Unlocking mortality trends: A key to better outcomes

LCP's Longevity report 2024

April 2024

Welcome to LCP's latest Longevity report

Clearer insights into mortality trends can help ensure better outcomes for members, trustees and sponsors of defined benefit pension schemes.

The pandemic and the ongoing pressures on the healthcare system have significantly disrupted mortality trends. This has consequences for managing a pension scheme.

Solely relying on traditional actuarial methods to predict future mortality trends no longer works. Instead, LCP's approach draws from our multi-disciplinary team of actuaries, health professionals, epidemiologists and public health experts to provide you with insights on what is driving changes to mortality and provide informed forward-looking scenarios.

This is important because your assessment of longevity forms the backdrop to many of the key decisions that you are making now on the future of your scheme.

This report highlights some of these situations and considers how making rigorous mortality assumptions now can lead to better outcomes in the future.

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Consequences of a new mortality trend

Assessing where you are on your journey plan – are you closer to your target with a reduced deficit, giving you options, such as accelerating your investment de-risking strategy, or reducing sponsor contributions.

Designing an efficient LDI investment strategy to meet the projected benefit cashflows – are you tying up unnecessary collateral, or purchasing low yielding gilts that could alternatively generate higher investment returns?

Understanding the longevity risk (and opportunity) you are running if you choose to run-on a scheme to create value.

Assessing whether an insurance transaction offers value-for-money and providing you with the information you need to negotiate effectively with insurers on buy-in or longevity swap transactions.

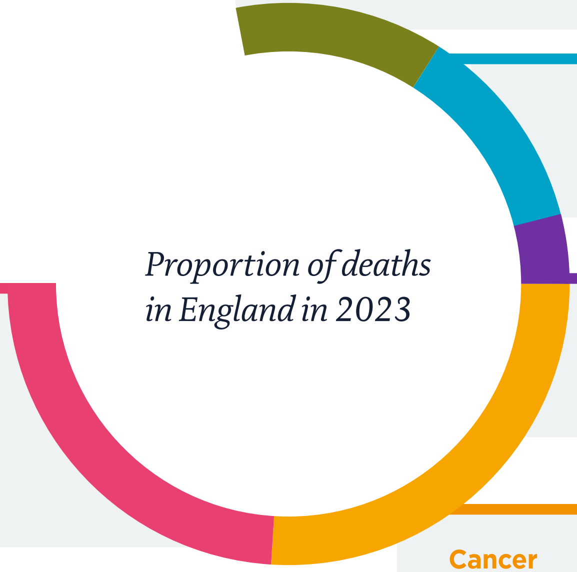
Key action

+ **Understand the trends and drivers for future changes in mortality to make more informed judgments on the future of your defined benefit pension scheme**

Mortality insights

Current trends

Understanding current trends, appreciating the emerging drivers and tailoring assumptions to your members are all essential when projecting mortality rates.



Dementia and Alzheimer's disease

Mortality rates have been slowly falling since 2016. Differences between high and low socio-economic groups have narrowed, but there is still a huge disparity between the least and most deprived, with the latter having higher mortality rates.

Respiratory diseases

Associated deaths had fallen materially pre-covid, and were further suppressed by social distancing measures taken during the pandemic.

Covid-19

The proportion of deaths with Covid-19 as the underlying cause halved from 8% in 2022 to 4% in 2023 continuing year-on-year falls.

Circulatory diseases

Deaths from circulatory diseases have fallen rapidly in recent decades. Nonetheless, they remain a leading cause of death.

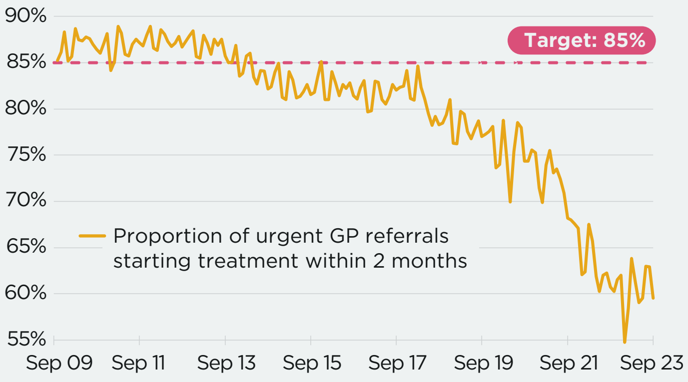
For those living in the most deprived areas, recent death rates were at similar levels to back in 2016, whereas there have been fewer dying for those living in the least deprived areas. A mortality rate assumption reflecting your members' socio-demographic profile is essential.

