



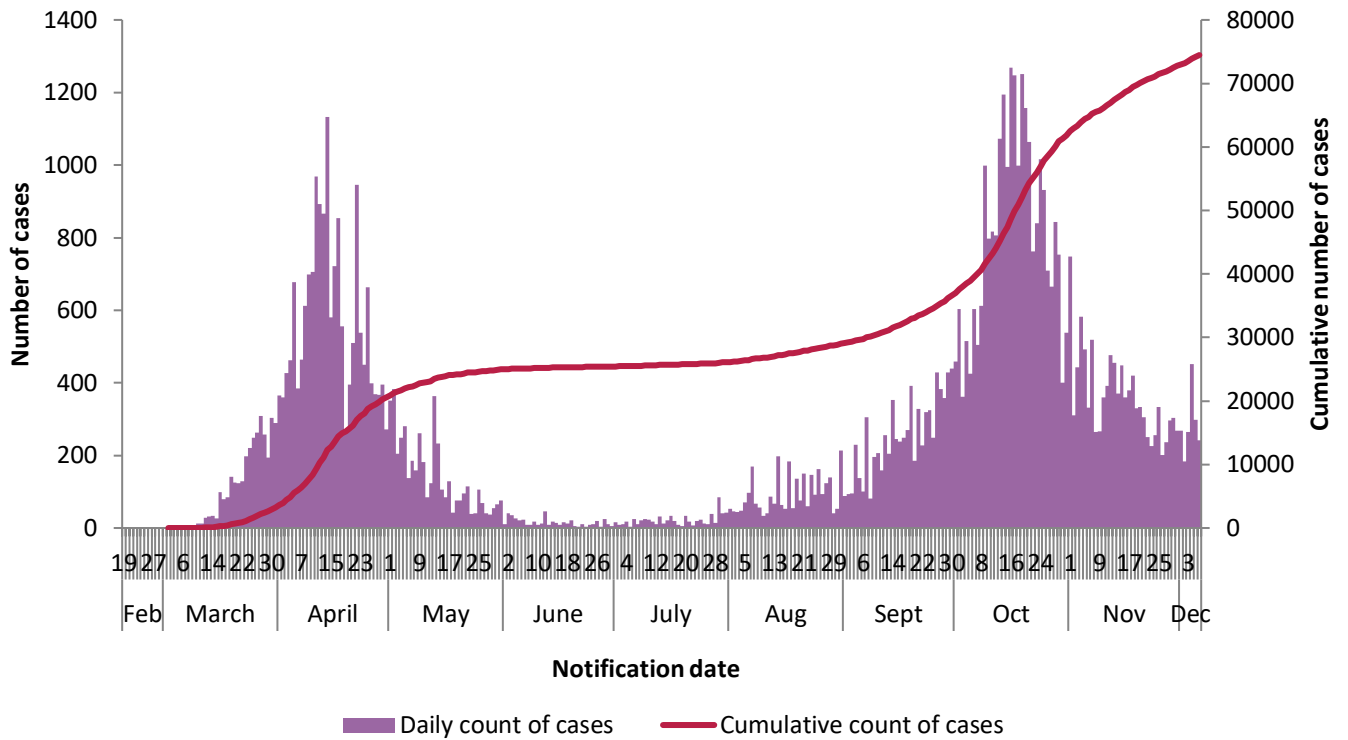
# Epidemiology of COVID-19 in Ireland

Report prepared by HPSC on 08/12/2020 for National Public Health Emergency Team

Summary characteristics of confirmed COVID-19 cases notified in Ireland up to midnight 06/12/2020

