



Epidemiology of COVID-19 Outbreaks/Clusters in Ireland **Weekly Report**

Prepared by HPSC on 12th April 2022

Week 14 2022 (week ending 9th April 2022)

Note: Data are provisional

This report includes data extracted from CIDR on 12th April 2022 at 8:30am and includes COVID-19 outbreaks notified on CIDR up to midnight 09/04/2022.

Total number of COVID-19 outbreaks notified since Week 10 2020:	23,431
Number of COVID-19 outbreaks notified in Wave 5:	2,107
Number of COVID-19 outbreaks notified in Wave 5 OPEN:	1,092
Number of COVID-19 outbreaks notified in Wave 5 CLOSED:	1,015
Number of COVID-19 outbreaks notified in Week 14 2022:	133

waves (weeks)
Wave 1 (Week 10 – 31 2020)
Wave 2 (Week 32 – 47 2020)
Wave 3 (Week 48 2020 – Week 25 2021)
Wave 4 (Week 26 – 50 2021)
Wave 5 (Week 51 2021 onwards)

Dates

01/03/2020 - 01/08/2020 02/08/2020 - 21/11/2020 22/11/2020 - 26/06/2021 27/06/2021 - 18/12/2021 19/12/2021 onwards

The HPSC Epidemiology of COVID-19 Data Hub provides data on non-private household outbreaks. The Data Hub is updated Monday to Friday. https://epi-covid-19-hpscireland.hub.arcgis.com/

Regional Departments of Public Health are currently prioritising the investigation and reporting of outbreaks in settings that benefit most from public health and clinical intervention. These settings include acute hospitals, nursing homes, community hospital/long-stay units, residential institutions, other healthcare settings, vulnerable populations, special educational needs schools/classes and childcare facilities. For this reason, outbreaks in other settings may be underestimated. This report focuses on these key settings/groups.

In addition, due to the surge in case numbers in recent months, the processing time of case notifications on CIDR has increased. Outbreak cases may not yet be processed and linked to their outbreak on CIDR. Due to these delays, an interim measure has been applied whereby the higher number between aggregate and outbreak linked confirmed case numbers is used in outbreak settings (report pages 8-18).

Note: Data are provisional

Due to the cyber-attack on the HSE IT systems on 14/05/2021, CIDR was unavailable for the reporting of COVID-19 outbreaks from 14/05/2021 to the 28/06/2021. As a result, there has been a delay in reporting for many outbreaks on CIDR. To account for this, outbreak week for all outbreaks created between May 14th and October 9th is based on the following algorithm: earliest of 1. outbreak recognition date; 2. first reported date; 3. outbreak created date. Outbreak week is based on outbreak created date for all outbreaks created on or before May 13th 2021, and on or after October 10th 2021.

Please note COVID-19 outbreaks and cases are continuously validated/updated on Ireland's National Computerised Infectious Disease Reporting System (CIDR).

The COVID-19 outbreak definition is available in appendix 2 of this report and on the HPSC website at: https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/casedefinitions/covid-19outbreakcasedefinitionforireland/

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.

Note: Data are provisional

23,431 COVID-19 outbreaks have been reported in Ireland since Week 10, 2020 (Figure 1).

Summary Wave 5 (Week 51 2021 to Week 14 2022)

2,107 COVID-19 outbreaks have been reported from Week 51 2021 onwards) and key outbreak locations are as follows:

- 320 (15.2%) were reported in hospitals
- 596 (28.3%) were reported in nursing homes
- 77 (3.7%) were reported in community hospital/long-stay units
- 657 (31.2%) were reported in residential institutions
- 151 (7.2%) were reported in 'other' healthcare services
- 113 (5.4%) were reported in schools
- 12 (0.6%) were reported in childcare facilities
- 181 (9.0%) were reported in a range of other settings

1,015 outbreaks have been closed and 1,092 outbreaks are open (See Appendix 1, Table A for breakdown of outbreaks by location and outbreak status. Note that it is common practice not to close private house outbreaks on CIDR due to the large volume of outbreaks in this category).

