

A close-up photograph of a dandelion seed head, with several seeds blowing away in the wind against a teal background. The stem of the dandelion is visible at the bottom.

The health and care needs of future older populations: opportunities or challenges?

Carol Jagger

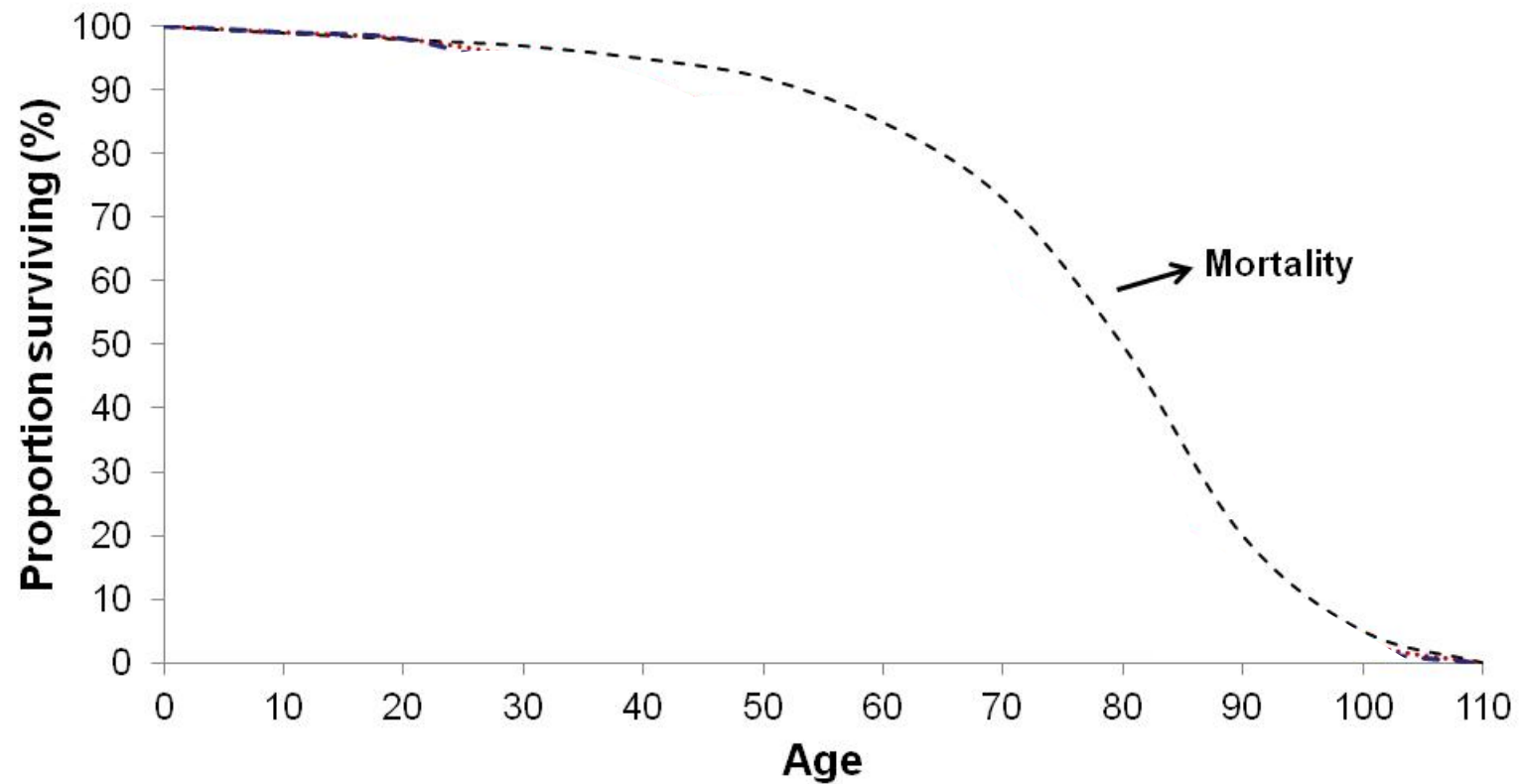
From Newcastle. **For the world.**

Government target: Ensure that people can enjoy at least 5 extra healthy, independent years of life by 2035, while narrowing the gap between the experience of the richest and poorest

- Is it feasible in the light of
 - the experience of the EU?
 - current trends
 - future trends

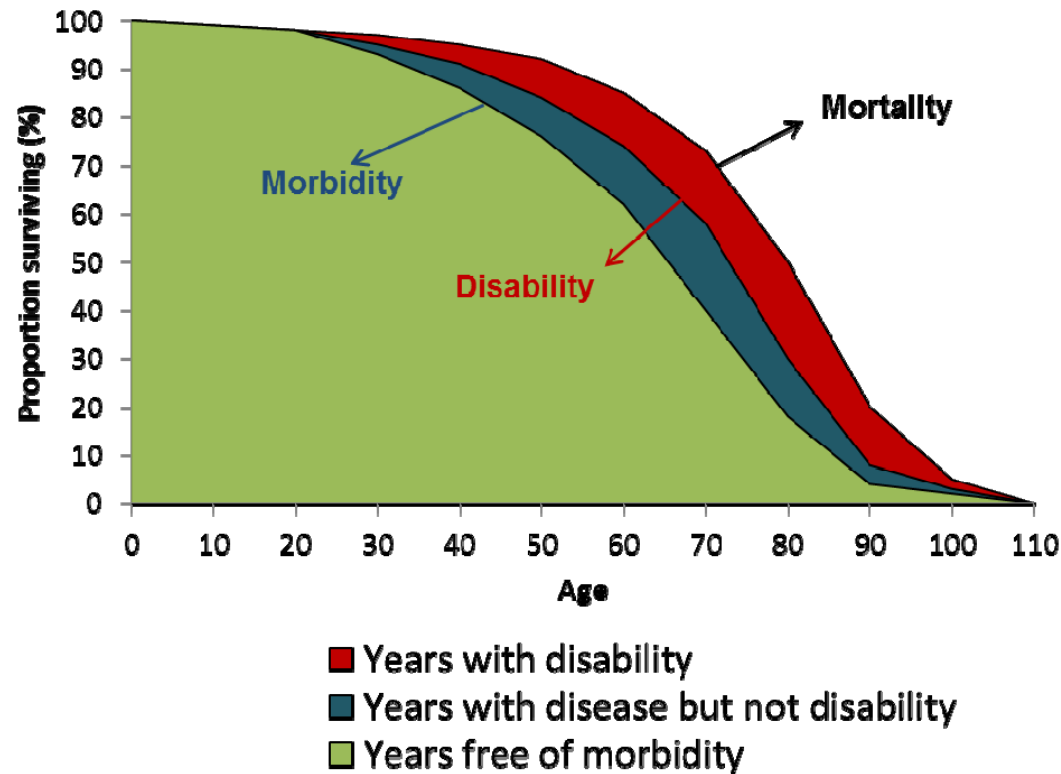
- What needs to be done?

Ageing



Healthy Ageing

WHO Model of Health Transitions (1984)



Health expectancy (HE):

- Combines information on health and mortality
- Is independent of age structure and size of population

“ Increased longevity without quality of life is an empty prize. Health expectancy is more important than life expectancy.”

Dr Hiroshi Nakajima, Director-General WHO 1997

What is happening to life and health expectancy?

EU Healthy Life Years



European Innovation Partnership on Active & Healthy Ageing



+2 Healthy Life Years by 2020



Specific Actions

-  Improving prescriptions and adherence to treatment
-  Better management of health: preventing falls
-  Preventing functional decline & frailty
-  Integrated care for chronic conditions, inc. telecare
-  ICT solutions for independent living & active ageing
-  Age-friendly cities and environments

Department for Business, Energy & Industrial Strategy

Policy paper

The Grand Challenge missions

Updated 22 May 2019

Ageing society

We will harness the power of innovation to help meet the needs of an ageing society.

Mission: Ensure that people can enjoy at least 5 extra healthy, independent years of life by 2035, while narrowing the gap between the experience of the richest and poorest

EU28	2008	2017	DIFF
<i>HLY at birth</i>			
Men	61.1	63.5	2.4
Women	62.2	64.0	1.8
<i>LE at birth</i>			
Men	76.3	78.3	2.0
Women	82.3	83.5	1.2

EU28	2008	2017	DIFF
<i>Gap in HLY</i>			
Men	17.8	22.6	4.8
Women	17.8	21.4	3.6
<i>Gap in LE</i>			
Men	14.5	21.0	6.5
Women	7.8	7.0	-0.8

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Mind the gap—reaching the European target of a 2-year increase in healthy life years in the next decade

