

Trees and woodlands

Nature's health service



*active***woods**
naturally good for you


Forestry Commission
England


Forest Research

Trees and woodlands

Nature's health service

Liz O'Brien

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Foreword

The recent White Paper *Choosing health: making healthier choices easier* sets out how the government will provide opportunities, information and support to help people make healthier choices and lead healthier lives. The evidence that led to the White Paper clearly shows the importance of adopting a healthy lifestyle and being more physically active in the prevention of conditions such as obesity, diabetes and coronary heart disease. Two key delivery plans, *Delivering choosing health: making healthier choices* and *Choosing activity: a physical activity action plan*, outline the actions that will be taken across government to implement the White Paper.

Trees and woodlands: nature's health service provides detailed examples of how the Woodland Sector can significantly contribute to people's health and well-being. It outlines specific government objectives and how organisations such as the Forestry Commission are making a positive impact on people's well-being and quality of life. The case studies set out here are particularly important as they illustrate how innovative projects can offer new approaches to improving the health and well-being of the population of England.



I welcome the work being undertaken by the Forestry Commission and other outdoor organisations, which provide examples of innovative partnerships between health professionals and the Woodland Sector across England. This work also highlights the importance of the role that volunteers can play in leading and sustaining activities such as walking programmes.

Many of us will have recognised the benefits of enjoying a walk through attractive woodland, as we feel ourselves relaxing and forgetting about everyday cares. Research now makes explicit the many benefits that can be obtained by enjoying and using the natural environment. We need to recognise this and take note of the lessons learnt from the evaluations that have already taken place so that new projects continue to build on the successes that have already been achieved.

Sir Liam Donaldson
Chief Medical Officer for England



Executive summary

Trees and woodlands: nature's health service is aimed at a wide range of health professionals and environmental professionals: both policymakers and practitioners. It provides information and evidence supporting the idea that the use and enjoyment of woodlands and green spaces improves people's overall health and well-being. By outlining research and current practical projects it is hoped that this book will bring inspiration and ideas for developing future work and new partnerships.

Key government priorities for health are outlined with suggestions of how organisations such as the Forestry Commission and other countryside agencies can help people to choose healthier lifestyles. The evidence base is established through a review of past and current research describing the ways in which the natural environment can improve people's health and well-being. Also provided are case studies of some of the projects the Forestry Commission is currently running in partnership with a range of other organisations including primary care trusts. They illustrate important lessons about how the Woodland Sector, in partnership with others, can contribute to the health agenda and where it can target its efforts most effectively.

This publication demonstrates that while there are many well-being benefits that can be experienced from having contact with nature and green space in general, trees and woodlands specifically have a number of advantages as places with particular meaning and spaces where a range of activities and events can take place:

- Woodlands are restorative environments: the sounds, sights and smells experienced in a wood play a role in reducing stress by providing interest and stimulation of the senses.
- Woodlands, and in particular individual trees, often hold specific meaning for people; they are seen as representing nature, particularly in the urban environment. The age of veteran trees often inspires awe in people and provides a link between the past, present and future.
- Trees and woodlands are part of a rich narrative of stories, legends and myths dating back thousands of years.
- Woodlands can screen out noise, for example, from nearby traffic.
- Many woodlands have the ability 'to absorb' large numbers of people without seeming crowded.
- Woodlands offer a range of options for various types of activities from gentle to vigorous, including walking, cycling, horse-riding, nature trails, picnics, den building and mountain biking.
- Carrying out physical activity in an attractive environment such as a woodland may encourage people to maintain their activities in the long term.
- Woodlands are inexpensive places to visit: an important factor when considering health inequalities and social inclusion.



PART 1

Introduction and research review



Part 1 begins by setting out the context for this publication in terms of trees and woodlands and their impact on people's health and well-being. It highlights recently produced key government publications which outline the future actions that are needed to enable people to lead healthier lives. Key goals and action points from these publications are emphasised, illustrating where the Woodland Sector can make an important contribution.

The evidence base then brings together a range of research that shows the importance of trees, woodlands and green spaces to people's overall quality of life. This evidence base review is divided into:

- Physical well-being
- Psychological well-being
- Social well-being.



The importance of trees and woodlands for people's health and well-being



Trees, woodlands and green spaces¹ make us feel better. There is an increasingly wide range of evidence that supports this statement (Henwood, 2001; Bird, 2004; Pretty *et al.*, 2005). For the government, the health of the population is a major focus and recent documents and consultations on health and physical activity outline this as a key priority. The Wanless Report: *Securing good health for the whole population* defined public health in broad terms as:

The science and art of preventing disease, prolonging life and promoting health through the organised efforts and informed choices of society, organisations, public and private, communities and individuals (Wanless, 2004).

The *Choosing health* White Paper (Department of Health, 2004a), produced after widespread consultation, highlighted that England needs a new approach to public health that responds to the needs and wishes of its citizens and makes the most of new opportunities (Department of Health, 2004b and c). A key element of the White Paper is tackling health inequalities, as those at the lower end of the social scale experience poorer health, and mental health problems are more common in areas of deprivation. Motivating people, providing opportunities and support are all important issues in dealing with inequalities.

The Chief Medical Officer's (CMO) report: *Health check: on the state of public health* (Department of Health, 2002) outlined the growing concerns over obesity and the health risks of sedentary lifestyles. This led to an analysis of the scientific evidence on the links between health and physical activity. The CMO's more recent report: *At least five a week* brings together this evidence on physical activity and recommends that to maintain general health we need to undertake at least 30 minutes of moderate intensity exercise on at least five days a week. The recommendation for children is at least 60 minutes of moderate exercise every day (Department of Health, 2004d).

This focus on activity raises a number of questions, for example:

- What can motivate people to become physically active?
- How do we encourage people to increase their levels of physical activity?
- How can we enable people to maintain activity throughout their life?
- How can we encourage and enable people to choose healthier lifestyles that improve their overall well-being?

¹ Woodland in the United Kingdom is defined as land with a minimum area of 0.1 ha under stands of trees, with the potential to achieve tree crown cover of more than 20%. Generally green spaces are vegetated areas in or surrounding urban locations. Natural spaces are areas with less human influence in the countryside or peri-urban fringe. Countryside in general refers to areas that are not urban.

How we categorise physical activity is also important, particularly when trying to promote it to an increasingly sedentary population. The Forestry Commission has found several ways of promoting activities, for example as fun, or art or conservation work, so that the primary focus is not specifically on health and exercise. The 'Route to Health' project (page 26) took this approach and used art as a tool to encourage people to think about and improve their health.

The Forestry Commission (FC) is the government department responsible for forestry in Britain. Its mission is to protect and expand Britain's forests and woodlands and increase their value to society and the environment (Forestry Commission, 1998). The FC was devolved in 2003 and now FC England (FCE) delivers forestry policy in England. FCE manages approximately 222 000 hectares (ha) of woodland in England and is actively promoting the role that it and others can play in encouraging people to use woodlands and green spaces to carry out physical activity, relax and escape from the stresses of everyday life (Figure 1). This is exemplified in the national campaign: *Active Woods – naturally good for you*, launched by the FC early in 2005. The aim of Active Woods is to:

- Increase visits to woods and boost the amount of healthy activities participated in by existing forest visitors.
- Establish an association between health and well-being and woodlands in people's minds.
- Promote physical activity among forest users.
- Help foster healthier lifestyles.

The campaign is supported by the British Heart Foundation.

Figure 1 Getting out of the city and into the peri-urban environment.



In February 2005 FCE signed a Health Concordat with the Countryside Agency, English Nature, Sport England and the Association of National Park Authorities. The Concordat sets out the campaigns, events and championing work that the agencies will undertake in 2005 to promote use of the outdoors for people's health and well-being such as the Active Woods campaign mentioned above, and to work in partnership, share knowledge and best practice. The Concordat is listed in *Choosing activity: a physical activity action plan* (Department of Health, 2005a) which sets out how the government will deliver on the physical activity commitments outlined in the *Choosing health* White Paper. Box 1 illustrates how FC and others can contribute to the government's goals outlined in this *Choosing activity* report.

Box 1

The government's goals, as outlined in *Choosing activity: a physical activity action plan* (Department of Health, 2005a), and the Woodland Sector's contributions.

Choosing activity in a consumer society

Our goals: ensure that people in all parts of society get the information they need to understand the links between activity and better health, and where the opportunities exist in daily life to be active.

FC provides a range of information on its website about the woodlands people can use, what types of recreation they can undertake and the events and activities that are regularly run in each Forest District that they can participate in. The Active Woods website provides further information on the calories that can be burnt from carrying out a range of exercises and a table so that people can make an assessment of how fit they are.

