



Natural environments & (good) health

Mat White (mathew.white@exeter.ac.uk)

(Environmental Psychologist)

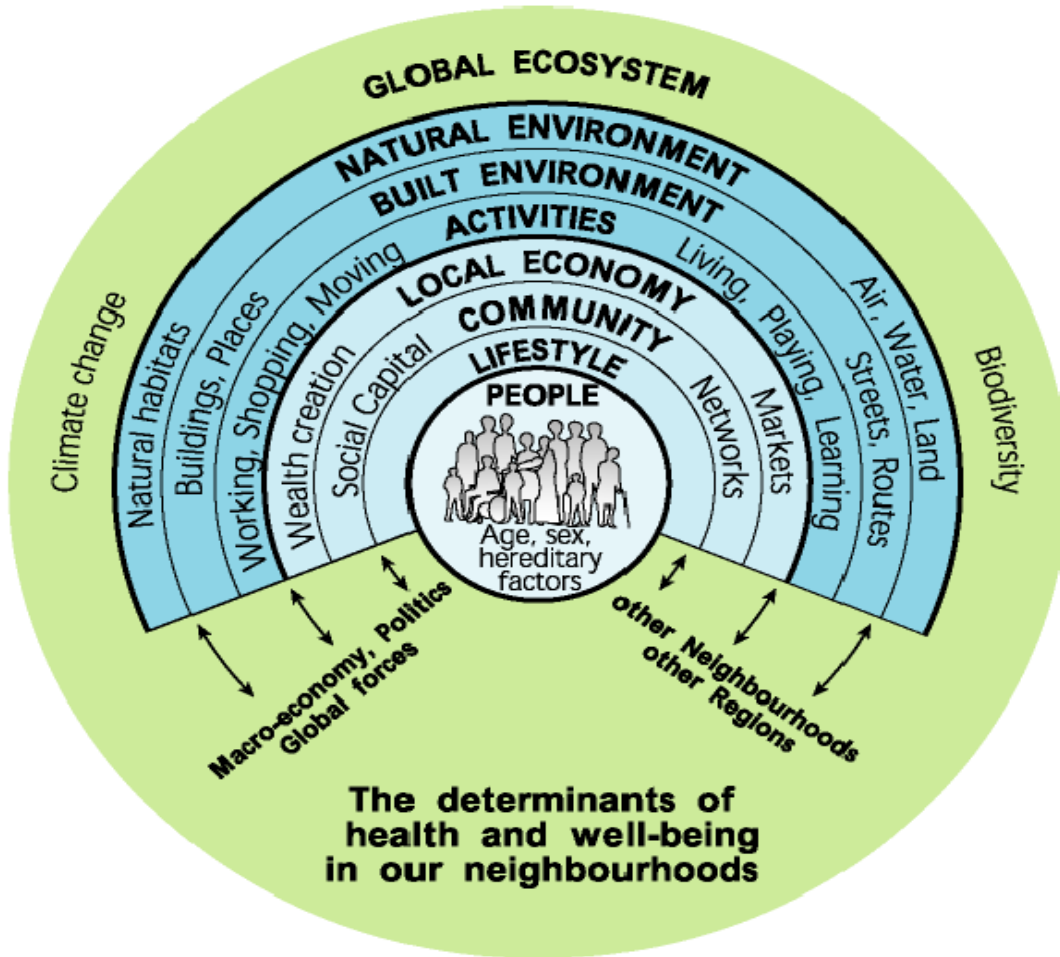
European Centre for Environment & Human Health

University of Exeter Medical School





- 1) Framing the nature-health association
- 2) What do we mean by 'exposure' to nature?
- 3) Evidence of salutogenic effects of green/blue spaces
- 4) How important are these effects?
- 5) What are the mechanisms/pathways?
- 6) Conclusions & remaining questions

