



Epidemiology of COVID-19 Outbreaks/Clusters in Ireland

Weekly Report

Prepared by HPSC on 21st December 2020

Week 51 2020 (week ending 19th December 2020)

Note: Data are provisional

This report includes data extracted from CIDR on 21st December 2020 at 09:15am and includes COVID-19 outbreaks notified on CIDR up to midnight 19/12/2020.

Total Number of COVID-19 outbreaks notified since week 10	10,397
Number of COVID-19 outbreaks notified from week 32 (02/08/2020) onwards	8,131
Number of COVID-19 outbreaks notified since week 32: OPEN	5,698
Number of COVID-19 outbreaks notified since week 32: CLOSED	2,433
Number of COVID-19 outbreaks notified in week 51 2020	254

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/>

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

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

Summary (week 32-51, 2020)

8,131 outbreaks have been reported from week 32 onwards (week beginning 02/08/2020; the second wave of COVID-19 infection in Ireland) and key outbreak locations are as follows:

- 6,376 (78%) were in private houses
- 109 (1%) were reported in hospitals
- 101 (1%) were reported in nursing homes
- 117 (1%) were reported in residential institutions
- 1,420 (18%) were reported in a range of other settings, including workplaces (n=284; 3%), restaurant/café (n=43; 0.5%) and travel/transport related settings (n=43; 0.5%). See Table 1 for further details.

2,433 outbreaks have been closed and 5,698 outbreaks are open (See appendix 1 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.)

10,397 COVID-19 outbreaks have been reported in Ireland since week 10 2020 (Figure 1).

Summary (week 51, 2020)

In **week 51** 2020, there were **254** COVID-19 outbreaks notified.

- The overall number of outbreaks notified in week 51 decreased by 153 compared to an updated number of 407 outbreaks notified in week 50
- Private houses remain the most commonly reported outbreak location
- There were nine new acute hospital outbreaks reported this week
- There were nine nursing home and two community hospital/long stay unit outbreaks notified in week 51
- Five residential institution outbreaks were reported
- Twenty-two outbreaks associated with childcare facilities or with school children +/- school staff were notified in week 51
- There were two travel or transport-associated outbreaks
- Five workplace outbreaks were notified and locations are summarised in the workplaces section of this report

