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Stakeholder consultation practices within healthcare infrastructure planning: developing a strategic asset management approach

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Stakeholder Consultation Practices within Healthcare Infrastructure Planning:

A Conceptual Approach to Strategic Asset Management

Abstract

Purpose

With the advent of the Darzi review in 2008, and more recently the White Paper 'Equity and Excellence: Liberating the NHS' (2010), the NHS in England is being redesigned to provide high quality, person-centred services with improved capacity and performance. In this change oriented scenario, stakeholder consultation has a critical role to play given the widespread advocacy in government policy and healthcare literature. In order to support informed decision making, this paper: explores healthcare infrastructure planning through various approaches to stakeholder consultation within English Primary Care Trusts (PCTs); and develops a conceptual approach to Strategic Asset Management (SAM) based on the findings of stakeholder consultation and engagement exercises.

Design Method/Approach

A multi-method triangulation approach including action research has been adopted to evaluate current stakeholder consultation practices with a local PCT and to explore their approach to healthcare infrastructure planning through: a literature review of stakeholder engagement and theory; evaluation of a local consultation exercise; and a web based document review of consultation practices within 149 English PCTs.

Findings

PCT estate managers and healthcare planners have to operate within constantly changing dynamic healthcare environments and need to reduce uncertainty and indecision that often surrounds the debate of reconfiguration of healthcare facilities and services. Consultations by the PCTs vary in: the level of detail provided to the public; sample sizes; detail and transparency of the consultation; distribution and analyses of the consultation; and techniques and approaches.

Practical implications

The findings of this study can be used by healthcare policy makers to: inform how Clinical Commissioning Groups (CCGs) could be better involved during patient and public engagement; and determine practical ways of putting patients at the heart of General Practitioners (GP) commissioning.

Originality/value

The research identifies gaps within current stakeholder consultation practices in English PCTs and develops a conceptual approach to SAM that accounts for stakeholder consultation; decision making levels within healthcare infrastructure planning within a wider competency based organisational view, which currently does not exist.

Background: Context

The National Health Service (NHS) in England is facing huge financial and capacity issues. *The White Paper, 'Equity and excellence: Liberating the NHS'*, has set a long-term vision for the NHS, including realising up to £20 billion of efficiency savings by 2014 which will be reinvested to support improvements in quality and outcomes (Department of Health, 2010a). In 2010, the Chancellor identified improvements to NHS estate utilisation as a key saving area in 2010/11-2012/13, potentially reducing the need for new hospital space by up to £3bn and saving up to £100m per annum of estate costs (NHS Finance Performance and Operations, 2009). This significant set of changes has put additional pressures on NHS bodies to ensure that they achieve better value for money in managing their assets.

Stakeholder consultation and public involvement in the healthcare planning process has been significantly driven by legislation at Trust board level. The Health and Social Care Act (HM Government, 2001), specified the need for NHS organisations to seek approval from Local Authority Overview and Scrutiny Committees (OSC) on substantial change proposals; and Section 242 of the Local Government and Public Involvement in Health Act required Trusts to involve, consult with and respond to users and the public, and make explicit the decision making process and the trade-off between: affordability, acceptability and clinically safe and effective outcomes.

Purpose

The stakeholder consultations reviewed in this work have concentrated on how Trusts can ensure that their proposals are acceptable to the public and patients; an issue that has risen in importance. This is in line with the current NHS aspirations (Darzi, 2007, 2008; Department of Health, 2007a, 2010a) to provide patient centric care where patients and carers can have far more influence and choice in the system; and as a result the NHS should become more responsive to public needs and demands. Competencies are becoming increasingly important at an organisational and individual level, given the dynamic changing nature of healthcare environment and the need for NHS organisations to achieve their goals of improved public health, quality of care and associated cost savings. Healthcare infrastructure planning is supported by a Trusts' programme management and investment appraisal and Strategic Asset Management (SAM) is integral to this. This paper explores various approaches to stakeholder consultation practices within English Primary Care Trusts (PCTs) and develops a conceptual approach to SAM, in order to address wider issues involved in engaging stakeholders and conducting consultations at a strategic level.

