Kent Environment Strategy

A Strategy for Environment, Health and Economy

Ashford Health and Wellbeing Board

Carolyn McKenzie – Kent County Council

What is the Kent Environment Strategy?

Setting the direction for the county

- Strategic Context and Framework
- High level priorities
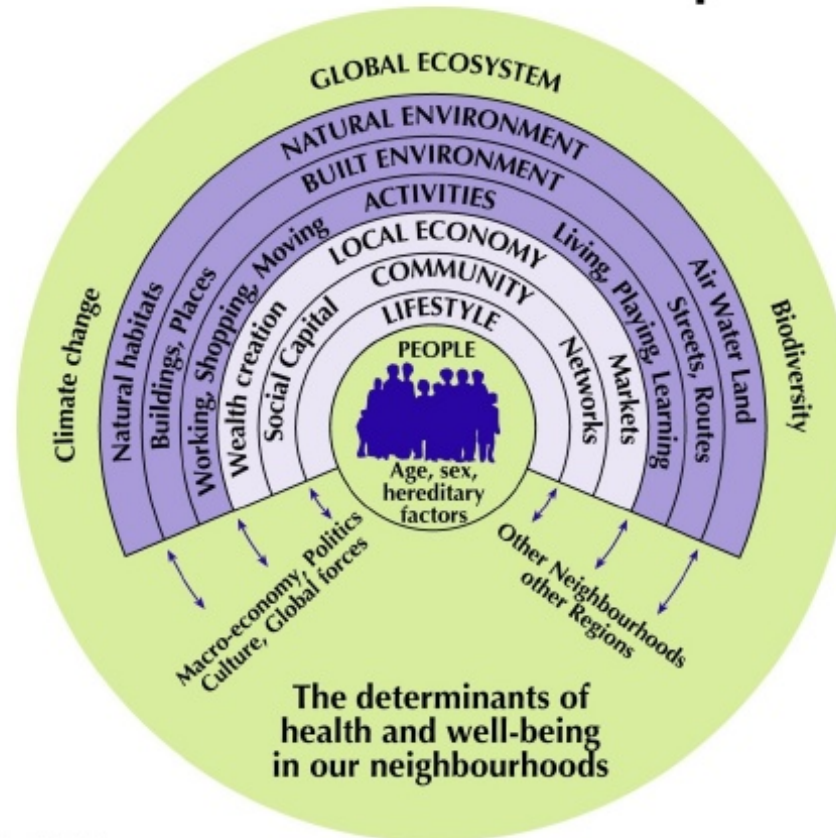- Partnership
- Significant opportunity or challenge

Why work in partnership?

- Cross boundary issues
- Resources/expertise
- Funding
- Greater impact and better outcomes

The Health Map

The determinants of health and well-being in our neighbourhoods

Barton and Grant 2006

Coopenergy
www.coopenergy.eu

Kent County Council
kent.gov.uk

Public Health Outcomes Framework

OUTCOMES

Vision: To improve and protect the nation's health and wellbeing, and improve the health of the poorest fastest

Outcome 1:   **Increased healthy life expectancy**
Taking account of the health quality as well as the length of life
(Note: This measure uses a self-reported health assessment, applied to life expectancy.)

Outcome 2:   **Reduced differences in life expectancy and healthy life expectancy between communities**
Through greater improvements in more disadvantaged communities

(Note: These two measures would work as a package covering both morbidity and mortality, addressing within-area differences and between area differences)

DOMAINS

DOMAIN 1:	DOMAIN 2:	DOMAIN 3:	DOMAIN 4:
Improving the wider determinants of health	Health improvement	Health protection	Healthcare public health and preventing premature mortality
Objective: Improvements against wider factors that affect health and wellbeing, and health inequalities	Objective: People are helped to live healthy lifestyles, make healthy choices and reduce health inequalities	Objective: The population's health is protected from major incidents and other threats, while reducing health inequalities	Objective: Reduced numbers of people living with preventable ill health and people dying prematurely, while reducing the gap between communities
Indicators Indicators Indicators } *Across the life course*	*Indicators Indicators Indicators* } *Across the life course*	*Indicators Indicators Indicators* } *Across the life course*	*Indicators Indicators Indicators* } *Across the life course*

