



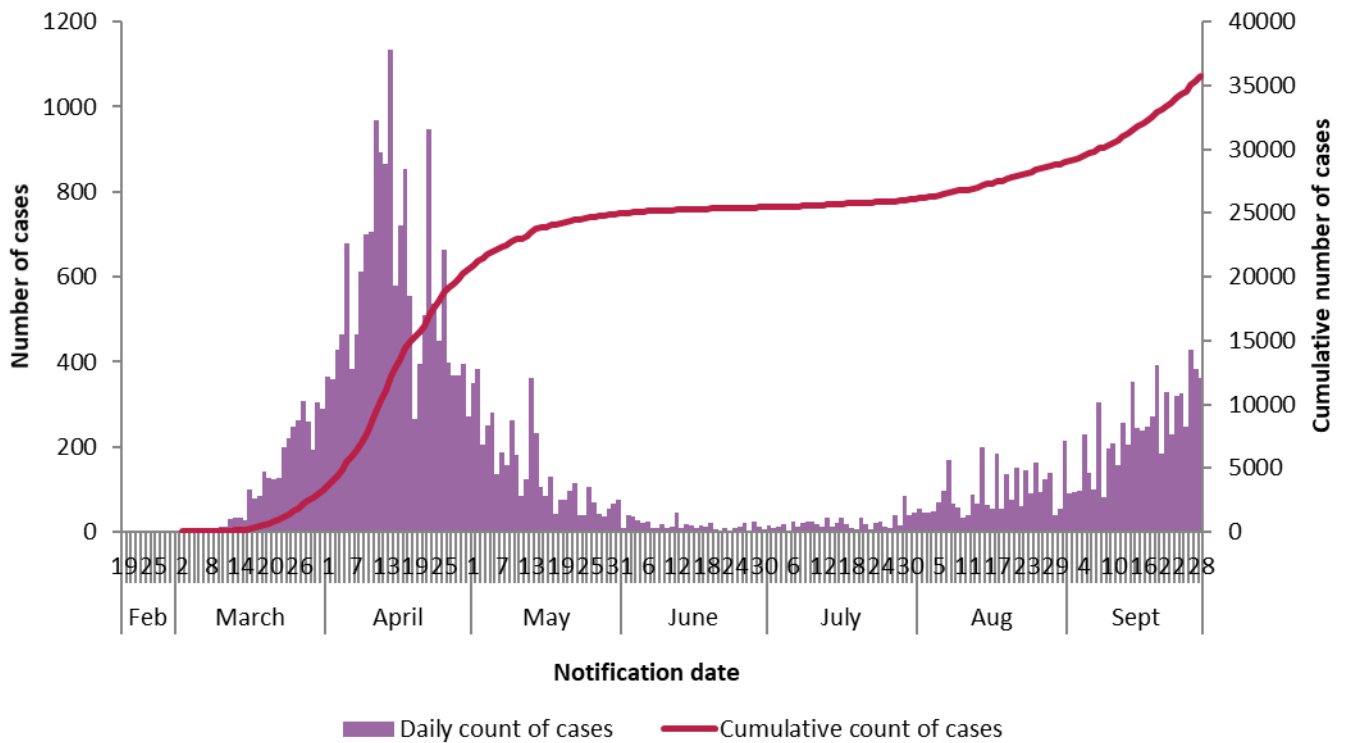
# Epidemiology of COVID-19 in Ireland

Report prepared by HPSC on 30/09/2020 for National Public Health Emergency Team

Summary characteristics of confirmed COVID-19 cases notified in Ireland up to midnight 28/09/2020

