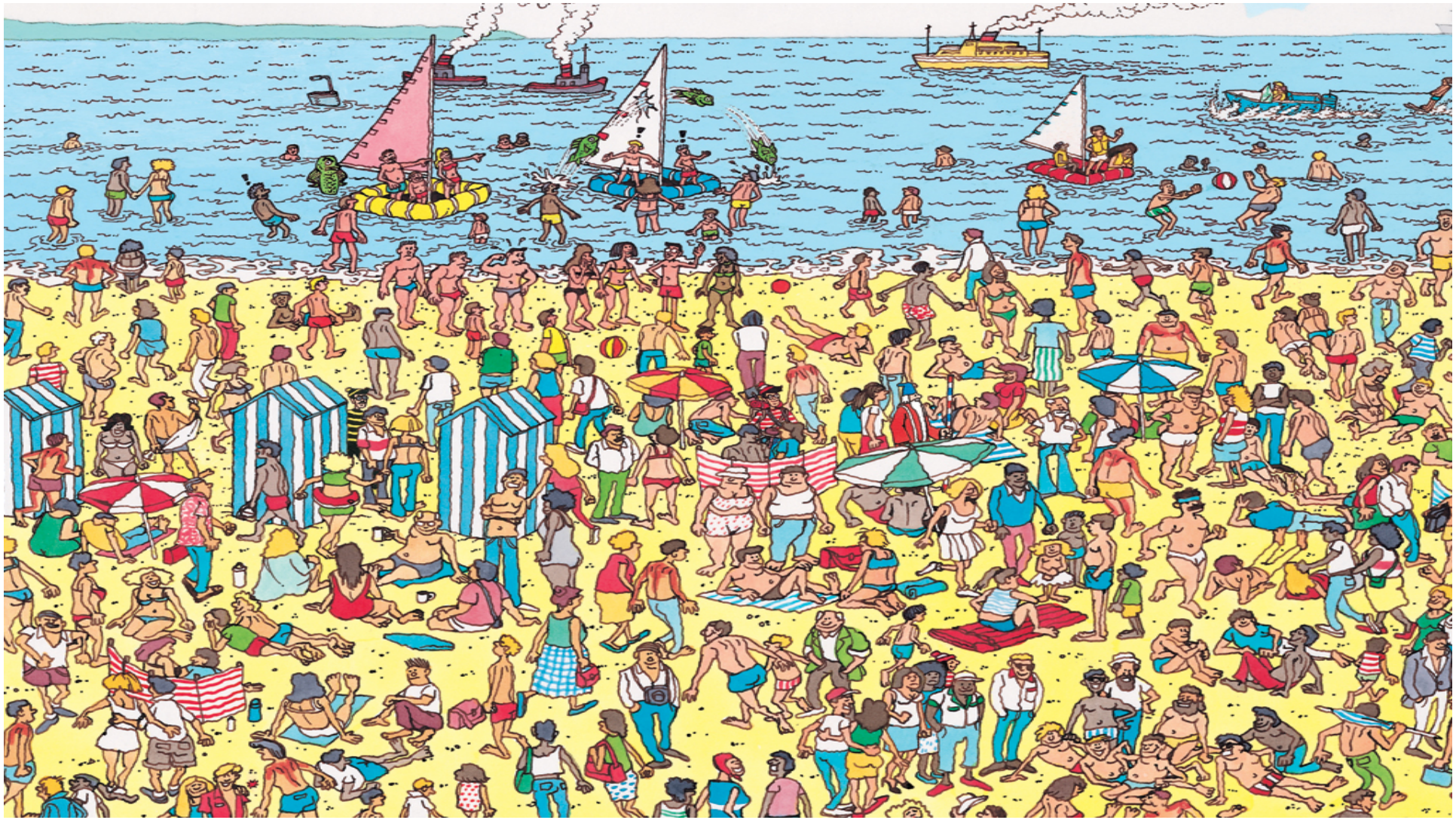

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Better data = Better valuations

Medical underwriting in pensions

Andrew Gething – Founder & MD MorganAsh

Agenda

- What is medical underwriting
- MUBA - Bulk Annuities
  - How it works
- MUMS – Mortality Studies
- Case studies
- Results
- Summary

Background

Expert underwriting & claims management services for Life & Pension industries

pwc KPMG Willis Towers Watson

MERCER Legal & General Grant Thornton

LCP INSIGHT CLARITY ADVICE JUST. RETHINK RETIREMENT Barnett Waddingham

Punter Southall

xafinity first actuarial HYMANS ROBERTSON

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What is Medical Underwriting?

