The welfare state is based on a life course that no longer matches current experience. It assumes that people, or at least men and unmarried women, spend their early years in education and then go on to a long period in work followed by a short period in retirement, when they live off the pension accumulated while in work or, more usually, the tax and pension contributions of those still in work. At a time when many people did not survive to draw their pensions or, if they did, survived for only a few more years, welfare systems coped reasonably well. It is less clear whether they will be able to do so in the future. The scale of the challenge is shown by a single stark statistic. If there is no change in work and retirement patterns, the ratio of workers to older inactive persons in the countries that were European Union member states in May 2004 (the EU-25), now at 3:1, is projected to increase to 1:1 in 2050.1

**Threat or opportunity?**

Do ageing populations pose a fundamental threat to the sustainability of welfare states, as many media commentators argue?2 Or can we adapt in ways that can accommodate ageing populations without abandoning the social solidarity that has prevailed in the post-war period? Much will depend on whether we can create societies that enable people to remain healthy, employed, and economically secure.3 Such societies would embrace the principles set out in the 2002 United Nations International Plan of Action on Ageing, which encourages governments to release the potential of older people by maximising their participation in society.4 However, if this is to be achieved, many policies will have to be reassessed.

**Working longer**

People in almost all industrialised countries live longer after retirement age than ever before. Average life expectancy at age 65 has increased by about a third in western Europe since 1970, although with considerable differences across and within countries. Furthermore, while people tend to live longer they do not always do so in good health.

It is now widely accepted that the age of retirement will have to rise if welfare states are to be sustained. What is less well understood is that the increase required may not be very much: projections by the Organisation for Economic Cooperation and Development indicate that raising the official retirement age from 65 years by 1-2 years every 10 years, in line with expected increases in life expectancy, would stabilise or even increase the size of the working population in relation to the economically inactive in many member countries.5 Adding an additional year to working lives could increase UK gross domestic product by around 2%.6

Unfortunately, there is an added complication. The OECD estimate presupposes that most people will continue to work until the official retirement age. Participation in the labour force among those aged 55-64 has increased in many European countries over the past decade, but there is substantial variation (fig 1). Although almost 85% of Icelandic citizens aged 55-64 remain in work, less than 45% do so in France and Italy. Some of those who retire early will have chosen to do so because they have accumulated sufficient wealth to live comfortably. However, they are a minority. The reasons why people leave the job market before official state pension ages vary among countries, complicated by the fact that similar individuals might move to long term sickness benefit, unemployment, or early retirement, depending on the prevailing benefit systems. However, research in the United Kingdom indicates that only about a third of those leaving work early do so voluntarily. About half remain mainly dependent on state benefits.7

There are also clear sex differences. Although the proportion of women in the labour force has increased throughout Europe in recent decades, only 36.7% of women in the 19 European OECD countries were in the labour force at ages 55-64 in 2008 compared with 54.9% of men.8 Policies designed to increase labour force participation at older ages, such as changes in taxation schemes and flexible working arrangements, will therefore need to take account of their potentially different effects on men and women.

A key step towards sustainable welfare states must therefore be to retain more people in work until and, in future, beyond the current retirement age. To do so, we first need to tackle age discrimination. A 2000 European Union directive obliges all member states to enact anti-discrimination legislation, including discrimination on grounds of age,9 which should make it more difficult for older employees to be forced out of work.10 We also need to re-examine the nature of work over the life course. Some people leave the workforce in their 50s because they are no longer physically or emotionally able to do what they did at 30. Others become bored after several decades of the same activities. This may require accepting career trajectories where the...
intensity of work, and our place in the hierarchy and level of pay, is no longer tied so strongly to age and length of service but instead rises to a plateau before descending gently, perhaps through part time working, into retirement. Unfavourable aspects of working environments including high conflict, monotony, and little opportunity to use one’s skills, as well as physically demanding work and low educational status of workers, have all been found to increase chances of early retirement.7 11

There is evidence that avoidance of age discrimination in recruitment and access to training, flexible working time practices, and ergonomic workplace design can promote age diversity in the workplace.12 Although physical capacity falls by about 20% between the ages of 40 and 60, a recent comprehensive review has shown how well organised, management supported, work site health interventions during work hours can decrease the incidence of age related injury and illness in people whose work involves physical activity.13

However, it will be essential to review policies that provide powerful financial incentives to retire at particular ages.14 The UK government has committed to review the default retirement age in 2010 and to support those over age 50 to remain at work.7 In the current economic climate, it might be tempting to adopt policies designed to promote youth employment through early retirement of older workers. An analysis of aggregated data from 13 OECD countries, however, found no evidence that such policies increase overall employment.15

