



Briefing Note

Innovative NHS Greenspace in Scotland

Green Exercise Partnership

July 2014

This briefing note is based on interviews with a small number of Directors of Public Health and senior staff with responsibilities for planning and policy, estate and sustainable management in NHS Scotland in 2013. The research was undertaken to better understand the drivers and priorities faced by the interviewees and where NHS greenspace might contribute to meeting current health priorities. The work was commissioned by the Green Exercise Partnership (GEP) which comprises NHS Scotland, Forestry Commission Scotland and Scottish Natural Heritage to support the NHS greenspace demonstration programme being co-ordinated by the GEP. The briefing note also draws on GEP papers and on evaluative evidence from existing demonstration projects that have been running since 2010. While NHS greenspace was not considered core business for the NHS Scotland staff interviewed it was viewed extremely positively, contributing to a range of policies including health, well-being and biodiversity. The interviews illustrated that there is potential for greenspace design to be stipulated as an essential requirement for retrofitting existing healthcare facilities and in the creation of new facilities. This would be in line with the NHS ethos and approach over much of its history and help meet important social, environmental and economic benefits. There are exciting opportunities to use the NHS estate far more effectively to promote better health outcomes for patients, staff, visitors and the wider community.

Main findings

- Very positive views were expressed by all NHS interviewees about the importance of NHS greenspace for health and broader well-being. This approach is identified as consistent with the physical activity health agenda, mental well-being, NHS estates facilities policy, sustainability and climate change agendas.
- The key priorities that NHS greenspace can contribute to were identified as physical activity, mental well-being, reduction in length of hospital stay, and as a contribution to creating less obesogenic environments.
- Beneficiaries of NHS greenspace were identified as patients, staff, visitors and local communities; however patients and staff were viewed as the priority.
- There was a strong realisation of the difficulties of monitoring and evaluating these types of complex interventions, with a suggestion that mixed method approaches would be most suitable due to difficulties with quantifying and monetising many of the benefits.

Top ten recommendations

1. Establish a long term vision for the NHS outdoor estate to maximise its greenspace potential to deliver health outcomes
2. Champion inter-directorate working amongst NHS teams
3. Adopt a landscape master plan approach, with integrated therapeutic design for both inside and outside environments
4. Ensure good quality greenspace design is written into specifications and procurement processes for new build hospitals and refurbishment programmes
5. Incentivise good quality greenspace design
6. Create long term NHS greenspace maintenance and management plans
7. Increase the use of NHS greenspace in health care programmes provided by the NHS and third sector groups
8. Improve access infrastructure for pedestrians and cyclists, reducing the dominance of motorised transport and car parking
9. Publicise and promote the use of NHS greenspace for staff, visitors and local communities through events at healthcare facilities
10. Build in monitoring and evaluation programmes with staff and patient groups before and after interventions.

Background

In 2007, NHS Health Scotland, Forestry Commission Scotland and Scottish Natural Heritage established the Green Exercise Partnership (GEP) to promote better health and quality of life for people in Scotland through greater use of the outdoors for physical activity and contact with nature. A key focus of this work is on NHS greenspace. Since 2010 the GEP has provided funding to support key demonstration projects and green asset development reports for over a dozen hospitals. In 2013 the Scottish Government contributed to this by providing £1million over three years to embed this demonstration programme. Through this, the GEP aims to influence the mainstreaming of green exercise into health policy and practice.

Policy Drivers

Key policy drivers for NHS greenspace include: **'Good Places, Better Health'** which calls for the creation of positive physical environments for health. The Scottish Governments **'2020 Vision'** is a strategic narrative for people in Scotland to live longer and healthier lives, with a health care system that focuses on prevention. **'Equally Well'** is a report on reducing health inequalities; the **'Chief Executive Letter 01 (2012)'** requires action from Chief Executives, Directors of Public Health and Medical Directorates to undertake activities to improve patients' health and prevent future ill-health, and **'Active Nation'** focuses on inspiring people to become more physically active as a legacy of the Glasgow Commonwealth Games 2014. Investing positively in NHS greenspace can enable NHS Area Health Boards to support delivery of NHS Scotland's sustainable development policy, achieve biodiversity targets and support good corporate citizenship.



Incorporating allotments into NHS Greenspace.

Greenspace and health evidence

There is increasing evidence of the benefits of exposure to natural environments for health and well-being, both physical and mental health, as well as the potential to reduce health

inequalities (Mitchell and Popham, 2008). The evidence highlights that greenspace can play an important role in the prevention of ill health. NHS greenspace has the potential to offer cost effective solutions to providing positive physical and mental health outcomes. Numerous studies and reviews in recent years illustrate benefits in terms of reduced heart rate and blood pressure; attention and cognitive benefits associated with restoration, and mood and self esteem, as well as evidence of increases in physical activity (Cooper et al. 2008; Greenspace Scotland, 2008). These spaces can also promote social interaction and inclusion amongst users. Greenspace can be effectively used in treatment and recovery programmes. For example, the Branching Out project in Scotland is an innovative approach for people who access mental health care services. They can get involved in a range of activities in a woodland setting as part of their recovery programme (Wilson, 2009).

