

# COVID-19 in Northern Ireland

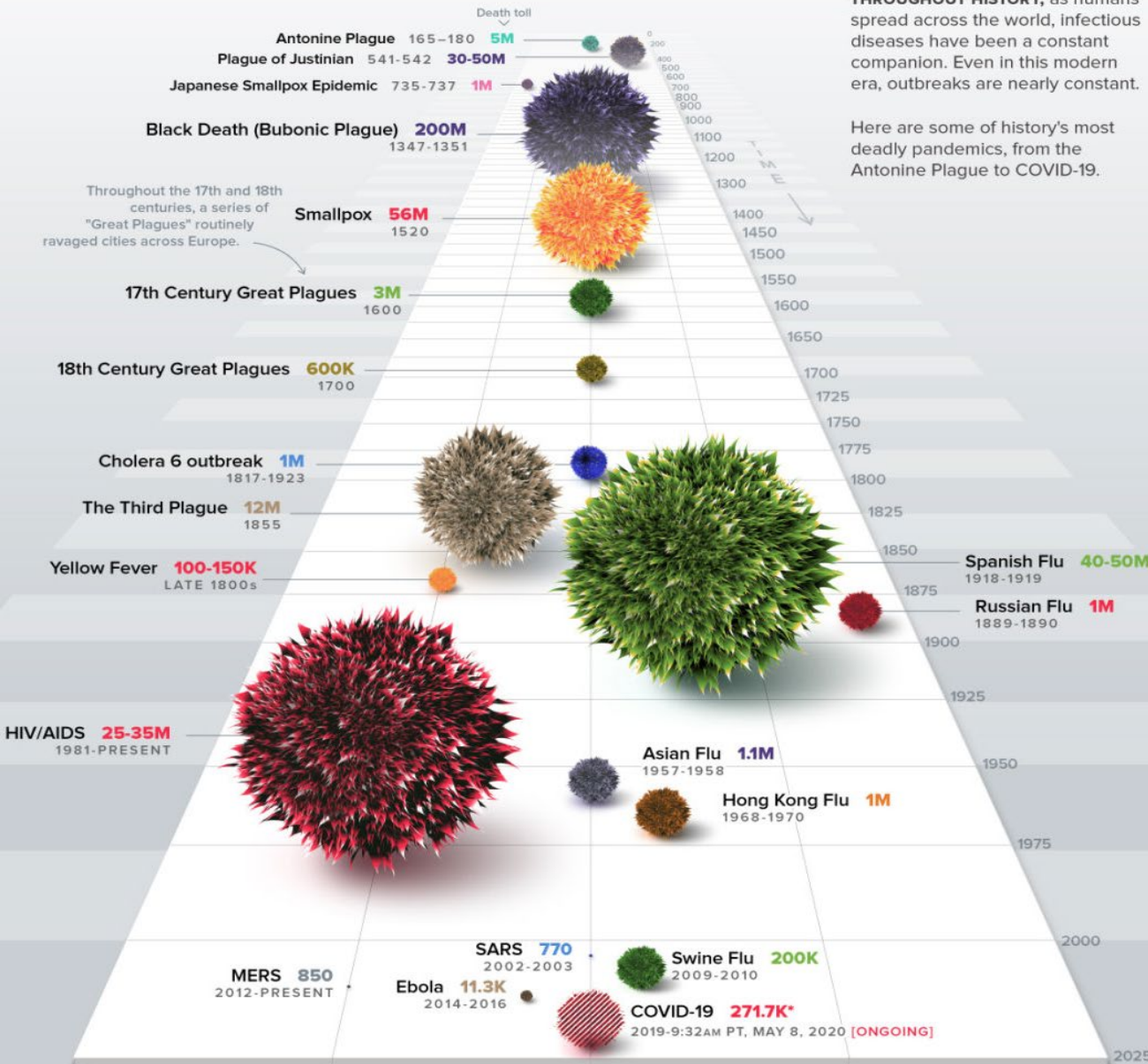
**Daily Dashboard Charts & Graphs: 22nd December 2021**

# HISTORY OF PANDEMICS

**PAN-DEM-IC** (of a disease) prevalent over a whole country or the world.

**THROUGHOUT HISTORY**, as humans spread across the world, infectious diseases have been a constant companion. Even in this modern era, outbreaks are nearly constant.

Here are some of history's most deadly pandemics, from the Antonine Plague to COVID-19.



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# INTRODUCTION

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The difficulties in controlling COVID-19 are due to several factors:

- Its incubation period is relatively long, some five to six days and longer for some.
- Those who are infected become infectious, and infect others, before they display any symptoms or become aware of the disease.
- A significant fraction of cases remain asymptomatic - they never develop symptoms, but they still infect others.

Certain parameters characterise the virus itself, these include:

- **Incubation period** - the time between contracting the infection and the appearance of symptoms
- **Virulence** - the severity of its health effects.
- **Reproduction number** (infectiousness) - the number of new infections each case typically generates, and
- **Case fatality** - the number of infected people that die from the infection

## UNDERSTANDING MEASURES TO 'FLATTEN THE CURVE'

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COVID-19 infections, like many other viruses, grow exponentially. Fixed rate exponential growth means that the number of cases doubles in a defined amount of time. The doubling time is dynamic and informs us of the impact (or lack of impact) of interventions on epidemic growth. When we talk about '**flattening the curve**', we mean lengthening the doubling period. Flattening the curve, or slowing the rate of growth of new infections, is crucial to the maintenance of capacity in the health sector.

A failure to moderate growth of infections rapidly overwhelms any nation's health systems, hence the need for radical social policy interventions. Flattening the curve, or increasing the doubling period, is achieved through official policies and social behaviours. These range from simple but effective practices such as:

- Washing hands correctly
- Social distancing practices (as recently introduced in many countries including Northern Ireland)
- Cessation of all non-essential activities, and stay-at-home policies (as seen in China & Italy).

All of these policies are designed to reduce the opportunity for transmission of infections – in effect aiming to slow the growth rate. The doubling period therefore is an important barometer of the effects of national policies and behaviours on the impact of the virus. Changes in the doubling period in effect, reflect policy effectiveness.

## THE DOUBLING PERIOD

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The effect of **doubling period** is best illustrate by comparing for example numbers between Japan and Italy. On 23rd February, Italy reported 132 cases, and Japan reported 144: virtually the same. Japan's doubling period was close to eight days, Italy's was initially less than one day. Infections in Italy were therefore doubling at many times the rate of those in Japan. Eight days later, Italy reported 1,700 cases whilst Japan reported 254. One month later (23rd March), Italy reports more than 50 times the number of cases in Japan, at nearly 60,000 cases to Japan's 1,089.

While it is informative to know both the number of cases and deaths, it is their **growth rate** that matters most. The trajectory is what is most important. This shows the rise in confirmed cases and deaths since the outbreak began. South Korea spread slowed from initial pace and in fact has now plateaued. Northern Ireland Trajectory seems to be tracking similar to that of South Korea albeit with significantly fewer cases and deaths.

The **population of countries** differ significantly but we don't need to adjust for this. If for example we were to adjust for population size and to express confirmed cases or deaths as per million all that would happen is that we would just make larger countries look like their outbreaks aren't quite as bad, and smaller countries look like theirs are much worse. Since the virus spreads exponentially the population is not a limiting factor. Its spread will be determined by the behaviour of individuals and how they mix in their communities. It will tend to spread as the people in cities across the world interact with each other in a similar manner and at a similar rate.

## HOW DO WE TREAT CASES AND MANAGE TESTING?

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There is the view that the number of **confirmed cases** in a country is a function of the number of tests it conducts. It is important to note despite the focus on testing large numbers of the population we do not actually know the number of people who have coronavirus in the population.

There may be a great many who are symptom free but nevertheless have the virus but just not ever been tested. It is for this reason that we plot laboratory confirmed cases and not simply refer to cases, the true number of which we do not know.

# Doubling Time in the Last 7 Days and Confirmed Cases

## Doubling Rates & Case Numbers in the Last 7 Days

Country	Doubling Time Last 7 Days	Doubling Time 7 Days Before That	Change in Doubling Time	New Cases Last 7 Days	New Cases 7 Days Before That	Change in New Cases
China	822.0	941.9	-119.9	666	578	88
France	106.7	113.0	-6.3	378,430	341,972	36,458
Germany	123.5	97.7	25.8	265,771	321,320	-55,549
Ireland	91.4	101.7	-10.3	34,480	29,451	5,029
Italy	146.4	202.4	-56.0	177,257	124,568	52,689
Japan	7,364.5	10,027.9	-2,663.4	1,139	836	303
Northern Ireland	106.8	132.6	-25.9	16,026	12,380	3,646
South Korea	58.3	52.9	5.4	46,570	47,011	-441
Spain	121.3	215.7	-94.4	218,926	119,362	99,564
United Kingdom	89.4	140.1	-50.7	609,598	372,204	237,394
US	237.6	287.1	-49.5	1,036,312	841,917	194,395

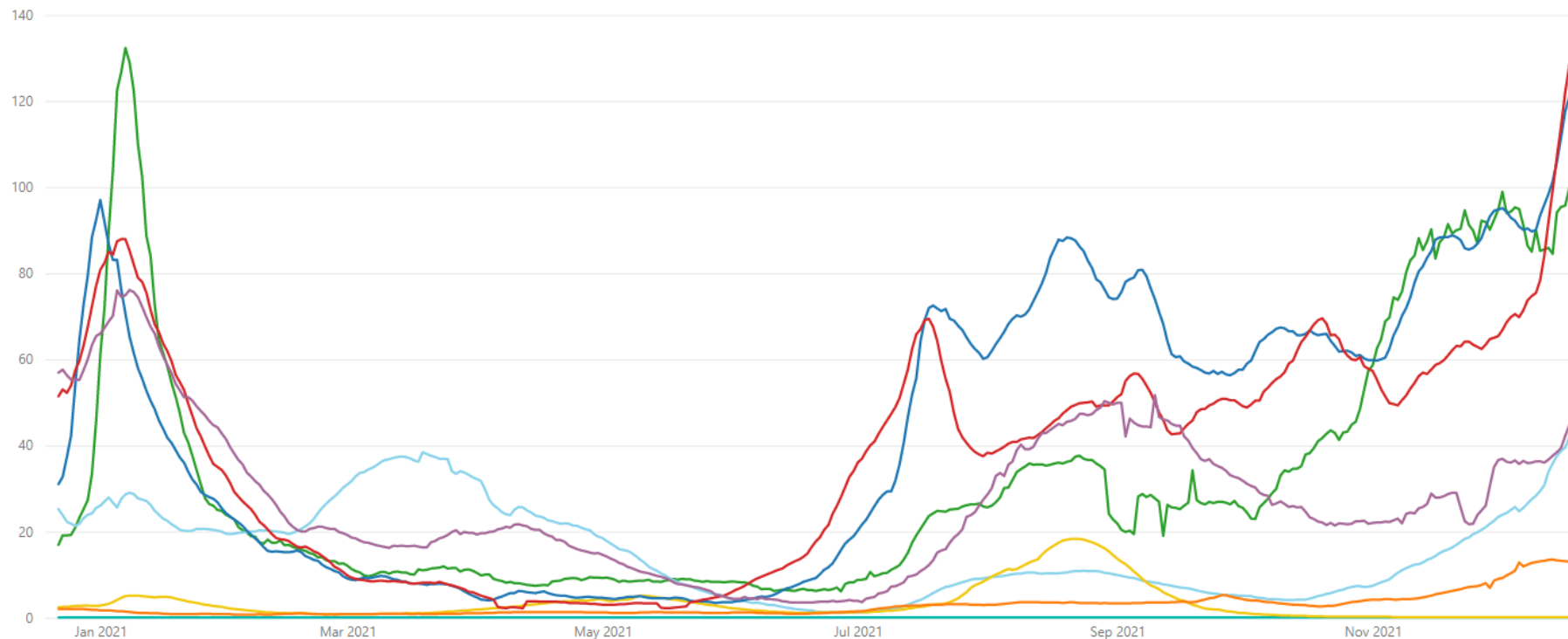
**Table 1: Comparison of doubling times of confirmed cases in the last seven days with the doubling time in the seven days before; as well as the number of confirmed cases in the last seven days with the number of confirmed cases in the seven days before that.** The 'change' column compares whether cases doubled faster or slower or remained about the same; or if countries reported more or less or about the same number of cases. The number of confirmed cases in Northern Ireland is doubling at a faster rate (106.8 days) over the last 7 days compared with the doubling rate in the 7 days before that (132.6 days).



# COVID-19 New Cases Per 100k by Country

7 Day Rolling Average of New COVID-19 Cases (per 100k)

China Ireland Italy Japan NI South Korea United Kingdom US

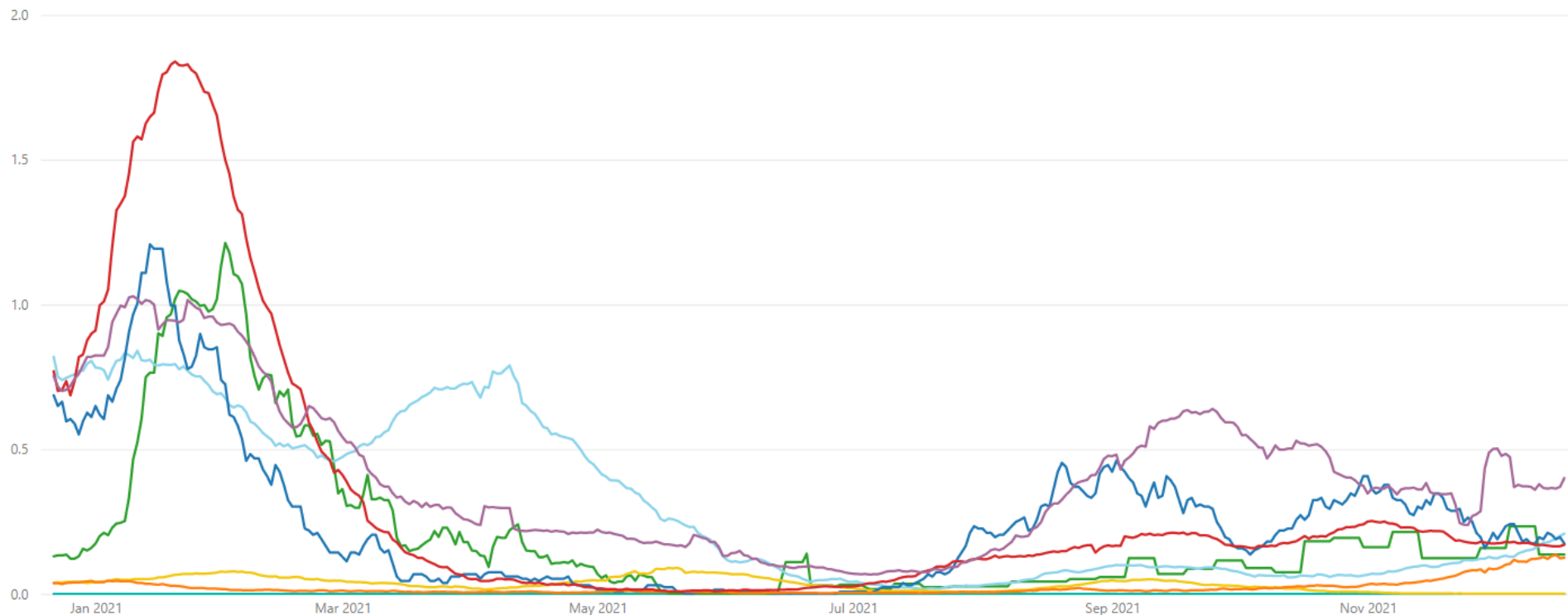


Information above refers to a 7 day rolling average of new confirmed cases of COVID-19 per 100,000 population. Confirmed cases in Northern Ireland refers to individuals with a positive lab completed test.