Discussion:

Need for efficient Strategic Asset Management (SAM)

With the ever-changing NHS environment, Trusts have to deliver sustainable services that can accommodate increased patient volumes. This is increasingly being achieved within existing facilities, whilst others have to refurbish or build new in order to maximise flow and optimise capacity. In the UK, the public sector is the largest land owner and its largest tenant; with assets worth £370 billion and annual maintenance costs of up to £25 billion. NHS Scotland has fixed assets worth £5.6 billion. This includes estate, land and buildings valued at over £4 billion (with over 1800 properties and an overall area of some 4.5 million m²) (Haggarty, 2011). The total NHS estate in England is worth around £40 billion, however,

about 60 per cent of the NHS estate is more than 25 years old and the total maintenance costs are about £5.5 billion (Wootton, 2008).

EC Harris (2010) highlighted a significant imbalance between the financial performance of the best and the worst performing NHS estates; for example, the top five best performing NHS Acute Trusts' estates services, when judged on costs, were approximately 36 per cent better than the average, with the worst underperforming by 51 per cent when compared to the average. The report also highlighted that, according to publicly available data (HM Government, 2004), there is more than 3.3 million square metres of unused or under-utilised space in the NHS estate. Even a modest improvement of 15 per cent saving in facilities management costs would result in the NHS savings of approximately £533 million (EC Harris, 2010). There is a clear need for better management and more efficient use of the NHS estate and the potential savings are significant. In order to consolidate their capacity issues and deliver associated cost savings, PCTs have consulted on service review and estates reconfiguration programmes as these have an impact on large populations and associated inequalities.

Stakeholder Consultation

Over recent years, government policies have been targeted towards delivering responsive healthcare services that deliver patient centric care. The new European 2020 policy, although underpinned by improvements in public health, deals with issues around greater accountability through: population health and health services' performance; responsiveness; financial protection; equity; and productivity (World Health Organization, 2011). One of the core values of Europe 2020 is *'the right to participate in decision-making relating to personal health and the health of the society in which people live'* along with equity, solidarity, sustainability, dignity and universality of the right to health and healthcare (Paget *et al.*, 2011). As a result of the current NHS (England) re-organisation, the commissioning function is shifting towards Clinical Commissioning Groups (CCGs) to ensure that clinical decisions are aligned with the financial consequences, where GPs are responsible for designing care packages for patients and commissioning services needed to achieve these, however, specialised commissioning will be undertaken by NHS commissioning board (Department of Health, 2010b). This would involve increasing patient public involvement through devolving commissioning functions to CCGs and moving commissioning closer to the patient. More recently, the DH has been: considering how to involve CCGs in patient and public engagement in order to determine practical ways of putting patients at the heart of GP commissioning; and exploring ways to support CCGs through previous experiences of patient and public engagement activities (Department of Health, 2011a). They have also highlighted the need to access best practice and shared learning, with clear indications of what worked and what did not; and how to be innovative in engagement (Department of Health, 2011b).

Public involvement has, for some time, been expressed as the central pillar of the health policy process (Wait and Nolte, 2006). Its importance as a policy driving tool has also been expressed in healthcare improvement initiatives such as The White Paper, Equity and Excellence, Darzi's 'Next Stage Review' and World Class Commissioning which all required that PCTs lead and seek continuous and meaningful engagement with people, patients and communities to shape services and improve health (Darzi, 2007, 2008; Department of Health, 2007b, 2010b; Woodin and Wade, 2007). Even with many authors defining the benefits of

stakeholder consultation, its purpose is often lost during implementation. Providers can potentially find themselves delivering information, consultation and participation out of the need to construct an audit trail and offset risk and accountability, rather than to achieve its perceived benefits.

Research Method

This research reported in this paper adopted a multi-method triangulation approach to evaluate the consultation processes along with action research with a local PCT to explore their approach to healthcare infrastructure planning as illustrated in Figure 1. This was achieved through: literature review of stakeholder engagement theory and practice; an analyses of the public consultation undertaken by a local PCT (for a local perspective through action based research); and a web based document analyses of consultation exercises conducted by 149 PCTs in England (for a broad national perspective).

