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Healthy Life Expectancy and quality of life in old age

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6 June 2013

Outline

- Challenges of an ageing population
- Quality of life in very old age
 - frailty
 - level of care needed
- Inequalities in Healthy Life Expectancy
 - local areas in UK
 - ethnic groups
 - EU countries
- What might the future hold?



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Challenges

- 51% ↑ in 65+ 2010-30
- 101% ↑ in 85+ 2010-30
- 10.7m can expect inadequate retirement incomes
- 50+% ↑ in people with 3 or more long-term conditions 2008-18
- 80% ↑ in 65+ with dementia 2010-30



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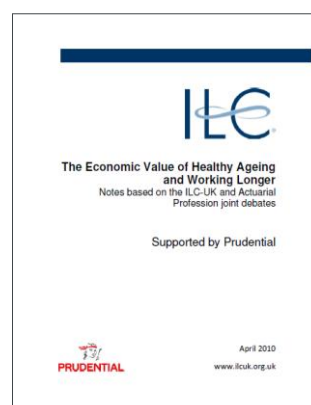
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Main barriers to improving health

- Income inequalities
- Early onset of chronic disease
- Comorbidity at older ages
- Growth in dementia
- Growth in mental illness

Les Mayhew (2010)



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The clock is ticking....



- Life expectancy in the UK is increasing at the rate of two years every decade, or around five hours each day
- Historically LE main indicator of population health
- Health expectancies combine quality and quantity of life and address whether extra years of life are
 - healthy ones (compression of morbidity)
 - unhealthy ones (expansion of morbidity)

**“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



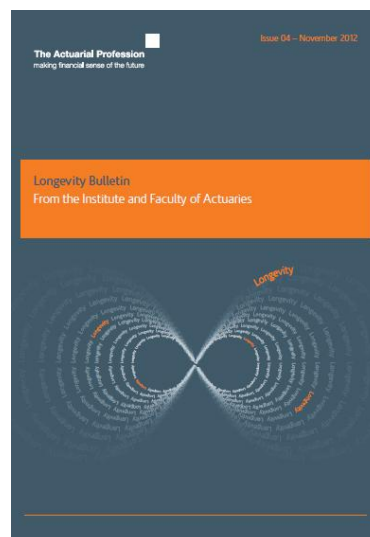
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Health expectancies

- More info in Longevity Bulletin Issue 4



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Quality of life at very old ages

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Why focus on very old ages?

- Population aged 85+ fastest growing section
- Their health and care needs impact not only on health services but on their families
 - Next generation down are the ones who will care but who are being required to work longer
- The health profiles of the very old are different – much higher prevalence of
 - Dementia
 - Frailty
 - Multimorbidity

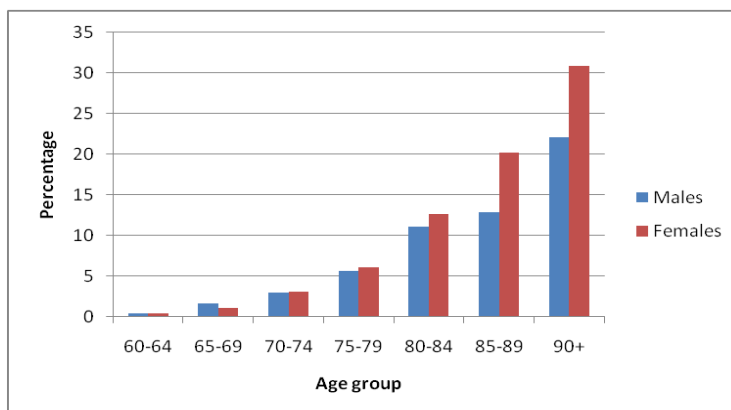


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Prevalence of dementia



Prevalence of dementia doubles every 5 year increase in age

Source: Lobo et al (2000)



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Frailty-free life expectancy - methods

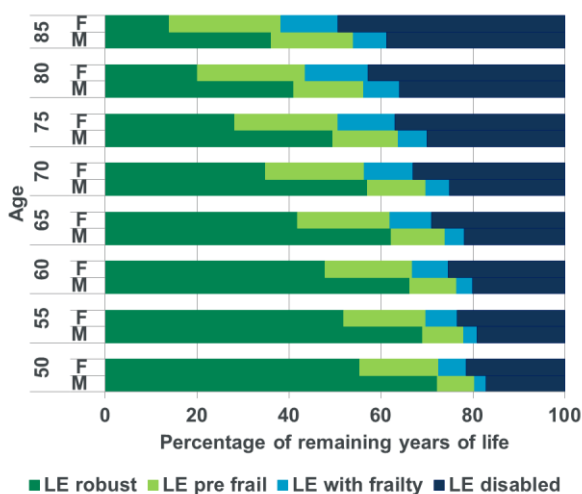
- SHARE wave 4 (2010-11)
 - Austria, Belgium, Czech Republic, Denmark, Estonia, France, Germany, Hungary, Italy, Netherlands, Poland, Portugal, Slovenia, Spain, Sweden
- Sullivan's method
 - life table for each country and sex from www.eurohex.eu
- Combined SHARE Frailty Index (SHARE-FI) and Global Activity Limitation Indicator (GALI) to create 4 states



