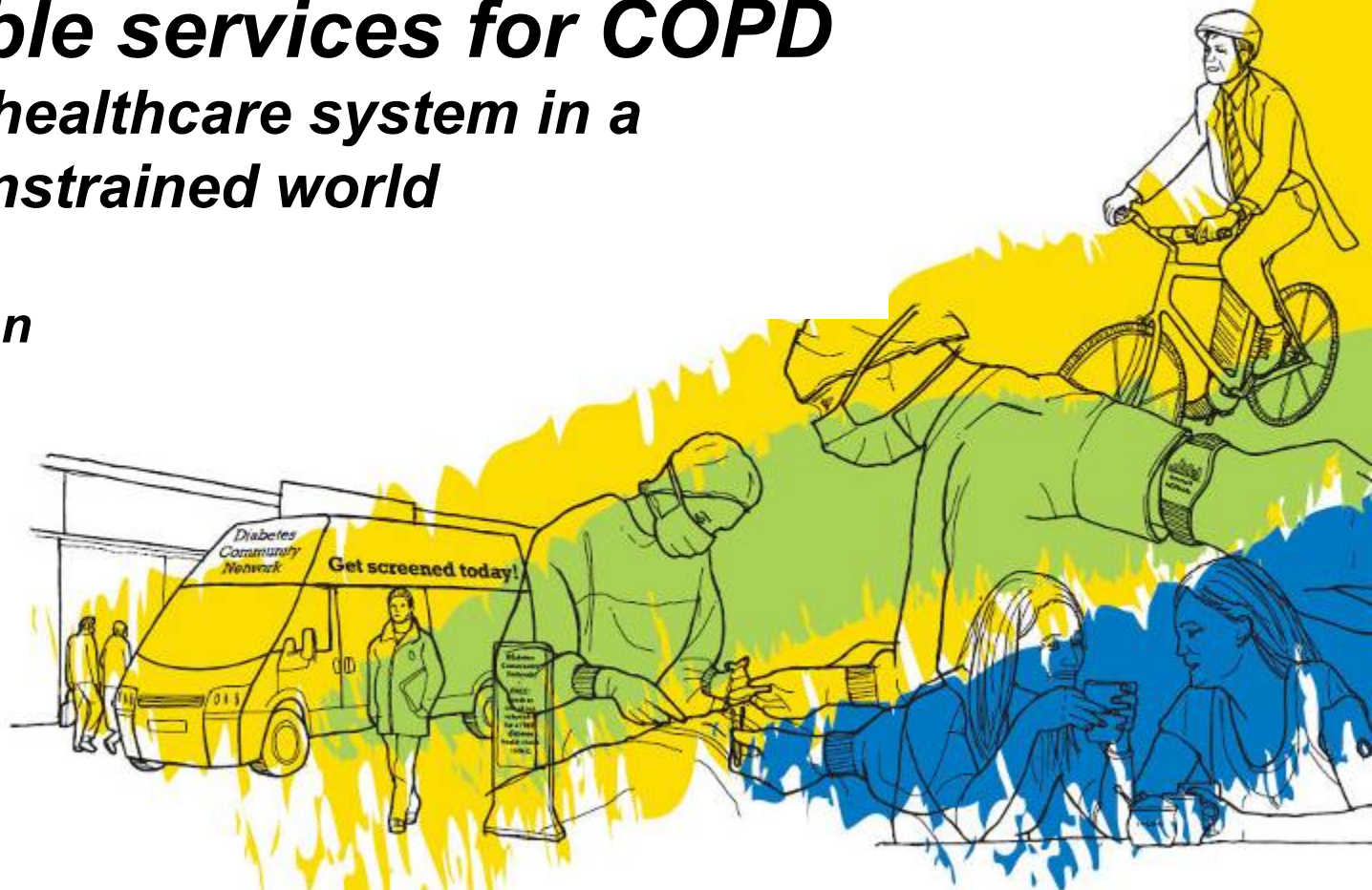




Sustainable services for COPD

A changing healthcare system in a resource constrained world

David Pencheon



Friday, 23rd March, 2012 - DH, England



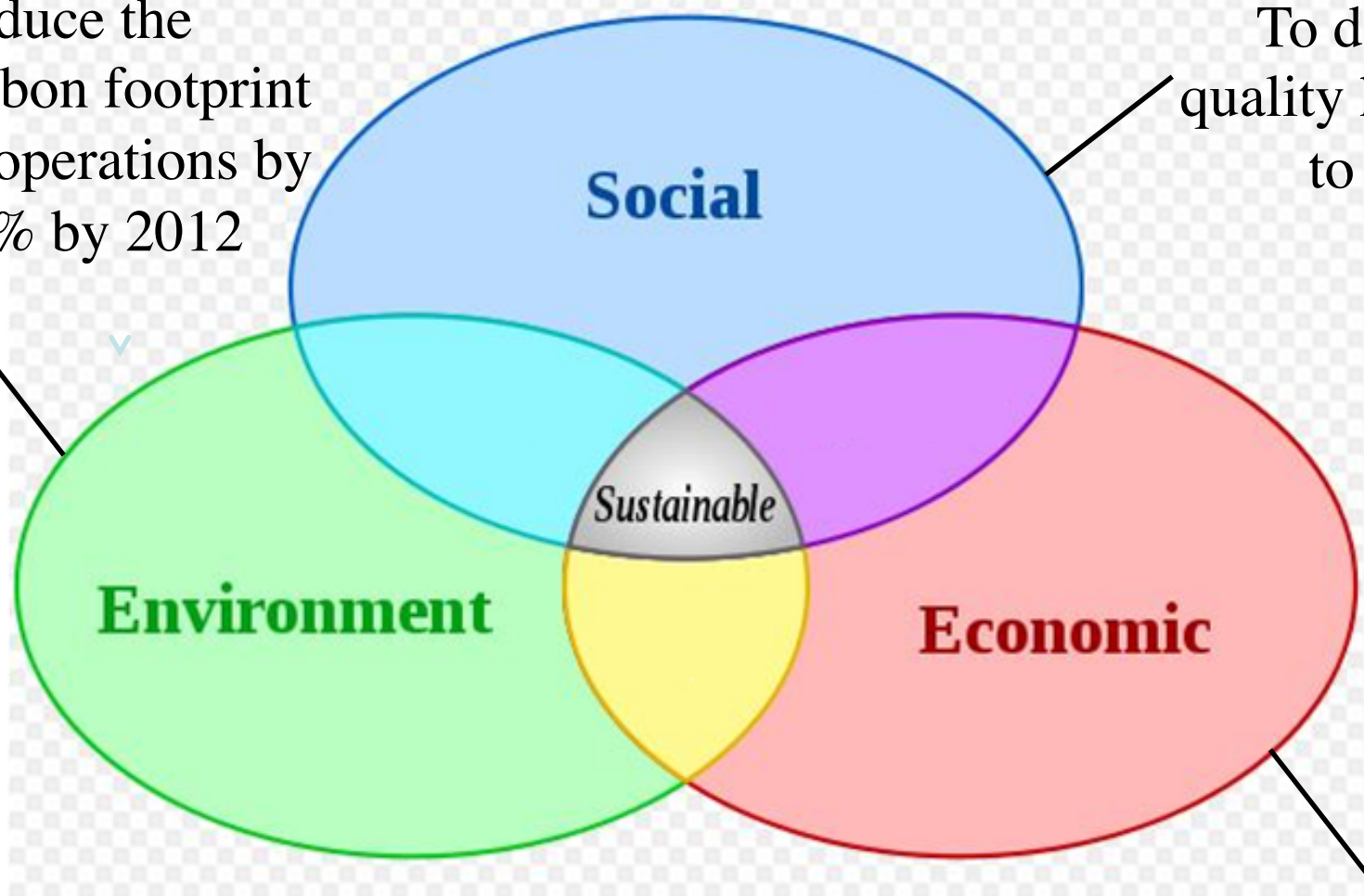
How is healthcare changing?

1. Demographic – growing / ageing
2. Long term conditions / chronic disease
3. Scientific and technological innovation
4. Global changes in expectations of public, patients and staff
5. Health care with three aligned objectives:
“Triple bottom line”:
 - *More health and social outcomes*
 - *Economic: within financial limits*
