

Nature, Health and Well-being

Evidence to Hampshire County Council's Commission of Inquiry on Personalisation

Prepared by David Pape and Jacklyn Johnston on behalf of Hampshire County Council's Corporate Biodiversity Group*

1 INTRODUCTION

There is substantial and growing evidence that nature can make a major contribution to improving health and well-being.

Nature is an untapped resource that could significantly contribute to health and in turn provide considerable financial savings to the economy.

There is compelling evidence that contact with nature can:

- maintain good health
- help recovery from illness
- alleviate stress and mental health problems
- improve physical health
- improve quality of life for older people
- enhance social interaction and improve community cohesion
- reduce aggression, violence and crime
- improve children's well-being into adulthood.

Evidence supporting these facts has been brought together by Dr William Bird – GP Berkshire West Primary Care Trust and Strategic Health Advisor to Natural England. This work reviews a large amount of research and evidence worldwide and points to profound implications for the management of public health.

'The NHS can help tackle health inequalities and promote physical and mental well-being by encouraging greater understanding of the value of spending time in the natural environment' Sir Liam Donaldson, Chief Medical Officer

'The NHS needs to make the most of our wonderful, free natural health service' Dr Michael Dixon, Chairman, NHS Alliance

'The outdoors has great potential to help society tackle the problem of mental ill health. It is very important that everyone be able to easily access and enjoy quality natural spaces' Paul Farmer, Chief Executive of Mind

*The Corporate Biodiversity Group oversees the County Council's *Corporate Biodiversity Action Plan*. One of the four key outcomes for the Plan 2008/11 is 'Nature contributing to health and well-being'

2 THE EVIDENCE

This evidence:

- provides facts about the health benefits of contact with nature (Section 3)
- explains the opportunities to develop the use of nature in health and care services (Section 4)
- makes recommendations towards securing a 'natural health service' for adults in Hampshire (Section 5).

The evidence promotes the development of provision and choice.

The Commission's consideration of this topic is timely in view of:

- Natural England's current *Campaign on Health* <http://www.naturalengland.org.uk/campaigns/health/default.htm>
- The Sustainable Development Commission's *Healthy Futures* programme, funded by the Department of Health, helping the NHS to maximise its contribution to the health of individuals and communities through use of nature <http://www.sd-commission.org.uk/pages/health.html>
- The key outcome for the County Council's *Corporate Biodiversity Action Plan 2008/11* – Nature contributing to health and well-being <http://www3.hants.gov.uk/biodiversity/corporateactionplan/corporateactionplan-2.htm>

3 THE HEALTH BENEFITS OF NATURE

3.1 Mental Health

Contact with nature can help prevent, alleviate and assist recovery from mental health problems.

The cost of mental health problems to the economy is estimated at more than £77 billion each year. Of this £12 billion is spent on health and social care services.

Mental health disorders affect 1 in 6 adults.

Depression is predicted to become the second most prevalent cause of disability worldwide by 2020.

Mental health problems often lead to physical illness through associated damaging behaviours such as smoking, over-eating and alcohol consumption.

- Studies show that people’s stress levels fall within minutes of contact with nature.
- Blood pressure and muscle tension reduces when viewing scenes of nature.
- Taking short walks in natural open space, gardening and looking at images of nature, reduce stress and anxiety and increase positive feelings.
- There is evidence of increased recovery times from mental ill health from exposure to nature.
- Studies show that people living in green environments are better able to cope with stress and major life events than those with barren surroundings.
- Studies have also shown benefits of exposure to nature in organisational settings, including:
 - reduced stress levels in patients in hospital wards with pictures of nature on the wall
 - less health care required for prisoners with views of nature
 - patients with Alzheimer’s being less troubled when having regular access to a garden.
- Physical activity taken in natural environments, from walking and jogging to participating in management of the local environment, have proven benefits to mental health, depression and self esteem.

3.2 Physical Health

Exercise is important for maintaining or improving physical health. The natural environment is an ideal place to take exercise and there is a large opportunity to capitalise on this to encourage physical activity.

Physical inactivity is a major preventable health risk that affects 60% of the UK population. Correcting this is a public health priority. The cost of physical inactivity to the economy is estimated at £8.2 billion.

Obesity levels in children aged six have doubled in the last ten years and has tripled in ten year olds. 22% of adults are obese and about 40% are overweight. By 2050 over half of all adults will be obese. Being overweight or obese accounts for as much as 30% of heart disease and 80% of diabetes.