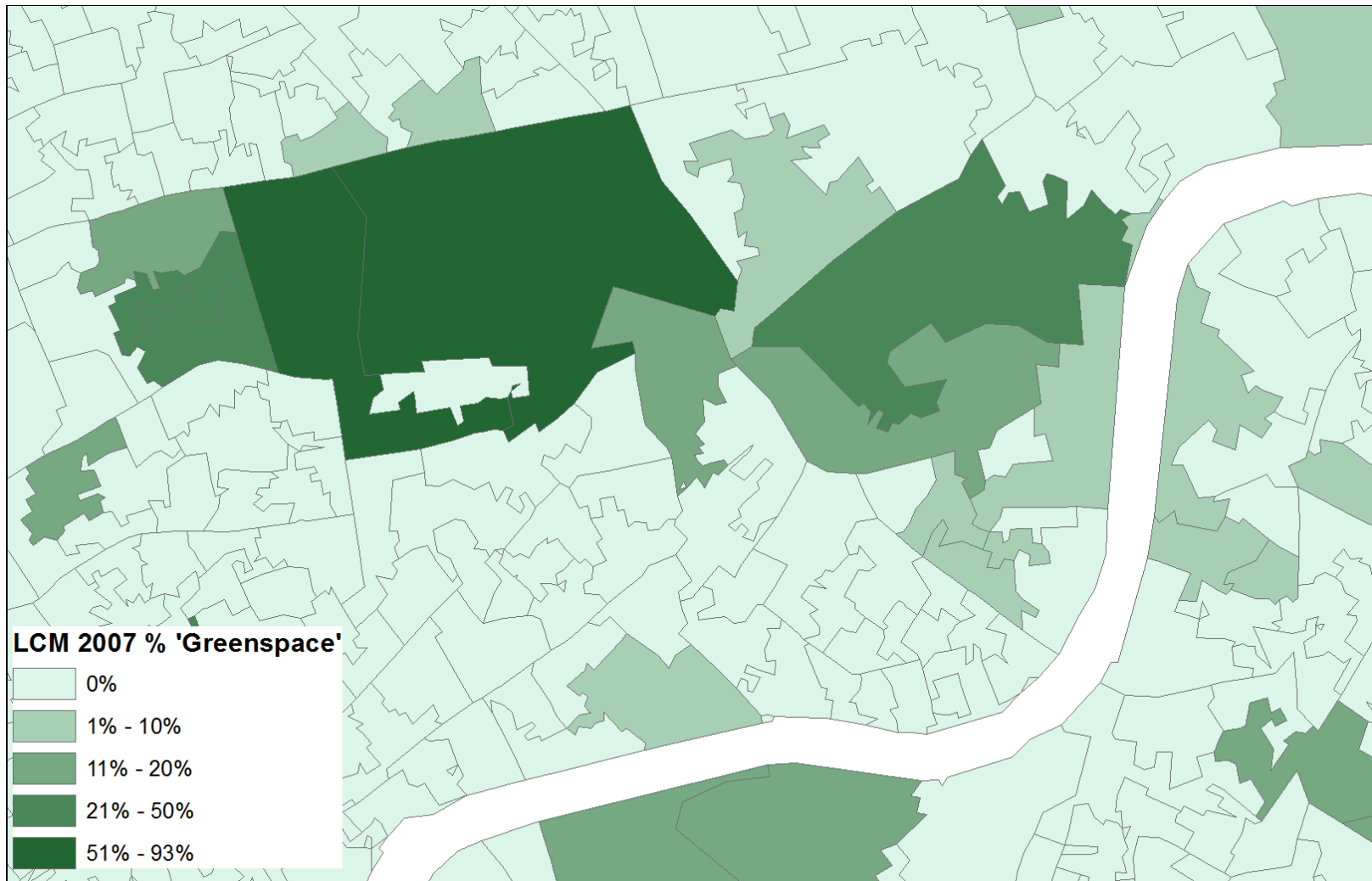


Let's not forget mental health

- Poor mental health #1 cause of disability in developed countries
- 50 million people in EU with depression/anxiety disorders
- Cost to UK economy: £105 billion per year



- 1) Framing the nature-health association
- 2) What do we mean by 'exposure' to nature?
- 3) Evidence of salutogenic effects of green/blue spaces
- 4) How important are these effects?
- 5) What are the mechanisms/pathways?
- 6) Conclusions & remaining questions