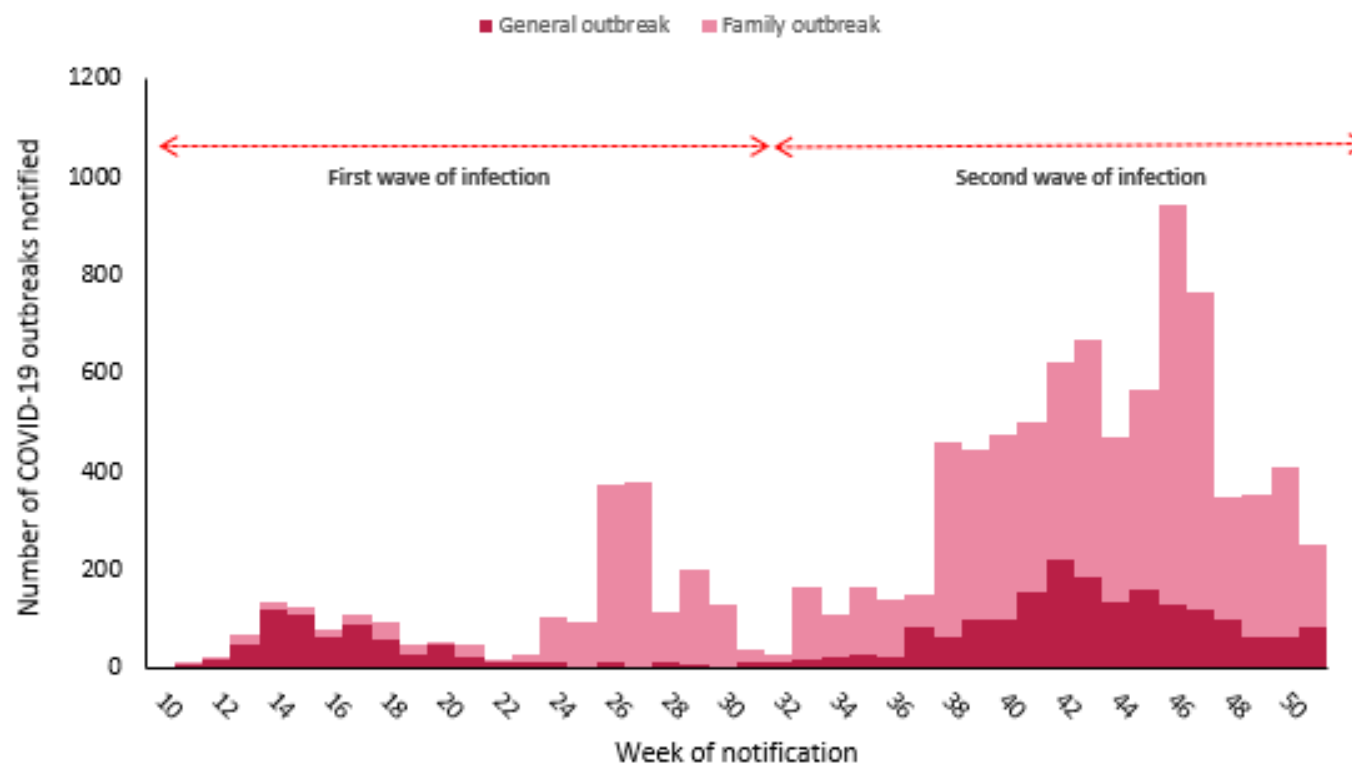


Figure 1: Epi-curve of COVID-19 outbreaks in all settings notified in Ireland by week of notification and outbreak type (see technical note 5) to midnight on 19/12/2020, N=10,397. *Data source: CIDR*
Dashed red arrows indicate the timeline of the first and second waves of COVID-19 infection in Ireland (Second wave of infection commenced in week 32; week beginning 02/08/2020).

***Note:** Family outbreaks reported in July (weeks 26 and 27) were composed largely of late notified outbreaks from the period March to May.

Note: Data are provisional

Table 1: Number of COVID-19 outbreaks notified in Ireland by outbreak location and by week of notification from 02/08/2020 to midnight on 19/12/2020, and difference in number of outbreaks notified in week 51 compared to the previous week, N=8,131

Outbreak location	Week of Outbreak Notification									Difference in number of outbreaks notified since last week	Total (Week 32-51)
	32-43	44	45	46	47	48	49	50	51		
Hospital	35	7	11	9	13	9	7	9	9	0	109
Nursing home	57	7	3	6	5	6	5	3	9	+6	101
Community Hospital / Long-stay unit	1	0	0	1	2	1	0	1	2	+1	8