Children and young people

Our goal: encouraging activity in early years, schools, further and higher education.

The FC is actively involved in Forest School; the concept is that children have regular contact with a woodland over an extended period of time and can learn any of their curriculum subjects in the wood. It provides children with an opportunity to improve their physical motor skills in uneven terrain and to gain confidence by becoming more familiar with the environment. The FC also provides many settings for play from formal areas to the wider woodland environment. Its 'Growing Adventure' project seeks to develop new play spaces and programmes to promote active play in woodland settings.

Active communities

Our goal: continuing to make our public spaces and the countryside more accessible and attractive.

The Outdoors Health Concordat mentioned previously encourages active use of the outdoors to improve people's health and well-being.

An active healthcare system

Our goal: NHS providers and PCTs working more closely with local government and private and voluntary sector to create access to opportunities for physical activity.

Chopwell Wood Health project (page 21) and Cannock Chase Route to Health project (page 26) illustrate the importance of what can be achieved by FC working in partnership with primary care trusts (PCTs) to provide a range of physical and well-being activities for those with health and mental health problems.

The recent publication: *Delivering choosing health: making healthier choices easier* (Department of Health, 2005b) identifies priority areas for delivery and within these areas highlights where the Department of Health believes 'big wins' can be made in terms of helping and enabling people to make healthier choices. Box 2 outlines the priority areas in which the FC and other agencies involved in managing woodlands and green spaces can contribute in some capacity.

Box 2

Priority areas in *Delivering choosing health: making healthier choices easier* (Department of Health, 2005b).

Priority area: Tackling obesity

22% of men and 23% of women in England are obese.

Big win – encouraging activity and thereby increasing activity levels.

The FC manages approximately 800 000 ha of land in Britain and 222 000 ha in England, all of which are open for general public access. Each Forest District runs a programme of events throughout the year from nature walks to cycling. Infrastructure in many of the public forests provides a range of routes of varying lengths and for those of varying ability and age.

Priority area: Improving mental health and well-being

Mental illness and stress-related conditions are the most common cause of sickness absence.

Big win – new services to improve mental and emotional well-being such as ‘Healthy Schools’^a and promoting social inclusion through initiatives to engage communities.

The Chopwell Wood Health project described on page 21 is running a number of school visits for four schools linked into, and enabling them to meet, the Healthy School Standard. Woodlands are restorative environments, places where people can relax and reduce their stress levels.

The *Delivering choosing health* publication also outlines that the government will take action on:

Helping children and young people to lead healthy lives

Four out of 10 girls and 3 out of 10 boys are not carrying out the 1 hour per day recommended level of physical activity. There are concerns that increased levels of obesity in children may lead to them having a lower life expectancy than their parents.

Big win – ‘Healthy Schools’ and supporting healthier choices through national campaigns and providing opportunities for physical activity and action to improve emotional well-being.

Forest School, mentioned in Box 1, is relevant to those trying to meet the Healthy School Standard. The many play options available in FC woodlands also provide a range of opportunities for children to be active.

Promoting healthy and active life amongst older people

Increasing exercise throughout life has major benefits in old age through promoting health and well-being and independence.

Big win – local physical activity programmes; countryside, parks and open spaces that are accessible and safe.

Many of the Healthy Walking schemes that are currently in place and being promoted throughout the country are attended by retired people.

^a The National Healthy School Standard is a government initiative aimed at getting schools to promote health across all school activities. Schools become a ‘Healthy School’ when they are reaching the requirements of the standard in eight key themes including physical activity.

National Service Frameworks (NSFs) are the long-term strategies for improving specific areas of care. The environmental sector could work in partnership with the health sector concerning some of the National Service Frameworks to bring about improvements, for example:

- Coronary Heart Disease NSF

The framework sets out 12 standards for prevention, diagnosis and treatment of coronary heart disease (CHD) including reducing heart disease in the population.

One of the ways in which this will be implemented is through increasing opportunities for regular physical activity. For example, 10 Local Exercise Action Pilots (LEAPs) have been created as a cross-government initiative to test different ways of encouraging people to undertake moderate exercise on a regular basis.

- Mental health NSF

The framework has a standard concerned with promoting mental health for all. It states that half of all women and a quarter of all men will be affected by depression at some period during their lives. There is emphasis on promoting 'Healthy Schools', neighbourhoods and workplaces.

- Older people NSF

Standard eight of the framework focuses on the promotion of health and active life in older age. The NHS and local government should identify the broader opportunities to promote health and well-being for older people.

- Diabetes NSF

Standard one of the framework focuses on developing and monitoring strategies to reduce the risk of developing Type II diabetes in the population as a whole. The framework outlines that individuals who are at risk from developing Type II diabetes can reduce their risk if they are supported to change their lifestyle by eating a balanced diet, losing weight and increasing their physical activity levels.

- Children NSF

Standard one of the framework is concerned with promoting health and well-being, identifying needs and intervening early. There is a focus on promoting healthy eating and active lives. Varied and proactive initiatives make use of early years settings and the Healthy School Programme.

The NSFs and actions for delivering the *Choosing health* White Paper outlined above demonstrate a new approach and focus for health which involves a range of government departments, non-governmental agencies, community groups and individual citizens, and takes a more active look at the prevention of ill health and the promotion of health and well-being. Woodlands and green spaces have an important role to play as spaces where people can undertake a range of activities and participate in social events and develop social networks.

As well as the woodlands managed by the FC there are 12 Community Forests in England (see page 44 for website details). These were set up in 1989, in a partnership between the FC, the Countryside Agency and various local authorities and other organisations. The forests are located in urban and peri-urban areas near to where people live and are a mosaic of woodlands and green spaces available for use by all. The FC also administers a grant scheme that provides funding for private woodland owners to manage their woodlands sustainably and improve or create public access. A case study of how a specific grant was targeted to improve health and well-being in the West Midlands is provided on page 18.

Woodlands need to be accessible if they are to be used regularly. The Woodland Trust in partnership with the FC carried out the 'Woods for People' project to examine the extent of accessible woodland in the United Kingdom and produce an inventory. The work from this project was analysed and published by the Woodland Trust in 2004 in the *Space for people* report. Previous work has found that on average people will only travel a short distance: approximately 500 metres or less on foot to reach woodland or green space (Coles and Bussey, 2000). From mapping permissively accessible woodland the Woodland Trust then went on to develop the Woodland Access Standard (WAS_t). WAS_t is seen by the Woodland Trust as an aspirational benchmark to promote discussion and debate regarding the provision of accessible woodland. The standard recommends:

- That no person should live more than 500 m from at least one area of accessible woodland of no less than 2 ha in size.
- That there should also be at least one area of accessible woodland of no less than 20 ha within 4 km of people's homes (Woodland Trust, 2004).

From this work a policy to create new woodland in areas where there is less accessible woodland can evolve. The mapped data can also be linked with other data sets that provide information on population density and deprivation, so that new woodlands could be created near to people in poorer areas facing health inequalities. The work of FC seeks to reduce inequalities and recognises that there are differences in health and well-being between those at the top and those at the bottom of the social scale. A number of its projects are reaching out to excluded groups to try to gain a better understanding of how they can be enabled to improve their well-being.



The evidence base: a brief review of past and current research



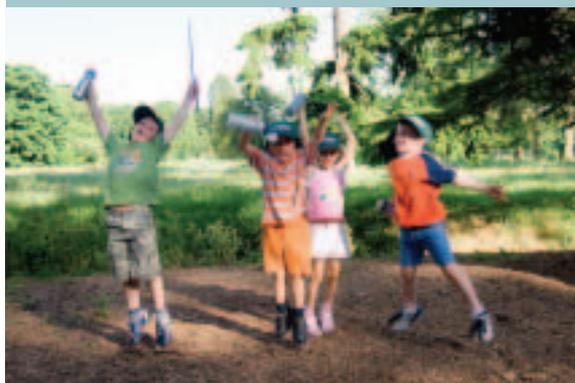
Recent and past research suggests that there are key areas in which trees, woodlands and green spaces can have an impact on people's health and well-being. These are primarily related to people's physical, social and psychological well-being (Figure 2).

Physical well-being

Choosing activity: a physical activity action plan (Department of Health, 2005a) states that the amount of physical activity we undertake in our day-to-day lives is declining. It outlines that only 24 per cent of women and 37 per cent of men are meeting the recommended minimum of 30 minutes exercise at least five days a week. The cost of physical inactivity has been estimated to be £8.2 billion per year which includes costs to the National Health Service and costs related to absence from work. It is also estimated that 37 per cent of deaths from coronary heart disease are attributed to physical inactivity (Britton and McPherson, 2002). It is suggested that physical activity is important in a number of ways, outlined in Box 3.