JSNA SUSTAINABILITY CHAPTER

2013

Joint Strategic Needs Assessment:
A Guide to Integrating Sustainability

Environment

Healthy Communities

Economic Vitality

Sustainability and Health Working Group
Kent and Medway
11/6/2013

Kent County Council

ROAD AHEAD CLOSED

Flood

http://www.sduhealth.org.uk/areas-of-focus/community-resilience.aspx

Kent County Council
kent.gov.uk
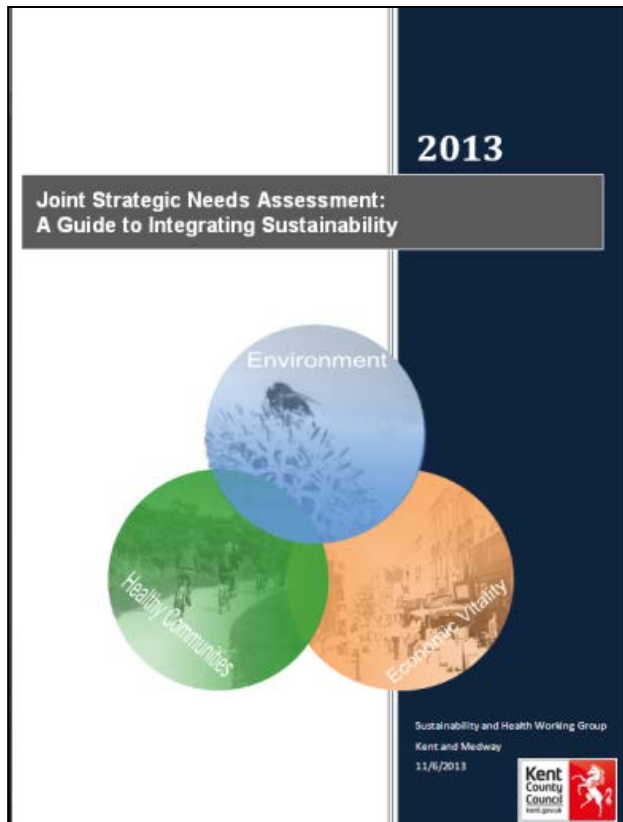
Sustainability Component affecting Public's Health

- Planning
- House and fuel poverty
- Transport
- Climate Resilience
- Air Quality
- Workplace and supply chain
- Natural Environment

Domains

Sustainability Priority	Supports Social Care Domains:	Supports Public Health Domains:
Planning	1. Enhancing quality of life for people with care and support needs 2, Delaying and reducing the need for care and support 4. Safeguarding adults whose circumstances make them vulnerable and protecting from avoidable harm	1. Improving wider determinants of health 2. Health Improvement 3. Health Protection 4. Healthcare, public health and preventing premature mortality
House and fuel poverty	1. Enhancing quality of life for people with care and support needs 2. Delaying and reducing the need for care and support 4. Safeguarding adults whose circumstances make them vulnerable and protecting from avoidable harm	1. Improving wider determinants of health 2. Health Improvement 4. Healthcare, public health and preventing premature mortality
Transport	1. Enhancing quality of life for people with care and support needs 2. Delaying and reducing the need for care and support	1. Improving wider determinants of health 2. Health Improvement 3. Health Protection
Climate Resilience	3. Ensuring that people have a positive experience of care and support 4. Safeguarding adults whose circumstances make them vulnerable and protecting from avoidable harm	1. Health Protection
Air Quality	2. Delaying and reducing the need for care and support 4. Safeguarding adults whose circumstances make them vulnerable and protecting from avoidable harm	3. Health Protection 4. Healthcare public health and preventing premature mortality
Workplace and supply chain	1. Enhancing quality of life for people with care and support needs 2. Delaying and reducing the need for care and support 3. Ensuring that people have a positive experience of care and support 4. Safeguarding adults whose circumstances make them vulnerable and protecting from avoidable harm	1. Improving wider determinants of health 2. Health Improvement 3. Health Protection
Natural Environment	1. Enhancing quality of life for people with care and support needs 2. Delaying and reducing the need for care and support	1. Improving wider determinants of health 2. Health Improvement 3. Health Protection

