



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

Prepared by HPSC on 4th January 2021

Week 53 2020 (week ending 2nd January 2021)

Note: Data are provisional

This report includes data extracted from CIDR on 4th January 2021 at 09:15am and includes COVID-19 outbreaks notified on CIDR up to midnight 02/01/2021.

Total Number of COVID-19 outbreaks notified since week 10	10,762
Number of COVID-19 outbreaks notified from week 32 (02/08/2020) onwards	8,496
Number of COVID-19 outbreaks notified since week 32: OPEN	5,943
Number of COVID-19 outbreaks notified since week 32: CLOSED	2,553
Number of COVID-19 outbreaks notified in week 53 2020	154

Due to the surge in case numbers in recent days, there is a delay in reporting of outbreaks to the national surveillance system (CIDR) and the linking of cases to outbreaks. Therefore, the number of outbreaks and linked cases in this report are likely to be underestimates.

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 32-53, 2020)

8,496 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:

- 6,532 (77%) were in private houses
- 141 (1.7%) were reported in hospitals
- 135 (1.6%) were reported in nursing homes
- 132 (1.6%) were reported in residential institutions
- 1,556 (18%) were reported in a range of other settings, including workplaces (n=304; 3.6%), restaurant/cafés (n=54; 0.6%) and travel/transport related settings (n=48; 0.6%). See Table 1 for further details.

2,553 outbreaks have been closed and 5,943 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.)

10,762 COVID-19 outbreaks have been reported in Ireland since week 10 2020 (Figure 1).

Summary (week 53, 2020)

In week 53 2020, there were 154 COVID-19 outbreaks notified.

- The overall number of outbreaks notified in week 53 decreased by 59 compared to week 52
- Private houses remain the most commonly reported outbreak location
- There were 23 new acute hospital outbreaks reported this week
- There were 22 nursing home and one community hospital/long stay unit outbreaks notified in week 53
- Ten residential institution outbreaks were reported
- Sixteen outbreaks associated with childcare facilities or with school children +/- school staff were notified in week 53
- There were no travel or transport-associated outbreaks
- Eleven workplace outbreaks were notified and locations are summarised in the workplaces section of this report

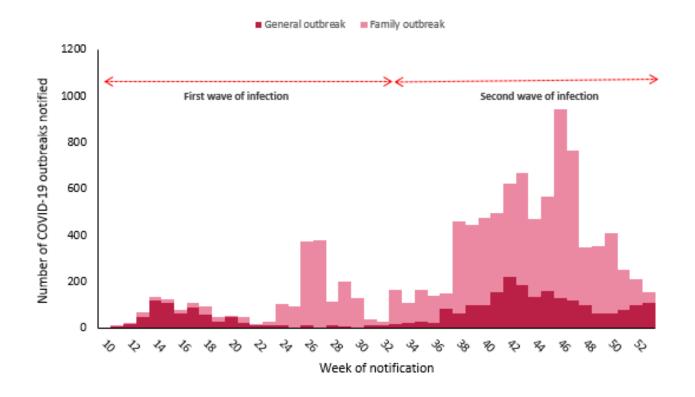


Figure 1: Epi-curve of COVID-19 outbreaks in all settings notified in Ireland by week of notification and outbreak type (see technical note 5) to midnight on 02/01/2021, N=10,762. *Data source: CIDR*

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.

