

# Using New Data For Mortality Management

# Agenda



- Relevance of mortality
- Existing methods
  - Challenges
- New methods
  - Case studies
  - Changes ~ 10%
- Future scenarios
- Summary

Expert risk & health services for Life & Pension industries



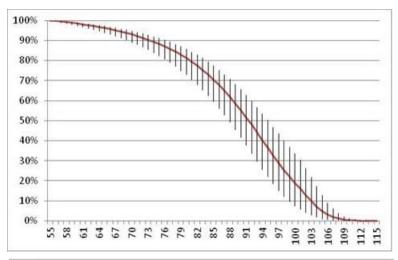




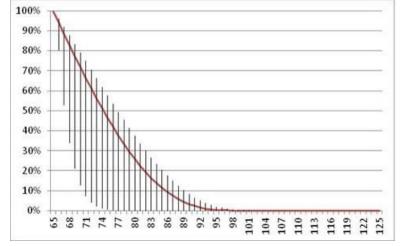
# Mortality – why bother?



- Future value dependant on how long scheme members will live
- Accumulation to deaccumulation
- Low interest rates
- Buy In's, top slicing, DB transfers changing mortality pool
- Implications to strategy



Female 55 Good health



Male 65 Poor health

## Traditional methods?

Morgan Ash Intelligent Information

- Use limited data set
  - Age, gender, Postcode, £
  - Extensive modelling
- But
  - Based on historic data
  - Variances between models
  - Doesn't work for
    - Small numbers, concentration risk
  - No marital status, differred's



"CMI is not a crystal ball"

Amy Kessler – Head of Longevity Risk Transfer -Prudential

- Assumptions
  - Individual scheme relates to the norm
  - Health dependant on postcode

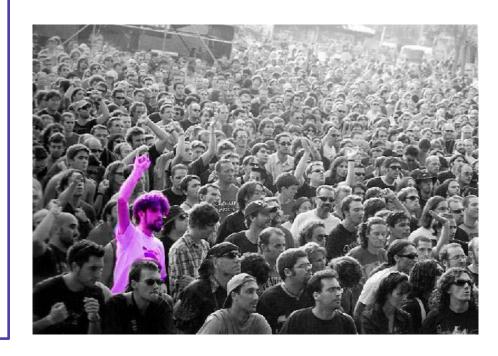
#### New

MUMS - Medically Underwritten Mortality Study

MUBA - Medically Underwritten Bulk Annuity

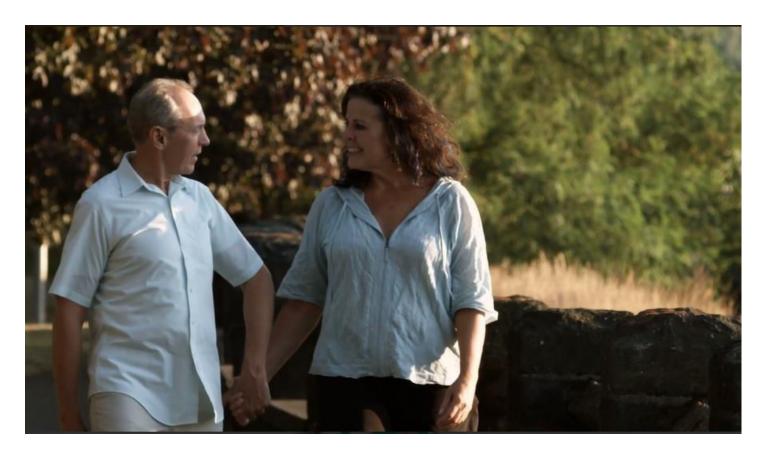


- Uses additional data
  - Uses current health status
  - Uses individual medical underwriting to predict life expectancy
- Scheme liability = sum of individual life expectancy \* individual liability
- Actual data better than postcode approximation



# MUMS/MUBA - How it works





www.morganash.com/pension/muba



Pension performance research

To assist the management of the Hogg Robinson (1987) Pension Scheme

Independent, confidential research – to help us better manage pensions for both you and your old colleagues.



Find out more, in a couple of minutes by watching this video

#### **ABOUT THIS RESEARCH**

We have been asked by HRG and the Pension Trustees to gather some information from you and your fellow pension scheme members. The information you provide will help all parties have a greater understanding of how much money the Scheme needs to pay future pensions. The Trustees would therefore really appreciate your assistance.

