



## Introduction

COVID-19 is an illness that can affect your lungs and airways. It is caused by a type of virus called SARS-CoV-2 (coronavirus). This bulletin aims to provide a weekly update on the current situation relating to the virus in Northern Ireland. It presents high level data on key areas currently being used to monitor COVID-19 activity and highlights current issues and public health messages.

The data presented complements the current range of existing data available from other sources including the [PHA Monthly Epidemiological bulletin](#), [Department of Health COVID-19 Daily Dashboard](#) and [NISRA Deaths Registered Dashboard](#). It should be noted that the data included may be subject to change as systems are updated and comparisons with existing data sources may not be possible, for example, due to variations in data extraction and processing.

## Key messages

Coronavirus continues to circulate in our community and we are seeing cases across council areas. That's why following the public health advice remains important. We all have a responsibility to take steps to keep ourselves and each other safe from coronavirus by maintaining social distance, washing or sanitising hands regularly and wearing face coverings on public transport and in shops, particularly where social distancing cannot be maintained.

It is vital that individuals self-isolate from when they **first** develop symptoms (a high temperature, a new continuous cough or a loss/change in sense of smell or taste) and arrange to be tested.

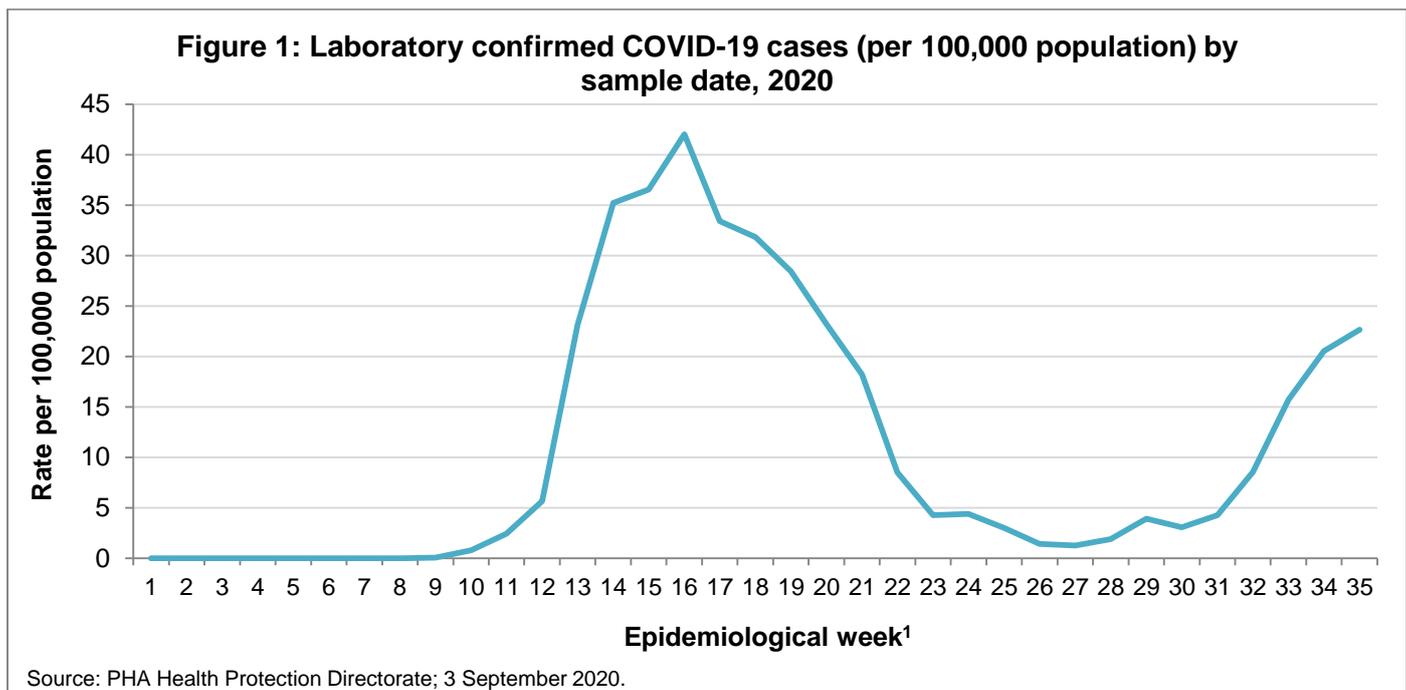
Further information and advice is regularly updated and available from the [PHA website](#).

It is essential to be aware of and follow the guidance associated with COVID-19. However, it is also important that people trust their instinct when it comes to seeking urgent medical care. If you or a child in your care is unwell and needs medical attention, please seek help.

We do not want people to be put off attending a healthcare setting for medical attention because they are concerned about overloading the service or afraid that they may come into contact with COVID-19 in a healthcare setting. Robust infection control procedures are in place in all HSC settings to reduce the spread of COVID-19 and services are there to help.

