Epidemiology of COVID-19 in Ireland - 7 day report

Report prepared by HPSC on 23/09/2020

Summary characteristics of confirmed COVID-19 cases notified in Ireland from 16/09/2020 up to midnight 22/09/2020

	Number	Percent
Total number of confirmed cases	1,903	
National incidence of confirmed cases per 100,000 population	39.96	
Number of cases hospitalised*	63	3.31
Number of cases admitted to ICU*	5	0.26
Number of deaths among confirmed cases	2	0.11
Case fatality ratio (CFR, %)	0.11	
National incidence of confirmed deaths per 100,000 population	0.04	
Number of cases** associated with clusters	751	39.46
Number of imported cases	4	0.21
Number of cases in healthcare workers	118	6.2
Males	940	49.4
Females	962	50.55
M:F ratio	0.98	
Median age (years)	33	
Mean age (years)	36	
Age range (years)	0 - 99	

* The number of cases hospitalised and admitted to ICU relate only to events notified in the last 7 days and do not include cases notified prior to this and admitted to hospital or ICU in the last 7 days

**Cases may be associated with outbreaks notified outside the timeframe of this report 16/09/2020 - 22/09/2020

Note: Data were extracted from Computerised Infectious Disease Reporting (CIDR) system at 09:22 on 23/09/2020 and are provisional and subject to ongoing review, validation and update. As a result, figures in this report may differ from previously published figures.
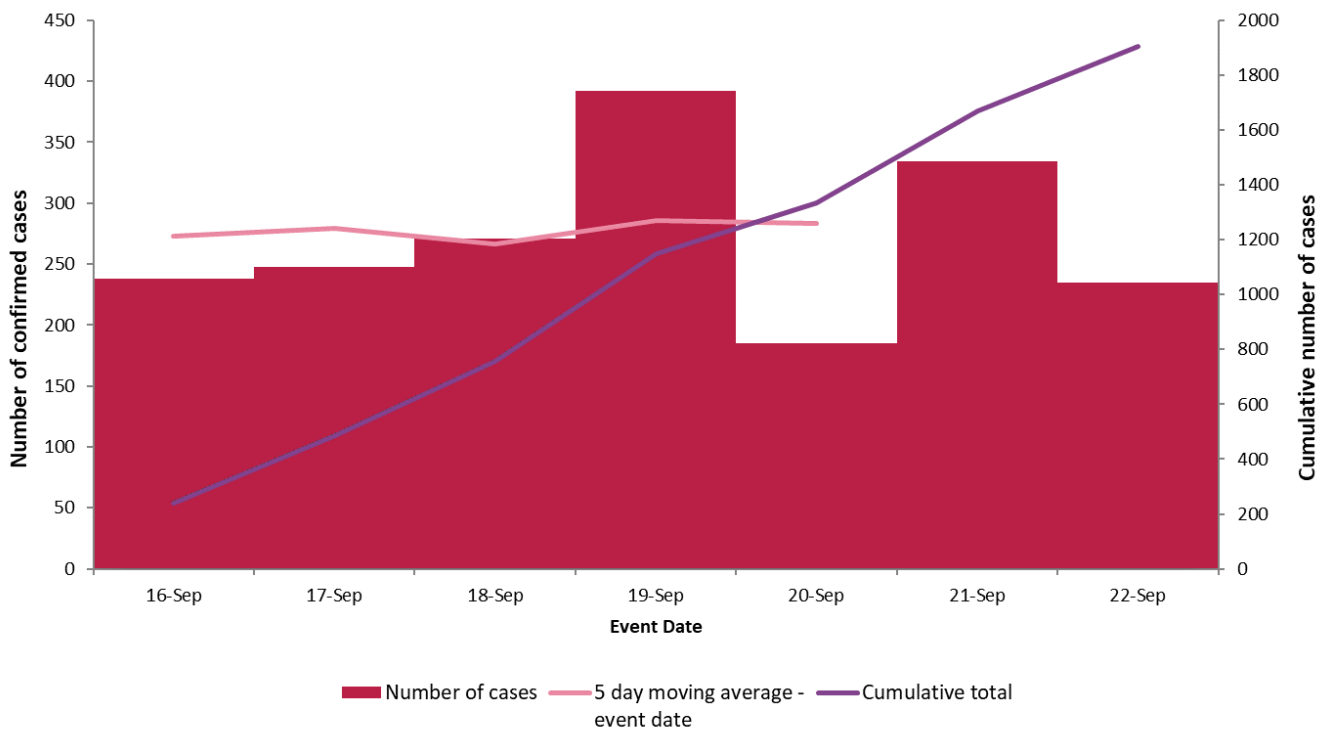
Figure 1. Daily number and cumulative number of confirmed cases of COVID-19, and 5-day moving average, by notification date (n=1,903)

Table 1: Characteristics of confirmed COVID-19 cases notified in Ireland from 16/09/2020 up to midnight on 22/09/202

