



The Natural Environment:

Our Natural Health  
Service.

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Natural England

# Natural England – a new government agency to protect the environment



- Formed in October 2006 from:
  - English Nature
  - Countryside Agency
  - Defra's Rural Development Service
- 5 Strategic Outcomes
  1. A Healthy Natural Environment
  2. Enjoyment of the Natural Environment
  3. Sustainable Use of the Natural Environment
  4. A secure environmental future
  5. A distinctive public body

The logo for Natural England, featuring the words "NATURAL ENGLAND" in white and red text on a green square background.

NATURAL  
ENGLAND

A scenic landscape photograph of rolling green hills under a dramatic, cloudy sky. Sunlight breaks through the clouds, creating rays of light over the hills. The foreground shows a grassy slope with a stone wall and trees. The middle ground features a valley with more green hills and a large tree on the right. The background shows more distant hills under the same sky.

More People enjoying, understanding  
and acting to improve, the natural  
environment, more often.

# Health Work In Natural England:



1. Delivery – WHI, Green Exercise, Advocacy
2. The Evidence – distinctive products the natural environment offers & linkages to good health
3. The Health Campaign – aimed at healthcare professionals



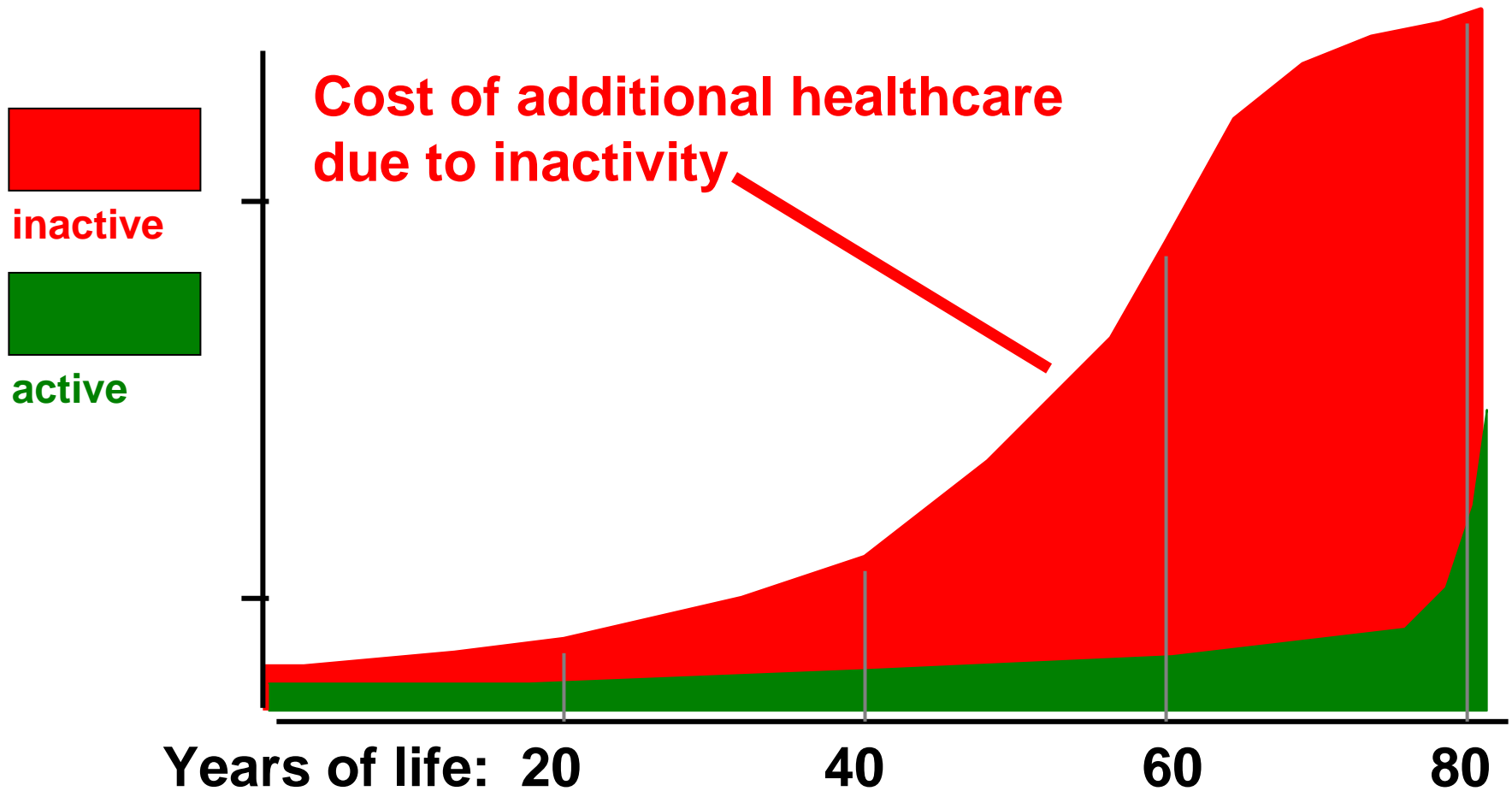
# Cardiovascular Disease: How can a Natural Environment help with prevention.



