



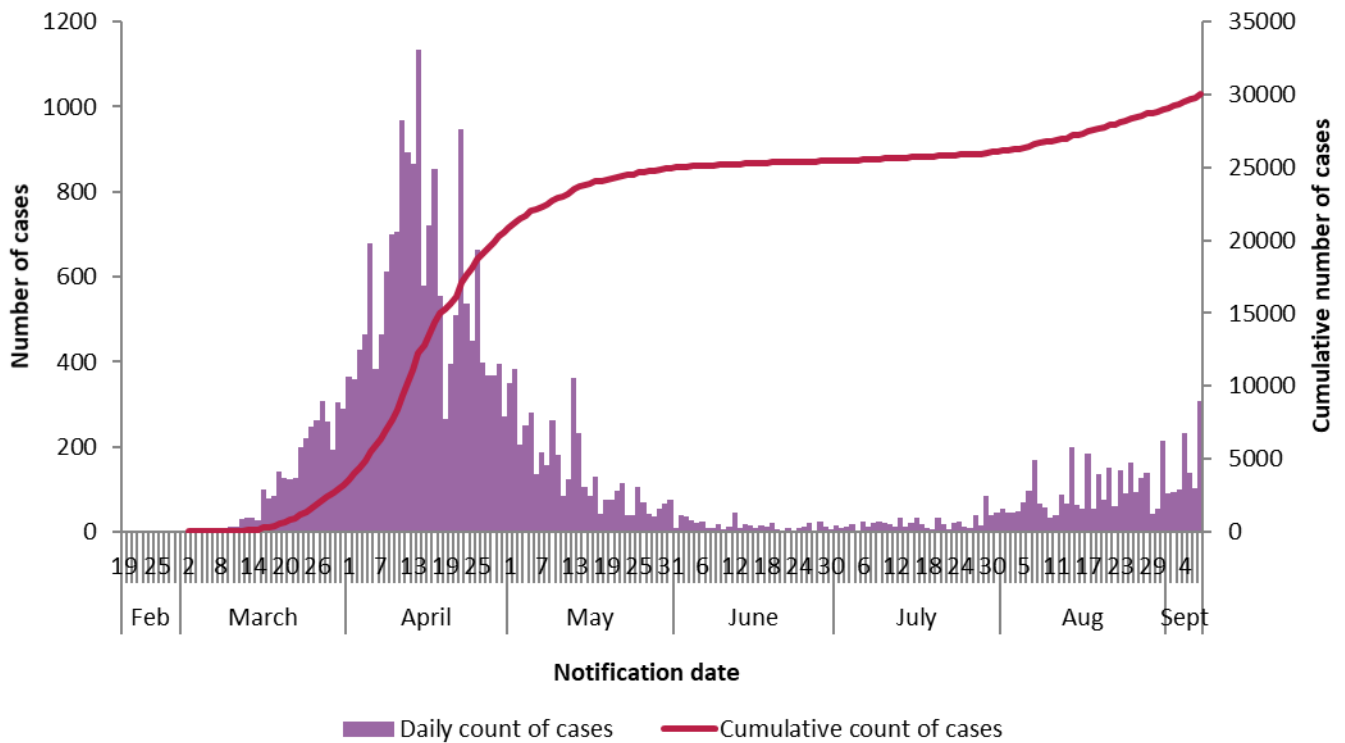
# Epidemiology of COVID-19 in Ireland

Report prepared by HPSC on 09/09/2020 for National Public Health Emergency Team

Summary characteristics of confirmed COVID-19 cases notified in Ireland up to midnight 07/09/2020