# COVID-19 New Deaths Per 100k by Country

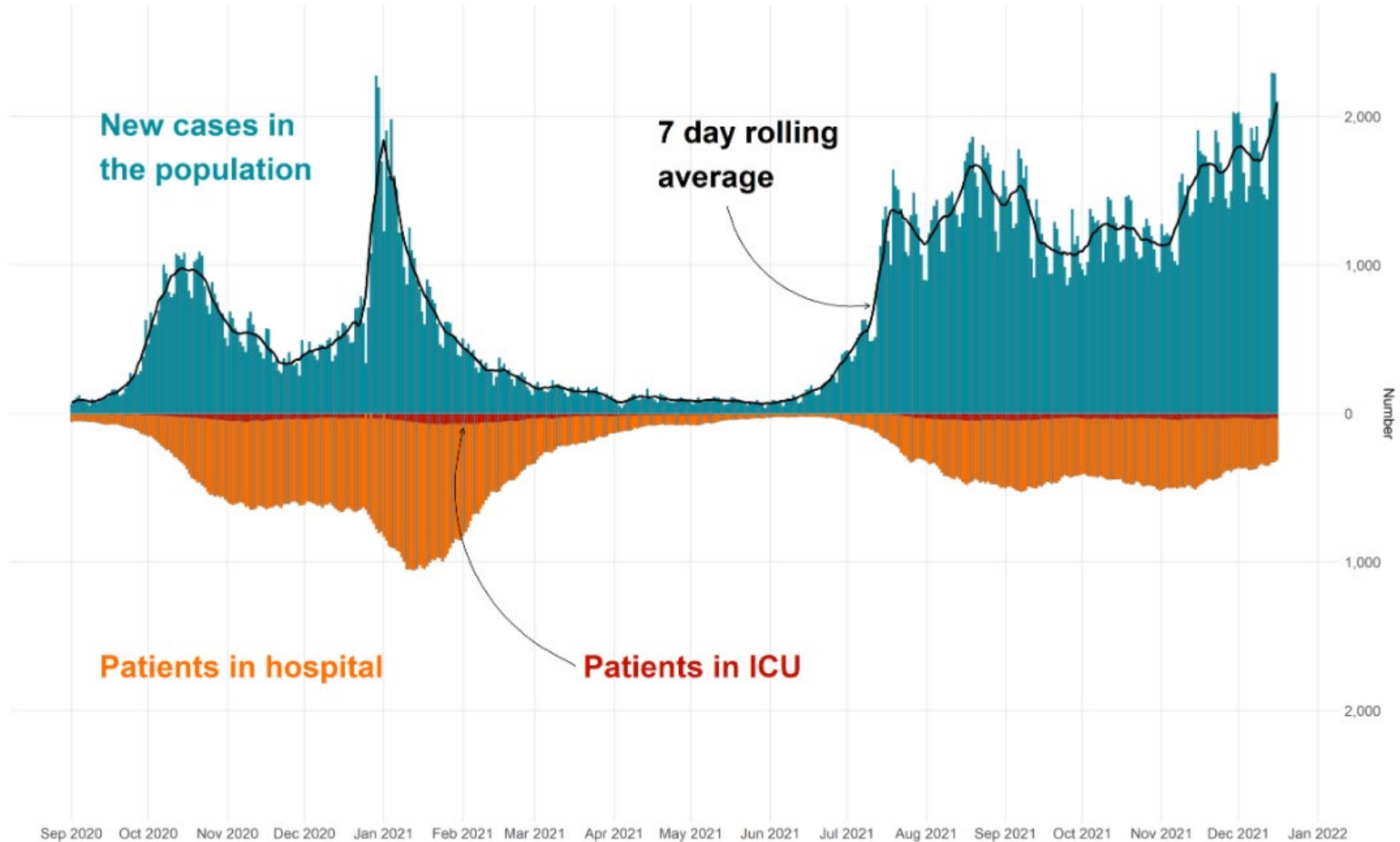
7 Day Rolling Average of New COVID-19 Deaths (per 100k)

● China ● Ireland ● Italy ● Japan ● NI ● South Korea ● United Kingdom ● US



Information above refers to a 7 day rolling average of new deaths attributed to COVID-19 per 100,000 population. Deaths in Northern Ireland refers to individuals who have had a positive test for COVID-19 and died within 28 days, whether or not COVID-19 was the cause of death. **Information detailed below for Ireland is updated on a weekly basis following an IT disruption across their HSE systems.**

# New COVID-19 cases by date of sample and patients in hospital & intensive care units (ICU) with confirmed COVID-19 (1 September 2020 to 16 December 2021)





# COVID-19 Testing overview

The cumulative number of tests (positive, negative or indeterminate) is a count of the total test results, and may include multiple tests for an individual person. Completed tests are presented separately by the method of testing, either PCR tests conducted in laboratories or rapid lateral flow tests (LFT) that give results in less than an hour, without needing to go to a laboratory. Information on the number of persons (individuals) tested and those tested positive referring to PCR or LFT tests. **Daily change** refers to the difference between the cumulative numbers reported between 20 December 2021 - 21 December 2021.

## Lab-Reported (PCR) Tests

# 4,658,146

Cumulative number of lab-reported (PCR) tests by both Pillar 1 & 2

## Rapid Lateral Flow (LFT) Tests

# 1,438,337

Cumulative number of rapid lateral flow (LFT) tests ONLY

## Individuals Tested

# 1,876,447

Persons tested either lab-reported (PCR) or rapid lateral flow (LFT)

## Individuals Tested Positive

# 360,668

Persons tested positive, lab-reported (PCR) or rapid lateral flow (LFT)

## Individuals Tested Positive in last 7 days

# 16,026

Persons tested +ve in last 7 days, lab-reported (PCR) or Lateral Flow (LFT)

## Pillar 1 (PCR Tests)

Date	PCR Tests	Change	LFT Tests	Change	Persons Tested	Change	Positive Tests	Change
21 December 2021	1,170,878	3,538			384,566	310	30,879	93
20 December 2021	1,167,340	2,985			384,256	347	30,786	41
19 December 2021	1,164,355	2,315			383,909	244	30,745	35
18 December 2021	1,162,040	2,134			383,665	311	30,710	41

## Pillar 2 (PCR Tests) & LFT Tests

Date	PCR Tests	Change	LFT Tests	Change	Persons Tested	Change	Positive Tests	Change
21 December 2021	3,487,268	19,368	1,438,337	17,488	1,491,881	6,855	329,789	3,138
20 December 2021	3,467,900	12,491	1,420,849	16,634	1,485,026	5,521	326,651	2,055
19 December 2021	3,455,409	11,864	1,404,215	19,142	1,479,505	5,877	324,596	2,113
18 December 2021	3,443,545	11,333	1,385,073	27,693	1,473,628	8,312	322,483	1,757

## Total Tests (PCR & LFT)

Date	PCR Tests	Change	LFT Tests	Change	Persons Tested	Change	Positive Tests	Change
21 December 2021	4,658,146	22,906	1,438,337	17,488	1,876,447	7,165	360,668	3,231
20 December 2021	4,635,240	15,476	1,420,849	16,634	1,869,282	5,868	357,437	2,096
19 December 2021	4,619,764	14,179	1,404,215	19,142	1,863,414	6,121	355,341	2,148
18 December 2021	4,605,585	13,467	1,385,073	27,693	1,857,293	8,623	353,193	1,798

It is not possible to generate the daily change on any other testing page, as data on pages 5 - 13 is based on the date a sample was taken, whilst the daily change may include tests taken over the last week.

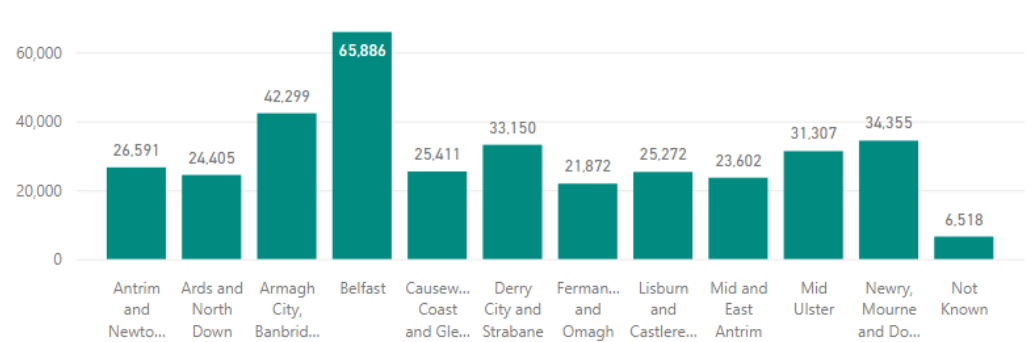
# COVID-19 Testing by LGD

Individuals with laboratory completed tests for the SARS-COV2 Virus in NI refers to both (i) **HSC Trust Labs (Pillar 1)** and (ii) **National Testing Centres (Pillar 2)** and is presented below by Local Government District. It is important to note that (i) Local Government Districts assigned as 'Not Known' refer to individuals with insufficient address / postcode details and (ii) the Change refers to the change in the cumulative number of individuals with a positive test between midnight 20 - 21 December 2021, and is not comparable with data presented by Date of Specimen.

## Change in Cumulative Number of Individuals with a Positive Test by LGD

Local Government District	Midnight 20 December 2021	Midnight 21 December 2021	Change
Antrim and Newtownabbey	26,312	26,591	279
Ards and North Down	24,081	24,405	324
Armagh City, Banbridge and...	42,070	42,299	229
Belfast	65,206	65,886	680
Causeway Coast and Glens	25,207	25,411	204
Derry City and Strabane	32,820	33,150	330
Fermanagh and Omagh	21,708	21,872	164
Lisburn and Castlereagh	25,031	25,272	241
Mid and East Antrim	23,430	23,602	172
Mid Ulster	31,092	31,307	215
Newry, Mourne and Down	34,067	34,355	288
Not Known	6,413	6,518	105
<b>Total</b>	<b>357,437</b>	<b>360,668</b>	<b>3,231</b>

## Cumulative Number of Individuals with a Positive Laboratory Completed Test (Pillar 1 & 2) by LGD



## Cumulative Number of Individuals with a Laboratory Completed Test (Pillar 1 & 2) by LGD

Local Government District	Total Individuals Tested	Individuals Tested Positive	Individuals Tested Negative	Individuals with Indeterminate Result	Positive Tests per 100k population
Antrim and Newtownabbey	134,519	26,591	107,921	7	18,530
Ards and North Down	141,165	24,405	116,754	6	15,090
Armagh City, Banbridge and Craigavon	197,799	42,299	155,488	12	19,564
Belfast	349,464	65,886	283,556	22	19,178
Causeway Coast and Glens	124,955	25,411	99,538	6	17,544
Derry City and Strabane	152,741	33,150	119,579	12	21,912
Fermanagh and Omagh	106,508	21,872	84,627	9	18,631
Lisburn and Castlereagh	137,456	25,272	112,176	8	17,309
Mid and East Antrim	122,743	23,602	99,138	3	16,946
Mid Ulster	139,944	31,307	108,628	9	21,078
Newry, Mourne and Down	171,081	34,355	136,707	19	18,942
Not Known	98,072	6,518	91,540	14	
<b>Total</b>	<b>1,876,447</b>	<b>360,668</b>	<b>1,515,652</b>	<b>127</b>	<b>19,046</b>

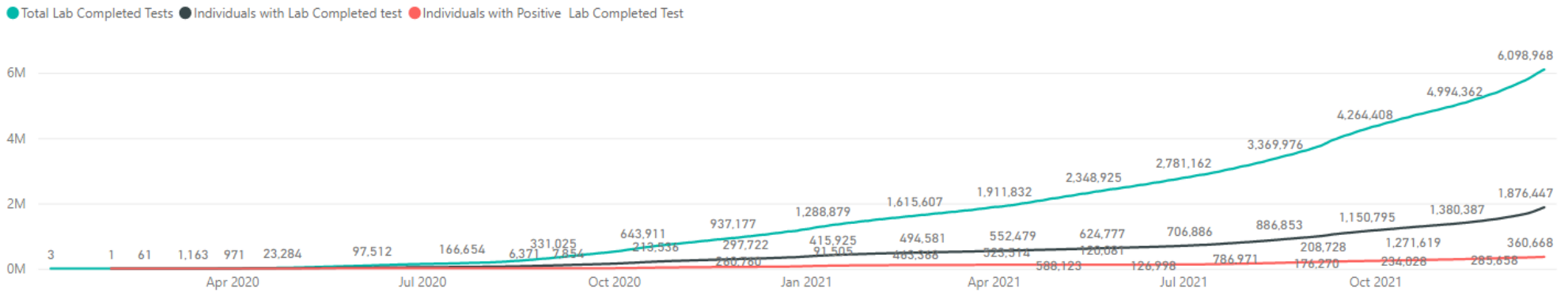
## Change in Cumulative Number of Individuals with a Positive Test by LGD



# COVID-19 Testing Details

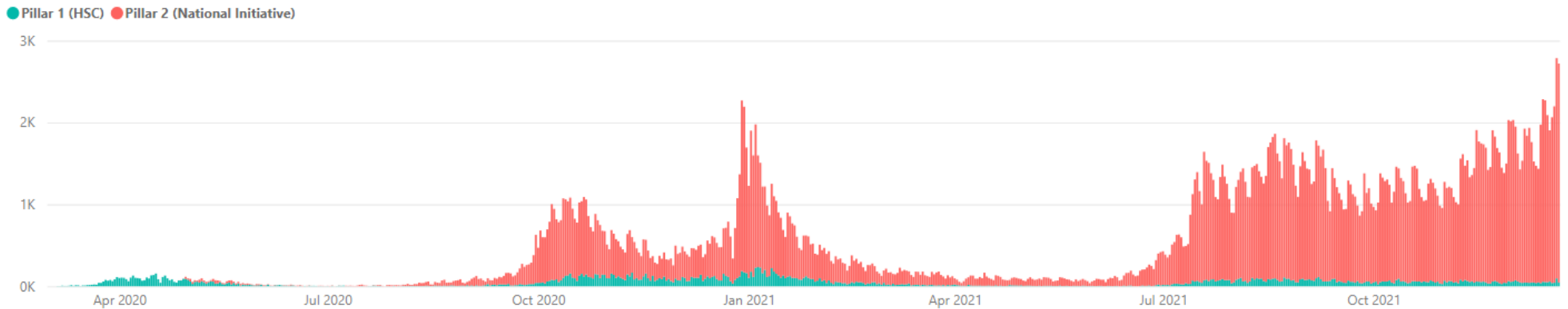
Information below shows (i) the total number of lab completed tests, (ii) individuals with a lab completed test, and (iii) individuals with a positive lab completed test for **both HSC & National Initiative**.

## Cumulative Total of Laboratory Completed Tests by Date of Specimen (Pillar 1 & 2)



Information below refers to individuals with a positive lab completed test in **both HSC & National Initiative** and is presented below by the date the specimen (sample / swab) had been taken at a testing location, and not the date the laboratory test was completed.

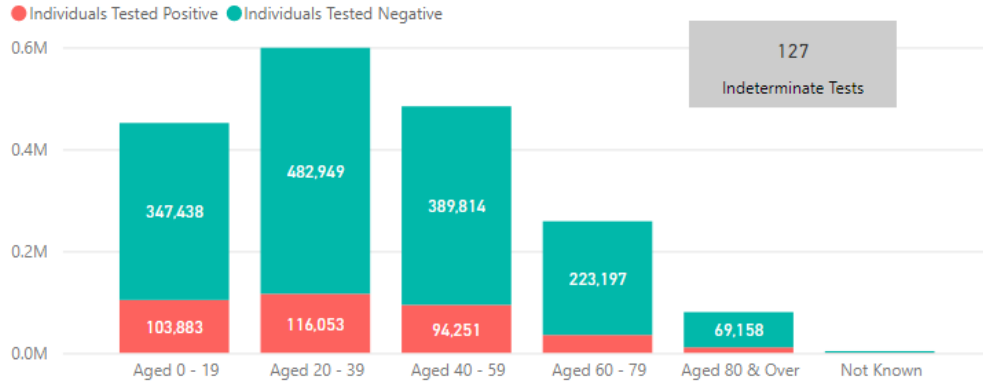
## Individuals with Positive Laboratory Completed Test by Pillar and Date of Specimen



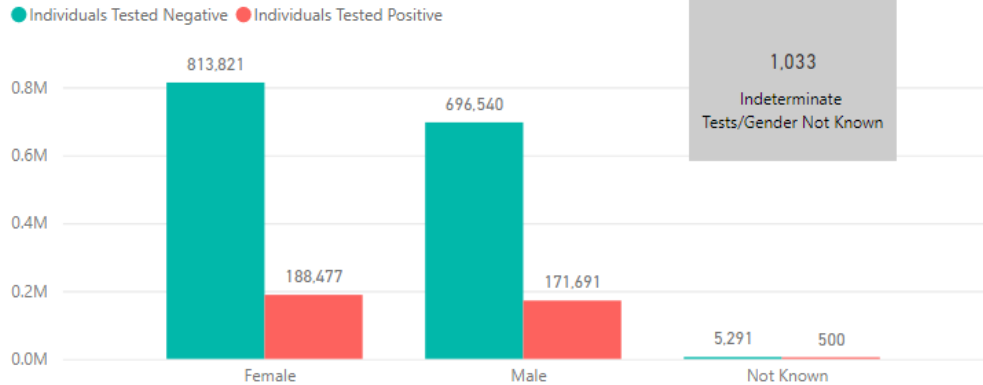
# COVID-19 Testing Gender / Age Group

Information below shows (i) the cumulative number of individuals with a laboratory completed by age group (20 year), (ii) the cumulative number of individuals with a laboratory completed by gender, and (iii) the cumulative number of individuals tested positive by Local Government District, age group (20 Year) and gender.