Summary latest week (Week 14, 2022)

In Week 14 2022, there were 133 COVID-19 outbreaks notified:

- The overall number of outbreaks notified in Week 14 2022 decreased by 38 compared to Week 13 2022
- In healthcare settings there were:
 - 12 acute hospital outbreaks notified
 - o 45 nursing home outbreaks notified
 - o 11 community hospital/long-stay unit outbreak notified
 - 48 residential institution outbreaks notified
 - o 11 outbreaks associated with other healthcare services notified
- In educational settings there were:
 - o three outbreaks associated with schools
- The remaining three outbreaks were reported in private houses (Irish Traveller Community, n=3)

Note: Data are provisional

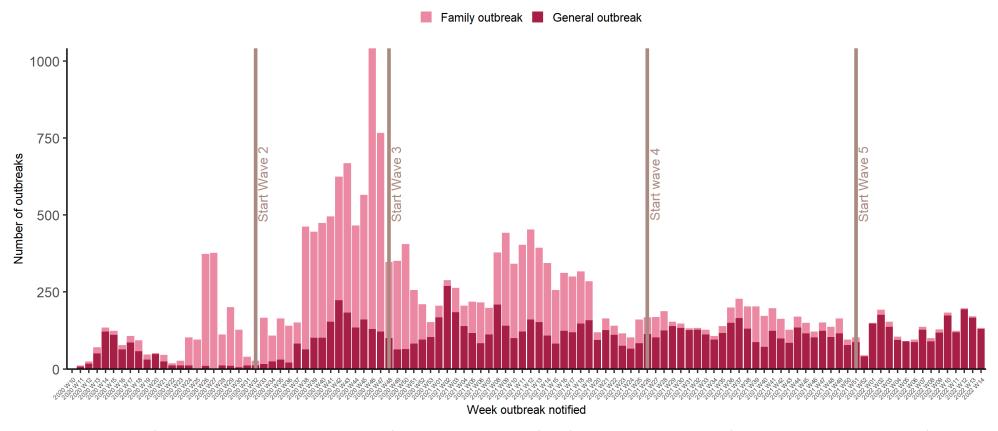


Figure 1: Epi-curve of COVID-19 outbreaks in all settings notified in Ireland by week of notification and outbreak type (see technical note 5, Appendix 2) to end Week 14 2022, N=23,431. Data source: CIDR

Vertical lines indicate the timeline of epidemic waves of COVID-19 infection in Ireland. Second wave of infection commenced in Week 32 2020 (week beginning 02/08/2020); the third wave commenced in Week 48 2020 (week beginning 22/11/2020); the fourth wave commenced Week 26 2021 (week beginning 27/06/2021); the fifth wave commenced Week 51 2021 (week beginning 19/12/2021)).

Table 1: Number of COVID-19 outbreaks notified in Ireland by outbreak location and by week of notification in Wave 5, and difference in number of outbreaks notified in Week 14 2022 compared to the previous week, N=2,107. *Data source: CIDR*

			V	Veek of Ou	tbreak No	tification				Difference in	
	Week 51				20	22	_			number of	Total Wave 5 (Week 51 2021 - Week 14 2022)
Outbreak location	2021 to Week 6 2022	7	8	9	10	11**	12**	13	14	outbreaks notified since last week	
Hospital	141	22	14	28	30	15	33	25	12	-13	320
Nursing home	245	40	31	37	48	36	60	54	45	-9	596
Community Hospital / Long-stay unit	28	4	4	5	6	5	7	7	11	+4	77
Residential institution	271	38	29	34	54	43	78	62	48	-14	657
Other healthcare services	54	8	7	11	16	15	14	15	11	-4	151
School total*\$	71	13	2	0	15	6	0	3	3	0	113
Special educational needs	58	10	1	0	15	5	0	3	3	0	95
Other school type	13	3	1	0	0	1	0	0	0	0	18
Childcare Facility	9	1	1	0	1	0	0	0	0	0	12
Other locations	114	11	12	14	13	4	5	5	3	-2	181
Total	933	137	100	129	183	124	197	171	133	-38	2107

^{*}These outbreaks are outbreaks associated with school children +/or school staff. Transmission of COVID-19 within the school has not necessarily been established in these outbreaks. Outbreaks in settings in grey may be underestimated due to public health focus on key settings at present. Splease note not all school outbreaks require public health prioritisation and therefore may not be reported to CIDR. **Reporting may have been affected by the extended bank holiday weekend in week 11. This may have led to a reduction in the notification of outbreaks in week 11 and an increase in Week 12 due to delayed notification of outbreaks detected during week 11.

