Title

An Unprecedented Demographic Transition: Tens of Thousands of Additional Deaths among the Elderly in England and Wales, 2010-2015

Funding Statement

JM is funded by the Economic and Social Research Council [ES/K006460/1]. No other author had any specific funding. The funder had no input into any aspect of the paper, including data collection, analysis or interpretation of results.

Covering Letter

10/10/2016

Dear Sir/Madam,

Please find attached our manuscript, “An Unprecedented Demographic Transition: Tens of Thousands of Additional Deaths among the Elderly in England and Wales, 2010-2015”, for your consideration.

We believe this manuscript addresses a very important and urgent issue relating to rapidly worsening mortality trends in England & Wales, and will be of interest to your readers. Our manuscript explores and quantifies the trends in excess mortality in England and Wales by carefully estimating counter-factual mortality risks at different ages, and how they could be expected to have changed over time if trends observed up until 2010 had continued. Using this method we estimate nearly 32,000 additional deaths by the age of 89 years since 2010, with substantial worsening in mortality after 2012. We argue these estimates are conservative both because we do not include older ages, who have much higher baseline mortality risks, and because an alternative model specification, described in the appendix, estimated even higher numbers of deaths.

In a commitment to open data and reproducible research, the code used to produce the analyses are freely available from the following location:

<https://github.com/JonMinton/danny_elderly_mort/>

Although providing the above URL will identify me as an author on the paper, I would be happy for this to be shared, perhaps in an anonymised form, to any reviewer if requested.

Kind regards,

Dr Jon Minton

On behalf of all authors

“Unprecedented" would be fine if you want to go for that. All the other great rises that we have seen in mortality in the last 160 years only lasted for less than one year. They were all due to war or infectious disease outbreak. This is completely new so let’s say that.

But Mark is right - I can go out on a limb sometimes :-)

Attached is a piece going to the BMJ soon looking at the causes of death and just comparing absolute rates - no counterfactual as in this piece - so the rise is not as dramatic but we do have life expectancy falling. Its mainly written my Martin McKee and a medical stduent/doctor with me as a minor plays (as always nowadays!). Just attacking it for information and to reassure you that this thing is big. I suspect that at least a dozen other papers will be being submitted right now on this by people I don’t know about so I would get this one in soon.

I would be surprised if anyone else had thought of comparing current death rates to what we shovel have expected if the improvements and continued though.

All the best,

Danny

On 10 Oct 2016, at 09:40, Kate Pickett <[kate.pickett@york.ac.uk](mailto:kate.pickett@york.ac.uk)> wrote:

Completely unworried about author order!

Middle ground title:

An Unexpected Demographic Transition: Increased mortality among the elderly in England and Wales, 2010-2015.

Could say unprecedented instead of unexpected?

I think the main statement in the research in context bit should be about how an upswing in mortality runs counter to all previous trends since the year dot....

On 10 October 2016 at 08:53, Danny Dorling <[danny.dorling@ouce.ox.ac.uk](mailto:danny.dorling@ouce.ox.ac.uk)> wrote:

Hi Jon,

Happy with any title. Maybe make it very blunt “Tens of thousands of deaths brought forward in the England and Wales 2010-2015 - a counterfactual study” - its not a great suggestion but a title that gives the result in the title often helps.

“brought forward” is a very bad phrase but I can’t think of a better one.

Evidence before this study - there is very little published, only the BMJ piece I did mentions the 2015 deaths:

Loopstra R, Reeves A, Taylor-Robinson D, Barr B, McKee M, Stuckler D. Austerity, sanctions, and the rise of food banks in the UK. BMJ (Clinical research ed) 2015; 350: h1775.

Loopstra R, McKee M, Katikireddi SV, Taylor-Robinson D, Barr B, Stuckler D. Austerity and old-age mortality in England: a longitudinal cross-local area analysis, 2007-2013. Journal of the Royal Society of Medicine 2016; 109(3): 109-16.

Dorling D. Brexit: the decision of a divided country. BMJ (Clinical research ed) 2016; 354: i3697.

Author order fine by me - conflict of interest you could add that I am a member of "Public Health England’s Mortality Surveillance Committee” - but I don’t get access to anything that is not in the public domain.

See what the others say then submit - I am sure you/they can come up with a better title.

All the best,

Danny

On 10 Oct 2016, at 08:42, Jon Minton <[nate.minton@gmail.com](mailto:nate.minton@gmail.com)> wrote:

OK. Let's finalise some things:

1) Title?!

2) Research in context statement  - comprising - evidence before this study; added value of this study; implications of the available evidence

3) Authorship order & contributor statement. Suggest

Minton, [created model; led writing]

Green, Pickett [supported, alphabetical order - though could rotate - Pickett Green - as you've both been co-authors listed alphabetically before]

Dorling [conceived research question]

Information for authors PDF attached. If you see anything else needed just let me know.

Best wishes,

Jon

On 9 October 2016 at 16:54, Danny Dorling <[danny.dorling@ouce.ox.ac.uk](mailto:danny.dorling@ouce.ox.ac.uk)> wrote:

I agree with Kate over submitting this now. If you have space leave in the line about more sophisticated models producing less conservative results - but that will not be what clinches whether they like it.

All the best,

Danny

ps Scottish life expectancy figures have just been published for the most recent (2013-2015) three year period and show, for the first time ever, no rise in life expectancy (measured form birth) for both men and women as compared to the last set of data. In all the pervious 160 years of publication life expectancy in Scotland has always risen, at least for either men or women, normally for both.

On 8 Oct 2016, at 17:55, Kate Pickett <[kate.pickett@york.ac.uk](mailto:kate.pickett@york.ac.uk)> wrote:

Edits on attached, started before I saw Mark had sent his, so these are separate, sorry.  Have tried to save you words!

Do go ahead and submit,

All best, Kate

On 7 October 2016 at 14:18, Jon Minton <[nate.minton@gmail.com](mailto:nate.minton@gmail.com)> wrote:

Hi all,

I'd like your comments and suggested final edits on the attached. It's now under the ref limit (30 refs) but slightly over the word limit (3136 when limit 3000), mainly in the discussion section, so suggestions for a trim here very welcome.

I think it's now almost ready. Thanks for your support.

Jon

--

Dr Jon Minton

AQMEN Research Fellow,

University of Glasgow

Tel: 07866 022543

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