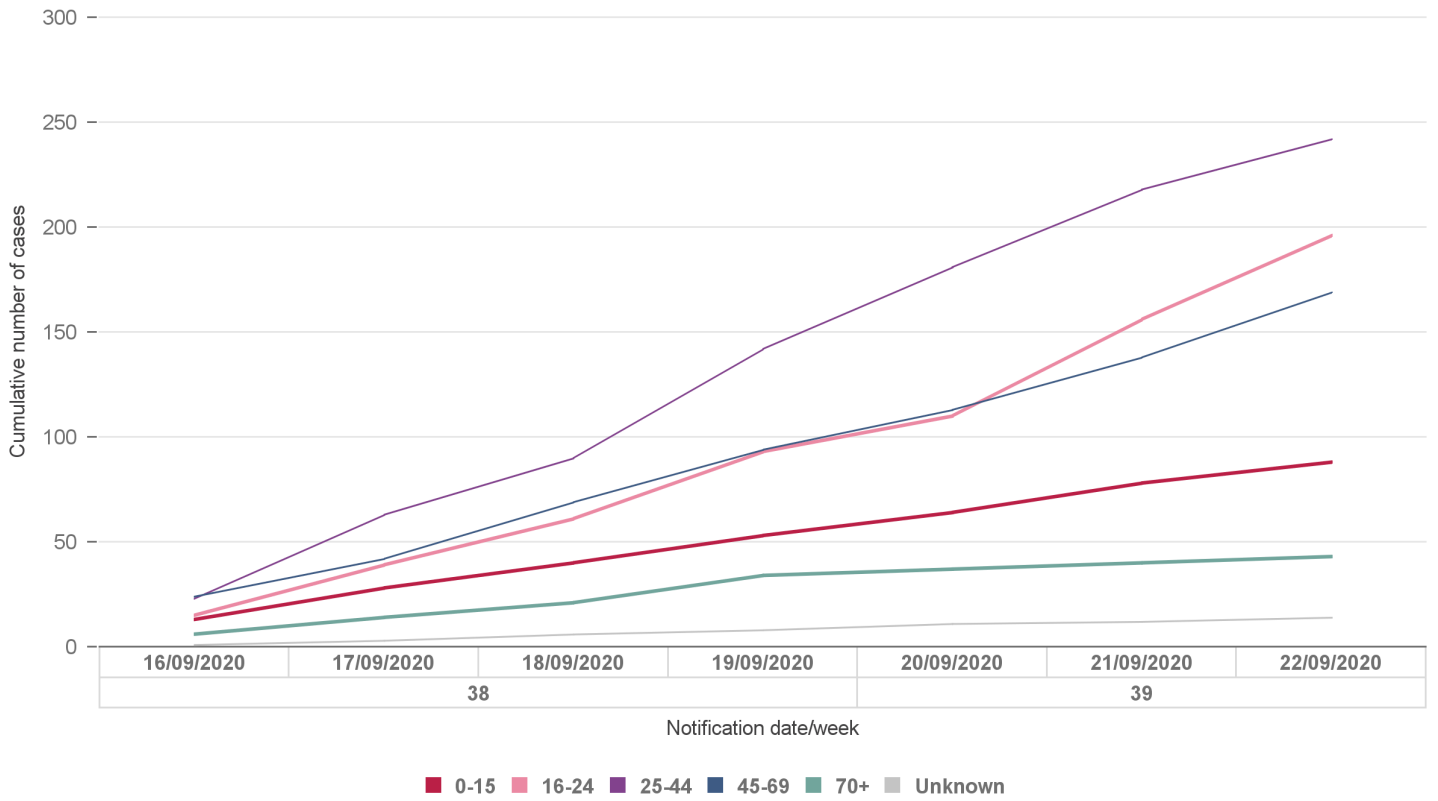| Characteristic		Number of cases	Percent
Total number of confirmed cases		**1,903**	**100**
Sex	Male:Female ratio	0.98	
	Male	940	49.4
	Female	962	50.55
	Unknown	1	0.05
Age	Median age (years)	33	
	Mean age (years)	36	
	Age range (years)	0 - 99	
	0-4 yrs	59	3.1
	5-14 yrs	155	8.15
	15-24 yrs	449	23.59
	25-34 yrs	332	17.45
	35-44 yrs	303	15.92
	45-54 yrs	251	13.19
	55-64 yrs	168	8.83
	65-74 yrs	112	5.89
	75-84 yrs	48	2.52
	85+ yrs	25	1.31
	Unknown	1	0.05
Underlying clinical conditions	Yes	512	26.9
	No	1,132	59.49
	Unknown	259	13.61

Figure 2: Cumulative number of confirmed COVID-19 cases notified in Ireland by date/week of notification and age group from 16/09/2020 to midnight 22/09/2020

Table 2: Characteristics of confirmed COVID-19 cases by county notified from 16/09/2020 to midnight 22/09/2020

County	Cases		M:F ratio	Median age	Healthcare workers		Associated with clusters	
	N	%		(years)	N	%	N	%
Dublin	982	51.6	0.84	33	66	6.72	265	26.99
Cork	158	8.3	1	33	10	6.33	91	57.59
Donegal	136	7.15	1.06	29.5	3	2.21	59	43.38
Kildare	112	5.89	1.33	24.5	5	4.46	53	47.32
Galway	75	3.94	1.5	22	1	1.33	40	53.33
Wicklow	57	3	1.11	37	0	0	24	42.11
Louth	54	2.84	1.16	25.5	7	12.96	35	64.81
Waterford	46	2.42	1.71	37	2	4.35	32	69.57
Meath	44	2.31	1	36	5	11.36	23	52.27
Limerick	32	1.68	1	35.5	1	3.13	24	75
Clare	29	1.52	0.93	42	3	10.34	18	62.07
Offaly	25	1.31	1.27	44	4	16	18	72
Mayo	20	1.05	0.54	35.5	4	20	9	45
Roscommon	20	1.05	1.22	40.5	3	15	8	40
Monaghan	16	0.84	0.78	20.5	0	0	9	56.25
Tipperary	13	0.68	0.86	40	1	7.69	7	53.85
Laois	12	0.63	1	37.5	0	0	8	66.67
Kilkenny	11	0.58	1.2	40	1	9.09	1	9.09
Westmeath	11	0.58	2.67	33	0	0	5	45.45
Wexford	11	0.58	2.67	32	0	0	5	45.45
Cavan	9	0.47	1.25	24	0	0	4	44.44
Kerry	9	0.47	0.8	44	1	11.11	5	55.56
Sligo	9	0.47	0.5	39	1	11.11	6	66.67
Carlow	8	0.42	1.67	24.5	0	0	2	25
Longford	3	0.16		38	0	0	0	0
Leitrim	1	0.05		1	0	0	0	0
National	**1,903**	**100**	**0.98**	**33**	**118**	**6.2**	**751**	**39.46**

