

Natural Environments & Health Research Evidence

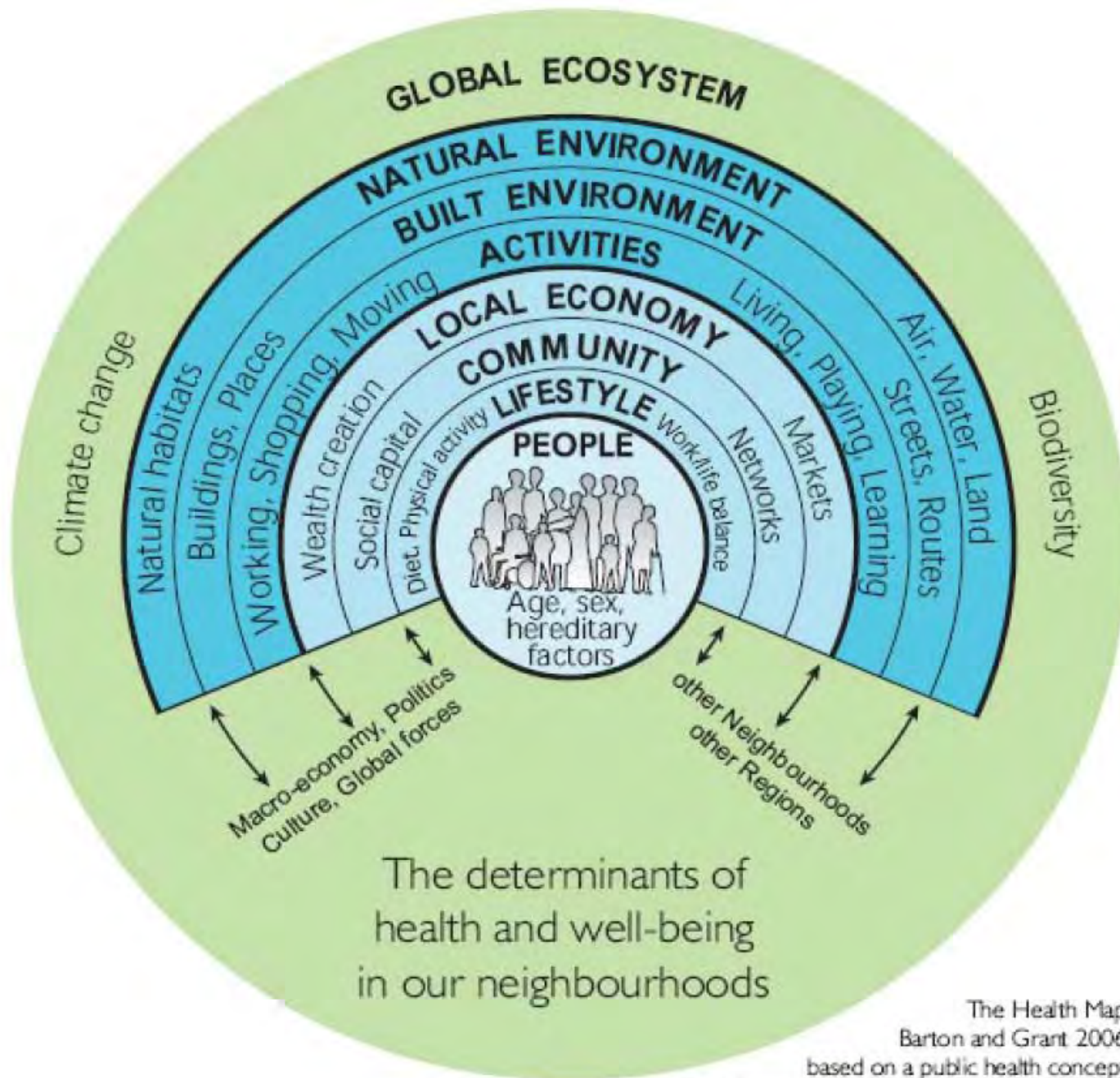


Stackpole Cliffs - Pembrokeshire

PARC CENEDLAETHOL
Arfordir Penfro
Ue i enaid gael llonydd



Pembrokeshire Coast
NATIONAL PARK
One of Britain's breathing spaces



The Health Map
 Barton and Grant 2006
 based on a public health concept
 by Whitehead and Dahlgren, The Lancet 1991

Scope of Presentation

Two Key Areas

- **Health Protection**

Viable Ecosystem - habitats, species, functioning natural processes, e.g. Water cycle, food chain, evapo-transpiration, plant succession, air quality, water quality, etc.