Table 2A: Number of COVID-19 outbreaks by outbreak location and HSE-Area notified in Ireland in Wave 5, N=2,107. Data source: CIDR

Outbreak Location	East	Midlands	MidWest	NorthEast	NorthWest	SouthEast	South	West	Total
Hospital	145	5	24	41	35	11	23	36	320
Nursing home	200	39	60	56	27	62	73	79	596
Community Hospital/Long-stay unit	7	0	6	1	18	12	25	8	77
Residential institution	200	37	72	102	63	79	68	36	657
Other healthcare service	13	2	28	24	4	18	40	22	151
School total*	32	3	22	10	8	7	27	4	113
Special educational needs	20	3	21	8	7	7	25	4	95
Other school type	12	0	1	2	1	0	2	0	18
Childcare facility	1	1	1	1	3	1	2	2	12
Other locations	9	1	17	30	7	2	35	80	181
Total	607	88	230	265	165	192	293	267	2107

Table 2B: Number of COVID-19 outbreaks by outbreak location and HSE-Area notified in Ireland during Week 14 2022, N=133. Data source: CIDR

Outbreak Location	East	Midlands	MidWest	NorthEast	NorthWest	SouthEast	South	West	Total
Hospital	9	0	0	0	3	0	0	0	12
Nursing home	19	5	2	3	1	4	7	4	45
Community Hospital / Long-stay unit	0	0	1	0	2	3	5	0	11
Residential institution	13	2	7	5	5	4	8	4	48
Other healthcare service	1	0	1	2	0	2	4	1	11
School total*	0	0	0	1	0	0	2	0	3
Special education	0	0	0	1	0	0	2	0	3
Other school type	0	0	0	0	0	0	0	0	0
Childcare facility	0	0	0	0	0	0	0	0	0
Other locations	0	0	0	0	0	0	2	1	3
Total	42	7	11	11	11	13	28	10	133

^{*}These outbreaks are associated with school children +/or school staff. Transmission of COVID-19 within the school has not necessarily been established in these outbreaks. Outbreaks in settings in grey may be underestimated due to public health focus on key settings at present. \$Please note not all school outbreaks require public health prioritisation and therefore may not be reported to CIDR.

COVID-19 Outbreaks/Clusters in Residential Facilities and Hospital settings in Ireland

A summary of COVID-19 outbreaks linked to nursing homes, acute hospitals, community hospital/long-stay units, and other residential institutions is shown in Figure 2 and in the subsequent "Focus" sections, Tables 3-5 and Figures 3-5.

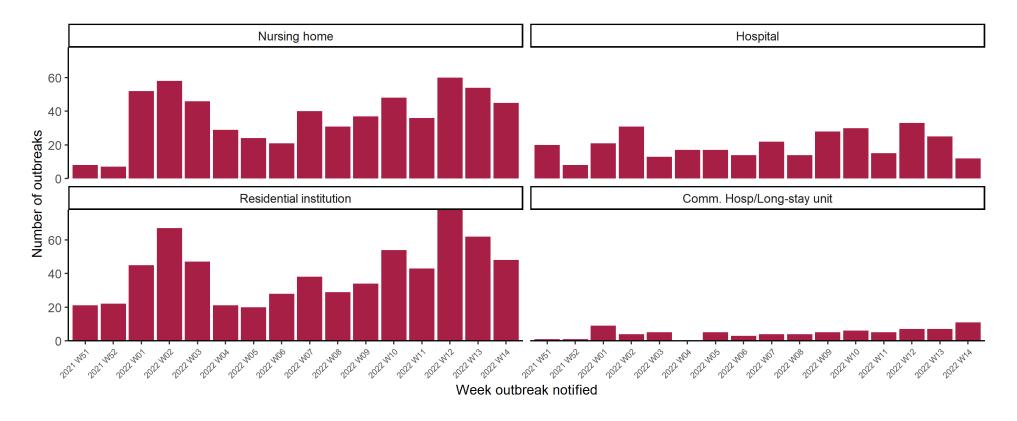


Figure 2: Epi-curve of COVID-19 outbreaks in: Acute Hospitals, Nursing Homes, Community Hospitals/Long-stay units and Residential institutions notified in Ireland by week of notification, Wave 5. Data source: CIDR

Focus on COVID-19 Outbreaks in Nursing Homes and Community Hospitals

There have been **1,523** COVID-19 outbreaks in nursing homes and community hospital/long stay units, with **31,199** laboratory confirmed COVID-19 cases^{\$}, notified in Ireland since 01/03/2020.

In Wave 5, from 320 outbreaks in nursing homes or community hospital/long-stay units have been notified and 169 of these outbreaks remain open (Table 3).

There were 45 new COVID-19 outbreaks reported in nursing homes and 11 reported in community hospitals during Week 14 2022.