## Age Group of Individuals with a Laboratory Completed Test (Pillar 1 & 2)

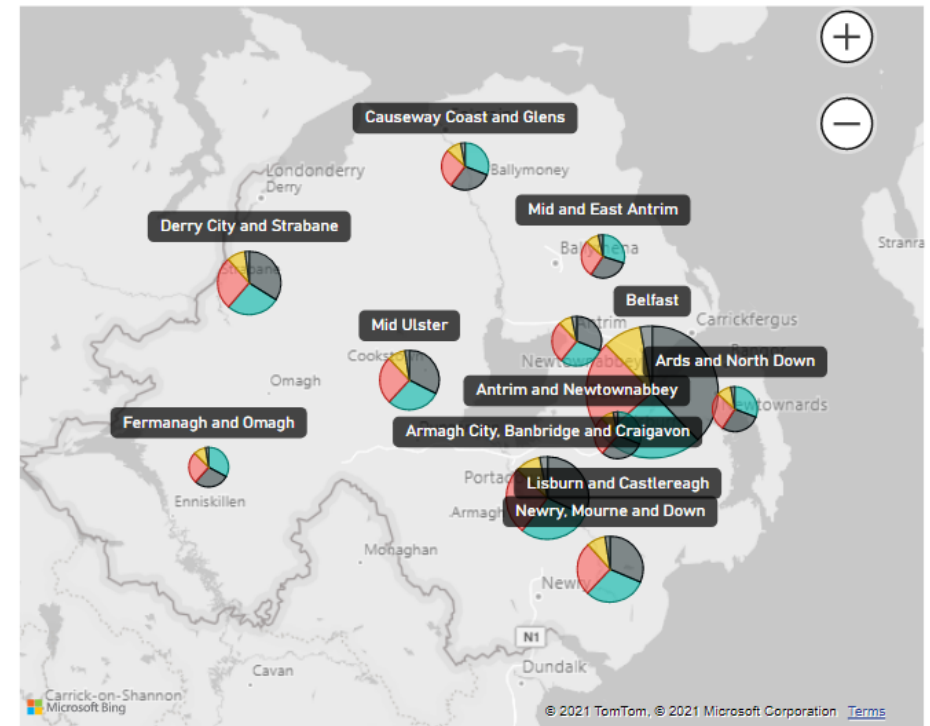


## Gender of Individuals with a Laboratory Completed Test (Pillar 1 & 2)



## Cumulative Number of Individuals Tested Positive by Local Government District, 20 Year Age Group and Gender

Age Band (20 Year Age Group) ● Aged 0 - 19 ● Aged 20 - 39 ● Aged 40 - 59 ● Aged 60 - 79 ● Aged 80 & Over



# COVID-19 Testing (5 Year Age Group)

Information below presents a breakdown by 5 year age group and gender of (i) the number of individuals tested during the last 7 days, (ii) the number of individuals tested positive during the last 7 days, (iii) the percentage of individuals testing positive during the last 7 days, and (iv) the number of individuals testing positive per 100k Population during the last 7 days.

To view each chart please select one of the titles in the toolbar below

Number Tested	Number Tested Positive	Percentage Breakdown	Rate per 100k Population
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## (i) Number Tested

● Female ● Male



### During the last 7 days:

\* 167,110 individuals tested for SARS COVID-19 in Northern Ireland;

\* 16,026 individuals tested positive for SARS COVID-19 in Northern Ireland;

\* highest percentage of individuals testing positive were Aged 20 - 24 (13.8 %);

\* highest number of individuals with a positive test per 100k population were Females Aged 20 - 24 (2,214).

# COVID Testing Last 7 Days - Postal District

## Positive Cases in my Local Area

To view information on the number of individuals with a positive COVID-19 test in a specific area during the last 7 days, enter your full postcode in the box below with no spaces.

Enter a Postcode in following format and click enter i.e. BT221GB or BT34PP

*Click on the icon at the side to reset the map for each postcode search.*

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Reset

Scroll down table to view data for all postcode districts selected.

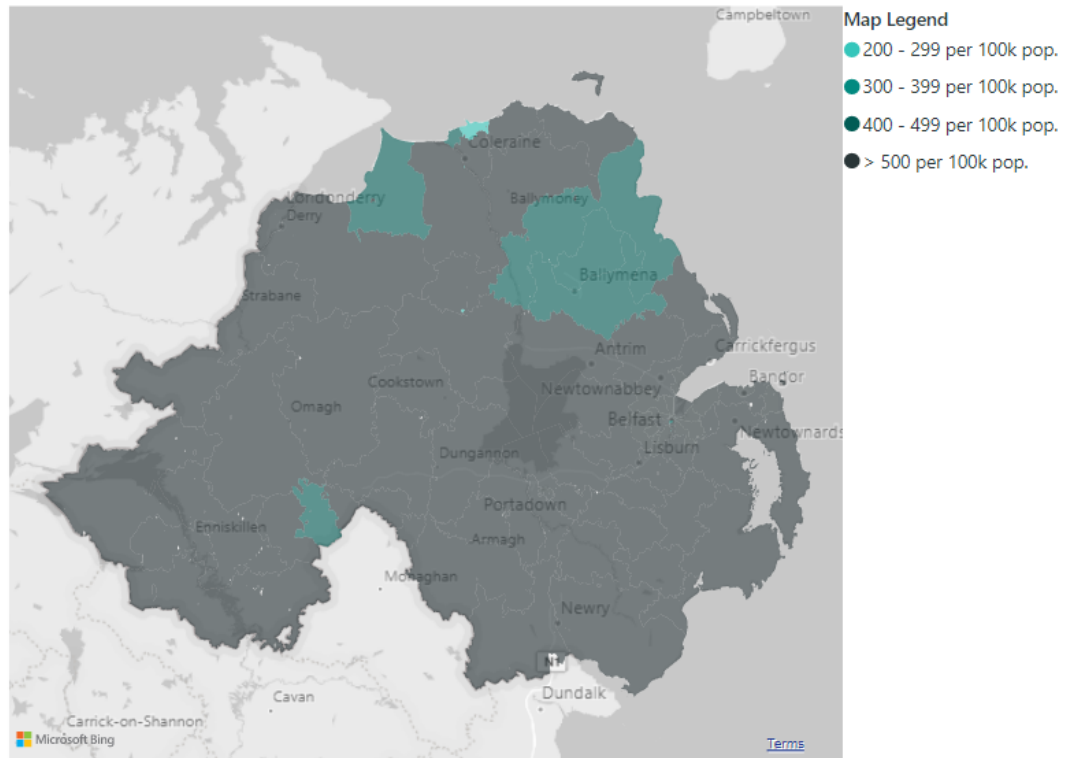
## Individuals Tested during Last 7 Days (13 - 19 December 2021) by Postal District

Postal_District	Positive Cases	Rate per 100K Pop.	Individuals Tested	Population
BT1	35	1,372.5	410	2,550
BT10	125	985.8	1,251	12,680
BT11	199	730.0	2,401	27,260
BT12	184	621.8	2,225	29,590
BT13	168	691.4	1,936	24,300
BT14	244	722.3	2,799	33,780
BT15	224	837.4	2,460	26,750
BT16	174	979.7	1,797	17,760
BT17	224	656.5	2,981	34,120
BT18	152	1,113.6	1,548	13,650
BT19	362	940.5	3,791	38,490
BT2	4	357.1	154	1,120
BT20	205	790.6	2,645	25,930
BT21	54	684.4	1,004	7,890
BT22	183	809.4	1,821	22,610
<b>Total</b>	<b>14,632</b>	<b>772.7</b>	<b>167,680</b>	<b>1,893,680</b>

### Information:

The map below provides a visualisation of the 7-day incidence rate of individuals testing positive for COVID-19 per 100,000 population within each postal district in Northern Ireland, and will be updated on a weekly basis (each Monday).

### Positive Cases in last 7 Days per 100K Pop. by Postal District (13 - 19 December 2021)





# COVID-19 Testing in the last 7 Days

Information below refers to the number of individuals with a positive laboratory completed test during the **last 7 days** (15 - 21 December 2021) compared with the **previous 7 days** (8 - 14 December 2021).

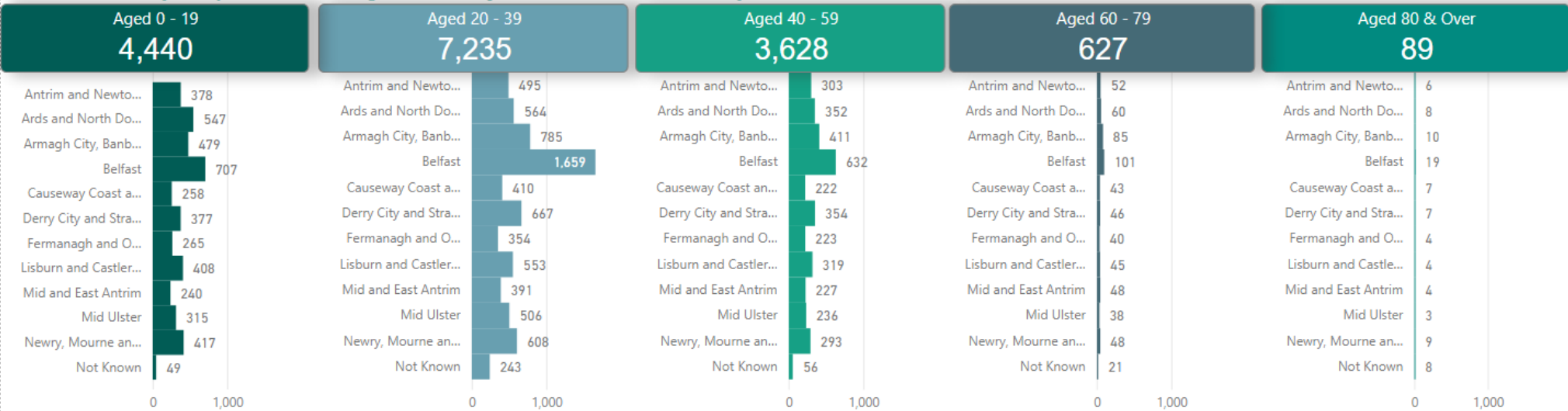
## Laboratory Completed Tests during Last 7 Days (15 - 21 December 2021) by LGD

Local Government District	+ve Cases Last 7 Days	Last 7 Day Rate per 100K	Individuals Tested Last 7 Days
Antrim and Newtownabbey	1,234	859.9	13,390
Ards and North Down	1,531	946.7	16,139
Armagh City, Banbridge and Craigavon	1,771	819.1	17,875
Belfast	3,119	907.9	31,116
Causeway Coast and Glens	941	649.7	10,759
Derry City and Strabane	1,452	959.8	12,162
Fermanagh and Omagh	886	754.7	8,405
Lisburn and Castlereagh	1,330	910.9	14,069
Mid and East Antrim	911	654.1	11,342
Mid Ulster	1,098	739.3	11,680
Newry, Mourne and Down	1,376	758.7	14,635
Not Known	377		5,538
<b>Total</b>	<b>16,026</b>	<b>846.3</b>	<b>167,110</b>

## Laboratory Completed Tests during Previous 7 Days (8 - 14 Dec 2021) by LGD

Local Government District	+ve Cases Previous 7 Days	Previous 7 Day Rate per 100K	Individ. Tested in Previous 7 Days
Antrim and Newtownabbey	1,070	745.6	7,719
Ards and North Down	1,276	789.0	8,862
Armagh City, Banbridge and Craigavon	1,460	675.3	10,150
Belfast	2,063	600.5	16,710
Causeway Coast and Glens	768	530.2	6,421
Derry City and Strabane	933	616.7	6,321
Fermanagh and Omagh	686	584.3	4,911
Lisburn and Castlereagh	979	670.5	7,737
Mid and East Antrim	811	582.3	6,863
Mid Ulster	810	545.4	6,066
Newry, Mourne and Down	1,401	772.5	9,907
Not Known	123		3,468
<b>Total</b>	<b>12,380</b>	<b>653.8</b>	<b>95,135</b>

## Positive Laboratory Completed Tests during the last 7 days (15 - 21 December 2021) by LGD



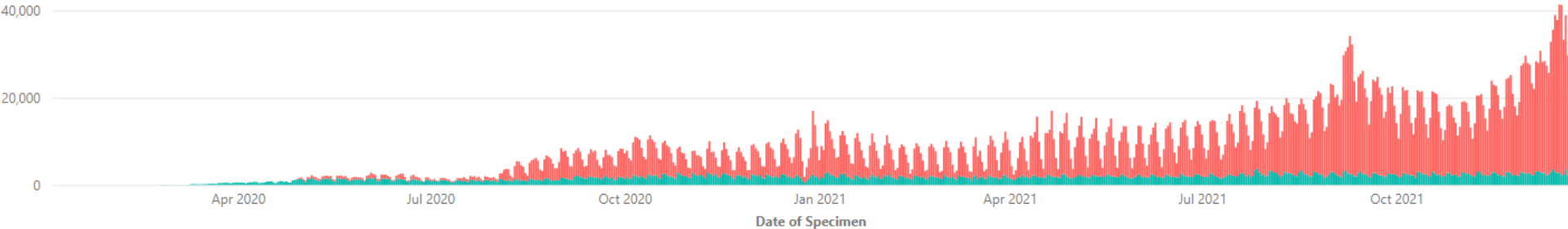
# Testing Trend Analysis of Individuals with a confirmed Laboratory completed test for SARS-COV2



Information below refers to the number of laboratory completed tests (Both HSC & National Initiative) by the date on which the specimen (sample / swab) had been taken at a testing location, and not the date the laboratory test was completed. Whilst this gives the most accurate analysis of how cases progress over time it does mean that the latest days' figures are usually incomplete, so it shouldn't be seen as a sudden large drop in cases.

## Laboratory Completed Tests by Date of Specimen (Pillar 1 & 2)

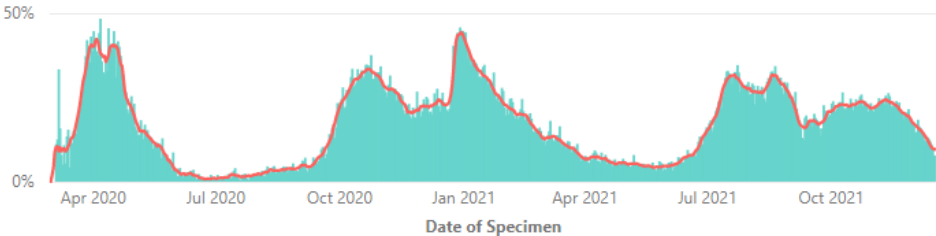
● Pillar 1 Laboratory Completed Tests ● Pillar 2 Laboratory Completed Tests



Information below shows the percentage of laboratory completed tests (Both HSC & National Initiative) which were identified as positive by the date the specimen (sample / swab) was taken at a testing location.

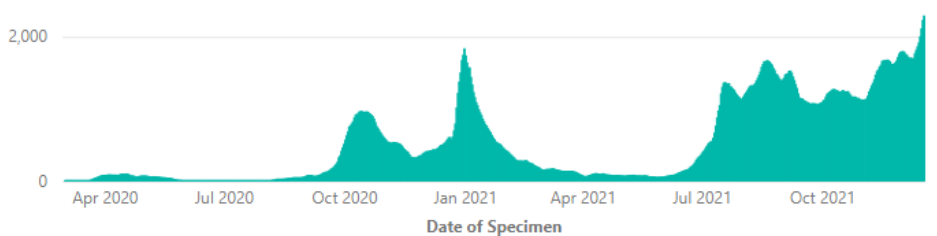
## Proportion of Laboratory Completed Tests Identified as Positive by Date of Specimen (Pillar 1 & 2)

● % of Individuals with a positive Test ● Rolling 7 Day % Individuals Tested Positive



Information is presented below on the 7-day rolling average of individuals with a positive laboratory completed test (Both HSC & National Initiative), by the date specimen (sample / swab) was taken at a testing location.

## 7 Day Rolling Average (mean) of Individuals with Positive Laboratory Completed Tests by Date of Specimen (Pillar 1 & 2)



**NOTE: Data is not yet available for the National Initiative between 4th - 28th April 2020 and this has resulted in a slight dip in the charts above between 19th - 29th April 2020.**

# Weekly COVID-19 Testing

Information on this page refers to the number and percentage of individuals with a positive laboratory completed test during each week from February 2020, a week starts on a Monday and ends on a Sunday. An individual is counted only once in each week they were tested, with the first positive test in each week being counted. Note that information on this page will not match any data on previous testing pages.

**FILTER BY LOCAL GOVERNMENT DISTRICT (LGD):** Use drop down box below to filter by LGD.

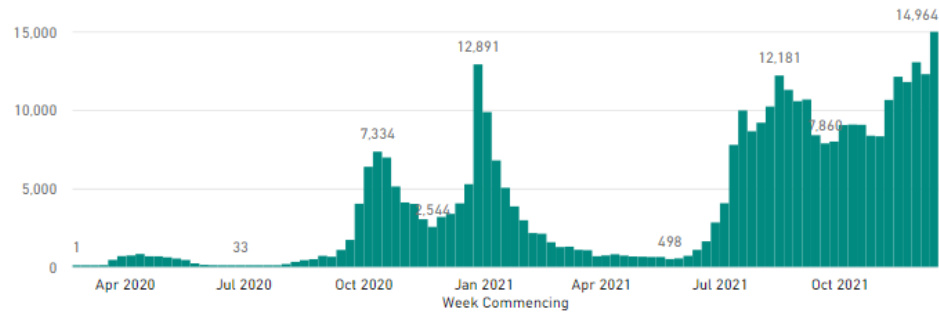
Reset the page, click the reset button on the left.