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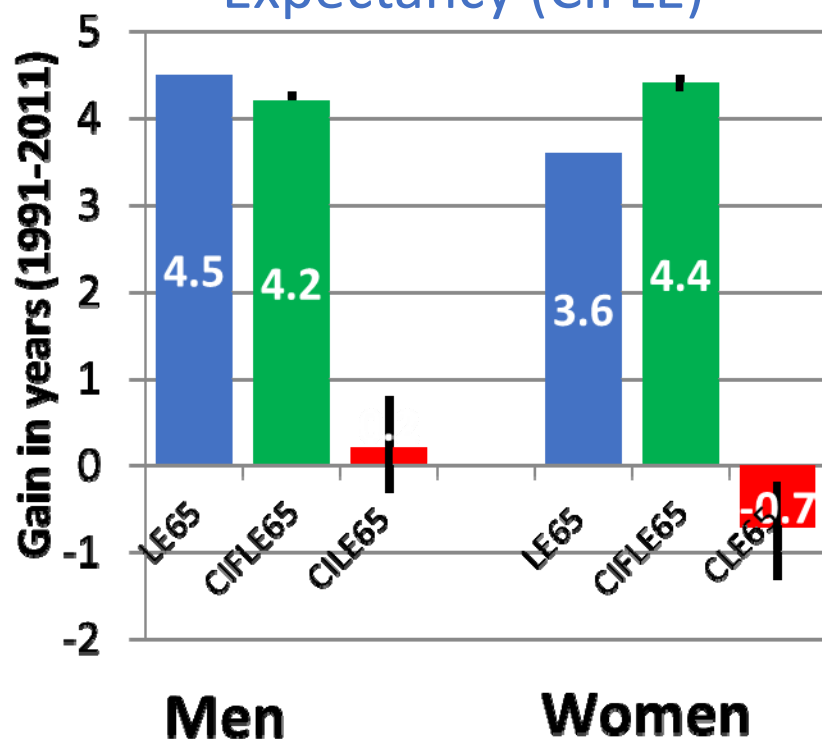
9 INSERM U988 and U710 and EPHE, Paris and Montpellier, France

To reach EIP-AHA target by 2020 for all countries and reduce the inequalities between Member States

- Requires EU27 HLY increase of 6.4 years for a 50% reduction in the gap
- Reducing the gap by 50% alone would result in all but two Member States (Malta and Sweden) increasing their HLY by two years

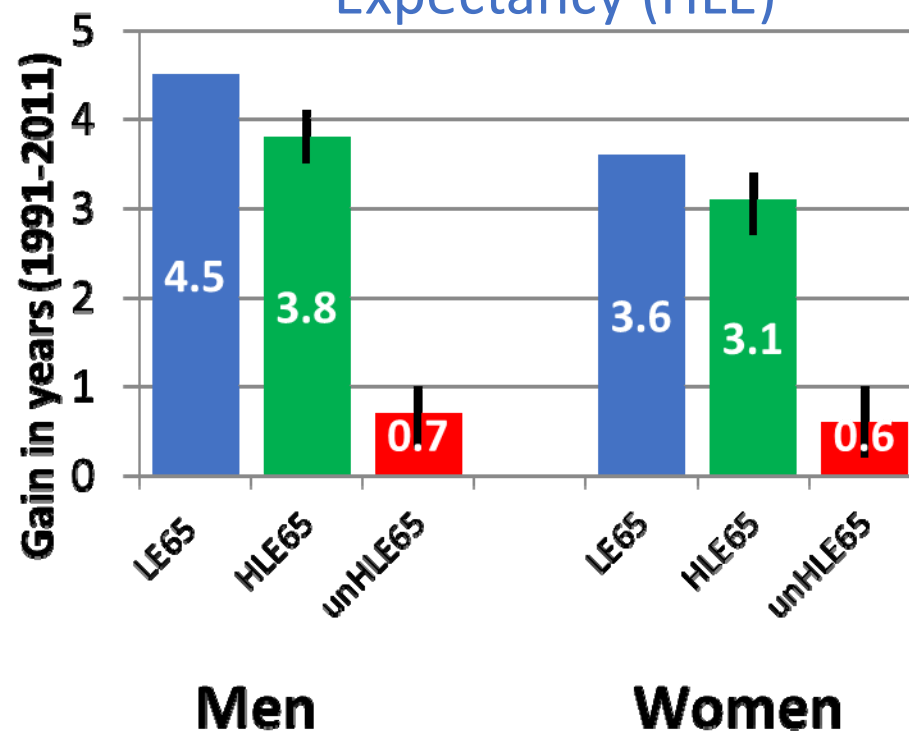
Change at age 65:1991 to 2011

Cognitive Impairment Free Life Expectancy (CIFLE)



CIFLE increase of 44%

Healthy Life Expectancy (HLE)



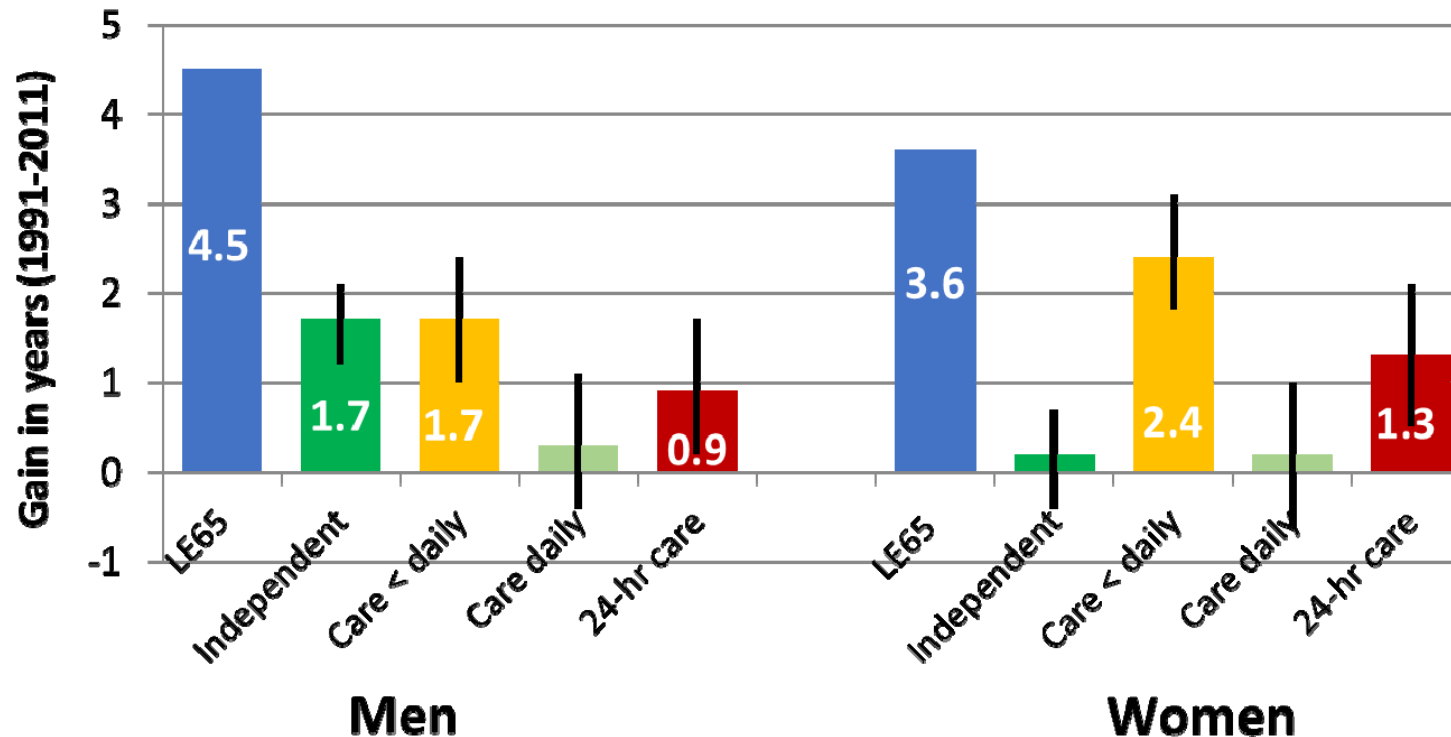
HLE increase of 43% (men)
28% (women)



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Change at age 65:1991 to 2011

