Can corporate social responsibility and environmental citizenship be employed in the effective management of waste?
Case studies from the National Health Service (NHS) in England and Wales

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Abstract

This paper explores the effectiveness of employing the concepts of corporate social responsibility (CSR) and environmental citizenship in the management of healthcare waste in England and Wales. The study employed interviews and literature surveys of four award winning case study National Health Service (NHS) Trusts in both countries. The paper discusses the main drivers for the use of the concepts, factors governing their effective implementation such as senior management support, and key benefits to be accrued including costs savings, waste minimisation and closer links between the Trusts and their communities.

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1. Introduction

Within the past 25–30 years a number of environmental policies have emphasised the need for greater environmental responsibility and the development of strategies that encourage more sustainable practices, at the international level. Formally, this drive began with the 1972 United Nations Conference on Human Environment, and included the 1977 UNESCO Conference on Environmental Education, the World Conservation Strategy (IUCN, 1980), the Brundtland Report of 1987 (WCED, 1987) and the United Nations Summit in Rio Brazil in 1992 (UNCED, 1992). In England and Wales, all of the recent key Government ‘environmental’ strategies have sought to encourage greater consideration of social equity, healthy lifestyles, protection for the environment, and sustainable use of natural resources, within a stable economic framework (e.g. DETR, 2000; Welsh National Assembly, 2002; DEFRA, 2005, 2006a).

At the organisational level, management of the physical environment is considered to be one of the ‘pillars’ that underpin the contribution of businesses to sustainable development (Williamson et al., 2006). The effective management of waste through minimisation, recycling and reuse is one strategy via which sustainability can be achieved (DETR, 2000; DEFRA, 2005). Within businesses, environmental citizenship and corporate social responsibility (CSR) have begun to play an increasing role in the realisation of sustainability (Williamson et al., 2006; Henderson, 2007). Whilst there have been various studies focused on the use of CSR and environmental citizenship for environmental management both at the national level (Abeyseuriya et al., 2007) and in the private sector (Jenkins and Yakovleva, 2006; Henderson, 2007; Falck and Heblich, 2007),

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there have been fewer studies in the public sector, particularly within a UK context (Griffiths, 2006).

Even though there has been much research in England and Wales on the management of waste streams such as household and municipal waste, limited attention has been paid to healthcare waste (HCW) management (Tudor, 2007). Indeed, despite the fact that HCW has been identified as a waste stream that requires the adoption of Best Practice (DETR, 2000), within the National Health Service (NHS) the management of this waste has traditionally received limited attention. The NHS is the main agency for the provision of healthcare services in England and Wales and is also the largest organisation in the UK (The NHS, 2006).

This study set out to examine the role of CSR and environmental citizenship in the effective management of HCW within the NHS. It was based on research undertaken within four award winning NHS Trusts in different geographical regions in England and Wales (Fig. 1). Each of these case study NHS Trusts has received national awards for their resource management. The Trusts included the five (at the time of the study, now three) NHS Trusts in Cornwall in the Southwest of England, Calderdale and Huddersfield NHS Foundation Trust in Northwest England, as well as Cardiff and Vale NHS Trust and North Glamorgan NHS Trust which are both in Southeast Wales.

2. Environmental citizenship and corporate social responsibility (CSR)

According to Hawthorne and Alabaster (1999) environmental citizenship is an 'outcome of education for sustainability' related to 'changing people’s attitudes, providing access to knowledge and developing skills which combine to influence behaviour'. It is comprised of a number of 'discrete', but 'related' concepts including information sharing, awareness building, concern, attitudes/beliefs, education and training, knowledge, skills, literacy and responsible behaviour. Corporate social responsibility (CSR) has been defined as EC (2001):

A concept where companies integrate social and environmental concerns in their business operations and in their interaction with stakeholders on a voluntary basis.

The main objectives of CSR are that the actions of the business should benefit the economy, society and the environment, with 'wider responsibilities beyond commerce' (Henderson,
2007). Golob and Bartlett (2007) argue that CSR reporting is a mechanism through which companies can provide information on social and environmental issues. Thus CSR is a means via which organisations can ‘attain’ sustainable development (DTi, 2004), and represents a move away from the traditional view of companies simply providing services and products, to contributing to the welfare of the society (Steiner and Steiner, 1997). According to Chapple et al. (2005) the principles of CSR can be manifested in many forms including the adoption of voluntary environmental management systems such as ISO 14001, signing international agreements such as the UN Global Compact, or joining local initiatives such as Envirowise (a government programme in England and Wales that offers support and advice to businesses), and taking part in resource efficiency clubs.