- Natural green space can increase physical activity levels. Regular activity halves the risk of heart disease
- Natural green space can reduce blood pressure and pulse rate. Being stressed is a proven risk factor for heart disease.
- To provide a natural diet rich in antioxidants

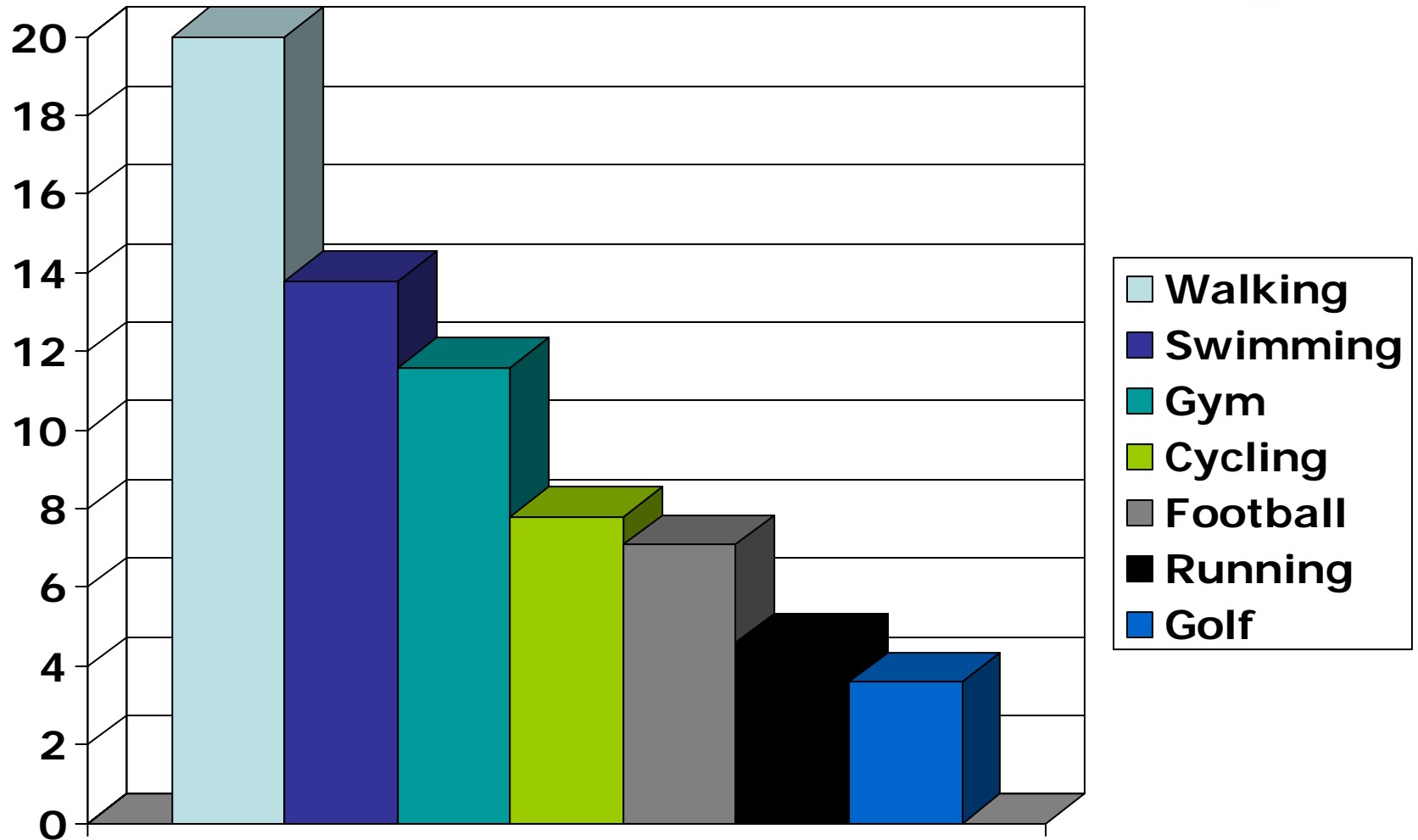


Physical inactivity is a big problem  
Inactive people have higher healthcare costs



