



England: Estimates of mortality of care home residents linked to the COVID-19 pandemic

Adelina Comas-Herrera and Jose-Luis Fernández

Last updated 12 May 2020

Authors

Adelina Comas-Herrera and Jose-Luis Fernandez, [Care Policy and Evaluation Centre](#), Department of Health Policy, London School of Economics and Political Science.

Itccovid.org

This document is available through the website Itccovid.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 a.comas@lse.ac.uk. This document was last updated on 12 May 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

Comas-Herrera A and Fernandez J-L (2020) *England: Estimates of mortality of care home residents linked to the COVID-19 pandemic*. Report available at LTCCovid.org, International Long-Term Care Policy Network, CPEC-LSE, 12 May 2020.

Follow us on Twitter

@adelinacohe, @joselele, @cpec_LSE, @LTCCovid

1. Key findings:

- Data on deaths in care homes directly attributed to COVID-19 underestimate the impact of the pandemic on care home residents, as they do not take account of indirect mortality effects of the pandemic and/or because of problems with the identification of the disease as the cause of death.
- Data on registered COVID-19 deaths in care homes in England and Wales only accounts for an estimated 41.6% of all excess deaths in care homes.
- Not all care home residents die in care homes, (according to CQC data, 15% of all deaths of care home residents are found to happen in hospitals). Deaths of care home residents in hospitals are not currently accounted for in publicly available estimates of the number of deaths in care homes linked to the pandemic.
- Calculating total excess mortality in care homes since 28th December (19,038, 46% of all excess mortality in England and Wales), and adjusting this by the assumption that 15% of care home residents die in hospital, suggests that by the 1st May there had been in excess of 22,000 deaths of care home residents during the COVID-19 pandemic (54% of all excess mortality) in England and Wales.

2. Introduction

This document sets out the information currently publicly available about the impact of COVID-19 on people who live and work in care homes, with a particular focus on mortality. There is still relatively little information to assess the full impact of the COVID-19 pandemic on people who live and work in care homes.

This document will be updated and expanded as new data becomes publicly available.
Comments on how to improve these estimates are welcome, please email a.comas@lse.ac.uk.

3. Estimating excess mortality among care home residents

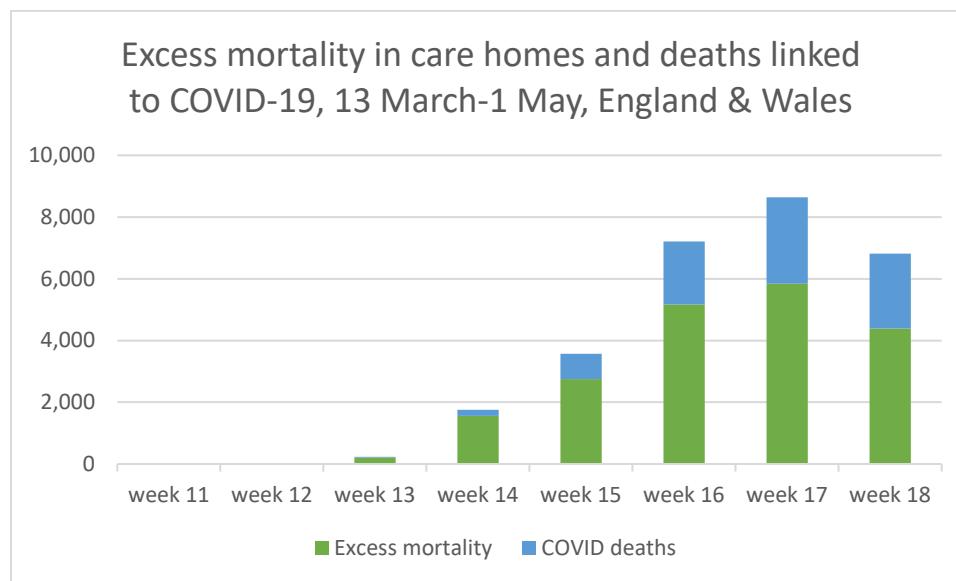
Measuring the number of deaths confirmed or suspected to be linked to COVID-19 requires a test to ascertain whether the person had the virus at the time of death, or a statement from the person reporting the death linking it to the virus. However, the impact on mortality of COVID-19 will include indirect as well as direct effects, and not all deaths directly linked to COVID-19 will be identified and recorded as such (for instance in death certificates). This is why it is important to also calculate “excess mortality” estimates for COVID-19, including among care home residents. Excess mortality represents the difference between the number of deaths in a given group that have happened during the pandemic, compared to the average number of deaths in previous years during the same period.

