

Applying address-based mortality models to emerging markets

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Founder & Chief Visionary Officer
9 September 2025





Our mission

To improve later life financial well-being by promoting awareness of longevity risk and making its management transparent and efficient.



Our vision

- to enable financial institutions to understand and actively manage longevity risk
- to modernize market practices and remove market frictions for longevity risk transfer
- to improve access to cutting edge data-science tools and techniques



Our history

Club Vita was born in the UK in 2008. Our systems and processes were designed by a multi-disciplinary team, with a shared passion for “allowing the data to do the talking” by combining modern technology and statistical techniques. Following a successful UK launch, we went on to build similar communities in Canada (2015) and in the United States (2019).



Our community

We work primarily with workplace pension funds in the UK, Canada and the US to pool data underlying the longevity of retirees. Pension funds and their advisors use our analytics to understand their emerging longevity patterns, to drive more informed strategic decisions and to embed best-practice risk-management into their governance frameworks.

We also support financial institutions that manage longevity risk: insurers, reinsurers and asset managers. Our focus is on helping our clients offer attractive longevity risk protection products in a tech-enabled, efficient manner.



7 advisors



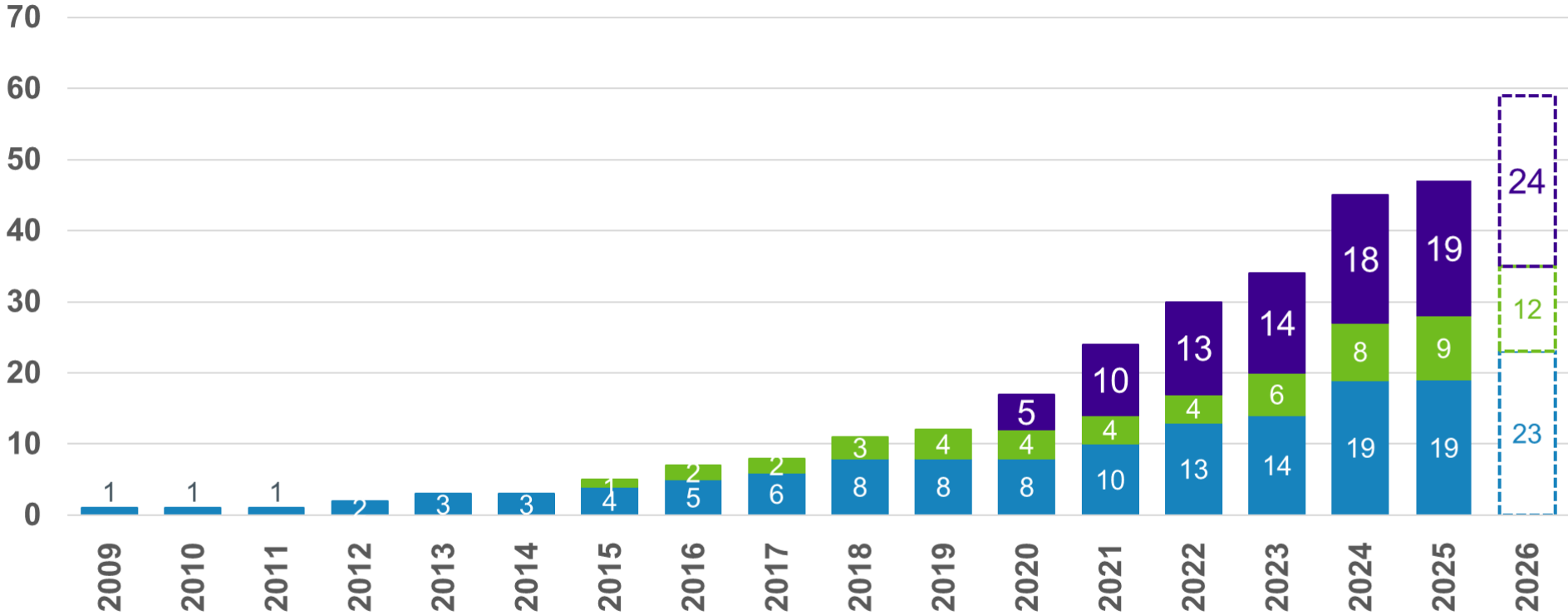
500 pension funds



34 risk-takers

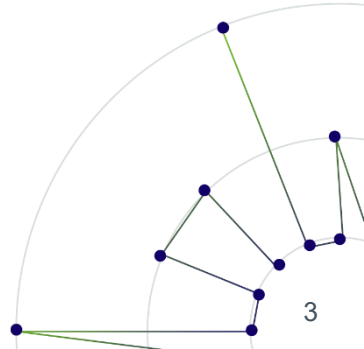
Building a common international currency

No of live eVitaCurves licences



Year ending March 31

(2026 figures are estimates based on live prospects at March 31, 2025)