Source: CDC / National Centre for Chronic Disease Prevention

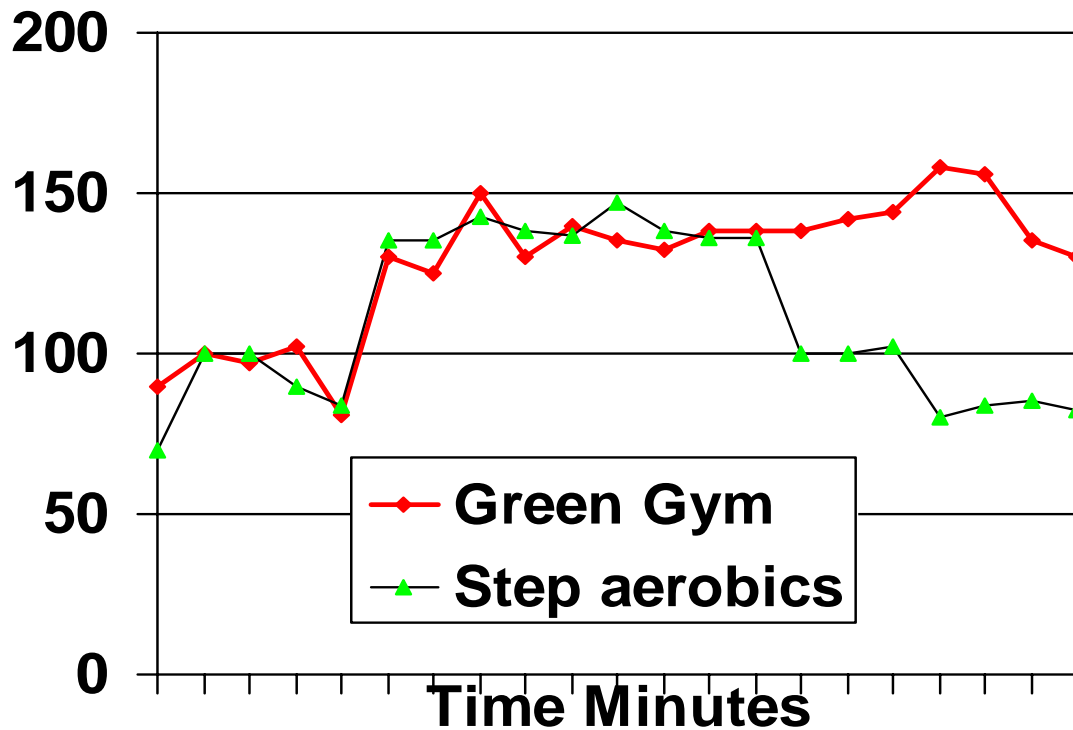
Sport participation: % of people participating for at least 30 mins once every 4 weeks. Sport England Active People Survey Dec 2006



# Green Gym Vs Aerobics



Heart Rate **Comparison of heart-rate response during two sessions of activity**



V Reynolds 1999 OCHRAD



How can Walking the Way to Health really help.

