THE PURPOSE OF THIS CHUNK OF TIME WILL BE TO DO FURTHER WORK ON THE TCHNICAL APPENDIX FOR THE DANNY ELDER MORT PAPER. THIS APPENDIX IS IMPORTANT BECAUSE IT NEEDS TO DEMONSTRATE THAT THE MAIN PAPER’S RESULTS ARE WATERTIGHT. SOME OF THE MAIN SECTIONS TO COVER INCLUDE:

- A DESCRIPTION OF THE SIMULATION STRATEGY

- A DESCRIPTION OF THE ACTUARIAL COMPONENT

- A COMPARISON OF RESULTS USING AN ALTERNATIVE MODEL – THIS SHOULD PERHAPS BE MODEL 16, WITH DATA FIT TO 2010 AND PROJECTED FORWARDS. I SHOULD ALSO LOOK AT FITTING TO ALL YEARS WITH THIS MODEL.

IT IS IMPORTANT TO NOTE WITHIN THE REPORT THAT A SLIGHTLY DIFFERENT APPROACH WAS USED WHEN THE MODEL WITH THE HIGHEST FIT HAD LAB AS A VARIABLE: THIS WAS TO FIT TO ALL YEARS, AND TO SET LAB TO 1 FOR THE LAST FEW YEARS. IF THE MODEL WITH THE HIGHEST FIT HAD REC IN, THEN THE APPROACH WOULD BE TO SET REC TO 0 FOR THE RECENT YEARS.

I COULD ALSO CONSIDER FITTING TO YEARS 1961-2010 ONLY FOR ALL YEARS. THIS SHOULD BE A SUBSEQUENT ANALYSIS.

WHAT’S THE SLOW PART INVOLVED IN PRODUCING THE RESULTS? I THINK IT’S IN PRODUCING THE FORMATTED TABLES. IF I NEED TO PRODUCE MANY FORMATTED TABLES USING THE SAME FORMAT THEN I SHOULD AUTOMATE THIS IN R. I SHOULDN’T CONSIDER THE FACT THIS IS CURRENTLY A SLOW PROCESS TO IMPEDE THE PRODUCTION OF THESE TABLES. (I.E. I SHOULD NOT RESIST DOING THIS BASED ON HOW THINGS ARE CURRENTLY SET UP).

THERE ARE A NUMBER OF TECHNICAL THINGS THAT I MAY WANT TO CONSIDER: I GUESS I SHOULD COMBINE DOING THESE IN THE WRITING STAGE, BUT ALSO BE MINDFUL NOT TO SPEND TOO MUCH TIME ON THEM, AS THIS SHOULD MAINLY BE A WRITING ACTIVITY RATHER THAN A CODING ACTIVITY.

IT WOULD BE GOOD TO COPY OUT THE NOTES FROM DANNY AND KATE AND SO ON.

IT WOULD ALSO BE GOOD TO USE MENDELEY FOR THE REFERENCES. EVEN THE TECHNICAL DOCUMENT SHOULD BE REFERENCED

FOR MY OWN SENSE OF PROGRESS I SHOULD INCLUDE A WORD COUNT.

IT IS NOT WRONG/CHEATING TO INCORPORATE OLDER MATERIAL.

NOTES AT END OF SESSION

I GOT A BIT DISTRACTED AGAIN, BUT HOPEFULLY IN A USEFUL WAY. I AM STARTING TO DOUBT THE POLYNOMIAL MODEL. TOO MUCH OF WHAT HAPPENS IS AN ARTEFACT OF THE CURVINESS OF THE FUNCTION, I THINK. I NEED TO THINK AGAIN.

NEXT STEPS: TAKE A WALK, AND HAVE ANOTHER SESSION. WRITE MORE THIS NEXT TIME.

START OF SECOND SESSION

I’VE HAD A WALK. HAD SOME FOOD. NOT SURE I’M THAT REFRESHED BUT LET’S MAKE A GO OF THIS.

