# NPHET COVID Update 17<sup>th</sup> February 2022

#### **Current situation**



	26-Oct 2020 (2 <sup>nd</sup> wave peak 14 day inc.)	01-Dec 2020	14-Jan 2021 <u>Alpha</u> (3 <sup>rd</sup> wave peak 14 day inc.)	20-Jun 2021 (lowest 2021 14 day inc.)	04-Dec 2021 <u>Delta</u> (4 <sup>th</sup> wave peak 14 day inc.)	11-Jan 2022 <u>Omicron</u> (5 <sup>th</sup> wave peak 14 day inc.)	10-Feb	16-Feb
14-day incidence	306.37	86.8 8	1494.23	89.57	1,370.24	6,180.71**	1,504.70**	1,508.72**
5-day average cases	919.2	260.8	4458.0	313.8	4,822	22,323**	4,803**	4,439**
Total weekly cases	7000	1892	35362	2070	34,180	157,357**	36,971**	34,460**

	26-Oct 2020	01-Dec 2020	14-Jan 2021	20-Jun 2021	04-Dec 2021	11-Jan 2022	10-Feb (1 week ago)	16-Feb
No. Hospital (8.A.M)	344	224	1792	49	487	1062	595	631
No. in ICU (11.30 A.M)	39	30	176	15	114	92	63	62

	JUL21	AUG21	SEP21	OCT21	NOV21	DEC21	JAN22	FEB22	Unknown	Total since Mar2020
Total	22	91	185	235	261	240	240	51	34	6,399

<sup>\*\*</sup>Between 22<sup>nd</sup> December 2021 and 14<sup>th</sup> February 2022, reported daily case numbers were based on positive SARS-CoV-2 results uploaded to the HSE COVID Care Tracker the preceding day. From 15<sup>th</sup> February onwards daily cases are again reported from CIDR. National 14-day incidence, 5-day average and weekly cases above are based on REPORTED daily cases (from CCT 22/12/21-14/02/2022 and CIDR thereafter). <u>Data does not include positive antigen tests reported on HSE portal</u>.

Data refers to latest available information at 1pm 16th Feb

## Detected infections, numbers in hospital and intensive care

Coronavirus
COVID-19
Public Health
Advice

The number of infections detected per day has stabilised after a recent moderate increase and may be starting to decrease. The number of people in hospital with SARS-CoV-2 infection and the number of admissions / new detections per day is stable. The numbers in and admissions to ICU are decreasing.

	12 Jan	19 Jan	26 Jan	2 Feb	9 Feb	16 Feb	Daily count 16 Feb
Infections detected (PCR + RAT)	22478	15122	9731	9826	10572	9110	9881
14-day incidence (PCR + RAT) per 100,000 population	6180	5527	3653	2875	2998	2893	
Hospital in-patients	994	976	845	671	617	619	631
Hospital admissions per day	149	122	100	95	90	89	89
ICU confirmed cases	87	90	81	69	69	64	62
ICU - IMV	56	62	53	42	43	40	33
ICU admissions per day	8	7	5	4	5	4	3

Infections detected is the sum of laboratory confirmed cases on CIDR, and positive antigen tests reported to the HSE. Data are 7-day averages (the indicated day and the preceding 6 days, rounded to the nearest whole number) with the exception of 14 day cumulative incidence, which is the total number of infections detected in the preceding 14 days per 100,000 population. The historic incidence data may change due to denotification of cases.

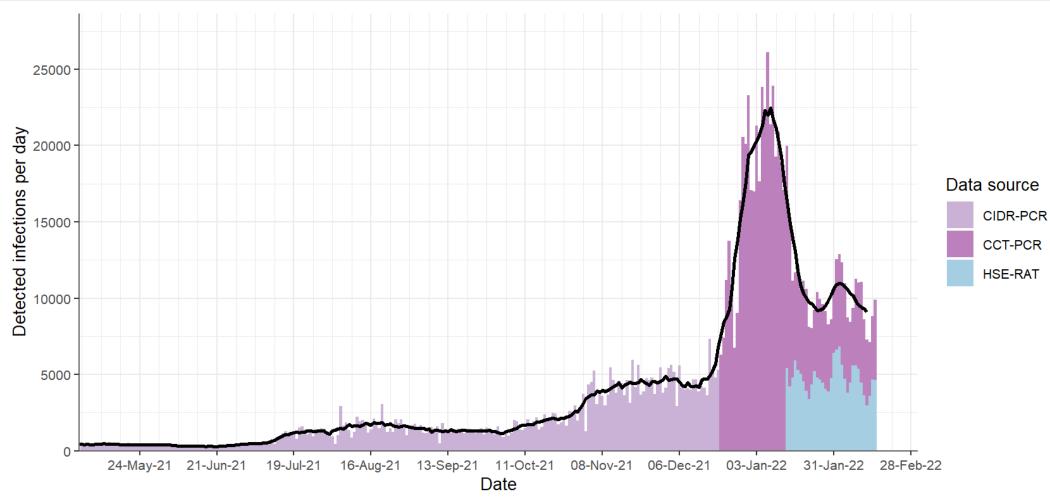




# Detected infections per day

Detected infections per day, by reporting date. The de-escalation of public health measures on 22 January 2022, plus perhaps the increasing prevalence of BA.2, was associated with a modest increase in the number of detected infections; this appears to be transient.





Infections detected per day by reporting date and data source (bars).

CIDR: Cases confirmed on CIDR. CCT-PCR: Estimated cases from positive PCR tests reported to contact management.

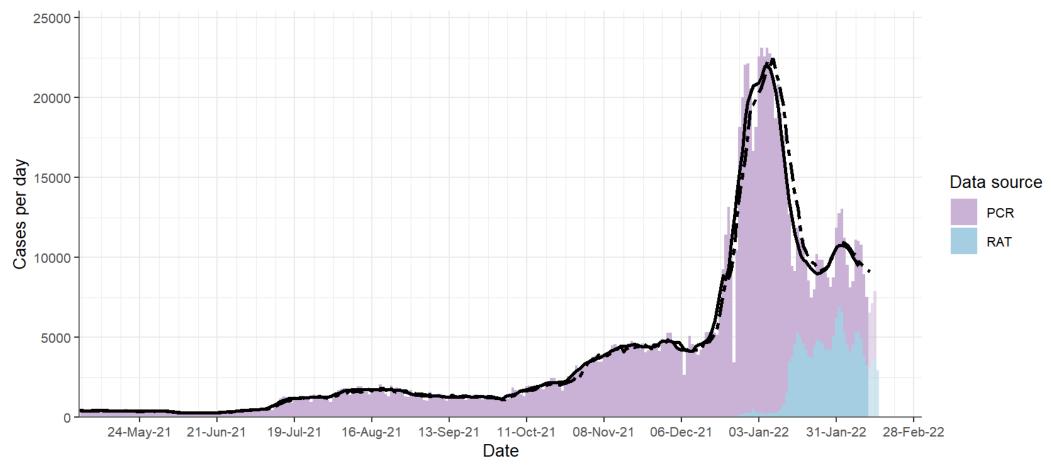
HSE-RAT: Positive antigen tests reported to HSE portal. Line is 7-day average case count by report date.



# Detected infections per day

Detected infections per day, by specimen collection date, confirms the pattern. The de-escalation of public health measures on 22 January 2022, plus perhaps the increasing prevalence of BA.2, was associated with a modest increase in the number of detected infections; this appears to be transient.





Infections detected per day by specimen date (bars). PCR: PCR confirmed cases on CIDR. RAT: Positive antigen tests reported to HSE portal. Lines are 7-day average by specimen date (solid) and reporting date (dashed).

Moving average by specimen collection date truncated from Fri 11 Feb 2022 .

Data from most recent days incomplete because some specimens will have been collected but not yet reported.

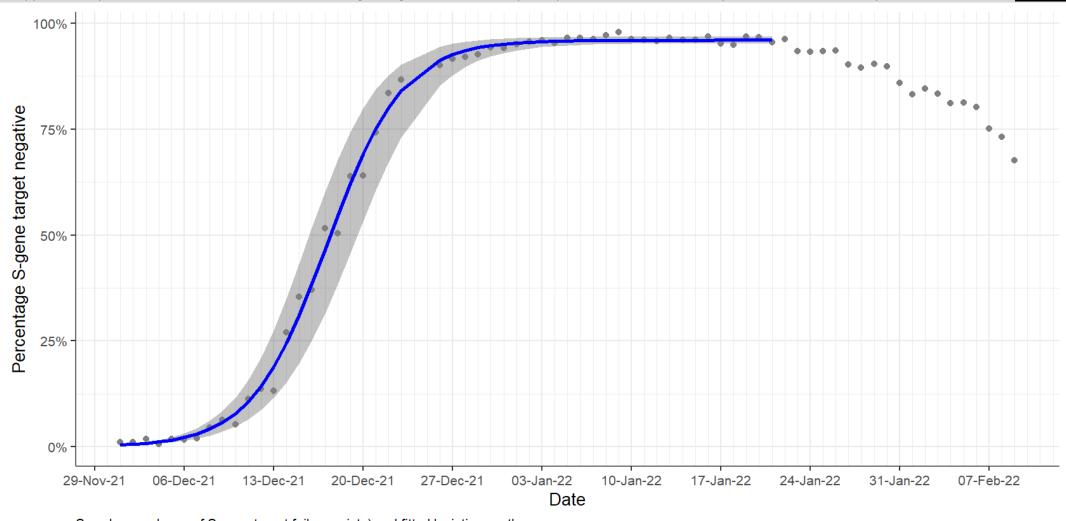




## Estimated proportion omicron

The proportion of cases that are omicron variant, based on the sample prevalence of S-gene target negative on the TaqPath assay. Omicron accounted for approximately 50% of infections by 17 December 2021, and 90% by 25 December 2021. 60% of current infections are S-gene target negative, suggesting approximately 40% of current infections are BA.2. This is growing at 9.7% (7.5-12%) per day and should be dominant by the last week in February





Sample prevalence of S-gene target failure points) and fitted logistic growth curve. Estimated growth rate 34% per day (95% Cl 32%-35%) final relative prevalence 96% (95% Cl 95%-97%)

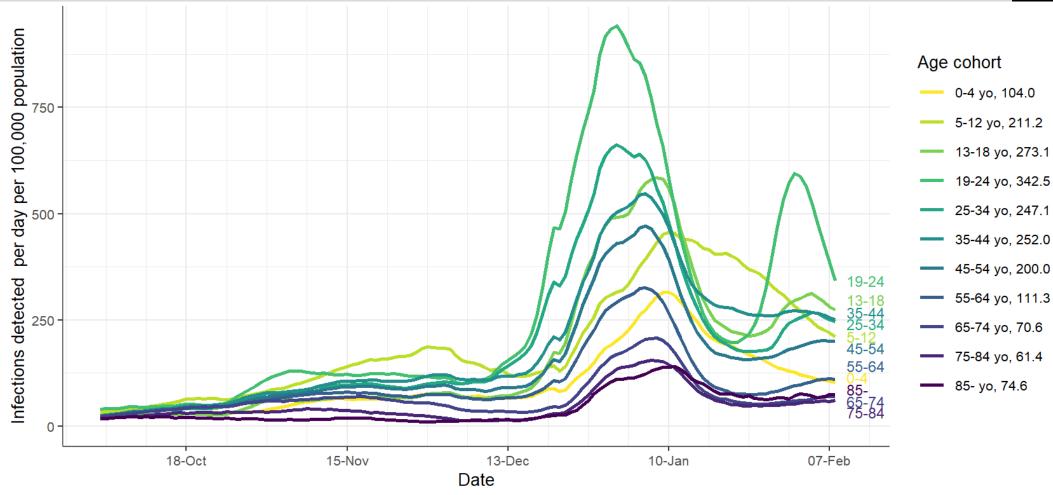




#### Age-specific incidence (excl. LTRF and hospital outbreaks)

The de-escalation of public health restrictions from 22 January 2022 was associated with an increase in incidence in young adults, most markedly in those aged 16-24 years, which may be transient.