 - *Within environmental limits*



Reduce the carbon footprint of operations by 20% by 2012

To deliver high quality health care to public and patients



Maintain financial viability

- Barbier, E.,1987. *The Concept of Sustainable Economic Development*. Environmental Conservation, 14(2):101-110.
- Adams, W.M. (2006).

["The Future of Sustainability: Re-thinking Environment and Development in the Twenty-first Century."](#) Report of the IUCN Renowned Thinkers Meeting, 29-31



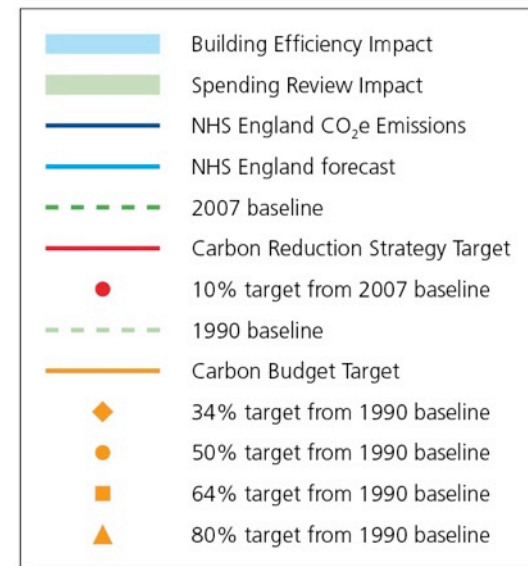
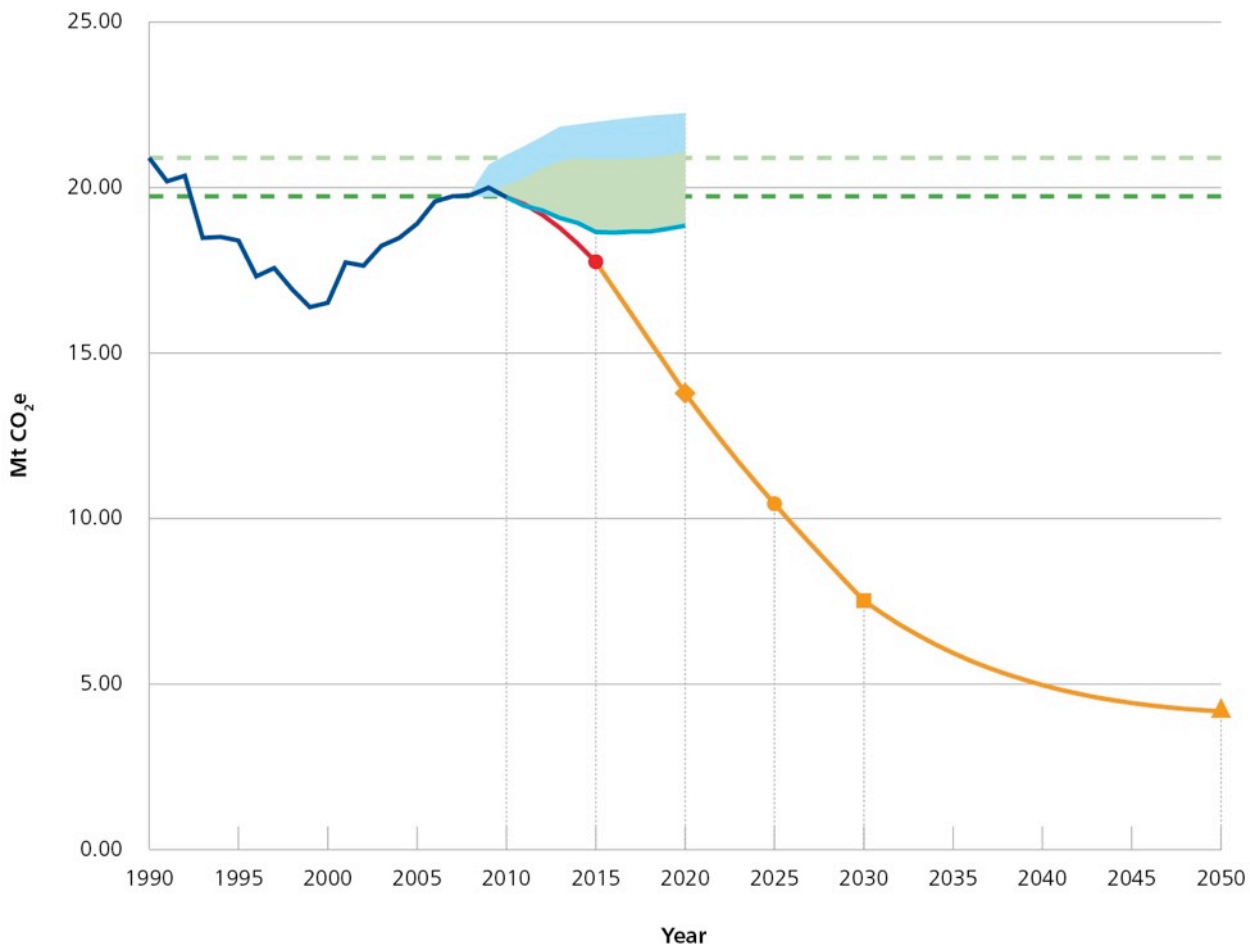
Sustainable healthcare?

