

The **GREEN EXERCISE PARTNERSHIP** is a joint venture between Forestry Commission Scotland, Scottish Natural Heritage and Health Scotland (the health improvement board of the National Health Service in Scotland). The Partnership aims to build links between the health and environment sectors, following growing evidence that public health can be improved by getting people engaged with the natural environment. Through its 'Greening the NHS Estate' programme, the Partnership aims to establish at least one project in each of the eleven mainland Area Health Boards to show the health benefits that flow from positive investment in and management of the NHS estate – the greenspace around hospitals and healthcare centres.



Prominent map boards give clear information about trails.

Forth Valley Royal is one of the most modern hospitals in Europe. Opened in 2011, it provides acute and short-stay care for the area around Larbert, Falkirk and Stirling. With 25 wards, 16 operating theatres and 860 beds, the hospital boasts hi-tech facilities that include Scotland's first robot medicine delivery system.

The buildings were designed to support the goal of a health service that promotes health rather than just treating illness. Research shows that patients on wards with good views of the outside world recover better and need fewer painkillers, so the hospital has plenty of windows and a series of courtyards planted with trees and shrubs. Public areas are light and spacious, and there is a range of shops and cafes that are used by local people as services in their own right. The overall impression is of a welcoming, lively space: even the smell is unlike a conventional hospital.

The landscape setting is just as important. The hospital is surrounded by woodland and parkland that once formed the grounds of Larbert House, a large Victorian family home that became part of the Royal Scottish National Hospital in the 1920s. In an innovative partnership with NHS Forth Valley, the grounds are now managed by Forestry Commission Scotland (FCS), with support from Central Scotland Green Network Trust (CSGNT) and Falkirk Council.

KEY LEARNING POINTS

- **Greening the NHS Estate is an effective, low-cost preventative measure that benefits public health. It's a great way to improve staff, patient and visitor health, and to deliver superb settings for positive healthcare.**
- **Active management is a better, and more sustainable, approach to the outdoor NHS Estate than neglect.**
- **Levels of physical activity are affected by how close and accessible woodlands and greenspace are to where people live and work.**
- **The jointly funded hospital Ranger (co-funded by FCS & NHS Forth Valley), who runs engagement activities in the outdoors, is helping clinicians take healing outdoors and combat sedentary indoor lifestyles amongst patients and staff.**
- **Spending time in a forest has therapeutic effects on hypertension and is thus preventative against cardiovascular disorders.^[2]**
- **Medical research from around the world demonstrates that green prescription can deliver physiological and psychological benefits for patients.^[3]**
- **Publicise and promote path networks within hospital buildings using media such as map boards, signs and leaflets.**
- **Providing access to internal courtyards would allow patients with restricted mobility to enjoy the outdoors without having to leave the hospital building.**

Footnotes

1. Centre for Rural Health, UHI (2012)
2. G-X Mao et al (2012) Therapeutic effect of forest bathing on human hypertension in the elderly. *Journal of Cardiology* 60 (5-6) 495-502
3. T Hartig et al (2014) Nature and health. *Annual Review of Public Health* 35, 207-228

For more information about this project or the Green Exercise Partnership please contact:

Kevin Lafferty
Access, Health & Recreation Advisor
Forestry Commission Scotland
Silvan House
231 Corstorphine Road
Edinburgh EH12 7AT
Office: 03000 675 292 (Tues & Thurs)
Office: 01698 368 539 (Mon/Wed & Fri)
Mobile: 07920 595 231
E-mail: kevin.lafferty@forestry.gsi.gov.uk



GREEN WAYS TO HEALTH

Case study – Forth Valley Royal Hospital

A WOODLAND REBORN

Although the grounds had been part of the hospital estate for decades, they had not been actively managed. The woodlands were clogged with rhododendron and many of the paths were wet or overgrown. The pond that once lay in front of Larbert House was choked with reeds, and hidden by a fringe of scrubby trees.

After a substantial programme of work by FCS and CSGNT, things are now very different. The woodland has been cleared, and paths renewed so they are sound and dry. The FCS Community Ranger has worked with students from local schools to plant around 7,000 new trees and runs regular events for families and educational groups. The pond is now an attractive stretch of open water where swans nest in the reeds.