Examples of indirect causes of deaths linked to the pandemic would include cases in which people did not seek or receive medical care for other health conditions as a result of fear of

contracting the disease, a concern not to over-burden the National Health Service, or lack of access to care that would be normally provided. A recent letter to the Journal of America Medical Director suggests that many deaths in a French care home¹ affected by COVID-19 appeared to be linked to the consequences of residents being isolated in their rooms, without adequate eating, drinking or medical support, and not to the virus itself.

The figure below shows the difference between the excess mortality in care homes in England and Wales between the 13th of March and the 1st of May, and the number of deaths in care homes registered as linked to COVID-19, based on data from the ONS. During that period, there were 19,938 “excess deaths” in care homes (compared to the average number of deaths for the same weeks in the previous 5 years), and 8,310 deaths linked to COVID-19. COVID-19 deaths only accounted for 41.6% of all excess deaths in that period.

Figure 1. Excess mortality in care homes in England and Wales, compared to the number of deaths in care homes attributed to COVID-19.



Source: own calculation based on data from the ONS²

The table below sets out the information that would ideally be needed at national level to monitor the scale of infections and mortality among care home residents and staff and that can

¹ [https://www.jamda.com/article/S1525-8610\(20\)30354-6/pdf](https://www.jamda.com/article/S1525-8610(20)30354-6/pdf)

²

<https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/deathsregisteredweeklyinenglandandwalesprovisional/weekending1may2020> and
[https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/adhocs/11622fiveyearaverageweeksbyplaceofdeathenglandandwalesdeathsoccurringbetween2015and2019](https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/adhocs/11622fiveyearaverageweeklydeathsbyplaceofdeathenglandandwalesdeathsoccurringbetween2015and2019)

be directly or indirectly attributed to COVID-19. Where information has been found, details of the source and the calculations carried out are in the next section.

		Residents	Staff
1	Numbers of tests carried out in care homes in your country	<i>Not found</i>	<i>Not found</i>
2	Number of care home residents and staff who tested positive for COVID-19	<i>Not found</i>	<i>Not found</i>
3	Number of care homes that have experienced outbreaks	5,117 out of the 15,517 care homes in England (33%) had reported confirmed or suspected outbreaks of COVID-19 in care homes to Public Health England by 27 th April	N.A.
4	Number of care home residents transferred to hospital due to suspected or confirmed COVID	<i>Not found</i>	<i>N.A. (although data on care home staff admitted to hospital would be of interest too)</i>
5	Number of care home residents who died in hospital, deaths linked to COVID-19	2,665 (CQC: 10 April to 8 May), 24% of all care home resident deaths linked to COVID-19 happened in hospital	N.A.
6	Number of care home residents and staff who died and tested positive (before or after death) for COVID-19	<i>Not found</i>	<i>Not found</i>
7	Number of people who died in the care home, and tested positive for COVID-19	<i>Not found</i>	N.A.
8	Number of care home residents and staff who died from suspected/probable COVID-19	12,185 (CQC: 10 April to 8 May)	131 across all social care sector (up to 20 th April, includes home care staff)
9	Number of people who died in the care home from suspected/probable COVID-19	8,209 (CQC: 10 April to 8 May) or 7,903 (ONS: 28 Dec to 1 May)	N.A.
10	Number of excess deaths in care homes compared to same time period in previous years	19,038 (ONS, England & Wales): 46% of all excess mortality	N.A.

11	Number of excess deaths of care home residents, compared to same period in previous years	22,398 (see calculations): 54% of all excess mortality	N.A.
12	How are care homes defined in the official mortality statistics in your country?	Definition from CQC ³ : A care home is a place where personal care and accommodation are provided together. People may live in the service for short or long periods. For many people, it is their sole place of residence and so it becomes their home, although they do not legally own or rent it. Both the care that people receive and the premises are regulated. Examples: Residential home, rest home, convalescent home, respite care, mental health crisis house, therapeutic communities, nursing home	
13	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) And how many staff work there?	Data from CQC reported by the BBC: 411,000 people living in care homes in England and Wales ⁴	Data from Skills for care: in 2019 there were 685,000 jobs in residential adult social care settings ⁵

4. Sources and calculations:

This section provides details of the sources and calculations used to complete the table above, each number corresponds to the rows of the table for which we have some data:

3. Number of care homes that have experienced outbreaks

<https://www.gov.uk/government/statistical-data-sets/covid-19-number-of-outbreaks-in-care-homes-management-information>

5. Number of care home residents who died in hospital, death linked to COVID-19

CQC:

<https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/datasets/numberofdeathsincarehomesnotifiedtothecarequalitycommissionengland> (table 4)

CQC provides data on the deaths of people who were residents in a care home that were notified to them. From their data published on Table 4, excluding those for whom the place of death was not stated, of all deaths, on weeks 16, 17, 18 and 19 on average 15% of all deaths of care home residents happened in hospitals and 84% in care homes (1% elsewhere). Of all COVID-19 related deaths, 24% happened in hospitals, 75% in care homes and 1% elsewhere.