All



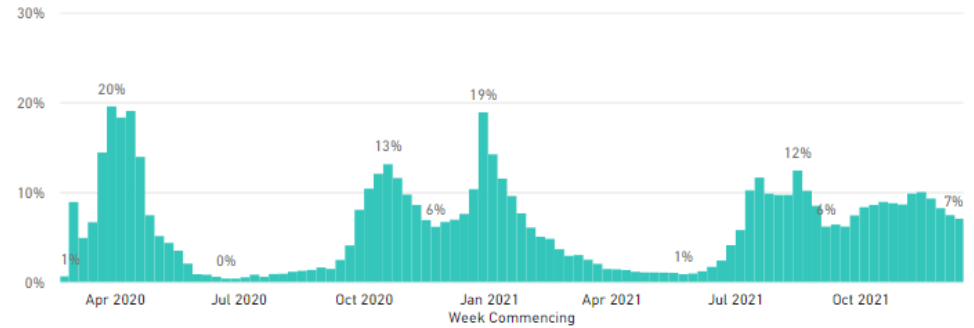
Reset Filter

Individuals Tested Positive each Week (All LGDs)



Click the icon  in the top right hand corner of each chart to enlarge the view.

Percentage Tested Positive each Week (All LGDs)



Individuals Tested Positive each Week by Age Group (All LGDs)

Week Commencing	Individ Under 20 Tested	+ve Cases Aged Under 20	Individ Aged 20-39 Tested	+ve Cases Aged 20-39	Individ Aged 40-59 Tested	+ve Cases Aged 40-59	Individ Aged 60-79 Tested	+ve Cases Aged 60-79	Individ Aged 80+ Tested	+ve Cases Aged 80+	Total Tested	Total + Tests
W/C: 13/12/2021	47,911	4,806	80,287	5,953	56,383	3,524	22,713	593	5,702	88	212,998	14,964
W/C: 06/12/2021	37,878	4,891	56,049	3,585	46,440	3,098	19,399	591	5,441	101	165,211	12,266
W/C: 29/11/2021	37,523	5,141	52,766	3,510	44,699	3,458	18,699	789	5,288	119	158,976	13,027
W/C: 22/11/2021	31,705	4,774	36,414	2,992	38,056	3,082	16,091	803	4,746	120	127,014	11,172
W/C: 15/11/2021	30,236	5,043	33,331	2,807	36,916	3,158	15,794	927	4,768	162	121,052	12,103
W/C: 08/11/2021	25,641	4,314	29,372	2,392	33,337	2,676	15,174	1,034	4,725	212	108,250	10,628
W/C: 01/11/2021	18,662	2,803	26,879	2,014	30,935	2,254	15,099	1,015	4,990	226	96,565	8,312
W/C: 25/10/2021	18,600	2,926	26,801	1,749	30,155	2,459	14,863	981	4,967	234	95,386	8,349
W/C: 18/10/2021	22,769	3,652	26,234	1,792	32,527	2,358	15,184	1,031	4,863	211	101,580	9,044
W/C: 11/10/2021	26,627	3,991	27,051	1,793	32,966	2,241	14,455	828	4,679	206	105,781	9,059
<b>Total</b>	<b>1,005,482</b>	<b>107,290</b>	<b>1,723,026</b>	<b>119,080</b>	<b>1,610,948</b>	<b>97,037</b>	<b>763,857</b>	<b>37,398</b>	<b>327,377</b>	<b>12,555</b>	<b>5,430,943</b>	<b>373,368</b>

# Cumulative COVID-19 Deaths By Local Government District by Age, Gender and Previously Report Deaths and Deaths in Current Reporting Period by Date of Death

Breakdown of Deaths During Current Reporting Period

2,958

COVID-19 Deaths reported up to 10:00am on 22 Dec 2021

=

2,955

COVID-19 Deaths previously reported up to 10:00am on 21 Dec 2021

+

2

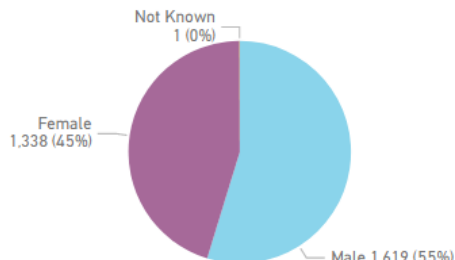
Deaths reported and occurring within current reporting period

+

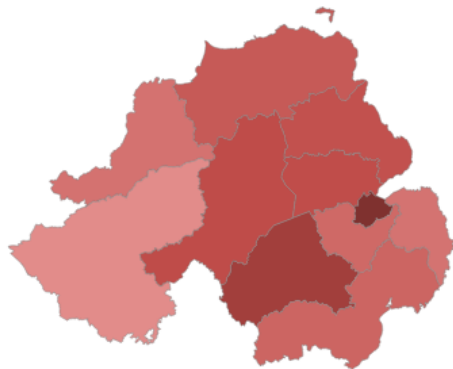
1

Deaths reported, but not occurring within current reporting period

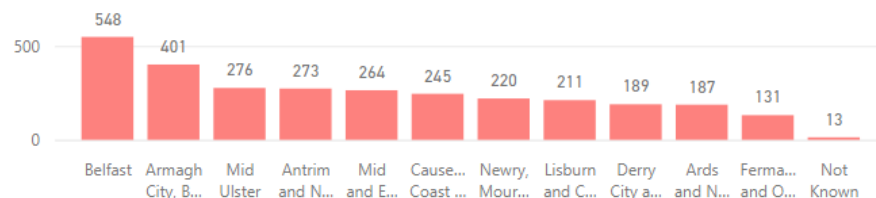
COVID-19 Deaths by Gender



COVID-19 Deaths by Local Government District



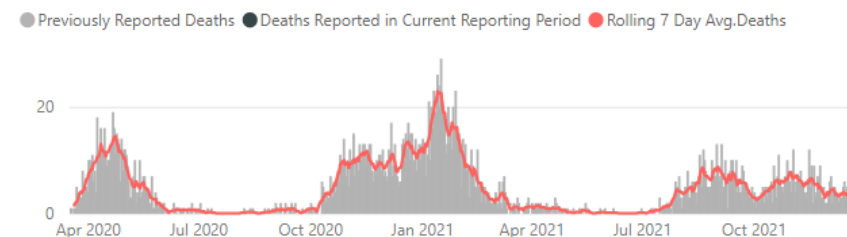
COVID-19 Deaths by Local Government District



Cumulative COVID-19 Deaths by Date of Death



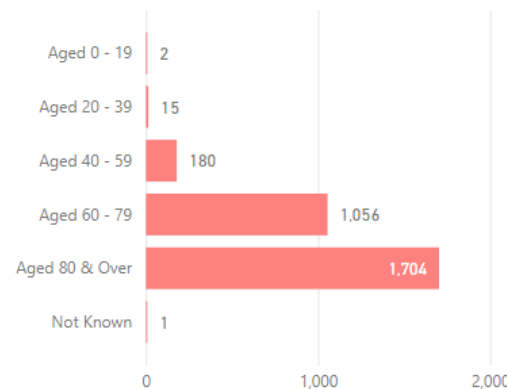
Previously Reported Deaths and Deaths in Current Reporting Period by Date of Death



**Note 1:** Deaths in current reporting period include deaths which will have occurred in that period, along with deaths which have only been reported within that period. For example, A death may occur on Thursday 30th April but not be reported until Saturday 2nd May

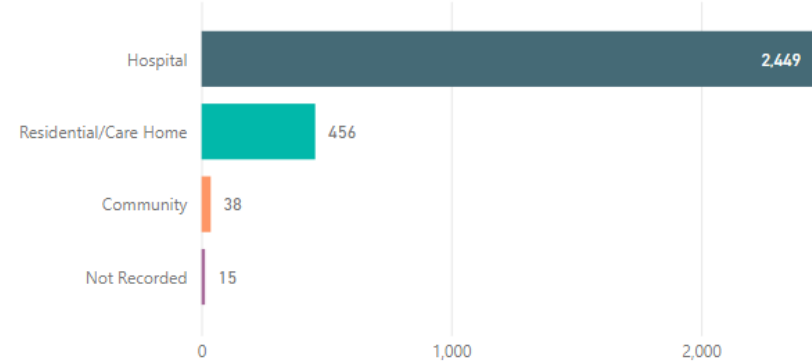
**Note 2:** Current Reporting Period = 10am on 21 December 2021 - 10am on 22 December 2021

COVID-19 Deaths by Age Group

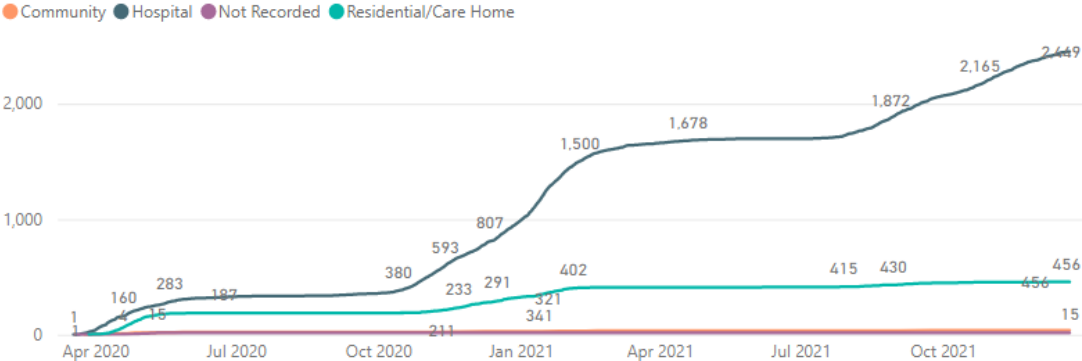


# Cumulative COVID-19 Deaths by Death Setting

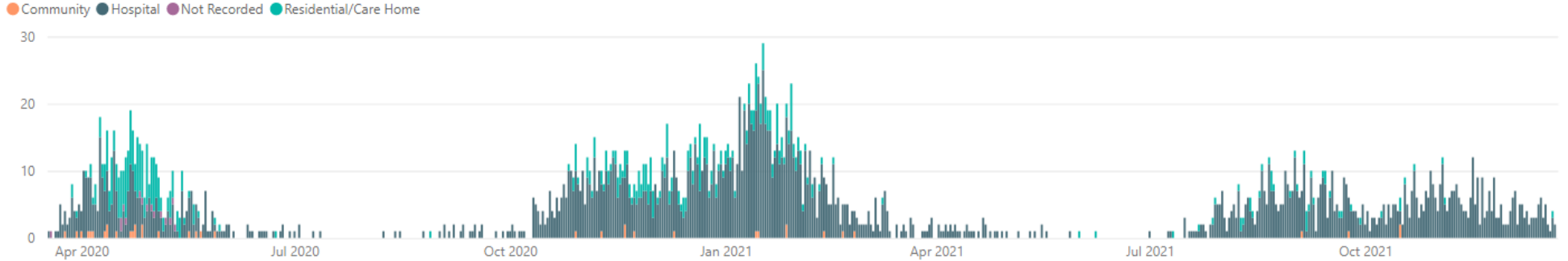
COVID-19 Deaths by Setting



Cumulative COVID-19 Deaths by Date of Death and Setting

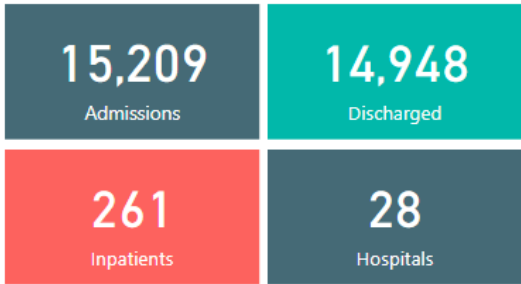


COVID-19 Daily Deaths by Date of Death and Setting

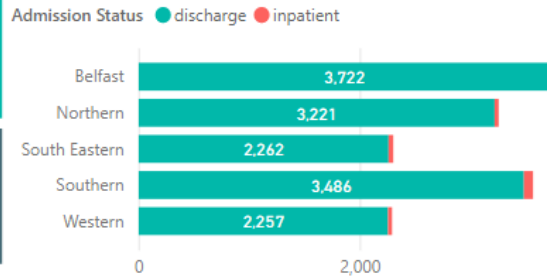


**Note:** The Community setting includes deaths recorded as occurring in Community, Hospice and Other settings. Information displayed reflects deaths reported to the PHA up to the end of the current reporting period, and includes individuals who have had a positive test for COVID-19 and died within 28 days, whether or not COVID-19 was the cause of death. A broader picture on COVID-19 fatalities is provided in the weekly NISRA bulletin which details deaths across hospital and community settings. NISRA figures are derived from the formal process of death registration and may include cases where the doctor completing the death certificate diagnosed suspected cases of COVID-19.

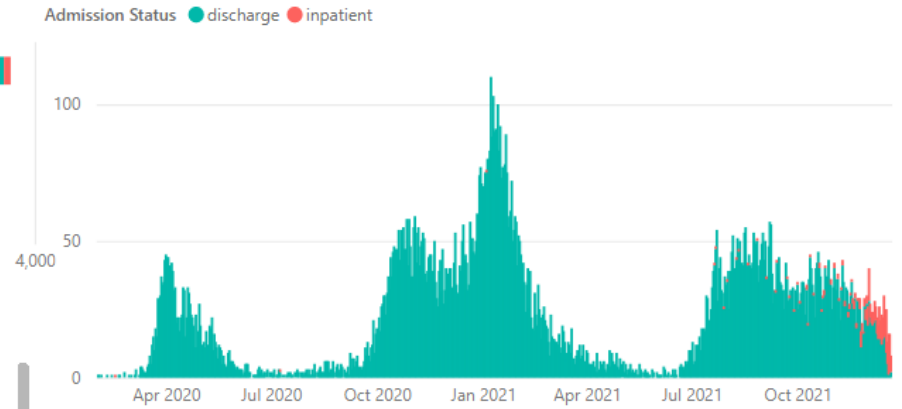
# Confirmed COVID-19 Admissions by HSC Trust, Age Group & Patient Status: Covid-19 Admissions by Admission Date & Occupancy by Date



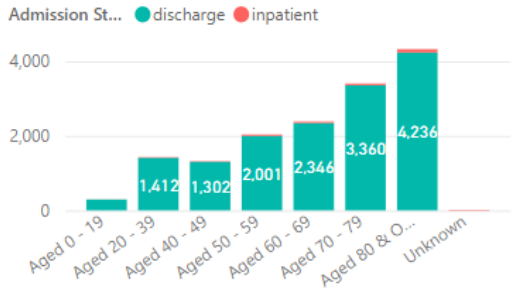
COVID-19 Admissions by Trust & Patient Status



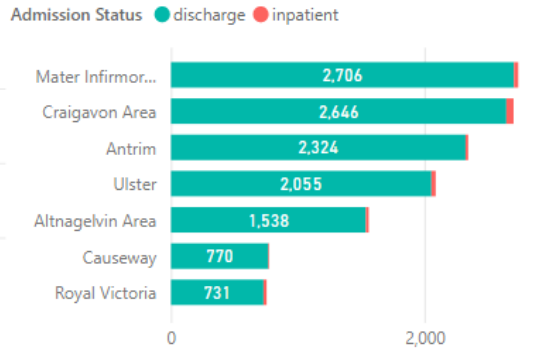
COVID-19 Admissions by Admission Date & Patient Status



COVID-19 Admissions by Age Group & Patient Status



COVID-19 Admissions by Hospital & Patient Status



COVID-19 Admissions, Discharges & Inpatients at Midnight for the Last 8 Days

Date	Admissions	Discharged	Inpatients
14 December 2021	15,077	14,742	335
15 December 2021	15,107	14,771	336
16 December 2021	15,131	14,800	331
17 December 2021	15,156	14,845	311
18 December 2021	15,169	14,868	301
19 December 2021	15,185	14,879	306
20 December 2021	15,201	14,920	281
21 December 2021	15,209	14,948	261