Age-specific incidence (infections detected per day per 100,000 population) by specimen collection date7-day moving average. Cases associated with outbreaks in long-term residential facilities (LTRF) and outbreaks in hospitals excluded. CIDR and RAT data to midnight Tue 15 Feb 2022. Moving average by specimen collection date truncated from Fri 11 Feb 2022. CSO 2016 population.

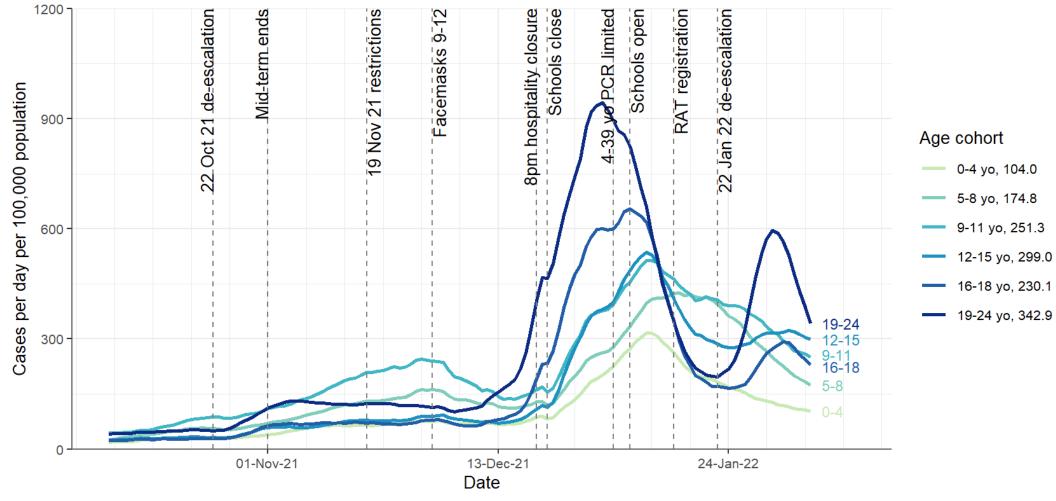




#### Age-specific incidence (excl. LTRF and hospital outbreaks)

The de-escalation of public health restrictions from 22 January 2022 was associated with an increase in incidence in those aged 16-24 years, but incidence in those aged 0-11 years is falling, and incidence is stable in those aged 12-15 years.





Age-specific incidence (cases per day per 100,000 population). 7-day moving average.

CIDR and RAT data to midnight Tue 15 Feb 2022. Cases dated by specimen collection date.

Moving average by specimen collection date truncated from Fri 11 Feb 2022. CSO 2016 population.

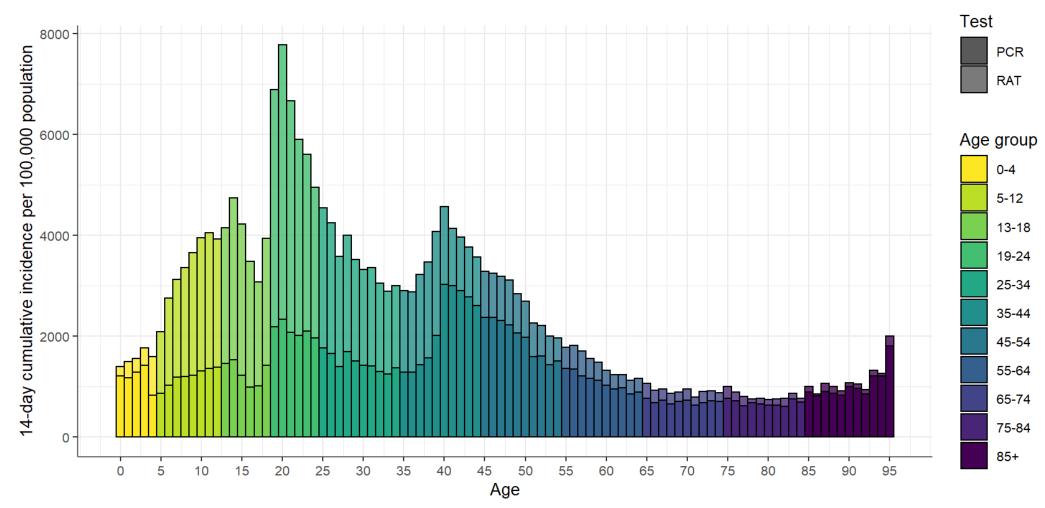




#### Age-specific incidence by single year of age (excl. LTRF and hospital outbreaks)

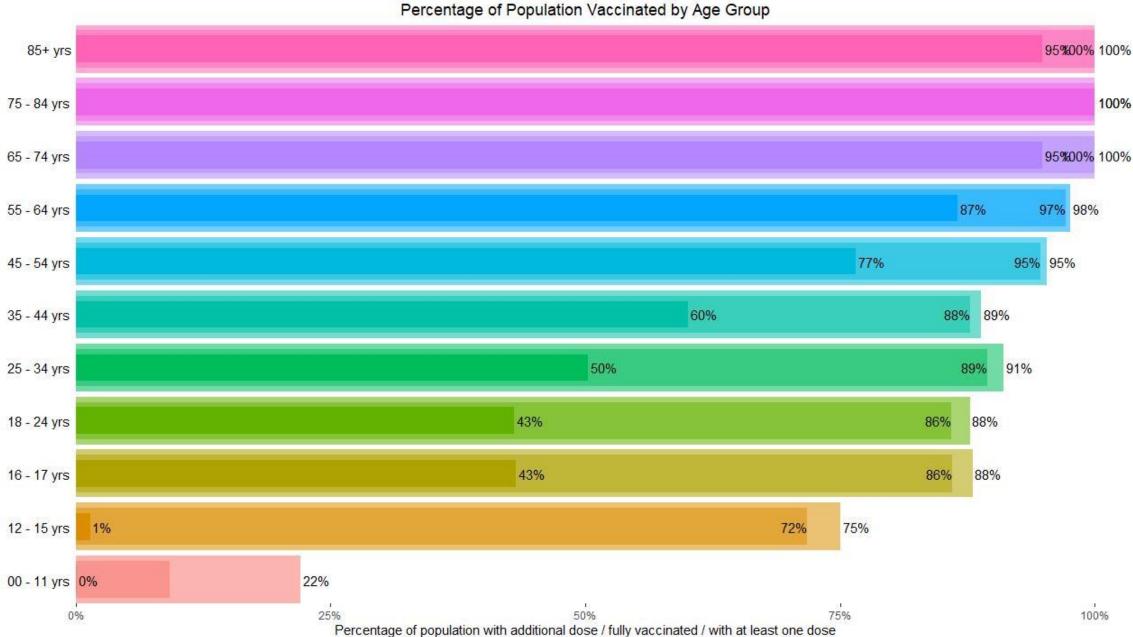
The November 2021 delta wave was associated with higher incidence in children compared to vaccinated adults. Given that vaccines offer more limited protection against infection with omicron, the risk of infection is now more evenly distributed across the population under 50 years of age, with higher incidence in the 19-24 year old cohort.





Age-specific incidence (14-day cumulative per 100,000 population). Cases in healthcare workers, and associated with outbreaks in LTRF or hospitals excluded. CIDR and RAT data to midnight Tue 15 Feb 2022. Cases dated by specimen collection date.





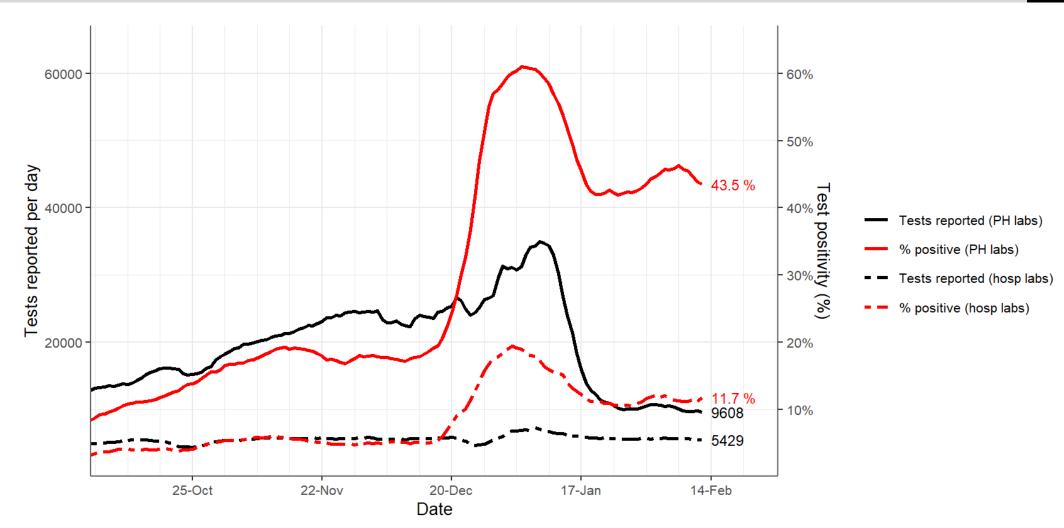


# Testing

## PCR tests and test positivity

The positivity rate in public health laboratories (>40%) may be elevated due to prior antigen testing selecting out infected people who then present for PCR. The positivity rate in hospital laboratories (11.7%) is high, and unstable, reflecting a high and fluctuating prevalence in the population.