Coopenergy
www.coopenergy.eu

Kent County Council
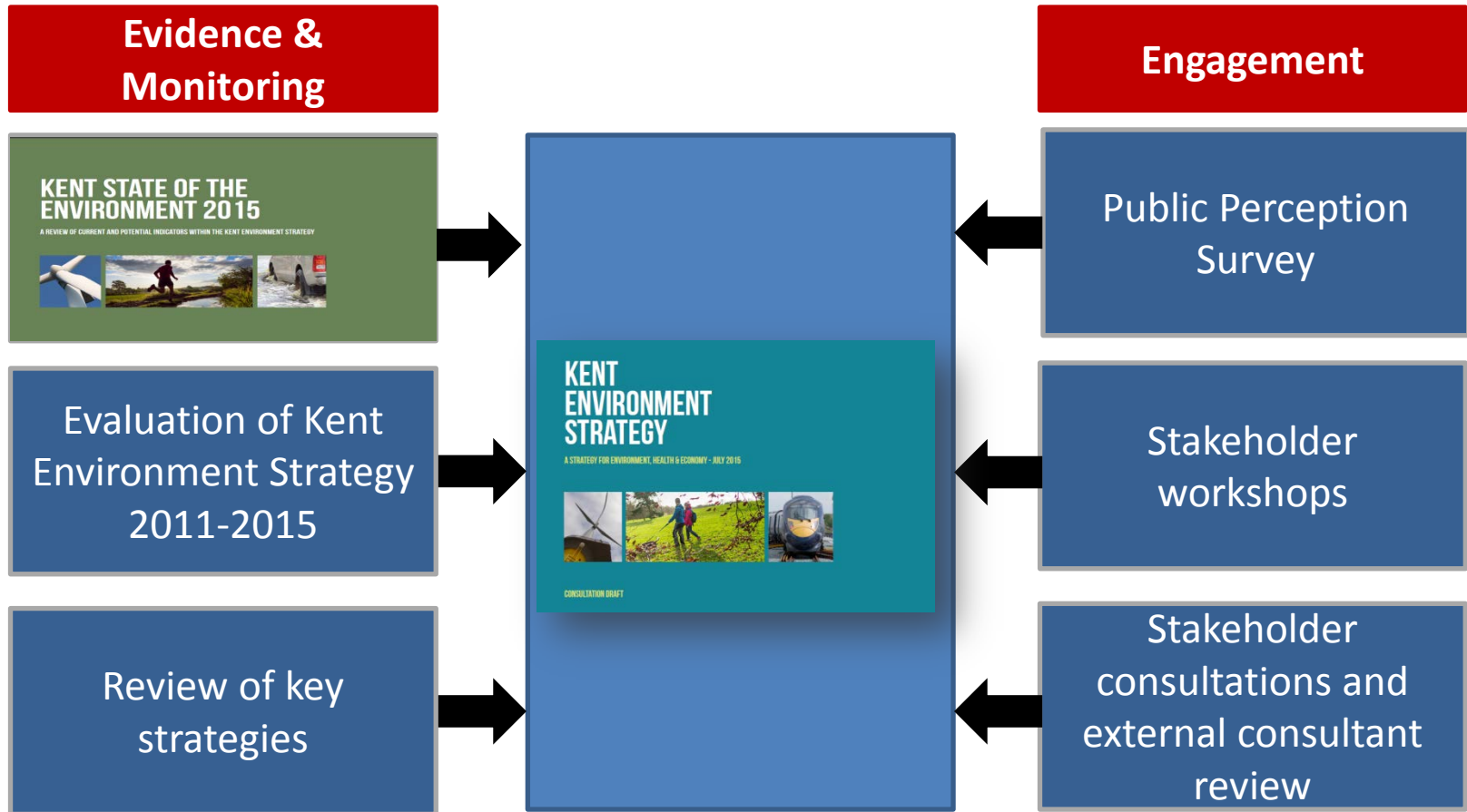kent.gov.uk

Strategic Outcomes

Residents have a high quality of life saving money in warmer healthier homes and benefiting from the many services provided by the natural environment

A resilient, competitive economy and low carbon economy

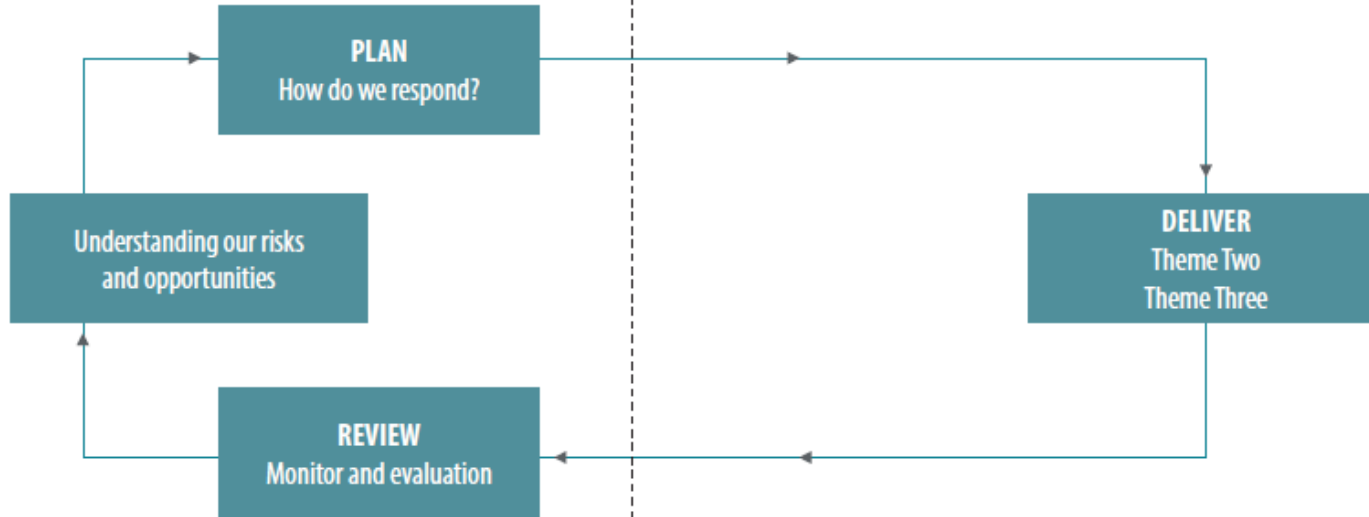**Communities and businesses are resource efficient and prepared for severe weather events**