If you are worried about your health please seek medical advice from your GP in the first instance. If you are advised to attend the GP or to take your child to hospital, please don't delay. Dial 999 in an emergency.

# Incidence and prevalence



**Comment:** There is a continued increasing trend in the number of new COVID-19 cases.

## Estimated incidence (number of new cases in the seven days up to 30 August 2020)

The current incidence of positive laboratory cases is 23 per 100,000 of the Northern Ireland population (or 1 in 4,414 people)<sup>2</sup>.

However, if we assume that there are 1.3 infected individuals for every laboratory confirmed case we know about, the estimated weekly incidence is 52 per 100,000 population (1 in 1,919)<sup>3</sup>.

## Estimated prevalence

The prevalence of active cases, as of 30 August 2020, is estimated to be 45 per 100,000 population (1 in 2,207), assuming that 50% of cases experience no symptoms<sup>4</sup>; 27 per 100,000 population (1 in 3,752) if only 15% experience no symptoms<sup>5</sup>; and 113 per 100,000 (1 in 883) if 80% experience no symptoms<sup>6,7,8</sup>.

<sup>1</sup> Epidemiological week is a standardised method of counting weeks [Monday–Sunday] to allow for the comparison of data from year to year.

<sup>2</sup> Rates calculated using 2019 Mid-Year Population Estimates for Northern Ireland <https://www.nisra.gov.uk/publications/2019-mid-year-population-estimates-northern-ireland>

<sup>3</sup> Bohning D, Maruotti A, Rocchetti I, and Holling H. (2020). [Estimating the undetected infections in the Covid-19 outbreak by harnessing capture-recapture methods](https://doi.org/10.1093/ije/dyaa001). International Journal of Infectious Diseases.

<sup>4</sup> <https://hub.jhu.edu/2020/05/12/qiqi-gronvall-asymptomatic-spread-covid-19-immunity-passports/>

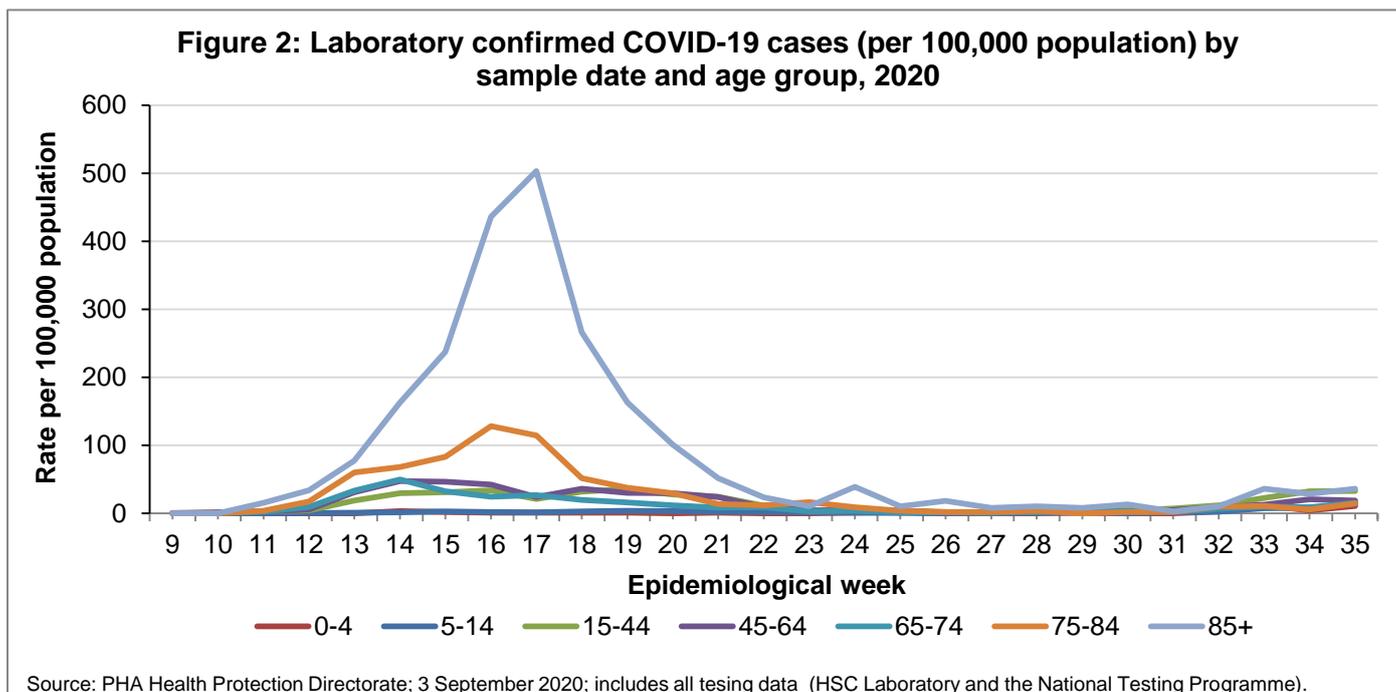
<sup>5</sup> Mizumoto K, Kagaya K, Zarebski A, Chowell G. Estimating the asymptomatic proportion of coronavirus disease 2019 (COVID-19) cases on board the Diamond Princess cruise ship, Yokohama, Japan, 2020. *Eurosurveillance*. 2020;25(10):2000180.