Years with different care needs*

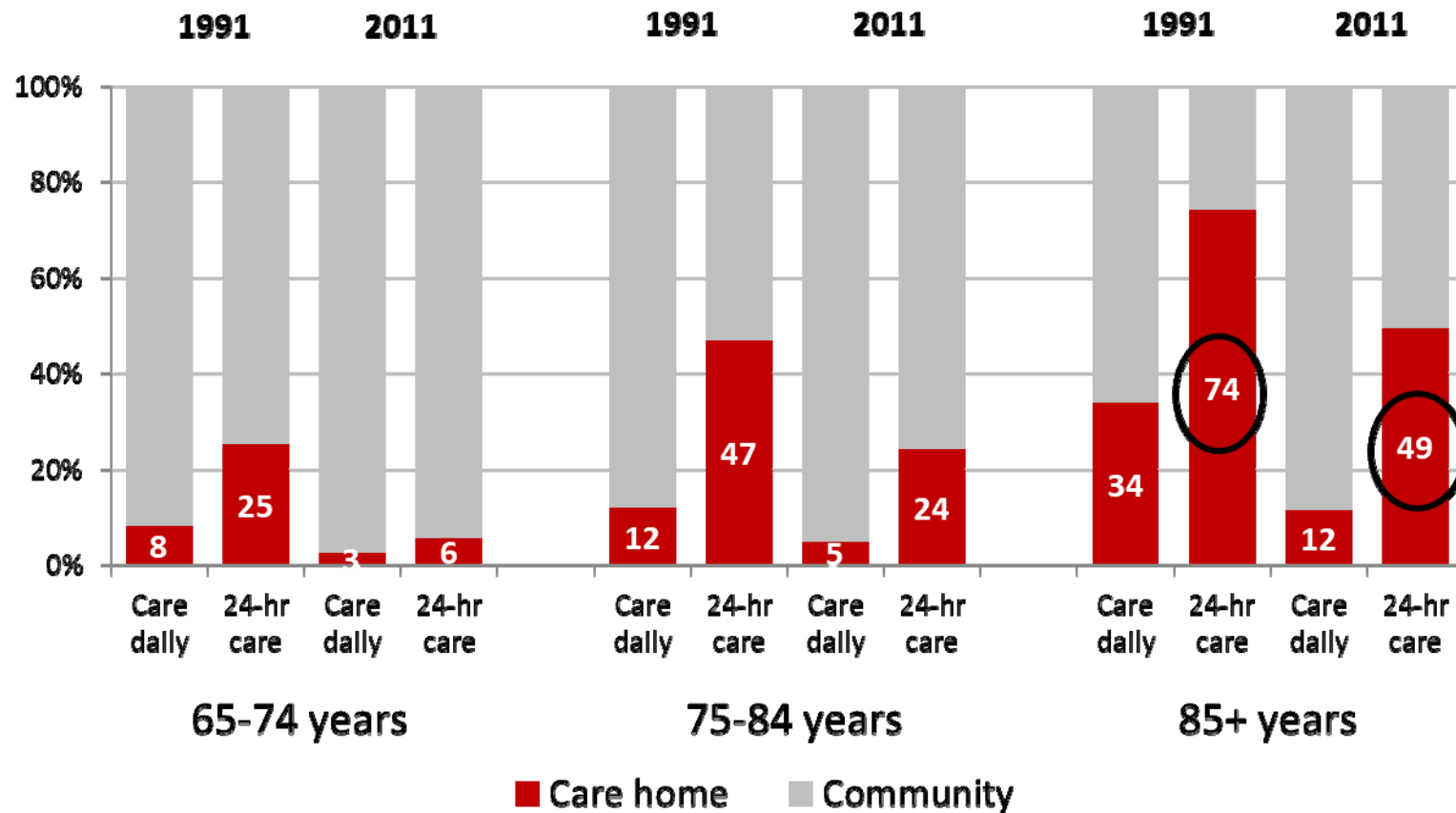


Independent free LE increase 18% (men) 2% (women)

*Based on interval of need - lapsed time between periods when the individual may need help (Isaacs and Neville 1975)

Where is care provided?

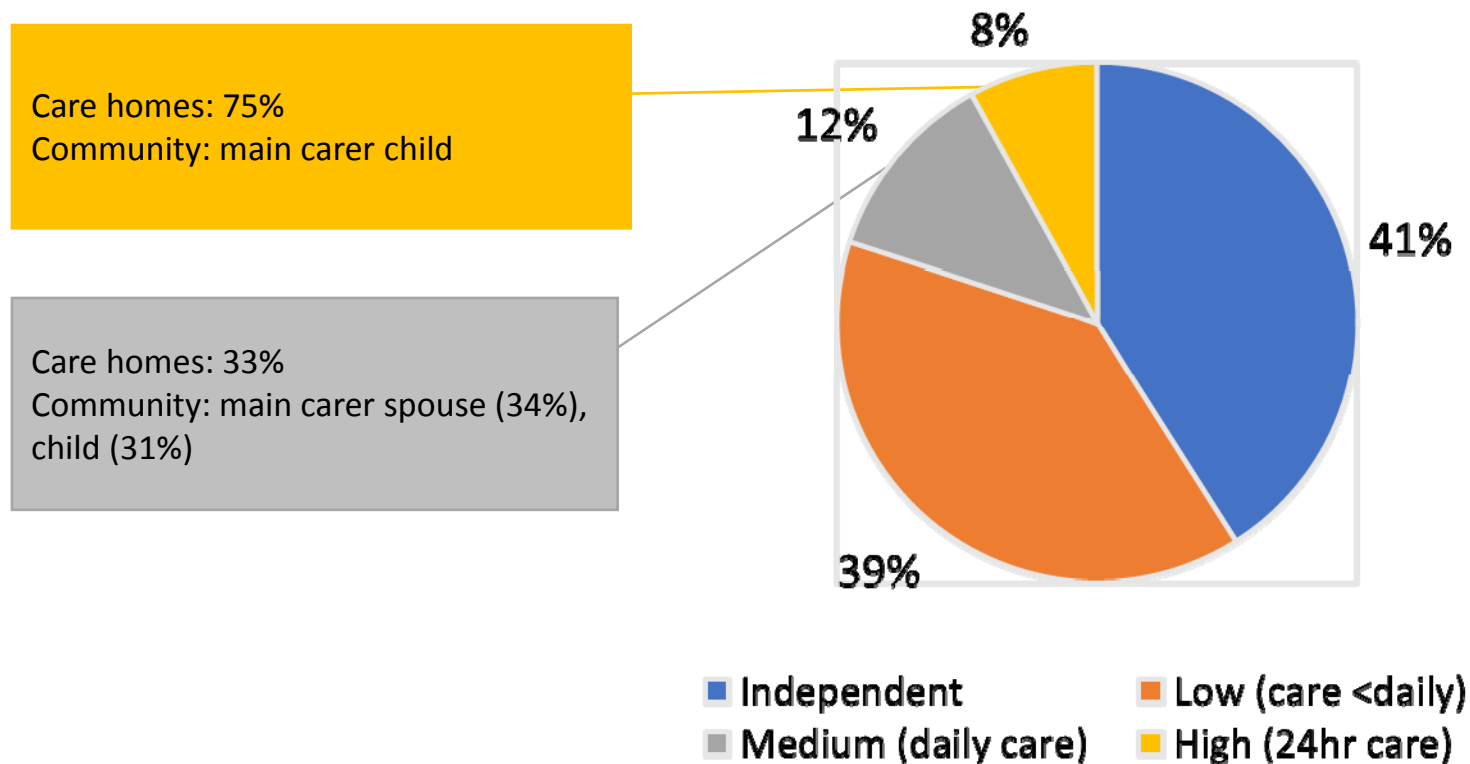
- Fewer older people with substantial dependency now going into care homes
- More with substantial dependency now supported in the community



Who cares?