Our Approach

KENT STATE OF THE ENVIRONMENT 2015

A REVIEW OF CURRENT AND POTENTIAL INDICATORS WITHIN THE KENT ENVIRONMENT STRATEGY

Public Perception Survey

Evaluation of Kent Environment Strategy 2011-2015

KENT ENVIRONMENT STRATEGY

A STRATEGY FOR ENVIRONMENT, HEALTH & ECONOMY - JULY 2015

CONSULTATION DRAFT

Stakeholder workshops

Review of key strategies

Stakeholder consultations and external consultant review

DATACTION

Coopenergy

Co-funded by the Intelligent Energy Europe
Programme of the European Union

EVIDENCE	DELIVERY

PLAN
How do we respond?

Understanding our risks and opportunities

DELIVER
Theme Two
Theme Three

REVIEW
Monitor and evaluation

THEME ONE:
BUILDING THE FOUNDATIONS FOR DELIVERY

1 Bridging gaps in understanding our risks and opportunities to identify actions;
2 Integrating and influencing strategy and policy;
3 Building resources, capabilities and changing behaviour;
4 Monitoring and evaluation.

THEME TWO:
MAKING BEST USE OF EXISTING RESOURCES, AVOIDING OR MINIMISING NEGATIVE IMPACTS

5 Conserve and enhance the quality and supply of the county of Kent's natural resources and assets;
6 Improve our resource efficiency such as energy and water;
7 Ensure sustainable access and connectivity for businesses and communities.

THEME THREE:
TOWARD A SUSTAINABLE FUTURE

8 Influence future sustainable growth for the county of Kent;
9 Improve the county of Kent's environmental, social and economic resilience to environmental change;
10 Supporting growth in the rural economy and low carbon and environmental services sector.

DAT**A**CTION

Coopenergy

FOCUS KES:

- REDUCING NEGATIVE ENVIRONMENTAL IMPACTS FROM A 'POOR' ENVIRONMENT
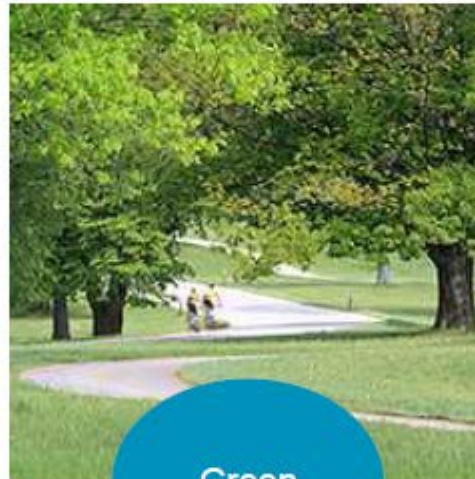
- MAXIMISING BENEFITS OF OUR NATURAL AND HISTORIC ASSETS

Our factory setting is to be in a sociable group, supportive environment and have a purpose

People

Place

Purpose

Sociable

Green

Valued

- Poor environment – home or surroundings
- Air quality
- Traffic noise
- Limited access green space
- Even if access don't use
- Climate change impact
- Less ability to adapt

UK Climate Change Risk Assessment 2017

Key Impacts

Flooding and coastal change risks to communities, businesses and infrastructure (Ch3, Ch4 **Ch5**, Ch6)	**MORE ACTION NEEDED**
Risks to health, wellbeing and productivity from high temperatures (**Ch5**, Ch6)	
Risk of shortages in the public water supply, and for agriculture, energy generation and industry (Ch3, **Ch4**, Ch5, Ch6)	
Risks to natural capital, including terrestrial, coastal, marine and freshwater ecosystems, soils and biodiversity (**Ch3**)	
Risks to domestic and international food production and trade (Ch3, Ch6, **Ch7**)	
New and emerging pests and diseases, and invasive non-native species, affecting people, plants and animals (Ch3, **Ch5**, Ch7)	**RESEARCH PRIORITY**