Using GLMs to gain insights into pension plan longevity

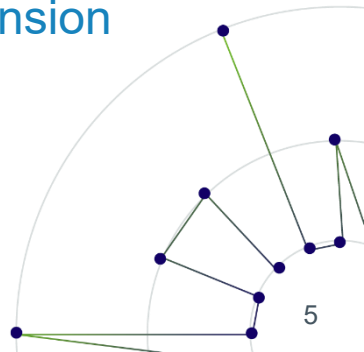
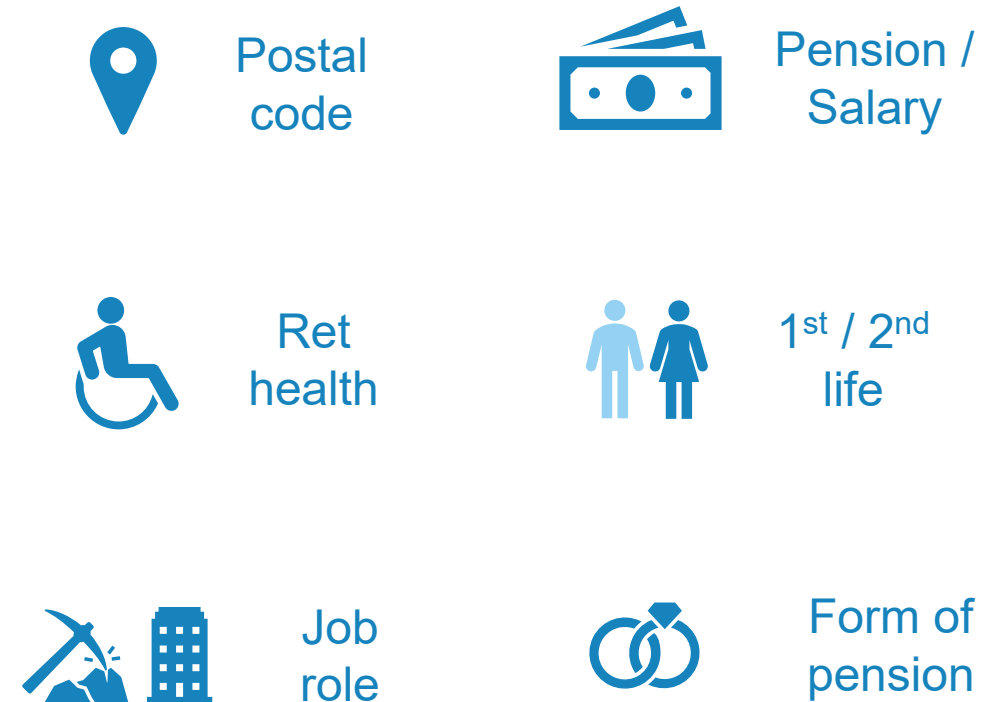
What influences how long we live for?

Beyond age and gender

Causal (*Underwritten mortality*)



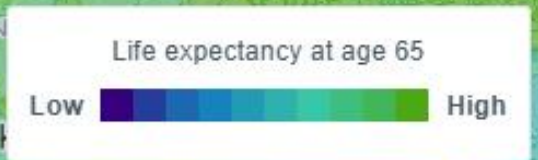
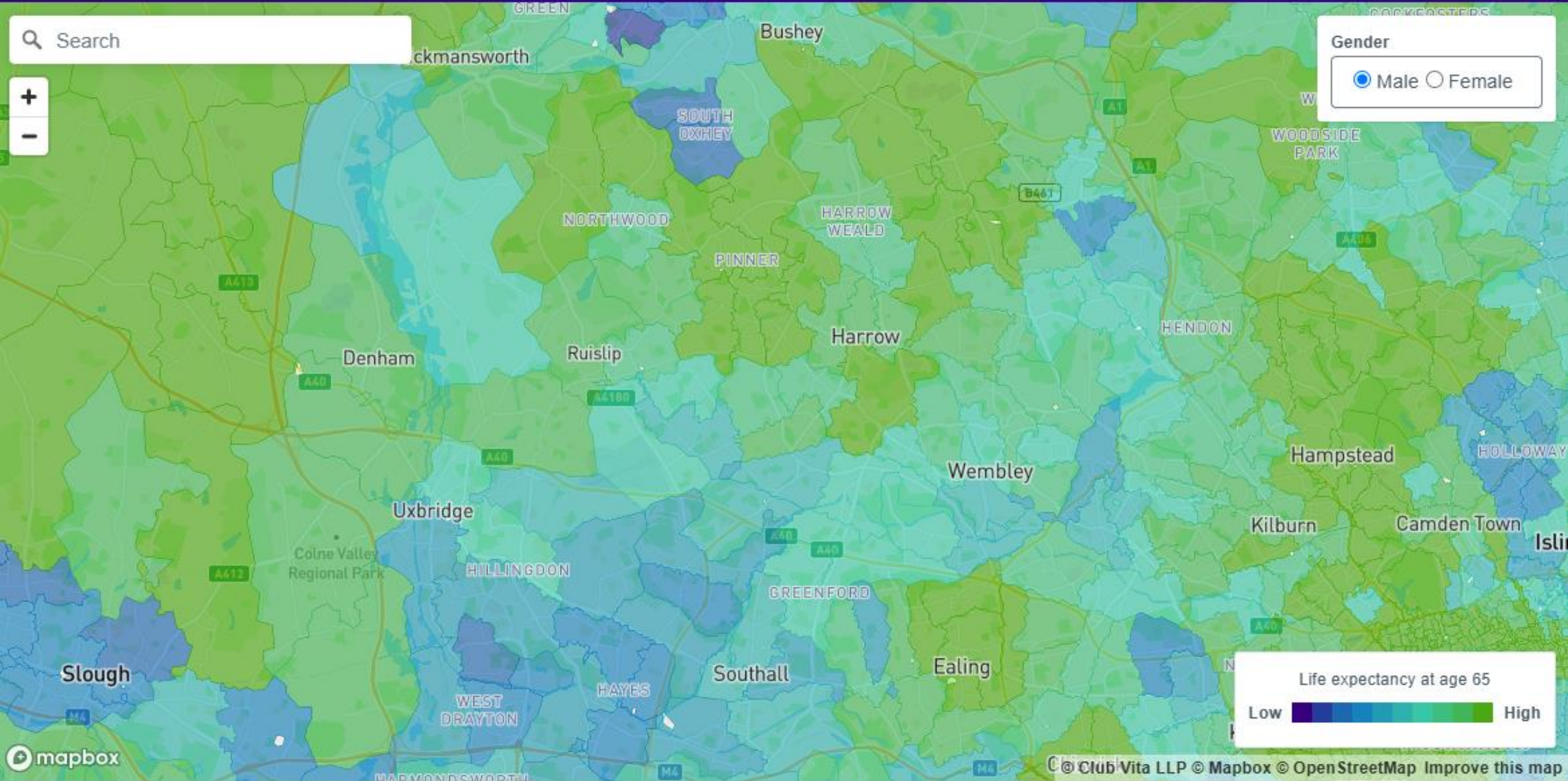
Proxies (*Pensions markets*)



