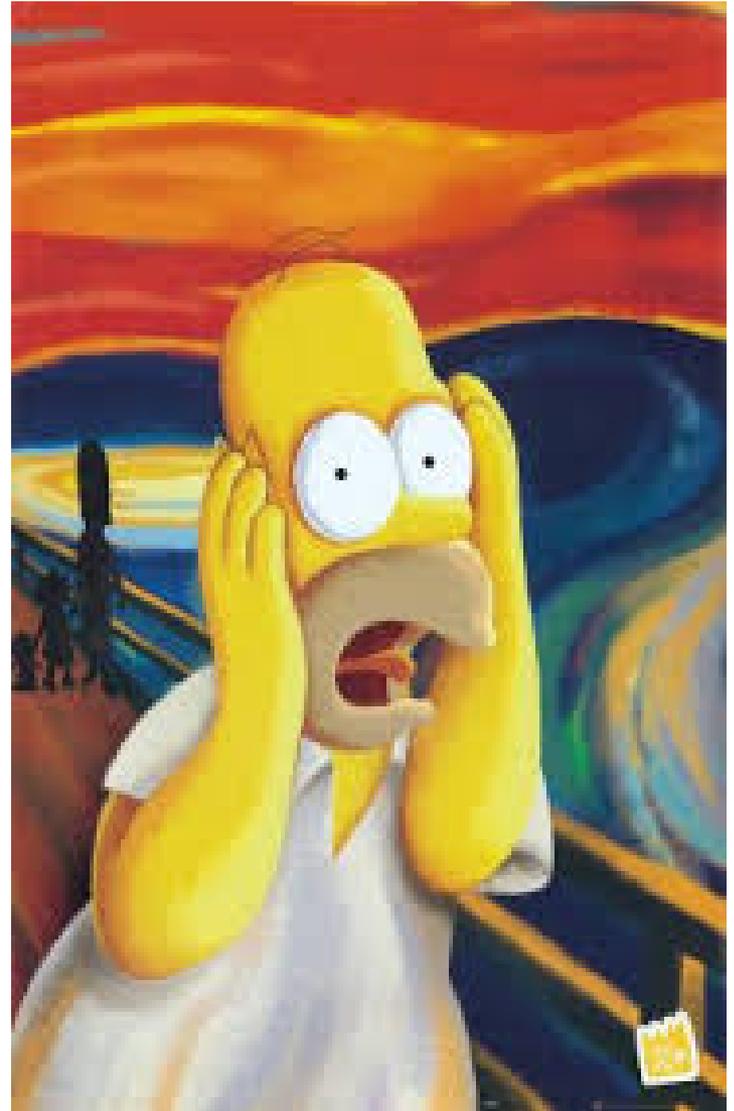
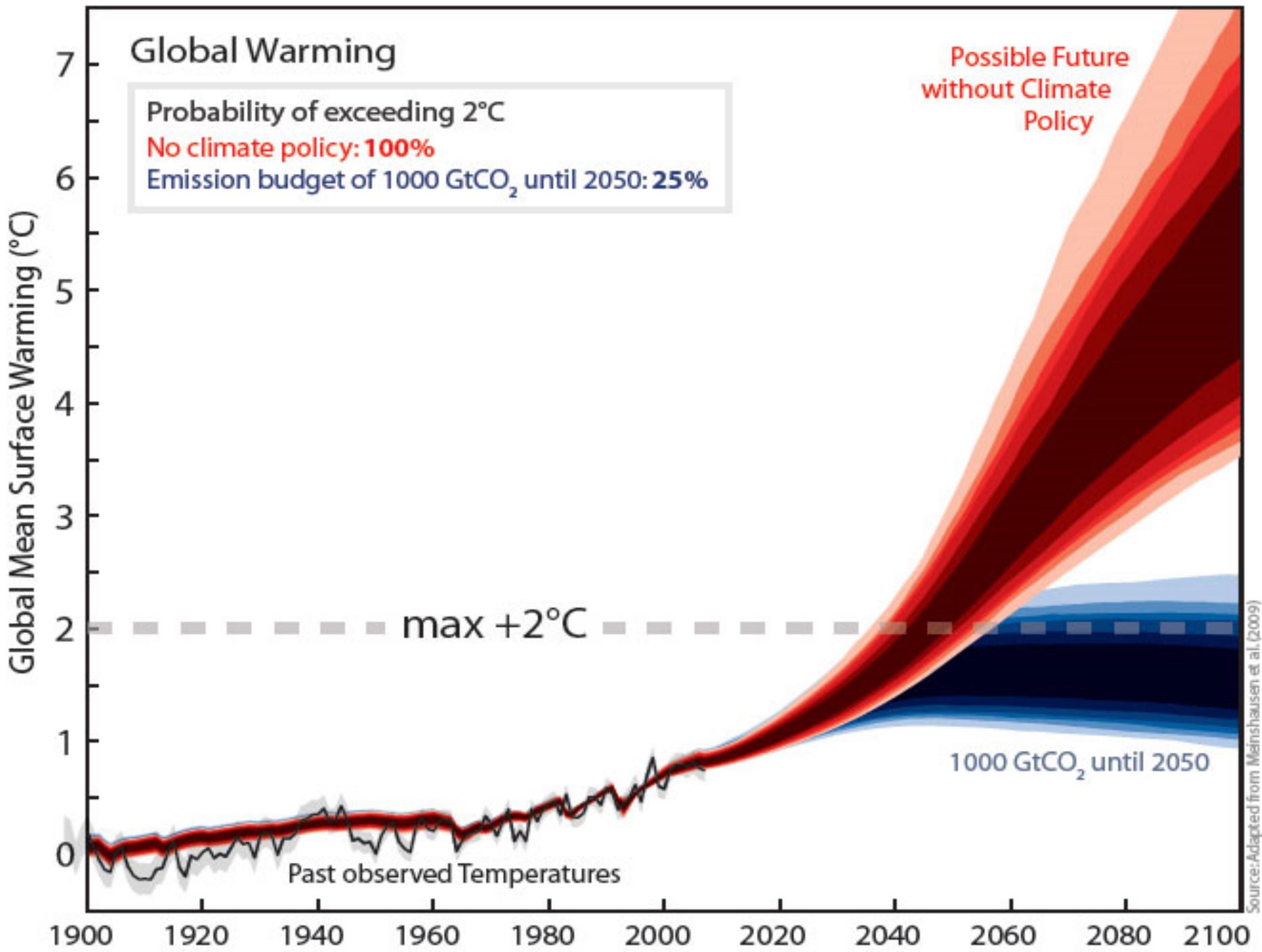


