

The Impact of COVID-19 on Care Homes in Northern Ireland

February 2020 to July 2020

RQIA Overview Report October 2020



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The Impact of COVID-19 on Care Homes in Northern Ireland

This report provides an overview of the impact of COVID-19 on care homes across Northern Ireland during the initial pandemic period (February to July 2020).

Key Findings

- Between February and July 2020, over one third of nursing and residential care homes (36%) in Northern Ireland experienced an outbreak of either COVID-19 or a flu like illness (FLI).
- The peak of the pandemic in care homes occurred between late March and early May 2020, with the largest number of both outbreaks and deaths reported during April 2020.
- Larger homes have proved more susceptible to outbreaks of COVID-19.
- Between March and July 2020 429 death certificates issued in respect of care home residents referenced COVID-19.
- Between March and June 2020 there were 336 excess deaths in care homes.
- Non-COVID-19 related ambulance / 999 calls from care homes, attendances in Emergency Departments (EDs), and admissions of care home residents to Health and Social Care (HSC) hospitals in Northern Ireland all fell to lower than average levels during March and April 2020, when compared to 2018 and 2019.
- The peak of activity for RQIA's Service Support Team¹ also occurred between late March and early May 2020.
- Between March and July 2020, RQIA handled 3,464 calls or contacts with care homes in Northern Ireland, 84% of which were related to COVID-19 concerns or guidance.
- By July 2020, the situation in Northern Ireland care homes had stabilised, with the number of outbreaks, suspected cases, and reported deaths all having decreased since early May 2020.
- As at 31 July 2020, over 99% of care homes registered with RQIA reported that they
 had adequate supplies of PPE and adequate staffing in place.

In late March 2020, in response to the COVID-19 pandemic RQIA established its Service Support Team to provide advice, guidance and professional support to care home and domiciliary care providers.

Introduction - Overview of Care Homes Sector

In Northern Ireland, the Regulation and Quality Improvement Authority (RQIA) is responsible for registering and regulating all nursing and residential care homes and, maintains a live register of these services.

There are currently 482 registered care homes in Northern Ireland: 248 nursing homes; 234 residential care homes (55 of the residential care homes are residential units within nursing homes which require separate registrations under legislation).

A small number of homes were non-operational during the peak of the pandemic, either because the services they offered were temporarily suspended or due to pending closures.

There is a maximum of around 16,000 approved places within the Northern Ireland care homes sector. However, the occupancy rate for registered homes generally sits at between 80-90% at any given time.

Table 1 - Registered Care Homes and Approved Places, as per the RQIA Register, July 2020

Service Type	Count of Registered Homes	Max Approved Places
Nursing Home	248	10,801
Residential Care Home	234	5,279
Grand Total	482	16,080

Source - RQIA

The large majority (90%) of registered care homes are independently or privately run. As of July 2020, there were 43 statutory (or HSC Trust run) residential care homes, and 5 statutory nursing homes.

Outbreaks in Care Homes

The Public Health Agency (PHA) is responsible for the management of outbreaks of infectious diseases in Northern Ireland. The PHA produces a daily outbreaks report which contains information on confirmed outbreaks of all infectious diseases in care homes and the current status of these outbreaks. During this year the majority of these have been have been COVID-19 or other flu like illnesses (FLIs).

The chart below (Figure 1) shows a peak in confirmed outbreaks in care homes occurring during April, with the number of new / repeat outbreaks decreasing during May and June. A small increase was recorded during July 2020.

From February to July 2020, 174 care homes (just over one third (36.1%) of all care homes) experienced COVID-19 / FLI outbreaks. This included 119 nursing homes (48% of the total registered with RQIA) and 55 residential care homes (23.5% of total registered with RQIA). In addition, 19 homes experienced repeat outbreaks during this period.

The residential care homes total includes residential units within nursing homes due to the fact that, where there is a dual registration on one site, it is not possible from the reporting to identify whether the outbreak occurred in the nursing or residential unit, or both.

Outbreaks were twice as likely to occur in nursing homes compared to residential care homes. This may be due to a number of factors such as more vulnerable client groups in nursing homes and the fact that nursing homes are, on average, larger in size.

