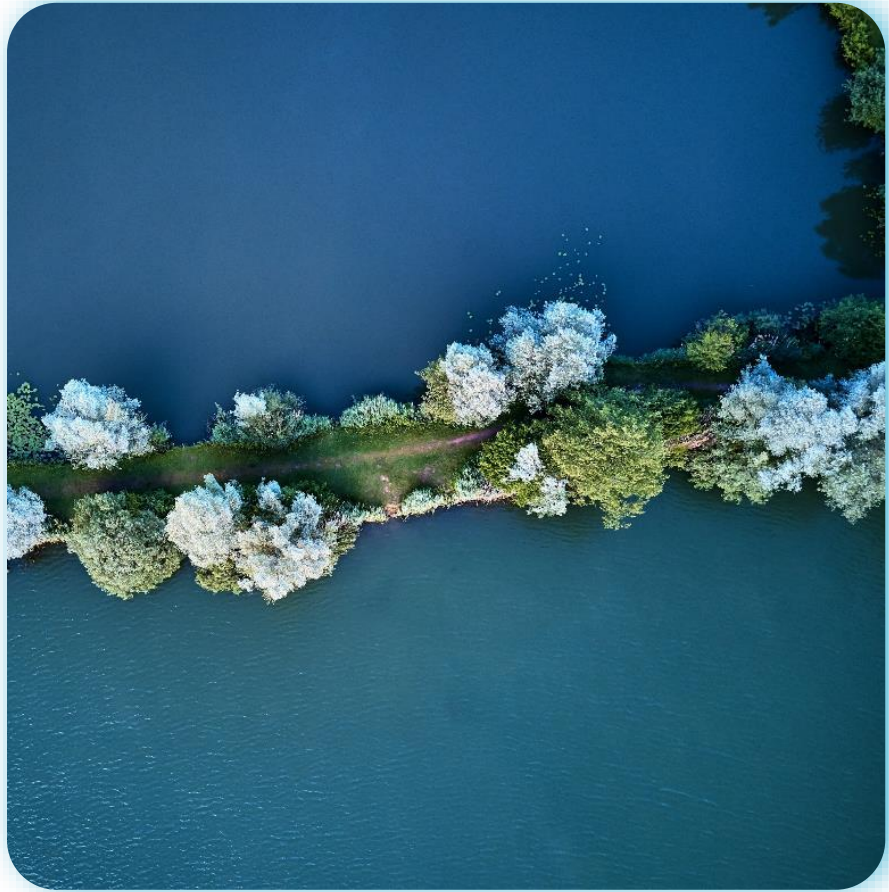




An Ageing Britain: Health Gains and Retirement Pains

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Agenda

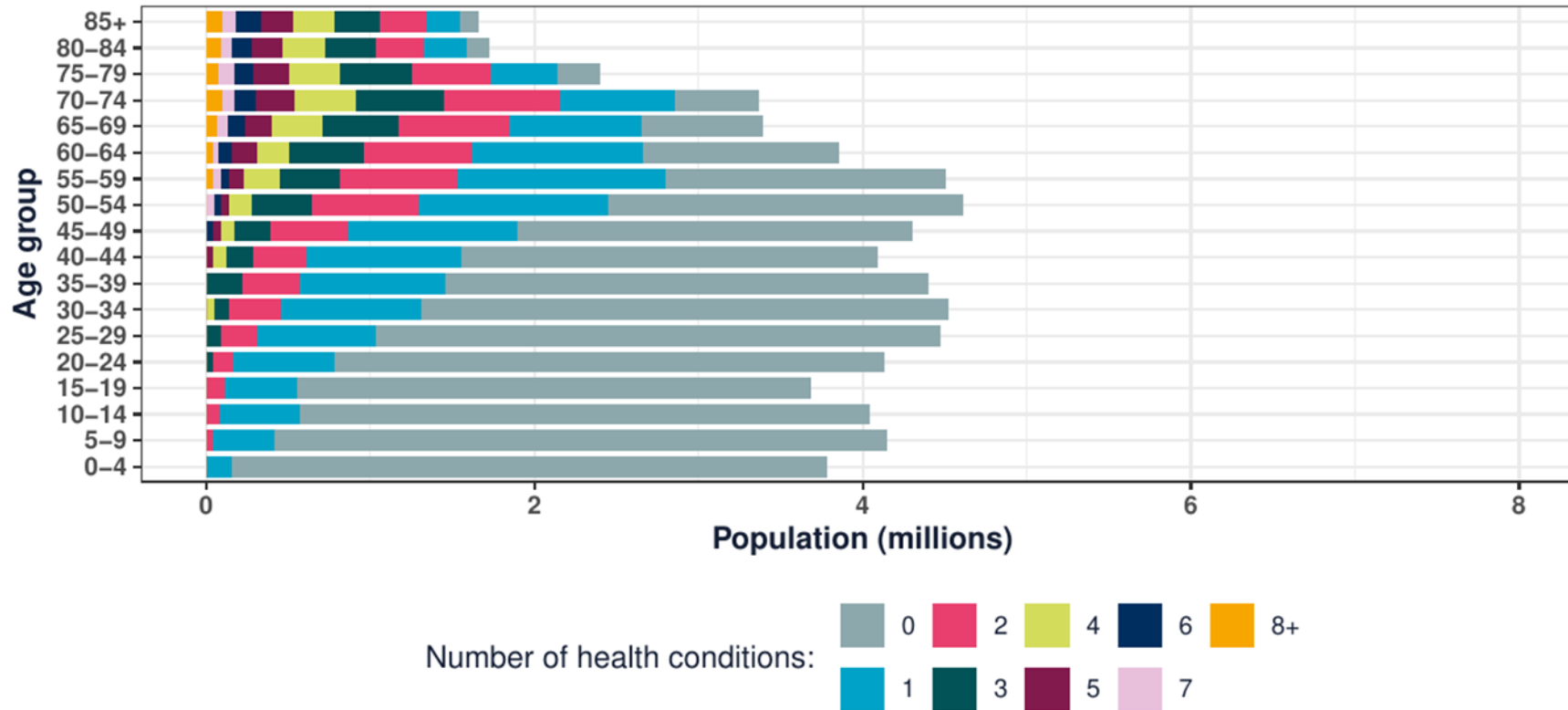
- 1 The state of health in the UK
- 2 What does the state of health mean for UK mortality
- 3 Healthy life expectancy
- 4 How do people view their own life expectancy
- 5 The state pensions landscape
- 6 Conclusions and Q&A

1. The state of health in the UK

Current pressures on the health system

The UK population is ageing rapidly, and there is increasing prevalence of multimorbidity (2+ chronic conditions).

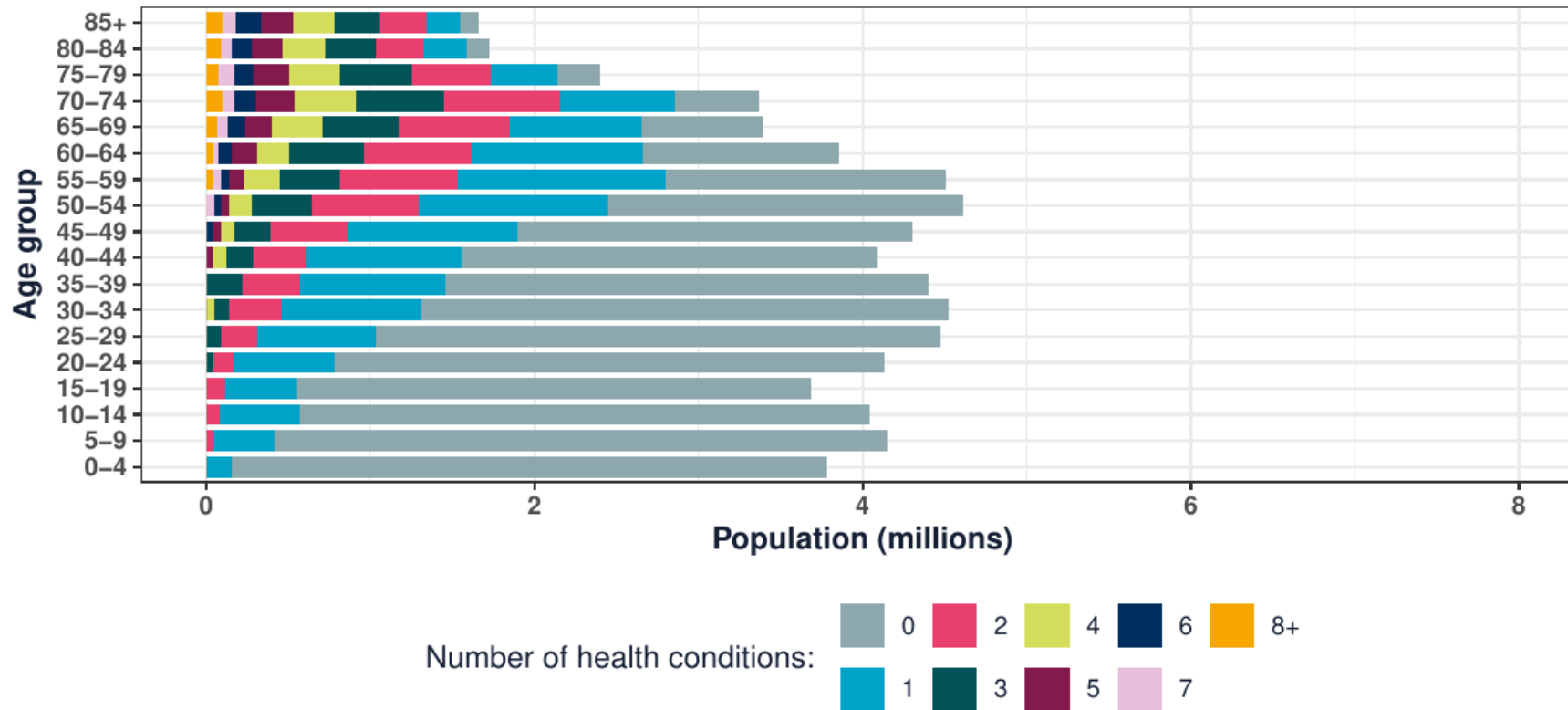
Population projections by age group and number of health conditions in UK, if health does not improve
2020 (Total UK population: 67.1 million)



