



# Deaths in Scottish care homes and COVID-19

**David Bell, David Henderson, Elizabeth Lemmon and Mirko Moro**

Last updated 9 June 2020

## **Authors**

David Bell (University of Stirling), David Henderson (Edinburgh Napier University, Scottish Centre for Administrative Data Research), Elizabeth Lemmon, (University of Edinburgh, Edinburgh Health Economics) and Mirko Moro (University of Stirling)

## **ltccovid.org**

This document is available through the website [ltccovid.org](http://ltccovid.org), which was set up in March 2020 as a rapidly shared collection of resources for community and institution-based long-term care responses to Covid-19. The website is hosted by CPEC at the London School of Economics and Political Science and draws on the resources of the International Long Term Care Policy Network.

Corrections and comments are welcome at [info@ltccovid.org](mailto:info@ltccovid.org). This document was last updated on 9 June 2020 and may be subject to revision.

**Copyright:** © 2020 The Author(s). This is an open-access document distributed under the terms of the Creative Commons Attribution NonCommercial-NoDerivs 3.0 Unported International License (CC BY-NC-ND 3.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited. See <http://creativecommons.org/licenses/by-nc-nd/3.0/>.

## **Suggested citation**

Bell D, Henderson D, Lemmon E and Moro M (2020) *Deaths in Scottish care homes and COVID-19*. LTCcovid, International Long-Term Care Policy Network, CPEC-LSE, 9 June 2020.

## 1. Key points

- As with other parts of the UK, COVID-19 has caused a significant increase in deaths in Scotland, particularly amongst older individuals.
- Scotland's care home sector has not expanded in response to demographic change: rather the focus of care provision has moved to care at home.
- Many of the characteristics of the care home sector in Scotland are similar to those in the rest of the UK.
- The COVID-19 epidemic has spread to the majority of Scotland's care homes.
- The impact of COVID-19 on deaths in care homes lagged those in hospitals but have now surpassed deaths in all other settings.
- Although the total number of deaths is now declining, the share of care home deaths in the total continues to increase.
- Almost all COVID-19 related deaths of care home residents (between weeks 12 and 22) have occurred within the care home (91%). The remainder occurred in hospital (9%). This is in stark contrast to England, where 29% of COVID-19 related deaths of care home residents occurred in hospital (between weeks 12 and 17).
- Excess mortality during the pandemic has been high in all settings in Scotland but has been particularly high in care homes.
- Non-COVID deaths in hospital settings have declined during the pandemic, which may be the result of re-orienting hospital activity towards dealing with the immediate crisis. Increased deaths in other settings, including care homes, may have been the consequence.
- Whereas care homes have been particularly affected by COVID-19, there has also been significant excess deaths attributed to causes other than COVID-19 outside hospitals and care homes. Specifically, there have been 616 non-COVID "excess deaths" in care homes and 1,320 such deaths outside care homes and hospitals.
- There is a significant lack of information on how COVID-19 has affected those individuals who are receiving LTC services at home. In 2017 (the most up to date figure available), around 47,070 people aged 65+ were receiving personal care in their homes. Currently, there is no information available on how many of these clients have died either directly or indirectly from COVID-19.

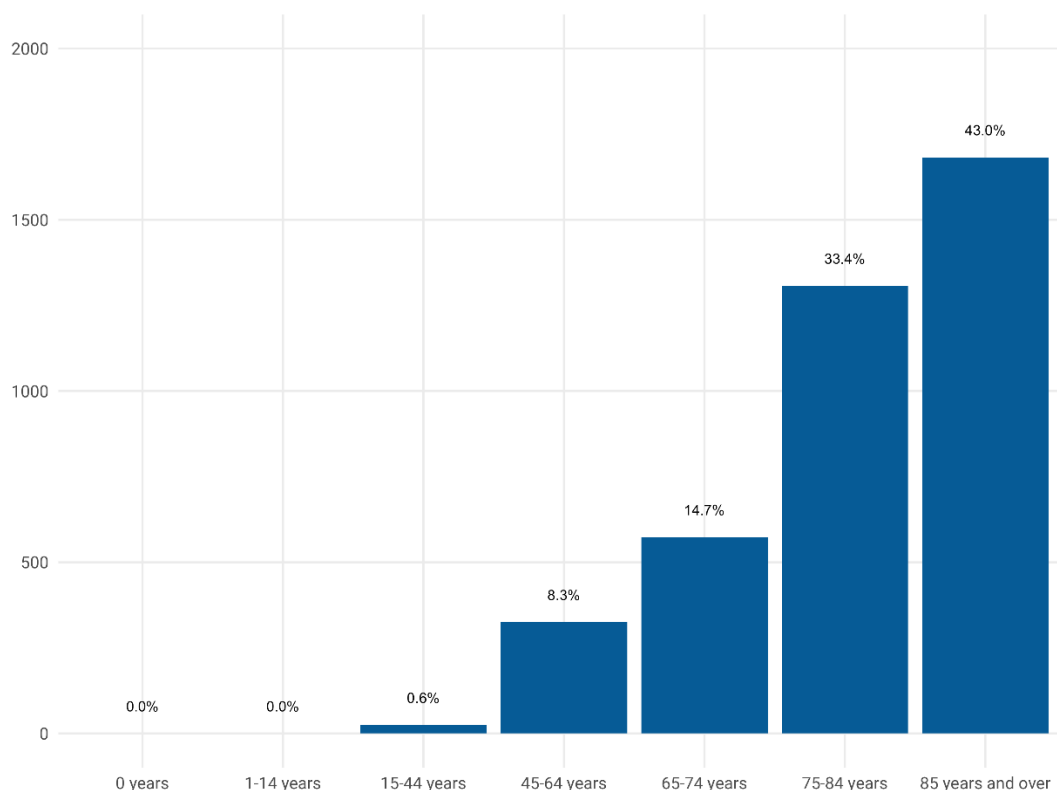
## 2. Introduction

The first death in Scotland associated with COVID-19 occurred on 17<sup>th</sup> March 2020. Total deaths have increased substantially since then and are now falling. The National Records of Scotland (NRS) counts all of those whose death certificate mentions coronavirus as COVID-19 related deaths, irrespective of whether they have been tested. By the end of Week 22 (May 31<sup>st</sup>), the NRS estimate of such deaths had risen to 3,911. On the narrower, but more current, estimate, which is based on deaths where COVID-19 has been confirmed by a laboratory, 2,415 deaths had been recorded by June 7<sup>th</sup>. However, June 7<sup>th</sup> was also the first day since 17<sup>th</sup> March when no new deaths were recorded using this measure.

Information on excess deaths, the accepted measure of the full effects of the disease, suggests that overall, the UK has one of the highest death rates per million people of any developed country. Within the UK, Scotland's excess deaths rate is lower than that in England, but higher than those in Wales and Northern Ireland<sup>1</sup>.

Age and existing medical conditions are strongly associated with the likelihood of death from COVID-19. Figure 1 shows that COVID-related deaths in Scotland were predominantly among older adults, particularly the oldest old.

**Figure 1: Deaths Associated with COVID-19 by Age Group**

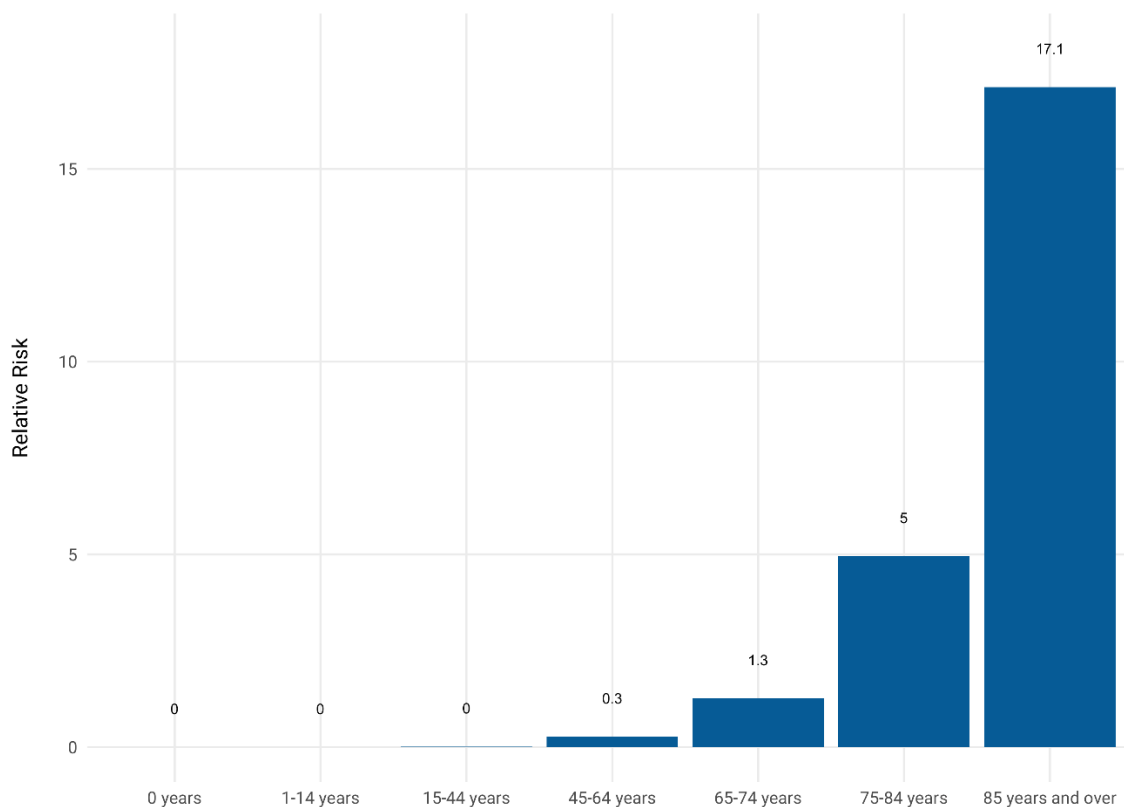


<sup>1</sup> See: Financial Times "Scotland's coronavirus record flattered by contrasts with South", June 1 2020