Residential institution	63	16	7	8	5	4	6	3	5	+2	117
Community outbreak	119	7	21	16	18	6	1	4	8	+4	200
Other healthcare services	10	3	7	1	1	1	1	3	3	0	30
Hotel	7	0	1	0	1	0	0	1	0	-1	10
Guest house/ B&B	1	0	0	0	0	0	0	0	0	0	1
Restaurant / Cafe	33	2	3	1	2	2	0	0	0	0	43
Public house	16	1	0	0	0	1	0	0	0	0	18
Social gathering	42	3	0	3	3	1	0	2	1	-1	55
Retail outlet	16	2	1	1	0	2	4	0	0	0	26
Workplace	175	12	15	21	20	19	8	9	5	-4	284
Travel related	21	0	3	1	1	1	1	2	2	0	32
Transport	4	1	1	3	1	0	1	0	0	0	11
Private house: family outbreaks	2800	324	390	896	624	238	278	327	161	-166	6038
Private house: general outbreaks	151	29	46	41	23	23	9	6	10	+4	338
Extended family	104	5	12	13	20	9	8	13	9	-4	193
Childcare Facility	55	9	11	2	2	5	5	2	5	+3	96
School*	121	28	23	10	18	13	14	19	17	-2	263
University/College**	8	6	5	3	4	4	2	0	0	0	32
Religious/Other ceremony	12	1	1	1	2	1	1	1	2	+1	22
Sporting activity/fitness	23	1	2	1	0	0	0	1	0	-1	28
Other recreation activity	1	0	0	0	0	0	0	0	0	0	1
Personal grooming service	3	1	0	1	0	0	0	0	1	+1	6
Other	50	3	3	1	2	2	0	1	4	+3	66
Unknown	0	0	0	1	0	0	0	0	0	0	1
Not specified	1	0	0	0	0	0	0	0	1	+1	2
Total	3929	468	566	1041	767	348	351	407	254	-153	8131