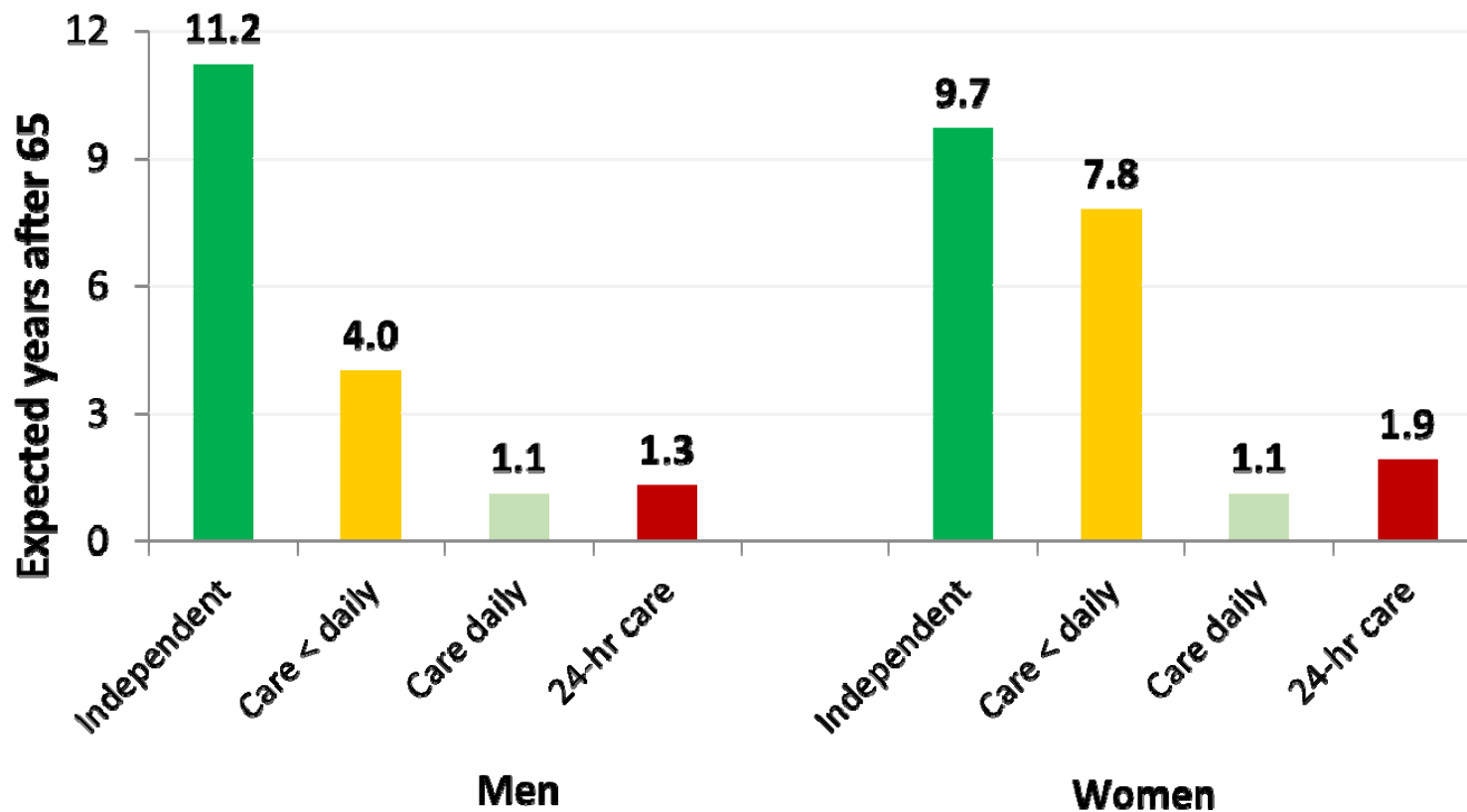


- Most care for medium and high dependent 85 years olds provided by children



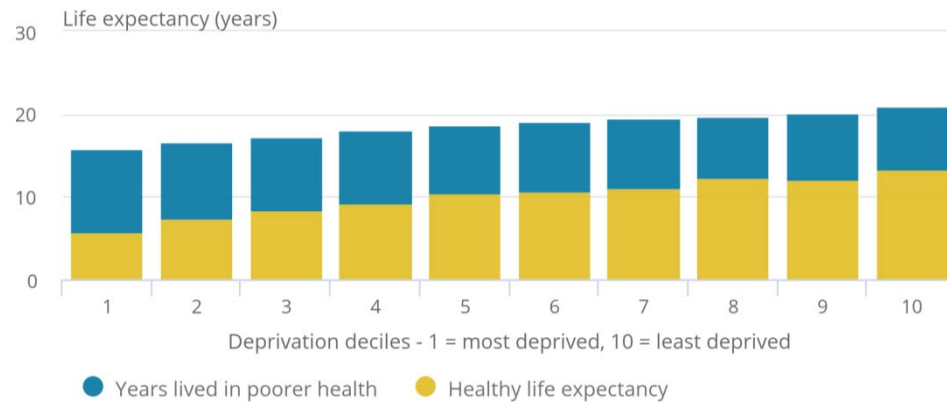
How long is care required?

- Majority of remaining years from age 65 spent independent or requiring care < daily



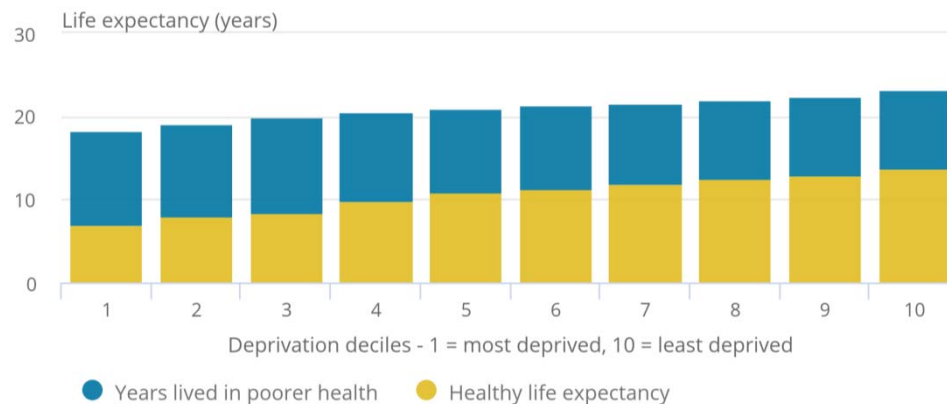
Healthy ageing for all?

Healthy life expectancy at age 65 years and years lived in poorer states of health: by national deprivation deciles, England, 2015 to 2017



Men in the

- least deprived areas could expect on average 13.3 years healthy (64% of remaining life)
- most deprived only 5.8 years healthy (37%)



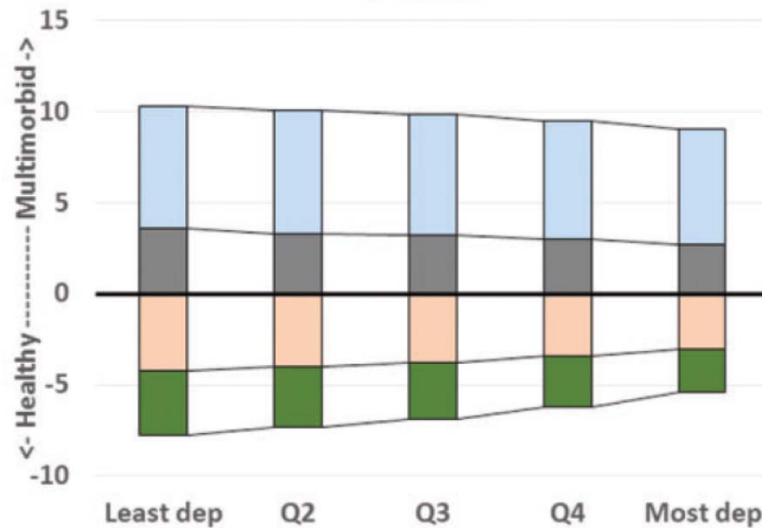
Women in the

- least deprived areas could expect on average 13.8 years healthy (60% of remaining life)
- most deprived only 6.9 years healthy (38%)

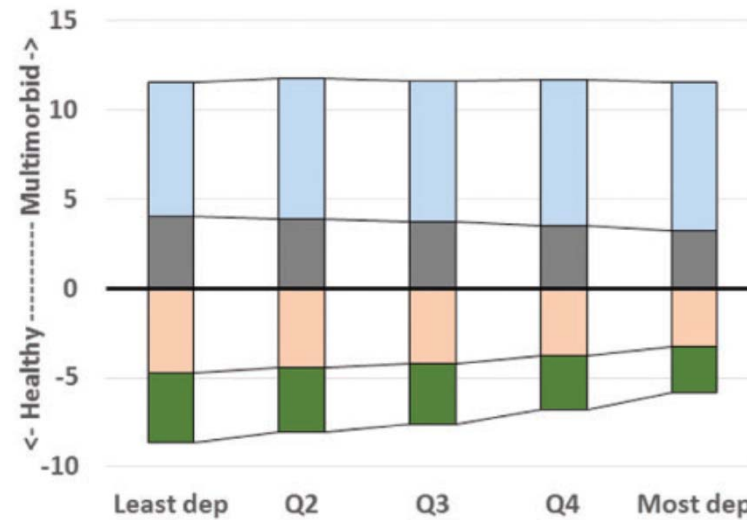
Healthy ageing for all?

Years spent with (positive) or without (negative) multimorbidity (MM) at age 65 by IMD 2007 quintile

Men



Women



■ Healthy
 ■ 1 disease
 ■ 2 diseases
 ■ 3+ diseases

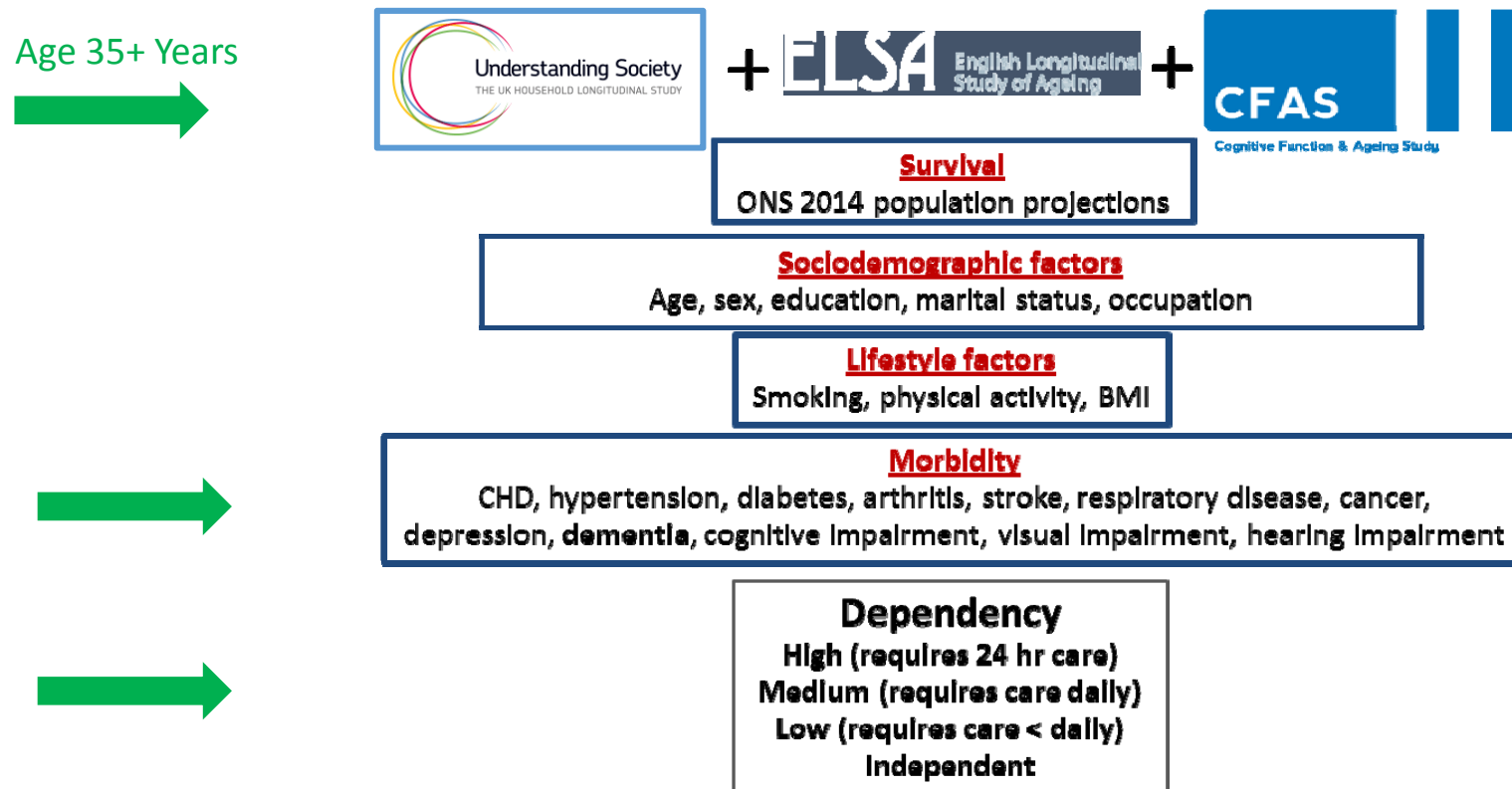
Gap between Q1 and Q5 in LE without MM: 2.3 years (men) 2.7 years (women)