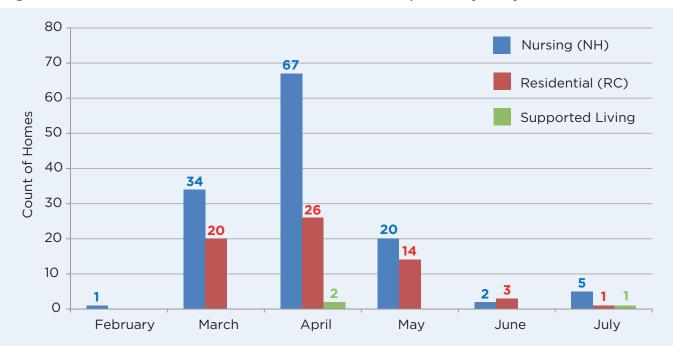


Figure 1 - Confirmed COVID or FLI Outbreaks in Care Homes, February - July 2020

Source - PHA Outbreaks Report, August 2020.

The PHA defines an outbreak as two or more confirmed cases within an establishment. Monthly counts calculated from date of initial onset in the establishment. The first confirmed COVID-19 outbreak in a care home occurred on 09/03/2020. A FLI outbreak occurred in a care home on 28/02/2020. PHA List includes three services registered with RQIA as Domiciliary Care Agencies - Supported Living Services.

In terms of geographical area (see Table 2), the largest numbers of outbreaks have occurred in care homes located in the Northern HSC Trust (NHSCT) area. However, this area also has the largest number of registered homes when compared to the other four HSC trust areas.

The Western HSCT Trust (WHSCT) area has seen the lowest number of outbreaks, but also has the smallest number of registered homes.

The Southern HSC Trust (SHSCT) area has seen the largest overall proportion of registered homes affected by outbreaks, with 36 (47%) of 77 homes in this area reporting outbreaks.

The distribution map of care home outbreaks largely corresponds with the major population centres in Northern Ireland and location of the majority of registered care homes.

The largest concentration of care home outbreaks has been in the Greater Belfast area (which will include areas coming under other Trusts, such as Newtownabbey in the Northern Trust and Dunmurry in the South Eastern Trust).

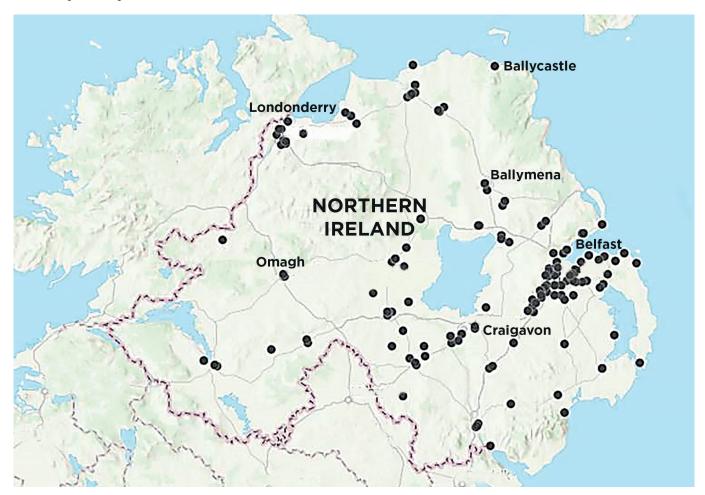
There have also been clusters in North Down, Mid Ulster, Derry-Londonderry city, and the Coleraine area (see: Figure 2).

Table 2 - Care Home Outbreaks by Service Type and Trust Area, February - July 2020

Service Type	BHSCT area	NHSCT area	SEHSCT area	SHSCT area	WHSCT area	Grand Total
Nursing Home Outbreaks	24	28	25	24	18	119
Total Registered	46	68	54	47	33	248
Residential Care Home Outbreaks	10	17	11	12	5	55
Total Registered	44	65	57	30	38	234
Grand Total Outbreaks	34	45	36	36	23	174
Total Registered	90	133	111	77	71	482

Source - PHA. NB. Counts by Trust indicate the geographical area the homes are located within. Only three of the homes with confirmed outbreaks are carried on by a HSC Trust.

Figure 2 - Distribution Map of COVID-19 / FLI Care Home Outbreaks in Northern Ireland, February to July 2020



Through an analysis of services reporting outbreaks to PHA by care home size, we noted that a greater proportion of outbreaks occurred in larger homes.

Only 29% of homes registered for 50 places or less have had outbreaks this year, whereas 69% of homes with 51 or more places have experienced outbreaks (see Table 3).