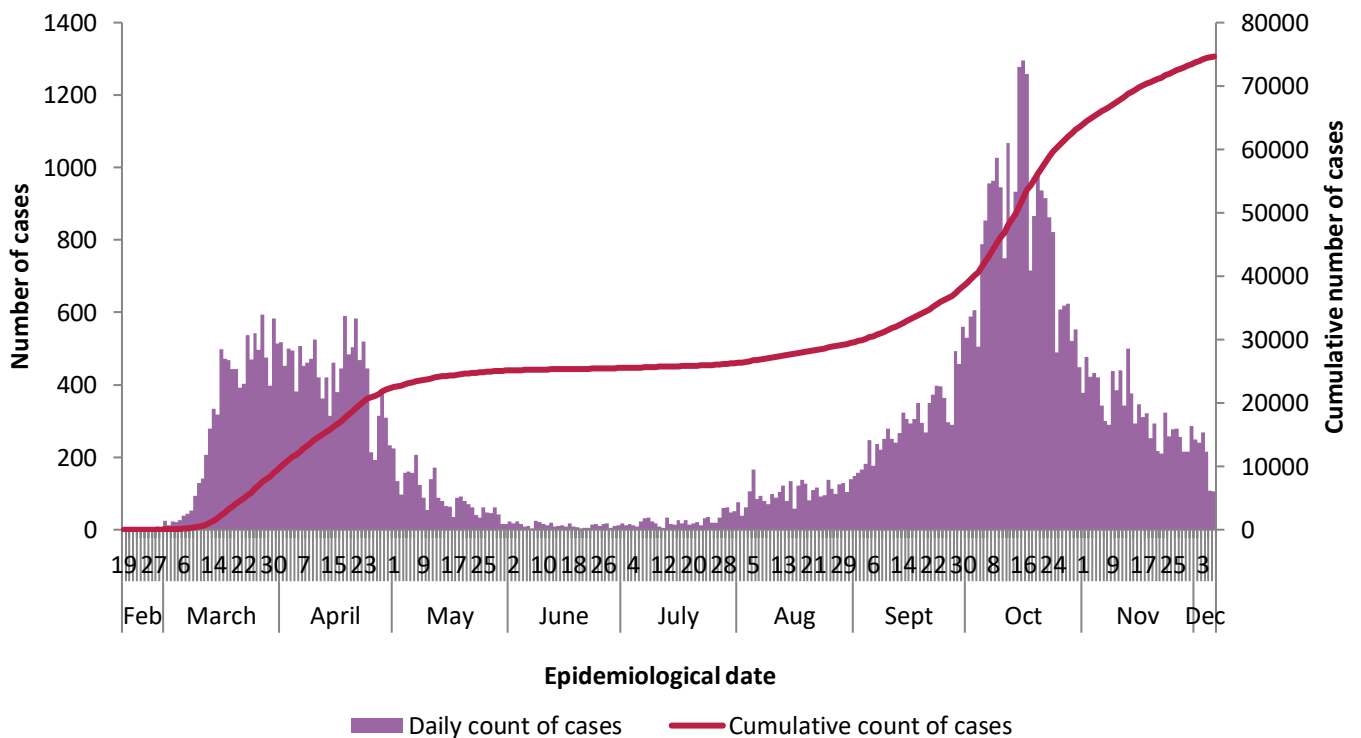
	Number	Percent
Total number of confirmed cases	74,467	
National cumulative incidence of confirmed cases per 100,000 population	1,563.82	
Total number of cases hospitalised	5,343	7.17
Total number of cases admitted to ICU	630	0.85
Total number of deaths among confirmed cases	1,838	2.47
Case fatality ratio (CFR, %)	2.47	
National cumulative incidence of confirmed deaths per 100,000 population	38.6	
Total number of outbreaks/clusters	9,824	
Total number of cases associated with clusters	41,168	55.28
Total number of imported cases	670	0.9
Number of cases in healthcare workers	12,302	16.52
Males	35,099	47.13
Females	39,335	52.82
M:F ratio	0.89	
Median age (years)	39	
Mean age (years)	41	
Age range (years)	0 - 108	

Note: Data were extracted from Computerised Infectious Disease Reporting (CIDR) system at 10:09 on 08/12/2020 and are provisional and subject to ongoing review, validation and update. As a result, figures in this report may differ from previously published figures.