NOW ----→ RISK MAGNITUDE ----→ **FUTURE**   LOW   MEDIUM   HIGH

Coopenergy
www.coopenergy.eu

Kent County Council
kent.gov.uk

Climate Resilience and Health

Risk / Issue	Impacts
Flooding	• Drowning or physical trauma • Damage to infrastructure, displacement and disruption • Mental health impacts (e.g., anxiety and depression) • By 2050s looking at twice as many deaths, up to 50% more injuries and twice as many mental health events relating to flooding (compared to 2020s) • Vulnerability of infrastructure
Temperature increases	• 800 'heat related' deaths occur in the UK with 80,000 days additional NHS hospitalisation • Expected to increase by 70% in 2020s, 260% in 2050s, 540% in 2080s • Most at risk include pre-existing respiratory and cardiovascular problems as well as those impacted by thermoregulation • Vulnerability of infrastructure

Climate Resilience

Evidence

- Severe weather and climate change pose significant threat and opportunities for residents and service provision

- Main issues for Kent include:
  - Flooding
  - Mortality and morbidity relating to temperature
  - Food and water borne diseases
  - Vector borne diseases
  - Air quality
  - Vulnerability of infrastructure and built environment

Response

- Identification of groups with pre-existing conditions

- Alert and prepare

- Flood related mental and physical health risks

- Map infrastructure and develop actions as appropriate

- Sign up to the severe weather impacts monitoring system (SWIMS)

Chronic Stress

Stress Hormones

Physical Inactivity

And other poor health behaviours

leads to inflammation
Mitochondrial damage and telomere shortening

- Depression
- Cancers
- Cardiovascular
- Diabetes
- Dementia

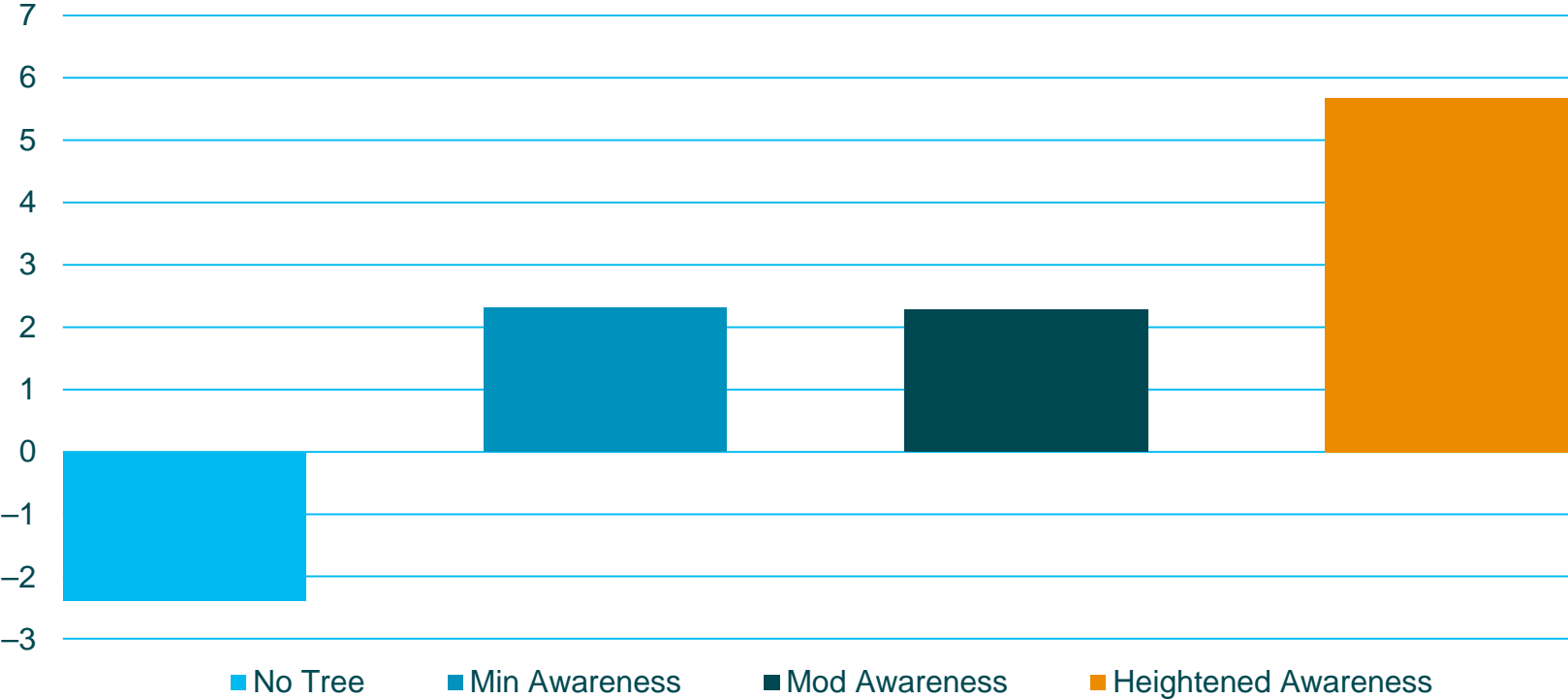Mitochondria as a key component of the stress response. Manoli et al. Trends in Endocrinology and Metabolism Vol 18 No 5 2007