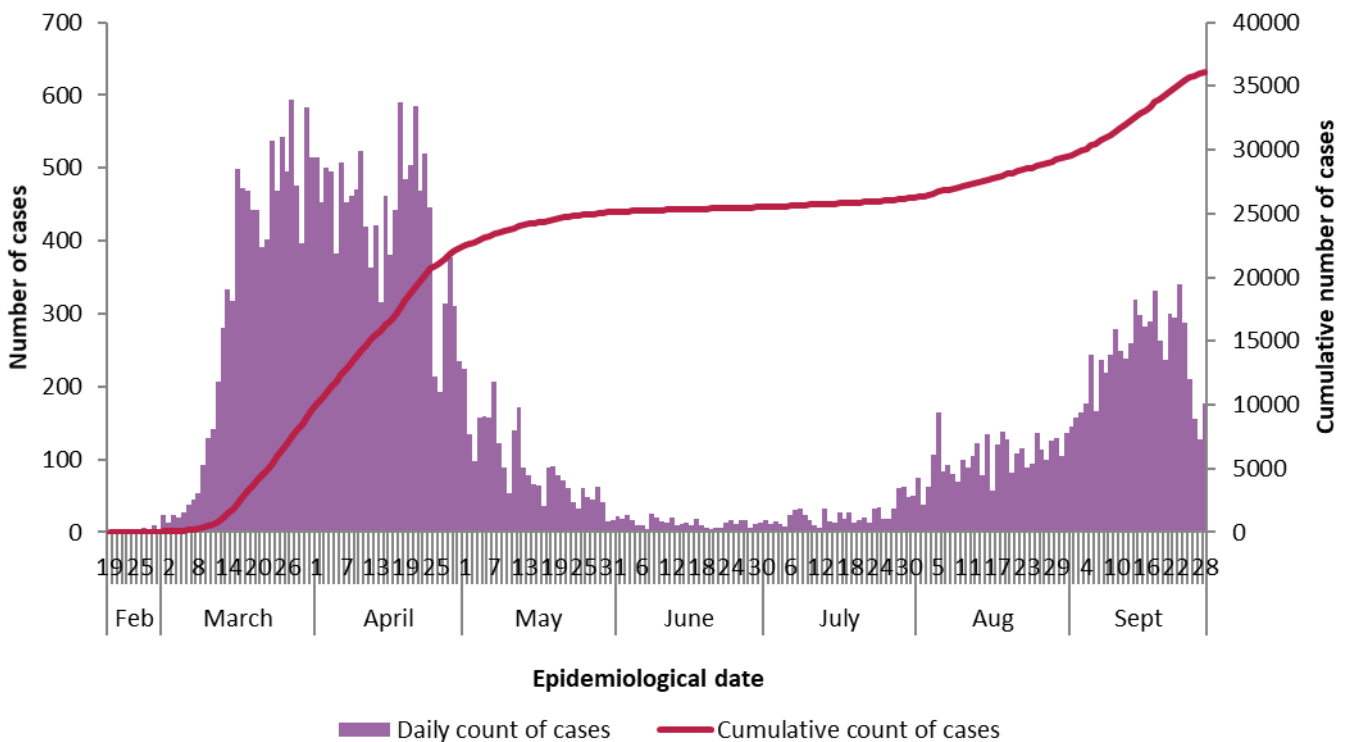
	Number	Percent
Total number of confirmed cases	35,726	
National cumulative incidence of confirmed cases per 100,000 population	750.25	
Total number of cases hospitalised	3,600	10.08
Total number of cases admitted to ICU	470	1.32
Total number of deaths among confirmed cases	1,547	4.33
Case fatality ratio (CFR, %)	4.33	
National cumulative incidence of confirmed deaths per 100,000 population	32.49	
Total number of outbreaks/clusters	4,055	
Total number of cases associated with clusters	19,881	55.65
Total number of imported cases	600	1.68
Number of cases in healthcare workers	9,183	25.7
Males	16,046	44.91
Females	19,649	55
M:F ratio	0.82	
Median age (years)	44	
Mean age (years)	46	
Age range (years)	0 - 106	

Note: Data were extracted from Computerised Infectious Disease Reporting (CIDR) system at 09:15 on 30/09/2020 and are provisional and subject to ongoing review, validation and update. As a result, figures in this report may differ from previously published figures.



