

SAI Aggregated Life Office Investigation - Annuitant Mortality Experience 2008-2012

The Society's third study of Annuitant Mortality has now been completed. The Society would like to express its thanks to the participating companies for their assistance. Full results are available on the Society's website at <https://web.actuaries.ie/press/demography-studies>. Methodology, results and comments are summarised below.

Methodology

As with the previous Annuitant Studies and the Insured Life Study, it has been completed using the "Aggregated Data Method". This involves each company providing (on a confidential basis) the actual and expected claims using a pre-agreed common standard table for the expected. The Society then aggregates the expected and the actual and divides the latter by the former to give a claims ratio (A/E).

As for the previous studies (reported in the Society's November 2007 and December 2009 Newsletters), the "expected" table is the 2000 Series CMI table. Four companies participated in this third study while six companies participated in the previous studies.

The first study covered just 2006; the second study, covered both 2006 and 2007; while the third study covers the period 2008 to 2012. In the first study, the experience was based on annuity amounts at date of death and not on numbers of lives. It is generally expected that an Amounts basis will give a lower rate of mortality than a Lives basis. In the second and third studies, information was obtained on both lives and annuity amounts.

Study Size

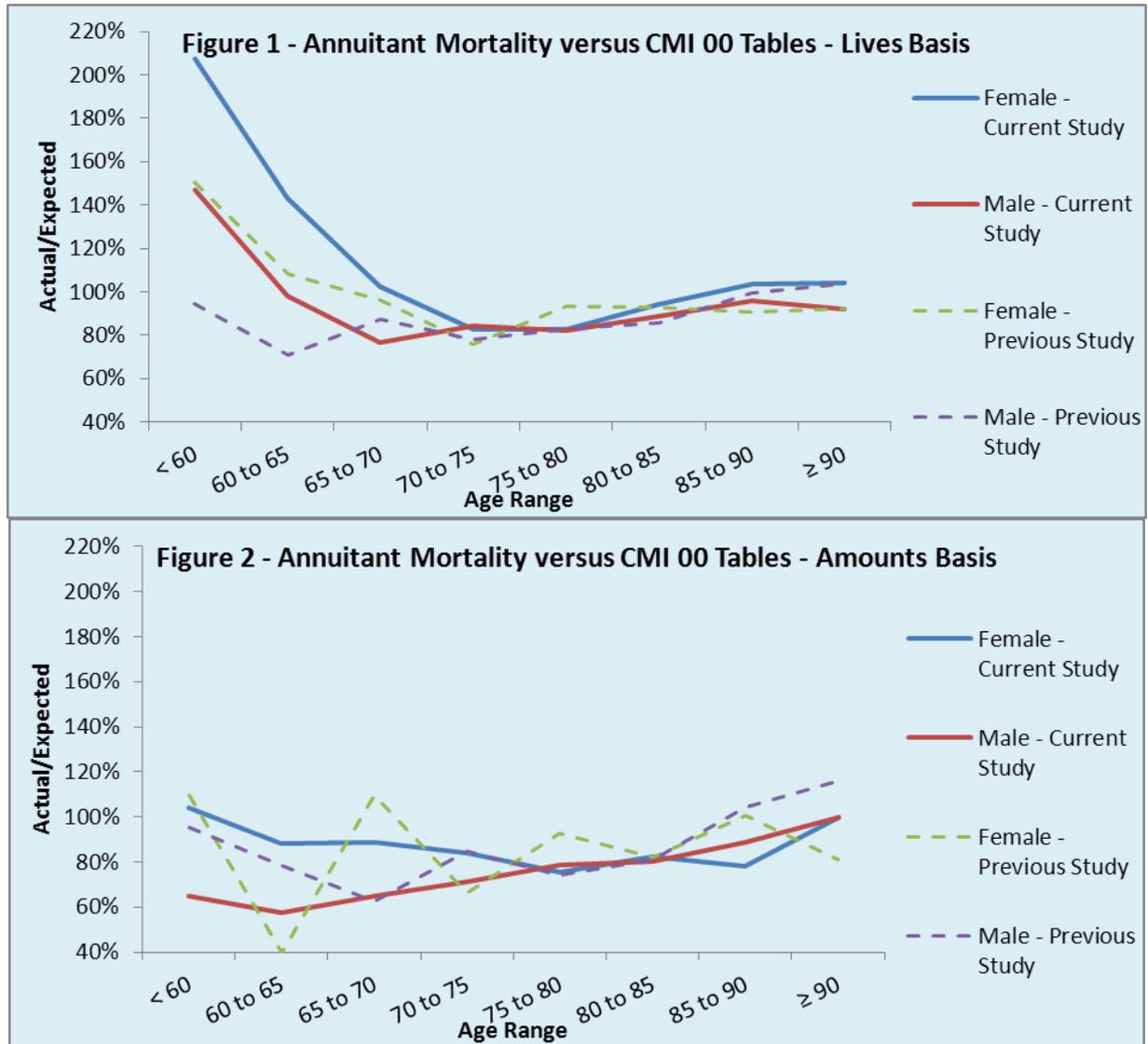
The total number of deaths recorded was 6,671 and was split as per Table 1.

