Epidemiology of COVID-19 in Ireland

Report prepared by HPSC on 02/07/2020 for National Public Health Emergency Team

Summary characteristics of confirmed COVID-19 cases notified in Ireland up to midnight 30/06/2020

	Number	Percent
Total number of confirmed cases	25,474	
National cumulative incidence of confirmed cases per 100,000 population	534.96	
Total number of cases hospitalised	3,304	12.97
Total number of cases admitted to ICU	434	1.7
Total number of deaths among confirmed cases	1,478	5.8
Case fatality ratio (CFR, %)	5.8	
National cumulative incidence of confirmed deaths per 100,000 population	31.04	
Total number of outbreaks/clusters	1,756	
Total number of cases associated with clusters	12,624	49.56
Total number of imported cases	386	1.52
Number of cases in healthcare workers	8,217	32.26
Males	10,886	42.73
Females	14,558	57.15
M:F ratio	0.75	
Median age (years)	48	
Mean age (years)	51	
Age range (years)	0 - 106	

Note: Data were extracted from Computerised Infectious Disease Reporting (CIDR) system at 09:15 on 02/07/2020 and are provisional and subject to ongoing review, validation and update. As a result, figures in this report may differ from previously published figures.

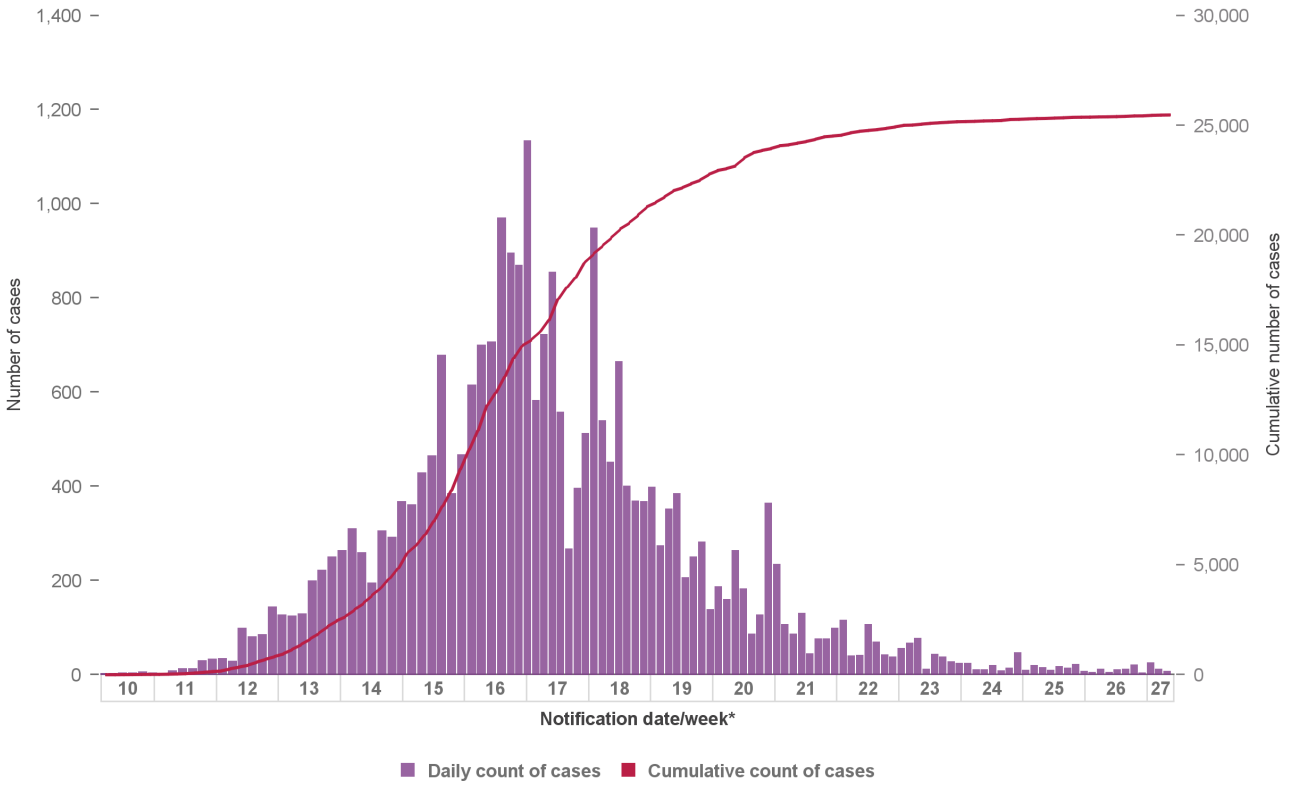


Figure 1a: Number* and cumulative number of confirmed COVID-19 cases notified in Ireland by notification date* to midnight 30/06/2020