**Source: National Records of Scotland (data current on June 3rd, 2020)**

The implication of Figure 1 is that the risk of death rises substantially with age. Figure 2 adjusts the data in Figure 1 by size of the cohort to assess relative risk. Thus, those aged 65 to 74 face a risk of death that is 1.3 times the average risk of death from COVID-19 in Scotland. In contrast, the risk for those aged 85+ is more than 17 times the Scottish average. There is a massive gradient in the risk of death across age groups. This finding is not specific to Scotland: the oldest old were clearly at highest risk in those countries which had experienced a COVID-19 outbreak before Scotland. This information was widely available to those charged with reacting to the outbreak before it arrived in the UK, including in Scotland.

**Figure 2: Relative risk of death associated with COVID-19 by Age Group**



**Source: National Records of Scotland and own calculations**

Given this steep age gradient in risk, care home residents, who are largely drawn from the oldest age groups, were likely to be particularly vulnerable as the outbreak took hold in Scotland. This turned out to be the case. In the remainder of this paper, we discuss the evolution of mortality in Scottish care homes during the outbreak. At the time of writing (18th May), the COVID-19 outbreak has not been brought fully under control, so future updates to this paper will document a more complete picture of its effects on Scotland's care home population. We begin by describing the care home industry in Scotland.

### 3. Scotland's Care Homes

There are 1,082 adult care homes in Scotland of which 815 cater mainly for older people<sup>2</sup>. This number has declined in recent years, though the number of registered places for older people has remained relatively stable at around 38,200 throughout the period 2007-2017<sup>3</sup>. This implies a gradual increase in the size of care homes, many of which are managed by private sector enterprises. These have tended to replace smaller charitable sector and local authority care homes. One reason for the contraction of the charitable sector is the difficulty of finding staff in rural and remote areas.

The number of older care home residents in Scotland has also been stable, sitting at 32,691<sup>4</sup> in 2017, implying a generally high rate of occupancy. For the last two decades, Scottish policy has favoured care provision in individuals' own homes rather than in care homes. This has offset demographic pressures which might have resulted in increased provision of care home places. In 2017-18 around 47,000 people aged 65+ were receiving "personal care" funded by the Scottish Government in their own homes<sup>5</sup>. Personal care is care associated with personal hygiene, feeding, toileting and appearance. One might expect that a benefit of the focus on care at home would be that the risk of infection for care clients living at home would be less than for those in communal establishments. As we shall see subsequently, there is no clear evidence that this is the case: numbers of deaths in settings other than hospitals and care homes have also increased dramatically in recent weeks.

Care homes typically cater for the oldest old. This is shown in Figure 3, which gives the shares of the relevant age groups resident in care homes. This ranges from 0.1 per cent of those aged 18-64 to 14% of those aged 85 and above. Given that the prevalence of COVID-19 increases with age, it is not surprising that care home residents are particularly at risk. A typical pathway through social care provision in Scotland would involve care in the domiciliary setting until that is deemed unsafe for the client followed by transfer to a care home.

---

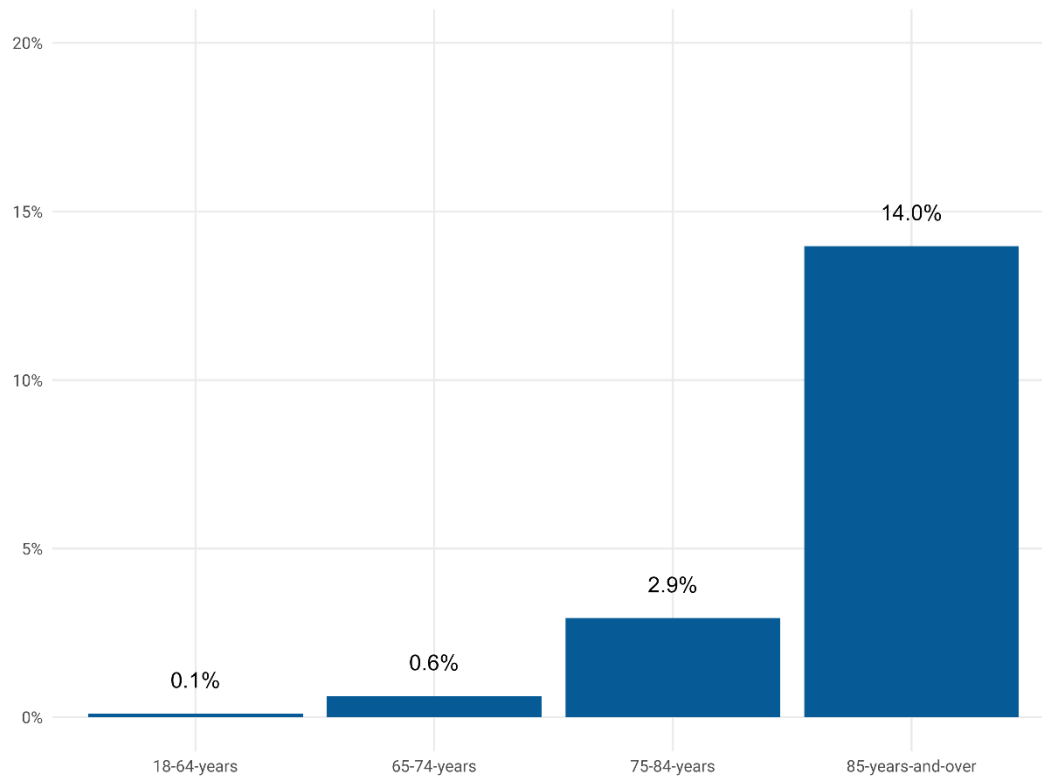
<sup>2</sup> Available here. Datastore (as at 30th April 2020) Excel with Pivots > Regulatory Summary)

<sup>3</sup> Available [here](#). Care Home Census – tables > Table 3.

<sup>4</sup> 2017 figure, available [here](#). Care Home Census – tables > Table 3.

<sup>5</sup> Available [here](#).

**Figure 3: Care Homes for Older People: Residents as a Share of Population, by Age Group**



**Source: Scottish Care Home Census 2017**

Principal responsibility for providing services to social care clients falls on Scotland’s 32 local authorities. Partly as a consequence of the UK Government's austerity measures, Scottish Government funding to these councils has fallen by 7.6% in real terms since 2013-14. This has led to increased funding pressures on care homes. The Scottish Government has also sought to integrate health and social care to improve service delivery to care clients. The Public Bodies (Joint Working) (Scotland) Act 2014 set out the legislative framework for integrating health and social. It created new organisations, known as integration authorities, that are intended to break down barriers to joint working between NHS boards and local authorities. The local authorities and NHS boards were required to submit integration schemes setting out how functions were to be delegated and to produce annual performance reports. Audit Scotland, which analyses the performance of public bodies in Scotland, argued that:

*“While some improvements have been made to the delivery of health and social care services, Integration Authorities, councils and NHS boards need to show a stronger commitment to collaborative working to achieve the real long-term benefits of an integrated system.” Audit Scotland (2018)*

The Care Inspectorate is the regulatory body charged with ensuring that care standards are met in Scotland. It carries out regular, unannounced inspections of Scottish care homes. It recently

withdrew the licence of a care home on the Isle of Skye where there had been 7 COVID-19 related deaths<sup>6</sup>.

Working conditions in Scottish care homes are similar to those in the rest of the UK. The Scottish Social Services Council (SSSC) is the regulatory body for social care staff which seeks to professionalise care work. Its role is to oversee the registration, workforce development, codes of practice and fitness to practice for all care workers. There are around 205,000 care workers in Scotland. Just over three-quarters of the workforce remain in the same post from year to year. Care workers in Scotland are low paid and many work part-time.

Care home residents with capital assets (including housing) in excess of £28,550 must contribute to the full cost of their care home costs. Scotland differs from the rest of the UK in paying for the “personal care” element of these costs. The personal care contribution is £180 per week. In both Scotland and England, nursing care costs are subsidised. In Scotland, the nursing care contribution is £81 per week, while in England the amount varies between £180.31 and £248.06 per week. In Scotland, because around 70% of care clients do not have sufficient assets, their fees are mainly paid by local government. Local authorities have negotiated a standard weekly charge of £614.71 with care home providers for residential care and £714.94 for nursing care. Charges to self-funding residents average around £770 for residential care and £860 for nursing care.<sup>7</sup>

It is against this background that COVID-19 came to affect Scotland’s care homes. In the following sections, we review how it spread across the sector and then discuss how far COVID-19 deaths were concentrated across Scotland’s care homes for older people.