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 02/01/2021, and difference in number of outbreaks notified in week 53 compared to the previous week, N=8,496

Outbreak location			We	ek of O	utbreak I	Difference in number of outbreaks	Total (Week				
Outbreak location	32-45	46	47	48	49	50	51	52	53	notified since last week	32-53)
Hospital	53	9	13	9	7	9	9	9	23	+14	141
Nursing home	67	6	5	6	5	3	9	12	22	+10	135
Community Hospital / Long-stay unit	1	1	2	1	0	1	2	1	1	0	10
Residential institution	86	8	5	4	6	3	5	5	10	+5	132
Community outbreak	148	16	18	6	1	4	8	5	0	-5	206
Other healthcare services	20	1	1	1	1	3	3	2	2	0	34
Hotel	8	0	1	0	0	1	0	2	0	-2	12
Guest house/ B&B	1	0	0	0	0	0	0	0	0	0	1
Restaurant / Cafe	38	1	2	2	0	0	0	4	7	+3	54
Public house	17	0	0	1	0	0	0	1	3	+2	22
Social gathering	45	3	3	1	0	2	1	4	1	-3	60
Retail outlet	19	1	0	2	4	0	0	1	1	0	28
Workplace	202	21	20	19	8	9	5	9	11	+2	304
Travel related	24	1	1	1	1	2	2	3	0	-3	35
Transport	6	3	1	0	1	0	0	2	0	-2	13
Private house: family outbreaks	3514	896	624	238	278	327	161	101	40	-61	6179
Private house: general outbreaks	224	41	23	23	9	6	9	9	9	0	353
Extended family	121	13	20	9	8	13	10	10	6	-4	210
Childcare Facility	75	2	2	5	5	2	5	6	5	-1	107
School*	172	10	18	13	14	19	17	21	11	-10	295
University/College**	19	3	4	4	2	0	0	0	0	0	32
Religious/Other ceremony	14	1	2	1	1	1	2	2	2	0	26
Sporting activity/fitness	26	1	0	0	0	1	0	0	0	0	28
Other recreation activity	1	0	0	0	0	0	0	0	0	0	1
Personal grooming service	4	1	0	0	0	0	1	1	0	-1	7
Other	56	1	2	2	0	1	4	3	0	-3	69
Unknown	0	1	0	0	0	0	0	0	0	0	1
Not specified	1	0	0	0	0	0	0	0	0	0	1
Total	4962	1041	767	348	351	407	253	213	154	-59	8496

^{*}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.

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.

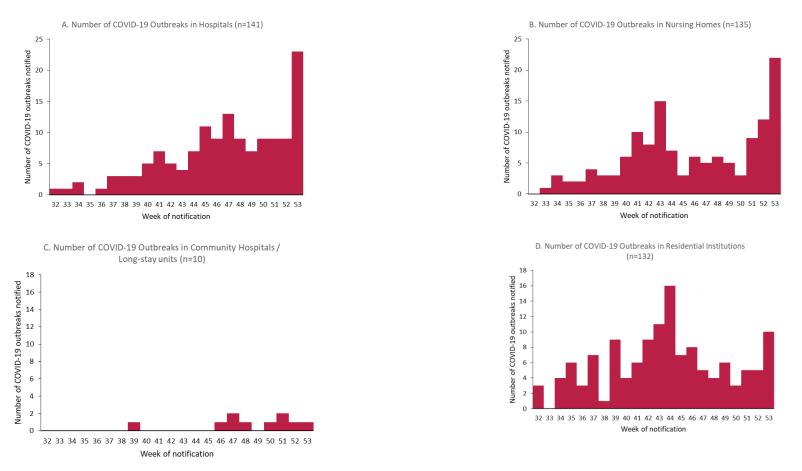


Figure 2 A-D: Epi-curve of COVID-19 outbreaks in (A) Acute Hospitals, (B) Nursing Homes, (C) Community Hospitals/Long-stay units and (D) Residential institutions notified in Ireland by week of notification, from 02/08/2020 to midnight on 02/01/2021. *Data source: CIDR.*

Focus on Nursing Homes and Community Hospitals

There have been **446** outbreaks in nursing homes and community hospital/long stay units, with **8,620** linked laboratory confirmed COVID-19 cases, notified in Ireland since 01/03/2020.