The mental health charity MIND strongly advocates the importance of ecotherapy for improving mental and physical well-being by supporting people to be active in greenspace by undertaking gardening, conservation activity and food growing (Mind, 2013).

NHS Greenspace

The GEP has been working together over the past few years with NHS Area Health Boards and a range of partners and community organisations to undertake projects showing how NHS greenspace can be designed, improved and managed. This has been undertaken through two main approaches:

1. **Retrofitting** by bringing underused land in existing healthcare facilities into active use to provide therapeutic gardens, growing places, outdoor gyms, woodland walks, and green infrastructure links
2. **New Facilities** by promoting greenspace planning and design at the outset of new healthcare building projects

Demonstration Projects

The GEP has now explored greening options with senior representatives from the Estates and Public Health departments in most of the fourteen Area Health Boards in Scotland. Progress to date has included landscape assessment and development reports for many hospitals and the creation of a number of national demonstration projects including; Ninewells in Dundee, Lawson Memorial in Golspie and Forth Valley Royal Hospital in Larbert. Work has also been undertaken at Gartnavel hospital and Possilpark Health Centre in Glasgow and Ailsa & Ayr hospitals. There is also renewed interest from NHS Grampian for a project at Foresterhill campus in Aberdeen. A key target for the GEP is to develop a demonstration project in all of mainland Scotland's Area Health Boards.

Demonstration projects have included a range of works. For example, at Ninewells Hospital all weather footpaths, seating and

interpretation made the greenspace more usable for patients, staff and visitors. The greenspace is now also part of a wider cycling and walking network in Dundee.

At the Forth Valley Royal Hospital the grounds were transformed into an asset for health improvement for staff, patients, visitors and local people with way-marked trails, accessible paths, signage, interpretation, outdoor teaching circle for schools and a timber pier viewpoint at Larbert Loch. The project recruited the first hospital Ranger in the UK to work directly with patients, local people and medical professionals to deliver outdoor health walks, cardiac rehabilitation and tai-chi classes in a woodland environment. Larbert Woods hosted the UK's first outdoor, woodland based recovery programme for cardiac patients in hospital grounds, specifically benefiting patients at the hospital. This work featured in a peer reviewed article in the Nursing Times on the 7th May 2014.

The social return on invest investment study (SROI) for the pilot engagement programmes in Larbert Woods demonstrate their cost effectiveness. The SROI ratio for Tai Chi was £4.32 created for every £1 of investment. The ratio for Cardiac rehabilitation activity was £3.78 for every £1 of investment. Both activities demonstrate very good value for money.

'Without a shadow of a doubt, people's well-being in the group improved dramatically over the programme. I think people with any illness would benefit'
[Cardiac Patient, Woodland Rehabilitation Programme]

At the Lawson Memorial Hospital, community engagement involving hospital staff and the wider Golspie community was essential in creating a project and design that was wanted and fit for purpose.



Forth Valley Royal Hospital courtyard planting.

Evidence from the demonstration projects

Evaluations of these demonstration projects have outlined:

- Increased connectivity between the hospitals built and natural environment.
- An improved greenspace asset for the hospitals.
- Increased awareness and use of the greenspace by staff, patients and visitors.
- Use of the greenspace as part of patient therapeutic activities.
- More use of the greenspace by different groups of people.
- Improved habitats for biodiversity.

Interview findings

The NHS interviewees were very positive about the benefits of NHS greenspace. A quick win was suggested in terms of influencing the management programme by changing the standard specification or contract that hospitals use to bring about changes in planting and mowing regimes. Low maintenance more imaginative wildspace can replace expensive mowing regimes.

'If I can look out of the window and see mental health patients working in the garden and people and staff enjoying the greenspace, that is a success'
[NHS Interviewee Director of Corporate Planning and Policy]

Opportunities were identified through the Building Research Establishment Environmental Assessment Method (BREEAM) which has specific requirements for waste, energy, and the outdoors. BREEAM sets the standard for best practice in sustainable building design, construction and operation. BREEAM is a mandatory requirement for any Area Health Board spending over £2million on a new build or £1M on refurbishment. There is potential to make greenspace provision a mandatory target similar to BREEAM threshold principles.

In the future ensuring NHS greenspace is written into specifications for new capital build programmes is critical and should take on board the lessons and best practice learnt from the GEP demonstration projects to date.

