Delivering the health and wellbeing benefits of the natural environment: an event to support STP implementation

Making the economic case

for integrating (prioritising?) health and the environment

in strategic decision making

Daniel Black

Founding Director

Daniel Black & Associates | db+a

CONTENT

- **Economics + decision-making**: policy and practice

- Case Study 3: **urban form / health (**Wellcome Trust):
  - *How can 'delivery agencies' create healthy urban environments?*

- Case Study 2 (+ 1): **climate adaptation (**InnovateUK/NERC)
  - *How can public/private sector organisations start taking action on climate change?*

- **Comments on STPs**

NORTH BRISTOL URBAN EXTENSION

5,700 homes +
50ha employment

BRISTOL ARENA   12,000 seat stadium + 3.6ha masterplan

Advisory & appraisal

Min

FORMER **LAUNDRY** SITE 115 units + 3.5 acre masterplan

UWE Bristol | University of the West of England

1

Estimating cost of poor
quality urban environment

2

Exploring barriers and opportunities for
creating healthy urban environments
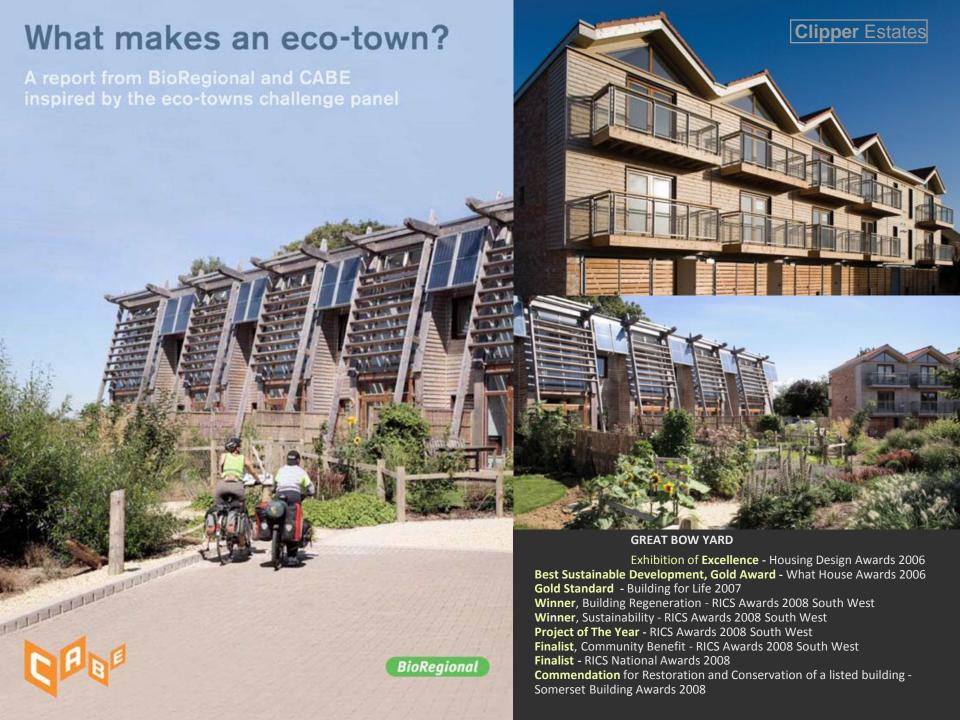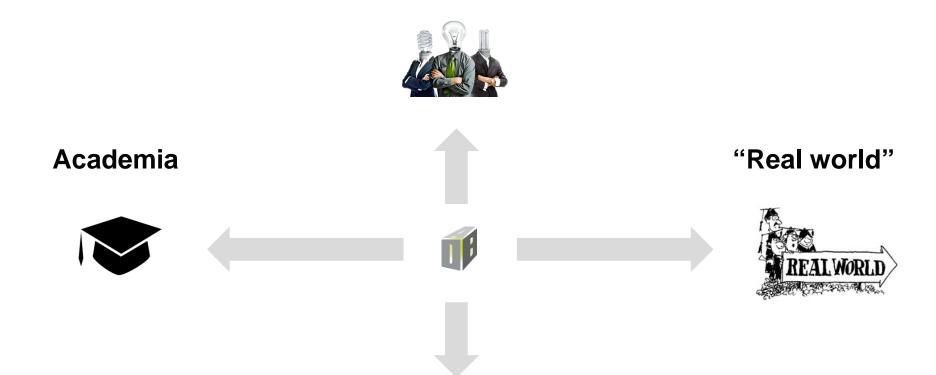
CompendiumLiving
CREATING A REAL SENSE OF PLACE

GMCA
GREATER MANCHESTER
COMBINED AUTHORITY

MANCHESTER
CITY COUNCIL

Homes &
Communities
Agency

Urban Land
Institute

REDROW

BRISTOL
CITY COUNCIL

Bristol & Bath
Regional Capital CIC

Cherwell
DISTRICT COUNCIL
North Oxfordshire

OLD OAK AND
PARK ROYAL
DEVELOPMENT
CORPORATION

UWE Bristol | University of the West of England

UNIVERSITY OF BATH

UNIVERSITY OF WASHINGTON 1861

What makes an eco-town?

A report from BioRegional and CABE
inspired by the eco-towns challenge panel

CABE

BioRegional

Clipper Estates

GREAT BOW YARD

Exhibition of **Excellence** - Housing Design Awards 2006
Best Sustainable Development, Gold Award - What House Awards 2006
Gold Standard - Building for Life 2007
Winner, Building Regeneration - RICS Awards 2008 South West
Winner, Sustainability - RICS Awards 2008 South West
Project of The Year - RICS Awards 2008 South West
Finalist, Community Benefit - RICS Awards 2008 South West
Finalist - RICS National Awards 2008
Commendation for Restoration and Conservation of a listed building - Somerset Building Awards 2008

Consultants

Academia

"Real world"

REAL WORLD

Executives

ON
OFF

HEALTH

+

NATURAL ENVIRONMENT

+

ECONOMICS

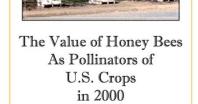# Green Cities – And Why We Need Them

A NEF Pocketbook

Green Infrastructure for the Built Environment (GI4BE)

ciria

GI4BE brings together a strong vision, a collective voice, a compelli[...] associated networking events to [...] GI community intera[...]

The Value of Honey Bees As Pollinators of U.S. Crops in 2000

Roger A. Morse
Nicholas W. Calderone

Cornell University
Ithaca • New York

Biodiversity 2020:
A strategy for England's wildlife and ecosystem services

defra
Department for Environment
Food and Rural Affairs

The Economic Value of Green Infrastructure

Physical inactivity in England

costs the NHS

over £10 billion a year

ORGANISATION
FOR ECONOMIC
CO-OPERATION
AND DEVELOPMENT

OECD

"Outdoor **air pollution kills more than 3.5 million people a year**…

"… (our) 34 Member countries would be **willing to pay $1.7 trillion…**

Road transport is likely responsible for about half."

*"The economic cost (of mental health) to the UK is **£70 to £100 billion a year**."*

OECD, 2014

*"If every household in England were provided with **more equitable access to good quality green space**, then around **£2.1bn in health cost savings** could be achieved by the NHS per annum"*

- Natural Capital Committee, ?

