Epidemiology of COVID-19 in Ireland

Report prepared by HPSC on 17/07/2020 for National Public Health Emergency Team

Summary characteristics of confirmed COVID-19 cases notified in Ireland up to midnight 15/07/2020

	Number	Percent
Total number of confirmed cases	25,696	
National cumulative incidence of confirmed cases per 100,000 population	539.62	
Total number of cases hospitalised	3,339	12.99
Total number of cases admitted to ICU	437	1.7
Total number of deaths among confirmed cases	1,493	5.81
Case fatality ratio (CFR, %)	5.81	
National cumulative incidence of confirmed deaths per 100,000 population	31.35	
Total number of outbreaks/clusters	2,101	
Total number of cases associated with clusters	13,557	52.76
Total number of imported cases	423	1.65
Number of cases in healthcare workers	8,326	32.4
Males	10,988	42.76
Females	14,681	57.13
M:F ratio	0.75	
Median age (years)	48	
Mean age (years)	50	
Age range (years)	0 - 106	

Note: Data were extracted from Computerised Infectious Disease Reporting (CIDR) system at 09:19 on 17/07/2020 and are provisional and subject to ongoing review, validation and update. As a result, figures in this report may differ from previously published figures.
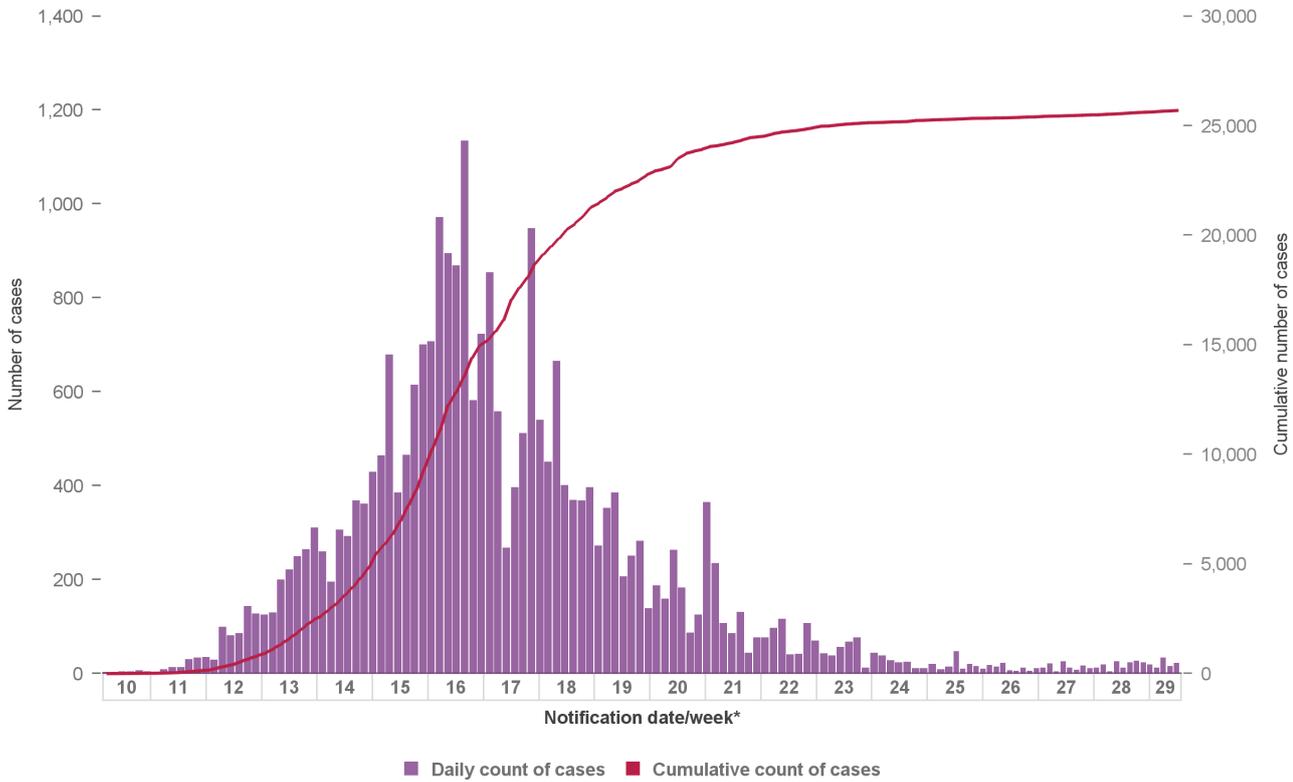
Figure 1a: Number* and cumulative number of confirmed COVID-19 cases notified in Ireland by notification date* to midnight 15/07/2020