“Healthcare that meets the needs
of the present...

*...without compromising the ability
of others, in future (or elsewhere
now) to meet their own needs”*

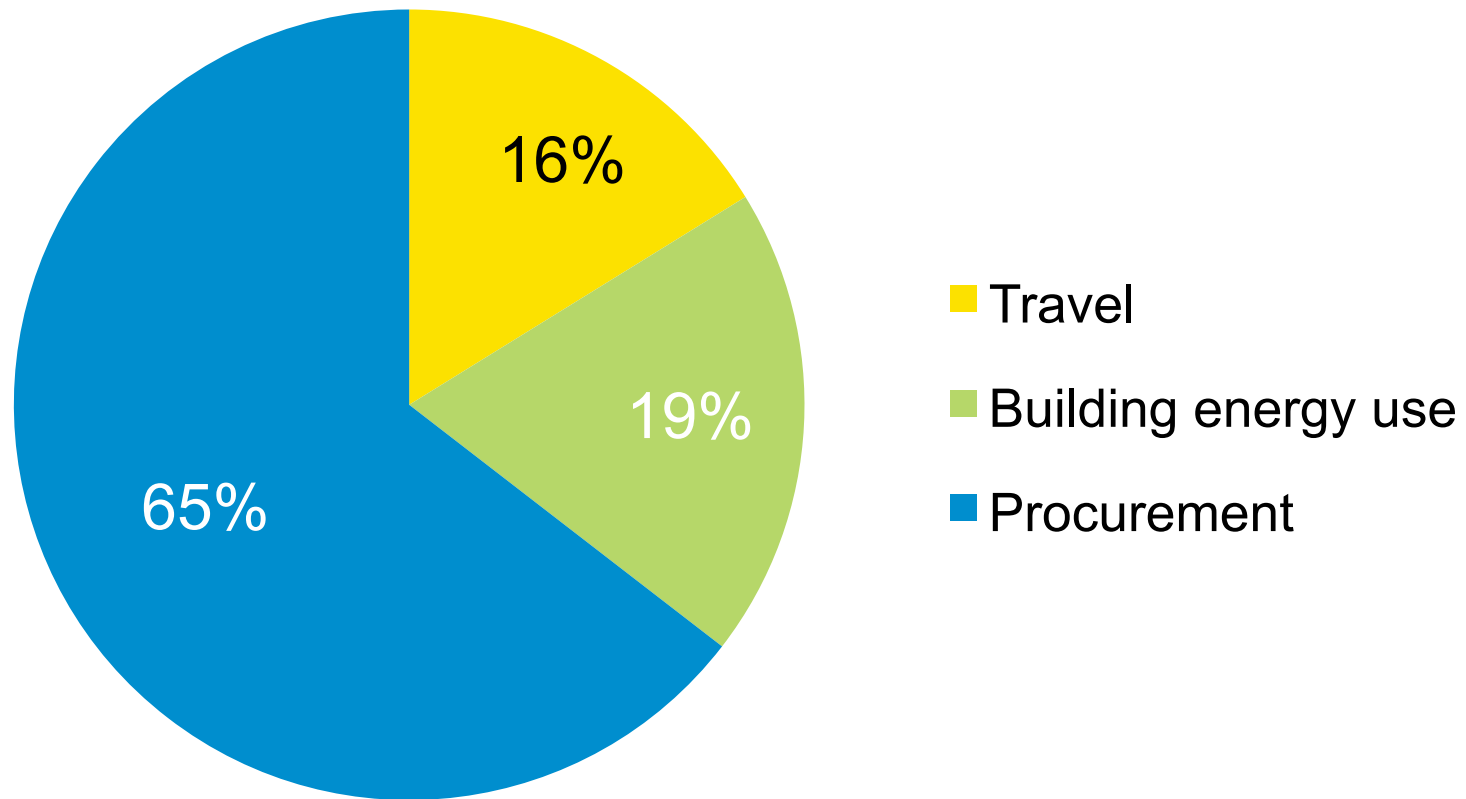
- Adapted from the Brundtland Commission