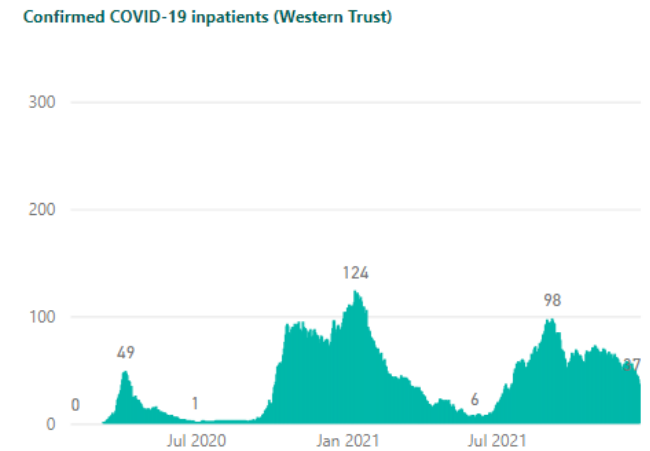
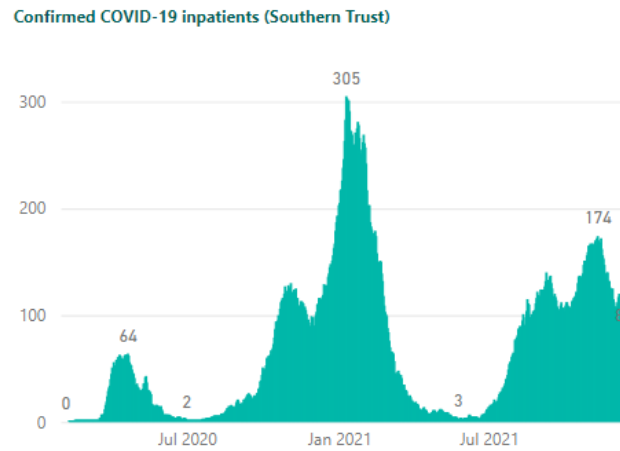
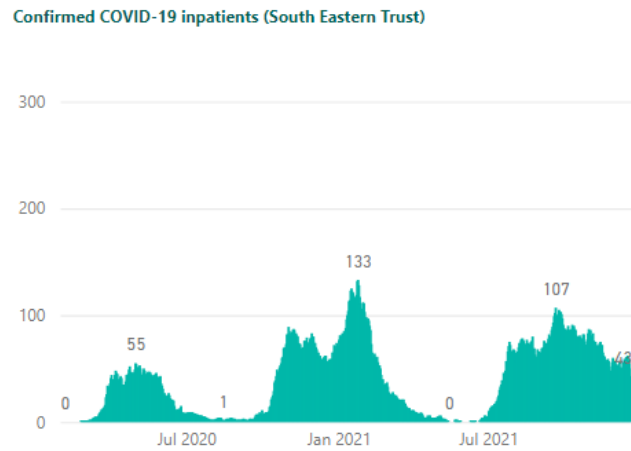
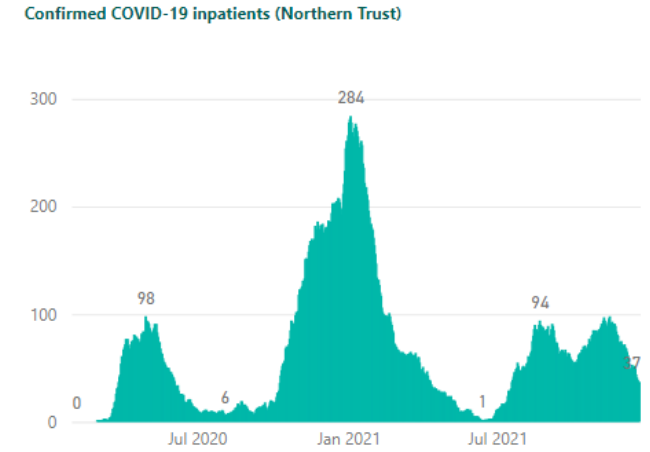
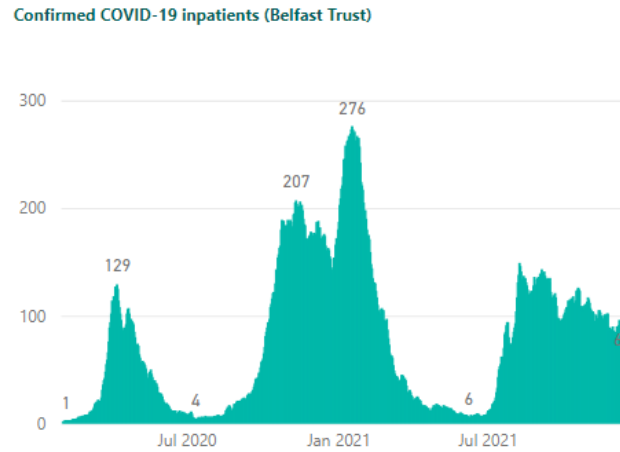
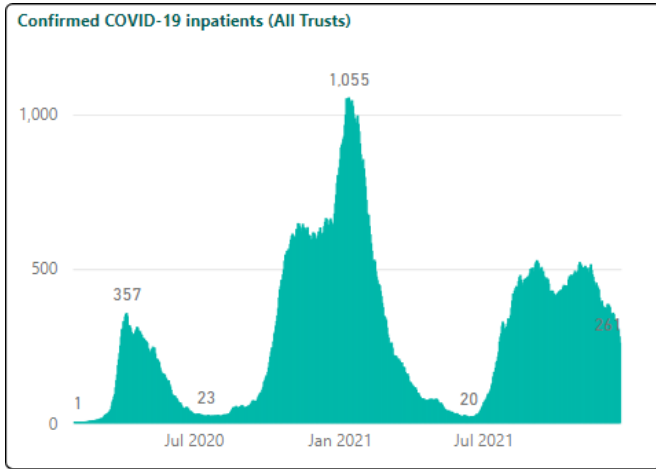
**Note 1:** Discharges include: discharge under medical grounds, self-discharge or death.  
**Note 2:** Admissions data is sourced from a live administrative system which is continually being amended and updated, as such previous days' admission data may be revised.  
**Note 3:** Figures include patients admitted for other reasons but who subsequently test positive for COVID-19.

Change in Admissions & Discharges by HSC Trust

HSC Trust	Admissions in Last 7 Days	Discharges in Last 7 Days	Admissions in Last 14 Days	Discharges in Last 14 Days
Belfast	31	48	64	94
Northern	15	27	37	62
South Eastern	27	41	51	64
Southern	45	64	105	137
Western	14	26	34	54
<b>Total</b>	<b>132</b>	<b>206</b>	<b>291</b>	<b>411</b>



# COVID-19 Inpatients by HSC Trust: Confirmed COVID-19



# Inpatients at Midnight

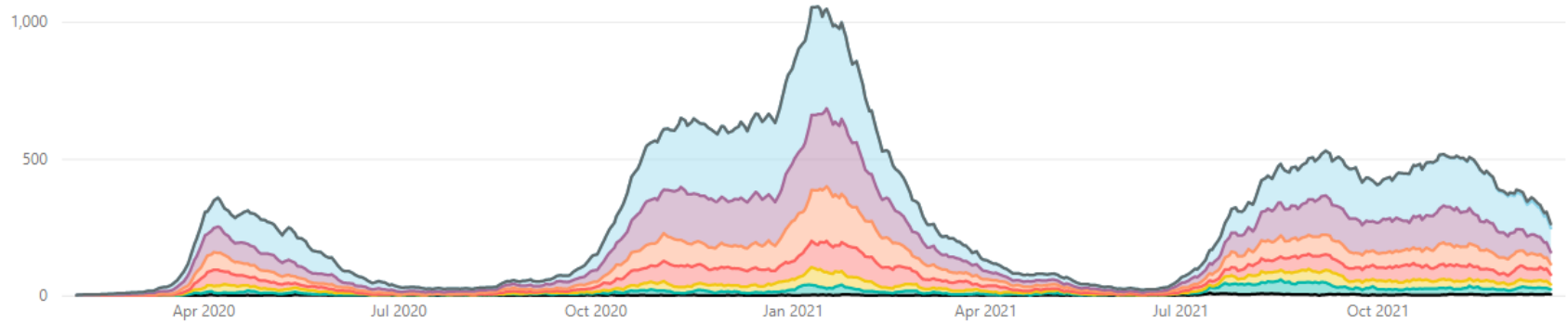
**Note:** Information on this page refers to the number of inpatients in hospital at midnight by age band, date, Health and Social Care Trust and sex. Please click on the buttons below to make a selection.

## SELECT SEX:

- All
- Female
- Male
- Unknown

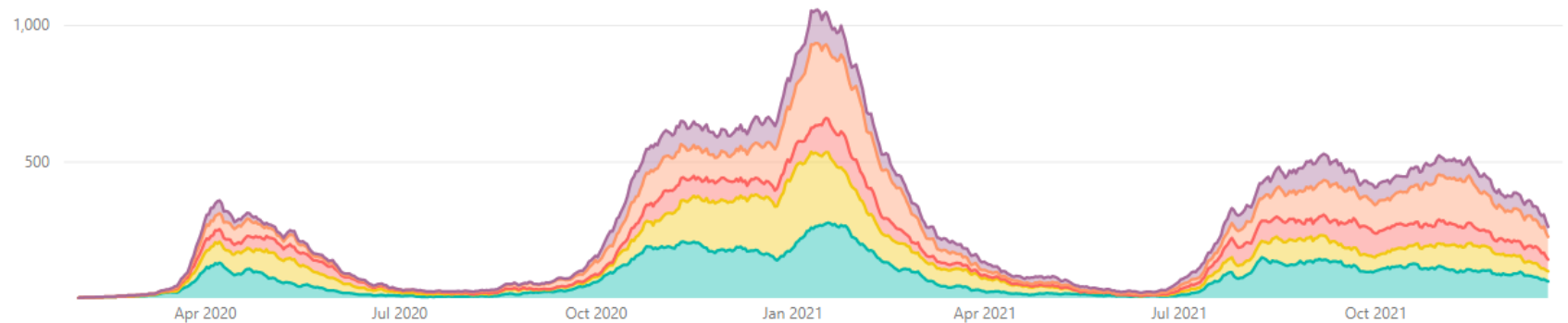
### Inpatients at Midnight by Age Band for All

● Aged 0 - 19 ● Aged 20 - 39 ● Aged 40 - 49 ● Aged 50 - 59 ● Aged 60 - 69 ● Aged 70 - 79 ● Aged 80 & Over ● Unknown



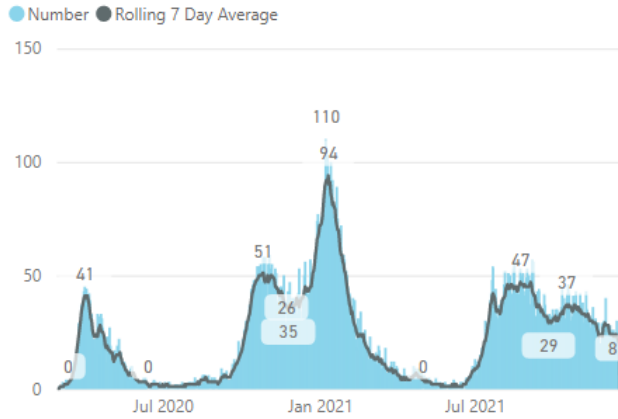
### Inpatients at Midnight by Trust for All

● Belfast ● Northern ● South Eastern ● Southern ● Western

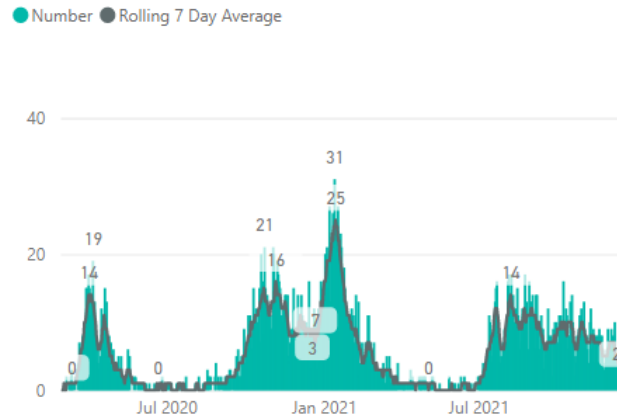


# Confirmed COVID-19 Daily Admissions by HSC Trust

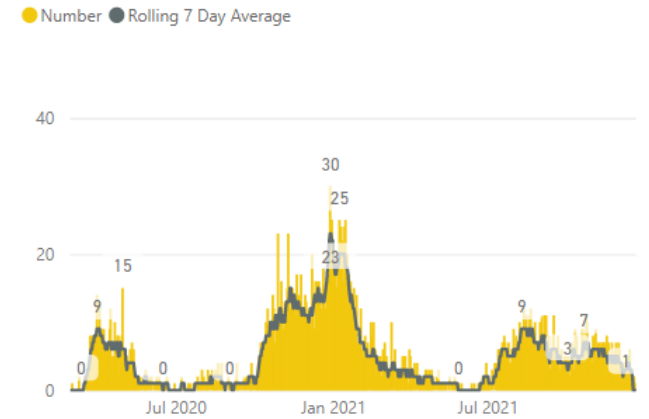
Confirmed COVID-19 daily admissions (All Trusts)



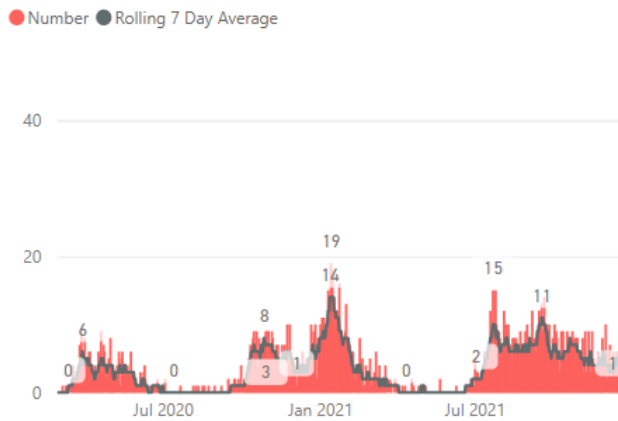
Confirmed COVID-19 daily admissions (Belfast Trust)



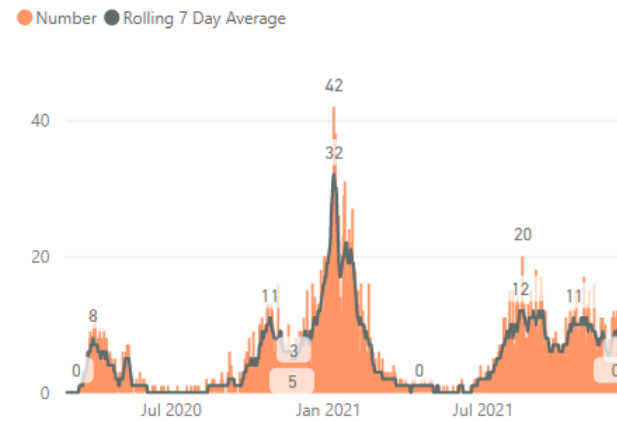
Confirmed COVID-19 daily admissions (Northern Trust)



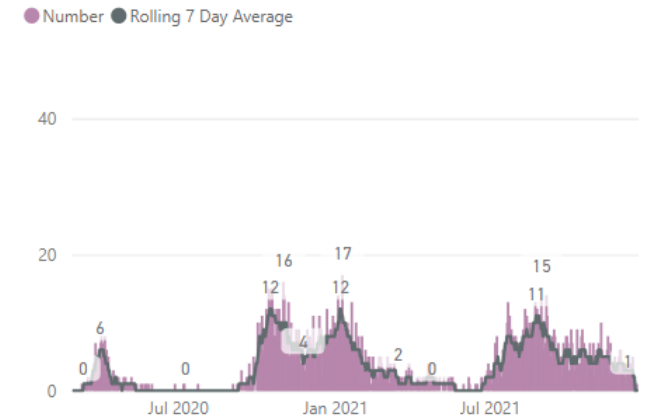
Confirmed COVID-19 daily admissions (South Eastern Trust)



Confirmed COVID-19 daily admissions (Southern Trust)

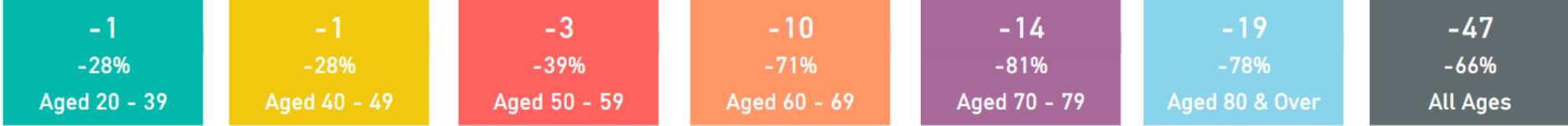


Confirmed COVID-19 daily admissions (Western Trust)

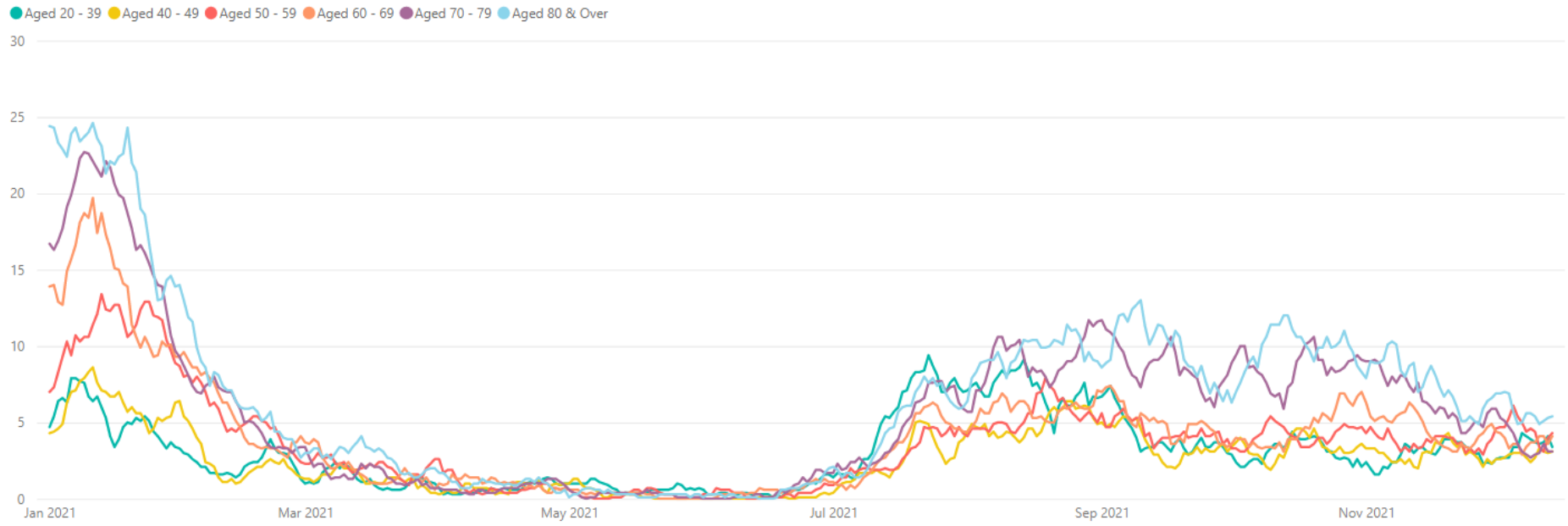


# COVID-19 Admissions – 7 Day Rolling Average Change

The number and percentage change in admissions from 1st January 2021 is detailed in the boxes below. Ages 0 - 19 and unknown ages are excluded.



