

# Reducing the NHS Carbon Footprint: Driving Carbon Reduction at a Regional Level

**Climate Change, Healthcare and Carbon Footprints Conference**

**Sydney 6 August 2010**

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# Why Act? Rehearsing the National Argument

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- The most serious strategic health threat
- Health co-benefits / virtuous cycles
- Commitment of health staff and organisations
- Big savings - cost, tax, reputation, lives...
- Need for health services to be resilient, adaptable, and sustainable
- Mitigation, Adaptation and Futures Planning

## **Carbon Management and Legislative Demands**

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**Climate Change Act 2008: what this means for the NHS**

**Governmental target to reduce carbon emissions by 80% by 2050 (as measured from 1990 levels)**

**Securing the Future HM Gvt Sustainability Strategy 2006**

**DH Sustainable Development Plan**

**Carbon Impact of the NHS: NHS Constitution and Operational Framework**

**Saving Carbon, Improving Health: NHS Carbon Strategy for England January 2009**

**North West Climate Change Action Plan: NHS Contribution to carbon footprint reduction**

**North West NHS Carbon Reduction Plan**

# Securing The Future:

Delivering UK Sustainable development strategy HM Gvt 2005

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## The five guiding principles of sustainable development

- Living within environmental limits
- Ensuring a strong, healthy and just society
- Achieving a sustainable economy
- Promoting good governance
- Using sound science responsibly

# Department of Health Sustainable Development Action Plan

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- the NHS as a corporate citizen;
- food and health in the context of sustainable food and farming;
- transport and health;
- healthy, sustainable communities; and
- health impact in partnership in the regions.

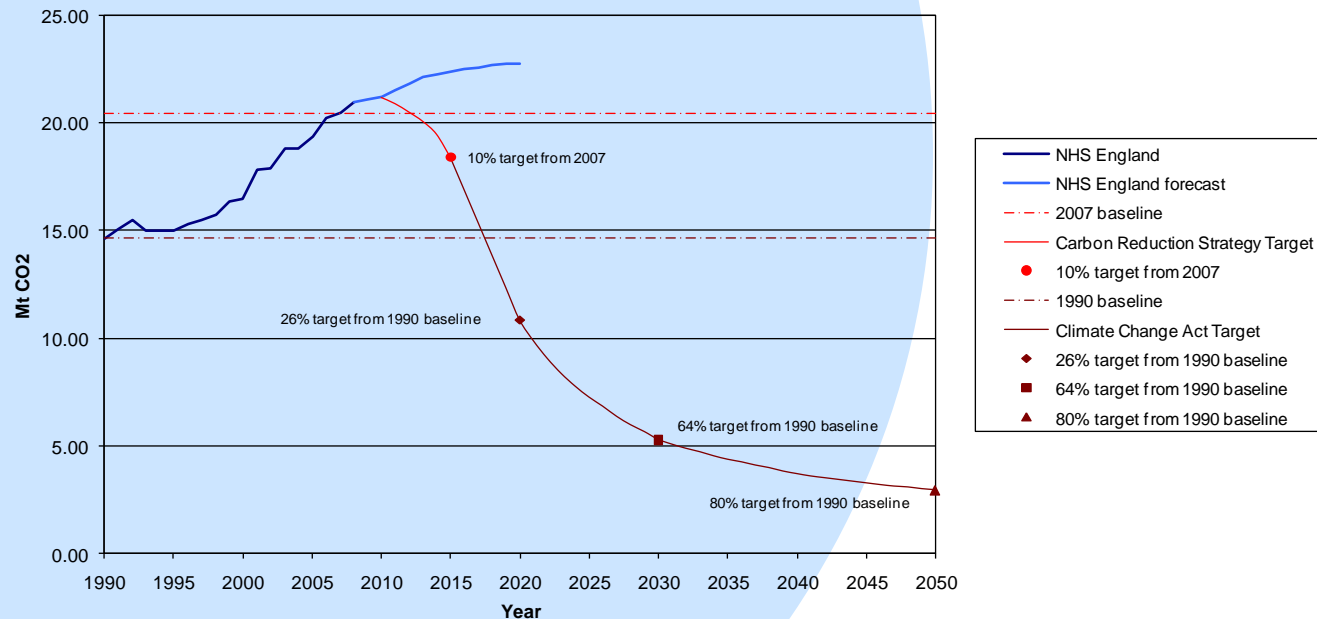
## **‘Taking the Long Term View’: DH’s strategy for delivering SD 2008-11**

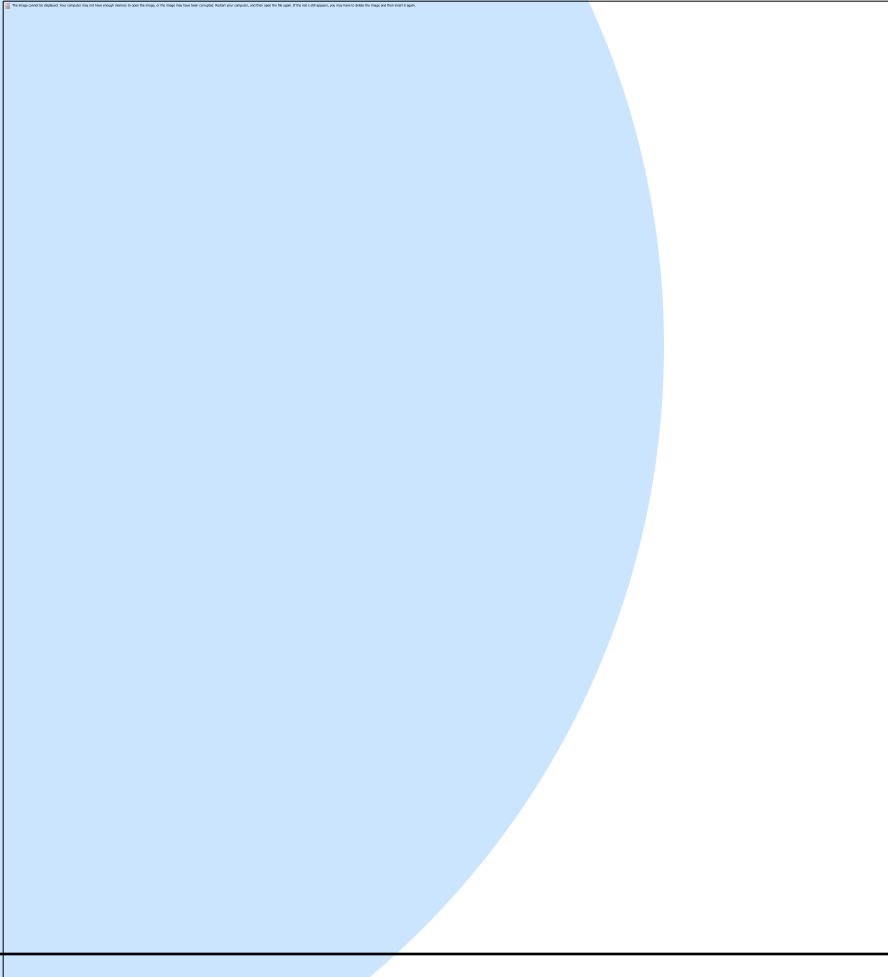
Considering environmental impact and sustainability alongside health more systematically in our policy making.