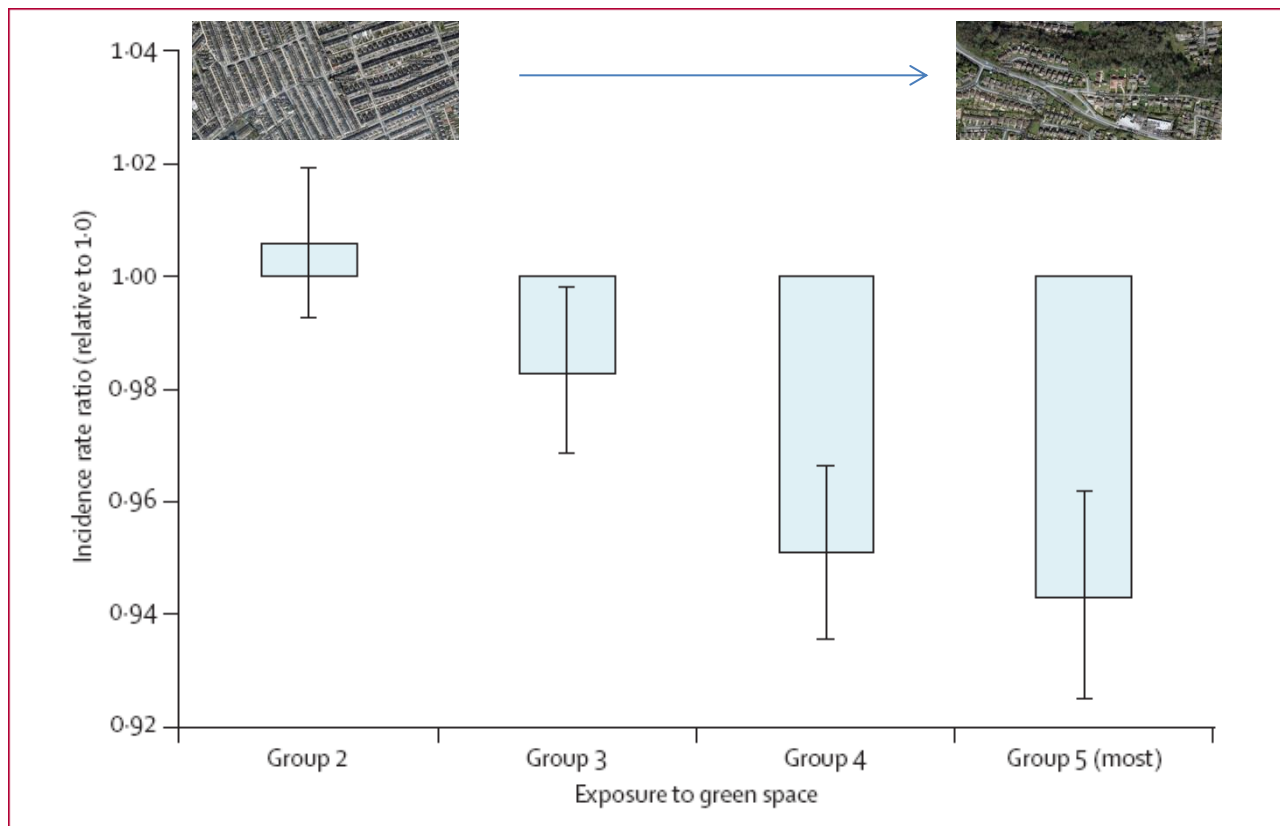


CEH Landcover Map 2007 25m cells

>32,000 in England; Pop = 1,500; $M_{\text{area}} = 4\text{km}^2$



- 1) Framing the nature-health association
- 2) What do we mean by 'exposure' to nature?
- 3) Evidence of salutogenic effects of green/blue spaces**
- 4) How important are these effects?
- 5) What are the mechanisms/pathways?
- 6) Conclusions & remaining questions



The more
Green space
around your
home the less
likely you are
to die before
retirement age