Total tests reported per day (black) and % of tests reported positive (red) for tests conducted in public health laboratories (NVRL and Cherry Orchard, solid lines) and tests conducted in hospital laboratories (dotted lines). 7-day moving averages.



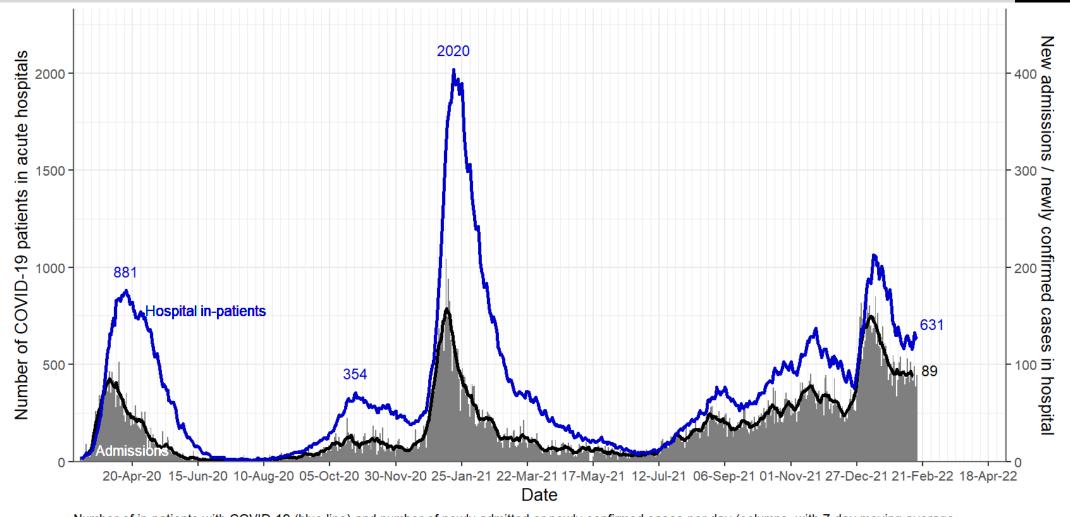


# Hospitals & ICU

# Confirmed cases in acute hospitals

The number of people in hospital with confirmed SARS-CoV-2 infection. The number of people in hospital is 631 from a high of 1063 on 10 January 2022. The average number of admissions and newly confirmed cases in hospital per day is stable at 89 per day.



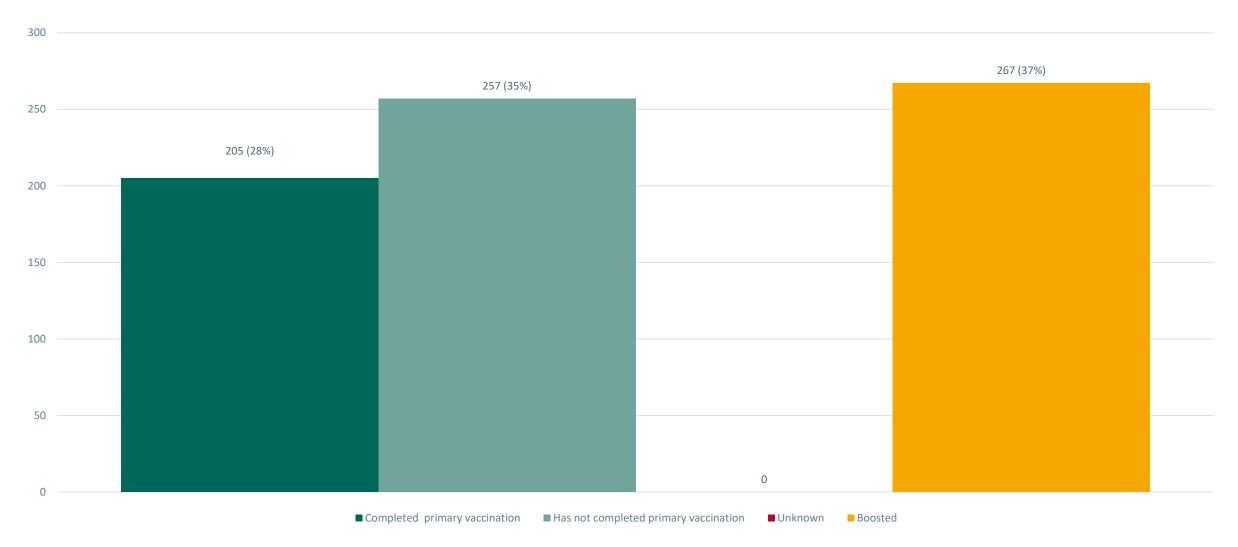


Number of in-patients with COVID-19 (blue line) and number of newly admitted or newly confirmed cases per day (columns, with 7-day moving average, black line, secondary y-axis) on HSE acute hospital sites. HSE PMIU-SDU data to Wed 16 Feb 2022.





#### Vaccination Status of Hospitalised COVID-19 Patients as of 15th February 2022



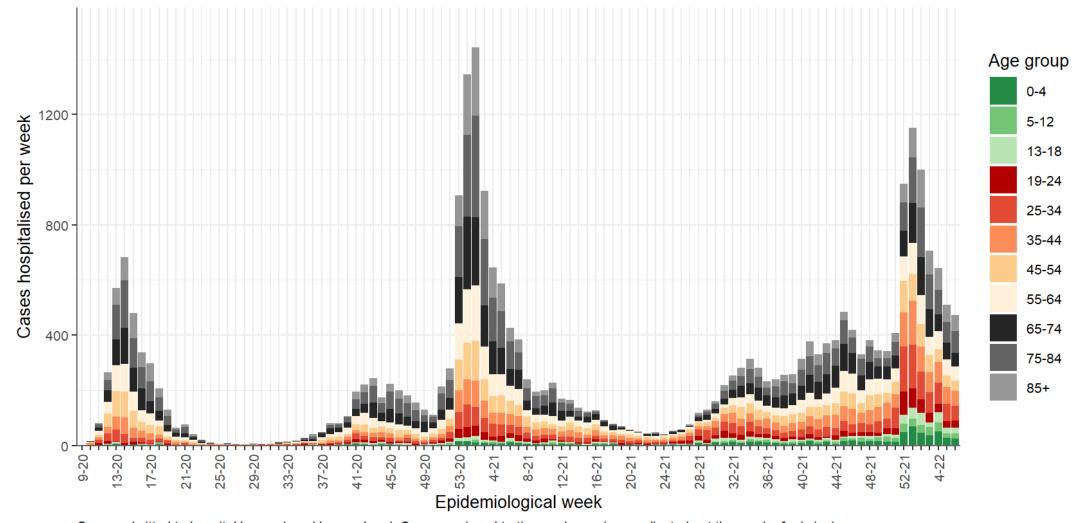
Note – Completed Primary Vaccination is defined as those who has received their second dose of vaccine more than 14 days ago



# Hospitalisation by age

The omicron wave was associated with an increase in the number of people hospitalized with and for COVID-19, including increased hospitalisations in children. This is not disproportionate compared to the number of cases or the numbers of adults hospitalized.





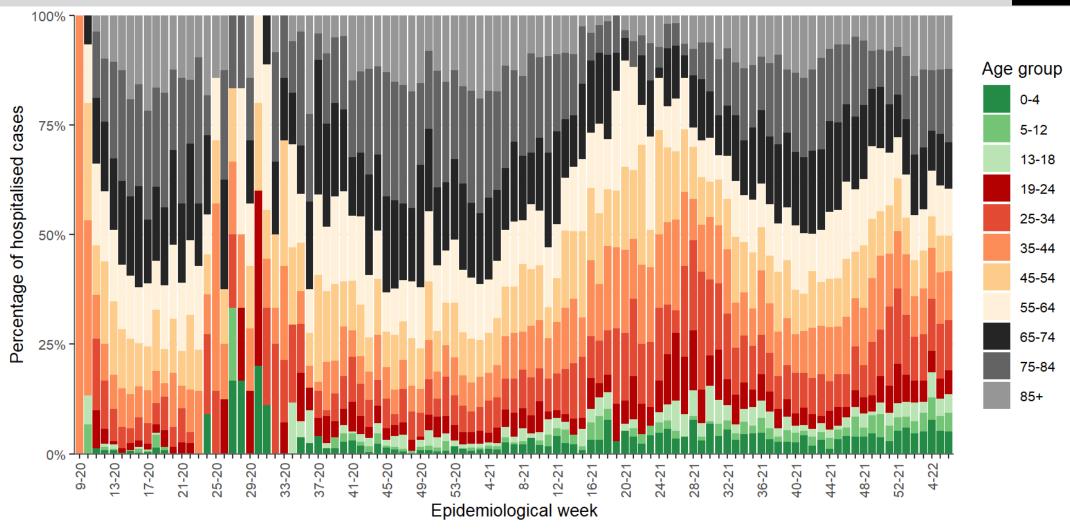
Cases admitted to hospital by week and by age band. Cases assigned to the week specimen collected not the week of admission. CIDR data to midnight Tue 15 Feb 2022.



## Hospitalisation by age

The omicron wave was associated with an increase in the number of people hospitalized with and for COVID-19, including increased hospitalisations in children. The proportion of cases hospitalised that are children is marginally higher than comparable periods in 2021.





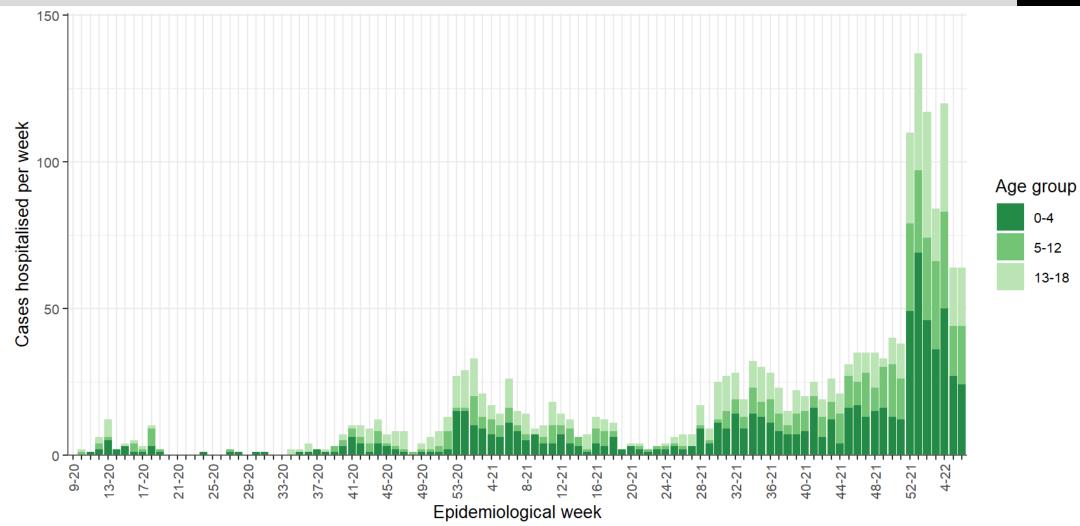
Weekly cases admitted to hospital: percentage in each age band. Cases assigned to the week specimen collected not the week of admission. CIDR data to midnight Tue 15 Feb 2022.