Table 3 - Breakdown of Care Homes with Outbreaks by Size of Home (Max Approved Places)

Max Places (Banding)	With Outbreaks	Without Outbreaks	Total Registered	% with Outbreaks
Under 10 places	8	52	60	13.3%
11 - 20 places	17	64	81	21.0%
21 - 30 places	24	60	84	28.6%
31 - 40 places	33	72	105	31.4%
41 - 50 places	36	35	71	50.7%
51 - 60 places	27	12	39	69.2%
61 - 70 places	13	6	19	68.4%
71 - 80 places	9	3	12	75.0%
81+ places	7	4	11	63.6%
Grand Total	174	308	482	36.1%

Intelligence on the Sector

Registered providers are required by legislation² to notify RQIA of specific events and incidents occurring within their homes. These include: accidents, injuries, medication issues, deaths, and other events which may have an impact on patient safety/wellbeing.

In addition to fulfilling the legislative requirement, these statutory notifications provide invaluable intelligence for RQIA's inspectors as an indicator on what is occurring within a home on a day-to-day basis.

On average, each week RQIA receives 400 - 500 statutory notifications, the majority of these come from nursing and residential homes.

Figure 3 shows an increase in the number of these notifications received by RQIA from care homes during March, April and May 2020, and particularly from nursing homes.

The majority of this upturn was due to the increased number of outbreak of infectious disease reports and also an increase in death notifications. However, accidents remains the largest overall category reported (Figure 4).

Notification numbers subsequently returned to more normal levels during June.

Events / incidents which should be notified to RQIA are set out within The Nursing Homes Regulations (Northern Ireland) 2005, Reg. 30, and The Residential Care Homes Regulations (Northern Ireland) 2005, Reg. 30. Notification codes are assigned within the Form 1 notification form completed by registered services.

Figure 3 - Total Notifications Received from Nursing and Residential Homes 01.03.2020 - 31.07.2020

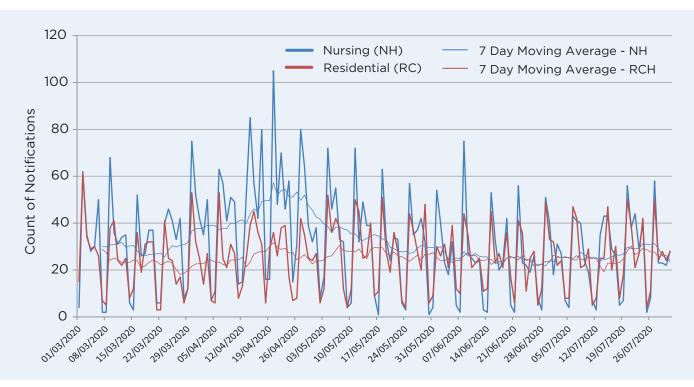
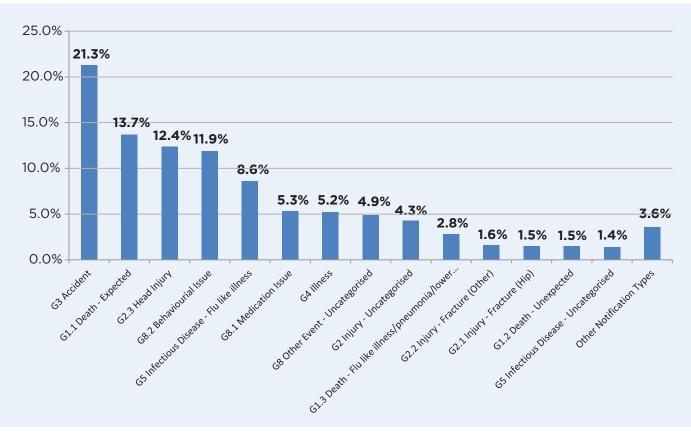


Figure 4 - Total Notifications Received from Nursing and Residential Homes, 01.03.2020 - 31.07.2020, breakdown by type (%)



Source - RQIA

Northern Ireland Ambulance Service (NIAS) Calls to Care Homes

RQIA worked closely with other HSC organisations during the pandemic to obtain additional intelligence on the situation in the care homes sector.