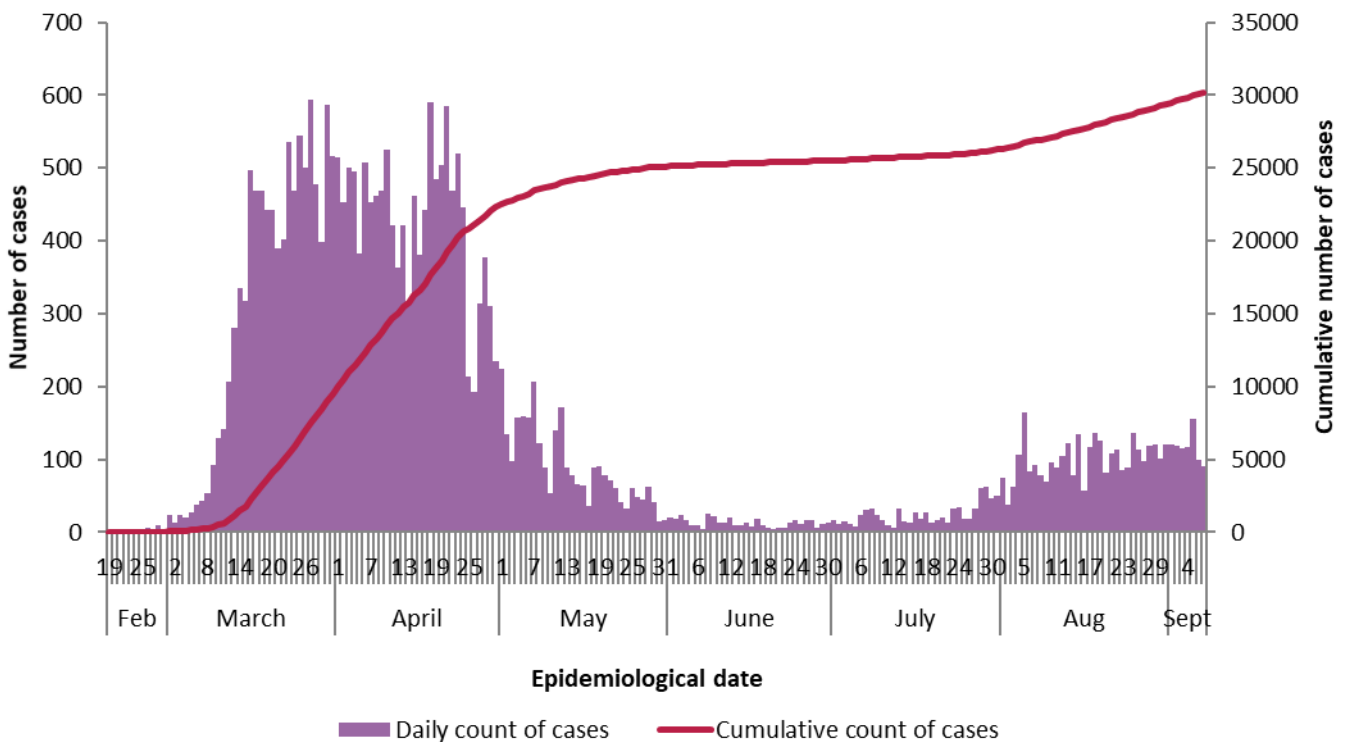
	Number	Percent
Total number of confirmed cases	30,080	
National cumulative incidence of confirmed cases per 100,000 population	631.69	
Total number of cases hospitalised	3,434	11.42
Total number of cases admitted to ICU	450	1.5
Total number of deaths among confirmed cases	1,523	5.06
Case fatality ratio (CFR, %)	5.06	
National cumulative incidence of confirmed deaths per 100,000 population	31.98	
Total number of outbreaks/clusters	2,908	
Total number of cases associated with clusters	16,351	54.36
Total number of imported cases	549	1.83
Number of cases in healthcare workers	8,805	29.27
Males	13,254	44.06
Females	16,796	55.84
M:F ratio	0.79	
Median age (years)	46	
Mean age (years)	48	
Age range (years)	0 - 106	

Note: Data were extracted from Computerised Infectious Disease Reporting (CIDR) system at 09:16 on 09/09/2020 and are provisional and subject to ongoing review, validation and update. As a result, figures in this report may differ from previously published figures.



