



Epidemiology of COVID-19 Outbreaks/Clusters in Ireland

Weekly Report

Prepared by HPSC on 29th December 2020

Week 52 2020 (week ending 26th December 2020)

Note: Data are provisional

This report includes data extracted from CIDR on 29th December 2020 at 09:15am and includes COVID-19 outbreaks notified on CIDR up to midnight 26/12/2020.

Total Number of COVID-19 outbreaks notified since week 10	10,610
Number of COVID-19 outbreaks notified from week 32 (02/08/2020) onwards	8,344
Number of COVID-19 outbreaks notified since week 32: OPEN	5,808
Number of COVID-19 outbreaks notified since week 32: CLOSED	2,536
Number of COVID-19 outbreaks notified in week 52 2020	215

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 32-52, 2020)

8,344 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:

- 6,483 (78%) were in private houses
- 119 (1.4%) were reported in hospitals
- 114 (1.4%) were reported in nursing homes
- 122 (1.5%) were reported in residential institutions
- 1,497 (18%) were reported in a range of other settings, including workplaces (n=293; 4%), restaurant/cafés (n=47; 0.6%) and travel/transport related settings (n=48; 0.6%). See Table 1 for further details.

2,536 outbreaks have been closed and 5,808 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.)

10,610 COVID-19 outbreaks have been reported in Ireland since week 10 2020 (Figure 1).

Summary (week 52, 2020)

In **week 52** 2020, there were **215** COVID-19 outbreaks notified.

- The overall number of outbreaks notified in week 52 decreased by 38 compared to week 51
- Private houses remain the most commonly reported outbreak location
- There were ten new acute hospital outbreaks reported this week
- There were 13 nursing home and one community hospital/long stay unit outbreaks notified in week 52
- Five residential institution outbreaks were reported
- Twenty-seven outbreaks associated with childcare facilities or with school children +/- school staff were notified in week 52
- There were five travel or transport-associated outbreaks associated with international travel to the UK, South Africa and Dubai
- Nine workplace outbreaks were notified and locations are summarised in the workplaces section of this report