## 4. The Spread of COVID-19 in Scottish Care Homes

Scotland began collecting data on adult care homes that had reported a suspected COVID-19 case on 11<sup>th</sup> April 2020. These data are collected by the Care Inspectorate and released by the Scottish Government<sup>8</sup>. By 11<sup>th</sup> April, 406 care homes, comprising 37% of all adult care homes had been infected by COVID-19. Since then, the number of homes affected has increased steadily, reaching 668 (62% of the total) by June 2<sup>nd</sup>. There was an upward trend of cases reported up until the 29<sup>th</sup> May, after which no additional care homes reported at least one case of suspected COVID-19.

As discussed above, older adults are at an increased risk of having an adverse outcome after contracting the virus. The shares presented in Figure 4 are based on all care homes i.e. including those care homes that are not specifically for older adults. Thus, included in Figure 4 are around 290 care homes which cater for adults with physical disabilities, mental health problems, learning disabilities and other groups.

Care homes reporting suspected cases to the Care Inspectorate are likely to be care homes for older adults. Thus, the shares reflected here may be somewhat lower than would be the case if

---

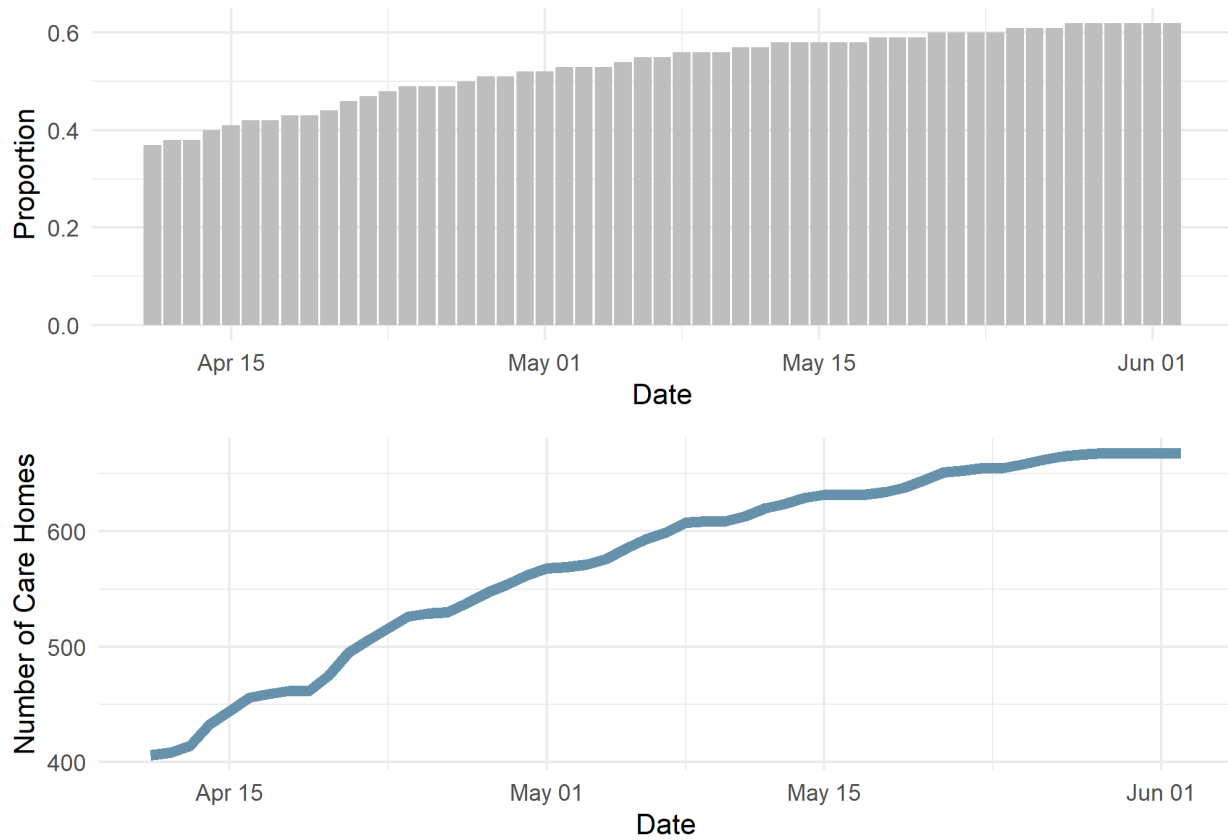
<sup>6</sup> Source: <https://www.bbc.co.uk/news/uk-scotland-highlands-islands-52658559>

<sup>7</sup> Source: [Laing Buisson Care of Older People UK Market Report 30th edition 2019](#)

<sup>8</sup> <https://www.gov.scot/publications/coronavirus-COVID-19-trends-in-daily-data/>

the shares were based only on care homes for older adults. Unfortunately, data on suspected cases reported by type of care home are not publicly available.

**Figure 4: Number and share of care homes reporting suspected COVID-19 cases**



Source: Scottish Government<sup>9</sup>

## 5. COVID-19 Related Deaths in Scottish Care homes

Given the significant mortality risk posed by COVID-19 to the oldest old, the inevitable consequence of infection spreading among care homes was an increasing number of deaths among care home residents. Figure 5 below shows the evolution of deaths where COVID-19 was mentioned on the death certificate in hospitals, care homes and home/non institutions (institutions other than care homes are excluded).

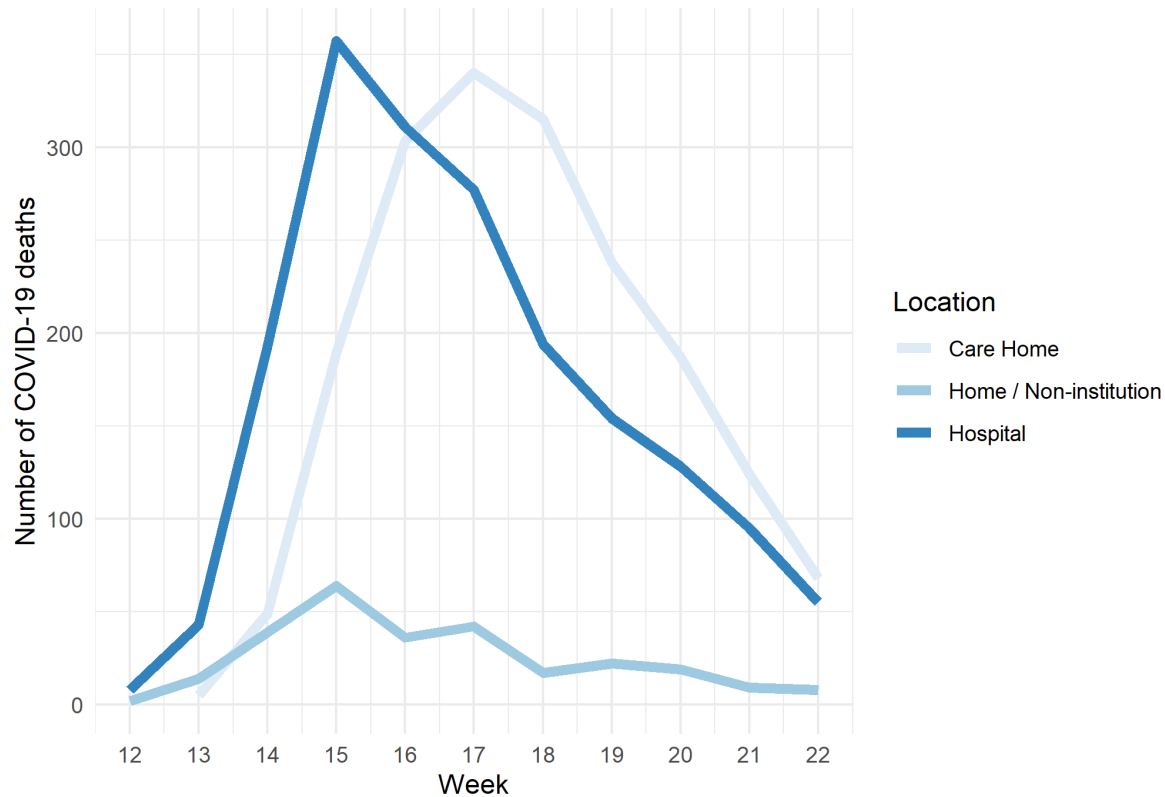
The pandemic started later in care homes than in hospitals. In both settings, deaths grew at about the same rate. As one would expect, the chart shows that the share of COVID-19 deaths rose in all three settings throughout March. By the second week in April, the share of COVID-19 deaths occurring at home began to level off, most likely a reflection of social distancing measures beginning to work. From the final week in March to the end of the second week in April, both shares of deaths relating to COVID-19 occurring in hospital and care home deaths

<sup>9</sup> Available [here](#). Trends in daily COVID-19 data > Table 7a.



rose steeply. In hospitals, the share of COVID-19 deaths was largest until mid-April, after which it declined steeply. In care homes however, the share of all deaths attributed to COVID-19 continued to increase, peaking around week 17 (20<sup>th</sup> to 26<sup>th</sup> April), and since then has declined steadily. Deaths in care homes peaked later and have declined as fast as those in hospitals. Since mid-April, deaths in care home settings have been more common either than those in hospital or in other settings.

