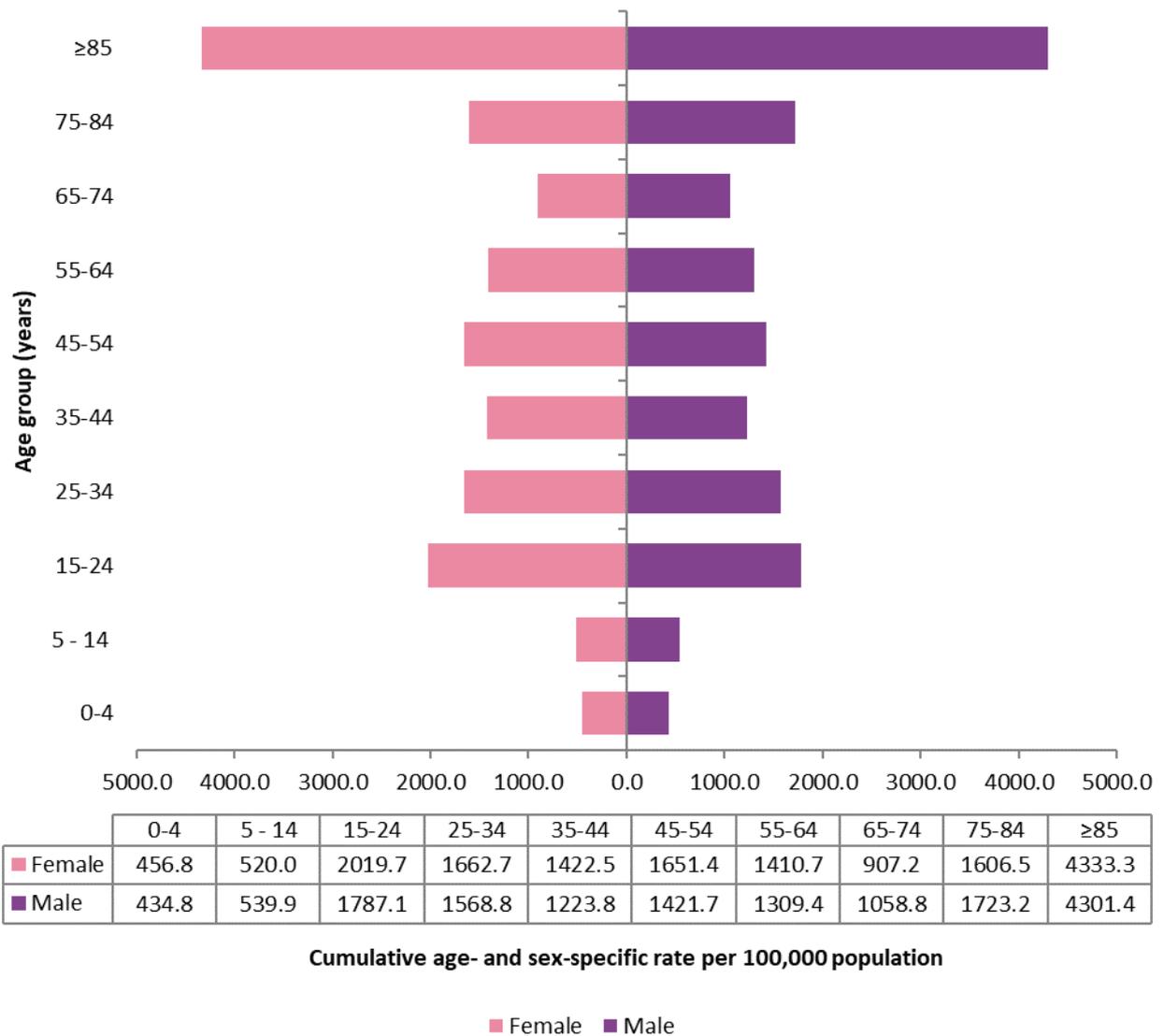
**Figure 2: Cumulative 14 day incidence rate of confirmed COVID-19 cases per 100,000 population notified in Ireland by notification\* and epidemiological date\*\* to midnight 02/11/2020**