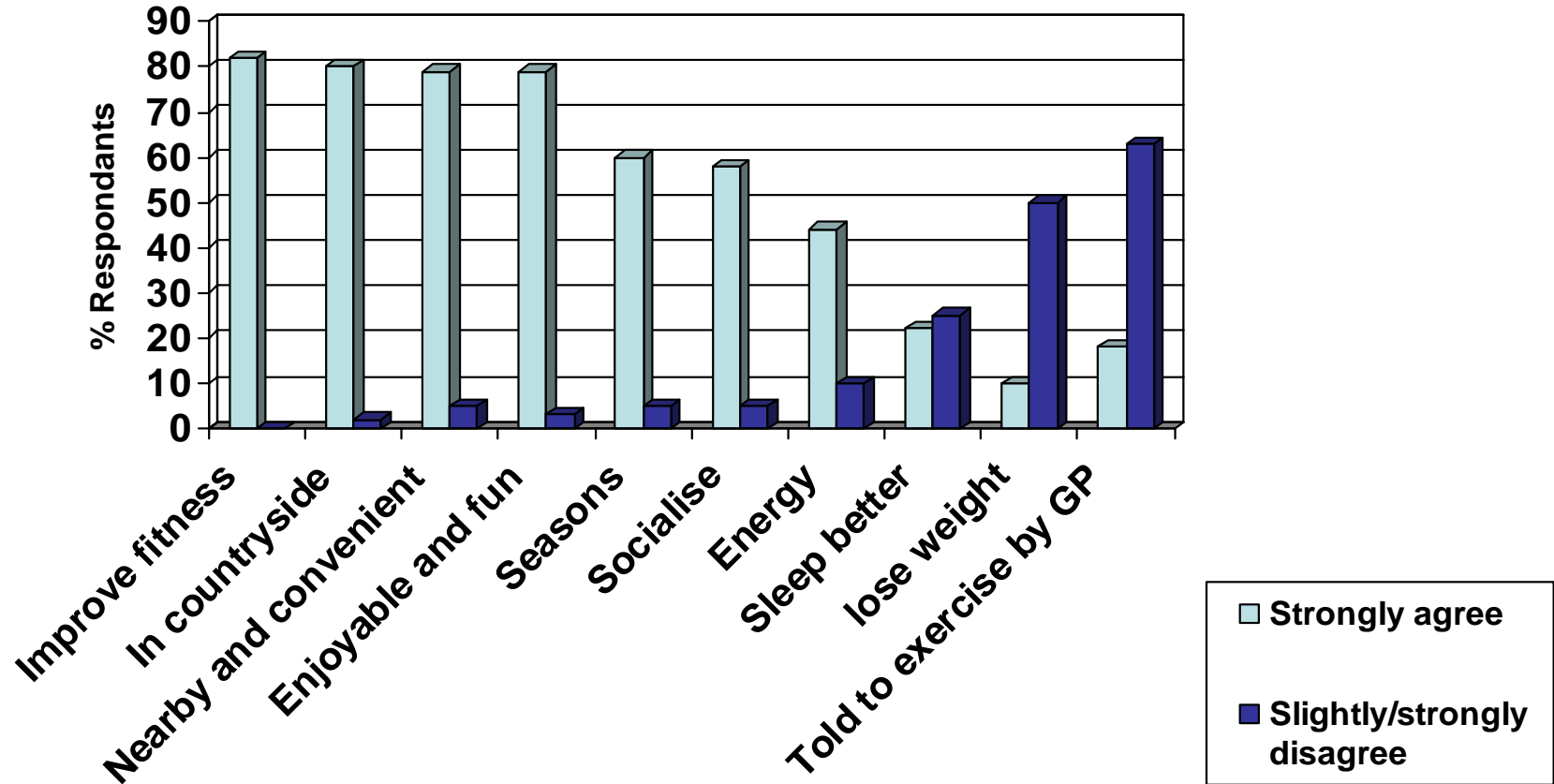
An inactive group that includes 60 men aged over 61 years on average will have two deaths a year compared to an active walking group that will have just one death a year.

**One life could be saved every year**

# Can Green Space increase levels of physical activity?



What motivates people to continue to participate in Health Walks.



# Can Green Space benefit the Health of the Population?



- Senior citizens lived longer with more space to walk and with nearby parks and tree lined streets near to where they live.

Tanaka A, Takano T, Nakamura K, *et al.* Health levels influence by urban residential conditions in a megacity — Tokyo. *Urban Stud* 1996; **33**: 879–945.

- For every 10% increase in green space there was a reduction in health complaints equivalent to a reduction of five years of age.

De Vries, S. Nature and health; the importance of green space in the urban living environment. Proceedings of the symposium 'Open space functions under urban pressure'. Ghent: 19–21 September 2001.

