

# The impact of demographic and medical trends on the health and social care systems of the UK

Date and Location:	21st June, 2017 at The Royal Society
Chair:	The Earl of Selborne GBE FRS Chair, The Foundation for Science and Technology
Lecturer:	Professor Chris Whitty CB FMedSci Chief Scientific Adviser, Department of Health and Deputy Government Chief Scientific Adviser
Respondents:	Professor Sir Robert Lechler PMedSci President The Academy of Medical Sciences  Professor Marcel Levi Chief Executive University College London Hospitals NHS Foundation Trust
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Audio Files:	<a href="http://www.foundation.org.uk">www.foundation.org.uk</a>
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**PROFESSOR CHRIS WHITTY** noted in his lecture that projections from UK demographic data could be interpreted in different ways. Over the next twenty years the UK population over the age of 85 would double, while in relative terms becoming one of the youngest in Europe. It was also true that the majority of the population would be healthier than today. Consequently the impact of demographic change on future health was less than sometimes imagined.

It was important to recognise that provision of healthcare was a tradeable asset in a global market. Relatively more young people in the UK needed to begin training in medical professions if we were to avoid a growing and substantial skill shortage. Importing healthcare and social care workers would become more expensive as

global demand increased.

The challenge caused by internal migration of the UK population was significant, and frequently overlooked. All of the ageing of the UK population would take place outside of cities, in rural areas where there would be fewer young people willing to be employed in healthcare delivery. This would add to the strain on health and social services.

Overall health outcomes in the UK had improved consistently. Cardiovascular mortality had declined, as had death from strokes. Angioplasty had become cheaper and safer, and the cost of drug treatment had fallen. There had been progressive improvement in cancer mortality rates thanks to multiple small interventions. The 50% overall cancer survival rate today was double that of twenty years ago.

Public health interventions, particularly the reduction in smoking, had proved effective. De-

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mentia had becoming an increasing cause of death because people were not now dying from other causes.

Challenges included the doubling of obesity in men over the last twenty years while female obesity had increased by 50%. An increasing proportion of patients had a range of symptoms while the healthcare system focussed on single issue treatment. Each two years of extra life expectancy produced on average one year of additional healthy life.

UK health spending in both real and per capita terms had increased consistently since 1979. However, the demand for services had increased faster than demographic change would indicate. Outpatient visits had recently gone up by 4-6% for all groups. In the US technological change contributed more than 50% of the growth in healthcare costs, in part due to the nature of US healthcare funding.

It was clear that scientific advances continued to improve health, although the impact on total health costs was complex. For the UK the combination of an ageing population, migration away from cities, and increasing multimorbidity added to deprivation in vulnerable groups posed a new scale of challenge.

Responding, **SIR ROBERT LECHLER** noted the pressure on the health and social care system, with Brexit set to reduce the number of EU nurses and social care providers coming to the UK. Charging tuition fees to student nurses was reducing the number of mature students applying to study.

Patients were becoming more empowered through greater access to health information online, and had higher expectations of quality of treatment. Over the coming decades external factors such as climate, urban environment, social inequality and the use of new technologies would affect health outcomes significantly. Innovations including more remote monitoring and nanotechnology would tend to increase costs. A more value based approach to healthcare provision was therefore needed, focussed on cost-effectiveness, not simply output measures. More thought was also needed on quality care at the end of life, and how best to help people die well.

Additional high quality research was needed to provide evidence for policy decisions. A public dialogue on how best to fund UK health and social care was needed. Better integration was important but could not solve all the challenges. Financing options included a hypothecated tax, co-payment, and further rationing. Equally, it was important to celebrate the positive progress of UK healthcare.

Responding, **PROFESSOR MARCEL LEVI** underlined the success of medical science in lengthening life, with the speed of improvement quickening over the last century. This success had led to more mortality from degenerative disease and multimorbidity. Disease management had also improved, with rheumatoid arthritis no longer confining patients to wheelchairs, and improved diagnosis and treatment of hepatitis C.

The UK was the only major developed country not training enough healthcare professionals for its own needs. Improved training should seek to avoid excessive specialisation and our research effort should match the changing burden of disease. Most further improvements would come from better intensive care medicine and effective treatment plans rather than breakthrough drug discoveries. Overall we should recognise the success of UK medicine.

In discussion the following points were raised:

It was noted that a focus on effective treatment during pregnancy and in infancy could help deliver a healthier old age. The benefits of a reduction in smoking were clear but obesity was a less tractable problem. On the other hand an effective dialogue with the food industry supporting the development of healthier products could deliver significant improvements without threatening the commercial viability of food producers.

Disability might have its own demography. But if disability were seen as the gap between what individuals wanted to do and could do in their environment then self-perception as well as public policy played a role in its definition. Disabled people were living longer, which could bring additional costs but was a positive outcome.

Dementia cases had reduced in the last twenty years, though there was some increase in mild disability. Drugs were not yet of significant value but due to public concerns there was a focus on drug discovery when increased community support for families managing dementia would be more valuable. If the current model of social care was not sustainable for the coming decades we needed to debate openly the respective roles of the state and family support in managing costs. The public were arguably ahead of the profession in valuing quality of life over duration when there was a tradeoff.

Medical schools needed to continue to look for good communication skills in their students and teach more about the links between physical and mental

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health. Artificial intelligence was seen as helping to improve pathology and identification of tumours, but was unlikely to replace patient interaction – machines do not deliver care. Integrating technology into a whole care pathway was important. There was also scope to use process engineering skills more to improve NHS efficiency and build public health into decisions on the urban environment.

Supply of doctors remained a concern. It was premature to identify a movement out of the profession, but more needed to be done to stimulate the next generation to look at medical careers. Given the time needed to fully train a doctor, strategic choices should be made now about the skills likely to be needed in twenty years time. Adjusting skillsets was easier in the case of nurses or care workers with a shorter training

period.

There was a smaller risk of global pandemics than in the past. Better sanitation, nutrition and housing made people more resilient in fighting infections. But the excessive public response eg to SARS showed that there was a problem of perception.

There was agreement that UK health outcomes had improved significantly in recent decades. More resources were undoubtedly required, and there was scope for greater integration of health and social care systems. But we should celebrate the achievements of our healthcare system in providing world-class care at reasonable cost.

Sir Martin Donnelly KCB CMG

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