Physical activity can also promote psychological well-being by relieving symptoms of anxiety and depression and improving mood. But how do we encourage people to undertake more exercise and even if they begin is it something that they will carry on doing? Various projects and schemes give people the opportunity to carry out activities with trained instructors but once these are over will people go back to their sedentary lifestyles? Woodlands and green spaces have the advantage of being attractive places that can greatly enhance people's enjoyment of outdoor activities and can also provide motivation so that people carry on with their activities in the long-term (Tabbush and O'Brien, 2003). The Biophilia hypothesis suggests that our desire to have contact

Figure 2 Children enjoying an Active Woods event.



Box 3 Importance of physical activity.

Physical activity can help to:

- Reduce the risk of premature mortality
- Reduce cardiovascular diseases
- Prevent and reduce hypertension
- Reduce the risk of developing some types of cancers
- Reduce the risk of developing Type II diabetes
- Prevent and reduce osteoporosis
- Help to control weight and lower the risk of becoming obese
- Promote psychological well-being
- Enhance and protect brain function
- Help in the management of painful conditions
- Improve health-related quality of life

with nature is innate and that we need to be close to, or have the opportunity to get close to, nature (Pretty *et al.*, 2005). Martilla *et al.* (1998) suggested that *'continuous practising of an emotionally rewarding activity may result in positive changes in self definition, which makes the performance of the activity more deeply rooted in the person's values and orientations'*. This suggests that if people find contact with nature to be emotionally important and rewarding then this can become a part of their identity and will be something they seek out.

Laitakari *et al.* (1996) explore some of the concepts and evidence surrounding the long-term maintenance of physical activity which they define as an individual carrying on the specific activity for at least six months after the end of their initial instruction or involvement. The authors suggest that while understanding of the health benefits of physical activity has increased rapidly *'our ability to effect long-term changes in physical activity is lagging behind'*. They outline two strategies for encouraging maintenance or adherence to physical activity: (1) a focus on promotion to individuals or groups, and (2) a focus on making the environment safe and attractive for use. Woodlands and green spaces are attractive environments and they can be designed and managed so that all groups of people feel safe in them.

Because physical activity can positively affect psychological well-being as well as physical well-being, Pretty *et al.* (2005) hypothesise that undertaking physical activity in green spaces provides synergistic benefits and they have termed this green exercise. They argue that *'green exercise has important implications for public and environmental health'* in that a *'fitter and emotionally more content population would clearly cost the economy less'*.

Psychological well-being

Psychological well-being has links with physical well-being. Anxiety and depression is experienced by just over 9 per cent of adults in Britain (British Heart Foundation, 2005) and it is suggested that physical activity can improve mood and self-esteem which are both important elements of a person's psychological well-being. Kaplan (1995) described attention restoration theory and this theory suggests that we become fatigued when we direct our attention to specific tasks and we recover from this fatigue through involuntary attention which requires no effort. He argues that natural

environments have a particular role to play as restorative environments (Figure 3). He suggests that this can occur because nature is endowed with fascinating objects and effects such as clouds, sunsets, the motion of leaves in a breeze and they hold our attention without requiring any effort from us.

Figure 3

Enjoying the effects of light, trees and leaves on a sunny day in a London park.



Young people and children can particularly benefit from contact with nature in terms of opportunities for play, taking and learning about risks and becoming familiar with and comfortable using the environment (Figures 2 and 4). Contact with the natural world can play an important role in a child's development (Box and Harrison, 1993; Bingley and Milligan, 2004). Taylor *et al.* (2001) suggest that green spaces can also have a role to play for children with attention deficit disorder in terms of increasing their attention span and concentration levels. Hartig *et al.* (1991) advocate the promotion of health and well-being by providing opportunities for easy and quick access to green spaces. The evaluation of Forest School (Murray, 2003) shows that contact and learning in a woodland environment can improve children's self-confidence and self-esteem and familiarise them with natural spaces. O'Brien's (2004, 2005) work on the ways in which people value trees and woodland emphasises that while the physical exercise people undertake as part of their use of woodlands is important, it is often the emotional and mental well-being that has the greatest impact in terms of reducing people's stress.

Ulrich *et al.*'s (1991) work on stress recovery during exposure to natural and urban environments found that *'short duration nature exposures might have an important function for many urbanites in facilitating recovery from such stressors as daily hassles or annoyances'*. Ulrich's earlier work focused on the quicker recovery of hospital patients who had a view of trees from their hospital window as opposed to those who had a view of other buildings (Ulrich, 1984). As approximately 80 per cent of people in the UK live in urban areas, having trees, woodlands and green spaces near to where they live can be seen as particularly important in restorative terms. The *Space for people* analysis shows that in England approximately 10 per cent of the population currently has access to woodland of no less than 2 ha within 500 metres of where they live. It also showed that if all existing woods in England were to be made accessible to the public this value would rise to 36 per cent. Evidence suggests that recovery can happen quickly so that easy access to woodlands and green spaces is particularly important as part of people's everyday lives (Ulrich *et al.*, 1991). People's activities are incorporated into their own deeply held values. If activities that benefit people's health and well-being are valued then they are more likely to be maintained in the long-term.



Social well-being

Often it is the socialisation that goes with a specific activity that motivates people to get involved and to carry on, for example cycling or walking. The success of the 'Walking the Way to Health' initiative set up by the Countryside Agency and the British Heart Foundation highlights this. In evaluating the initiative, one of the key findings was that walking as part of a group was very important for many people, providing them with new social networks and giving them confidence to use spaces they would not feel comfortable using alone until they had become more familiar with them. As Fredrickson and Anderson outline (1999 cited in Pretty *et al.*, 2005) *'the affective appeal of a particular place setting has as much to do with the social interactions that occur there, as with the overall visual appeal of the landscape itself'*. An evaluation of the Walking the Way to Health scheme in the Thames Valley found that encouraging people to join a walking scheme was more effective in enabling people to exercise than simply providing information and advice for people on the importance of exercise. The Green Gym was set up by the British Trust for Conservation Volunteers to promote health and exercise through conservation work. In an evaluation of the scheme some of the key motivations for people joining were community involvement, family involvement and meeting people. Rhode and Kendle (1994) in their review of well-being in urban nature areas suggest that *'nature can apparently provide a setting for the establishment and maintenance of both close social ties and relations with the wider community'*. A study in urban America explored the impact of greenery on levels of aggression and violence in a public housing development in Chicago (Kuo and Sullivan, 2001; Brunson *et al.*, 2001; O'Brien and Tabbush, 2005). The study demonstrated a link between nature and reduced aggression and previous studies have found that vegetation near to residents' buildings can improve neighbourhood social ties (Brunson *et al.*, 2001).

Research in the Netherlands by De Vries *et al.* (2003), exploring the amount of green space and responses to the Dutch Health survey, found that being near to nature and having opportunities for outdoor recreation was an important part of quality of life. They discovered that in greener areas people reported having fewer symptoms and perceived their health to be better than those in areas with little greenery.



PART 2

Health and well-being: projects and campaigns



Part 2 begins by describing, in a series of case studies, major Forestry Commission health and well-being projects being undertaken in England. Projects in two Community Forests are also outlined. The Active Woods – naturally good for you campaign, launched by the Forestry Commission in early 2005, is then described along with some of the activities that have taken place as part of this drive to help people use and enjoy woodlands. These activities include T'ai Chi, cycling, den-building and walking forest trails, aimed at a wide range of ages and abilities. New funding from Sport England has enabled five Active England projects to be developed that have a woodland component. Each project is briefly outlined and examples given of some of the activities taking place. Part 2 concludes with a brief overview of a European project on Forestry and Human Health and Well-being which currently involves 19 countries and will run until 2008.



Forestry Commission England health and well-being projects



This section of the publication outlines a number of projects that FCE has facilitated in the past few years to demonstrate what it can do to encourage and enable a diverse range of people in both urban and rural areas to improve their overall health and well-being. These are just a few of the many current projects – see, for example, Figure 5. They also illustrate the diversity of partners that FC is working with to bring them about. All of these projects have been, or are in the process of being, evaluated. This is an important part of the overall approach to the projects so that an understanding is gained of what worked, what did not work, what lessons can be learnt and also to provide evidence as a basis for future initiatives.

Figure 5 Wearing Active Woods hats adds to the fun of a woodland walk and helps to protect from the sun.