# Case study



# Morgan Ash Intelligent Information

Publishing company – "The Scotsman"

• Scheme £500M

• Deficit £100M

No. of pensioners targeted 550

Result

Revaluation £450M

Change £50M



# Privacy - GDPR

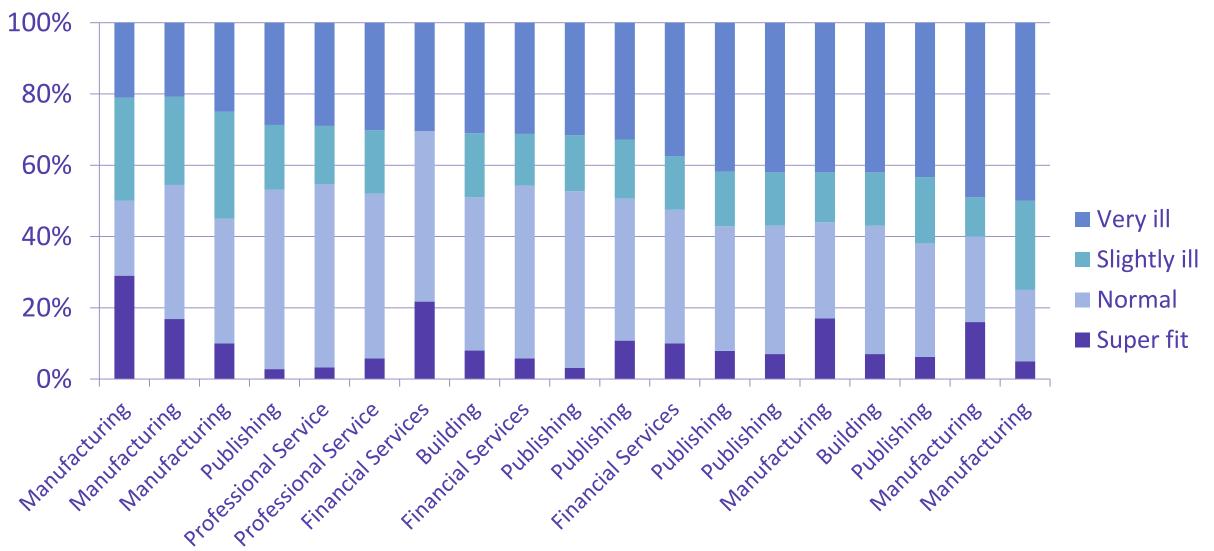


- Obtain individual consent
- 60% voluntary participation
- IT systems keep data secure
- Data belongs to the consumer
- Trend is to share data



#### **MUMS results across Schemes**

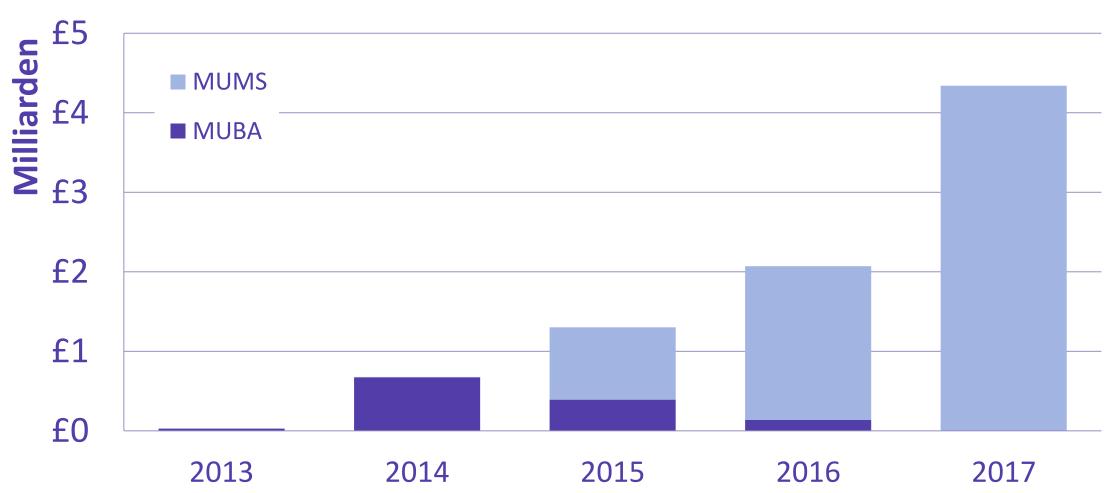




#### Industry take up



#### MorganAsh - growth of Medical Underwriting in DB pensions



#### Future – more data



- IOT Internet of Things
- Dramatic increase in monitoring devices – especially elderly
- Consumers empowered to manage own health
- Engagement with scheme members encouraged



### Future – Opportunity & threats



- Pension freedoms
  - Consumer in charge
- Consumer may know more about life expectancy than trustees?
  - Prospect of selective transfers
  - Scheme left with the healthy
- Opportunity to use data for Trustees
- Risk if data not used
- Data availability faster than evolution of models

- TPR calls for more evidence based
  - Less assumptions
- IFoA working group



### Comparison of approaches



	SAPS Postcode models	Experience data	MUMS	Future?
Based on large numbers	✓	<b>x</b> ?	*	? ✓
Forward Looking	Backwards	Current	Current & Forward	Forward Genetics
Scheme specific	*	✓	✓	✓
Spouse data	Scheme member only	Both	Both	✓
Scope	Some only pensioners	All	All, Sample	✓

<sup>•</sup>A combination of approaches should give a balanced view

# **Summary**

Morgan Ash Intelligent Information

- Mortality becoming more important
- Use data not assumptions
- A new approach MUMS
- Consumer in charge of data
- Future
  - Likely more data available
  - Opportunity & threat

"Most Innovative Actuarial / Risk Consultancy Services Provider Of The Year"