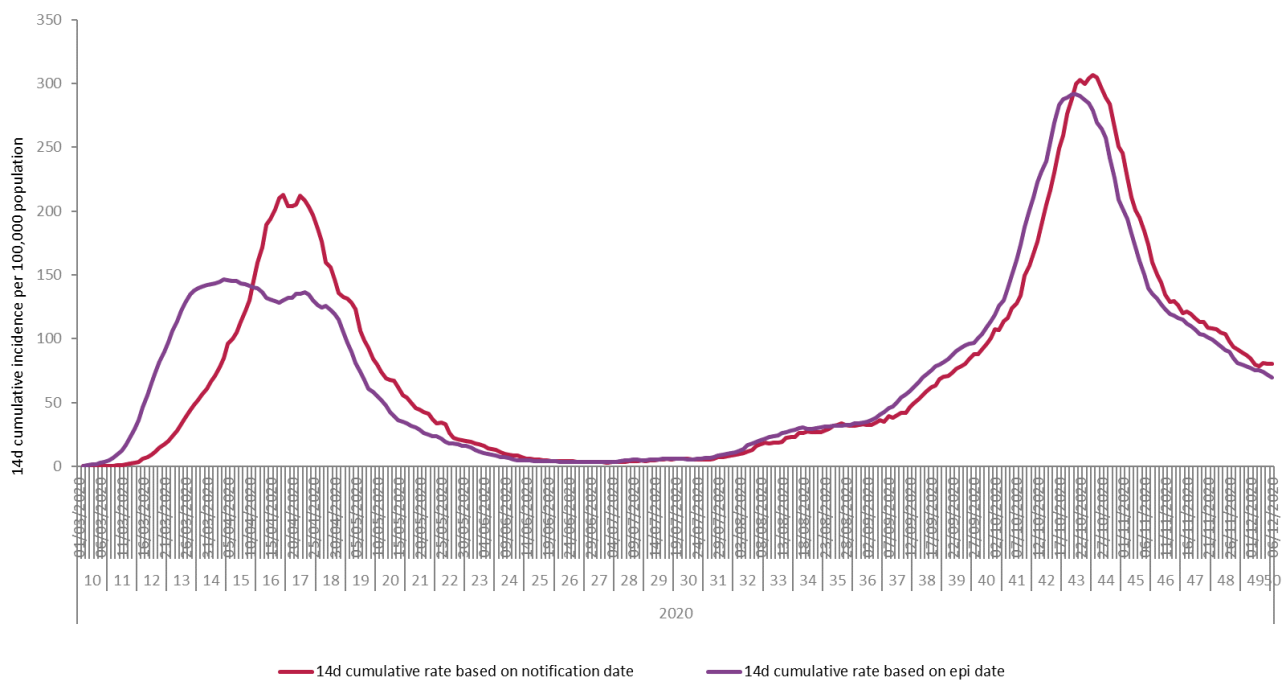
**Figure 1a: Number\* and cumulative number of confirmed COVID-19 cases notified in Ireland by notification date\* to midnight 06/12/2020**

\*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 06/12/2020**

\*\*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.



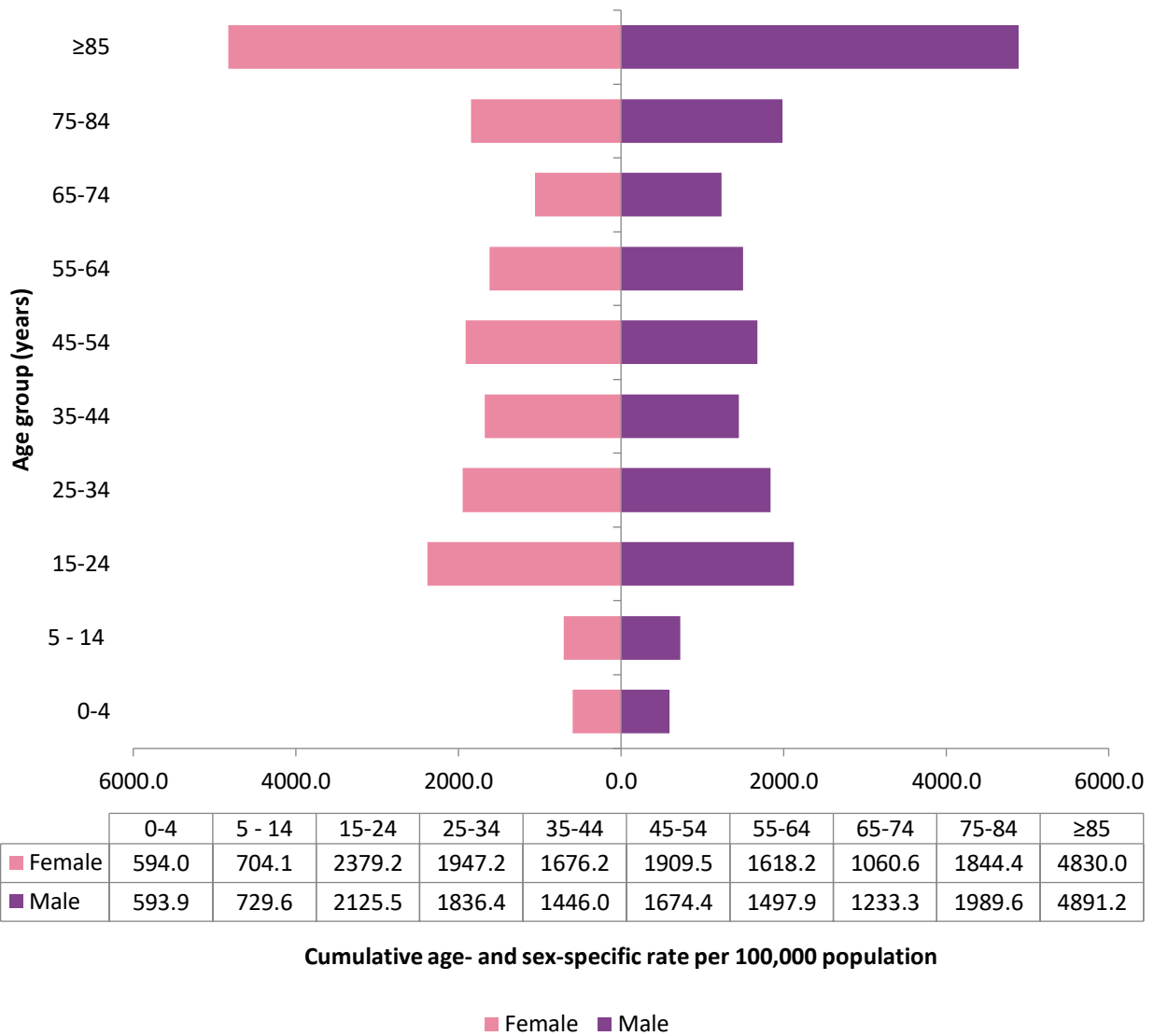
**Figure 2: Cumulative 14 day incidence rate of confirmed COVID-19 cases per 100,000 population notified in Ireland by notification\* and epidemiological date\*\* to midnight 06/12/2020**