# Hospitalisation of children

The number of children hospitalized per week peaked in early January 2022 and is decreasing.

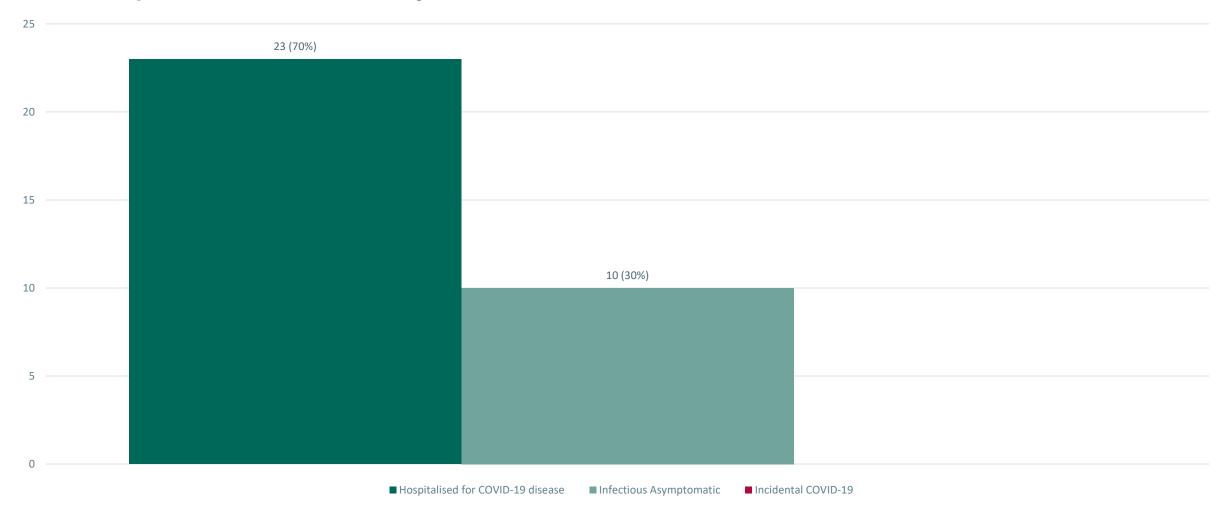




Weekly cases admitted to hospital: percentage in each age band. Cases assigned to the week specimen collected not the week of admission. CIDR data to midnight Tue 15 Feb 2022.



# Breakdown of Hospitalised Cases by COVID-19 Category Nationally (0-14 Years Cohort) as of 15<sup>th</sup> February 2022

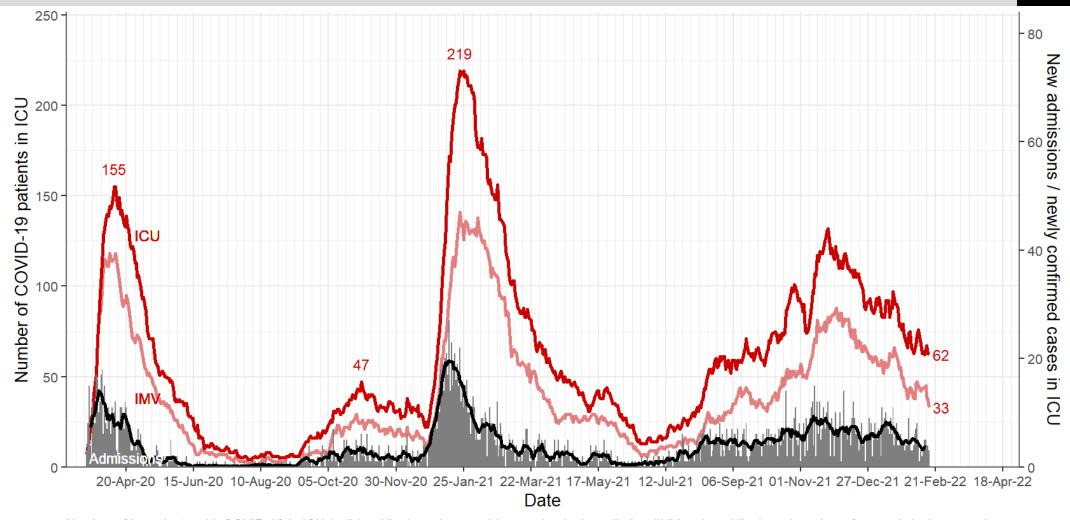




### Confirmed cases in intensive care

The number of people in ICU with confirmed SARS-CoV-2 infection and the number requiring mechanical ventilation are currently stable. 62 people in ICU, 33 mechanically ventilated, average 4 admissions per day. There are 40 people requiring advanced respiratory support for COVID-19 outside ICU





Number of in-patients with COVID-19 in ICU (solid red line) number requiring mechanical ventilation (IMV, pale red line), and number of new admissions per day (columns, with 7-day moving average, black line, secondary y-axis). NOCA ICU-BIS data to Wed 16 Feb 2022.

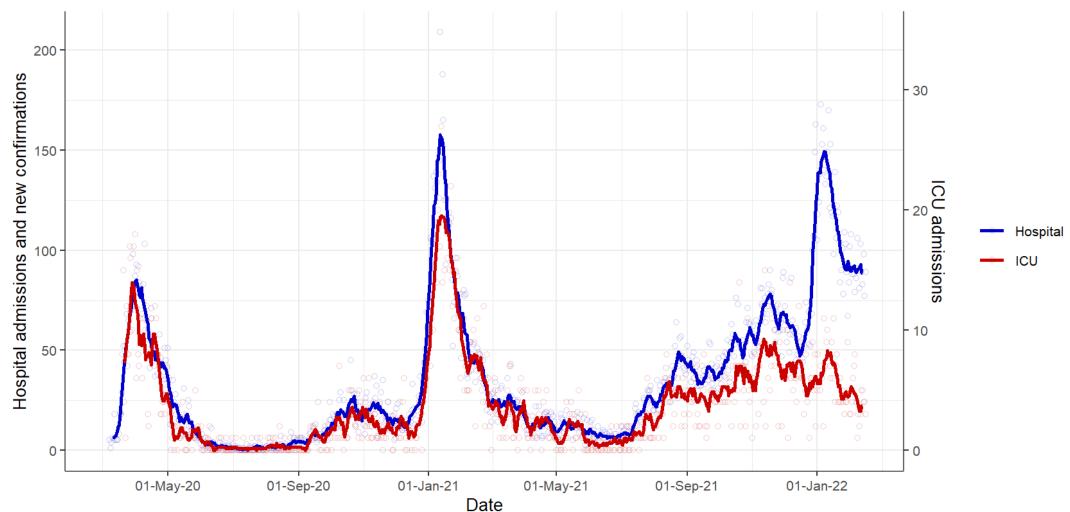


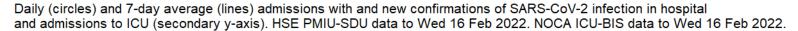


#### Admissions to ICU

The number of admissions per day to ICU has decreased from a peak of 9 per day in late November 2021 to 4 per day now.





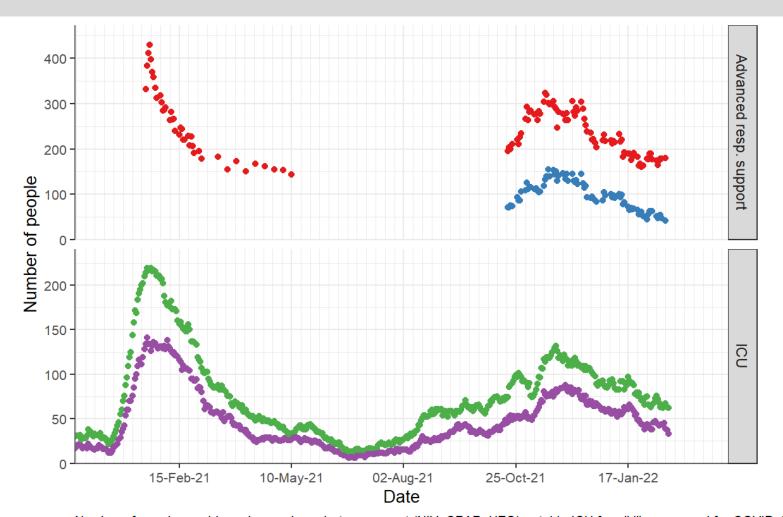




# NIV/CPAP/HFO outside ICU

The number of people requiring advanced respiratory support for COVID-19 outside ICU is falling (currently 40) while the number requiring such support for other illnesses has increased (130)





- NIV/CPAP/HFO outside ICU all
- NIV/CPAP/HFO outside ICU COVID-19
- ICU COVID-19
- ICU IMV COVID-19

Number of people requiring advanced respiratory support (NIV, CPAP, HFO) outside ICU for all illnesses and for COVID-19 disease (top panel), along with total number of people in ICU with COVID-19 and number of people requiring invasive ventilation (IMV) in ICU for COVID-19 (bottom panel) NOCA ICU-BIS data to Wed 16 Feb 2022. HSE Medical Devices data to Mon 14 Feb 2022.