*These outbreaks are outbreaks associated with school children +/- 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.

Note: Data are provisional

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

A summary of outbreaks linked to nursing homes, acute hospitals, community hospital/long-stay units, and other residential institutions is shown in Figure 2 (A-D), in the subsequent “Focus” sections and Tables 2-5. Further data on COVID-19 outbreaks in all acute hospitals, residential facilities and in nursing homes in Ireland by date of notification are available in the daily COVID-19 surveillance report.

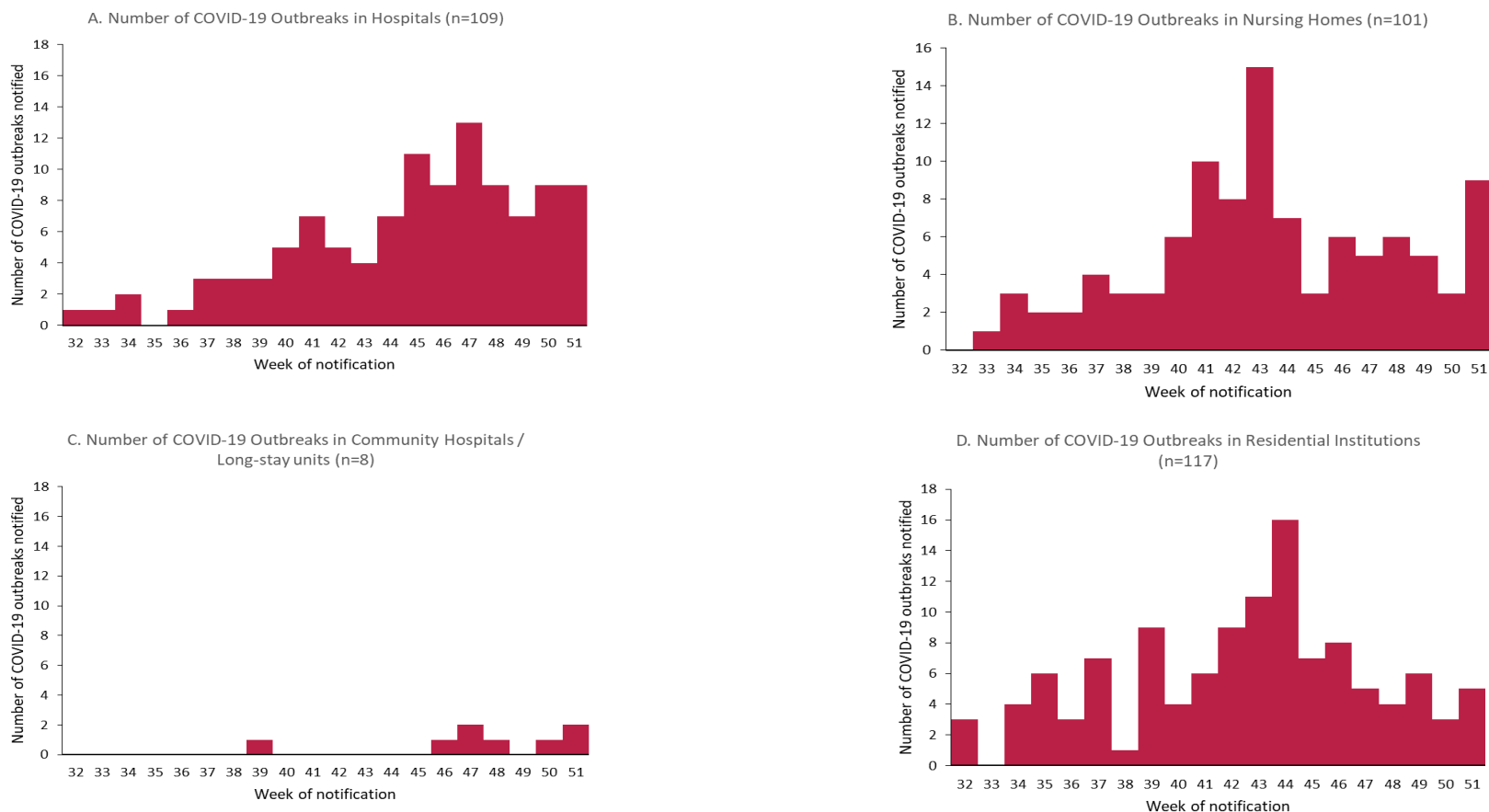


Figure 2 A-D: Epi-curve of COVID-19 outbreaks in (A) Acute Hospitals, (B) Nursing Homes, (C) Community Hospitals/Long-stay units and (D) Residential institutions notified in Ireland by week of notification, from 02/08/2020 to midnight on 19/12/2020. *Data source: CIDR.*

Note: Data are provisional

Focus on Nursing Homes and Community Hospitals

There have been **410** outbreaks in nursing homes and community hospital/long stay units, with **8,309** linked laboratory confirmed COVID-19 cases, notified in Ireland since 01/03/2020.

From week 32 (week commencing 02/08/2020) to 19/12/2020, **109** outbreaks in nursing homes or community hospital/long-stay units have been notified and 44 of these outbreaks remain open. A total of **1,912 laboratory confirmed COVID-19 cases** have been linked to these 109 outbreaks. Of those cases, 111 were hospitalised and 128 laboratory confirmed cases linked to outbreaks in these settings died (Table 2).

Cases were reported to be a healthcare worker (HCW) in 781 cases, not a HCW in 869 cases and HCW status was unknown for the remaining cases (Figure 3).

There were 11 new outbreaks reported in nursing homes (n=9) and community hospital/long-stay units (n=2) during week 51

Table 2: Number of COVID-19 outbreaks and cases[‡] in nursing homes and community hospital/long-stay units in Ireland, from 02/08/2020 to midnight on 19/12/2020. *Data source: CIDR*

Outbreak location	Number of outbreaks notified					Laboratory confirmed cases linked to outbreaks (week 32-51)				
	Week 51	Week 51 outbreaks: Range in no. of cases#	Week 32-51	Number open	Open outbreaks: Range in no. of cases#	Cases notified in week 51	Total cases	Total hospitalised cases	Total ICU cases	Total number of deaths
Nursing home	9	0-36	101	39	0-86	118	1824	109	<5	128
Community Hospital/Long-stay unit	2	2-10	8	5	1-54	12	88	<5	0	0
Total	11	0-36	109	44	0-86	130	1912	111	<5	128