\* 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 06/12/2020**

Characteristic		Number of cases	Percent
<b>Total number of confirmed cases</b>		<b>74,467</b>	<b>100</b>
<b>Sex</b>	Male:Female ratio	0.89	
	Male	35,099	47.13
	Female	39,335	52.82
	Unknown	33	0.04
<b>Age</b>	Median age (years)	39	
	Mean age (years)	41	
	Age range (years)	0 - 108	
	0-4 yrs	1,972	2.65
	5-14 yrs	4,847	6.51
	15-24 yrs	12,976	17.43
	25-34 yrs	12,498	16.78
	35-44 yrs	11,673	15.68
	45-54 yrs	11,227	15.08
	55-64 yrs	7,935	10.66
	65-74 yrs	4,280	5.75
	75-84 yrs	3,754	5.04
	85+ yrs	3,277	4.4
	Unknown	28	0.04



**Figure 3: Cumulative age- and sex-specific incidence rates of confirmed cases of COVID-19 per 100,000 population notified in Ireland to midnight 06/12/2020 (excluding 27 cases for whom age is unknown, 32 cases for whom sex is unknown and 1 case for whom both are unknown)**

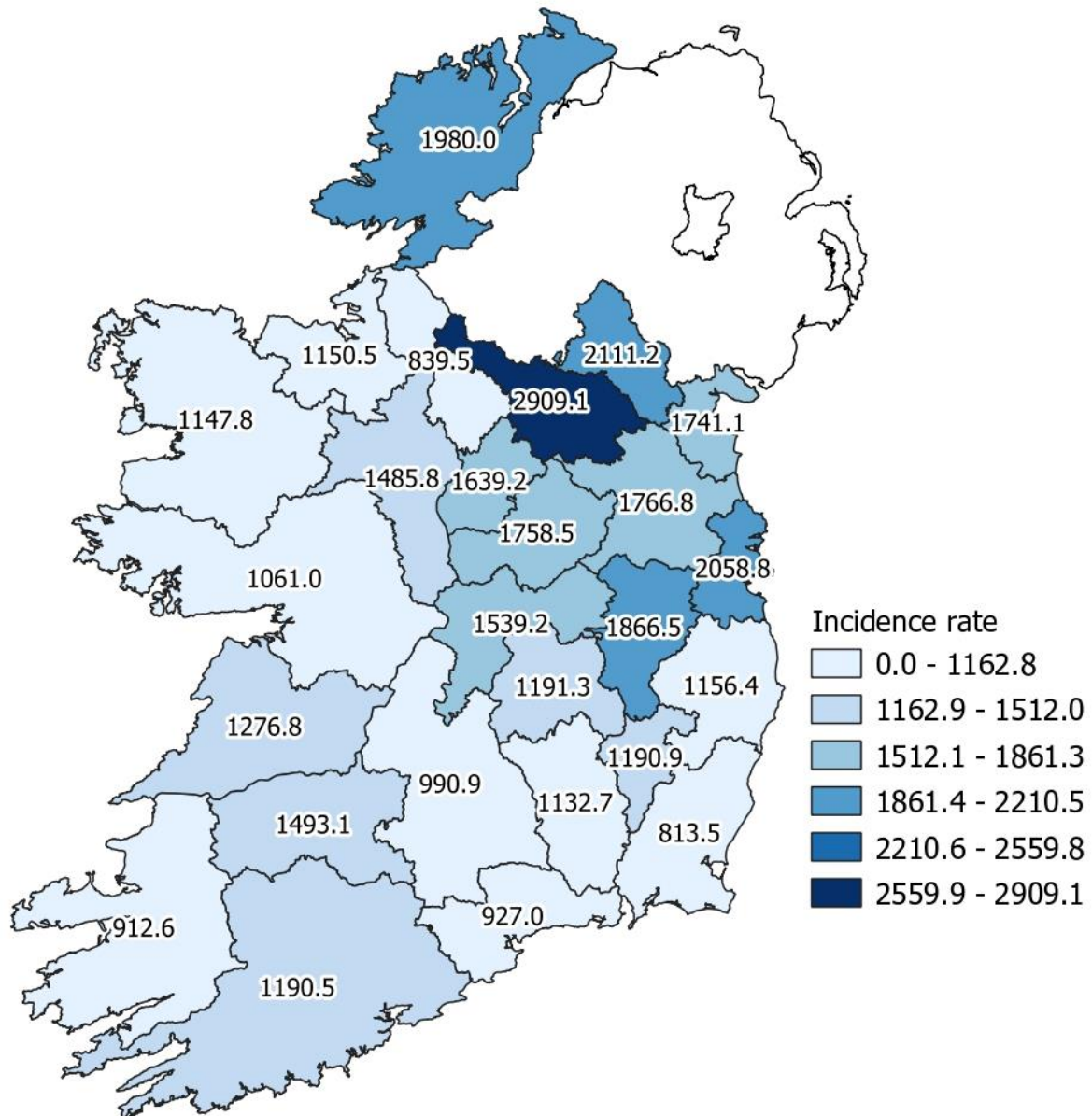


Figure 4: Cumulative incidence rates of confirmed cases of COVID-19 per 100,000 population notified in Ireland to midnight 06/12/2020

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 06/12/2020**

<b>County Name</b>	<b>Number of cases</b>	<b>Percent</b>
Carlow	678	0.91
Cavan	2,216	2.98
Clare	1,517	2.04
Cork	6,463	8.68
Donegal	3,152	4.23
Dublin	27,739	37.25
Galway	2,738	3.68
Kerry	1,348	1.81
Kildare	4,153	5.58
Kilkenny	1,124	1.51
Laois	1,009	1.35
Leitrim	269	0.36
Limerick	2,910	3.91
Longford	670	0.9
Louth	2,244	3.01
Mayo	1,498	2.01
Meath	3,446	4.63
Monaghan	1,296	1.74
Offaly	1,200	1.61
Roscommon	959	1.29
Sligo	754	1.01
Tipperary	1,581	2.12
Waterford	1,077	1.45
Westmeath	1,561	2.1
Wexford	1,218	1.64
Wicklow	1,647	2.21
<b>Total</b>	<b>74,467</b>	<b>100</b>