***Health, climate change
and sustainable
development:
engaging policy-makers,
politicians, the public
and private sectors***

*David Pencheon
Health and Medical School
University of Exeter*

*GCPH Seminar Series 15: lecture 2
Wed 16th January 2019, 4.30-6.00pm
200 St Vincent Street, Glasgow, G2 5RQ*





Source: Adapted from Meinshausen et al. (2009)

BMJ



Climate change

- How much could generic stains save the N
- Are older antipsychotics obsolete?
- The benefits of "off-pump" CABG
- New football boots and toxic shock
- Never get between a she-bear and her cubs

bmj.com



The NEW ENGLAND JOURNAL of MEDICINE

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Global Health

Addressing the Challenges to World Health



A collection of articles on population health around the world, including a new series of Global Health review articles as well as Perspective and research articles.



REVIEW ARTICLE

Globalization, Climate Change, and Human Health

April 4, 2013
Climate change exposed. This climate change
Free Full Text

THE LANCET

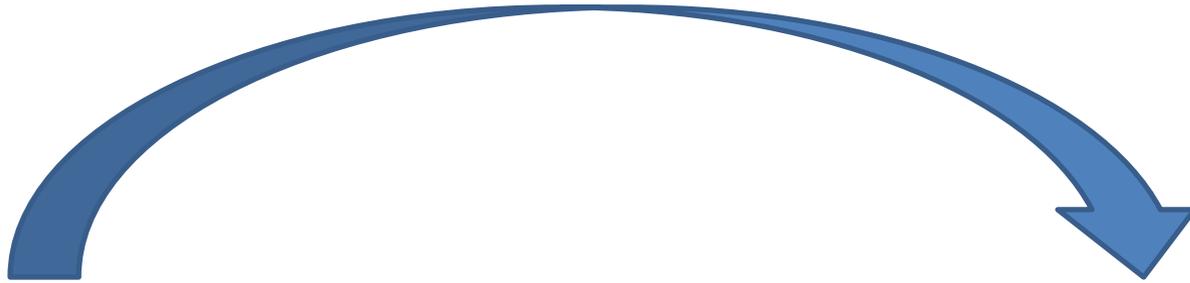
Volume 373 · Number 9676 · Pages 1659-1734 · May 16-22, 2009
www.thelancet.com

"Climate change is the biggest global health threat of the 21st century."