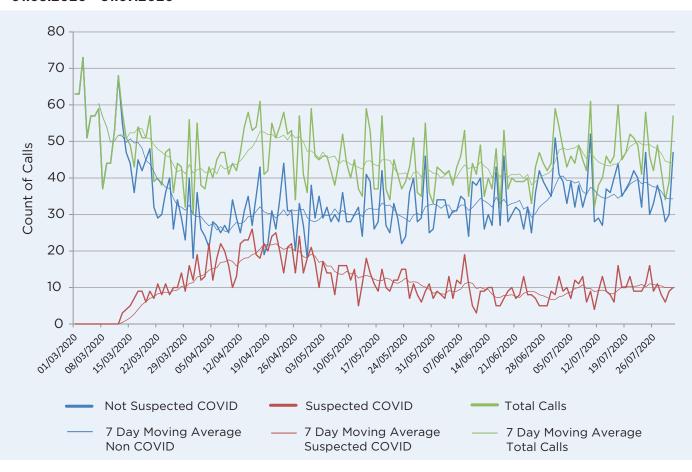
We compared NIAS data on 999 calls with our register of care homes which has allowed us to report on calls received from care homes from 1 March 2020 onward, and comment on the overall trends for the sector.

From 12 March 2020 onwards, NIAS sub-categorised their calls as suspected COVID-19 and non-COVID-19 related. A suspected COVID-19 call was coded on the basis of the patient's symptoms, (ambulance crews were not carrying test kits).

Figure 5 shows how suspected COVID-19 cases in care homes rose substantially between mid-March to mid-April 2020, while non-COVID-19 related calls decreased during the same time period.

Non-COVID-19 calls have stabilised since early May 2020, while suspected COVID-19 cases have gradually decreased over the same time period.

Figure 5 - NIAS Ambulance Calls from Nursing and Residential Homes (suspected COVID-19), 01.03.2020 - 31.07.2020



Source: NIAS

In addition to the decrease in ambulance calls during the early stages of the pandemic (mid to late March 2020), there was also a decline in the number of patients attending hospital.

For example, during 2018-19, 90% of care home patients requiring an ambulance attended hospital, while 10% did not attend. In contrast, between mid-March to mid-April 2020, the daily average was around 25% of patients not attending hospital. However, the attendance numbers stabilised during June 2020 and are now close to expected levels.

Admissions to HSC Hospitals in Northern Ireland from Care Home Residents

RQIA also received data from the Department of Health (DOH) regarding hospital admissions from care home residents. (NB: This data identifies addresses by postcode and therefore should be treated with caution, as admissions for patients living in the vicinity of care homes may be erroneously included).

An analysis of the total admissions from postcodes where care homes are located, taken over the course of one year (April 2019 - April 2020), shows a significant decrease in numbers during March and April 2020.

This decrease may be in part due to the cancellation of planned surgeries and treatments due to the onset of the COVID-19 pandemic and the anticipated increased demand for hospital beds.

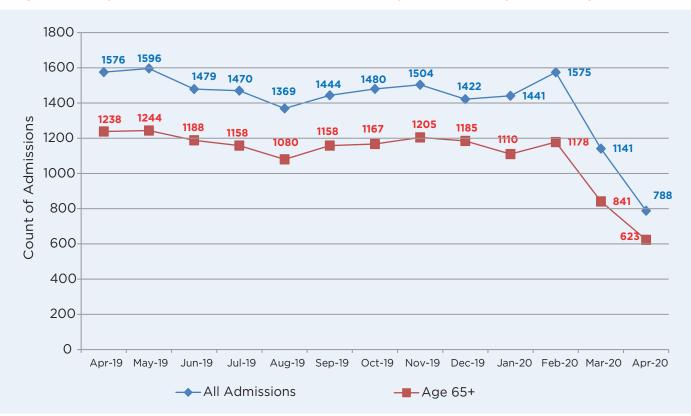


Figure 6 - Hospital Admissions from Postcodes containing Care Homes April 2019 - April 2020

Source: Department of Health (DoH).

Figures are for inpatients only and include elective and non-elective admissions. Figures do not include patients who attended Emergency Departments (EDs) and were not admitted to hospital

Deaths in Care Homes

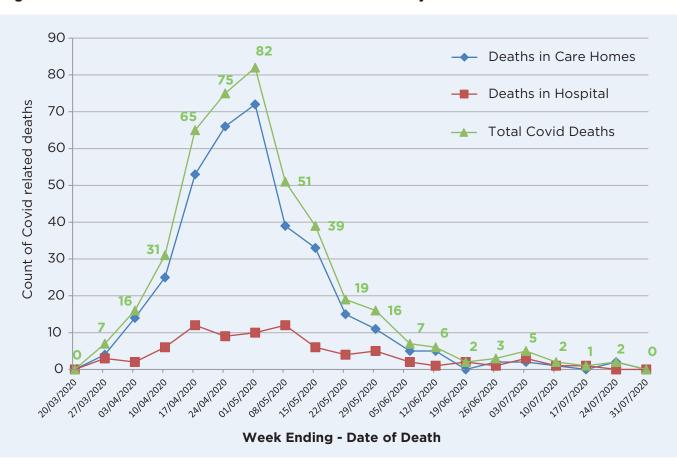
The weekly bulletins published by the Northern Ireland Statistical Research Agency (NISRA) are the central source for COVID-19 related death figures in Northern Ireland.

