

## Disentangling the burden of disease in the UK: what now?



“I wouldn’t be here today if it were not for the NHS” was Professor Steven Hawking’s response<sup>1</sup> to an American newspaper that used him as an example to highlight the deficiencies of the UK National Health Service (NHS) by writing, “People such as scientist Stephen Hawking wouldn’t have a chance in the UK, where the National Health Service would say the life of this brilliant man, because of his physical handicaps, is essentially worthless”.<sup>2</sup>

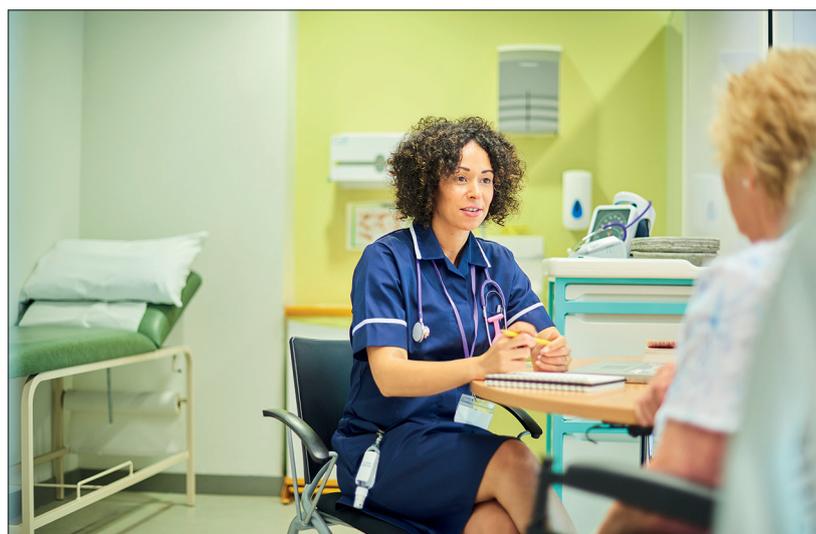
Since the NHS is celebrating its 70th anniversary, it is timely to take stock of what has been achieved thus far in terms of population health. Over the past 150 years or so, people in the UK have seen tremendous increases in the number of years they could expect to live. In 1871, the average newborn girl would live about 45 years (vs 41 years for boys); by 2016, this life expectancy had almost doubled to 83 years (vs 79 years for boys).<sup>3</sup> Much of this increase in life expectancy was, at least initially, due to improvements in public health, such as the provision of clean drinking water, safe sewage disposal, and improved food safety. Advances in medicine and health care played an increasingly important part too, raising—at the time of the creation of the NHS in 1948—hopes that all diseases could be cured.<sup>4</sup> Indeed, as new interventions became progressively available to treat common conditions, there were remarkable reductions in death rates from conditions that were potentially amenable to health care,<sup>5</sup> including heart disease<sup>6</sup> and treatable cancers.<sup>7</sup>

However, as people live longer, an increasing number are living with often multiple, long-term conditions. As the UK analysis of the Global Burden of Disease Study 2016 by Nicholas Steel and colleagues<sup>8</sup> in *The Lancet* shows, the number of years lived with disability now surpasses the number of years of life lost. The study provides important insights into the patterns of disease burden across the devolved nations of the UK, across English local authorities, and over time. Some findings are perhaps not surprising; the mortality burden has remained highest in Scotland from 1990 to 2016,<sup>9</sup> and in the most deprived local authorities compared with the least deprived, by over two times. However, Steel and colleagues add granularity by providing detail down to the local level that, as the authors note, “can support various local, regional, and national actions”, including the development of integrated care systems.

Here is where the challenge lies. Over half of the mortality burden is attributable to behavioural risk factors, such as tobacco use, poor diet, alcohol and drug use, and low physical activity, and to environmental factors, such as air pollution. The authors highlight the key role that health services should have by prioritising primary prevention. Indeed, one of the core functions of the proposed integrated care systems in England is to place greater emphasis on population health and preventing ill health.<sup>10</sup> Yet, as Steel and colleagues also acknowledge, much of the need for action lies outside the immediate control of the health service. Thus, an effective strategy needs to consider the wider context within which people live and efforts should go beyond targeting the individual, taking greater account of the organisational and system levels in particular. Strategies also need to go beyond the health-care context to fully consider the broader influences that affect people’s lives. As Rutter and colleagues<sup>11</sup> have highlighted, the achievement of meaningful effects on complex multi-causal problems (eg, obesity) requires a multifaceted approach that cannot solely rely on a series of single, unlinked interventions that require the individual to act (for example, making healthy choices on the basis of traffic light labelling of food or taking up exercise on prescription). Such interventions tend to have low reach and widen health inequalities. There is a need for a wider policy framework that is mindful of the potential tensions and unintended consequences of policies that are not consistent,

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recognises the influence of powerful corporate actors in undermining public health policies that seek to promote health,<sup>12</sup> and creates a policy environment that provides the means for those who are asked to implement change to acquire the capacity and competence to do so.

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I declare no competing interests.

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