- Mortality prediction based on medical studies
  - Condition, lifestyle
- Summarised in underwriting manuals
- Mature in Life Insurance
- Predicting forward

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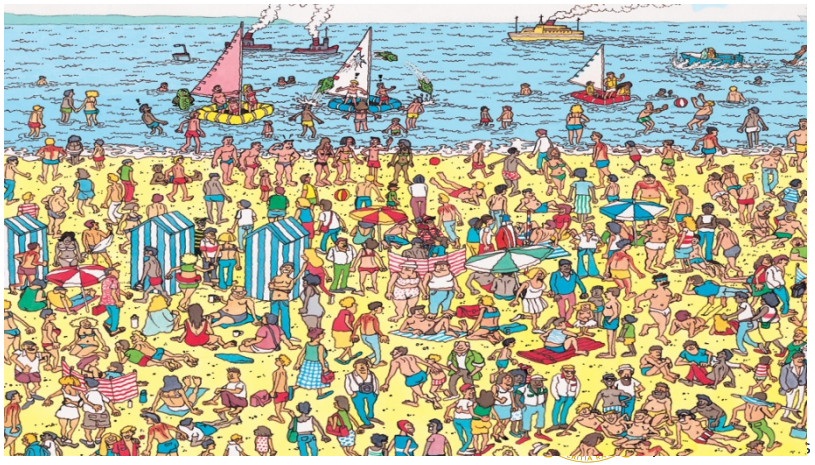
Use of Medical Underwriting in Pensions

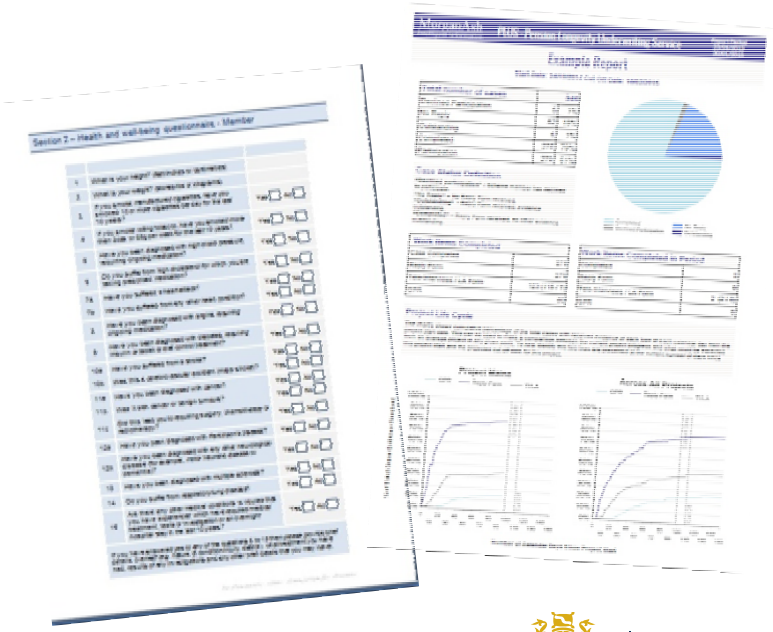
Actual current health status better prediction of mortality than postcode & assumptions

- Individual annuities
- 2013
  - MUBA – Bulk Annuities
  - MUMS – Mortality Studies



MUBA – Medically Underwritten Bulk Annuity

- Buy-out or buy in
- Independent trusted service
- Operate tender process



AVIVA

JUST. RETHINK RETIREMENT

Legal & General

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How it works

66%

MUBA - Case Study

- Scheme £8.5M
- Pensioners targeted £5.3M
- No. of scheme members 51
- Result
  - Tender price £4.8M
  - Saving **8.3%**

"The MorganAsh process of contacting scheme members went very well…We received a good reduction from the insurers which enabled us to pursue a buy in transaction, thus de-risking our scheme."

