social care arrangements, along with enhanced interventions against predictable risk factors for NCD disability, such as smoking, diet, and physical activity, but all these recommendations are likely to fall flat in the current political environment. To address these recommendations and the findings of this study, the UK health and social care system needs substantial, sustained increases in funding and commitment at all levels to increase the size and remuneration of the workforce. In view of the realities of the impending departure from the EU, such increases will require investment in local workforce education and training measures—more nurses, doctors, and care workers. Because of the time required to induct new staff in this sector, immediate action is needed to prepare for this

unavoidable health system challenge.

staff at all levels of the health and social care system.<sup>8</sup> Having identified these challenges, Guzman-Castillo

and colleagues have recommended increased capacity

in formal social care and improved support for informal

The present research has some limitations. Guzman-Castillo and colleagues did not account for the severity of disability in their modelled disease states, even though even small shifts in the distribution of severity can have a major effect on the health system given the projected numbers of elderly people with a disability. There is little detail on the nature of other forms of disability not linked to cardiovascular disease or dementia or their potential care needs, which adds some uncertainty to understanding of the specific pattern of future health needs in this population. Population projections used for the model are also subject to greater than usual uncertainty, in view of the impending exit from the EU, although this is unlikely to greatly affect estimates of the size of the elderly population over the short timeframe of the projections. However, these limitations should not be taken as license to dismiss the important findings of this paper, which confirms that the British health and

## The future burden of disability in the UK: the time for urgent action is now

In the Lancet Public Health, Maria Guzman-Castillo and colleagues<sup>1</sup> present a timely warning of the huge health system challenges looming in the UK's near future. The investigators used a detailed probabilistic Markov model to produce estimates of the prevalence of disability due to cardiovascular disease, dementia, and other causes in people aged 65 years or older in England and Wales to the year 2025. They found a 25% increase from 2015 in the number of older people who will be living with disability, representing 560000 additional elderly people in England and Wales who will need care for their disabling condition, and showed that the largest relative increases will be in dementia cases. They also predicted that although life expectancy among people older than 65 years will increase by 1.7 years, 0.7 of these years will be lived with disability.

The model used detailed estimates of incidence of illness obtained from a well established longitudinal cohort model and comorbidity between cardiovascular disease and dementia. The study offers an advance on previous studies,<sup>2</sup> because of the use of a Markov model with interacting states rather than a statistical model, and gives estimates of the rapid growth in care burden that are immediately accessible to policy makers, in the form of case numbers rather than years lived with disability. Presented in this form, the results show starkly the growing burden of disability that the UK National Health Service (NHS) and social care system will face over the next decade.

This rapid increase in prevalence of dementia-related disability occurs at a time when the quality of care for people living with dementia, and the readiness of the UK health and social care system to manage this complex condition, has been questioned.<sup>3</sup> The NHS also still faces inequality in care of non-communicable diseases (NCDs)<sup>4</sup> and poorer quality care of key disabling conditions in older people,<sup>5</sup> unprecedented demand for its services, and substantial financial and workforce planning challenges.<sup>6</sup> Findings from other studies have shown rapid declines in the number of older people able to receive care, shortages of staff, and increasing burden-shifting to private or informal arrangements,<sup>7</sup> but it is in this context that Guzman-Castillo and

colleagues identify the need to care for an additional 560 000 people within one decade. In addition to these pressures, the UK is now scheduled to leave the European Union (EU), with the possibility of further and see Editorial page e297 see Articles page e307



social care system faces a rapid increase in the number of elderly people with disabilities, including complex physical and behavioural multimorbidities, at a time when it is uniquely unprepared for even the existing burden of disability in the UK population. This important research should be taken as a warning and a strong call for action on health service planning and funding, workforce training and retention, and preparation for the ageing of British society.

## Stuart Gilmour

Department of Global Health Policy, Graduate School of Medicine, University of Tokyo, Tokyo 113-0033, Japan sgilmour@m.u-tokyo.ac.jp

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 Guzman-Castillo M, Ahmadi-Abhari S, Bandosz P, et al. Forecasted trends in disability and life expectancy in England and Wales up to 2025: a modelling study. Lancet Public Health 2017; published online May 23. http://dx.doi.org/10.1016/S2468-2667(17)30091-9.

- 2 Global Burden of Disease Study 2013 Collaborators. Global, regional, and national incidence, prevalence, and years lived with disability for 301 acute and chronic diseases and injuries in 188 countries, 1990–2013: a systematic analysis for the Global Burden of Disease Study 2013. *Lancet* 2015; **386**: 743–800.
  - The Lancet Neurology. Raising standards in dementia care. *Lancet Neurol* 2014; **13**: 1161.

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- 4 Nishino Y, Gilmour S, Shibuya K. Inequality in diabetes-related hospital admissions in England by socioeconomic deprivation and ethnicity: facility-based cross-sectional analysis. PLoS One 2015; 10: e0116689.
- 5 McBride D, Hardoon S, Walters K, Gilmour S, Raine R. Explaining variation in referral from primary to secondary care: cohort study. BMJ 2010; 341: c6267.
- 6 Oliver D. David Oliver: deflecting blame for the NHS crisis. BMJ 2017; 356: j1026.
- 7 Humphries R, Thorlby R, Holder H, Hall P, Charles A. Social care for older people: home truths. 2016. https://www.nuffieldtrust.org.uk/ files/2017-01/social-care-older-people-web-final.pdf (accessed May 8, 2017).
- 8 White S. Leaving the European Union: NHS and social care workforce. 2016. http://researchbriefings.parliament.uk/ResearchBriefing/Summary/ LLN-2016-0061 (accessed May 8, 2017).