<sup>6</sup> Lavezzo E, Franchin E, Ciavarella C, Cuomo-Dannenburg G, Barzon L, Del Vecchio C, Rossi L, Manganelli R, Loregian A, Navarin N, Abate D. Suppression of a SARS-CoV-2 outbreak in the Italian municipality of Vo'. *Nature*. 2020;30:1-5.

<sup>7</sup> Day M. Covid-19: four fifths of cases are asymptomatic, China figures indicate. *BMJ*, 2020.

<sup>8</sup> Ing AJ, Cocks C, Green JP. COVID-19: in the footsteps of Ernest Shackleton. *BMJ Thorax*. 2020.

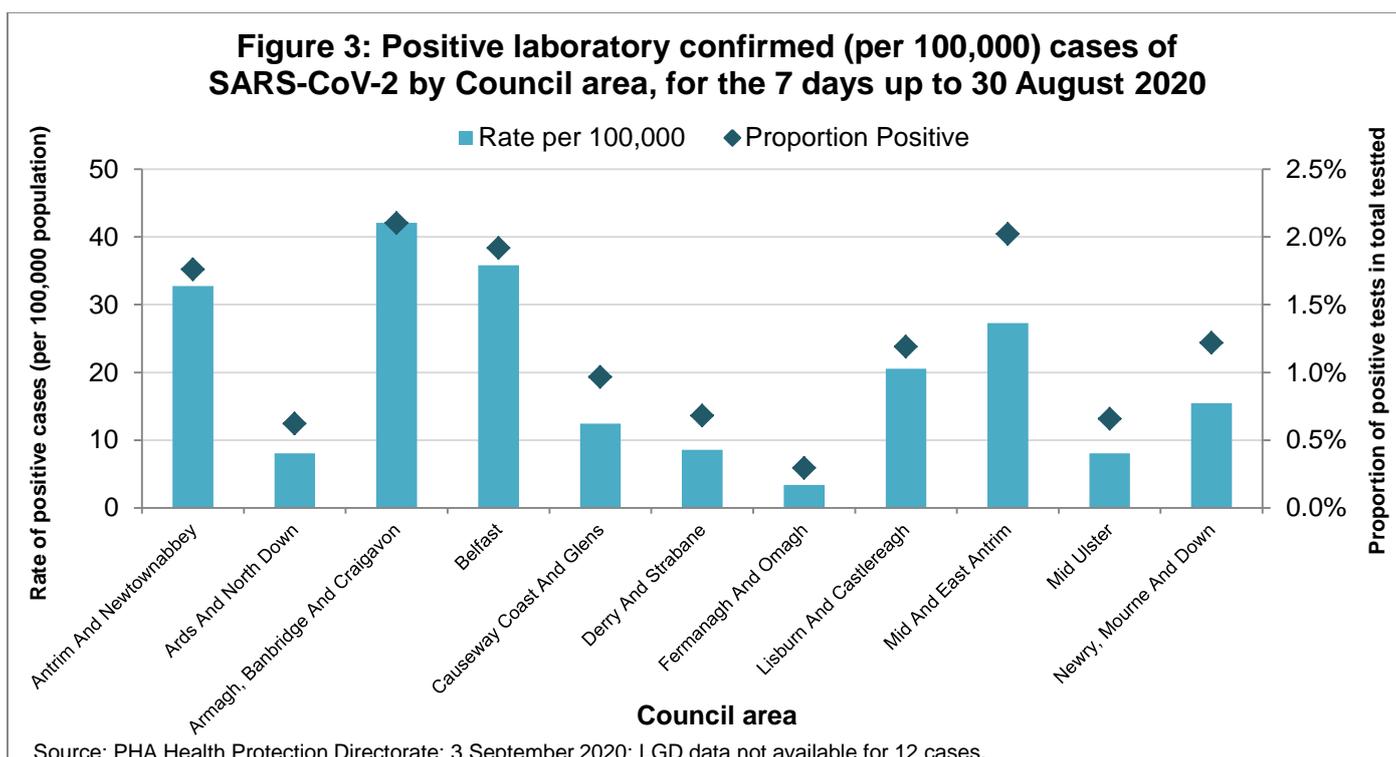
# COVID-19 testing by age group



**Comment on the trend:** Compared to week 34, the rates of new COVID-19 cases in week 35 (ending 30 August 2020) decreased in the 45-64 age group, while increasing in the 0-4, 5-14, 65-74, 75-84 and 85+ year age groups; rates for the 15-44 year age group remained stable.

The proportion of positive tests in week 35 for Northern Ireland was 1.4%, with a range of 0.9% to 1.6% across all age groups. Testing for COVID-19 continues to evolve in response to need, with enhanced testing in response to localised clusters and the launch of new programmes such as screening in care homes introduced on 1 August 2020.