[‡]Case numbers fewer than 5 are not presented here

Note: Data are provisional

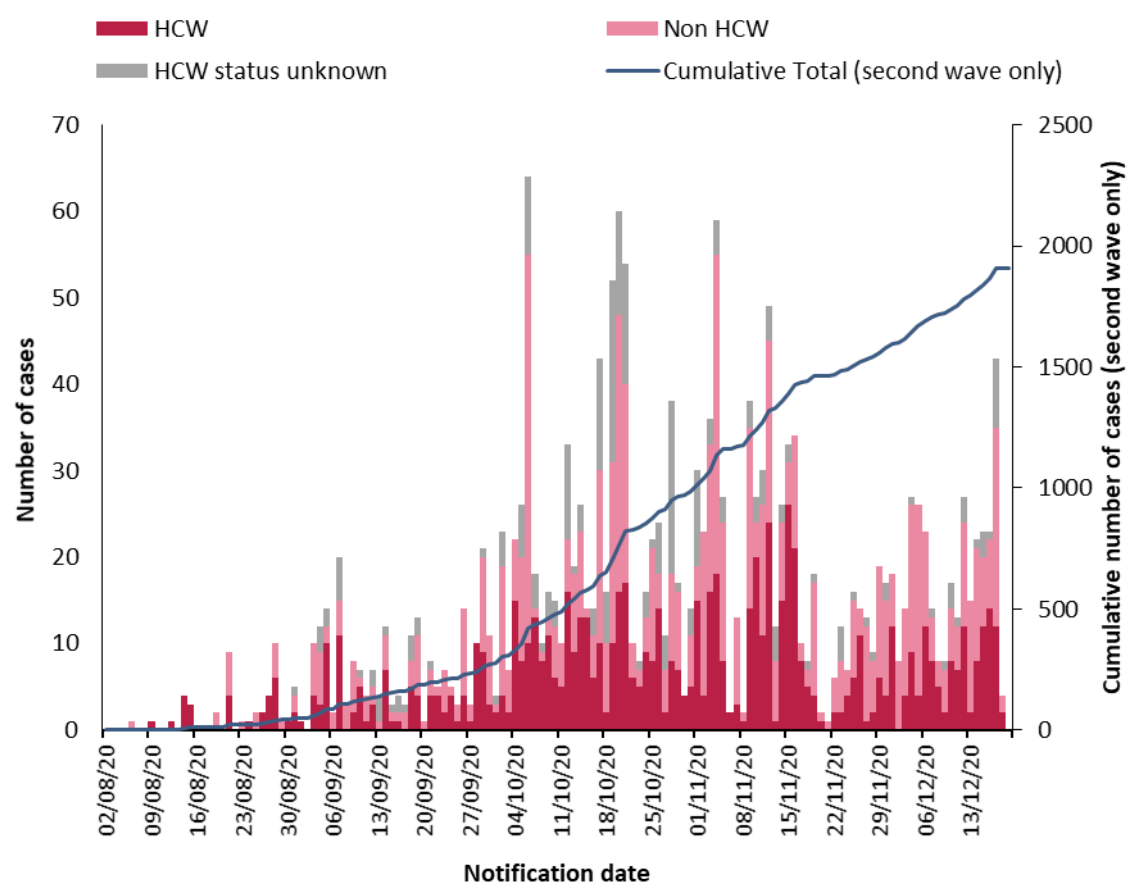


Figure 3: Epi-curve of confirmed COVID-19 cases linked to outbreaks in nursing homes and community hospital/long-stay units by healthcare worker (HCW) status and by date of notification, and cumulative number of confirmed cases during the second wave of infection by date of notification, from 02/08/2020 to midnight 19/12/2020. *Data source: CIDR*

Focus on Acute Hospitals

There were **212** outbreaks in acute hospitals, with **2,628** linked laboratory confirmed COVID-19 cases, notified in Ireland since 01/03/2020.

From week 32 (week commencing 02/08/2020) to 19/12/2020, **109** outbreaks in acute hospitals have been notified and 54 of these outbreaks remain open. A total of **1,500 laboratory confirmed COVID-19 cases** have been linked to these 109 outbreaks. Of those cases, 31 were admitted to ICU and 107 died (Table 3). Cases were reported to be a healthcare worker (HCW) in 711 cases, not a HCW in 655 cases and HCW status was unknown for the remaining cases (Figure 4).