7 Day Rolling Average of Daily Admissions

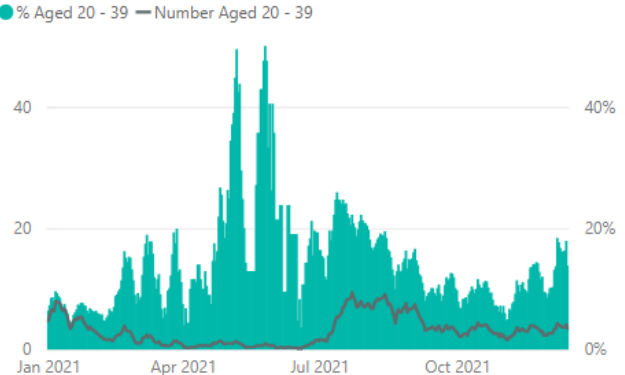


# COVID-19 Admissions – 7 Day Rolling Average by Age Group

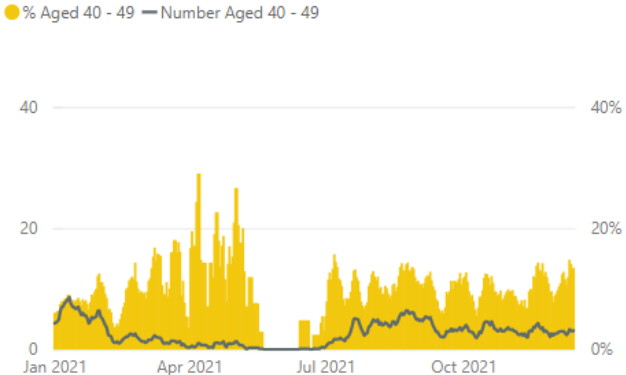


Information below details a 7 day rolling average of hospital admissions. Lines indicate the rolling average (number), whilst the bars represent the percentage for each age group of the total admissions. Ages 0 - 19 and unknown ages are excluded.

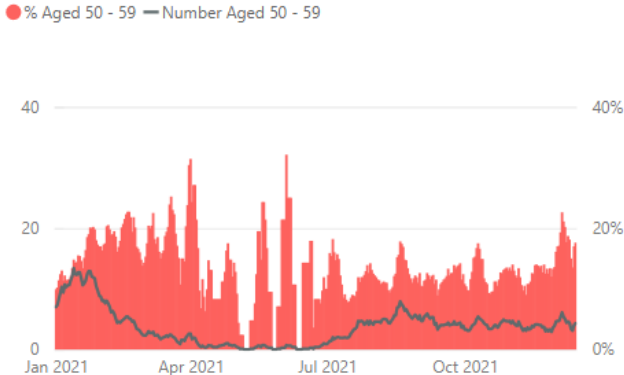
## Daily Admissions Aged 20 - 39



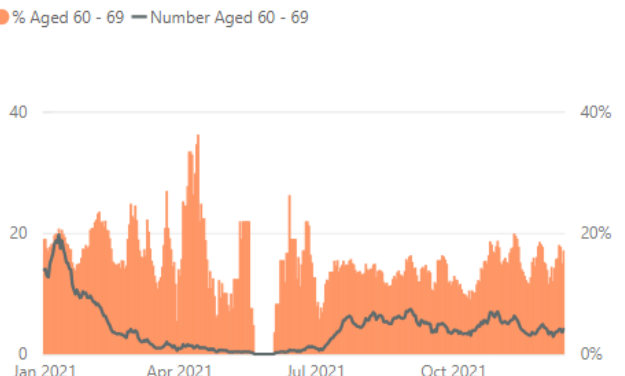
## Daily Admissions Aged 40 - 49



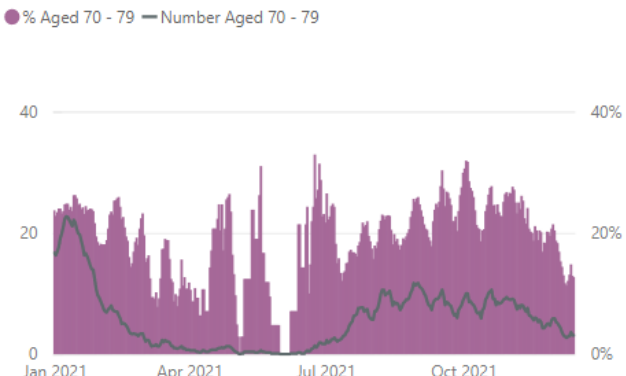
## Daily Admissions Aged 50 - 59



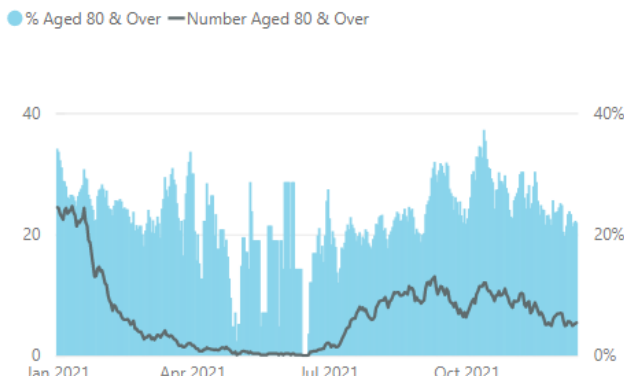
## Daily Admissions Aged 60 - 69



## Daily Admissions Aged 70 - 79



## Daily Admissions Aged 80 & Over



# ICU Bed Capacity: ICU COVID-19 suspected and positive, ICU Other and ICU Beds Available, ICU 5-day Rolling Average and Ventilator Use in ICU.



**94**  
Total ICU Beds

**34**  
ICU Covid Occupied

**50**  
Other ICU Occupied

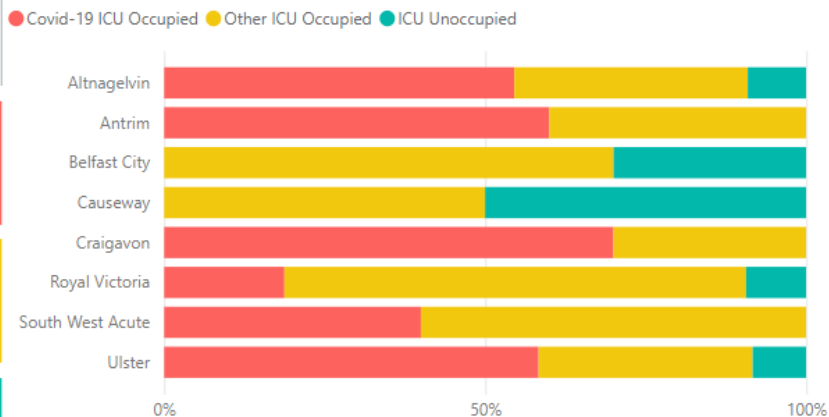
**10**  
Unoccupied Beds

**49**  
Total Ventilated Patients

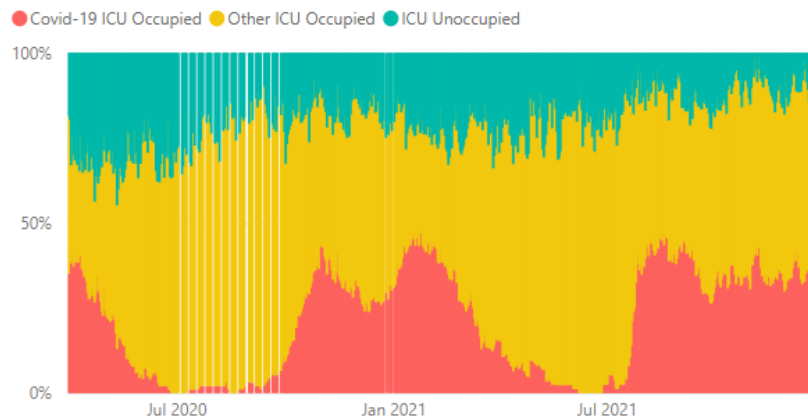
**26**  
Covid-19 Ventilated

**23**  
Non Covid-19 Ventilated

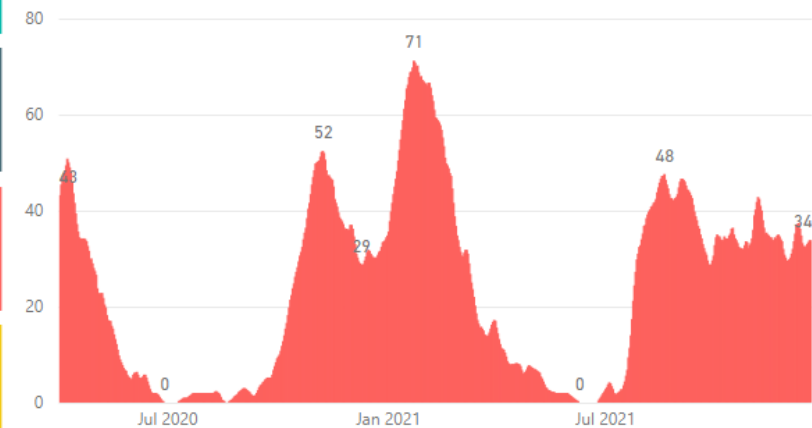
**% of ICU Beds Covid-19 Occupied, Other Occupied and Unoccupied Today**



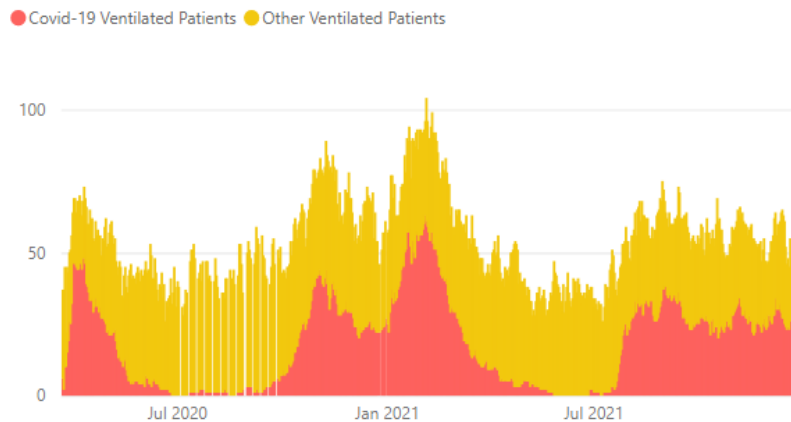
**% of ICU Beds Covid-19 Occupied, Other Occupied and Unoccupied**



**Covid-19 ICU Bed Occupancy : 5 Day Rolling Average**



**Covid-19 Ventilated Patients and Other Ventilated Patients**





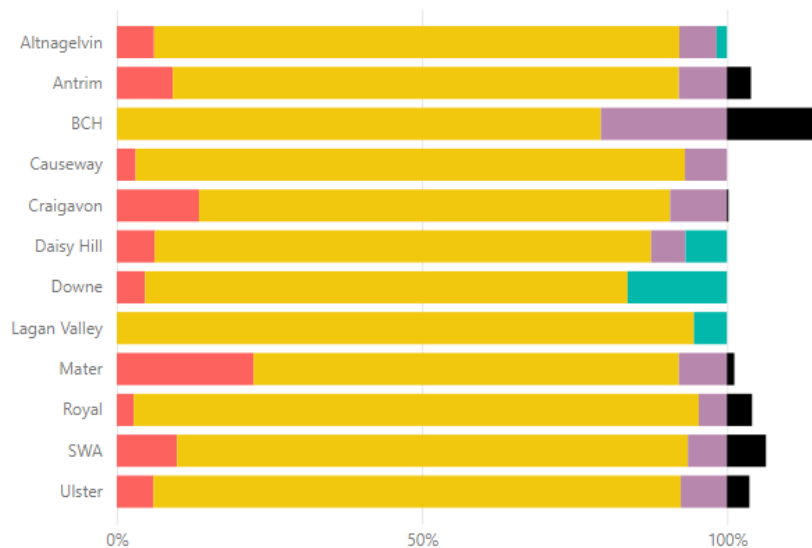
# General Bed Capacity: Available & Occupied Beds and COVID-19 Bed Occupancy



Following the introduction of a more representative measurement of general bed occupancy levels, data reported prior to 18th October should not be compared with data reported from this date. The revised method is intended to provide a more accurate indicator of the operational bed pressures. Further information on this change in methodology can be found in the occupancy notes section at the end of this dashboard.

## % of Beds Covid-19 Occupied, Other Occupied and Unoccupied

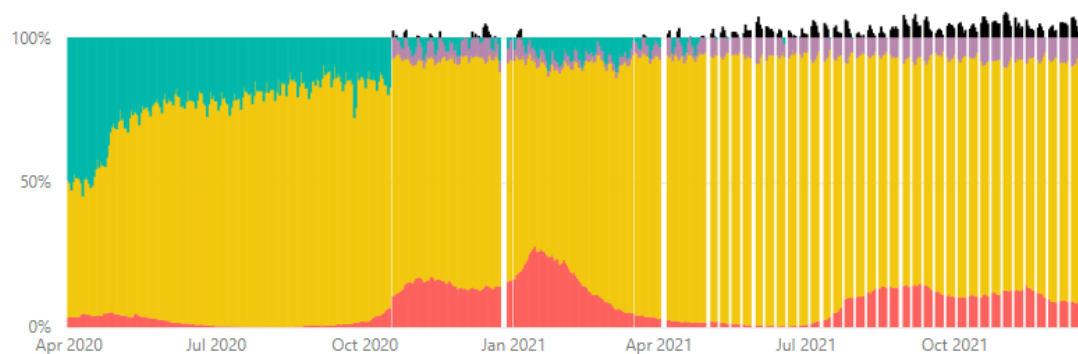
● Covid Occupied ● Other Occupied ● Awaiting Admission Today ● Unoccupied ● % Over Capacity



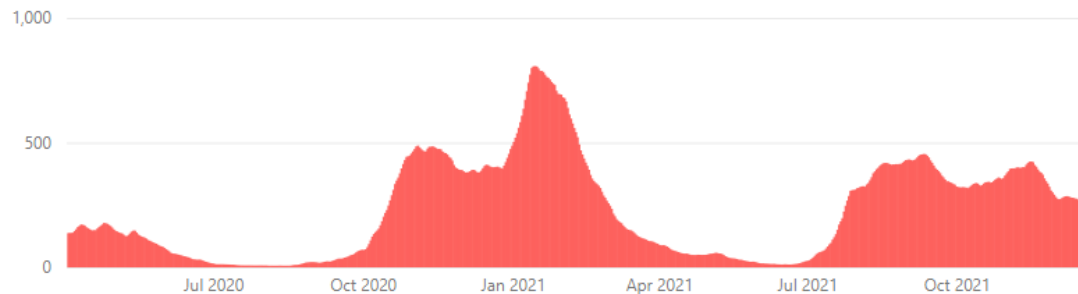
**Any hospital site displaying an occupancy capacity beyond 100% indicates that the hospital is operating beyond its current available bed capacity. Whilst individual hospitals may display unoccupied beds, the Northern Ireland position may be over capacity when the total Northern Ireland bed availability is calculated.**

## Bed Occupancy - % Occupied and Unoccupied

● Covid Occupied ● Other Occupied ● Awaiting Admission ● Unoccupied ● % Over Capacity



## Covid-19 Bed Occupancy : 5 Day Rolling Average by Date



# COVID-19 Care Home Total Acute Respiratory Outbreaks: Active Cases Confirmed COVID-19, Suspected COVID-19 and Closed Outbreaks.

## Active Outbreaks

41

Confirmed COVID-19

0

Other Respiratory

An outbreak relates to two or more cases of the same disease e.g. COVID-19 in a facility, within a 14-day period among either residents or staff in the care home. This includes all registered care homes, both Trust managed and independent.

## Outbreaks Since 15 March 2020

1,029

Outbreaks Concluded

1,070

Total Acute Respiratory

An outbreak can be declared concluded when there have been no new cases for 14 days after symptom onset of the most recent case and when an outbreak concluded notification has been submitted to the PHA following a terminal clean of the facility. These figures are cumulative totals from the onset of the pandemic.