*"We are losing between 2.8 and 5.8 million tonnes of CO2 per year from the **cultivation and drainage of lowland peat soils** (Thompson, 2008). Based on the shadow price of carbon, (£26.5 per tonne of CO2 equivalent), **the annual value of this loss is estimated at £74 million–£150 million**."*

Natural England, 2009

*The **Northwest's environment generates an estimated £2.6bn in Gross Value Added** (GVA), and supports 109,000 jobs.. The **Northwest's woodlands have been valued at £601m** in possible markets for carbon capture and storage…"*

- Natural Economy Northwest, ?

"EXTERNALITIES"

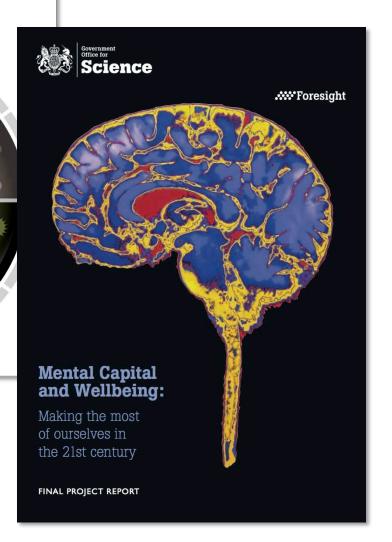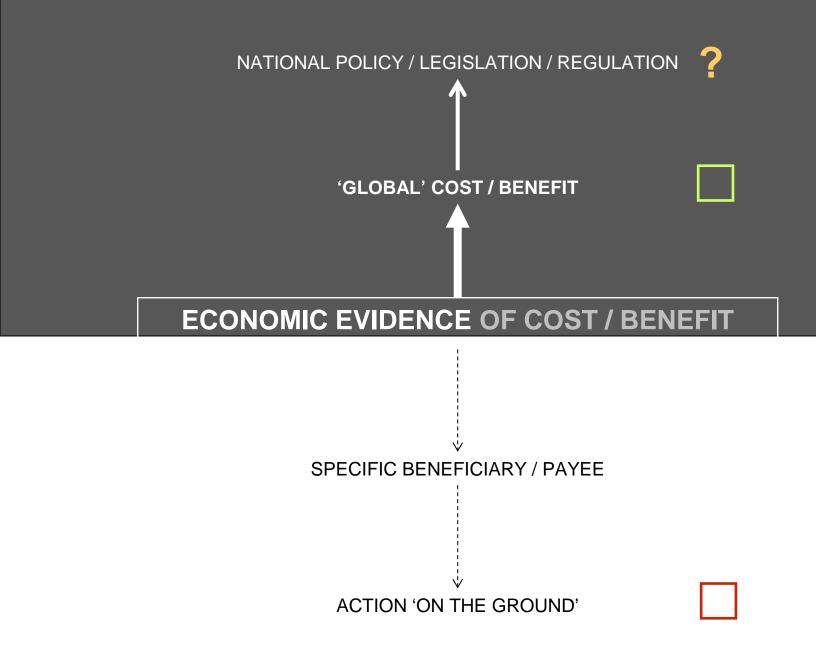|	
Physical inactivity *(25% of adult population are obese)*	**£10.7**bn
Cancer (annual)	**£18**bn
Stress (annual)	**£3.7**bn
2007 floods	**£3.2**bn
2012 floods	**£1**bn
Pay-outs from insurers to flood victims (since 2000)	**£4.5**bn
Honeybee services (value of)	**£200**m p.a.
Global biodiversity decline by 2050	**£14** trillion

Health Effects of Climate Change in the UK 2012
Current evidence, recommendations and research gaps

Sotiris Vardoulakis and Clare Heaviside (Editors)

Health Protection Agency

CLIMATE CHANGE
TEMPERATURE
HEALTH CO-BENEFITS
ULTRAVIOLET RADIATION
INDOOR ENVIRONMENT

Public Health England

NHS England

Sustainable, Resilient, Healthy People & Places
A Sustainable Development Strategy for the NHS, Public Health and Social Care system

Sustainable Development Unit
Working across the NHS, Public Health and Social Care system

Government Office for Science

Foresight

Mental Capital and Wellbeing:

Making the most of ourselves in the 21st century

FINAL PROJECT REPORT

CASE STUDY 3

OUR **PLANET** OUR **HEALTH**

OVERPOPULATION
CLIMATE CHANGE
URBANISATION
FOOD

Supported by
wellcometrust

Moving health upstream
in urban development
decision-making

WHO Collaborating Centre for
Healthy Urban Environments
UWE BRISTOL

UNIVERSITY OF
BATH

UNIVERSITY OF WASHINGTON · 1861

wellcometrust

Fantasy...
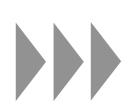
1 Latest urban fantasy

▼

2 Standard volume delivery

▶▶▶ **3**

...reality

4 **PHASE** PROCESS

1 **2** **3** **4**

| Recruitment of advisory groups

Agreement of methodology | ECONOMIC

VALUATION | BARRIERS
&
OPPORTUNITIES | Post hoc analysis

Dissemination |

ECONOMIC **VALUATION**

2a

LITERATURE REVIEW

- Identify **urban-health linkages**
- Role & importance of **confounding factors**

Determine upper and lower bounds

2b

ECONOMIC VALUATION

COSTS:
- **Treatment of illness**
- **Productivity**
- **Welfare**

Validation

Economic & **Health** Advisory Group

ECON REPORT 1

ECON REPORT 2

The health map: Barton and Grant 2006 developed from a concept by Dahlgren and Whitehead 1991
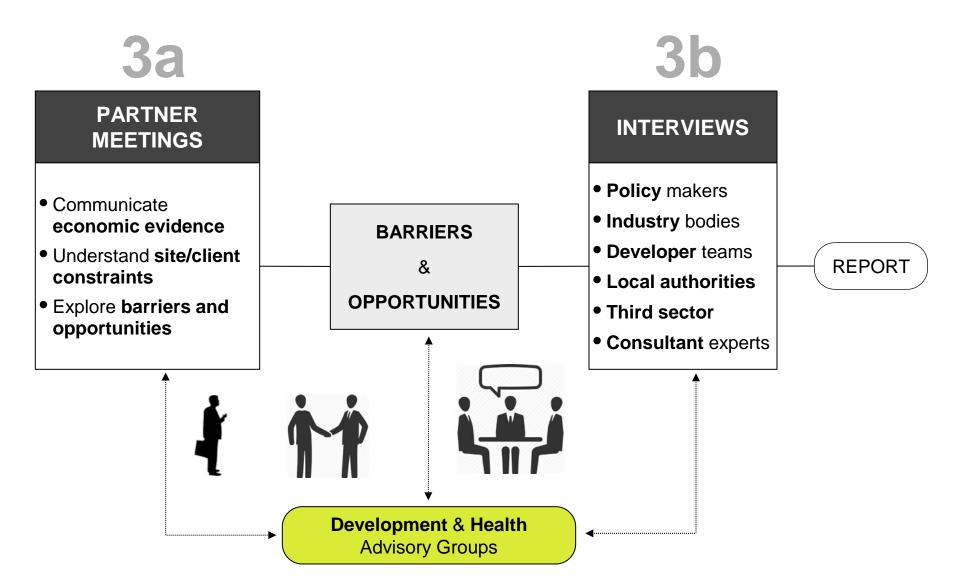
The determinants of health and well-being in our neighbourhoods