- Studies show that there are higher levels of physical activity in communities that have access to natural space.
- The benefits of exercise to both physical and mental health has led to the popularity of “green exercise” both voluntary and prescribed.

- Drop-out rates for ‘health walks’ programmes are much lower than for people attending gyms. For those walking outdoors, exercise becomes a secondary motivation, surpassed by the attraction and enjoyment of contact with nature.
- Studies have shown that hospital patients with views of nature need fewer painkillers following operations, have less post-operative problems and quicker recovery times.

3.3 Older people

Research shows that older people value nature very highly and those with easy access to nature are much happier with their quality of life.

- As older people lose mobility it is important that they have access to views of nature where they live. For those largely restricted to the home, gardens are particularly important for experiencing nature.
- Contact with nature for the older person has been shown to enhance physical and mental well-being and reduce stress.
- Contact with nature in shared areas can increase social interaction, and involvement in activities such as gardening are shown to have the positive effects of enhanced self-worth and purpose.
- The most popular recorded exercise for older people is walking. This provides opportunities for them to improve and maintain their physical and mental well-being as well as social interaction if carried out in company.

3.4 Communities

Good quality natural greenspaces in the community can provide significant social benefits.

- Communities with shared natural areas demonstrate more social interaction, care and vibrancy.
- Studies have shown that the presence of natural vegetation in housing estates is associated with a 50% reduction in crime and domestic violence. Other studies show cared-for, well-managed green environments can serve as a deterrent to crime, and this is particularly important for the vulnerable and elderly.
- Contact with nature can reduce aggressive behaviour. This has been demonstrated in studies of domestic violence and aggressive behaviour in patients with Alzheimer’s disease.

3.5 Childhood to adulthood

Exposure to the natural environment in childhood is important for social development and influences future physical, mental and social well-being as an adult:

- Contact with nature improves children's concentration and self-discipline.
- Play in natural environments increases self-confidence.
- Behavioural symptoms of attention deficit disorder are reduced when children play in natural environments.
- Children actively seek nature to recover from stress.

4 USING NATURE FOR ADULT CARE SERVICES

The evidence shows that the benefits of nature for health and well-being are considerable. The benefits demonstrate the need to consider access to nature in:

- Provision for older people and **support for independent living at home** (4.1);
- Provision for those in **health care environments** including residential care homes, day centres and hospitals (4.2);
- **Prescription to activity and health schemes using natural environments** by GPs and other health practitioners (4.3);
- **Information to the public** on the health benefits of nature, how to access the natural environment and relevant activities (4.4);
- Improving the natural quality of **community environments** (4.5).

Some examples of current activity are given below. Figure 1 (pg 8) provides a summary of the range of potential provision across service areas.

4.1 Independent living and support at home

Gardens provide the most immediate contact with nature for people who are largely confined to their home.

In a survey carried out by Thrive, the society for horticultural therapy, 77% of people living in supported accommodation said that the main reason they moved from their own home was because they could no longer look after their garden. Hampshire County Council, as part of its Hampshire Gardening Initiative, has supported a project run by the Beneficial Foundation to provide older people with a gardening service as well as developing initiatives with partners to enable older people to maintain and therefore enjoy their own gardens for as long as possible.

Such schemes could be supplemented by provisions to attract wildlife into gardens such as plants for butterflies and nest boxes and feeders for birds.

4.2 Health care environments

Orchard Close, a Learning Disability Unit on Hayling Island, provides a good example of improving the grounds of a care unit for health and well-being. Sensory and wildlife attractive gardens have been established and provide a well-appreciated natural environment for all who use the facility.

Other County Council care units have been assessed for potential to improve the natural aspect of their grounds. Pictures of nature and bird feeders have been supplied to a number of units. These measures have potential for wide application to care establishments across Hampshire. Similar measures could be taken on the NHS estate, including hospitals.

Live web-cams showing scenes of nature and wildlife activity are increasingly used in public venues. This tool could bring major benefit for those in care homes and hospital wards.

All three recent awards for innovation in the County Council's Adult Services were for projects involving nature – 'A Walk in the Park', a community allotment project and a horticultural nursery.