Search

Gender

Male Female

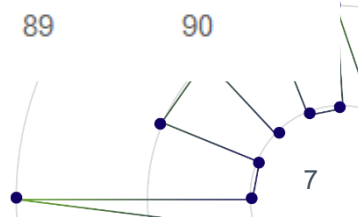
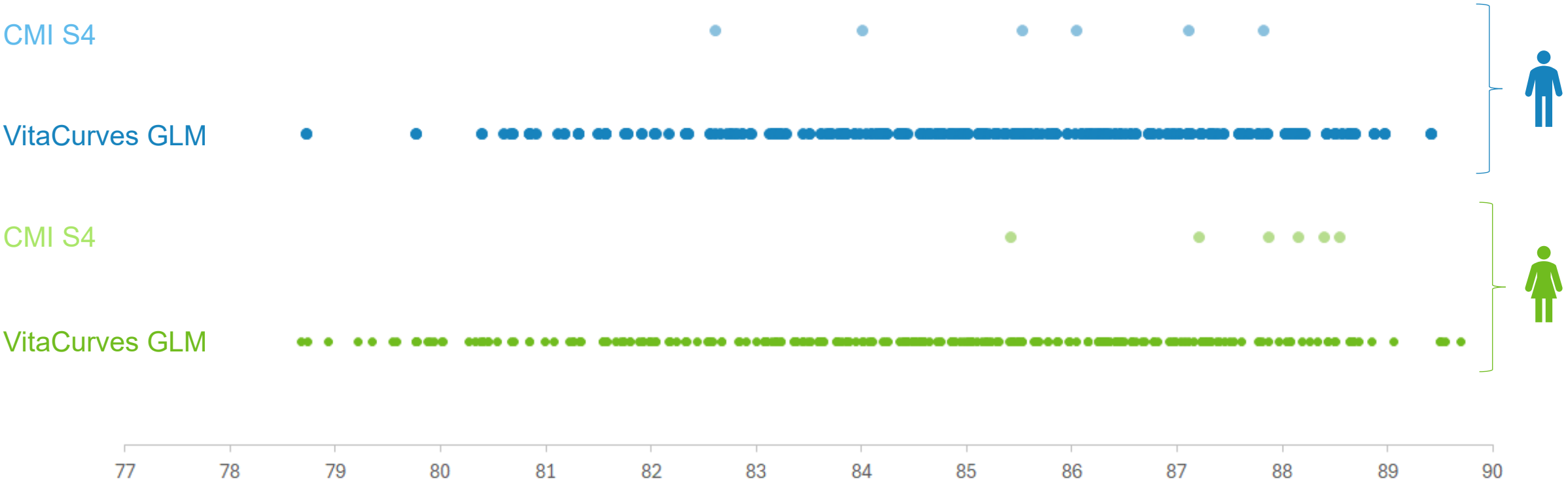


Filling out the longevity spectrum

GLMs enable a richer set of mortality tables

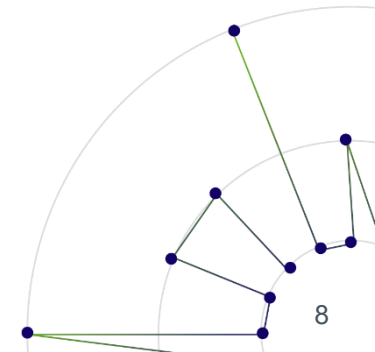
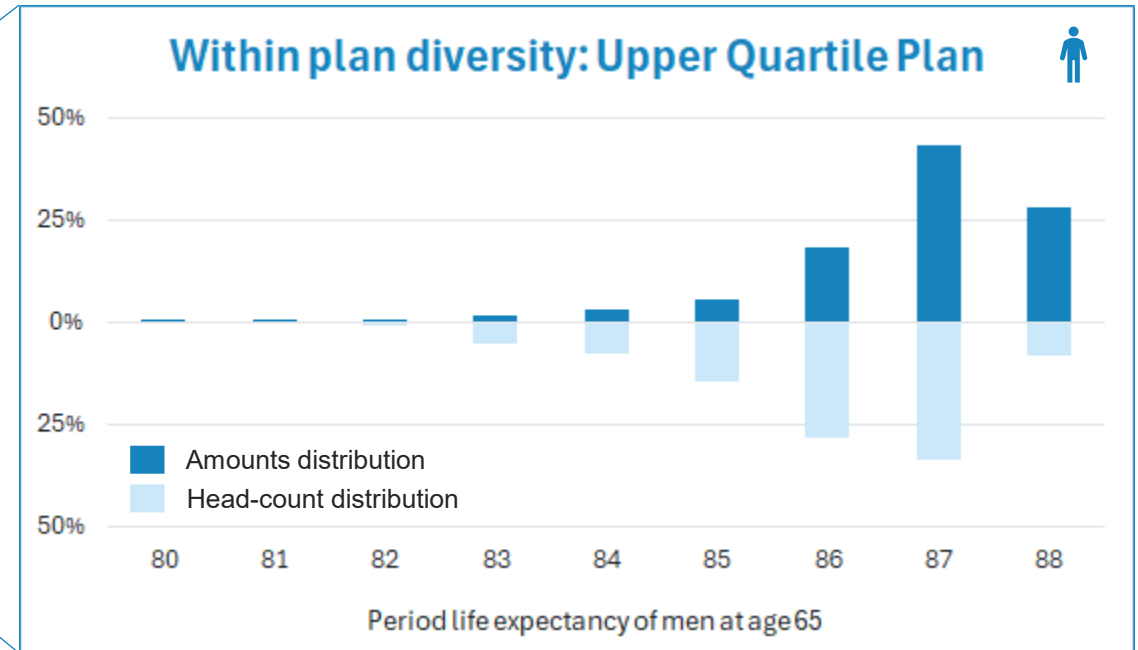
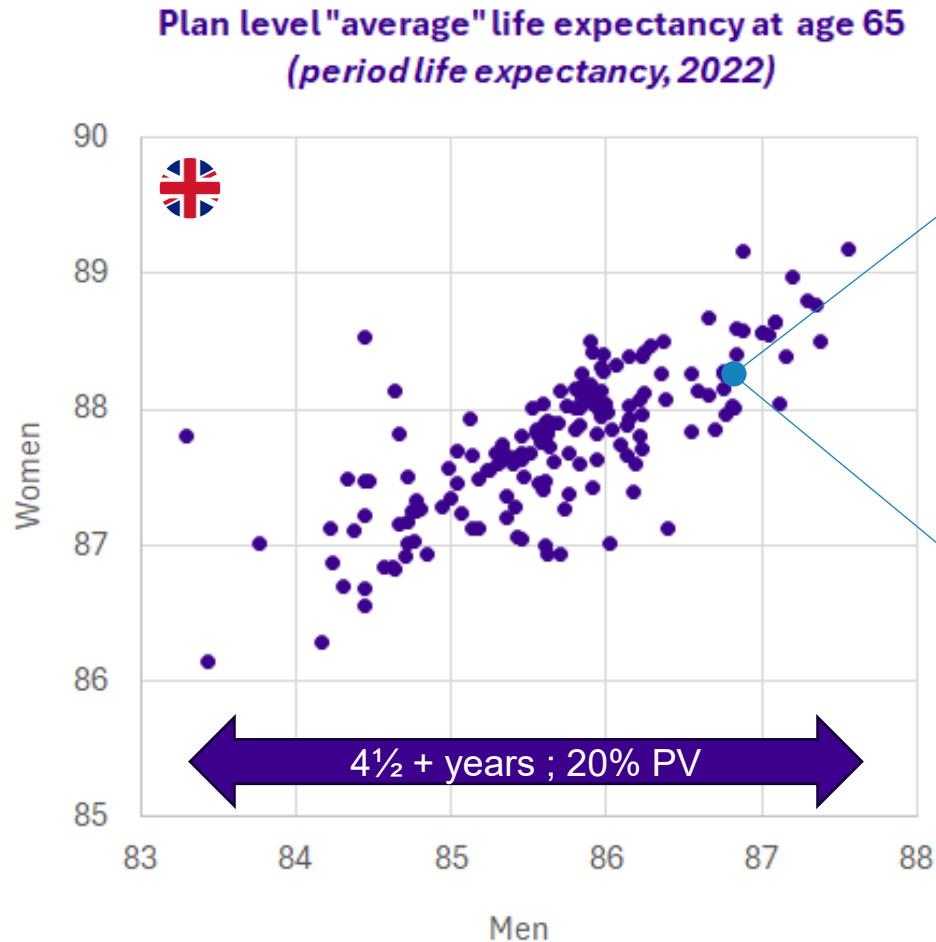