**Figure 5: Weekly deaths involving COVID-19 in Scotland by setting**



Source: National Records of Scotland, 3<sup>rd</sup> June 2020 release<sup>10</sup>

Some COVID-19 deaths occurring in hospital include care home residents transferred to hospital who died in hospital, or they may have been care home residents who were already in hospital at the time of the pandemic. On 3<sup>rd</sup> June, the Scottish Government released data on the total number of care home residents who died in hospital where COVID, confirmed or suspected, was mentioned on the death certificate either as the underlying cause or as a contributory cause<sup>11</sup>. At the time of this publication, the data used figures available for Weeks 12-20, at which time a total of 1,623 care home residents as dying for these reasons in care homes. The release on 3<sup>rd</sup> June identified a further 154 care home residents’ deaths were

<sup>10</sup> Available [here](#). Data and Charts > Table 1.

<sup>11</sup> Available [here](#). Deaths of care home residents involving COVID-19.

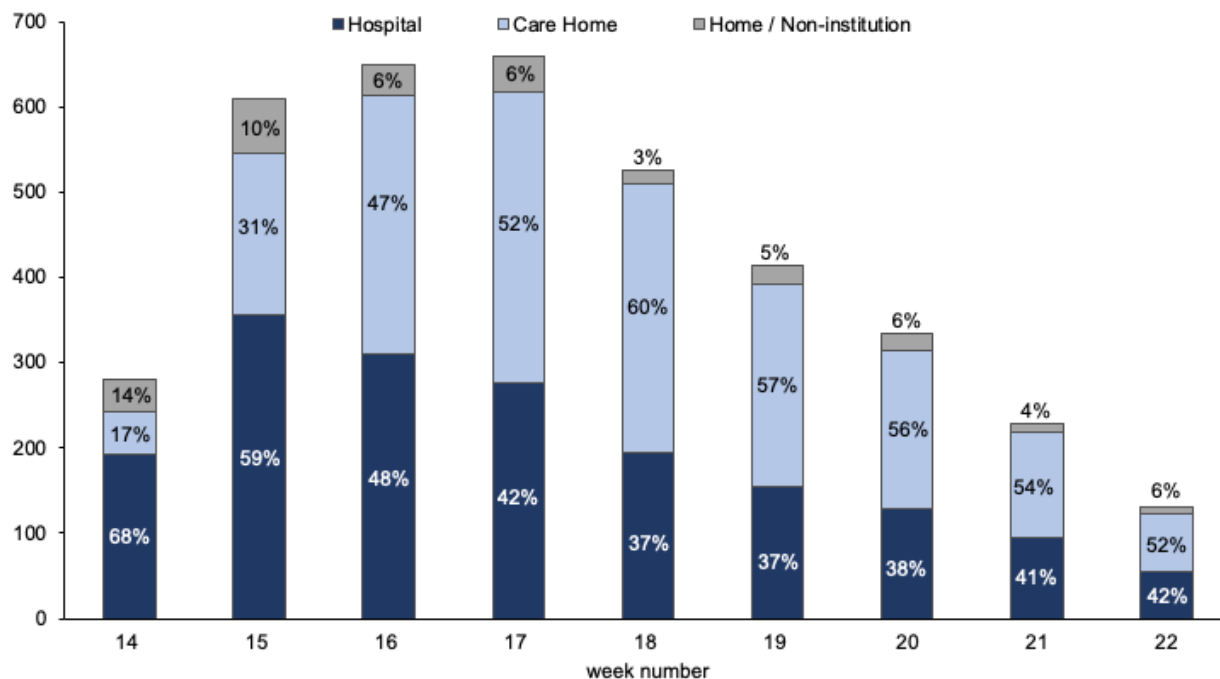
registered as occurring in hospital. Overall, this meant that of the total care home residents who died for these reasons, around 9% died in hospital.

In England, between weeks 12 and 17<sup>12</sup>, around 71% (7,340) of all COVID-19 care home resident deaths (10,387) occurred within the care home, whilst around 29% (3,012) occurred in hospital and less than 1% (35) elsewhere.

Clearly, there is a considerable difference – 9% in Scotland and 29% in England - in the proportion of care home residents dying *in hospital* from COVID-19 in Scotland compared to England. At this stage, the interpretation of these differences is unclear.

Figure 6 below presents the same data as in Figure 5, but in a weekly format, which brings out the increase and subsequent decrease in total deaths as well as the shares in different settings. Weekly deaths peaked in week 17 (20<sup>th</sup> to 26<sup>th</sup> April) and have subsequently declined. Yet the share of these deaths occurring in care homes has grown from 17% in week 14 to a peak of 60% in week 18 and 52% in week 22. Both Figure 5 and Figure 6 bring out the increased concentration of deaths in Scottish care homes where COVID-19 is the suspected cause of death.

**Figure 6: Weekly Deaths from COVID-19 by Setting**



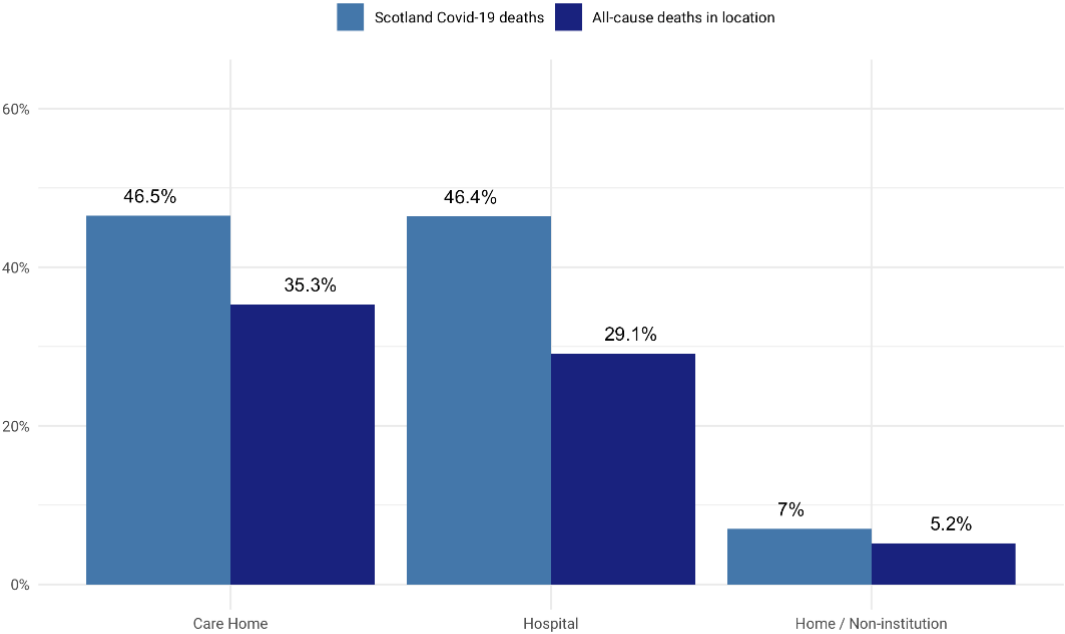
Source: National Records of Scotland, 3<sup>rd</sup> June 2020 release<sup>13</sup>

<sup>12</sup> Available [here](#). At the time of writing, Week 17 is the most up to date data for England.

<sup>13</sup> Available [here](#). Data and Charts > Figure 7.

As time has elapsed, COVID-19 related deaths in care homes have accounted for an increasing share of all deaths related to the virus (see Figure 7). Over the ten-week period since the first Scottish COVID-19 death, 35.3% of all care home deaths have been attributed to the disease which in turn account for 46.5% of all COVID-19 deaths in Scotland.

**Figure 7: Percentage of all deaths attributable to COVID-19 by location**



Source: National Records of Scotland, 3rd June 2020 release<sup>14</sup>

## 6. Delayed Discharges

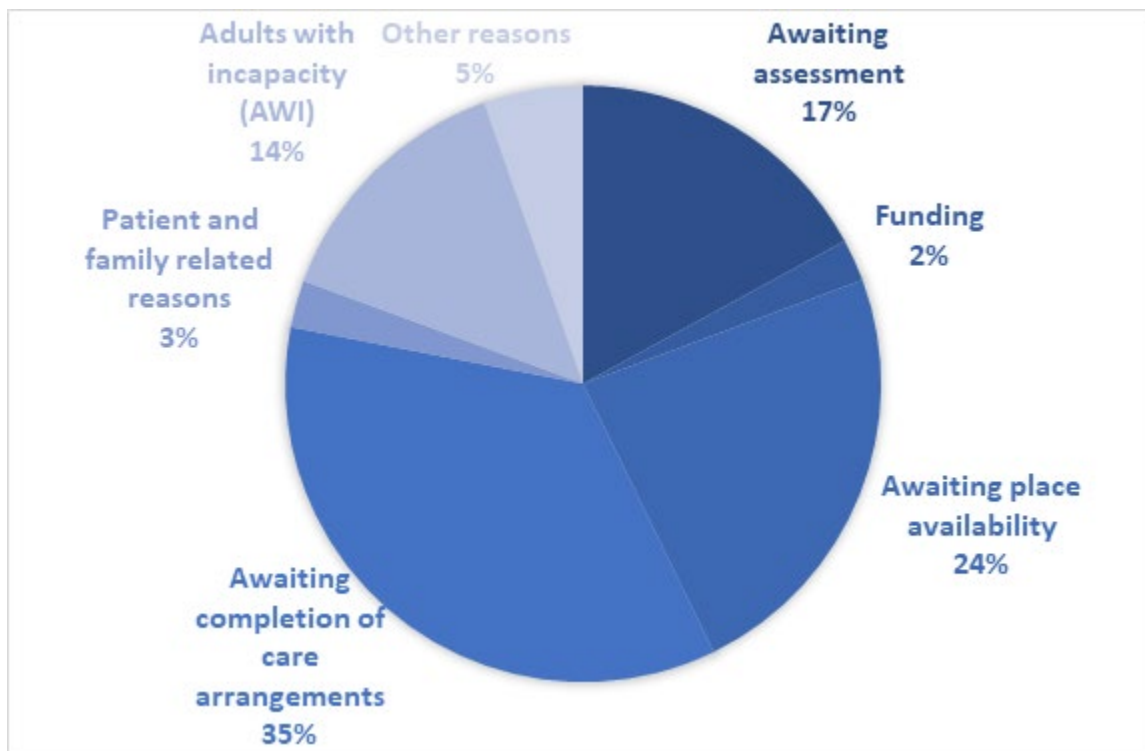
Delayed discharges occur when a hospital patient considered well enough to return to the wider community continues to occupy a hospital bed because of difficulties in accessing the necessary care, support or accommodation. Such delays are generally not in patients’ best interest since most would prefer to leave hospital - extended stays in hospital are generally harmful to patient wellbeing. Delays are not in the interest of the healthcare system because they reduce patient throughput. They are also expensive: the average cost of an inpatient week across Scottish hospitals in 2018/19 was £4702<sup>15</sup>. Having someone occupy a bed for no clinical reason implies resources are not being used efficiently.