4.3 Prescription to activity in the natural environment and schemes using nature for health improvement

The Gateshead and Derwentside Primary Care Trust provides a good example of a GP referral scheme using the natural environment. In partnership with the Forestry Commission and Friends of Chopwell Wood, the Chopwell Wood Health Project provides a 13 week programme of activities including conservation work, cycling and walking. 91% of participants complete the programme in contrast to the typically low completion rates for referrals to gyms or leisure centres.

The Green Gyms programme run by the British Trust for Conservation Volunteers (BTCV) helps people take exercise outdoors whilst participating in activity that improves the environment. 90% of participants with poor mental and physical health show an improvement within seven months.

A range of environmental organisations provide volunteering opportunities for those with ill health. Two illuminating case studies from the Royal Society for the Protection of Birds (RSPB) are given in http://www.rspb.org.uk/Images/naturalhealth_tcm9-161955.pdf

Natural England is currently working with the Department of Health and the NHS to develop a programme to promote physical activity in sedentary patients. This is being piloted by GP surgeries in London and involves signposting to local greenspaces and schemes such as walking groups that patients can join.

4.4 Public information and choice

A wide variety of initiatives help the public access the natural environment for health and well-being. The County Council is promoting 'Healthy Walks' in the New Forest in partnership with other organisations. Leaflets describing the walks are provided in health centres and other venues. Emphasis is on enjoying the natural environment and the wildlife to be seen.

Natural England has published a 'Green Prescription' for use in health surgeries and other public venues. This provides a range of tips on 'how to get healthy outdoors'.

There are a wide range of walking groups, friends of open spaces groups and charities that provide social opportunities for contact with nature.

4.5 Communities

Health and well-being should be a major consideration in the planning and design of new development and improvements to existing developments. Natural greenspace and provision for wildlife are required to assist the mental and physical health of the community.

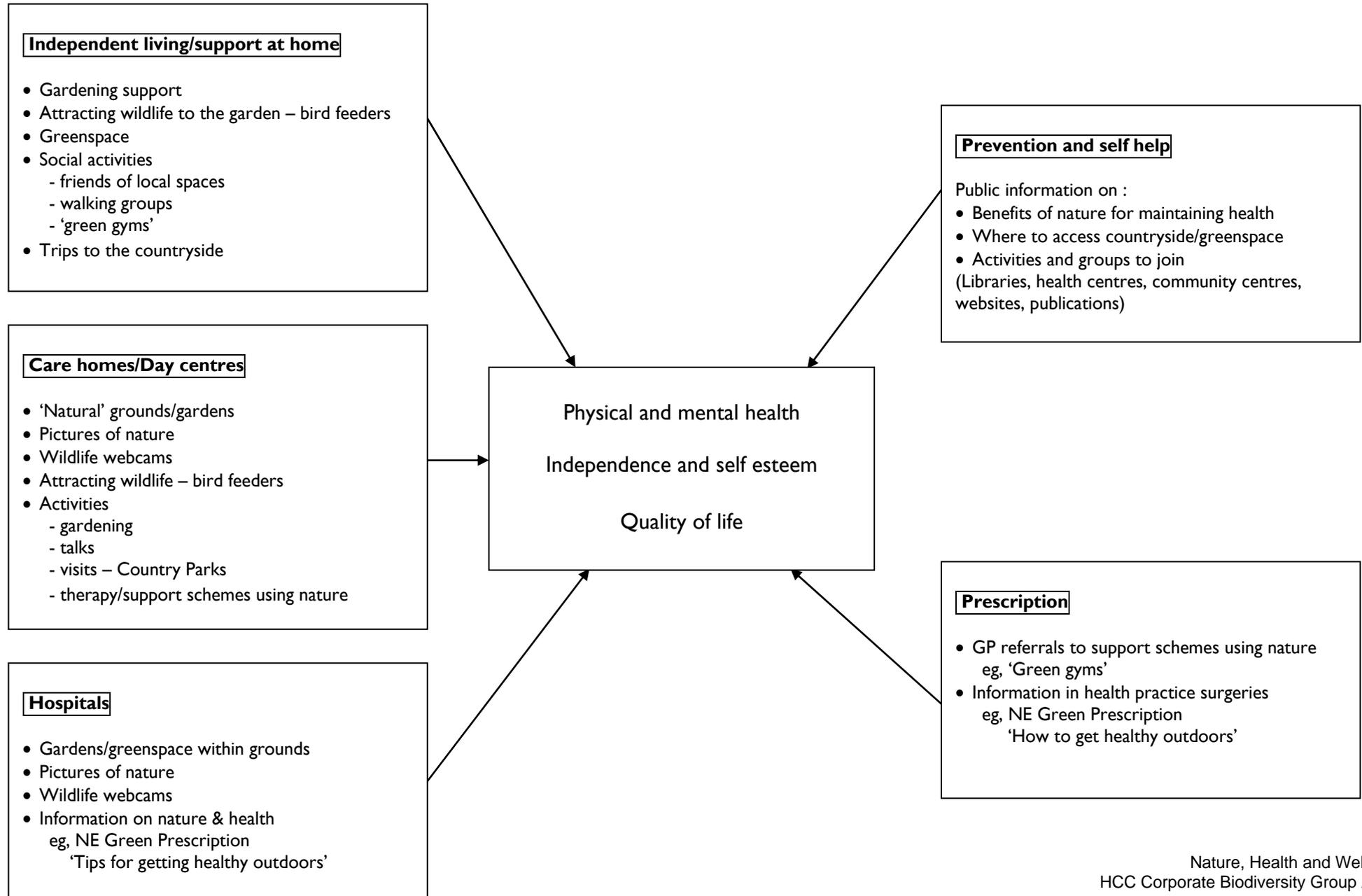
The South East England Development Agency (SEEDA) has produced a 'Sustainability Checklist' to help guide new development. This advocates integration of nature into development and the provision of quality open space to meet community needs.