Figure 1: Research Method

Literature Review: Cross Comparison of Consultation Evaluation Frameworks

There have been various guidance documents supporting patient and public involvement in England; however, few have focused on activities to be performed by estates and facilities teams often at the centre of estates reconfigurations and significant structural changes. Some clinical guidance is starting to provide guidance specific to clinical pathways, against those identified in 'High Quality Care for All' (Darzi, 2008). The Picker Institute Report (Picker Institute Europe, 2009) assessed the impact of the World Class Commissioning Framework on Patient and Public Engagement (PPE) within commissioning and reported on significant changes within the organisation of PPE in commissioning amounting to a cultural shift. The Kings Fund Point of Care Programme (2009) attempted to: explore the difference between patient experience and patient satisfaction; and distinguish between patients' experiences of the care process and patient reported outcome measures (PROMs) (Coulter *et al.*, 2009). This also signified an increased focus on measured patients' experiences and provided a brief guide for measurement and feedback tools used to measure patients' experiences along with describing various methods available to gather patient feedback. The detailed evaluation of this, along with alignment with various other evaluation frameworks (through stakeholder involvement theory), can be found in Mills *et al.* (2009). A literature review of

various principles and broader benefits of stakeholder consultation and public involvement was conducted and assigned to a matrix for review and comparison. From this comparison, eight higher order categories were identified: Representativeness of Participants; Participant Independence; Influence on Policy; Process Transparency; Resources; Task Definition; Structured Decision Making; and Tools and Methods for Evaluating Stakeholder Involvement.

Action Research: Local Primary Care Trust Consultation Case Study

An action based methodology was adopted to investigate the multi-stakeholder approach to infrastructure planning within a local PCT undergoing service reconfiguration. A Joint Strategic Needs Assessment (JSNA) conducted by the PCT depicted significant differences in the health status of the population both within and between the local authority districts and a growing 'older' population. The PCT had anticipated a natural increase in the common long-term conditions linked to ageing. With a view to addressing inequalities, the PCT was reorganising its services to support delivery of care closer to home and was also looking to increase the volume and range of services such as outpatient clinics and diagnostics in local communities. The PCT took stock of its existing assets by conducting a feasibility study of various hospital estates facilities. This was done in order to achieve manageable estate options for various facilities. In order to make an informed decision, the PCT conducted county wide consultation of their community health services and provided various options for potential 'one stop hub' sites and GP led care centers. The research team worked dynamically with the PCT's communications and engagement team and was also involved in the development and evaluation of the public consultation and service review. Questionnaire responses were received by email, in paper-based form (including petitions and letters from various organisations) and through a web based questionnaire. A total of 876 questionnaires and 78 letters were received and analysed. As such, action research was essential to explore the specific details of the interrelation of the planning and consultation processes. A content analysis of public comments was undertaken to identify any additional aspects and ideas emerging from the data. Along with quantitative analysis of the questionnaires, a structured strategic analysis of the alignment of public comments with strategic plans and proposals was also conducted to provide a direct response and highlight positive and negative comments regarding the PCT's aims and proposals (extracted using document analysis). Further to this, a document and content analysis of all 80 letter responses was conducted, using coding to provide an overall view and site specific perspectives (Mills, Price, *et al.*, 2009).

Web Document Analysis: Review of PCT Web Published Consultations

A broad and structured web based review of 149 NHS PCT websites in England was conducted to extract available consultation documents and Public and Patient Involvement activities. It was observed that PCT websites had a very broad and varied organisational map, which meant that consultation reports, references to consultation websites and board minutes were categorised in sections that varied from "estates planning", to "consultation", "PALs", "PPI", "Statutory Consultations", "Have Your Say" or "Get Involved". Other PCTs had devised their own brands specifically for public consultation and engagement. The matrix used for the evaluation of the consultations conducted by the PCTs was structured around the Legislative structure of Section 242 of the NHS Act 2007 (Department of Health, 2006, 2007a) and were aligned around: the planning of services; the development and consideration of proposals for changes in the way those services are provided; and

decisions: affecting the operation of those services. Information regarding the assessment of needs and preferences of their user population was recorded for each PCT, based on the documentation available on each PCT's website (for example: JSNA). Following this, further information regarding the main consultation activity along with development and consideration of various proposals related to estates and services was also noted and analysed.