Commissions page 1693

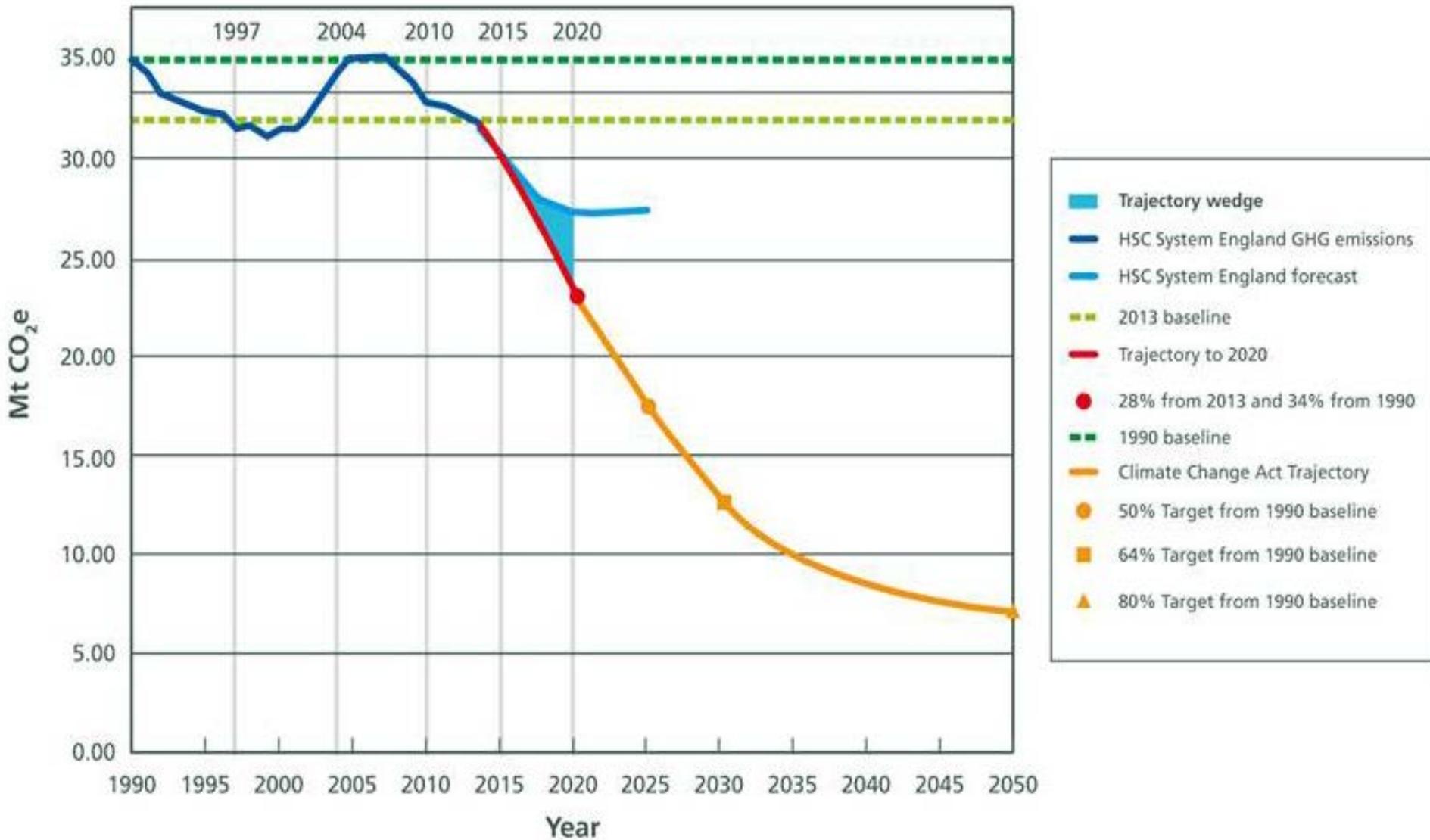
Health and
care services

Climate
change

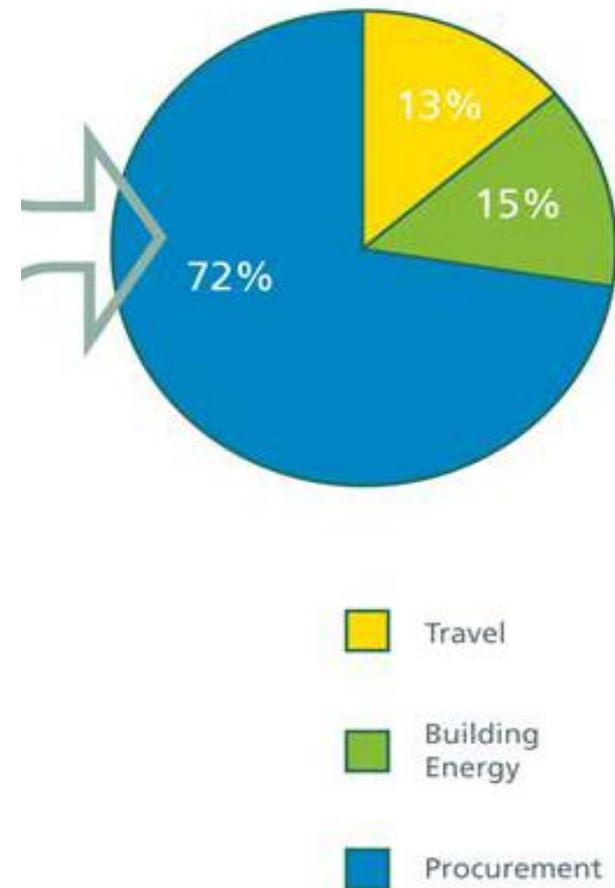


Health and Social Care England Carbon Footprint