CASE STUDY

West Midlands Woodland and Health Pilot

The Forestry Commission administers a Woodland Improvement Grant (WIG) which funds capital investments in woodlands to create and sustain an increase in the quantity and quality of public benefits derived from woodlands. In 2003/2004 in the West Midlands the FC targeted part of the WIG to deliver more public access and contribute to the health and well-being of the West Midlands population. The West Midlands was chosen for the pilot as it ranks third highest for men and highest for women in terms of obesity in the UK (*Health survey England, 1999* : Department of Health, 1999). The aims of the project were:

- To encourage existing and new groups of users to woodlands in developing healthier lifestyles (Figure 6).
- To encourage existing woodland owners within the target areas to link with new and established groups of users and benefit from their experience.

A seminar to raise awareness about the pilot was held in 2002, the criteria for gaining access to the grant were described and bids were invited. Woodland initiatives that had links to 'Walking the Way to Health' schemes, were particularly targeted. Four target areas in the West Midlands were chosen and seven projects were funded through the scheme (Table 1). The majority of projects contained a number of elements including infrastructure improvements, often to make access easier for a range of people with different abilities. Projects frequently included interpretation, walk leader training, walk programme development, advertising and a launch event. The Black Country Urban Forest (BCUF) calendar represented a different approach. Ten thousand calendars were produced showing woodland walks in the BCUF and these were distributed to general practitioners (GPs), surgeries, libraries, cardiac patients and mental health teams.

Evaluation of the pilot project

The evaluation took place towards the end of the pilot and involved desk research to identify four of the seven projects to explore in greater detail. Interface NRM were the consultants who carried out the work (Interface NRM, 2004). Data were also collected through 47 semi-structured telephone and face-to-face interviews which were undertaken with a range of representatives from organisations involved in the projects, including health professionals, forestry and environmental professionals, project leaders and local authority representatives. The consultant attended seven led walks and briefly interviewed 51 participants.

Figure 6 Encouraging existing woodland users in developing healthier lifestyles.



Table 1 West Midlands Woodland and Health Pilot funded projects.

Project	Lead Agency	Activities
Burntwood Walk and Talk	Forest of Mercia	Clearing paths, erecting signs, brashing, lifting trees; project launch event to publicise. Programme of themed walks on history and wildlife of area.
Black Country Urban Forest (BCUF)	Groundwork, Black Country	Ten thousand calendars/walks were produced. They contained information on walks in woodlands in the BCUF.
Westport Lakes	New Leaf Project	Broadwalks installed, disabled access paths, seats, benches, publicity materials, signs and interpretation. A series of walks.
Newton Coppice	Hereford Sustain	Coppicing, path development, community arts project, benches, publicity, signs and interpretation, walk leader training. Weekly walk plan developed.
Roughwood Chase	Walsall Countryside Services	Complementing the 'Walsall walk on' project. Surfacing of footpaths, waymarking.
South Telford Woodlands	Severn Gorge Countryside Trust	Path surfacing, signs and waymarking, walk leader training, information boards.
Bradwell Woods	Newcastle under Lyme Borough Council	Site hosts for 'Fit for living', aimed at the over 55s who are at risk from coronary heart disease. Signs and interpretation, awareness raising.

Key findings and lessons

- Only a small number of health professionals interviewed recognised the benefits of woodlands and green space access. This was associated with a lack of knowledge of the available resource, where people could access it, and what kinds of activities they could participate in once there.
- The project raised the profile of woodlands and the FC among organisations involved in debate and action on public health in the West Midlands.
- For the organised walks the majority of walkers were retired (walks were scheduled during work hours) and it was suggested that there was a need to increase opportunities among other sections of the population.
- The majority of walkers said that they were taking more exercise as a result of the led walks programme. One person described an increased willingness to walk rather than to take the bus.
- Walk leaders played a key role in enthusing people, acting as a social contact and providing people with a sense of security.
- There was a sense from both walkers and walk leaders that moving from led walks to independent walking is a major step, although friendships and alliances made through the led walk programme offer the opportunity for walkers to explore other sites.
- Reasons why people started walking are given in Box 4. The things people enjoyed about the walks were the social opportunity and the encouragement this afforded, feeling healthier and fitter, feeling good because they had done something active.
- Walk co-ordinators and walk leaders gave a range of comments concerning the barriers to walking, what they thought made a health walk successful and how the success of these approaches could be maintained (Table 2).

Box 4 Reasons why people started walking.

Health concerns
 Something to do
 Friendship, social environment
 Rehabilitation
 Encouragement
 Better than being in front of television
 Scared to walk alone
 Never considered walking before but encouraged to give it a try
 Inspirational walk leader
 To get fitter
 Health, e.g. Type II diabetes

Table 2 Comments from walk co-ordinators and walk leaders.

What are the main barriers to walking?	What makes healthy walks a success?	How can success of healthy walks be maintained?	Other comments
Fear of unknown spaces	Volunteers are the lifeblood of the schemes	Well co-ordinated GP referral schemes and health sector education	Walks are unlikely to become self-sustaining
Fear of people and anti-social behaviour	Good and clear information	Talking to specific groups in the community	Walking is slowly becoming more mainstream
Fear of getting lost	Incentive schemes	New and interesting walking routes	Well-run led walks lead to independent walking
Natural conservatism stops people exploring their local environment	People make friends and enjoy the social interaction	Continued walk leader training — there is a high rate of attrition among walk leaders	It is big step from led walking to independent walking
Lack of information	Increases in vitality and mental well-being	Incentive schemes for walkers and leaders	It would be good now and again to go to new places, perhaps on public transport
People feel strange when walking alone	Support from health professionals (not always in place)		Local Ramblers Groups are often recommended to people wishing to progress their walking
Sedentary lifestyles			

Due to the success of the pilot project, highlighted by the evaluation, the programme has been extended to run in 2005/2006 and seven further projects are now being supported. Innovative new projects with broad partnerships and monitoring proposals have been chosen for this phase of the project.

CASE STUDY

Chopwell Wood Health project

Chopwell Wood is a 360 ha mixed woodland owned by the Forestry Commission and situated near Gateshead in northeast England. The health project was designed to use the public forest estate to contribute to the government's health agenda. Health promotion specialists from Gateshead PCT and Derwentside PCT sit on the project steering group along with the FC, Friends of Chopwell Wood (a voluntary organisation) and Forest Research (Figure 7). The aim of the project is to improve health within local communities surrounding the wood and build the evidence base in relation to woodlands and health. Chopwell lies on the boundary between the two authorities of Gateshead and Derwentside, and through the partnership of organisations two distinct elements of the project were developed that were considered to be specifically relevant for each authority:

- A general practitioner (GP) based referral scheme (Gateshead).
- A programme of school visits in support of the Healthy School Standard (Derwentside).

GOAL (Gateshead Opportunities for Active Lifestyles) was launched in 2004 by Gateshead PCT and Gateshead Council; in this initiative GPs can refer physically inactive people of 16 years and older for exercise. GP referral schemes have been in operation in Britain for over a decade. The majority of referrals have been to leisure centres or gyms although in recent years referral to outdoor walking programmes has slightly increased. If people are referred and choose to come to Chopwell they can undertake a number of activities:

- Walking
- Cycling (Figure 8)
- T'ai Chi (Figure 9)
- Conservation work.

A key factor in the success of the Chopwell health project is that it promotes a variety of activities. As Martilla *et al.* (1998) noted '*to reach the objectives of health enhancement for any target group or person, physical activity can comprise several types of activities*'. Patients can be referred by their GP or can refer themselves if they are

interested in increasing their activity levels. This type of project widens the leisure activities available to people as drop out rates from GP referral schemes can be high and the provision of a variety of options in a range of surroundings, including outdoor options, may reduce this number and keep people interested. A systematic review of physical activity promotion schemes found that interventions that encouraged walking and did not require people to attend a facility such as a leisure centre or gym were more likely to lead to a sustainable increase in overall physical activity (Hillson *et al.*, 1995). The physical activity can be secondary to the environmental and social benefits and this may help to explain why schemes that focus on exercise alone have a higher drop out rate. Recreational walking according to Bird (2004) is one of the few activities that is increasing; it is cheap to put into practice and its benefits are supported by substantial evidence.

Figure 7 Project leader with some of the key people involved in the Chopwell Wood project.



Figure 8 Cycling is one of the options available at Chopwell under the GP referral scheme.



Four Derwentside schools have made four visits each to the wood. The visits are linked to the Healthy School Standard, mentioned on page 10, in which schools promote the physical and emotional well-being of pupils. Free transport was provided by the project. The visits included physical activities for the children such as orienteering run by FC rangers. Specific health-related sessions were run to emphasise the relationship between nutrition, healthy eating and healthy living, all delivered by Derwentside PCT. Visits also included an alternative therapy session delivered by the Derwentside Healthy Living Centre in which the woodland was used as a setting to instil wider messages about general well-being and alternative therapy.

