



## Weekly Epidemiological Report on COVID-19 cases aged 0-18 years and COVID-19 mass testing in schools in Ireland Week 7, 2022

Health Protection Surveillance Centre, HPSC COVID-19 Epidemiology Team, 21/02/2022

Dates to note:

- Week 7 2022 (week commencing 13/02/2022)
- Week 10 2020 (week commencing 01/03/2020) The beginning of the pandemic in Ireland
- 2021/2022 academic year in Ireland (Week 35 2021 (week commencing 29/08/2021) to present)
- Wave 4 of the pandemic in Ireland (Week 26 2021 (week commencing 27/06/2021) to Week 50 2021 (week commencing 12/12/2021)
- Wave 5 of the pandemic in Ireland (Week 51 2021 (week commencing 19/12/2021) to present)
- Please see next slide for additional dates to note

Note: The epidemiological weeks in this report, run from Sunday to Saturday, please refer to the surveillance resources on the HPSC website for a complete list of epidemiological weeks with start and end dates.

#### Summary of important dates for childcare facilities (CCFs) and schools

Also see Figures 1a and 1b for summary of key dates



Epidemiological Week*	Epi week start date	School and childcare facility closures/openings and other key dates
Week 11, 2020	08/03/2020	All Schools and Childcare facilities close.
Week 27, 2020	29/06/2020	Childcare facilities re-open.
Week 35, 2020	23/08/2020	Schools re-open for 2020/21 academic year.
Week 52, 2020	20/12/2020	All schools close for on-site education. Childcare facilities continue with reduced capacity.
Week 5, 2021: Phased re- opening of schools commences	07/02/2021	Partial re-opening of special education schools.
Week 9, 2021	28/02/2021	Junior classes in primary school (junior infants to 2 <sup>nd</sup> class) and leaving certificate students in secondary school return. Childcare facilities return to full capacity.
Week 11, 2021	14/03/2021	The remaining primary school classes and 5 <sup>th</sup> year students in secondary school return.
Week 13, 2021	28/03/2021	All schools close for Easter holiday
Week 15, 2021	11/04/2021	All schools re-open after Easter holiday. The remaining secondary school classes return.

## Summary of important dates for childcare facilities (CCFs) and schools: Continued

Also see Figures 1a and 1b for summary of key dates



Epidemiological Week*	Epi week start date	School and childcare facility closures/openings and other key dates
Week 21, 2021	23/05/2021	End of term for most post-primary schools to facilitate beginning of state examinations.
Week 25, 2021	20/06/2021	End of term for most primary schools.
Week 30, 2021	25/07/2021	Vaccine registration opens for 16 and 17 year olds.
Week 32, 2021	08/08/2021	Vaccine registration opens for 12-15 year olds.
Week 35, 2021	29/08/2020	Beginning of 2021/2022 academic year of the pandemic in Ireland. Schools re-open for 2021/22 academic year.
Week 39, 2021	26/09/2021	From Monday 27 <sup>th</sup> of September, routine contact tracing will no longer take place for asymptomatic close contacts among children (aged 12 years and younger) in settings such as childcare facilities, primary education and social and sporting groups.
Week 43, 2021	24/10/2021	All schools close for mid-term break.
Week 48, 2021	28/11/2021	From Monday 29 <sup>th</sup> of November, antigen tests will be offered to primary school children if there is a confirmed case of COVID-19 in their pod OR if there are two or more confirmed cases of COVID-19 in different pods in their class within a 7 day period. From Wednesday 1 <sup>st</sup> of December, pupils from third class and up in primary schools are required to wear a face mask/covering unless otherwise exempt.

\*Note: The epidemiological weeks in this report, run from Sunday to Saturday, please refer to the surveillance resources on the HPSC website for a complete list of epidemiological weeks with start and end dates.

## Summary of important dates for childcare facilities (CCFs) and schools: Continued

Also see Figures 1a and 1b for summary of key dates



Epidemiological Week*	Epi week start date	School and childcare facility closures/openings and other key dates
Week 51, 2021	19/12/2021	School closures for Christmas holidays.
Week 1, 2022	02/01/2022	Schools re-open. From Monday 6 <sup>th</sup> January there was a change in testing policy: Symptomatic people aged between 4 and 39 years were advised to undertake antigen self-testing, and to book a PCR test if an antigen test is positive.
Week 2, 2022	09/01/2022	From Friday 14 <sup>th</sup> January people aged between 4 and 39 years are not required to have a confirmatory PCR test after a positive antigen test. A system to register positive antigen tests on the HSE website was launched.
Week 4, 2022	23/01/2022	From 22/01/2022, most COVID-19 restrictions were lifted.