*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

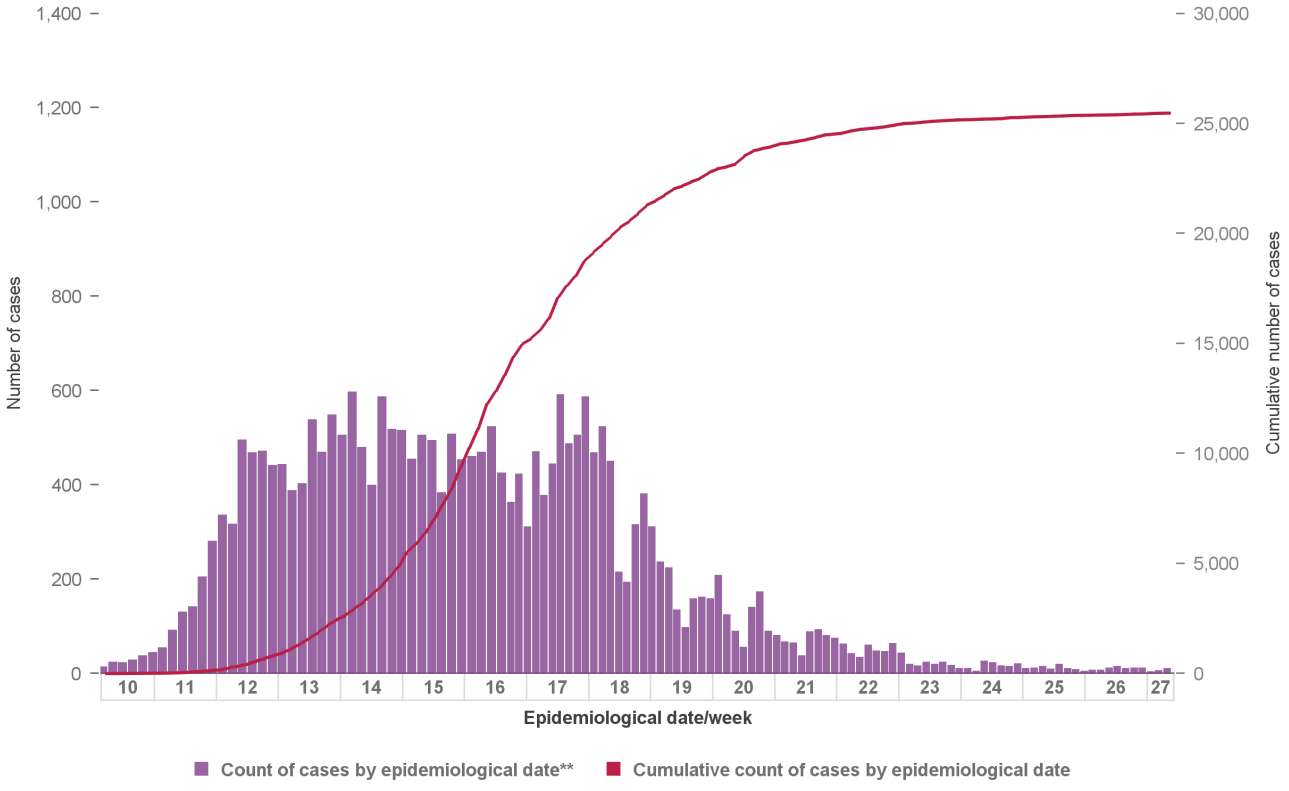


Figure 1b: Number and cumulative number of confirmed COVID-19 cases notified in Ireland by epidemiological date to midnight 30/06/2020**