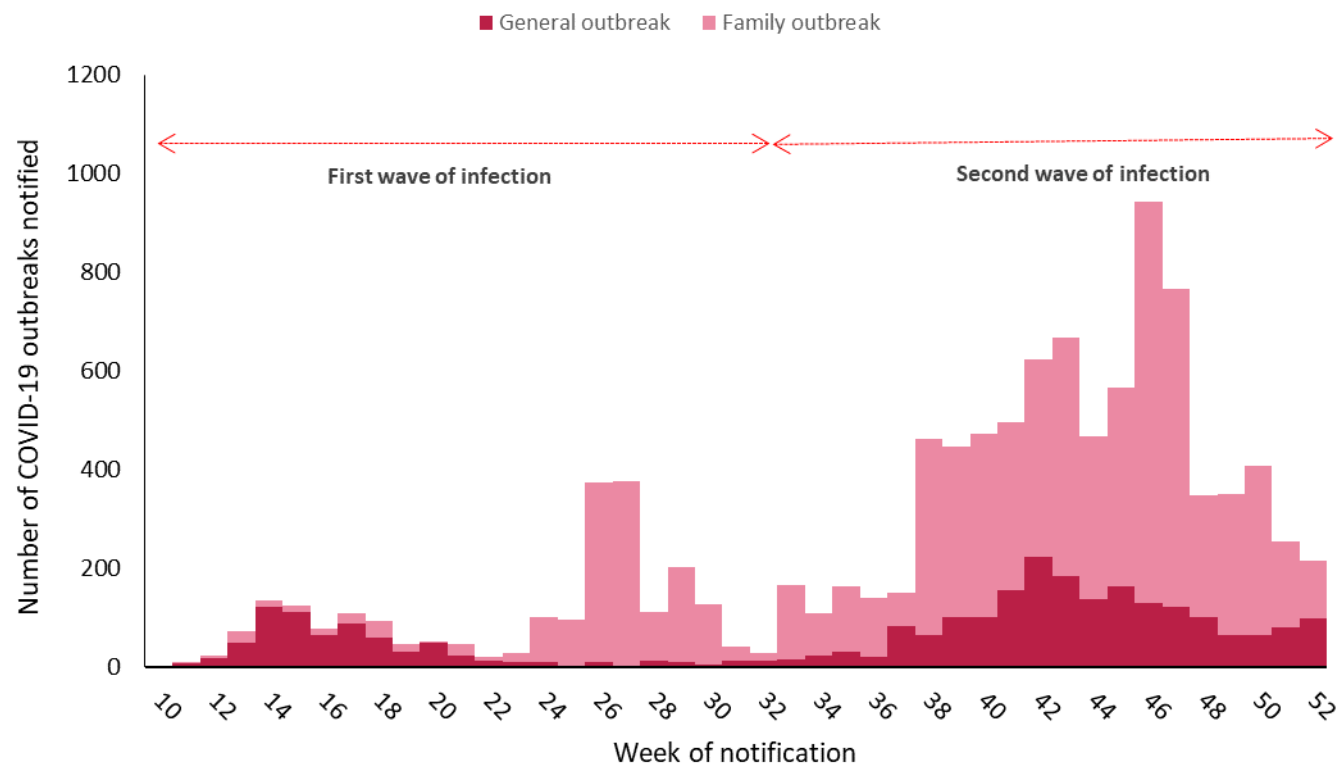


Figure 1: Epi-curve of COVID-19 outbreaks in all settings notified in Ireland by week of notification and outbreak type (see technical note 5) to midnight on 26/12/2020, N=10,610. *Data source: CIDR*

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 26/12/2020, and difference in number of outbreaks notified in week 52 compared to the previous week, N=8,344

Outbreak location	Week of Outbreak Notification									Difference in number of outbreaks notified since last week	Total (Week 32-52)
	32-44	45	46	47	48	49	50	51	52		
Hospital	42	11	9	13	9	7	9	9	10	+1	119
Nursing home	64	3	6	5	6	5	3	9	13	+4	114
Community Hospital / Long-stay unit	1	0	1	2	1	0	1	2	1	-1	9
Residential institution	79	7	8	5	4	6	3	5	5	0	122
Community outbreak	127	21	16	18	6	1	4	8	5	-3	206
Other healthcare services	13	7	1	1	1	1	3	3	2	-1	32
Hotel	7	1	0	1	0	0	1	0	2	+2	12
Guest house/ B&B	1	0	0	0	0	0	0	0	0	0	1
Restaurant / Cafe	35	3	1	2	2	0	0	0	4	+4	47
Public house	17	0	0	0	1	0	0	0	1	+1	19
Social gathering	45	0	3	3	1	0	2	1	4	+3	59
Retail outlet	18	1	1	0	2	4	0	0	1	+1	27
Workplace	187	15	21	20	19	8	9	5	9	+4	293
Travel related	21	3	1	1	1	1	2	2	3	+1	35
Transport	5	1	3	1	0	1	0	0	2	+2	13
Private house: family outbreaks	3124	390	896	624	238	278	327	161	101	-60	6139
Private house: general outbreaks	178	46	41	23	23	9	6	9	9	0	344
Extended family	109	12	13	20	9	8	13	10	9	-1	203
Childcare Facility	64	11	2	2	5	5	2	5	6	+1	102
School*	149	23	10	18	13	14	19	17	21	+4	284
University/College**	14	5	3	4	4	2	0	0	0	0	32
Religious/Other ceremony	13	1	1	2	1	1	1	2	2	0	24
Sporting activity/fitness	24	2	1	0	0	0	1	0	0	0	28
Other recreation activity	1	0	0	0	0	0	0	0	0	0	1
Personal grooming service	4	0	1	0	0	0	0	1	1	0	7
Other	53	3	1	2	2	0	1	4	3	-1	69
Unknown	0	0	1	0	0	0	0	0	0	0	1
Not specified	1	0	0	0	0	0	0	0	1	+1	2
Total	4396	566	1041	767	348	351	407	253	215	-38	8344

*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.