Findings

Literature Review: Cross Comparison of Consultation Evaluation Frameworks

The broader benefits of stakeholder consultation and public involvement as suggested by Zena Simces and Associates (2003); Macfarlane (1996); Phillips and Orsini (2002); Zakus and Lysack (1998); Crawford *et al.* (2002) and Pivik (2002) are discussed further. In order to promote sharing of experiences and information, Zena Simces and Associates (2003) and Macfarlane (1996) have suggested inclusiveness within the consultation so that participants can serve the greater good and meet the interests and needs of all the participants. It is imperative to enhance community awareness of health issues and educate citizens to become more informed about health-related issues and have a readiness for effective involvement with an assessment of resources, costs, capacity, influence and accountability (Crawford *et al.*, 2002; Phillips and Orsini, 2002; Pivik, 2002; Zakus and Lysack, 1998; Zena Simces and Associates, 2003). Most of the authors (4 out of 6) believed that consultation assessment methods should generate better options by providing different perspectives along with policy outcomes. All the authors considered patient involvement was important as it decreased feelings of alienation along with increasing feelings of inclusion, sense of control and problem solving. It also increased networking between provider and community members which could also lead to changes in attitudes of the organisations involving patients e.g. staff attitudes towards patients became more favourable and patients welcomed the opportunity to participate, thus self-esteem was increased. However, some patients also reported dissatisfaction with the process. They also suggested that public engagement fosters and teaches skills of responsible citizenship and a heightened sense of responsibility and conscientiousness regarding health. Enhanced sense of control and empowerment within the community is necessary as people should have a say in the key decisions that affect their lives. Zena Simces and Associates (2003); Pivik (2002) and Zakus and Lysack (1998) also stressed the importance of resource utilisation by directing them to the highest needs as defined by the community. Healthcare decisions should reflect the needs, values and culture of the community along with the efficient use of scarce resources. The resource utilisation process should be fair and competent; a right fit with goals, and should adopt methods of involvement that have an impact and a collaborative dialogue.

Table 1: Evaluative Framework: Checklist and Measures for Effective Consultation

Criteria	Measures
1) Representativeness of Participants	Identify stakeholders
	Balance selection and monitor representativeness
	Getting in touch with 'Hard to Reach Groups'
	Demographic criteria
	Geographic selection
	Stakeholder weighting
	Total response and response rate
2) Participant Independence	Unbiased process
	Checks on independence of process
	Characteristic, accessibility, readability, digestibility of information

	Information interpretation, choice of experts/information
	Ethics, data protection, screening
3) Influence on Policy	Output of procedure impacting policy
	Legitimacy and accountability of decision making
	Achievement of consensus over the decision
4) Process Transparency	Transparency on the type of decisions
	Legal / Regulatory, Publicity, Auditability, Availability, Accessibility of process to public
	Degree of citizen control/point of input into agenda
	Level of staff (influential/junior) at the point of decision making
	Clarity of: purpose & feedback of consultation, resources and sample
	Impact of consultation on plans
5) Resources	People: evidence of training, efficiency in execution
	Time demands: realistic & sufficient timetable
	Facilities: appropriate
	Expertise: to execute the task and participate
	Finance: cost + uncertainties
	Well designed surveys with overarching strategy
	Involvement in planning
	Cost effectiveness, benefit/cost
	Directed towards the highest needs as defined by the community
6) Task Definition	Context justification: regulatory, social, organisational
	Scope of exercise
	Defined aims and outputs
	Rationale for exercise
	Choice of questions provider/access/waiting times/information/communication etc. specific
7) Structured Decision Making	Procedures: format specification, group decisions & consensus
	Flexibility: worse case scenarios and strategy
	Appropriate approach selection
	Consistency & competence level of participants specified
	Validation of methods utilised
	Agreed standards and indicators
	Monitor trends and benchmark against comparators
	Priorities for measurement (topical/clinical)
	Publication of results
	Process and impact evaluation along with right leadership
8) Tools and Methods Evaluating Stakeholder Involvement	Patient forums, National patient surveys, ward level surveys
	Informal feedback to PALS
	Comments on websites (e.g. NHS Choices)
	Qualitative Approaches
	<ul style="list-style-type: none"> • self-completion postal surveys (ward level, national patient level) • interviewer-administered face-to-face surveys • telephone surveys using live interviewers • automated telephone surveys (interactive voice response – IVR) • online surveys using web-based or email questionnaires • surveys using hand-held portable devices (PDAs or tablets) (on-site) • surveys on touch-screen kiosks (on-site) • surveys on bedside consoles (on-site) • administrative data/routine statistics
	Quantitative Approaches
	<ul style="list-style-type: none"> • in-depth face-to-face interviews (may be audio- or video-taped) • discovery interviews carried out by clinical staff • focus groups • web-based free text comments • comment cards or suggestion boxes (on-site) • video boxes (on-site) • complaints and compliments • patient diaries • mystery shopping and observation • customer journey mapping