Gap between Q1 and Q5 in LE with MM: 1.3 years (men) 0 years (women)

What is likely to happen in the future?



Population Ageing & Care Simulation



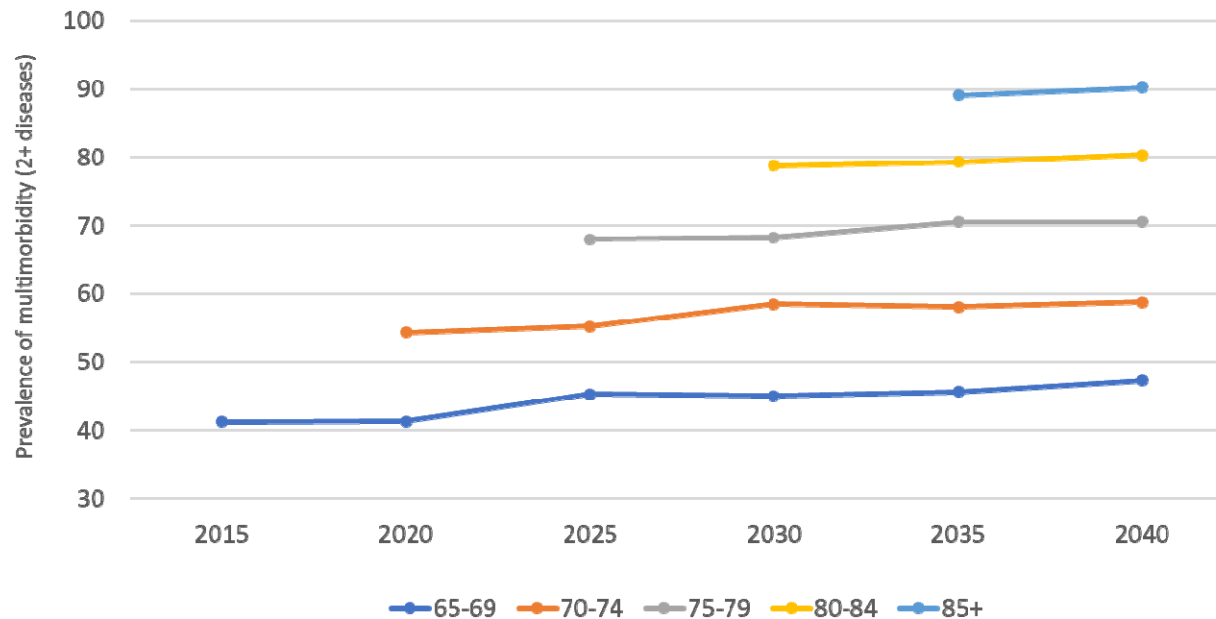
PACSim is a dynamic microsimulation model which simulates future health of set of real individuals (base population) aged 35 years and over based on:

- ❖ their baseline characteristics
- ❖ change from transition models of longitudinal data

Multimorbidity

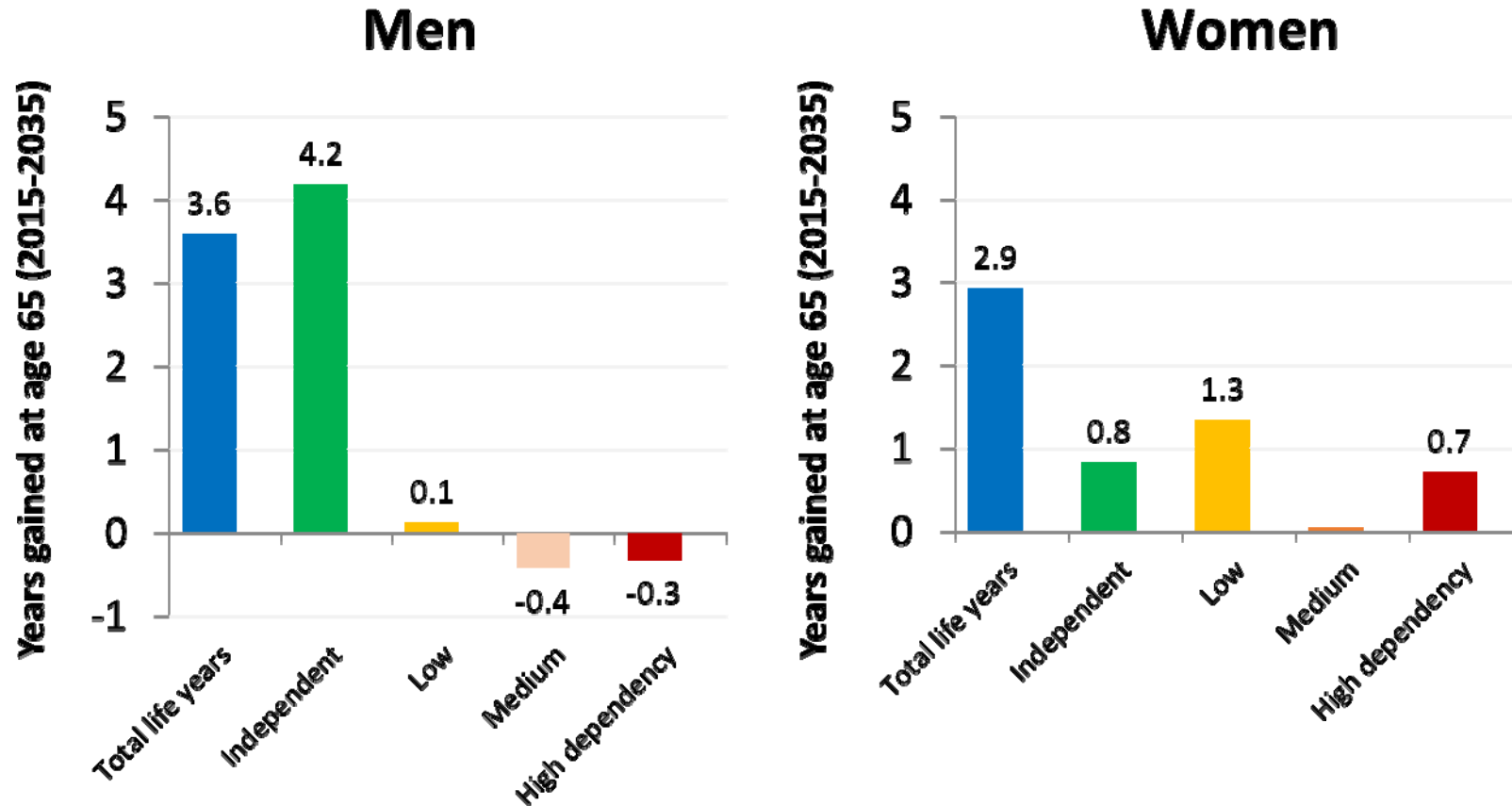
Between 2015 and 2035

- Numbers of 65+ with 4+ diseases will double
- Most of gain in LE at age 65 between 2015 and 2035 will be in years with 4+ diseases



