As is well known, the profile of environmental issues, both at work and at home is high. There is pressure on all organisations, particularly those in the public sector, to take action to improve their performance on environmental issues. Additionally, in the current economic climate there is even greater pressure to achieve savings and cost reductions wherever possible. This is the case with waste management, an area where there is pressure to reduce waste and to improve recycling rates set against a backdrop of increasing disposal costs and an expansion of services in Health Boards and Trusts across Wales.

Across NHS Wales as a whole, the total quantity of waste disposed of in 2009/10 was reported as 17,772 tonnes, an encouraging 5% reduction compared with the previous year with a corresponding cost of £4.94 million compared with £5.07 million in the previous year. This is a 2.5% cost reduction over the year following several years of gradual increases and despite the continuing cost pressures such as the landfill tax escalator. These figures illustrate the opportunities for improvements and the benefits to be achieved as Health Boards and Trusts start to get to grips with the issues of waste reduction and recycling.

An additional incentive or pressure over recent years was the introduction and adoption of Health Technical Memorandum (HTM) 07-01 - Safe management of healthcare waste. This is a UK-wide document produced jointly by the NHS across the UK together with the various regulators and governmental departments. As the principal regulator, the Environment Agency has encouraged all healthcare organisations to adopt in full the waste classification and segregation guidelines within the Memorandum.

One of the key changes that the HTM introduced was the so-called “tiger stripe” waste stream for non-infectious, non-clinical wastes that are classed as offensive by their nature. Typically this comprises sanitary and incontinence type waste and is now designated for disposal in appropriately licensed landfills rather than by incineration or other heat treatment. Whilst this change may not sit comfortably with the drive to reduce landfill waste, it does afford the NHS an opportunity to reduce waste costs as the cost of landilling this waste is significantly less than the cost of other forms of treatment.

The Aneurin Bevan Health Board estate is one of the largest in Wales, and includes two major acute hospitals - the Royal Gwent in Newport and Nevill Hall in Abergavenny along with a number of community-type hospitals and other facilities. The Health Board is certified to the ISO 14001 environmental management standard across its whole estate and therefore, as part of its overall management and improvement programme, the Board decided that waste reduction and recycling should become key objectives with clear targets to be met. As such, Aneurin Bevan Health Board was to become the first in Wales to fully implement the guidance contained in the new HTM.

As part of the programme, it was decided that there would be full implementation of the waste segregation requirements of HTM 07-01, combined with the introduction of a comprehensive mixed-waste recycling service for domestic wastes. Given the size of the estate and the scale of the changes to existing waste disposal practices, this would pose a major challenge to the team at Aneurin Bevan. Prior to the introduction of the programme in 2007/08 the former Gwent Healthcare NHS Trust disposed of 1,150 tonnes of clinical wastes and 1,542 tonnes of domestic waste was sent to landfill at a cost of £506,000 for clinical waste and £144,000 for landfill. More disappointingly, recycling at the time accounted for only approximately 2% of total waste. It was hoped that through a programme of change, significant savings and reductions could be achieved.

As part of its implementation strategy the Health Board decided to introduce the programmes gradually, starting at some of its smaller community hospitals before expanding to other sites, including the key acute hospital sites at Royal Gwent and Nevill Hall.

The Health Board initially introduced a recycling system at two pilot sites, Caerphilly District Miners’ Hospital and County Hospital in Pontypool. The system involved all clean dry recyclables being collected in a clear bag for sorting at a Materials Recycling Facility (MRF). This approach offered the best solution to recycle as much material as possible while working within the limited space
constraints at ward level for additional bins. This approach also reinforced an ‘at work at home’ ethos whereby items which can go through the kerbside collection scheme at home are very similar to the material which could be processed through the recycling stream introduced by the Health Board. The recycling programme was generally enthusiastically received by staff and helped to raise the profile of sustainability and environmental awareness across the Board.

Concurrently with the recycling schemes, the guidance contained in HTM 07-01 was also introduced at the two trial sites. Principally this involved segregating clinical waste into an orange bag stream (infectious clinical waste suitable for heat treatment), a yellow stream for incineration only (such as anatomical wastes etc.) and, most importantly, the yellow/black “tiger” stream for non-infectious “offensive” wastes (such as incontinence waste, nappies etc.). Results of the scheme at the trial sites were startling: Levels of infectious clinical waste were reduced by up to 60% on average at the hospitals participating in the new waste segregation system. This was achieved by introducing a waste stream for non infectious clinical wastes such as incontinence pads, plaster casts and gloves and aprons that are not contaminated and diverting all suitable clean waste for recycling (such as the outer cardboard and plastic packaging).