<sup>14</sup> Available [here](#). Data and Charts > Tables 1 and 2

<sup>15</sup> Source: Scottish Government, Information Services Division, hospital costs data 2018/19.

This issue has been a long-term concern for governments across the UK and has led to collection of detailed statistics so that the problem can be better understood. In Scotland, consistent data, based on a monthly census, have been available since July 2016. Data definitions were changed at that time partly to reflect the newly established Health and Social Partnerships and, in particular, a desire to eliminate differences between “health reasons” and “social work” reasons for delayed discharges. Each delayed discharge is now assessed and categorised. Delays fall into three main categories - those associated with health and social arrangements, those caused by arrangements relating to the patient, family or carer and more complex reasons relating to the specific care needs of the person. A more detailed breakdown is shown in Figure 8 which gives the share of each type of delay among total delayed discharges during 2019/20.

**Figure 8: Reasons for Delayed Discharge from Hospital 2019/20**

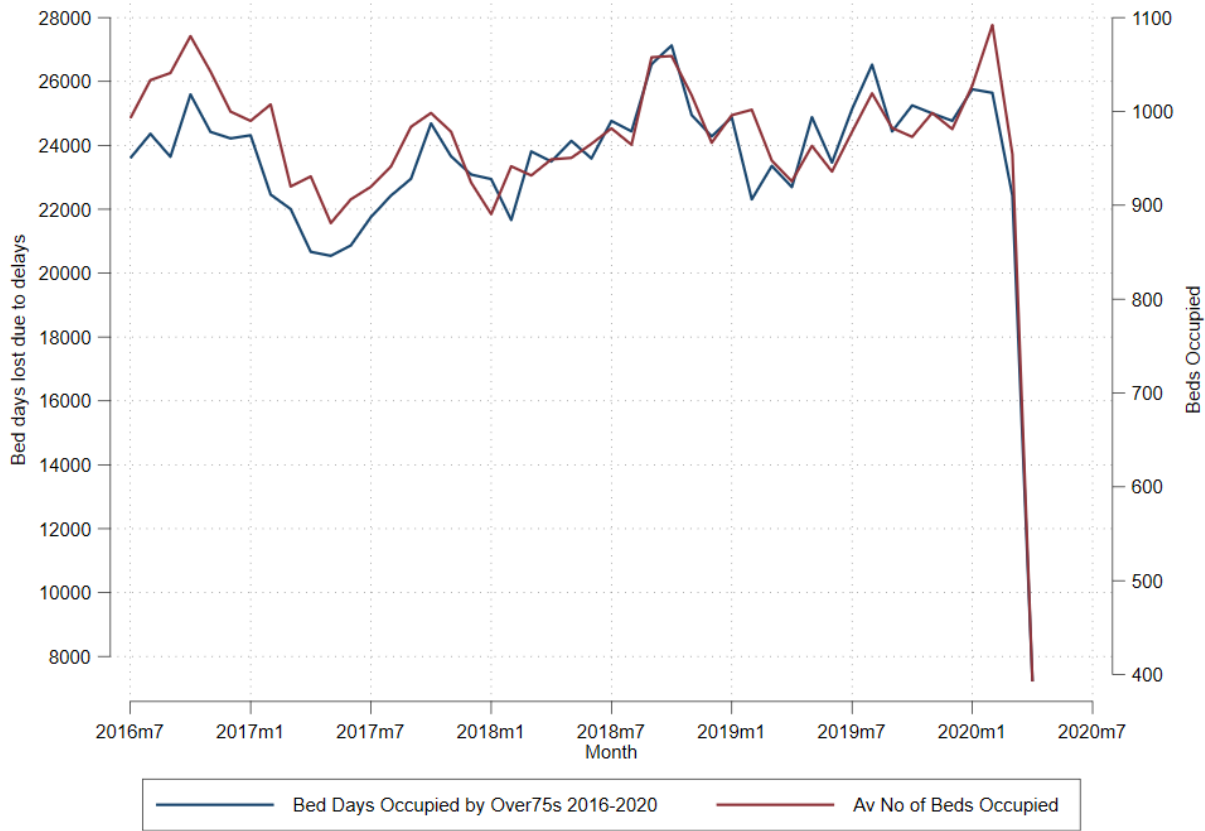


Source: Public Health Scotland

Delays caused by health and social arrangements dominate. Specifically, waiting for assessments, setting up care arrangements, arranging funding and waiting for availability of places make up 78% of all delays. These issues are likely to particularly affect older people. Recent data from Public Health Scotland show that those aged 75+ accounted for around 70% of all delayed discharges between 2016 and 2019. However, there was a remarkable turnaround in delayed discharges between February and April 2020. This was particularly marked among those aged 75+. Figure 9 (left-hand axis) shows that those aged 75+ accounted for 31,855 bed days lost during January 2020, but only 11,778 such days in April. Figure 9 (right-hand axis) also shows that In January, there were 1028 patients aged over 75 waiting to move out of hospital: in April, there were only 393 - a reduction of 62 per cent. Further, those

aged 75+ were disproportionately moved out of hospital. In January, this age group accounted for 67% of all delays: by April, the share had dropped to 58%.

**Figure 9: Delayed Discharges among those aged 75+, 2016-2020.**



Source: Public Health Scotland: Data and Intelligence

These data provide clear evidence of the imperative to move patients with no immediate clinical need out of hospitals prior to the pandemic. Those moved away from hospital will have been accommodated in care homes or in a domestic setting. It is likely that these arrangements were made in haste with the laudable motive of protecting patients from the virus. Nevertheless, subsequent analysis may reveal that decisions to move the frail elderly to other settings may have had an adverse effect on the level of excess deaths that Scotland experienced and which we discuss in the next section.

Some qualitative information (Oliver 2020)<sup>16</sup> suggests that communication between general hospitals and intermediate care (including requisitioned hotels) improved markedly over this period, which likely enabled more rapid transfers from hospital to other settings. Assessments were done more rapidly and delays in transfers between hospital and care homes fell sharply.

<sup>16</sup> HSJ (2020) "What went wrong (and right) in hospital discharge for older adults during the pandemic", May, Accessed at: <https://www.hsj.co.uk/frail-older-people/what-went-wrong-and-right-in-hospital-discharge-for-older-adults-during-the-pandemic/7027710.article?adredir=1> on May 27.

However, the unintended consequence of this increased flow of frail older people out of hospitals may have been increased risk from the virus, particularly where those discharged to care homes were not tested.

## 7. Excess Mortality in Care Homes and Other Settings

The final assessment of the full effect of COVID-19 will be based on the analysis of the extent of “excess mortality” within the population that can be associated with the COVID-19 pandemic. This excess mortality covers deaths identified on death certificates as being caused by the COVID-19 virus, those caused by the virus, but not correctly identified, deaths of care home residents outside care homes and finally all other deaths of care home residents that would not have taken place, were it not for the pandemic. Deaths among this last group may, for example, have resulted from the rationing of health resources during the pandemic to address diseases other than COVID-19.

While a full analysis of excess mortality must wait until the pandemic has passed and all relevant data is available, an initial analysis can be based on a comparison of weekly deaths during the pandemic with weekly deaths in pre-pandemic years. If COVID-19 has been responsible for an increase in deaths, one would expect to observe a level of weekly deaths substantially in excess of past numbers of deaths in the same week. Deaths tend to follow a seasonal pattern, highest in winter, lowest in summer, so one should compare current levels of deaths with those in the same week in previous years.

Using weekly data on deaths in care homes and other settings, one can compare the current experience with numbers of deaths in the last five years. To understand the impact of COVID 19, it is first worth noting that total deaths in Scotland during the first 11 weeks of 2020 were 599 *below* the average number of deaths for the preceding five years. At the start of 2020, deaths were occurring *less* frequently than would have been predicted from the experience of the last five years.

