NIHR | Policy Research Unit Older People and Frailty

NIHR | Policy Research Unit Healthy ageing

Frailty, receipt of care and hospital admissions due to falls and fractures.

Wednesday 13th March 2024

Session Presentations:

- Understanding frailty and its distribution in England. (Dr David Sinclair)
- Care receipt, unmet need for care and frailty: a longitudinal analysis with multistate models. (Dr David Sinclair)
- The effects of levels of frailty and receipt of care on unplanned admissions due to falls and fractures. (Dr Asri Maharani)
- A prospective analysis examining frailty remission and the association with future falls risk in older adults in England. (Dr Katie Davies)

Related reports and publications:

Using individual and neighbourhood profiles and trends to understand frailty with nationally representative population data: Frailty among older adults and its distribution in England (February 2020) – Executive Summary, Full Report

Using individual and neighbourhood profiles and trends to understand frailty with nationally representative population data: Frailty and receipt for care in England (June 2020) – Executive Summary, Briefing Report, Full Report

Sinclair et al (2021), **Frailty among Older Adults and Its Distribution in England** (The Journal of Frailty & Aging) DOI: 10.14283/jfa.2021.55

Maharani et al (2023), **Household wealth, neighbourhood deprivation and frailty amongst middle-aged and older adults in England: a longitudinal analysis over 15 years** (2002–2017) (Age and Ageing) DOI: 10.1093/ageing/afad034

Davies et al (2023) **A prospective analysis examining frailty remission and the association with future falls risk in older adults in England** (Age and Ageing) doi.org/10.1093/ageing/afad003

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Webinar Questions and Answers

Q. In your slide I see that people can move both ways into and out of frailty and prefrail. Isn't the traditional model of frailty one way? Once someone becomes frail, they cannot become "unfrail"?

This helpful response was provided in the chat:

It is generally accepted that mild-moderate frailty is recoverable, but not severe frailty (or at least very unlikely). See the community currencies work by NHS England: https://www.england.nhs.uk/wp-content/uploads/2021/03/21-22NT_Community-Frailty-and-Last-Year-of-Life.pdf

The presentation on frailty remission also provides a response to this question, please see publication on first page of this document, Davies et al (2023).

Q. In your reference to married people does this benefit remain if widowed or does it decline?

In this analysis we only used a simple, binary measure of married or not married. The not married category includes widows/widowers, divorcees, and people who have never been married. There is a lot of research showing the general health adavntages of being married, and that advantages decline after the end of a marriage, including widowhood. And that these changes are gender specific. See for example, The Conversation. In future research, we could take a more nuanced approach to family circumstances.

Q. Do you have any thoughts about the why there is a gender difference relating to unmet care needs/frailty link?

The gender difference may be influenced by a number of factors. For example, it may be related to the differences in healthy life expectancies between men and women. Women tend to spend a greater proportion of their lives living with poor health, while also living longer than men. Alternatively, the gender difference could be related to the perception of unmet need for care. For example, it is possible that the average man only reports an unmet need for care when his care deficit is much larger than when an average woman may report this.

Q. How does housing affect frailty levels - e.g. ownership vs social housing; condition of housing?

The measure of deprivation (English Index of Multiple Deprivation), does account for barriers to housing, but it evaluates homelessness and affordability, rather than social housing or condition of the housing.

Q What were influential factors in the distribution of the prevalence of frailty? As I can imagine that the coastal areas and urban areas may not increase the risk of becoming frail but rather those who are at pension age move to the coast for quality of life, which then might have skewed the distribution. Wonder if you have any thoughts?

There may be a selection effect in terms of who moves to coastal versus rural areas. This analysis could not address that question, as we used cross-sectional rather than longitudinal data. Deprivation is likely to play a key role. Coastal and urban areas are more deprived than rural areas, and several studies have found an association between deprivation and frailty.

Q. Do we know why those who are receiving care are more likely to see a decline in their frailty score? Do you know why the unmet needs for women doesn't affect their trajectory like men?

It is difficult to provide a definitive answer to this question from our findings. However, it might seem reasonable to suppose that asking for care, or having someone else recognise that you need care, is an indicator of declining health which in turn, may be associated with an increase in frailty.

For the question on unmet needs amongst women, please see the response to a previous question.

Q. I suppose the challenge with the deficit model is that it gives same weight to all conditions added, and in the light of care receipt it would be nice if the type of condition has effect on your model. Did you check if type of condition changes the frailty trajectory and care receipt?

This is one of the limitations of the frailty index as currently developed. It keeps it simple and flexible to construct, but does give equal weighting to say, dementia and asthma. Frailty indices are used widely and subject to extensive validation, but it is possible that an index that weighted each deficit differently could more accurately predict severe health outcomes like hospitalisation or mortality. On the other hand, a person with dementia, for example, will be more likely to have a number of other deficits (especially ones related to memory recall and instrumental activities of daily living) than a person with asthma. On this occasion, we did not check if the type of conditions in the frailty index changed the trajectories. It is an interesting question but one best suited for testing frailty indices in general.

Q. Is there any research on what is important in moving from frail to prefrail etc. I am assuming that avoiding decompensation after hospital stays etc? What are the key public health messages?

There is some research that suggests a combination of nutrition and exercise interventions can be effective in reducing frailty (see the following question). However, these studies often rely on extensive professional input, which may be difficult to provide at a population level.

The key message from our study is that people who start receiving social care are at a greater risk of imminently becoming frail. If this group can be identified, then interventions that are targeted at them may yield the largest benefit.

Q. Is there any data on interventions that support the reversal of frailty?

A. Please see our briefing paper: Which interventions are cost effective in preventing, slowing or reversing the progression of frailty?