\* 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

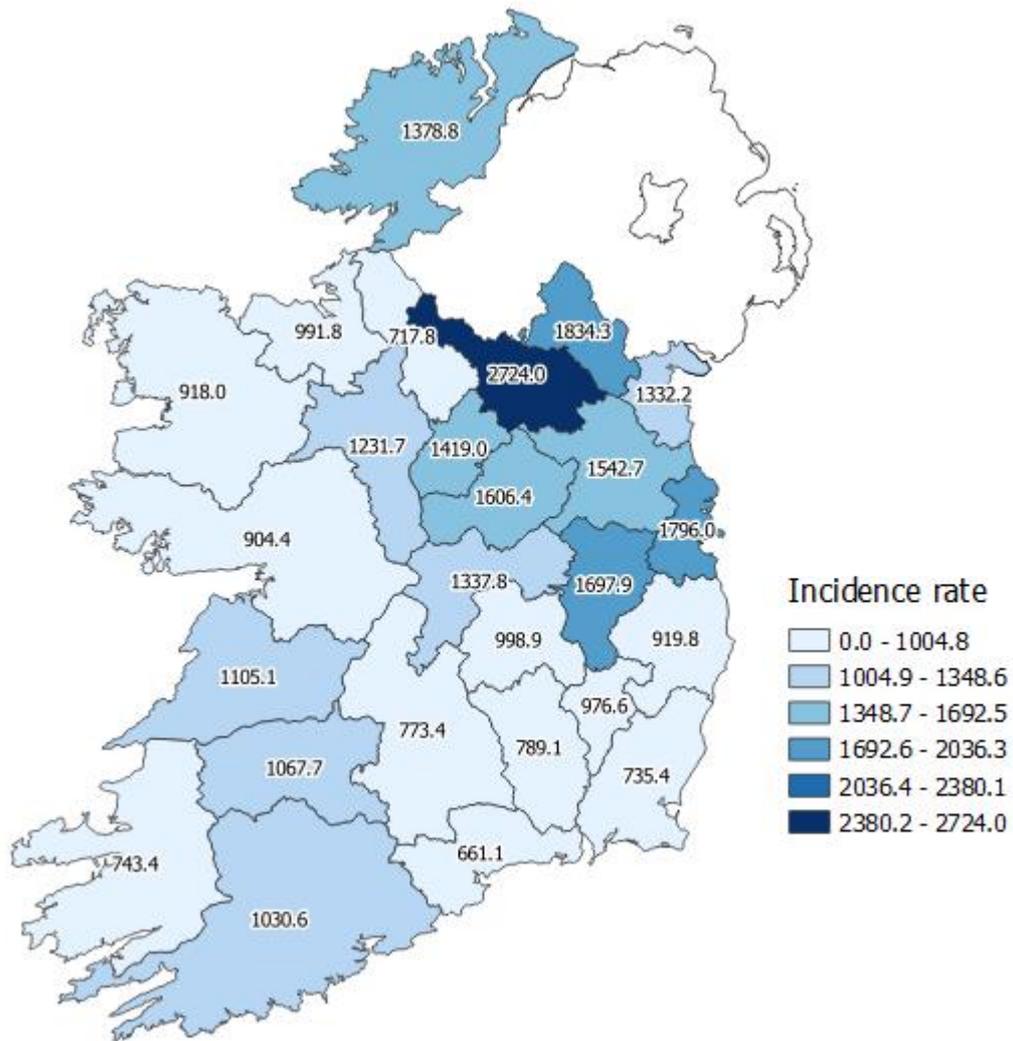
\*\*Epidemiological date is derived from epidemiological date, which is the earliest of onset date, date of diagnosis, laboratory specimen collection date, laboratory received date, laboratory reported date, event creation/notification date.

**Table 1: Characteristics of confirmed COVID-19 cases notified in Ireland up to midnight on 02/11/2020**

Characteristic		Number of cases	Percent
<b>Total number of confirmed cases</b>		<b>63,039</b>	<b>100</b>
<b>Sex</b>	Male:Female ratio	0.88	
	Male	29,556	46.89
	Female	33,448	53.06
	Unknown	35	0.06
<b>Age</b>	Median age (years)	39	
	Mean age (years)	42	
	Age range (years)	0 - 106	
	0-4 yrs	1,479	2.35
	5-14 yrs	3,583	5.68
	15-24 yrs	10,964	17.39
	25-34 yrs	10,673	16.93
	35-44 yrs	9,902	15.71
	45-54 yrs	9,630	15.28
	55-64 yrs	6,925	10.99
	65-74 yrs	3,668	5.82
	75-84 yrs	3,261	5.17
	85+ yrs	2,921	4.63
	Unknown	33	0.05