There were 9 new outbreaks reported in acute hospitals during week 51

Table 3: Number of COVID-19 outbreaks and cases[‡] in acute hospital settings in Ireland, from 02/08/2020 to midnight on 19/12/2020. *Data source: CIDR*

Outbreak location: Acute Hospitals	Number of outbreaks notified					Laboratory confirmed cases linked to outbreaks (week 32-51)			
	Week 51	Week 51 outbreaks: Range in no. of cases#	Week 32-51	Number open	Open outbreaks: Range in no. of cases#	Cases notified in week 51	Total cases	Total ICU cases	Total number of deaths
	9	0-14	109	54	0-138	50	1500	31	107

[‡]Case numbers fewer than 5 are not presented here

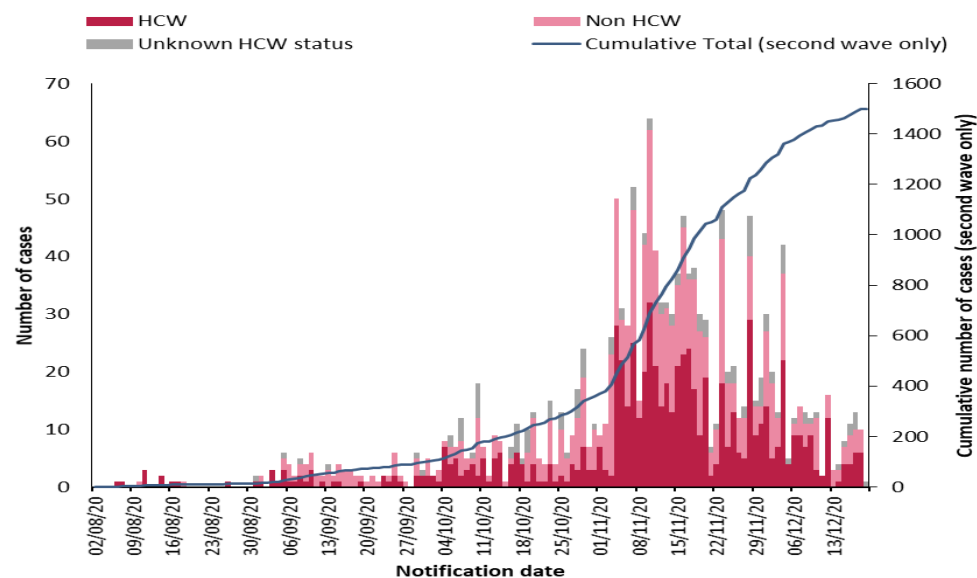


Figure 4: Epi-curve of confirmed COVID-19 cases linked to outbreaks in acute hospitals by healthcare worker (HCW) status and by date of notification, and cumulative number of confirmed cases during the second wave of infection by date of notification, from 02/08/2020 to 19/12/2020. *Data source: CIDR*

Note: Data are provisional

Focus on Residential Institutions¹

From week 32 (week commencing 02/08/2020) to 19/12/2020, **88** outbreaks in residential institutions have been notified and 16 of these outbreaks remain open. There were **419 laboratory confirmed COVID-19 cases** linked to these 88 outbreaks. Of those cases, 20 were hospitalised (Table 4). The majority of residential institution outbreaks were notified in centres for disabilities, with **55** outbreaks and **268** linked cases notified since week 32.

There were four new outbreaks reported in residential institutions during week 51:

- Three outbreaks were in a centre for disabilities
- The location of one residential institution outbreak was not specified

Table 4: Number of COVID-19 outbreaks and cases[‡] in residential institutions in Ireland, from 02/08/2020 to midnight on 19/12/2020. *Data source: CIDR*

Outbreak location	Number of outbreaks notified					Laboratory confirmed cases linked to outbreaks (week 32-51)				
	Week 51	Week 51 outbreaks: Range in no. of cases [#]	Week 32-51	Number open	Open outbreaks: Range in no. of cases [#]	Cases notified in week 51	Total cases	Total hospitalised cases	Total ICU cases	Total number of deaths
Centre for disabilities	3	0-3	55	7	0-11	<5	268	10	0	<5
Children's / TUSLA residential centre	0	n/a	8	1	n/a	0	23	<5	0	0
Mental health facility	0	n/a	10	1	n/a	0	77	<5	0	0
Other	0	n/a	8	4	0-6	0	21	<5	0	0
Not Specified	1	2-2	7	3	2-9	<5	30	<5	<5	<5
Total	4	0-3	88	16	0-11	7	419	20	<5	<5

#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)

‡Case numbers fewer than 5 are not presented here

¹ This section focusses on the following residential settings: Centres for disabilities, 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.