Source: Kingston et al Age and Ageing 2018

PACSim: change 2015-2035



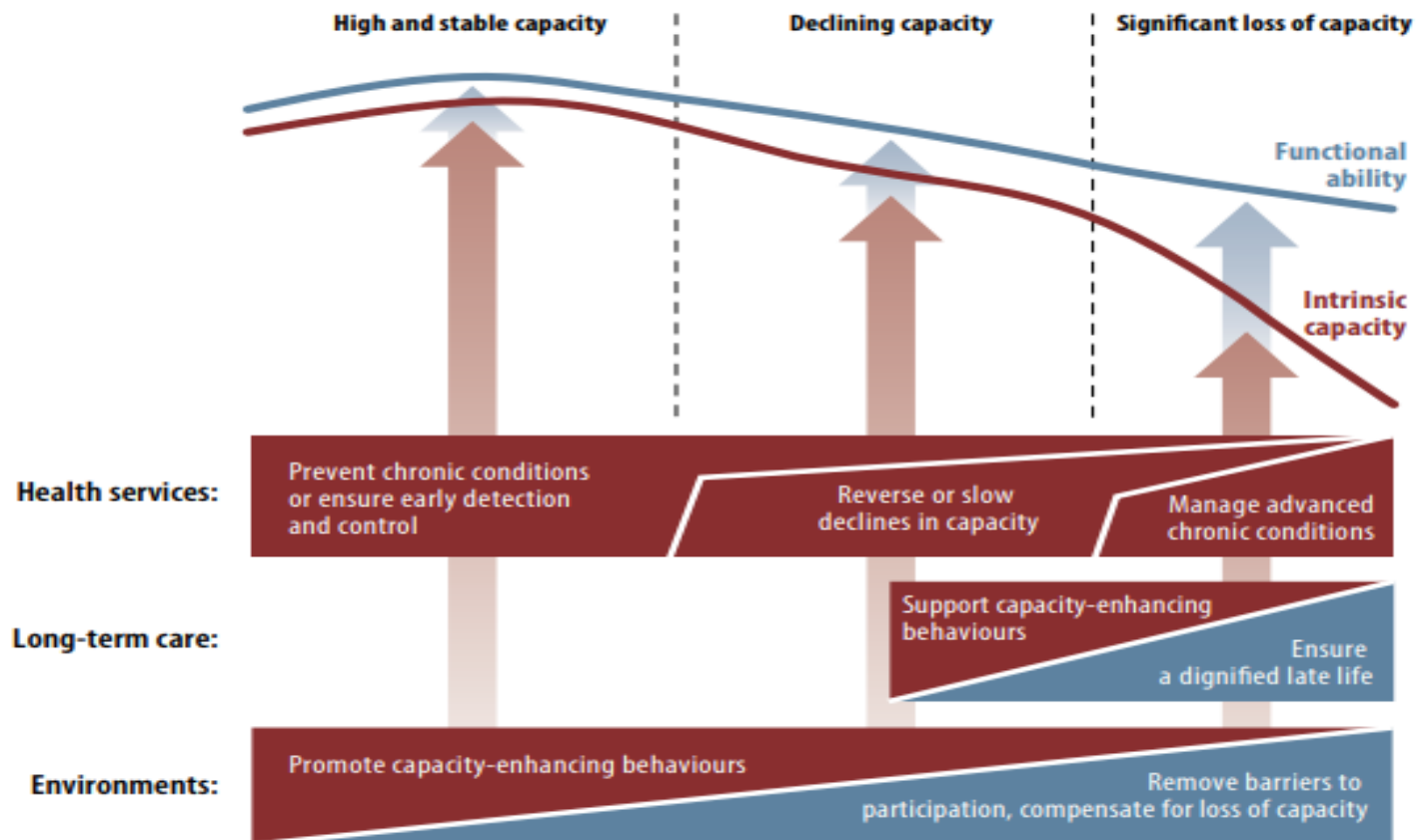
Independent free LE increase of 38% (men) and 8% (women)

Source: Kingston et al Lancet Public Health 2018

What is the solution?

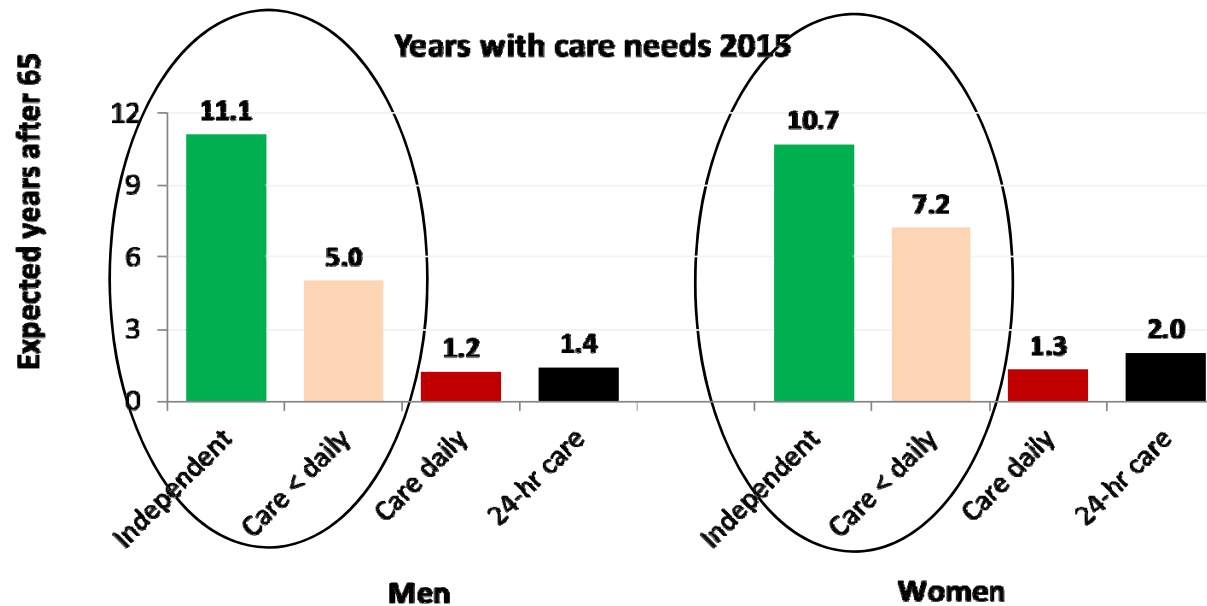
The theory

Fig. 2.4. A public-health framework for *Healthy Ageing*: opportunities for public-health action across the life course



The solution

- Most years are spent independent or with low dependency – aim to stay here longer to reduce time spent more dependent?