+ PHE topic list

+ Vancouver Healthy Toolkit

+ BREEAM Communities

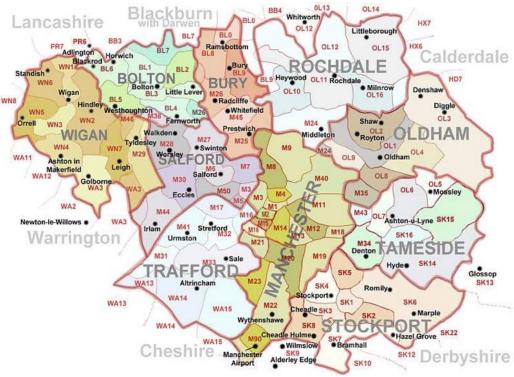+ HUDU Rapid HIA

+ Egan Review

EXPLORING **INTERVENTIONS**

3a

3b

PARTNER MEETINGS

- Communicate **economic evidence**
- Understand **site/client constraints**
- Explore **barriers and opportunities**

BARRIERS & OPPORTUNITIES

INTERVIEWS

- **Policy** makers
- **Industry** bodies
- **Developer** teams
- **Local authorities**
- **Third sector**
- **Consultant** experts

REPORT

Development & **Health**
Advisory Groups

CASE STUDY: **CITY AUTHORITY**

(with £6bn NHS budget)

CASE STUDY: **VOLUME BUILDER**

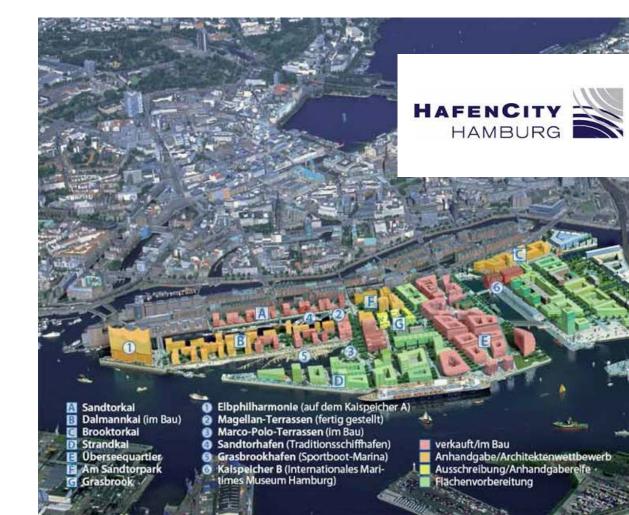# CASE STUDY: **LOCAL AUTHORITY**

CASE STUDY: **SOCIAL HOUSING**

King's Cross

REGENT'S PLACE

HAFENCITY HAMBURG

Urban Land Institute

ULI Building Healthy Places Initiative

A Sandtorkai
B Dalmannkai (im Bau)
C Brooktorkai
D Strandkai
E Überseequartier
F Am Sandtorpark
G Grasbrook

1 Elbphilharmonie (auf dem Kaispeicher A)
2 Magellan-Terrassen (fertig gestellt)
3 Marco-Polo-Terrassen (im Bau)
4 Sandtorhafen (Traditionsschiffhafen)
5 Grasbrookhafen (Sportboot-Marina)
6 Kaispeicher B (Internationales Maritimes Museum Hamburg)

verkauft/im Bau
Anhandgabe/Architektenwettbewerb
Ausschreibung/Anhandgabereife
Flächenvorbereitung

Over 5,000 new homes could be delivered on sites in the HCA's new Land Development and Disposal Plan published
23 views

SHARE

☑ Location of sites

📍 Basildon
📍 Birmingham
📍 Bolsover
📍 Chesterfield
📍 Chichester
📍 Chorley
📍 Corby
📍 Dacorum
📍 Dartford
📍 Doncaster
📍 Medway Towns
📍 Milton Keynes
📍 Newcastle upon Tyne
📍 Northampton
📍 Northumberland
📍 Nottingham
📍 Portsmouth
📍 Redditch
📍 South Ribble
📍 Stoke-on-Trent
📍 Sunderland

Homes & Communities Agency

TYPES OF **INTERVENTION**

E.g.

- Corporate **Governance**
- **Landownership**
- Land **disposal**
- **Procurement**
- **Policy**
- **Innovative** / disruptive **delivery** vehicles
- New **partnerships**
- **Legislation**
- **Compulsory Purchase** Powers

DISSEMINATION

Practice:

via membership bodies

NATIONAL **HOUSING FEDERATION**

HBF HOME BUILDERS FEDERATION

Local Government Association

Urban Land Institute

RICS the mark of property professionalism worldwide

Homes & Communities Agency

The Law Society

Policy:

Local, national and International

Healthy Cities 21st Century

World Health Organization

www.parliament.uk

Public Health England

NHS England

Sustainable Development Unit

Local Government Association

I·C·L·E·I Local Governments for Sustainability

NICE National Institute for Health and Care Excellence

CORECITIES

Academia:

Cross-disciplinary: not only public and clinical health, but

e.g.:
- economics
- engineering
- environmental
- urban development
- planning…

Academic **papers**

Conference **presentations**

Seminar series

CASE STUDY 2
Climate risk to city-wide health

Bristol Health Partners

CONTEXT

- **Relatively minor impact on PCT property**…

- …curtail non-emergency services for around 10 days.

- 1,246 operations and c 8,000 outpatient appointments cancelled

- **£3.8m to mitigate this loss of income**

GLOUCESTERSHIRE   2007

CUMBRIA   2015

Storm Desmond: Schools, hospitals and transport disrupted by flooding

🕓 14 minutes ago | UK

- Cumbria Partnership NHS Foundation Trust – **only running essential services**

- Cumberland Infirmary in Carlisle - **powered by back-up generator**

- **No trains** between England and Scotland via Preston - **road restrictions**

- Association of British Insurers - **"a small army" of claims managers**

- **All but emergency operations cancelled** at the Royal Lancaster Infirmary

United Nations
Framework Convention on
Climate Change

2015

PARIS2015
UN CLIMATE CHANGE CONFERENCE
COP21·CMP11

PRESIDENT

" *…making the business case for climate change adaptation is essential…*

…Unless clients can see the financial benefits of investing in adaptation - as well as the potential costs of not adapting - they will be unwilling to spend money now on adapting for risks which are not certain or clear. **"**

Modern Built Environment Knowledge Transfer Network (MBEKTN)

(From 2013 Survey prepared for the Environment Agency)

" *…the strongest cross-cutting finding is the* **lack of engagement of economic actors** *in the design and implementation of urban responses to climate change.* **"**

Alexander Aylett
Banting Postdoctoral Fellow in Urban Climate Change Governance
Massachusetts Institute of Technology

(From 2014 Global Survey in partnership with ICLEI)

Companies urged to realise true cost of extreme weather

27 November 2014, source **edie newsroom**

Public and private sector organisations are being advised to report their maximum probable annual losses caused by extreme weather, compared with their current assets and operations.

The recommendations come from the latest Royal Society report - Resilience to extreme weather - which encourages all capital owners to realise the value of adapting to extreme events.