A health development worker with a background in sports development and physical activity (located within Gateshead PCT) was employed to take the work forward. Having a specific project leader allows for more opportunities to be explored as the project progresses, new contacts to be made and greater awareness to be raised both locally, regionally and nationally. For example the project leader was able to secure, early on in the project, six donated Raleigh bikes that people can use for the cycling activities. A leaflet: *'It is the prescription without medicine'* has been produced for GP surgeries to promote the scheme. A regional leaflet for health professionals in the northeast has also been produced, again to promote the use of woodlands and green spaces and show the Chopwell project as an example of what can be achieved. The success of the project is highlighted by its continuation and by the extra resources it has attracted, including financial contributions from the two PCTs involved.

Monitoring and evaluation

The monitoring and evaluation of the project is being undertaken by the Primary Care Development Centre at Northumbria University. There are three parts to the evaluation.

1. GP referral scheme

This part of the evaluation includes telephone interviews with:

- (a) those who were referred but did not attend any exercise sessions;
 - (b) those who started the sessions but did not complete the full 13 week programme;
- and a focus group with
- (c) those who were referred and completed the full programme.

2. School visits

- (a) Pre- and post-visit questionnaires for pupils and staff who visited Chopwell Wood.
- (b) Parental questionnaire – sent to parents whose children had visited Chopwell Wood.
- (c) Three focus groups with school staff.

3. General public usage of Chopwell

A questionnaire is being administered by the Friends of Chopwell Wood (FoCW) to people visiting the wood to establish who is going there, how far they have travelled and what they see as the benefits of visiting the wood for their health and in general terms.

Provisional findings and lessons

A key factor in the success of the project is having health promotion specialists from Gateshead PCT and Derwentside PCT on the steering group. They were able to suggest where the project could help them to meet their specific health targets. For Derwentside it was a chance to make the Healthy Schools Standard more interesting to pupils and schools by including visits to Chopwell Wood into the project. For Gateshead PCT it was an ideal opportunity for the project to link with the wider GOAL scheme.

FoCW volunteers are playing a key role in the project: in collecting data for the evaluation, training as walk leaders and personal activity motivators, and publicising the work of the project in the local area. Their work illustrates the importance of community groups in helping rangers and project leaders to deliver an effective project.

As the project is still in progress, results, particularly from the GP referral part of the scheme, have not yet been gathered and analysed. Early results from the evaluation of the school visits suggest that young people benefited from having the opportunity to learn in the wood, improve their self-esteem and increase their awareness of the environment and conservation.

Pupils' perceptions of the wood as a healthy place changed significantly after the school visits. Twenty-five per cent of pupils did not regard the wood as a healthy place before the visits. By the end of the programme this was reduced to just over eight per cent. Table 3 illustrates comments from pupils, staff and parents on the impact of the visits.

The project is promoting the use of Chopwell Wood among children and their families. Approximately 35 per cent of pupils had visited the wood before being involved in the project. From the post-project questionnaire, 42 per cent indicated that they had visited since the beginning of the school visits. The majority of these visits involved family, indicating that woodland activity targeted at young people can have a ripple effect among other family members.

Table 3 Differing perspectives on visits to Chopwell Wood.		
From pupils	From staff	From parents
<p>It was hard and fun</p> <p>I learnt lots of interesting things about food</p> <p>It was fun exploring the wood and getting lost and trying to find our way back on track; it was really challenging</p> <p>You got all muddy and the animals were horrible</p> <p>We had to eat off a stick</p> <p>It was cold and muddy</p> <p>I didn't find any decent bugs or leaves, but apart from that it was good</p> <p>I like going on adventures and to me that was a pretty good adventure</p>	<p>[They]... had the freedom of the woods in an organised environment</p> <p>Activities they wouldn't be able to do at school</p> <p>They enjoy being in a different environment</p> <p>Definitely be back again</p>	<p>They were trusted to be on their own</p> <p>He enjoyed the responsibility, being trusted</p> <p>Learning in a different environment encourages motivation</p>

In the focus groups staff described how the free transport (provided by the Chopwell project) to the wood was very important. They suggested that the children benefited from the chance to 'run free'. The visits to the wood have been used as the basis for further school-based works such as displays and essay writing. Staff suggested that the programme of visits enhanced the curriculum, and opportunities for future visits linked to more subjects have already been identified. A final comment from staff was that they would '*definitely be back again*'.

A number of interesting results emerged from the questionnaire administered to those who visited Chopwell Wood. Responses to an open question on whether respondents thought that visiting Chopwell Wood had an impact on health and well-being focused on exercise, fresh air, the outdoors being good for mental and physical well-being (Figure 9), peace and quiet and weight management. Some of the perceived benefits of using the wood were described, and are listed in Box 5. These benefits are wide ranging and are often related to people's sense of overall well-being. The questionnaire is being administered over a 12-month period to identify whether the issue of seasonality affects people's responses and the number of visits.

Figure 9 A T'ai Chi session at Chopwell Wood.



Box 5 Perceived benefits of using Chopwell Wood.

- Tranquillity
- Lightens the mood
- Seeing wildlife
- Opportunity to socialise
- Keeps me out of mischief (male aged under 20)
- Seeing beautiful woodland
- Ecotourism
- Learning about the environment
- Being away from traffic

CASE STUDY

Cannock Chase Route to Health project

The Route to Health project is an outdoor community arts trail. The project is a partnership developed between the FC, Cannock Chase Council and Cannock Chase Primary Care Trust, and was initiated by key interested individuals from these organisations who often met up at a range of events concerned with health promotion. The FC and the British Heart Foundation had organised an event at Cannock Chase and the individuals from the Council and PCT requested involvement in the event, which was focused on promoting physical activity. The Arts Development Officer from the Council suggested that art was a particularly useful way of inspiring people and getting messages across to them. The representative from the PCT was well aware of the benefits of art as a health promotion tool and the project was developed from this partnership. The FC had the land and the practical expertise to turn the project into a reality.

The Route to Health started out as a pilot project and has now become a permanent scheme. The project aims to promote woodlands as a venue for health and well-being. There was a specific focus on encouraging hard to reach participants who may suffer from health inequalities, such as the sedentary, disabled, elderly, minority groups, the socially deprived and those with mental health problems. Art was used as a tool to engage people, and this approach has also provided additional opportunities for local artists and colleges to gain practical skills, develop their professional practice and community skills, and promote and showcase their work to a wide audience (Figure 10). A local group of artists called the Invest Group has contributed significantly to the project.

Figure 10 Artworks created as part of the Route to Health project.



Art was used as a tool to:

- Breakdown communication barriers
- Deliver health messages
- Promote the walk route
- Engage with a wide range of abilities
- Provide opportunities and support for targeted groups
- Raise the profile of local services to more general visitors.

The approach was to engage targeted groups in undertaking arts projects linked to a specific health topic with a health care professional; it is the process of making the art and the health messages which is seen as particularly important rather than the end product. The Route to Health project established a one mile walk through Cannock Chase with these temporary and permanent artworks displayed along the route to add interest for everyone who walks along the trail. A range of groups made the artworks and each is displayed with a relevant health statement that outlines a health fact or local service (Figures 11 and 12). The forest was thought of as a suitable environment for this arts trail: when people are relaxed in pleasant surroundings they absorb information more readily.

Figure 11 Art created by working with children to encourage them to think about activity and food.



Figure 12 Artwork on the Route to Health trail.



Those who have participated in creating art for the trail include:

- Pupil referral units – young children who are at risk from social exclusion
- Chase day service – including adults with both physical and mental health difficulties
- Spring meadow – a mental health rehabilitation unit
- Staffordshire young offenders
- Social Services – a young female group
- Sure Start – a children's centre.

A number of groups have also included pupils, at a range of schools, who have been identified as at risk by Cannock Chase PCT.

The project has been expanded into a wider project entitled Reality Check due to the funding secured through an Arts Council award; this wider project covers the Cannock Chase District. The success of the bid owes a lot to the effectiveness of the Route to Health project. There will be an evaluation of this wider project with the Route to Health being part of that evaluation. As part of Reality Check the Route to Health element of the project has gained funding for 'Walk to Win' in which seven benches are being designed and created by a variety of community groups on specific health issues relevant to them.

Evaluation

The evaluation of the project is currently taking place through the wider evaluation of the Reality Check project being undertaken by the Council. Questionnaires and data on the number of participants are being gathered as part of the overall evaluation.

Figure 13 'Beating Heart': an inspirational wood sculpture on the Route to Health trail.



Initial findings and lessons

Each partner brought specific strengths and knowledge to the project. The FC was particularly effective at the practical on-the-ground work, the Council supplied the art expertise and the PCT brought in existing health contacts and services that could be approached to become involved.