Unfortunately, due to its unpleasant nature, hygiene/ offensive waste cannot be recycled and was sent directly to landfill as mentioned earlier. However, this is, in some respects, a better environmental option than processing the waste through an expensive heat treatment process only for the residue to go to landfill anyway after it is treated. By correctly segregating this waste out of the infectious waste stream modest CO2 savings can also be realised as the waste no longer needs to be heat treated.

Following the initial success at the trial sites, the scheme was gradually rolled out across the rest of the hospitals and by 2010 covered the whole of the Aneurin Bevan Health Board estate. The results of the work can be seen by comparing the before and after figures for waste disposal. In 2010 the Health Board disposed of 828 tonnes of clinical wastes and 803 tonnes of domestic waste was sent to landfill at a cost of £402,000 and £117,000 respectively. These represent reductions of 28% in the volume of clinical waste and an even more impressive 48% in landfill waste volumes. These are clearly impressive reductions on the pre-project figures, with also approximately 20% less being spent on clinical waste and landfill disposal.

Meanwhile, the reported recycling rate has increased to over 20% for the whole of Aneurin Bevan LHB which compares very favourably to the all-Wales average of 12.5%.

Figure 1 shows the continued good performance in recycling across the Health Board in 2010 and
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National Assets Working Group and e-PIMS in Wales

In early 2010 the Assembly Government established an Efficiency and Innovation Programme Board. The Board was set up to provide practical leadership through seven initial Programme workstreams focusing on delivering public service efficiencies and service improvements in Wales. Key to this will be building much stronger collaboration across organisations and administrative boundaries. The emphasis is on working together.

One of these workstreams is the National Assets Working Group consisting of representation from across the public sector including NHS organisations and Welsh Health Estates. One of its main objectives is to establish e-PIMS (Electronic Property Information Mapping System) across all public sector bodies.

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What is e-PIMS?

The Assembly is developing a comprehensive register of public sector land and buildings in Wales which will inform future strategic estates policies and ensure public sector property assets are used effectively. The platform for this is an internet based central database known as e-PIMS developed by the Office of Government Commerce (OGC).

The Assembly commissioned OGC to develop a less onerous bespoke version known as e-PIMS ‘lite’ which will initially hold very limited data for public sector land holdings such as property name, address, type and size.

The work of entering this data for NHS estate assets is practically complete and future updating and management of the data will be carried out by Welsh Health Estates on behalf of the NHS in Wales. NHS bodies will be able to access the information relating to their property holdings and produce reports. E-PIMS is not designed to replace the Land and Property Portfolio (LAPP) system which will continue in its current form.

It is envisaged that the database will enable public sector bodies to seek out opportunities for efficient and effective use of their estate (especially administrative office property) through site/building sharing and identify surplus public sector property for use by other public bodies.

Welsh Health Estates intends expanding the database to enable a more comprehensive recording of leasehold property arrangements including a summary of main lease details. A bespoke reporting format is currently being developed by OGC for this purpose which will allow users to report on data such as lease length, annual rent, floor area, break dates and, expiry and renewal dates. This information should make it easier for the NHS leasehold estate to be managed more effectively. It is proposed that Welsh Health Estates will provide NHS bodies with annual reports highlighting forthcoming leasehold events which should enable NHS bodies to make the most appropriate strategic response.

More detailed notification is to be issued shortly.

Figure 2: Reductions in infectious waste at Nevill Hall Hospital

Figure 2 illustrates the reductions in infectious clinical waste being achieved at Nevill Hall Hospital during 2010 compared with the pre-project average. In reviewing the process, it was evident that there were a small number of key lessons that had been learned and some important steps to ensure the project was a success:

1. Breaking the project into manageable steps was important, focusing initially on a few smaller, less intensive, sites where teething problems encountered could be identified and addressed before approaching major hospital sites;
2. Obtaining the buy-in and support of staff at ward level was important. The lack of recycling facilities across the Health Board had long been a source of complaint from many staff members so, by providing these recycling facilities, the clinical waste changes that were introduced at the same time were far more readily accepted and seen as a positive development by the majority.
3. The commitment of senior management, providing the focus required to drive through the changes, was critical. This was achieved by ensuring waste management was a key part of the Health Board’s environmental improvement plans as required by its ISO 14001 certification. Aneurin Bevan Health Board is one of the few NHS organisations with an ISO 14001 certification for the whole organisation and the management system is an integral part of the drive behind this initiative.

The Health Board is not sitting on its laurels, despite the improvements to date; it is continually looking to make further improvements. The environmental team at the Health Board is now looking at other waste streams that can be tackled to ensure the Health Board keeps building on the successes achieved to date.

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