**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.

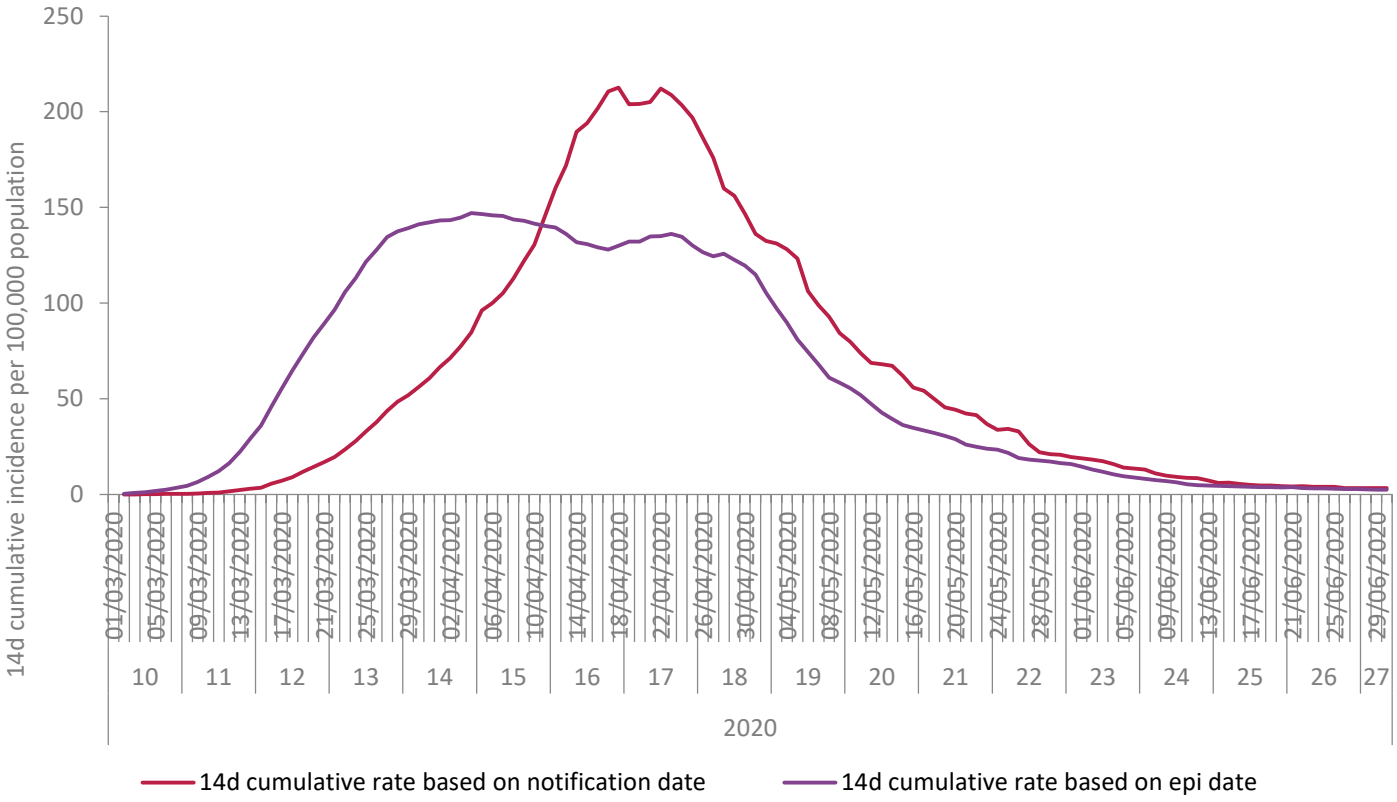


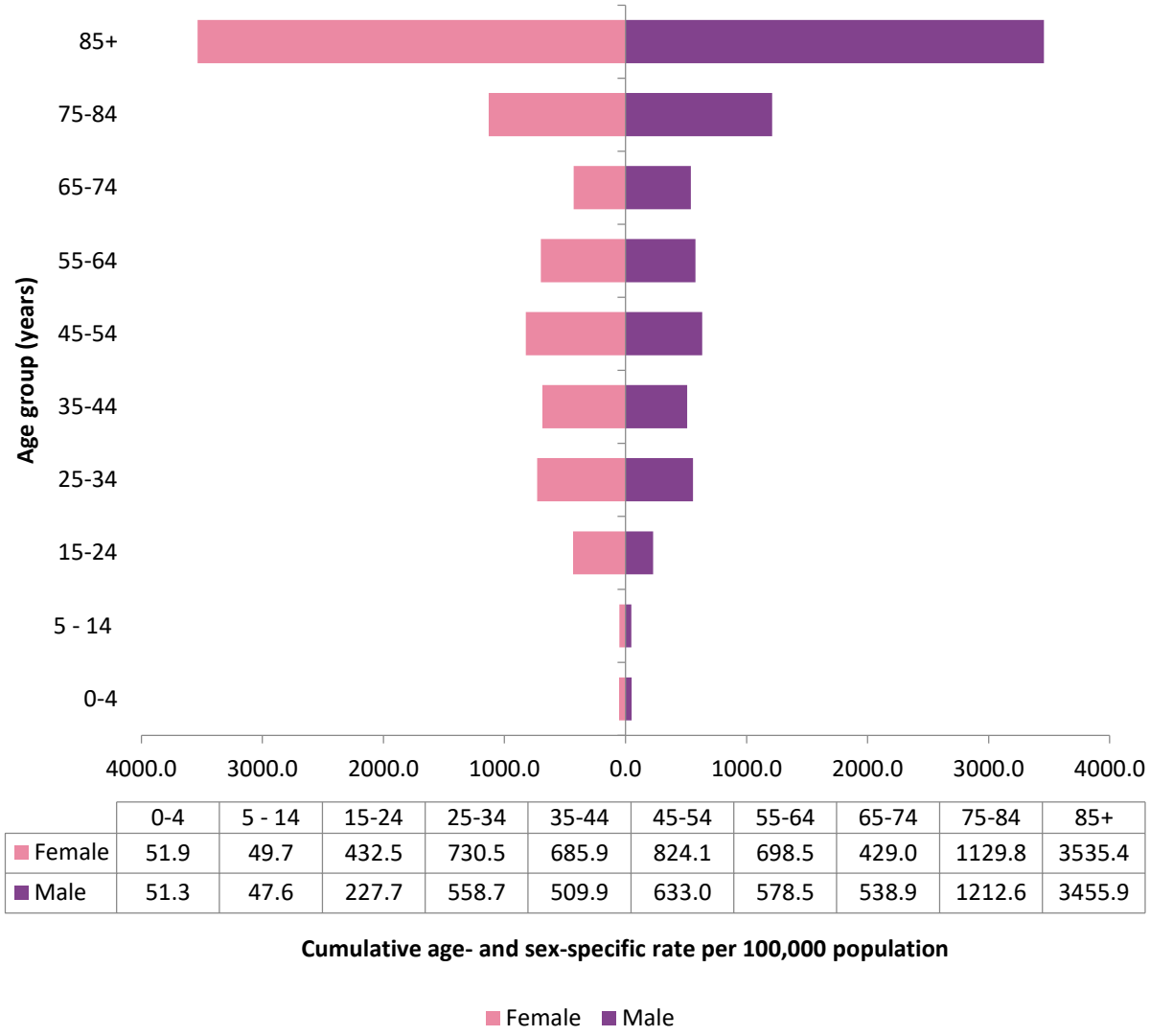
Figure 2: Cumulative 14 day incidence rate of confirmed COVID-19 cases per 100,000 population notified in Ireland by notification* and epidemiological date to midnight 30/06/2020**

***** 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 30/06/2020

Characteristic		Number of cases	Percent
Total number of confirmed cases		**25,474**	**100**
Sex	Male:Female ratio	0.75	
	Male	10,886	42.73
	Female	14,558	57.15
	Unknown	30	0.12
Age	Median age (years)	48	
	Mean age (years)	51	
	Age range (years)	0 - 106	
	0-4 yrs	171	0.67
	5-14 yrs	328	1.29
	15-24 yrs	1,896	7.44
	25-34 yrs	4,278	16.79
	35-44 yrs	4,484	17.6
	45-54 yrs	4,573	17.95
	55-64 yrs	3,252	12.77
	65-74 yrs	1,805	7.09
	75-84 yrs	2,294	9.01
	85+ yrs	2,371	9.31
	Unknown	22	0.09



	0-4	5 - 14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	85+
Female	51.9	49.7	432.5	730.5	685.9	824.1	698.5	429.0	1129.8	3535.4
Male	51.3	47.6	227.7	558.7	509.9	633.0	578.5	538.9	1212.6	3455.9