Cancer

There has been a steady fall in cancer related deaths since 2000. However, we have seen a significant deterioration in cancer treatment metrics for the NHS, accelerated by the Covid-19 pandemic. We therefore anticipate an uptick in cancer deaths in the near term due to delays to diagnoses and treatment.

We estimate that if NHS cancer targets are met, around 64,000 patients diagnosed over the next 5 years would live at least an extra 6 months.

NHS cancer targets are below operational standard



Source: NHS England

Spotlight on obesity drugs

With over a billion individuals across the world now considered obese, the disease places an increasing burden on healthcare systems. There are several chronic conditions that obese people are more susceptible to, including heart disease and high blood pressure. Obesity is a risk factor for leading causes of death, such as circulatory diseases and cancer.

GLP-1 drugs, such as Ozempic or Wegovy, are medicines that have historically been used to treat type II diabetes. However, they have garnered recent attention due to their potential ability to manage obesity.

The ability of these drugs to regulate both a patient's appetite and blood sugar levels means that they are emerging as safe and effective treatments for obesity. However, despite initial clinical trials indicating that these obesity drugs show promise, there are issues that may slow down adoption such as their high cost, supply shortages and current requirement to administer via injection.

If these drugs continue to display their early promise and gain widespread take-up, they could have a material impact on the outlook for future longevity improvements.

Mortality insights

Predictions

Data driven insights - pensioners in ill-health

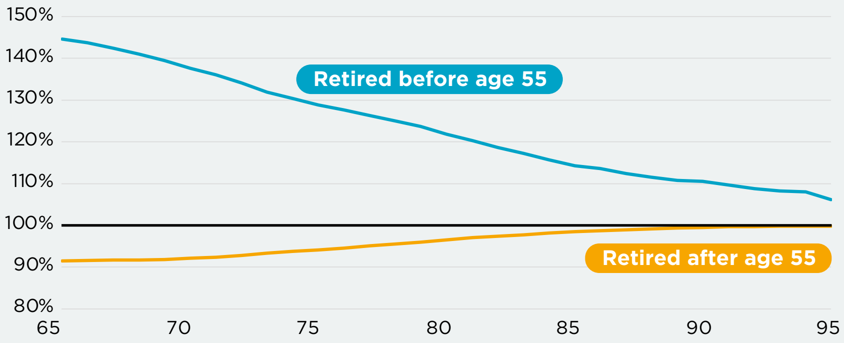
We analyse data to tease out patterns from past mortality data to help provide mortality assumptions tailored to members' characteristics. An example is the association between the age a member retires and their mortality rate.

We found that members retiring before age 55 have higher mortality rates throughout retirement, compared to those retiring later.

This makes sense, as often a member will be forced, or choose, to retire at a younger age due to ill-health – so although this group also includes healthy people who could afford to retire early, the group experiences significantly higher mortality on average.

It is helpful to see this pattern in the data as defined benefit pension schemes do not consistently record a reliable measure of the retirement health of their members, so a good proxy - such as age of retirement - can refine the expected mortality rate for a member to help make more robust decisions. This proxy is one of the factors we incorporate into our mortality profiling tool, LCP LifeAnalytics.

Mortality rates by age for retirements before and after age 55, relative to combined



Source: LCP

CMI Mortality Projection Model – future developments

The Continuous Mortality Investigation (CMI) continues to grapple with how to incorporate higher mortality rates seen since the onset of the Covid-19 pandemic into the calibration of its flagship mortality projections model. The CMI have managed this by giving no or low weight to the mortality data since 2020 in recent versions of the model.

However, the CMI have stated that they will consider a range of options for future models, including structural changes, to ensure the model will respond in a robust and more predictable way across a reasonable range of future mortality scenarios.

The weight given to the last two years of mortality data in the latest model (CMI_2023) is 15%. The CMI previously expressed an intent to gradually return to placing 100% weight on post-pandemic data.

LCP have substantial input into the CMI with representation on its Executive, SAPS and Mortality Projections Committees

To see how the model reacts, we have analysed its behaviour under a few plausible scenarios for mortality in 2024. We find that, without structural change or revision of other parameters, the next version of the model would need even lower weight placed on post-pandemic mortality data to avoid an inevitable fall in life expectancy, irrespective of mortality in 2024.

Our analysis shows that a further fall in life expectancy next year is highly likely unless the model is changed. The CMI's current approach is creaking, and we expect to see some modifications to next year's model.