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.

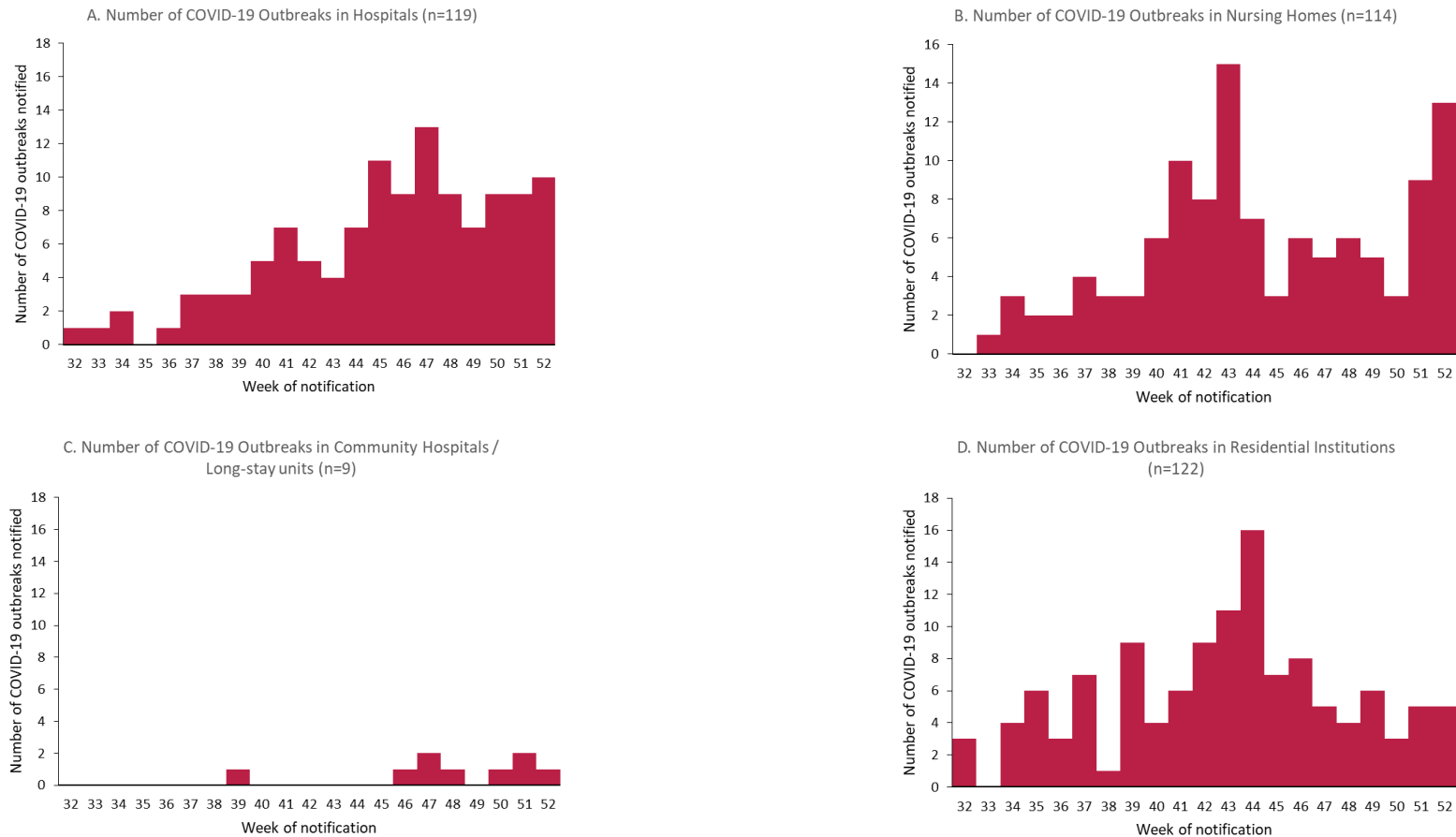


Figure 2 A-D: Epi-curve of COVID-19 outbreaks in (A) Acute Hospitals, (B) Nursing Homes, (C) Community Hospitals/Long-stay units and (D) Residential institutions notified in Ireland by week of notification, from 02/08/2020 to midnight on 26/12/2020. *Data source: CIDR.*

Note: Data are provisional

Focus on Nursing Homes and Community Hospitals

There have been **424** outbreaks in nursing homes and community hospital/long stay units, with **8,498** linked laboratory confirmed COVID-19 cases, notified in Ireland since 01/03/2020.