- **Health Promotion / Improvement**



Health Protection & Climate Change



- Potential Heatwaves (1 in 40 chance – SE England)
- Air pollution – increase in ozone (1,500 extra deaths per annum)
- Increase in UV light (rise in skin cancers)
- Increase in Autumn & Winter rainfall (increased risk of flooding)

Health Message:

“Keep Cool, Keep Clean, Keep Covered”

Health Effects of Climate Change in the UK 2008

An update of the Department of Health report 2001/2002

Edited by Sari Kovats



Working in partnership with the Department of Health



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Clarify Meaning – Health Improvement

“Our societies are complex and interrelated. Health cannot be separated from other goals. The inextricable links between people and their environment constitutes the basis for a socio-ecological approach to health. The overall guiding principle for the world, nations, regions and communities alike, is the need to encourage reciprocal maintenance - to take care of each other, our communities and our natural environment. The conservation of natural resources throughout the world should be emphasised as a global responsibility” - Ottawa Charter



Research Evidence – Key Theories

3 Key Theories:

Kaplan and Kaplan's Attentional Restoration Theory (ART) – *the natural environment has restorative qualities (people are 'drawn' to these particular qualities).*

Ulrich's Psychoevolutionary Theory – *the natural environment can provide solace & refuge from the stress of daily life (subconscious reflex – part of our genetic 'make up').*

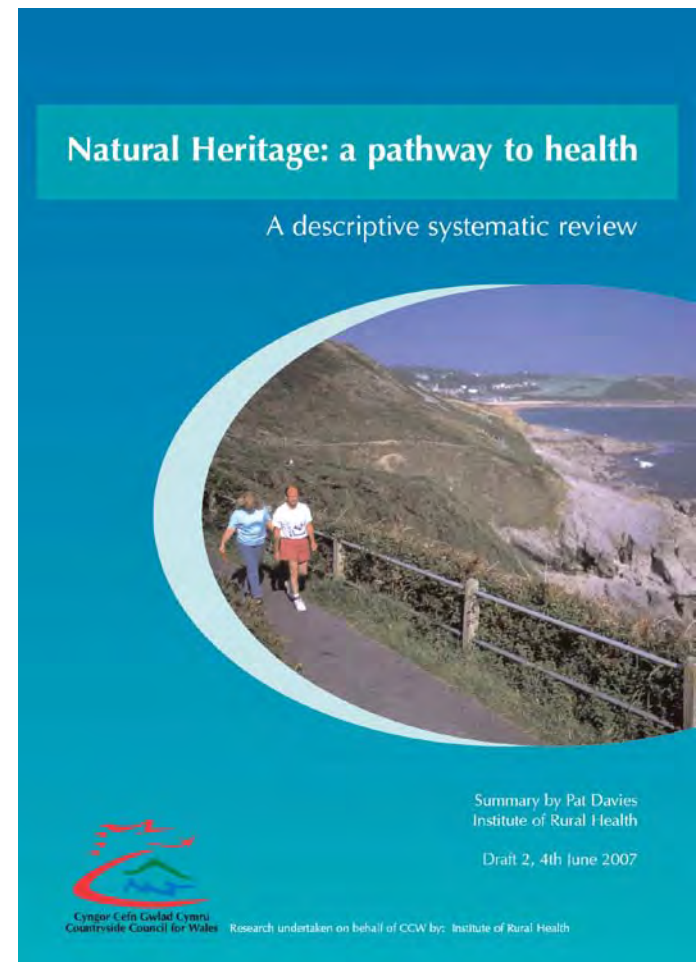
Wilson's Biophil Theory – *human beings are attracted to other living organisms (evolutionary basis).*



Research Evidence – The Good News

Access to the natural environment:

- Helps to restore both mental and physical health
- Keeps people healthy
- Gives people a sense of social, psychological and spiritual well-being
- Helps community integration and can help reduce crime
- Encourages people to increase their fitness
- Clear connection between a healthy environment and human health.