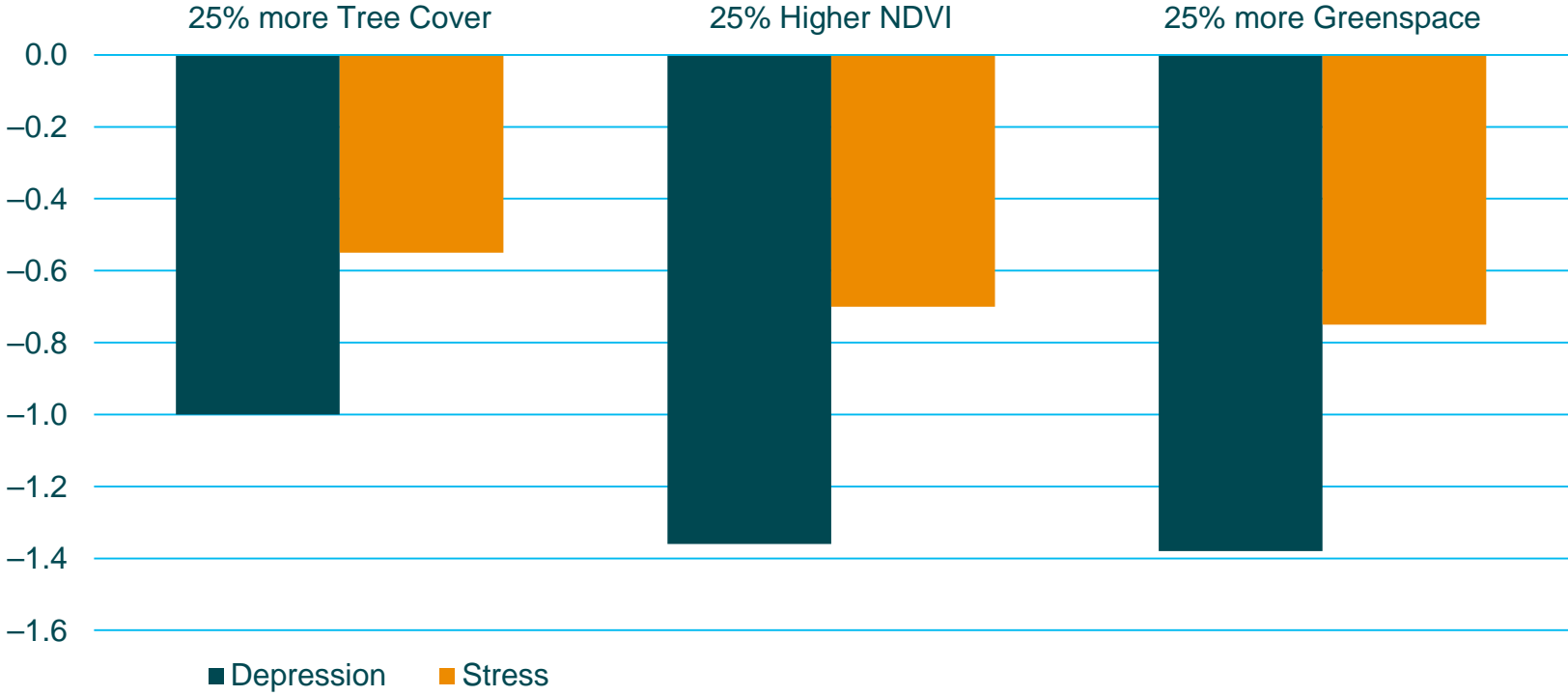# The Effect of Trees on Cognitive Performance

Digit Span Backward Test

Lin, Ying-Hsuan, et al. "Does awareness effect the restorative function and perception of street trees?" Cognitive Science 5 (2014): 906.