From 02/08/2020 to 26/12/2020, **123** outbreaks in nursing homes or community hospital/long-stay units have been notified and 53 of these outbreaks remain open. A total of **2,101 laboratory confirmed cases** linked with outbreaks in nursing homes or community hospital/long-stay units have been notified. Of those cases, 114 were hospitalised, two were admitted to ICU, and 144 laboratory confirmed cases linked to outbreaks in these settings died (Table 3).

Cases were reported to be a healthcare worker (HCW) in 871 cases, not a HCW in 931 cases and HCW status was unknown for the remaining cases (Figure 3).

There were 729 laboratory confirmed COVID-19 cases linked to 55 outbreaks in nursing homes and community hospital/long-stay units notified by HSE East (Table 4).

There were 14 new outbreaks reported in nursing homes (n=13) and community hospital/long-stay units (n=1) during week 52.

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 26/12/2020. *Data source: CIDR*

Outbreak location	Number of outbreaks notified					Laboratory confirmed cases [‡] linked to outbreaks (week 32-52)				
	Week 52	Week 52 outbreaks: Range in no. of cases [#]	Week 32-52	Number open	Open outbreaks: Range in no. of cases [#]	Cases notified in week 52	Total cases	Total hospitalised cases	Total ICU cases	Total number of deaths
Nursing home	13	0-20	114	47	0-86	146	2011	112	<5	143
Community Hospital/Long-stay unit	1	<5	9	6	1-54	<5	90	<5	<5	<5
Total	14	0-20	123	53	0-86	148	2101	114	<5	144