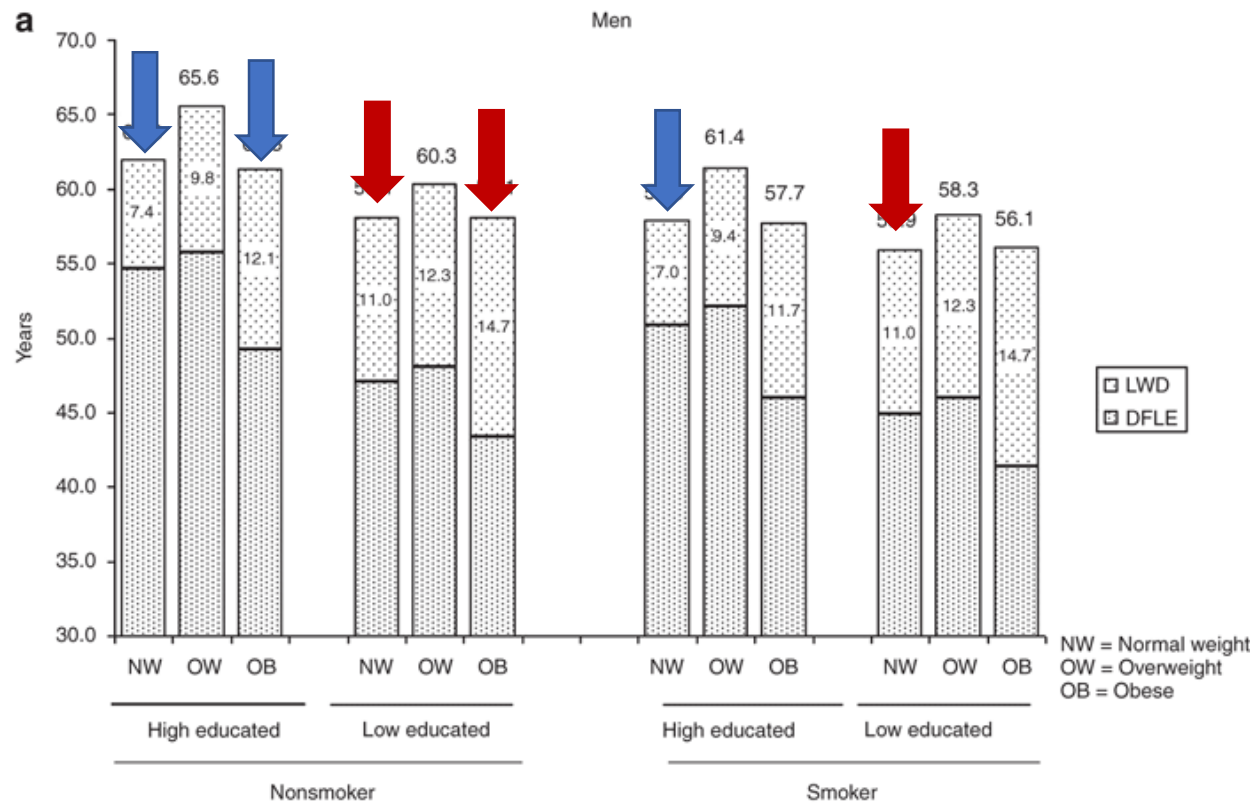


Source: Kingston et al Lancet Public Health 2018

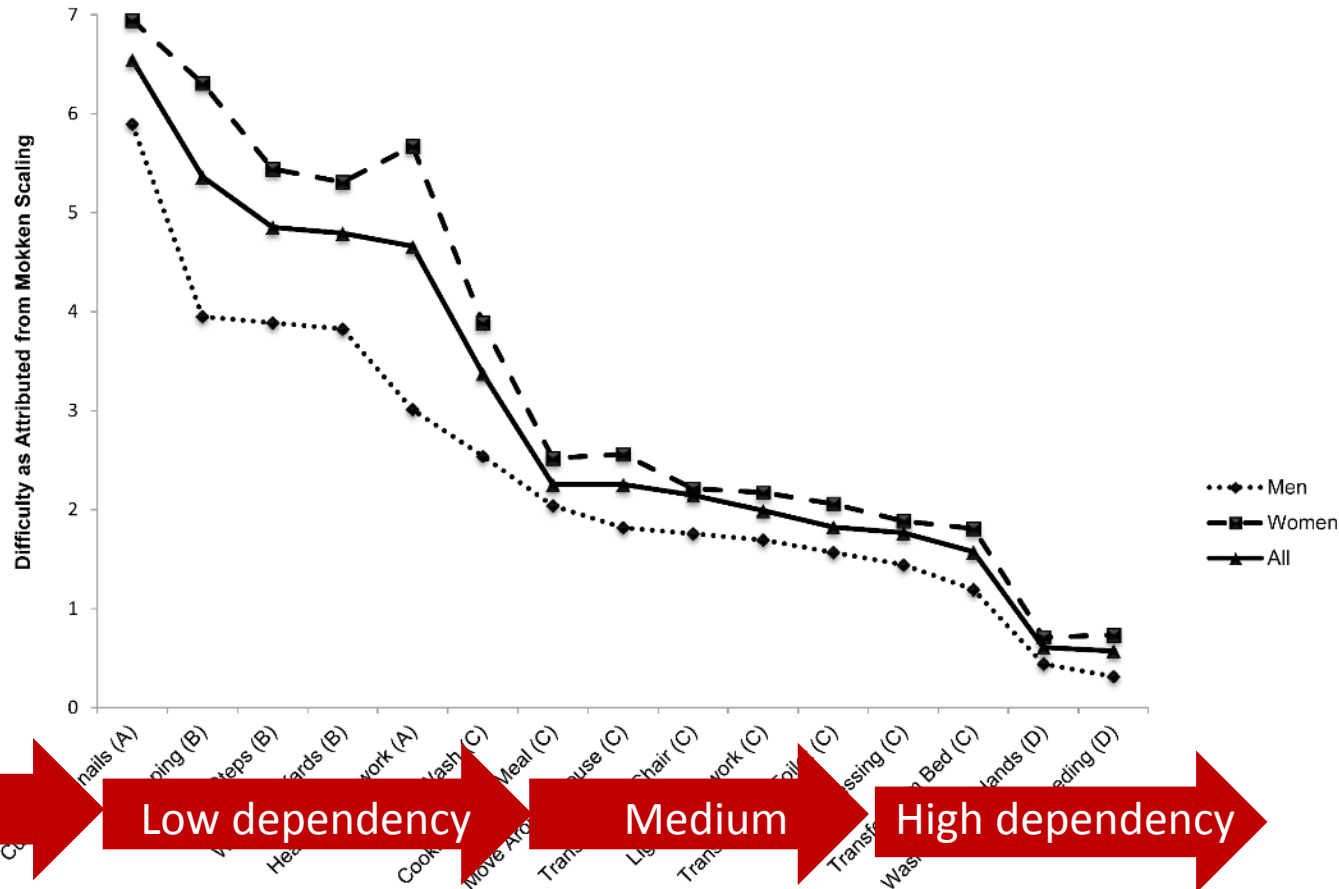
From Newcastle. For ageing.

But

- Not smoking increases DFLE but does not reduce LE with disability (LWD)
- Obesity increases LWD but has little effect on LE overall



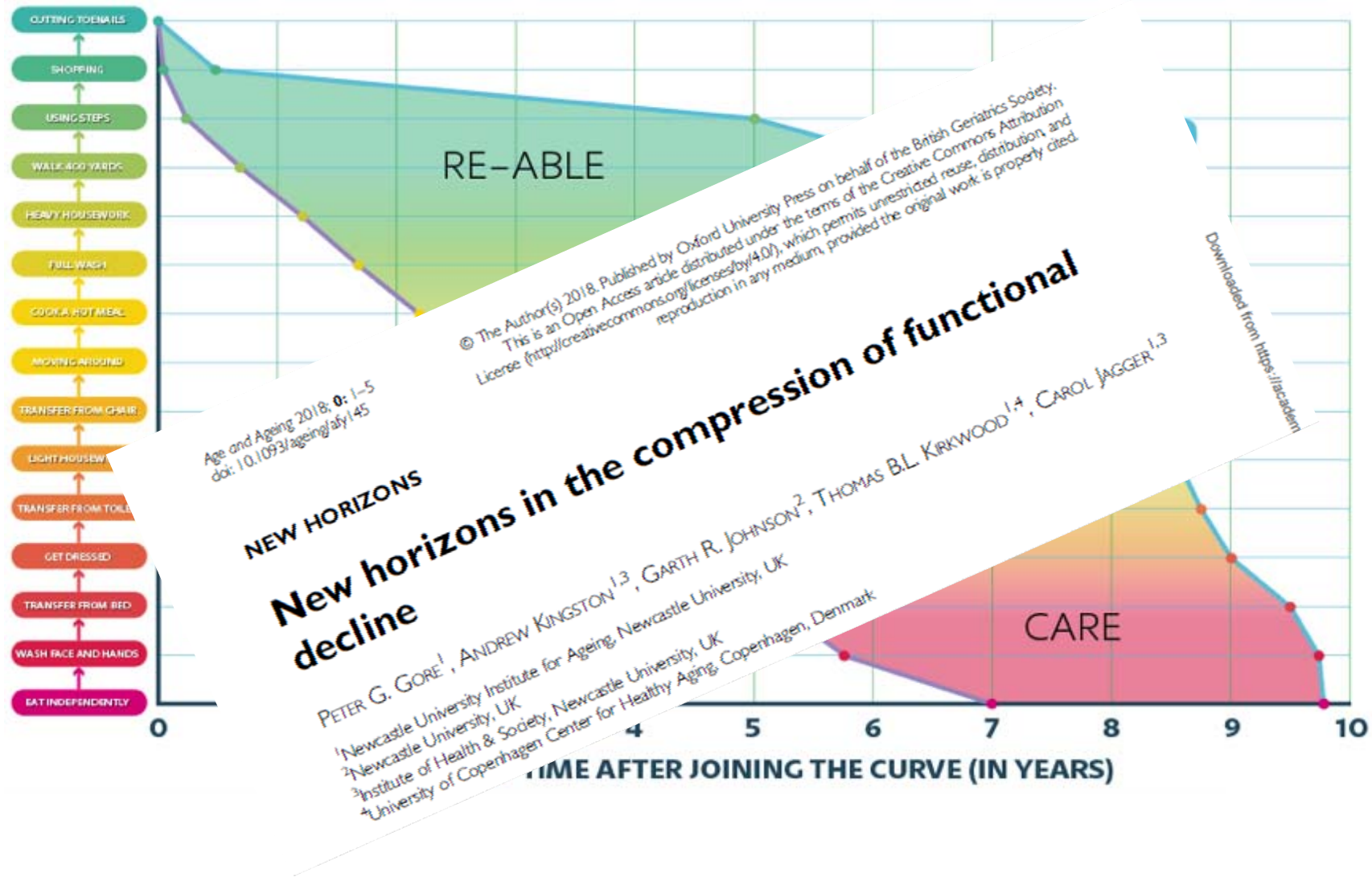
Disability pathway



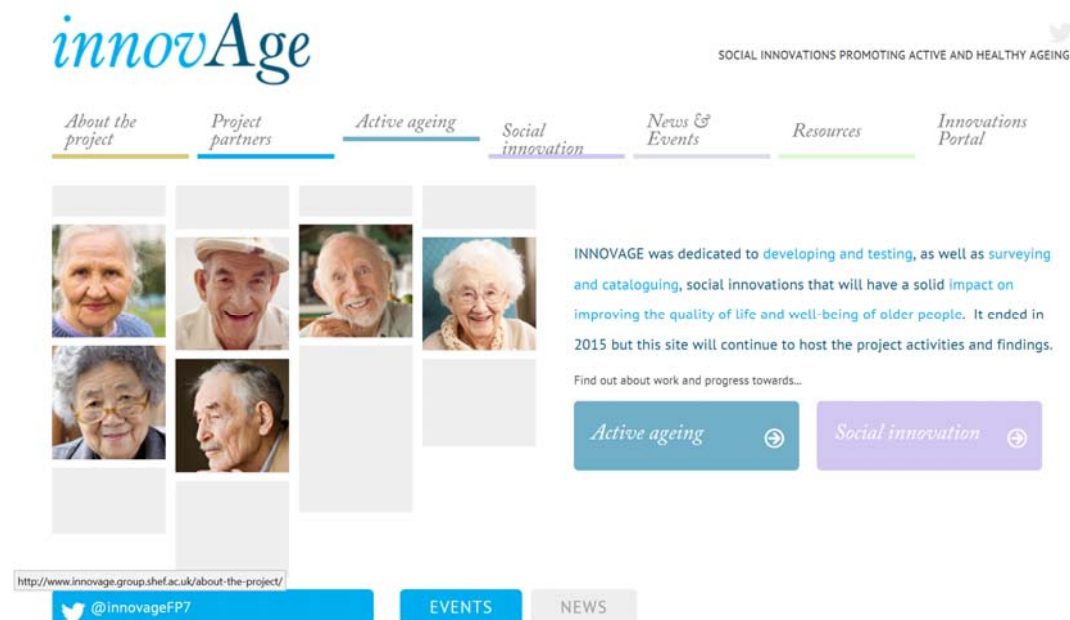
BADL, IADL and Mobility Items (Functional Domain)