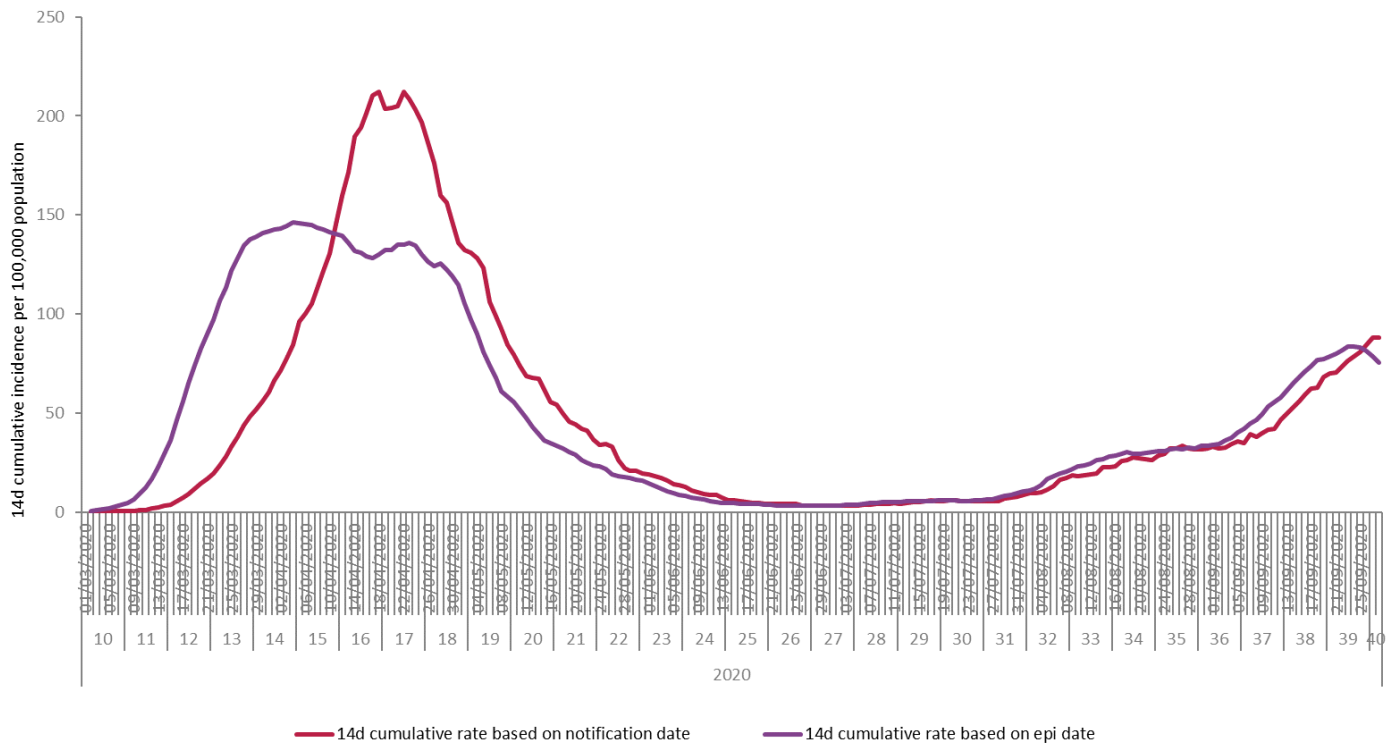
**Figure 1a: Number\* and cumulative number of confirmed COVID-19 cases notified in Ireland by notification date\* to midnight 28/09/2020**

\*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 28/09/2020**

\*\*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.