**Table 3: Number of confirmed COVID-19 cases by WHO transmission classification notified to midnight 06/12/2020**

Transmission classification*	Count of Events	%
Community transmission, incl. possible community transmission	22,411	30.10%
Local transmission, incl. possible local transmission	50,204	67.42%
Travel abroad, incl. possible travel abroad	1,016	1.36%
Unknown	836	1.12%
<b>Total</b>	<b>74,467</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 admission as of midnight 06/12/2020**

Age Group (years)	Number of cases (n)	Cases hospitalised (n)	Cases hospitalised (%)	Cases admitted to ICU (n)	Cases admitted to ICU (%)
0-4 yrs	1972	58	1.09	2	0.32
5-14 yrs	4847	51	0.95	4	0.63
15-24 yrs	12976	171	3.2	8	1.27
25-34 yrs	12498	333	6.23	17	2.7
35-44 yrs	11673	424	7.94	54	8.57
45-54 yrs	11227	668	12.5	112	17.78
55-64 yrs	7935	765	14.32	165	26.19
65-74 yrs	4280	960	17.97	181	28.73
75-84 yrs	3754	1,186	22.2	79	12.54
85+ yrs	3277	725	13.57	8	1.27
Unknown	28	2	0.04	0	0
<b>Total</b>	<b>74,467</b>	<b>5,343</b>	<b>100</b>	<b>630</b>	<b>100</b>



**Table 5: Number and proportion of confirmed cases of COVID-19 notified in Ireland by age-group, hospitalisation, ICU admission and vital status 06/12/2020**

	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)	1972	4847	12976	12498	11673	11227	7935	4280	3754	3277	28
Cases hospitalised (n)	58	51	171	333	424	668	765	960	1186	725	2
Cases hospitalised (%)	2.94	1.05	1.32	2.66	3.63	5.95	9.64	22.43	31.59	22.12	7.14
Cases admitted to ICU (n)	2	4	8	17	54	112	165	181	79	8	0
Cases admitted to ICU (%)	0.10	0.08	0.06	0.14	0.46	1.00	2.08	4.23	2.10	0.24	0
Deaths (n)	0	0	1	6	11	31	83	285	635	786	0
Case fatality ratio (%)	0	0	0.01	0.05	0.09	0.28	1.05	6.66	16.92	23.99	0