Staying healthy
A critical prerequisite for increased participation in the workforce at older ages will be better health. Improved health not only enables older people to remain in work for longer it also allows them to enjoy their eventual retirement. Life expectancy at age 65 varies among countries and between the sexes (fig 2, see bmj.com), but healthy life expectancy varies even more (fig 3).16 These differences are not inevitable. Both epidemiological and biological research shows that the pace at which people age (as determined by physiology) can be modified. Many of the actions necessary are those that would form part of any broadly based strategy to promote population health, such as measures to reduce smoking, improve diet, and increase physical activity. The resulting healthier lifestyles can slow the processes involved in many common disorders of old age such as ischaemic heart disease,17 and chronic obstructive pulmonary disease.18

The greatest challenge is prevention of cognitive decline and dementia. Evidence from animal studies, observational research, and randomised trials shows that exercise can reduce cognitive decline,19–21 and the change in activity needs not be great. A Swedish study found that leisure time physical activity at least twice weekly in midlife was associated with a 50% reduction in the risk of dementia,22 yet in England only 40% of middle aged people have taken 30 minutes of moderate exercise in the previous month.23 A well conducted meta-analysis also found that smoking is associated with dementia.24 Evidence that social engagement delays cognitive decline is promising but as yet inconclusive.25 However, a recent study indicates that delayed retirement may defer the onset of dementia.26

The ability to take physical activity or engage socially depends in part on living in communities that support older people—where they feel safe from crime, the transport infrastructure is good, and the environment is not a barrier to those with reduced mobility.27 We also need to adapt health systems to the needs of elderly people—for example, by better coordination of care and more rational drug use.28 29 Although the long term implications and cost effectiveness of many interventions are difficult to establish, the economic benefits of measures that promote healthy ageing may be considerable.30

Enjoying retirement
Good health in old age is necessary but not sufficient for an enjoyable and rewarding old age. Adequate financial resources are also important. Poverty (defined as 60% of the respective country’s median income) among people aged 65 or more varies widely across the European Union. In 2007, it ranged from 5% in the Czech Republic, through 30% in Lithuania and the United Kingdom and 33% in Estonia and Latvia, to 51% in Cyprus. Poverty levels depend on several factors, including the adequacy of the pension systems and the age and sex structure of the elderly population, since elderly women and very old people are more likely to live in poverty.31

Fig 3  Healthy life expectancy at age 65 in selected EU member states, 2005. (www.euphix.org/object_document/o5180n27073.html)

Can intergenerational solidarity survive?
Some of those predicting the end of the welfare state ask whether the children of today will continue to be willing to contribute to the system. A Eurobarometer survey of about 1000 people aged ≥13 from each EU member state, conducted in March 2009 examined attitudes to intergenerational solidarity across the European Union.32 Overall, 61% of respondents agreed that the media exaggerate the risk of conflict between generations. Sixty two per cent strongly disagreed, and a further 23% disagreed, with the statement that old people are a burden on society; 84% believed that governments should make much more money available for pensions and care for elderly people, although 58% were also concerned about the affordability of pensions in future decades. There was overwhelming agreement with the view that older people contribute substantially to society—for example, as volunteers and carers and by providing support for young people.

These reported perceptions of older people’s contributions are supported by survey evidence. Analyses of data from the 2004 Survey of Health, Ageing and Retirement in Europe, for example, showed that older people with at least one grandchild provided many more hours of help to children (including looking after grandchildren) than they received, with hours of support from parents to children exceeding flows from children to parents even among parents aged 70 and over.33 In this way older people contribute to the economy by facilitating the employment of their adult children, particularly daughters.34 It is often assumed that intergenerational support, exchanges, and contacts are in decline, but there is much evidence of continuing high rates of contact and mutual help, although the balance of support provided by the family and the state varies across Europe.35 37 At the same time, a number of European regions are collaborating to exploit the business
opportunities offered by the “silver economy,” driven by the consumption of comparatively wealthy and healthy retired people.36

**Action to ensure sustainability**

What are the signs that European societies are taking the required steps to ensure the sustainability of the welfare state? The Lisbon strategy for growth and jobs, launched by the EU in 2000 and re-launched in 2005, envisages raising the average age of retirement by five years to 65 and to increase labour force participation at age 55-64 years to 50% by 2010. Though these goals were perhaps too ambitious, many European countries have embarked on reforms removing incentives for early retirement and increasing the average retirement age—sometimes against strong public opposition.

One of the challenges associated with these reforms is to ensure that they do not increase inequalities within and across countries. An even greater challenge, however, may be to ensure that people will remain healthy in old age. There is at present no comparative analysis of how well health systems in Europe adapt to this pressing challenge, and more research is needed on what approaches work best.

Worryingly, one of the most promising areas to this pressing challenge, and more research is needed on what approaches work best. One article draws on an analysis undertaken by all authors for the 2009 Czech presidency of the European Union. YD and MM have prepared the initial draft of this article, BR and MG contributed to the final draft. YD is guarantor.

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**Figure**

Computed tomogram showing extensive inguinal lymphadenopathy (mainly right sided) surrounding the right internal and external iliac vessels (arrow).