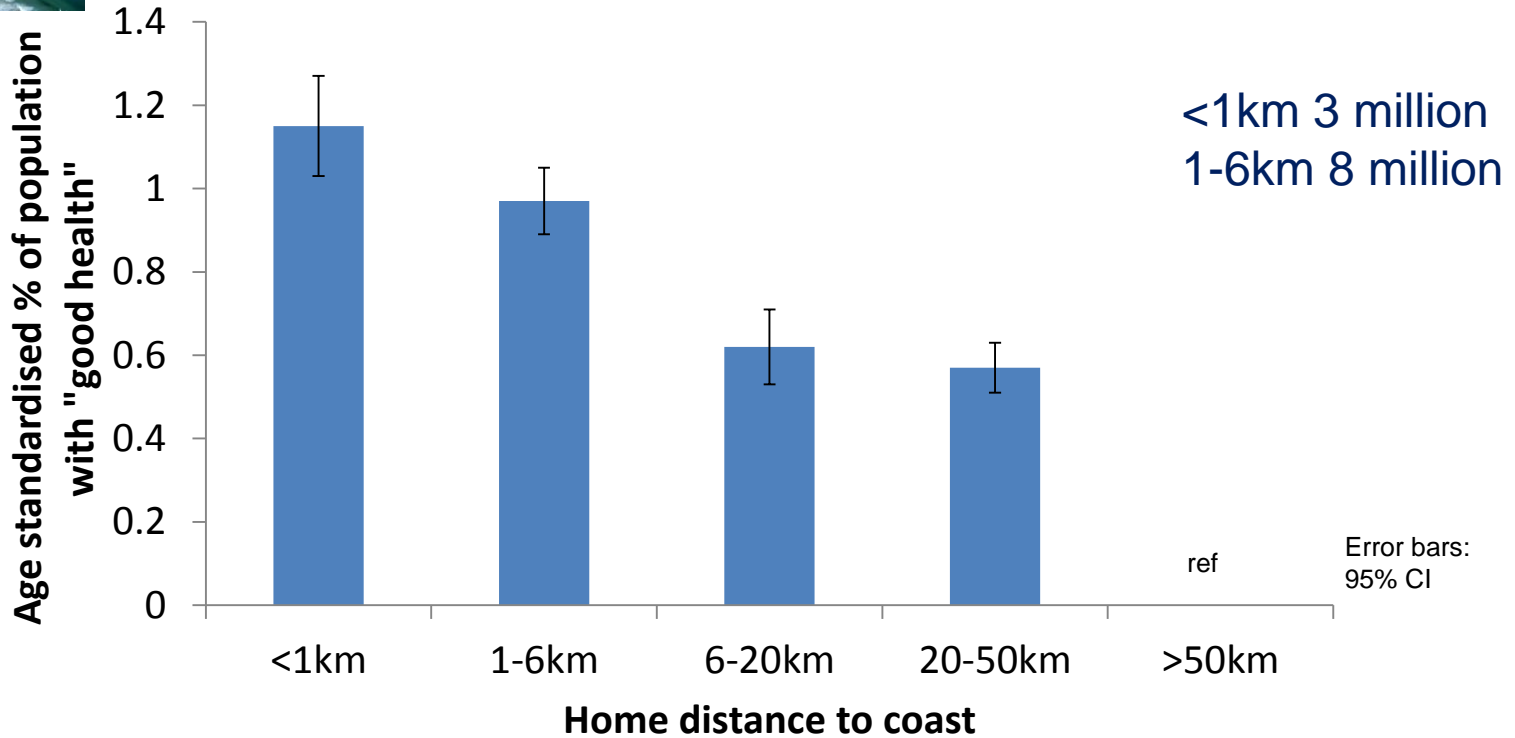
Figure 1: Incidence rate ratios for all-cause mortality in groups of exposure to green space, relative to group 1 (least exposure to green space)

Error bars indicate 95% CIs.

- Effect strongest in poorest areas (helps reduce health inequalities?)



Self-reported health Census Data (England, n = 48 million)



Controlling for area level
Income, Employment,
Education, Crime

- Effect strongest in poorest areas (helps reduce health inequalities?)



- 1) Framing the nature-health association
- 2) What do we mean by 'exposure' to nature?
- 3) Evidence of salutogenic effects of green/blue spaces
- 4) How important are these effects?
- 5) What are the mechanisms/pathways?
- 6) Conclusions & remaining questions