From 02/08/2020 to 02/01/2021, **145** outbreaks in nursing homes or community hospital/long-stay units have been notified and 71 of these outbreaks remain open. A total of **2,223 laboratory confirmed cases** linked with outbreaks in nursing homes or community hospital/long-stay units have been notified. Of those cases, 119 were hospitalised, two were admitted to ICU, and 163 laboratory confirmed cases linked to outbreaks in these settings died (Table 3).

Cases were reported to be a healthcare worker (HCW) in 898 cases, not a HCW in 944 cases and HCW status was unknown for the remaining cases (Figure 3).

There were 782 laboratory confirmed COVID-19 cases linked to 60 outbreaks in nursing homes and community hospital/long-stay units notified by HSE East (Table 4).

There were 23 new outbreaks reported in nursing homes (n=22) and community hospital/long-stay units (n=1) during week 53.

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 02/01/2021. *Data source: CIDR*

		Number o	of outbre	aks notifie	d	Laboratory confirmed cases‡ linked to outbreaks (week 32-53)				
Outbreak location	Week 53	Week 53 outbreaks: Range in no. of cases#	Week 32-53	Number open	Open outbreaks: Range in no. of cases#	Cases notified in week 53	Total cases	Total hospitalised cases	Total ICU cases	Total number of deaths
Nursing home	22	0-26	135	64	0-82	65	2126	116	<5	160
Community Hospital/Long-stay unit	1	6	10	7	1-54	<5	97	<5	<5	<5
Total	23	0-26	145	71	0-82	69	2223	119	<5	163

‡Case numbers fewer than 5 are not presented here

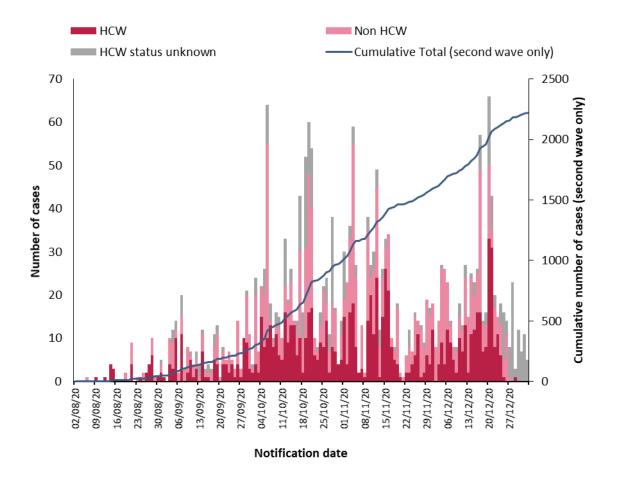


Figure 3: Epi-curve of confirmed COVID-19 cases linked to outbreaks in nursing homes and community hospital/long-stay units by healthcare worker (HCW) status and by date of notification, and cumulative number of confirmed cases during the second wave of infection by date of notification, from 02/08/2020 to midnight 02/01/2021. *Data source: CIDR*

Focus on Acute Hospitals

There were 244 outbreaks in acute hospitals, with 2,845 linked laboratory confirmed COVID-19 cases, notified in Ireland since 01/03/2020.

From 02/08/2020 to 02/01/2021, **141** outbreaks in acute hospitals have been notified and 76 of these outbreaks remain open. A total of **1,717 laboratory confirmed cases** linked with outbreaks in acute hospitals have been notified. Of those, 35 were admitted to ICU and 135 died (Table 5). Cases were reported to be a healthcare worker (HCW) in 766 cases, not a HCW in 719 cases and HCW status was unknown for the remaining cases (Figure 4).