•

- Since 14<sup>th</sup> January 2022, a confirmatory PCR test is no longer necessary for some groups of people testing positive on an antigen test in the community, see <u>guidance</u>. Cases with a positive antigen test are asked to register the result on the HSE Positive Antigen Portal. The number of cases registering a positive antigen test on the Positive Antigen Portal the previous day has been reported on a daily basis in addition to the estimate based on the positive PCR results.
- People registering a positive antigen test through the HSE Positive Antigen Portal are managed in the same way as those with a positive SARS-CoV-2 PCR test in terms of Public Health advice and management of close contacts.
- However, for surveillance purposes, a self-administered positive antigen test registered on the Positive Antigen Portal is not considered to be a confirmed COVID-19 case as it is not subject to data validation and linkage to previous or subsequent PCR results is not feasible.
- In this report, confirmed cases notified on CIDR are presented separately to cases who registered a positive antigen test result on the HSE Positive Antigen Portal. In this report, confirmed COVID-19 cases are PCR positive cases notified on CIDR as per the case definition.
- Data from both sources (CIDR and the Positive Antigen Portal) should be interpreted in the context of the current testing policy. The change to the testing policy on 14<sup>th</sup> January for some groups (see above), will affect the number and age distribution of confirmed cases notified on CIDR. Those aged 4-39 years outside of risk groups no longer require a confirmatory PCR test after a positive antigen test. These age-groups will be over represented in data from the Positive Antigen Portal and under represented in the PCR data.
- The surge in case numbers during week 51, 2021 to week 2, 2022, exceeded the capacity of surveillance partners leading to an increased reporting time (time from when a case is diagnosed to when they are processed on CIDR) to CIDR.
- For this reason, notifications on CIDR in week 51, 2021 to week 2, 2022 were reduced compared to the number of cases diagnosed during this period. Notifications on CIDR in week 3 and 4, 2022 were inflated compared to cases diagnosed during week 3 and 4, due to the ongoing processing of cases diagnosed during previous weeks.
- CIDR data by date of notification do not accurately reflect trends between week 51, 2021 and week 4, 2022.
- Departments of Public Health are currently prioritising Public Health Risk Assessments, outbreak investigations, and outbreak reporting to settings that have the greatest clinical need or would benefit most from Public Health intervention. For this reason, outbreaks in some settings may be underestimated at this time.

#### Definitions



#### 1. Outbreak Definition

• 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

The detection of a case or the declaration of an outbreak in a school or childcare facility does not of itself indicate that transmission occurred within the school or facility; clusters of cases may be detected within a particular setting despite exposure and transmission having occurred elsewhere

#### 2. Age Breakdown

- Cases were broadly categorised by age groups that are associated with different school types: 0-4 years (pre-school), 5-12 years (primary school) and 13-18 years (secondary school). However, it is likely that there is some overlap in the ages of children attending all school types and children do not necessarily attend the school type indicated by their age grouping.
- Data on cases registering a positive antigen test to the HSE Positive Antigen Portal are grouped: 0-3 years, 4-12 years and 13-18 years. This is because the testing policy differs for those aged less than 4 years. Those aged 4-18 are not required to undergo PCR testing after a positive antigen test and are requested to register the result on the HSE Positive Antigen Portal. Those aged 0-3 years are required to undergo PCR testing rather than antigen testing. However, a number of cases aged 0-3 years have been registered on the HSE Antigen portal.