Note: Data are provisional

COVID-19 Outbreaks in Other Vulnerable Populations

This brief overview of COVID-19 outbreaks in vulnerable populations/settings only includes outbreaks involving the Roma community, Irish Traveller community, outbreaks in Direct Provision Centres, facilities for the homeless/those with addiction issues and prisons notified up to midnight on 19/12/2020 (Table 5).

There were 5 new outbreaks reported in vulnerable populations during week 51:

- Three were among Irish Travellers, one in the Roma Community and one in a direct provision centre

Table 5: Number of COVID-19 outbreaks in settings involving vulnerable populations, including the Roma community, Irish Traveller community, outbreaks in Direct Provision Centres, facilities for the homeless/those with addiction issues and prisons notified from week 32 (week commencing 02/08/2020) to midnight on 19/12/2020 and laboratory confirmed cases[†] linked to these outbreaks. *Data source: CIDR*

Vulnerable populations	Number of outbreaks notified					Laboratory confirmed cases linked to outbreaks (week 32-51)				
	Week 51	Week 51 outbreaks: Range in no. of cases [#]	Week 32-51	Number open	Open outbreaks: Range in no. of cases [#]	Cases notified in week 51	Total cases	Total hospitalised cases	Total ICU cases	Total number of deaths
Roma community	1	13-13	9	7	3-74	8	149	9	<5	0
Irish Travellers	3	2-21	77	45	0-66	13	1172	53	<5	0
Direct provision centres	1	1-1	17	3	1-7	0	114	<5	0	0
Homeless [^]	0	n/a	7	1	2-2	0	15	<5	<5	<5
People with addictions	0	n/a	2	0	n/a	0	33	0	0	0
Prisons	0	n/a	3	1	9-9	0	33	0	0	0
Total	5	0-21	115	57	0-74	21	1516	68	8	<5

[^] 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)

[†]Case numbers fewer than 5 are not presented here

Note: Data are provisional

COVID-19 Outbreaks in Workplaces

In total, **284** COVID-19 outbreaks in workplaces² have been notified from week 32 (week commencing 02/08/2020) to midnight on 19/12/2020. Since week 32, **55** COVID-19 outbreaks have been notified in businesses associated with the production or processing of food and beverages, of which **35** were in meat/poultry/fish plants in all HSE areas.

There were **5 COVID-19 workplace outbreaks notified during week 51**.

- Two outbreaks occurred in a business associated with manufacturing, one in a business associated with meat/poultry production and processing, one outbreak occurred in defence/justice/emergency services and one in a business associated with the construction sector

Table 6: Number of COVID-19 workplace outbreaks notified from 02/08/2020 to midnight on 19/12/2020 and laboratory confirmed cases[‡] linked to workplace outbreaks.

Workplace outbreaks	Number of outbreaks notified					Laboratory confirmed cases linked to outbreaks (week 32-51)				
	Week 51	Week 51 outbreaks: Range in no. of cases [#]	Week 32-51	Number open	Open outbreaks: Range in no. of cases [#]	Cases notified in week 51	Total cases	Total hospitalised cases	Total ICU cases	Total number of deaths
Meat/poultry Production and Processing	1	3-3	35	8	2-72	9	617	9	<5	0
Other food/beverage Production and Processing	0	n/a	20	5	0-36	21	179	<5	<5	0
Construction industry**	1	2-2	49	14	0-11	<5	180	<5	<5	0
Commercial	0	n/a	71	16	2-9	6	319	<5	<5	<5
Manufacturing	2	0-3	30	18	0-14	<5	149	5	0	0
Office-based	0	n/a	40	10	0-22	0	130	<5	0	0
Defence/Justice/Emergency services	1	2-2	15	2	2-2	<5	61	<5	0	0
Other Workplace [^]	0	n/a	22	6	2-6	0	61	0	0	0
Total	5	0-3	284	80	0-72	43	1703	26	<5	<5

**Cases linked to some construction site outbreaks may reside in Northern Ireland and consequently will be notified in that jurisdiction. These cases will not be included in the case numbers for Ireland.