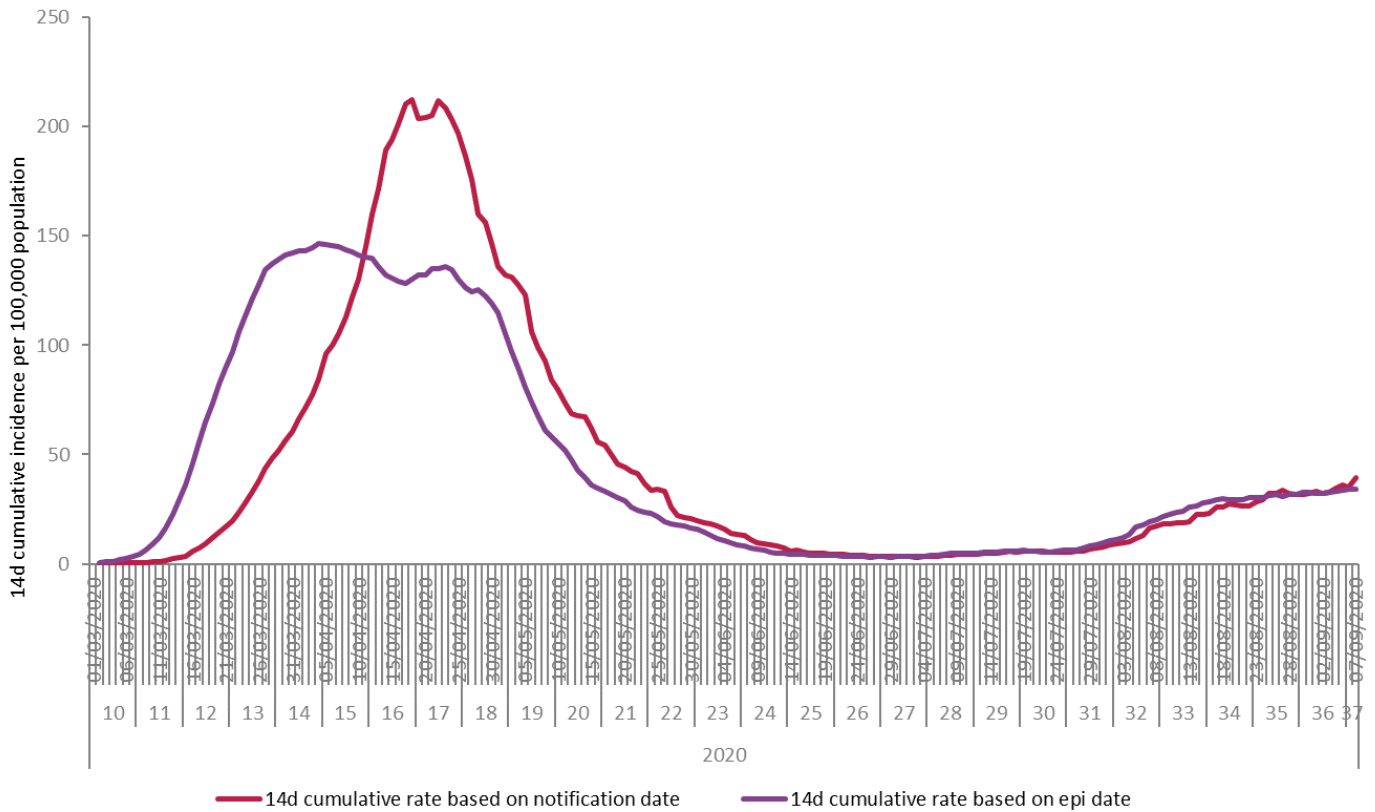
**Figure 1a: Number\* and cumulative number of confirmed COVID-19 cases notified in Ireland by notification date\* to midnight 07/09/2020**

\*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 07/09/2020**

\*\*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.



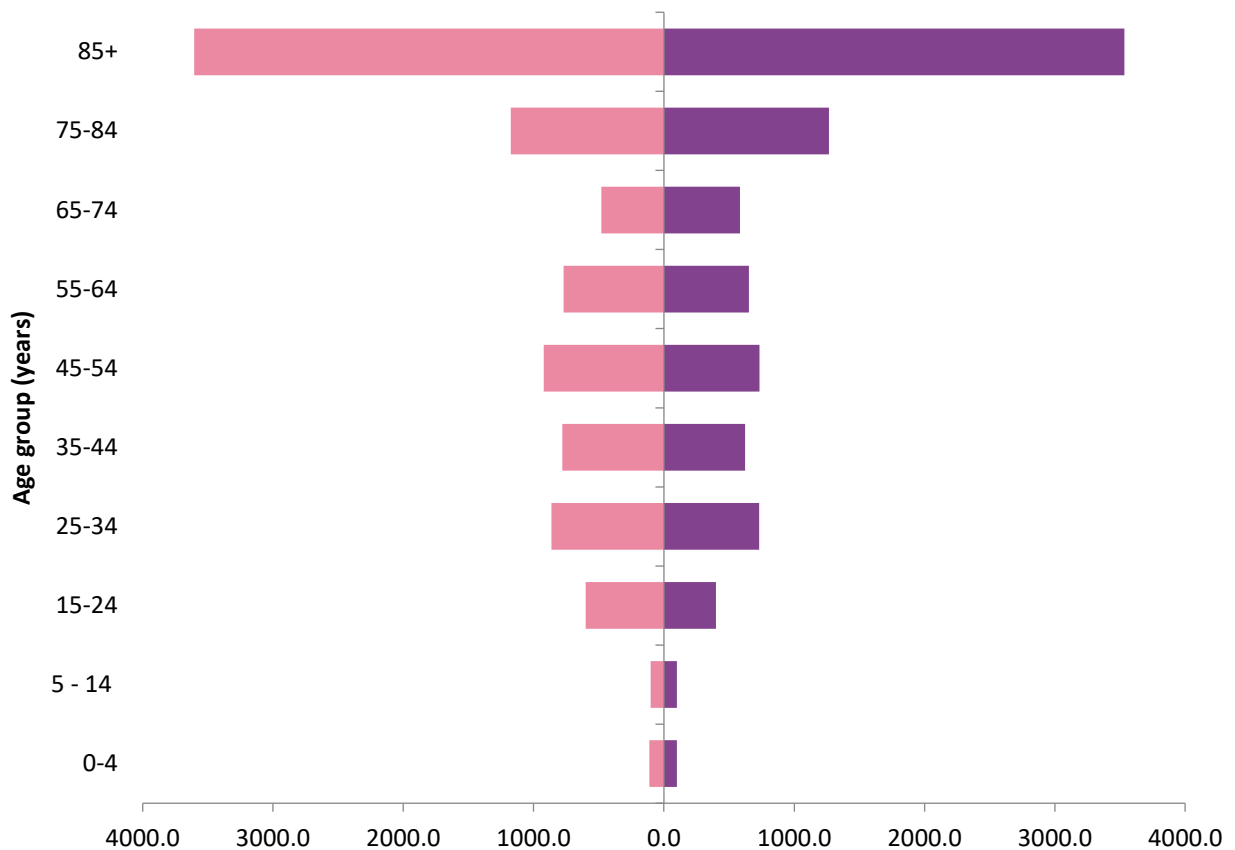
**Figure 2: Cumulative 14 day incidence rate of confirmed COVID-19 cases per 100,000 population notified in Ireland by notification\* and epidemiological date\*\* to midnight 07/09/2020**