There was a dramatic change around week 13 (23<sup>rd</sup> to 29<sup>th</sup> March). We show this in Figure 10 which combines weekly deaths from 2015 to 2019 with the most recently available data for 2020 up to week 22 (25<sup>th</sup> to 31<sup>st</sup> May). The number of deaths is based on week of registration for every year. The analysis is based on whether deaths occurred in hospitals, care homes or at home or other non-institutions.<sup>17</sup>

The average weekly number of deaths in each location is represented by the dashed line, while the shaded area illustrates the lowest and highest number of deaths in each week over the five-year period, 2015-2019.

The overlaid red line then shows weekly deaths (from all causes) in 2020 and depicts how dramatically the experience of 2020 differs from the 2015-2019 period in each setting. It is immediately apparent that there were exceptionally high numbers of deaths during weeks 13 to 19, both inside and outside care homes. The increase was far greater in care homes than in

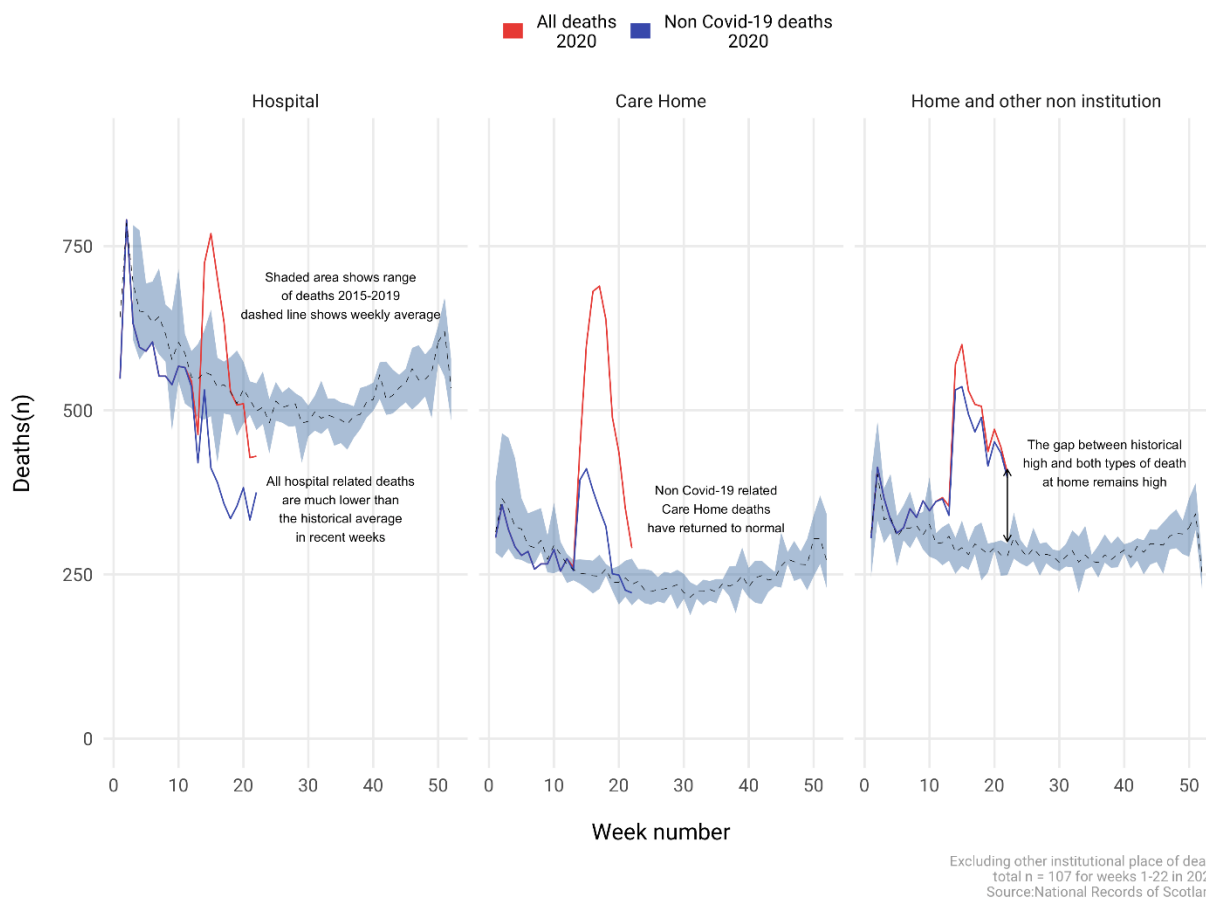
---

<sup>17</sup> Deaths occurred in institutions other than care homes are excluded from this analysis and accounts for a very small portion of deaths (107) since the beginning of the year

other settings. In week 17, care home deaths were more than 160% higher than the historic average of weekly deaths in care homes, while in other settings, the increase over the historic average in weekly deaths was “only” 60% higher. These data show how exceptional the last few weeks have been in terms of increased deaths in Scotland, particularly in care homes.

As of week 22, the number of deaths occurring in care homes is returning to the expected number proxied by the historical average, while the gap between historical figures and current number of deaths occurring at home (or other non-institutions) remains high. This is of great concern. The number of deaths occurring in hospital is now *below* the historical low, i.e., there are fewer people dying in hospital than in the previous five years.

**Figure 10: Weekly deaths in care homes and other settings vs historical average**



**Source: National Records of Scotland<sup>18</sup> and own elaboration. Provisional figures based on week of registration.**

This stark contrast between excess mortality in care homes, homes and that in hospital is perhaps in line with the experience of other countries, but nevertheless is particularly troubling.

<sup>18</sup> 2020 data available [here](#). Data and Charts > Tables 1 and 2.

The blue line in Figure 10 illustrates the evolution of deaths due to causes other than COVID-19 according to the deaths certificate. Note that it is not excluded that COVID-19 may have been a contributing - albeit undetected - factor for some of these events. For both care homes and other settings, causes of death *other* than COVID-19 appear to have contributed to this sharp rise. However, the number of people who died in hospital between weeks 12 and 22 from non-COVID-19 reasons in hospital has *fallen*. Thus, although overall deaths in hospital have increased relative to recent experience, this is only because the increase in COVID-19 deaths have exceeded the reduction in non-COVID-19 deaths.

This could indicate that by emptying hospitals to prepare for a potential influx of COVID-19 patients (which was partially averted by effective lockdown measures), the “normal place of death” shifted for a large proportion of individuals. Any assessment of “excess deaths” in care homes should, therefore, be viewed in this context. The rise in care home deaths may, in part, be due a reduction of the flow from care homes *into* hospital as a preventative measure to ensure that hospitals were not overwhelmed. This would also mean care homes were dealing with a greater load of palliative care, over and above the increase due to COVID-19.

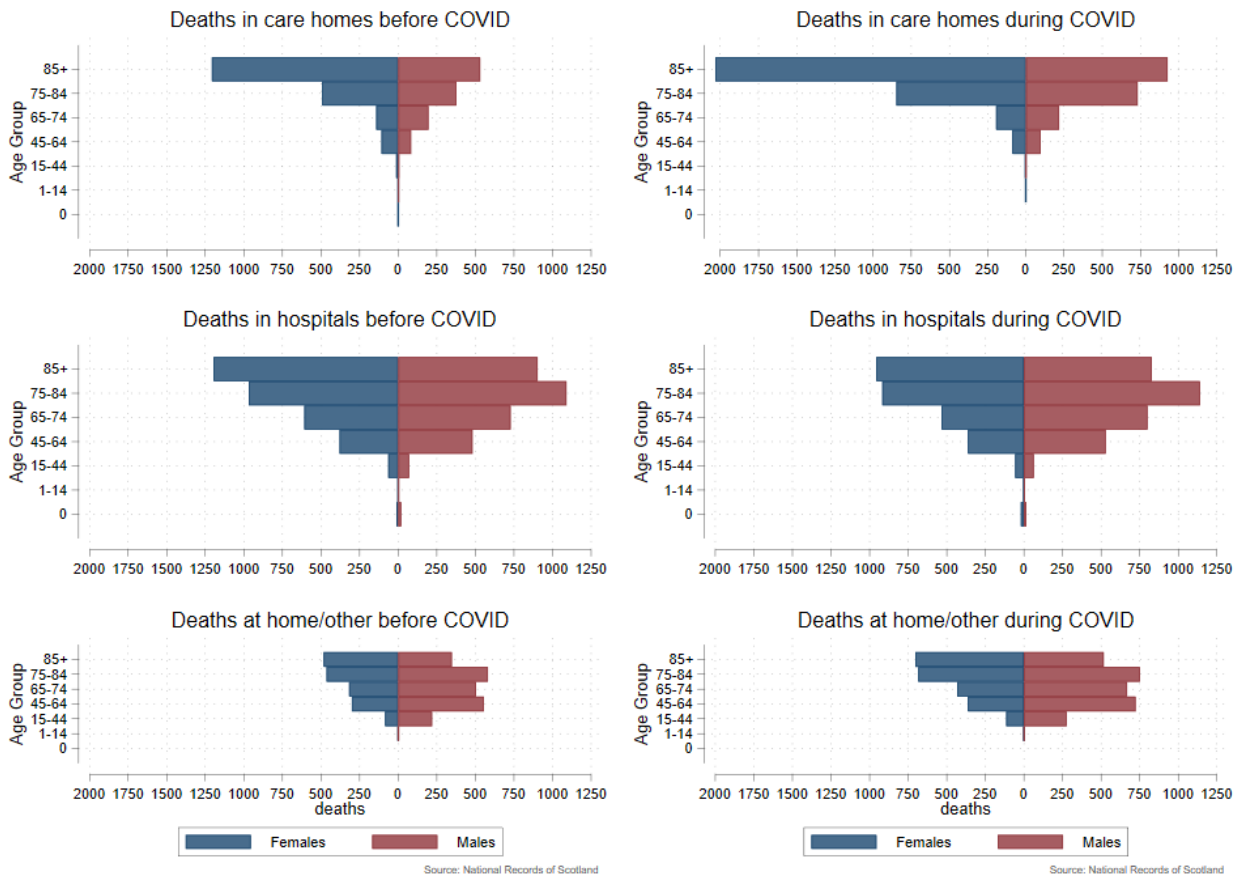
The increase in non-COVID-19 deaths is particularly marked for “home and other non-institution” settings. While deaths in care homes have understandably been given considerable attention in recent weeks, these excess deaths in other settings have largely been overlooked. There appear to have been 1,320 extra non-COVID-19 deaths in other settings, compared with 616 extra deaths in care homes.