Current pressures on the health system

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Population projections by age group and number of health conditions in UK, if health does not improve
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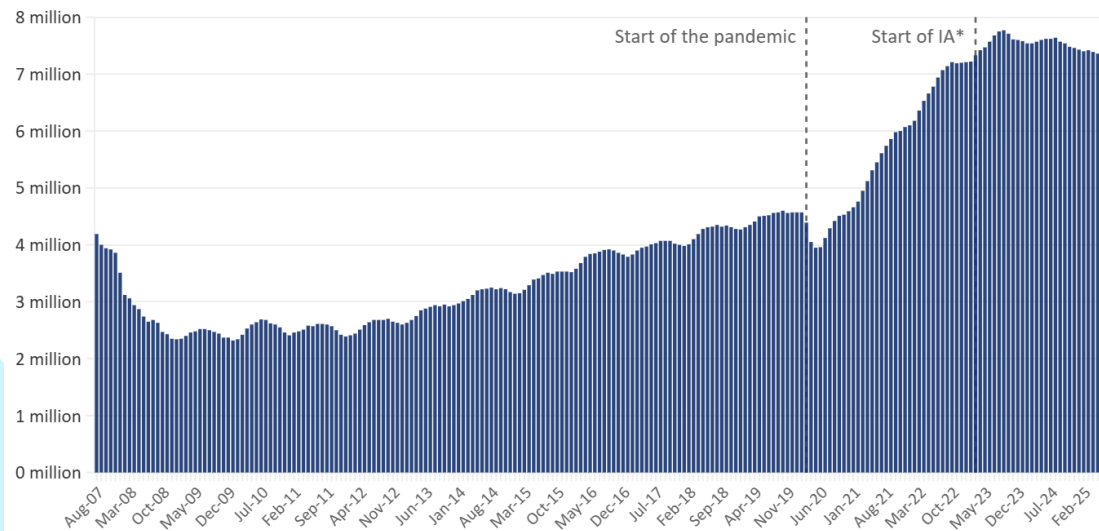


Current pressures on the health system

- There are numerous pressures on the NHS in addition to the growing health burden:
 - Huge variation in health burden and demand
 - Elective care waiting list continues to grow and acute care targets continue to be missed
 - Post-Covid pressures have generally increased rather than reduced
- The 10-year NHS plan acknowledges existing pressures and the need to tackle them

Total NHS waiting list for consultant-led elective care

August 2007 to August 2025



Source: BMA analysis of NHS England Consultant-led Referral to Treatment Waiting Times statistics • Data includes estimates for missing data. *Industrial Action

Advances in population health and medicine

Health policy

- Funding for weight management
- Potential smoking and vapes ban

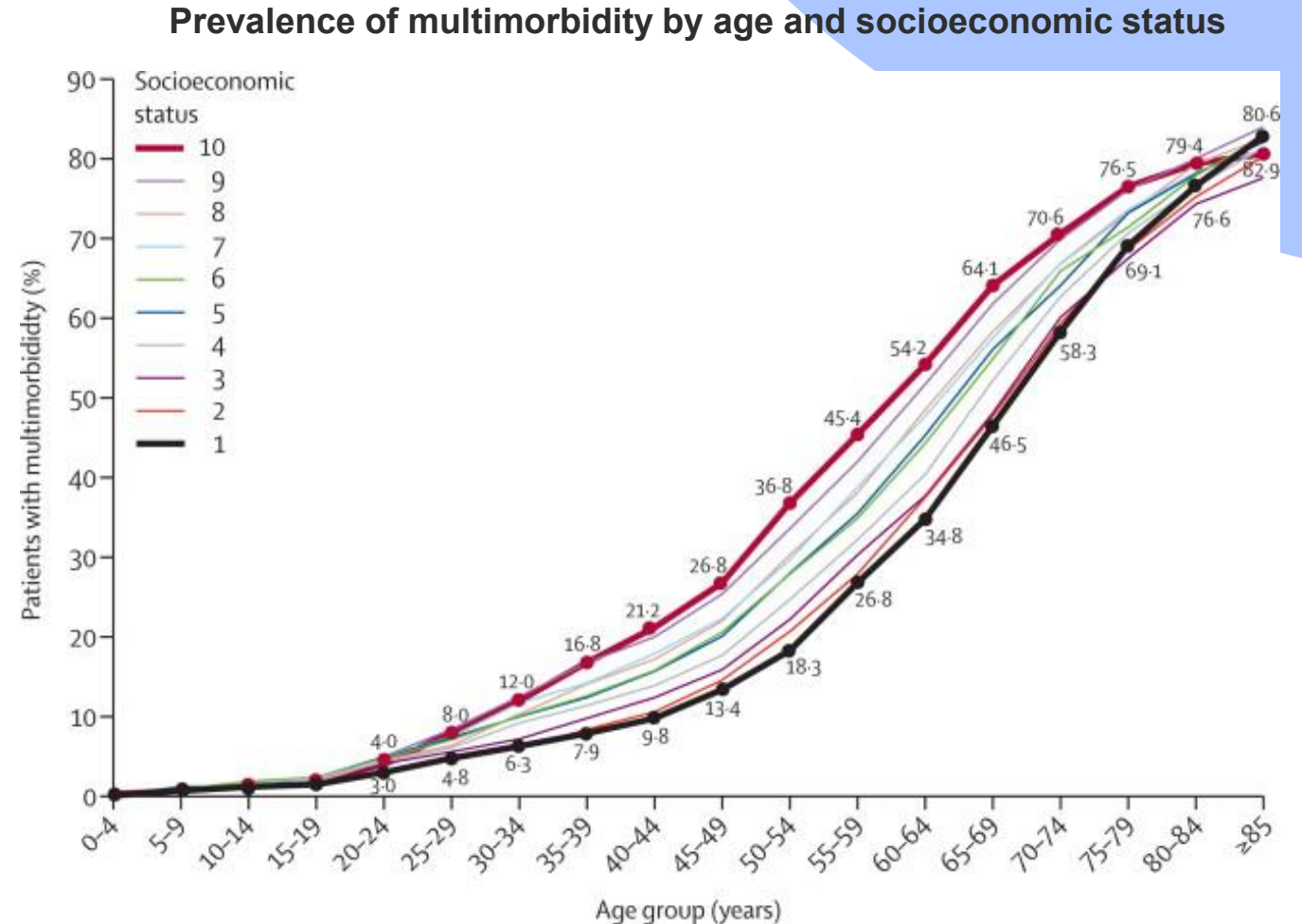
Medical advances

- Weight loss medicines which are more effective and can reduce risks of other diseases
- Alzheimer's disease treatments
- Cancer immunotherapy and early detection
- Drug discovery and personalised treatment
- Use of AI in diagnostics, screening and drug discovery

If these advances improve health, they would make later and more active retirements possible. However, if these advances extend life without substantial improvement in health, then they would result in longer periods of ill health and higher care costs.

Barriers to improvements in health

- Lack of investment in and access to novel anti-microbials
- Growing mental health and substance abuse crisis
- Widening health inequalities and unequal access to healthcare



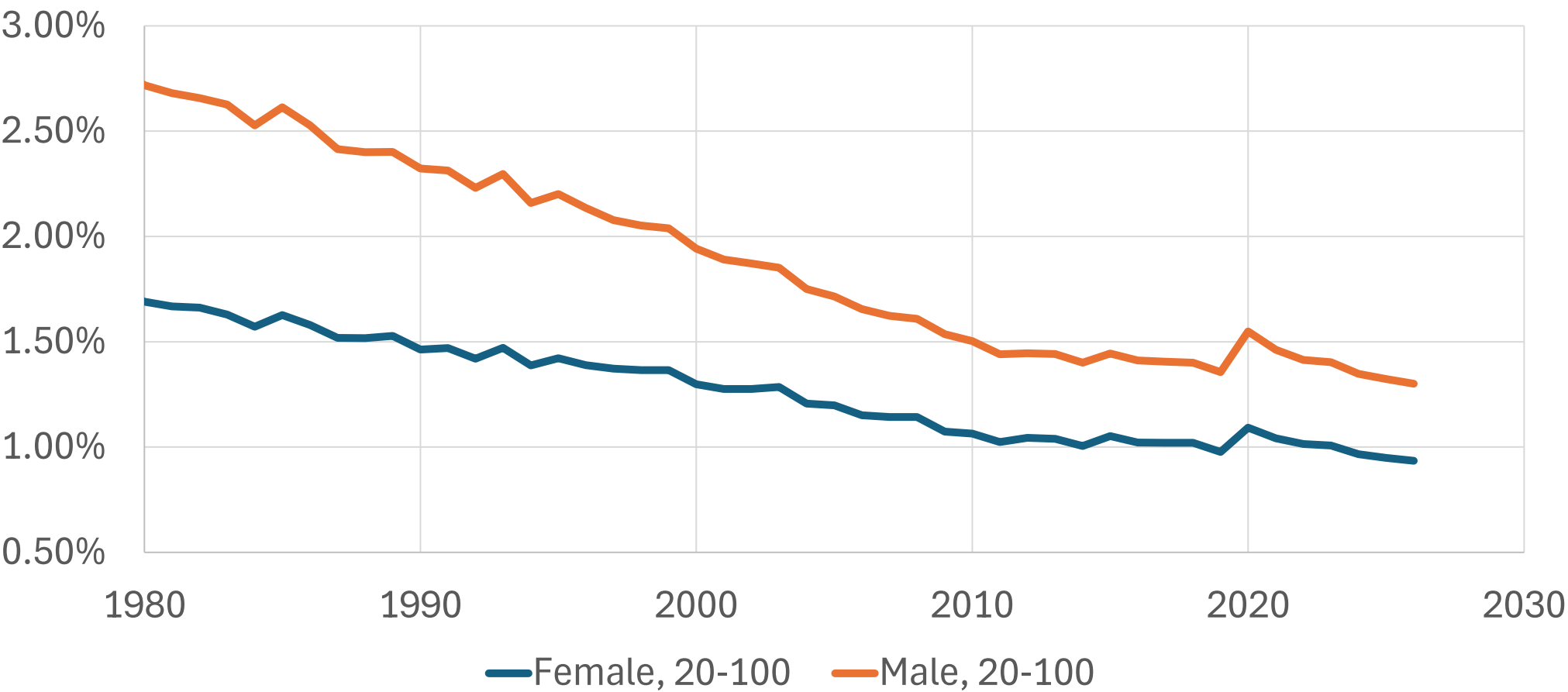
Poll - Which health policies or medical advancements will have the biggest impact on (healthy) life expectancy, and thus pension scheme and insurer liabilities?