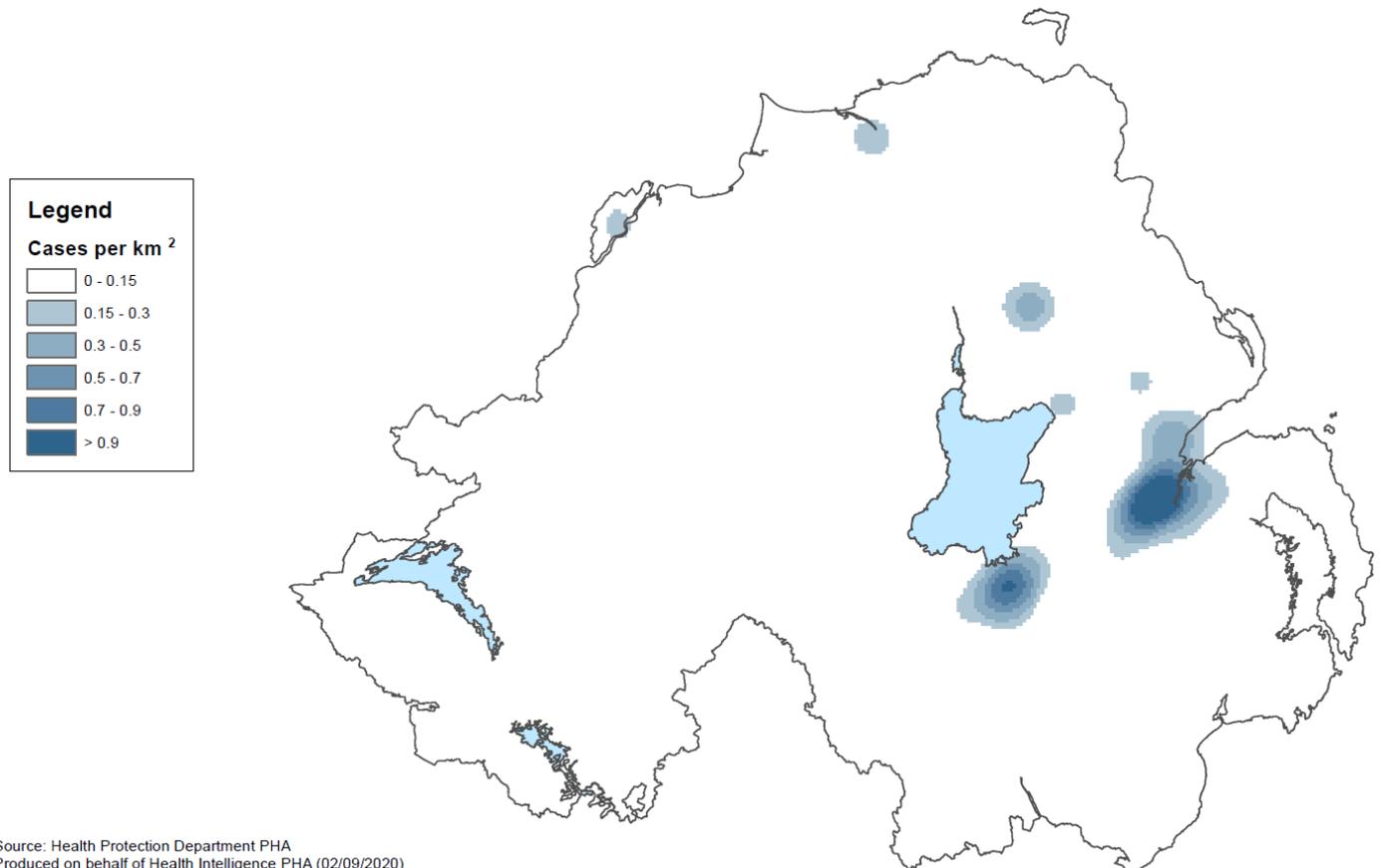
# COVID-19 testing by council area



**Comment:** In week 35 (ending 30 August 2020) the rates of new COVID-19 cases varied from 3 per 100,000 population in Fermanagh and Omagh council area, up to around 42 per 100,000 population in Armagh, Banbridge and Craigavon council area.

The proportion of positive tests ranged from 0.3% in Fermanagh and Omagh council area in to 2.1% in Armagh, Banbridge and Craigavon council area.

**Figure 4: Density map of confirmed COVID-19 cases for the week ending 30 August 2020**



**Comment:** Figure 4 shows a contour density map based on the number of confirmed COVID-19 cases in week 35 (ending 30 August 2020). The contour lines on the map indicate increasing density of cases, with the darkest shade of blue indicating where there is the greatest density of cases.

The advantage of this type of map over the rates by council area, provided in Figure 3, is that it removes administrative boundaries and reflects the true geographical pattern of disease.