Table 3: Number of COVID-19 outbreaks and laboratory confirmed cases^{\$} in nursing homes and community hospital/long-stay units in Ireland, Wave 5. *Data source: CIDR*

		Num	ber of outbreaks not	ified	
Outbreak location	Week 14	Week 14 outbreaks: Range in no. of cases#	Wave 5 (Week 51 2021 – Week 14 2022)	Number open	Open outbreaks: Range in no. of cases#
Nursing home	45	0-27	596	332	0-106
Community Hospital/Long-stay unit	11	0-15	77	44	0-52
Total	56	0-27	673	376	0-106

[#]n/a is used where there were no outbreaks in a category or where there are no confirmed cases currently linked to any outbreak in that category (see technical note 6, Appendix 2). \$Due to delays in linkage of outbreak cases as a result of the surge, an interim measure has been applied whereby the higher number between aggregate and outbreak linked confirmed case numbers is used.

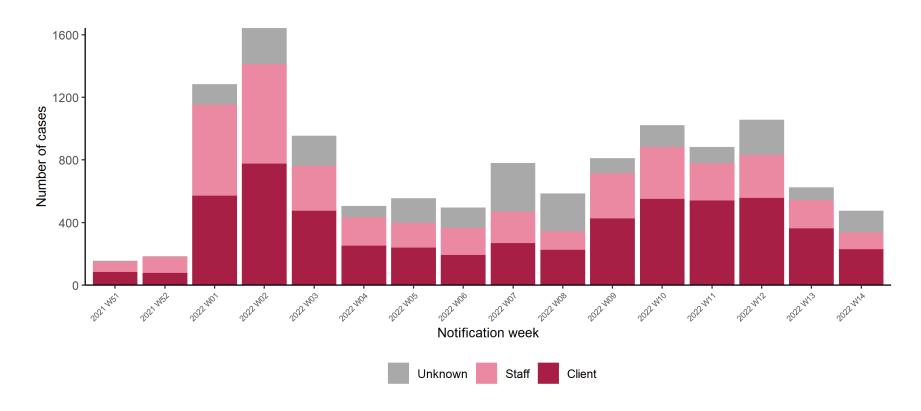


Figure 3: Epi-curve of confirmed COVID-19 cases linked to outbreaks in nursing homes and community hospital/long-stay units by staff/client status and date of notification Wave 5. Data source: CIDR

Focus on COVID-19 Outbreaks in Acute Hospitals

There were **936** COVID-19 outbreaks in acute hospitals, with **10,634** laboratory confirmed COVID-19 cases^{\$}, notified in Ireland since 01/03/2020. For Wave 5, **320** outbreaks in acute hospitals have been notified and **169** of these outbreaks remain open (Table 4).

There were 12 new COVID-19 outbreaks reported in acute hospitals during Week 14 2022.

Table 4: Number of COVID-19 outbreaks and laboratory confirmed cases^{\$} in acute hospital settings in Ireland, Wave 5. Data source: CIDR

		Nu	mber of outbreaks notif	ied	
Outbreak location: Acute Hospitals	Week 14	Week 14 outbreaks: Range in no. of cases	Wave 5 (Week 51 2021 – Week 14 2022)	Number open	Open outbreaks: Range in no. of cases
	12	2-15	320	169	0-92

SDue to delays in linkage of outbreak cases as a result of the surge, an interim measure has been applied whereby the higher number between aggregate and outbreak linked confirmed case numbers is used.

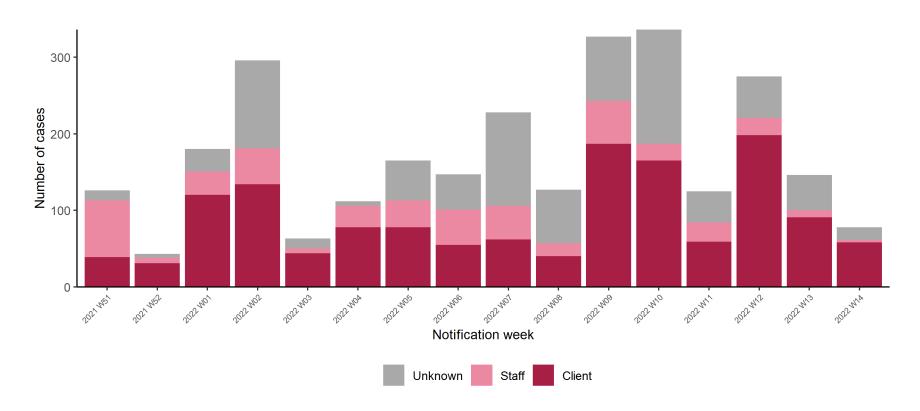


Figure 4: Epi-curve of confirmed COVID-19 cases linked to outbreaks in hospitals by staff/client status and week of notification Wave 5. Data source: CIDR

Focus on COVID-19 Outbreaks in Residential Institutions (please see footnote¹)

There were **1,288** COVID-19 outbreaks in residential institutions, with **7,555** laboratory confirmed COVID-19 cases^{\$}, notified in Ireland since 01/03/2020. In Wave 5, **585** outbreaks in residential institutions have been notified and **301** of these outbreaks remain open.