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

Note: Data are provisional

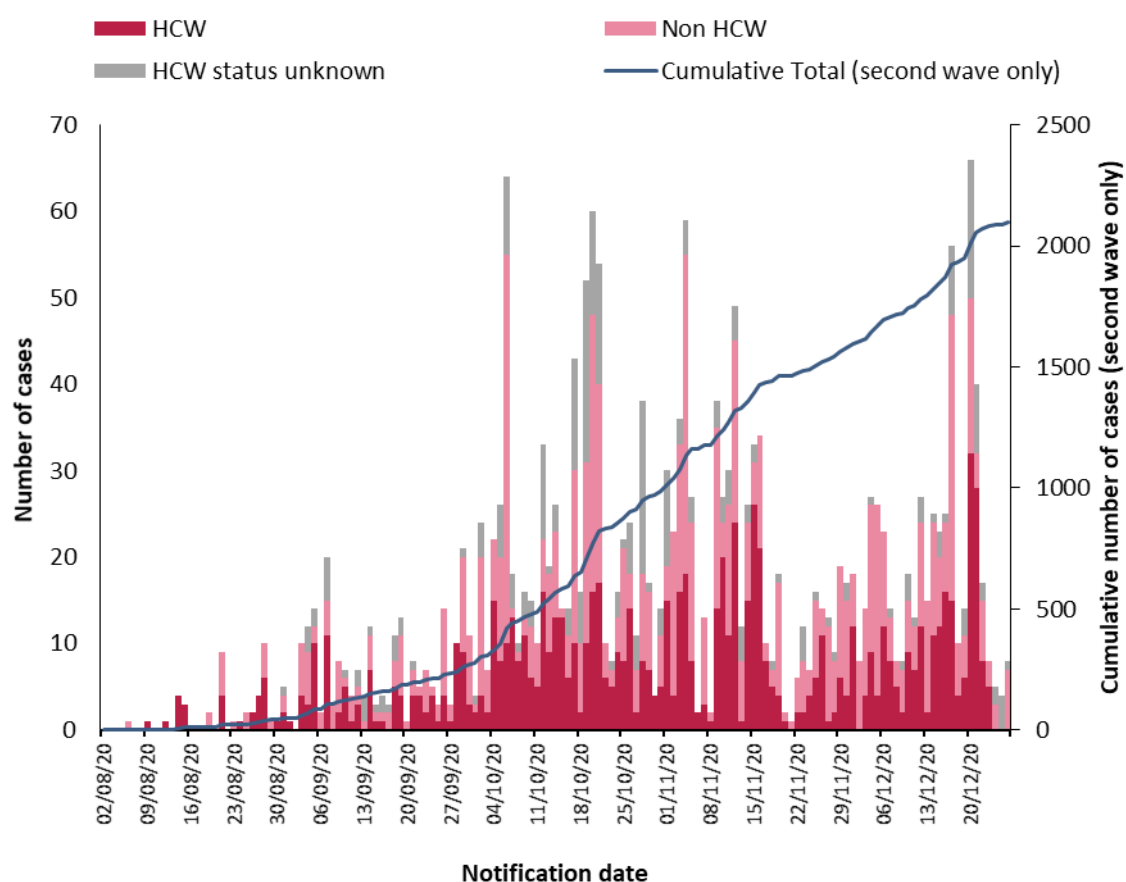


Figure 3: Epi-curve of confirmed COVID-19 cases linked to outbreaks in nursing homes and community hospital/long-stay units by healthcare worker (HCW) status and by date of notification, and cumulative number of confirmed cases during the second wave of infection by date of notification, from 02/08/2020 to midnight 26/12/2020. *Data source: CIDR*

Note: Data are provisional

Focus on Acute Hospitals

There were **222** outbreaks in acute hospitals, with **2,721** linked laboratory confirmed COVID-19 cases, notified in Ireland since 01/03/2020.

From 02/08/2020 to 26/12/2020, **119** outbreaks in acute hospitals have been notified and 54 of these outbreaks remain open. A total of **1,593 laboratory confirmed cases** linked with outbreaks in acute hospitals have been notified. Of those, 34 were admitted to ICU and 126 died (Table 5). Cases were reported to be a healthcare worker (HCW) in 736 cases, not a HCW in 711 cases and HCW status was unknown for the remaining cases (Figure 4).

There were ten new outbreaks reported in acute hospitals during week 52

Table 3: Number of COVID-19 outbreaks and cases[‡] in acute hospital settings in Ireland, from 02/08/2020 to midnight on 26/12/2020. *Data source: CIDR*

Outbreak location: Acute Hospitals	Number of outbreaks notified					Laboratory confirmed cases linked to outbreaks (week 32-52)			
	Week 52	Week 52 outbreaks: Range in no. of cases#	Week 32-52	Number open	Open outbreaks: Range in no. of cases#	Cases notified in week 52	Total cases	Total ICU cases	Total number of deaths
	10	1-10	119	55	0-138	57	1593	34	126