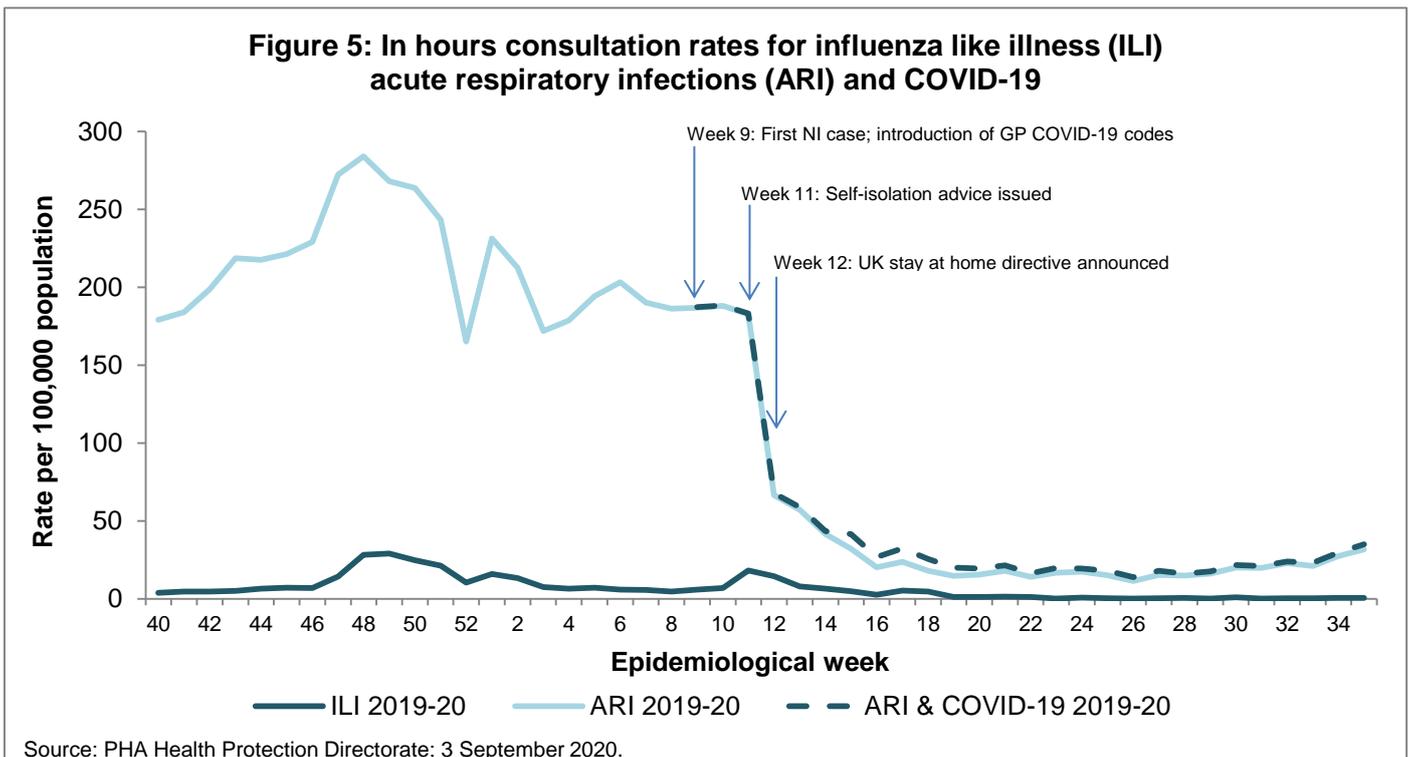
# Clusters

**Definition:** A cluster is currently defined as two or more laboratory confirmed cases of COVID-19 among individuals associated with a key setting, who have illness onset dates within a 14 day period. Key settings in which clusters have occurred in recent weeks include: workplaces, retail and hospitality premises, house parties and sporting settings<sup>9</sup>.

**Comment:** Since 26 August 2020 eight new clusters have been recorded (up to 5 pm on 1 September 2020).<sup>10,11,12</sup>

In all, up to 1 September 2020, a total of 14 clusters with greater than five people have been identified in the following council areas; Newry, Mourne and Down (n=4), Mid and East Antrim (n=3), Belfast (n=3), Antrim and Newtownabbey (n=1), Ards and North Down (n=1), Armagh City, Banbridge and Craigavon (n=1) and Causeway Coast and Glens (n=1). In addition, there have been 34 clusters across Northern Ireland with fewer than five people.