**Figure 3: Cumulative age- and sex-specific incidence rates of confirmed cases of COVID-19 per 100,000 population notified in Ireland to midnight 02/11/2020 (excluding 32 cases for whom age is unknown and 34 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 02/11/2020**

*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 02/11/2020**

<b>County Name</b>	<b>Number of cases</b>	<b>Percent</b>
Carlow	556	0.88
Cavan	2,075	3.29
Clare	1,313	2.08
Cork	5,595	8.88
Donegal	2,195	3.48
Dublin	24,198	38.39
Galway	2,334	3.7
Kerry	1,098	1.74
Kildare	3,778	5.99
Kilkenny	783	1.24
Laois	846	1.34
Leitrim	230	0.36
Limerick	2,081	3.3
Longford	580	0.92
Louth	1,717	2.72
Mayo	1,198	1.9
Meath	3,009	4.77
Monaghan	1,126	1.79
Offaly	1,043	1.65
Roscommon	795	1.26
Sligo	650	1.03
Tipperary	1,234	1.96
Waterford	768	1.22
Westmeath	1,426	2.26
Wexford	1,101	1.75
Wicklow	1,310	2.08
<b>Total</b>	<b>63,039</b>	<b>100</b>

**Table 3: Number of confirmed COVID-19 cases by WHO transmission classification notified to midnight 02/11/2020**

Transmission classification*	Count of Events	%
Community transmission, incl. possible community transmission	20,010	31.74%
Local transmission, incl. possible local transmission	38,421	60.95%
Travel abroad, incl. possible travel abroad	924	1.47%
Unknown	3,684	5.84%
<b>Total</b>	<b>63,039</b>	<b>100.00%</b>

\*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, hospitalisation and ICU admissions\* as of midnight 02/11/2020**

Age Group (years)	Number of cases (n)	Cases hospitalised (n)	Cases hospitalised (%)	Cases admitted to ICU (n)	Cases admitted to ICU (%)
0-4 yrs	1479	46	1.02	1	0.18
5-14 yrs	3583	45	1	4	0.71
15-24 yrs	10964	136	3.03	6	1.06
25-34 yrs	10673	281	6.26	17	3.01
35-44 yrs	9902	361	8.04	46	8.16
45-54 yrs	9630	579	12.9	103	18.26
55-64 yrs	6925	673	14.99	153	27.13
65-74 yrs	3668	804	17.91	162	28.72
75-84 yrs	3261	968	21.56	64	11.35
85+ yrs	2921	595	13.25	8	1.42
Unknown	33	2	0.04	0	0
<b>Total</b>	<b>63,039</b>	<b>4,490</b>	<b>100</b>	<b>564</b>	<b>100</b>

**Table 5: Number and proportion of confirmed cases of COVID-19 notified in Ireland by age-group, hospitalisation, ICU admissions and vital status as of midnight 02/11/2020**