Natural England is promoting minimum standards for natural greenspace within development suggesting that no home should be more than 300 metres from an accessible greenspace of at least 2 hectares.

'Creating Quality Places' is a joint initiative between SEEDA and the Prince's Trust that uses pilot projects to demonstrate the development of sustainable communities. One of these projects focuses on the regeneration of Leigh Park, a deprived ward in Hampshire. Through involvement of the local community this project is developing proposals for better availability, quality and use of greenspace. Warren Park School in Leigh Park is an outstanding and innovative example of using nature within the school grounds for education and improving quality of life of the pupils and the wider school community.

Figure 1

Nature for health and well-being – developing provision and choice



5 RECOMMENDATIONS

It is recommended that the Commission of Inquiry consider the following:

1. Raise awareness among health professionals of the value of using nature for health and well-being.
2. Work in partnership to develop pilots and provisions using nature within the range of health support eg. care homes and hospital environments, GP prescription, independent living.
3. Raise public awareness of the health benefits of nature to help inform choice and self-help.
4. Promote and support access to nature in the 'self-assessment' process.
5. Audit the extent of current schemes using nature to support health to identify:
 - options for referral and signposting
 - adequacy of provision.
6. Make the natural environment easily accessible to all.
7. Promote local outdoor resources including where to visit, activities and social groups.
8. Encourage schools to help children learn about the health value of the natural environment.
9. Promote inter-generational work programmes between the old and the young based on nature.
10. Encourage recognition within the Local Strategic Partnership of the value of nature to help deliver Local Area Agreement priorities for health, older people and independent living, anti-social behaviour and violence, and community engagement.
11. Work in partnership with organisations across Hampshire to access schemes and support involving nature that will provide more choice for people.
12. Develop recognition within the strategic planning sector of the value of nature-rich environments for community health and well-being.
13. Partner with Natural England and the health sector to champion access to nature as a national health priority.

Further information:

Natural Thinking – Investigating the links between Natural Environment, Biodiversity and Mental Health, Dr William Bird, 2007

http://www.rspb.org.uk/Images/naturalthinking_tcm9-161856.pdf

Natural Fit – Can Greenspace and Biodiversity increase levels of Physical Activity, Dr William Bird, 2004

http://www.rspb.org.uk/Images/natural_fit_full_version_tcm9-133055.pdf

Royal Society for the Protection of Birds policy work on biodiversity and health: <http://www.rspb.org.uk/ourwork/policy/health/index.asp>

Natural England's Health Campaign:

<http://www.naturalengland.org.uk/campaigns/health/default.htm>

Thrive, national charity for horticultural therapy, research on gardening and health: <http://www.thrive.org.uk/research.asp>

Sustainable Development Commission's Healthy Futures programme:

<http://www.sd-commission.org.uk/pages/health.html>

Corporate Biodiversity Action Plan 2008–11, Hampshire County Council 2008

<http://www3.hants.gov.uk/biodiversity/corporateactionplan/corporateactionplan-2.htm>