\* 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 07/09/2020**

Characteristic		Number of cases	Percent
<b>Total number of confirmed cases</b>		<b>30,080</b>	<b>100</b>
<b>Sex</b>	Male:Female ratio	0.79	
	Male	13,254	44.06
	Female	16,796	55.84
	Unknown	30	0.1
<b>Age</b>	Median age (years)	46	
	Mean age (years)	48	
	Age range (years)	0 - 106	
	0-4 yrs	349	1.16
	5-14 yrs	681	2.26
	15-24 yrs	2,877	9.56
	25-34 yrs	5,283	17.56
	35-44 yrs	5,255	17.47
	45-54 yrs	5,193	17.26
	55-64 yrs	3,619	12.03
	65-74 yrs	1,988	6.61
	75-84 yrs	2,391	7.95
	85+ yrs	2,420	8.05
	Unknown	24	0.08

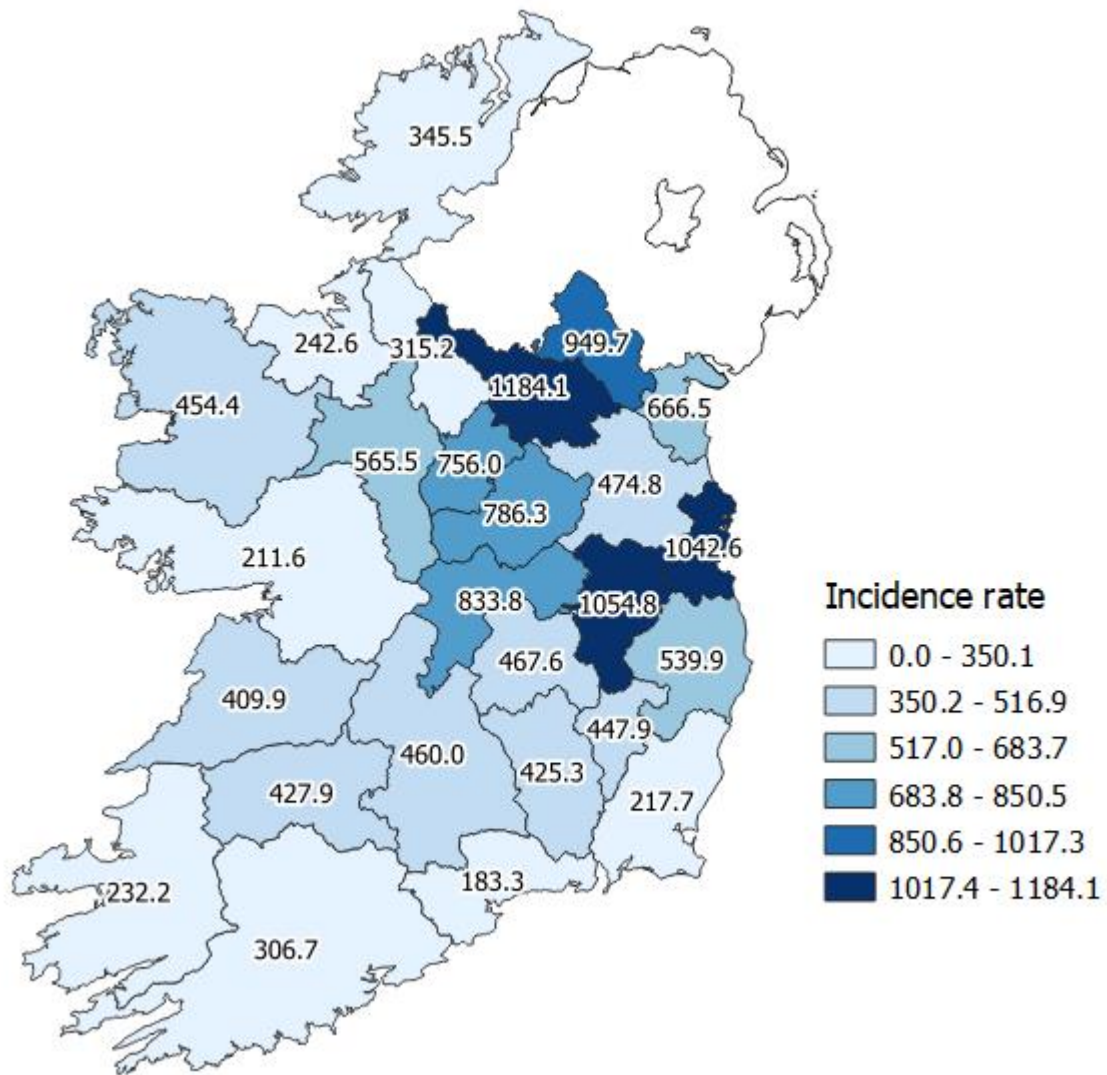


	0-4	5 - 14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	85+
Female	112.5	101.5	601.8	864.5	781.0	922.8	769.1	481.4	1175.5	3605.1
Male	98.4	100.0	399.0	730.5	621.7	732.7	652.1	583.9	1266.3	3534.0

**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 07/09/2020 (excluding 23 cases for whom age is unknown and 29 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 07/09/2020**

*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 07/09/2020**

County Name	Number of cases	Percent
Carlow	255	0.85
Cavan	902	3
Clare	487	1.62
Cork	1,665	5.54
Donegal	550	1.83
Dublin	14,048	46.7
Galway	546	1.82
Kerry	343	1.14
Kildare	2,347	7.8
Kilkenny	422	1.4
Laois	396	1.32
Leitrim	101	0.34
Limerick	834	2.77
Longford	309	1.03
Louth	859	2.86
Mayo	593	1.97
Meath	926	3.08