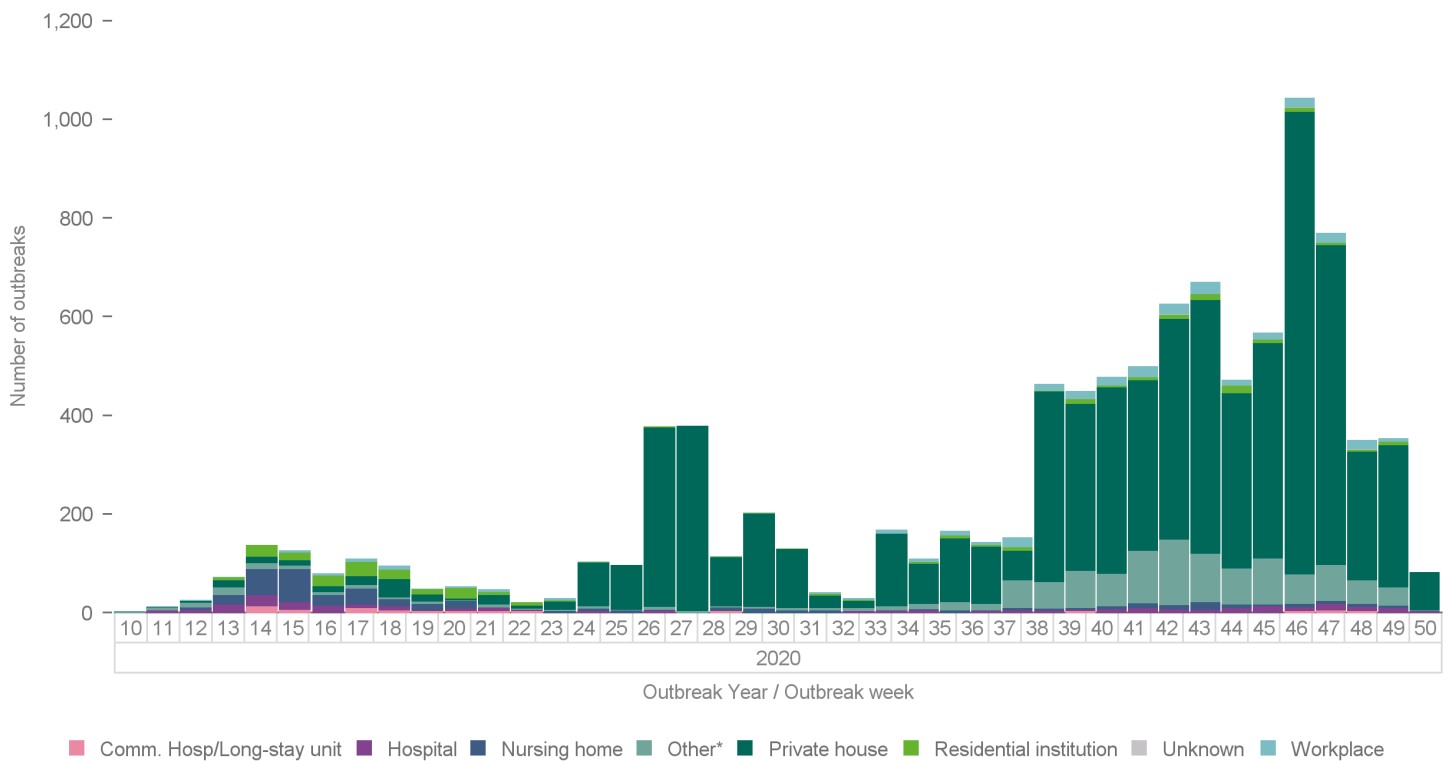
## Outbreaks of COVID-19

**Table 6: Number of clusters/outbreaks COVID-19 by location and HSE area notified to midnight 06/12/2020**

Outbreak Location	E	M	MW	NE	NW	S	SE	W	HPSC**	Total
Private house	4425	172	190	481	406	616	616	572		<b>7478</b>
Other*	255	72	160	78	129	246	60	144	2	<b>1146</b>
Nursing home	170	18	20	50	12	23	22	45		<b>360</b>
Workplace	107	19	22	50	37	27	30	27		<b>319</b>
Residential institution	154	16	17	35	9	30	17	10		<b>288</b>
Hospital	110	7	10	22	14	16	9	7		<b>195</b>
Comm. Hosp/Long-stay unit	6	4	3		5	7	5	5		<b>35</b>
Unknown				1	2					<b>3</b>
<b>Total</b>	<b>5227</b>	<b>308</b>	<b>422</b>	<b>717</b>	<b>614</b>	<b>965</b>	<b>759</b>	<b>810</b>	<b>2</b>	<b>9824</b>

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

\*\*Outbreaks/clusters notified with a location of 'HPSC' are those with cases in three or more HSE areas. These are considered national outbreaks.