*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
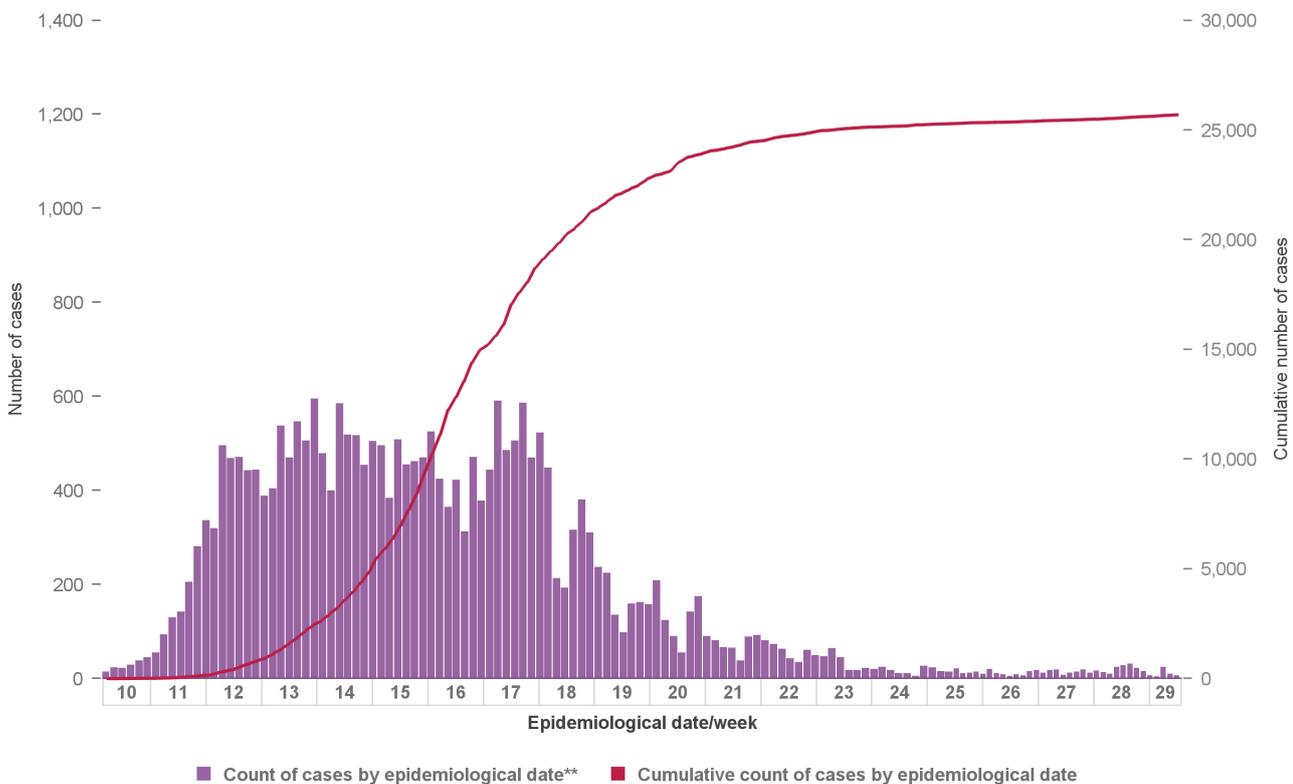

Figure 1b: Number and cumulative number of confirmed COVID-19 cases notified in Ireland by epidemiological date to midnight 15/07/2020**