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Frailty-free life expectancy



- At all ages, women spend more absolute years and greater proportion of remaining life pre-frail, frail and with severe disability
- Relatively short time spent frail and not severely disabled
- Short window of opportunity pre-frail for prevention
- This does not tell us how much care is needed



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Source: SHARE wave 4

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Newcastle 85+ Study



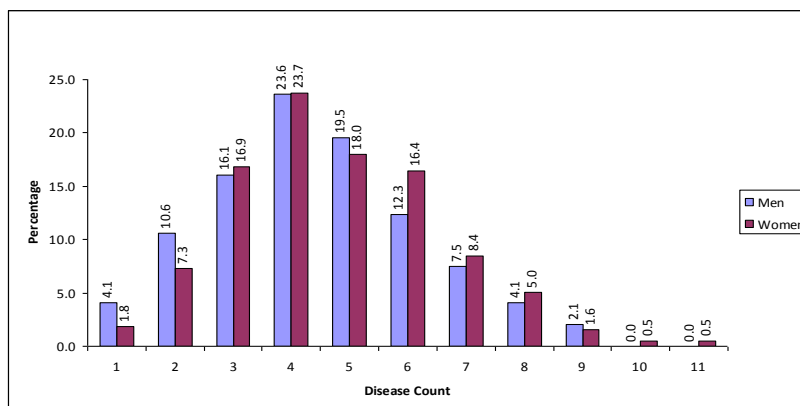
A 5-year prospective study of 1042 individuals born in 1921 of the biological, clinical and psychosocial factors associated with healthy ageing



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Multimorbidity is the norm



Source: Newcastle 85+ Study: Collerton et al (2009)



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Interval-need dependency*

- **Critical-interval dependent (requires 24-hour care)**
 - SMMSE < 10/ severe or profound urinary incontinence with inability to dress or undress without help/ unable without help to perform: toilet/chair/feeding
- **Short-interval dependent (requires help at regular times daily)**
 - Unable without help to perform : bed/dressing and undressing/ hot meal/medication/washing face and hands
- **Long-interval dependent (requires help less than daily)**
 - Unable without help to perform: washing all over/shopping/light housework/heavy housework/managing money/toenails
- **Independent**

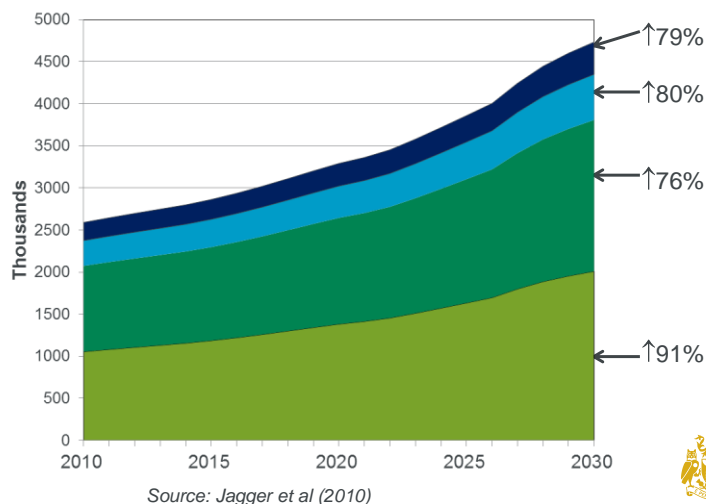
Source: Isaacs and Neville (1975)



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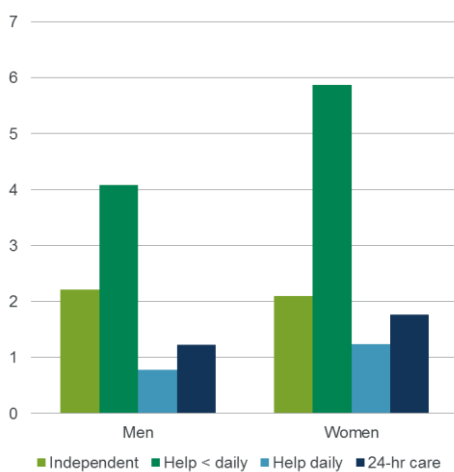
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Projected numbers in E&W aged 80+ by interval-need dependency, 2010-2030



