

UCL INSIGHTS: RESEARCH BRIEFING

Forecast trends for dementia and disability in England & Wales

Introduction

Support for a growing ageing population has become a major policy question in recent years, both in the UK and globally. The significance of this issue will continue to grow rapidly, and if neglected has the power to wreak havoc for public finances and family fortunes.

Rich countries including the UK are experiencing an extraordinary rise in life expectancy of two years per decade. This continuing trend shows no sign of waning, and it is in itself a hugely positive development. Nevertheless, the well-being of older people depends on the nature of the experience of ageing and particularly the extent to which each older individual can live a fulfilled life without depending on others for their basic needs.

KEY MESSAGES

- Improvement in the life expectancy and health of older people has led to a growing pool of individuals who may develop disability or dementia
- **The number of people with dementia in England & Wales is predicted to increase to 1.2 million by 2040** from 0.75 million in 2016.
- The number of over 65s with a disability in England & Wales is predicted to rise from 2.25 million in 2015 to 2.8 million by 2025 – representing a **25% increase in the number of people needing daily support**.
- This increase is due largely to the continuing rapid expansion of the older population, rather than an increase in likelihood of disability in older people
- **Projected increases in numbers of people with a disability will be a key factor in determining the rate of increase in the costs of social care.**

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Health trends

Several recent epidemiological trends combine to drive population ageing:

- **Life expectancy has increased** over the past 30 years as a result of improving living conditions and population health. In the UK, there has been an average increase in life expectancy of two years per decade as a result of a number of factors, including improving physical health. This means that life expectancy at age 65 has increased from 12.6 years (age 77.6) in 1980 to more than 18.2 years (age 83.2) in 2010.
- Incidence of **heart disease has receded dramatically** in recent decades, further enhancing life expectancy.
- **Population birth-rates are declining.** Fertility rates fell below the replacement rate of 2.1 children/woman for a stable population over 30 years ago, and are likely to stay low in the UK and other developed and developing countries, resulting in a higher ratio of older to younger people.

These three trends combine to generate a fast-growing older population increasingly susceptible to disability and dementia. The risk of dementia rises steeply with age. Dementia is also the cause of some 25% of disability among older people. The loss of physical and cognitive function is not an inevitable aspect of ageing. Longitudinal research shows there is enormous variation in the health and well-being among people over 65, and that we have considerable control over our ageing experience.

How is disability defined?

Functional impairment or disability can be defined as a state of health when an individual has difficulty maintaining self-care independence and requires supportive care. An individual's level of independence can be assessed by interview or self-report using an *activities of daily living* questionnaire. This checklist assesses a person's ability to carry out essential daily tasks independently such as getting in and out of bed, walking across a room, bathing or showering, using the toilet, dressing, or cutting food and eating. Critically this definition also captures the need for social care.

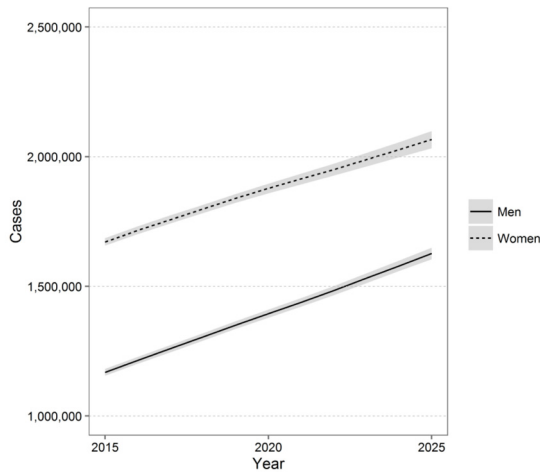


Figure 1: Projected number of cases of disability in men and women aged ≥65 years from 2015 to 2025 in England and Wales

Trends in disability

Is disability in older people expanding or contracting? In other words, as life expectancy increases, does the proportion of years lived with disability increase or decrease? The answer is important because it shapes how we will experience our later life. Our projection is for a **small expansion of the proportion of life with disability after age 65 among men, from 21% in 2015 to 24% in 2025**. Among women, this proportion is forecast to remain around its present level of 25%.

Projection for the growth in the societal burden of disability in contrast gives cause for concern. The rate of increase in the costs of social care is rapid. Based on our functional definition of disability, **it is set to rise from 2.25 million in 2015 to 2.8 million in 2025 (Figure 1A); a 25% increase in the number needing daily support in the coming decade**. This major trend is the product of the continuing rapid expansion of the older population rather than an increase in the prevalence proportion of disability in older people (Figure 1B).

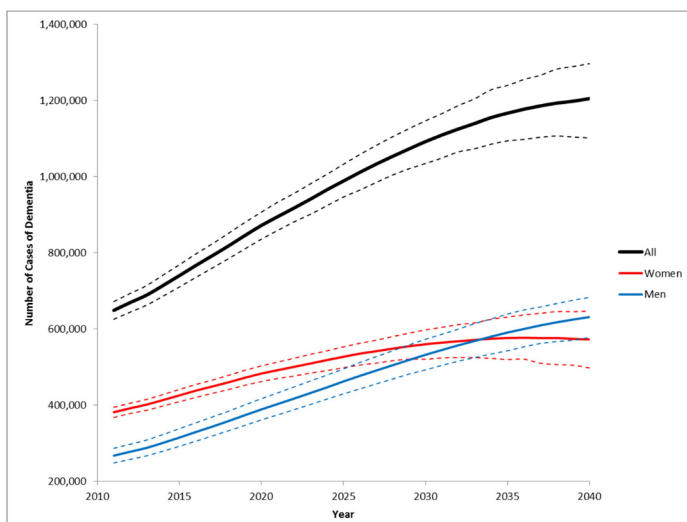


Figure 2: Projected number of people living with dementia in England and Wales 2011-2040

Dashed lines show 95% uncertainty intervals around the central estimates

Forecasting dementia and disability

To predict future numbers with dementia or disability in the health and well-being of older people, data quantifying the health trends outlined above can be combined in a 'state transition' model which simulates movement through a set of health states as men and women age. Such models are able to synthesise the effects of multiple health trends to generate estimates of future life expectancy, burden of disease and prevalence proportions.

Trends in dementia

We observed a 2.7% decline in new (incident) cases of dementia per year over the period 2002-2013. Approximately 767,000 people were living with dementia in 2016. Despite decreases in incidence and age-specific prevalence, **the number living with dementia is projected to increase to 1.2 million in 2040** (Figure 2). However if the incidence rate of dementia remains steady there would be a much larger projected growth of people living with dementia: to 1.9 million in 2040.

Conclusion

The impacts of the forecast expansion in need for long-term care are substantial. The NHS is already overburdened. Urgent action is needed to address the rapid expansion of the older population and the health impacts this is likely to bring, and policy development should bear in mind multiple societal, fiscal, labour market and intergenerational inequality implications.

A variety of measures should be considered, including an increase in national capacity for institutional, informal and home care. In addition, preventive strategies addressing the common risk-factors shared by cardiovascular disease and dementia – including poor diet, smoking, high alcohol consumption, diabetes and physical inactivity – could offer substantial cost-savings in the longer term. Such preventive strategies could include health-care-based interventions, such as better control of high blood pressure in mid-life and early old age.

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