Filling out the spectrum of pension scheme members life expectancies from age 65



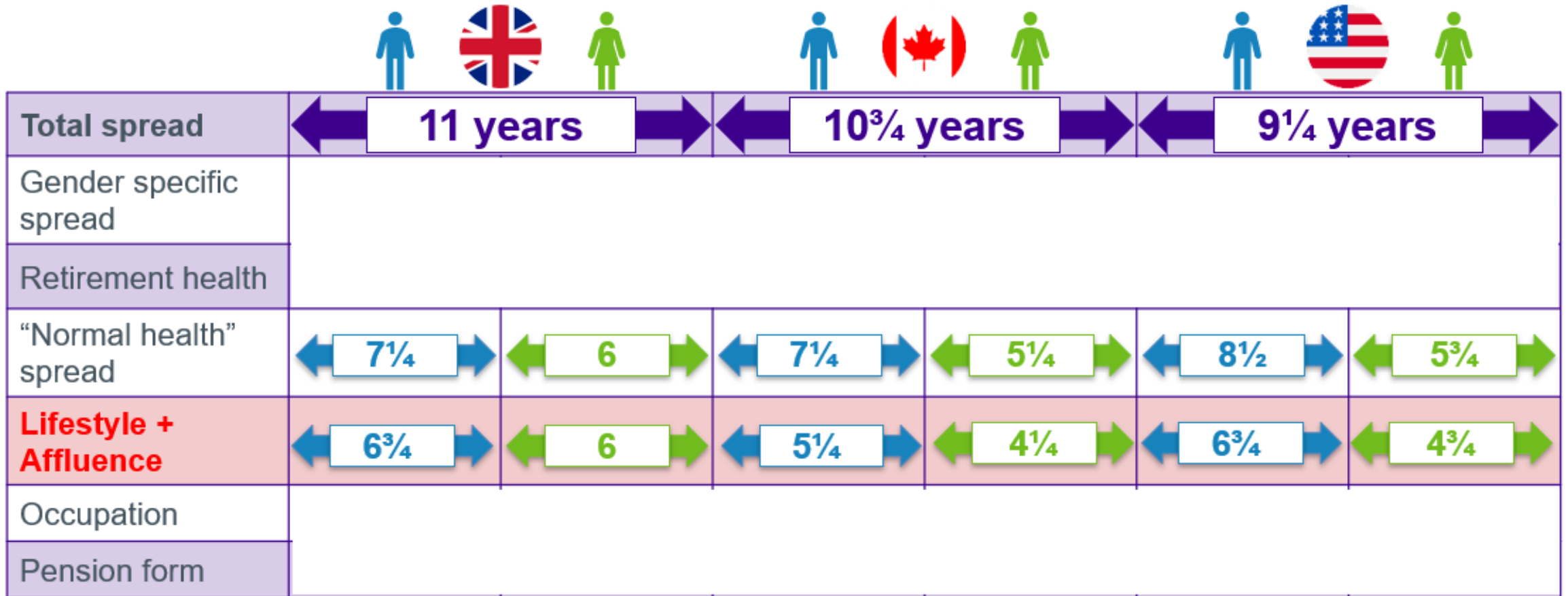
Filling out the longevity spectrum

GLMs enable “bottom-up” block specific assumptions



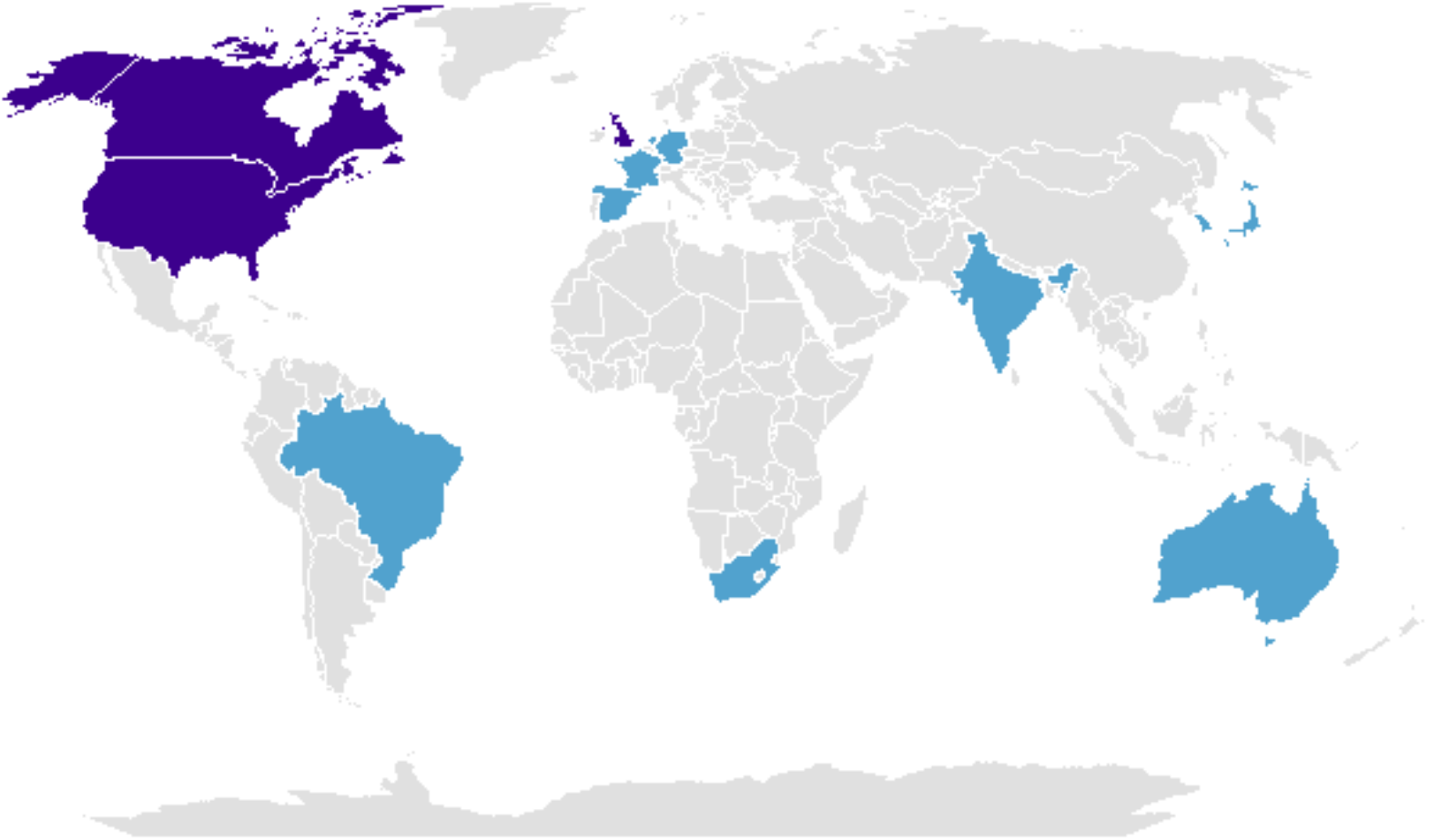
International transferability?

Consistent patterns across countries



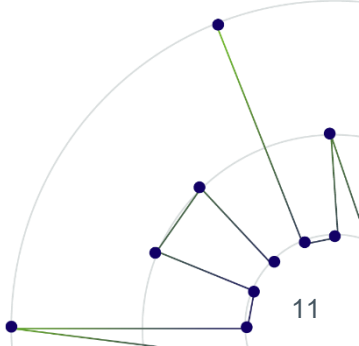
Notes: Spreads shown are based on Club Vita's VitaCurves models for the UK (CV24v2), Canada (CV22) and US (CV22v2). Effects shown are the impact of changing one rating factor in isolation. Some rows redacted.