Initial reactions from those involved in the project are that they have learnt a lot about their own behaviour. People walking the route suggest that they have thought about their own and their family's health and have changed their behaviour. Those who exercise less than three times a week have learnt more about wider health issues. This suggests health messages are having an effect on those who are, or were, less active.

Benefits of the project are accruing to:

- Those who produce the artworks.
- Those who come along to walk and enjoy the trail.
- Project partners who may not have worked together before.
- Health professionals who get involved and see the impacts of the work.
- The artists who participate and help enable other groups to create artworks (Figure 13).

To date:

- Approximately 550 participants have been engaged in creating the health themed artworks for the trail.
- Twenty-one artists have been involved.
- Around 50 000 people walked the trail in a 12-month period from May 2004 to May 2005. Prior to the project the estimated numbers of people walking the trail annually was under 5000.
- Enthusiasm of the project partners has been important in widening the scheme into the Reality Check project.
- Many community groups would like to become involved but the project is having difficulty meeting the demand.

CASE STUDY

Forest of Dean Life Cycle project

The Life Cycle project was a partnership project developed between the FC and Life Cycle UK, a national charity which promotes and enables people of all ages to cycle. Additional support was provided by the Forest of Dean District Council and Pedalabikeaway, a local cycle hire centre. The aims of the project were:

- To raise awareness of cycling in the Forest of Dean (FoD) and to encourage local people to utilise and enjoy the trails created by the Forestry Commission.
- To work with socially and economically disadvantaged communities in the inner city area of Bristol and to organise guided rides in the Forest of Dean.

A particular focus was to engage Black and Minority Ethnic (BME) groups as these communities are under-represented in terms of visits to forests. Those who got involved were Black British, African, Caribbean and Guyanan. A link was established with a representative from the Bristol Race Equalities Council who was valuable in helping to promote the programme of rides and to establish trust among targeted communities. In total, five rides were organised taking people from St Paul's and Easton community in inner city Bristol into the Forest of Dean (Figure 14).

Figure 14 Participants in the Life Cycle project.



Participants were taken by mini-bus to Pedalabikeaway. The average cycle route was approximately 5 miles long and 2 hours were allowed to complete the ride (Figure 15). The routes followed FC roads that took the riders into the most attractive areas of the forest, avoiding steep gradients on difficult terrain. Each ride ended with a barbecue to allow riders to relax after their exercise and make the whole event a pleasurable experience. Thirteen adults and 27 children took part in the rides and feedback on the involvement was obtained at the end of the event.

The project also involved promoting cycling locally in the FoD. Two members of the FoD District Council staff were given cycle skills training in the workplace which made them think about cycling to work more in the future. Life Cycle UK also provided cycling activities as part of three events held at leisure or fitness centres in the FoD area. They provided cycling information, cycle skills training and help with bike maintenance, in a service called Dr Bike. Life Cycle UK were disappointed by the low interest in cycling, compared to other activities such as T'ai Chi, and thought this might be connected to a lack of a general cycling culture in the FoD and people's concerns about safety when cycling on roads.

An evaluation sheet was given to those who participated in the cycling and barbecue events. Twenty-six people out of 40 filled in the sheets. Sixteen had not visited the FoD before and 22 said that they would visit again. Many of the children rode their bikes already but not in as stimulating an environment as the forest. Box 5 outlines why people decided to take part in the rides. These responses seem to highlight that sometimes people need encouragement and an invitation to get involved in activity they do not do as part of their everyday lives. Similar to the other project case studies outlined in this publication, having a leader who could motivate and enthuse participants was an important element of the success of the rides. It was also clear that many enjoyed going out as a group and interacting with different people.

Box 5 Reasons for taking part in the cycle ride.

I always wanted to go for a long cycle ride
My brother told me about it
Recreation outdoors
I was invited
I heard about it through a friend
To feel healthy
I was interested to see what it was about and to see some of the country
I always wanted to do an activity like this
I thought it would be good fun

Figure 15 Participants taking a break during their cycle ride in the Forest of Dean.



Learning points

- Establishing a contact at the beginning of the project with the Bristol Race Equalities Council was particularly useful as this contact had connections with the local BME community and could act as a link between Life Cycle UK and the community.
- Trying to promote cycling as a means of transport is difficult in an area where there is little infrastructure on the roads to support cycling, such as traffic calming and speed limits that cyclists considered to be more reasonable.
- Promoting cycling in the FoD proved to be quite difficult, partly because the promotion work that took place was opportunist rather than being specifically planned. It is suggested that a sustained and co-ordinated approach to communicate the benefits of cycling would be needed to overcome factors that may deter people from cycling.
- The barbecues held after the rides added to the cycling occasion and made them more of an event and a day out for participants (Figure 16).
- Establishing a partnership with Pedalabikeaway (the local cycle hire company) was essential to the success of the project.

Figure 16 Enjoying a barbecue at the end of the cycle ride.



CAPACITY BUILDING

BHF National Centre for Physical Activity and Health and FCE Partnership project

This partnership project was initiated in response to a need to build capacity within FCE staff so that they could respond effectively to the health agenda that they were becoming more involved with. British Heart Foundation National Centre for Physical Activity (BHFNC) worked with Sport England to create and facilitate health posts within the organisation and therefore had specific experience that FCE felt could be used in identifying staff training needs. The objectives of the project were:

- To identify the FCE position in relation to health, and scope future opportunities to work with health.
- To highlight the training and development needs of FCE staff.
- To identify the role that the British Heart Foundation (BHF) can play in supporting the FCE and its partners to extend their role in working with health.
- To develop a training and support programme to raise knowledge and awareness of FCE and partner staff.

The project involved three phases: firstly to understand FCE and its links with health; secondly to conduct a training and learning needs analysis and finally to create a development plan and implementation programme. A literature search was undertaken of FCE reports, strategic plans, websites and key research reports. A workshop for project participants (which included FCE and partner staff) was organised to develop a consensus of why and what they wanted to achieve, how FCE should work with the health sector and what could be achieved through partnership. A questionnaire was used as a guide for interviews with staff to identify how FCE and its partners are engaging and working with the health sector and identify skills needed for staff to work with health professionals. Time was also spent shadowing the jobs of various members of staff in FCE at different levels.

The study revealed that most staff had some knowledge and awareness of health issues but felt that they lacked the confidence and expertise to form new partnerships and move into new areas of work. Many staff are already working with health organisations and would like to find new ways of working with the health sector and health agenda. There was some concern that there was not enough time to focus on new areas of work without reducing existing core work.

It was thought that activities with schools or organisations that work with older people are an effective way of introducing new users to woodlands using a positive and educational approach. Volunteers are a key component of many of the health projects already up and running and should be supported and sustained in the long term.

Key recommendations from the project

- All staff working in the Recreation, Education and Community areas to have a fundamental level of knowledge and understanding, appropriate to their post.
- FCE work to concentrate on woodlands that are close to people as these have the potential to offer the best health and well-being opportunities (Figure 17).
- Health messages to be easily linked to wider educational, environmental and heritage work. This will help to appeal to a wider range of individuals and community groups and make best use of staff and resources.
- Forums and networks to be created between a variety of agencies at a regional and local level. This will help maximise best use of resources, avoid duplication and allow dissemination of good practice.
- FCE to build on current work, for example Active Woods, and to promote and incorporate messages from health campaigns into future staff training.
- A need for staff development and training; this could be achieved by creating a health resource for staff that would include key health messages, up to date research evidence and case studies highlighting best practice. This resource should be linked to the British Heart Foundation National Centre information service and promoted widely within FCE.
- Making progress with the health work that the FCE is involved with requires specialised skills, and new posts could be created to provide support and expertise to staff on issues of both physical and mental health.
- FCE to take a more strategic approach to volunteering as the role of the volunteer is an essential part of the process of community engagement. This would include the provision to allocate resources for training and support and for individuals and groups who wish to volunteer in health-related activities.

Figure 17 Enjoying a walk in a nearby wooded area.





Community Forest health and well-being projects



There is a range of projects being carried out in the Community Forests in England; two in particular are part of the Regeneration through Environmental Action (REACT) initiative, and are specifically related to health and well-being. REACT is a programme of initiatives that have been developed by the Countryside Agency (CA). The aim is to integrate community forestry and the CA's delivery of the environmental aspects of Area Based Initiatives.

An example of this initiative is The REACT project in Liverpool, a partnership between Central Liverpool PCT, the Mersey Forest and other organisations. The Mersey Forest is one of the 12 Community Forests in England mentioned previously (page 11). The aim of the project is to minimise the risk of coronary heart disease and obesity within three high-risk communities in the central Liverpool area. The work is being monitored and evaluated by the CA. A range of activities, events and publicity have been organised to encourage people to become more physically active, for example a cycling event to encourage the take up of cycling and a programme of walks.