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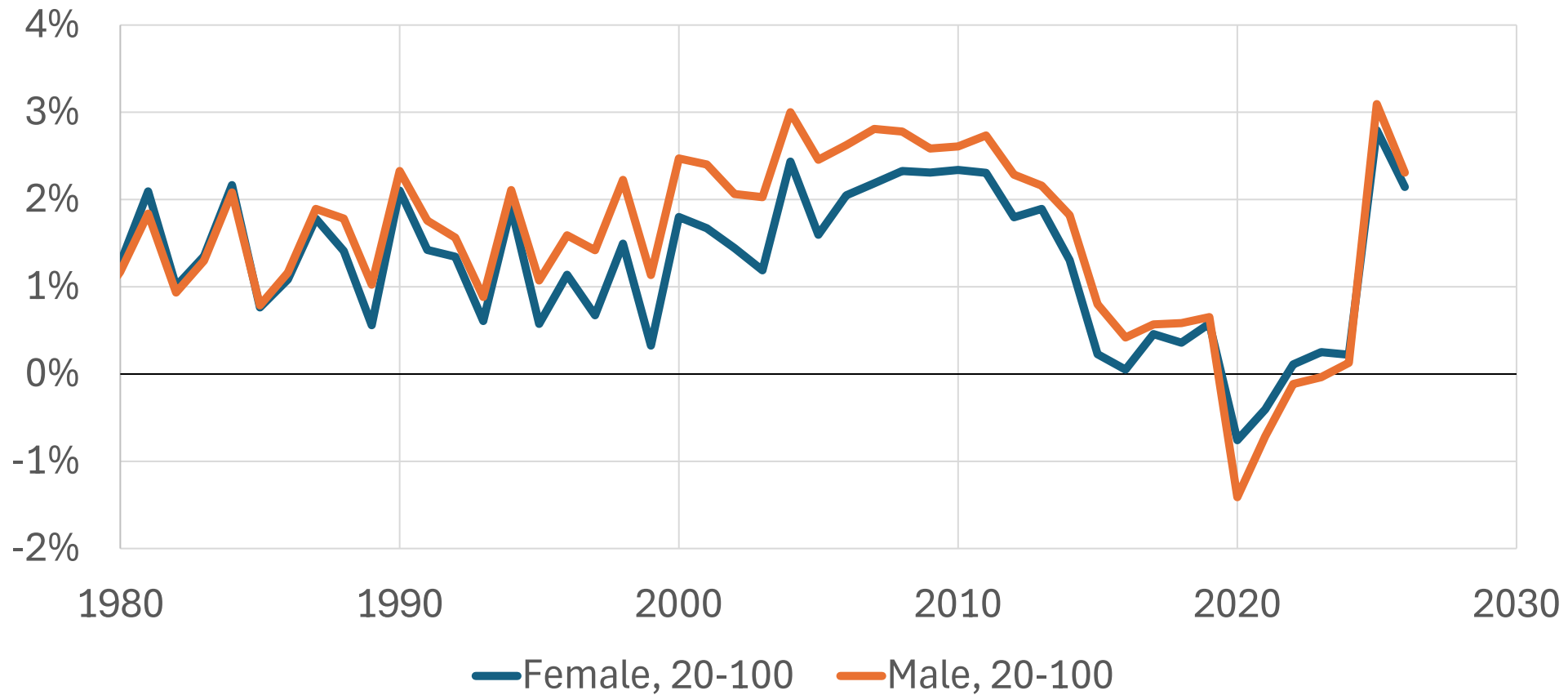
2. What does the state of health mean for UK mortality

Recent mortality rates – England & Wales



Source: SCOR calculations using ONS and Human Mortality Database data

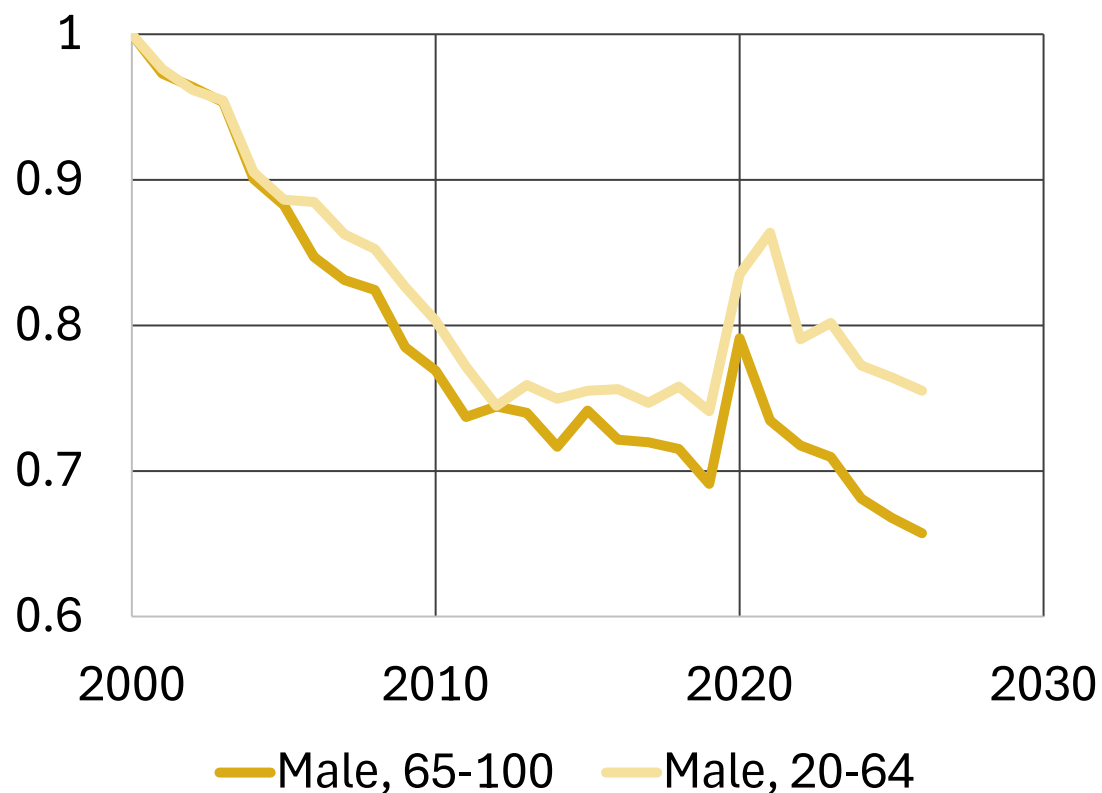
Recent mortality improvements – England & Wales



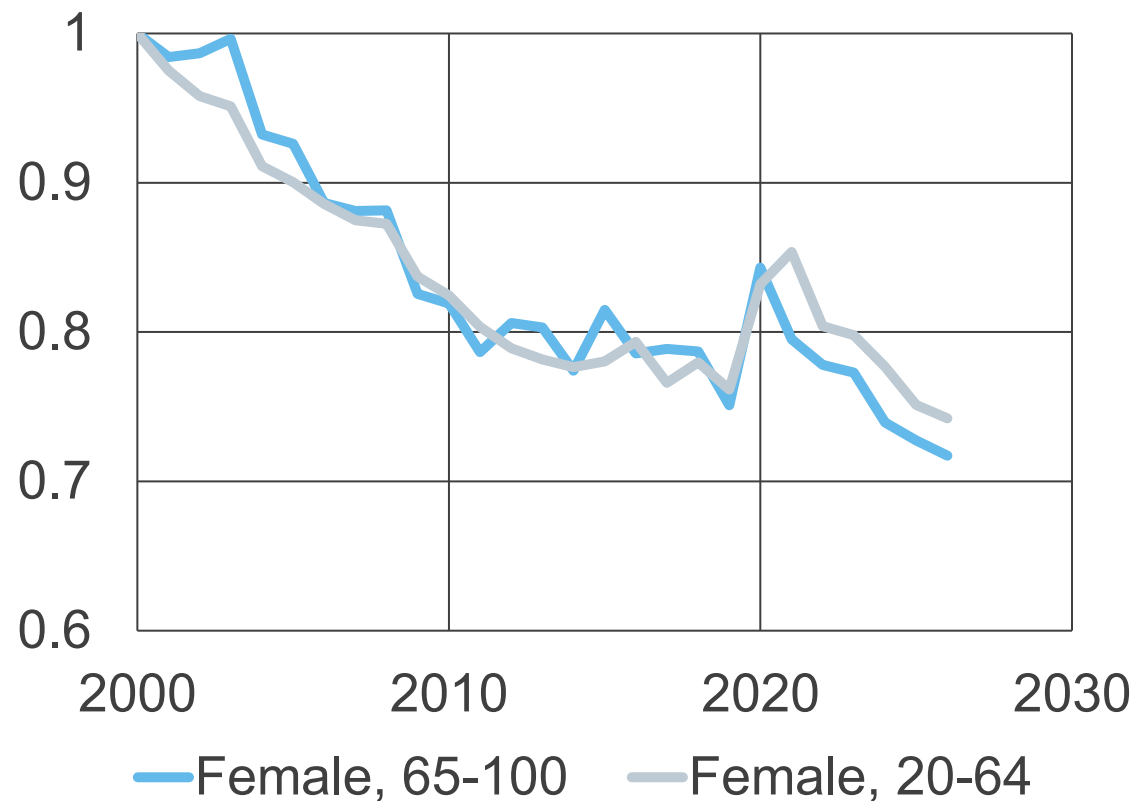
Source: SCOR calculations using ONS and Human Mortality Database data