## Primary Care<sup>13</sup>

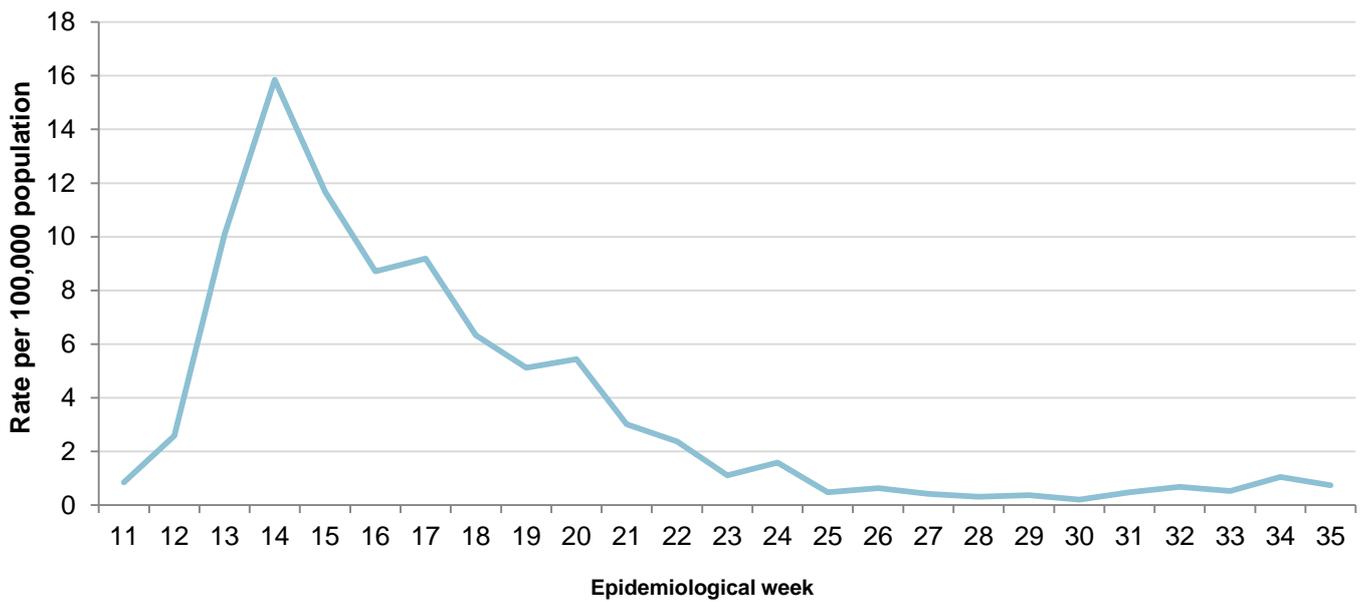


**Comment on the trend:** The increasing trend in Acute Respiratory Infection (ARI) consultation rates continues to be observed; at week 35 (ending 30 August 2020) the rate of consultations for ARI & COVID-19 was 35 per 100,000 population, an increase from 30 per 100,000 population in week 34.

<sup>9</sup> COVID-19 transmission is most common in household settings. The number of affected households is not reported.  
<sup>10</sup> The reporting period for cluster information has changed and information will now be reported weekly up to 5pm on Tuesday.  
<sup>11</sup> Number of all clusters (open and closed) that have been recorded by the contact tracing service up to 5pm Tuesday 1 September 2020. Note: the reporting period for cluster data is slightly different to the remainder of the report in order to provide the most up to date cluster information at the time of the bulletin. Some clusters may overlap (larger clusters may contain or overlap with several smaller clusters).  
<sup>12</sup> From week to week the number of clusters may change due to ongoing updates to the source information following detailed risk assessments. For this reason, we would discourage making direct comparisons between the cumulative number of clusters reported each week, with the number reported in the current week the most accurate at the time of the report.  
<sup>13</sup> GP coding for COVID-19 data was not available before week 14 of 2020.

# Secondary Care

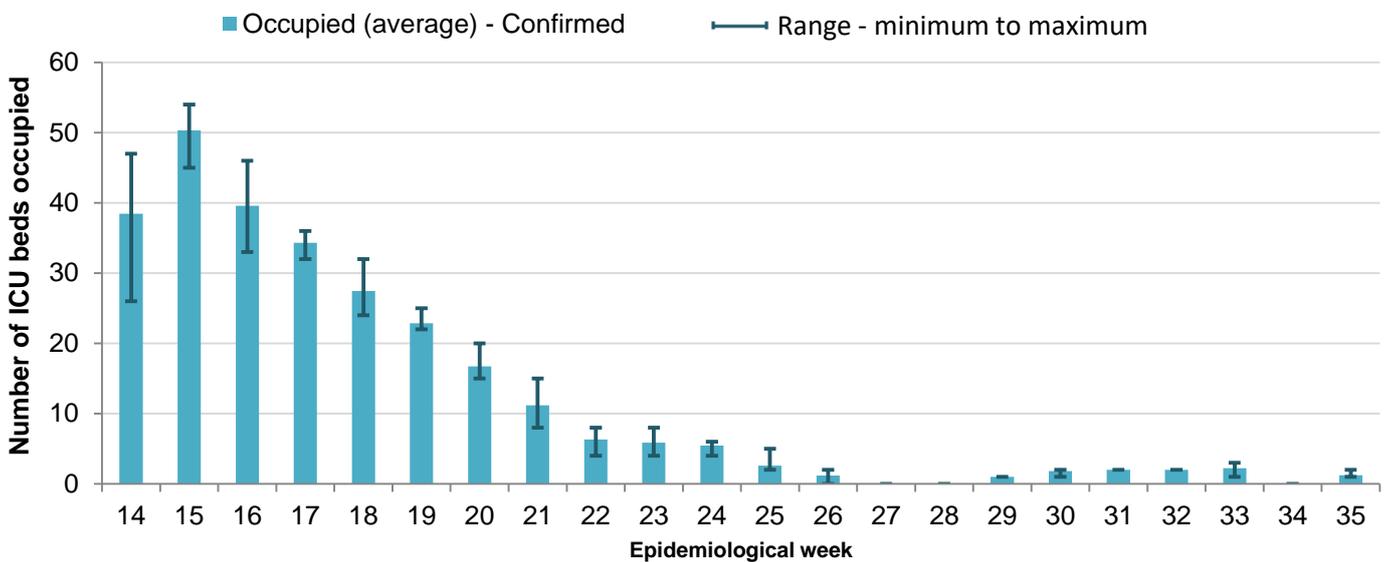
**Figure 6: Rate of hospital admissions due to COVID-19 (Confirmed only)**