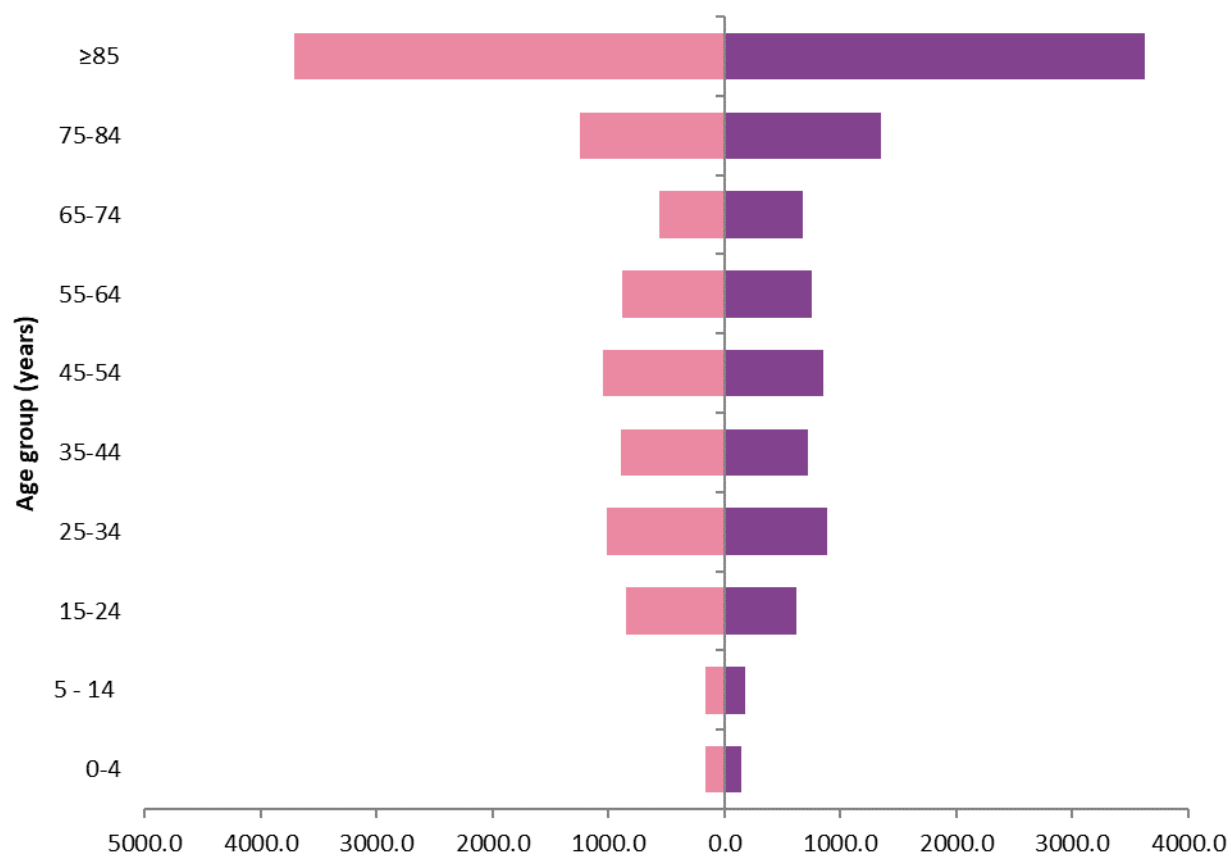
**Figure 2: Cumulative 14 day incidence rate of confirmed COVID-19 cases per 100,000 population notified in Ireland by notification\* and epidemiological date\*\* to midnight 28/09/2020**

\* 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 28/09/2020**

Characteristic		Number of cases	Percent
<b>Total number of confirmed cases</b>		<b>35,726</b>	<b>100</b>
<b>Sex</b>	Male:Female ratio	0.82	
	Male	16,046	44.91
	Female	19,649	55
	Unknown	31	0.09
<b>Age</b>	Median age (years)	44	
	Mean age (years)	46	
	Age range (years)	0 - 106	
	0-4 yrs	516	1.44
	5-14 yrs	1,138	3.19
	15-24 yrs	4,221	11.81
	25-34 yrs	6,286	17.6
	35-44 yrs	6,060	16.96
	45-54 yrs	5,970	16.71
	55-64 yrs	4,156	11.63
	65-74 yrs	2,329	6.52
	75-84 yrs	2,539	7.11
	85+ yrs	2,487	6.96
	Unknown	24	0.07



	0-4	5 - 14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	≥85
Female	164.4	161.1	848.0	1011.7	892.6	1047.3	876.7	566.5	1244.5	3708.4
Male	147.3	175.4	619.5	887.2	725.6	856.5	755.5	682.0	1349.2	3625.0

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 29/09/2020 (excluding 23 cases for whom age is unknown and 30 cases for whom sex is unknown and 1 case for whom both are unknown)



