



# Longevity analyses

For defined benefit pension schemes

Longevity risk is the risk that members of your pension scheme live longer, on average, than you expect, which can carry a substantial financial cost.

Life expectancy of members is a key risk for pension schemes, particularly as schemes mature and start to consider risk reduction exercises, self-sufficiency or buyout.

Trustees should consider investing time in choosing the most appropriate mortality assumptions to use:

To gain a better indication of the ultimate cost of running a scheme and avoid adverse financial experience emerging gradually over time.



To gain confidence in the appropriateness of mortality assumptions for a variety of purposes including valuations, transfer values and setting a buyout target.



To comply with The Pensions Regulator's guidance that Trustees should consider evidence when setting mortality assumptions.



⋮ Barnett Waddingham provides a flexible longevity analysis service; making best use of the data available and tailored to the specific needs of the trustees, at an affordable cost.

## When to do a longevity analysis

The type of analysis and frequency with which an analysis should be performed depends on the size of the scheme.

Typically:



SMALL

Infrequent analysis to be repeated only if there has been a significant change in profile of scheme.



MEDIUM

Every second valuation



LARGE

Every valuation

Our client teams work in tandem with our specialist Longevity Consulting team to provide a concise report tailored to the specific needs of the scheme.

This report is typically intended to inform your understanding of the assumptions being considered for a forthcoming valuation, i.e. the choice of base table, any adjustments needed to it and an allowance for future improvements in longevity.

It also provides trustees with an understanding of the level of prudence contained in the mortality assumptions, to give confidence that the assumptions are reasonable for the scheme's members.

# An outline longevity report

Our reports are tailored to your individual needs and can cover both current mortality and future improvements.

We have set out a range of topics that we usually include in a report below.

## Experience analysis

Analysis of the scheme's emerging mortality experience is essential for all but the smallest schemes, to compare the recent experience of the scheme with particular mortality tables being considered.

⋮ This analysis can help inform the choice of mortality table and the adjustments that may be applied.

Our analysis would also assess the statistical reliability of past experience. This depends on the size of the scheme (in particular the number of members who have died) and on the distribution of liabilities between members. For larger schemes, with more data, we can delve more deeply into past experience and use this information to inform our advice.

## Mortality by socio-economic group

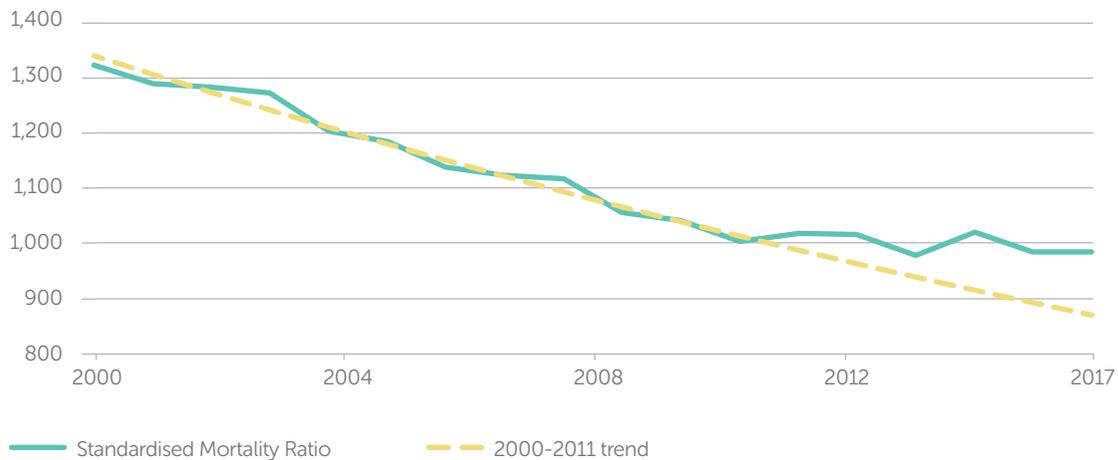
Analysis of past experience can be very informative, but only for the largest schemes does it show us the full picture. For the majority of schemes we recommend using a second approach to provide an alternative, independent estimate of the likely mortality experience.

This alternative approach estimates mortality using an assessment of the mix of members by socio-economic group. We can use job descriptions or grades or individual members' postcodes to provide an alternative estimate. In our view, combining this estimate with an estimate calculated using past experience is more reliable than using either of these methods in isolation.

## Recent trends

Our reports summarise recent longevity experience within the population and pooled studies, along with the latest research. This helps to ensure that trustees' discussions are underpinned by a common understanding, and provide a more coherent starting-point for discussion of changes from the previous valuation and how mortality may change in future.

In particular, recent experience in population data has seen a slowdown from the high improvements of the early 2000s as shown below. Our reports consider the possible reasons underpinning recent experience and sets out the potential implications for schemes.



Source: Barnett Waddingham calculations based on Office for National Statistics data for England and Wales and Continuous Mortality Investigation Ltd (CMI) methodology

## Cause of death scenarios for future improvements in mortality

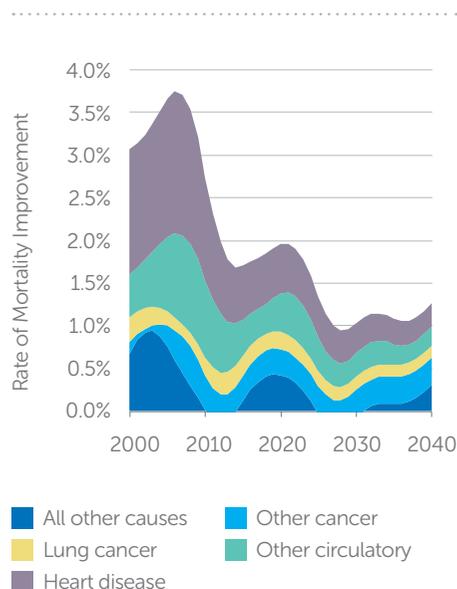
The CMI Mortality Projections Model is widely-used to support assumptions of how mortality may change in future. The Model assumes that the recent past (based on actual observed trends) is the best guide to the near future, but that the pace of change will converge over time to an assumed long-term rate of improvement. Consideration of these long-term trends is therefore a key issue for trustees.

The scale of future improvements is highly uncertain and experts hold a wide variety of opinions.

One way to make mortality projections more tangible is to analyse the causes of past improvements and consider the extent to which these may continue in future or whether new causes may emerge.

We can illustrate a number of future scenarios, consistent with specimen long-term rates of mortality improvement in the CMI Model.

The scenario shown on the right for males is consistent with a long-term rate of 1.5% per annum. Considering these scenarios, with the accompanying commentary, can help trustees to understand the drivers of long-term rates of mortality improvement that support the assumption chosen.



Source: Population estimates, and death registrations by cause of death, for England and Wales (published by Office for National Statistics); fitted to CMI\_2016 Model



[www.barnett-waddingham.co.uk/longevity](http://www.barnett-waddingham.co.uk/longevity)

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Please contact your Barnett Waddingham consultant if you would like to discuss any of the above topics in more detail. Alternatively contact us via the following:

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