

Shropshire and Staffordshire Strategic Health Authority 'Health System Simulator'

Introduction

The Health System Simulator enables commissioning executives and analysts to forecast future capacity requirements across the health system in Shropshire and Staffordshire.

It provides an evidence base for supporting decisions about capital business cases, capacity plans, workforce plans and developments of the infrastructure on health care delivery.

Whole Systems

The programme is the first in the country to take a whole systems approach by joining up the processes, resources and policies in the health community, across a period of ten years.

It reflects the capacity required across planned and unscheduled care in the hospital and the community in a way that can be fully linked.

This whole systems method has the ability to develop an appreciation of the whole rather than focus on one part of health care. The approach has enabled a much richer understanding of the inter-relationships between different parts of the system; as well as providing an indication of impact from a range of different factors that have previously only been combined using 'intelligent guesswork'.

Health System Simulator

The Health System Simulator maps all the relevant structure in the health care system, as viewed by those operating in the system. The interface puts the user in control of the model and allows for multiple strategies to be tested and evaluated against different demographic assumptions. The simulator is being used to communicate strategies with managers who work in the various agencies and across organisational boundaries.

Benefits

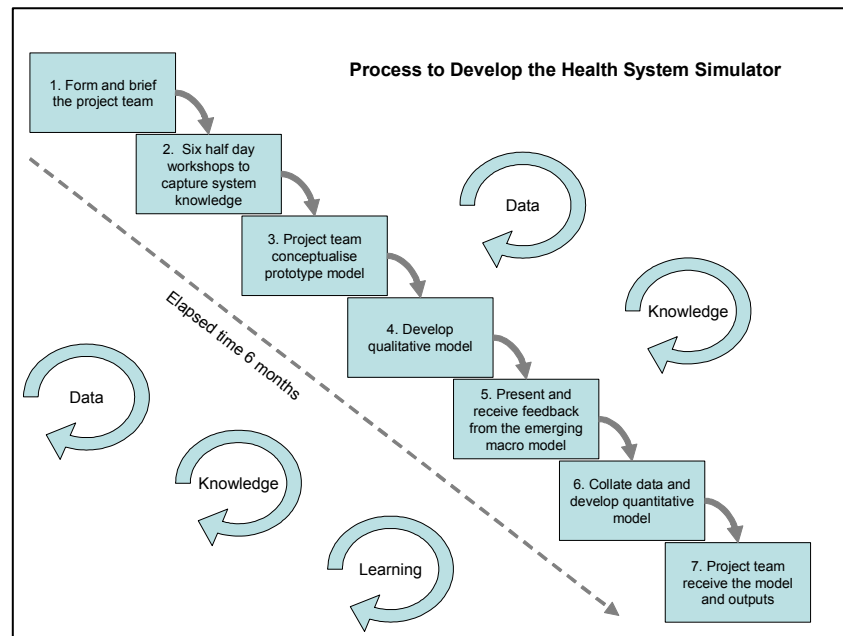
The Health Systems Simulator has enabled the impact of key improvement initiatives to be considered together, for example:

- reducing waiting times;
- the introduction of chronic disease management;
- shifts from inpatient to day case and on into outpatient or primary care procedures.

These initiatives can all be considered against the local demographic projections and in the context of changing underlying access rates.

The Process

The project to develop the Simulator followed a well tried and tested process to engage Strategic Health Authority staff, as well as policy reviews and the gathering of an evidence base on which to base future scenarios that are reflected in the simulator tool.



1. A full day workshop for the project team to scope the model and explore demographic and public health influences on the system;
2. A series of up to 6 half day workshops with specialist staff with domain expert knowledge;
3. A second full day workshop for the project team to conceptualise a prototype model;
4. Development of a qualitative model and identification of key data ;
5. A third full day workshop involving representatives from each of the specialist workshops to present and receive feedback from the emerging macro model;
6. Collation and development of a quantitative simulation model;
7. A final half day workshop for the project team to receive the model and outputs.

Outcomes

The process and outcomes have strengthened the ability of the SHA to make informed judgement on strategic investment decisions and in particular to challenge local workforce and capacity plans in a way that better reflects the anticipated shifts in service configuration.