Within its 7 August 2020 bulletin, NISRA recorded the deaths of 429 care home residents where COVID-19 was listed on the deceased's death certificate. Of these, 349 (or 81.4%) occurred within care homes and the remaining 80 (18.6%) occurred in a hospital.

The total number of COVID-19 related deaths recorded by NISRA on that date was 859, with those normally resident in a care home accounting for 49.9% of all COVID-19 deaths in Northern Ireland.

Figure 7 shows the substantial increase in COVID-19 related deaths from late March 2020 onwards, culminating in a peak of 82 deaths which occurred during the week ending 1 May 2020. The weekly count of COVID-19 deaths decreased throughout May and remained at comparatively low levels during June and July.

Figure 7 - COVID-19 related Deaths of Care Home Residents by Location 20.03.2020 - 31.07.2020



Source: NISRA

In addition, care home providers are required by legislation to report deaths to RQIA as notifiable events. These notification reports include all deaths which occur within the care home from all causes; however, providers are not required to report the deaths of residents in hospital.

Analysis of our death notification reports show a similar trend to the NISRA data, with a peak occurring in the last two weeks of April 2020.

NISRA has also published an analysis of excess mortality³ in various settings (i.e. hospitals, care homes, hospices, and residential addresses). NISRA has noted a total of 336 excess deaths in care homes during the period from 1 March to 30 June 2020.

This includes deaths from all causes; however, the total is close to that for COVID-19 related deaths which occurred within care homes during the same period (Table 4).

The largest number of excess deaths occurred during April 2020, the peak month for COVID-19 outbreaks in care homes. The deaths recorded in care homes during June 2020 were below the five year average. This may, in part, be due to displaced mortality, i.e. where deaths that would have occurred later in the year happened earlier for another reason - in this case, the COVID-19 pandemic.

Table 4 - Excess Deaths in Northern Ireland Care Homes, March to June 2020

Month	Excess Deaths in Care homes	COVID-19 related Deaths in Care homes	Average Deaths in Care Homes 2015-2019	Excess Deaths in Care Homes as proportion of Average Deaths 2015-19
March	32.4	11	288.4	11.2%
April	292.4	209	254.2	115.0%
May	65.6	112	272.2	24.1%
June	-54.6	14	231.2	-23.6%
Total	335.8	346	1,046.0	32.1%

Source - NISRA

Excess mortality is the difference between actual deaths from all causes in a period minus the expected number of deaths or 'normal deaths' (i.e. compared with a five year average for the previous years and taking into account other factors, such as the anticipated rise in deaths year on year).

RQIA's Adapted Function

In anticipation of the onset of the pandemic, RQIA inspectors and administrative staff contacted all services registered with RQIA by phone to ascertain their preparedness and record any concerns regarding COVID-19. Of the nursing and residential homes contacted in March 2020 just over half reported issues or concerns.

Table 5 -RQIA's Proactive Calls to Care Homes in March 2020, Numbers Reporting Issues / Concerns

Service Type	No Issues/Concerns at Current Time	One or More Issues/Concerns Recorded	Grand Total	% Services Reporting Issues
Nursing Home	110	100	210	47.6%
Residential Care Home	89	110	199	55.3%
Total	199	210	409	51.3%

Source - RQIA

During RQIA's calls in March, the most frequently raised concerns were issues with and/or shortages of personal protective equipment (PPE), staffing, and the availability of (or requirement for) guidance.

Table 6 - Issues Reported by Care Homes following Proactive Calls in March 2020

Service Type	PPE	Visiting	Staffing	Guidance	Financial
Nursing Home	66	5	41	26	2
Residential Care Home	77	14	28	29	1
Total	143	19	69	55	3

Source - RQIA

NB. Some homes reported multiple concerns/issues

In late March 2020, RQIA was directed by the Department of Health (DOH) to establish a Service Support Team (SST), to provide guidance and act as the first point of contact for nursing homes, residential care homes, domiciliary care agencies, and supported living providers during the pandemic.