Association Between Trees, Vegetation, Depression and Stress

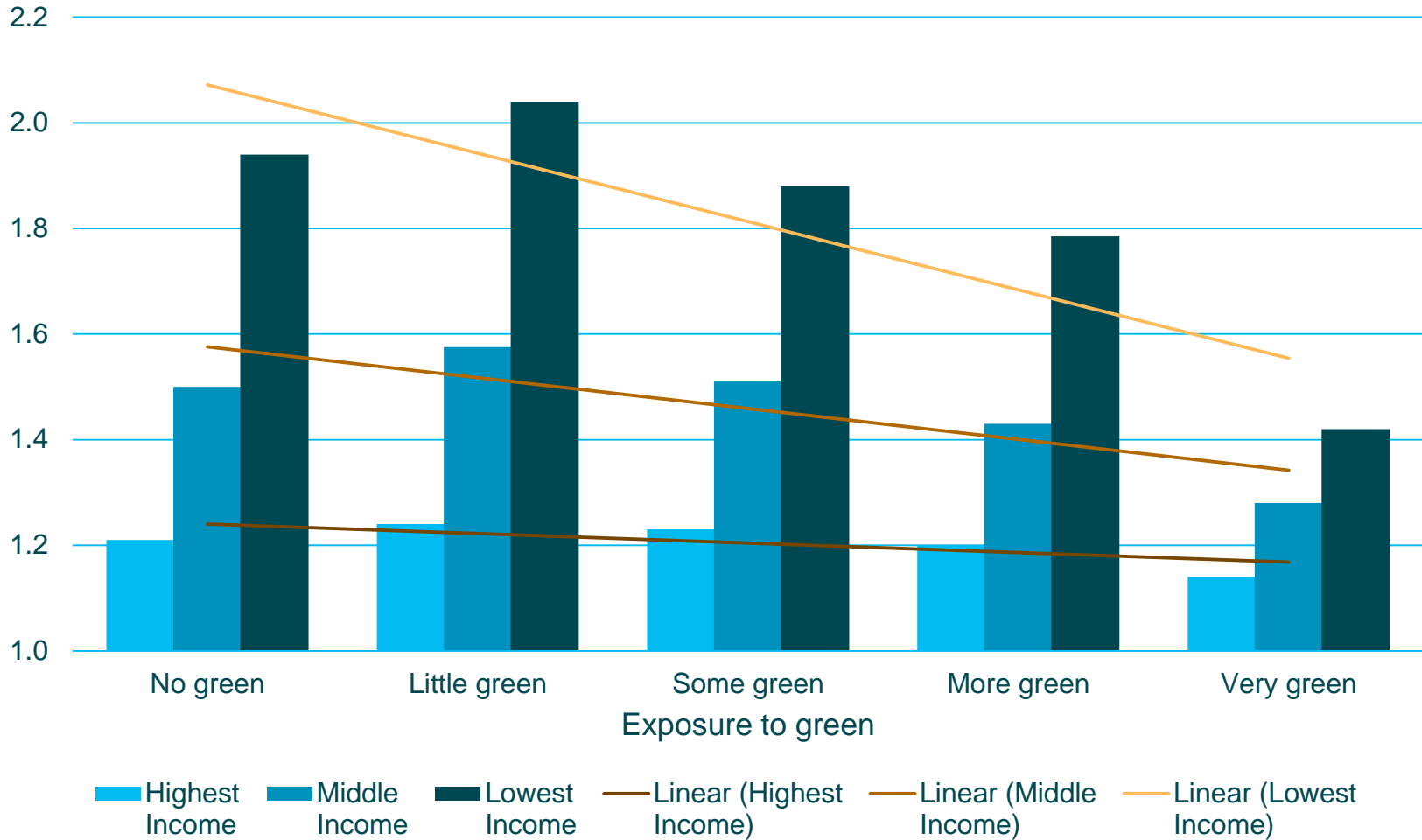## Normalized Difference Vegetation Index (NDVI)

Beyer, Kirsten MM, et al. Int.J of environmental research and public health 11.3 (2014): 3453-3472

Green Space reduces Health Inequalities

Incidence Rate Ration

Exposure to green

Legend: Highest Income, Middle Income, Lowest Income, Linear (Highest Income), Linear (Middle Income), Linear (Lowest Income)

X-axis categories: No green, Little green, Some green, More green, Very green

Mitchell, R. and Popham, F. (2008) Effect of exposure to natural environment on health inequalities: an observational population study. The Lancet 372(9650):pp. 1655-1660.