CO₂e baseline from 1990 to 2025 with Climate Change targets



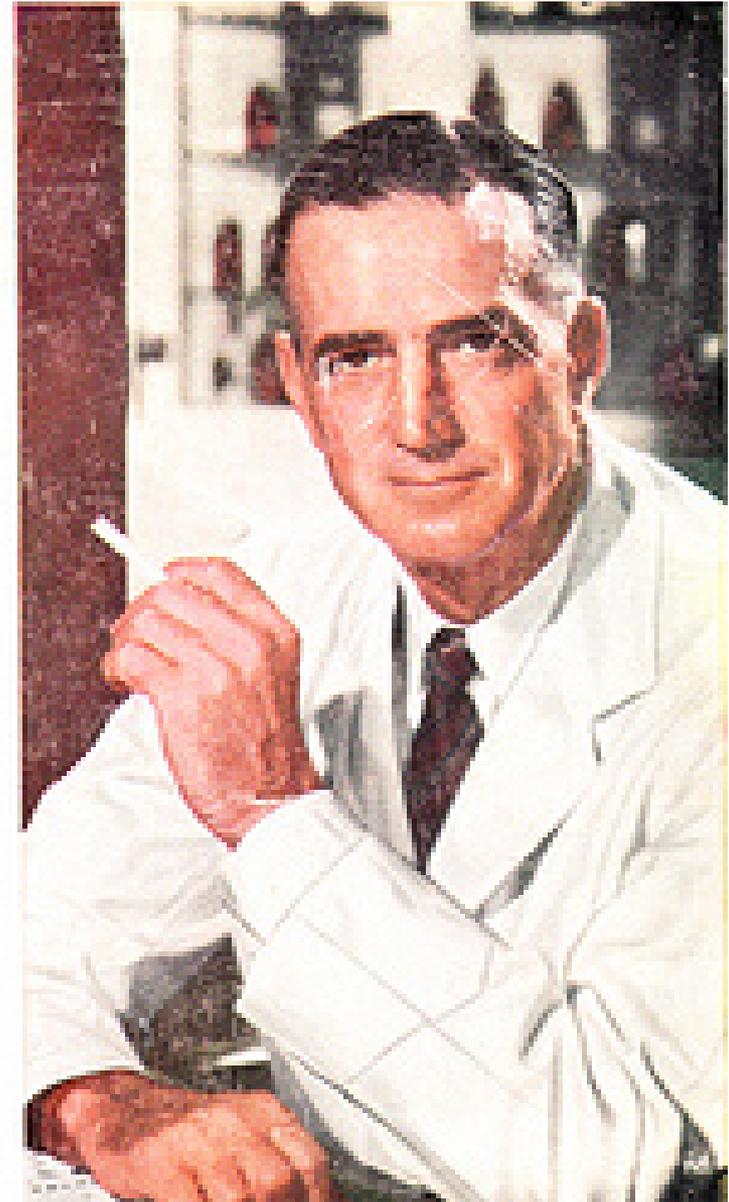
NHS, Public Health and Social Care carbon footprint breakdown 2012