There are two main concepts of CSR, namely: (1) the business case, which stresses the importance of voluntary/or beyond compliance behaviour and (2) voluntary actions (DTi, 2004). Voluntary actions serve to complement regulatory compliance in bringing about change for sustainable development (de Bruijn and Tukker, 2002). There are difficulties in the implementation of CSR policies both for the employee as well as the organisation. Andrews et al. (2004) note that for employees sometimes ‘conflicts between shareholder interests and the broader public interest’ occurs, as evidenced by the ‘moral struggles of individuals over their dual roles as employees and as citizens’, with employees operating within the ‘formal, regulative structures of the firm and the government, as well as the informal, normative or cultural structures of social networks’.

With respect to the organisation, Andrews (2001) states that classical and neoclassical economic theories argue that individuals in companies ‘pursue a narrow utilitarian, self-interest’, known as ‘undersocialisation’ whereby routes to ‘competitive markets’ for the business are impeded by the actions of the individual. Granovetter (1985) argues that contrary to the neoclassical approach, in reality companies often display a combination of the two extremes, due in part to the formation of an often complex network of social relationships, for example, through trade associations, in addition to existing internal organisational relationships. In addition, debate also exists as to the most effective approach to achieving corporate governance, with cases for both the voluntary approach and the approach that relies on laws and regulations being noted (Argandoña, 2004).

CSR and environmental citizenship are therefore not without limitations. However, their concepts as expressed in the form of initiatives such as environmental management systems have been mooted as mechanisms via which organisations can seek to go beyond ‘simple’ commercial gain to realise wider societal and environmental benefits, including the suitable management of their waste.

3. Improving the management of waste in England and Wales

Total municipal (household and household-like) waste quantities in England have increased on average by 0.5% per annum in the past 5 years, and stood at approximately 28.7 million tonnes in 2005/2006. However, the overall growth rate of waste has slowed (DEFRA, 2006b). The 2005/2006 municipal waste statistics for England indicate that household recycling and composting has risen to approximately 26.7%, whilst the quantity of municipal waste sent to landfill has decreased and there has been a 3% decrease in the total quantity of municipal waste collected (DEFRA, 2006b). Fig. 2 illustrates the increase in recycling and composting activity in England over the past 10 years.

3.1. Healthcare waste management in England and Wales

In England and Wales there has been a growing trend towards a more sustainable approach to the management of HCW. This approach has revolved primarily around greater waste minimisation and segregation (DoH, 2006; NHS Wales, 2006). Table 1 illustrates some of the main factors that have driven the need for this approach, including loss of Crown Immunity, legislative drivers and increasing waste management costs.

In recent years there has been increased research into the management of HCW management in England and Wales by various authors including Olko and Winch (2002), Woolridge and Phillips (2004), Woolridge et al. (2005), Tudor et al. (2005a,b, 2007), Townend and Cheeseman (2005) and Blenkharn (2006). Whilst providing snap shots of waste management in different NHS Trusts in the UK, none of these studies provide an overall strategic viewpoint. Indeed, NHS Estates (2005) argues that there is a distinct variation between the application of good practice across the NHS, in many areas there is scope for major

![Fig. 2. Rates of household waste generation and recycling composting in England from 1995/1996 to 2005/2006. Source: DEFRA (2006c).](image)

Table 1

<table>
<thead>
<tr>
<th>Drivers towards greater sustainability in the management of healthcare waste in the UK</th>
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<tbody>
<tr>
<td>Loss of crown immunity for the collection and disposal of healthcare waste in 1990</td>
</tr>
<tr>
<td>The introduction of increasingly stringent EU legislation (e.g. the Landfill Directive) and UK waste management policies such as the Environmental Protection Act 1990</td>
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<tr>
<td>Public fears of the emergence and spread of potentially life threatening diseases such as Methicillin resistant Staphylococcus aureus (MRSA) and Bovine Spongiform encephalopathy (BSE)</td>
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<tr>
<td>The incorporation of the principles of sustainable development across all UK Government agencies beginning in the 1990s</td>
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<tr>
<td>The increasing costs of treating healthcare waste, particularly clinical waste</td>
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<tr>
<td>Reduction in the number of incinerators owned by NHS Trusts</td>
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Adapted from Tudor et al. (2005a).
improvement. However, this does not indicate the growing body of documents that do seek to deal with this issue. Indeed, whilst there has been limited academic research into the management of HCW (Bevan et al., 2005), there have been several government policy guidance documents published (Table 2).