Research Evidence – The Bad News

“Some natural environments can have a positive effect on some people, in some circumstances, some of the time.”

– Terry Hartig



Solva Harbour - Pembrokeshire

PARC CENEDLAETHOL
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Back to the Good News...

Areas where research evidence is strong & growing....

- Physical Activity
- Mental Health
- Social Cohesion
- Quality of Life



Why physical activity matters

Physical inactivity is one of the leading causes of death in developed countries, responsible for an estimated 22-23% of coronary heart disease, 16-17% of colon cancer, 15% of diabetes, 12-13% of strokes and 11% of breast cancer^[1].



^[1] [World Health Organisation \(2002\) The World Health Report 2002 – Reducing Risks, Promoting Healthy Life](#)

What the research tells us...

Cardiovascular:

- High blood pressure
- Coronary heart disease
- Cardiac disease

(no relation: Stroke, brain hemorrhage)

Musculoskeletal

- Neck- and back complaints
- Severe back complaints
- Severe neck and shoulder complaints
- Severe elbow, wrist and hand complaints

(no relation: osteoarthritis, arthritis)

Mental disorders

- Depression
- Anxiety



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Respiratory complaints

- Upper respiratory tract infection
- Bronchitis
- Asthma, COPD

Neurological complaints

- Migraine
- Vertigo

Digestive complaints

- Severe intestinal complaints
- Infectious disease from the intestinal canal

Miscellaneous

- Medically Unexplained Physical Symptoms
- Diabetes mellitus
- Acute urinary tract infection
- (no relation: chronic eczema, cancer)



Mental Health

A recent report by the mental health charity MIND revealed that "93% of GP's have prescribed antidepressants against NICE (National Institute for Clinical Excellence) guidelines owing to a lack of alternatives" (quoted from research by Hairon 2006).

If you consider that in 2005 27.7 million antidepressant prescriptions were written in England, at a cost to the NHS of £338 million - *a nice regular walk in the countryside has a got to be a cheaper alternative!* Particularly as the World Health Organisation (WHO) predicts that depression will be the second largest single cause of ill health by 2020.



Quality of Life

There is growing evidence to show that the quality of the environments people experience on a daily basis can have a strong influence on levels of participation in physical activity.

This is not only about access to the countryside and urban green space; it also includes issues such as provision for pedestrians and cyclists in city centres, the design of buildings, and the layout of towns and cities.

- **Building Health**

National Heart Forum - 2007



Gurnos Estate – Merthyr Tydfil

“I think the biggest health risk is mentally ... ‘cause it’s a lot of pressure and there’s nothing really for you to do... you’re sort of segregated all the time”.

Policy Implications – Urban Design

“When residential environments contained high levels of greenery people were three times more likely to be physically active and 40% less likely to be overweight and obese compared to those who lived with very little greenery”

- Ellaway, A., Macintyre, S. & Bonnefoy X. (2005) Graffiti, greenery, and obesity in adults: secondary analysis of European cross sectional survey. *BMJ*. 331(7517):611-2

“For every 10% increase in greenspace there can be a reduction in health complaints equivalent to a reduction of five years in age.”

- De Vries *et al* (2001) Nature & Health: The relationship between health and green-space in people's living environment. Euro Leisure Congress. Netherlands

“Exercise in nature, as opposed to urban areas, has a more positive effect on mood, stress and self esteem.”

- Pretty, J., Peacock, J., & Sellens, M. & Murray, G. (2005b) The mental and physical health outcomes of green exercise. *Int J Environmental Health Research* 15(5). 319-37.