Figure 3: Cumulative age- and sex-specific incidence rates of confirmed cases of COVID-19 per 100,000 population notified in Ireland to midnight 30/06/2020 (excluding 22 cases for whom age is unknown and 30 cases for whom sex is unknown and 1 cases for whom both is unknown)

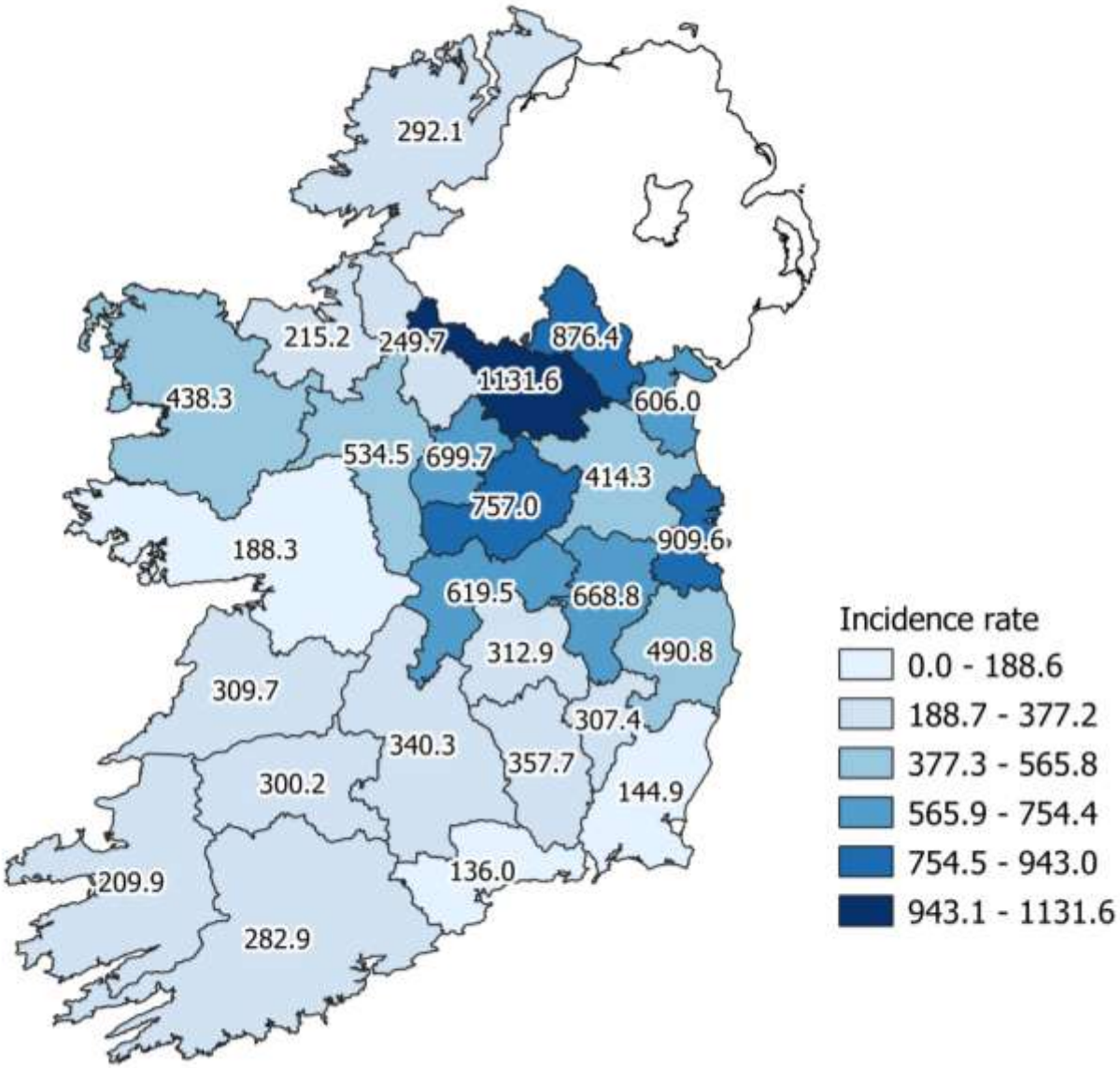


Figure 4: Cumulative incidence rates of confirmed cases of COVID-19 per 100,000 population notified in Ireland to midnight 30/06/2020