Breaking down the carbon footprint demonstrates **three key areas** to focus carbon reduction activity.

According to repeated nationwide surveys,

**More Doctors
Smoke **CAMELS**
than any other
cigarette!**



1946 - 1953

The five most trusted professions, 2017

% trust to tell the truth:

2016 score:

Nurses

94%

93%

Doctors

91%

91%

Teachers

87%

88%

Professors

85%

-

Scientists

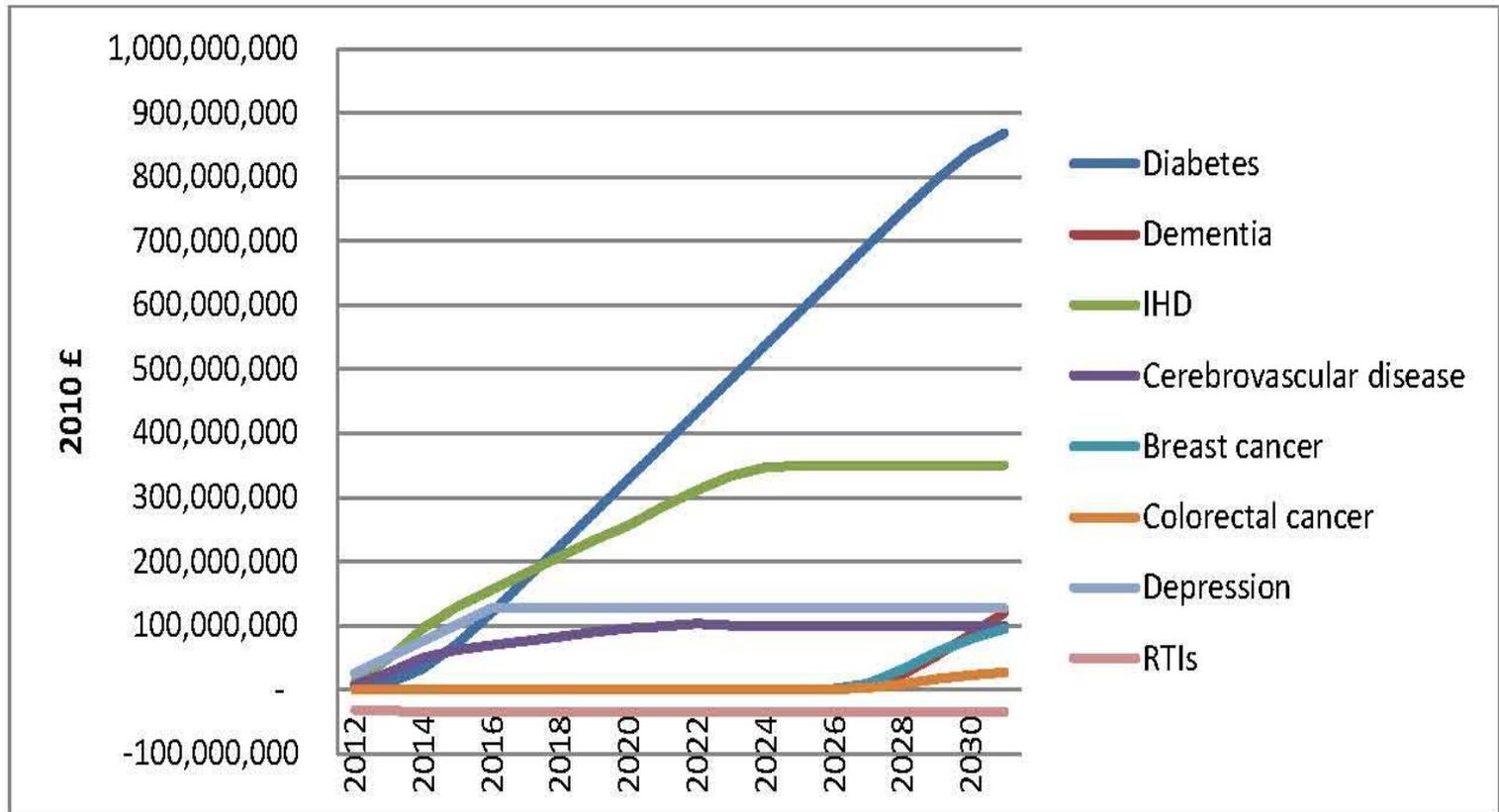
83%

80%

Increased active travel and low carbon transport – health and environmental benefits

(Woodcock et al 2009, Jarrett et al 2012))

Figure 1: Potential annual NHS expenditure averted by year and health outcome from Increased Active Travel scenario





This is not just a scientific and technical issue, it's a communication, engagement and political issue...



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theguardian
website of the year



UK

world

politics

sport

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lifestyle

fashion

environment

tech

travel

≡ all sections

home

Health and wellbeing

Climate change isn't just about the environment - it's a health problem

Framing climate change as a public health risk may be a way of pushing the debate from the green crowd into the mainstream