I’M STILL NOT 100% SURE ABOUT THE CORRECT MODEL APPROACH. WHAT ARE THE ISSUES TO THINK ABOUT:

- DISPARITY BETWEEN MODEL SELECTION METRICS

- BEST FIT WITHIN AGES 50-90, LESS THEREAFTER

- BUT THESE AGES ARE WHERE MOST DEATHS TEND TO OCCUR

PROJECTION FROM 2010 – SETTING OR OTHERWISE OF ADDITIONAL COVARIATES

IN THIS FOLLOWING CHUNK OF TIME I AM TO PRODUCE ESTIMATES WHERE NL IS NOT SET TO 1, USING MODEL 19; AND WHERE NL IS NOT SET TO 1, AND WHERE REC IS SET TO 1, USING MODEL 25.

I SHOULD ALSO LOOK FOR STRATEGIES FOR MODELLING DECLINING AGE-SPECIFIC MORTALITY OVER TIME

IT LOOKS LIKE SOMETHING ELSE TO CONSIDER IS JOINPOINT ANALYSIS. LOOK USING SEGMENTED PACKAGE.

Note from Danny:

Hi Jon,

Possibly the way to go is a completely separate technical appendix. Than only a very short description, not unlike what you have put below is needed. 99.78% of readers will trust it was done honestly and well (I estimate!)

Turning to the main points:

1. Now around 80,000 excess deaths instead of 30-40k.

This is good - it fits the shock of 2015 better and so far 2016 is looking almost as bad and it better reflects the actual magnitude of the slowdown in improvement as far as I see it (with no modelling, just looking at raw numbers).

2. Negative excesses in 2010 and 2011 do not now occur, indicating better model fit overall

This is also very good as far as I am concerned as there should have at least been physiological effects in those two years and 2010 was a very cold winter. Psychological effects (+ve) were seen in 1945 and 1997. I don’t think anyone ever looked for them in 1964/1966 or even 1974 (1976 was a very good year to be alive by the way - by various measures the best year).

3. Consistently more female than male excess deaths up to age 89 years.

That fits the later take up of smoking by women which really ought to have had a big impact. And the key thing about smoking is the harm it does to you before you are 90 (or much younger).

4. A consistent pattern of slightly more additional deaths between ages 0 and 50 years in 2013-2015. This then reverses by age 70, but then increases from around the age of 65, reaching 32,000 additional deaths in 2015 by age 89.

That also fits with who is moss effected - people aged 51-69 (I am almost there) escape most of the bad stuff that has happened - have housing worth a lot and can retire with little immediate need for services.

On Thatcher and early care. It was not her it was the major lifetime contribution of Peter Townsend which everyone forgets that he did because he did it so long ago. Peter’s early 1960s work was a best seller and caused shock when he uncovered the conditions the old were living and dying in in the early 1960s:

* *The family life of old people: an inquiry in East London*, Harmondsworth: Penguin, 1963
* *The last refuge: a survey of residential institutions and homes for the aged in England and Wales*, London: Routledge and K. Paul, 1962

This is all hearsy. I can remember being told about it a long time ago. But the Penguin publication (and there may also have been a Pelican book) caused shock across the political spectrum. It and other work in the 1960s led to proper old age homes being set up (often on the sites of former workhouses)

"Meals on Wheels” so the elderly who were bedridden without family would not starve to death - only came in in the late 1960s - for instance in York: <http://www.eastyorkmealsonwheels.org/our-history/>

The effects would take years to play out as throughout the 1970s old age care was improved. The result should have been seen by the early 1980s, if not a little earlier?

Someone should have written the story up somewhere.

In a way the welfare state came very late to the elderly. Which is partly why those born in the 1930s were a golden generation - their parents were not looked after even later in life. But then they did not have great expectations.

Hope this helps!

Danny

ps also smoking trends (almost everyone who liked it smoked before 1950).

From Kate

I'm also in agreement - BMJ readers will not want the technical details just the take home messages and a feeling that the methods are probably good!  So the methods should be as brief as possible and all the detail in the appendix...

These ideas seem to be getting a bit of media traction  but people are not yet realising the scale of the shift and that is what we need to convey.

So happy to help after you've bashed out a first draft.

And happy new year to all,

Kate