The Royal Society encourages all capital owners to realise the value of adapting to extreme events
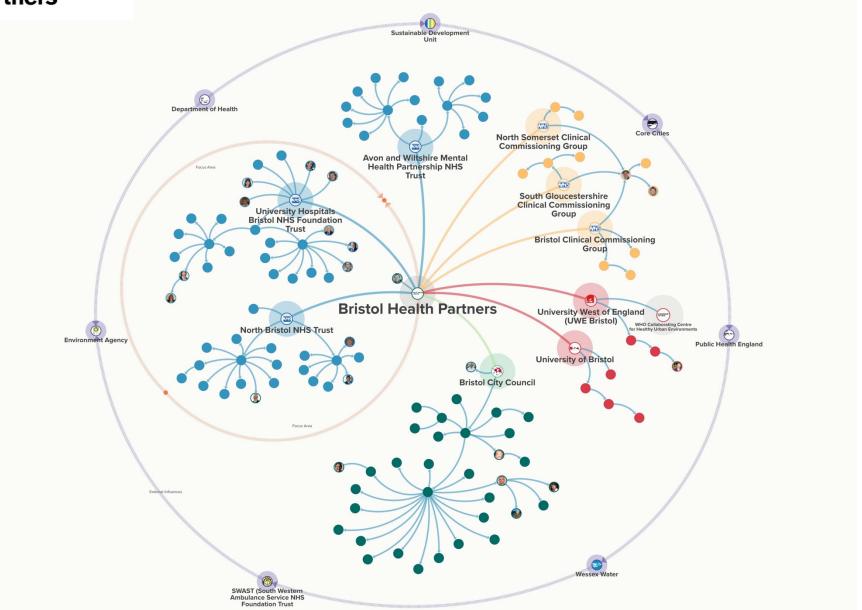
FINDINGS

Bristol City Council

North Bristol NHS Trust

University of Bristol

University Hospitals Bristol NHS Foundation Trust

Bristol Health Partners

University West of England (UWE Bristol)

Avon and Wiltshire Mental Health Partnership NHS Trust

Bristol Clinical Commissioning Group

North Somerset Clinical Commissioning Group

South Gloucestershire Clinical Commissioning Group

Bristol Health Partners

Sustainable Development Unit

Department of Health

Core Cities

North Somerset Clinical Commissioning Group

Focus Area

Avon and Wiltshire Mental Health Partnership NHS Trust

South Gloucestershire Clinical Commissioning Group

University Hospitals Bristol NHS Foundation Trust

Bristol Clinical Commissioning Group

University West of England (UWE Bristol)

WHO Collaborating Centre for Healthy Urban Environments

North Bristol NHS Trust

Environment Agency

Public Health England

University of Bristol

Bristol City Council

Focus Area

External Influences

SWAST (South Western Ambulance Service NHS Foundation Trust

Wessex Water

IDENTIFYING
VULNERABILITIES

- Flooding

- Overheating

- Peak demand disruption?

- Supply chain disruption?

Population Health:

Temperature		
Heat		
Cold		
Air pollution (e.g. ozone)		
Indoor Environment		
Overheating		
Air quality		
Flood damage		
Water Contamination		
Allergens		
Infections		
Ultra-violet radiation		
Flooding		
Vector-borne disease (e.g. ticks, mosquitoes)		
Water and food-borne diseases		
Health co-benefits		

Infrastructure:

Flooding		
Properties		
Transport network (e.g. staff, ambulance)		
Sewage treatment works		
Electricity sub-stations		
Drought		
Water restrictions		
Rising cost of water		
Overheating		
Properties		
Offices		

Other:

Spikes during peak demand		
Supply chains (medical equipment, saline water)		
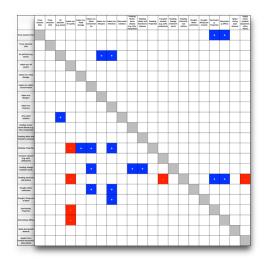
Scanning for '**interdependencies**'

Identified risks + **findings**

Beyond main/known infrastructures (e.g. energy, transport, IT, supplies), e.g.

- **Funding**, staff (e.g. **authorisation**)

- **Fuel** (ambulance, 4x4s, etc.)

- Policy/protocols, **governance** (i.e. what do do if…)

- Specialist or otherwise **irreplaceable staff**

- IT

- Staff shortages (young professionals - **schools**; older professionals - **care homes**)

- **Pharmacies** (esp. their lack of preparedness in this area)

- Mass repatriation costs for large events?

- **Cumulation** of impacts

But…need to understand **scale of impact** in each area…

Data

Population

- Instant Atlas data hub
- Census data, Ward stats, deprivation, health and wellbeing
- State of the City Report Projected pop change by 2037
- Identification of vulnerable population, elderly, young

Over Heating

- Building Height
- Orientation
- Climate Just data - climate and social deprivation

Flood Risk

- Web map highlighting flood risk areas
- Fluvial, Surface, Tidal events
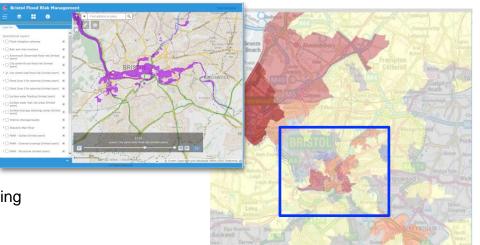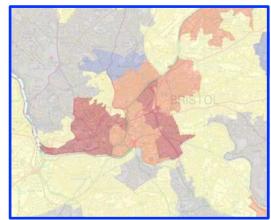- Current risk, 1 in 30yrs, 1 in 100yrs, 1 in 1000yrs events

Infrastructure

- Health properties GP, Health Centres, Hospitals, Care Homes
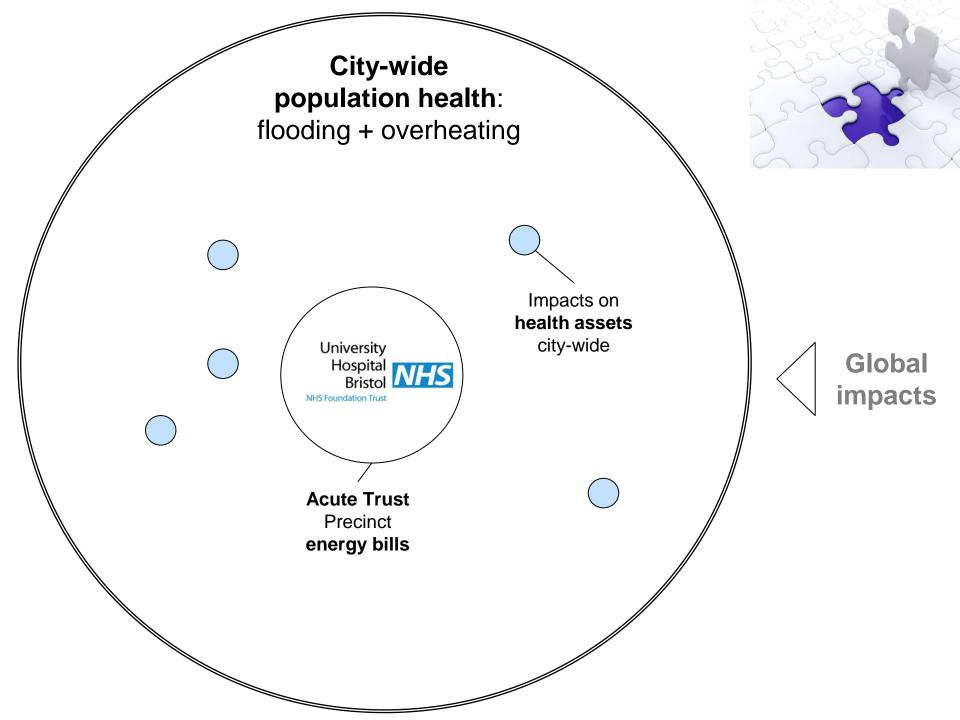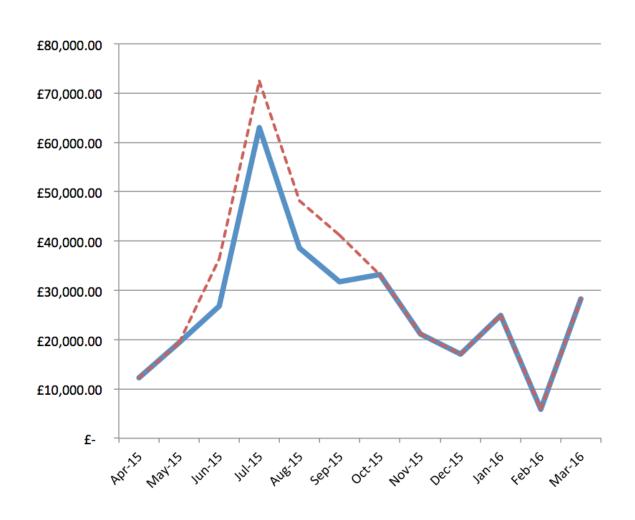- BCC Housing Stock, build type, no. floors, age
- Sub Stations