The above evaluative framework (Table 1) was developed on the basis of this literature review and a comparison of the main principles adopted during stakeholder assessment. This framework serves as a checklist of measures to ensure that a consultation is well rounded and effective. It should also help to ensure that: future NHS structural changes are delivered efficiently and effectively; PCT decisions do not get escalated to the Secretary of State and overturned resulting in huge delays and budget overruns; and more importantly, the PCTs can demonstrate good stakeholder value for money. This framework can also be used by CCGs as a starting point to engage public and patients in delivering patient centric care and services, however, it should be noted that certain criteria such as ‘accountability of decision making’, ‘transparency of decisions’, ‘impacting policy’, ‘degree of citizen control’

will always be subject to interpretation and the degree of measures will be left up to the decision makers.

Action Research: Local Primary Care Trust Consultation Case Study

Healthcare infrastructure planning comprises a range of simple and complex 'systems' and 'processes' for various activities with predictable deterministic outcomes to those that are random and unpredictable. Action research with the local PCT enabled the authors to witness first hand their multi-intuitive, multi-stream and multi stakeholder approach to execute their planning process. SAM is a complex non-linear process that is difficult to characterise due to the multiple interactions between various stakeholders at various decision making levels within and outside the system. Reorganising the way health services are delivered is a complex task that accounts for existing patient pathways/care journeys at both a micro level and a macro level. Clinical micro systems have elements of process and behaviours which are in turn linked to larger macro-systems of the built environment (varying from room, ward, departments and building scales). These macro-systems are contained within larger macro-systems of local, regional, and national health economies. The PCT's estates and facilities teams have to make informed decisions based on different pieces of knowledge and 'sense-make' of the information. Along with attending the PCT meetings, the public responses received from the stakeholder consultation exercise conducted by the local PCT were quantitatively and qualitatively evaluated (Mills *et al.*, 2008). During this analysis, an issue's importance or legitimacy was objectively measured by the number of individual and organisational responses to an issue. As such, the homogeneity of stakeholders' issues could be explored as a measure of stakeholder importance. The key issues raised during consultation were around: Access (i.e. inclusion of transport strategies within the business case, more choice, adequate car parking provisions); Wider range of care (i.e. provision of services related to specialist treatments such as orthopaedic, palliative beds and mental health provision); Investment and estates (i.e. demonstration of capital financing schemes, reinvestment of building sale within local economy and efficient use of building); Closer to home (i.e. care in one place, equitable access, doubts on delivery of care); Inequalities (i.e. support for patients with learning disabilities, account for population increase and equitable access to minor injuries and illness); Extended opening hours of facilities (i.e. supporting GPs and nurses, extend opening hours until 12 midnight); and Enabling working with key partners (i.e. shifting of resources from health to social care, work with County Councils Highways, Transportation and Waste Department). Based on this analysis, care services, estates and transport/accessibility were identified as key parameters that should underpin effective SAM and be used for better informed investment decision making (Figure: 2).

Figure 2: Key Parameters within SAM (Mills *et al.*, 2009)

Web Document Analysis: Review of PCT Web Published Consultations

Out of the 149 PCT web based consultation reviews, most were related to care services (61%) and estates (38%). There were hardly any transport related consultations (1%). This re-instates the need to have an encompassing approach which integrates the three areas (estates, care services and transport) along with a definitive approach for introducing consultation within the healthcare infrastructure planning process. It is important to consider transport planning and accessibility during early stages of planning, as these prove critical during reconfiguration of facilities and services.

Based on current consultation practices, the consultations were further categorised according to their sampling method: questionnaire, email feedback, telephone survey, public meetings, focus groups, PPI, forums, written submissions and comments, health fairs and events. As illustrated in Figure 3, the most frequently used method for collecting a sample was questionnaires (36%) and Patient Public Involvement (PPI) events (20%), while patient forums were one of the least utilised methods (1%). It should be noted that at national level consultations (DH), patient forums are widely used, but it is not the same at a PCT level.