### Introduction



Between March 1<sup>st</sup> 2020 and February 19<sup>th</sup> 2022, a total of **1,273,305** confirmed COVID-19 cases were notified on CIDR:

- **58,914 (4.6%)** of these cases were pre-school aged children (aged 0-4 years)
- 141,375 (11.1%) were primary school aged children (aged 5-12 years)
- **101,711 (8.0%)** were secondary school aged children (aged 13-18 years)
- 971,203 (76.3%) were adults (aged over 18 years)
- Age was unknown for 102 cases

A total of **302,000** confirmed cases of COVID-19 in the 0-18 year old population represents **23.7%** of the 0-18 population in Ireland\* and **24.1%** of all confirmed COVID-19 cases in Ireland reported between week 10, 2020 and week 7, 2022

\*Age-specific population data were taken from Census 2016



- Between week 51, 2021 and week4, 2022 the incidence of confirmed cases of COVID-19 increased markedly across all agegroups, including 0-18 years olds, due to the spread of the Omicron variant of concern.
- Since week 5, 2022, the incidence among all groups has remained stable.
- In week 7, compared to the national incidence of 675.1/100,000, the incidence was lower among children, at 532.7/100,000 among 0-4 year olds, 474.6/100,000 among 5-12 year olds, and 524.5/100,000 among 13-18 year olds. The proportion of confirmed cases aged 0-18 years is stable (Figure 4). The change in the requirement for a confirmatory PCR since 14<sup>th</sup> January, means data on confirmed cases on CIDR for 0-18 years olds also needs to be interpreted with caution. Those aged 4-39 years outside of risk groups do not require confirmatory PCR testing after a positive antigen test and may be underrepresented among confirmed cases on CIDR.
- In week 7, those aged 0-18 years accounted for 9,488 (36.8%) of cases with a positive antigen test registered on the HSE Positive Antigen Portal. The proportion of cases aged 0-3 years, 4-12 years, and 13-18 years with a positive antigen test registered on the portal was stable across weeks 4-7 while the number of cases aged 0-3 years, 4-12 years, and 13-18 years with a positive antigen test registered on the portal decreased (Figures <u>5</u> and <u>6</u>).
- Twelve outbreaks associated with schools were and one new childcare outbreak were reported to HPSC during week 7, 2022.
- Departments of Public Health are currently prioritising Public Health Risk Assessments, outbreak investigations, and outbreak
  reporting to settings that have the greatest clinical need or would benefit most from Public Health 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
  educational settings may be underestimated.

#### Number of confirmed COVID-19 cases across age groups, week 10, 2020 - week 7, 2022





Please note that school and CCF closures/reduction in capacity have reflected patterns of COVID-19 in the general population, rather than the number of cases in schools and CCFs.

Figure 1a: Number of confirmed COVID-19 cases by age group in Ireland between week 10, 2020 and week 7, 2022

\*There was a change to testing policy on 14/01/2022 (week 2, 2022). Confirmatory PCR tests are no longer necessary for those aged 4-39 years outside of a risk group. This will affect the number and age distribution of confirmed cases notified on CIDR. The effect of this may have been delayed in data presented by date of notification due to the increased reporting time at that time. \*\*Data by date of notification does not accurately reflect trends between week 51, 2021 and week 4, 2022 (greyed area in Figure 1a). Notifications in week 51, 2021 to week 2, 2022 are reduced, while notifications in weeks 3 and 4, 2022 are inflated compared to cases diagnosed during these weeks.

#### Number of confirmed COVID-19 cases in children aged 0-18 years, week 10, 2020 – week 7, 2022





Please note that school and CCF closures/reduction in capacity have reflected patterns of COVID-19 in the general population, rather than the number of cases in schools and CCFs.

Figure 1b: Number of confirmed COVID-19 cases by age group in children aged 0-18 years in Ireland between week 10, 2020 and week 7, 2022

\*There was a change to testing policy on 14/01/2022 (week 2, 2022). Confirmatory PCR tests are no longer necessary for those aged 4-39 years outside of a risk group. This will affect the number and age distribution of confirmed cases notified on CIDR. The effect of this may have been delayed in data presented by date of notification due to the increased reporting time at that time. \*\*Data by date of notification does not accurately reflect trends between week 51, 2021 and week 4, 2022 (greyed area in Figure 1a). Notifications in week 51, 2021 to week 2, 2022 are reduced, while notifications in weeks 3 and 4, 2022 are inflated compared to cases diagnosed during these weeks.

## Number of confirmed COVID-19 cases across age groups, 2021/2022 academic year (Week 35, 2021 – Week 7, 2022)





Please note that school and CCF closures/reduction in capacity have reflected patterns of COVID-19 in the general population, rather than the number of cases in schools and CCFs.