What about climate change?

Making assumptions for mortality rates decades from now requires us to think about all sources of uncertainty that could emerge. No area of uncertainty is greater or more pressing than the climate emergency.

However, we believe that, over the time horizon of the typical defined benefit pension scheme, the impact of climate change on UK life expectancies is likely to be modest relative to its impact on financial risks when performing climate modelling. We encourage trustees and sponsors to **consider climate change holistically**.

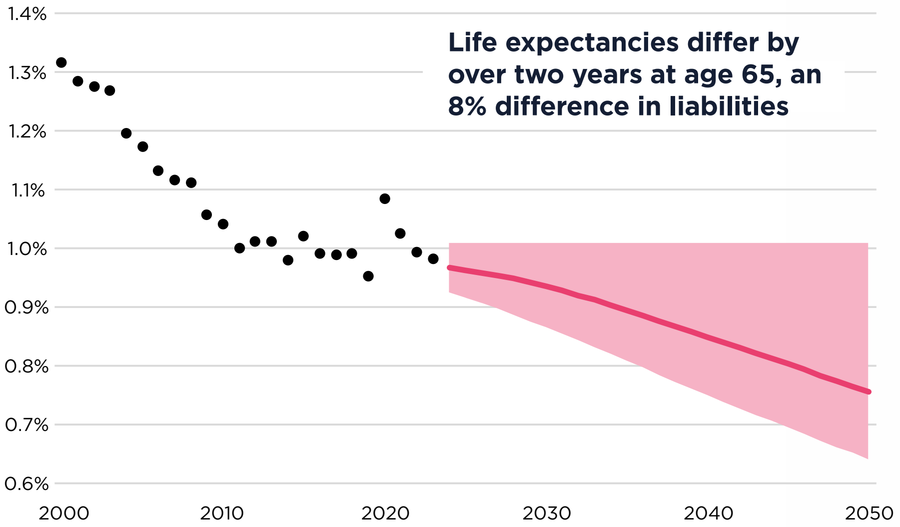
Mortality insights

Demonstrating uncertainty

Considering alternative future scenarios allows more informed decisions to be made regarding journey planning, investment strategies, running schemes on or insuring benefits. This leads to better outcomes. Trends in mortality have varied significantly over time, impacting the assumptions adopted by trustees and sponsors.

The chart below shows mortality rates since 2000, with a range of possible future trajectories we have used when illustrating potential uncertainty. Mortality rates fell rapidly until 2010 but then stagnated for a decade, before increasing during the Covid-19 pandemic. So far in 2024, mortality rates are in line with the best years on record, despite the ongoing pressures on the healthcare system. This highlights the uncertainty in the trajectory following the disruption.

Average mortality rates in England & Wales since 2000, and projected scenarios



Source: CMI data, LCP analysis

20%

13%

Over the previous two decades the typical assumption for life expectancy at age 65 first rose by 20%, before falling by 13%

The upper range reflects a scenario where there are no more mortality improvements for the foreseeable future (continuing the stagnation in improvements since 2010 in the UK).

The lower range reflects a scenario where mortality improvements get back on track, and material reductions in mortality rates are seen again (akin to pre-2010).

How LCP advice stands up to scrutiny

LCP's longevity advice draws from our multi-disciplinary team of actuaries, epidemiologists, clinicians, and other health experts.

Combining traditional actuarial analysis with health insights is essential in providing robust longevity advice.

We can help you:

- Form a robust assessment of current mortality rates for your membership using our in-house model, **LifeAnalytics**. This combines the profile of your scheme's membership with recent mortality experience. Our modelling approach is comparable to that of the leading insurers and reinsurers.
- Analyse how mortality rates may change in the future. We **combine historical trends with real world insights** from our multidisciplinary team to provide a robust best-estimate assumption tailored to your scheme.
- Understand what **plausible future pathways** could transpire to give a clear understanding of the risk associated with how long your members may live. We consider questions such as:
  - Will the NHS recover from its current strains, and what impact will this have?
  - How will the future look for different subsets of the population, tailored to your membership?
  - How will the treatment and prevalence of diseases such as cardiovascular disease progress into the future?

Robust consideration of your liabilities

A more informed view on your members' life expectancy, and the potential range, will help establish a sound liability estimate and cashflow profile. This will underpin many of the decisions and judgements you need to make.

Robust journey planning

Choosing which option is best for your scheme between running on or securing it with a third party is an important strategic decision that many trustees and sponsors have grappled with over recent years.