Gordon Harper, FCS Community Ranger, inspects the sluice that controls the pond level. It was repaired with stone from the billiard table in Larbert House. "A local chap knew where it had been buried in the woods!"



The pier frames the view across the pond and invites people to linger by the water.

A striking pier is a focal point on the water's edge. Just 15 minutes' walk from the hospital's main entrance, it's an attractive destination that has been designed to be accessible to all: access is level, and the decking is fitted with strips to provide a sure grip in all weathers. The design was the result of a competition run in partnership with Architecture and Design Scotland: entries were displayed in the hospital as part of a consultation exercise with the local community.

AN ENVIRONMENT FOR HEALTH

As well as offering valuable greenspace in easy reach of a large population, the woods and parkland are an essential part of the hospital's vision for healthy lifestyles. The attractive greenspace that surrounds the hospital offers an easy place for staff, visitors and recovering patients to take a break.

It's also a natural asset that can be used as an active part of healthcare. The FCS Community Ranger has worked with the hospital's cardiac rehabilitation unit to run a programme for patients recovering from heart attacks or surgery, based on activities in the woodland designed to get them active again. Patients spent three hours a week over a period of six weeks on activities such as conservation tasks, creative work or simply exploring the woods on a gentle walk.

Research showed the project reduced patients' stress levels and helped to give them confidence about getting back to normal life. The social return on investment study for the programme calculated that for every £1 spent on activity, £3.86 worth of social return was created: a ratio of 1-4^[1]. Similar programmes could have benefits for other patients, for example those recovering from cancer.



Benches and picnic tables have been provided as close to the hospital as possible, so people can use them as a destination for short breaks.



A new Maggie's Centre will occupy a superb location on the shore of the pond.

Links between 'green exercise' and better mental health are well established: other research has shown that just short periods of exercise in natural surroundings are beneficial. Several programmes a year have been run through FCS's established Branching Out project, which supports mental health patients through a twelve-week programme of outdoor activities. The FCS Community Ranger has also run projects with dementia patients, again offering a mix of activities in the woodland.

Participants have been referred through local mental health organisations and other local hospitals. Healthcare staff have been impressed with the results, saying that patients who usually find it difficult to get out of bed in the morning are often up and ready to go on days when they're involved in Branching Out.

On the shore of the restored pond, a new Maggie's Centre is being built. Its location is the best demonstration in the UK of the Maggie's philosophy of providing support for cancer patients and their families in high quality surroundings, with access to the natural environment as a vital part of healthcare.

The partnership between FCS, GEP, CSGNT, NHS Forth Valley and Falkirk Council has helped to deliver an exceptional environment for modern healthcare as well as a much improved area of greenspace for the local community. The development helped Falkirk Council to win the Overall Winner trophy at the Scottish Quality in Planning Awards in 2012. NHS senior managers are enthusiastic about the benefits the natural environment offers to staff, patients and visitors.

MISSED OPPORTUNITIES

Perhaps inevitably, some aspects of the scheme could have been handled better. During the planning phase, FCS recommended that the main access road should not form an unbroken circuit around the hospital, since this would create an "island effect", and a psychological barrier between the building and the parkland. But for the main architects and contractors, the convenience of a ring road was too great. Although there are several zebra crossings at key points, the effect is to emphasise motorised transport and to disconnect the hospital from its green oasis.

Within the hospital, seats have been provided in the attractively planted enclosed courtyards. But the doors that lead to the courtyards are locked by the company responsible for the buildings' management. This is a missed opportunity for patients with restricted mobility to access the outdoors and benefit from some fresh air and daylight.



The paths and landscaped grounds around the hospital are popular with local residents as well as hospital staff.

"This project has demonstrated that by working in collaboration with other agencies, significant gains and expertise can be achieved beyond any individual organisation's input. The University of the Highlands and Islands has researched the health benefits for those who use the facilities and shown that they represent a high return on social investment."

**Tom Steele,
Director of Estates and Facilities
NHS Forth Valley**