This growing trend towards an in-depth analysis of HCW generation and management in England and Wales is therefore an opportune time to determine elements of Best Practice for its future sustainable management.

### Table 2
Recent key healthcare waste management guidance and policy in England and Wales

<table>
<thead>
<tr>
<th>Guidance/policy</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safe disposal of clinical waste</td>
<td>HSE (1999)</td>
</tr>
<tr>
<td>Sustainable development in the NHS</td>
<td>NHS Estates (2001)</td>
</tr>
<tr>
<td>New environmental strategy for the NHS</td>
<td>NHS Estates (2002)</td>
</tr>
<tr>
<td>The safe management of healthcare wastes</td>
<td>DoH (2006)</td>
</tr>
</tbody>
</table>

4. The National Health Service: waste management, corporate social responsibility and environmental citizenship

The NHS was formed in 1948 and employs approximately 1.3 million staff (The NHS, 2006). It is reputed to be the largest organisation in Europe, and provides primary and secondary healthcare for individuals throughout the UK. Fig. 3 illustrates the general organisational structure of the NHS.

NHS Trusts such as Primary Care Trusts (PCTs), Acute Care, Mental Health and Foundation Trusts are responsible for running the NHS at the local level. As of 1 October 2006 there were 152 PCTs (down from 303) in England and Wales, in addition to 48 Acute Care Trusts (The NHS, 2006). Trusts are legally autonomous bodies, and the implementation of environmental policies is voluntary only.

Environmental policies for the healthcare sector in England and Wales are set by central Government (through the Department of the Environment, Food and Rural Affairs (DEFRA) and the Department of Health (DoH)), as well as the NHS nationally. The National Institute of Clinical Excellence (NICE) serves to provide national Best Practice guidance to the NHS, bodies commissioning NHS services, patients and carers on new and
existing medical technologies (The NHS, 2006). These recommendations are based on the economic and technical evaluations and recommendations of multidisciplinary appraisal bodies, as well as experts and patient groups (Rosen, 2000). In addition, the Commission for Health Improvement (CHI) acts as an independent inspectorate to ensure standards by Government and the clinical guidance provided by NICE are met. Another body, the National Performance Advisory Group (NPAG), promotes benchmarking and best value within the NHS on a range of issues, including environmental management as a means of improving the quality of services and gaining value for money. Regulation of environmental standards in medical facilities, including carrying out inspections of the cleanliness of hospitals falls under the control of the Healthcare Commission. Forming a key link between the Department of Health and the NHS, by developing strategies for and managing the NHS locally, are the Strategic Health Authorities (SHAs) (The NHS, 2006).

The NHS Purchasing and Supplies Agency (PASA) has the responsibility for the development of a sustainable development policies and facilitating awareness of any associated issues in the NHS (NHS PASA, 2005a). NHS PASA has a sustainable waste management strategy that discusses reducing the waste generated by the agency itself (NHS PASA, 2005b), but waste management and disposal within NHS Trusts falls within the remit of the estates departments of the individual Trusts (EFM Standards, 2005) and is not always strategically linked to purchasing policies.

In 2006 the DoH and the Sustainable Development Commission launched a web-based tool called the ‘Good Corporate Citizenship Self-Assessment Model’ (SDC, 2006). This model aimed to encourage NHS organisations to develop corporate citizenship practice to reduce health inequalities, and provide improved public health gains, financial savings, higher patient recovery rates and improved staff morale (Griffiths, 2006).

