

## DATA INSIGHTS

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# Were people who died at home less likely to attend hospital at the end of life during the Covid pandemic?

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## OVERVIEW

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Previous SCADR analysis has demonstrated that deaths at home increased by over a third during the Covid-19 pandemic in Scotland. This increase continues as of January 2023. What is unclear is how and to what degree patterns of hospitalisation changed. Our current work is asking whether people approaching the end of life were less likely to go to hospital.

## WHAT WE DID

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After discovering a large increase in deaths at home in Scotland during the Covid-19 pandemic, we applied to analyse linked death records held by National Records Scotland and health service data held by Public Health Scotland, including inpatient hospital records. This data linkage enabled analysis of hospitalisations for people in their final year of life.

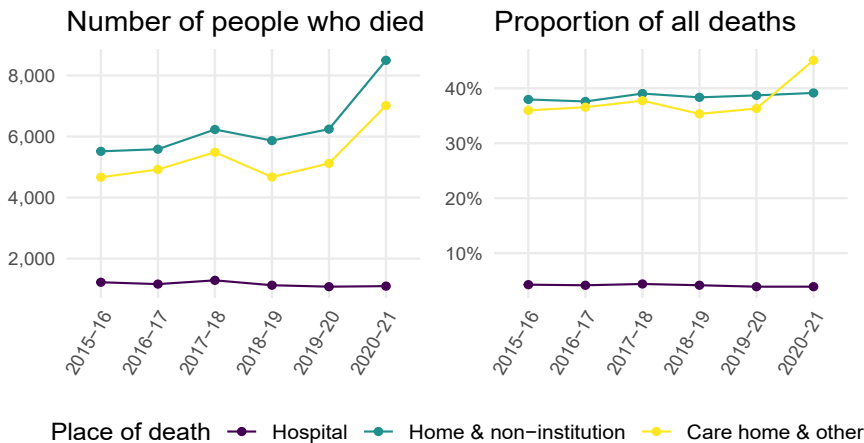
In this study we are comparing health service use differences, between the first year of the pandemic period (23rd March 2020 to 22nd March 2021) and the pre-pandemic period (23rd March 2015 to 22nd March 2020). The current work involves using descriptive statistics to summarise service use by people. We look separately at deaths in a hospital, in a care home, or at home (or another non-institutional setting, for example those in a road accident ) because changes in one place of death might help explain changes in other places.

## WHAT WE FOUND

Using Figure 1 below, we found that:

- The number of people who died at home or in a care home and who had no hospital admissions in the last 12 months of life increased during the pandemic period.
- There were approximately 2,200 more people who died at home and had no hospital admissions, and just under 2,000 more people who died in care homes without hospital admissions before death.

People without hospital admissions in their last 12 months of life



- However, the total number of people who died at home, whether they had any hospitalisations or not, also increased by over 5,000. As a result, the proportion of those people who had no hospital admission in the last 12 months before death changed very little – it increased from 38.7% in 2019-2020 to 39.1% in the first year of the pandemic. This means that both the number of people who had hospital admissions and those who did not, increased during the pandemic and their proportion remained similar during the pandemic (1).
- In contrast, the proportion of people who died in care homes and had no hospital admissions before death did increase – from 36.3% in 2019-2020 to 45.0% in the first pandemic year.
- We also found that people who died during the pandemic stayed in hospital for a shorter amount of time during the pandemic. For those who died at home, the average length of stay decreased by just over half a day to 23 and a half days' stay on average. People who died in hospital stayed 5 days fewer on average for a total of just over 34 days, and those who died in care homes stayed just under 2 days less for a total of 40 and a half days on average.

In conclusion, both the number of people who died at home with or without having had any hospital admissions in the last 12 months of life increased during the pandemic.

However, their relative proportion remained very similar: they were not less likely to attend hospital on average. People who died during the first year of the pandemic spent less time in hospital on average, probably due to the pressures of the Covid pandemic and due to the larger number of people who had hospital admissions overall.

(1) Note that the proportion of people who died in hospital and who had a hospital admission is not 100% each year, implying there were people who died in hospital but weren't admitted. This is due to the way the data were coded, where hospitals include certain hospices. In other words, a person might have died in a hospice without having had any hospital admissions, but they would have been coded as having died in a hospital.

## WHY IT MATTERS

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Our study investigating service use in the last year of life during the pandemic provides insights into how the pandemic affected the services provided by the NHS and how it changed where people died. This is important for future planning of services, policy, and adapting to the increased number of people who died at home which has remained at an elevated level into 2023.

By using administrative data we are able to look at the entirety of the population of people who died before and during the first year of the pandemic, and access information about their hospitalisations and other health services.

## WHAT NEXT?

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The study is ongoing and the next steps will include analysing the other health services used such as A&E, ambulance, prescriptions and out-of-hours GP visits. Eventually we will use regression modelling to test what factors were most strongly associated to dying at home during the pandemic.

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