- A = Complex manual dexterity and balance
- B = Long distance mobility and balance
- C = Upper limb control and standing balance
- D = Upper limb control in a seated position

The LifeCurve concept



Evaluating interventions



- Of the 158 exemplar social innovations (SIs) identified, the majority of evaluations were:
 - Not RCTs
 - Not before-after evaluations
- Outcomes were
 - Process measures of SI
 - Proximal measures rather than health or wellbeing

Challenges and

- Numbers of older people requiring substantial care (daily or 24 hr care) will increase – particularly driven by the growth in those aged 85+
- Care will be more complex as prevalence of (and numbers with) 4+ diseases increases
 - More training for family carers and care workforce
 - Care breaks for those carers also in employment
- Inequalities in healthy life expectancy are increasing

..... Opportunities

- The majority of remaining years from age 65 will be years independent or with low level needs
- Ageing IS malleable – there is evidence to intervene earlier in the disablement process to slow down decline
- Need
 - outcome-oriented prevention and intervention strategies
 - a focus on health expectancy not just health to ensure we reduce the number of unhealthy years and not simply increase both healthy and unhealthy years
 - Better understanding of behaviour change – or lack of it
- **Need long term planning that transcends politics**

Acknowledgements

CFAS studies collaboration



MODEM modelling outcome and cost impacts of interventions for dementia



innovAge

SOCIAL INNOVATIONS PROMOTING ACTIVE AND HEALTHY AGEING

Funded by the European Commission's
Seventh Framework Programme
FP7-HEALTH-2012-INNOVATION-1/No 306058

Thank you

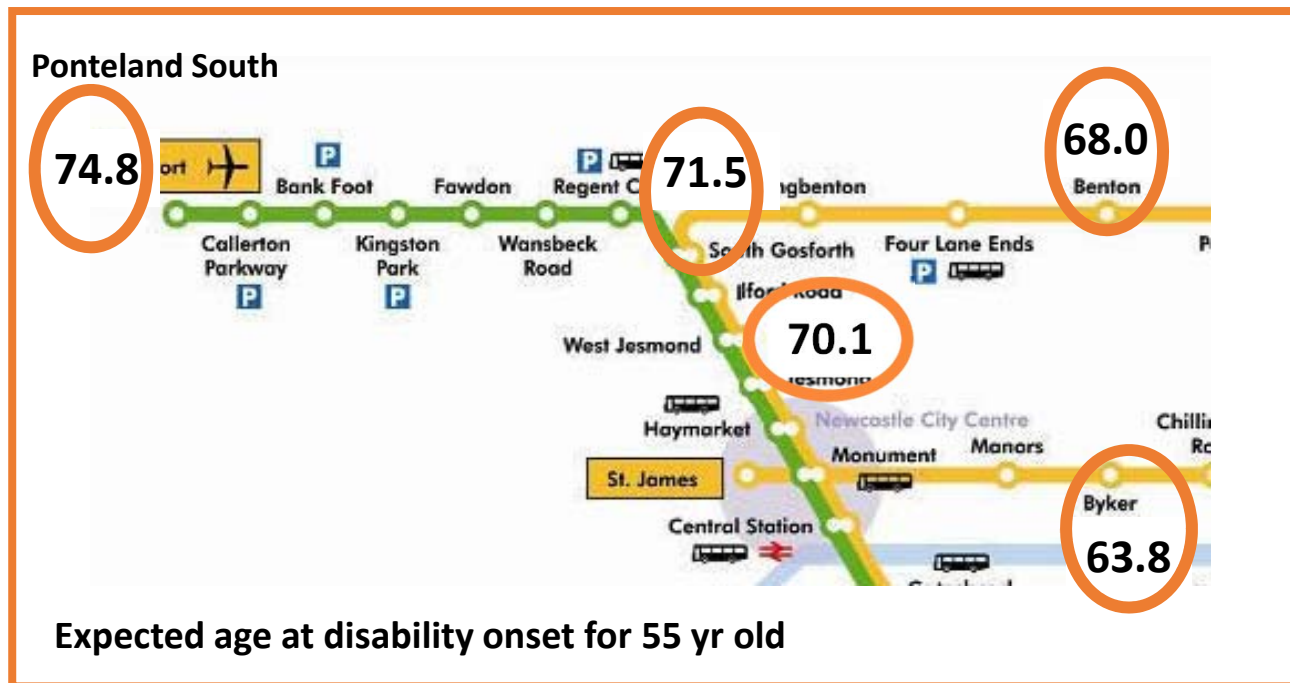
Dennis Rudgewick didn't need to worry, he'd just got £75k out of the ESRC for a project on trends in old age morbidity. He'd decided to specialize in old age a long time ago. It wasn't a sexy subject, but it did have a future, as everyone had it to look forward to and there was a lot more of it around these days.

(Ann Oakley, Overheads)

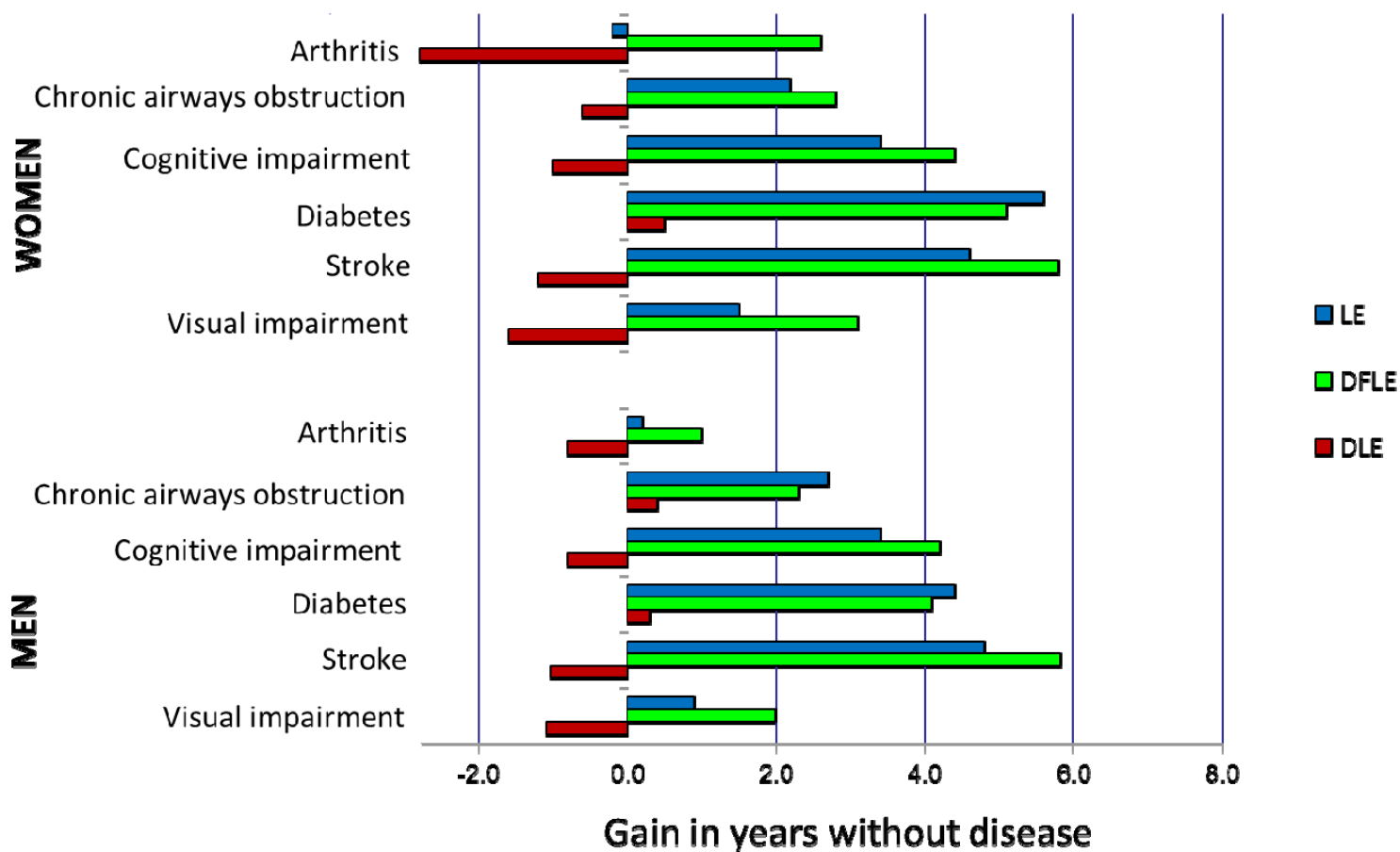
"two mistakes ... made by mankind; first in allowing the world to be burdened with the continued maintenance of those whose cares should have been made to cease ... and the second, in requiring those who remain to live a useless and painful life."

(Anthony Trollope, The Fixed Period)

Inequalities within Newcastle



Impact of diseases on DFLE at age 65



Source: Jagger et al (2007)