Howard Jones

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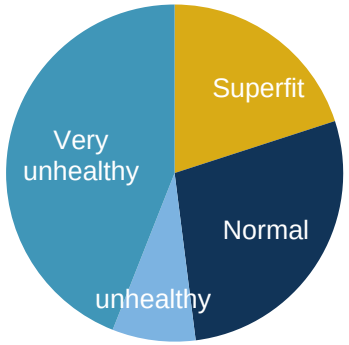
4 Bucket approach

MUMS - Case Study

- Largest timber mills in the UK £40M
- Deficit £12M
- Proportion of pensioners £27M
- No. of pensioners 25
- Result
  - Revaluation pensioners £22M
  - Potential saving £5M
  - Agreed saving **£2.3M**

Health of scheme members



"The outcome showed a reduction in liability due to mortality of some £5m compared to the scheme actuary's assumptions for this £40m scheme."

H Jones Chief Financial Officer BSW Timber Limited.

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MUMS - Case Study - Publisher

- Scheme £500M
- Deficit £100M
- No. of pensioners 550
- Result
  - Revaluation £450M
  - Saving **£50M**
  - Share price rise **12%**

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Johnston Press reduces its pension scheme deficit by £50m

Regional newspaper publisher's liability stood at £9

Ashley Highfield, Johnston Press chief executive, plans sell-off. Photo

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Johnston Press shares rise on pension deficit cut news

3 February 2016 Scotland business

Shares in publisher Johnston Press rose by more than 10% on Wednesday after it said it expected a major reduction in its pension scheme deficit.

Johnston said the findings of a study into the fund's liabilities should see the current £90m deficit cut by £50m.

It also stated that a change to the scheme rules meant it could participate in any surplus when the scheme closes.

Johnston added: "These adjustments, taken together, reduce the scheme deficit by

MUMS – Case study - healthy

- Financial services company £60M
  - White collar execs
  - People 113
  - Average pension income £40K
- Result
  - Participation rate 70%
  - Improved valuation £57M
  - **Saving** **£5 %**

"The original valuation assumed all lives were healthier than standard SAPS due to their wealth. Actual health data and underwriting proved this assumption to be incorrect."

"The general observation that wealth correlates to health does not necessarily apply to smaller cohorts."

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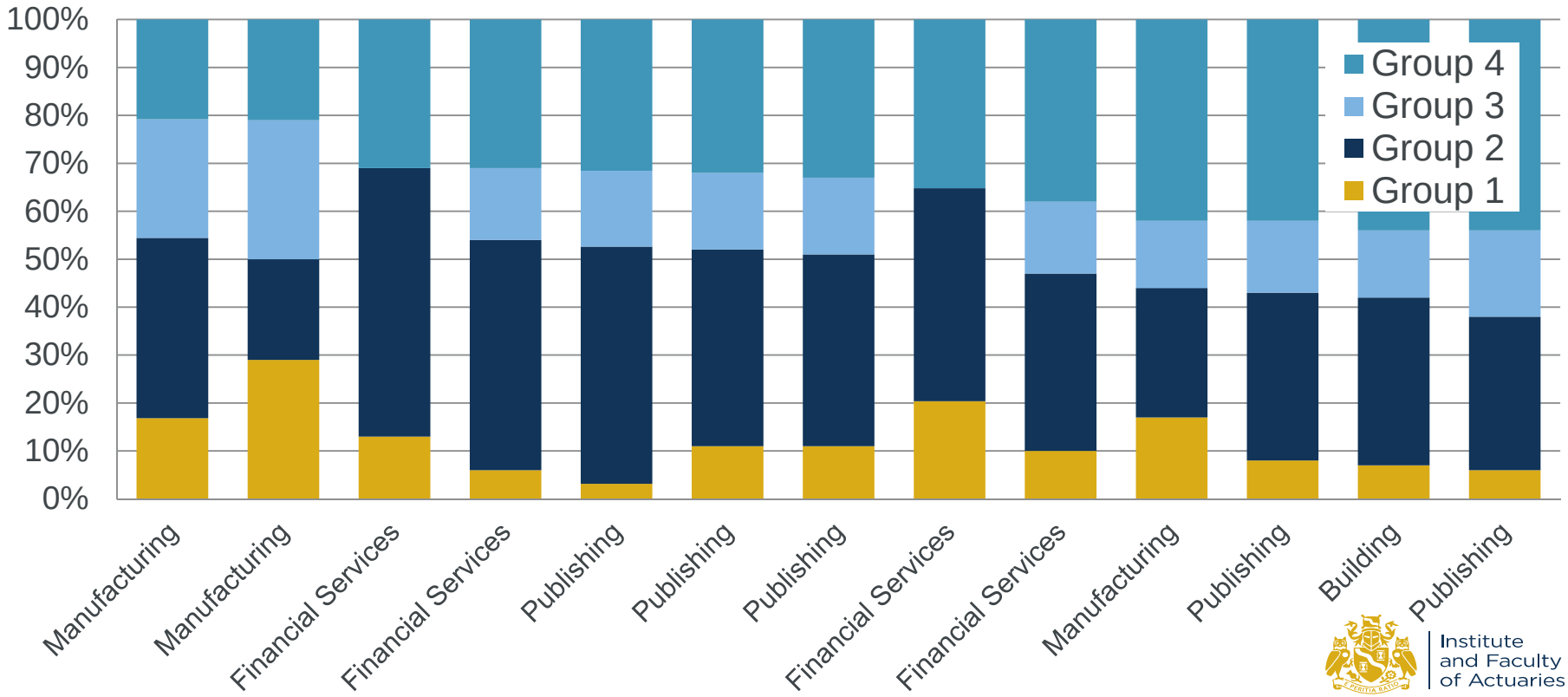
MUMS - Results across projects