#### **Vaccination Status of COVID-19 Patients in ICU**

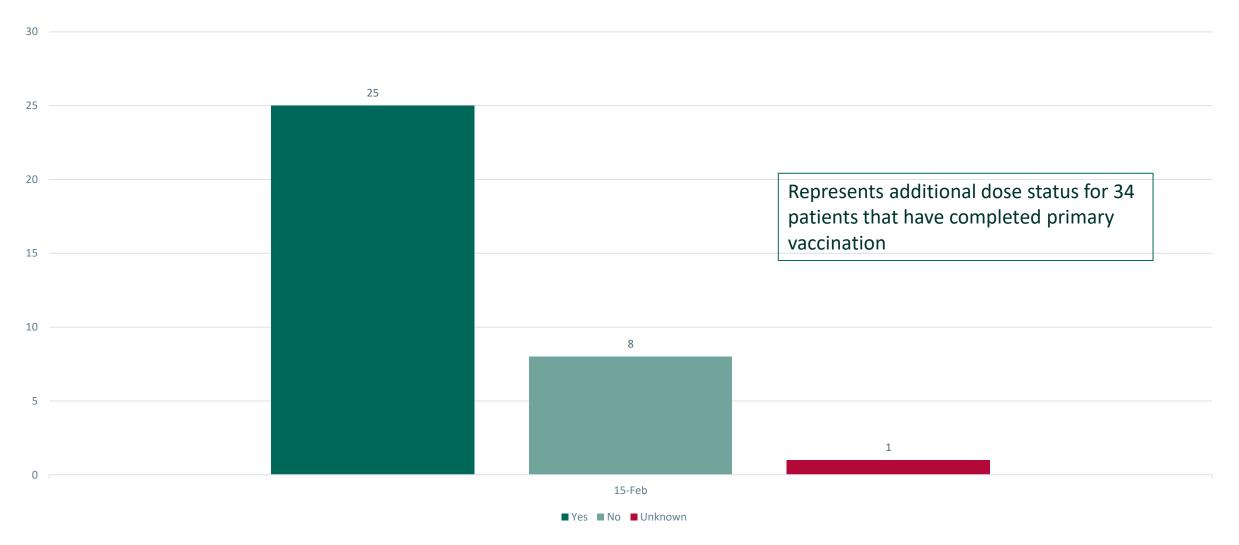


Note – Completed primary vaccination is defined as those who has received their second dose of vaccine more than 14 days ago

Source: ICU Bed Information System (National Office of Clinical Audit (NOCA))



#### Additional Dose Status of COVID-19 Patients in ICU as of 15th February 2022



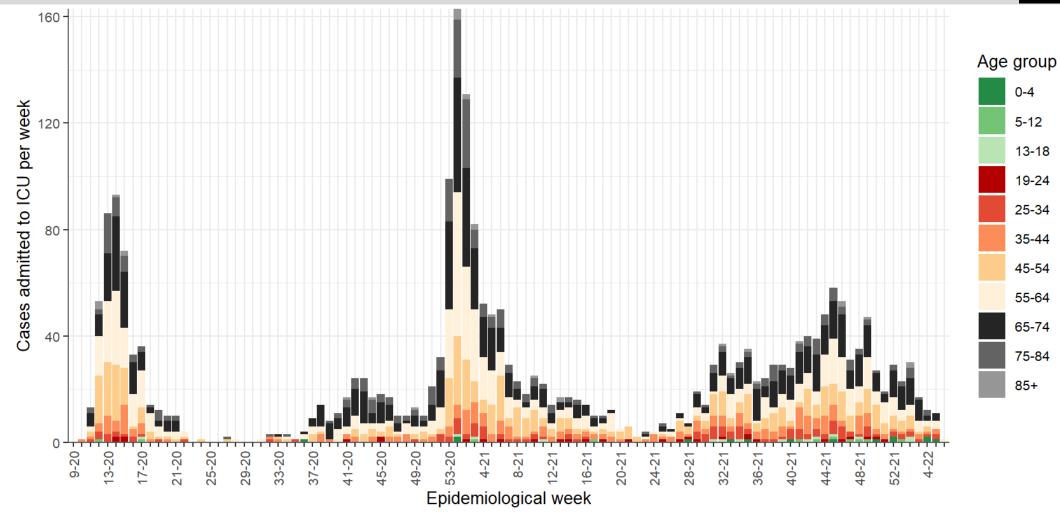
Source: ICU Bed Information System (National Office of Clinical Audit (NOCA))



# ICU admission by age

The omicron wave was associated with a small cluster of ICU admissions of children.





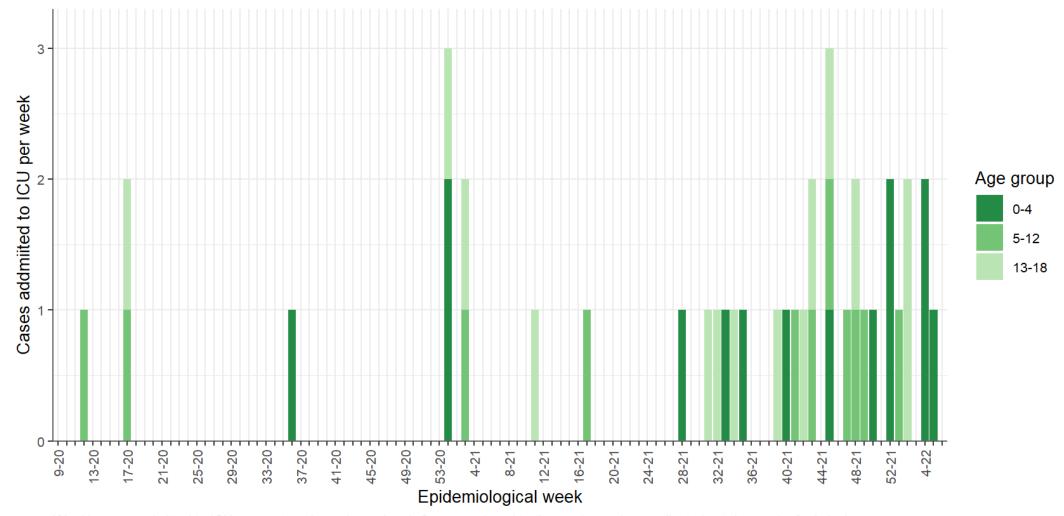
Weekly cases admitted to ICU by age band. Cases assigned to the week specimen collected not the week of admission. CIDR data to midnight Tue 15 Feb 2022.



# ICU admission by age

The omicron wave was associated with a small cluster of ICU admissions of children.





Weekly cases admitted to ICU: percentage in each age band. Cases assigned to the week specimen collected not the week of admission. CIDR data to midnight Tue 15 Feb 2022.



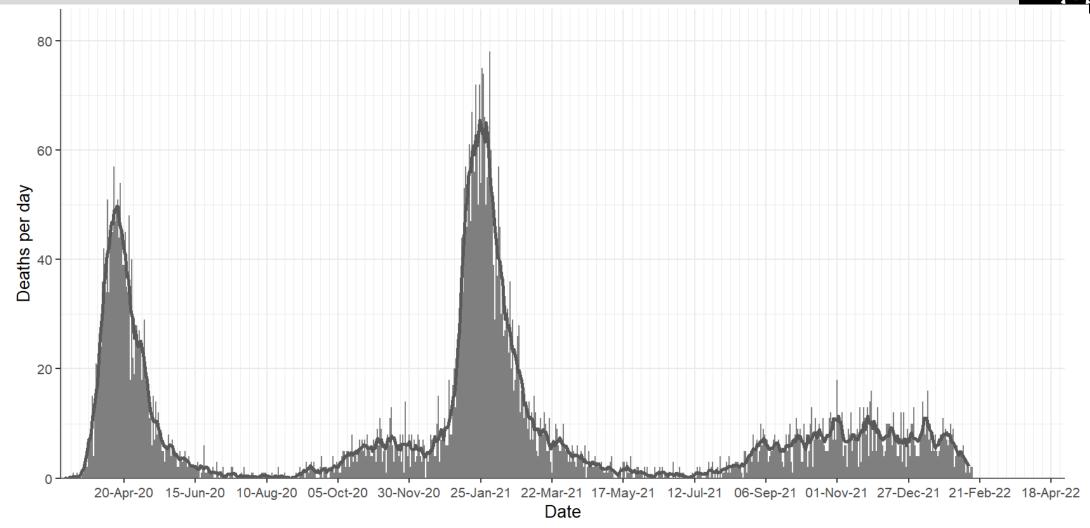


# Deaths

### **Deaths**

Deaths per day may be starting to decrease, noting that these data are right censored.





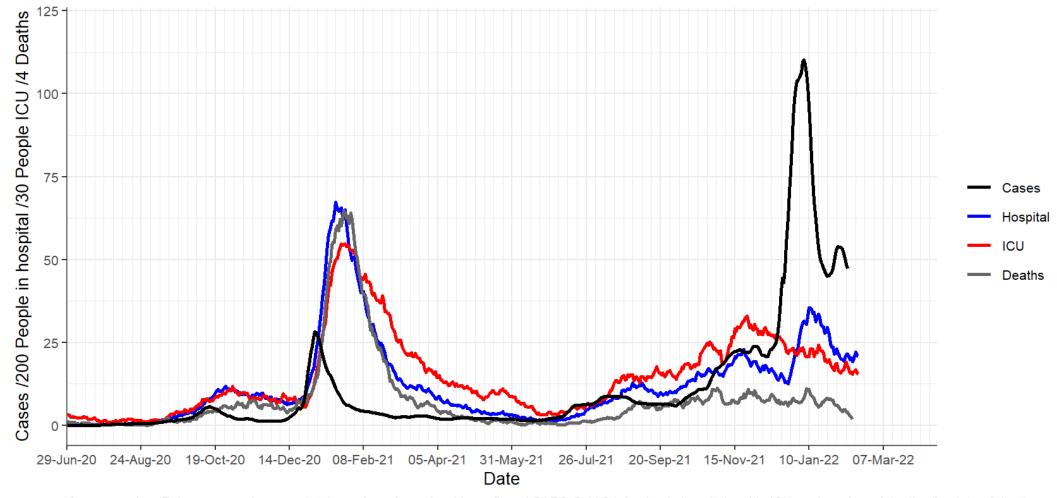
Deaths each day (bars) by date of death, with 7-day moving average (line). CIDR data to midnight Tue 15 Feb 2022.



#### Infection and harm

This multi-scale plot compares detected infections (black) to adverse outcomes. The January 2021 wave of infection led to large numbers of people in hospital and ICU and a large number of deaths. The January 2022 wave of infection had at least 5 times as many detected infections, but the number of people in ICU decreased and there was no additional detected mortality.





Cases per day (7-day average by spec date), number of people with confirmed SARS-CoV-2 infection in hospital and in ICU, and number of deaths (by date of death, 7-day average). This is a multi-scale plot: to make comparisons easier case counts are divided by 200 numbers in hospital by 30 and numbers in ICU by 4. CIDR data to midnight Tue 15 Feb 2022. HSE PMIU-SDU data to Wed 16 Feb 2022. NOCA ICU-BIS data to Wed 16 Feb 2022.