Figure 3: Sample Method Categorisation

Most of the PCTs were engaged in active consultation, but very few received a good feedback response. Within the data collected from 149 web-based case studies, only 28 cases reported receiving over 100 responses (in a large number of cases, PCTs did not state the number of responses received). In most cases, PCTs either conducted patient centric focus groups or held public meetings and events. This web document review provided the following findings.

- **Large variation in the level of detail.** The public were not provided with consistent level of detail with regards to the consultations; the levels ranged from regional visions affecting entire programme of works, to specific specialty services or facilities within a defined project. Wide service design strategy was often neglected. It is important to have this as an inclusive part of the consultation, since it can help stakeholders understand context of change.
- **Little auditable evidence.** Some Trusts were ineffective in organising specific public consultation events and engagement work streams but were often reliant only on open meetings and board room minutes to provide feedback.
- **Large variations in sample size.** Some Trusts worked with regulators such as Department of Health and other agencies such as Healthcare for London to deliver broad consultation. As such, these benefited from large sample sizes, however, if data are not provided for analyses at a local level this may prevent the delivery and evaluation of proposals against local needs. A few PCTs targeted specific user consultation groups and representative focus groups; this provided specific detail about an issue, enabling proposals and options to be tested and feedback obtained quickly (e.g. Buckinghamshire PCT).

- **Large variations in detail and transparency of consultation evidence.** Some PCTs had a Consultation Planning Group, established to advise on the process of consultation (for example: Cumbria PCT); while others had detailed patient, carer, public involvement (PcPI) needs analysis and plans which facilitated the engagement process (e.g. County Durham PCT).
- **Variances in distribution and analyses of questionnaires.** Some PCTs provided individual community health profiles for each of their areas as part of their JSNA. These community health profiles provide information (health snap shot) in terms of inequalities, income, health, ethnicity and also a health summary which provides comparison against the national and regional average (e.g. County Durham PCT). Very few PCTs distributed questionnaires on the basis of patient flow within their county (e.g. Darlington PCT).
- **Response to consultation feedback.** Some PCTs had a stakeholder engagement strategy that broadly defined the principles and approaches taken to consultation, however, these have often not answered the more complex question of 'What importance does each stakeholder hold throughout the decision making process? What should be the content of decision making?' Very few PCTs provided a response to the feedback received from the consultation and have indicated in detail how their plans have or have not changed due to the responses.
- **Variances in approaches and techniques utilised.** Few PCTs used scenario planning approaches that enable the balancing of benefits, simulation, and realistic decision making on the basis of hypothetical decisions designed to highlight trade-offs between either different values (e.g. equity and equality) timescales (short term/long term) or priorities (e.g. investment in prevention versus treatment) (e.g. Derbyshire PCT with Loop2, Unplanned Care at Doncaster PCT). None of the PCTs analysed in this study appeared to use modelling, simulation or visualisation tools, however, stakeholder consultation practice would benefit from the use of such tools.

Based on these initial analyses, a few cases were identified as exemplar cases either for their approaches to the consultation or their method for execution along with the analysis. Further details of these can be found in Mahadkar *et al.* (2010). It may seem self-evident that stakeholder consultation and engagement is important and should be included within a planning process. In reality, there is no conclusive evidence that demonstrates how the findings from a consultation exercise are translated within the estates planning and decision making, and what competencies and capabilities are required which serve as enablers to achieve this.

Limitations of Consultation Case Studies

- **Research Sample.** Data have been collected using document analyses of web-based case studies. It must be noted that although some PCTs may have conducted consultation exercises, they may have not published the documents or results on their respective websites. These cases have not been accounted for, in the research sample
- **Subjectivity of Analyses.** The data collected in relation to the consultation exercise were not uniform. In some cases, the Trusts have been explicit about pre-consultation and consultation phases, providing detailed information about all the consultations that have

been undertaken. In other cases, only references to the consultations were provided through the PCT meeting notes, newsletters etc. Thus, the analysis of the information gathered was subjective.

- **Policy Interpretation.** All Trusts have undertaken consultation in line with Section 242 of the NHS Act 2007 (Department of Health, 2006, 2007a); but this legislative act has been subject to varied interpretations by each Trust.