**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 15/07/2020

* 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

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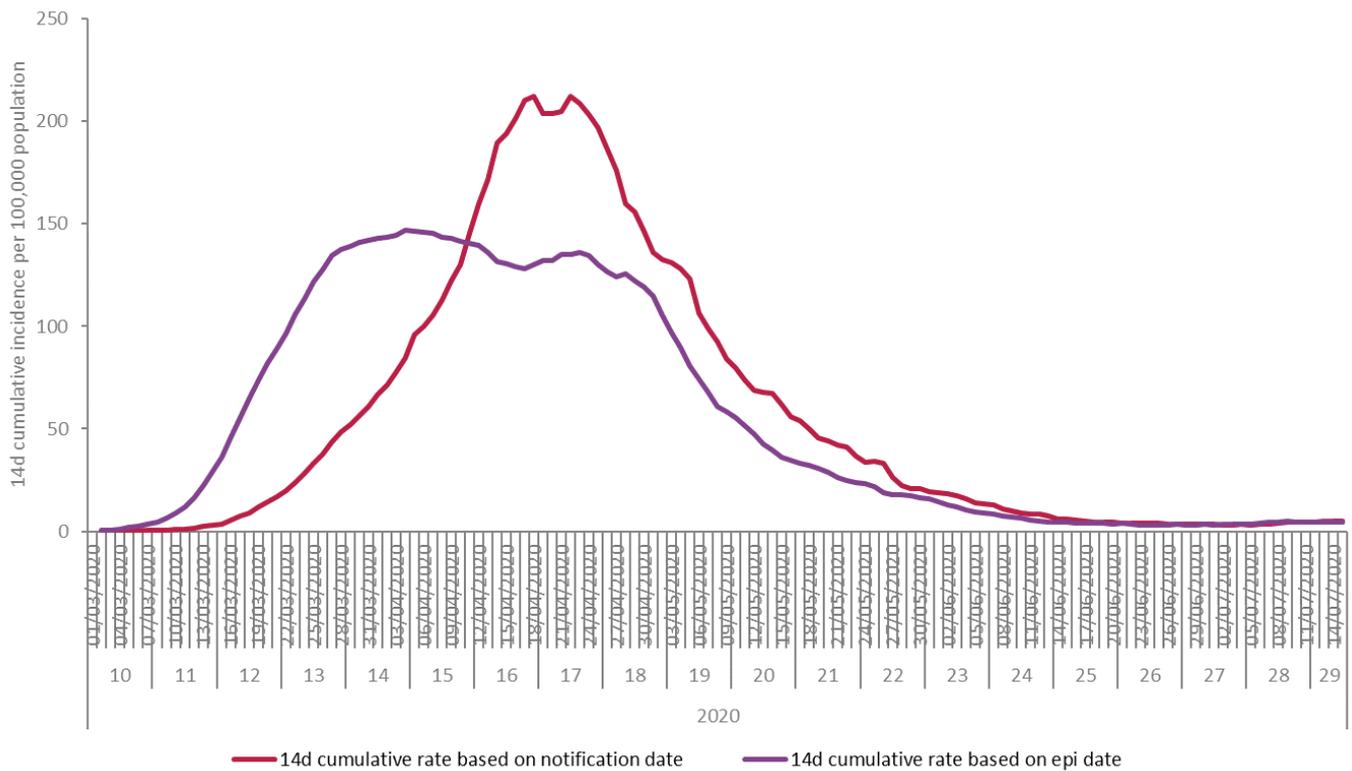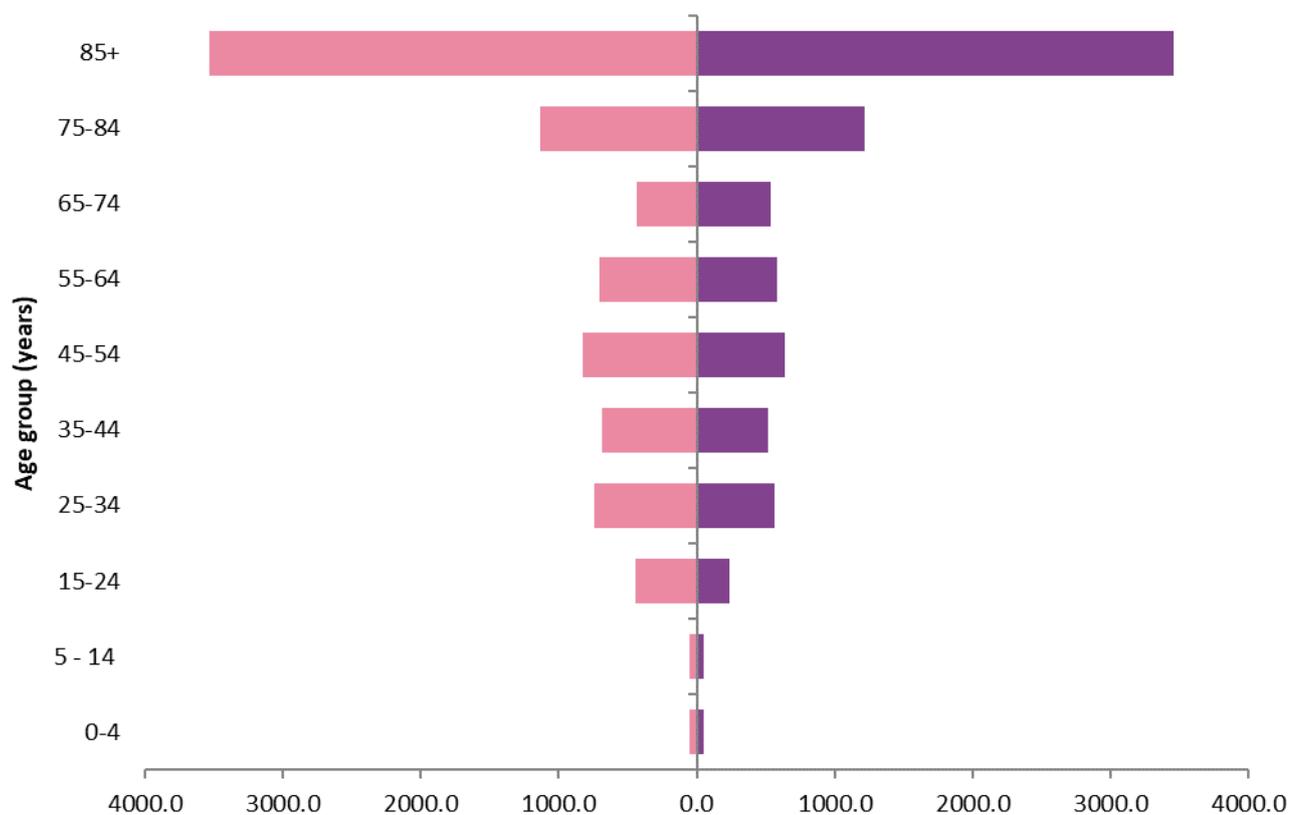
Table 1: Characteristics of confirmed COVID-19 cases notified in Ireland up to midnight on 15/07/2020