# Outbreaks & Clusters

#### Weekly Summary – week 6, 2022



#### Nursing Homes & Community Hospitals

Twenty-four new outbreaks notified in week 6 with 241 associated cases (range 2-27 cases per outbreak)

#### Acute hospitals

15 new acute hospital outbreaks notified in week 6 with 105 associated cases (range 1-23)

#### Residential institution outbreaks

 23 new outbreaks reported this week with 127 associated cases (range 0-30)

#### Vulnerable groups

- 13 new outbreaks reported this week,
  - Ten outbreaks among Irish Travellers (44 cases)
  - One outbreak in DPC (17 cases)
  - One outbreak associated with homeless services (3 cases)
  - One outbreak among Roma (4 cases)

#### Schools

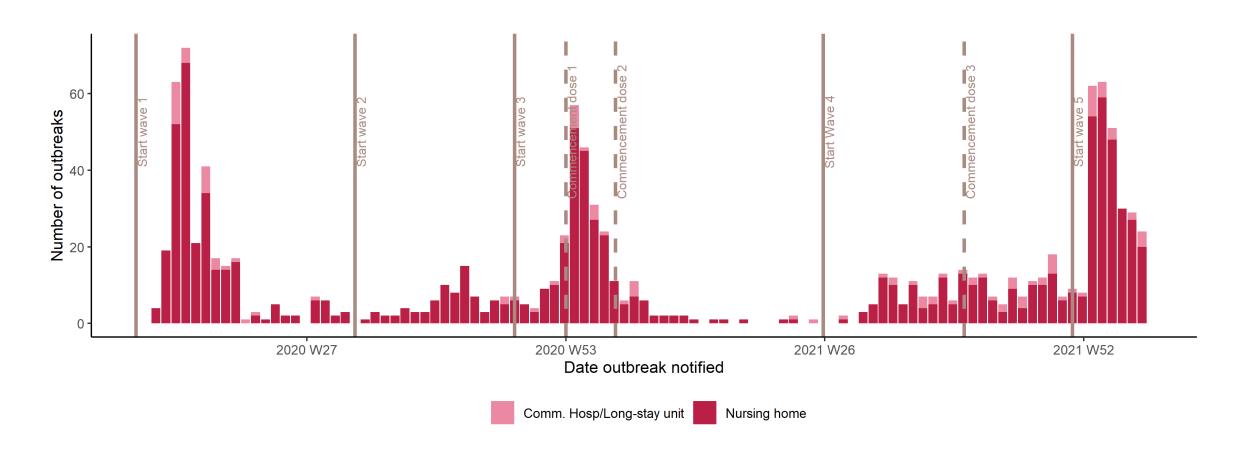
- Nine new outbreaks with 38 associated cases
- One in a primary school with 13 associated cases
- Eight in special education schools with 25 associated cases

#### Childcare facilities

No new outbreaks in week 6

# Weekly number of COVID-19 outbreaks in Nursing Homes and Community Hospitals, Waves 1-5





Large peaks occurred in the number of outbreaks in wave 1 (72 outbreaks in a single week) and wave 3 (57 outbreaks in a single week). In week 6 2022, 24 outbreaks were reported in these settings

# Comparison of disease severity among cases linked to outbreaks in Nursing Homes and Community Hospitals by wave and age group



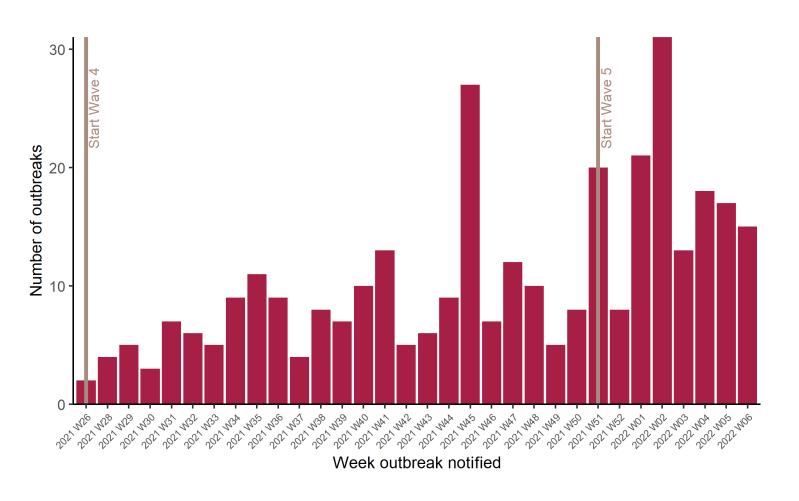
Age group	Wave	Number	Number hospitalised	% hospitalised	Number admitted to ICU	% ICU	Number who died	% died
	Wave 1	2672	88	3.3%	5	0.2%	20	0.7%
	Wave 2	779	15	1.9%	<5	0.0%	<5	0.1%
<65 yrs	Wave 3	4033	101	2.5%	8	0.2%	18	0.4%
	Wave 4	1165	16	1.4%	<5	0.2%	7	0.6%
	Wave 5	1382	38	2.7%	<5	0.0%	<5	0.1%
	Wave 1	3577	388	10.8%	11	0.3%	864	24.2%
	Wave 2	776	75	9.7%	<5	0.1%	133	17.1%
65+ yrs	Wave 3	4296	476	11.1%	<5	0.1%	1009	23.5%
	Wave 4	1525	172	11.3%	<5	0.1%	195	12.8%
	Wave 5	1621	75	4.6%	<5	0.0%	43	2.7%
	Wave 1	6251	476	7.6%	16	0.3%	884	14.1%
	Wave 2	1555	90	5.8%	<5	0.1%	134	8.6%
All ages	Wave 3	8329	577	6.9%	12	0.1%	1027	12.3%
	Wave 4	2690	188	7.0%	<5	0.1%	202	7.5%
	Wave 5	3003	113	3.8%	<5	0.0%	44	1.5%

The percentage of cases 65 years or older who died among cases linked to outbreaks notified in wave 4 was 12.8% and in wave 5 was 2.7%, compared to between 17.0% and 24.2% in waves 1-3

Note: disease severity information is only available for 3003/4779 (63%) cases in wave 5, and deaths may still accrue among known cases

# COVID-19 outbreaks in Acute Hospitals, wave 4 – 5 (week 26 2021 – week 2 2022)





#### Update on week 6

- There were 15 new COVID-19 outbreaks in acute hospitals settings
- 105 confirmed cases were associated with these outbreaks (range 1-23 cases per outbreak)

#### Overview wave 4 and 5

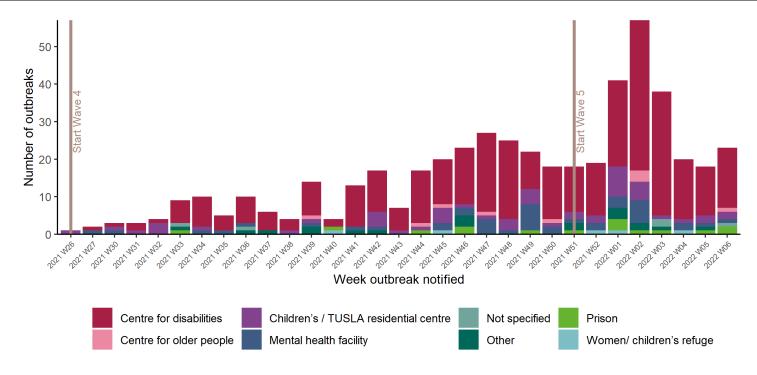
- Since week 26 2021, there have been 335 COVID-19 outbreaks in acute hospitals settings, with 2,151 confirmed cases
- Of these, 143 (42.6%) outbreaks with 922 cases in wave 5

# COVID-19 outbreaks in Residential Institutions, wave 4 – 5 (week 26 2021 – week 2 2022)



	Number of outbreaks notified							
Outbreak location	Week 6	Week 6 outbreaks: Range in no. of cases	Week 26 2021 -week 6 2022	Number open	Open outbreaks: Range in no. of cases			
Centre for disabilities	16	1-6	351	192	1-28			
Centre for older people	1	n/a*	9	3	0-4			
Children's / TUSLA residential centre	2	3-5	52	24	0-16			
Mental health facility	1	7	42	19	1-19			
Women/ children's refuge	0	n/a	5	3	2-3			
Other	0	n/a	19	9	2-14			
Not Specified	1	2	5	3	2-2			
Prisons	2	7-30	15	7	3-156			
Total	23	1-30	498	260	0-156			

\*no cases associated to outbreak as yet

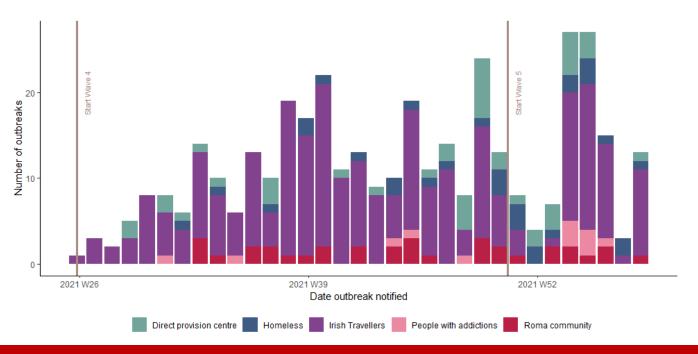


Note: This figure includes all residential institutions including those in Vulnerable groups section i.e. Direct Provision Centres and Addiction Services

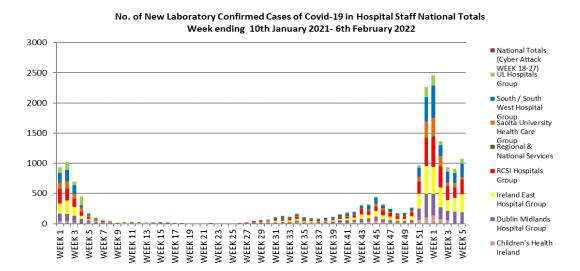
# COVID-19 outbreaks among Vulnerable Groups, wave 4 – 5 (weeks 26 2021 – 6 2022)



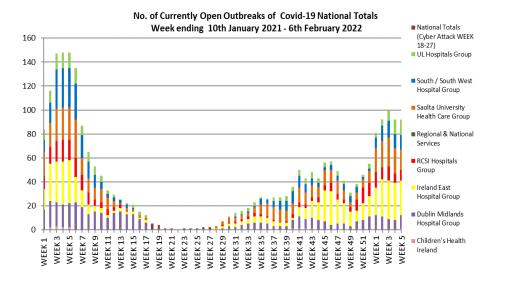
	Number of outbreaks notified									
Vulnerable populations	Week 6	Week 6 outbreaks: Range in no. of cases	Week 26 2021 - Week 6 2022	Number open	Open outbreaks: Range in no. of cases					
Irish Travellers	10	2-14	260	124	0-83					
Roma community	1	4-4	34	12	1-9					
Direct provision centres	1	17-17	42	21	2-51					
Homeless	1	3-3	32	19	2-33					
People with addictions	0	n/a	12	9	1-22					
Total	13	2-17	380	185	0-83					