Supporting the NHS to reduce carbon emissions and improve the sustainability of its operations and procurement practices including working with local authorities as commissioners of adult social care

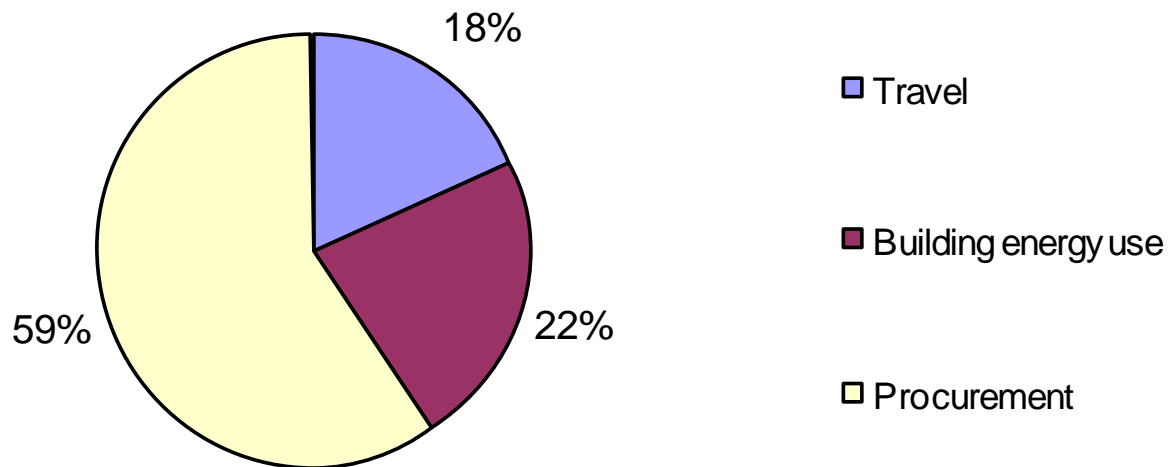
# NHS England CO2 baseline to 2020: Climate Change Targets

NHS England CO2 baseline to 2020 with Climate Change targets





**Figure 1a - 2004 NHS England Carbon/CO2 Emissions  
Primary Sector Breakdown**



## Regional Governance

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- Making Carbon a corporate issue
- Role of the SHA : support performance improvement and challenge- and lead
- Role of Healthcare Regulators: Care Quality Commission, Monitor : To consider sustainability and the environmental impact of services as integral to quality standards
- The NHS delivers carbon reduction through embedding Sustainable Development in its commissioning frameworks
- The NHS delivers its carbon reduction and sustainability commitments within the Local Area Agreement partnerships
- **SHA supporting Trusts to implement the NHS Carbon Strategy:**

***Board approved Sustainable Development Plan  
Board Progress Reports on Carbon Plan  
Monitor, Review and Report to Board on Carbon  
Carbon Performance mainstreamed within Annual Report  
Board level lead for carbon reduction  
NW NHS Trust Board Development Programme***

# Regional Policy Levers

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- **North West Regional Climate Change Action Plan:** NHS contribution to carbon footprint reduction
- North West NHS Carbon Reduction Plan
- Climate Change and Health initiative:
  - *Support network*
  - *Champions*
  - *Clusters*
  - *Information and practice exchange*
- *Procurement and Metrics trials*

## UK Public Sector Austerity

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# The Coalition : Programme for Government

## The withering of the Big State and growth of Big Society?

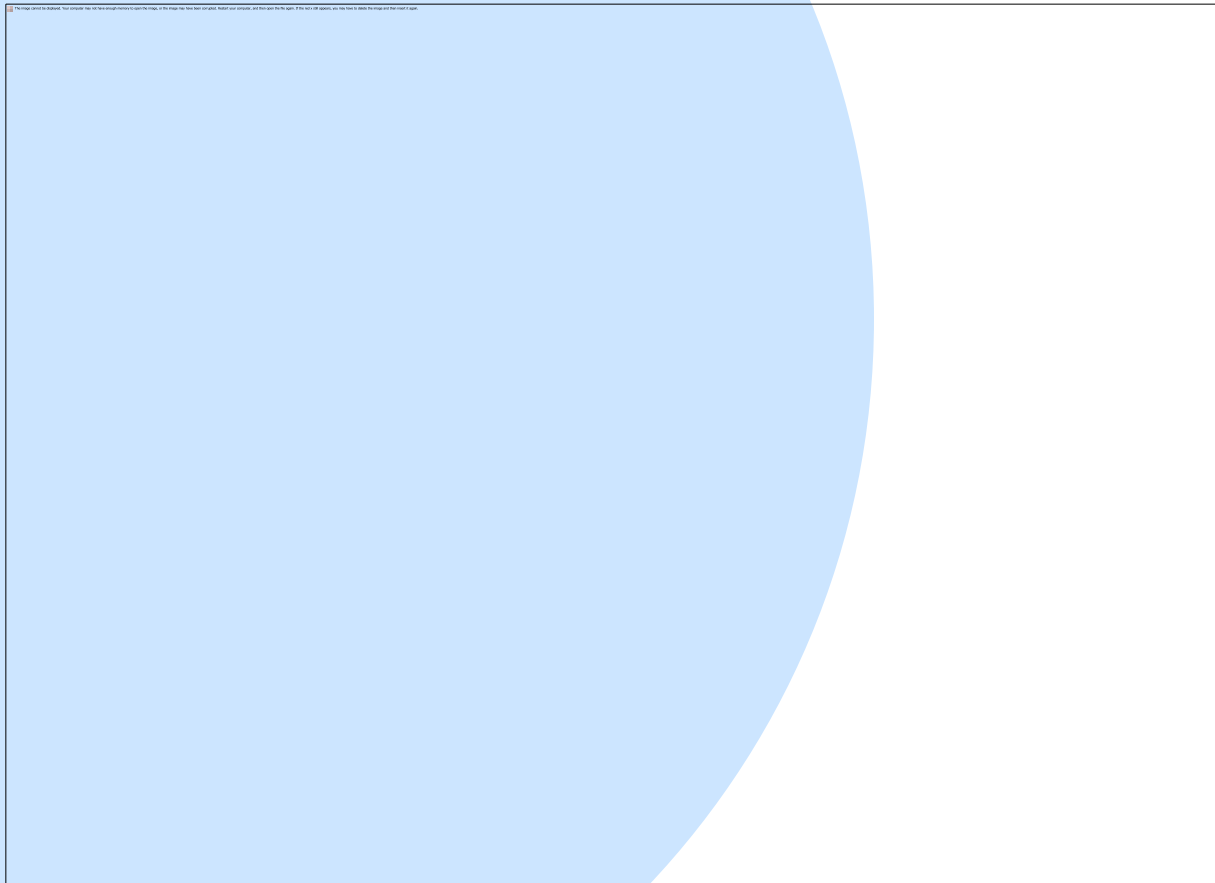
### A new Chapter for Welfare and Public Service