There were 23 new outbreaks reported in acute hospitals during week 53

Table 3: Number of COVID-19 outbreaks and cases[‡] in acute hospital settings in Ireland, from 02/08/2020 to midnight on 02/01/2021. Data source: CIDR

		Number	of outbrea		Laboratory confirmed cases linked to outbreaks (week 32-53)				
Outbreak location: Acute Hospitals	Week 53	Week 53 outbreaks: Range in no. of cases#	Week 32-53	Number open	Open outbreaks: Range in no. of cases#	Cases notified in week 53	Total cases	Total ICU cases	Total number of deaths
	23	0-18	141	76	0-138	101	1717	35	135

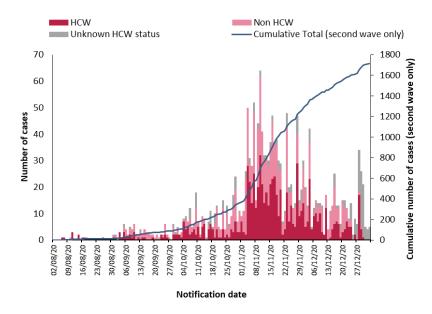


Figure 4: Epi-curve of confirmed COVID-19 cases linked to outbreaks in acute hospitals by healthcare worker (HCW) status and by date of notification, and cumulative number of confirmed cases during the second wave of infection by date of notification, from 02/08/2020 to 02/01/2021. *Data source: CIDR*

Focus on Residential Institutions¹

There were 248 outbreaks in residential institutions, with 1,375 linked laboratory confirmed COVID-19 cases, notified in Ireland since 01/03/2020.

From 02/08/2020 to 02/01/2021, **97** outbreaks in residential institutions have been notified and 22 of these outbreaks remain open. There were **455 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 four died (Table 6). The majority of residential institution outbreaks were notified in centres for disabilities, with **62** outbreaks and **304** linked cases notified since week 32.

There were four new outbreaks reported in residential institutions during week 53:

- Three outbreaks were in a centre for disabilities
- Three outbreaks were in Children's / TUSLA residential centres
- 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 02/01/2021. Data source: CIDR

		Number of	f outbrea	ıks notified		Laboratory confirmed cases [‡] linked to outbreaks (week 32-53)					
Outbreak location	Week 53	Week 53 outbreaks: Range in no. of cases#	Week 32-53	Number open	Open outbreaks: Range in no. of cases#	Cases notified in week 53	Total cases	Total hospitalised cases	Total ICU cases	Total number of deaths	
Centre for disabilities	3	0-2	62	12	0-11	<5	304	11	<5	<5	
Children's / TUSLA residential centre	3	0-2	11	4	0-2	<5	25	<5	<5	<5	
Mental health facility	0	n/a	10	1	n/a	<5	77	<5	<5	<5	
Other	0	n/a	9	4	0-12	<5	33	<5	<5	<5	
Not Specified	1	n/a	5	1	n/a	<5	16	<5	<5	<5	
Total	7	0-2	97	22	0-12	<5	455	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.

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 02/01/2021 (Table 5).

There were two new outbreaks reported in vulnerable populations during week 53:

- One was 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 02/01/2021 and laboratory confirmed cases[‡] linked to these outbreaks. *Data source: CIDR*

		Number	of outbre	d	Laboratory confirmed cases [†] linked to outbreaks (week 32-53)						
Vulnerable populations	Week 53	Week 53 outbreaks: Range in no. of cases#	Week 32-53	Number open	Open outbreaks: Range in no. of cases#	Cases notified in week 53	Total cases	Total hospitalised cases	Total ICU cases	Total number of deaths*	
Roma community	0	n/a	9	7	3-74	0	149	9	<5	<5	
Irish Travellers	1	n/a	80	45	0-66	0	1193	53	<5	<5	
Direct provision centres	1	9	21	7	2-29	0	158	<5	<5	<5	
Homeless [^]	0	n/a	7	1	2	0	15	<5	<5	<5	
People with addictions	0	n/a	2	0	n/a	0	33	<5	<5	<5	
Prisons	0	n/a	3	1	9	0	33	<5	<5	<5	
Total	2	0-9	122	61	0-74	0	1581	69	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

COVID-19 Outbreaks in Workplaces

In total, **304** COVID-19 outbreaks in workplaces² have been notified from 02/08/2020 up to midnight on 02/01/2021. 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 eleven COVID-19 workplace outbreaks notified during week 53

- Six outbreaks associated with the Commercial sector occurred
- Two outbreaks associated with Defence/Justice/Emergency services occurred
- There was one outbreak related to manufacturing and two classed as 'other workplaces'

Table 6: Number of COVID-19 workplace outbreaks notified from 02/08/2020 to midnight on 02/01/2021 and laboratory confirmed cases[‡] linked to workplace outbreaks.