Markets in need of detailed longevity modelling



-  Established PRT markets
-  Emerging markets *(selection)*

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Powered by Bing



Life expectancy versus lifespan inequality, 2023

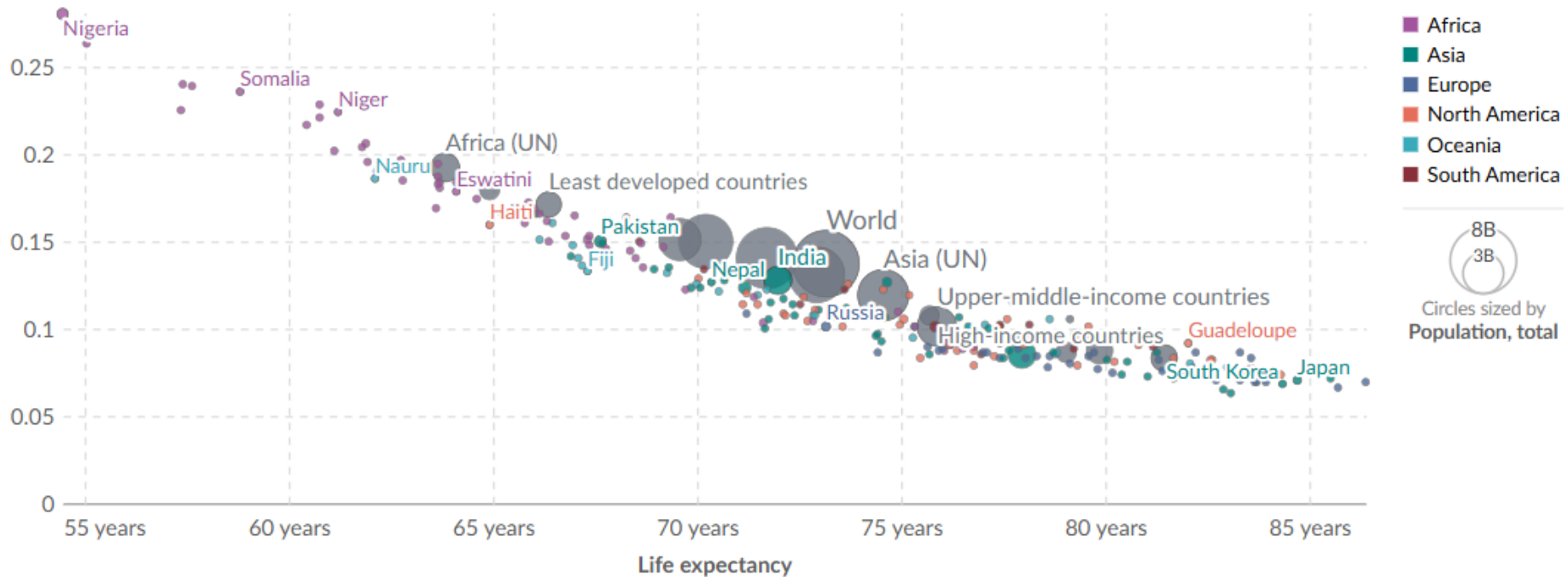
The period life expectancy at birth versus the Gini coefficient of lifespan inequality within a country, in females. A higher Gini coefficient indicates larger inequality in ages of death.