Table 1 - Number of Deaths						
	2008	2009	2010	2011	2012	Total
Males	824	900	948	862	995	4,529
Females	417	420	419	416	470	2,142
	1,241	1,320	1,367	1,278	1,465	6,671

68% of the deaths recorded were in respect of Male lives. The table above highlights an increasing number of deaths over the course of the study; this reflects an increase in the size of the exposure rather than any significant increase in mortality rates.

Combined Mortality Experience 2008-2012

Figures 1 and 2 represent the A/E results for males and females for the period 2008 to 2012 on a lives and amounts basis respectively. Included for comparison are the combined results for the previous study of the 2006 and 2007 experience.



On the Lives basis the experience for those lives below age 60 was much higher than the standard table. It is generally believed that early retirements may include a proportion of annuitants who are retiring due to ill-health. These people may be expected to suffer excess mortality.

When considering both the Amounts and Lives bases across the five year period, it is interesting to note the trend from age 65 upwards is for the mortality experience to be lighter than the expected table, but tending towards the expected table at the higher age ranges.

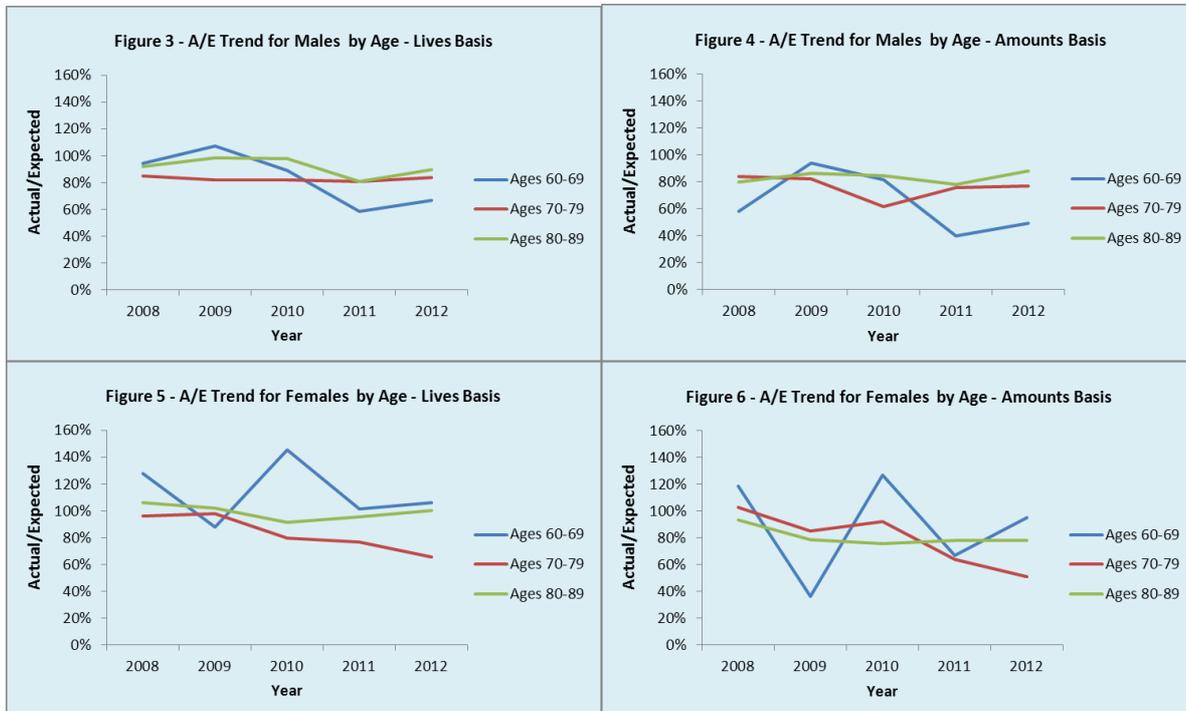
Comparisons with 2006 and 2007 experience

The previous study of 2006 and 2007 experience (published in the December 2009 Newsletter) gave experience on a combined Lives basis of 92% for 2006 and 84% for 2007. The comparative figures for 2008 and 2009 of 96% and 97% respectively suggest experience getting heavier. However this may be due to other factors. Six offices participated in the previous study, so the change in participating offices may have changed the experience. Also the 2007 experience in the previous study may have an IBNR delay.



Trends 2008 - 2012

Figures 3 to 6 illustrate trends in the mortality experience of annuitants over the five year period 2008 to 2012 for age groups 60-70, 70-80 and 80-90.



The results show a general trend of improving mortality from years 2008 to 2011. Surprisingly on both an Amounts and Lives basis the combined 2012 experience is in fact heavier than the 2011. It should also be considered that the 2012 experience would be less developed than 2011 and so there could be deaths yet to be reported in respect of 2012. The 2011 experience is quite low compared to the previous years so the 2012 increase may in fact suggest a return to a longer trend. In any case it is difficult to say whether this might be the beginning of a new trend or just random fluctuation.

The actual experience for Female lives aged 60 to 69 is quite volatile year on year when compared to the expected table. This may be due to the low level of business in this particular cohort with only ~20 expected deaths per year.

Concluding comments

Please note that the above tables, graphs and comments are presented purely for member interest and have not been subject to the scrutiny necessary were they to be used for commercial decisions.

The Society makes no warranty as to the accuracy of these figures and owns no duty of care to any party in respect of them. This note does not reflect the views of any employer of the members of the Society's Demography Committee.

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