[^]"Other workplace" includes businesses that do not fit in the above workplace categories.

[#]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)

[‡]Case numbers fewer than 5 are not presented here

² Workplace outbreaks exclude the following workplaces: hospitals, residential facilities, hotels, public houses, retail outlets, and other settings (outbreaks in GP practices and outbreaks associated with home carers). These are reported under those headings.

Note: Data are provisional

COVID-19 Outbreaks associated with school children (+/- staff), universities/colleges and childcare facilities

In total, **449** COVID-19 outbreaks associated with school children (+/- staff), universities/colleges/third level students and childcare facilities have been notified since week 32 (week commencing 02/08/2020) to midnight on 19/12/2020.

During week 51, there were **17** COVID-19 outbreaks associated with school children +/- staff, **five** COVID-19 outbreaks associated with childcare facilities and **two** outbreaks associated with universities/colleges/third level students. **Sixteen of the 24 outbreaks** in these settings in week 51 have more than one linked laboratory confirmed case.

Table 7: Number of COVID-19 outbreaks associated with school children (+/- staff), universities/colleges/third level students and childcare facilities notified to midnight on 19/12/2020 and laboratory confirmed cases[‡] linked to these outbreaks.

Outbreak location	Number of outbreaks notified					Laboratory confirmed cases linked to outbreaks (week 32-51)				
	Week 51	Week 51 outbreaks: Range in no. of cases [#]	Week 32-51	Number open	Open outbreaks: Range in no. of cases [#]	Cases notified in week 51	Total cases	Total hospitalised cases	Total ICU cases	Total number of deaths
School*	19	0-13	246	103	0-27	41	987	5	<5	<5
University/college/third level students**	1	0-1	88	40	1-187	<5	994	12	<5	<5
Childcare facility	2	0-4	91	39	0-16	11	434	<5	<5	<5
Total	22	0-13	425	182	0-187	52	2415	20	<5	<5

*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 also include outbreaks among third level students that may have occurred in other locations, such as private houses or social gatherings, and may not be directly linked to a University/college location

#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)

‡Case numbers fewer than 5 are not presented here

Note: Data are provisional

Appendices

Appendix 1

Table A: Number of COVID-19 outbreaks notified in Ireland by outbreak location and closure status, to midnight 19/12/2020, N=10,397

Outbreak Location	Outbreak closure status (all outbreak classifications)		
	Closed	Open	Total
Hospital	158	54	212
Nursing home	333	39	372
Community Hospital/Long-stay unit	33	5	38
Residential institution	271	24	295
Other healthcare service	19	12	31
Private house*	2762	5133	7895
Workplace	255	80	335
Travel related	54	12	66
Transport	6	5	11
Extended family	128	104	232
Childcare facility	67	29	96
Community outbreak	109	106	215
Hotel	10	2	12
Guest house/ B&B	1	0	1
Public house	21	2	23
Restaurant / Cafe	41	3	44
Social gathering	43	13	56
Retail outlet	23	8	31
School**	172	91	263
University/college***	27	5	32
Religious/Other ceremony	13	9	22
Sporting activities/fitness	28	0	28
Other recreation activity	1	0	1
Personal grooming service	4	2	6
Pet farm / Petting zoo	0	0	0
Other	62	15	77
Unknown	0	1	1
Not specified	1	1	2
Total	4642	5755	10397

*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 +/- 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

Note: Data are provisional

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.

2. 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, 5, and 6-9 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.