Monaghan	583	1.94
Offaly	650	2.16
Roscommon	365	1.21
Sligo	159	0.53
Tipperary	734	2.44
Waterford	213	0.71
Westmeath	698	2.32
Wexford	326	1.08
Wicklow	769	2.56
<b>Total</b>	<b>30,080</b>	<b>100</b>

**Table 3: Number of confirmed COVID-19 cases by WHO transmission classification notified to midnight 07/09/2020**

Transmission classification*	Count of Events	%
Community transmission, incl. possible community transmission	9,113	30.30%
Local transmission, incl. possible local transmission	19,947	66.31%
Travel abroad, incl. possible travel abroad	741	2.46%
Unknown	279	0.93%
<b>Total</b>	<b>30,080</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 and hospital, ICU and vital status as of midnight 07/09/2020**

Age Group (years)	Number of cases (n)	Cases hospitalised (n)	Cases hospitalised (%)	Cases admitted to ICU (n)	Cases admitted to ICU (%)
0-4 yrs	349	26	0.76	1	0.22
5-14 yrs	681	19	0.55	2	0.44
15-24 yrs	2877	85	2.48	5	1.11
25-34 yrs	5283	209	6.09	17	3.78
35-44 yrs	5255	278	8.1	38	8.44
45-54 yrs	5193	461	13.42	93	20.67
55-64 yrs	3619	505	14.71	130	28.89
65-74 yrs	1988	605	17.62	110	24.44
75-84 yrs	2391	761	22.16	48	10.67
85+ yrs	2420	484	14.09	6	1.33
Unknown	24	1	0.03	0	0
<b>Total</b>	<b>30,080</b>	<b>3,434</b>	<b>100</b>	<b>450</b>	<b>100</b>



**Table 5: Number and proportion of confirmed cases of COVID-19 notified in Ireland by age-group, hospitalisation and ICU admission 07/09/2020**