Source: Health and Social Care Board, Performance Management and Service Improvement, Information Team; 1 September 2020.

**Comment on the trend:** The rate of confirmed hospital admissions for COVID-19 in week 35 (ending 30 August 2020) was 0.7 per 100,000 population, down slightly from the rate of 1.1 per 100,000 population in week 34.

**Figure 7: ICU occupancy of COVID-19 cases (Confirmed) - weekly average from 30 March 2020**



Source: Critical Care Network Northern Ireland (CCaNNI) daily returns, Health and Social Care Board, Performance Management and Service Improvement, Information Team; 1 September 2020.

Note: The recording and reporting of occupancy at weekends ceased from the 4 July 2020.

**Comment on the trend:** On 28 August 2020 there were 2 confirmed COVID-19 cases in ICU. During the five day period 24-28 August 2020 (week 35) the average ICU occupancy for COVID-19 confirmed cases was 1.2 and ranged from 1 to 2 during this time.

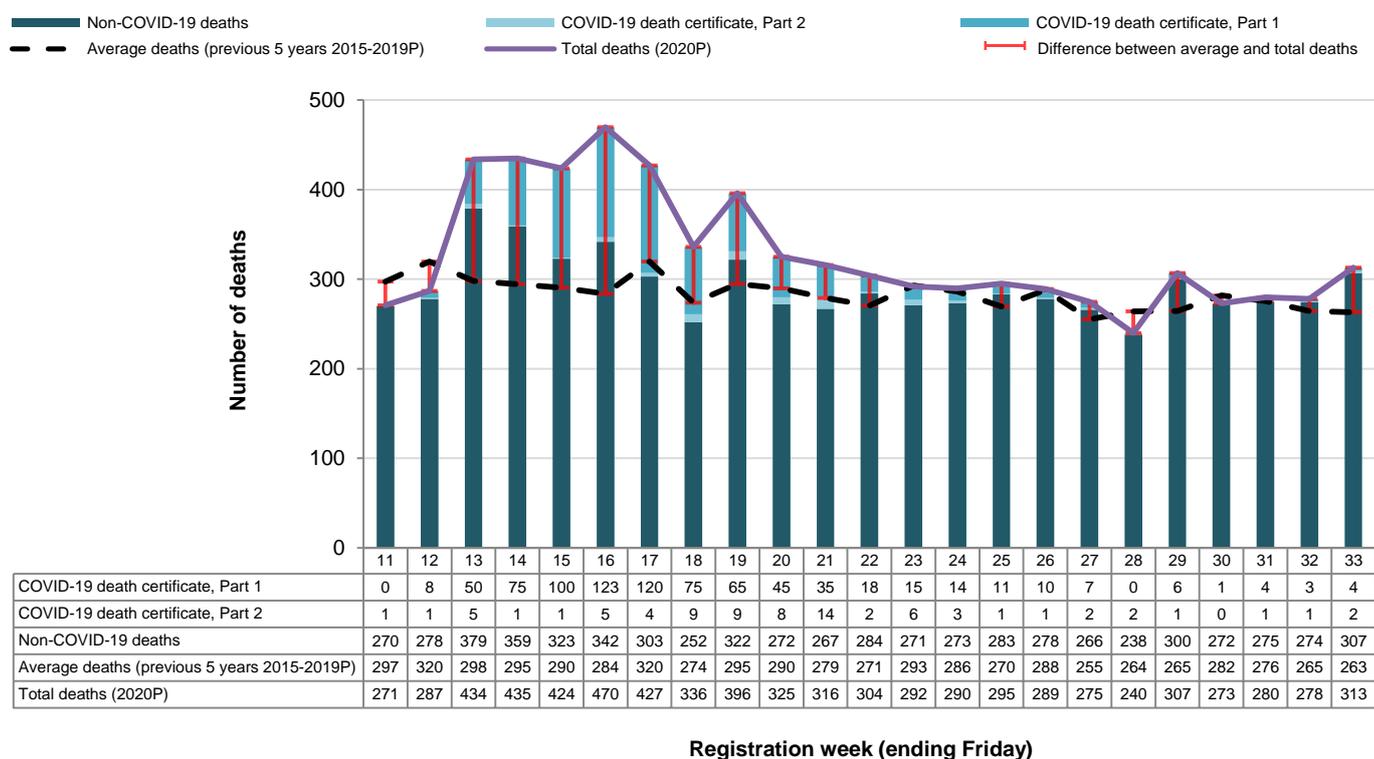
# Mortality surveillance

## Medical Certificate of Cause of Death for confirmed / suspected COVID-19

The Northern Ireland Statistics and Research Agency (NISRA) provide a [weekly update](#) on the number of **registered respiratory and COVID-19 associated deaths each Friday**.

Figure 8 highlights the total weekly number of deaths registered<sup>14</sup> in Northern Ireland from week 11 (ending 20 March 2020) and compares these to the average number of deaths registered in the corresponding week for the five year period 2015-2019<sup>15</sup>. It also highlights the weekly breakdown of registered deaths that were non-COVID-19 related and those associated with COVID-19.<sup>16</sup>

**Figure 8: Northern Ireland registered deaths<sup>^</sup>, including COVID-19 associated deaths, week 11 (ending 20 March 2020) to week 33 (ending 21 August 2020)**



Source: NISRA; Figures relate to all deaths registered up to 21 August 2020 with a mention of COVID on the death certificate; P Weekly published data are provisional;  
<sup>^</sup> This data is based on registrations of deaths, not occurrences. The majority of deaths are registered within five days in Northern Ireland. Please note: Where COVID is mentioned in part 1 it may not be the underlying cause of death. NISRA quarterly statistics provide detail of underlying cause following coding to ICD-10

**Comment:** In week 33 (ending 21 August 2020), six COVID-19 deaths were registered, an increase of two from the previous week. From week 11 (ending 20 March 2020) to week 33 there have been 869 deaths associated with COVID-19. Over the same period, 1040 ‘excess deaths’ (ie deaths above the average for the corresponding weeks in previous years) have been registered in Northern Ireland.

Variation in the proportion of COVID-19 associated deaths relative to excess deaths suggests that COVID-19 associated deaths may not account for all excess deaths during the period.