## Of the 41 Active Confirmed COVID-19 Outbreaks

17

Asymptomatic

22

Symptomatic

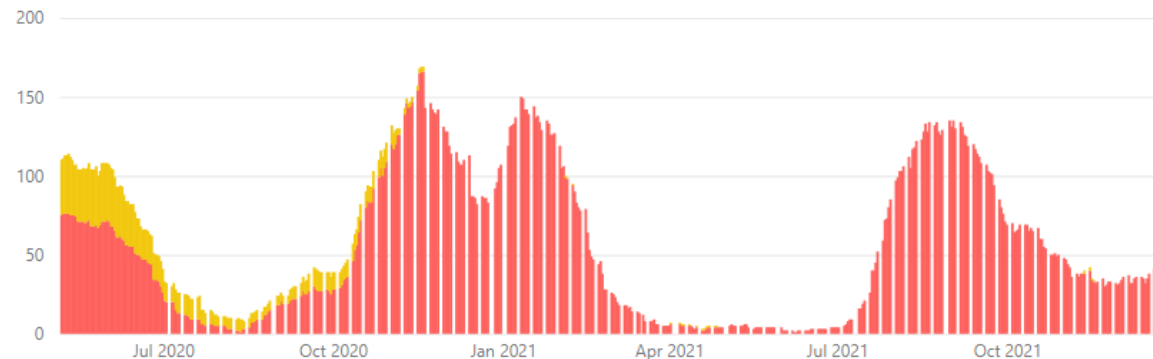
2

Unknown

Information on asymptomatic or symptomatic outbreaks in care homes at the time of the test is available for outbreaks reported since August 3rd 2020. This does not currently include Trust managed care homes. This will be included in the future subject to data availability.

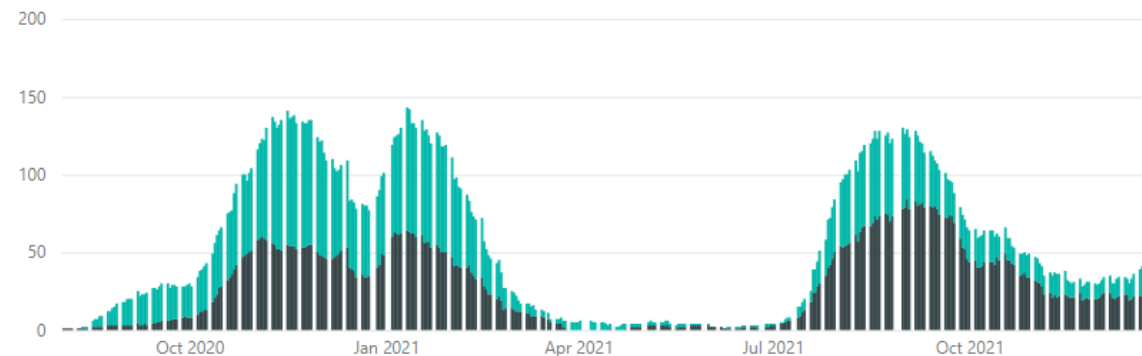
## Care Homes with a Confirmed COVID-19 and Other Respiratory (Non-Covid) Outbreaks by Reporting Date

● Confirmed COVID-19 ● Other Respiratory (Non-Covid)



## Care Homes with an Asymptomatic or Symptomatic Confirmed COVID-19 Outbreak by Reporting Date

● Symptomatic Confirmed Outbreak ● Asymptomatic Confirmed Outbreak



# COVID-19 Care Home Outbreaks by Geographic Area

## Outbreaks as at 07 December 2021

32

Confirmed COVID-19

An outbreak relates to two or more cases of the same disease e.g. COVID-19 in a facility, within a 14-day period among either residents or staff in the care home. This includes all registered homes, both Trust managed and independent.

Geographic Area	Number of Outbreaks in Care Homes	Number of Care Homes
Belfast	<10	92
Northern	<10	130
South Eastern	<10	111
Southern	<10	78
Western	<10	68
<b>Total</b>	<b>32</b>	<b>479</b>

Information on outbreaks by geographic area is available on a weekly basis and as such will not be comparable to the number of active outbreaks presented in other areas of the dashboard. Statistical disclosure controls are applied when the number of outbreaks in a particular geographic area are less than 10.

# TECHNICAL NOTES: COVID-19 TESTING (1)

COVID-19 cases are identified by taking specimens from people at testing centres across Northern Ireland and sending these specimens to laboratories to be tested. If the test is positive, this is referred to as a Laboratory Completed Test. The information reported by DoH from 24th June 2020 refers to the number of laboratory completed tests for the SARS-COV2 virus carried out at (i) HSC Laboratories (Pillar 1) and (ii) National Initiative (Pillar 2) at midnight each day.

## HSC Trusts (Pillar 1)

Prior to 24th June 2020 information on laboratory completed tests was only reported for the 5 HSC Trust laboratories listed below.

- Regional Virus Laboratory (Belfast);
- Antrim Testing Laboratory (commenced 23/03/2020);
- Craigavon Area Testing Laboratory (commenced 28/03/2020);
- Altnagelvin Area Testing Laboratory (commenced 03/04/2020); and,
- Ulster Testing Laboratory (commenced 15/05/2020).

## National Initiative (Pillar 2)

Alongside testing by HSC Trust laboratories, there is a programme of testing for the SARS-COV2 virus being carried out at National Testing Centres (mainly for Health Care / Key Workers) by appointment only. Information on laboratory completed tests for the National Initiative are available from 28th April 2020; although, we are waiting for additional data to be provided for the period 4th April - 28th April. Information refers to samples / specimens taken at regional testing centres (below), mobile testing units, and by patients in their own homes.

## DATA PROVISION

Data on laboratory completed tests completed and authorised by each HSC laboratory and the National Initiative are refreshed in the Regional Data Warehouse at 4am each day and refer to the position at the end of the previous working day. DoH extract this information at 9am each day.

## DATA QUALITY

Quality assurance of this data is undertaken by the DoH using a combination of automated and semi-automated programmes, with manual checking both before and post processing. Data from each source are merged and duplicate reports are generated to identify any duplicate test records based on 'Specimen Number' (RVL) or 'Ascension Number' for other laboratories. Duplicate tests are then removed from the data at this stage.

Data quality issues around completeness of Health Care Number, Date of Birth, and Postcode have limited our ability to identify both duplicate tests and individuals tested. However, this has improved over recent weeks and the information from the start of February 2020 is refreshed each day to take account of this.

It is also important to note that the information being reported by the DoH are derived from data extracts of LIVE Laboratory systems, and may therefore be revised or updated in subsequent data extracts. These revisions may improve issues around the completeness of the recording of the key variables above, but they may also provide information on additional tests for an individual that produced a positive laboratory completed result, having previously tested negative. For these cases, the positive result will now be included and any previous negative results excluded from the report on individuals tested.

# TECHNICAL NOTES: COVID-19 TESTING (2)

## DATA REPORTING

Information provided by each HSC Trust (Pillar 1) Laboratory and the National Initiative (Pillar 2) enables the DoH to report on the following:

- Number of individuals with a laboratory completed test for SARS-COV2 Virus;
- Number of individuals with a laboratory completed positive test for SARS-COV2 Virus;
- Number of individuals with a laboratory completed negative test for SARS-COV2 Virus; and,
- Total number of laboratory completed tests for SARS-COV2 Virus.

### Daily Change in Cumulative Testing Figures (Page 3)

The daily change reported on the COVID-19 Testing page (page 3) refers to the change in the cumulative number of (i) laboratory completed tests, (ii) individuals with a laboratory completed test, and (iii) individuals with a positive completed test reported today and yesterday. It is important to note that the daily change may refer to samples taken over the last week, and not just over the last 24 hours, and therefore SHOULD NOT be compared with data on other testing pages that is presented by the Date of Specimen. It is also important to note that the daily change in tests and individuals tested are de-duplicated back to the start of the outbreak and not just the last 24 hours, so for example if the daily change in tests was 1,000 and the daily change in individuals tested was 750, it doesn't mean that 250 people were tested twice. It is simply that 250 individuals had a previous test, and as we only count the most recent test, the previous test is excluded whilst the new test is included, resulting in the cumulative number of individuals tested to remain the same.

### Data Presented by Date of Specimen

Apart from the daily change in cumulative numbers, all other testing information is presented by the date the specimen (swab) was taken from the individual being tested, rather than the date the laboratory tested, completed and authorised the result. Whilst this gives the most accurate analysis of how cases progress over time it does mean that the latest days' figures are usually incomplete, so it shouldn't be seen as a sudden large drop in cases. It is also important to note that most testing to date has been offered to those in hospital with a medical need as well as HSC key workers, rather than the general population, many with mild symptoms. So completed cases represent the typical population of people with severe disease, rather than all of those who get infected.

## TECHNICAL NOTES: COVID-19 TESTING (3)

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### **Weekly Cumulative Testing (Page 8 & 9)**

The weekly testing information reported on pages 8 and 9 of the dashboard refer to the number of individuals with a laboratory completed test during each week from February 2020, where a week starts on a Monday and ends on a Sunday. An individual is counted only once in each week they were tested, with the first positive test in each week being counted. If an individual did not receive a positive laboratory completed test in a week, then the first negative laboratory completed test will be reported. In essence, an individual will be counted in the information for each week that they received a laboratory completed test. The day on which an individual was tested is based on the date their specimen (swab) was taken. The percentage of individuals tested positive during each week is based on the number of individuals with a positive laboratory completed test in each week as a proportion of the total number of individuals with a laboratory completed test each week. As indicated an individual will ONLY be counted once during each week (Monday to Sunday).

### **Local Government District (LGD)**

Laboratory completed tests are aggregated to Local Government Districts, though a number of cases cannot be matched to this geographical area due to missing / incorrect postcodes. For this reason the LGD count will not add up to the total number of individuals tested for Northern Ireland.



# TECHNICAL NOTES: COVID-19 TESTING (4)

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## KEY TERMS USED

### Individuals Tested

Refers to the number of individuals who have had a laboratory completed test for the SARS-COV2 Virus since February 2020. If an individual has had more than one test for the SARS-COV2 Virus, only the **most recent** laboratory completed positive test result will be reported, with all other results of laboratory completed tests excluded, regardless of when the test took place.

### Cumulative Individuals Tested

Refers to the total number of individuals who have had a laboratory completed test for the SARS-COV2 Virus since February 2020. This information is presented by the date the specimen (sample / swab) had been taken at a testing location, and does not refer to the date on which the laboratory completed and authorised the result of the test.

### Total Tests

Refers to the total number of laboratory completed tests for the SARS-COV2 Virus. If an individual has had more than one laboratory completed test, each result will be counted.

### Cumulative Total Tests

Refers to the total number of completed authorised laboratory tests for the SARS-COV2 Virus since February 2020. This information is presented by the date the specimen (sample / swab) had been taken at a testing location, and does not refer to the date on which the laboratory completed and authorised the result of the test.

### Laboratory Completed Test

Refers to the final stage of the testing process, whereby a specimen / sample (swab) has been taken at a testing location, the specimen / sample has been booked and processed by a laboratory, and a result been completed and authorised by a laboratory technician.

Laboratory completed results for are listed as one of the following; with only positive, negative and indeterminate results being included in individuals tested and total tests.

- Positive;
- Negative;
- Indeterminate;
- Not Tested (not included in individuals tested and total tests); or,
- Invalid (not included in individuals tested and total tests).

*It should be noted that results identified as 'Void' are removed.*

# TECHNICAL GUIDANCE ON COVID-19 DEATHS

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Death extracts are provided daily to the DOH detailing the count of deaths reported to the PHA where the deceased has had a positive test for COVID-19 and died within 28 days, whether or not COVID-19 was the cause of death. PHA sources include reports by healthcare workers (e.g. HSC Trusts, GPs) and information from local laboratory reports. Local Government Districts are defined by the deceased's residential setting. Interpretation of the figures should take into account that totals by date of death, particularly for recent prior days, are likely to be updated in future releases.

## DATA QUALITY

Data is refreshed each day to include any deaths that have been reported during the current reporting period (from 10.00 am one day previous until 10.00 am on the day of reporting). Deaths submitted by HSC Trusts after 10.00am will be reported in the Daily COVID report for the following day. There may also be deaths reported to the PHA a number of days after the death occurred. Data will be refreshed and revisions to previous reported figures by date of death will be provided in the latest report.

## DATA REPORTED

Data is reported in the following ways:

- Total number of deaths reported up to the end of the current reporting period
- Total number of deaths reported in the current reporting period
- Total number of deaths reported up to the end of the current reporting period, split by Local Government District (LGD)
- Total number of deaths reported up to the end of the current reporting period, split by Gender
- Total number of deaths reported up to the end of the current reporting period, split by Age Group
- Daily updated counts of deaths reported split by date of death

# TECHNICAL NOTES: ADMISSIONS

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The Patient Administrative System (PAS) is a patient level administrative data source that provides information on patient care delivered by health and social care hospitals in Northern Ireland. Data from PAS are routinely uploaded to the Regional Data Warehouse, which is managed by the Business Service Organisation (BSO).

## DATA QUALITY

The Department sources data on COVID-19 admissions and inpatients from the Regional Data Warehouse. Up to the 1st December 2020, a daily download was taken at 08:30 from the Admissions & Discharges universe of the Regional Data Warehouse reflecting admissions as of midnight prior to the download date. From 2nd December 2020 two additional daily downloads are taken from; (i) Recent Admissions & Discharges universe which includes data for the two most recent days, and (ii) Admissions & Discharges Specialty universe which is used to identify a number of inpatients in the Belfast HSC Trust. Data from each of these sources are merged and duplicate records are removed from the data.

Patients admitted with confirmed COVID-19 are identified using the specific Method of Admission Codes (CC, CE or CS) or Specialty Code (COVC). These codes are used for any patient admitted to hospital with confirmed COVID-19. If an inpatient tests positive for COVID-19 the Method of Admission code is revised to one of the confirmed coronavirus codes above. If an inpatient tests positive for COVID-19 and then subsequently tests negative the Method of Admission code remains as one of the confirmed coronavirus codes above.

Information is constantly being revised as records are updated by HSC Trusts and therefore figures for historical dates may change. When technical issues arise or errors in the data are discovered, the HSCB email to inform DOH.

## ADMISSIONS / DISCHARGES

A patient may be admitted more than once, for example:

- Admitted on two or more separate occasions
- Admitted to hospital A within one HSC Trust and later transferred and admitted to hospital B in a different HSC Trust. The admission to hospital B will be recorded as a new admission.

Consequently, patients may also be discharged more than once and these discharges will be included in the discharge total.

# TECHNICAL NOTES: ADMISSIONS

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## INTERNAL TRANSFERS

If a patient confirmed COVID-19 is transferred between hospitals within the same HSC Trust they are admitted using the CC, CE or CS Method of Admission Codes. The Method of Discharge is recorded as ID – Internal Discharge.

The Belfast Trust identifies confirmed COVID-19 patients by using the specialty code (COVC). Any internal transfers will be admitted using the IA Method of Admission Code.

Internal transfers are not counted as new admissions and only the first admission record will be counted for these patients.

## INPATIENTS / HOSPITALISATIONS

Number of people currently in hospital with confirmed COVID-19 at midnight, taking into account new admissions and subtracting deaths and discharges.

## DISCHARGES + INPATIENTS ≠ ADMISSIONS

Inpatients are counted according to the hospital the patient is physically present in, this can lead to the total inpatient figure and the total discharge figure not summing to the total admissions figure. For example, a patient is admitted to hospital A and later discharged from hospital A and transferred to hospital B within the same HSC Trust. This is an internal transfer, therefore an admission and discharge would be counted for hospital A but no admission or discharge would be counted for hospital B. The patient may however be counted as an inpatient at hospital B. Consequently the admissions total for hospital B will not be equal to the sum of discharges and inpatients for hospital B.

The alternative to this would be to count all internal admissions but this double counts patients if / when they are transferred between hospitals and would provide an inflated figure for admissions and discharges.

# TECHNICAL NOTES: ADMISSIONS

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## DEFINITIONS

**Admission:** Any person admitted to hospital with confirmed COVID-19, excluding internal admissions.

**Inpatient / Hospitalisation:** Any person admitted to hospital with confirmed COVID-19 that has not been discharged or died.

**Discharge:** Any person admitted to hospital with confirmed COVID-19 that has subsequently been discharged or died., excluding internal transfers.

**Date/Time Stamp:** Midnight

**Specialty:** COVC: Confirmed COVID-19

**Method of Admission:** CC: Confirmed COVID-19

There is a lag of up to eight months in the clinical coding of diagnoses on patient records. Therefore, at the start of the pandemic two new admission codes were created which did not need to be clinically coded to enable the identification of and reporting on all COVID-19 patients admitted to hospital. Any patient presenting with COVID-19 like symptoms was coded as CR – Suspect COVID, and swabbed for testing. Once a positive test result was obtained the code was changed to CC – Confirmed COVID-19. HSC Data Standards Guidance on the topic was shared with Trusts. As well as facilitating reporting, these codes were also used operationally on wards to make sure staff were aware of symptomatic patients. If a CR patient’s lab result was negative they remained coded as CR on the hospital system in order to continue to alert staff to the nature of their symptoms. In many cases, these patients did not actually have COVID-19, meaning that the CR code over-represented the actual number of patients.

The views of clinical and operational colleagues based in hospitals who provided input and feedback to the dashboard was that the use of the CR codes may not be helpful to the public understanding of the true number of COVID-19 patients in hospital because, despite guidance, the CR code was not always used consistently across wards and hospitals and was not changed once a patient had a negative test.