NHS England CO₂e footprint 1990 – 2020 with Climate Change Act targets

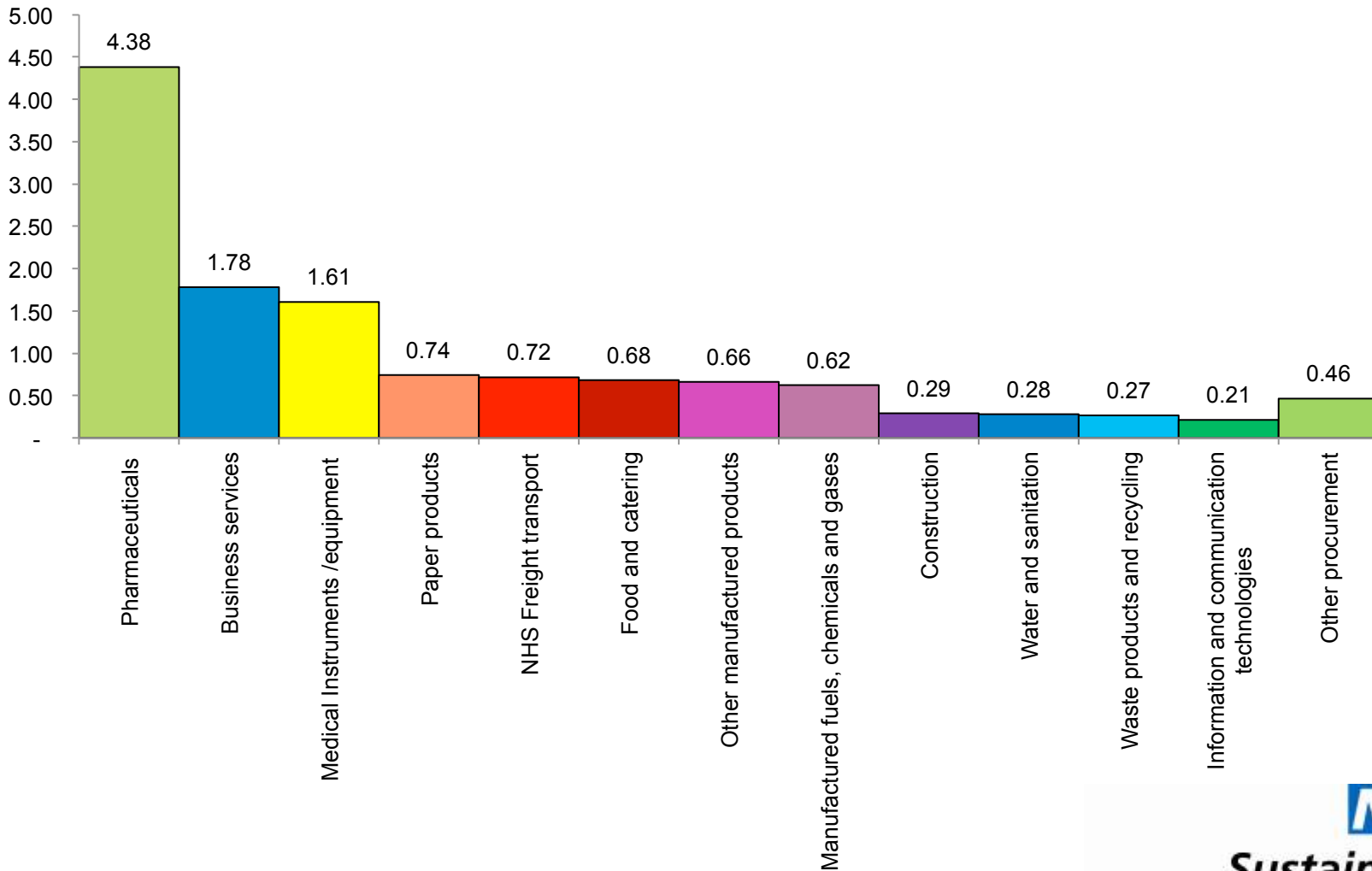




Breakdown of NHS England 2010 emissions?




Procurement Breakdown





Ignoring evidence is risky...





Health co-benefits:

“What is good for creating a more sustainable future is ALSO good for health and healthcare today”

1. For the public's health

- *More physical activity, better diet, improved mental health, less road trauma, **less air pollution**, less obesity/ heart disease/cancer, more social inclusion/cohesion...*

2. For the healthcare system

- *More prevention, care closer to home, more empowered / self care, better use of drugs, better use of information and IT, fewer unnecessary admissions, **better models of care...***

3. For global health inequalities / social justice

- *Global inequalities, contraction and convergence...*



CLIMATE SUMMIT

WHAT IF IT'S
A BIG HOAX AND
WE CREATE A BETTER
WORLD FOR NOTHING?

- ENERGY INDEPENDENCE
- PRESERVE RAINFORESTS
- SUSTAINABILITY
- GREEN JOBS
- LIVABLE CITIES
- RENEWABLES
- CLEAN WATER, AIR
- HEALTHY CHILDREN
- etc. etc.