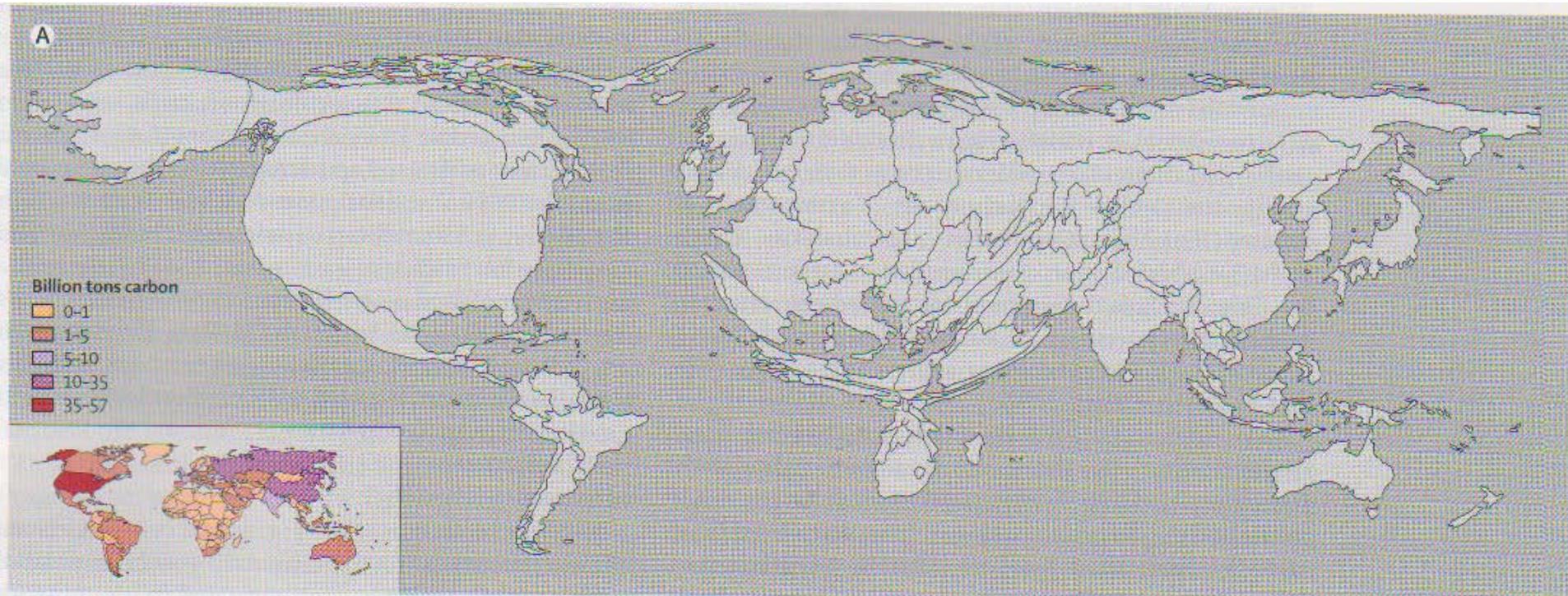




- Science
 - Climate breakdown
 - Pollution / harm / pollution
 - Biodiversity loss
- Legal
- Economic / financial
- Health
- Rights / moral / ethical
- Resilience
- Security
- ...other

Engaging
with
climate
change
- *frames*

