The Role of Sustainability Within Service Delivery in The National Health Service in Cornwall (UK)

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EXECUTIVE SUMMARY

In 2001, the Department of Health (DOH) in the United Kingdom (UK) set out to incorporate the concept of sustainable development into its policies and operations and to manage their resources in a sustainable manner. This paper examines the impact of a number of key factors on the role of sustainable development within the delivery of healthcare, in NHS Trusts located in the rural South West county of Cornwall, in the UK. It discusses how local factors including the socio-demographics of the county and central NHS factors, such as current shifts in the provision of healthcare services, including increased patient choice and ‘Payment by Results’, have impacted on the policies and practices within service delivery of the Cornwall NHS. Using quantitative (questionnaires and bin analysis) and qualitative (ethnography and interviews) methodologies, it examines the existing practices, attitudes, beliefs and behaviours of staff to sustainability, with an emphasis on waste management. The key findings were that: (1) sustainability does not play a major role in the Cornwall NHS (2) sustainable behaviour is affected by both work and non work related issues (3) a highly centralised organisational focus and policies, greatly impacts on the effective incorporation of local sustainable policies and access to resources. Finally, recommendations for improvement are suggested. These recommendations include both organisational measures, such as increased decentralisation and improved partnership building, as well as employee focused measures, including training and development and improved job satisfaction.
INTRODUCTION

The Department of Health’s (DOH) overall function is to set out policies that improve the health and well being of persons in England and Wales and to regulate the practices and policies of the National Health Service (NHS). Within this overall function, its policy is ‘to make sustainable development a key part of all its policies and operations and to manage the resources available in the most sustainable manner’ (NHS Estates, 2001). Indeed, sustainable development was placed at the heart of all government policies in England and Wales, in 1990 (NHS Estates, 2001), and incorporated into its environmental policies in 1994 (DOE, 1994). This was followed by the more wide ranging strategy in 1999, which integrated economic, social and environmental factors for all sectors of government (DETR, 1999, Sustainable Development Commission, 2004, Lyons et al., 2001). Specifically for the NHS, the two White Papers, ‘The New NHS: modern, dependable’, published in 1997 and ‘Saving Lives: Our Healthier Nation’ from 1999, both encourage efficiency of practice and use of resources (NHS Estates, 2002).

It can therefore be seen that sustainable development has been meant to improve the efficiency of the management of NHS resources, save costs and reduce environmental impacts. Sustainability in this paper should therefore be taken to mean the efficiency of practice and use of resources.

AIMS OF THIS PAPER

This paper sets out to:

(1) Highlight some of the main issues facing service delivery in the Cornwall NHS

(2) Discuss the key factors affecting sustainable policies and practices within the Cornwall NHS

(3) Suggest possible measures for improving the degree of sustainability within service delivery

THE GEOGRAPHY OF CORNWALL

As shown in fig. 1.1, the county of Cornwall is the most South-Westerly county in the UK. From Lands End, to Bude, it measures 132 km (82.5 miles) in length, with the distance between the north and south coasts varying between 72 km (45 miles), at the eastern end, to 8 km (5 miles) at the western end of the county (Cornwall County Council, 2001). According to the 2001 population census, the population of Cornwall and the Isles of Scilly, is 501,267 people (www.statistics.gov.uk/census2001). The county is very rural, with an average population density of approximately only 1.32 persons per/ha, falling to below 0.2 persons/ha in some areas (Cornwall County Council, 2001).
THE NHS IN CORNWALL

There are in excess of 100, widespread NHS sites in the county, operating under 5 legally autonomous NHS Trusts. Most are small (less than 35 staff). The sites include 3 acute hospitals, 8 mental health acute and learning disability units, 15 community hospitals and 46 health care clinics/facilities/drop-in centres/offices, in addition to Trust offices and a laundry, employing 9536 staff (Mark Vinten and Steve Millership, per. comm.).

The rurality of the county and the poor transport infrastructure results in higher costs of delivering services, which makes it expensive to operate. Apart from these local issues, NHS Trusts in Cornwall are also faced with government’s signalled intention to move away from an emphasis on hospital treatment, to one of a more preventative, intermediate and self care nature and with greater links between health and social services (Bond, 1997, NHS, 2000). The shift in care policy also includes greater flexibility for: (1) patients in the form of ‘Patient Power’, where patients have a greater choice of what treatment they want and where and (2) hospitals and doctors, in the form of ‘Payment by Results’, whereby hospitals and doctors are paid based on what they do. The
Trusts also have to meet a range of central NHS performance targets, primarily focused on reducing waiting times.

**Research Methodology:**

The methodologies utilised in this research can be grouped under two main headings: (1) quantitative and (2) qualitative. Within these two broad categories four main research tools were used, as shown in table 1.1.

**Table 1.1**

The four main research tools used during this study

<table>
<thead>
<tr>
<th>Research method</th>
<th>Research tool</th>
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<td>Quantitative</td>
<td>Questionnaires</td>
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<td>Bin analysis</td>
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<td>Qualitative</td>
<td>Ethnography</td>
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<td>Interviews</td>
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The quantitative methodologies were used to determine cause and effect relationships. For example, the use of questionnaires allowed for the analysis of the key factors that correlated with sustainable behaviour. The qualitative methods enabled background explanations of the study to be analysed. Hence, for example the ethnographic study was used to determine the cultural make up of the NHS in Cornwall and to attempt to link present day activity and issues with the overall context of the NHS.