12/7/19 USA TODAY

JOEL PITT



EDITORIALS

Assessing the health benefits of tackling climate change

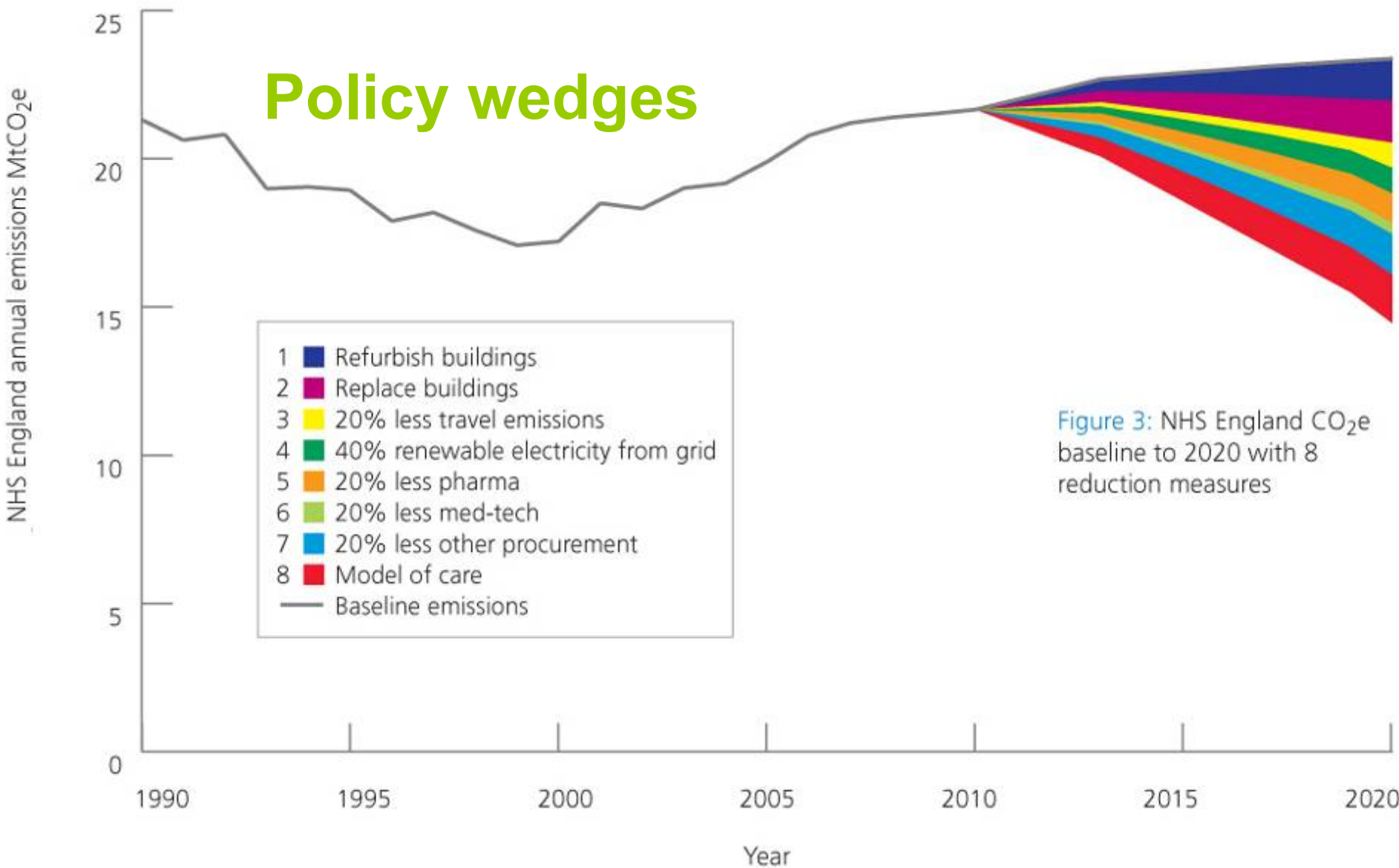
Robust measures and interdisciplinary collaboration are needed

Anita Charlesworth *chief economist*¹, Alastair Gray *professor of health economics*², David Pencheon *director*³, Nicholas Stern *IG Patel professor of economics and government*⁴