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# The unstoppable Revolution in Public Services –from Fordism to Co-Production

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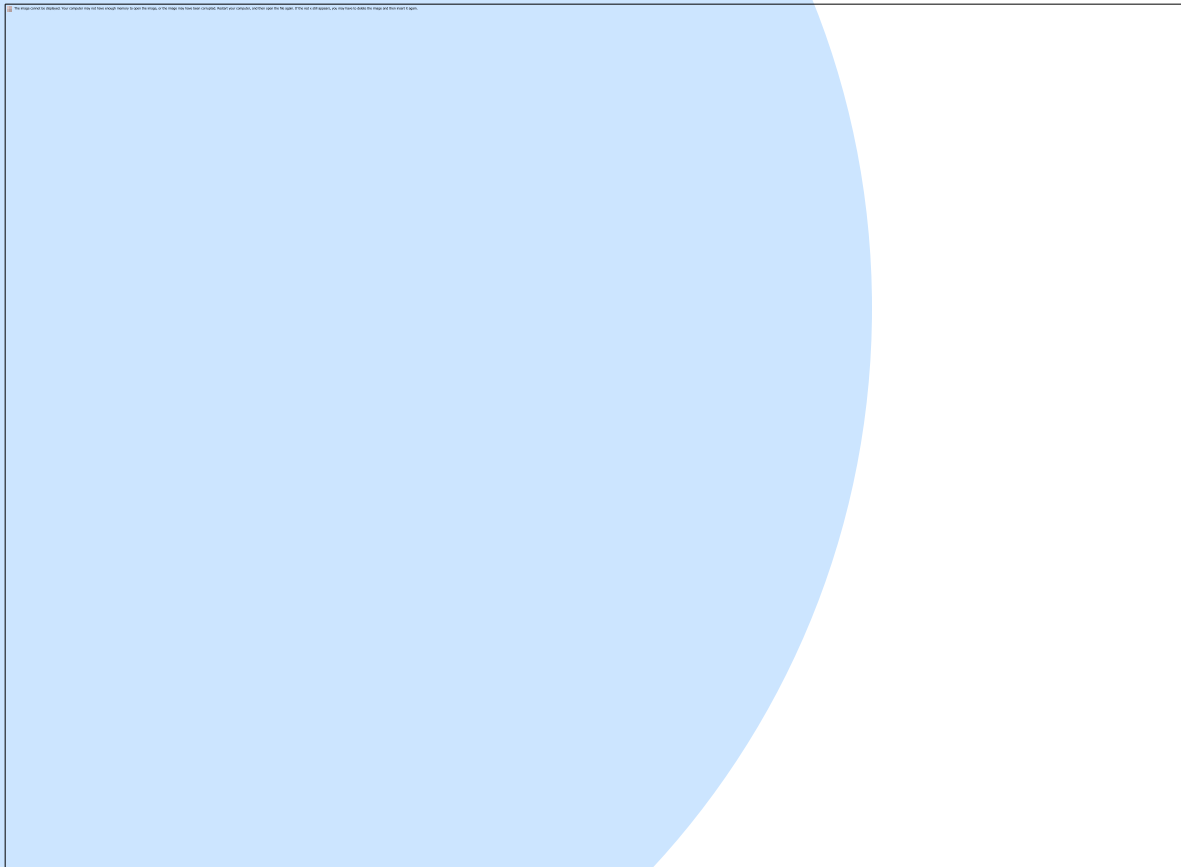
# Demand and Supply: Easy-Public Services

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## Delivering a lot more for Much Less?

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# North West Collaborative Commercial Agency

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**Developing the North West NHS capability and capacity to respond to the increasing commercial landscape within the NHS and continue to drive value on the broader commercial basis**

- **Seamless provision of local supply chain services**
- **Structured tactical sourcing**
- **Compliance driven towards both hub and national contracts**
- **Information capture to enhance future sourcing decisions**
- **Hub Service Delivery Model**
- **COMMITMENT OF TRUST SPEND VIA SLAs. CLINICAL INPUT AND ENGAGEMENT**

**Centralised category strategic sourcing**

- **Consolidation of local trust expenditure**
- • **Economies of sourcing scale**
- • **Leverage and retention of scarce skilled resource**

## Procuring and Commissioning for Carbon Reduction

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- A 1% redirection of the NHS non-pay spend could generate around £5 million for the NW Economy
- Sustainable Procurement: NW NHS Collaborative Commercial Agency- improving local suppliers' access to NHS business
- Measured economic benefits- local multiplier 3 framework. Spending more money in the local economy to improve local health, wealth and social well-being.
- NW NHS and Groundwork have developed a sustainable development strategy to involve local businesses in the annual £2.2bn NHS goods and service chain in the region.

## Organisational Efficiencies

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- Cost-neutral low carbon efficiency response to rising energy costs and energy security issues
- A reduction of NHS energy costs by 15 % would save 50m a year
- Whole life-cycle costings
- Shadow carbon pricing
- Organisational staff support: promoting awareness, behaviour change programmes, encouragement of home working, virtual meetings, ICT useage.

## Energy, Waste, Travel and Carbon Management

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- Making the business case for carbon reduction
- Evaluating low carbon options for energy
- Renewable energy sources
- Applying low carbon technologies eg to domestic and clinical waste management
- Active travel plans for staff
- Promotion of care closer to home, telemedicine
- Teleworking, lease car schemes, sustainable travel options
- Sustainable Impact Assessments: New Estate
- Resource efficiency and financial savings via low carbon clinical pathways

# Reducing the NW NHS Carbon Footprint

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- 72% of NW Trusts utilise the SDC Good Corporate Citizen toolkit as self assessment on energy, waste, travel, employment, facilities (22% in London)
- Measuring our carbon footprint and leading an effective carbon reduction strategy for the NW NHS
- Ensuring key stakeholders are 'carbon literate', prepared and supported
- NW NHS Health and Sustainable Development Network re-launch July 2009 to include non-health workforce
- NHS SD Champions at all levels in the organisations from CEO down to operational
- Sharing emerging practice in effective carbon reduction across the NW NHS, the public sector and with business.