There were 43 new COVID-19 outbreaks reported in residential institutions in Week 14 2022: 23 in centres for disabilities; eight in mental health facilities; two in children's / TUSLA residential centres and; ten in 'other' or non-specified locations.

Table 5: Number of COVID-19 outbreaks and laboratory confirmed cases^{\$} in residential institutions in Ireland, Wave 5. Data source: CIDR

		Nun	nber of outbreaks noti	fied	
Outbreak location	Week 14	Week 14 outbreaks: Range in no. of cases#	Wave 5 (Week 51 2021 – Week 14 2022)	Number open	Open outbreaks: Range in no. of cases#
Centre for disabilities	23	0-10	414	202	0-21
Centre for older people	0	n/a	21	13	0-20
Children's / TUSLA residential centre	2	<5	39	13	0-6
Mental health facility	8	0-24	68	50	0-27
Women/children's refuge	0	n/a	6	3	2-6
Other	9	2-7	29	17	2-68
Not Specified	1	<5	8	3	3-8
Total	43	0-24	585	301	0-68

[#]n/a is used where there were no outbreaks in a category or where there are no confirmed cases currently linked to any outbreak in that category (see technical note 6, Appendix 2). Due to delays in linkage of outbreak cases as a result of the surge, an interim measure has been applied whereby the higher number between aggregate and outbreak linked confirmed case numbers is used.

¹ This section focuses on the following residential settings: Centres for disabilities, Centres for older people, Children's/TUSLA residential centres and mental health facilities. Homeless services, addiction services, direct provision centres and prisons are reported in the Focus on Vulnerable Populations section.

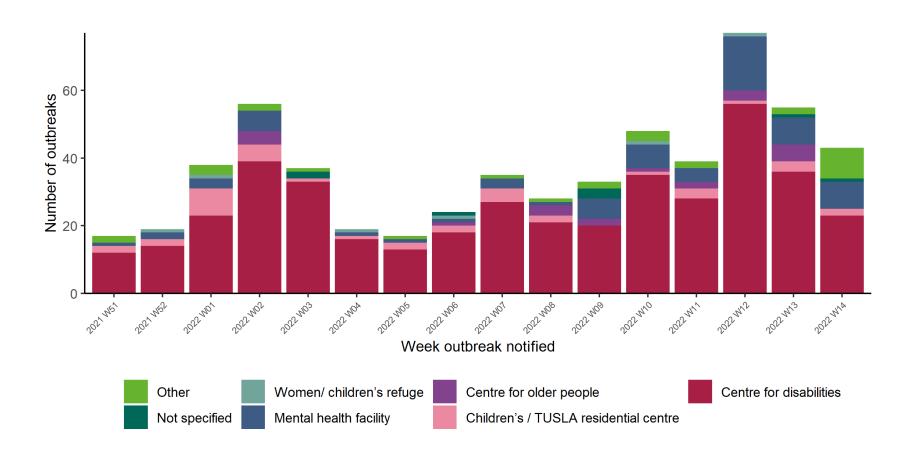


Figure 5: Number of COVID-19 outbreaks in residential institutions by type of residential institution in Ireland, Wave 5. Data source: CIDR

Focus on COVID-19 Outbreaks associated with Other Healthcare Settings

There were **479** COVID-19 outbreaks associated with other healthcare settings, with **1,962** laboratory confirmed COVID-19 cases^{\$}, notified in Ireland since 01/03/2020.

This brief overview of COVID-19 outbreaks in other healthcare settings notified up to midnight on 09/04/2022 (Table 6). In Wave 5 there have been **151** outbreaks associated with other healthcare services and **102** of these remain open.

There were 11 new COVID-19 outbreaks reported in other healthcare settings in Week 14 2022: five in services for people with disabilities; four associated with clients of mental health services; one associated with clients of home care services and; one in an 'other' healthcare service setting.