4.1. The case study organisations

The Calderdale and Huddersfield Foundation NHS Trust is located in the north of England (Fig. 1). At the time of the study, the Trust was comprised of three main hospitals employed 5500 staff and provided acute and clinical services to a community of approximately 400,000 individuals. It has an operating budget of just over £200 million per annum. It achieved Foundation Trust status on 1 August 2006 which means that even though it adheres to the guidelines, principles and standards of the central NHS, it is controlled and run locally. This model differs from PCTs which are entirely ‘governed’ by and from the centralised NHS organisation.

The Cornwall NHS Trust in 2004/2005 was comprised of five NHS Trusts (three PCTs, one specialist Mental Health Trust and one Acute Care Trust) at approximately 100 sites and employed some 9536 staff (Cornwall NHS, 2005). These sites included three acute hospitals, 15 community hospitals (including one with mental health facilities), eight mental health/learning disability (MH/LDD) in-patient units/homes, 23 health centres, four drop-in centres, as well as a number of offices and administrative facilities. There were approximately 1800 NHS beds in the county. The Trusts provided acute, mental health and acute care services to approximately 500,000 individuals in Cornwall. However, this total could double due to holiday makers during peak times in the county. Royal Cornwall Hospitals Trust is the largest NHS Trust in Cornwall with around 1000 beds, 5000 staff, and operating expenses of approximately £249 million in 2005/2006 (RCHT, 2007).

Cardiff and Vale NHS Trust is the largest NHS Trust in Wales and is the third largest in the UK, employing 12,000 staff at eight hospital sites. It provides a range of acute, mental health, and community services to approximately 500,000 individuals in Cardiff (which is the capital of Wales), and the Vale of Glamorgan. In 2005/2006 its annual turnover was £576 million (Cardiff and Vale NHS Trust, 2007).

At the time of the study, the North Glamorgan NHS Trust provided acute, community and mental health services to a catchment population of 150,000 individuals in the Merthyr, Cynon and North Rhymney Valleys in Southeast Wales. It employed approximately 3000 staff and is comprised of four hospital sites and nine health centres and clinics. Prince Charles Hospital was the largest hospital site, employing 1000 staff and had 400 beds. It provided acute, community and mental health services to a population of approximately 150,000 individuals and had an annual income of around £110 million (North Glamorgan NHS Trust, 2007).

Each of the Trusts has won national awards for their environmental management programmes. For example, the integrated environmental management schemes of the Cornwall NHS were awarded an honourable mention in the NHS Estate’s Building Better Healthcare Awards in 2004 (Cornwall NHS, 2007). In 2005 the North Glamorgan NHS Trust won the Sustainable Waste Management in the Public Sector Award, the Good Corporate Citizenship Award in the Health Services Journal (HSJ) Awards, and also achieved accreditation for its energy efficiency scheme (North Glamorgan NHS Trust, 2006). In 2003 the Cardiff and Vale NHS Trust was also accredited ISO 14001 status and the Trust was a winner and finalist in the prestigious Arena Network Wales Environmental Awards, won for Best Practice, and was a finalist in the Sustainability Waste Management category in the Public Sector Awards (Cardiff and Vale NHS Trust, 2006).

5. The research approach

The study employed a combination of site visits, interviews, literature surveys and use of expert opinion and was based in part on work conducted within the Cornwall NHS (Tudor et al., 2005a,b, 2006). Searches of academic journals, professional publications and public domain on-line sites including (www.sd-commission.org.uk; www.nhs.uk/thenhsexplained) were undertaken, after a wide consultation with waste management experts. Examples of overall strategic Best Practice in waste management within the NHS in England and Wales were then selected. Based on these consultations individuals from the Trusts were contacted, and visits to conduct semi-structured interviews arranged. Interviews were held with the Associate Director with responsibility...
Table 3
Main legislation covering healthcare waste management in England and Wales