Need for a Conceptual SAM Approach

Healthcare infrastructure planning is a complex adaptive system with structures, processes and functions that requires multi-disciplinary evidence and multi-level interaction of process, stakeholders and products over an assets' whole life cycle. The findings of this study depict that many consultations are done poorly and often lack evidence. Healthcare infrastructure planning process is iterative and non-linear, although traditional planning processes and associated guidance tend to be rigid and structured. Consultations can contribute to informed-decision making along with improvements in patient experience and fulfilling the needs and demands of the end users. But more often than not, these are achieved over short projects with limited time scales. Sustaining more substantial change requires: engaging the right stakeholders at the right level (from strategic, tactical to operational); engaged leadership; regular performance monitoring and feedback; along with translating the feedback into informed decision making. This paper has demonstrated how consultations can lead to better decisions within healthcare infrastructure planning and has developed criteria for effective consultation measures. Evidence based decision making within healthcare infrastructure planning needs to be underpinned by the principles of patient empowerment and stakeholder consultation ensuring that information is shared openly and values and priorities are developed collaboratively. Achieving this will require competencies and capabilities across different decision making levels, at different stages through different stakeholders. The conceptual approach further developed is intended as an initial step towards providing greater conceptual clarity to introduce consultation within the SAM process.

Competencies

Competencies are used as the building blocks which begin to address gaps around informed decision making for healthcare infrastructure planning. The importance of competence and capability within an organisation has been asserted by many authors and some have also tried to distinguish between the two (Evans *et al.*, 1992; Javidan, 1998; Prahalad and Hamel, 1990; Stalk G *et al.*, 1992). There are many definitions and discussions on competencies and capabilities; however, there are no clear consensus on its theoretical basis and method of measurement. Given the scope of the paper, it is not appropriate to explore these issues in depth here. Prahalad and Hamel (1990) proposed an 'inside out' approach that commences with an internal analysis by the organisation to gauge its core competencies and capabilities in order to successfully exploit their resources and lead to a better understanding between external opportunities and internal strength (Javidan, 1998; Wernerfelt, 1995). In order to provide an understanding of the various levels of competencies, Javidan (1998) developed a competencies hierarchies in which he referred to 'resources' as the building blocks of competencies. He further defined *capability* as '*the corporation's ability to exploit its resources; which are functionally based*'. *Competency* was

defined as ‘a cross-functional integration and co-ordination of capabilities’ or ‘as the integrated application of knowledge, skills, values, experience, contacts, external knowledge resources, and tools to solve a problem or to perform an activity’ (Sitthisak et al., 2007) and core competency as ‘a collection of competencies that are widespread within a corporation- these are skills and areas of knowledge that are shared across business units and result from integration and harmonisation of competencies’. Figure 4 depicts the authors’ interpretation of these concepts. The nested areas depict the widening scope, as an organisation transcends from developing capabilities and competencies at an individual level by exploiting its assets (plant, equipment, location, human resources, organisational resources such as culture, reputation, etc.). Javidan (1998) describes core competencies as adding the greatest value since they exploit resources and capabilities at the broadest level, across the organisation as a whole. Mills et al. (2011) argue that value is inherently complex with various people, product and process perspectives overlapping, interlocking and at odds. Hence a broader interpretation of value is needed that sits across the organisational levels and constitutes individual capabilities and competencies and is described by the authors as organisational core competencies. Woodin and Wade (2007) have conducted an extensive review of existing frameworks for commissioning competencies within the context of UK healthcare system and have deduced domains for competencies from high level goals of healthcare systems such as: World Health Organisation; Organisation for Economic Cooperation and Development; and Commonwealth Fund. They further argue that a meaningful definition of competency must account organisational factors and not only focus on knowledge, skills and capabilities of professionals. They identified commercial and financial competencies, health and clinical competencies, leadership, culture, attitude and behaviour, project and process management, stakeholder engagement, strategy and planning, collaboration and partnership, information and knowledge management, innovation and best practice, governance, compliance and accountability as key management and organisational capabilities.