Table 6: Number of COVID-19 outbreaks and laboratory confirmed cases^{\$} associated with other healthcare settings in Ireland, Wave 5. Data source: CIDR

		Num	ber of outbreaks not	ified	
Outbreak location	Week 14	Week 14 outbreaks: Range in no. of cases#	Wave 5 (Week 51 2021 – Week 14 2022)	Number open	Open outbreaks: Range in no. of cases#
Clients of home care services	1	<5	27	18	0-18
People with disabilities	5	2-10	90	59	0-14
Clients of mental health facilities	4	0-4	11	9	0-13
All other healthcare service	1	<5	23	16	1-22
Total	11	0-10	151	102	0-22

[#]n/a is used where there were no outbreaks in a category or where there are no confirmed cases currently linked to any outbreak in that category (see technical note 6, Appendix 2). \$Due to delays in linkage of outbreak cases as a result of the surge, an interim measure has been applied whereby the higher number between aggregate and outbreak linked confirmed case numbers is used.

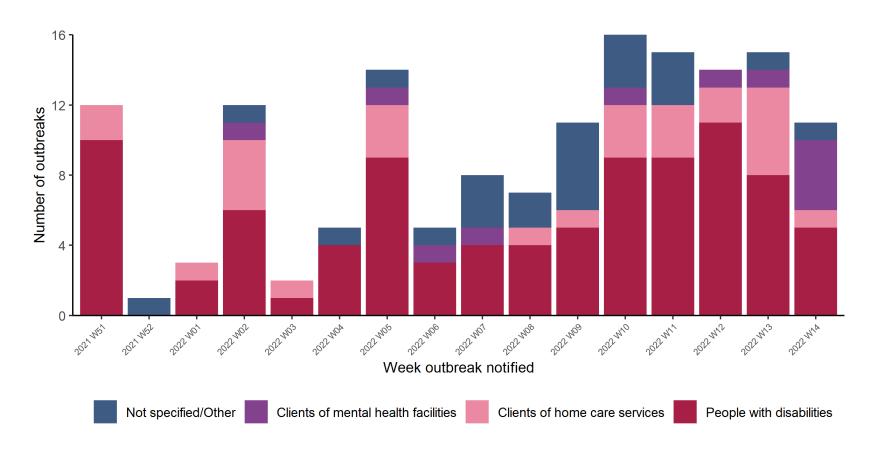


Figure 6: Number of COVID-19 outbreaks in 'Other healthcare' settings by type of setting in Ireland, Wave 5. Data source: CIDR

Focus on COVID-19 Outbreaks associated Other Vulnerable Populations

There were **1,081** COVID-19 outbreaks associated with the below described vulnerable populations, with **10,532** laboratory confirmed COVID-19 cases^{\$}, notified in Ireland since 01/03/2020.

This brief overview of COVID-19 outbreaks in vulnerable populations/settings only includes outbreaks involving Irish Travellers, the Roma community, outbreaks in direct provision centres, facilities for the homeless/those with addiction issues and prisons notified up to midnight on 09/04/2022 (Table 7). In Wave 5, there have been **197** outbreaks in vulnerable populations, of which **87** remain open.

There were nine new outbreaks reported in vulnerable populations during Week 14 2022:

- four outbreaks associated with Irish Travellers
- two outbreaks associated with the homeless
- one outbreak associated with direct provision centres
- one outbreak associated persons with addictions
- one large outbreak associated with prisoners/prison staff with 99 associated cases to date

Table 7: Number of COVID-19 outbreaks and laboratory confirmed cases^{\$\\$} in settings involving vulnerable populations, including the Irish Traveller community, Roma community, direct provision centres, facilities for the homeless/those with addiction issues and prisons notified Wave 5. *Data source: CIDR*

		N	umber of outbreaks notified		
Vulnerable populations	Week 14	Week 14 outbreaks: Range in no. of cases#	Wave 5 (Week 51 2021 – Week 14 2022)	Number open	Open outbreaks: Range in no. of cases#
Irish Travellers	4	0-3	104	46	0-15
Roma community	0	n/a	18	4	2-3
Direct provision centres	1	<5	23	12	0-51
Homeless¥	2	4-6	23	9	1-33
Persons with addictions	1	n/a*	12	5	0-22
Prisoners/Prison staff	1	99	17	11	5-99
Total	9	0-99	197	87	0-99

¥Homeless facilities include some facilities that provide long term supported accommodation. Also includes staff of homeless facilities. #n/a is used where there were no outbreaks in a category or where there are no confirmed cases currently linked to any outbreak in that category (see technical note 6, Appendix 2). \$Due to delays in linkage of outbreak cases as a result of the surge, an interim measure has been applied whereby the higher number between aggregate and outbreak linked confirmed case numbers is used. *No cases associated with outbreak to date