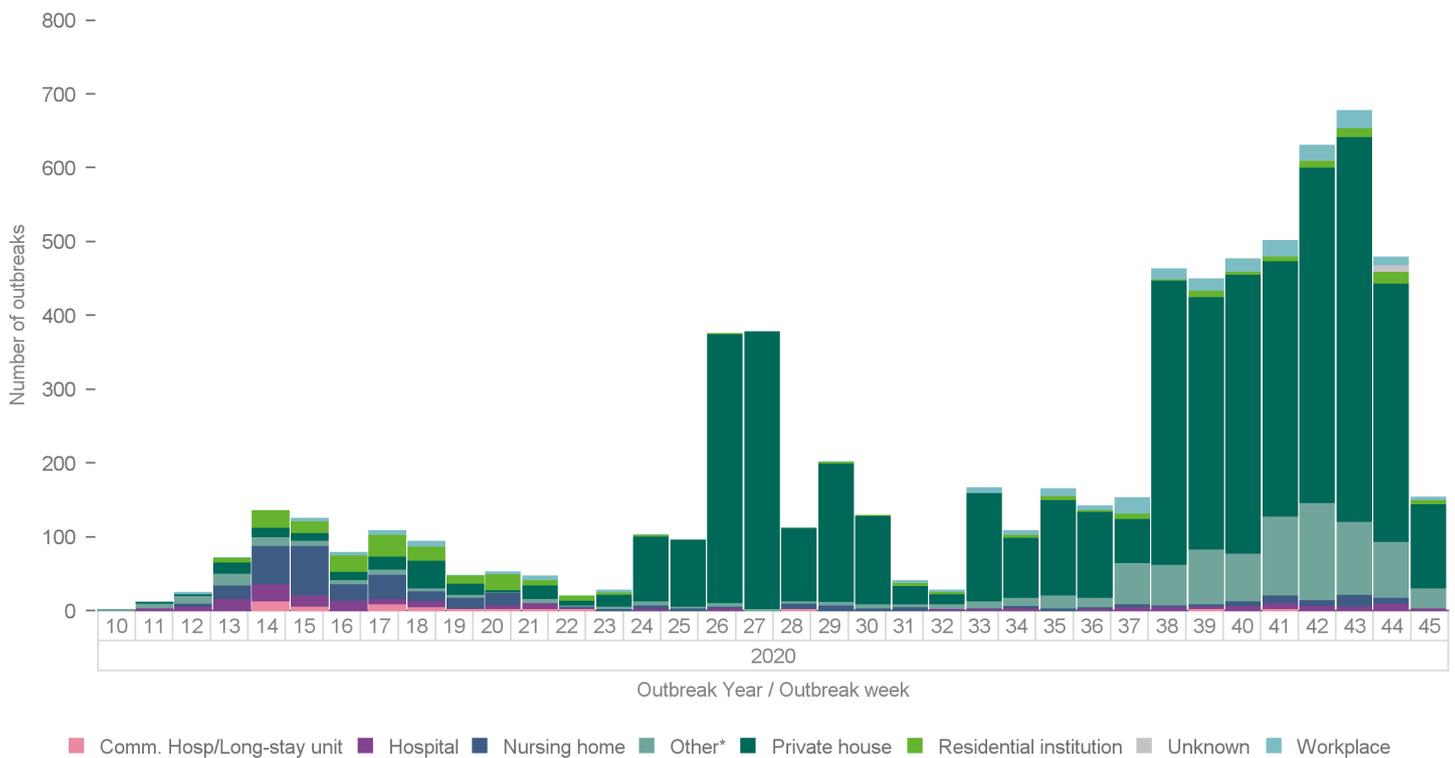
	0-4 yrs	5-14 yrs	15-24 yrs	25-34 yrs	35-44 yrs	45-54 yrs	55-64 yrs	65-74 yrs	75-84 yrs	85+ yrs	Unknown
Number of cases (n)	1,479	3,583	10,964	10,673	9,902	9,630	6,925	3,668	3,261	2,921	33
Cases hospitalised (n)	46	45	136	281	361	579	673	804	968	595	2
Cases hospitalised (%)	3.11	1.26	1.24	2.63	3.65	6.01	9.72	21.92	29.68	20.37	6.06
Cases admitted to ICU (n)	1	4	6	17	46	103	153	162	64	8	0
Cases admitted to ICU (%)	0.07	0.11	0.05	0.16	0.46	1.07	2.21	4.42	1.96	0.27	0
Deaths (n)	0	0	1	7	12	29	78	254	572	717	0
Case fatality ratio (%)	0	0	0.01	0.07	0.12	0.3	1.13	6.92	17.54	24.55	0

## Outbreaks of COVID-19

**Table 6: Number of clusters/outbreaks COVID-19 by location and HSE area notified to midnight 02/11/2020**

Outbreak Location	E	M	MW	NE	NW	S	SE	W	HPSC	Total
Private house	2873	67	168	338	278	360	429	445		4958
Other*	197	56	138	55	90	175	51	95	2	859
Nursing home	162	15	20	50	8	20	19	43		337
Residential institution	136	15	16	33	10	30	14	9		263
Workplace	82	16	20	39	28	21	17	20		243
Hospital	83	7	6	20	5	16	5	7		149
Comm. Hosp/Long-stay unit	6	4	2		4	6	5	5		32
Unknown	7				2					9
<b>Total</b>	<b>3546</b>	<b>180</b>	<b>370</b>	<b>535</b>	<b>425</b>	<b>628</b>	<b>540</b>	<b>624</b>	<b>2</b>	<b>6850</b>

\*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 02/11/2020**

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

Note: 6,012 COVID-19 outbreaks were reported on CIDR between week 24 and week 45 2020 (9th June to 2nd Nov). Of these, 4,714 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 44 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, 533 in August, 1,497 in September, 1,215 in October and 10 in to date in November.