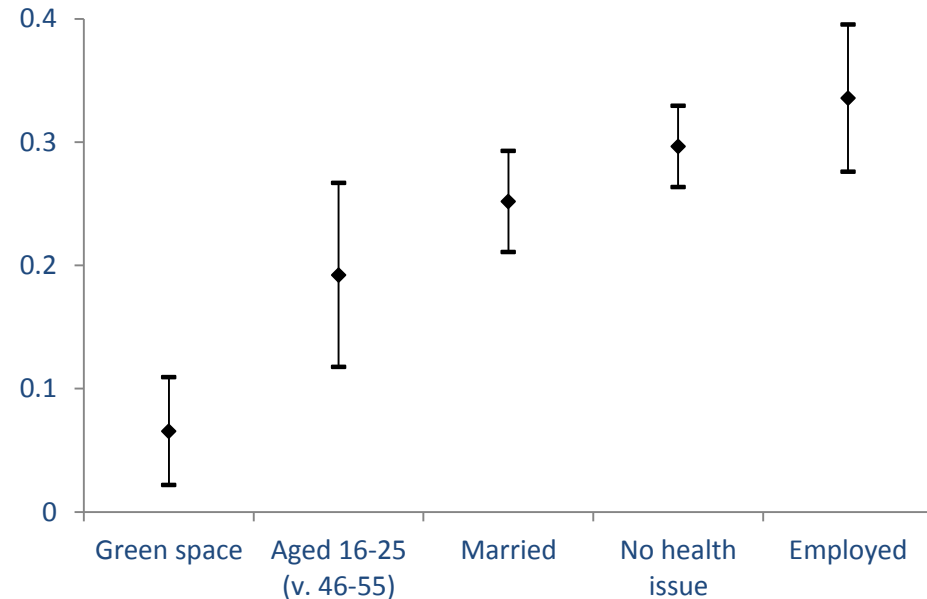
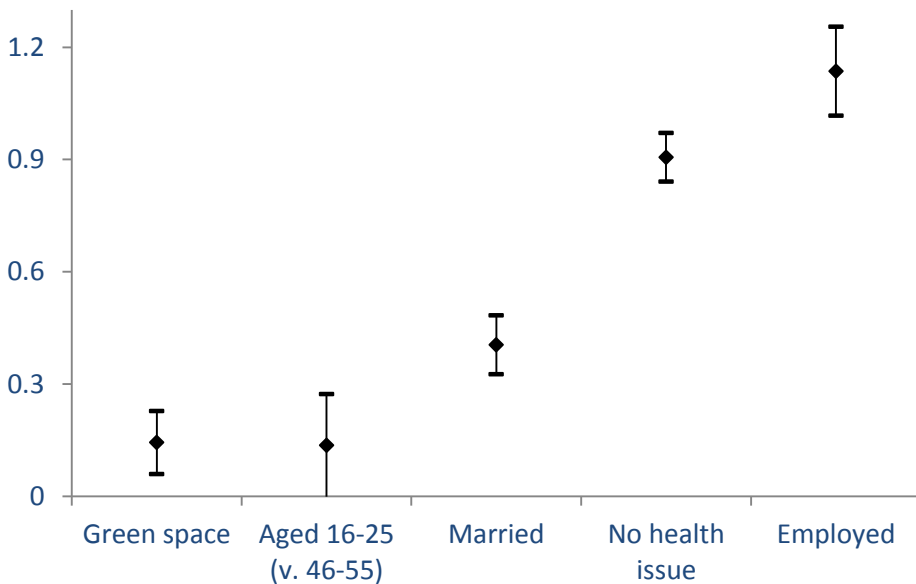


British Household Panel Survey (1991-2008)

Living in an urban area with little (48%) vs. a lot (81%) of green space

Mental well-being (Inverse GHQ 0-12)
(N = 12,818; Obs = 87,573)

Life Satisfaction (1-7)
(N = 10,168; Obs = 56,574)