This activity (i.e. all SST calls / contacts) was recorded using our existing 'concerns' module on our iConnect electronic system (usually used for calls to our duty desk4). Additional categories were added to facilitate the recording and reporting of COVID-19 related issues in registered services.

During the peak of the pandemic, the SST operated seven days a week between the hours of 8:00 am - 6:00 pm.

On a daily basis RQIA operates a duty desk where providers, care service staff and members of the public may speak with an RQIA inspector to seek advice or discuss concerns about a health and social care service.

In total, there were 3,464 calls / contacts relating to care homes recorded from March to July 2020. Of these contacts, 2,911 were COVID-19-related (84%) and 553 (16%) related to other issues such as safeguarding, complaints, whistleblowing, and guidance on service management.⁵

Figure 8 shows the significant rise in COVID-19 related contacts recorded from late March onwards, a trend that continued through April and May 2020.

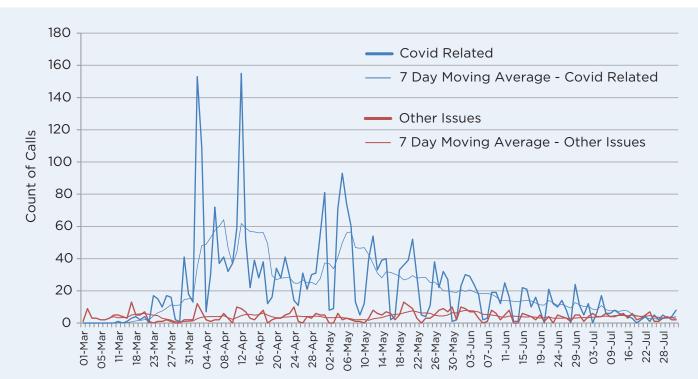


Figure 8 - Calls and Contacts recorded on the RQIA Concerns Module, 01.03.2020 - 31.07.2020

Source - RQIA

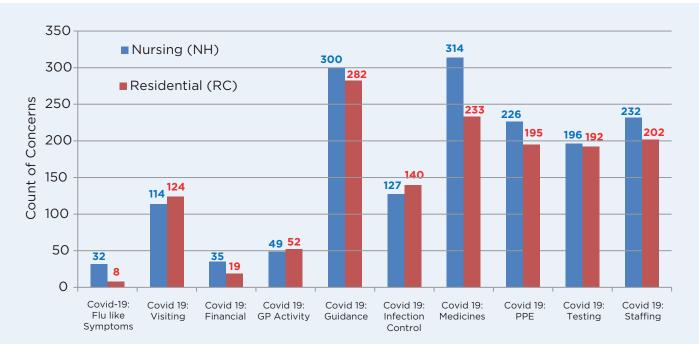
The large numbers of contacts recorded on 2 April, 12 April, 1 May and 5 May 2020 are, in part, due to proactive contacting of registered services carried out by RQIA inspectors to advise the homes of the role of SST and check on their current status.

In total, one-third of the contacts were proactive calls initiated by RQIA, including our Pharmacy Team (as part of their COVID-19 medicines management assessment exercise), or where the home provider requested a call back via the RQIA status update app6. Two-thirds of calls received were from care homes seeking guidance on issues including PPE, staffing, and testing, although the number of contacts referencing these matters decreased over time.

In addition, 1,294 calls / contacts were recorded against domiciliary care agencies (both conventional and supported living) between 01.03.2020 - 31.07.2020, of which 1,114 (86.1%) were COVID-19 related and 180 (13.9%) were related to other issues.

⁶ A COVID-19 status update app was first launched in late March 2020, allowing registered providers to update RQIA on their current status and to raise queries or submit questions to our SST. This original app continued to operate after the launch of the Regional Care Homes Status App in mid-April, largely to facilitate submissions by domiciliary care providers.

Figure 9 - COVID-19 related Calls and Contacts logged by RQIA 01.03.2020 - 31.07.2020, broken down by sub-category and service type.



NB. Some homes will have reported multiple concerns/issues

Inspection Activity

On 20 March 2020, RQIA was directed by the Department of Health to reduce the frequency of its statutory inspection activity due to the onset of the COVID-19 pandemic. However, inspections were carried out to several care homes deemed most at risk as a result of the pandemic, while support and guidance was provided through the SST to all other care homes.