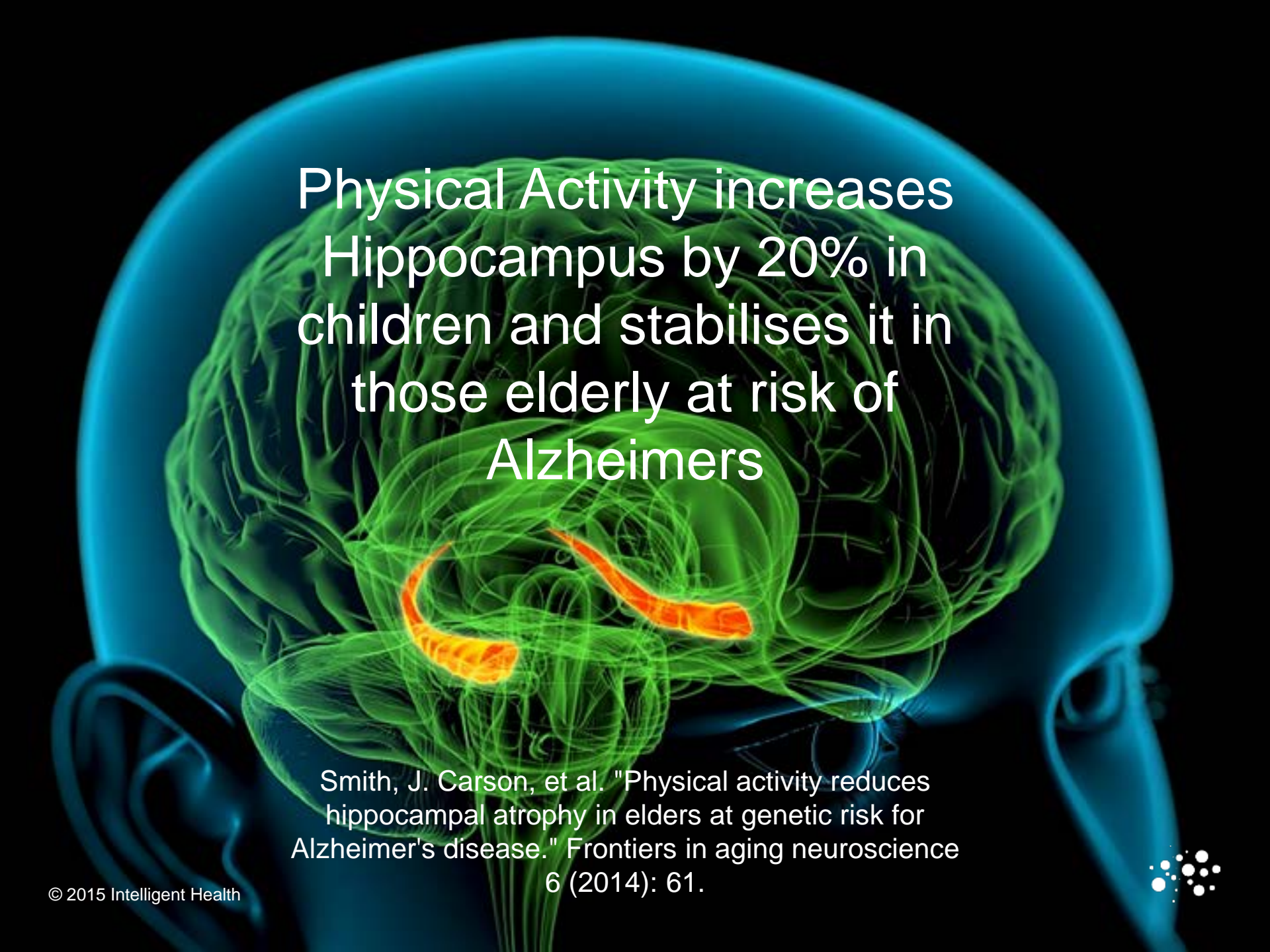© 2015 Intelligent Health

Nature and the Unborn Child

High
Blood Pressure
in pregnant
women increased
by 14% for every
300 meters away
from green
space

Birth
weight and
baby's head
size were larger
within the 500
metres of
green space

1. Grazuleviciene R et al Int J Environ Res Public Health 2014 11 2958-2972
2. Dadvand P Env Health Perspectives 120 10

© 2015 Intelligent Health

Physical Activity increases Hippocampus by 20% in children and stabilises it in those elderly at risk of Alzheimers

Smith, J. Carson, et al. "Physical activity reduces hippocampal atrophy in elders at genetic risk for Alzheimer's disease." Frontiers in aging neuroscience 6 (2014): 61.

Some Examples

- Minimising negative environmental impacts

- Providing a place for informal, self-directed access to nature

- A venue for outdoor recreation and sport or programmes that use the outdoors as part of their day-to-day activities, such as outdoor education

- A basis for projects and programmes that specifically use the outdoors to improve physical and mental health and reduce social isolation.

Coopenergy
www.coopenergy.eu

Kent County Council
kent.gov.uk

ENERGY EFFICIENCY - RETROFITTING

Kent
County
Council
kent.gov.uk

SHERWOOD SHEDDERS

- Kent Nature Partnership www.kentnature.org.uk
- Explore Kent www.explorekent.org
- Countryside Management Partnerships
- http://www.kent.gov.uk/about-the-council/partnerships/countryside-management-partnerships

Contact

Carolyn McKenzie

carolyn.mckenzie@kent.gov.uk

07740 185287