Figure 2a: Number of confirmed COVID-19 cases by age group in Ireland by week of notification between week 35, 2021 and week 7, 2022

\*There was a change to testing policy on 14/01/2022 (week 2, 2022). Confirmatory PCR tests are no longer necessary for those aged 4-39 years outside of a risk group. This will affect the number and age distribution of confirmed cases notified on CIDR. The effect of this may have been delayed in data presented by date of notification due to the increased reporting time at that time. \*\*Data by date of notification does not accurately reflect trends between week 51, 2021 and week 4, 2022 (greyed area in Figure 1a). Notifications in week 51, 2021 to week 2, 2022 are reduced, while notifications in weeks 3 and 4, 2022 are inflated compared to cases diagnosed during these weeks. Number of confirmed COVID-19 cases in children aged 0-18 years, 2021/2022 academic year





Please note that school and CCF closures/reduction in capacity have reflected patterns of COVID-19 in the general population, rather than the number of cases in schools and CCFs.

Figure 2b: Number of confirmed COVID-19 cases by age group in children aged 0-18 years in Ireland by week of notification between week 35, 2021 and week 7, 2022

\*There was a change to testing policy on 14/01/2022 (week 2, 2022). Confirmatory PCR tests are no longer necessary for those aged 4-39 years outside of a risk group. This will affect the number and age distribution of confirmed cases notified on CIDR. The effect of this may have been delayed in data presented by date of notification due to the increased reporting time at that time. \*\*Data by date of notification does not accurately reflect trends between week 51, 2021 and week 4, 2022 (greyed area in Figure 1a). Notifications in week 51, 2021 to week 2, 2022 are reduced, while notifications in weeks 3 and 4, 2022 are inflated compared to cases diagnosed during these weeks.

### Age specific incidence of COVID-19 cases across age groups, 2021/2022 academic year





Figure 3: Weekly age-specific incidence rates of confirmed COVID-19 cases per 100,000 population by age group in Ireland by week of notification between week 35, 2021 and week 7, 2022

\*There was a change to testing policy on 14/01/2022 (week 2, 2022). Confirmatory PCR tests are no longer necessary for those aged 4-39 years outside of a risk group. This will affect the number and age distribution of confirmed cases notified on CIDR. The effect of this may have been delayed in data presented by date of notification due to the increased reporting time at that time. \*\*Data by date of notification does not accurately reflect trends between week 51, 2021 and week 4, 2022 (greyed area in Figure 1a). Notifications in week 51, 2021 to week 2, 2022 are reduced, while notifications in weeks 3 and 4, 2022 are inflated compared to cases diagnosed during these weeks.

### Proportion of confirmed COVID-19 cases across age groups, 2021/2022 academic year





#### Figure 4: Proportion of confirmed COVID-19 cases by age group in Ireland by week of notification between week 35, 2021 and week 7, 2022

\*There was a change to testing policy on 14/01/2022 (week 2, 2022). Confirmatory PCR tests are no longer necessary for those aged 4-39 years outside of a risk group. This will affect the number and age distribution of confirmed cases notified on CIDR. The effect of this may have been delayed in data presented by date of notification due to the increased reporting time at that time. \*\*Data by date of notification does not accurately reflect trends between week 51, 2021 and week 4, 2022 (greyed area in Figure 1a). Notifications in week 51, 2021 to week 2, 2022 are reduced, while notifications in weeks 3 and 4, 2022 are inflated compared to cases diagnosed during these weeks.

## **COVID-19 cases who registered a positive antigen test on the HSE Antigen Positive Portal**





Figure 5: Number of cases who registered a positive antigen test on the HSE Antigen Positive Portal by date of registration, 14/01/2022-19/02/2022

\*Reporting to the HSE Positive Antigen Portal commenced on Friday the 14<sup>th</sup> January 2022, and therefore week 2 includes only 2 days.

Age distribution of COVID-19 cases who registered a positive antigen test on the HSE Antigen Positive Portal





Figure 6: Age distribution of cases who registered a positive antigen test on the HSE Antigen Positive Portal by date of registration, 14/01/2022-19/02/2022

\*Reporting to the HSE Positive Antigen Portal commenced on Friday the 14<sup>th</sup> January 2022, and therefore week 2 includes only 2 days.