Table

Chart

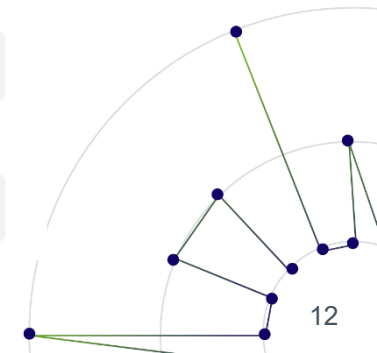
Select countries and regions

Lifespan inequality



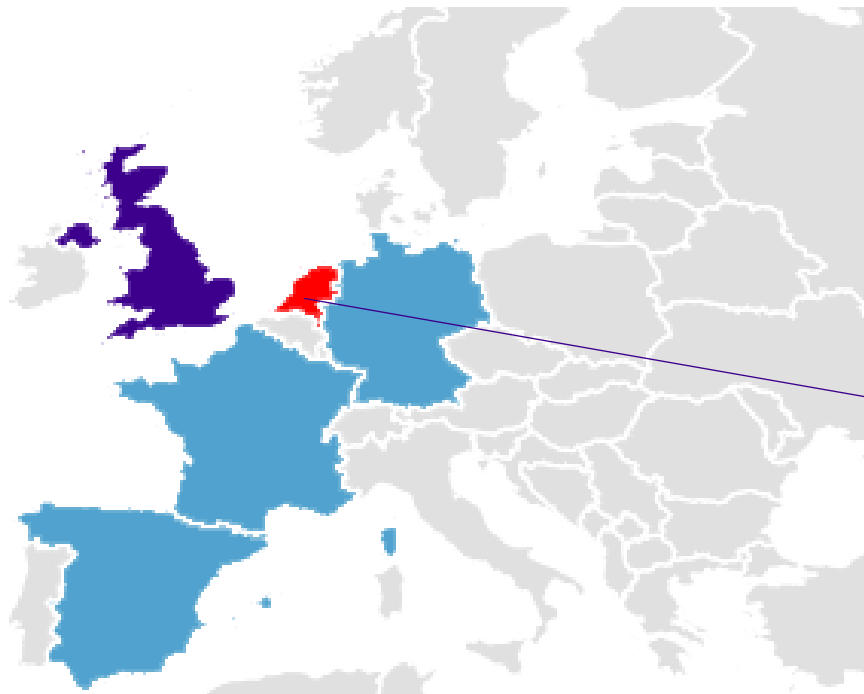
Data source: Human Mortality Database (2024); Aburto et al. (2023); UN, World Population Prospects (2024) - [Learn more about this data](#)

OurWorldinData.org/life-expectancy | CC BY



A case study

Dutch pensions reform



Key stats:

c. €1,200bn (liabilities)

Estimated 200 plans (down from 600 a decade ago)

Dominated by small number of large multi-employer industry plans (75% AUM)

Netherlands

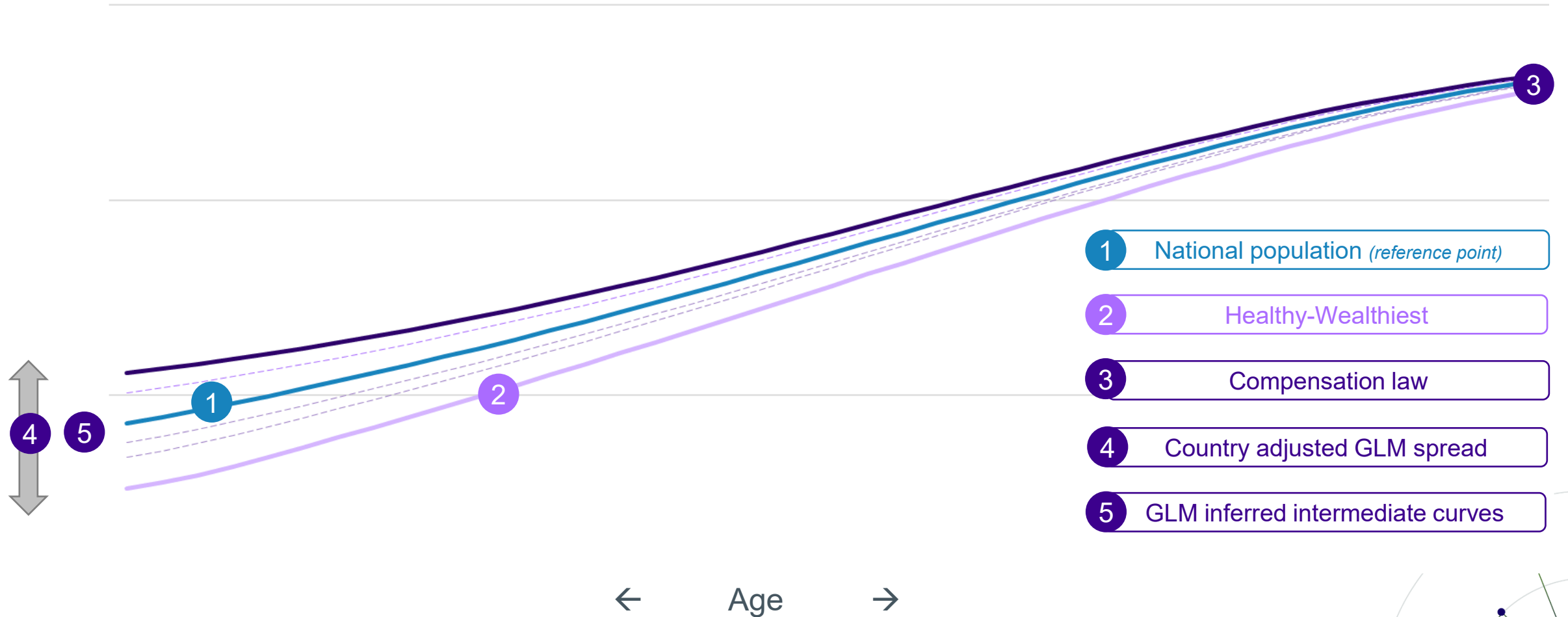
- Dutch Future Pensions Act 2022 (“WTP”) has been passed by the Dutch Senate
- The WTP requires that all pension scheme accruals are on a defined contribution (“DC”) basis as perceived to be generationally more equitable
- Final salary and career average accruals will no longer be possible
- Existing accruals must either be transferred to the new scheme...
- ...or legacy schemes closed and secured with insurers
- Statutory deadline of January 1, 2028 for completing the process (may be extended)