- Being within access to Green space can increase levels of physical activity

Giles-Corti B, Donovan RJ. Relative influence of individual, social environmental, and physical environmental correlates of walking. *Am J Public Health* 2003; **93**(9): 1583–1589.



# PSA Target Long Term Conditions



- **To improve health outcomes for people with long-term conditions by offering.**
  - to reduce overall emergency bed days by 5% by 2008, through improved care in primary care and community settings for people with long-term conditions.

# Diabetes

- About 1.3 million people in the UK have diagnosed diabetes and a further 1 million have undiagnosed diabetes.
- one in 20 people over the age of 65

For those at high risk regular exercise reduces their chances of developing diabetes by up to 64%.

At least five a week. CMO report 2004 DH.



# Osteoarthritis

- Osteoarthritis affects 45% of people over 65 year olds.
- 36 million working days lost costing £3.2 billion in lost earnings.
- Risk factors are being overweight and inactive. This reduces the muscle strength.



“Walking is as good as special strengthening exercises in reducing pain and increasing mobility”.

Roddy et al. Aerobic walking or strengthening exercise for osteoarthritis of the knee? A systematic review. *Ann Rheum Dis*, April 1 2005; 64(4): 544-548

# Chronic Obstructive Pulmonary Disease (COPD)

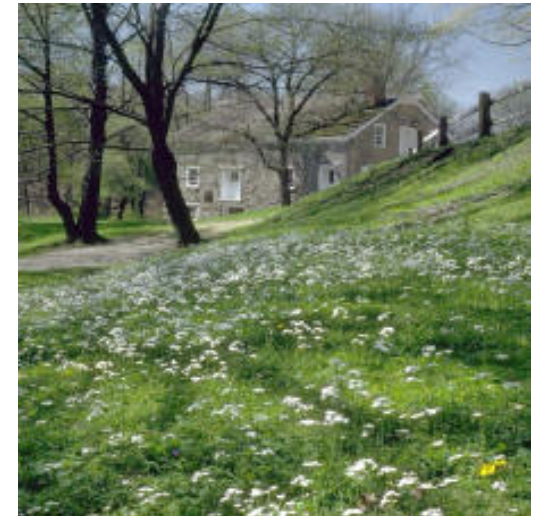


- There are 1.5 million people with COPD
- COPD costs the NHS £1 billion a year mainly due to emergency admissions which can make up 12% of all emergency medical admissions.
- Regular walking in patients halves the risk of an emergency admission irrespective of the FEV1. REF: Garcia-Aymerich J, Farrero E, Felez MA, et al. Risk Factors of readmission to hospital for COPD exacerbation: A prospective study. Thorax 2003;58: 100-5



# Simple Cost Benefit

- 100 patients with COPD
- 8 patients likely to be admitted in winter.
- A local Park provides physical activity reduces stress and anxiety and increases confidence.
- From existing research this could reduce admissions by half.
- 4 admissions (£9000) could be saved.





# Cancer

- 2,500 colon cancer deaths per year attributable to inactivity.

**Cabinet Office Strategy Unit (2002)**  
Health economics model for Game Plan, Dec 2002.

- Breast cancer claims 12,000 lives and is reduced by lifelong exercise At least five a week.  
CMO report 2004 DH.



## PSA Target 1.3: Obesity

**Obesity:** by halting the year-on-year rise in obesity among children under 11 by 2010 in the context of a broader strategy to tackle obesity in the population as a whole. (DH, DfES, DCMS)



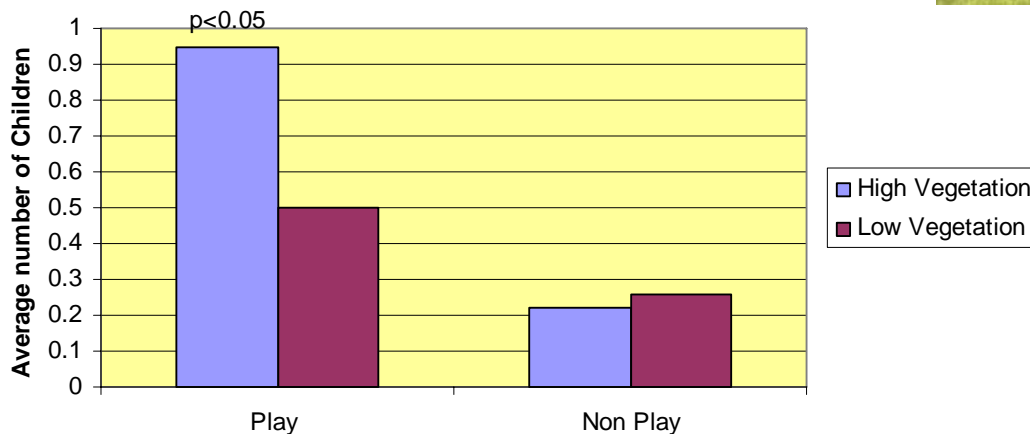
# Green Space increasing children's levels of activity and play