The ethnographic study was carried out over a two year period of the general NHS staff in Cornwall, via the use of participant observation. It covered in excess of 70 sites. Field notes were used for documentation. These condensed accounts were either noted immediately, if possible, or the information (usually in the form of snippets of conversation or brief descriptions of settings) was recorded on papers as soon as possible after and then expanded on afterwards.

For the interviews, letters were sent to senior managers in the Cornwall NHS and related agencies, with a list of specific questions. A total of 8 structured, standardised interviews, were then conducted, either in person and recorded using a standard tape recorder, or over the telephone (in a radio studio) and recorded unto a mini-disc. Each interview was transcribed, coded and analysed by selecting key themes related to sustainability and environmental management.

Bin analysis was conducted in two main representative time periods, each covering about 3 weeks in length. One hundred and sixty nine clinical waste bags and 184 domestic waste bags, from representative samples of 49 departments, were collected and analysed All of the items from each of the bags were manually sorted into their respective waste categories. Each category was then weighed, while the volume was determined by placing the items into a previously calibrated box. The average quantity and composition
of waste from each department, during the period of time could thus be calculated.

The questionnaires were designed to examine a number of issues, including staff awareness, motivations and attitudes to waste management. They were piloted in 3 different departments, before roll out. A total of 521 completed questionnaires were returned and used for analysis. Questionnaires were coded and analysed using the SPSS programme (version 11.5).

It is important to note that each of the research tools was used in an interwoven manner and served informed each other. For example, the ethnographic study served as a context for the other three tools. They were therefore complementary in nature, rather than one being dominant to another.

This combination of the research tools was achieved using the technique of triangulation. Triangulation refers to 'the combination of different methods, study groups, local and temporal settings and different theoretical perspectives in dealing with a phenomenon' Denzin (1989). Triangulation was achieved through the complementation of information from the four tools, as illustrated in fig. 1.2.

![Fig. 1.2. An illustration of Triangulation Methodology used in the study](image)

Specific examples of the use of triangulation included the collection of data from a range of employees, over a period of time, at different times and at a variety of site, during the ethnographic study. Another example was the combination of the questionnaires, ethnography and the bin analysis. Information on staff collected from the questionnaires, provided a snap shot of attitudes and behaviours to environmental concerns, particularly waste management, the bin analysis indicated what was actually done, while the ethnographic study gave a longer-term view of the strategies actually employed by staff members.

**FINDINGS**

**Ethnographic study**
A key result noted from the ethnographic study by the authors, was that despite the existence of the sustainable development policies noted in the introduction, sustainability has not been incorporated into main policies and objectives of the Cornwall NHS. Indeed many of the initiatives mentioned earlier (see introduction), are not mandatory, as government has taken a more voluntary route, using reason and argument. As a result of this, sustainability was not viewed as a key focus for the NHS in Cornwall. Many employees did not view sustainability and waste management as being their concern, or role. It was seen as a burden and the job of someone else. These beliefs and attitudes were greatly reinforced by the organisational culture of the NHS.

There was an ingrained culture, which was resistant to change and had a direct impact on overall behaviour. Within this culture the effect of group norms and attitudes, had a significant impact on influencing the behaviour of individual employees. For example, employees tended to remain within their work category and did what the others in the group also did.

Another significant result was that rurality was found to be both an advantage and a disadvantage. For example, while the rurality of the county meant that there sometimes a difficulty in accessing resources, or adequately servicing some sites, the smaller sites were found to be able to get things done faster, since employees were more likely to know each other and there was greater self sufficiency.

**Interviews**

The overall central NHS policies, focus and targets, heavily impacts on what happens at the local level. Hence, health concerns and targets, as opposed to sustainability as a specific issue, are a major focus locally. Meeting health related targets guarantees income from central sources, as well as star ratings. This focus is reinforced by a very bureaucratic organisational structure, which makes flexibility difficult. An emphasis on cost savings, also determines resource provision and allocation. Managers therefore find it difficult to devote personnel, or money specifically for environmental concerns.

**Bin analysis**

As illustrated in fig. 1.3., waste composition was found to vary by department type. Mental Health wards and maternity departments were found to have the highest combined quantities of clinical and domestic wastes, while Minor Injury Units and Day Hospitals had the lowest.

On average, mixed paper (31%) and food/organic materials (20%), were found to be the major fractions in the domestic waste stream. Clinical non-incontinence items (51%) such as IV bags, paper/covers from surgery tables, gloves and gowns, made up the majority of the clinical wastes.
Fig. 1.3. A comparison of healthcare waste quantity generation by departments in the Cornwall NHS

Questionnaires

Employee attitudes and behaviours towards sustainability were found to be affected by factors from at work and at home. The dominant factors from home were their attitudes and beliefs towards environmental issues. Work related factors were found to include the level of satisfaction of employees with their job, a positive departmental atmosphere and the influence of colleagues. Employees who were more satisfied with their jobs, were found to be more willing to take an active interest in issues outside of their main job role. The combination of job satisfaction, group influence, departmental type and staff demographics, were found to combine to make up the organisational culture.