Changes in mortality rates by age band (relative to mortality rates in 2000) – England & Wales

Male



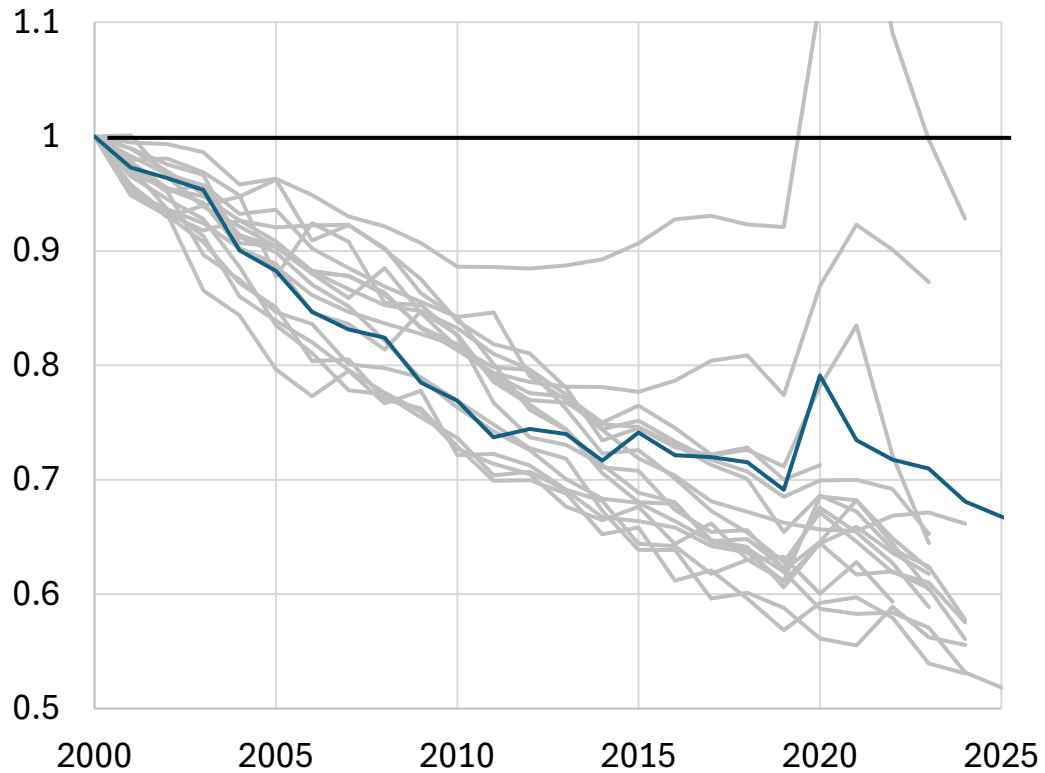
Female



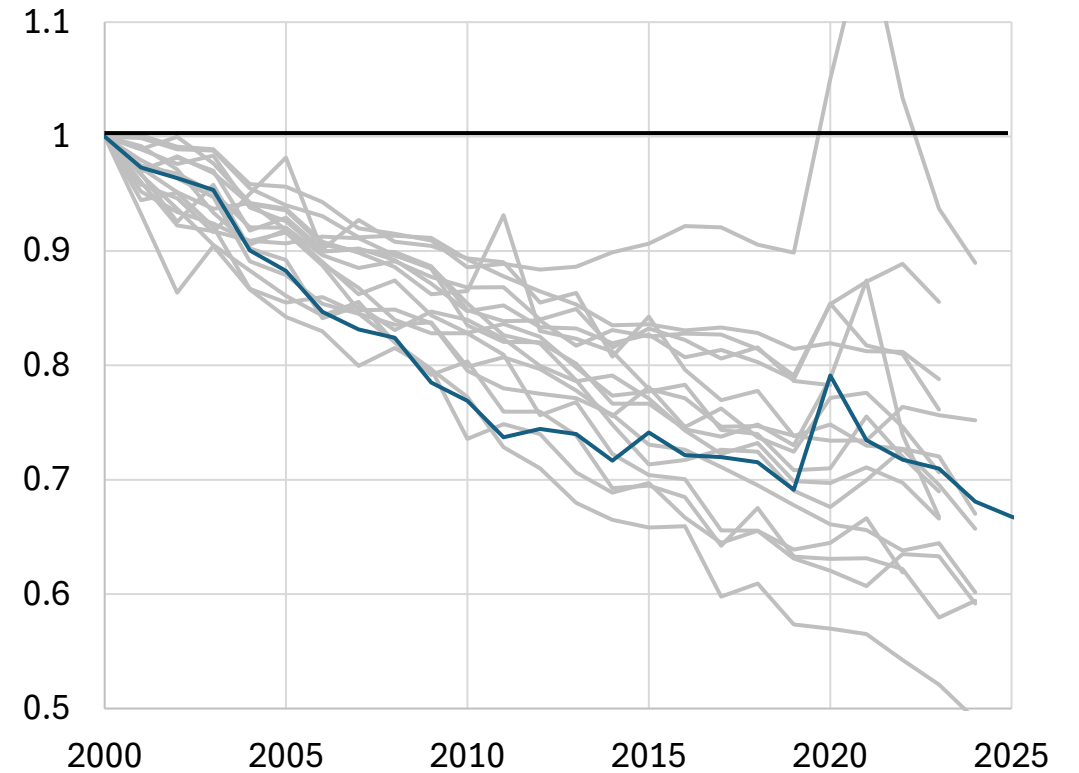
Source: SCOR calculations using ONS and Human Mortality Database data

Young age mortality – international comparison

Male

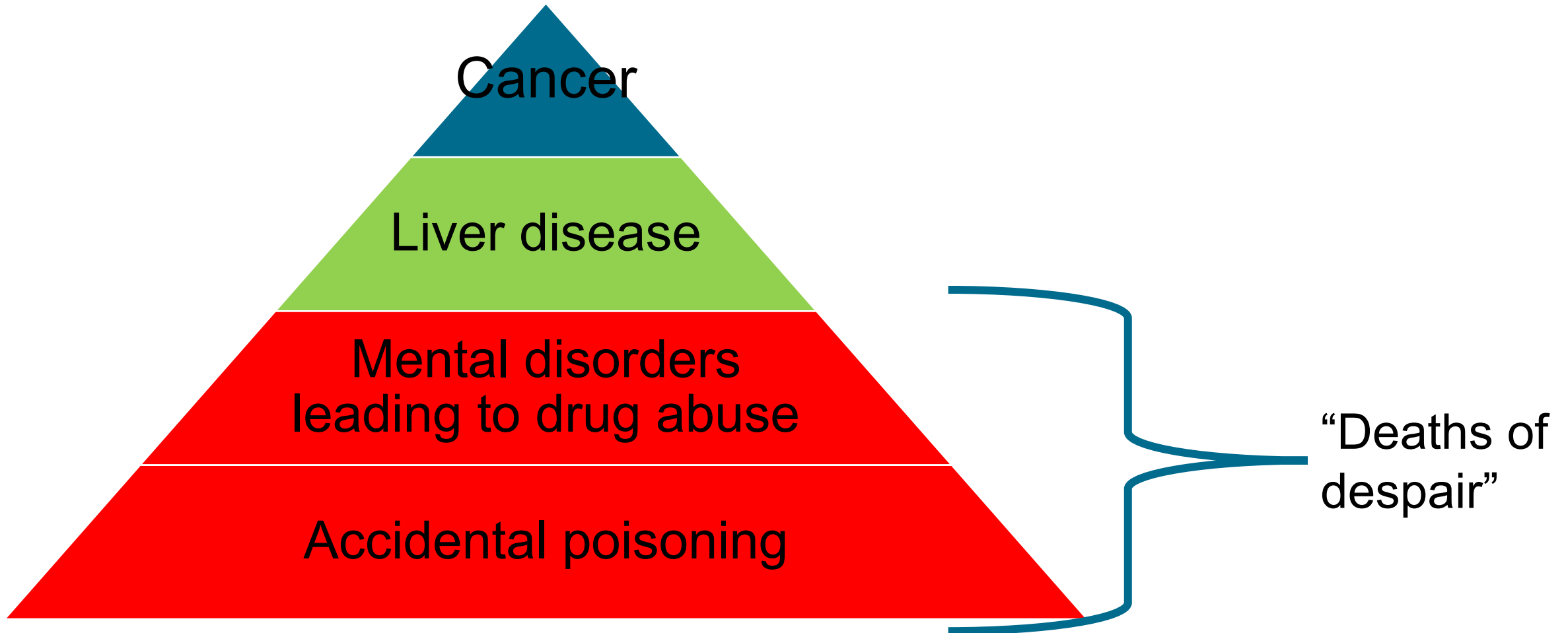


Female



Source: SCOR calculations using ONS and Human Mortality Database data

Young age mortality drivers - UK



Using this data for longevity modelling

Challenges



- Understanding the “norm” for mortality improvements
- Young age mortality
- Translating this all into a stable and sensible mortality projections model

Innovation



- More cause of death analysis
- New tools like AI
- Solutions to manage risk – run-on, CDC

3. Healthy life expectancy

What is healthy life expectancy (HLE)?



Adapted from the [Clinical Frailty Scale](#)

- HLE is the average number of years a person can expect to live in good health, at a specific age.
- It is measured by combining data on mortality and morbidity.
- Multiple definitions of 'ill health' can be used, including self-reported health, disability or chronic diseases.