³ <https://www.cqc.org.uk/guidance-providers/regulations-enforcement/service-types#care-homes-nursing>

⁴ <https://www.bbc.co.uk/news/health-52284281>

⁵ <https://www.skillsforcare.org.uk/adult-social-care-workforce-data/Workforce-intelligence/documents/Size-of-the-adult-social-care-sector/Size-and-Structure-2019.pdf>

8. Number of care home residents and staff who died from suspected/probable COVID-19:

For residents:

<https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/datasets/numberofdeathsincarehomesnotifiedtothecarequalitycommissionengland> (table 4)

For staff:

Analysis of the deaths of people of working age population until the 20th April in England and Wales by the Office for National Statistics⁶ found that people working in the social care sector had significantly higher death rates. There had been a total 131 (45 males and 86 females) deaths involving COVID-19, with rates of 23.4 deaths per 100,000 males (compared to 9.9 per 100,000) and 9.6 deaths per 100,000 females (compared to 5.2 deaths per 100,000). In contrast, the analysis did not find statistically higher rates of deaths among healthcare workers. The data published did not distinguish between social care staff working in care homes or in the community.

<https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/causesofdeath/bulletins/coronaviruscovid19relateddeathsbyoccupationenglandandwales/deathsregistereduptoandincluding20april2020>

9. Number of people who died in the care home from suspected/probable COVID-19:

CQC

<https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/datasets/numberofdeathsincarehomesnotifiedtothecarequalitycommissionengland> (table 4)

ONS

<https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/datasets/weeklyprovisionalfiguresondeathsregisteredinenglandandwales>

10. Number of excess deaths in care homes compared to same time period in previous years:

<https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/deathsregisteredweeklyinenglandandwalesprovisional/weekending1may2020> for total deaths and deaths by place of occurrence up to 1st May 2020, according to this, 63,987 people died in care homes in England and Wales and 61,039 in England.

<https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/adhocs/11622fiveyearaverageweeklydeathsbyplaceofdeathenglandandwalesdeathsoccurringbetween2015and2019> for average number of deaths per week and place of occurrence, for previous 5 years in England and Wales (we have not found equivalent data for England). According to this source, total deaths in care homes up to week 18 were 44,949.

<https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/deathsregisteredweeklyinenglandandwalesprovisional/weekending1may2020> for total

6

excess mortality up to the 1st of May 2020 (week 18): total deaths in England and Wales were 247,251, and this was 41,627 higher than the 5 year average for the same time of the year.

Calculation: Excess mortality in care homes in England and Wales up to week 18 would be 19,038 (the difference between 63,987 and 44,949). This is 45.7% of total excess mortality in England and Wales (41,627).

11. Number of excess deaths of care home residents, compared to same period in previous years:

Using the estimate from CQC that 85% of all deaths of care home residents for whom place of death is stated happened in care homes (see number 5 for source) and applying this to all the excess deaths **in** care homes from the ONS (19,038 as calculated in number 10), suggests that there were 22,398 excess deaths of care home residents in total in England and Wales, up to the 1st of May. This would represent 53.8% of all excess deaths in England and Wales.

5. Caveats

The calculations above used the best publicly available data that the authors could find for England. However, the authors could not find data on the numbers of people who died in care homes in England in previous year, only for England and Wales, therefore the excess mortality data reported here is for England and Wales, whereas the estimate of the % of deaths of care home residents that happen in hospital is based on data for England only.

The data on share of deaths of care home residents that happen in hospitals obtained from CQC has a substantial number of deaths of care home residents (13% of the total) where the place of deaths is “not stated”, this suggests that the assumption that 15% of all deaths of care home residents die in hospital should be treated with caution. The authors consider it likely that the share of deaths in hospital may be higher.

The authors have not been able to contrast the approach they have used to estimate excess mortality in care homes with the methodology the ONS uses to estimate excess mortality in the population and like to encourage ONS to publish their own estimates of excess mortality in care homes.