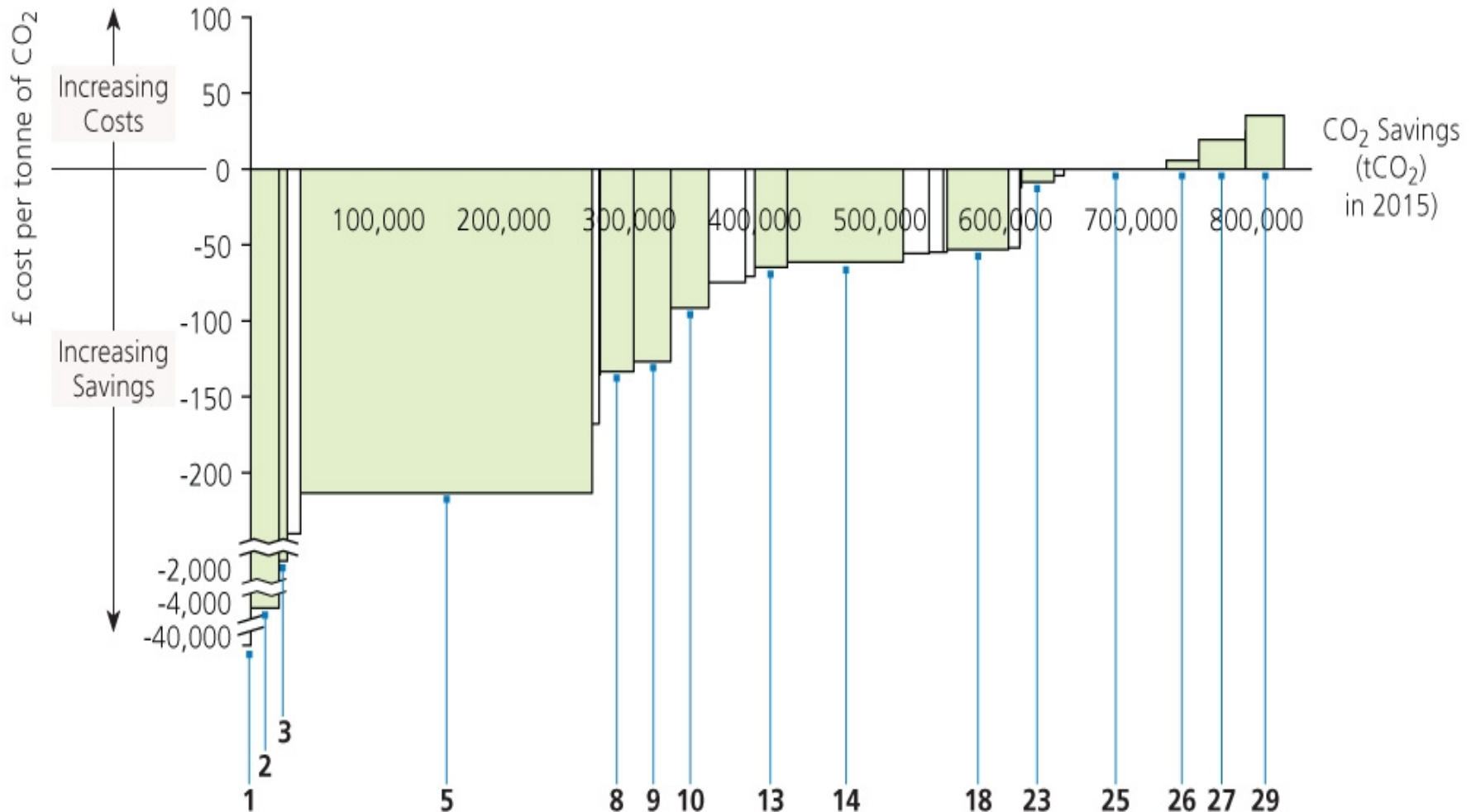
¹Nuffield Trust, London, UK; ²Health Economics Research Centre, Department of Public Health, University of Oxford, Oxford, UK; ³NHS Sustainable Development Unit, Cambridge CB21 5XB, UK; ⁴Grantham Research Institute on Climate Change and the Environment, London School of Economics and Political Science, London, UK

Health systems around the world are not short of big challenges, such as managing demand; containing cost; improving access, quality, and transparency; embracing new technology, and engaging patients and the public. More recent challenges to add

urgently needed that assess the full social impact of health and healthcare, to ensure that opportunities for advancing social welfare are taken and that unnecessary damage (such as unsustainable resource use, irreversible climate change, or even




NHS MAC curve



This table illustrates just some of the carbon saving measures that the NHS could implement. Not all are numbered above. Some CO₂ savings are too small to depict on this scale of graph.

	(£/tCO ₂) - savings + costs	CO ₂ Savings (tCO ₂ /yr)	£000 Savings (£000/yr)
1 Packaging of medical equipment	-40,299	2	+81
2 Reduce drug wastage	-3,987	22,430	+89,428
3 Teleconferencing to replace 5% of business miles	-2,038	6,827	+13,913
4 Decentralisation of hot water boilers in non-acute/PCT	-240	10,612	+2,547
5 Combined Heat and Power installed in acute trusts	-213	232,331	+49,487
6 Variable Speed Drives	-168	5,508	+925
7 Introduce hibernation system for ambulance stations	-135	1,096	+148
8 Improve heating controls	-134	26,551	+3,558
9 Improve lighting controls	-127	29,686	+3,770
10 Energy efficient lighting	-91	30,140	+2,743
11 Voltage optimisation	-75	29,364	+2,202
12 Improve the efficiency of chillers	-71	7,313	+519
13 Roof insulation	-65	25,928	+1,685
14 Energy Awareness Campaign	-61	92,549	+5,645
15 Building Management System optimisation	-56	20,610	+1,154
16 Improve Insulation to pipework, and/in boiler house	-55	11,195	+616
17 Install high efficiency lighting/controls - ambulance trusts	-55	2,999	+165
18 1 degree C reduction in thermostat temperature	-53	49,144	+2,605
19 Improve the efficiency of steam plant or hot water boiler plant	-52	8,933	+465
20 Upgrade garage and workshop heating	-49	214	+10
21 Boiler replacement/optimisation for HQ/control centres	-12	171	+2
22 Improve building insulation levels in ambulance trusts	-12	951	+11
23 Wall insulation	-8	25,928	+207
24 Office electrical equipment improvements	-4	7,957	+32
25 Travel Planning	0	81,524	0
26 Insulation - window glazing and draught proofing	+6	25,928	-156
27 Electric vehicles	+19	36,969	-702
28 Wind Turbine	+25	245	-6
29 Biomass Boiler	+35	30,533	-1069
Total		823,638	179,987




Sustainability as a core dimension of quality

1. safe
2. effective
3. patient centred
4. timely
5. efficient
6. equitable
7. sustainable

“Any quality aims that cannot be maintained with the resources available to us are set up to fail. It is important to realise that working to improve sustainability will seldom be in conflict with the other dimensions of quality; in particular, low carbon healthcare is likely to improve cost efficiency and patient empowerment”