**Figure 5: Trend in number of COVID-19 clusters by location and week notified to midnight 06/12/2020**

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

Note: 8,988 COVID-19 outbreaks were reported on CIDR between week 24 and week 50 2020 (9th June to 6th December). Of these, 7,193 were family outbreaks. Based on the earliest date associated with each outbreak, some of these family outbreaks occurred earlier and were reported in subsequent weeks as a result of data validation: 1 occurred in February, 636 in March, 475 in April, 94 in May, 126 in June, 128 in July, 533 in August, 1,513 in September, 2,623 in October, 1,015 in November and 49 to date in December.

## Deaths among COVID-19 cases

Table 7: Summary of deaths in all COVID-19 cases notified in Ireland up to midnight 06/12/2020

	Number	Percent
Total number of deaths	2,097	
Confirmed	1,838	87.65
Probable	95	4.53
Possible	164	7.82
Total number of cases hospitalised	957	45.64
Cases admitted to ICU	143	6.82
Cases not admitted to ICU	814	38.82
Total number of imported cases	5	0.24
Number of cases in healthcare workers	8	0.38
Number with underlying clinical conditions	1,951	93.04
Total number of male cases	1,065	50.79
M:F ratio	1.03	
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 06/12/2020

Age group (years)	Female	Male	Total	Percent
15-24 yrs	<5	<5	1	0.05
25-34 yrs	<5	<5	6	0.29
35-44 yrs	5	7	12	0.57
45-54 yrs	13	20	33	1.57
55-64 yrs	30	59	89	4.24
65-74 yrs	110	203	313	14.93
75-84 yrs	327	390	717	34.19
85+ yrs	542	382	924	44.06
Unknown	<5	<5	2	0.1
<b>Total</b>	<b>1,032</b>	<b>1,065</b>	<b>2,097</b>	<b>100</b>
<b>Percent</b>	<b>49.21</b>	<b>50.79</b>		