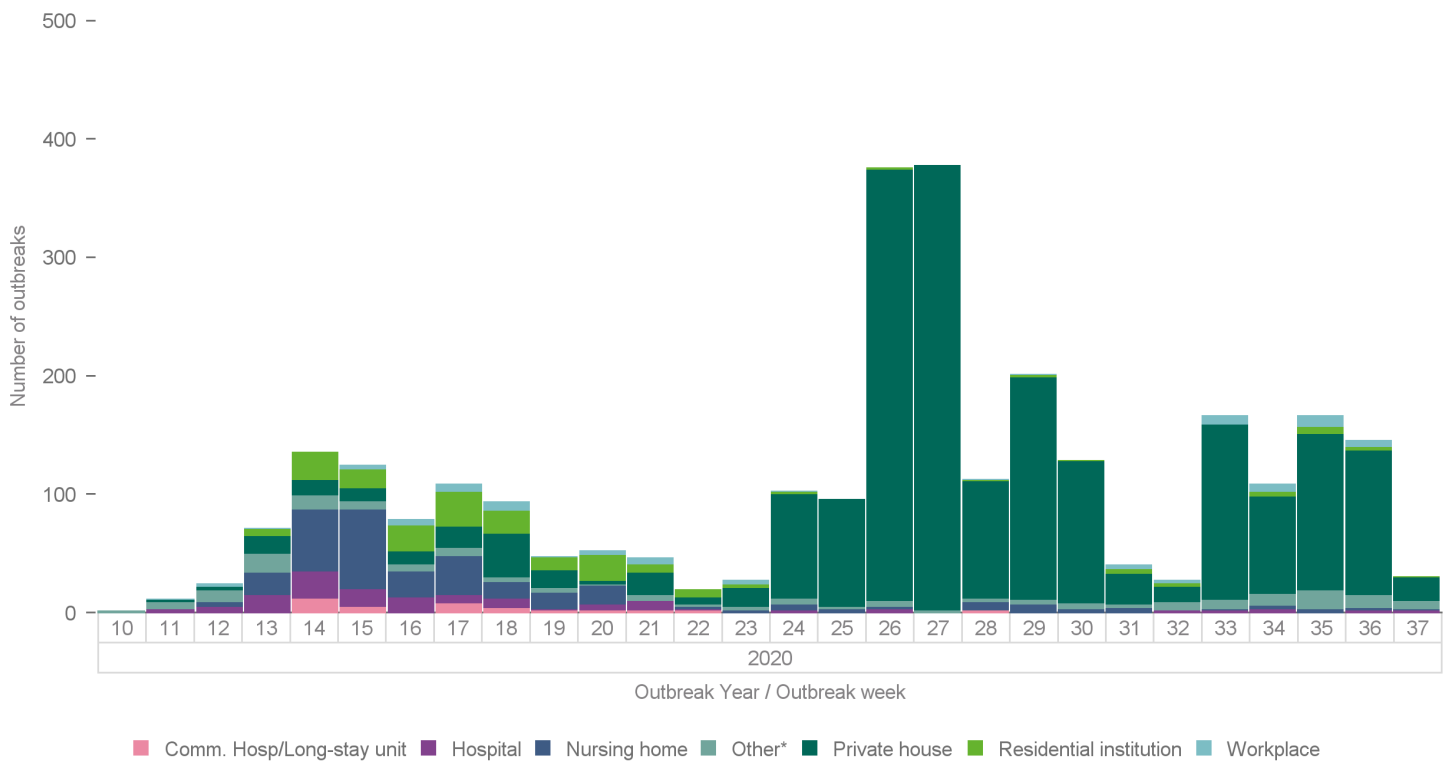
	0-4 yrs	5-14 yrs	15-24 yrs	25-34 yrs	35-44 yrs	45-54 yrs	55-64 yrs	65-74 yrs	75-84 yrs	85+ yrs	Unknown
Number of cases (n)	349	681	2,877	5,283	5,255	5,193	3,619	1,988	2,391	2,420	24
Cases hospitalised (n)	26	19	85	209	278	461	505	605	761	484	1
Cases hospitalised (%)	7.45	2.79	2.95	3.96	5.29	8.88	13.95	30.43	31.83	20	4.17
Cases admitted to ICU (n)	1	2	5	17	38	93	130	110	48	6	0
Cases admitted to ICU (%)	0.29	0.29	0.17	0.32	0.72	1.79	3.59	5.53	2.01	0.25	0
Deaths (n)	0	0	1	5	12	25	69	228	522	661	0
Case fatality ratio (%)	0	0	0.03	0.09	0.23	0.48	1.91	11.47	21.83	27.31	0

## Outbreaks of COVID-19

**Table 6: Number of clusters/outbreaks COVID-19 by location and HSE area notified to midnight 07/09/2020**

Outbreak Location	E	HPSC	M	MW	NE	NW	S	SE	W	Total
Private house	1,427		30	107	150	56	125	110	33	<b>2,038</b>
Nursing home	135		10	19	44	5	14	17	36	<b>280</b>
Residential institution	114		10	11	21	4	21	10	4	<b>195</b>
Other*	22	2	11	49	8	12	40	15	12	<b>171</b>
Hospital	64		4	4	14	2	10	5	6	<b>109</b>
Workplace	28		10	8	16	2	9	7	5	<b>85</b>
Comm. Hosp/Long-stay unit	4		4	2		4	6	5	5	<b>30</b>
<b>Total</b>	<b>1,794</b>	<b>2</b>	<b>79</b>	<b>200</b>	<b>253</b>	<b>85</b>	<b>225</b>	<b>169</b>	<b>101</b>	<b>2,908</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 07/09/2020**

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

Note: 2,070 COVID-19 outbreaks were reported on CIDR between week 24 and week 37 2020 to date (9th June to 7th September). Of these, 1,899 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 37 as a result of data validation: 1 occurred in February, 635 in March, 472 in April, 94 in May, 127 in June, 126 in July, 419 in August and 25 in September to date.