## Deaths among COVID-19 cases

**Table 7: Summary of deaths in all COVID-19 cases notified in Ireland up to midnight 02/11/2020**

	Number	Percent
Total number of deaths	1,929	
Confirmed	1,670	86.57
Probable	95	4.92
Possible	164	8.5
Total number of cases hospitalised	843	43.7
Cases admitted to ICU	113	5.86
Cases not admitted to ICU	730	37.84
Total number of imported cases	7	0.36
Number of cases in healthcare workers	8	0.41
Number with underlying clinical conditions	1,794	93
Total number of male cases	970	50.29
M:F ratio	1.01	
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 02/11/2020**

Age group (years)	Female	Male	Total	Percent
15-24 yrs	<5	<5	1	0.05
25-34 yrs	<5	5	7	0.36
35-44 yrs	6	7	13	0.67
45-54 yrs	11	20	31	1.61
55-64 yrs	27	57	84	4.35
65-74 yrs	103	179	282	14.62
75-84 yrs	296	358	654	33.9
85+ yrs	511	344	855	44.32
Unknown	<5	<5	2	0.1
<b>Total</b>	<b>959</b>	<b>970</b>	<b>1,929</b>	<b>100</b>
<b>Percent</b>	<b>49.71</b>	<b>50.29</b>		