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Years with interval-need dependency from age 85



- Multistate analysis of baseline and follow-up at 1.5, 3 and 5 years
- Assumption of no recovery from help daily or 24-hr care
- Most years spent needing help < daily

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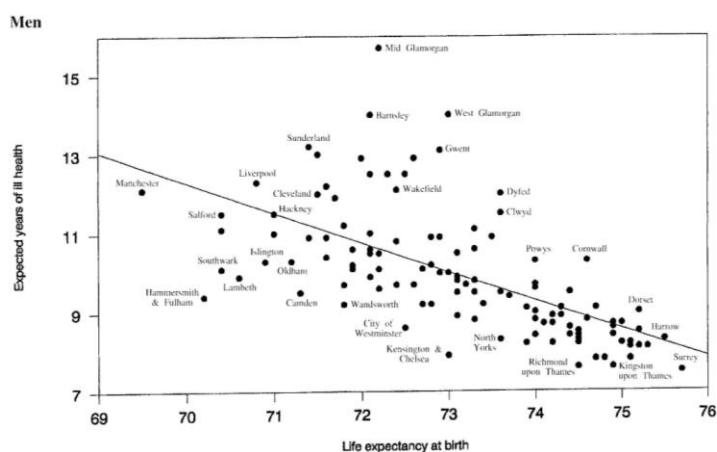


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Inequalities in Healthy Life Expectancy

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Male LE at birth by local area, 1991



Source: Bone et al (1995)



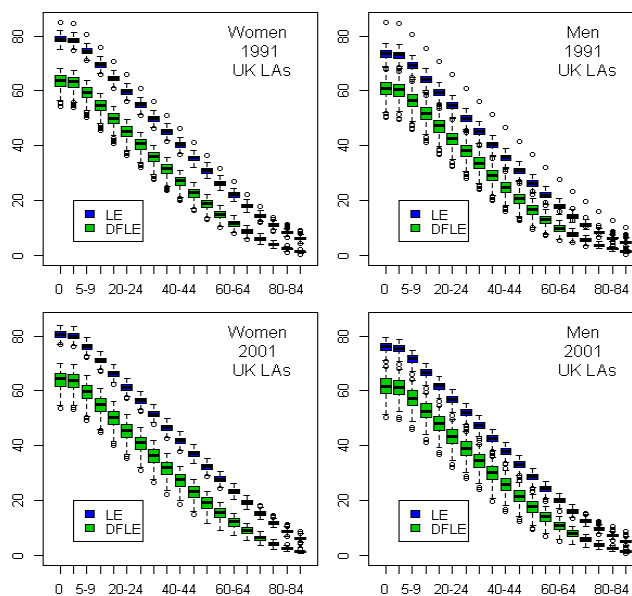
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Life expectancy (LE) & Disability free life expectancy (DFLE)

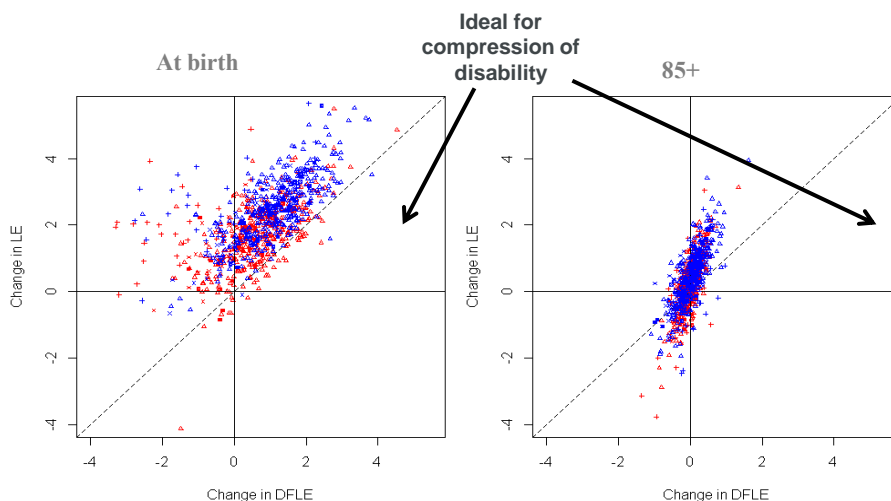
across local areas in E&W

1991 (top) and 2001 (bottom)
Women (left) and Men (right)