<table>
<thead>
<tr>
<th>Legislation</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Protection Act</td>
<td>1990</td>
</tr>
<tr>
<td>Environmental Protection (Duty of Care) Regulations</td>
<td>1991</td>
</tr>
<tr>
<td>Controlled Waste Regulations</td>
<td>1992</td>
</tr>
<tr>
<td>Radioactive Substances Act</td>
<td>1993</td>
</tr>
<tr>
<td>The Waste Management Licensing Regulations</td>
<td>1994</td>
</tr>
<tr>
<td>Management of Health and Safety at Work Act</td>
<td>1999</td>
</tr>
<tr>
<td>Ionising Radiation Regulations</td>
<td>1999</td>
</tr>
<tr>
<td>European Agreement on the International Carriage of Goods</td>
<td>1999</td>
</tr>
<tr>
<td>Integrated Pollution Prevention Control (IPPC) Act</td>
<td>2000</td>
</tr>
<tr>
<td>Animal By-Products (Amendment) Order</td>
<td>2001</td>
</tr>
<tr>
<td>Control of Substances Hazardous to Health (COSHH) 2002 Act (Schedule 3)</td>
<td>2002</td>
</tr>
<tr>
<td>Animal By-Products Regulations</td>
<td>2003</td>
</tr>
<tr>
<td>Hazardous Waste (England and Wales) Regulations</td>
<td>2005</td>
</tr>
<tr>
<td>Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations, as amended</td>
<td>2005</td>
</tr>
<tr>
<td>Landfill (England and Wales) Regulations</td>
<td>2005</td>
</tr>
<tr>
<td>Waste Electrical and Electronic Equipment Regulations (2002/96/EC)</td>
<td>2005</td>
</tr>
</tbody>
</table>

Sources: DETR (2000) and DEFRA (2005).

for corporate responsibility from the Calderdale and Huddersfield Foundation NHS Trust, the Head of Estates and the Waste Managers for Cardiff and Vale NHS Trust, the Sustainability Officer for North Glamorgan NHS Trust, and the Waste and Environmental Manager for the Cornwall NHS. The interviews conducted with the Cornwall NHS, Cardiff and Vale NHS Trust and North Glamorgan NHS Trust also involved a detailed site visits to examine on-site waste management practices. All interviews were held during 2006, except that with the Cornwall NHS which was conducted in 2005.

6. Incorporating the concepts of corporate social responsibility and environmental citizenship

There were two major factors identified which generally drove the uptake of CSR practice, namely: (1) stricter environmental legislation, and (2) increasing treatment and disposal costs for healthcare waste management.

6.1. Environmental legislation

The European Waste Framework Directive covers the collection, transport, recovery and disposal of waste within the European Union (EU, 1975). The primary legislative instruments for classifying waste in England and Wales are to be found in the Environmental Protection Act 1990 (DoE, 1990). Within these overarching regulations are a range of legislation covering the generation and disposal of HCW in England and Wales (DoH, 2006). Table 3 illustrates that this legislation covers all of the main aspects of the management of HCW including its classification, collection, segregation, handling, treatment and disposal.

The Welsh Assembly Government is responsible for the development and implementation of devolved regulations and policies. The Department for Environment, Planning and Countryside has responsibility for waste management in Wales (NHS Wales, 2006). The Sustainable Development Action Plan 2004–2007 specifically highlighted the need for a separate HCW strategy in Wales (DEFRA, 2005).

6.2. Healthcare waste management costs

The overall ratio of the costs of waste management as compared to the overall NHS operating budget in England and Wales is approximately 0.05%. The organisation has an annual operating budget of some £69 billion (The NHS, 2006), whilst the reported cost of waste management is around £40 million (Brayford, 2006). Despite this, the need for NHS Trusts to save costs has meant that all areas of their operation are being examined. Whilst disposal costs for domestic waste is approximately £50–70 per tonne, that for clinical/hazardous waste can be in excess of £400 per tonne. Fig. 4 outlines the manner in which the costs of treating clinical waste outweigh that for domestic waste amongst NHS Trusts in Wales.

It should also be borne in mind that these costs represent disposal costs only, with overall waste management costs including factors such as staff time and facilities also having to be taken into account. Hence, for all of the Trusts, the need to tackle ris-

Fig. 4. Costs of waste disposal for NHS Trusts in Wales. Source: NHS Wales (2006).
ing waste management costs is crucial. For example, the need to reduce the £1.3 million spent on waste treatment and disposal by the Cardiff and Vale NHS Trust was an important driver for action to introduce Best Practice.