## Deaths among COVID-19 cases

Table 7: Summary of deaths in all COVID-19 cases notified in Ireland up to midnight 07/09/2020

	Number	Percent
Total number of deaths	1,781	
Confirmed	1,523	85.51
Probable	99	5.56
Possible	159	8.93
Total number of cases hospitalised	761	42.73
Cases admitted to ICU	95	5.33
Cases not admitted to ICU	666	37.39
Total number of imported cases	6	0.34
Number of cases in healthcare workers	8	0.45
Number with underlying clinical conditions	1,681	94.39
Total number of male cases	877	49.24
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 07/09/2020

Age group (years)	Female	Male	Total	Percent
15-24 yrs	<5	<5	1	0.06
25-34 yrs	<5	<5	5	0.28
35-44 yrs	6	7	13	0.73
45-54 yrs	10	17	27	1.52
55-64 yrs	26	48	74	4.15
65-74 yrs	94	159	253	14.21
75-84 yrs	279	327	606	34.03
85+ yrs	484	316	800	44.92
Unknown	<5	<5	2	0.11
<b>Total</b>	<b>904</b>	<b>877</b>	<b>1,781</b>	<b>100</b>
<b>Percent</b>	<b>50.76</b>	<b>49.24</b>		

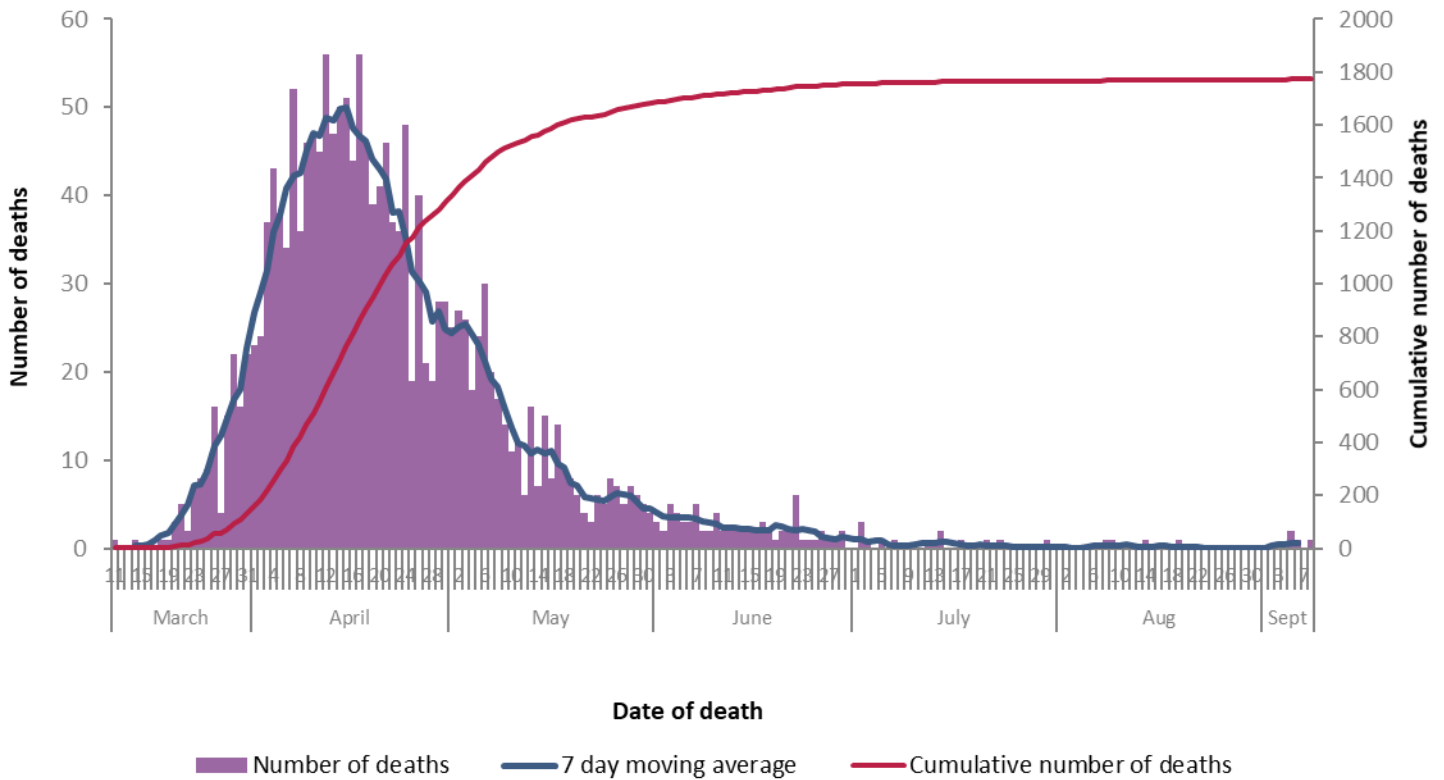


Figure 6a: Daily and 7 day moving average number of deaths among COVID-19 cases notified in Ireland by date of death and cumulative total to midnight 07/09/2020

\* Date of death is not yet available for six case

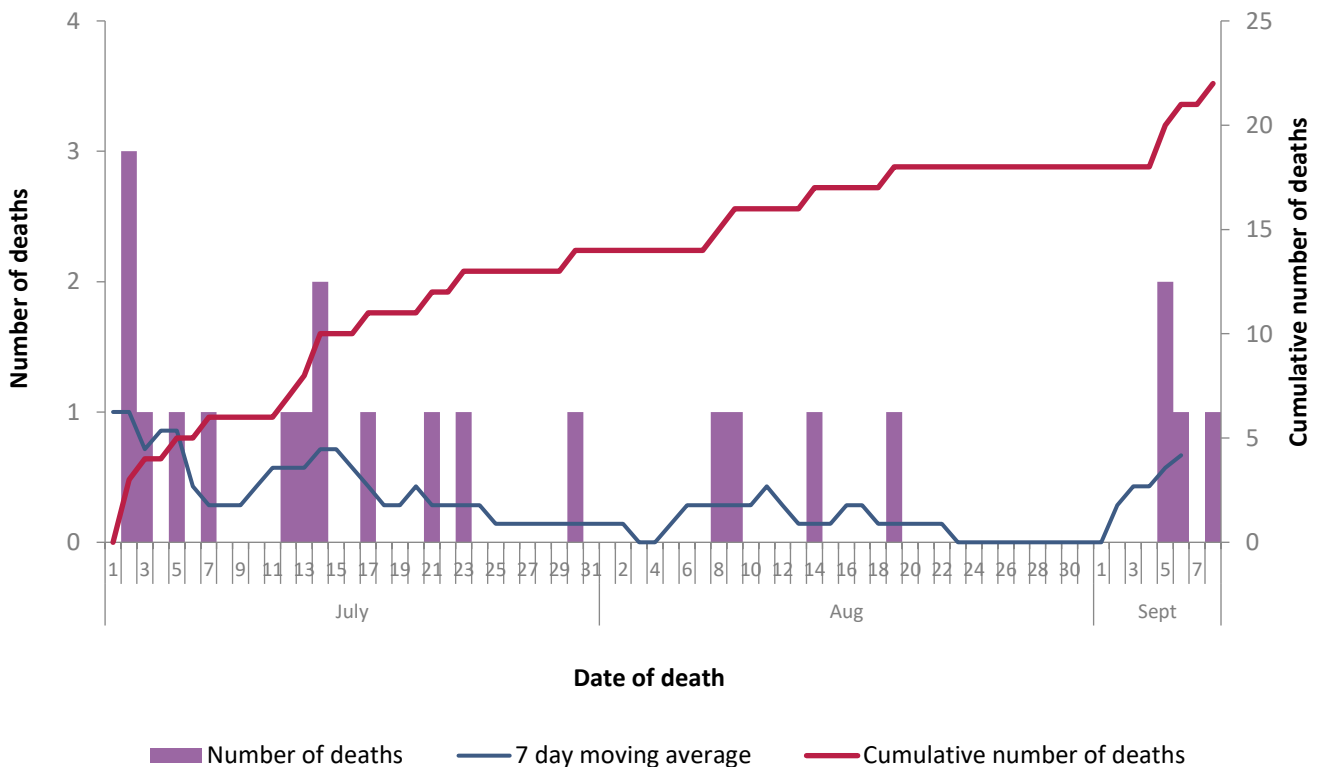


Figure 6b: Daily and 7 day moving average number of deaths among COVID-19 cases notified in Ireland by date of death and cumulative total, 01/07/2020 to midnight 07/09/2020

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 09:16 on 09/09/2020. 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  $\geq 85$  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.
- 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.