Characteristic		Number of cases	Percent
Total number of confirmed cases		**25,696**	**100**
Sex	Male:Female ratio	0.75	
	Male	10,988	42.76
	Female	14,681	57.13
	Unknown	27	0.11
Age	Median age (years)	48	
	Mean age (years)	50	
	Age range (years)	0 - 106	
	0-4 yrs	180	0.7
	5-14 yrs	336	1.31
	15-24 yrs	1,947	7.58
	25-34 yrs	4,338	16.88
	35-44 yrs	4,521	17.59
	45-54 yrs	4,599	17.9
	55-64 yrs	3,267	12.71
	65-74 yrs	1,816	7.07
	75-84 yrs	2,300	8.95
	85+ yrs	2,372	9.23
	Unknown	20	0.08

	0-4	5 - 14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	85+
■ Female	56.2	51.2	442.0	739.3	690.6	827.9	702.4	434.8	1132.6	3537.6
■ Male	52.4	48.4	236.2	568.5	515.3	637.5	580.5	538.9	1215.9	3455.9

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 15/07/2020 (excluding 20 cases for whom age is unknown and 26 cases for whom sex is unknown and 1 case for whom both are unknown)
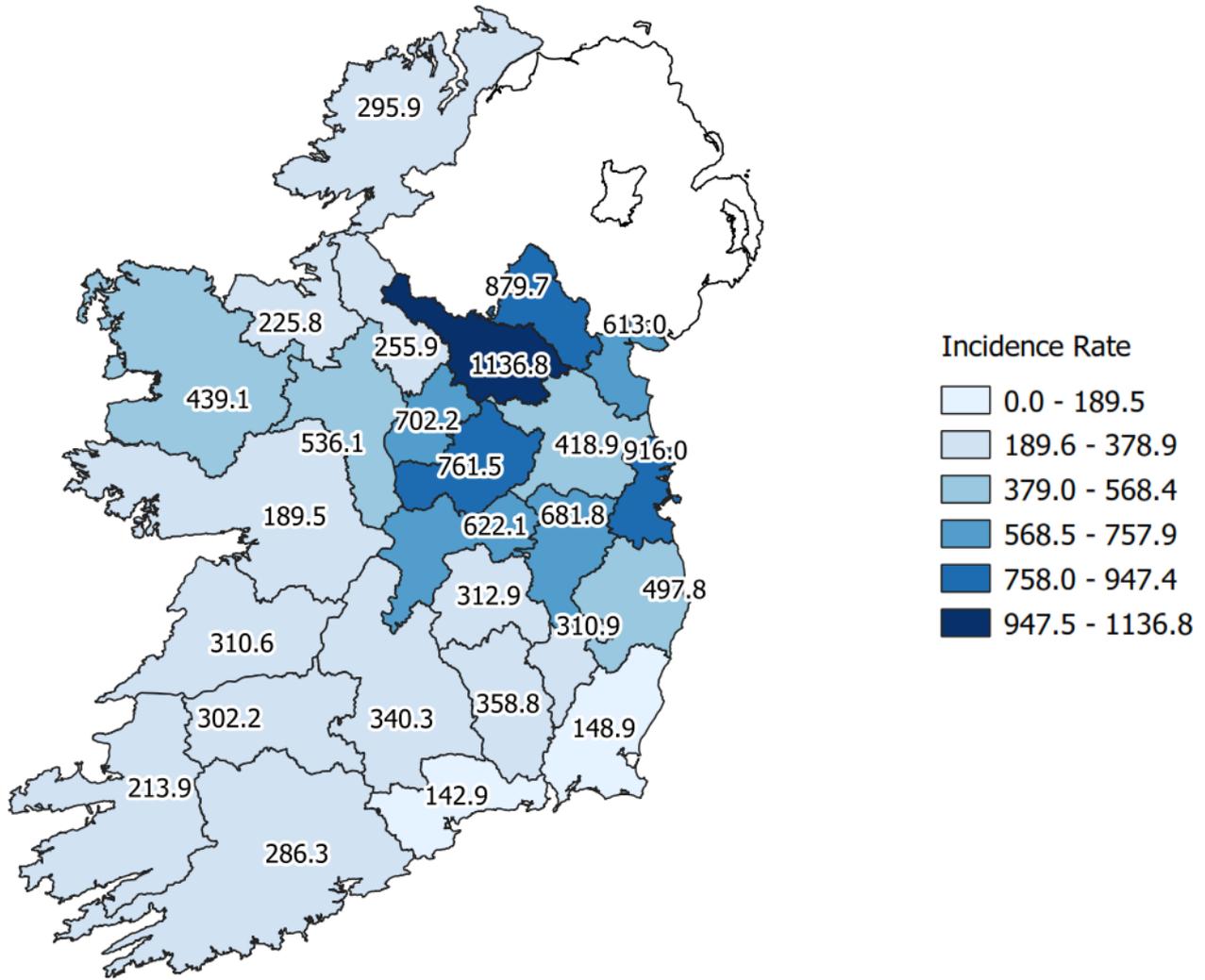
Figure 4: Cumulative incidence rates of confirmed cases of COVID-19 per 100,000 population notified in Ireland to midnight 15/07/2020

