

Use of Modelling to support service redesign through Practice Based Commissioning

A PCT Perspective
Marion Crundwell
Locality Commissioning Manager
Eastern Birmingham PCT

Plan of Session

- Introduction
- What does modelling have to offer the practice based commissioning process?

What is practice based commissioning ?

- All GP practices given an indicative budget to buy services from providers.
- Practices (not PCTs) will identify the health needs of the local population and identify the appropriate services to be provided.
- Practices must offer patients a choice.
- Up to 100% of any savings made can be held at practice level, which must then be used for developing or providing services for patients.

Payment by Results (PBR)

- Hospitals and other providers paid for the work they actually do
- Payment will be linked to activity
- Payments "follow the patient" rather than historical block contracts

What does modelling have to offer the practice based commissioning process?

- Help us to support practice based commissioners and other stakeholders in the planning of a particular service redesign to-
 - Focus on some of the options
 - Identify outcomes to be expected from the process
 - Investigate the "what if's"
 - Add structure to the debate
 - Avoid going straight to the solution

What does modelling have to offer the practice based commissioning process?

-continued
 - Build in key variables
 - Help us to look at simple changes in the context of the wider picture
 - Help us look at efficiency and effectiveness of various options
 - Provides a framework for stakeholders to add their views, ideas and concerns

Example

Out Patient Referrals

- Identify stakeholders
- Map current pathway
- Identify where we want to go

How would modelling help us?

- Identify how we might get to the desired outcome
- Map out the knock-on effects of possible changes
- Show us possible risks
- Shows a whole systems approach to the issue

Practical modelling application

- Summer MSc student placement
- Level of referrals - a real issue for our PCT
 - Number of referrals
 - Number of follow-ups
 - Number of consultant to consultant referrals
- Seeking alternative pathways that are cost effective, produce better outcomes for patients and satisfy criteria set by the key stakeholders



Simulation and modelling for PBC

Sally Brailsford
School of Management
University of Southampton

Plan of session

- The modelling process for PBC
- Case study – intermediate care service redesign for Hampshire Social Services (MSc student project, 2004)



The process: 4 steps

- Identify the key problem area(s) for the locality
- Conceptual flow map of the system as-is
- Planning for change: identify ...
 - who you need to talk to
 - bottlenecks and problems
 - possible causes and effects
 - data requirements
 - scenarios for investigation
- Develop simulation model(s) and experiment

Conceptual flow map

- Patient-focussed perspective – what happens to patients now?
- What options are currently open to the patient at each stage of the pathway?
- What is included in the system, and what is outside it?

Planning for change (i)

- Who currently provides these services?
- Who else could provide them?
- What local factors (political, historical, or clinical) have influenced the way these services have developed over the years?
- What is going to change? (Demographics, etc)
- What factors are standing in the way of change?

Planning for change (ii)

- What ideas would you like to try out?
- Brainstorming and other creativity methods
- Look at other PCTs and practices
- Talk to staff
- Ask the patients what they would like!

Example: service redesign for Hampshire Social Services, 2004

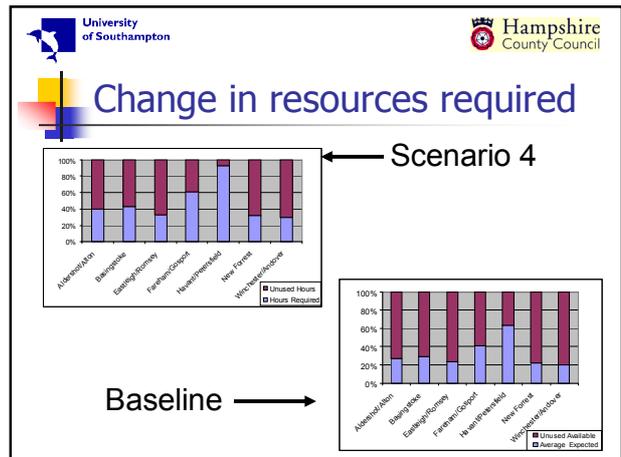
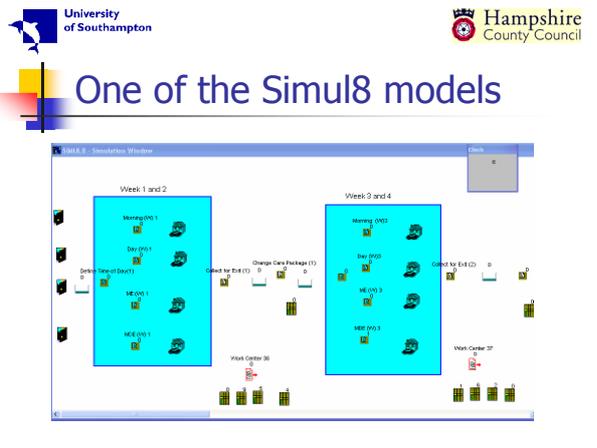
- Current system of intermediate care for older clients – “step-up” or “step-down”
- Care provided in clients’ homes for 6 weeks
- Inflexible “one size fits all” system
- Expensive – most care outsourced rather than using HSS staff

Proposed new service

- New “Intake” service, designed to assess and reable new clients in more flexible way
- Major concerns:
 - insufficient in-house capacity within HSS
 - change in working practices and job responsibilities
 - possible redundancies – politically sensitive
 - Clients’ responses: reduced continuity of care

Project Objectives

- Develop (7 slightly different!) simulation models of the new Intake service
- Determine the feasibility of the service
- Identify potential care staff hours and times required
- Compare with current capacity available
- Model scenarios for unknown parameters



- University of Southampton Hampshire County Council
- ## Recommendations and outcome
- Provision of 'Intake' service with current capacity should be possible
 - Even for extreme assumptions
 - More capacity for other specialist services
 - Results most influenced by uncertainty around duration of clients stay within 6 week period
 - Pilot study identified expected duration more accurately
 - New service implemented by HSS at cost of £400,000

- University of Southampton Hampshire County Council
- ## Conclusions from this study
- This model informed the business plan for the new service; simulation is accepted by HSS as part of their strategic planning process
 - Social Services face many of the same issues as NHS
 - Potential for wider use: HSS have just appointed person with OR skills
 - Many thanks to all staff at HSS especially Angela Harris, Home Care Business Manager

- University of Southampton
- ## PBC - a modelling opportunity
- Service redesign - a classic OR application
 - Scope for both discrete-event and system dynamics models
 - High-profile and driven by Government initiatives
 - Many interesting projects!