Why HLE Matters

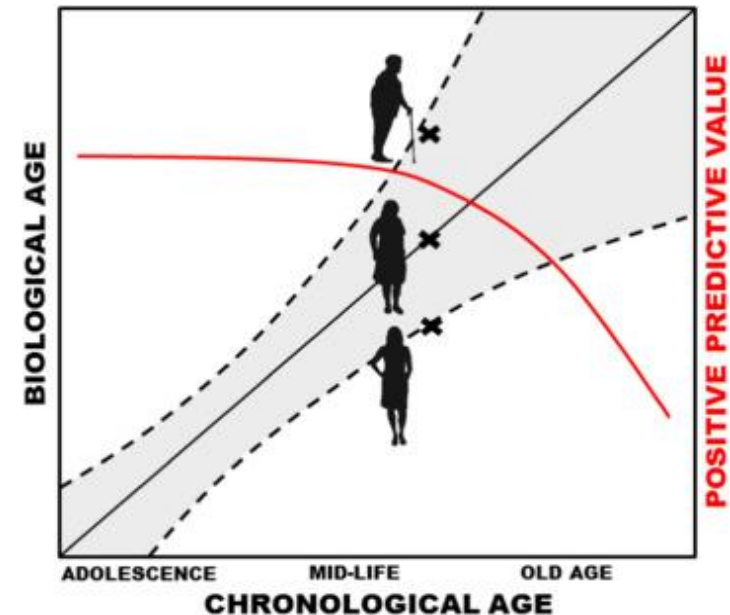
- HLE captures not just “how long we live”, but also “how well we live.”
- It is crucial for planning retirement, pensions, and social care in ageing societies.
- In UK, the State Pension Age Reviews have used HLE to inform whether the pension age is fair or should change. The government has also previously committed to targets to reduce the gap in HLE and increase HLE by 5 years.

Conceptualising and modelling HLE

- Normally conceptualised with a model that has three health states, where people can move between these states - a multi-state survival model.



- An alternative conceptualisation is biological age.



Adapted from Jylhävä et al 2017

Recent patterns in HLE

- HLE at birth in 2021-2023 was **61.5 and 61.9 years** for men and women in England respectively ([ONS](#)).
- HLE in England remained relatively stable in the 2010s, but has fallen by **~2 years over the last decade**. In contrast, LE has increased slightly over the same decade and has fallen by **less than half a year** compared to pre-Covid-19 levels.



Number of years of likely good health in UK falls to new low

Note: These estimates were calculated by UK's official statistics department, based on self-reported health

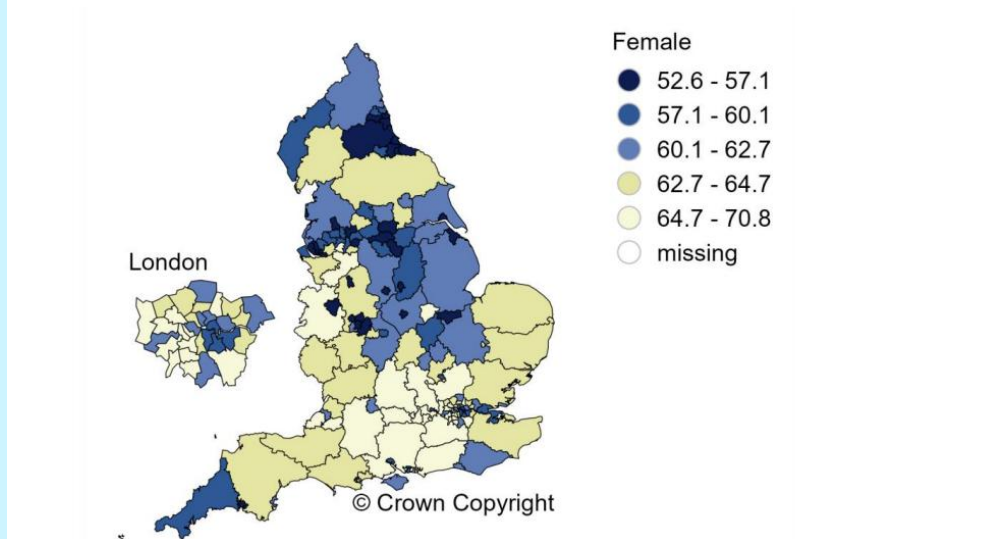
Recent patterns in disability-free LE (DFLE) vs HLE

- DFLE at birth has decreased at an even more alarming rate over the same decade, by **around 2.5 years for men and 4 years for women**.
- DFLE is perhaps more relevant than HLE for the financial sector and economic planning, as it measures the length of time free from long-standing illness, disability or impairment which causes substantial difficulty with day-to-day activities, as opposed to self-reported ill health.

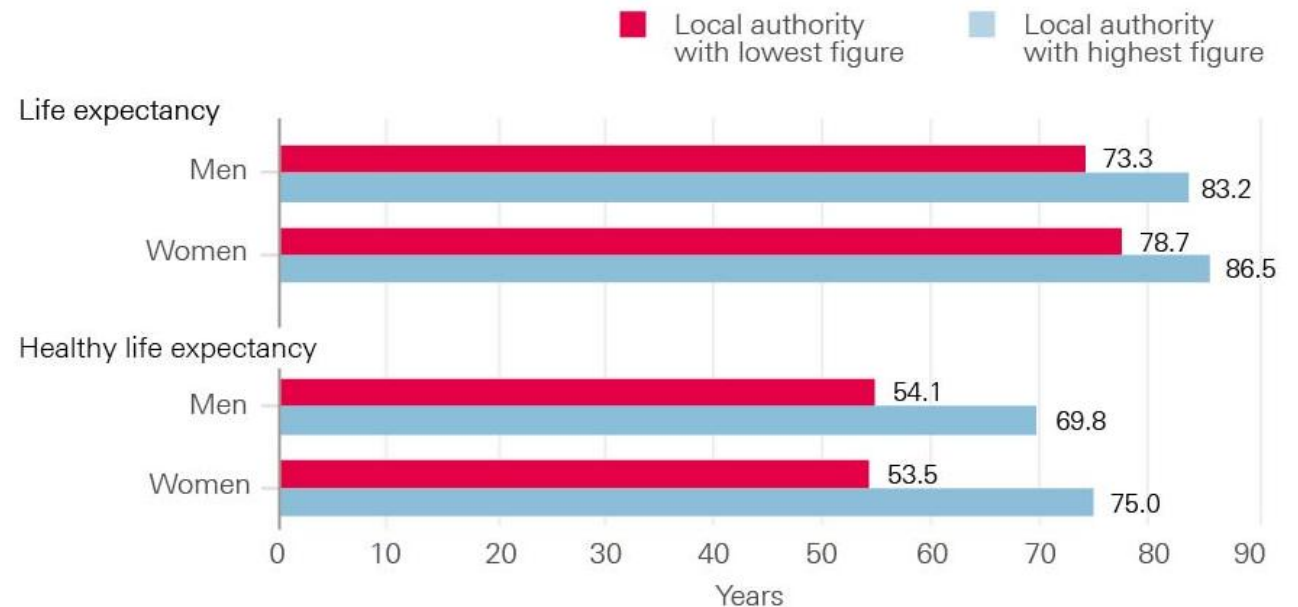
Geographic and socioeconomic patterns in HLE

- The gap between the local authorities with the highest and lowest HLE in 2018-2020 is 22 years ([Health Foundation](#)), larger than the gap for LE.

Figure 1.6 Geographic variation in healthy life expectancy



Source: [Health trends and variation in England, 2025: A Chief Medical Officer report](#)

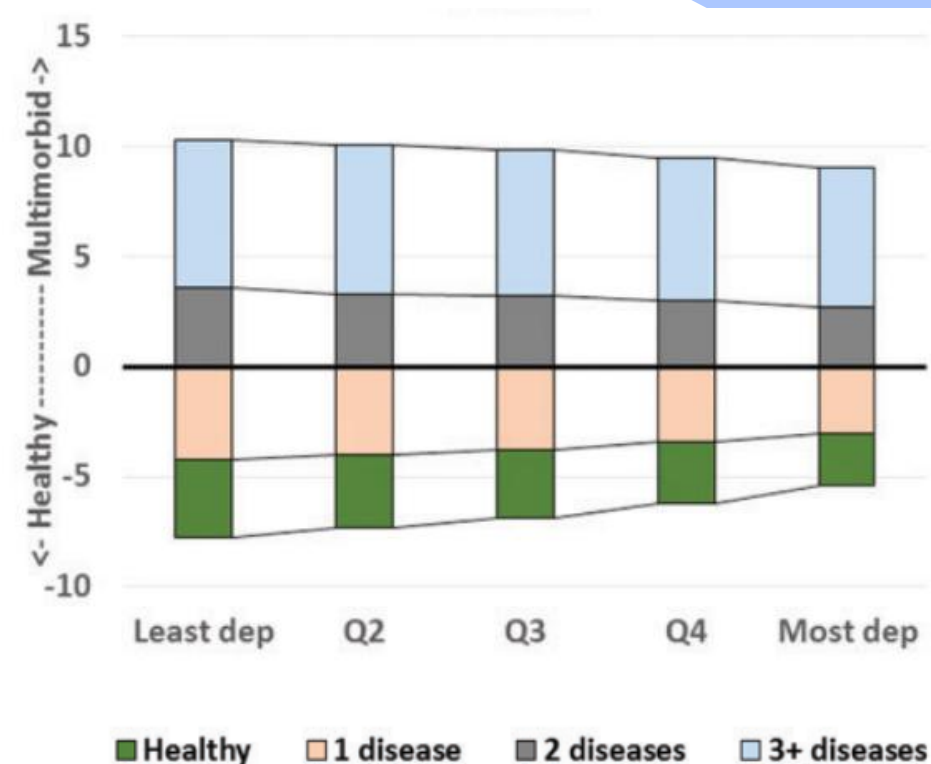


Source: [The healthy life expectancy gap - The Health Foundation](#)