7. Incorporating the concepts of corporate social responsibility

A number of strategic initiatives were employed by the four case study Trusts in order to implement the concepts of CSR and environmental citizenship into the management of their waste. In some cases these initiatives also sought to address environmental management in its widest brief, encompassing social, environmental, economic and institutional factors. These strategies can be summarised under four main headings: (1) adopting a holistic approach (2) developing networks with key stakeholders (3) utilising the concept of social enterprise and (4) actively encouraging staff involvement.

7.1. Adopting a holistic approach

All of the case study organisations utilised a holistic approach with respect waste management by tackling the full life cycle of all of the main streams of waste. For example, scoping studies were employed to identify the key social and economic barriers to be overcome to sustainably manage the waste from the Cornwall NHS (Table 4).

The Cornwall NHS Trust sought through its waste minimisation project to examine (Tudor et al., 2006): (1) all of the key waste streams (2) logistical factors (e.g. containment and collection) (3) social issues (e.g. staff awareness, behaviour and training) (4) up-stream management (e.g. procurement) and (5) compliance (e.g. health and safety). Fig. 5 demonstrates the reduction in the percentage of recyclables in the domestic waste stream as a result of the waste minimisation trials undertaken during the project.

Primarily as a result of the project the Cornwall NHS was able in 2005 to identify on-site waste management savings of approximately £53,000 and a reduction in waste collection and disposal costs of around £200,000.

The North Glamorgan NHS Trust completely reviewed how general waste management was undertaken across the organisation. Opportunities for recycling were considered and for ‘up-stream’ management, an environmental procurement policy was drafted, suppliers were encouraged to provide reusable packaging. An important point to note is that whilst there was an overall ‘vision’ (i.e. to minimise waste and to better utilise that which was produced), the ‘specifics’ of this vision were only formulated on the basis of detailed audits of the waste streams. Another significant issue was that the development and implementation of these strategies was overseen by an overall steering committee/group in all of the case study organisations. As a result of the initiatives, in 2005/2006, the North Glamorgan NHS Trust was able to recycle 9.6% of its general waste, including 30 tonnes of packaging waste and 30 tonnes of confidential paper waste.

The Calderdale and Huddersfield NHS Foundation Trust sought to go beyond ‘end of pipe’ waste management. The Trust utilised greater local procurement of its supplies, thus assisting local businesses and reducing transport miles. It also implemented measures such as the recycling of water, the installation of photovoltaic cells for lighting, and the formation of partnerships with NGOs to set up ‘resource’ trading schemes.

All of the Trusts adopted an integrated approach to environmental management involving the development of overlapping policies that addressed waste, and energy management, procurement, transport and travel. For example, the Cardiff and Vale NHS Trust implemented an environmental procurement policy to ensure that the goods, services and works it purchased were manufactured, delivered, used and managed at ‘end-of-life’ in a safe, social and environmentally responsible manner and that any risks were appropriately controlled and managed (Cardiff

Fig. 5. A comparison of the percentage of potential recyclables before and after the trial and projected reduction potentials for domestic/municipal bag waste. Source: Tudor et al. (2006).
Environmental groups within the Trust

The waste contractor for the Trust

Recycle for Wales

Environment Agency

Merthyr Tydfil Borough Council

Welsh Health Estates

Welsh Health Environmental Forum (a grouping of 15 NHS Trusts in Wales)

Welsh Assembly Government

7.2. Developing networks with key stakeholders

All of the Trusts sought to establish links with relevant stakeholders both within and outside of the organisation. For example, the North Glamorgan NHS Trust focused on establishing strong community partnerships and also on a strategy that incorporated sustainable waste and energy management. Table 5 lists the main agencies involved in the North Glamorgan NHS sustainable development partnership.

The Calderdale and Huddersfield Foundation NHS Trust established networks with agencies such as the Calderdale Sustainability Trust and the Carbon Trust. Within the Cornwall NHS a multi-stakeholder project team approach was established (Tudor et al., 2006). This team included individuals from the Cornwall NHS, academia (the University of Exeter in Cornwall), the recyclates industry (Remade Kernow) and the main funding agency County Environmental Trust (CET), all of whom formed the main steering committee. In addition, there was also input from other stakeholders such as NHS PASA and the community (including Cornwall County Council and the six district councils). Within the Cardiff and Vale NHS Trust close linkages were formed amongst the directorates to ensure waste minimization. For example, partnerships were established between the estates and procurement/purchasing departments to ensure that the entire life cycle of the resources were taken into account. Employees working in the community were provided with ‘Waste Management Locality Information Manuals’ to ensure that they were aware of overall environmental policies and procedures of the Trust (Cardiff and Vale NHS Trust, 2005).

