Preparing for later life today

Last week, the UK Government announced it will be raising the state pension age to 68 years in 2037, to better reflect the demographics of the UK population. In 1948, when the state pension was first introduced, average life expectancy for a person aged 65 years was 13·5 years. This period increased to 19·7 years in 2013–15. Elsewhere, the Japan Gerontological Society and the Japan Geriatrics Society have proposed to push back the definition of old age even further, to 75 years of age, calling the current cutoff at 65 years terribly outdated.

That the world's population is getting older is undeniable. Japan is a striking example of this trend. The Japanese have had the highest average life expectancy in the world since 1986, which has risen by 4·2 years between 1990 and 2015. However, *The Lancet*'s recent paper on the global burden of disease in Japan between 1990–2015 reports that living longer does not necessarily equate to living well. Although mortality from many leading causes has declined in Japan, the number of deaths from Alzheimer's disease and other dementias has increased substantially.

Dementia is one of the most feared diseases among people over 50 years. Around 47 million people were living with dementia in 2015 making it a major global challenge of the 21st century. A Commission led by Gill Livingston and colleagues, published by *The Lancet* on July 19, aimed to produce recommendations on how best to manage the dementia epidemic. The overall message is one of hope.

That dementia is an inevitable consequence of ageing has long dominated the medical mindset. There is no cure for dementia, but treatment might help to modify the course of the disease. To maximise cognition, the Commission recommends that cholinesterase inhibitors should be offered at all stages to people with Alzheimer's disease or dementia with Lewy bodies. Memantine should be offered for severe dementia. Cholinesterase inhibitors are not effective in mild cognitive impairment.

But a novel life-course model of risk in the Commission could change our understanding of the aetiology of the disease. This model incorporates risk factors from different phases of the lifespan, not just old age. From this, the authors derived population attributable fractions (PAF), the percentage reduction in new cases over a given time if a particular risk factor were eliminated. Importantly, a major genetic risk factor—the apolipoprotein E ε4 allele—contributes 7% of cases, whereas removing nine modifiable risk factors could potentially have a greater effect. Halting education before secondary school contributes 8% of cases. In mid-life, defined here from 45 years, hypertension and obesity contribute 3% of cases. Hearing loss, a factor highlighted by a meta-analysis in the Commission, contributes 9% of cases, although the mechanism is still not understood. A further 15% are attributable to risk factors in late life (older than 65 years): depression, diabetes, physical inactivity, smoking, and social isolation. Altogether, removing these factors could prevent 35% of all dementia cases. Therefore, dementia can be seen no longer as a disease of old age, but as a disease of mid-life that is clinically silent.

The Commission also shines a light on the role of care for those living with dementia. The PAF of social contact was as high as that of hypertension or physical inactivity. Care is often provided by family members, who report lower life quality than do non-carers, and about 40% of carers have clinically significant depression or anxiety. Families have to struggle with making proxy (medical and legal) decisions for their loved ones once they lose their cognitive abilities. It is estimated that nearly 85% of the costs associated with dementia (around US$818 billion annually on a global scale) are related to family and social care. When it comes to providing for the first line of care for dementia, our systems are failing.

Dementia is also a global health challenge. The overall incidence is falling, presumably because people are living healthier lives and pre-empting the risk factors earlier on. But because of ageing populations, the number of people living with dementia is predicted to triple by 2050. Estimates suggest that low and middle-income countries are going to bear the brunt of the burden. The prevention message becomes even more important for countries that do not have the services to provide care or support carers.

Dementia prevalence could be halved if we delayed its onset by just 5 years. This might be achieved with more aggressive and ambitious mid-life interventions. Dementia care should span medical, social, and supportive care; it should be tailored to the individual and incorporate support for family carers. This shift in perception offers opportunities to rethink old age disease as a preventable outcome. As we forecast to live longer lives, preparing for old age begins today. ■ *The Lancet*

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For more on the **UK's state pension age reform** see https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/630065/state-pension-age-review-final-report.pdf

For more on **Japan's old age proposal** see https://www.theguardian.com/world/2017/jul/18/japan-doctors-propose-raising-retirement-age-to-75

For more on the **global burden of disease in Japan paper** see **Articles** *Lancet* 2017; published online July 19. http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(17)31544-1/fulltext

For the **dementia Commission** see *Lancet* 2017; published online July 20. http://www.thelancet.com/commissions/dementia2017

For more on **dementia in low and middle-income countries** see https://www.alz.co.uk/research/WorldAlzheimerReport2015.pdf