**Table 2: Number of confirmed COVID-19 cases by county notified to midnight 28/09/2020**

<b>County Name</b>	<b>Number of cases</b>	<b>Percent</b>
Carlow	285	0.8
Cavan	946	2.65
Clare	568	1.59
Cork	2,085	5.84
Donegal	918	2.57
Dublin	16,960	47.47
Galway	736	2.06
Kerry	390	1.09
Kildare	2,567	7.19
Kilkenny	459	1.28
Laois	447	1.25
Leitrim	116	0.32
Limerick	946	2.65
Longford	345	0.97
Louth	1,034	2.89
Mayo	648	1.81
Meath	1,053	2.95
Monaghan	671	1.88
Offaly	721	2.02
Roscommon	445	1.25
Sligo	180	0.5
Tipperary	786	2.2
Waterford	338	0.95
Westmeath	773	2.16
Wexford	397	1.11
Wicklow	912	2.55
<b>Total</b>	<b>35,726</b>	<b>100</b>

**Table 3: Number of confirmed COVID-19 cases by WHO transmission classification notified to midnight 28/09/2020**

Transmission classification*	Count of Events	%
Community transmission, incl. possible community transmission	10,277	28.77%
Local transmission, incl. possible local transmission	24,187	67.70%
Travel abroad, incl. possible travel abroad	831	2.33%
Unknown	431	1.21%
<b>Total</b>	<b>35,726</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 28/09/2020**

Age Group (years)	Number of cases (n)	Cases hospitalised (n)	Cases hospitalised (%)	Cases admitted to ICU (n)	Cases admitted to ICU (%)
0-4 yrs	516	29	0.81	1	0.21
5-14 yrs	1138	20	0.56	2	0.43
15-24 yrs	4221	93	2.58	5	1.06
25-34 yrs	6286	217	6.03	17	3.62
35-44 yrs	6060	293	8.14	42	8.94
45-54 yrs	5970	486	13.5	97	20.64
55-64 yrs	4156	543	15.08	135	28.72
65-74 yrs	2329	641	17.81	116	24.68
75-84 yrs	2539	785	21.81	49	10.43
85+ yrs	2487	492	13.67	6	1.28
Unknown	24	1	0.03	0	0
<b>Total</b>	<b>35,726</b>	<b>3,600</b>	<b>100</b>	<b>470</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 28/09/2020**

