Whole systems thinking in health and social care

No-one would argue with the assertion that health and social care professionals are operating within an environment that is increasingly driven by performance indicators and targets. In an attempt to demonstrate accountability, the Government is pursuing an approach which links additional funding with performance against an ever-tougher range of targets. The Performance Assessment Frameworks for both Personal Social Services and the NHS seek to judge the performance of the system through a basket of indicators designed to reflect key values of the service (e.g. 'Quality of services for users and carers', 'Fair access') and provide an overall assessment. They also recognise that the components of health and social care interact to form a wider complex system, with the inclusion of interface indicators to which both sectors contribute. Despite this the perception of staff and users of the system alike is that the health and social care economy is failing.

Historically we have tackled complex problems by what Rebecca Coombes, in the White Paper[1], describes as 'reducing them to separate rationally manageable components'. There is however an acknowledgement that for significant improvements to be effected we need to consider not just the discrete contributions that individuals and organisations can make, but how the whole system works together.

There is much talk about taking 'a whole systems approach' to planning. This is not just about getting the different parts of the system round a table and understanding their roles - most organisations now do this through strategic partnerships, operational steering groups, HIMPs etc. It is about gathering local intelligence to understand the impact of changes in one part of the system on everything else.

The challenge in this is that community care systems, in common with other public services, are hugely complex. Jake Chapman in his work on systems thinking in the public sector[2] asserts that this complexity is brought about by the impact of communication technologies and the resultant growth in interactions between organisations and agencies. And there is a wide diversity of organisations involved in public service delivery, often not directly accountable.

An effect of this complexity is that it is more difficult to predict the outcomes of an intervention. The short term memory capacity with which we seek to solve problems is too limited to manipulate even the main variables in the system without help. Feedback loops and delays in one part of the system can lead to false assumptions about the effect of actions, and this in turn can cause

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[1] White Paper, Issue No. 4, June 2002, p 17
[2] 'System Failure', Jake Chapman, Demos, 2002

initiatives to fall flat or to have unintended consequences. An example quoted by Chapman is the Government's pledge to reduce NHS waiting lists - admirable as an aspiration until one looks at the National Audit Office's findings that around 20% of consultants routinely ignored clinical priorities in favour of avoiding their Trust being penalised for long lists.

So how can systems modelling and whole systems thinking help? We believe that the greatest insight is derived from an approach which includes:
➢ engagement with key stakeholders to arrive at a shared understanding of the problem and its drivers,
➢ identification of the data required to populate the model,
➢ and the use of a good software package to allow a variety of assumptions and their sensitivities with regard to the system as a whole to be tested

Shared understanding

Chapman says *"A key insight from systems theory is that different individuals and organisations within a problem domain will have significantly different perspectives, based on different histories, cultures and goals."*

Participants come to the problem with different agendas, often competing for resources. Expert facilitation is needed to enable individual components to move from protecting their own position to working towards a common goal which has benefits for all the parts and overall.

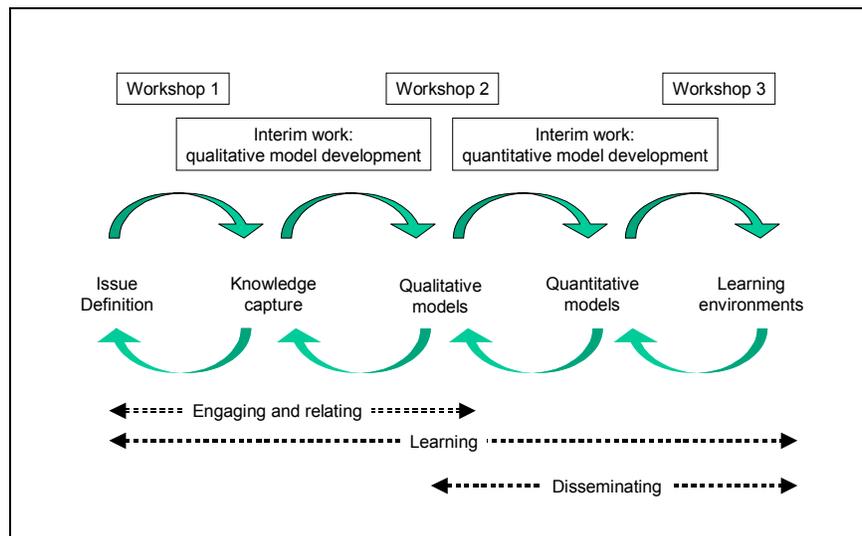One approach might be a series of three workshops as described below.