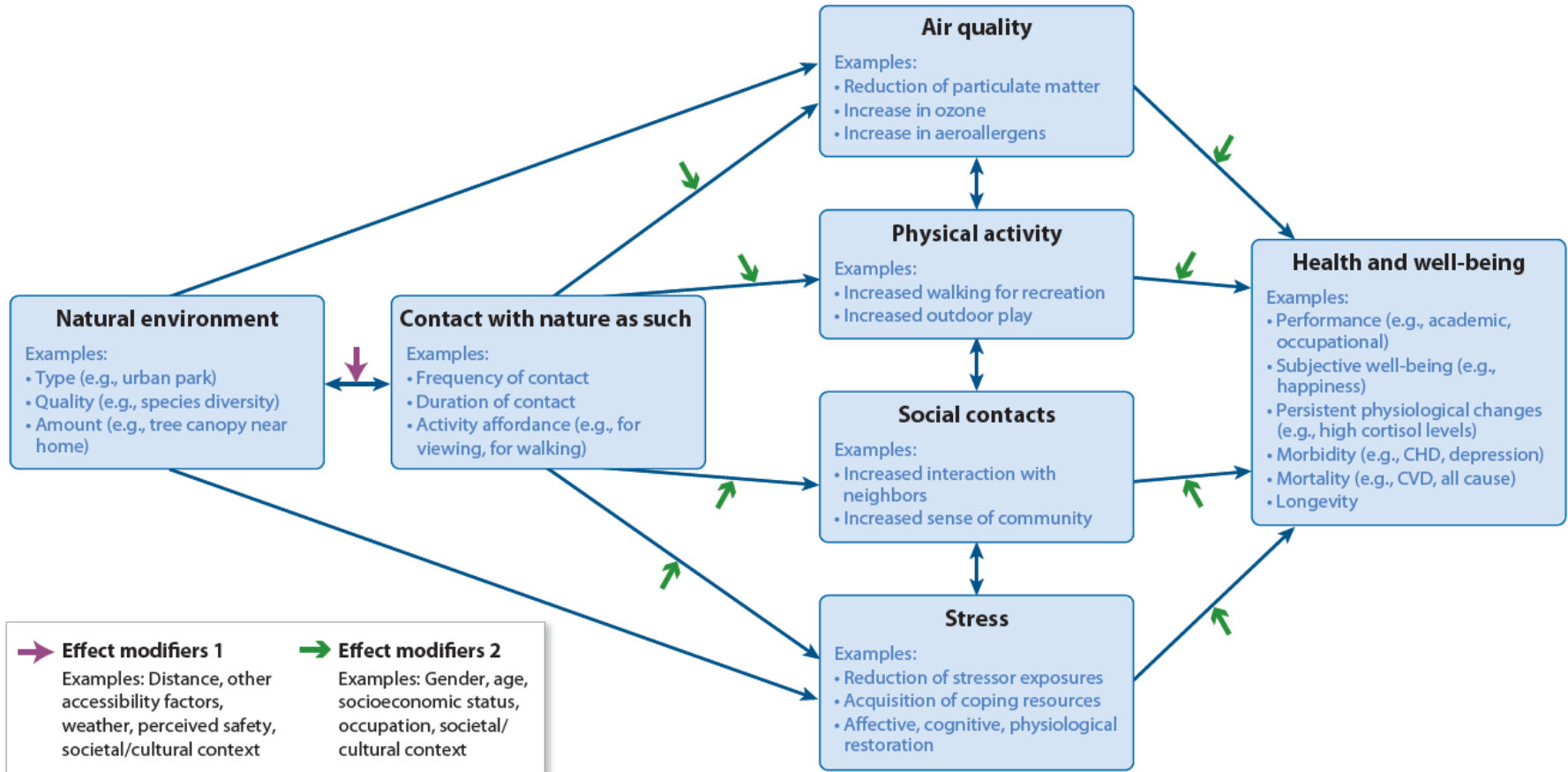
Controlling for:

Area Level: Income, Employment, Education, Crime,

Individual Level - age, income, education, health, employment status, marital status, children, commute, house type, house size

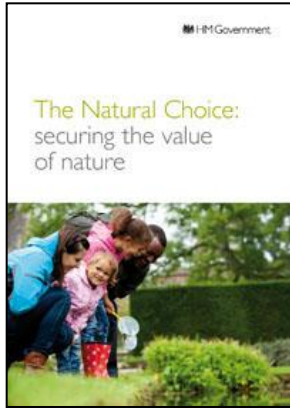


- 1) Framing the nature-health association
- 2) What do we mean by 'exposure' to nature?
- 3) Evidence of salutogenic effects of green/blue spaces
- 4) How important are these effects?
- 5) What are the mechanisms/pathways?**
- 6) Conclusions & remaining questions



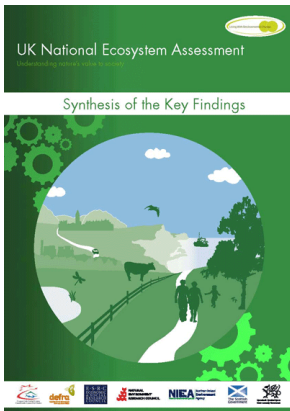


- 1) Framing the nature-health association
- 2) What do we mean by 'exposure' to nature?
- 3) Evidence of salutogenic effects of green/blue spaces
- 4) How important are these effects?
- 5) What are the mechanisms/pathways?
- 6) **Conclusions & remaining questions**



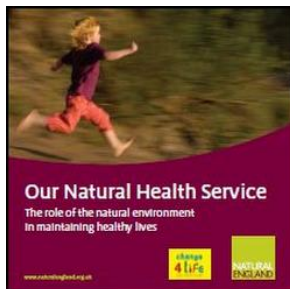
- The data suggest the benefits are small for an individual but (potentially) touch many people

- May help reduce health-related inequalities



- What are the opportunity costs of green/blue space (e.g. loss of employment?)

- “Green prescriptions” – cost-effective?



- Still some way from providing clear policy related evidence?



Thanks very much for your attention

Mat White (mathew.white@exeter.ac.uk)

(Environmental Psychologist)

European Centre for Environment & Human Health

University of Exeter Medical School