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 30/06/2020

County Name	Number of cases	Percent
Carlow	175	0.69
Cavan	862	3.38
Clare	368	1.44
Cork	1,536	6.03
Donegal	465	1.83
Dublin	12,256	48.11
Galway	486	1.91
Kerry	310	1.22
Kildare	1,488	5.84
Kilkenny	355	1.39
Laois	265	1.04
Leitrim	80	0.31
Limerick	585	2.3
Longford	286	1.12
Louth	781	3.07
Mayo	572	2.25
Meath	808	3.17
Monaghan	538	2.11
Offaly	483	1.9
Roscommon	345	1.35
Sligo	141	0.55
Tipperary	543	2.13
Waterford	158	0.62
Westmeath	672	2.64
Wexford	217	0.85
Wicklow	699	2.74
Total	**25,474**	**100**

Table 3: Number of confirmed COVID-19 cases by WHO transmission classification notified to midnight 30/06/2020

Transmission classification*	Count of Events	%
Community transmission, incl. possible community transmission	8,532	33.49%
Local transmission, incl. possible local transmission	16,338	64.14%
Travel abroad, incl. possible travel abroad	593	2.33%
Unknown	11	0.04%
Total	**25,474**	**100.00%**

*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 30/06/2020

Age Group (years)	Number of cases (n)	Cases hospitalised (n)	Cases hospitalised (%)	Cases admitted to ICU (n)	Cases admitted to ICU (%)
0-4 yrs	171	21	0.64	0	0
5-14 yrs	328	16	0.48	2	0.46
15-24 yrs	1896	72	2.18	5	1.15
25-34 yrs	4278	197	5.96	15	3.46
35-44 yrs	4484	266	8.05	35	8.06
45-54 yrs	4573	445	13.47	90	20.74
55-64 yrs	3252	492	14.89	126	29.03
65-74 yrs	1805	580	17.55	110	25.35
75-84 yrs	2294	740	22.4	45	10.37
85+ yrs	2371	473	14.32	6	1.38
Unknown	22	2	0.06	0	0
Total	**25,474**	**3,304**	**100**	**434**	**100**

Table 5: Number and proportion of confirmed cases of COVID-19 notified in Ireland by age-group, hospitalisation and ICU admission 30/06/2020

	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)	171	328	1,896	4,278	4,484	4,573	3,252	1,805	2,294	2,371	22
Cases hospitalised (n)	21	16	72	197	266	445	492	580	740	473	2
Cases hospitalised (%)	12.28	4.88	3.8	4.6	5.93	9.73	15.13	32.13	32.26	19.95	9.09
Cases admitted to ICU (n)	0	2	5	15	35	90	126	110	45	6	0
Cases admitted to ICU (%)	0	0.61	0.26	0.35	0.78	1.97	3.87	6.09	1.96	0.25	0
Deaths (n)	0	0	1	5	11	23	63	220	505	650	0
Case fatality ratio (%)	0	0	0.05	0.12	0.25	0.5	1.94	12.19	22.01	27.41	0

Outbreaks of COVID-19

Table 6: Number of clusters/outbreaks COVID-19 by location and HSE area notified to midnight 30/06/2020

Outbreak Location	E	M	MW	NE	NW	S	SE	W	Total
Private house	705	6	51	118	12	108	28	26	**1,054**
Nursing home	121	10	16	38	5	11	17	37	**255**
Residential institution	99	9	7	17	4	21	10	4	**171**
Hospital	61	3	3	14	2	10	4	6	**103**
Other*	11	8	27	6	6	21	6	9	**94**
Workplace	7	5	5	14	1	8	3	4	**47**
Comm. Hosp/Long-stay unit	4	3	2		4	6	5	5	**29**
Unknown	2					1			**3**
Total	**1,010**	**44**	**111**	**207**	**34**	**186**	**73**	**91**	**1,756**