HLE close to retirement still varies by deprivation

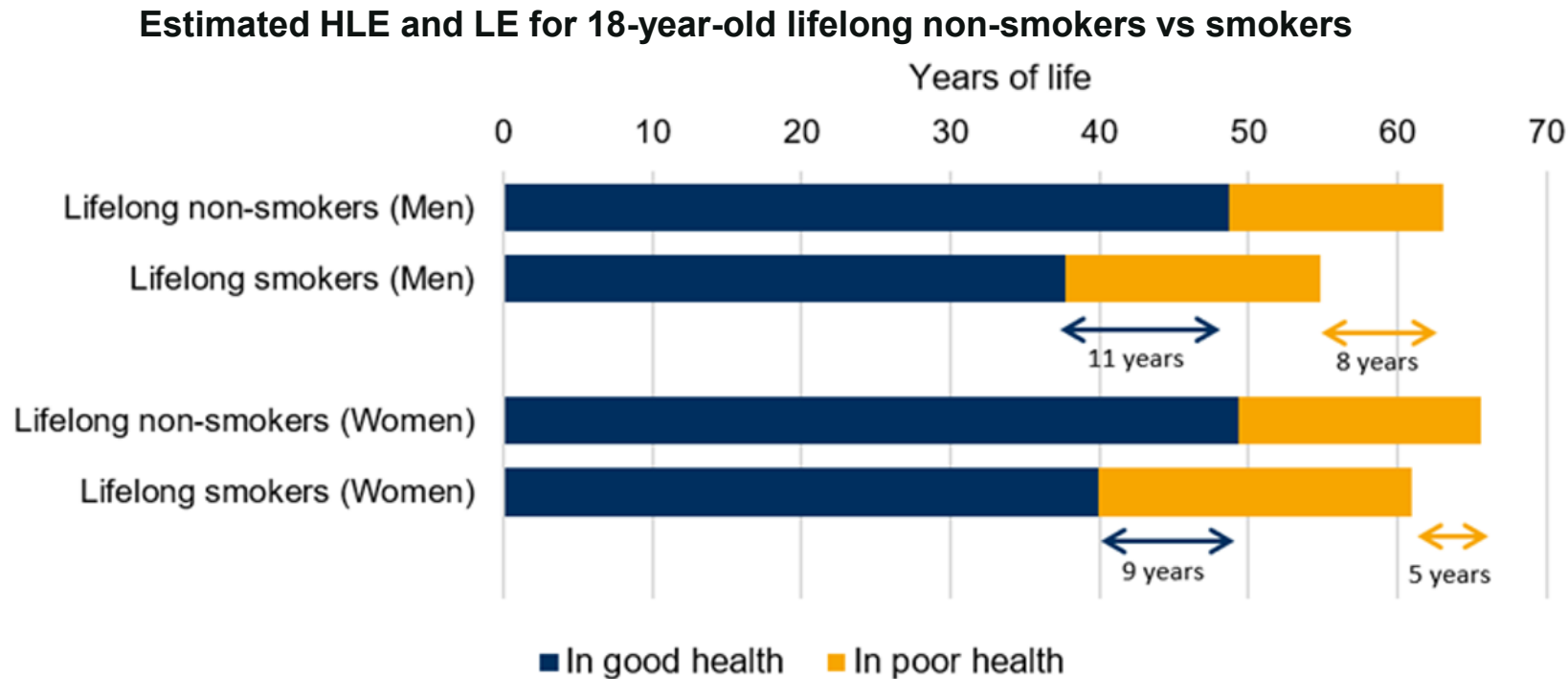
- HLE can also be measured in terms of whether people live with multimorbidity or not – more objective than self-reported health.
- For men, there was a larger 2.3-year gap in HLE at age 65 between the least vs most deprived (Q1 vs Q5), compared to a 1.3-year gap in ill health LE. These gaps were smaller for women.
- These gaps are wider when comparing never with current smokers.
- UK's official statistics department are currently looking into monitoring and reporting a similar type of HLE, as a more objective alternative to HLE based on self-reported health

LE at age 65 for men — years spent with (positive) or without (negative) multimorbidity, by IMD quintile



HLE may also vary substantially by generation if there is widespread improvement in health

18-year-olds who never smoke could spend around a decade more of their lives in good health than those who start smoking at 18 and remain lifelong smokers.



4. How do people view their own life expectancy

Member choice, or member risk?

Choice

Freedom to make financial decisions

No obligation to purchase annuity

Drawdown income that's right for the member

Risk

Many lack financial literacy

Limited longevity protection if all DC

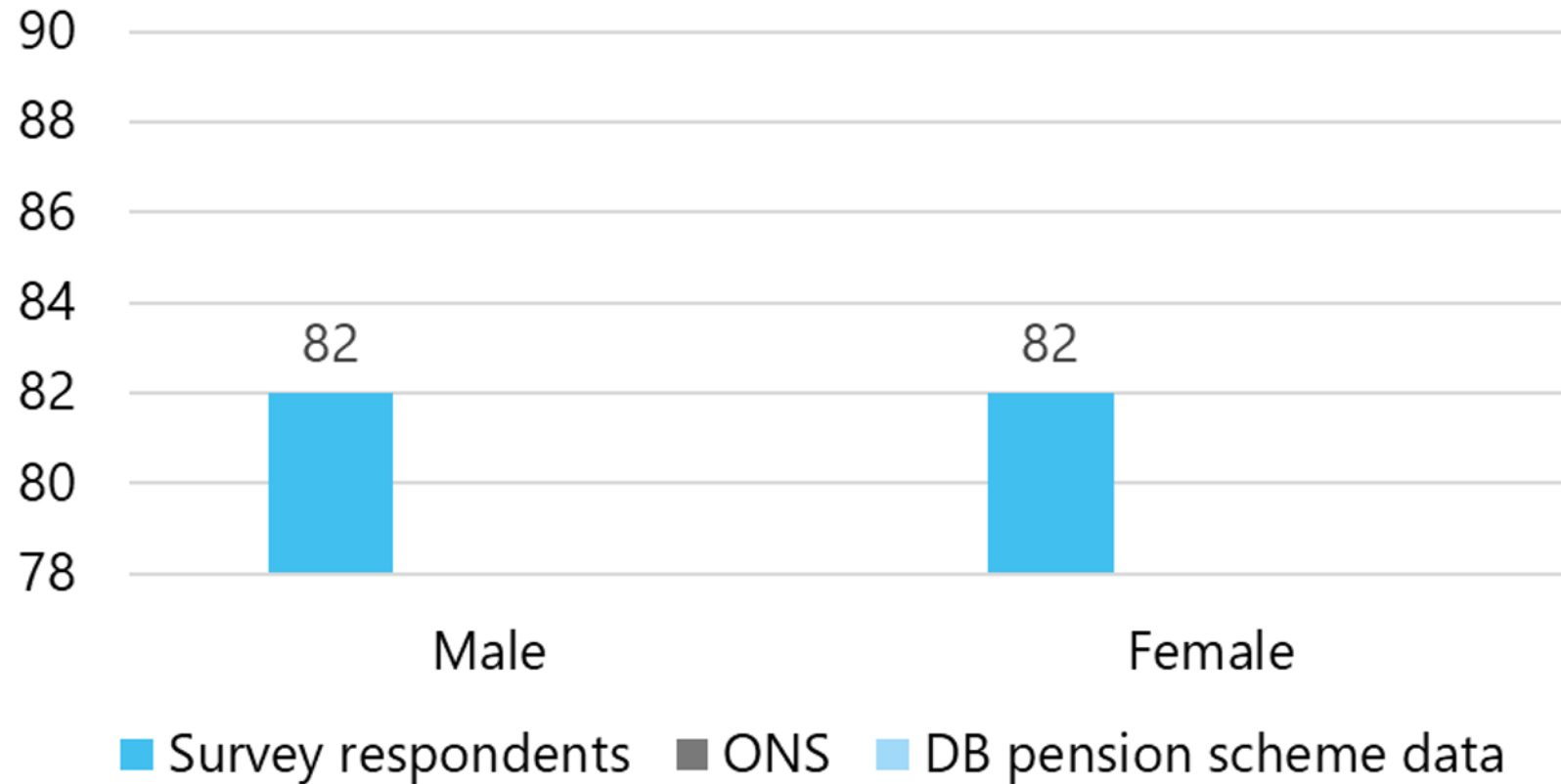
Volatile retirements

Poll – What age do you expect to live until?

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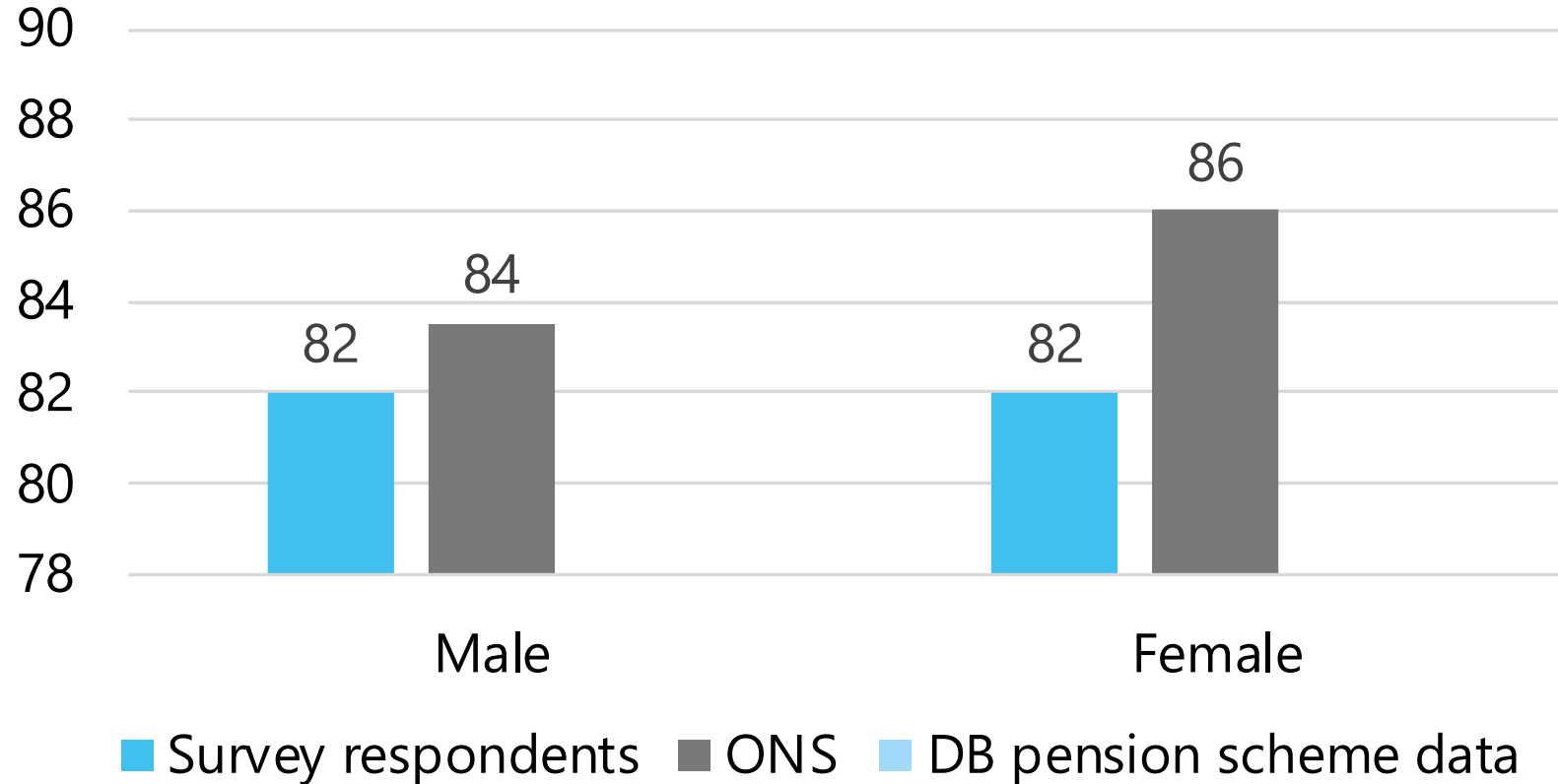