RQIA conducted 22 inspections to nursing and residential homes during April and May 2020, and a further 25 were completed during June 2020. This reduction in regulatory inspections during the height of the pandemic was in common with the practice of other regulators across the United Kingdom and in the Republic of Ireland.

During this time, RQIA continued to respond to concerns, taking enforcement actions where necessary to ensure the safety and wellbeing of service users. This included issuing a failure to comply notice to nursing home in Belfast due to findings from an RQIA inspection in mid May 2020.

Daily Care Home Status Updates

In mid-April 2020, RQIA launched the Regional Care Homes Status App to facilitate the collection of information. This was in response to a request from DoH to co-ordinate the collection of data on behalf of the wider HSC to inform the management of the HSC response to COVID-19 in care homes. Care home providers/managers were required to submit daily status updates in relation to a number of factors; for residents, staff, and a number of other issues affecting the service.

This information was then shared with the DoH, PHA, Health and Social Care Board (HSCB) and the five HSC trusts (Belfast, Northern, South Eastern, Southern and Western) to assist in the HSC's joint response to the COVID-19 pandemic and to ensure that duplication in reporting was minimised and reporting was regionally consistent.

The App also required each care home to rate their current workforce and PPE status, to provide current numbers of staff and residents who have been tested, numbers of staff and residents who are symptomatic, numbers of staff and residents testing positive, whether the home is in need of additional nursing or care staff, and whether the home requires a terminal clean.

The collection of this information in a timely manner has been crucial to the HSC in determining which care homes are most at risk and in need of support during this pandemic.

Although historical data requires validation, the daily returns provided an overview of the improved situation in the sector over time.

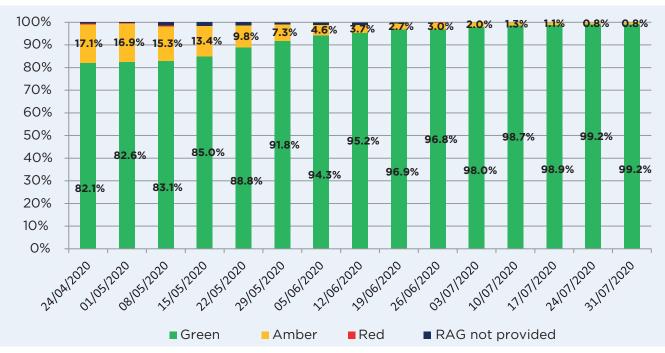
Using the Regional App (and later the RQIA Web Portal)⁷ each home submits a daily RAG (Red, Amber or Green) rating in four status areas; Workforce, PPE and Equipment, Domestic Cleaning, and Overall Status.

If a status is entered as Green, this means the care home's position is seen as good or adequate. Amber indicates that the care home may require assistance within the next 24 - 72 hours, and Red indicates that the care home requires immediate assistance.

Figures 10, 11, 12 and 13 demonstrate the improved situation within the care homes sector between late April and the end of July 2020. For example, 24% of care homes reported an 'Amber' status for PPE and Equipment on 24 April 2020. By 31 July 2020, this percentage had fallen below 1%. We have also seen similar trends in the other three areas (workforce, domestic cleaning and overall status).

The Regional App was stood down at the start of July 2020 and daily updates are now submitted through the RQIA Web Portal.

Figure 10 - Workforce Status, Cumulative RAG Ratings, 24.04.2020 - 31.07.2020 (by percentage)

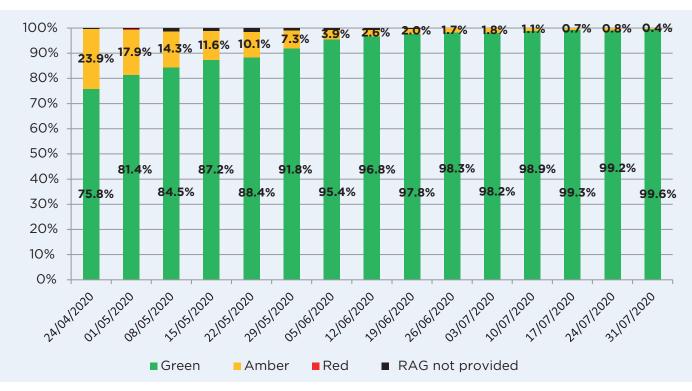


Green = Home has adequate staffing for 72 hours plus;

Amber = Home has adequate staffing for 24-72 hours;

Red = Home does not have adequate staff currently to meet the care needs today/overnight.