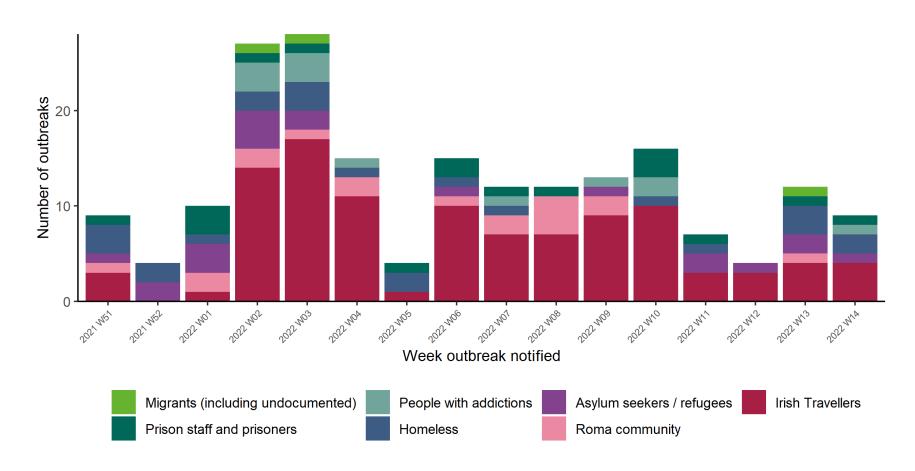


Figure 7: Number of COVID-19 outbreaks associated with other vulnerable populations in Ireland, Wave 5. Data source: CIDR

Focus on COVID-19 Outbreaks associated with School Children (+/- staff), and Childcare Facilities

There were **1,390** COVID-19 outbreaks in schools, with **7,191** laboratory confirmed COVID-19 cases^{\$}; and **651** outbreaks in childcare facilities, with **3,472** laboratory confirmed COVID-19 cases^{\$}, notified in Ireland since 01/03/2020.

In total, in Wave 5 **125** COVID-19 outbreaks associated with school children (+/- staff), and childcare facilities have been notified from 19/12/2021 up to midnight on 09/04/2022 (Table 8) and **44** of these outbreaks remain open.

During Week 14 2022, there were three COVID-19 outbreaks notified associated with school children +/- staff

Table 8: Number of COVID-19 outbreaks and laboratory confirmed cases⁵ associated with school children (+/- staff) and childcare facilities in Ireland notified Wave 5. *Data source: CIDR*

		Nun	nber of outbreaks notif	ied	
Outbreak location	Week 14	Week 14 outbreaks: Range in no. of cases#	Wave 5 (Week 51 2021 – Week 14 2022)	Number open	Open outbreaks: Range in no. of cases#
Special education	3	1-7	95	40	0-12
Other school type	0	n/a	18	1	6
Total School*	3	1-7	113	41	0-12
Childcare facility	0	n/a	12	3	0-8
Total	3	1-7	125	44	0-12

^{*}These outbreaks are outbreaks associated with school children +/or school staff. Transmission of COVID-19 within the school has not necessarily been established in these outbreaks. #n/a is used where there were no outbreaks in a category or where there are no confirmed cases currently linked to any outbreak in that category (see technical note 6, Appendix 2). Please note not all school outbreaks require public health prioritisation and therefore may not be reported to CIDR. Therefore, school settings (primary, post-primary) other than special educational needs classes/schools are grouped under 'Other school type'. Due to delays in linkage of outbreak cases as a result of the surge, an interim measure has been applied whereby the higher number between aggregate and outbreak linked confirmed case numbers is used.