Risk level	High (1/30yr)	Med (1/100yr)	Low (1/1000yr)
Total properties	16300	26000	29000
Residential properties	16000	22300	24500
Residential population	37600	52400	58600

HealthGIS

NHS
South, Central and West
Commissioning Support Unit

SCW|CSU

City-wide
population health:
flooding + overheating

Impacts on
health assets
city-wide

University
Hospital
Bristol **NHS**
NHS Foundation Trust

**Global
impacts**

Acute Trust
Precinct
energy bills

Summer cooling of BRI Precinct
12% increase due to climate change

- Cost of electricity **c.£322,000 p.a.**

- Current **system** reportedly **at limit**

- 100 portable air-conditioning units (**weekly hire cost c.£8,300**)

- 12% increase: c.£1m by 2040

Health establishments flooded by ward in 2037

Total expected costs

- £3.2 million
- **£4.9 million** (with climate change)

RAYMOND DALLIMORE

Bristol Ward	1/30yr	1/100yr	1/1000yr
Ashley	2	2	2
Avonmouth	4	4	4
Bedminster	1	1	1
Bishopston	0	0	0
Bishopsworth	0	0	0
Brislington East	1	2	2
Brislington West	1	3	3
Cabot	2	4	5
Clifton	1	2	2
Clifton East	1	1	1
Cotham	0	0	0
Easton	1	1	2
Eastville	0	0	0
Filwood	0	0	0
Frome Vale	0	2	2
Hartcliffe	0	0	0
Henbury	0	2	2
Hengrove	2	2	2
Henleaze	0	1	1
Hillfields	1	1	2
Horfield	4	4	4
Kingsweston	0	0	1
Knowle	1	1	1
Lawrence Hill	0	1	1
Lockleaze	1	1	1
Redland	0	0	0
Southmead	4	5	7
Southville	5	6	5
St George East	0	0	0
St George West	1	1	1
Stockwood	0	0	0
Stoke Bishop	1	1	1
Westbury-on-Trym	0	1	1
Whitchurch Park	0	0	0
Windmill Hill	0	0	0

Overheating

- Respiratory and cardiovascular impacts

- All *mortality* costs and majority of *morbidity* costs 'non-financial'

- **Estimated BHP costs = 5% of total**

Costs from overheating in Bristol, 2016 - 2040 (£ millions)

Climate scenario	Low	Medium	High
Total expected annual cost £ million	16	33	75
Total expected cost to 2040 £ million	400	800	1800

- <u>Annual:</u> **c. £800,000 - £3.8 million** (low-high) **p.a.**

- <u>Cumulative:</u> **c. £20 million - £90 million** (low-high)

Flooding

- Flood risks: 1) river, 2) coastal and 3) surface water

- Costs: 1) non-fatal, 2) fatal and 3) mental stress
  - **Treatment costs - 30%**
  - Cost of lost productivity - 20%

  - *(Pain and suffering - 50%)*

Costs from flooding in Bristol, 2016 - 2040 (£ millions)

	1 / 30 yr	1 / 100 yr	1 / 1000 yr
Total Health annual	45.6	21.2	2.3
Total expected annual cost £		114.1	
Total expected cost to 2040 £		**2,853**	

- <u>Annual:</u> **c. £35 million p.a.**

- <u>Cumulative:</u> **c. £600 million** (by 2040)

Breaking points:
No. times on 'Black Alert' 2012-16

- **Children services** particularly between **Nov-Feb**

- UHB is **tertiary care provider for paediatrics**

- **Adult spikes** less extreme seasonally

- **Escalation plan**

	Bristol Children's Hospital	**Bristol Royal Infirmary (April 2013-May 2016)**
2012	1	unknown
2013	2	**46**
2014	1	16
2015	4	**68**
2016	4	12

RESPONSE

(from Exec Board)
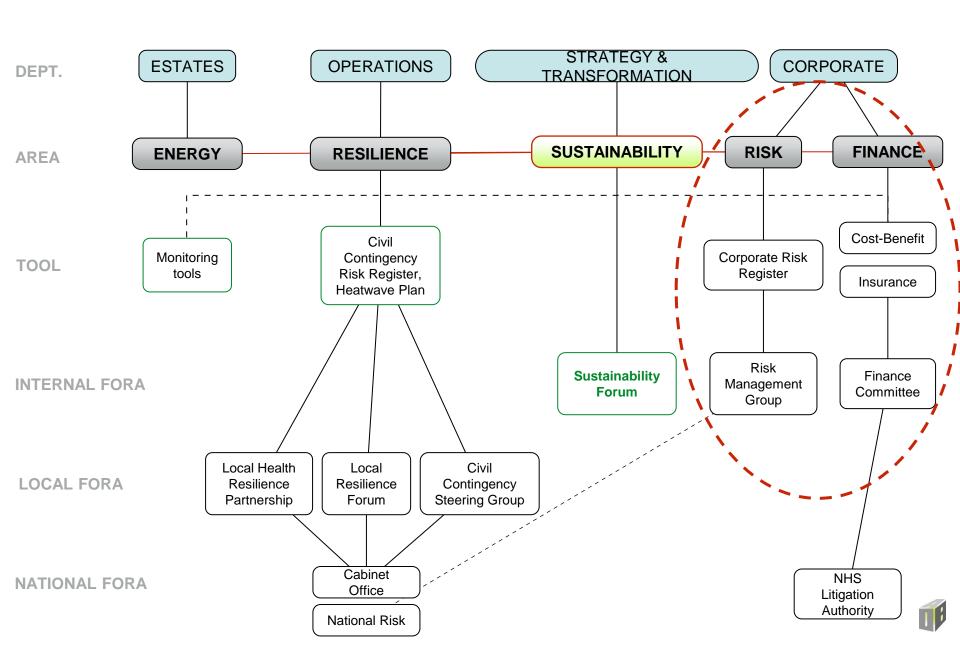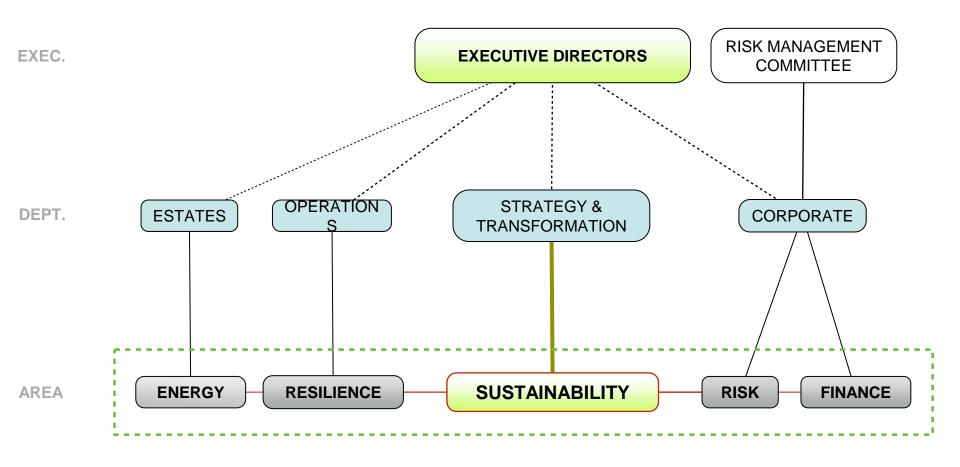
ORGANISATIONAL LEVEL:
Mapping cross-departmental responsibility for climate risk