Table 3: Characteristics of confirmed COVID-19 cases by CHO notified from 16/09/2020 to midnight 22/09/2020

CHO Area	Cases		M:F ratio	Mean age (years)	Healthcare workers		Associated with clusters	
	N	%			N	%	N	%
CHO1	171	8.99	1.01	34	4	2.34	78	45.61
CHO2	115	6.04	1.21	30	8	6.96	57	49.57
CHO3	69	3.63	0.92	42	5	7.25	49	71.01
CHO4	167	8.78	0.99	38	11	6.59	96	57.49
CHO5	81	4.26	1.7	34	3	3.7	40	49.38
CHO6	184	9.67	0.82	37	8	4.35	62	33.7
CHO7	464	24.38	0.98	35	23	4.96	184	39.66
CHO8	149	7.83	1.22	35	16	10.74	89	59.73
CHO9	503	26.43	0.84	38	40	7.95	96	19.09
National	**1,903**	**100**	**0.98**	**36**	**118**	**6.2**	**751**	**39.46**

Table 4: Number of confirmed COVID-19 cases by most likely transmission source notified from 16/09/2020 to midnight 22/09/2020

Most likely transmission source	Number of cases	Percent
Travel related *	40	2.10%
Close contact with a known confirmed case	1,024	53.81%
Healthcare setting acquired: patient	23	1.21%
Healthcare setting acquired: staff	24	1.26%
Community transmission	513	26.96%
Under investigation	279	14.66%
Total	**1,903**	**100.00%**

*Travel related cases include cases who acquire COVID-19 infection outside of Ireland (imported cases) and cases who acquire COVID-19 infection directly from imported cases

Table 5: Number of confirmed COVID-19 cases by community healthcare organisation (CHO) notified in Ireland from 16/09/2020 to midnight 22/09/2020

CHO Area	Number of confirmed cases	Incidence per 100,000 population
CHO1	171	43.7
CHO2	115	25.4
CHO3	69	17.9
CHO4	167	24.2
CHO5	81	15.9
CHO6	184	48.0
CHO7	464	65.6
CHO8	149	24.1
CHO9	503	80.9
Ireland	**1,903**	**40.0**

Table 6: Number of confirmed COVID-19 cases by county notified in Ireland from 16/09/2020 to midnight 22/09/2020

County	Number of confirmed cases	Incidence per 100,000 population
Carlow	8	14.1
Cavan	9	11.8
Clare	29	24.4
Cork	158	29.1
Donegal	136	85.4
Dublin	982	72.9
Galway	75	29.1
Kerry	9	6.1
Kildare	112	50.3
Kilkenny	11	11.1
Laois	12	14.2
Leitrim	1	3.1
Limerick	32	16.4
Longford	3	7.3
Louth	54	41.9
Mayo	20	15.3
Meath	44	22.6
Monaghan	16	26.1
Offaly	25	32.1
Roscommon	20	31.0
Sligo	9	13.7
Tipperary	13	8.1
Waterford	46	39.6
Westmeath	11	12.4
Wexford	11	7.3
Wicklow	57	40.0
Ireland	**1,903**	**40.0**

Table 7: Number of confirmed COVID-19 cases by country of infection notified from 16/09/2020 to midnight 22/09/2020

Country of infection	Number of cases	Percent
Greece	1	0.05%
Hungary	1	0.05%
India	1	0.05%
Ireland	1,265	66.47%
Not specified	626	32.90%
United kingdom	1	0.05%
Unknown	8	0.42%
Total	**1,903**	**100.00%**
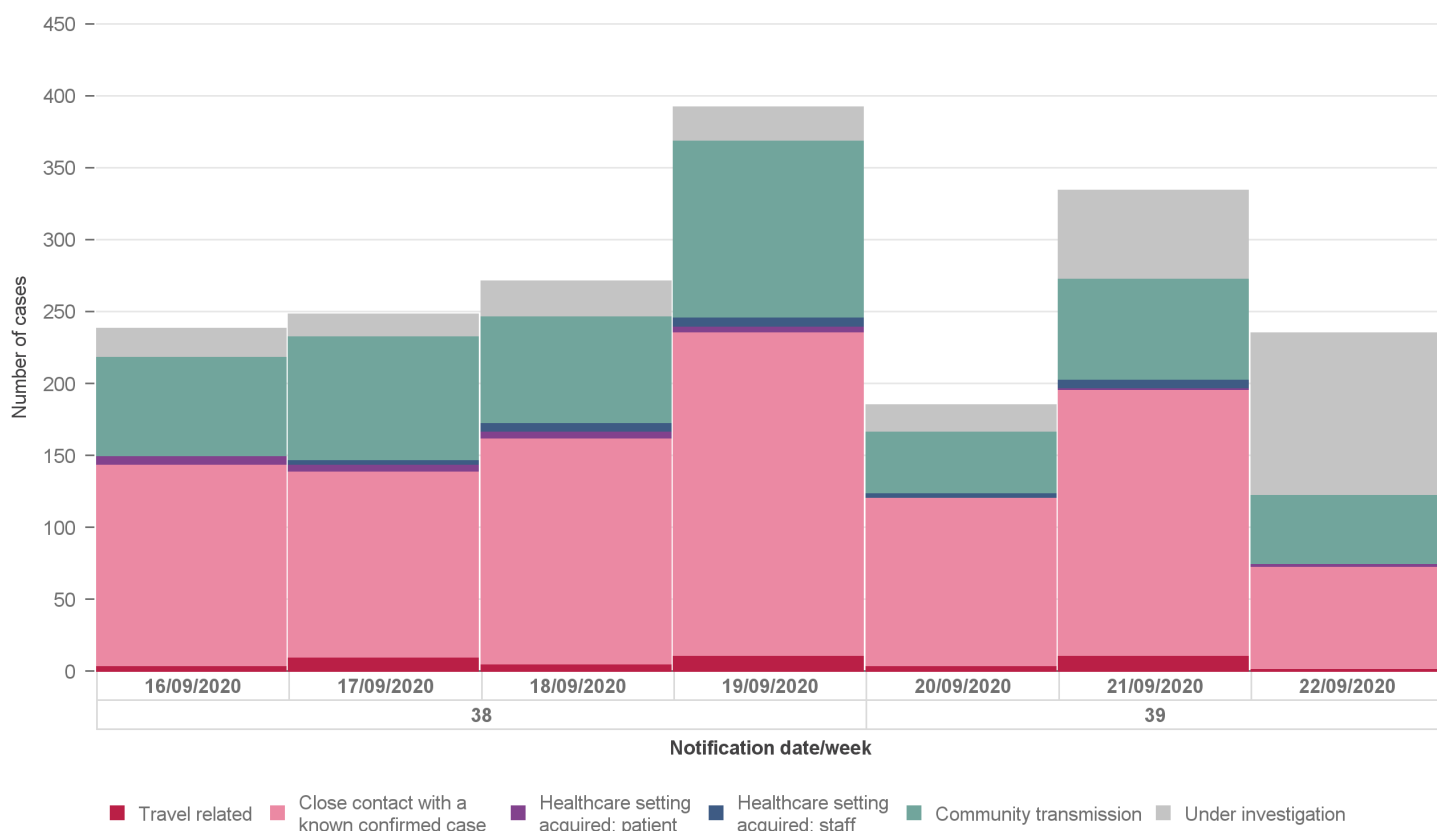
Figure 3: Number of confirmed COVID-19 cases notified in Ireland by date/week of notification and most likely transmission source from 16/09/2020 to midnight 22/09/2020