Children's physical activity levels are strongly related to the amount of time spent outdoors



Children Participating in Play in high rise flats with different surroundings



Physical activity reduces stress and increases self esteem in children

## Mental Health

- around 300 people out of 1,000 will experience mental health problems every year in Britain;
- 230 of these will visit a GP;
- 102 of these will be diagnosed as having a mental health problem;
- 24 of these will be referred to a specialist psychiatric service;
- 6 will become inpatients in psychiatric hospitals.



# Mental Health: How can the Natural Environment Help?



- Physical activity is as effective a treatment for depression as antidepressants

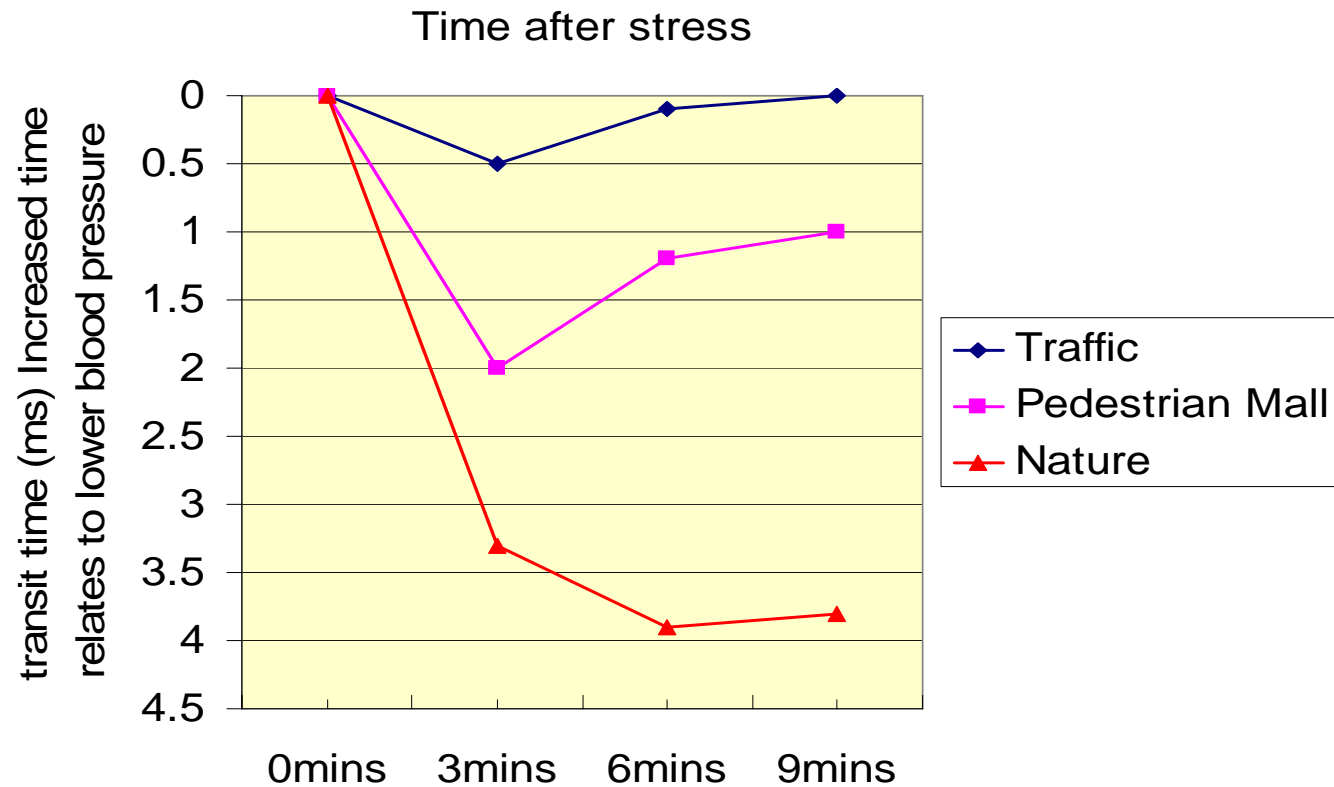
- CMO Report at least 5 a week 2004

- Green space can help reduce aggression and antisocial behaviour particularly amongst those with more severe mental illness