Making the decision has often hinged on covenant, investment and broader funding advice.

There are associated issues that specific longevity advice can help with:

Is my scheme affordable in the long-term?
How long will my members live and are the contributions meeting this need?

How much longevity risk am I facing?
Is this a risk that I can tolerate? Could I run the scheme on without needing to carry this largely unrewarded risk? Am I holding sufficient reserves against this risk?

Can I afford to insure my scheme?
When should I approach the insurance or consolidation market, and how much am I prepared to pay for this?

Efficient hedging

Hedging of cashflows can only be effective if the projected cashflows accurately reflect the scheme's future outgo. If the cashflows are inappropriate, or out of date, then you risk hedging a hypothetical set of payments that materially differs from what you actually pay out.

Increased collateral requirements on LDI (or CDI) portfolios means that more of your assets are now needed to achieve the hedging that you are aiming for. If, by overestimating members' longevity, it turns out that you are hedging pension payments in the future that you now don't expect to make you will be diverting assets to LDI collateral accounts that don't need to be there. Even worse, being over-hedged exposes your scheme to material losses if interest rates rise significantly, such as during the 2022 LDI crisis.

Creating value by running-on

For a scheme with a strategy to run-on, value can be created by using the scheme's assets efficiently to seek higher investment returns within an acceptable level of risk.

The value generated could be used to reduce sponsor contributions, enhance member outcomes or return surpluses to sponsors. But there are risks associated with this potential reward – a key one being members living longer than expected.

It is therefore necessary to have a solid understanding of the current rates of mortality of your members and how they may evolve in the future to make informed judgments. This will allow all stakeholders to assess whether they can be comfortable with the risk, is it worth the potential reward, or should it be mitigated, say via a longevity swap.

Case study

Collaborative decisions

We have run many well received briefing sessions bringing insights from both our actuarial and health analytics teams to help trustees and sponsors understand current mortality trends and the implications of developments in health.

In these sessions we have covered various topics, including cancer diagnostic metrics and A&E waiting times.

We have found that these sessions have generated plenty of debate and helped trustees and sponsors form views on how mortality rates may evolve, which has helped them to make informed and collaborative decisions on the future of their schemes.

Understanding the value of insurance

Over the last few years we have seen many schemes move into the enviable position of being adequately funded to purchase a buy-in insurance policy, or even fully buy-out.

LCP's Pension Risk Transfer team has helped more schemes than any other adviser reach their insurance goals, acting as lead adviser on a third of buy-ins/outs by volume in the past two years.

As part of that process, it is important that you are able to demonstrate that you secured a deal that was good value for the scheme, the sponsor and its members. You can only carry out an accurate value-for-money assessment for an insurance transaction if you have a clear understanding of the mortality characteristics of your membership and how these might develop over time.

Clarity around insurance pricing is also vital when negotiating final pricing. A rigorous mortality assessment will help inform you how far insurers can be pushed in a final pricing round; in large transactions this can mean tens of millions in savings.

The importance of a robust value-for-money assessment is even higher for processes that only approach a single insurer, something that we are seeing more schemes opt to do.

> *LCP helped us to deliver a very favourable outcome through our strategic partnership with L&G compared to what might have been possible from a multiple insurer process, including negotiating additional insurer pricing disclosures and giving us strong advice on the pricing received.*
>
> **Keith Greenfield, Chair of Trustees, The British Steel Pension Scheme**

Insights into the (re)insurance industry

Insurers and reinsurers who are active in pension scheme de-risking have a strong commercial motivation to have a solid, well researched, estimate of future mortality.

Last year LCP carried out a comprehensive review of longevity assumptions adopted by the (re)insurance industry with input from 13 market participants.

This gave us insights to how insurers were thinking, which helps us advise on pension risk transactions and feeds into our views.

We are currently carrying out the second edition of the survey, with even greater participation, which promises to further deepen our understanding of what the (re)insurance market really thinks.

Case study

A decision-making framework

We work with many of our clients to help them develop a value-for-money framework of "green", "amber" and "red" aspects of pricing. Frameworks are developed in conjunction with our Pensions Risk Transfer team to be holistic across all aspects of insurer pricing.

With regards to longevity, we help our clients understand how plausible scenarios could play out in the future, such as increased healthcare funding accelerating mortality improvements once again.

We also take an in-depth look at their best-estimate assumptions so that they could be sure that they are viewing the price offered by the insurer in the correct light.

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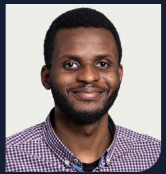

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