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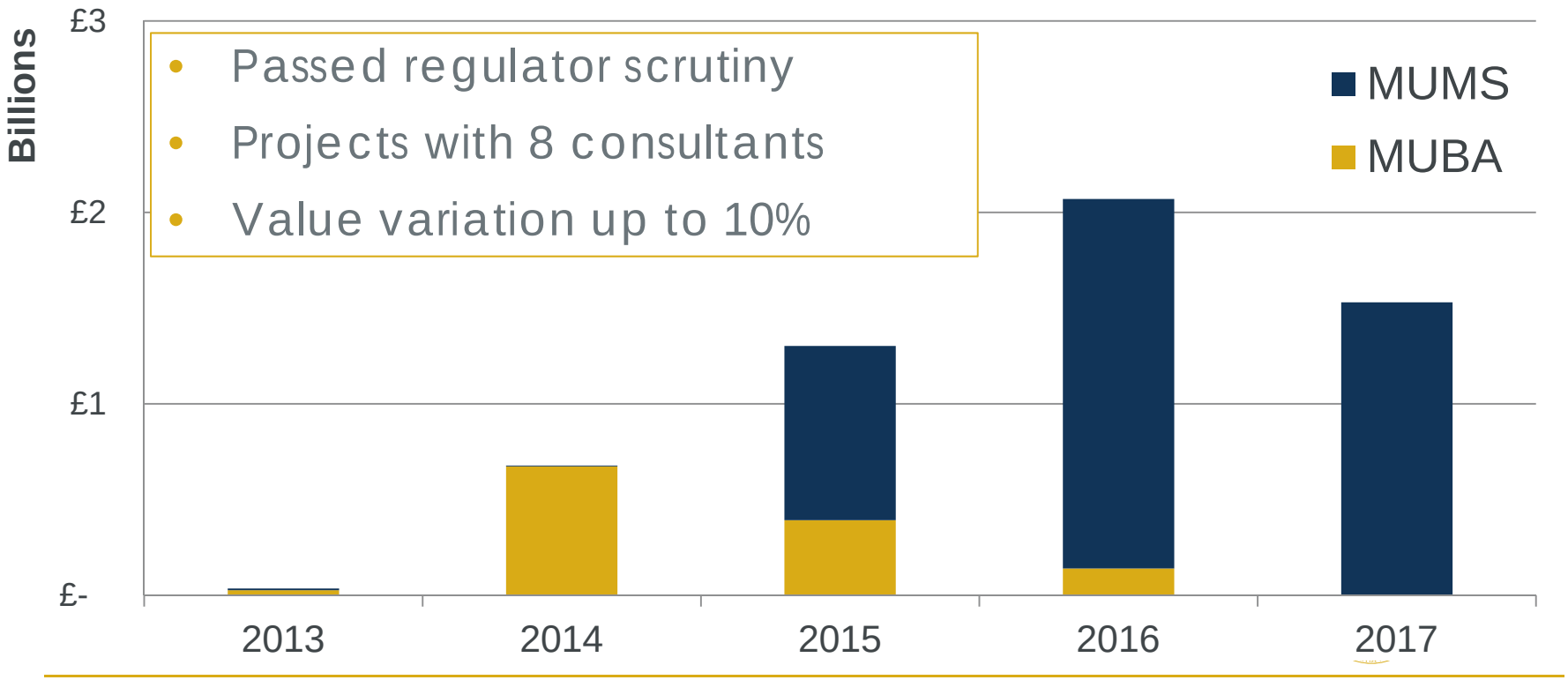
MUMS - Benefits