Potential for material volumes of longevity risk transferring –to life insurers (PRT) or DC vehicles.

More granular longevity models likely to be needed to avoid selection risk.

“Inferred GLMs”

Using commonality across developed countries in 5 steps



Imputed profiling in the Netherlands

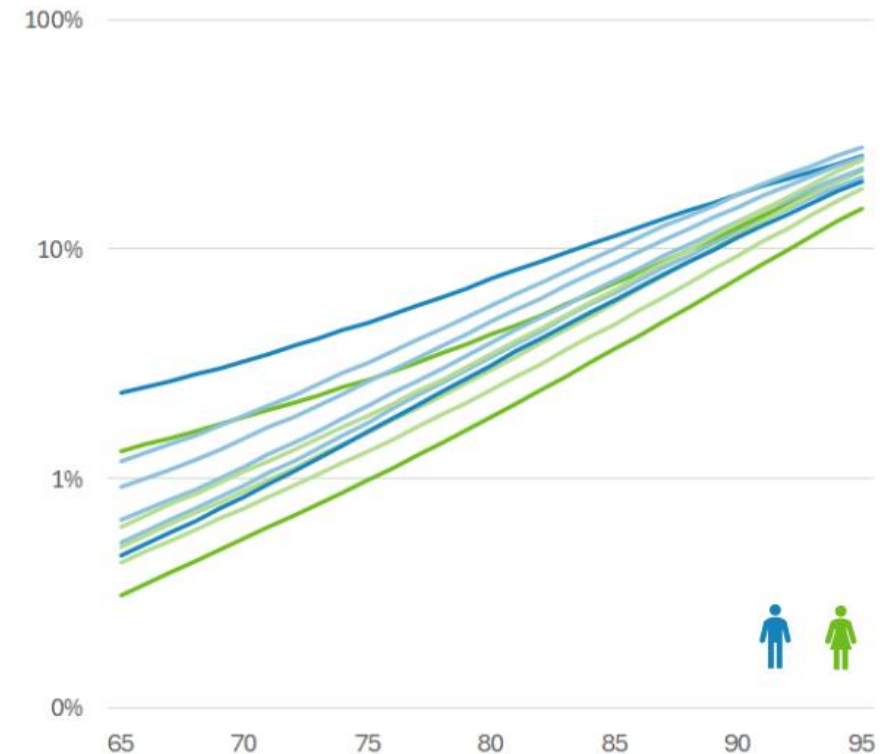
Postal code profiling principles

1. Residents in small neighbourhoods have similar characteristics
2. Neighbourhoods can be characterised by typical residents (e.g. Netherlands 17 households / 38 people per postcode)
3. Neighbourhoods with same characterisation **appear all over the country and in other developed countries**
4. People with similar characteristics have similar mortality



VitaCurves^{NLD}

(affluence and postal code based curves for PRT)

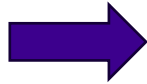
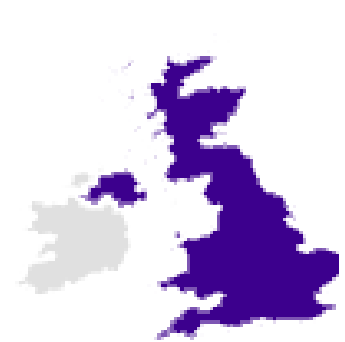


Note: Illustrative VitaCurves^{NLD} for men. Curves available to licensed users may differ from those shown here and are proprietary to Club Vita.