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Change in LE vs DFLE between 1991 and 2001 UK LAs



△ England □ Wales ✕ Scotland + Northern Ireland



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Inequalities within Newcastle

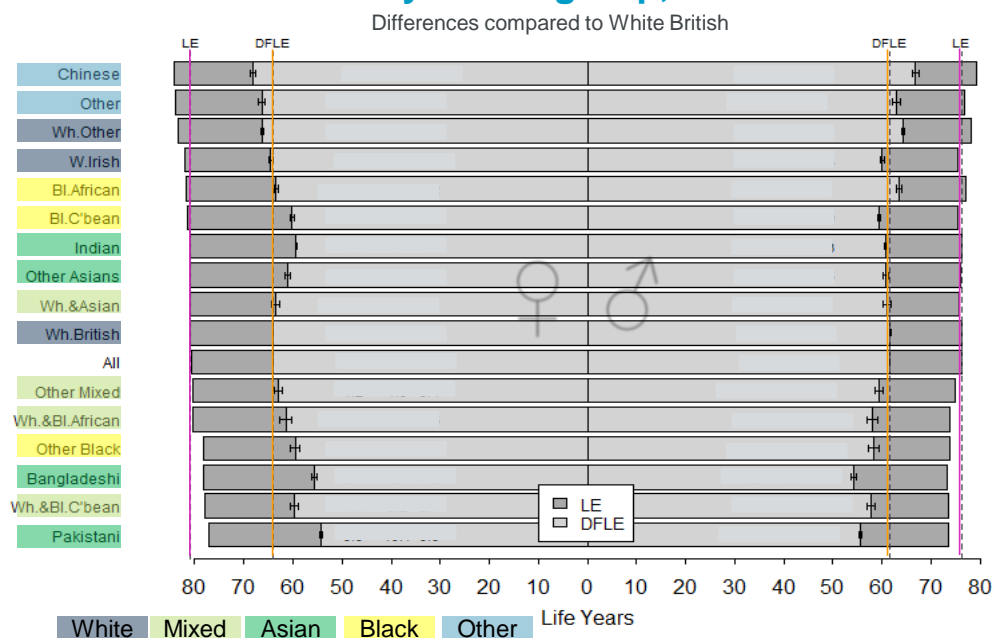


Courtesy Prof Peter Gore/Prof Carol Jagger/ONS



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LE and DFLE at birth by ethnic group, 2001



Ethnic differences in DFLE

- Variation in DFLE at birth: men 12.7 years, women 13.9 years
 - double that of life expectancy
 - greater than variation by socioeconomic status
- DFLE at birth highest for Chinese men & women
- Lowest DFLE in Bangladeshi men & Pakistani women
- Over half of ethnic groups (men:10, women:9) significantly lower DFLE than White British
- Indian women LE similar to White British, but low DFLE



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Healthy life years (HLY)

- EU committed to improving the health of its population
- Preferred measure is Healthy Life Years (HLY) measuring remaining years free of activity limitation
- HLY are based on the Global Activity Limitation Indicator (GALI) question in the EU Statistics on Income and Living Conditions (SILC) survey
- In 2004 Healthy Life Years (HLY) added to the list of EU structural indicators

“Increasing healthy life years will be a crucial factor in achieving this objective (of modernising social protection systems and strengthening pensions and healthcare).”

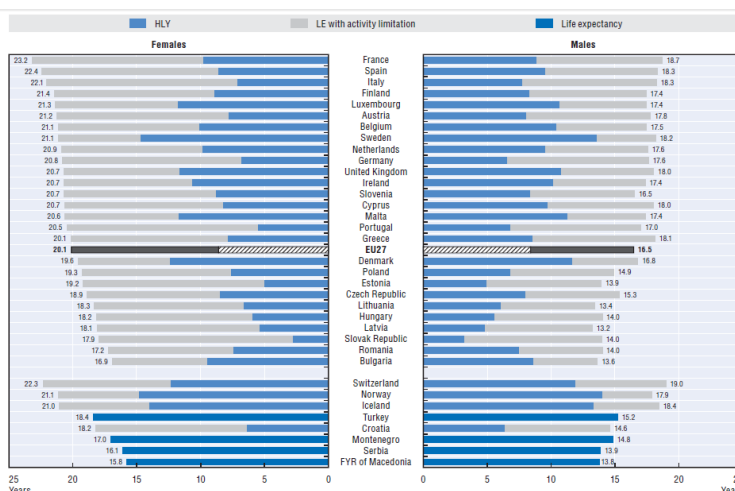
(2005 Spring Council)