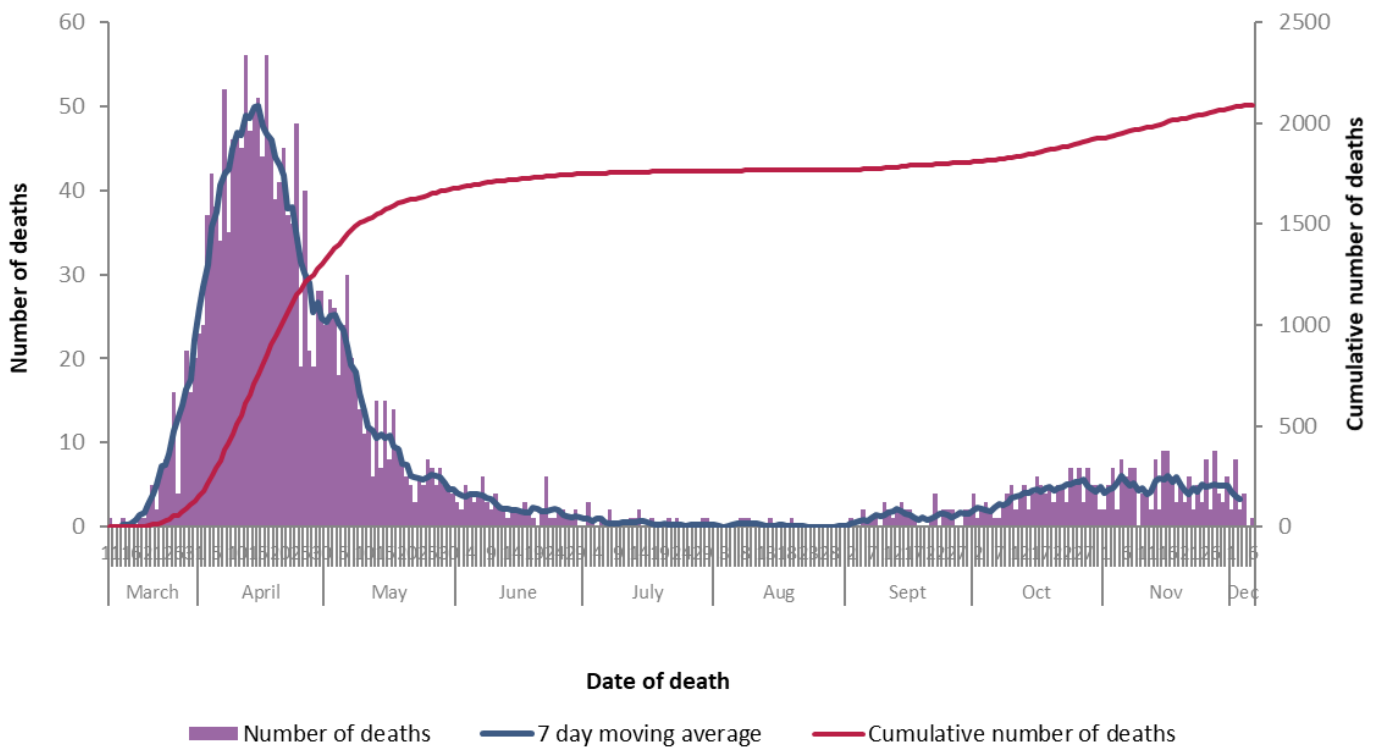


Figure 6a: Daily and 7 day moving average number of deaths among COVID-19 cases notified in Ireland by date of death and cumulative total to midnight 06/12/2020

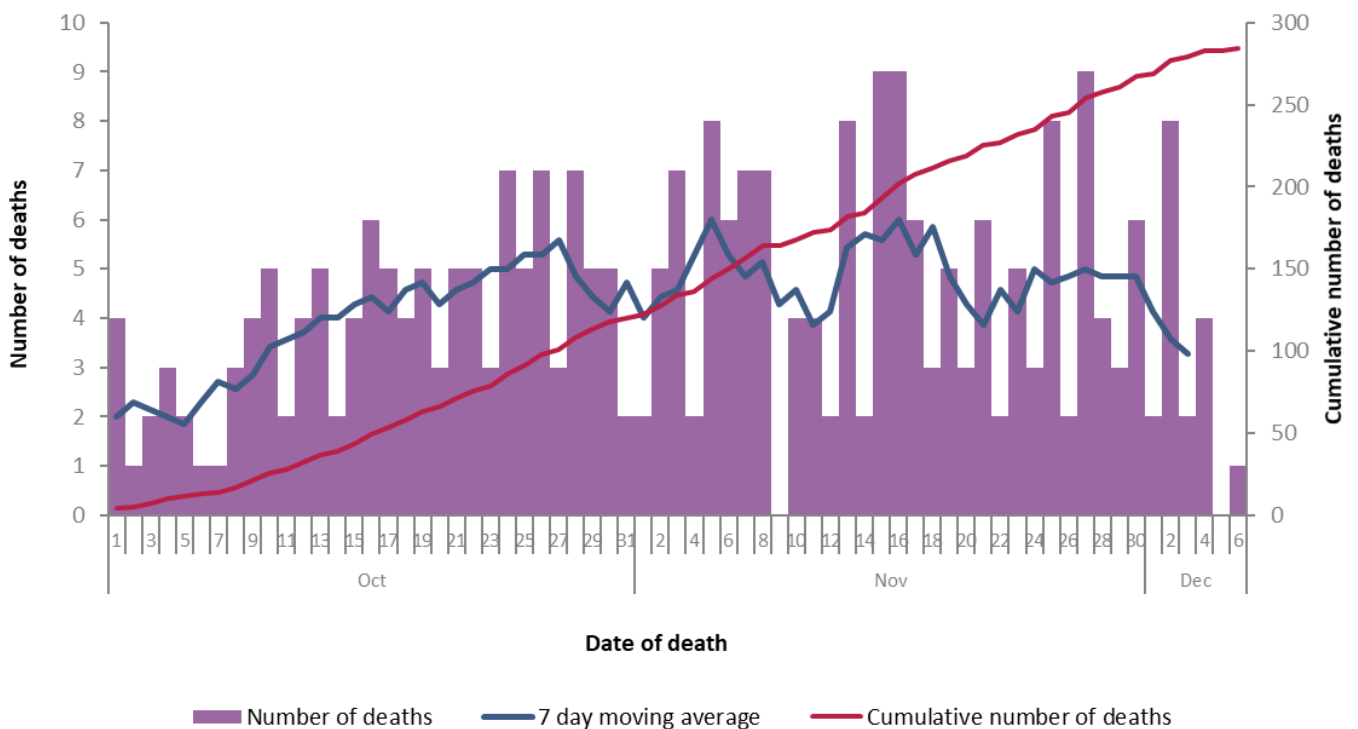


Figure 6b: Daily and 7 day moving average number of deaths among COVID-19 cases notified in Ireland by date of death and cumulative total from 01/10/2020 to midnight 06/12/2020

\* Date of death is not yet available for eight 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 10:09 on 08/12/2020. 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.