The mid-project evaluation suggests that it has been successful in engaging with black and minority ethnic groups primarily because of support from the PCT's bilingual health link workers. It was found more difficult to reach disabled groups because they were dispersed across the city and did not associate as a community. The project is still ongoing and is seen as an experimental pilot. Key learning outcomes from midway into the project highlight that: partnership working between the health and environment sectors is possible; there is a need for good communications particularly when organisations speak different languages; the project lacks specific health targets which could be incorporated into similar future work.

A further REACT example is the THERAPI project: Tackling Health through Environmental Regeneration and Public Involvement. THERAPI is a three-year project based at Thames Chase Community Forest and operates specifically in Havering and Barking and Dagenham London Boroughs. Its three major aims are:

- To change health professionals' views of the green environment so that they see it as a positive therapeutic resource.
- To support local activities that improve people's psychological and physical health and well-being in a green environment.
- To carry out research on the health and well-being benefits of involvement in the green environment.

Eleven projects have been created. Some of the work undertaken includes stress reduction through outdoor activities, community and open space improvements, health and art activities, therapeutic gardens, walking and exercising in a green environment, and running the Green Gym for long-term health conditions. Two projects have focused on creating therapeutic gardens for two GP health centres. An important outcome of this work is that the company that manages the building of new health centres in the area has asked the garden designer to provide key principles for therapeutic gardens so that future gardens can conform to these standards. The designer has been linked to architects for the next round of building work. This emphasises one of the long-term effects of the THERAPI project. In 2005 the British Heart Foundation granted £120 000 to THERAPI to provide Green Gym to cardiac rehabilitation patients in three local PCTs, highlighting the impact of the project on local health practices.



Active Woods events around the country



The Active Woods – naturally good for you campaign is now well established. Hundreds of Active Woods events have been taking place in woodlands throughout 2005 and this will continue in 2006.

Each Forest District in England produces a *What's on?* leaflet which outlines the events and activities taking place in forests throughout the districts (www.forestry.gov.uk/activewoods). Activities include cycle rides, den building for children, woodland walks, T'ai Chi and rambling with a ranger. There is a huge range of activities for all ages and abilities to choose from. Through the Active Woods campaign key activities have been identified as physically active or important for overall health and well-being and these are open to all members of the public. People are encouraged to get involved and bring family and friends. FC is providing step counters, water bottles and baseball caps at events to promote activity and the campaign. The following are a few examples of events and activities promoted through the Active Woods campaign.

Dog walking

FCE has signed a national agreement with the Kennel Club to make woodlands more canine friendly. Dog walking is extremely popular in woodlands in Britain and is an ideal way for pet owners to keep physically active in pleasant surroundings (Figure 18). The FC will work with these groups to resolve any conflicts and gain a better understanding of their needs. Part of the agreement will be to accommodate dog-related sports in the forest. There is a range of health and well-being benefits that can be gained from dog ownership. For example, stroking

Figure 18 Walking the dog can help pet owners to keep physically active.



a dog can help to reduce blood pressure and stress, and dogs can also help to safeguard against loneliness and depression.

Similar agreements have been made with horse-riding and mountain biking organisations to improve facilities and provide better access in woodlands around the country.

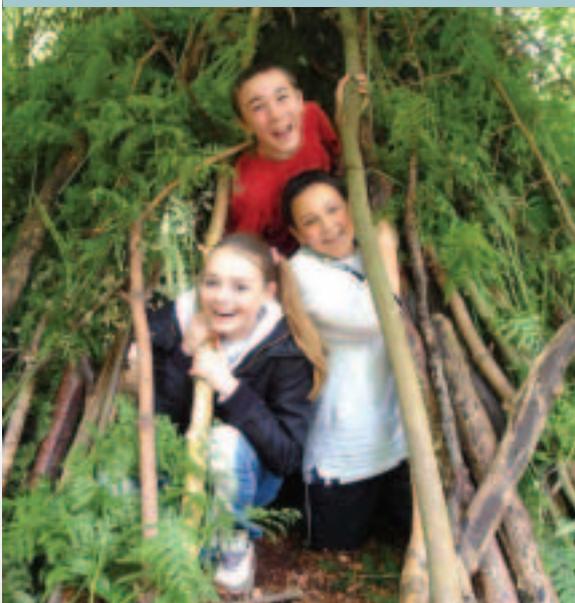
Figure 19 Mountain biking is an increasingly popular activity.



Mountain biking

A new mountain bike trail 'Follow the dog', a 7 mile route through Cannock Chase Forest, opened in March 2005 (Figure 19). Gary Fisher, one of the founding fathers of mountain biking, sponsored the trail. It was constructed by local enthusiasts 'Chase Trails' in partnership with Swinnerton cycles and the Forestry Commission. One of the creators of the trail named it after his dog Zak; when they were unsure which route the trail should take they decided to 'follow the dog'!

Figure 20 Young people enthusiastically building a den.



Den building

A den building event was held at Hamsterley Forest near Bishop Auckland during the Easter break. Children aged 8–16 were shown how to create shelters from branches and brush; they then helped to make a huge tepee. This was a novel way of getting young people to do something active and learn new skills (Figure 20).

Figure 21 T'ai Chi is a popular activity for all ages.



T'ai Chi

This Chinese system of physical exercises for meditation helps many people to reduce their stress levels and relax. A number of woodlands around the country now have T'ai Chi sessions, allowing people to absorb the beauty of the natural environment while undertaking the activity (Figure 21). T'ai Chi is one of the options people can be referred to in the Chopwell Wood Health project.

Babes in the wood

This project at Alice Holt Woodland on the Surrey/Hampshire border is aimed at toddlers between ages one and two. Mixing play, crafts and walks, toddlers are getting active and the aim is to set in train a habit of activity that will last their lifetime. The idea is that you can never be too young to make steps towards a healthier life!

Westonbirt TreeTonic summer trail

The TreeTonic summer trail was set up to help visitors appreciate the relaxing and inspirational surroundings of Westonbirt National Arboretum (Figure 22). It also helps to inform them how important trees are medicinally. As people walk the trail they can learn more about the healing power of trees and use a calorie map to find out how many calories they have burnt on their walk. The trail is promoted for all age groups and people are encouraged to relax and recharge in the beautiful environment of the Arboretum.

Figure 22 Relax and recharge at Westonbirt: the TreeTonic summer trail leaflet.





Active England projects



Forestry Commission England and a number of partners have secured funding from Sport England which is providing Big Lottery resources for its Active England programme. Five projects are being developed in different parts of England that focus specifically on woodlands and green spaces. All the projects have two main aims:

- To increase physical activity levels with key under-represented groups.
- To increase participation in physical and sport activity.

Under-represented groups include women, young people, the over 45s, ethnic minorities and people with disabilities. The projects will be evaluated to establish the most effective ways of reaching under-represented and sedentary groups of people and encouraging them to become more active.

Haldon Forest Park

This project is situated in the Southwest primarily at Haldon Forest in Devon near Exeter, managed by the Forestry Commission. A central 'hub' will be created at Haldon which will provide a focal point for visitors, information, warden presence, play space and a base for the Centre for Contemporary Art and the Natural World. New walking and cycling trails will be created as well as health walks with 'calorie mapping' information. As part of the project, outreach activity will be undertaken to develop links with local outreach providers in order to promote facilities and develop a programme of events and activities, particularly to under-represented groups. At Wistlandpound, also in Devon, there will be design and development of innovative outdoor exercise furniture for those who are less mobile and provision of specially adapted transport to help users get to the site.

Bedgebury

Bedgebury Forest is managed by the Forestry Commission. This 850 ha forest borders Bedgebury National Pinetum which houses a scientifically important collection of conifers (Figures 23 and 24). The forest is due to become one of the largest multi-activity outdoor sport and healthy living sites in southeast England. A multi-functional building will be constructed close to a new lake that has been created with an all-ability trail network in the pinetum. Cycle, mountain biking and walking routes will be created to promote healthy living. Trails will also be calorie mapped to provide people with information on how many calories they might burn on a particular trail. An outreach officer will make contacts with communities and address barriers to using the forest while a community liaison officer will work specifically with those who have disabilities to encourage and enable them to use the site.

Figure 23 Conifers at Bedgebury: home to one of the Active England projects.



Figure 24 Walking an existing trail at Bedgebury.



Rosliston in the National Forest

South Derbyshire District Council has received funding to develop Rosliston Forestry Centre in the National Forest. This will become a physical activity centre with equipment and specific trails being developed. The Centre is owned and managed by the Forestry Commission, The National Forest Company and South Derbyshire District Council. As with many of the Active England projects outreach work will be undertaken by a specific officer to try to reach those who are currently sedentary and to encourage them to become active.