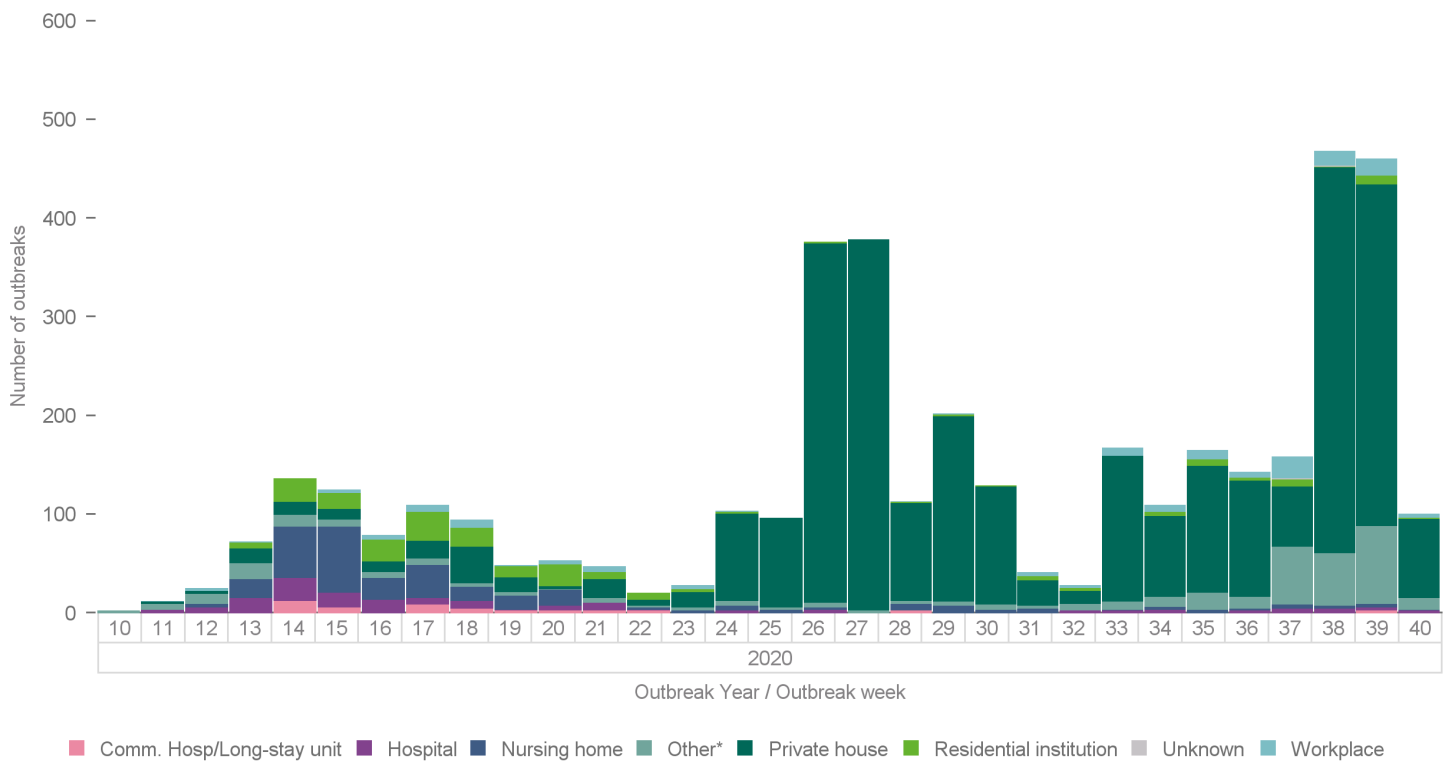
	0-4 yrs	5-14 yrs	15-24 yrs	25-34 yrs	35-44 yrs	45-54 yrs	55-64 yrs	65-74 yrs	75-84 yrs	85+ yrs	Unknown
Number of cases (n)	516	1,138	4,221	6,286	6,060	5,970	4,156	2,329	2,539	2,487	24
Cases hospitalised (n)	29	20	93	217	293	486	543	641	785	492	1
Cases hospitalised (%)	5.62	1.76	2.2	3.45	4.83	8.14	13.07	27.52	30.92	19.78	4.17
Cases admitted to ICU (n)	1	2	5	17	42	97	135	116	49	6	0
Cases admitted to ICU (%)	0.19	0.18	0.12	0.27	0.69	1.62	3.25	4.98	1.93	0.24	0
Deaths (n)	0	0	1	6	12	28	73	231	529	667	0
Case fatality ratio (%)	0	0	0.02	0.1	0.2	0.47	1.76	9.92	20.83	26.82	0

## Outbreaks of COVID-19

**Table 6: Number of clusters/outbreaks COVID-19 by location and HSE area notified to midnight 28/09/2020**

Outbreak Location	E	HPSC	M	MW	NE	NW	S	SE	W	Total
Private house	1,962		52	143	226	99	182	166	59	<b>2,889</b>
Other*	74	2	34	94	20	31	61	24	29	<b>369</b>
Nursing home	143		11	19	44	5	15	17	37	<b>291</b>
Residential institution	124		11	11	25	5	22	10	4	<b>212</b>
Workplace	46		12	17	22	13	11	12	10	<b>143</b>
Hospital	71		5	4	14	2	11	5	6	<b>118</b>
Comm. Hosp/Long-stay unit	5		4	2		4	6	5	5	<b>31</b>
Unknown	2									<b>2</b>
<b>Total</b>	<b>2,427</b>	<b>2</b>	<b>129</b>	<b>290</b>	<b>351</b>	<b>159</b>	<b>308</b>	<b>239</b>	<b>150</b>	<b>4,055</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 28/09/2020**

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

Note: 3,219 COVID-19 outbreaks were reported on CIDR between week 24 and week 40 2020 to date (9th June to 28th September). Of these, 2,770 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 40 as a result of data validation: 1 occurred in February, 636 in March, 473 in April, 94 in May, 126 in June, 127 in July, 528 in August and 785 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 28/09/2020