Another visualisation of the pattern of excess deaths partitions the data for 2020 into two equal periods - weeks 1-11 and weeks 12-22. Coronavirus deaths were absent in the first period, but all too evident during the second period. Data from National Records of Scotland suggests that one would expect, on average, there to be 15 per cent *more* deaths in the first 11 weeks of the year compared with the subsequent 11 weeks due to the first period including winter months. We define the first 11 weeks of 2020 as “Before COVID” and the subsequent 11 weeks as “During COVID”. Figure 11 shows how different the distribution of deaths by age, gender and location of death between these two periods has been. As with Figure 10, it shows all deaths, not just those where a coronavirus diagnosis was confirmed. Casual inspection shows, as with Figure 10, that there has clearly been a substantial increase in deaths during the COVID period.

The most striking comparison is in the number of deaths of women aged 85+ in care homes which increased from 1250 in the first 11 weeks of 2020 to around 2000 in the second 11 weeks. There were also significant increases for men in the same age group and for both sexes among those aged 75-84. The changes in hospital deaths were much less dramatic, and for some age groups were lower during the first 11 weeks of coronavirus. This reflects the decline in deaths for non-COVID reasons and the increase in COVID deaths that has been discussed in relation to Figure 10. Deaths in “home/other” locations also increased substantially after the pandemic began. This increase was less age and gender specific than was the case with care homes, with substantial increases in deaths occurring at most ages and both for men and women.



**Figure 11: Deaths in Scotland in Weeks 1-11 (left hand side) and 12-22 (right hand side) by age, gender and location of death**



Source: National Records of Scotland, 3<sup>rd</sup> June 2020 release<sup>19</sup>

Compared with weeks 1-11 of 2020, deaths in hospitals between weeks 12 and 22 fell by 4 per cent because increases in COVID-related mortality was offset by reduction in non-COVID deaths. But deaths in care home increased by 63 per cent while those occurring outside hospitals and care homes increased by 36 per cent.

Explanation of these findings awaits more detailed analysis of the mortality data. It will be interesting to see whether mortality rates among those receiving social care at home have increased during the COVID-19 outbreak for reasons other than infection by the virus.

<sup>19</sup> Available [here](#). Weekly deaths by location of death, age group, sex and cause, 2020.

## 8. Care in the community

In 2017 (the most up to date figure available), a total of 59,640 individuals were receiving Home Care services i.e. care to help a person live at home independently<sup>20</sup>. Many more were receiving telecare services, meals services and other forms of support. Of those individuals receiving Home Care services, around 47,070 were aged 65+ and receiving personal care in their homes<sup>21</sup>. Personal care involves care with daily tasks such as washing, dressing and toileting. Many of these older clients may have been at increased risk of contracting the virus due to their age and likelihood of existing health conditions.

Two significant challenges are presented when trying to understand the impact of COVID-19 on individuals in Scotland who are currently receiving LTC services at home. Firstly, the data that are available on the number of registered clients receiving such services are significantly out of date. Secondly, there is no information available on how many service users or staff have contracted, been tested, been admitted to hospital or died from COVID-19.

---

<sup>20</sup> Available [here](#).

<sup>21</sup> Available [here](#).

## 9. Summary table

This table summarizes the data presented in the report, compared to data that would ideally be needed to monitor the scale of infections and mortality among care home residents and staff and that can be directly or indirectly attributed to COVID-19.

*Please state the source and any calculations used to generate these data (ideally using footnotes) and mark as “not found” any data that is not publicly available in your country yet. In some countries it may make sense to do this separately for different States or Regions. If data is available by age group and gender, please include the breakdowns.*

*If the definition of services used for some of the data does not match the definition used to describe services, please explain the differences.*

*Please provide the date in which the data were reported.*

	<b>How many people have been tested for COVID in your country?</b>	As of 3 <sup>rd</sup> June 2020: 118,573 people in Scotland have been tested for COVID-19. <sup>22</sup>
	<b>How many have tested positive?</b>	As of 3 <sup>rd</sup> June 2020: 15,504 tests were positive <sup>23</sup> (equivalent to 13%).
	<b>How many people died for whom COVID was mentioned in the death register even if they did not have a positive test?</b>	<p>Weeks 1-22: 3,911 total deaths where COVID-19 was mentioned on the death register.<sup>24</sup></p> <p><b>Breakdowns:</b><sup>25</sup></p> <p><b>Age:</b></p> <p>Aged 15-44: 24 (0.6%)  Aged 45-64: 325 (8.3%)  Aged 65-74: 573 (14.7%)  Aged 75-84: 1,307 (33.4%)  Aged 85+: 1,682 (43%)</p> <p><b>Gender:</b></p> <p>Females: 1,950 (50%)  Males: 1,961 (50%)</p> <p><b>Age and gender:</b></p> <p>Aged 15-44: F 12 (0.6%); M 12 (0.6%)  Aged 45-64: F 114 (5.8%); M 211 (10.8%)  Aged 65-74: F 213 (10.9%); M 360 (18.4%)</p>

<sup>22</sup> Available [here](#).

<sup>23</sup> Available [here](#).

<sup>24</sup> Available [here](#). Data and Charts > Table 1.

<sup>25</sup> Available [here](#). Weekly deaths by location of death, age group, sex and cause, 2020.

		Aged 75-84: F 590 (30.3%); M 717 (36.6%) Aged 85+: F 1,021 (52.4%); M 661 (33.7%)
	<b>What has been the excess mortality in your country during the period of the COVID pandemic?</b>	Excess mortality calculated as the difference between total deaths in weeks <b>12-22</b> 2020 and weeks 12-22 5 year average (2015-2019): $16635^{26}-11831^{27} = 4,804$ <b>Breakdown by age and gender:</b> <b>Gender:</b> Females: $8328^{28} - 6038^{29} = 2,290$ Males: $8307 - 5792 = 2,515$ (sources as female calculation) <b>Age:</b> Aged 0-14: $52 - 54 = -2$ Aged 15-44: $523 - 455 = 68$ Aged 45-64: $2167 - 1718 = 449$ Aged 65-74: $2850 - 2226 = 624$ Aged 75-84: $5075 - 3484 = 1,591$ Aged 85+: $5968 - 3895 = 2,073$

		<b>Residents</b>	<b>Staff</b>
	<b>How are care homes defined in the official mortality statistics in your country?</b>	Public Health Scotland maintain a publicly available list of institutions across Scotland and each has an institution code. The National Records of Scotland then assign these codes to the place of death on each death record. The NRS 'care home' statistics used throughout this document use the following codes to define care homes: Joint user hospitals (J), Contractual hospitals (K), Homes for the elderly (R), Other homes (S), Miscellaneous premises (T), Care homes (U), and Private nursing homes/hospitals (V).	

<sup>26</sup> Available [here](#). Data and Charts > Table 2.

<sup>27</sup> Available [here](#). Weekly deaths by location of death, age group and sex, 2015 to 2019.

<sup>28</sup> Available [here](#). Weekly deaths by location of death, age group and sex, 2015 to 2019.

<sup>29</sup> Available [here](#). Weekly deaths by location of death, age group, sex and cause, 2020.

<p><b>What is the total number of people who live in care homes (as per the definition of care homes used in the official mortality data in your country)</b></p> <p><b>And how many staff work there?</b></p>	<p>40,969 registered places (2020)<sup>30</sup>  40,926 registered places (2017)<sup>31</sup>  35,989 care home residents (2017)<sup>32</sup>  32,691 care home residents in care homes for older people (2017)<sup>33</sup></p>	<p>53,500 staff (2018)<sup>34</sup></p>
<p><b>What is the age and gender breakdown of care home residents?</b></p>	<p>68% female, 32% male (2017)<sup>35</sup></p>	<p>N.A.</p>
<p><b>Numbers of tests carried out in care homes in your country</b></p>	<p>Not found but:  As of 2<sup>nd</sup> June 2020 3,641 tests were carried out by NHS Scotland in hospitals, care homes or the community (of a total of 178,821 COVID-19 tests through NHS labs to date).<sup>36</sup></p>	<p>Not found but:  As of June 2<sup>nd</sup> at least 39,372 key workers or symptomatic family members had been tested through NHS laboratories. Of those tested approximately 38% were social care staff. No data are available on how many of those were care home staff<sup>37</sup>.</p>
<p><b>Number of tests carried out in whole country on the same date (to calculate %)</b></p>	<p>As of 2<sup>nd</sup> June 2020: 178,821 tests were carried out by NHS labs in Scotland<sup>38</sup>.  As of 2<sup>nd</sup> June 2020: 61,770 COVID-19 tests had been carried in Regional Testing Centres<sup>39</sup>.</p>	
<p><b>Number of care home residents and staff who tested positive for COVID-19</b></p>	<p>Not found</p>	<p>Not found</p>

<sup>30</sup> Available [here](#).