Given that all patients admitted to hospital are **now swabbed and there is better coding of confirmed cases much earlier in the process than at the beginning of the pandemic**, on 27th May the decision was taken that it was no longer appropriate to include the CR codes and that reporting of them should cease. New pages focusing only on confirmed (CC) cases were developed and these were presented together with the confirmed/suspected combined charts and tables for a short transition period to maintain transparency and to enable users to see the relationship between the two sets of data. This commenced on 1st June and this addition to the dashboard was welcomed by clinical colleagues and other users. Following this transition period it was announced on the 8th June on the notes section of the dashboard that reporting of suspected cases (CR) cases would cease from 10 June. From 10 June reporting focused on confirmed cases only.

# TECHNICAL NOTES: BED OCCUPANCY

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The Department sources data on Intensive Care Units from the CCANI network each day. CCaNNI provide the data to the Department as an excel spreadsheet, providing the ICU and ventilation position for each Intensive Care Unit as of the morning of reporting. The ICU capacity presented includes additional surge capacity available on the day of reporting. The spreadsheet includes for each Unit (including Paediatric and Cardiac ICU):

- § the number of available ICU beds;
- § the number of beds occupied by COVID-19 confirmed patients;
- § the number of beds occupied by COVID-19 suspected patients; and
- § the total number of beds occupied.

Prior to 18th October, the Department sourced data on General Beds Occupancy from the Health and Social Care Board (HSCB) each day. Trusts were required to submit information on the number of beds occupied, available and closed within each of their hospital sites to the HSCB at 11am each morning to reflect data as at the previous midnight. Within this return, Trusts provided the total bed complement of the hospital site, the number of beds closed, the number occupied by lab confirmed COVID-19 patients, non-lab confirmed (suspected) COVID-19 patients, the total number of beds occupied and the number of beds still available.

From 18th October onwards, the methodology for calculating bed occupancy has changed. Previously, the General Beds data displayed a static picture of beds which were physically occupied at a given point in time. This did not however take into account the dynamic nature of bed modelling and the flow of patients in and out of hospital over the course of a day. The revised methodology now includes patients where a 'Decision to Admit' (DTA) has been made, e.g. from an Emergency Department, thereby projecting more accurate occupancy levels across hospital sites. Trusts are also being asked to provide additional Admissions data as at 9am on the morning of reporting to help assess operational pressures which are impacting upon bed occupancy. The revised methodology now includes adult only acute and geriatric inpatient beds at the 12 main hospital sites as presented on the Dashboard; it excludes Paediatric, Obstetric, Mental Health and Day Beds, as well as beds in smaller hospital sites which may have been included in the previous returns submitted by Trusts. Data prior to 18th October should not be compared with data from this date, however the time series has been retained to demonstrate the trend in COVID-19 occupancy levels.

# TECHNICAL NOTES: BED OCCUPANCY

General Beds Occupancy data presents the current daily position, with variables as follows:

- total number of available general beds across Northern Ireland;
- % occupancy = (current number of beds occupied + beds awaiting admission today) / total available beds;
- total number occupied = current number of beds occupied + beds awaiting admission today;
- the number of general beds occupied by confirmed COVID-19 patients;
- the number of general beds occupied by non COVID-19 patients = total number currently occupied - number occupied by COVID-19 patients;
- total number awaiting admission today across the region;
- number of unoccupied beds = total number of beds available - total number of beds occupied; where this number is a minus,, a zero will be displayed and the number above capacity will instead be shown
- number above/below capacity = total number of beds occupied - total number of beds available

It is important to note that individual hospital sites may have spare capacity as demonstrated on the hospital level chart, however as a region the total number occupied plus those awaiting admission across Northern Ireland may outweigh the total number available, leading to an overall unoccupied capacity of zero.

## DATA QUALITY

Quality assurance of this data is undertaken by the DoH using a combination of automated and semi-automated programmes, with manual checking both before and post processing. When occupancy data is received into the Department, a member of staff checks that the figures presented in both files appear complete. Any discrepancies are raised with the data supplier to seek clarification or revision. Data files are then appended to relevant 'master' files which contain a record of previous returns. Sense checks are undertaken to ensure internal consistency and clarification is sought from the supplier if data looks missing or erroneous. Data for ICU is reported based on the date that the CCaNNI network collated the information and data for general beds is based on the occupancy position on the day prior to reporting.

Given that the information is collated from teams in each Trust responsible for the management of ICU beds, it is believed to be an accurate reflection of ICU capacity on any given day. It presents a static picture at a point in time and is not revised retrospectively unless an error is discovered in the data or a change to the methodology used to produce the information is required. Any such changes will be alerted to users.

General beds occupancy is based on data submitted from Trust Control Rooms daily and is intended to be an indicator of operational bed pressures as at 9am.



# TECHNICAL NOTES: BED OCCUPANCY

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Prior to the change in methodology on 18th October, data provided by HSCB was re-run for three consecutive days for each day of reporting to capture any updates to the Patient Administration System (PAS), however the data presented within this Dashboard is based on the initial run date of the data and therefore doesn't include updates made to PAS on subsequent days.

Both data sources are considered to be management information and are therefore provisional and subject to revision.

## DATA REPORTING

Information provided by the CCaNNI network and HSCB enables the Department to report on the number of patients occupying ICU and general beds each day, how many patients are ventilated, how many of these patients have suspected or confirmed COVID-19 and how many beds are still available across the region. Charts are presented to show the daily occupancy levels as well as 5 day rolling averages which help to smooth the variations in daily data. From Wednesday 24th June onwards, all general and ICU beds data displayed on this dashboard refer to confirmed COVID-19 patients only. Prior to 13th April 2020, ventilator data presented includes both suspected and confirmed covid-19 patients. From 13th April onwards, ventilator data includes confirmed COVID-19 patients only. There is a break in the time series for general bed occupancy levels from 18th October onwards and data prior to this date should not be compared with data prior to this date.

# TECHNICAL NOTES: CARE HOMES

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Data on care home outbreaks are provided daily on weekdays to the DOH detailing the count of outbreaks reported to the PHA.

## DATA REPORTED

### **Possible Case of COVID-19\***

Any resident (or staff) with symptoms of COVID-19 (high temperature, new continuous cough or loss of taste/smell), or new onset of influenza like illness or worsening shortness of breath.

\*Symptoms may be more nuanced in older people with co-morbidities in care homes who may present with Flu Like Illness (FLI), respiratory illness, new onset confusion, reduced alertness, reduced mobility, or diarrhoea and sometimes do not develop fever. This may be true for COVID-19, so such changes should alert staff to the possibility of new COVID infection. All possible cases will be tested for COVID-19 to confirm diagnosis.

### **Confirmed Case of COVID-19**

Any resident (or staff) with laboratory confirmed diagnosis of COVID-19. Confirmed COVID-19 cases are further categorised into two subcategories:

#### Symptomatic Confirmed COVID-19 case

A symptomatic laboratory-confirmed case is a person infected with COVID-19 who has symptoms of COVID-19 at the time of the test.

#### Asymptomatic Confirmed COVID-19 case

An asymptomatic laboratory-confirmed case is a person infected with COVID-19 who does not have symptoms of COVID-19 at the time of the test.

### **Outbreak Definition**

Two or more cases of the same disease e.g. COVID-19 in a facility, within a 14-day period among either residents or staff in the care home.

### **Declaring the End of an Outbreak/Outbreak Concluded**

An outbreak can be declared over when there are no new cases for 14 days after symptom onset of most recent case.

### **All Respiratory Outbreaks**

All respiratory outbreaks that are reported to duty room and includes both COVID-19 confirmed and other respiratory outbreaks.

# TECHNICAL NOTES: CARE HOMES

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## **Confirmed COVID-19 Care Home Outbreak**

Identification of two or more confirmed COVID-19 cases (both symptomatic and asymptomatic detection), among either residents or staff in the care home, within a 14-day period.

Confirmed COVID-19 outbreaks are further categorised into two subcategories:

### Symptomatic Confirmed COVID-19 outbreaks

Identification of two or more confirmed COVID-19 symptomatic cases among either residents or staff in the care home, within a 14-day period.

### Asymptomatic Confirmed COVID-19 outbreaks

Identification of two or more confirmed COVID-19 asymptomatic cases among either residents or staff in the care home, within a 14-day period.

## **Other Respiratory Outbreaks**

Identification of two or more cases, among either residents or staff in the care home, within a 14-day period but who tested negative for COVID-19.

## **Concluded Outbreaks**

An outbreak can be declared over when there have been no new cases for 14 days after symptom onset of the most recent case.

## **Active Outbreaks**

A care home with an outbreak that has not yet completed the 14 days symptom free period.

## **DATA QUALITY**

### **Symptomatic/Asymptomatic Breakdown**

Information on asymptomatic or symptomatic outbreaks in care homes is available from August 3rd 2020. Any outbreaks declared before this date are not included in the figures. This does not currently include Trust managed care homes. This will be included in the future subject to data availability.

It is important to note that many care facilities have more than one unit attached for specialist care, for example nursing and residential units. Where there has been an outbreak in more than one unit, often this is recorded as a single outbreak but may be recorded as two facilities with RQIA (i.e. each unit has an individual RQIA registration number) and therefore two active outbreaks may be recorded for one single Care Home.

Information on outbreaks by HSC Trust area is sourced separately from the reporting of daily outbreaks. As a result, figures may not directly align with those figures reported on a given day due to differing reporting times.

# TECHNICAL NOTES: DASHBOARD UPDATES

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## **Announced 8<sup>th</sup> May 2020**

From 8<sup>th</sup> May Admissions and Inpatient numbers will be broken down into confirmed and suspected COVID-19 cases.

## **Announced 11<sup>th</sup> May 2020**

From 11<sup>th</sup> May additional charts on a rolling 5 day average occupancy rate in G&A / ICU Beds are now available.

## **Announced 13<sup>th</sup> May 2020**

From 13<sup>th</sup> May, information on the rate of positive lab completed tests per 100,000 population has been included.

## **Announced 28<sup>th</sup> May 2020**

From 28<sup>th</sup> May information on COVID-19 death settings and historical trend analysis of COVID-19 care home outbreaks have been added to the dashboard.

## **Announced 1<sup>st</sup> June 2020**

From 1<sup>st</sup> June, additional pages have been added for COVID-19 testing trend analysis (7 day rolling average of positive tests & percentage of all tests identified as positive) and additional information on COVID-19 admissions. Ongoing validation of admissions data has resulted in revised figures being published from 1st June.

## **Announced 9<sup>th</sup> June 2020**

From 10<sup>th</sup> June 2020 data on suspected COVID-19 patient admissions and inpatients will be removed from the dashboard and reporting will focus on confirmed cases only.

## **Announced 12<sup>th</sup> June 2020**

From 15<sup>th</sup> June 2020, information will be presented on the numbers of ventilated COVID / Non-COVID patients. We will also include a breakdown of COVID / Non COVID general bed occupancy.

## **Announced 23<sup>rd</sup> June 2020**

From 25<sup>th</sup> June all beds and ventilation data will focus on confirmed COVID-19 cases only.

## **Announced 23<sup>rd</sup> June 2020**

From 26<sup>th</sup> June reporting will commence on the outcomes of laboratory completed tests at National Testing Centres.

## **Announced 26<sup>th</sup> June 2020**

Change to Reporting Frequency-From week commencing 29<sup>th</sup> June the COVID-19 dashboard will no longer be updated at weekends.

# TECHNICAL NOTES: DASHBOARD UPDATES

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## **Announced 6<sup>th</sup> July 2020**

From 6<sup>th</sup> July a page detailing deaths reported on the Saturday and Sunday of each weekend will be added. This will be updated each Monday on the dashboard.

## **Announced 26<sup>th</sup> August 2020**

From 26<sup>th</sup> August information on admissions and discharges within the last 7 and 14 days has been added to page 10 of the dashboard.

## **Announced 3<sup>rd</sup> September 2020**

From 2<sup>nd</sup> September an additional page was added on laboratory completed tests by LGD during the most recent and previous 7 days, and a breakdown of positive tests by age group and LGD.

## **Announced 28<sup>th</sup> September 2020**

From 28<sup>th</sup> September the methodology used to create admissions, discharges and inpatients data was updated. A number of internal transfers that had been doubled counted were removed, this resulted in a slight decrease in historical admission, discharge and inpatients figures.

## **Announced 13<sup>th</sup> October 2020**

From 13<sup>th</sup> October additional information was added on the daily change in the cumulative number of individuals tested positive by LGD.

## **Announced 16<sup>th</sup> October 2020**

From 16<sup>th</sup> October an additional page was added on laboratory completed tests during last 7 days by postal district, including a postcode search.

## **Announced 19<sup>th</sup> October 2020**

From 19<sup>th</sup> October, the methodology for computing occupancy levels has been changed. Data on ICU and General Beds Occupancy is also now presented at Hospital level.

## **Announced 13<sup>th</sup> November 2020**

From 13<sup>th</sup> November the doubling case rate was updated from a five comparison to a seven day comparison.

## **Announced 2<sup>nd</sup> December 2020**

On 2nd December 2020, two additional pages were added on the number of individuals tested for COVID-19 during each week from March 2020 by LGD and Age Group. In addition to this, the Care Home page was amended to include information on asymptomatic or symptomatic outbreaks in care homes from August 3rd 2020.

## **Announced 11th December 2020**

On 11th December 2020, an additional page was added on the number of inpatients at midnight by 10-year age group and sex.

# TECHNICAL NOTES: DASHBOARD UPDATES

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## **Announced 21st December 2020**

From 21st December 2020, an additional page on the number of care home outbreaks by geographic area was added.

## **Announced 28th January 2021**

From 28th January 2021, two new pages have been added detailing 7-day rolling average of cases and deaths by country.

## **Announced 6th February 2021**

Pages on 'Doubling Rates' were removed on Thursday 4th February.

## **Announced 19th February 2021**

On the 19th February 2021, two new pages were added presenting the change in the seven day rolling average of COVID-19 admissions by age group.

## **Announced 28th April 2021**

From 27th April 2021 the method of collecting ICU data changed. Refer to technical guidance for more detail.

## **Announced 30th April 2021**

From 1 May 2021 the Dashboard will no longer be refreshed at weekends or public holidays. The next update will be Tuesday 4 May 2021. Furthermore, data on general beds occupancy will not be collected at weekends or public holidays.

## **Announced 19th August 2021**

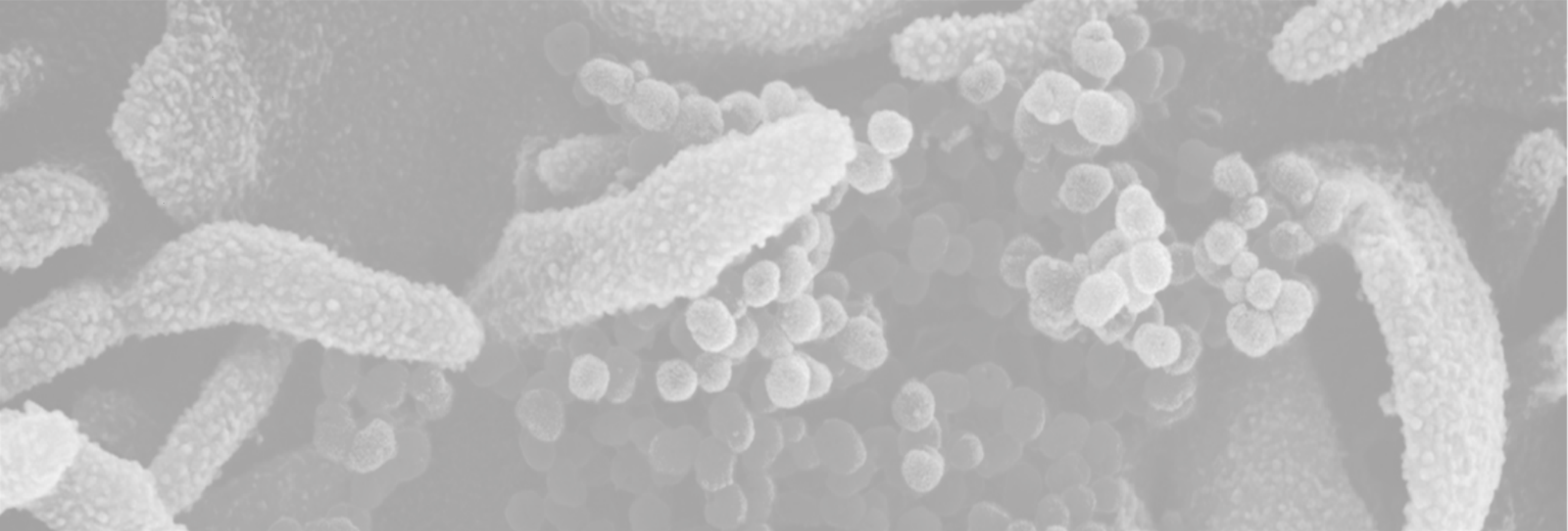
From 19th August 2021, an additional page on cases, inpatients and ICU occupancy was added.

## **Announced 31st August 2021**

From 31st August 2021, an additional page on individuals testing positive by 5 year age bands was added.

## **Announced 13<sup>th</sup> December 2021**

From 24th November 2021, the '14 Day Mortality Lag' page was removed.



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