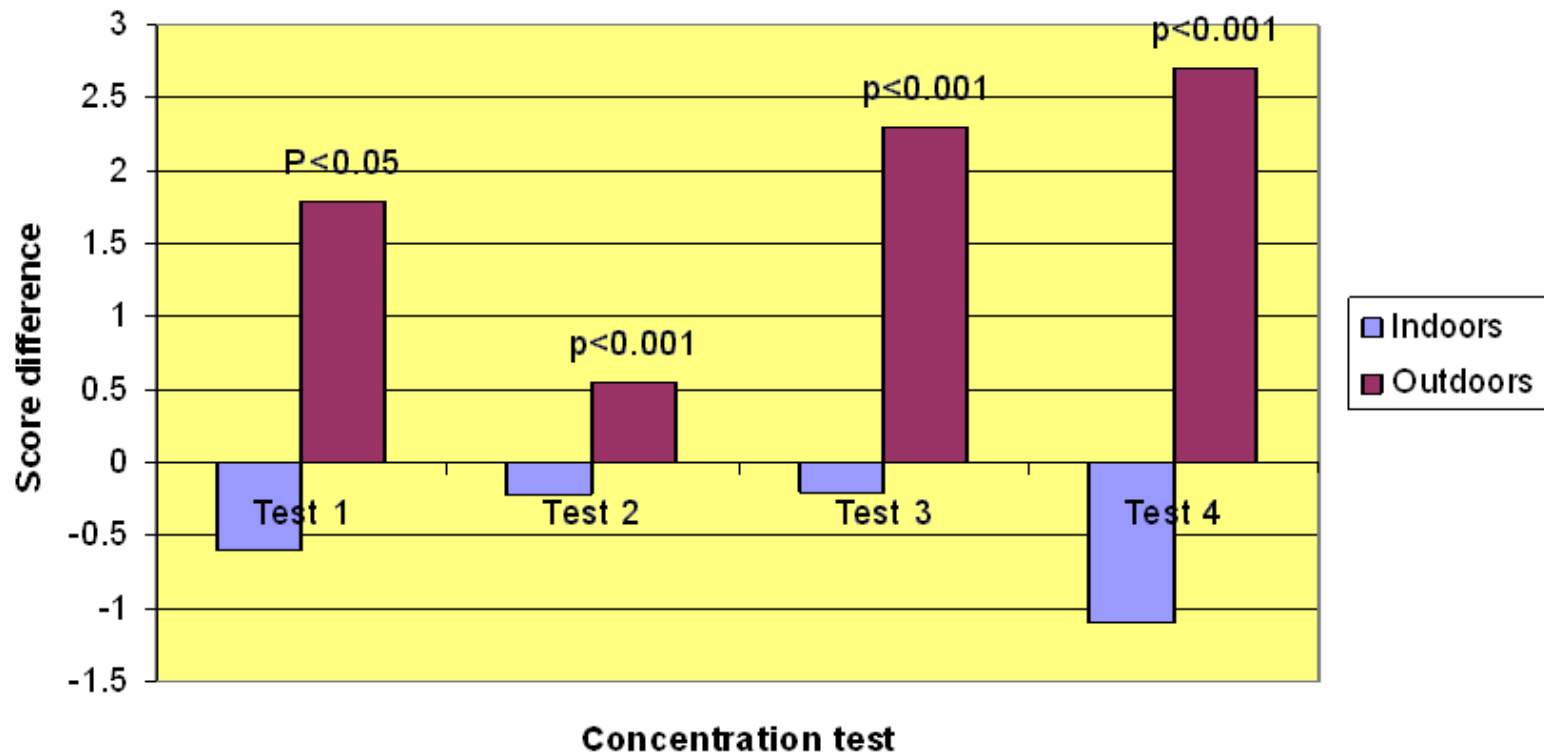
- Natural Green space can immediately reduce stress and improve coping.