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 15/07/2020

County Name	Number of cases	Percent
Carlow	177	0.69
Cavan	866	3.37
Clare	369	1.44
Cork	1,554	6.05
Donegal	471	1.83
Dublin	12,342	48.03
Galway	489	1.9
Kerry	316	1.23
Kildare	1,517	5.9
Kilkenny	356	1.39
Laois	265	1.03
Leitrim	82	0.32
Limerick	589	2.29
Longford	287	1.12
Louth	790	3.07
Mayo	573	2.23
Meath	817	3.18
Monaghan	540	2.1
Offaly	485	1.89
Roscommon	346	1.35
Sligo	148	0.58
Tipperary	543	2.11
Waterford	166	0.65
Westmeath	676	2.63
Wexford	223	0.87
Wicklow	709	2.76
Total	**25,696**	**100**

Table 3: Number of confirmed COVID-19 cases by WHO transmission classification notified to midnight 15/07/2020

Transmission classification*	Count of Events	%
Community transmission, incl. possible community transmission	8,220	31.99%
Local transmission, incl. possible local transmission	16,845	65.55%
Travel abroad, incl. possible travel abroad	615	2.39%
Unknown	16	0.06%
Total	**25,696**	**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 15/07/2020

Age Group (years)	Number of cases (n)	Cases hospitalised (n)	Cases hospitalised (%)	Cases admitted to ICU (n)	Cases admitted to ICU (%)
0-4 yrs	180	23	0.69	0	0
5-14 yrs	336	17	0.51	2	0.46
15-24 yrs	1947	75	2.25	5	1.14
25-34 yrs	4338	198	5.93	15	3.43
35-44 yrs	4521	274	8.21	36	8.24
45-54 yrs	4599	448	13.42	91	20.82
55-64 yrs	3267	497	14.88	127	29.06
65-74 yrs	1816	586	17.55	109	24.94
75-84 yrs	2300	744	22.28	46	10.53
85+ yrs	2372	476	14.26	6	1.37
Unknown	20	1	0.03	0	0
Total	**25,696**	**3,339**	**100**	**437**	**100**

Table 5: Number and proportion of confirmed cases of COVID-19 notified in Ireland by age-group, hospitalisation and ICU admission 15/07/2020

	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)	180	336	1,947	4,338	4,521	4,599	3,267	1,816	2,300	2,372	20
Cases hospitalised (n)	23	17	75	198	274	448	497	586	744	476	1
Cases hospitalised (%)	12.78	5.06	3.85	4.56	6.06	9.74	15.21	32.27	32.35	20.07	5
Cases admitted to ICU (n)	0	2	5	15	36	91	127	109	46	6	0
Cases admitted to ICU (%)	0	0.6	0.26	0.35	0.8	1.98	3.89	6	2	0.25	0
Deaths (n)	0	0	1	5	12	24	66	221	511	653	0
Case fatality ratio (%)	0	0	0.05	0.12	0.27	0.52	2.02	12.17	22.22	27.53	0

Outbreaks of COVID-19

Table 6: Number of clusters/outbreaks COVID-19 by location and HSE area notified to midnight 15/07/2020

Outbreak Location	E	M	MW	NE	NW	S	SE	W		Total
Private house	954	6	62	118	41	111	42	27		1,361
Nursing home	127	10	16	41	5	13	17	37		266
Residential institution	100	9	7	17	4	21	10	4		172
Hospital	61	3	3	14	2	10	4	6		103
Other*	15	8	26	6	6	23	8	9	1	102
Workplace	7	5	5	14	1	9	3	4		48
Comm. Hosp/Long-stay unit	4	4	2		4	6	5	5		30
Unknown	17				1	1				19
Total	1,285	45	121	210	64	194	89	92	1	2,101