Figure 1: Developing a whole systems model

The first workshop sets out to scope the issues and produce a visual representation of the system and the influences on supply and demand over a specified period of time.

Perhaps the easiest way to explain the process is through a worked example - in this case delivering "a model that enables partners in Leeds to understand the factors that influence demand and supply of long term care for older people and therefore to better plan for this provision through to 2021."

The workshops were attended by a project team of key stakeholders from social services, housing, health and the independent sector, with a facilitator experienced in whole systems thinking.

Chapman describes one of the characteristics of systems thinking as engagement with stakeholders which is based *on "listening and co-researching rather than telling and instructing."* The first step for the Leeds project team was to scope the issue and come to a shared understanding of the system within which long term care is a key element. One of the results of this was a definition of long term care which was considerably wider than the original brief and included: care homes, extra care housing, retirement/sheltered housing, carer support, intensive home care and specialist day centres. A fundamental change in the 'mental map' of what was meant by the brief was the inclusion of a growing sector of long term care provided outside of an institutional setting.

Identifying the data required

Having established a shared view of the system as a whole and the influences and drivers of supply and demand, the period between workshops one and two is used to obtain data which are consistent with those drivers and influences. In the Leeds example, these were:
➢ Office for National Statistics demographic trends for Leeds
➢ National Beds Inquiry database of hospital activity for over 65s
➢ Recent, current and projected activity for intermediate care
➢ Current levels of long term care

Feedback is a crucial element in developing the model. At workshop 2, the project team looks at how the model is put together and checks that it reflects the learning from the first workshop in terms of importance of influences and drivers. It also starts to establish assumptions that the model should test.

In the case of long term care, three sectors were identified: a demographic sector, a hospital/intermediate care sector, and a long term care sector. Assumptions were made for each of these sectors based on intelligence acquired within the workshops. These included the relationship between 65-74 year olds and 85+ as a pool of carers, changes in growth rate of intensive home care over time, average length of stay in care homes modified by intensive home care,

effects of NSF initiatives on non-elective admissions, changing balance for intermediate care between diversion from hospital and facilitating discharge over time.

Testing assumptions

The final workshop is an opportunity for the project team to explore the behaviour of the model and any resultant learning, in particular any behaviour that is contrary to what might be expected.

In the long term care example the modelling process:

➢ Broadly confirmed participants expectations of the need to sustain a healthy care home sector at similar levels to today to reflect demographic changes, but also a growing sector of long term care in non-institutional settings;

➢ Suggested a key driver (apart from demography) to be acute sector activity thus focussing attention and importance on intermediate care;

➢ Also highlighted the fact that some targets may sometimes be unhelpful in developing services, for example intensive home care defined as more than 10 hours per week drew attention away from the need to develop a broader and more flexible sector of care focussed on minimising risk and maximising independent living.

Transferability

Whilst the long term care example described is a fairly discrete element of the health and social care system, the complexity of public services make them ideal for whole systems modelling and can be applied at any level.

"Systems ideas are most appropriate when dealing with 'messes': problems which are unbounded in scope, time and resources, and enjoy no clear agreement about what a solution would even look like, let alone how it could be achieved."[3]

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For further information about the work of the consultancy, please visit our web site at www.thewholesystem.co.uk

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[3] 'System Failure', Jake Chapman, Demos, 2002