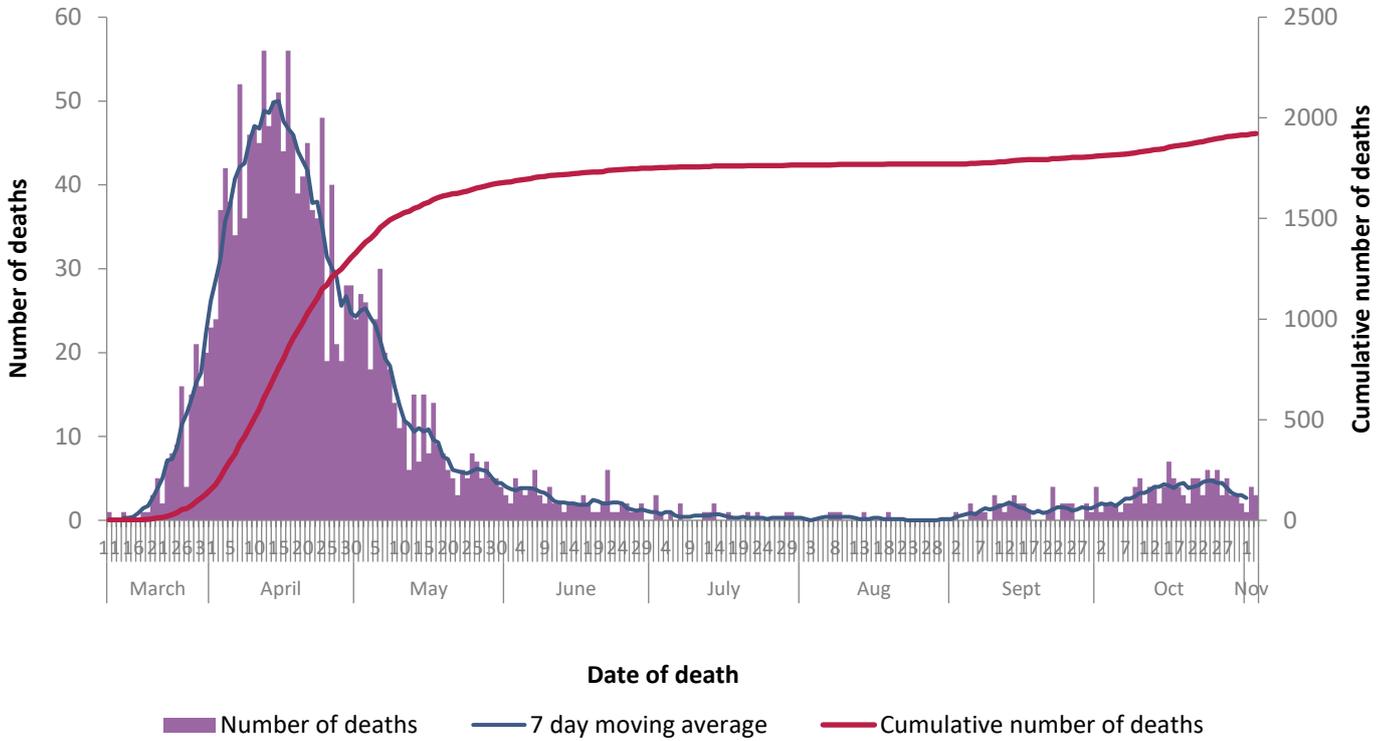


Figure 6a: Daily and 7 day moving average number of deaths among COVID-19 cases notified in Ireland by date of death and cumulative total to midnight 02/11/2020

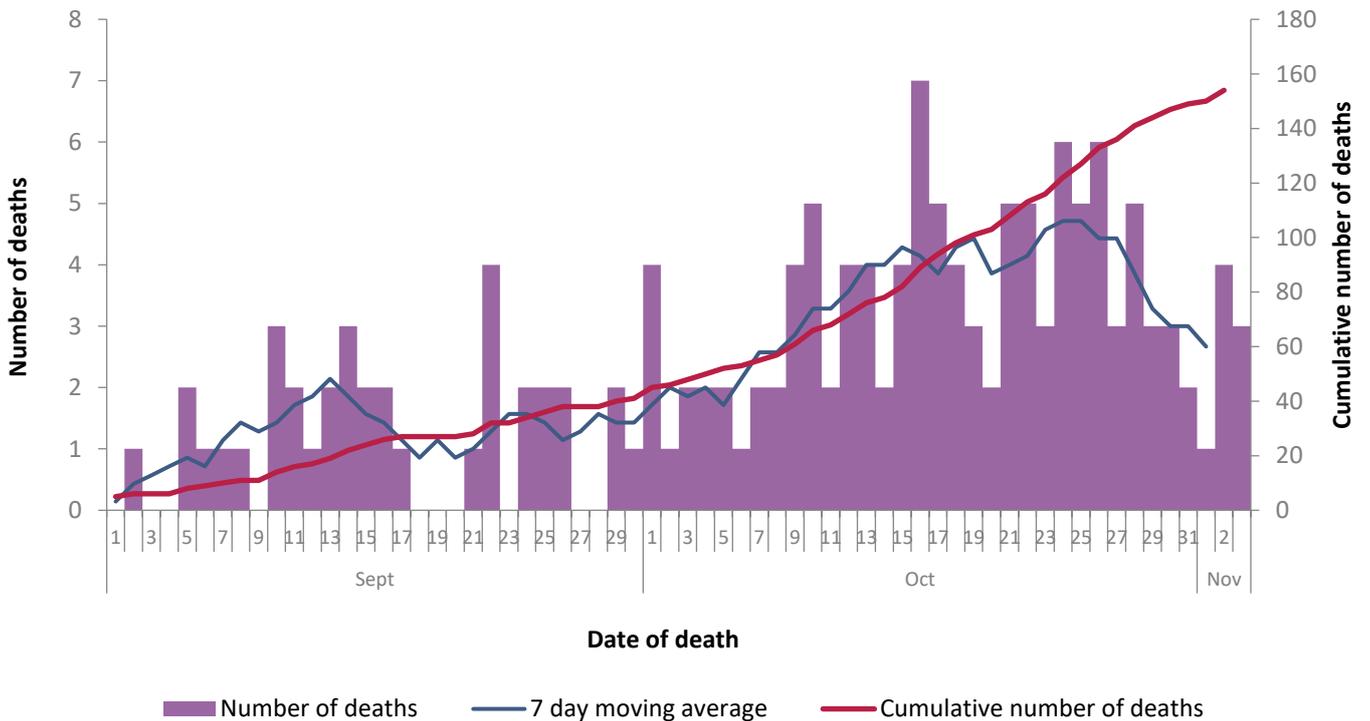


Figure 6b: Daily and 7 day moving average number of deaths among COVID-19 cases notified in Ireland by date of death and cumulative total, 01/09/2020 to midnight 02/11/2020

\* Date of death is not yet available for seven 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 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 04/11/2020. 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 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  $\geq 85$  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.