## Outbreaks associated with children and staff in childcare facilities

## **Childcare facility outbreaks:**

- 649 childcare facility outbreaks, involving 3,427 linked confirmed cases, were notified to HPSC since week 32
   2020
- 139 childcare facility outbreaks, involving 627 linked confirmed cases, were notified to HPSC during 2021/2022 academic year
- One new childcare facility outbreak was reported to HPSC in week 7, 2022. At the time of reporting, the number of linked cases was not known.

30 25 20 15 10 5 0 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 1 2 3 4 5 6 7 2021 Cutbreak notification week

**Figure 7:** Number of COVID-19 outbreaks associated with staff and children in childcare facilities during 2021/2022 academic year of the pandemic in Ireland (week 35, 2021 to week 7, 2022)

\*Departments of Public Health are currently prioritising Public Health Risk Assessments, outbreak investigations, and outbreak reporting to settings that have the greatest clinical need or would benefit most from Public Health intervention. For this reason, outbreaks in some settings may be underestimated at this time.



# Cases linked to outbreaks associated with children and staff in childcare facilities during 2021/2022 academic year



23% of outbreaks associated with childcare facilities reported during 2021/2022 academic year have involved only 2 cases







**Figure 9:** Number of COVID-19 outbreaks associated with staff and children in childcare facilities by the number of confirmed cases per outbreak during 2021/2022 academic year of the pandemic in Ireland (week 35, 2021 to week 7, 2022)

Please see Technical note 4 for information on number of cases associated with outbreaks and on outbreak size.

### Outbreaks associated with children and staff in schools

#### School outbreaks:

- 1,360 school outbreaks, involving 7,020 linked confirmed cases, were notified to HPSC since week 37 2020
- 547 school outbreaks, involving 3,299 linked confirmed cases, were notified to HPSC during 2021/2022 academic year
- Twelve school outbreaks, involving 53 linked confirmed cases, were newly reported to HPSC in week 7, 2022.



**Figure 10:** Number of COVID-19 outbreaks associated with staff and children in schools during 2021/2022 academic year of the pandemic in Ireland (week 35, 2021 to week 7, 2022)

\*In week 44 2021, 32 outbreaks (involving 192 cases) associated with schools that occurred during May and June 2021 (2020/21 academic year) were retrospectively notified.

\*Departments of Public Health are currently prioritising Public Health Risk Assessments, outbreak investigations, and outbreak reporting to settings that have the greatest clinical need or would benefit most from Public Health intervention. For this reason, outbreaks in some settings may be underestimated at this time.



# Cases linked to outbreaks associated with children and staff in schools during 2021/2022 academic year



23% of outbreaks associated with schools reported during 2021/2022 academic year have involved only 2 cases



**Figure 12:** Number of COVID-19 outbreaks associated with staff and children in schools by the number of confirmed cases per outbreak during 2021/2022 academic year of the pandemic in Ireland (week 35, 2021 to week 7, 2022)

**Figure 11:** Number of confirmed COVID-19 cases linked to outbreaks associated with staff and children in schools during 2021/2022 academic year of the pandemic in Ireland (week 35, 2021 to week 7, 2022)

\*In week 44 2021, 32 outbreaks (involving 192 cases) associated with schools that occurred during May and June 2021 (2020/21 academic year) were retrospectively notified.

Please see Technical note 4 for information on number of cases associated with outbreaks and on outbreak size.

## **Outbreaks associated in schools by school type**



Figure 13: Number of COVID-19 outbreaks associated with staff and children in schools during 2021/2022 academic year of the pandemic in Ireland (week 35, 2021 to week 7, 2022) by school type

\*Departments of Public Health are currently prioritising Public Health Risk Assessments, outbreak investigations, and outbreak reporting to settings that have the greatest clinical need or would benefit most from Public Health intervention. This includes Special educational needs schools. Outbreaks in other educational settings may be underestimated at this time.