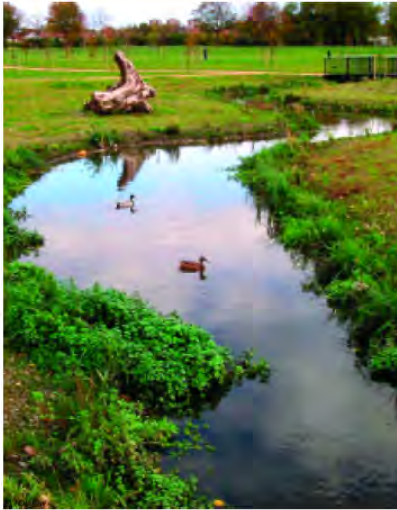
“Natural space needs to be within a distance of 280 metres of people's homes, or within 5 minutes walk for it to be used regularly.”

- Ward-Thompson, C., Aspinall, P., Bell, S. & Findley C. (2005) 'It gets you away from everyday life': local woodlands and community use – what makes the difference? *Landscape research* 30, 109-146

creating a better place

A Countryside for Health and Wellbeing: The Physical and Mental Health Benefits of Green Exercise

Executive summary



What we do -

we protect people from pollution and flooding, and improve health and quality of life by providing high quality environments and opportunities for outdoor recreation.

We commissioned two case studies, one urban and one rural, to examine the physical and mental health benefits of environmental improvements carried out by the Environment Agency and partners. Both sites provide opportunities for outdoor recreation and relaxation in natural spaces that include water.

Summary

Our case study sites provide local communities with improved environmental quality and opportunities for outdoor recreation.

- More people are likely to stay in rural areas due to improved health and wellbeing.
- Analysis of the case studies shows that people who live in rural areas have higher self-esteem and mental health than those who live in urban areas.
- Local government and partners are encouraged to create more natural spaces in their surroundings.

Introduction

How does nature make us feel? Much, of course, depends on what else is important in our lives. Is it a good or a bad day? Irrespective of where we come from, it seems that the presence of living things makes us feel good. They help us when we feel stressed, and if there is green vegetation, blue sky and water in the scene, then we like it even more. This idea that the quality of nature affects our mental health is not a new one, but it has not greatly affected the planning of our urban and rural environments, nor the setting of public health priorities.

In the UK, more than 80% of people live in urban areas (Defra, 2004), though the greater growth is now in rural areas. Urban settings by definition have less nature than rural ones. And less green nature means reduced mental well-being, or at least less opportunity to recover from mental stress. As natural green environments have increasingly come under pressure from

economic development, so it seems our own wellbeing has suffered as a consequence.

Today, stress and mental ill-health are becoming more common, and the associated public health costs are growing. The World Health Organisation estimates that depression and depression-related illness will become the greatest source of ill-health by 2020. This is partly because some other behaviours, such as smoking, over-eating and high alcohol consumption, are likely to be coping mechanisms for mental ill-health and stress, and have their own serious consequences. In addition, many urgent physical health challenges, including obesity and coronary heart disease, are also connected to sedentary lifestyles. Yet it is known that physically active people have a lower risk of dying from coronary heart disease, type II diabetes, hypertension and colon cancer. In the UK, there is evidence for a dramatic fall in physical activity over the past 50 years.