Figure 11 - PPE Status, Cumulative RAG Ratings, 24.04.2020 - 31.07.2020 (by percentage)



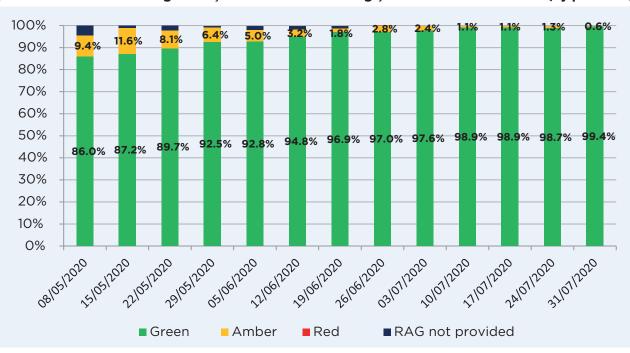
Source - RQIA

Green = Home has adequate PPE and equipment for 72 hours plus;

Amber = Home has adequate PPE and equipment for 24-72 hours;

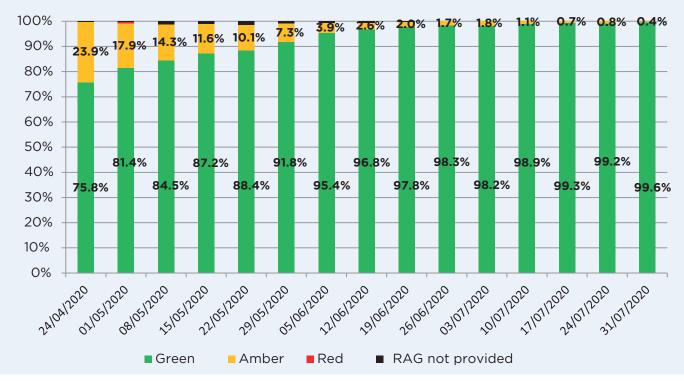
Red = Home does not have adequate PPE or equipment currently to meet the care needs today/ overnight.

Figure 12 - Domestic Cleaning Status, Cumulative RAG Ratings, 08.05.2020 - 31.07.2020 (by percentage)



NB. The Domestic Cleaning RAG Status was not collected on 24/04/2020 or 01/05/2020 Green = Home has adequate domestic and cleaning staff to maintain cleaning for 72 hours plus; Amber = Home has adequate domestic and cleaning staff to maintain cleaning for 24-72 hours; Red = Home requires assistance today to maintain enhanced cleaning.

Figure 13 - Overall Status, Cumulative RAG Ratings, 24.04.2020 - 31.07.2020 (by percentage)



Source - RQIA

Green = all OK, no issues

Amber = currently managing but likely to need assistance soon

Red = urgent need of assistance today

Since July 2020 daily updates are now submitted through the RQIA Web Portal, and the app has been stood down.

Current Position and Next Steps

The presented data indicates that the situation in relation to COVID-19 in care homes has stabilised since the peak of the pandemic during Spring 2020; with outbreaks, suspected/positive cases, and deaths all having fallen substantially. There is however, still the ongoing risk of further waves of the COVID-19 virus.

During the first wave of the COVID-19 pandemic, the increased use of intelligence and data has helped to inform decision-making across health and social care in relation to the care homes sector.

Work is ongoing by RQIA to develop a risk model by identifying common characteristics of services affected by COVID-19. These factors include:

- Homes run by larger provider organisations (defined as having four or more nursing and residential homes);
- Homes with two or more changes of manager over the preceding year;
- Larger homes, defined as having 40 or more registered places;
- Homes within 10 years' since their first registration;
- Homes which had more than 10 requirements /or recommendations stated as a result of RQIA inspections during the 2019-20 year;
- Homes located within a high risk Local Government District (LGD).

In addition to working closely with our partners within the HSC across Northern Ireland and the Department of Health, RQIA has also been exchanging information with its fellow UK regulators (such as Care Inspectorate Scotland and the Care Quality Commission in England) to identify common trends across the UK and to compare our experiences during the pandemic.

Furthermore, moving from the App to reporting via RQIA's Web Portal has enabled greater efficiency in submitting returns and producing daily reports. This system will continue to operate for the foreseeable future, thus allowing RQIA and our HSC partners to monitor the ongoing situation in the care homes sector across Northern Ireland as the situation in relation to COVID-19 evolves.





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