# Reduction in Blood Pressure following a stress event

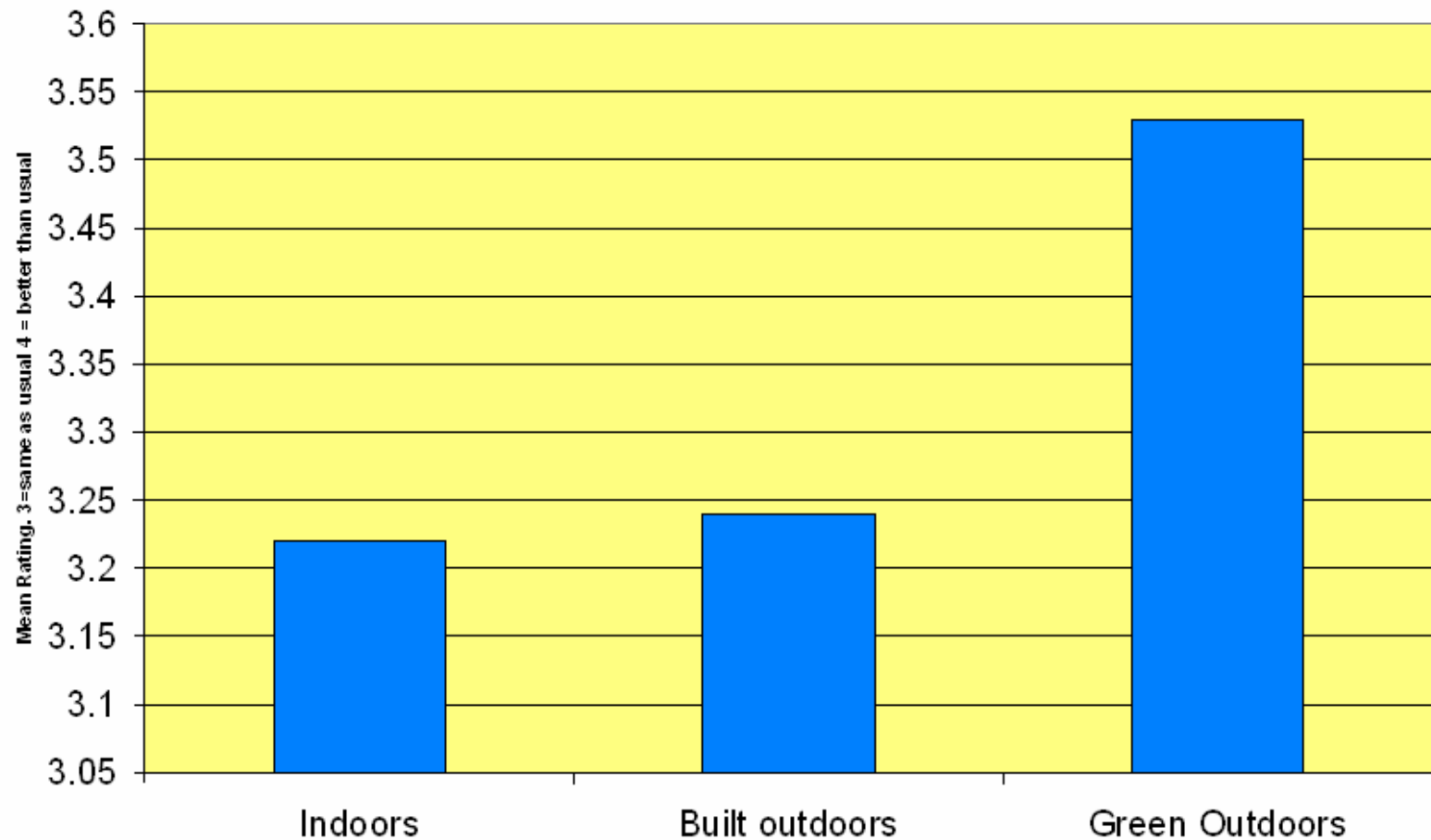


# Concentration of elderly people following 1 hour rest in a garden vs remaining in own room



# Attention Deficit disorder.

Relationship between ADHD symptoms and playing indoors, the built environment or in green space





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