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

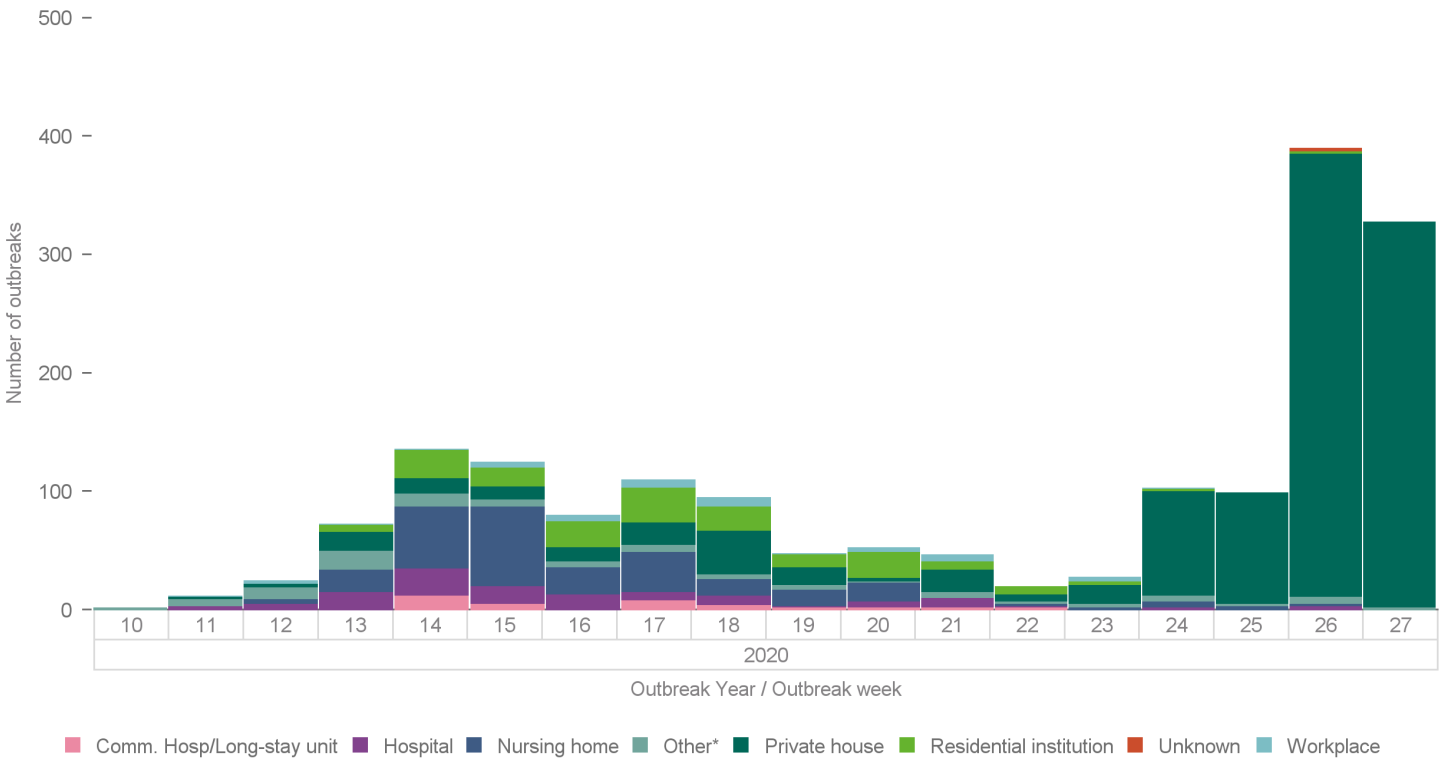


Figure 5: Trend in number of COVID-19 clusters by location and week notified to midnight 30/06/2020

*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 and 16 family outbreaks occurred in May 2020

In week 26, 389 new COVID-19 outbreaks were reported on CIDR, of which 377 were family outbreaks. Of these, 173 family outbreaks occurred in March, 130 family outbreaks occurred in April and 22 family outbreaks occurred in May 2020.

In week 27 (28/06/2020- 30/06/2020), 327 new COVID-19 outbreaks were reported on CIDR, of which all 327 were family outbreaks. Of these, 148 family outbreaks occurred in March, 86 family outbreaks occurred in April and 43 family outbreaks occurred in May 2020.