<sup>31</sup> Available [here](#). Care Home Census – tables > Table 1.

<sup>32</sup> Available [here](#). Care Home Census – tables > Table 1.

<sup>33</sup> Available [here](#). Care Home Census – tables > Table 3.

<sup>34</sup> Available [here](#). All charts and tables > Sheet (6) Care homes for adults: staff by service type and employer type, 2018

<sup>35</sup> Available [here](#). Care Home Census – tables > Table 9.

<sup>36</sup> Available [here](#). Testing bullet point.

<sup>37</sup> Available [here](#). Testing bullet point.

<sup>38</sup> Available [here](#). Trends in daily COVID-19 data > Table 5.

<sup>39</sup> Available [here](#). Trends in daily COVID-19 data > Table 5.

<b>Number of people who tested positive in your country to the same date (to calculate %)</b>	As of 3 <sup>rd</sup> June 2020: 15,504 tests were positive <sup>40</sup> . (Share of positives = $(15504/118573)*100 = 13\%$ )	
<b>Number of care homes that have experienced outbreaks (compared to total number of care homes)</b>	As of 2 <sup>nd</sup> June 2020: 668 care homes had reported at least one case of suspected COVID-19 <sup>41</sup> .  As at 30 <sup>th</sup> April 2020: Total number of adult care homes = 1,082 <sup>42</sup>  As at 30 <sup>th</sup> April 2020: Total number of adult care homes for older people = 815 <sup>43</sup> .	
<b>Number of care home residents transferred to hospital due to suspected or confirmed COVID</b>	Not found.	N.A.
<b>Number of care home residents who died in hospital, deaths linked to COVID-19</b>	As of Week 20, 154 care home residents were reported to have died in hospital with COVID-19, confirmed or suspected, was mentioned on the death certificate either as the underlying cause or as a contributory cause <sup>44</sup> .	N.A.
<b>Number of care home residents and staff who died and tested positive (before or after death) for COVID-19</b>	Not found.	
<b>Number of people who died in the care home, and tested positive for COVID-19</b>	Not found.	N.A.
<b>Number of care home residents and staff who died from suspected/probable COVID-19 (in the home or in hospital or other place)</b>	As of Week 20, 1,777 care home residents were reported to have died with COVID-19, confirmed or suspected, was mentioned on the death certificate either as the underlying cause or as a contributory cause. Of those, 154 deaths occurred in hospital and	Not found

<sup>40</sup> Available [here](#).

<sup>41</sup> Available [here](#). Trends in daily COVID-19 data > Table 7a.

<sup>42</sup> Available [here](#). Datastore (as at 30<sup>th</sup> April 2020) Excel with Pivots > Regulatory Summary)

<sup>43</sup> Available [here](#). Datastore (as at 30<sup>th</sup> April 2020) Excel with Pivots > Regulatory Summary)

<sup>44</sup> Available [here](#). Deaths of care home residents involving COVID-19.

		1,623 occurred in the care home <sup>45</sup> .	
	<b>Number of people who died IN the care home from suspected/probable COVID-19</b>	<p>Weeks 1-22: 1,818 people have died in the care home where COVID-19 was mentioned on the death certificate<sup>46</sup>.</p> <p><b>Breakdowns<sup>47</sup>:</b></p> <p><b>Age:</b>  45-64: 29  65-74: 129  75-84: 585  85+: 1075</p> <p><b>Gender:</b>  Female: 1,087 (60%)  Male: 731 (40%)</p>	N.A.
	<b>Number of people who died with suspected/probable COVID-19 in the whole country on the same date (to calculate %)</b>	<p>Weeks 1-22: 3,911 total deaths where COVID-19 was mentioned on the death register. <sup>48</sup></p> <p>Share of COVID-19 deaths that are care home COVID-19 deaths:  <math>(1818/3911)*100= 46\%</math></p> <p><b>Breakdowns<sup>49</sup>:</b></p> <p><b>Age:</b>  15-44: 24  45-64: 325  65-74: 573  75-84: 1307  85+: 1682</p> <p><b>Gender:</b>  Female: 1,950 (50%)  Male: 1,961 (50%)</p>	
	<b>Number of excess deaths in care homes compared to</b>	Excess care home deaths calculated as the difference between total care home deaths	N.A.

<sup>45</sup> Available [here](#). Deaths of care home residents involving COVID-19.

<sup>46</sup> Available [here](#). Data and Charts > Table 1.

<sup>47</sup> Available here. Weekly deaths by location of death, age group, sex and cause, 2020.

<sup>48</sup> Available [here](#). Data and Charts > Table 2.

<sup>49</sup> Available here. Weekly deaths by location of death, age group, sex and cause, 2020.

	<p>same time period in previous years</p>	<p>weeks 1-22 in 2020 and weeks 1-22 5 year average (2015-2019) deaths in care homes:</p> <p>8320<sup>50</sup>-6142<sup>51</sup> = 2,178</p> <p><b>Breakdowns:</b>  <b>Age:</b>  Aged 0-14: 8 – 6 = -2  Aged 15-44: 31 – 45= 14  Aged 45-64: 378 – 345=33  Aged 65-74: 752 – 625=127  Aged 75-84: 2451 – 1654=797  Aged 85+: 4700 – 3466=1,234  <b>Gender:</b>  Female: 5143 – 3945 = 1,198  Male: 3177 – 2200 = 977</p>	
	<p>Number of excess deaths of care home residents, compared to same period in previous years</p>	<p>Not found</p>	
	<p>Number of excess deaths in the whole population compared to previous years on the same date (to calculate %)</p>	<p>Excess deaths in the whole population calculated as the difference between total deaths in weeks 1-22 in 2020 and 1-22weeks 5 year average (2015-2019) total deaths:</p> <p>30204<sup>52</sup> –25967<sup>53</sup> = 4,237</p> <p><b>Breakdowns:</b>  <b>Age:</b>  Aged 0-14: 106 – 117 = -11  Aged 15-44: 984 – 936 =48  Aged 45-64: 4077 – 3646 = 431  Aged 65-74: 5348 – 4751 =597  Aged 75-84: 9051 – 7697 = 1,354  Aged 85+: 10638 – 8822 = 1,816  <b>Gender:</b>  Females: 15194 – 13459 = 1,735</p>	

<sup>50</sup> Available [here](#). Data and Charts > Table 2.

<sup>51</sup> Available [here](#). Deaths by week and location 2015-2019.

<sup>52</sup> Available [here](#). Data and Charts > Table 2.

<sup>53</sup> Available [here](#). Deaths by week and location 2015-2019.



		Males: 15010 – 12509 = 2,501	
--	--	------------------------------	--

	Service users	Staff
<b>How are community-based long-term care services defined in your country? (please list type of services included)</b>	Community based LTC services in Scotland cover services provided in a persons own home to help them maintain their independence. These services include home care, personal care, meals services, tele care services, self directed support (SDS) and housing support <sup>54</sup> .	
<b>Number of people who use and provide community-based care</b>	<p>In March 2017<sup>55</sup>:</p> <ul style="list-style-type: none"> <li>• 59,640 people in Scotland receiving Home Care services.</li> <li>• 48,800 of those receiving Home Care were aged 65+.</li> <li>• 6,390 people were receiving Meals services</li> <li>• 18,940 people were recorded as receiving Housing Support</li> </ul> <p>In the financial year 2016-17<sup>56</sup>:</p> <ul style="list-style-type: none"> <li>• 128,750 people received Community Alarms and/or Telecare services.</li> <li>• 111,270 of those with a Community Alarm and/or other Telecare services were aged 65+.</li> <li>• 8,290 people were in receipt of Direct Payments (SDS Option 1)</li> <li>• 3,240 of those in receipt of Direct Payments were people aged 65+.</li> </ul> <p>In 2018, there were 2,067 providers of housing support and care at home. Of those,</p>	

<sup>54</sup> More information at Care Information Scotland [here](#).

<sup>55</sup> Available [here](#).

<sup>56</sup> Available [here](#).

	320 were public providers, 612 were private providers and 1135 were voluntary providers <sup>57</sup> .	In 2018, there were 71,350 staff working for providers of housing support and care at home. Of those, 19,580 worked for public providers, 18,770 worked for private providers and 33,000 worked for voluntary providers <sup>58</sup> .
<b>Number of users of community-based care (home care, day care, etc) and staff who have been tested for COVID</b>	Not found	Not found
<b>Number of users and staff who have had a positive test</b>	Not found	Not found
<b>Number of users and staff who have died with confirmed COVID infection</b>	Not found	Not found
<b>Number of users and staff who have died from suspected/probable COVID infection</b>	Not found	Not found
<b>Excess deaths among users or staff</b>	Not found	Not found

<sup>57</sup> Available [here](#). All charts and tables > Sheet (12) Housing support/care at home: services by service type and employer type, 2018

<sup>58</sup> Available [here](#). All charts and tables > Sheet (13) Housing support/care at home: staff by service type and employer type, 2018