Health and Social Benefits of Recreation

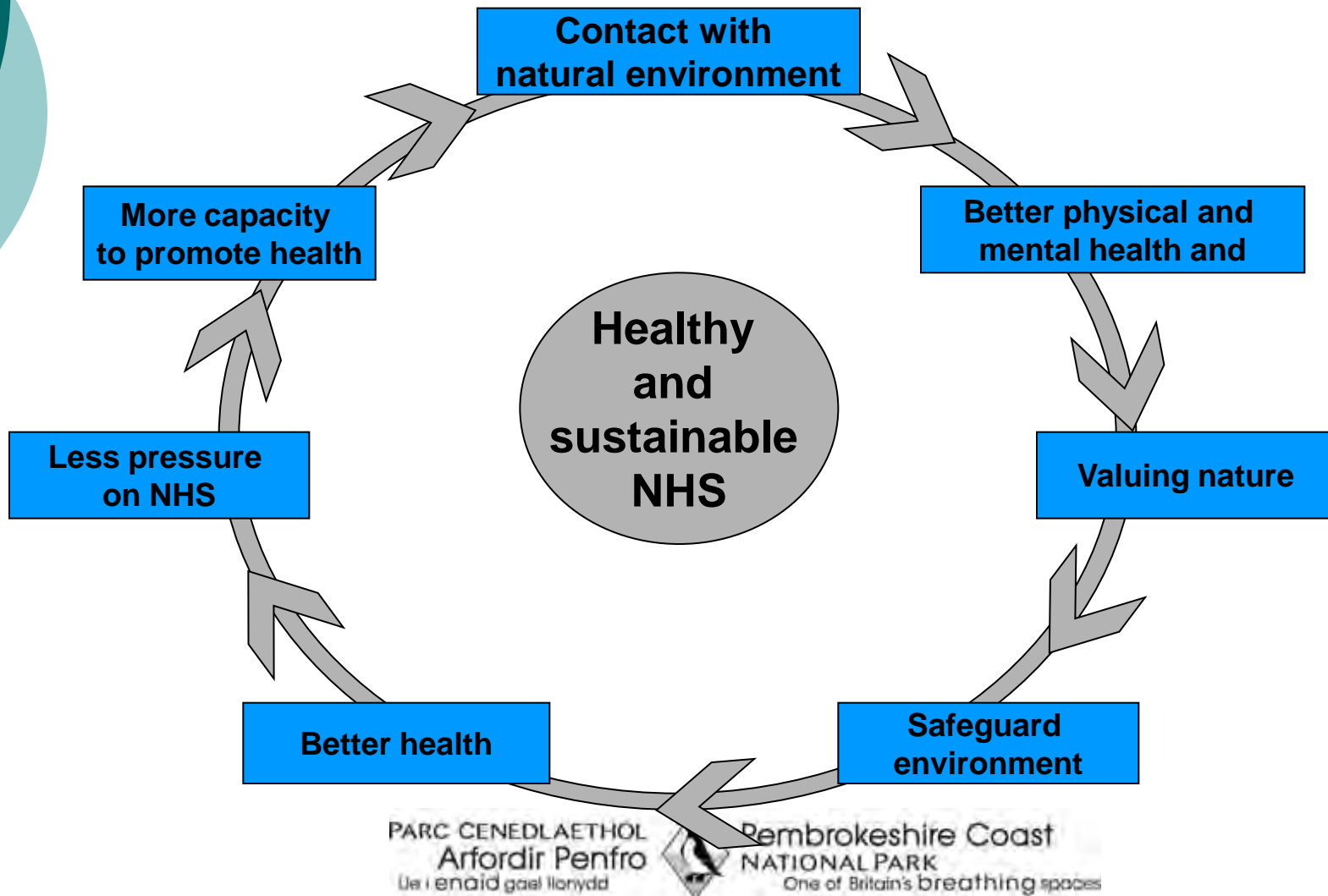
an Outdoor Recreation Planning Program

Health



Health & Natural Environments

The Goal



Outdoor Health Forum

www.outdoorhealthforum.com



A word cloud on a dark green background. The central text reads "Pembrokeshire Coast National Park Authority". "Pembrokeshire Coast" is in a light green color, "National Park" is in white, and "Authority" is in a light blue color. Surrounding this central text are various other phrases in white and light green, including "Access for all", "Supporting regeneration", "Working for you", "Inspiring people", "Healthy living", "Planning for the future", "Sustainable tourism", "Community focused", "Going greener", "Managing land", "Caring for wildlife", "Park for all", "Protecting our past", "Celebrating culture", "Outdoor learning", "Get fit for free", "Connecting communities", and "Quality of life".

Access for all
Supporting regeneration
Working for you
Inspiring people
Healthy living
Pembrokeshire Coast
National Park
Boosting business
Forward thinking
Planning for the future
Sustainable tourism
Authority
Community focused
Going greener
Managing land
Caring for wildlife
Park for all
Protecting our past
Celebrating culture
Outdoor learning
Get fit for free
Connecting communities
Quality of life