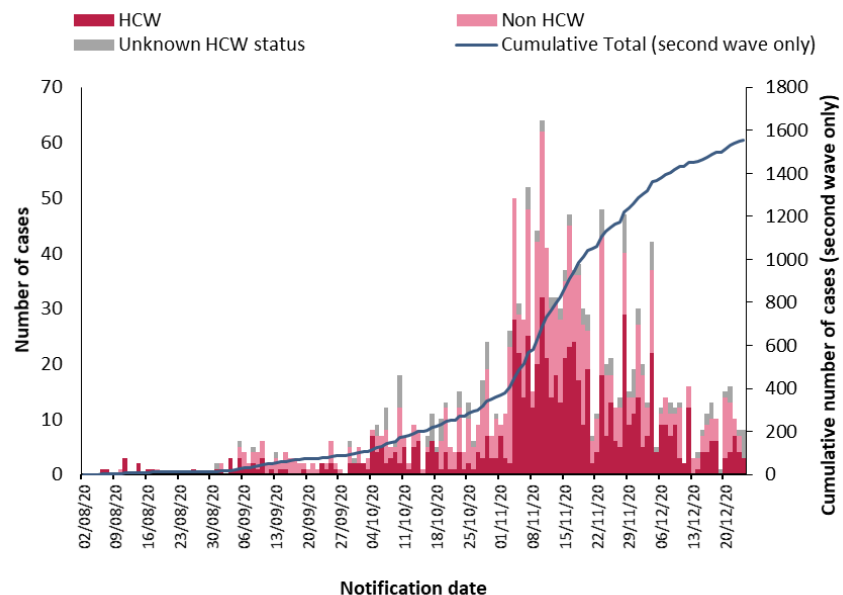


Figure 4: Epi-curve of confirmed COVID-19 cases linked to outbreaks in acute hospitals by healthcare worker (HCW) status and by date of notification, and cumulative number of confirmed cases during the second wave of infection by date of notification, from 02/08/2020 to 26/12/2020. *Data source: CIDR*

Note: Data are provisional

Focus on Residential Institutions¹

There were **240** outbreaks in residential institutions, with **1,369** linked laboratory confirmed COVID-19 cases, notified in Ireland since 01/03/2020.

From 02/08/2020 to 26/12/2020, **91** outbreaks in residential institutions have been notified and 16 of these outbreaks remain open. There were **449 laboratory confirmed cases** linked with outbreaks in residential institutions. Of those, 21 cases linked to outbreaks in residential facilities were hospitalised, 1 was admitted to ICU and three died (Table 6). The majority of residential institution outbreaks were notified in centres for disabilities, with **59** outbreaks and **297** linked cases notified since week 32.

There were four new outbreaks reported in residential institutions during week 52:

- Three outbreaks were in a centre for disabilities
- The location of one residential institution outbreak was 'other'

Table 4: Number of COVID-19 outbreaks and cases[‡] in residential institutions in Ireland, from 02/08/2020 to midnight on 26/12/2020. *Data source: CIDR*

Outbreak location	Number of outbreaks notified					Laboratory confirmed cases [‡] linked to outbreaks (week 32-52)				
	Week 52	Week 52 outbreaks: Range in no. of cases [#]	Week 32-52	Number open	Open outbreaks: Range in no. of cases [#]	Cases notified in week 52	Total cases	Total hospitalised cases	Total ICU cases	Total number of deaths
Centre for disabilities	3	0-5	59	9	0-11	15	297	11	<5	<5
Children's / TUSLA residential centre	0	n/a	8	1	n/a	<5	23	<5	<5	<5
Mental health facility	0	n/a	10	1	n/a	<5	77	<5	<5	<5
Other	1	12	9	4	0-12	11	33	<5	<5	<5
Not Specified	0	n/a	5	1	3-3	<5	19	<5	<5	<5
Total	4	0-12	91	16	0-12	26	449	21	<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 26/12/2020 (Table 5).

There were 5 new outbreaks reported in vulnerable populations during week 52:

- Two were among Irish Travellers
- 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 26/12/2020 and laboratory confirmed cases[‡] linked to these outbreaks. *Data source: CIDR*

Vulnerable populations	Number of outbreaks notified					Laboratory confirmed cases [‡] linked to outbreaks (week 32-52)				
	Week 52	Week 52 outbreaks: Range in no. of cases [#]	Week 32-52	Number open	Open outbreaks: Range in no. of cases [#]	Cases notified in week 52	Total cases	Total hospitalised cases	Total ICU cases	Total number of deaths [*]
Roma community	0	n/a	9	7	3-74	<5	149	9	<5	<5
Irish Travellers	2	3-12	79	45	0-66	12	1193	53	<5	<5
Direct provision centres	1	29	19	5	2-29	29	146	<5	<5	<5
Homeless [^]	0	n/a	7	1	2-2	<5	15	5	<5	<5
People with addictions	0	n/a	2	0	n/a	<5	33	<5	<5	<5
Prisons	0	n/a	3	1	9-9	<5	33	<5	<5	<5
Total	3	3-29	119	59	0-74	41	1569	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, **293** COVID-19 outbreaks in workplaces² have been notified from 02/08/2020 up to midnight on 26/12/2020. Since week 32, **56** 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 **nine COVID-19 workplace outbreaks notified during week 52**

- Five outbreaks associated with the Commercial sector occurred
- Two outbreaks associated with Defence/Justice/Emergency services occurred
- There was one outbreak related to the food industry and one related to the Construction industry

Table 6: Number of COVID-19 workplace outbreaks notified from 02/08/2020 to midnight on 26/12/2020 and laboratory confirmed cases[‡] linked to workplace outbreaks.

