

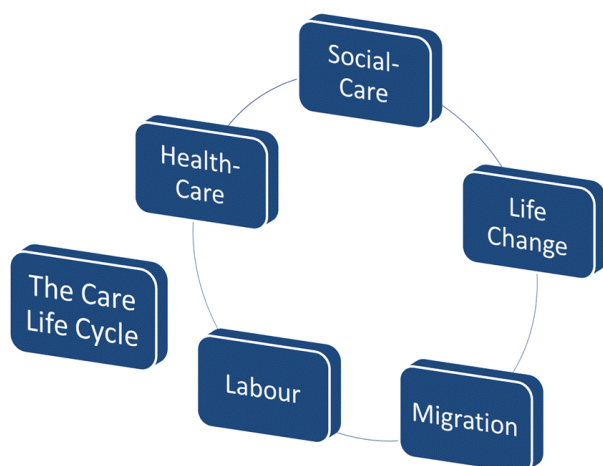


Researching the supply and demand of health and social care needs within an ageing population

Introduction

More than 10 million people are now aged over 65 within the UK, and an estimated 17 million people will be over 65 by 2035. The fastest population increase is in those over 85 years of age. As older people are the primary users of health and social care services, this increase is a major challenge for policy makers planning the future provision of these services. As well as influencing the demand for care, population ageing also affects the supply of care professionals, as the health workforce itself ages.

Working to understand the various factors which affect both supply and demand of health and social care in the UK is the Care Life Cycle (CLC) research project, based at the University of Southampton. For example, medical advances resulting in treatment for conditions that were previously untreatable are factors when looking at demand for healthcare. Changes in family structure and increasing female employment, which impact on the care of elderly relatives within the family, are factors affecting the demand for social care. Incorporating these inter-related factors into a suite of modelling tools, the team aims to provide new insights for policymakers to aid the development of policy in health and social care.



Starting in April 2010, this five year research programme is funded by the Engineering and Physical Sciences Research Council (EPSRC).

It is one of four projects funded under their “Complexity Science in the Real World” initiative. Each project brings together researchers from different disciplines to apply Complexity Science techniques to major research challenges within society.

Complexity Science explores the behaviour of complex systems by focusing on the interconnections of system, rather than the individual components themselves.

Society’s health and social care needs are determined by a complex set of interacting factors, which together can be thought of as the Care Life Cycle (CLC). This cycle operates at both the individual and societal level.

Research Team

Led by Professor Jane Falkingham, this research programme brings together teams of researchers from complexity science, operational research and social science including demography, social policy and social statistics. A further 14 academics, six post-doctoral research staff, four PhD students and a programme manager are working on the project. Key to the research is working with partners in the public sector throughout the course of the project.

Information Gathering

Our research programme is exploring the factors affecting the supply and demand of social and health care services, paying particular attention to the interactions between the Care Life Cycle components.

An individual's need for care is influenced both by their own characteristics, for example age, gender, health, education and occupation and also by their living arrangements and wider social networks. These in turn are influenced by their resources, including wages and pensions, and how close they live to their family.

We are also interested in how these interrelate with other societal changes, such as changes in the economic climate and the development of new technologies. Attention will be paid to how these factors interact with each other, how they may vary across generations and how this in turn may affect the expectations and resources of different age groups as they enter old age.

This type of information is gathered from a range of sources, including datasets such as the British Household Panel Study and the English Longitudinal Study of Ageing, and directly from our partners in the public sector, such as a county council or hospital department.

Understanding what drives the supply of the health and social care workforce involves researching future trends in this area. We are looking at

indicators such as patterns of education and training, the effects of migration and changes in the roles and practice of health and social care practitioners.

The third part of the research process is working with policy makers to better understand their role in shaping the organisation of care, the constraints on policy making, and the role of scientific modelling in informing policy.

Models

Using the data gathered, computer models are being developed. Rather than building a single 'mega model' of UK social and health care, the plan is to build multiple models which relate to each other.

Models will be developed at various levels of resolution; some will model the population as a whole, others will model institutions such as a hospital unit, right down to models of an individual. Different modelling approaches will also be used, reflecting the different academic disciplines brought together in the CLC project.

By combining the various approaches, the aim is to have a better understanding of the interrelated elements of the system, and how changes to one area can result in changes, often unexpected, in another.

Working with policy makers, it's then possible to run 'what if' experiments. By making adjustments to the models to simulate different policy changes, it's possible to see the potential results of that change in the future.

Research Findings

Our research findings will be presented at conferences and workshops, and papers made available on the CLC website (www.southampton.ac.uk/clc/). If you would like any further information on the CLC project, please email clcproj@soton.ac.uk or telephone the CLC Research Manager on 02380 598981.

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