# Local Area Agreements and Carbon Reduction

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- **Each of the 23 North West LAAs has *at least one* Climate Change-related target**

NI 186. Area Co2 Emission Reductions: Features in 16 of the LAAs

NI 185. L.A Operational Co2 Reductions: Features in 3 of the LAAs

NI 188. Adaptation to Climate Change: Features in 7 of the LAAs

NI 167. Congestion Reduction: Features in 9 of the LAAs

NI 187. Fuel Poverty: Features in 6 of the LAAs

NI 154. Net additional homes: Features in 1 of the LAAs

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# Core Corporate Actions

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- **Chair: NHS Good Corporate Citizen sign up – CEO objective**
- **CEOs: Corporate responsibility carbon governance**
- **All senior executives: sustainability objectives / reporting mechanisms**
- **Corporate Climate change > a specific section on risk register**
- **Finance: CRC and shadow carbon pricing, carbon standard, clear risk management**
- **Performance: CQC, Operating Framework, LAA..**
- **Estates/facilities: smart metering of energy, and sustainable access planning**
- **Commissioning and Procurement criteria and standards**
- **Workforce. Board development > staff development**
- **Comms: Staff and public buy-in, corporate objectives and reputation**

# Future-Planning for Low Carbon: North West Pilots

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- Healthcare scenarios for the NHS to 2030: Climate Futures
- Development of a blueprint for optimum low carbon healthcare buildings
- Impact of Climate Change on NHS- Contribution to adaptation

# Innovation : Campaign for greener healthcare

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**Green Nephrology Initiative:** 3 Year Study at a UK Renal Unit  
(Coventry)

Carbon footprinting renal services

Follow-up of Renal Transplant patients by telephone  
consultation (£18) rather than hospital consultation (£2-300)

Commissioning pathways of care not episodes of care

# What is sustainable development?

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*“Sustainable development is economic development which actively promotes social justice and equity and which protects and enhances the natural environment”*

Unsustainable development throughout the 19<sup>th</sup> and 20<sup>th</sup> century has led to:

- Climate Change
- Unequal global economic development and global poverty
- Environmental degradation

With severe consequences for biodiversity and human health

# UK Public Health Association

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Key issues arising from unsustainable development :

- A National Health Services which has a focus on cure rather than prevention
- A lay view of 'public health' as a mixture of drains, rats and infectious diseases
- A lack of awareness of 'dis-ease' arising from a degrading and polluted environments.

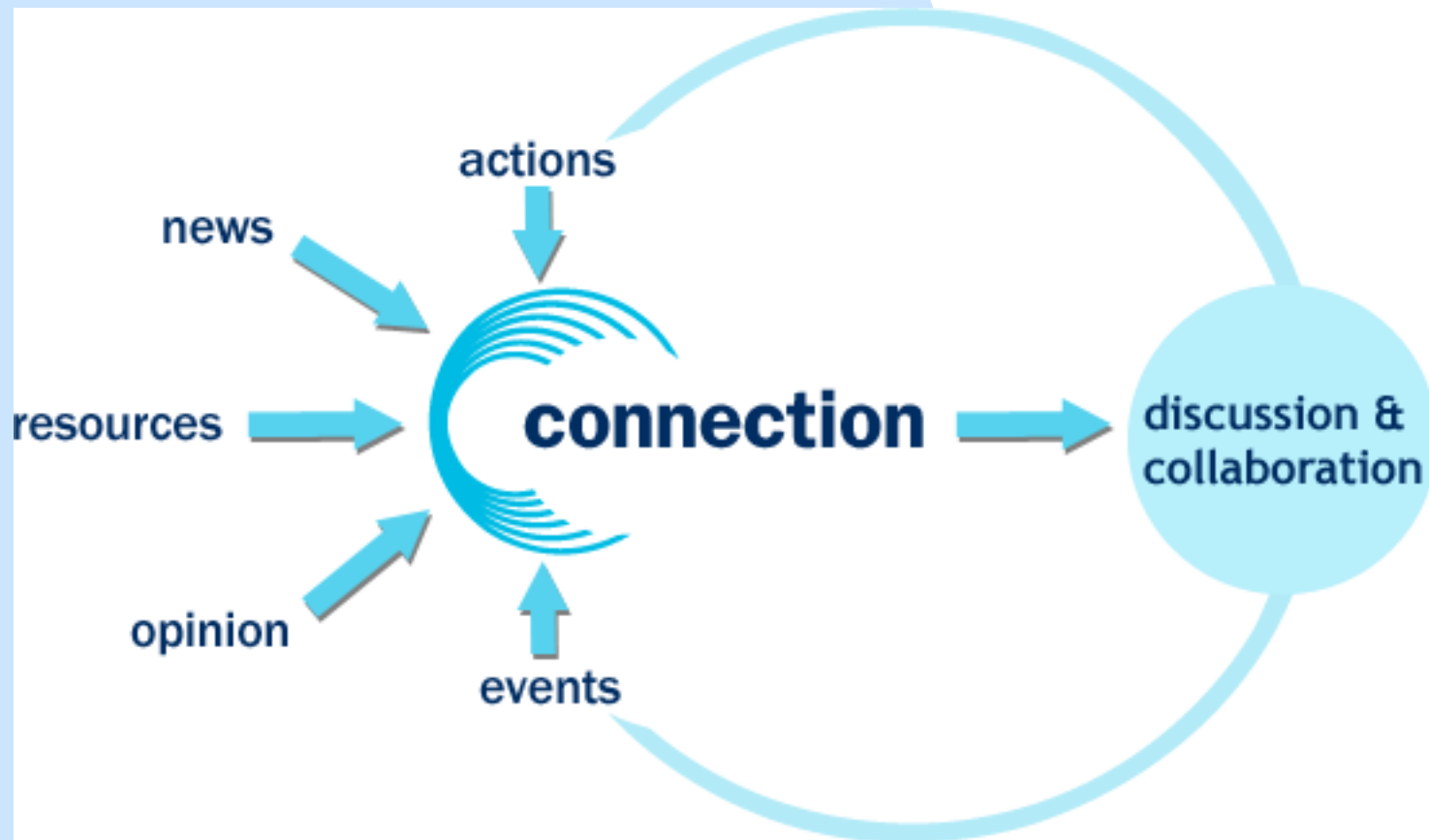
## **UKPHA Priorities:**

- Combating health inequalities
  - working for a fairer, more equitable and healthier society
- Promoting sustainable development
  - ensuring healthy environments for future generations
- Challenging anti-health forces
  - promoting health-sustaining production, consumption and employment

# UKPHA 'Call for Action' 2008



# Climate Connection NW and UKPHA



# UKPHA

## Health-A product of Unsustainable Development

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Most humans have around 500 persistent organic pollutants (POP's) stored in their body fat that have been created since the chemical revolution of the 1920's.

- Pesticides are the key route for POP's
- Babies in the UK are being exposed to between 10 and 40 times the World Health Organisation's (WHO) daily limit of a range of hormone-disrupting chemicals.
- More than 350 man-made contaminants have been found in the breast milk of mothers, including some 87 dioxin and dioxin-like compounds, and some 190 volatile compounds
- Malignancies linked to pesticides in case reports or case-control studies include leukaemia, neuroblastoma, Wilms' tumour, soft-tissue sarcoma, Ewing's sarcoma, non-Hodgkin's lymphoma, and cancers of the brain, colorectum and testes.
- Source: Environmental Health Perspectives 106, supp.3, June 1998

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## The Best Value may look cheaper- but is it?