*Other outbreak location includes community, extended family, hotel, public house, retail outlet, travel related and all other locations.
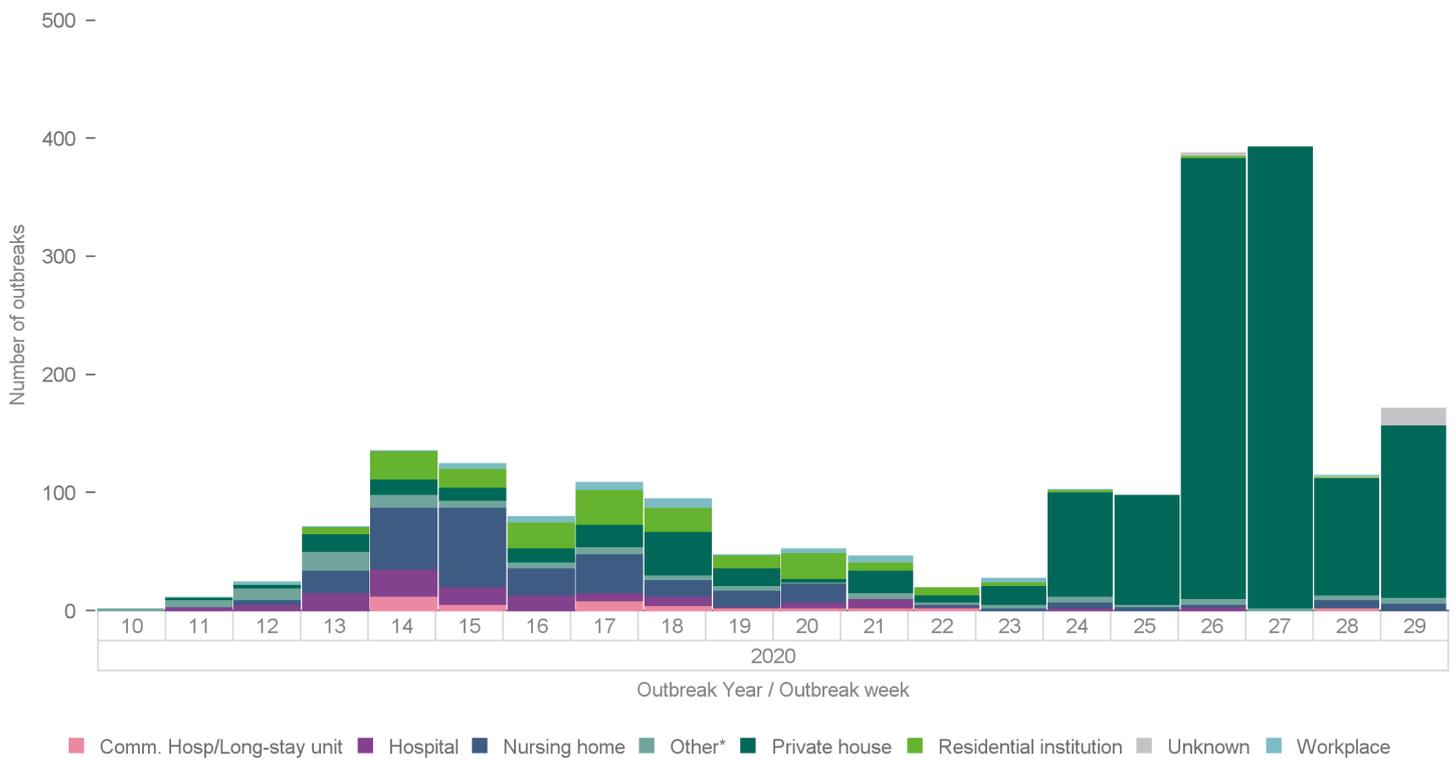
Figure 5: Trend in number of COVID-19 clusters by location and week notified to midnight 15/07/2020

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

Note:1272 COVID-19 outbreaks were reported on CIDR between week 24 and week 28 2020 (June 7th to July 14th). Of these, 1224 were family outbreaks. Most of these family outbreaks occurred earlier and were reported between weeks 24 and 28 as a result of data validation: 1 occurred in February, 558 in March, 382 in April, 86 in May, 10 in June and 2 in July.