	Number of outbreaks notified							Laboratory confirmed cases [‡] linked to outbreaks (week 32-53)						
Workplace outbreaks	Week 53	Week 53 outbreaks: Range in no. of cases#	Week 32-53	Number open	Open outbreaks: Range in no. of cases#	Cases notified in week 53	Total cases	Total hospitalised cases	Total ICU cases	Total number of deaths*				
Meat/poultry Production and Processing	0	n/a	35	6	3-72	7	636	9	<5	<5				
Other food/beverage Production and Processing	0	n/a	21	4	0-37	<5	182	<5	<5	<5				
Construction industry**	0	n/a	51	8	0-11	<5	186	<5	<5	<5				
Commercial	6	0-7	82	18	0-10	<5	358	<5	<5	<5				
Manufacturing	1	1	31	11	0-14	<5	154	5	<5	<5				
Office-based	0	n/a	41	4	0-22	<5	133	<5	<5	<5				
Defence/Justice/Emergency services	2	0-2	19	6	0-6	<5	71	<5	<5	<5				
Other Workplace^	2	0-6	24	6	2-6	5	69	<5	<5	<5				
Total	11	0-7	304	63	0-72	15	1789	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.

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

In total, **492** 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 02/01/2021.

During week 53, there were 11 COVID-19 outbreaks associated with school children +/- staff, five COVID-19 outbreaks associated with childcare facilities.

Table 7: Number of COVID-19 outbreaks associated with school children (+/- staff), universities/colleges/third level students and childcare facilities notified to midnight on 02/01/2021 and laboratory confirmed cases[‡] linked to these outbreaks.

	Number	Laboratory confirmed cases [‡] linked to outbreaks (week 32-53)								
Outbreak location	Week 53	Week 53 outbreaks: Range in no. of cases#	Week 32-53	Number open	Open outbreaks: Range in no. of cases#	Cases notified in week 53	Total cases	Total hospitalised cases	Total ICU cases***	Total number of deaths
School*	11	0-5	295	109	0-48	15	1234	8	<5	0
University/college/third level students**	0	n/a	90	33	2-190	<5	1006	12	<5	0
Childcare facility	5	0-6	107	30	0-22	<5	529	<5	<5	0
Total	16	0-6	492	172	0-190	19	2769	23	<5	0

^{*}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

Appendices Appendix 1

Table A: Number of COVID-19 outbreaks notified in Ireland by outbreak location and closure status, to midnight 02/01/2021, N=10,762

Outbreak Location	Outbreak closure status (all outbreak class								
	Closed	Open	Total						
Hospital	168	76	244						
Nursing home	342	64	406						
Community Hospital/Long-stay unit	33	7	40						
Residential institution	275	35	310						
Other healthcare service	20	15	35						
Private house*	2781	5270	8051						
Workplace	292	63	355						
Travel related	56	13	69						
Transport	8	5	13						
Extended family	130	119	249						
Childcare facility	77	30	107						
Community outbreak	113	108	221						
Hotel	10	4	14						
Guest house/ B&B	1	0	1						
Public house	21	6	27						
Restaurant / Cafe	43	12	55						
Social gathering	43	18	61						
Retail outlet	23	10	33						
School**	186	109	295						
University/college***	29	3	32						
Religious/Other ceremony	14	12	26						
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	0	1						
Total	4762	6000	10762						

^{*}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, 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.