Therefore as demonstrated by the case studies, attempts were made to establish links with individuals and organisations that could provide the necessary skills and expertise, and enable capacity to be built.

7.3. Utilising social enterprise

Integrated with the establishment of community networks is the development of social enterprise. The concept of social enterprise has become an important feature of UK social policy as a means of modernising public services and providing jobs in disadvantaged communities (Brady, 2003). Each of the Trusts is located within regions that are amongst some of the most deprived wards in the UK. [Indecies for deprivation and poverty are based on six main factors, namely: (1) income (2) employment (3) health deprivation and disability (4) education, skills and training (5) housing and (6) geographical access to services (ONS, 2007).] At the time of the study, 27,000 individuals served by the Calderdale and Huddersfield NHS Foundation Trust were on incapacity benefits, whilst income levels in Cornwall were amongst the lowest in England. Hence the development of the concept of social enterprise has become a significant component of the overall waste management strategies of both Trusts. For example, the Calderdale and Huddersfield NHS Foundation Trust employed the concepts of social enterprise in the development of a kerbside recycling scheme for cardboard. The scheme served to provide employment opportunities as well as providing ‘lateral’ benefits in the form of increased confidence, credibility and referencing for individuals from the surrounding community. In Cornwall, a similar scheme involving the shredding of cardboard, also served to provide employment opportunities for individuals from the neighbouring community around one of its main sites. Both Trusts also established links with community organisations to set up exchange programmes for various materials such as I.T. equipment and selected technical and non-technical devices.

7.4. Active staff involvement

An important strategy adopted by all of the case study organisations was the active encouragement of staff in the development and implementation of their environmental strategies. For example, the use of environmental champions was heavily employed by the Cornwall NHS. Calderdale and Huddersfield Foundation NHS Trust sought to empower its workers by implementing a range of environmental management initiatives incorporating waste, water, energy and transport. These included awareness campaigns on issues such as recycling both solid waste and water, promoting home working, flexible working hours and ‘greener’ travel to and from work. Employees were provided with professional development skills through the provision of training and development and leadership schemes that lead to professional qualifications. Both the Cornwall NHS and the North Glamorgan NHS Trust held a ‘Waste Awareness Week’ which staff, patients and members of the public were actively encouraged to participate in and make suggestions on the environmental management activities of the trusts. For example, the North Glamorgan NHS Trust North Glamorgan NHS Trust asked patients, staff and the public to complete an environmental pledge sheet that had been designed by the Environment Agency. The Environment Agency is the main waste management regulatory agency in England and Wales. Another important strategy employed by the North Glamorgan NHS Trust was the active involvement of management throughout the process. The North Glamorgan NHS Trust was strongly supported by its directors. Indeed, two of the non-executive
directors of the Trust, including the Director of Corporate Services were members of the overall Strategic Development Committee.

7.5. Maintaining the concepts

Two significant factors served to maintain and drive change: first, a motivated and committed individual or small group of individuals, and second, the support of senior managers. In all of the case study organisations there was a committed, motivated and inspirational waste officer/manager. In some cases, as with the Cardiff and Vale NHS Trust there was a waste manager and three dedicated waste officers.

8. Discussion

The findings from this study suggest that the concepts of CSR and environmental citizenship can be successfully employed in the effective management of healthcare waste. For example, this study demonstrated that as a result of greater diversion of materials away from disposal, each of the case study Trusts were able to realise cost reduction for waste management, thus confirming the findings of Chapple et al. (2005) of the financial benefits to be accrued through the use of the concepts. In addition, adoption of a wider public focus can also pay dividends for the NHS with respect to an enhanced public image and stronger linkages and networks with its communities with which it is so inextricably linked.

It was evident that legislation and costs savings were amongst the most significant drivers for the development of the strategies. This was perhaps best illustrated by the Cardiff and Vale NHS Trust, and the North Glamorgan NHS Trust where progress was due in large measure to the ‘pressure’ of the Welsh Assembly Government. Higher treatment and disposal costs also acted as key factors in the development of an overall strategic approach.