Deaths among COVID-19 cases

Table 7: Summary of deaths in all COVID-19 cases notified in Ireland up to midnight 15/07/2020

		Number	Percent
Total number of deaths		1,752	
	Confirmed	1,493	85.22
	Probable	100	5.71
	Possible	159	9.08
Total number of cases hospitalised		742	42.35
	Cases admitted to ICU	91	5.19
	Cases not admitted to ICU	651	37.16
Total number of imported cases		5	0.29
Number of cases in healthcare workers		7	0.4
Number with underlying clinical conditions		1,648	94.06
Total number of male cases		863	49.26
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 15/07/2020

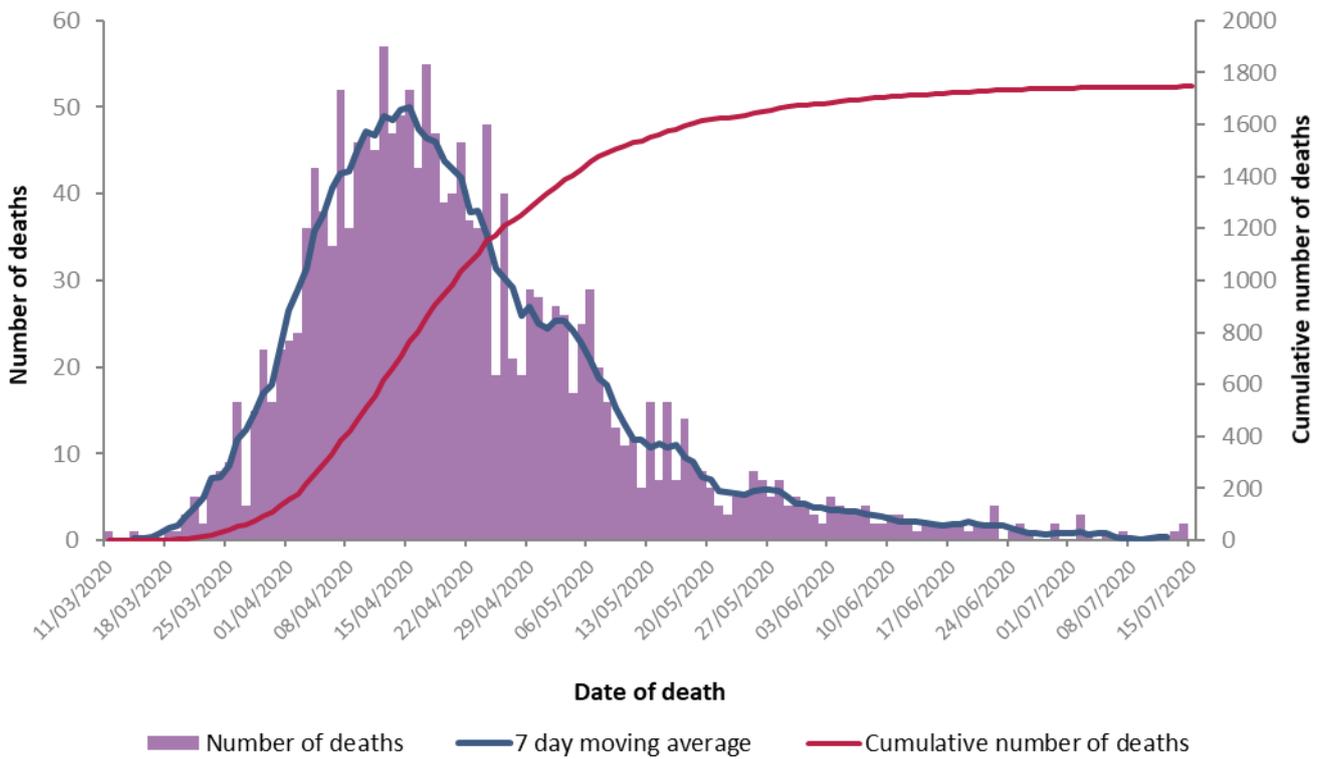| Age group (years)	Female	Male	Total	Percent
15-24 yrs	<5	<5	1	0.06
25-34 yrs	<5	<5	5	0.29
35-44 yrs	6	7	13	0.74
45-54 yrs	10	16	26	1.48
55-64 yrs	25	46	71	4.05
65-74 yrs	90	156	246	14.04
75-84 yrs	274	323	597	34.08
85+ yrs	479	312	791	45.15
Unknown	<5	<5	2	0.11
Total	**889**	**863**	**1,752**	**100**
Percent	**50.74**	**49.26**		

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 15/07/2020

* Date of death is not yet available for five 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

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 09:19 on 7/17/20. 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.