Table 8: Cumulative number of confirmed cases of COVID-19 notified in Ireland from 16/09/2020 to midnight 22/09/2020 by age group and hospital, ICU* and vital status

Age Group (years)	Number of cases (n)	Cases hospitalised (n)	Cases hospitalised (%)	Cases admitted to ICU (n)	Cases admitted to ICU (%)
0-4 yrs	59			0	0
5-14 yrs	155			0	0
15-24 yrs	449	4	6.35	0	0
25-34 yrs	332	2	3.17	0	0
35-44 yrs	303	7	11.11	2	40
45-54 yrs	251	9	14.29	1	20
55-64 yrs	168	11	17.46	1	20
65-74 yrs	112	11	17.46	1	20
75-84 yrs	48	11	17.46	0	0
85+ yrs	25	8	12.7	0	0
Unknown	1			0	0
Total	**1,903**	**63**	**100**	**5**	**100**

Table 9: Number and proportion of confirmed cases of COVID-19 notified in Ireland from 16/09/2020 to midnight 22/09/2020 by age-group, hospitalisation and ICU admission*

	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)	59	155	449	332	303	251	168	112	48	25	1
Cases hospitalised (n)			4	2	7	9	11	11	11	8	
Cases hospitalised (%)			0.89	0.6	2.31	3.59	6.55	9.82	22.92	32	
Cases admitted to ICU (n)	0	0	0	0	2	1	1	1	0	0	0
Cases admitted to ICU (%)	0	0	0	0	0.66	0.4	0.6	0.89	0	0	0
Deaths (n)	0	0	0	0	0	0	0	0	2	0	0
Case fatality ratio (%)	0	0	0	0	0	0	0	0	4.17	0	0

* The number of cases hospitalised and admitted to ICU relate only to events notified in the last 7 days and do not include cases notified prior to this and admitted to hospital or ICU in the last 7 days

Table 10: Characteristics of sporadic** confirmed COVID-19 cases notified in Ireland from 16/09/2020 up to midnight on 22/09/2020

Characteristic		Number of cases	Percent
Total number of sporadic confirmed cases		**1,152**	**100**
Sex	Male:Female ratio	0.98	
	Male	571	49.57
	Female	580	50.35
	Unknown	1	0.09
Age	Median age (years)	32	
	Mean age (years)	36	
	Age range (years)	0 - 99	
	0-4 yrs	22	1.91
	5-14 yrs	66	5.73
	15-24 yrs	298	25.87
	25-34 yrs	238	20.66
	35-44 yrs	177	15.36
	45-54 yrs	153	13.28
	55-64 yrs	98	8.51
	65-74 yrs	59	5.12
	75-84 yrs	25	2.17
	85+ yrs	15	1.3
	Number of HCW	78	6.77
	Number hospitalised*	43	3.73
	Number admitted to ICU*	3	0.26
	Number of deaths	1	0.09
	Number with underlying condition	288	25
Most likely transmission source	Travel related	28	2.43
	Close contact with a known confirmed case	483	41.93
	Healthcare setting acquired: patient	11	0.95
	Healthcare setting acquired: staff	17	1.48
	Community transmission	399	34.64
	Under investigation	214	18.58

* The number of cases hospitalised and admitted to ICU relate only to events notified in the last 7 days and do not include cases notified prior to this and admitted to hospital or ICU in the last 7 days

** Sporadic cases are cases not currently linked to an outbreak in CIDR

Deaths among COVID-19 cases

Table 11: Summary of deaths in all COVID-19 cases notified in Ireland from 16/09/2020 up to midnight 22/09/2020

	Number	Percent
Total number of deaths	2	
Confirmed	2	100
Total number of cases hospitalised	0	
Cases admitted to ICU	0	
Cases not admitted to ICU	0	
Total number of imported cases	0	
Number of cases in healthcare workers	0	
Number with underlying clinical conditions	0	
Total number of male cases	2	100
M:F ratio		
Median age (years)	79	
Mean age (years)	79	
Age range (years)	75 - 83	

Table 12: Number of deaths in all COVID-19 cases by sex and age group notified in Ireland from 16/09/2020 up to midnight 22/09/2020

Age group (years)	Male	Total	Percent
75-84 yrs	2	2	100
Total	**2**	**2**	**100**
Percent	**100**		

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 09:22 on 23/09/2020. 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 ≥ 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.