The development of better opportunities for outdoor activity in NHS greenspace supports the aims of the physical activity legacy from the 2014 Commonwealth Games in Glasgow.

The '2020 Vision for Health Care in Scotland' describes how sustainable quality will be achieved in the health care system and provides an opportunity to bring investment programmes such as NHS greenspace into the preventative agenda.

Publicising the guidance and support produced from the demonstration projects to NHS Area Health Boards to illustrate good practice was considered important.



Aerial view of the Forth Valley Royal Hospital.

'Many of us in the staff team weren't sure at the start, a bit sceptical when we heard the plans. But we have been surprised the paths are well used by patients and staff and especially visitors. They take the patients out for walks or push them around in wheelchairs, it's so much better than being stuck inside their rooms'
[NHS staff member Lawson Memorial Hospital]

Funding for NHS greenspace demonstration projects has been obtained via a number of routes including the Scottish Government, NHS capital resources, the GEP, Forestry Commission Scotland's Woodlands in and around Towns Challenge Fund, and hospital endowments.

Interviewees outlined the importance of building in monitoring and evaluation from the beginning of any NHS greenspace project to include mixed qualitative and quantitative methods. There is also a need to keep a watching brief over sites that are up and running as there may be valuable lessons to be learnt over time.

'Taking healing out of doors can be challenging. Staff are not used to taking their patients outside, but once the paths were there visitor numbers rose to several hundred per week'
[NHS manager Argyll and Bute Hospital]

There are potential productivity benefits to be gained by staff using NHS greenspace, if they can use these spaces for breaks and therapeutic activities with patients.

Enthusiasm was expressed by interviewees in the opportunities being taken forward at a number of new demonstration sites such as at Gartnavel Hospital in Glasgow.



Opportunity to relax and chat.

'Potentially there are multiple benefits to be gained for multiple stakeholders in terms of physical and mental well-being and the contribution to making a healthier green environment which is very important and the NHS needs to play its part in this' [Director of Public Health]

The challenges

Specific challenges were identified by interviewees, for example:

- NHS greenspace does not fit any specific HEAT (**H**Health Improvement, **E**fficiency, **A**ccess to Services and **T**reatment) target; NHS Boards are accountable to the Scottish Government for these.
- New build hospitals have less space around them due to the pressures, on and costs, of space.
- Changing the culture of the health service from treating illness to promoting healthy lives and preventing ill health – currently decision makers see greenspace as nice to have but not essential.
- Using and re-directing existing NHS estate maintenance budgets to focus on greenspace is difficult.
- The important preventative, therapeutic and restorative benefits of greenspace to health are not currently recognised in funding decisions.

Key elements of success identified to date

The top ten recommendations have been created after identifying the key elements of success to date. Other factors important to success are **partnership working**, for example with the NHS, GEP, local authorities, Maggie's Centres and voluntary sector organisations. **Support from a senior level**



Timber viewpoint at Larbet Loch.

within hospitals and participation by the estate departments is important, as well as utilising NHS greenspace for **patient therapeutic activity** including occupational therapy and green healthcare prescribing. **Consulting with communities, staff and patients** can lead to appropriate design of greenspace that meets their varying needs. **Engaging signage** can effectively link the indoor environment to the outdoors, and raise awareness of the importance of NHS greenspace for **relaxation, restoration and enjoyment** for patients, staff, visitors and the wider local community.



Creation of a wild flower garden.

What is happening next?

The GEP is continuing to develop new demonstration projects at a range of different types of health care settings, including community health centers, and encouraging this work to become mainstream is a key priority.

A best practice landscape design statement was secured for the new Dumfries and Galloway Royal Infirmary, this is an excellent example of mainstreaming NHS greenspace with it being written into the specification from the outset. Discussion is also ongoing with other Area Health Boards on preferred sites in Central Scotland.

Promotion of NHS greenspace and engaging with health professionals is being undertaken to raise awareness of the salutogenic aspects of NHS greenspace.

Monitoring and evaluation (M+E) is essential in understanding who is benefiting from NHS greenspace and how. To date, surveys, interviews, focus groups, SROI, footfall counters and observations of the use of greenspace have been the methods used for data collection. The GEP has created a monitoring and evaluation framework that provides a guide to potential output and outcome measures that can be used for data gathering. Questionnaires for staff, patients and visitors have been adapted for demonstration projects at Gartnavel, Alisa and Ayr and Borders General Hospital.



Forth Valley Royal Hospital greenspace.

For more information

NHS Greenspace – providing information on the evidence base and current activity:

<http://www.healthscotland.com/topics/settings/nhsgreenspace/challenge-fund.aspx>

For case studies of the demonstration projects and the Greenspace Design for Health and Well-being see:

<http://scotland.forestry.gov.uk/supporting/strategy-policy-guidance/health-strategy>

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