Figure 4: Competencies and Capabilities

Conceptual SAM Approach

Stakeholder consultation is needed both at the strategic programme and estates project levels. It must be delivered in a coordinated and efficient way to achieve best value. The

underlying rationale behind this conceptual approach is an encompassing view of healthcare infrastructure planning that accounts for stakeholder consultation, decision making levels of SAM within a wider competency based organisational view in order to deliver patient centric services through appropriate assets, which currently does not exist (Figure 5). This approach has been developed based on the multi intuitive approach to healthcare infrastructure planning adopted by the PCT observed during action research. The stages in SAM are based on publicly available specification (PAS 55-1:2008, Asset Management Part 1: Specification for the optimised management of the physical assets) developed by BSI (2008) and on the Capital Investments Manual (NHS Executive, 1994). SAM is a set of systematic and coordinated activities and practices that are based on evidence based decision making to sustainably plan, manage, maintain and dispose estate through optimum whole life costs, which deliver the organisation's objectives with effective stakeholder engagement and consultation at appropriate levels.

The casual links between each of the stages should be explored through information flows, shared resources and time relations. For example, the decision to refurbish an existing ward could be linked to strategic activities within planning (SAM Stage 1), this will be influenced by internal and external factors and is also dependent on the availability of resources; this points towards the sequential relationship between the activities. Thus focussing only on information flows/shared resources/timed relations is not a realistic proposition, in order to understand the complex healthcare infrastructure planning process the interrelationships between all three parameters should be considered. SAM decisions should account for the trade-offs between care model design, estates planning, and transport and accessibility issues in order to make effective judgements and deliver solutions that offer best value with appropriate consultations at various stages. This approach does not suggest any new competencies but builds on the existing ones that have been well articulated and described by Woodin and Wade (2007) in the context of World Class Commissioning (Department of Health, 2007b). Competencies and capabilities should not be viewed in isolation and should be shared across the organisation and have been depicted as organisational core competencies within our approach. The performance measures have been identified using the QIPP principles developed by Department of Health (2010c). The dotted arrows within the figure represent feedback at various stages which are crucial to ensure process transparency, detail measuring and underpin informed evidence based decision making.

Stakeholder consultation and engagement should be viewed in a whole system of healthcare infrastructure planning, only then can the translation of outputs and findings from consultation and engagement exercises into decisions be made clearer and more transparent. In order to advance this approach further theoretical and empirical work will be undertaken to explore the dynamic patterns, interrelated processes and relationships between each of the decision levels and the associated contextual complexities arising from the interaction of different domains using grounded theory building.

Figure 5: Conceptual SAM Approach

Conclusion and Future Work

In the current economic environment, where capital allocations are under considerable pressure, it is imperative to determine what lessons can be learnt, and to utilise the existing wealth of data that has been collected by the various Trusts as part of their public engagement and involvement strategies to inform future strategic decision making. There is little empirical evidence that supports or refutes the hypothesis that consultation and public involvement contribute to the quality of healthcare planning and delivery. Consultations should: be inclusive, fair, competent and transparent; enhance community awareness; provide different perspectives along with policy outcomes; provide appropriate information for effective judgement/choices; and be led by the right leadership. Clear guidance is required to determine when care, estates or transport structural change consultation should be undertaken and a definitive approach should be introduced to determine at what point during the infrastructure planning process should these take place. Given the current re-organisation of the NHS, CCGs (who are now responsible for commissioning services) have to allocate resources and plan services; but there are issues surrounding the competencies and capabilities required by them to achieve this. This research has highlighted the need to better understand: how stakeholder consultation sits within a wider whole systems view of SAM; and, more importantly, the translation of stakeholder consultation feedback within the healthcare infrastructure planning process.

None of the PCTs analysed in this study appeared to use modelling, simulation or visualisation tools, however, stakeholder consultation practice would benefit from the use of these tools that could enable realistic decision making on the basis of hypothetical decisions designed to highlight trade-offs between different values, timescales, or priorities; and help

improve stakeholder judgement making. SAM should be developed as a facilitating framework; the rationale needs to move from a 'static' to a 'dynamic' approach leading to a more 'agile' healthcare infrastructure planning solution. The approach reported in this paper needs to: be further aligned with the available tools addressing their inadequacies (which can also provide valuable guidance to estate planners and CCGs); and developed into a comprehensive estate-planning tool. The next stage of this research will involve further development of the approach through interviews with estates planners and CCGs and theory building.

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