Travel related cases include cases who acquire COVID-19 infection outside of Ireland (imported cases) and cases who acquire COVID-19 infection directly from imported cases.

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.

Appendix 1: Trends in confirmed COVID-19 cases notified in Ireland by HSE area
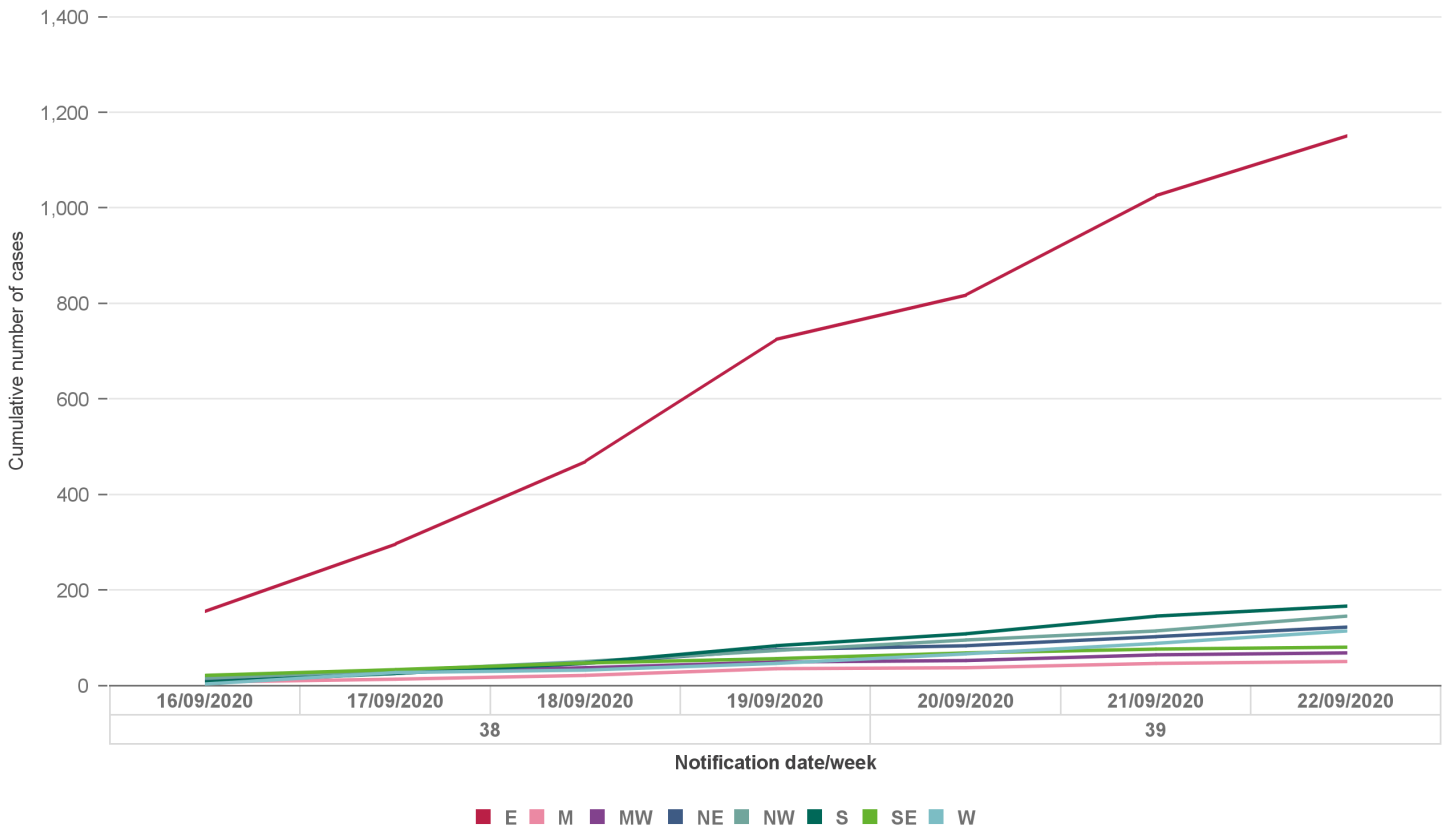