Dr Donal O'Donoghue. National Clinical Director for Renal Services

- 
1. *“Every unplanned admission to a hospital is a sign of financial and system failure until proved otherwise”:*
 2. *“More health; less healthcare”:*

Aligning

...clinical / patient / public needs with
...financial needs and
...environmental needs



From	health care as an institution led service	To	health and social care as part of the community
From	curative and fixing medical care	To	early intervention and preventative care
From	sickness	To	health and well-being
From	professional	To	personal
From	isolated and segregated	To	integrated and in partnership
From	buildings	To	healing environments
From	decision making based on today's finances	To	an integrated value of the future which accounts for the impacts on society and nature
From	single indicators and out of date measurements	To	multiple score card information and in real time
From	sustainability as an add on	To	integration in culture, practice and training
From	waste and over use of all resources	To	a balanced use of resources where waste becomes a resource
From	nobody's business	To	everyone's business

Sustainable Development Unit



Sustainable Dev



NHS
**Sustainable
Development Unit**

S
In

**Fit for
Scenario**

September 2009

**Saving Carbon
Improving Health**



UPDATE

NHS CARBON REDUCTION STRATEGY



**SUSTAINABILITY IN THE NHS
HEALTH CHECK 2012**



The journey so far...



Saving Carbon, Improving Health: NHS Carbon Reduction Strategy Launched February 2009

- *CEO NHS*
- *Permanent Secretary DH*
- *RCP*
- *Academy of Med RC*
- *BMA*
- *Carbon Trust*
- *Environment Agency*
- *FPH*
- *HPA*
- *Monitor*
- *RCM*
- *RCN*
- *Sustainable Development Commission*
- *UNISON*

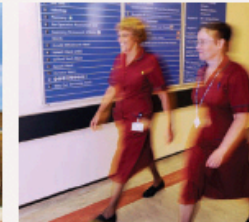
www.sdu.nhs.uk



Sustainable Development Unit

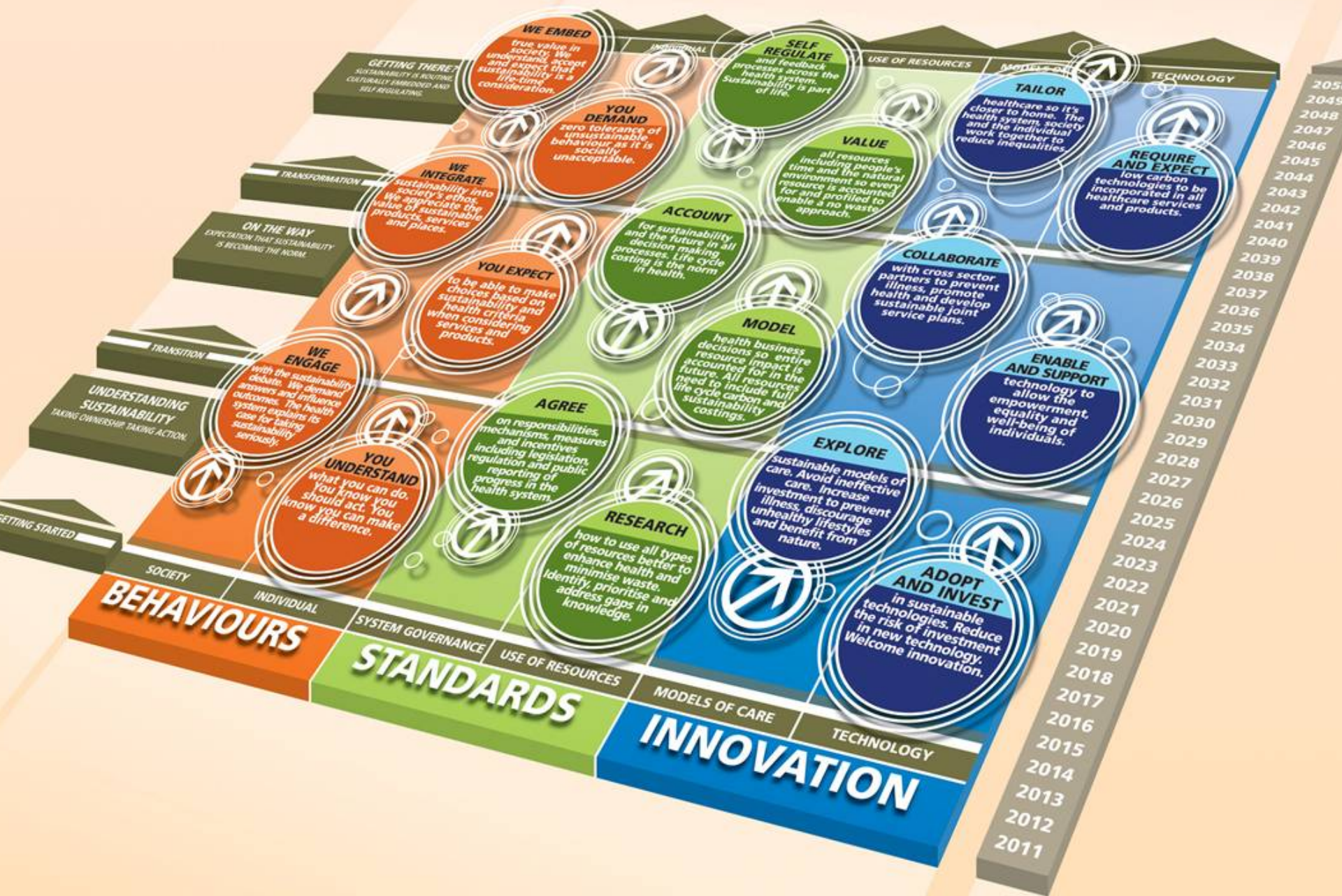


**Saving Carbon,
Improving Health**



NHS CARBON REDUCTION STRATEGY FOR ENGLAND

January 2009





Why do healthcare organisations take sustainable development and climate change seriously?