<sup>14</sup> P Weekly published data are provisional and subject to change.

<sup>15</sup> The 5-year average is not a whole number so comparisons with 2020 week-on-week can vary by up to one death due to rounding.

<sup>16</sup> COVID-19 deaths include any death where coronavirus or COVID-19 (suspected or confirmed) was mentioned anywhere on the death certificate (Part 1 or Part 2). Part 1 includes the diseases or conditions that led directly to death while Part 2 includes other conditions that were not part of the main cause of death but may have contributed in hastening death.

# Appendix

## Incidence and prevalence

Data provided jointly with the Department of Health COVID-19 Modelling Group. Estimates presented are based on data sourced from the PHA Health Protection Directorate laboratory surveillance system.

## COVID-19 testing by age group and council area

Data are sourced from the PHA Health Protection Directorate laboratory surveillance system. The system collates SARS-CoV-2 laboratory data on all tests from HSC Trust laboratories and data from the National Testing Programme in Northern Ireland. Further detail on collation and analysis of this data is available from the [PHA Monthly Epidemiological bulletin](#)

## Clusters

Data are sourced from the Contact Tracing Service / PHA Health Protection Service.

## Primary Care

GP in-hours respiratory syndromic surveillance data is extracted from the Apollo GP Flu Surveillance System (Wellbeing Software) and is sourced by the PHA Health Protection Surveillance team. Data are analysed to produce trends of ARI, ILI and COVID-19 consultation rates. Further details on collation and analysis of this data is available from the [PHA Monthly Epidemiological bulletin](#)

## Admissions

Data are sourced from the Patient Administration System through the Health and Social Care Board, Performance Management and Service Improvement, Information Team.

## ICU Occupancy

Data are sourced from daily Critical Care Network Northern Ireland (CCaNNI) report and provided by the Health and Social Care Board, Performance Management and Service Improvement, Information Team. Data are included from 30 March 2020; includes Adults, Paediatrics and Cardiac Intensive Care Units. The recording and reporting of occupancy at weekends ceased from 4 July 2020 and the average occupancy presented is an average for the five day period Monday to Friday of the epidemiological week.

## Mortality surveillance

### Medical Certificate of Cause of Death for confirmed / suspected COVID-19

Data are sourced from the Northern Ireland Statistics and Research Agency (NISRA). NISRA provide a [weekly update](#) on the number of registered respiratory and COVID-19 associated deaths each Friday.

This bulletin is produced by the Health Intelligence Team on behalf of the Director of Public Health.