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# Social Value and Sustainability

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- ***Social value can be distinguished from the wider notion of public value or the narrower concept of individual value. It represents delivery of the collective desired needs of individuals who share common expectations through increased social capital, citizen well-being and entrepreneurialism.***

The working definition of social value :

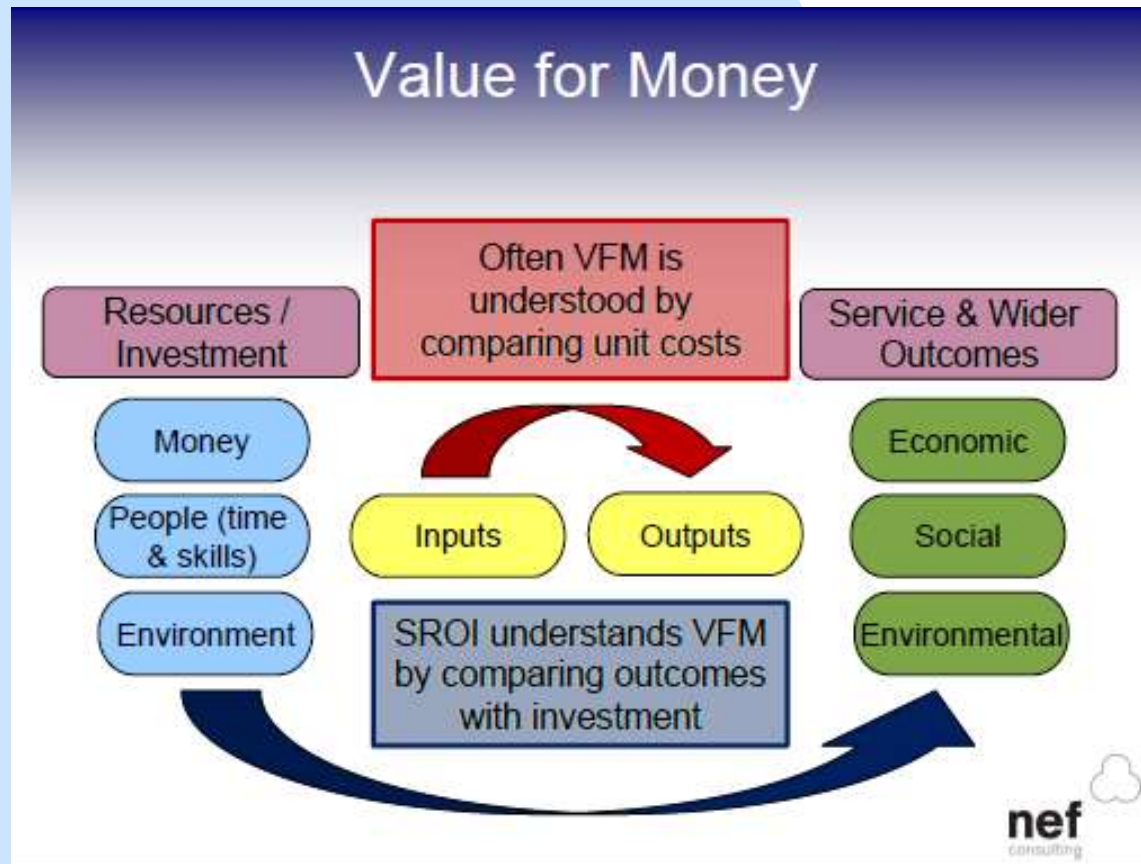
- ***‘Social Value’ is the additional benefit to the community from a commissioning/procurement process over and above the direct purchasing of goods and services’.***

# Social Value: 'Doing the Right Thing'

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- An accreditation scheme for NHS organisations
- Sustainability
- Worklessness
- Community Outreach/engagement
- Procurement & Commissioning
- Establishment of a Foundation to promote social value in the North West
- Making sure that complex systems don't get in the way of solving complex problems
- Underlying determinants of poor public health: poverty and disempowerment