Workplace outbreaks	Number of outbreaks notified					Laboratory confirmed cases [‡] linked to outbreaks (week 32-52)				
	Week 52	Week 52 outbreaks: Range in no. of cases [#]	Week 32-52	Number open	Open outbreaks: Range in no. of cases [#]	Cases notified in week 52	Total cases	Total hospitalised cases	Total ICU cases	Total number of deaths [*]
Meat/poultry Production and Processing	0	n/a	35	6	3-72	<5	623	9	<5	<5
Other food/beverage Production and Processing	1	<5	21	4	0-37	<5	182	<5	<5	<5
Construction industry ^{**}	1	<5	51	8	0-11	<5	186	<5	<5	<5
Commercial	5	2-9	76	13	2-9	16	345	<5	<5	<5
Manufacturing	0	n/a	30	12	0-14	<5	153	5	<5	<5
Office-based	0	n/a	41	4	0-22	<5	133	<5	<5	<5
Defence/Justice/Emergency services	2	1-6	17	4	1-6	8	69	<5	<5	<5
Other Workplace [^]	0	n/a	22	4	2-6	<5	61	<5	<5	<5
Total	9	1-9	293	55	0-72	30	1752	27	<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, **476** COVID-19 outbreaks associated with school children (+/- staff), universities/colleges/third level students and childcare facilities have been notified from 02/08/2020 up to midnight on 26/12/2020.

During week 52, there were **21** COVID-19 outbreaks associated with school children +/- staff, **six** COVID-19 outbreaks associated with childcare facilities. **21 of the 24 outbreaks** in these settings in week 52 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 26/12/2020 and laboratory confirmed cases[‡] linked to these outbreaks.

Outbreak location	Number of outbreaks notified					Laboratory confirmed cases [‡] linked to outbreaks (week 32-52)				
	Week 52	Week 52 outbreaks: Range in no. of cases [#]	Week 32-52	Number open	Open outbreaks: Range in no. of cases [#]	Cases notified in week 52	Total cases	Total hospitalised cases	Total ICU cases ^{***}	Total number of deaths
School*	21	1-16	284	103	0-48	43	1205	8	<5	<5
University/college/third level students**	0	n/a	90	34	2-190	<5	1006	12	<5	<5
Childcare facility	6	0-11	102	25	0-22	35	517	<5	<5	<5
Total	27	0-16	476	162	0-190	78	2728	23	<5	<5

*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 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 26/12/2020, N=10,610

Outbreak Location	Outbreak closure status (all outbreak classifications)		
	Closed	Open	Total
Hospital	167	55	222
Nursing home	338	47	385
Community Hospital/Long-stay unit	33	6	39
Residential institution	274	26	300
Other healthcare service	19	14	33
Private house*	2781	5221	8002
Workplace	289	55	344
Travel related	56	13	69
Transport	8	5	13
Extended family	130	112	242
Childcare facility	77	25	102
Community outbreak	113	108	221
Hotel	10	4	14
Guest house/ B&B	1	0	1
Public house	21	3	24
Restaurant / Cafe	43	5	48
Social gathering	43	17	60
Retail outlet	23	9	32
School**	181	103	284
University/college***	28	4	32
Religious/Other ceremony	13	11	24
Sporting activities/fitness	28	0	28
Other recreation activity	1	0	1
Personal grooming service	4	3	7
Pet farm / Petting zoo	0	0	0
Other	63	17	80
Unknown	0	1	1
Not specified	1	1	2
Total	4745	5865	10610

*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.

Note: Data are provisional