### **Acute operations key data**



#### Weekly no. of Hospital-Acquired Covid-19 National Totals Week ending 10th January 2021-6th February 2022 600 ■ National Totals (Cyber 500 Attack WEEK 18-27) ■ UL Hospitals Group 400 ■ South / South West Hospital Group ■ Saolta University Health 300 Care Group ■ Regional & National Services 200 RCSI Hospitals Group 100 Ireland East Hospital Group Children's Health Ireland

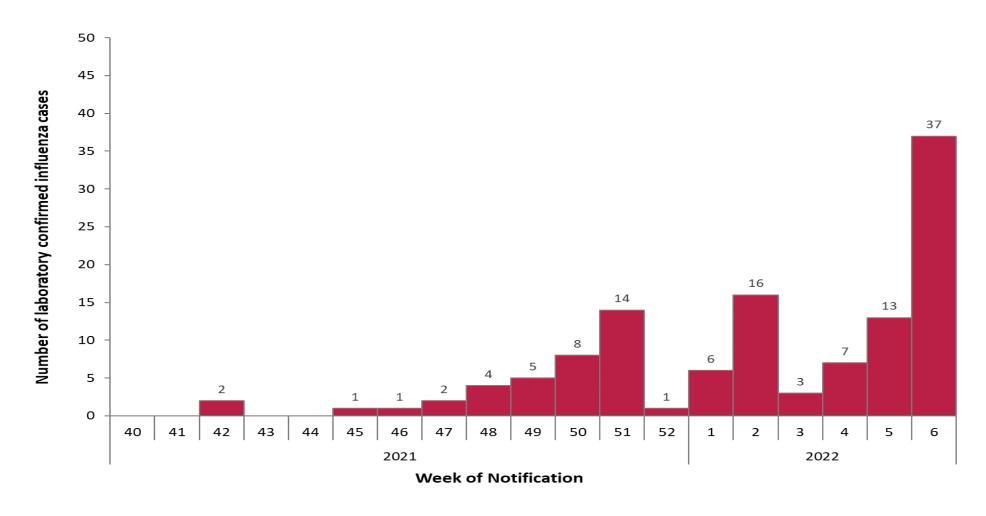


Source: AMRIC, HSE



## Laboratory confirmed influenza cases notified to HPSC by week of notification, 2021/2021 season



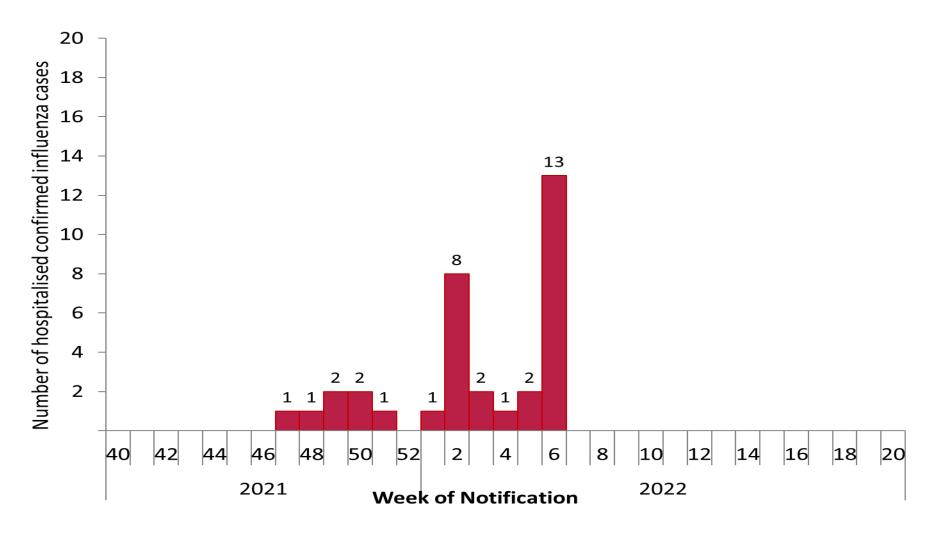


Data Source: Ireland's Computerised Infectious Disease Reporting (CIDR) system



# Laboratory confirmed notified influenza hospitalised cases, by week of notification, 2021/2022 season



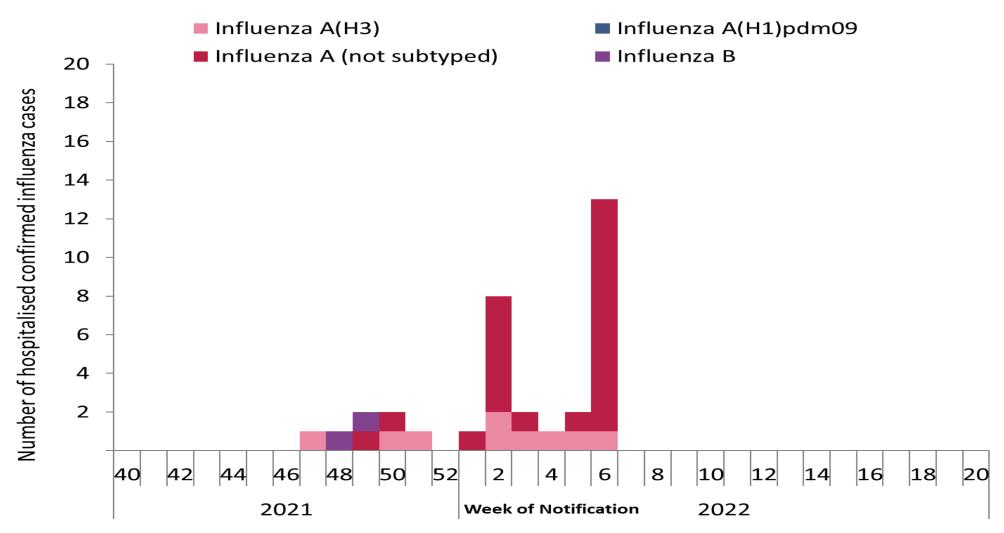


Data Source: Ireland's Computerised Infectious Disease Reporting (CIDR) system



## Laboratory confirmed notified influenza hospitalised cases, by influenza type/subtype and week of notification, 2021/2022 season



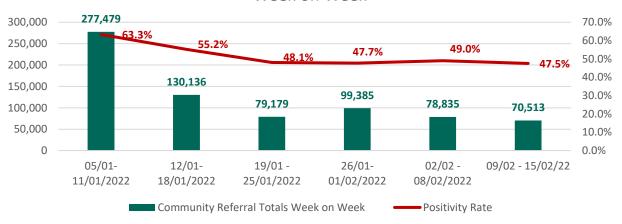


Data Source: Ireland's Computerised Infectious Disease Reporting (CIDR) system

## **Test and Trace update**

- The key test and trace indicators over the last week are showing a downward trend in demand and positivity relative to the previous week.
- Community referrals have decreased by 11.5% compared to the previous week with 70,513 community referrals, while community positivity has decreased from 49% to 47.5%.
- GP referrals have decreased by 10.7% compared to the previous week with 7,281 GP referrals.
- Community swabs undertaken have decreased by 1% compared to the previous week with 76,762 swabs.
- Laboratory tests have decreased by 7.6% compared to the previous week. 111,959 laboratory PCR tests were undertaken over the last 7 days versus 121,204 in the previous week.
- Overall, Antigen test kits booked have decreased by 5% in comparison to the previous week with 259,948 test kits booked over the last 7 days versus 275,046 in the previous week.
- The average number of close contacts remained consistent this week at 2.6.
- There were 33,875 people notified of their detected Covid-19 test result in the last 7 days, with 81,658 people contact traced by the Contact Management Programme. These figures have decreased by 11% and 23%, respectively, in comparison to the same time-period last week.

## Total Community Referrals and Positivity Rates Week on Week



## Situation analysis 17 February 2022



- A transient increase in incidence in recent weeks
  - Relaxation of measures on 22 January 2022, introduction of BA.2
  - While incidence appears to be decreasing, it remains high, and it is likely that incidence will be unstable over the coming weeks, with an underlying downward trend
- Number of people in hospital stable
- Number in ICU, number ventilated, and number requiring advanced respiratory support outside ICU decreasing
- Omicron wave did not generate excess admissions to critical care or an increase in mortality
- Little evidence of significant increases in hospitalisation or severe illness in children
- Given that vaccines offer limited protection against infection with omicron, the risk of infection is now more evenly distributed across the population under 50 years of age children and adults are at similar risk of infection