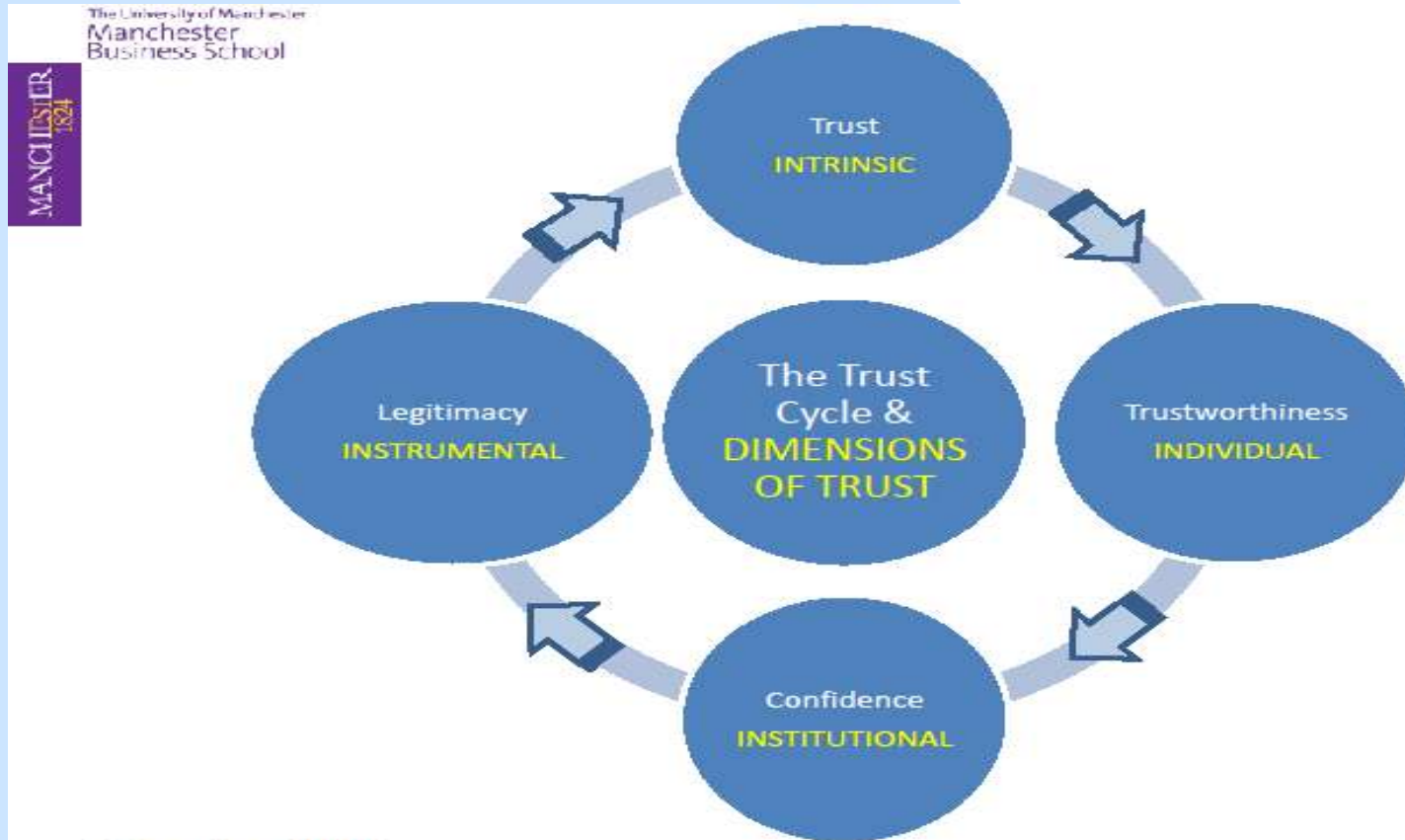
# Best Value



# Public Value



# But which route leads to Public Trust on the Big Society Roadmap to Recovery?



© Brookes 2009



# Social Value in Salford: Refresh

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- **Social Values at Work: Refresh Project. Salford Health Matters (SROI)**
- Social prescribing service offering a range of community activities to enhance health and wellbeing
- SROI analysis showed outcomes including better sleep, reduced medication, increased fitness and mobility, use of greenspace

## Big Society and The Million Dollar Man

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## FRC- Social Value in Liverpool

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# Social Return on Investment

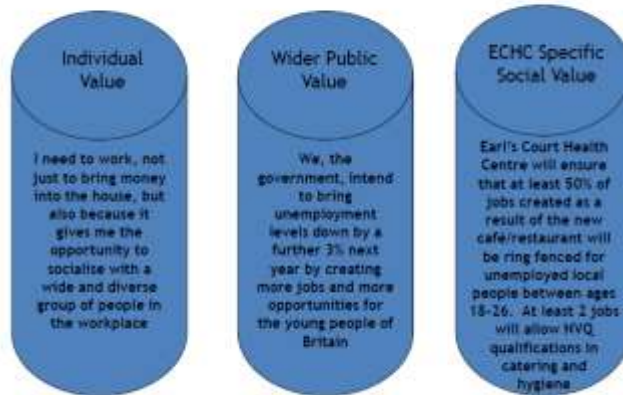
## SROI

SROI can help us understand how effectively money is spent.

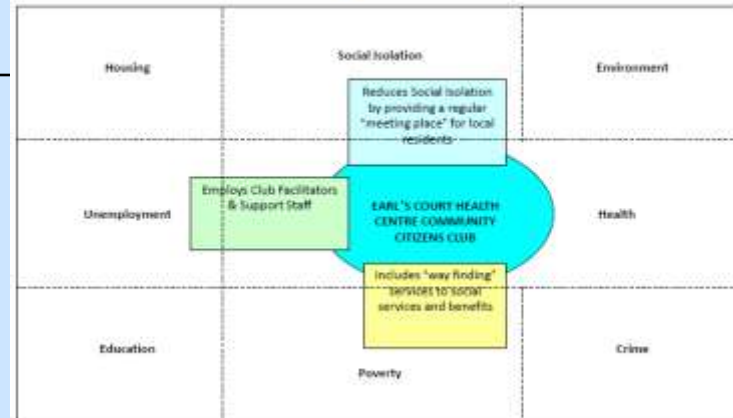
It can help us:

- 1. Measure for quality, not just efficiency**
  - e.g. account for impact on quality of care, not just life expectancy
- 2. Value interventions more broadly**
  - Not just impact on patient, but impact on wider society
- 3. Better understand the impact of different partners**
  - e.g. the role of management versus front line staff
- 4. Better utilise innovation**
  - Help us identify where innovation is creating value (or not)