Figure A: Cumulative number of confirmed COVID-19 cases notified in Ireland by date/week of notification and HSE area from 16/09/2020 to midnight 22/09/2020
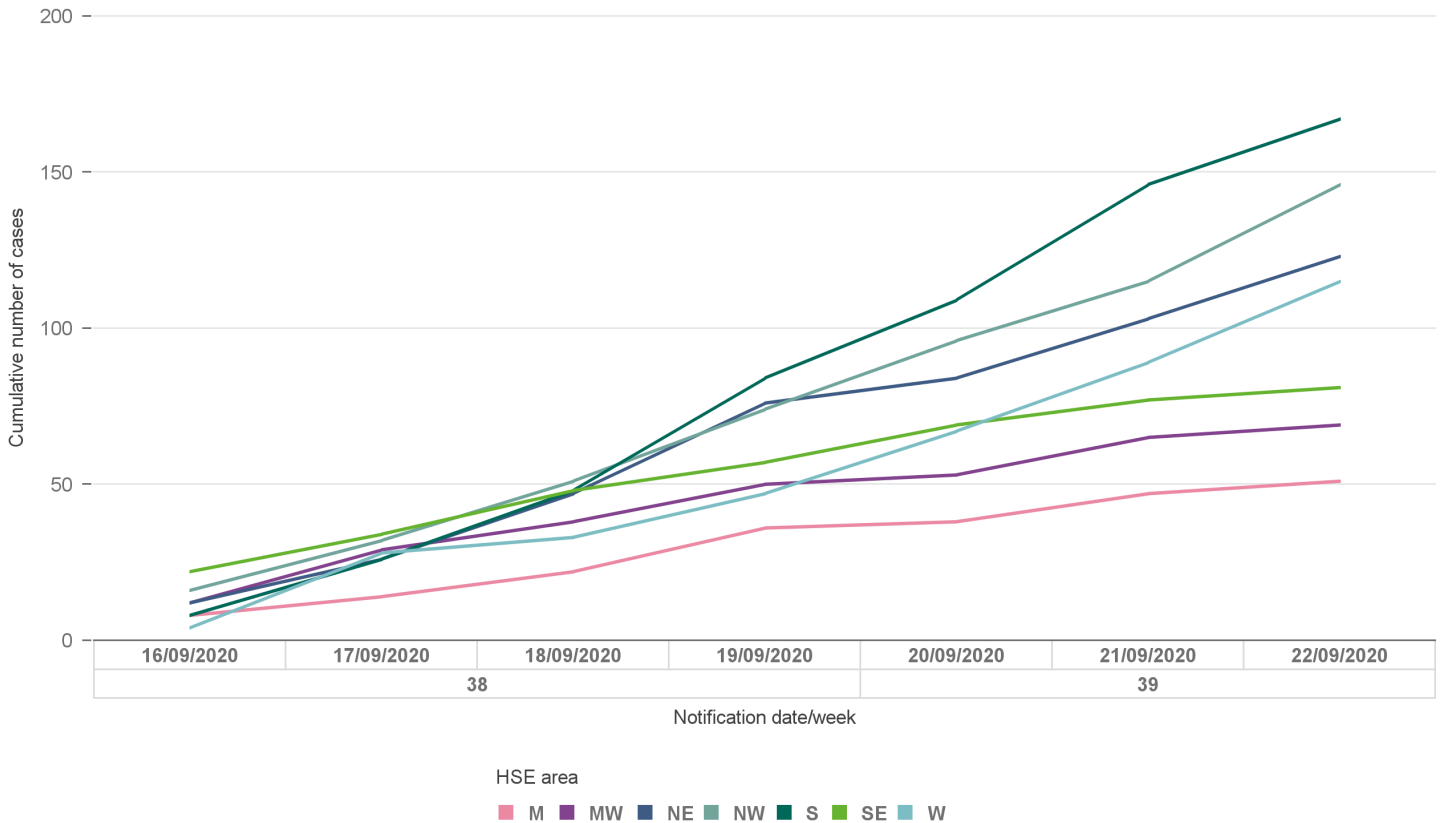

Figure B: Cumulative number of confirmed COVID-19 cases notified in Ireland by date/week of notification and HSE area (excluding HSE East) from 16/09/2020 to midnight 22/09/2020

Report prepared by Health Protection Surveillance Centre on 23/09/2020

Table A: Cumulative number of confirmed COVID-19 cases notified in Ireland by week of notification and HSE area from 16/09/2020 to midnight 22/09/2020

Week	Date	E	M	MW	NE	NW	S	SE	W	Total
38	16/09/2020	156	8	12	12	16	8	22	4	**238**
38	17/09/2020	141	6	17	14	16	18	12	24	**248**
38	18/09/2020	173	8	9	21	19	22	14	5	**271**
38	19/09/2020	255	14	12	29	23	36	9	14	**392**
39	20/09/2020	93	2	3	8	22	25	12	20	**185**
39	21/09/2020	208	9	12	19	19	37	8	22	**334**
39	22/09/2020	125	4	4	20	31	21	4	26	**235**

Appendix 2: Trends in confirmed COVID-19 cases notified in Ireland by occupation
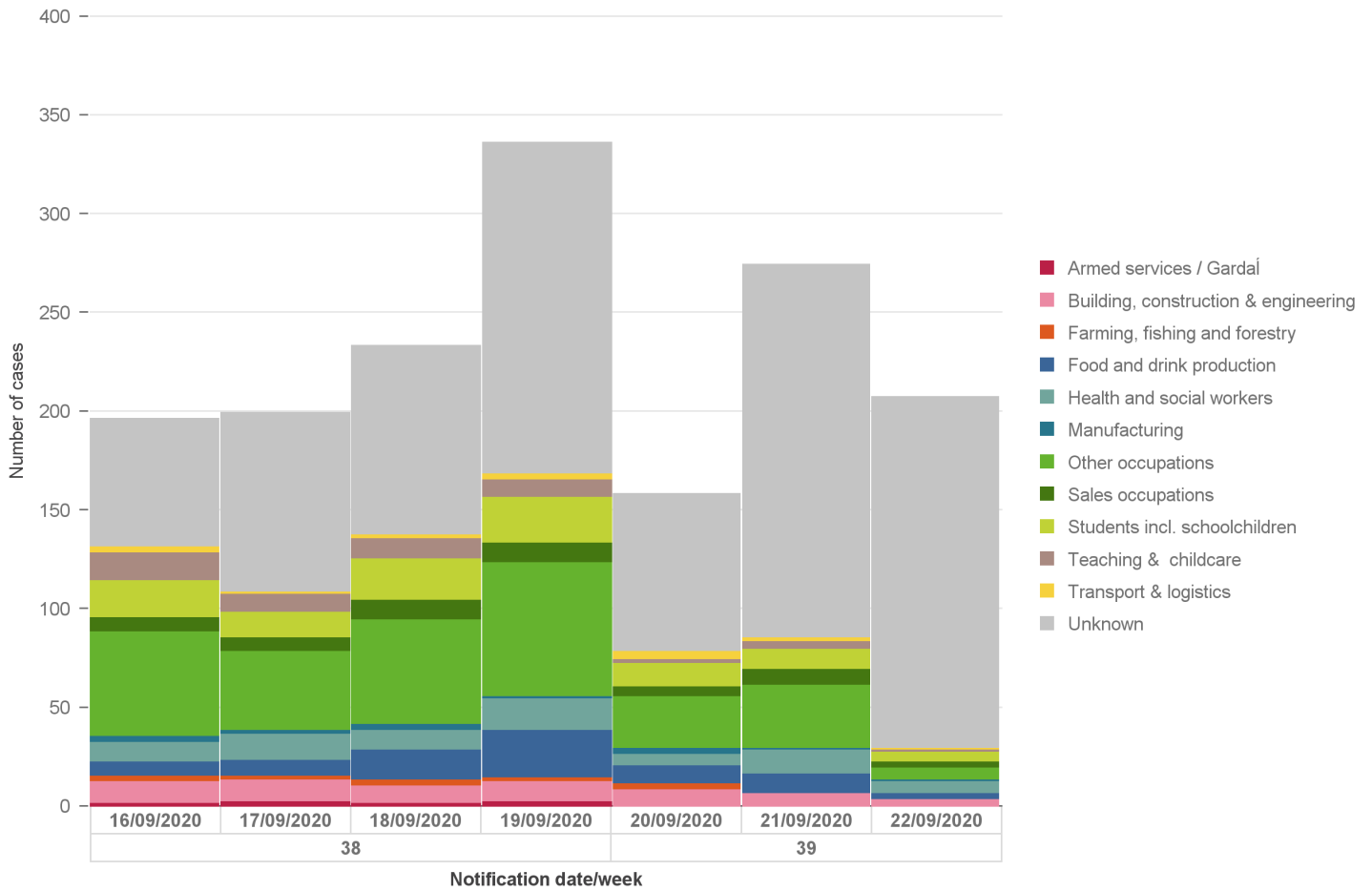