1. Save money
2. Comply with regulation
3. Improve resilience
4. Enhance reputation
5. Improve health



Priority areas for more sustainable clinical practice?

1. Helping people eat better and move better
2. Enabling women to have control over their fertility
3. Targeting prescribing on those most likely to benefit
4. Promoting a greater sense of belonging
5. Helping people manage care before / without / after specialist hospital care
6. Helping people manage a better death

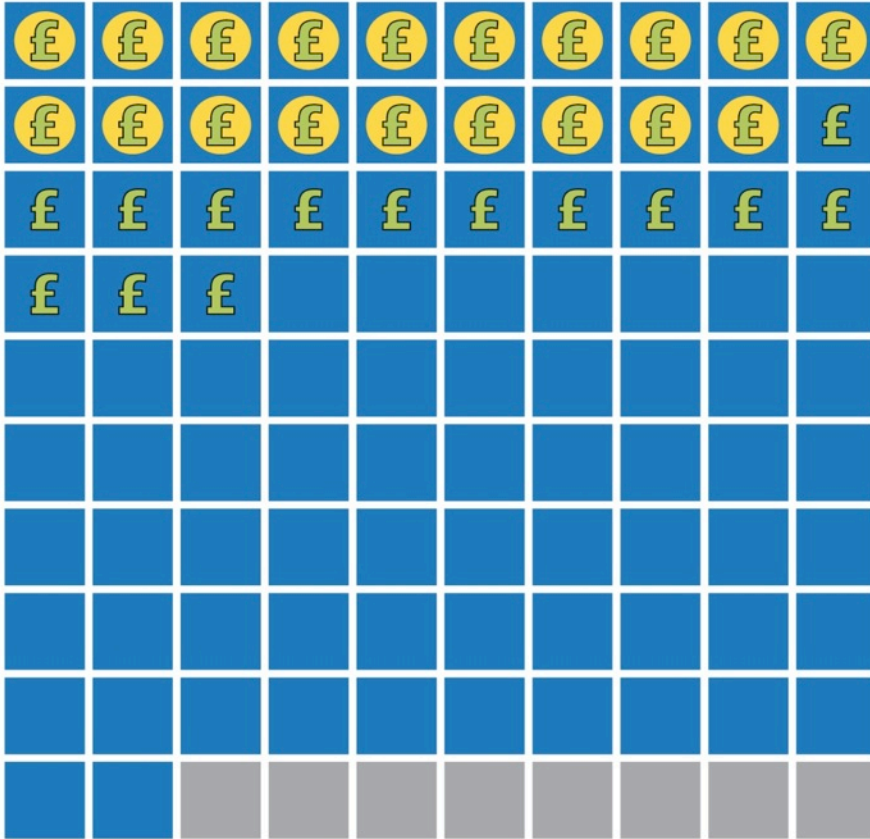



Real/perceived barriers


1. We are very busy - focussed on the day job
2. We are focussed on reacting to demand, problems and crises, not being proactive to need, planning, policy, preparation or prevention
3. We are doing a lot for health already (“moral offset”)
4. We work in systems that are rewarded for activity, and treatment, not prevention or outcome




Results of Public Opinion Survey:



 % of the public who felt that sustainability should be a top priority - 19%

 % of the public who said that the NHS should act in a more sustainable way even if it would cost money - 33%

 % of the public who think it is important for the NHS to work in a more sustainable way - 92%

Source:

Ipsos MORI

<http://www.sdu.nhs.uk/healthcheck2012>

<http://tiny.cc/w7fg5>



Views and Values of NHS Leaders

- Almost nine out of every ten leaders surveyed in the NHS actively engage with sustainability and believe it is important
- 60% believing it is essential to the running of their organisation
- Easy things:
 - Promoting energy efficiency
 - Engaging with staff on sustainability
 - Implementing travel initiatives
- More challenging:
 - Improving infrastructure
 - Ensuring sustainable pathways and models of care
 - Working with other groups and organisations to achieve more sustainable results

Source: RAND survey

http://www.sdu.nhs.uk/documents/publications/RAND_Europe.pdf



BMJ

344:1-68 No 7849 Clinical research ISSN 0959-8138
24 March 2012 | bmj.com

Primary hyperparathyroidism

Does COPD self management work?

Pharmacotherapy for cystic fibrosis

What will the health bill mean?

SPOTLIGHT ON CLIMATE CHANGE

EDITOR'S CHOICE

Will doctors now take a lead on climate change?

Fiona Godlee *editor, BMJ*

Last week was Climate Week in the UK, featuring a host of awareness raising activities across the country. And next Wednesday, 28 March, is NHS Sustainability Day (http://doc2doc.bmj.com/forums/off-duty_general_nhs-sustainability-day-of-action). So it seems a good moment to be publishing our Spotlight on climate change. The seven articles have been specially commissioned from among the speakers at last year's high level conference on climate change, hosted by the *BMJ* in partnership with a consortium of other organisations (<http://www.sdu.nhs.uk>).

on the political agenda when the problems of the global economy are so pressing. The question is, can we find a new economics that doesn't rely on environmentally catastrophic growth, and can we find it in time?

In his introduction to the Spotlight Tony Delamothe finds one ray of sunshine: that low carbon economies can improve health (doi:10.1136/bmj.e2207). In their article, Andy Haines and Carlos Dora explain that health professionals are uniquely placed to promote policies that are good for the planet and for people