Another significant finding from the questionnaires was that logistical issues, such as the level of convenience and the types of waste systems used, had a significant impact on scheme effectiveness. For example, employees were more likely to use waste schemes if they were closer to them and were well labeled.

Overall key findings

1. Sustainability does not play a major role in the Cornwall NHS
2. Sustainable behaviour is affected by both work and non work related issues
3. A highly centralised organisational focus and policies, greatly impacts on the effective incorporation of local sustainable policies and access to resources

DISCUSSION

While there are several policies and programmes already in place in the NHS, the challenges faced by the NHS in Cornwall and the voluntary nature of the implementation of sustainability, have made it difficult to become fully integrated into the Cornwall NHS. At the same time however, we are of the view that the changing nature of healthcare provision and other factors such as increasing costs and changes in socio-demographics of the county, mandate that the issue should be given greater priority.

As noted in the results, the factors influencing the implementation of sustainability (efficiency of practice and use of resources) at the Trust and site level are due to individual employee factors and organisational factors. Hence improvement in sustainability must concentrate on these two targets. The development of sustainable development programmes and policies must therefore involve management from the start and throughout. Support from management will not only motivate employees to get on board, but crucially also the manager has the power and influence drive initiatives and make final decisions on the provision of resources.

We believe that an overall strategy must also be developed at the policy level accepting and fully incorporating the principles of sustainability. The development of the strategy must also provide for its effect implementation and acceptance by employees. The strategy should however be flexible enough to respond to changes in the external and internal environments and also to be adapted to local concerns. Implicit within this therefore must be a flexible organisational structure in place to respond to these changes in an efficient and effective manner. This greater flexibility would also reduce the level of bureaucracy that currently exists.

The development of a comprehensive policy would also allow for better planning time frames to be designed and also enable better coordination between the various departments and agencies involved in the process. This coordination must include from the beginning, the full range of stakeholders, from those responsible for the development of the policies and those who will actually carry out the policies. Hence for example, those involved in planning, capital works and making projections for patient care and services, must liaise closely with service providers. It is only in this way that efficiency can be realised and services can be adequately provided to meet the changing healthcare provision policies. Involvement of all stakeholders from early will also boost motivation and acceptance for the proposal.

The implementation of effective communication measures is also an important factor to be considered, to reduce the rurality and geographical spread of the sites.
While rurality was found to have its disadvantages, in terms of access to resources, the authors also seen to have advantages, for example the smaller sites tended to be more efficient and faster at getting things done. They were able to develop measures that suited them. Due to the smaller site size, staff members were more likely to know each other and to be more involved and work closely with each other. This therefore is important that there be a degree of decentralisation to allow for local concerns to be incorporated. Channels of communication must also enable information to be passed in all directions of the organisations, including from bottom up. Apart from decentralisation, problems associated with rurality can also be reduced through the development of effective partnerships between departments, sites and between the organisation and its key partners, to ensure the development of effective and standardised best practice policies (Tudor et al., 2005).

Sustainable policies must incorporate a combination of voluntary, carrot and stick measures and mandatory measures to be effective. Voluntary measures will only go so far and no more.

At the individual employee level, the findings indicate that it is important to tailor messages to specific departments and job categories. As noted in the introduction organisations are heterogeneous bodies. Attention must also be placed on involving staff in decision-making. In this way, they would be more motivated to play a meaningful role and be more committed to policies and programmes. Employees should also be kept regularly informed and provided feedback. The provision of training and development opportunities should also be a key focus (Robbins, 2000).

The involvement of management in the provision of this training is also likely to ensure programme success, as previous studies have shown that staff will model their behaviour on that of their superiors (Holtman, 1992).

Another important factor that this study has shown must be considered is the influence of group norms, beliefs and values on individual behaviour and on the culture of the organisation. Measures must therefore be targeted at meeting the needs of the groups within which individuals associate.

Finally, the findings also indicate that if employees are happy on the job, they are more likely to take part in non work related activities (Gross and Nirel 1997, Lawler, Nadler and Mirvis 1983). Hence, it is crucial that there is a degree of job satisfaction in order to effect positive change.

CONCLUSION

This paper has found that sustainability does not play a major role within the NHS in Cornwall. The findings have identified some of the key factors that impact on sustainability within the NHS in Cornwall as including: (1) organisations factors, such as the culture, focus and policies of the organisation, as well as (2) individual factors, including the attitudes, values and norms of employees. Group norms and values were also seen to have an important influence on individual behaviour. Various challenges facing the
NHS however indicate that sustainability should be incorporated into the policies and programmes. Finally, recommendations for improving sustainability have been suggested by the authors to address measures for improving the adoption of the measures at the organisational and individual level. These include improvements in the organisational structure and focus and improvements in training and development needs, attitudes and behaviours of employees.

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REFERENCES