DEPT.

ESTATES | OPERATIONS | STRATEGY & TRANSFORMATION | CORPORATE

AREA

ENERGY — RESILIENCE — SUSTAINABILITY | RISK — FINANCE

TOOL

Monitoring tools

Civil Contingency Risk Register, Heatwave Plan

Corporate Risk Register

Cost-Benefit

Insurance

INTERNAL FORA

Sustainability Forum

Risk Management Group

Finance Committee

LOCAL FORA

Local Health Resilience Partnership

Local Resilience Forum

Civil Contingency Steering Group

NATIONAL FORA

Cabinet Office

National Risk

NHS Litigation Authority

ORGANISATIONAL LEVEL:

RECOMMENDATION 1: **Expand Sustainability Forum**

EXEC.

EXECUTIVE DIRECTORS

RISK MANAGEMENT COMMITTEE

DEPT.

ESTATES

OPERATIONS

STRATEGY & TRANSFORMATION

CORPORATE

AREA

ENERGY

RESILIENCE

SUSTAINABILITY

RISK

FINANCE
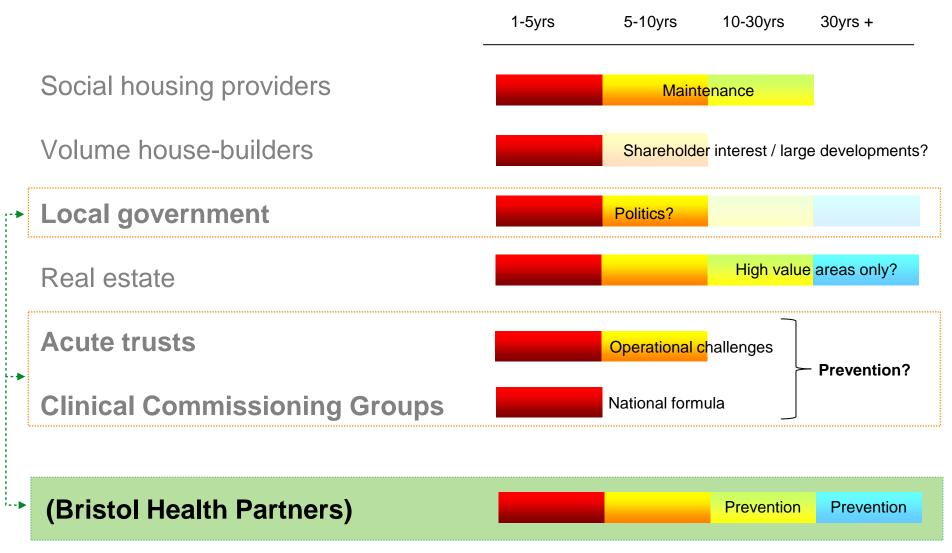
Linear increase over 5 year period

5 Yr Cumulative

- c. £200m
- £175m

Total
Flooding
Overheating - high
Overheating - low
Electricity

- £35m
- £2.3m
- £19m
- £2.4m

Years

UNIVERSITY OF
BATH
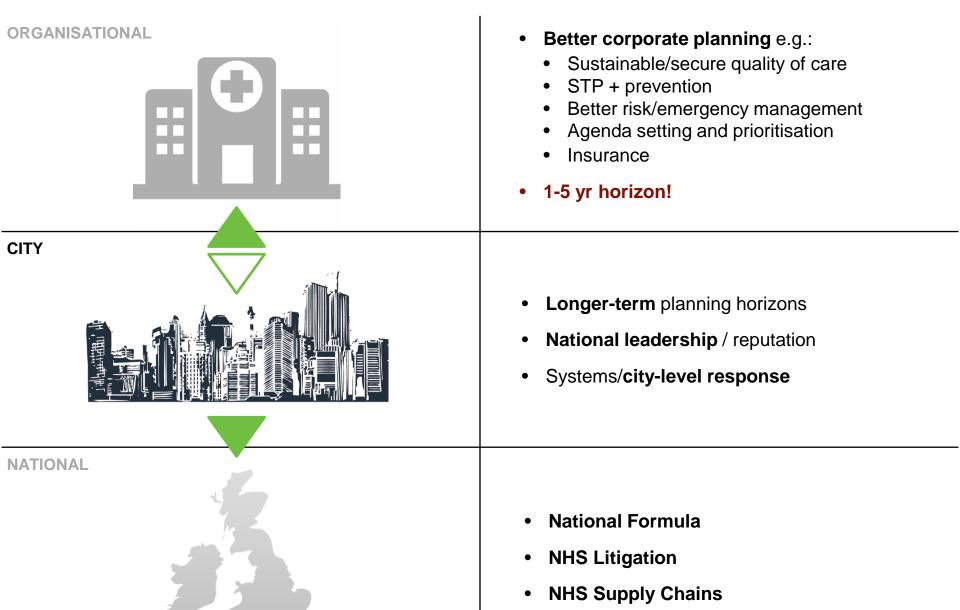
Health sector needs **space for long-term thinking**

	1-5yrs	5-10yrs	10-30yrs	30yrs +
Social housing providers		Maintenance		
Volume house-builders		Shareholder interest / large developments?		
Local government		Politics?		
Real estate			High value areas only?	
Acute trusts		Operational challenges		
Clinical Commissioning Groups		National formula		
(Bristol Health Partners)			Prevention	Prevention

Prevention?