	Number	Percent
Total number of deaths	1,804	
Confirmed	1,547	85.75
Probable	99	5.49
Possible	158	8.76
Total number of cases hospitalised	769	42.63
Cases admitted to ICU	98	5.43
Cases not admitted to ICU	671	37.2
Total number of imported cases	6	0.33
Number of cases in healthcare workers	8	0.44
Number with underlying clinical conditions	1,708	94.68
Total number of male cases	892	49.45
M:F ratio	0.98	
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 28/09/2020

Age group (years)	Female	Male	Total	Percent
15-24 yrs	<5	<5	1	0.06
25-34 yrs	<5	<5	6	0.33
35-44 yrs	6	7	13	0.72
45-54 yrs	11	19	30	1.66
55-64 yrs	27	51	78	4.32
65-74 yrs	97	159	256	14.19
75-84 yrs	280	333	613	33.98
85+ yrs	486	319	805	44.62
Unknown	<5	<5	2	0.11
<b>Total</b>	<b>912</b>	<b>892</b>	<b>1,804</b>	<b>100</b>
<b>Percent</b>	<b>50.55</b>	<b>49.45</b>		

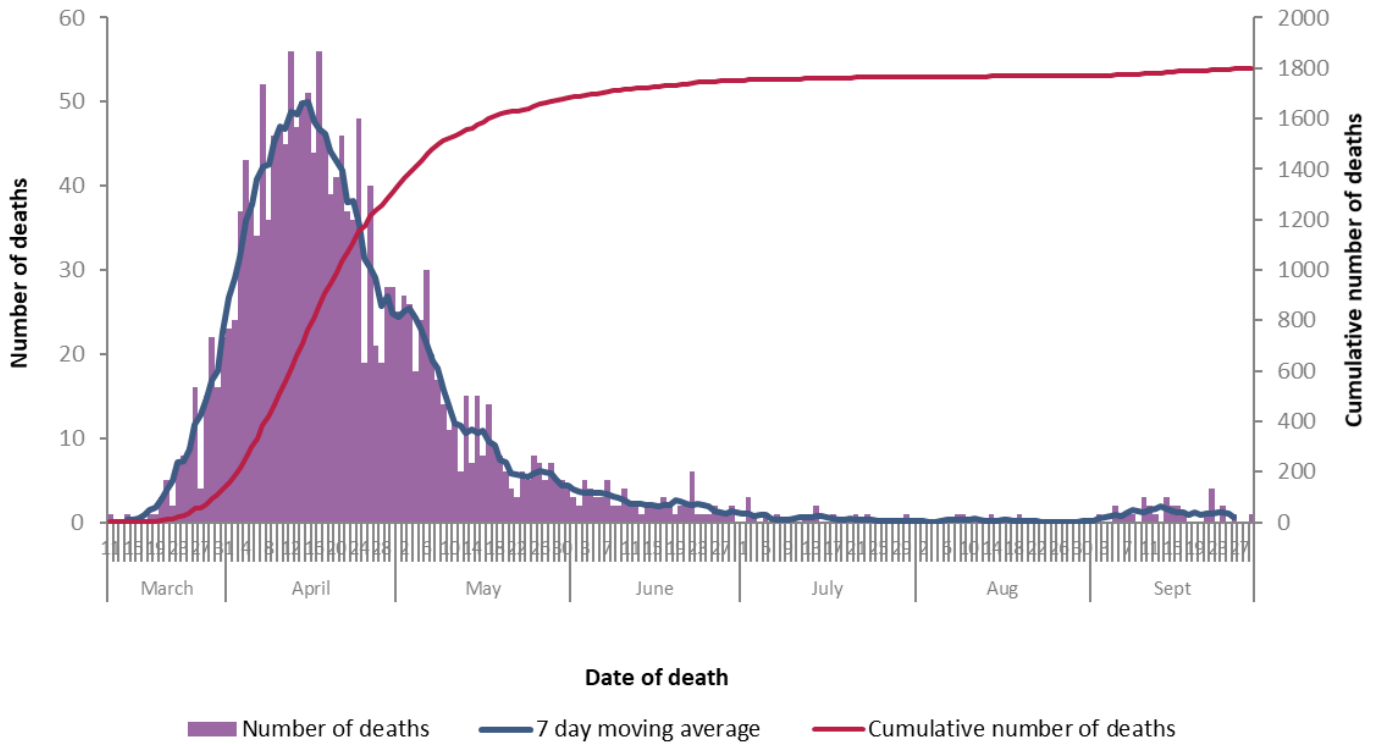


Figure 6a: Daily and 7 day moving average number of deaths among COVID-19 cases notified in Ireland by date of death and cumulative total to midnight 28/09/2020