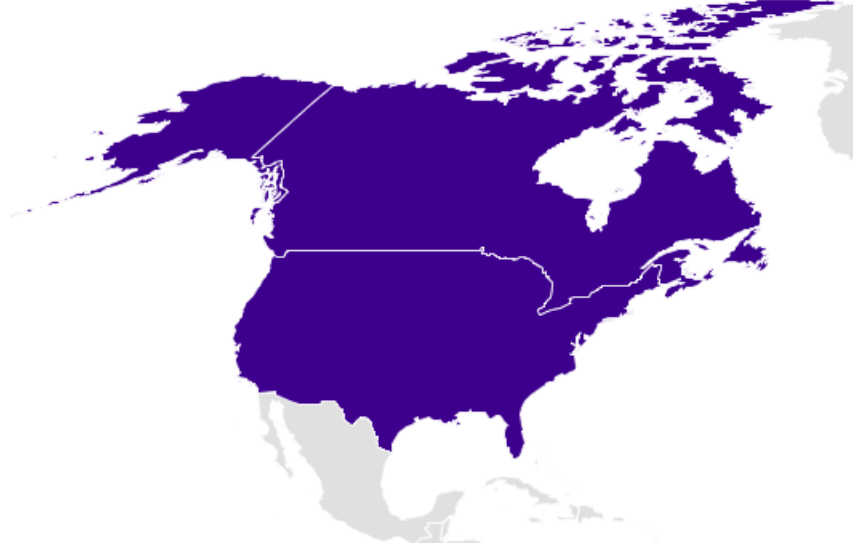
Getting comfortable with imputed GLMs

Build, test and refine

Base



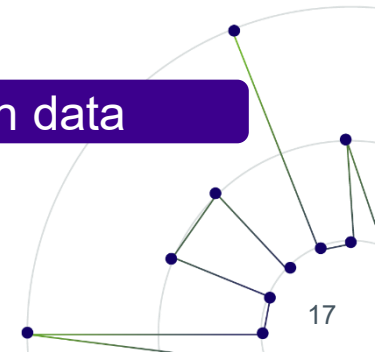
Test and refine process



Apply

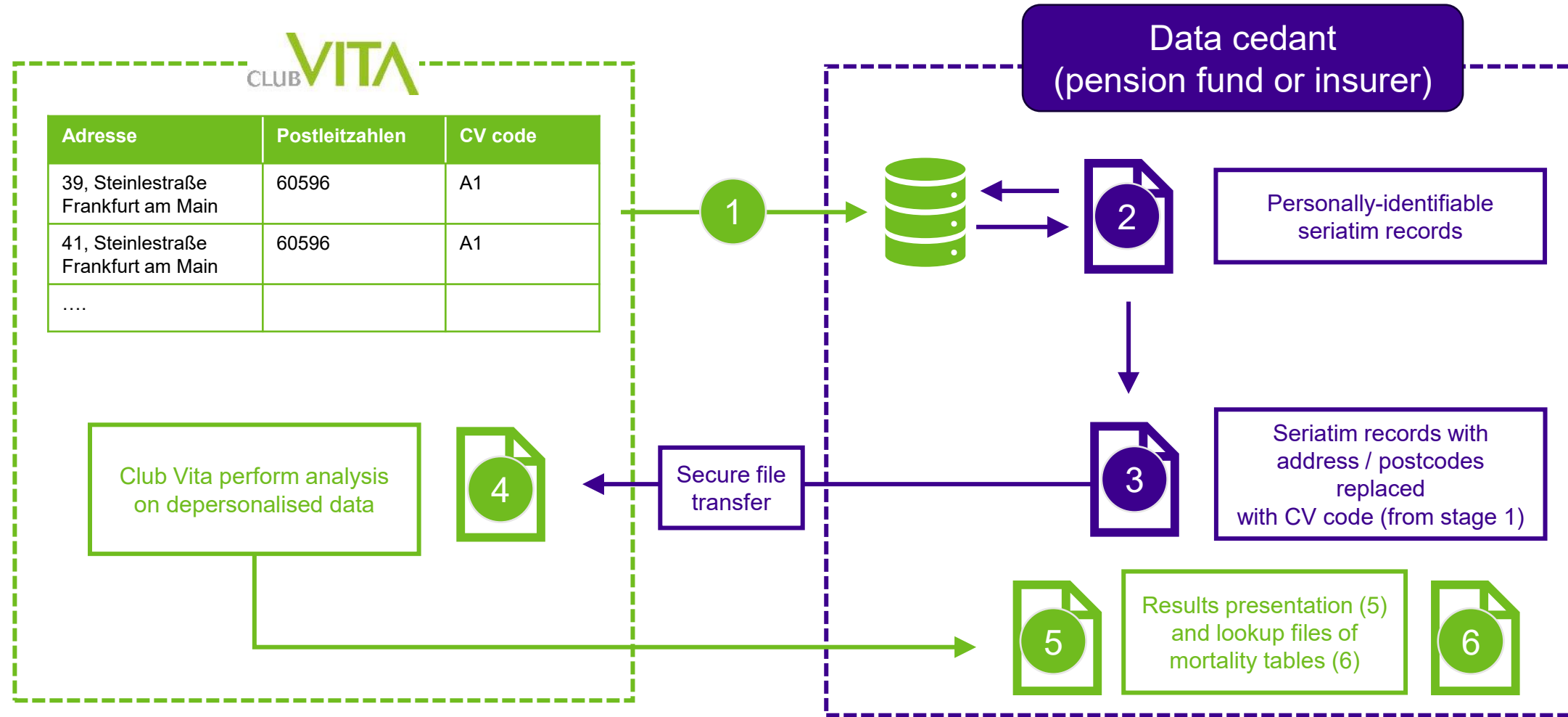


Refine with data



Maintaining data privacy

Avoiding receipt of personal data



Vision

Recapping on core benefits

	Risk cedant	Risk taker
Data security	✓ Anonymizes records, preventing them from being linked to other datasets	✓ Improved quality of data for more granular pricing
Pricing	✓ Lower, from tighter risk margins	✓ Turn emerging markets into flow markets



2008



2014



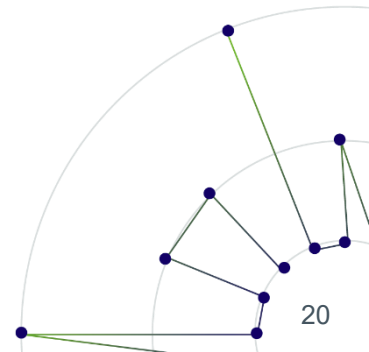
2019



2025



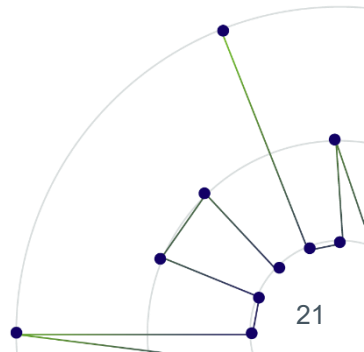
2025



Working beyond my expected retirement age



- ✓ Purpose
- ✓ Camaraderie
- ✓ Skill renewal
- ✓ Good health



Delighted to answer any questions...



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