Systemic action on three levels

ORGANISATIONAL

- **Better corporate planning** e.g.:
  - Sustainable/secure quality of care
  - STP + prevention
  - Better risk/emergency management
  - Agenda setting and prioritisation
  - Insurance

- **1-5 yr horizon!**

CITY

- **Longer-term** planning horizons

- **National leadership** / reputation

- Systems/**city-level response**

NATIONAL

- **National Formula**

- **NHS Litigation**

- **NHS Supply Chains**

New world of risk: embracing the unknown

Perspectives on risk for the Social Housing sector

In association with
Ipsos MORI

ZURICH®
MUNICIPAL

Risk	Description	Rank	Trend Indicator
1	Climate Change	B2	↗
2	Protecting Sensitive Data	B2	↑
3	Governance & Regulatory Issues	D1	↗
4	Failure to Manage Financial Plan	C2	↗
5	Reputational Damage	C2	↑
6	Supply Chain Management	B3	↔
7	Diversification	B3	↗
8	Demographic & Market Change	A4	↗
9	Fire & Explosions	C3	↔
10	Community Cohesion	D3	↗
11	Sustainability	E3	↗
12	Political Uncertainty	E3	↗
13	Loss of Critical Infrastructure	E3	↔

Climate change is not recognised as a risk

Type	Description
Patient Safety	Risk of <u>harm to patients</u>, includes physical and psychological harm.
Quality	Impact on the <u>quality of our services</u>. Includes complaints and patient experience risks.
Workforce	Risks relating to human resources (not safety), organisational development, staffing levels and competence and training compliance
Statutory	Risks relating to non-compliance of upon on our statutory obligations, regulatory compliance, assessments and inspections
Reputation	Risk to department, service or Trust <u>reputation</u> through adverse publicity
Business	Risks with the potential to impact upon our business or project objectives. Includes **service and business interruption**.
Finance	Risks relating to <u>financial matters</u> or non achievement of savings schemes targets.
Environment	<u>Risks involving the environment</u>, including chemical spills, pollution, <u>atmosphere</u> or **carbon footprint**.

*"**This research** provides us with new information that **opens the door to discussions at strategic level about how** we can collaborate proactively at organisational, city and national level **to address this public health issue**."*

Paula Clarke

Head of Strategy and Transformation

University
Hospital
Bristol **NHS**
NHS Foundation Trust

"

*"Most **executives** are aware of the threat of climate change, but they **need tangible evidence like this to justify action**, as well as support in balancing short and long-term interests.*

*This **innovative new approach** fits within existing decision-processes and **allows executives to respond efficiently and effectively**; it should provide a framework that allows executive decision makers to understand and respond to the known – and increasing – impacts of climate change.*

*I recommend decision makers looking for ways to understand and address these impacts **to try it**."*

"

David Relph

Director

Bristol Health Partners

"
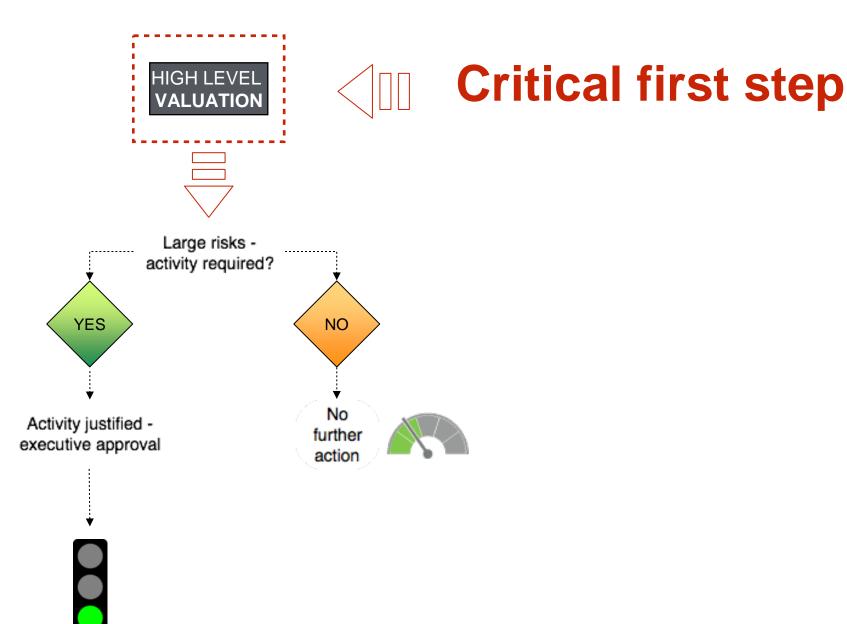
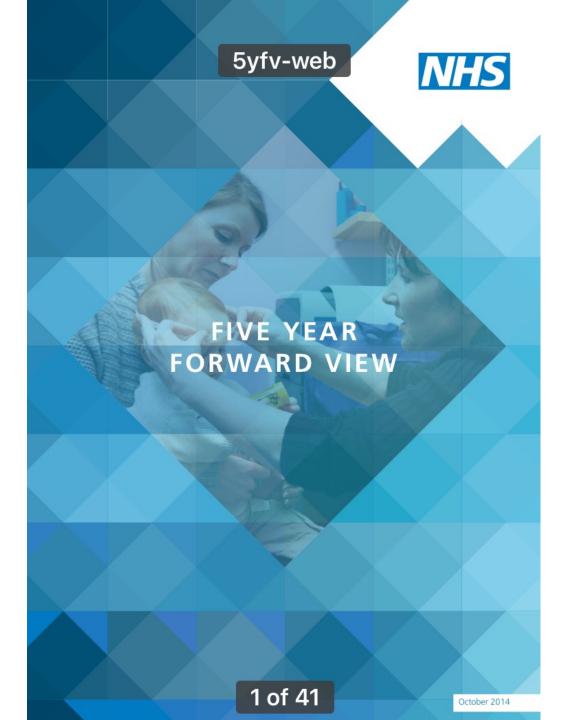*I can see this moving preparedness for extreme weather significantly up the corporate agenda.*

"

Douglas Smith
Head of Governance & Assurance
Aster Group

aster

HIGH LEVEL **VALUATION**

Critical first step

Large risks - activity required?

YES

NO

Activity justified - executive approval

No further action

Making the economic case for health and environment:

Integrating within STPs

NHS

FIVE YEAR
FORWARD VIEW

October 2014

"*The future* health of millions of children, the sustainability **of the NHS**, and the economic prosperity of Britain all **now depend on** a radical upgrade in prevention and public health."

The 2002 Wanless **Health Review warned that** *"unless the country took prevention seriously we would be faced with a sharply rising burden of avoidable illness*. That warning has not been heeded – and the NHS is on the hook for the consequences."
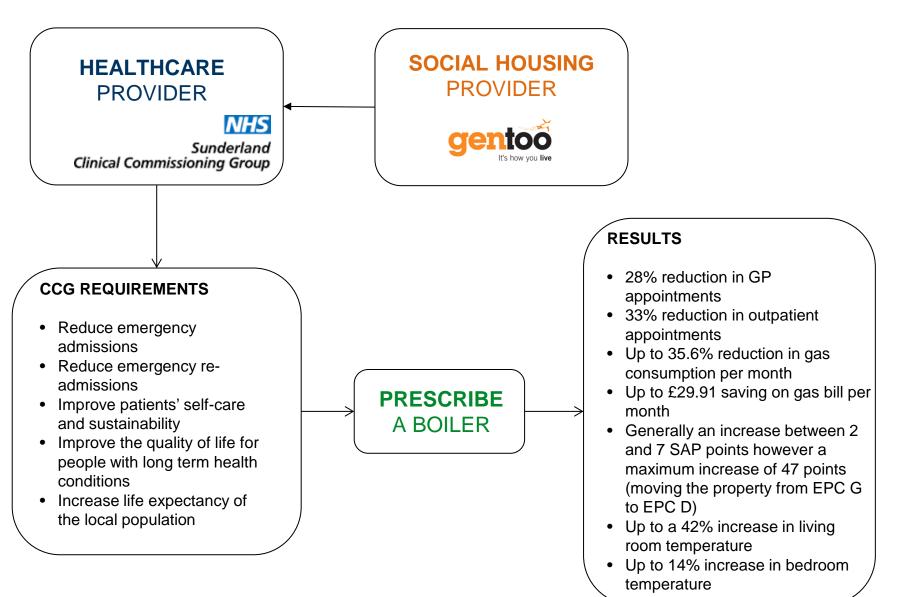
- Five Year Forward View (NHS, Oct 2014)