## Social Values in commissioning



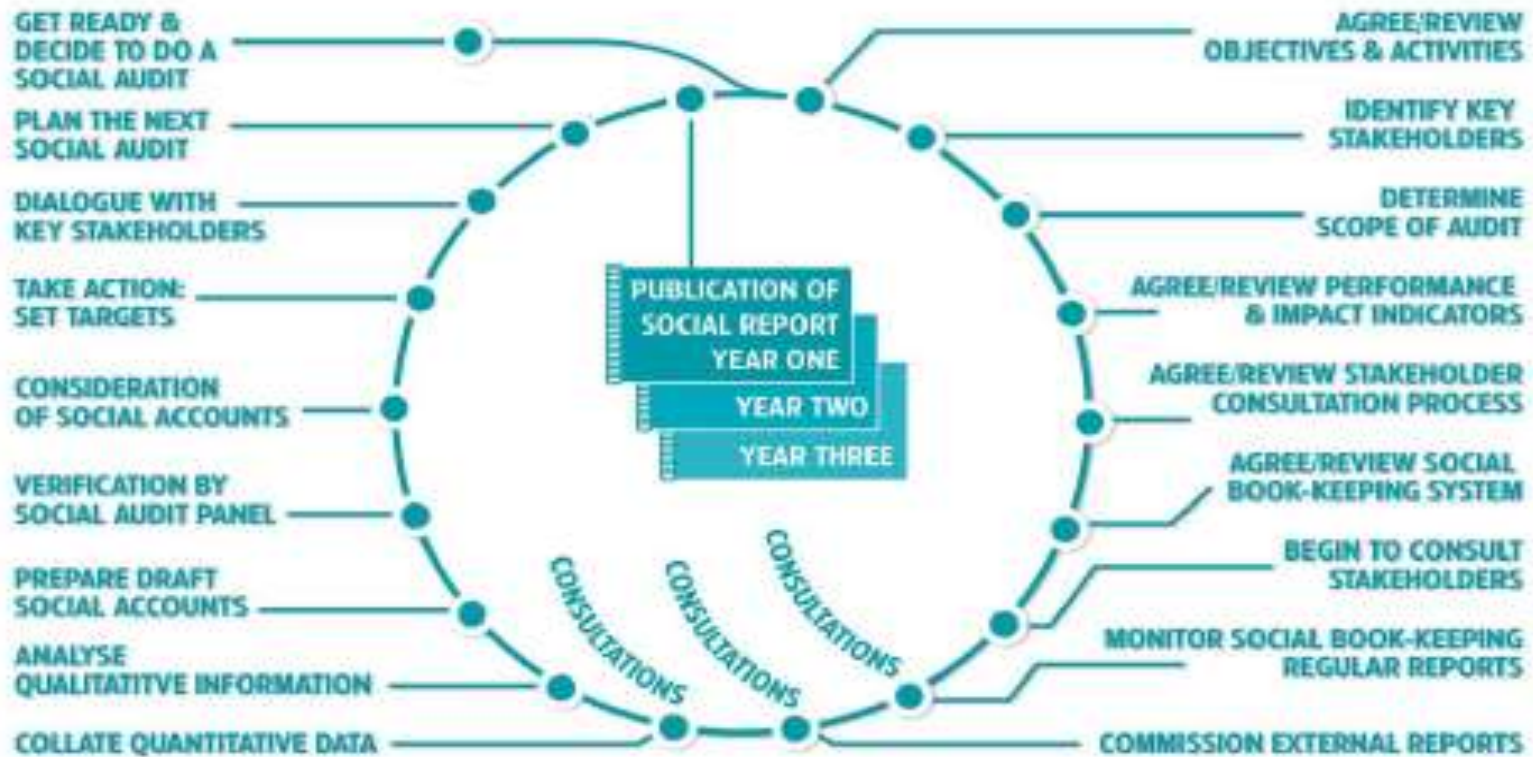
## Earl's Court Community need



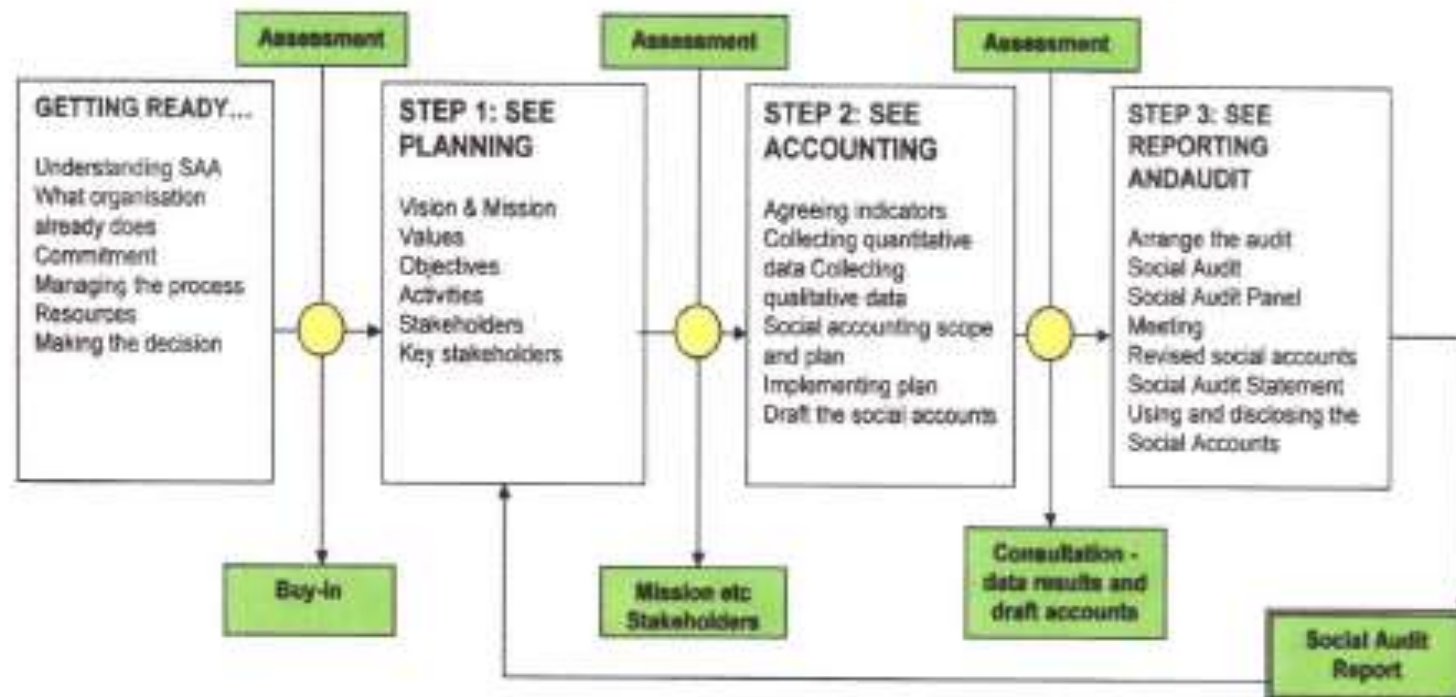
Theme	ECHC Service Association	Example Social Impact(s)
Skills and learning	Health Centre (café/restaurant)	Crating jobs and NVQ accredited training for local unemployed youth
Arts strategy	Health Centre (design)	Involving local residents and arts groups to advise and decorate the health centre premises
Nutrition #1	Health Centre (café/restaurant)	Using the facility to train people to cook and use nutritious, locally grown produce (e.g. "cook and taste" programme)
Environment	Health Centre (design)	Ensuring that the design incorporates the latest power saving technology and minimises pollution

Theme	ECHC Service Association	Example Social Impact(s)
Babies	Health Centre (all)	Ensuring the inclusion of "Healthy Start to Life" programmes and providing opportunities for local parents communities to come together and learn from each other
Community engagement; cohesion and social inclusion #1	Health Centre (all)	Use every available opportunity to use the facilities and space within the new ECHC for residents to engage as a community via (e.g.) regular events orchestration, planning meetings and discuss other community related issues
Neighbourhood and environment	Health Centre (all)	Creation of good and convenient access to a wide range of services via walking, cycling or public transport