# Week 7 Summary: Cases and outbreaks in current week and in 2021/2022 academic year in Ireland, week 35, 2021 - week 7, 2022



Confirmed COVID-19 cases:	Number of confirmed Proportion of all		Week 35, 2021 - Week 7, 2022		
Age group			Number of confirmed cases <sup>1</sup>	Proportion of all cases (%)	
0-4 yrs	1,766	5.5	45,963	5.0	
5-12 yrs	2,604	8.1	117,260	12.7	
13-18 yrs	1,949	6.1	71,398	7.7	
>18 yrs	25,827	80.3	692,217	74.7	
Total	32,146	100.0	926,838	100.0	

Outbreaks:	Week 7			Week 35, 2021 - Week 7, 2022		
Outbreak Location	Number of outbreaks	Number of confirmed cases linked to outbreaks	Range in number of linked cases <sup>2</sup>	Number of outbreaks	Number of confirmed cases linked to outbreaks	Range in number of linked cases <sup>2</sup>
Childcare facility	1	0	0	139	627	0 - 19
School	12	53	0-20	547	3,299	0-70
Total	13	53	0-20	686	3,926	0-70

1. Excludes cases of unknown age.

2. All confirmed cases may not yet have been linked to the outbreak on CIDR. Ranges in number of linked cases that contain "0" currently have no linked cases on CIDR or the aggregate number of associated cases has not been specified.

\*Departments of Public Health are currently prioritising Public Health Risk Assessments, outbreak investigations, and outbreak reporting to settings that have the greatest clinical need or would benefit most from Public Health intervention. For this reason, outbreaks in some settings may be underestimated at this time.

# COVID-19 mass testing data for Post Primary schools and schools in the Special Education (SEN) sector (Academic year 2021/22)



The following data are the results of close contact testing undertaken in Post Primary and Special Education schools, following notification to Departments of Public Health of a confirmed case of COVID-19 who had attended the facility during the infectious time period.

#### Results Summary for Schools Testing Term 2 Academic year 2021/22 (02/01/2022 – 19/02/2022)

Facility Type	No. Facilities	No. Tested	No. Detected	Detected %	No. Not Detected
Post Primary	329	898	457	50.9%	441
Special Education	87	1,046	182	17.4%	864
Total	416	1,944	639	32.9%	1,305

#### Results Summary for Schools Testing Week 7, 2022 (Term 2)

Facility Type	No. Facilities	No. Tested	No. Detected	Detected %	No. Not Detected
Post Primary	53	127	53	41.7%	74
Special Education	18	109	12	11.0%	97
Total	71	236	65	27.5%	171

#### Please refer to the Health Protection Surveillance (HPSC) website for specific reports on



- <u>Outbreaks/clusters</u> in Ireland COVID-19 weekly report
- <u>Weekly report</u> on the epidemiology of COVID-19 in Ireland
- Epidemiology of COVID-19 in Ireland Data Hub

## <u>Please refer to the HSE website for COVID-19 schools and childcare facility mass testing reports</u> produced between November 2020 and September 2021:

<u>Schools and Childcare facilities COVID-19 mass testing</u>

### Acknowledgements

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, Departments of Public Health, nurses, surveillance scientists, microbiologists and administrative staff.

#### **Technical Notes**

#### 1. Data Sources



- Data are based on statutory notifications and were extracted from Computerised Infectious Disease Reporting (CIDR) system. Data were extracted on February 21st 2022 and February 22nd 2022. Data are provisional and subject to ongoing review, validation and update. As a result, figures in this report may differ from previously published figures.
- The data source for the COVID-19 mass testing in schools summary was the HSE COVID Care Tracker (CCT) and SwiftQueue, extracted on February 21st 2022.
- The data source for the COVID-19 antigen self-reported tests was the HSE Antigen Positive Portal extracted on the February 21st 2022.
- Weekly data and cumulative term data from the COVID-19 Schools and childcare facilities mass testing programme in Post Primary and SEN schools were extracted from the HSE COVID Care Tracker and SwiftQueue.

#### 2. Population data

• Population data were taken from Census 2016. Data were aggregated into the following age groups for the analysis: 0-4 years, 5-12 years, 13-18 years, >18 years.

#### 3. Outbreak dates

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 14<sup>th</sup> and October 9<sup>th</sup> is based on the following algorithm: 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 13<sup>th</sup> 2021, and on or after October 10<sup>th</sup> 2021.

#### 4. Outbreak size

 For outbreaks notified prior to week 19 2021, the number of linked confirmed cases/outbreak size is based on laboratory confirmed cases linked to an outbreak in CIDR. For outbreaks notified since week 19 2021, the number of associated cases/outbreak size is based either on laboratory confirmed cases linked to an outbreak in CIDR OR on an aggregate number of cases provided at the time of outbreak notification, whichever number is largest. The number of associated cases was correct at the time of reporting to HPSC but outbreaks may have grown in size since the time of reporting.