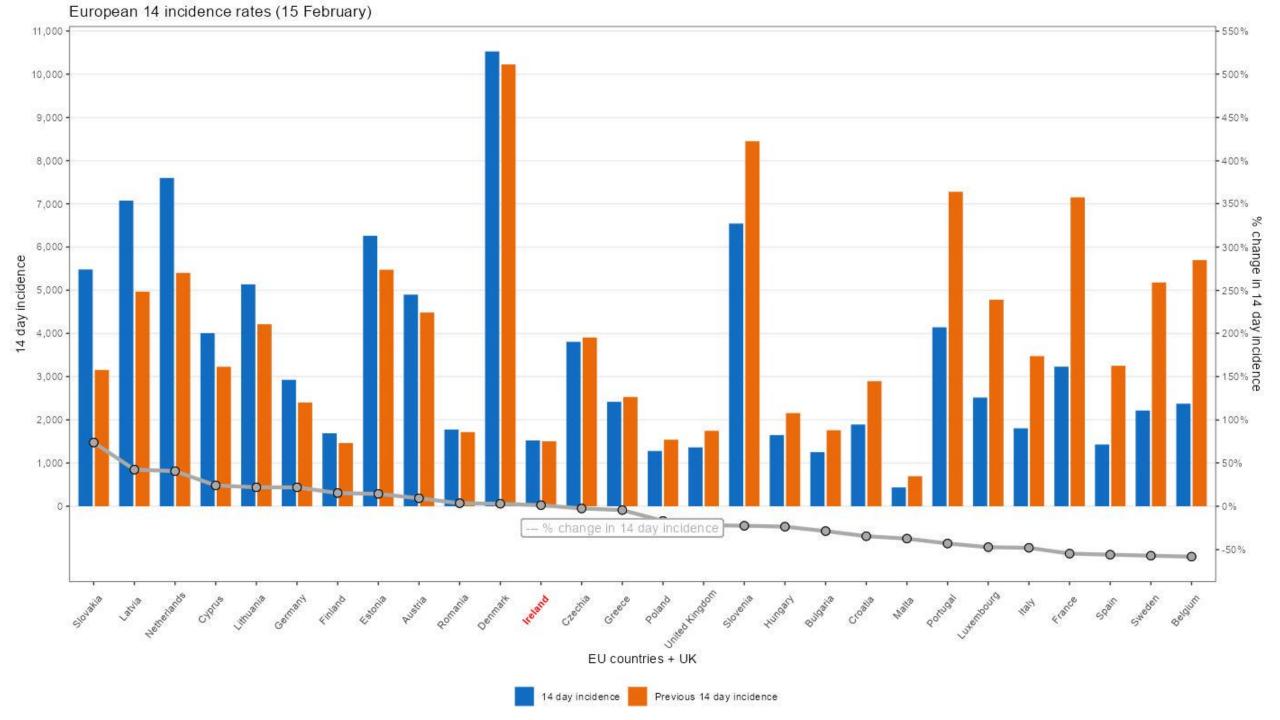


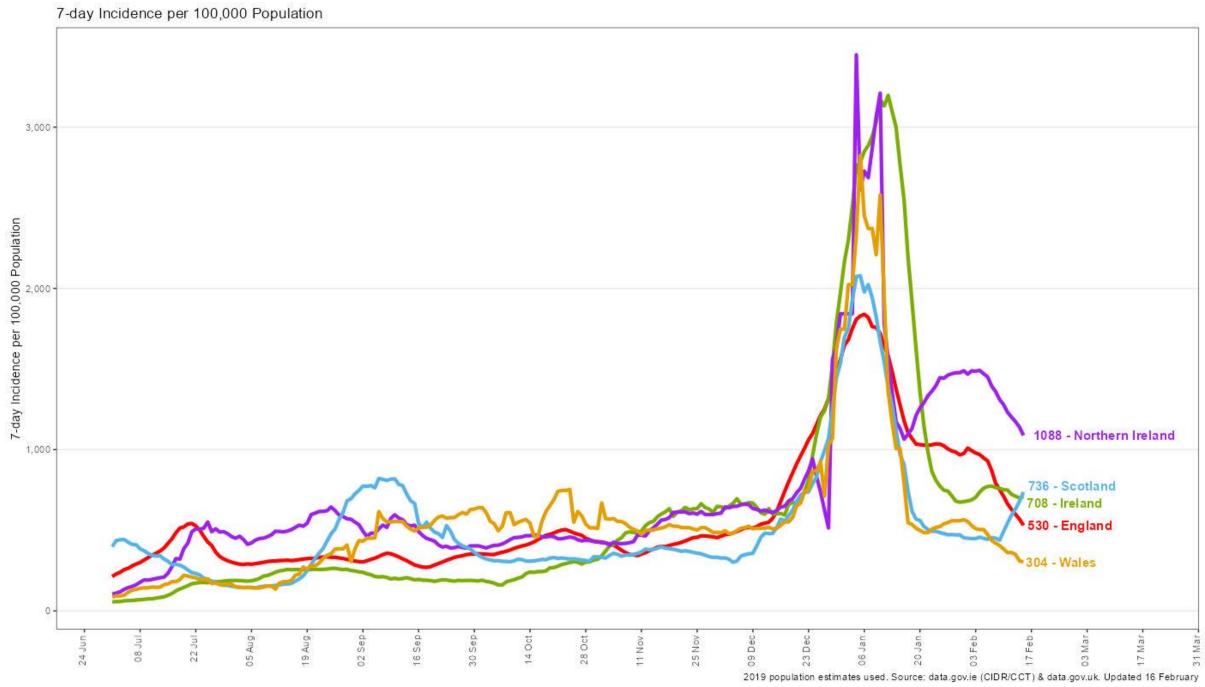


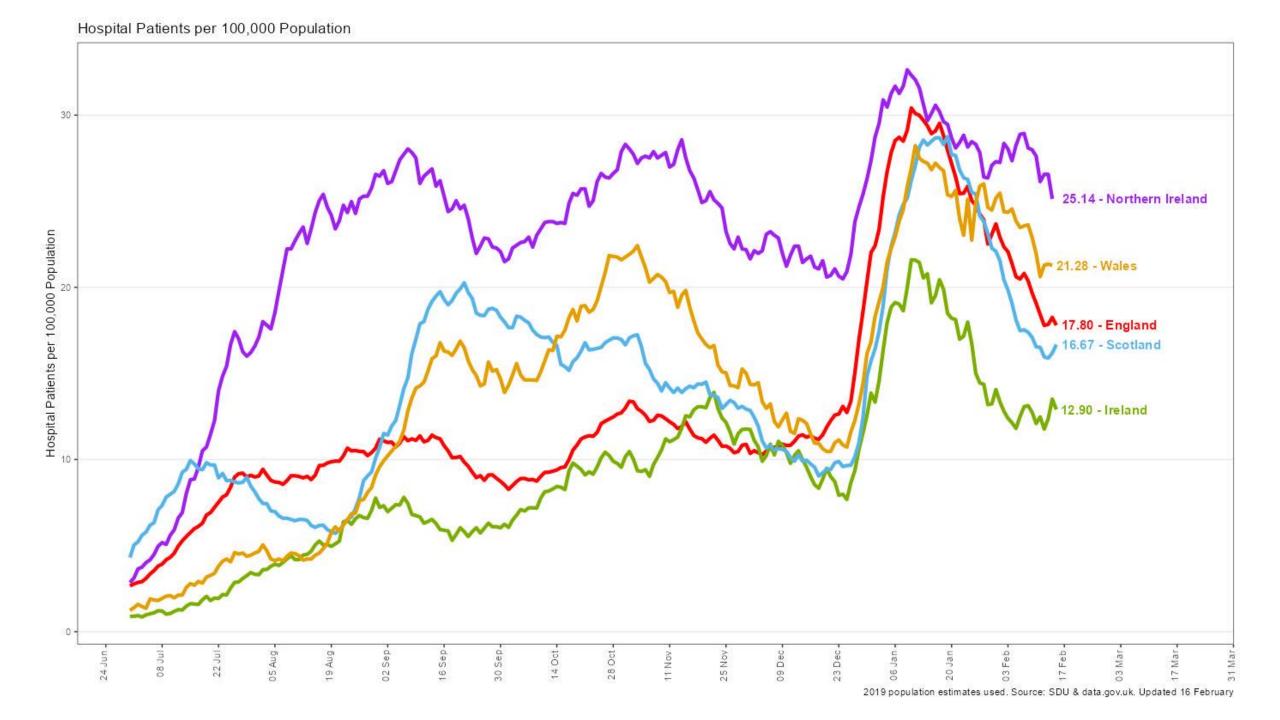




# European Data







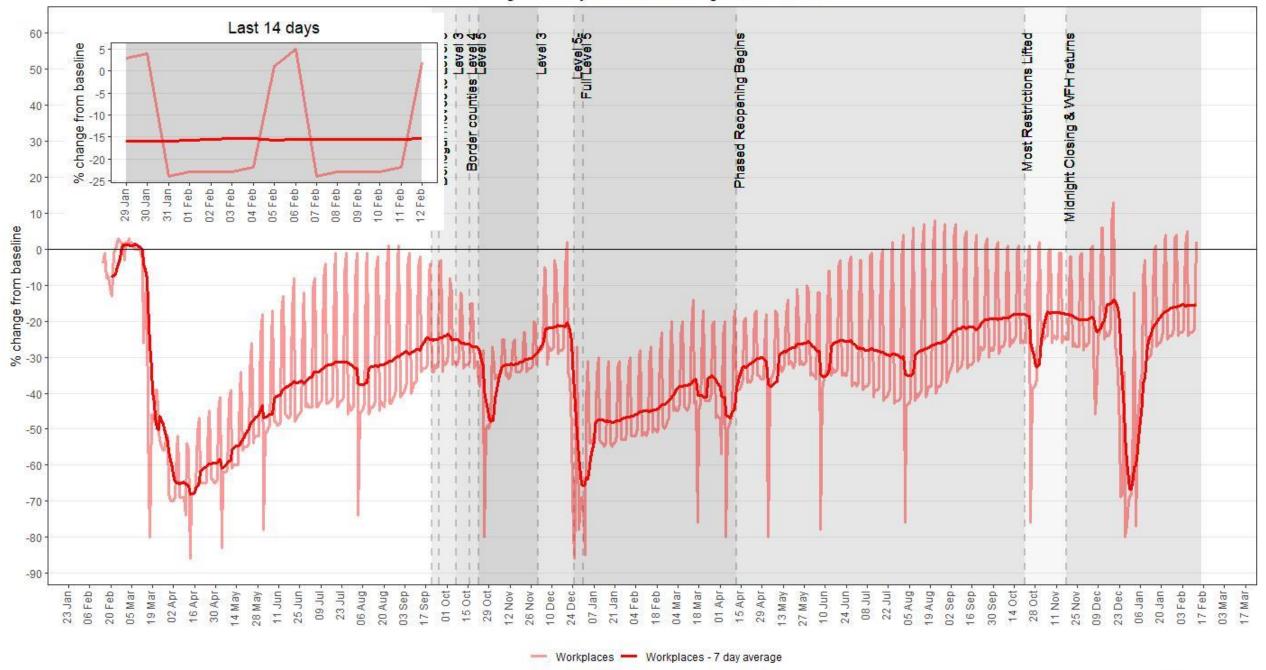


# Mobility Data

#### Google Mobility Ireland - % change from baseline 70 Full Level 5 60 Level 3 Most Restrictions Lifted sed Reopening Begins Closing & WFH returns Level 6 agg emt Public Laval Border counties Level 50 40 30 20 Midnig 10 % change from baseline -40 -50 -60 -70 -80 -90 -100 02 Apr 20 Aug 01 Oct. 29 Oct. 30 Sep 23 Jan 06 Feb 20 Feb 05 Mar 19 Mar 16.Apr 30 Apr 4 May 28 May 11 Jun 25 Jun Inc 60 23 Jul 06 Aug 03 Sep 17 Sep 15 Oct 2 Nov 26 Nov 10 Dec 24 Dec 07 Jan 21 Jan 04 Feb 18 Feb 04 Mar 18 Mar 01 Apr 15 Apr 29 Apr 3 May 27 May 10 Jun 24 Jun 108 Jul 22 Jul 05 Aug 19 Aug 02 Sep 16 Sep 14 Oct 28 Oct 11 Nov 25 Nov 09 Dec 23 Dec 06 Jan 20 Jan 03 Feb 17 Feb 17 Mar

Retail and Recreation — Grocery and Pharmacy — Transit Stations — Retail and Recreation - 7 day average — Grocery and Pharmacy - 7 day average — Transit Stations - 7 day average

#### Google Mobility Ireland - % change from baseline



### Apple Mobility Ireland - % change from baseline