8.1. Implications of the findings

A number of important factors about the development of the strategies need to be highlighted. First, this study has shown that even though it is important to have an overall ‘vision’ that vision should be informed by detailed analyses of the existing waste management situation. In this way not only is it possible to focus on priority areas, but also issues that might have been missed will be incorporated. Second, use of networking and collaboration between individuals and agencies both inside of the organisation and beyond, is crucial to the successful development and implementation of strategies.

Use of such an approach brought added value and an improved skill set to each of the Trusts. Networking also enabled the sharing of Best Practice and the building of capacity amongst the various departments, sites, Trusts and organisations. Third, the strategy should take account of the wider social situation faced by the organisation. As a “corporate citizen”, consideration should be given to the need for interaction between the healthcare provider and the local community from which it draws its patients and perhaps also the majority of its staff. This is important since hospitals can serve as key ‘demonstration centres’ to the public in government’s overall behavioural change programme (DEFRA, 2005).

Once the strategies have been developed it is evident that its effective implementation is in large measure due to two crucial factors, a strongly motivated individual or team that can drive through the actions, and support from senior managers. All of the Trusts had at least one such individual or team of individuals. The Trusts also enjoyed a strong degree of support from senior managers and indeed in some cases, as in the North Glamorgan NHS Trust these managers were directly involved.

These findings raise two interesting questions: first, Abey-suriya et al. (2006) contend that corporations have ‘moral obligations’ in their relationship with wider society. Using this as a basis, a question that arises is that of whether as a healthcare provider the NHS also has a moral obligation to extend its provision of service to the community beyond healthcare. In other words, does the NHS also have an obligation to ensure the protection and enhancement of its natural environment as a means of providing for the well being of its population? And if so, how far can and should it go? Second, would ‘command and control’ measures, perhaps in the form of legislative drivers, work better than the current voluntary mechanism? Despite being public sector agencies, NHS Trusts are legally autonomous bodies and are becoming more so through the development of Foundation Trusts. It is difficult therefore under existing frameworks to envisage how such command and control drivers could be effectively implemented. However, the importance of legislative measures as a driver suggests that a combination of command and control, as well as voluntary measures could perhaps work best for the NHS as mooted by Argandoña (2004) and de Brujin and Tukker (2002). An important variable to be considered here also is the behaviour of the employees. As suggested in previous studies by Tudor et al. (2005a,b, 2007) the environmental behaviour of the employees is determined by whether they consider the actions to be beneficial to self or to the organisation. This would seem to confirm the assertions of Granovetter (1985) and Andrews et al. (2004) with regard to ‘tensions’ that often exist in the actions of employees between what is ‘best’ for the organisation and what is ‘best’ for themselves. To some extent the active encouragement of employees by each of the case study Trusts in their waste management programmes evidently served to improve the chances of their success. The answers to these questions are therefore not straightforward and would require further study.

In summary, this research has suggested that CSR and environmental citizenship can serve as effective facilitators for the sustainable management of waste within the NHS. Benefits included waste minimisation, closer links with the community and reduced waste management costs. Legislative factors and costs saving were shown to be significant drivers for the implementation of the concepts. The study has also indicated that factors such as adopting a holistic approach, employing social enterprise and developing wide-ranging networks were important constructs in realising the effective implementation of CSR and environmental citizenship within the case study organisations.
9. Conclusion

The NHS is a large and complex organisation. The effective and efficient management of its services including the effective management of its waste is a challenge. Using four case study NHS Trusts from England and Wales this paper has demonstrated how CSR and environmental citizenship have been employed to sustainably managing their waste. For example, the Cornwall NHS was able to identify total waste management savings of around £253,000, whilst the North Glamorgan NHS Trust was able to achieve a 9.6% recycling rate. It is not meant to suggest that these concepts are the only way in which this could be achieved, however, as the findings are drawn from Trusts that have been successful, then this indicates a degree of validity and reliability in their strategies. If the issue of waste management is to be effectively tackled in England and Wales there is a need for the development and adoption of a range of holistic strategies that embody both ‘command and control’ and voluntary measures, which encourage wide ranging partnerships, and which target both organisations as well as the individual.

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