How long do people think they'll live?



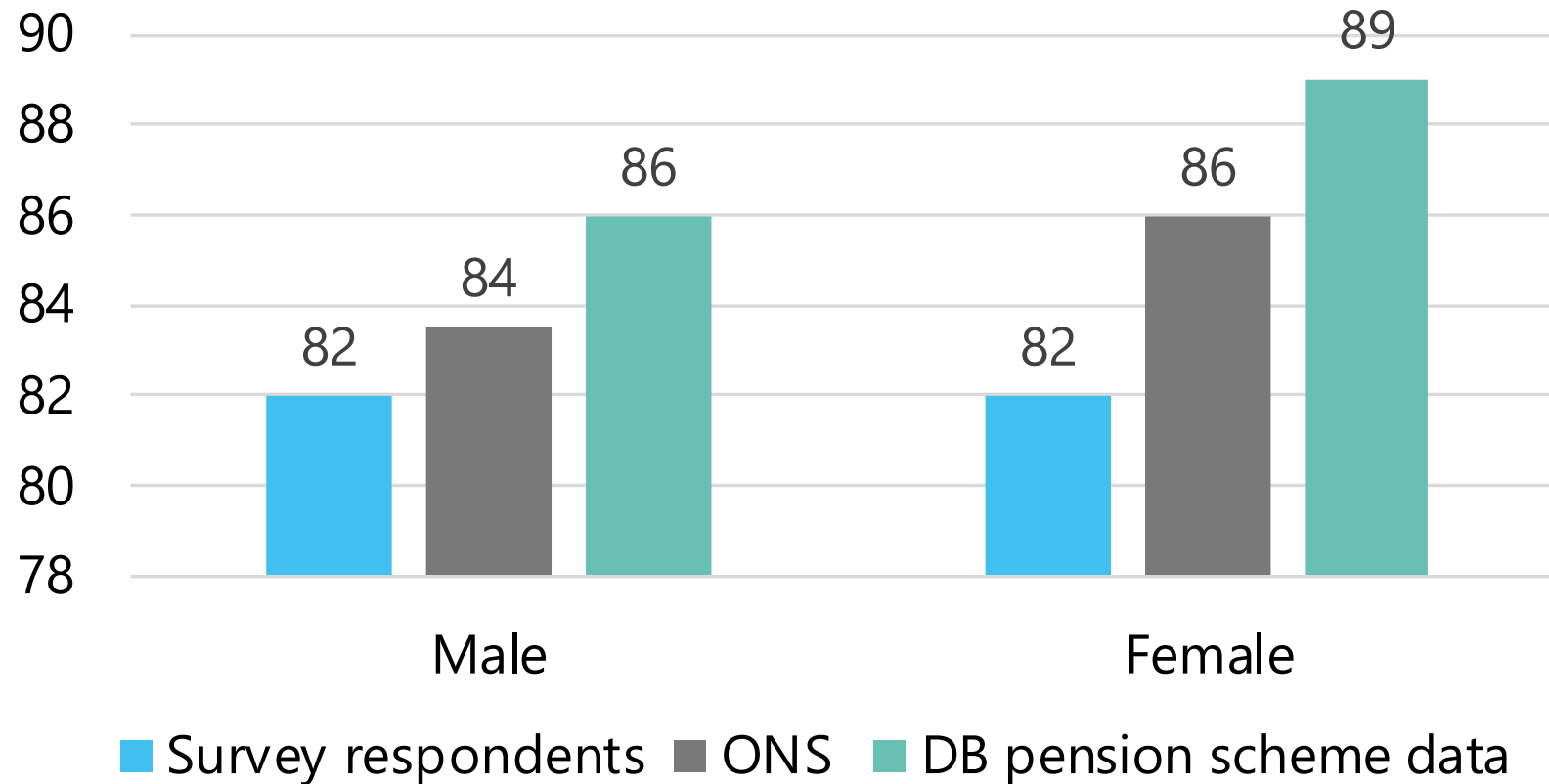
Source: Barnett Waddingham At Retirement Reckoning report

How long do people think they'll live?



Source: Barnett Waddingham At Retirement Reckoning report

How long do people think they'll live?



Source: Barnett Waddingham At Retirement Reckoning report

What does this mean for retirement decisions?

Challenges

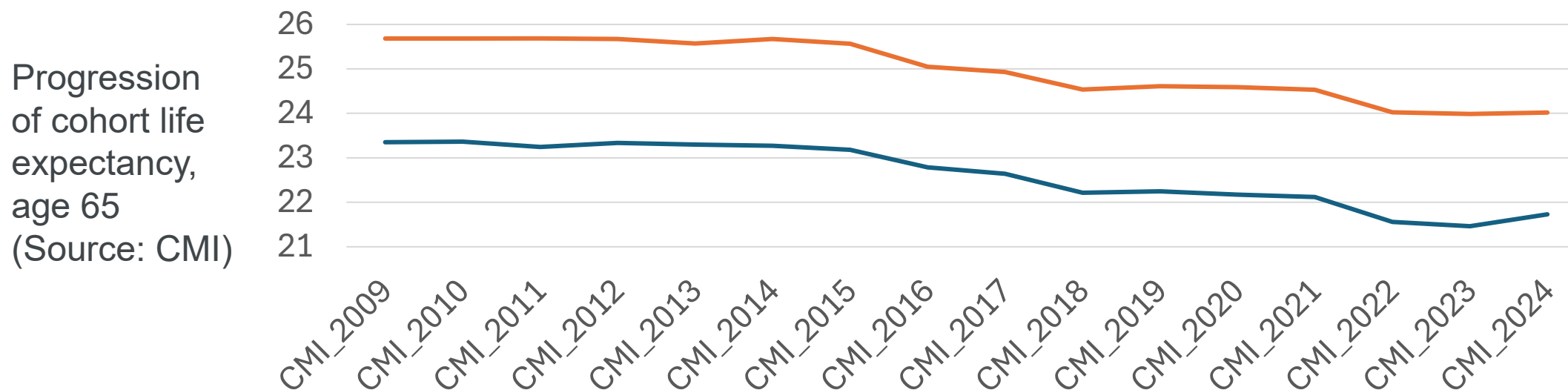


- Misunderstanding of life expectancy
- Poor retirement outcomes
- But actuaries have been wrong in the past!