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

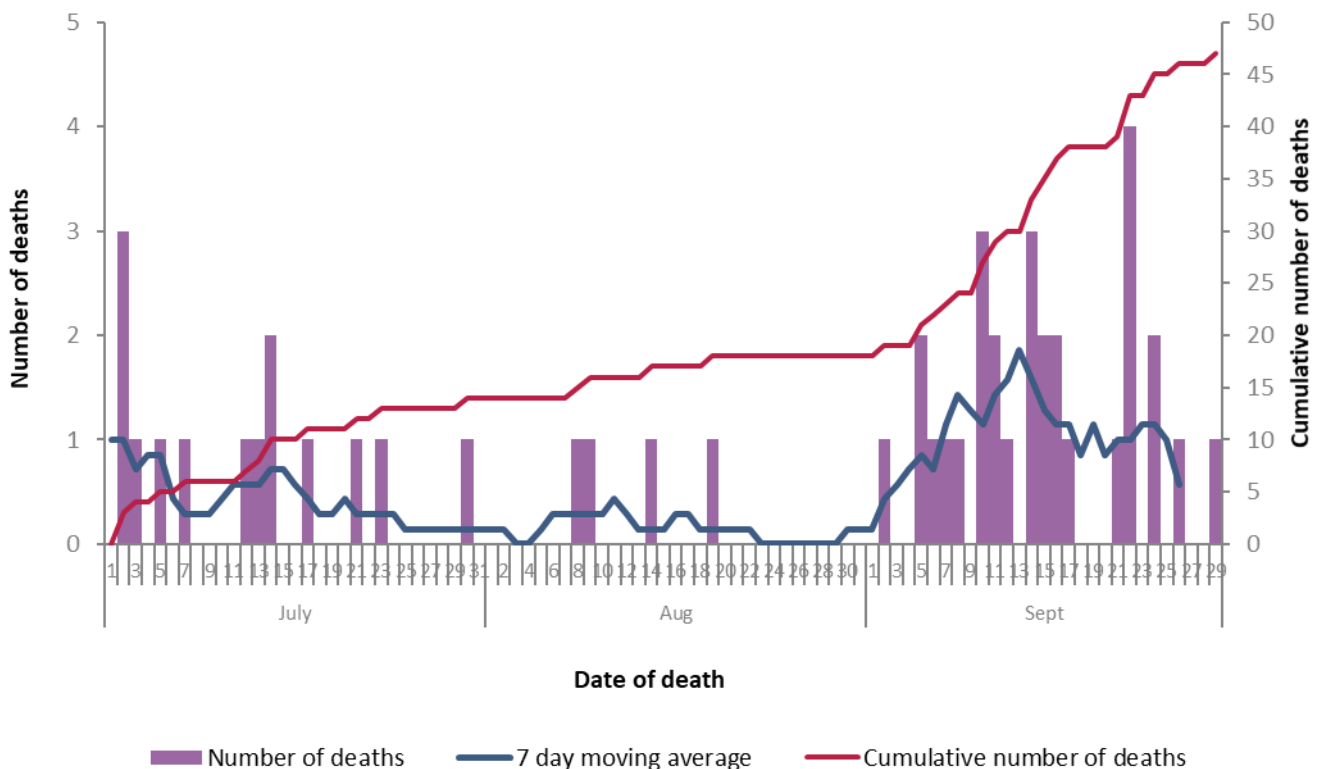


Figure 6b: Daily and 7 day moving average number of deaths among COVID-19 cases notified in Ireland by date of death and cumulative total, 01/07/2020 to midnight 28/09/2020

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 09:15 on 30/09/2020. 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.
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### 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.