Deaths among COVID-19 cases

Table 7: Summary of deaths in all COVID-19 cases notified in Ireland up to midnight 30/06/2020

	Number	Percent
Total number of deaths	1,738	
Confirmed	1,478	85.04
Probable	101	5.81
Possible	159	9.15
Total number of cases hospitalised	729	41.94
Cases admitted to ICU	89	5.12
Cases not admitted to ICU	640	36.82
Total number of imported cases	5	0.29
Number of cases in healthcare workers	7	0.40
Number with underlying clinical conditions	1,613	92.81
Total number of male cases	856	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 30/06/2020

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	5	7	**12**	**0.69**
45-54 yrs	10	15	**25**	**1.44**
55-64 yrs	24	44	**68**	**3.91**
65-74 yrs	90	156	**246**	**14.15**
75-84 yrs	269	322	**591**	**34.00**
85+ yrs	479	309	**788**	**45.34**
Unknown	<5	<5	**2**	**0.12**
Total	**882**	**856**	**1,738**	**100**
Percent	**50.75**	**49.25**		

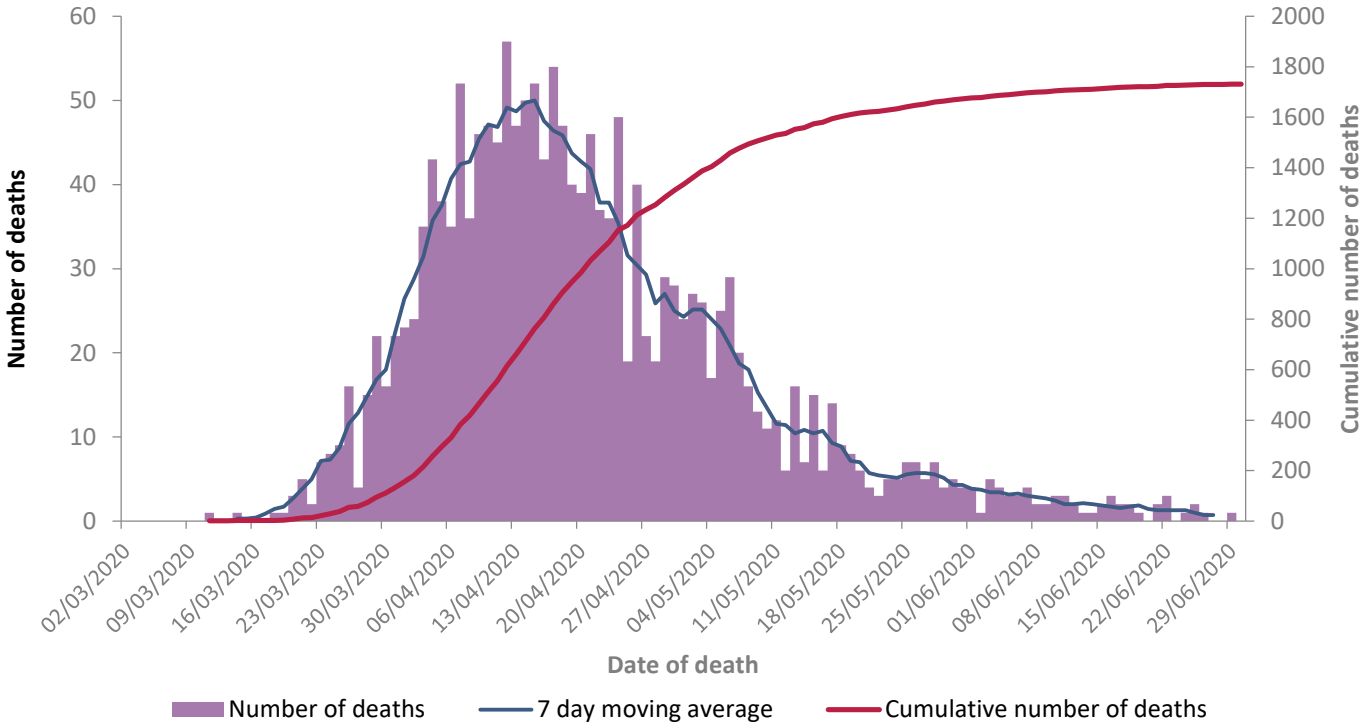


Figure 6: Daily and 7 day moving average number of deaths among COVID-19 cases notified in Ireland by date of death and cumulative total to midnight 30/06/2020

***** 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 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 09:15 on 02/07/2020. 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 ≥ 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.