NHS Five Year Forward View	Thoughts / questions
• *"Prevention" + "Service pressures"* • *"Stabilising core funding" + "Increasing demand"* • *"2-3% efficiency by end of period provided we take action on prevention, invest in new care models, wider system improvEments"*	**Is climate change taken in to account?**
• *PROJECTIONS - "NHS spending per person would take account of population growth"*	**What about climate and other health/environment impacts?**
• *"New partnerships with local communities, local authorities and employers"* • *"Multi-speciality Service Providers"* • *"Integrated primary and acute trust care"*	**Who? How?**
• *"Hard hitting action"* • *"Stronger public health-related powers for local government and elected mayors"*	**Holistic engagement on this issue, or mainly the health sector?**
• *"Patients will gain far greater control of their own care"* • *"break down barriers" -*	**What are GPs/nurses doing to educate the wider public about health and the environment?**
• *"Undertake research and apply innovation"* • *"New test bed sites for world-wide innovators"* • *"Completely new NHS services designed from scratch"*	**Great! But fully holistic in its thinking?**

Government Mandate to NHS England		Relevance *	Notes
1.1: CCG performance	• Consistent improvement in performance of CCGs against new CCG assessment framework.		National Formula?
2.1: Avoidable deaths and seven day services	• Avoidable deaths		Over time period to 2020?
	• Trusts rated outstanding or good		How measured?
	• NHS to be the world's largest learning organisation		Tenuous link
2.2: Patient experience	• Number of people recommending services		
	• Personal health budget or integrated personal budget		
	• Patient choice		
3.1: Balancing the NHS budget	• Ensure NHS balances its budget in each financial year		Critical to action in this area, but no direct link
	• Achieve year on year improvements in NHS efficiency and productivity (2-3% each year), *including from reducing growth in activity* and maximising cost recovery.		
4.1: Obesity and diabetes	• Measurable reduction in child obesity		Plenty of evidence linking quality of urban environment to obesity/diabetes, including access to green space, but not yet directly quantified costs to specific organisations within 1-5 year period
	• 100,000 people supported to reduce their risk of diabetes		
	• Measurable reduction in variation in management and care for people with diabetes.		
4.2: Dementia	• Measurable improvement on all areas of Prime Minister's challenge on dementia 2020		
5.1: A&E, Ambulances and RTT	• 95% of people attending A&E seen within four hours		Direct links to risks from climate change, though links to green infrastructure even less direct
	• 75% of Category A ambulance calls responded to within eight minutes		
	• At least 92% of patients on incomplete non-emergency pathways to have been waiting no more than 18 weeks from referral; no-one waits more than 52 weeks.		
6.1. New models of care and general practice	• 100% of population has access to weekend/evening routine GP appointments.		Evidence (e.g. Exeter, Edinburgh) on benefits of green space on health
	• Measurable reduction in age standardised emergency admission and emergency inpatient bed-day rates		
	• Significant measurable progress in health and social care integration		
	• 5,000 extra doctors in general practice.		
6.2: Health and social care integration	• Achieve better integration of health and social care - performance against integration metrics		Overlaps here again with GI/BI and climate change
6.3: Mental health, learning disabilities and autism	• To close health gap between people with mental health problems and the population as a whole		As above
7.1: Research and growth	• Improve the UK's international ranking for health research.		Possibly. How is this measured?
	• Implement research proposals and initiatives in the NHS England research plan.		Yes - if relevant to evaluation
	• Measurable improvement in NHS uptake of affordable and cost-effective new innovations		
7.3 Health and work	• Contribute to reducing the disability employment gap.		
	• Contribute to the Government's goal of increasing the use of Fit for Work.		

Financing and decision-making	• Ensure NHS balances its budget in each financial year and achieves year on year improvements, including from *reducing growth in activity*
Measurement	• **Avoidable deaths** • **Child obesity, diabetes, dementia** • **Emergency services** • Trusts rated outstanding or good • Integration • **Mental health** • Disabilities
Research	• NHS to be the world's largest learning organisation • Improve the **UK's international ranking for health research** and implement research proposals • Measurable improvement in NHS uptake of affordable and cost-effective **new innovations**
Health / environment in policy	• Consistent improvement **in performance of CCGs** against new CCG assessment framework.
Health sector role as educator on environment	• Personal health budget or integrated personal budget • Patient choice • Number of people recommending services
Better integration of services locally	• Achieve better **integration**

Same messages as FYFV, but…

SHORT TERM

NO CLIMATE RISK

INTEGRATION, BUT ONLY WITHIN REACTIVE 'HEALTH' SECTOR

INNOVATION + INTEGRATION

HEALTHCARE PROVIDER

NHS
Sunderland
Clinical Commissioning Group

SOCIAL HOUSING PROVIDER

gentoo
It's how you **live**

CCG REQUIREMENTS

- Reduce emergency admissions
- Reduce emergency re-admissions
- Improve patients' self-care and sustainability
- Improve the quality of life for people with long term health conditions
- Increase life expectancy of the local population

PRESCRIBE A BOILER

RESULTS

- 28% reduction in GP appointments
- 33% reduction in outpatient appointments
- Up to 35.6% reduction in gas consumption per month
- Up to £29.91 saving on gas bill per month
- Generally an increase between 2 and 7 SAP points however a maximum increase of 47 points (moving the property from EPC G to EPC D)
- Up to a 42% increase in living room temperature
- Up to 14% increase in bedroom temperature

What might the benefits be from a fully integrated healthy city?

e.g. Trans-disciplinarity, co-creation

Key principles at the start of our journey

Five key drivers that will enable us to develop and implement a sustainable health and care system for our population:

1 Standardise and operate at scale
- Reduce variation
- Reduce fragmentation
- Work at scale
- Develop single commissioning voice
- Increase collaboration

2 Develop system-wide pathways
- Address variation in pathways
- Include prevention and self-care at all stages
- Ensure consistent quality and access across BNSSG

3 Develop a new relationship with our population to simplify access to the health and care system
- Deliver services predominantly in the community
- Enable people to care for themselves
- Development single point of access, multi-disciplinary teams
- Focus on prevention and early intervention

4 Develop a new relationship between organisations and staff
- Remove organisational barriers to encourage integrated working
- Support staff to deliver better services
- Develop interoperable IT and HR systems
- Align resources
- Promote health and wellbeing of staff

5 Build on existing digital work as a driver and enabler of cultural change
- Use technology to drive a cultural change in the way we work
- Develop mobile working for staff, digital medical records and solutions for self-care and prevention

NHS

SHORT-TERM PLANNING: LONG-TERM PREVENTION

	1-5yrs	5-10yrs	10-30yrs	30yrs +

SHORT-SIGHTED STPs
(albeit conforming to guidelines)

Action on short-term prevention.
No action on long-term prevention.

NEXT GENERATION STPs

Planning for long-term prevention

SUMMARY RECOMMENDATIONS FOR STPs

- 1-5 year **STP must plan for long-term**

- **Justification** for planning in the short-term can come **from better evidence of risk**

- **Translation** / mediation **needed between silos**

THANK YOU!