- De-risk with evidence
- More accurate valuation
- Resolve arguments
- Buy in/out
- Funding requirements
- M&A activity
- Mergers
- DB Transfers ??

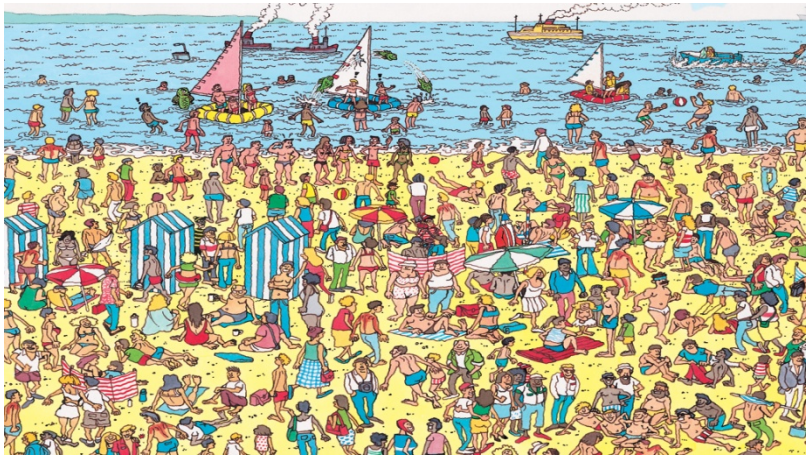
Industry take up



Summary

Evidence Not Assumptions

Not everyone is the same!!



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Questions

Comments

Expressions of individual views by members of the Institute and Faculty of Actuaries and its staff are encouraged.

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

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MUMS - Sample cases and outcomes

	Total Pension size	Accounting Saving based on MUMS study
Project 1	£500M	£50M
Project 2	£180M	£30M
Project 3	£130M	£30M
Project 4	£50M	£5M
Project 5	£600M	£30M
Project 6	£400M	£30M

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Sample output

Case ID	Member or Spouse	DoB	Age	Gen	Liability value	Group 1 (75% of SAPS)	Group 2 (100% of SAPS)	Group 3 (125% of SAPS)	Group 4 (mortality loading - %EM)
1	Member	09/11/1952	63	M	7,844.71		Y		
2	Spouse	18/08/1955	60	F					50%
3	Member	17/02/1927	89	M	41,236.29				125%
4	Spouse	05/01/1934	82	F				Y	
5	Member	19/07/1951	64	M	6,999.93		Y		

Examples (Very ill folk) – Years to age

Age	Gender	Condition	Rating	Years to age	Normal mortality age	Predicted mortality age
60	M	Type 1 diabetic since age 15, current control poor, progressive multiple sclerosis for 20+ years	Bucket 4 +450%	18	87	70
60	M	Type 1 diabetic, poor control, BMI 32, 42 alcohol units per week, high blood pressure, raised cholesterol	Bucket 4 +350%	15	87	72
60	M	Type 2 diabetic with retinopathy, heart attack at age 52 with angioplasty/stents, family history of heart attacks in father aged 42	Bucket 4 +300%	14	87	73
60	F	BMI 30, hypertension with 3 treatments and borderline raised, cerebrovascular accident in 2005 and told will never fully recover with ongoing symptoms	Bucket 4 +200%	11	90	78
60	F	Irregular heart rhythm, palpitations once every 6/12, breast cancer 2012	Bucket 4 +175%	10	90	79