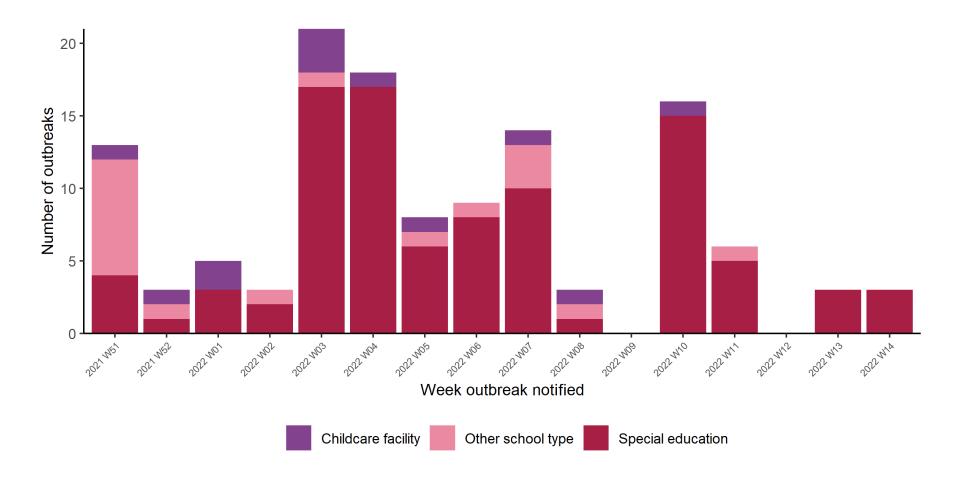


Figure 8: Number of COVID-19 outbreaks in school and childcare facility settings in Ireland, Wave 5. Data source: CIDR

Appendices Appendix 1

Table A: Number of COVID-19 outbreaks notified in Ireland by outbreak location and closure status, to end Week 14 2022, N=23,431. *Data source: CIDR*

Outbreak Location	Outbreak	closure status (all classifications)	outbreak
	Closed	Open	Total
Hospital	766	170	936
Nursing home	1011	334	1345
Community Hospital/Long-stay unit	134	44	178
Residential institution	1250	339	1589
Other healthcare service	375	104	479
School**	1345	45	1390
Childcare facility	638	13	651
University/college***	64	4	68
Workplace	1264	2	1266
Retail outlet	389	1	390
Hotel	111	0	111
Guest house/ B&B	14	0	14
Public house	117	0	117
Restaurant / Cafe	222	1	223
Travel related	259	16	275
Transport	65	2	67
Private house*	6568	5632	12200
Extended family	764	184	948
Community outbreak	527	4	531
Social gathering	281	6	287
Religious/Other ceremony	133	9	142
Sporting activities/fitness	95	0	95
Other recreation activity	29	0	29
Personal grooming service	48	0	48
Other	42	1	43
Unknown	5	0	5
Not specified	4	0	4
Total	16520	6911	23431

^{*}It is common practice not to close private house outbreaks on CIDR due to the large volume of these types of outbreaks on CIDR

^{**}These outbreaks are outbreaks associated with school children +/or school staff. Transmission of COVID-19 within the school has not necessarily been established in these outbreaks.

^{***}These outbreaks are associated with a university/college location and do not include outbreaks among third level students that occurred at other locations

Appendix 2 Technical Notes

- 1. Data are based on statutory notifications and were extracted from the National Computerised Infectious Disease Reporting (CIDR) system. Data are provisional and subject to ongoing review, validation and update. As a result, figures in this report may differ from previously published figures.
- For surveillance purposes, the following COVID-19 outbreak definition is used for notifying COVID-19 outbreaks/clusters:
 Confirmed*
 - There is a cluster/outbreak, with two or more cases of laboratory confirmed COVID-19 infection regardless of symptom status. This includes cases with symptoms and cases who are asymptomatic.
 OR
 - There is a cluster/outbreak, with two or more cases of illness with symptoms consistent with COVID-19 infection (as per the COVID-19 case definition), and at least one person is a confirmed case of COVID-19.

* From September 21st 2020, suspected COVID outbreaks should be reported with the disease category 'Acute Respiratory Infection (ARI)'. If one or more cases linked to the outbreak are subsequently confirmed as COVID-19, the ARI outbreak should be reclassified to being a COVID-19 outbreak. Outbreaks of suspected COVID-19 which were notified before September 21st 2020, and met the previous COVID-19 outbreak definition should remain as COVID-19 outbreaks on CIDR.

The COVID-19 case definition is detailed on the Health Protection Surveillance Centre (HPSC) website: https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/casedefinitions/

- 3. This report includes confirmed and suspected COVID-19 outbreaks.
- 4. An "Open" or "Closed" outbreak is defined as an outbreak where the outbreak status is "Open" or "Closed" on CIDR. In order to declare an outbreak "Closed" the outbreak location should not have experienced any new cases of infection which meet the case definition for a period of 28 days (two incubation periods).
- 5. Outbreak type (family/general) indicates whether an outbreak is confined to a family (family outbreak) or affects members of more than one household (general outbreak).
- 6. The "range in number of cases" presented in Tables 3 to 8 is based on laboratory confirmed cases linked to an outbreak in CIDR. The priority is to notify outbreaks to CIDR in a timely fashion and, while every effort is made to link cases to outbreaks as quickly as possible, there can sometimes be a delay in linking cases to the outbreak. Ranges in number of cases that include "0" include outbreaks that currently have no linked cases. Data in CIDR are continuously reviewed and updated and this includes the identification and linking of outbreak-associated cases.