# Social Accounting Cycle...

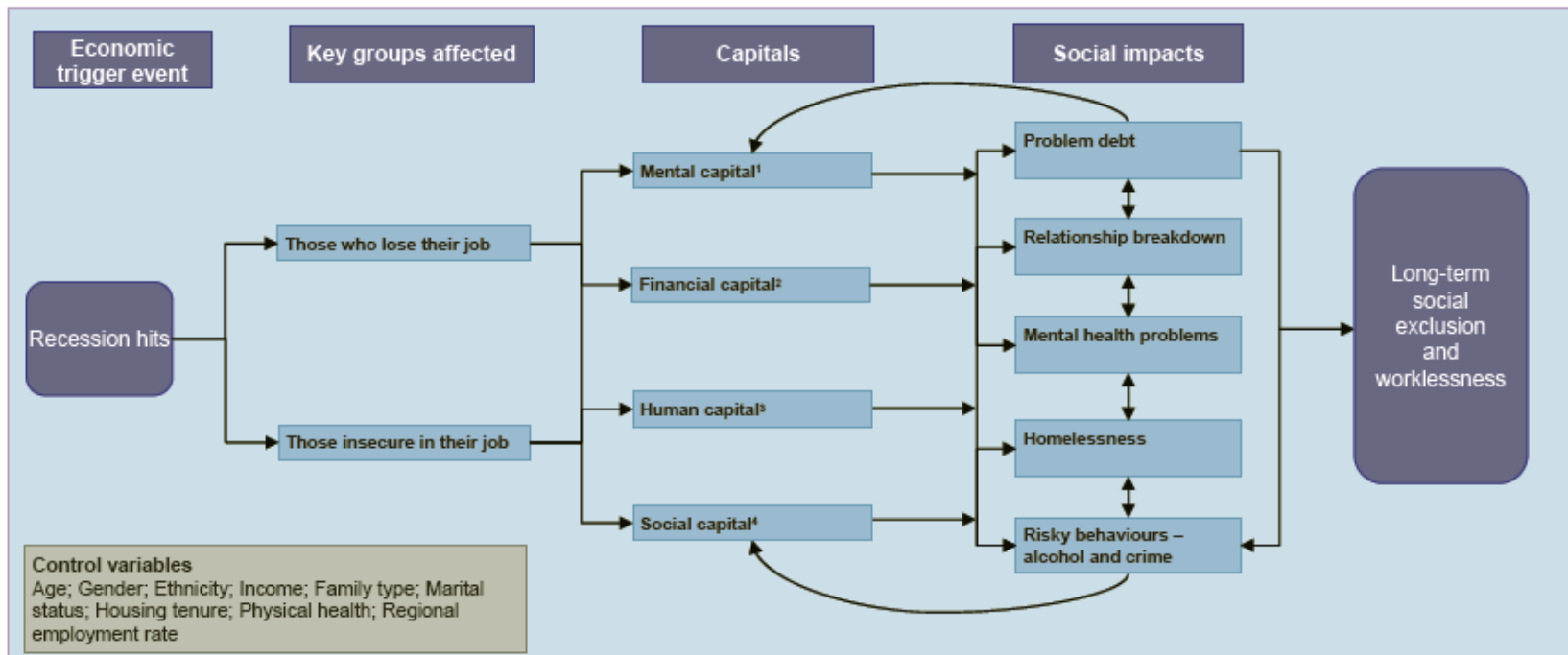


# Social Accounting and Audit: Three Step Process..



# Social Value = 4 Capitals

## “Asset Release”



1. Mental capital refers to the emotional resources and resilience that people can draw on to protect them in times of adversity. 2. Financial capital is the financial savings and capability that people have to draw on in times of adversity. 3. Human capital is the education and workplace skills that people possess. 4. Social capital is the network of family and friends that individuals can rely on to help them out.

## A glass half-full?

**‘The Asset approach investigates key assets that support the creation of Civil Society Rather than a focus upon ‘Broken Society’, it enables a community to use its assets around a vision or plan that solves local issues sustainably and uses outside support more meaningfully and efficiently’**



# 'Living Well' in Sustainable Places and Communities



# Sustainable Places and Communities

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- Affordable sustainable housing
- Good local employment
- Pedestrian bicycle and public transport networks
- A pedestrian-dominated public realm
- A rich and diverse natural environment
- Local facilities and resources
- Locally produced good wholesome food
- A rich and diverse cultural heritage
- Vibrantly textured social networks
- Informed and empowered individuals

# Creating Health

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***‘Communities have never been built upon their deficiencies. Building communities has always depended upon mobilising the capacities and assets of people and place’***

(Kretzman and McKnight 1993)

***‘Many of the key assets required for creating the conditions for health lie within the social context of people’s lives and therefore [the asset model] has the potential to contribute to reducing health inequities.’***

(Morgan & Ziglio, 2007)

# If we keep doing what we are doing we will keep getting what we have got...

## Wellness and Post-Marmot imperatives

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### Cost of Inaction in the Illness Services

In England, dying prematurely each year as a result of health inequalities, between 1.3 and 2.5 million extra years of life.

### Cost of doing nothing

Action taken to reduce health inequalities will benefit society in many ways. It will have economic benefits in reducing losses from illness associated with health inequalities. Each year in England these account for: productivity losses of £31-33B

reduced tax revenue and higher welfare payments of £20-32B

increased treatment costs well in excess of £5B.

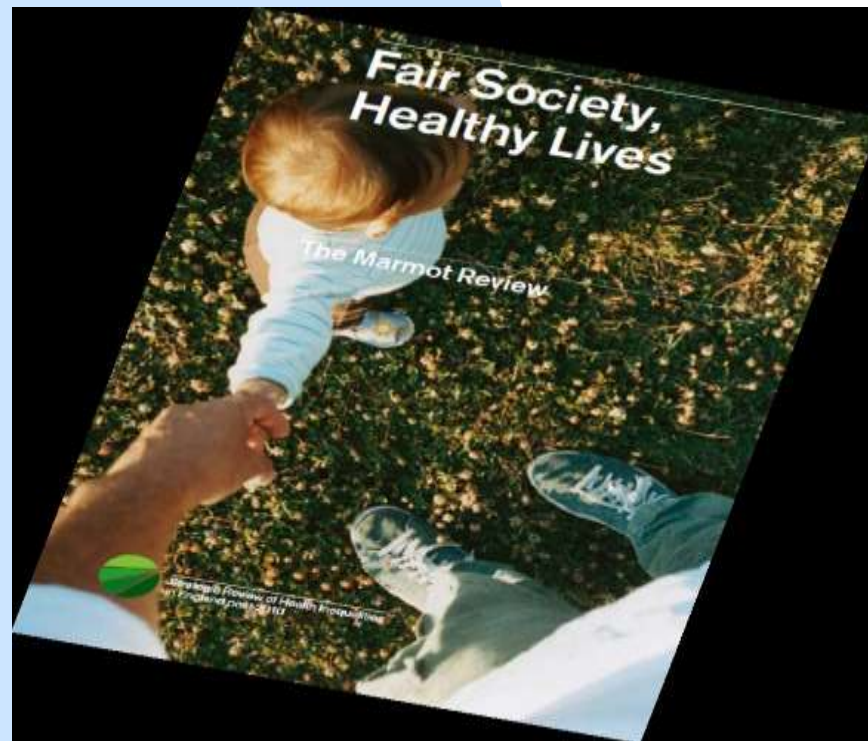


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Strategic Review of Health Inequalities  
in England post-2010

# The Marmot Report, Health and Sustainability

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## Marmot Commission recommendations

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- Reducing health inequalities is a matter of fairness and social justice
- Action is needed to tackle the social gradient in health –Proportionate universalism
- Action on health inequalities requires action across all the social determinants of health
- Reducing health inequalities is vital for the economy – cost of inaction is too great
- Beyond economic growth to environmental and social well-being

# Carbon Dependence

## Definition\*UKPHA

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“a cluster of physiological, behavioural, and cognitive phenomena in which the use of carbon-based fuels takes on a much higher priority for a given individual than other behaviours that once had greater value”.

## 'Carbon Addict' Presentation

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### High carbon behaviours:

- T-shirt in winter
- Travel history
- Meat bingeing
- New-variant consumption

# Late complications

- Obesity
- Diabetes, cardiovascular disease
- Colorectal cancer
- Fuel poverty
- Falls
- Social isolation

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- Active travel – replaces gym membership + trips to seaside. (Effective in prevention and treatment of depression, coronary heart disease, hypertension, obesity, diabetes, osteoporosis, etc)
  - Diet – gradual meat reduction; exposure to local markets
  - Occupational therapy – e.g. tea-making (attention to non over-filling of kettle), growing schemes, BTCV green gym

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