Figure C: Number of confirmed COVID-19 cases notified in Ireland by date/week of notification and occupation* from 16/09/2020 to midnight 22/09/2020

*Among cases aged 16-69 years

Appendix 3: Epidemiological weeks, 2020-2021

Table B: List of epidemiological weeks, start and end dates, 2020

Year	Week	Start date	End date
2020	1	29/12/2019	04/01/2020
2020	2	05/01/2020	11/01/2020
2020	3	12/01/2020	18/01/2020
2020	4	19/01/2020	25/01/2020
2020	5	26/01/2020	01/02/2020
2020	6	02/02/2020	08/02/2020
2020	7	09/02/2020	15/02/2020
2020	8	16/02/2020	22/02/2020
2020	9	23/02/2020	29/02/2020
2020	10	01/03/2020	07/03/2020
2020	11	08/03/2020	14/03/2020
2020	12	15/03/2020	21/03/2020
2020	13	22/03/2020	28/03/2020
2020	14	29/03/2020	04/04/2020
2020	15	05/04/2020	11/04/2020
2020	16	12/04/2020	18/04/2020
2020	17	19/04/2020	25/04/2020
2020	18	26/04/2020	02/05/2020
2020	19	03/05/2020	09/05/2020
2020	20	10/05/2020	16/05/2020
2020	21	17/05/2020	23/05/2020
2020	22	24/05/2020	30/05/2020
2020	23	31/05/2020	06/06/2020
2020	24	07/06/2020	13/06/2020
2020	25	14/06/2020	20/06/2020
2020	26	21/06/2020	27/06/2020
2020	27	28/06/2020	04/07/2020
2020	28	05/07/2020	11/07/2020
2020	29	12/07/2020	18/07/2020
2020	30	19/07/2020	25/07/2020
2020	31	26/07/2020	01/08/2020
2020	32	02/08/2020	08/08/2020
2020	33	09/08/2020	15/08/2020
2020	34	16/08/2020	22/08/2020
2020	35	23/08/2020	29/08/2020
2020	36	30/08/2020	05/09/2020
2020	37	06/09/2020	12/09/2020
2020	38	13/09/2020	19/09/2020

2020	39	20/09/2020	26/09/2020
2020	40	27/09/2020	03/10/2020
2020	41	04/10/2020	10/10/2020
2020	42	11/10/2020	17/10/2020
2020	43	18/10/2020	24/10/2020
2020	44	25/10/2020	31/10/2020
2020	45	01/11/2020	07/11/2020
2020	46	08/11/2020	14/11/2020
2020	47	15/11/2020	21/11/2020
2020	48	22/11/2020	28/11/2020
2020	49	29/11/2020	05/12/2020
2020	50	06/12/2020	12/12/2020
2020	51	13/12/2020	19/12/2020
2020	52	20/12/2020	26/12/2020
2020	53	27/12/2020	02/01/2021

Appendix 4

Table 1: Number and incidence of confirmed COVID-19 cases by Dublin Local Health Offices (LHOs) notified in Ireland with a notification date between 16/09/2020 and 22/09/2020

CCA	Local Health Office	Number of cases in past 14 days based on event date	14 day incidence rates based on event dates	Population (2016 Census)
CCA1	Dublin South	37	27.2	136,074
CCA2	Dublin South East	91	73.6	123,704
CCA3	Dublin South City	108	72.0	149,935
CCA4	Dublin South West	124	77.1	160,898
CCA5	Dublin West	119	76.6	155,343
CCA6	Dublin North West	194	93.4	207,670
CCA7	Dublin North Central	145	93.8	154,583
CCA8	Dublin North	164	63.3	259,152
	Dublin	**982**	**72.9**	**1,347,359**

Note: Local health offices (LHOs) came into operation on 1st September 2005, replacing Community Care Areas (CCAs). LHO population denominators are used in this report rather than CCA population denominators. The LHO rates were calculated using Census 2016 LHO denominator data extracted from the HSE Health Atlas and are not a direct match to the corresponding CCAs.