Greenwood Community Forest

Greenwood is Nottinghamshire's Community Forest and covers an area of 416 km² (161 square miles). The Greenwood Community Forest Partnership have received funding to appoint a multi-activity community

development officer in order to create physical activity opportunities in Nottinghamshire. The project's overall aim is to increase physical activity participation in disadvantaged communities. The focus will be on promoting opportunities in seven publicly owned country parks and green spaces in the Community Forest. The key elements of the project will involve community outreach and consultation, increasing participation through a range of events, volunteer and staff training, and promotion and marketing of the scheme and events.

Great Western Community Forest

This community forest covers 434 km² (168 square miles) in and around Swindon. Funding has been received by the Swindon Physical Activity Development Alliance which consists of representatives from a range of organisations including the local PCT and the Community Forest. An Active Swindon team will work on 14 programmes which will include using the Community Forest for activity, targeting activity at older people, improving access to walking and cycling paths and increasing opportunities for disabled people to get involved in physical activity. A member of the Active Swindon team will be based at the Community Forest and will promote informal physical activity using open spaces and woodlands by implementing the 'Woodland for Activity' programme.



Other work: European activity



An EU COST (Co-ordination of Scientific and Technical Research) Action on Forestry and Human Health and Well-being is running from 2004 to 2008. This COST Action enables academics and organisations to network and gather together evidence at a European scale on the impacts of forests on people's health (Figure 25). It will outline the range of projects and initiatives that are being undertaken in different countries to encourage people to use forests and green spaces. There are five working groups:

1. Physical and mental health and well-being.
2. Forest products, forest environments and health.
3. Therapeutic aspects including rehabilitation and outdoor education.
4. Evaluation in terms of best practice and economic contribution.
5. Physical activity, well-being and prevention of illness.

The United Kingdom is one of 19 signatories to the Action.

Figure 25 COST Action members viewing a therapeutic garden.





PART 3

Conclusions and key learning themes



The importance of using and enjoying woodlands and green spaces as part of an everyday healthy lifestyle has been clearly demonstrated in this publication. This woodland resource offers many opportunities for improving well-being for all ages and abilities but as indicated within the case studies there are still issues of accessibility and barriers to access for some sections of society. The case studies describe some of the projects that the Forestry Commission has undertaken and the range of innovative partnerships it is involved with to encourage and give people the confidence to become active or more active than they already are and improve their general well-being. The FC supports a wide range of projects; it is a practical organisation that can achieve things on a broad scale due to the public estate it manages and the grant scheme it administers. Evaluation of the case study projects highlights the successes and provides important key learning themes for future work and direction.

Partnerships

- Importance of developing partnerships within which the partner organisations can then develop projects that meet their different aims and targets.
- Effective communication between partners, particularly those from different sectors.

People

- Recognising the significance of key people, e.g. project leaders, walk leaders who encourage and give confidence to people to undertake physical activities.
- Importance of volunteers to the success of projects in working with partners and project leaders to carry out and promote activities.
- Recognising inequalities and ensuring that projects encourage and enable excluded groups to participate in improving their health and well-being.
- Recognising the importance of social interaction, social capital and the development of social networks as motivation for people to get involved and stay involved in outdoor activities.

Promotion

- Promotion of projects to a wide range of audiences including publics, NGOs, community groups, health professionals and environmental professionals.
- Promotion of activities that are fun, enjoyable and interesting with health as an important outcome rather than a specific motivation for participants.

Motivation and fun

- Importance of woodlands and green spaces as pleasant restorative environments that motivate people to continue using them in the long term.
- Enabling and encouraging people to adopt healthier lifestyles through fun and rewarding activities and giving people information about what they can do to improve their well-being.

Research

- Incorporate evaluation and monitoring into projects from the beginning.
- Utilise both qualitative and quantitative research methods to identify the effectiveness and short, medium and long-term benefits of project interventions.
- Undertake longitudinal studies to determine whether people who increase their activity levels maintain this in the long-term.

The FC is committed to encouraging and enabling people to use woodlands and green space to improve and maintain their health and well-being. This is illustrated through its many practical projects, Active Woods campaign and the health concordat it has signed up to. Evaluation of the projects described in this publication emphasises key advantages of woodlands and green space in providing attractive environments for exercise and in being the sort of environment that people enjoy and want to return to on a regular basis.

There is an increasing body of research concerning people's relationships with trees and woodlands and the natural environment that highlight their importance in promoting well-being and quality of life (Kaplan, 1995; Henwood and Pidgeon, 2001; O'Brien, 2004; O'Brien, 2005). This does not necessarily mean remote countryside, but can include small green spaces and street trees near to where people live in urban environments. Much of this research highlights that a wide range of people talk about external pleasures such as the sights and sounds in a wood, the shapes, size and colour of trees and leaves, as well as internal pleasures such as peace, tranquillity and quietness. Sensory and emotional experiences are important components of using woodlands and green spaces (Ward Thompson *et al.*, 2005). They are places where people can recuperate from the problems of everyday life: as evoked in these comments from local residents of a social housing estate in Lambeth, London who have a small woodland (Peabody Hill Wood) near to their homes.

'They are lovely to look at and make the area feel friendly and peaceful.'

'It's great to explore the wood as there is always something new to see.'

Key contacts

The web addresses listed below give details of the Forestry Commission and other organisations who support Active Woods.

Forestry Commission website and FC Active Woods website

<http://www.forestry.gov.uk/>

<http://www.forestry.gov.uk/activewoods>

Main address:

Forestry Commission England

Head Office

Great Eastern House

Tenison Road

Cambridge CB1 2DU

Addresses for Forestry Commission Conservancies and Forest Districts can also be found on the Forestry Commission website:

<http://www.forestry.gov.uk/forestry/HCOU-5YHJM7>

Helen Townsend is the Recreation, Access and Tourism Advisor for FC England: this programme area helped to fund and support many of the projects outlined in *Trees and woodlands: nature's health service*.

Helen.townsend@forestry.gsi.gov.uk

Contacts for the case study projects

Jason Maclean, West Midlands: *Cannock Chase Route to Health project* jason.maclean@forestry.gsi.gov.uk

Graham Gill, Forest District Manager Kielder: *Chopwell Wood Health project*

graham.gill@forestry.gsi.gov.uk

Simon West, Implementation Manager West Midlands: *West Midlands Woodland and Health project*

simon.west@forestry.gsi.gov.uk

Jeremy Gissop, Forest of Dean: *Forest of Dean Life Cycle project*

jeremy.gissop@forestry.gsi.gov.uk

Active Woods supporters

British Heart Foundation

<http://www.bhf.org.uk/>

British Heart Foundation National Centre for Physical Activity and Health

<http://www.bhfactive.org.uk/>

The Woodland Trust

<http://www.woodland-trust.org.uk/>

Tree Council

<http://www.treecouncil.org.uk/>

The National Community Forests Partnership (information on the 12 forests)

<http://www.communityforest.org.uk/>

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Further reading and information

The Social Research Group is part of the Environmental and Human Sciences Division of Forest Research. Other titles of interest produced by the Group include:

- **Trees are company: social science research into woodlands and the natural environment** (2002)
edited by Liz O'Brien and Jenny Claridge
- **Health and well-being: trees woodlands and natural spaces** (2003)
by Paul Tabbush and Liz O'Brien
- **A sort of magical place. People's experiences of woodlands in northwest and southeast England** (2004)
by Liz O'Brien
- **Involving people in forestry. A toolbox for public involvement in forest and woodland planning** (2004)
by Max Hislop, Mark Twery and Heini Vihemäki
- **Accessibility of woodlands and natural spaces. Addressing crime and safety issues** (2005)
by Liz O'Brien and Paul Tabbush
- **'Proving It!' Evidence gathering for forest managers** (2005)
by Suzanne Martin and Liz O'Brien
Forestry Commission Information Note 64
- **Public participation and partnership: a review of Forestry Commission practice and governance in a changing political and economic context** (2005)
by Sue Weldon in collaboration with Paul Tabbush
- **Leisure landscapes: understanding the role of forests and woodlands in the tourism sector. In: Forest Research Annual Report and Accounts 2003–04** (2005)
by Suzanne Martin
- **Consultation and community involvement in forest planning. Research in Cranborne Chase and North Dorset** (2005)
by Paul Tabbush
- **Woodland owners' attitudes to public access provision in south-east England** (2005)
by Andrew Church, Neil Ravenscroft and Gill Rogers of Brighton University; co-ordinated by Paul Tabbush
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For further information on the above titles: email research.info@forestry.gsi.gov.uk
website www.forestresearch.gov.uk/socialresearch



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