Innovation



- Holistic understanding of retirement wealth
- Education
- New products



5. The state pensions landscape

State Pension in the UK

Key longevity protection provided to individuals

Unfunded

Affected by
spending

Misunderstood by
public

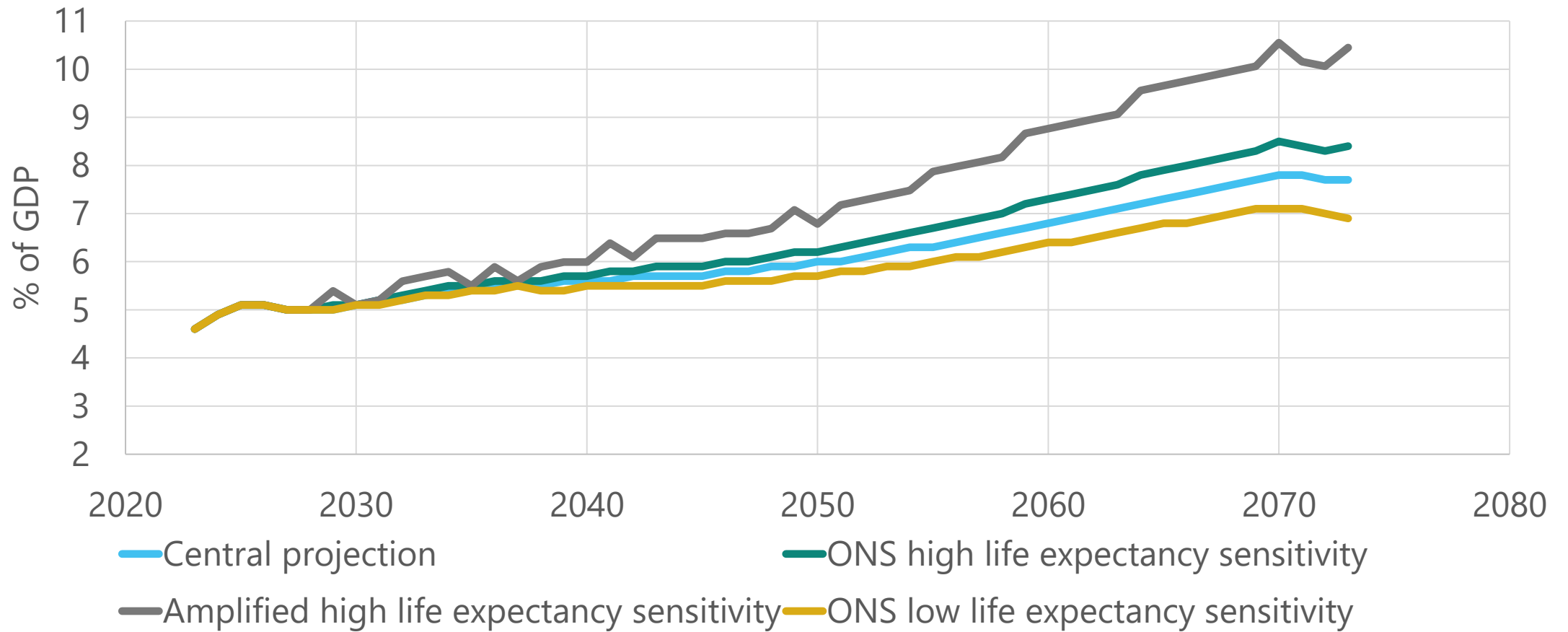
Simplified features

Single retirement
age

Simple increases

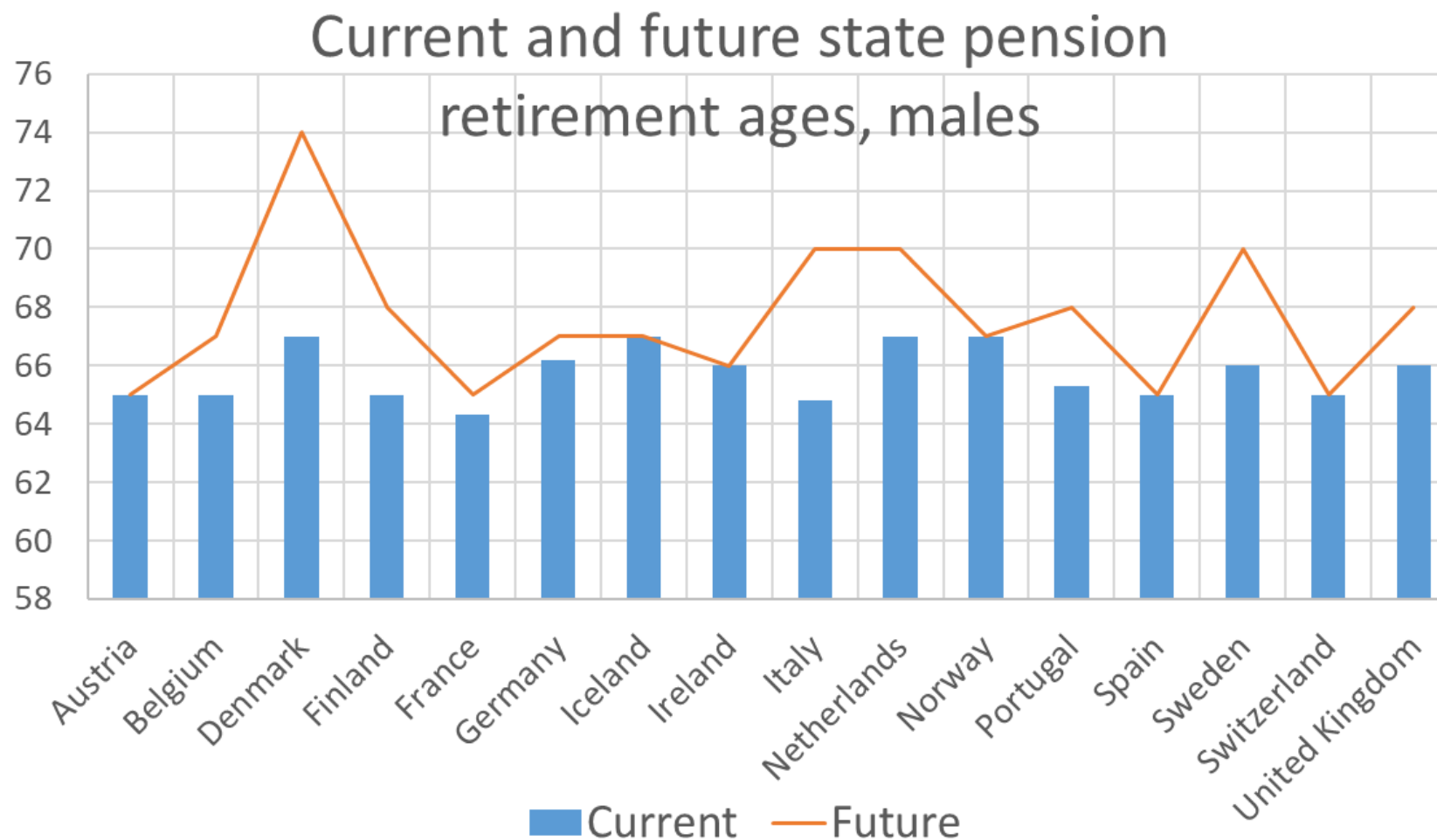
Regularly reviewed e.g. Pensions Commission

The future of the state pension costs (UK example)



Source: Calculations using ONS and OBR data

Managing future costs



Source: OECD

Public perceptions of state pension

I am 61 years old and I am finding it a struggle working till 67 when I get my state pension. My job needs good mental capacity, I can't imagine how people doing physical jobs will be able to continue working till 70 let alone 80.

Reply



Click to rate

↑ 85

↓ 0

Maybe if we stopped listening to "experts" this country might be in a far better place

REPLY 3 REPLIES LIKE 10 1



Future of the state pension

Challenges



- Limited current levers for adjusting cost via retirement age
- Public perception and politics
- In some countries level is low so can't be solely relied on when other funds run out
- In some countries level is high but has pushed out private saving

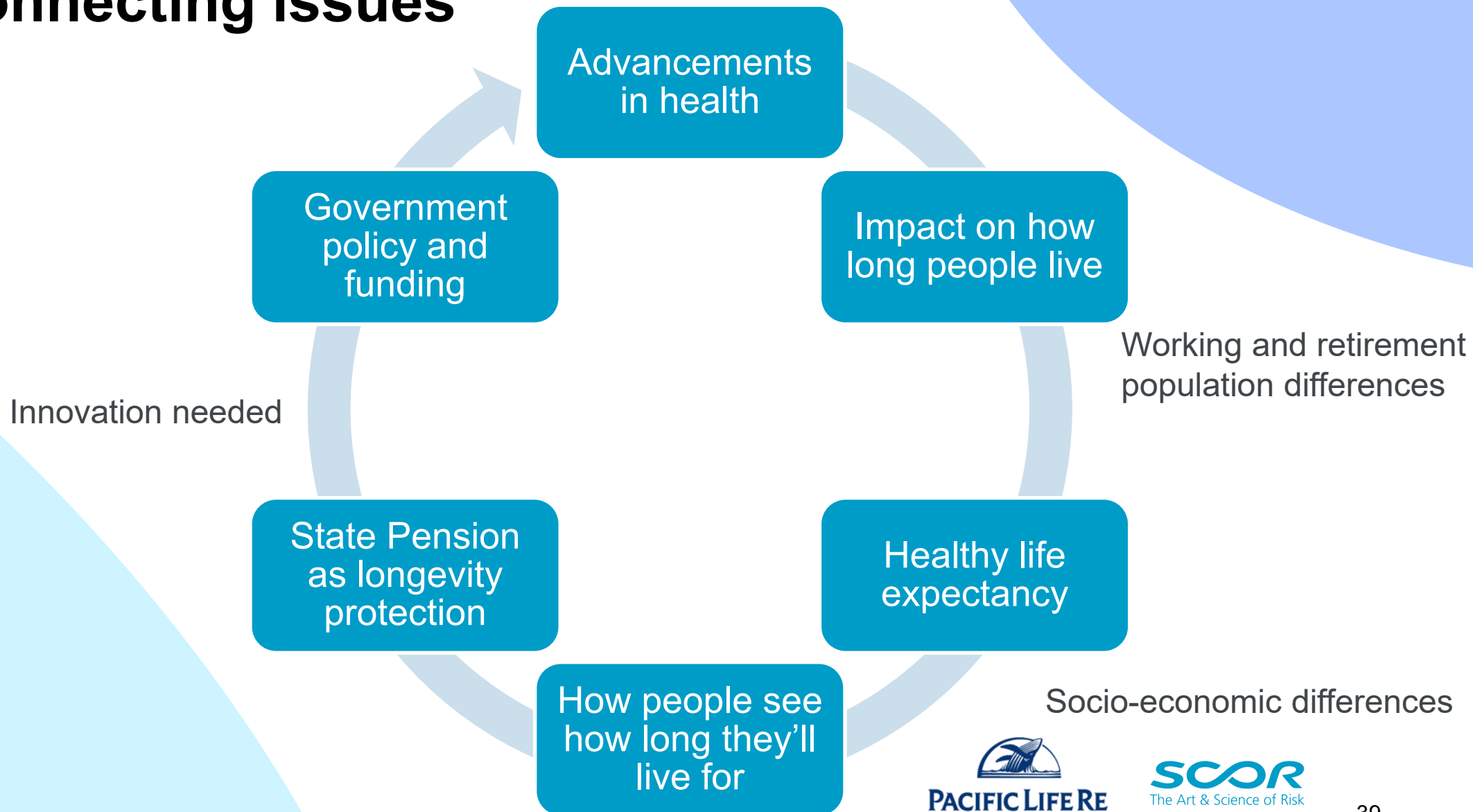
Innovation



- Means testing
- Shift towards longevity protection rather than base income
- Triple lock

Conclusions

Interconnecting issues



Parting questions

- How to square up:

Medical advances and health improvement

VS

State Pension Age and public perceptions?

- Is it the role of actuaries to help politicians explain retirement matters and complex statistics to the public?
- Due to the interconnectivity of issues, is there a need for:

More sophistication at individual level in DC world

VS

A holistic view from Government's perspective

Questions & Comments

The views expressed in this presentation are those of the presenters.