Appendix 5

Table 2: Number and incidence of confirmed COVID-19 cases by county including and excluding outbreaks notified in Ireland between 16/09/2020 and 22/09/2020

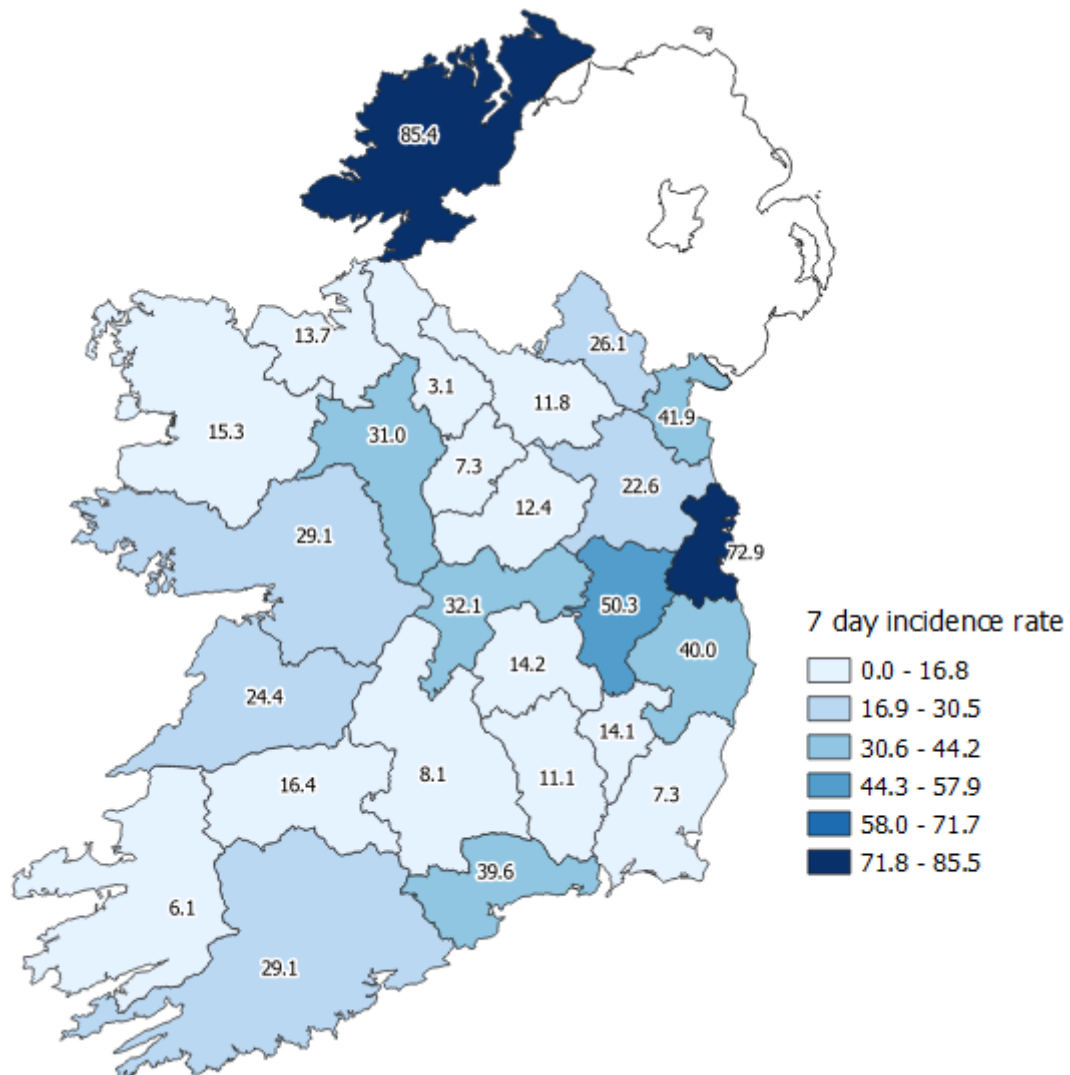| County	Population	Number of cases in past 7 days based on event date	7 day incidence rates based on event dates	Number of cases in past 7 days based on event date excluding outbreaks	7 day incidence rates based on event dates excluding outbreaks
Carlow	56932	8	14.1	6	10.5
Cavan	76176	9	11.8	5	6.6
Clare	118817	29	24.4	11	9.3
Cork	542868	158	29.1	67	12.3
Donegal	159192	136	85.4	77	48.4
Dublin	1347359	982	72.9	717	53.2
Galway	258058	75	29.1	35	13.6
Kerry	147707	9	6.1	4	2.7
Kildare	222504	112	50.3	59	26.5
Kilkenny	99232	11	11.1	10	10.1
Laois	84697	12	14.2	4	4.7
Leitrim	32044	1	3.1	1	3.1
Limerick	194899	32	16.4	8	4.1
Longford	40873	3	7.3	3	7.3
Louth	128884	54	41.9	19	14.7
Mayo	130507	20	15.3	11	8.4
Meath	195044	44	22.6	21	10.8
Monaghan	61386	16	26.1	7	11.4
Offaly	77961	25	32.1	7	9.0
Roscommon	64544	20	31.0	12	18.6
Sligo	65535	9	13.7	3	4.6
Tipperary	159553	13	8.1	6	3.8
Waterford	116176	46	39.6	14	12.1
Westmeath	88770	11	12.4	6	6.8
Wexford	149722	11	7.3	6	4.0
Wicklow	142425	57	40.0	33	23.2
National	**4761865**	**1,903**	**40.0**	**1,152**	**24.2**

Figure D: Cumulative incidence rates of confirmed cases of COVID-19 per 100,000 population, by county, notified in Ireland between 16/09/2020 and midnight 22/09/2020

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.