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LE and HLY at 65 by gender, 2008-10 average



- EU27 LE
 - 6.5 yrs (M)
 - 20.1 yrs (F)
- EU27 HLY
 - 8.4 yrs (M)
 - 8.6 yrs (F)
- Range LE
 - 5.5 yrs (M)
 - 6.3 yrs (F)
- Range HLY
 - 10.3 yrs (M)
 - 11.9 yrs (F)



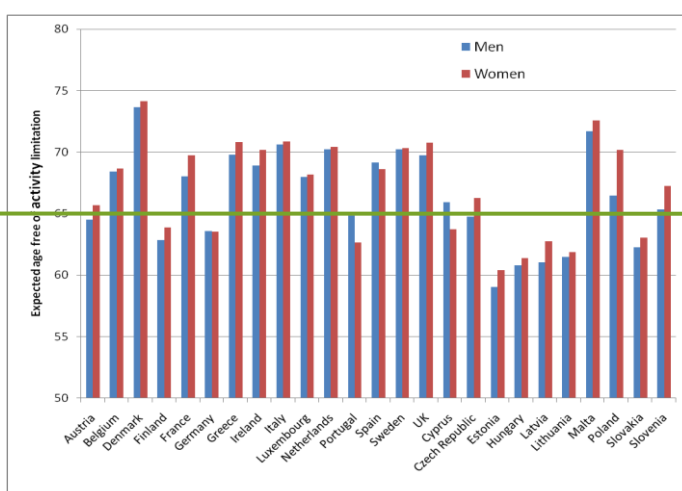
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Source: OECD Health at a Glance (2012)

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Potential to increase working life – HLY at 50, 2005



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Source: EHLEIS



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What might the future hold?

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Monitoring population ageing

- Main goal for the European Active and Healthy Ageing Partnership (EIPon-AHA) is to increase HLY at birth by 2 years over the next 10 years (2.4 months per year)
- If current trends (2005-10) continue will EIPon-AHA target be met?
- Will target be met by individual Member States?

The European Journal of Public Health Advance Access published March 13, 2013

European Journal of Public Health, 1-2

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doi:10.1093/ejpub/ckd030

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

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HLY projections 2010-2020 men, sample of countries

Projected increase in HLY (years)

	LE increase	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Slovakia	2.4	1.8	8.8	10.8	10.2
Romania	2.8	-2.2	5.3	7.3	6.7
Slovenia	1.9	8.1	4.5	6.5	5.9
Netherlands	1.4	1.1	4.0	6.0	5.4
France	1.7	1.2	3.8	5.8	5.2
Belgium	1.7	8.0	2.7	4.7	4.1
United Kingdom	1.6	1.0	2.6	4.6	4.0

Scenario 1: current trends in %HLY/LE continue

Scenario 2: HLY gap closed in 20 years (50% reduction of gap in 10 years)

Scenario 3: As Scenario 2 + each MS increase of 2 HLY over decade

Scenario 4: As Scenario 2 + each MS has no increase in UnHLY (LE-HLY)



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What does the future hold for Europe?

- If current trends continue
 - 9 countries will reach EIPon-AHA target of an increase in 2 HLY over the next decade
 - Countries reaching target include Eastern European countries
 - Romania unlikely to reach target as HLY decreasing
 - EU27 overall will not reach EIPon-AHA target
 - Inequity between countries will increase
- Improving the health of European people will need action on many fronts and measures to address **level** and **distribution** of HLY



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Challenges and solutions



- Doubling of numbers aged 85+
- Growing numbers of older people from ethnic minorities with generally worse DFLE
- Inequality in healthy life expectancy seems to be increasing across UK
- But LE is still increasing!

The Government should help people be better informed about healthy life expectancies, pension projections, the likelihood of needing social care and its cost, and how best to use their own assets, so that individuals and families can analyse their own situations and make their own informed choices



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Acknowledgements

- Newcastle 85+ Study (see www.ncl.ac.uk/iah/research/areas/biogerontology/85plus/ for more details of study and publications)
- EU funded Joint Action European health and Life Expectancy Information System (JA EHLEIS) (www.eurohex.eu)
- ESRC funded Inequalities in Healthy Active Life Expectancy (InHALE) study (<http://research.ncl.ac.uk/InHALE/index.html>)
- Dr Roman Ortuno-Romano (frailty-free LE)



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Questions



Comments

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



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