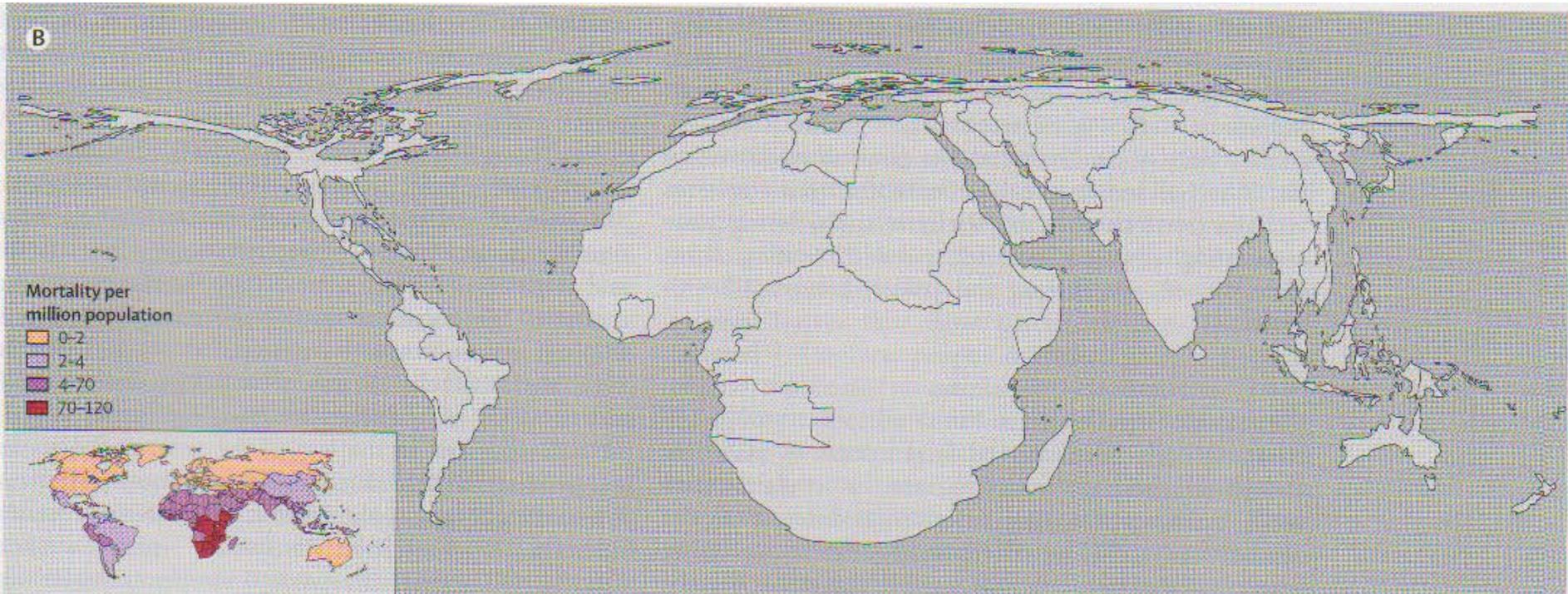
Who produces the greenhouse gases?



The world map reflecting production related to climate change.

“Climate Change presents the biggest threat to health in the 21st Century” The Lancet (373;9697 pp 1659-1734, May 16-22 2009).

Who bears the burden?



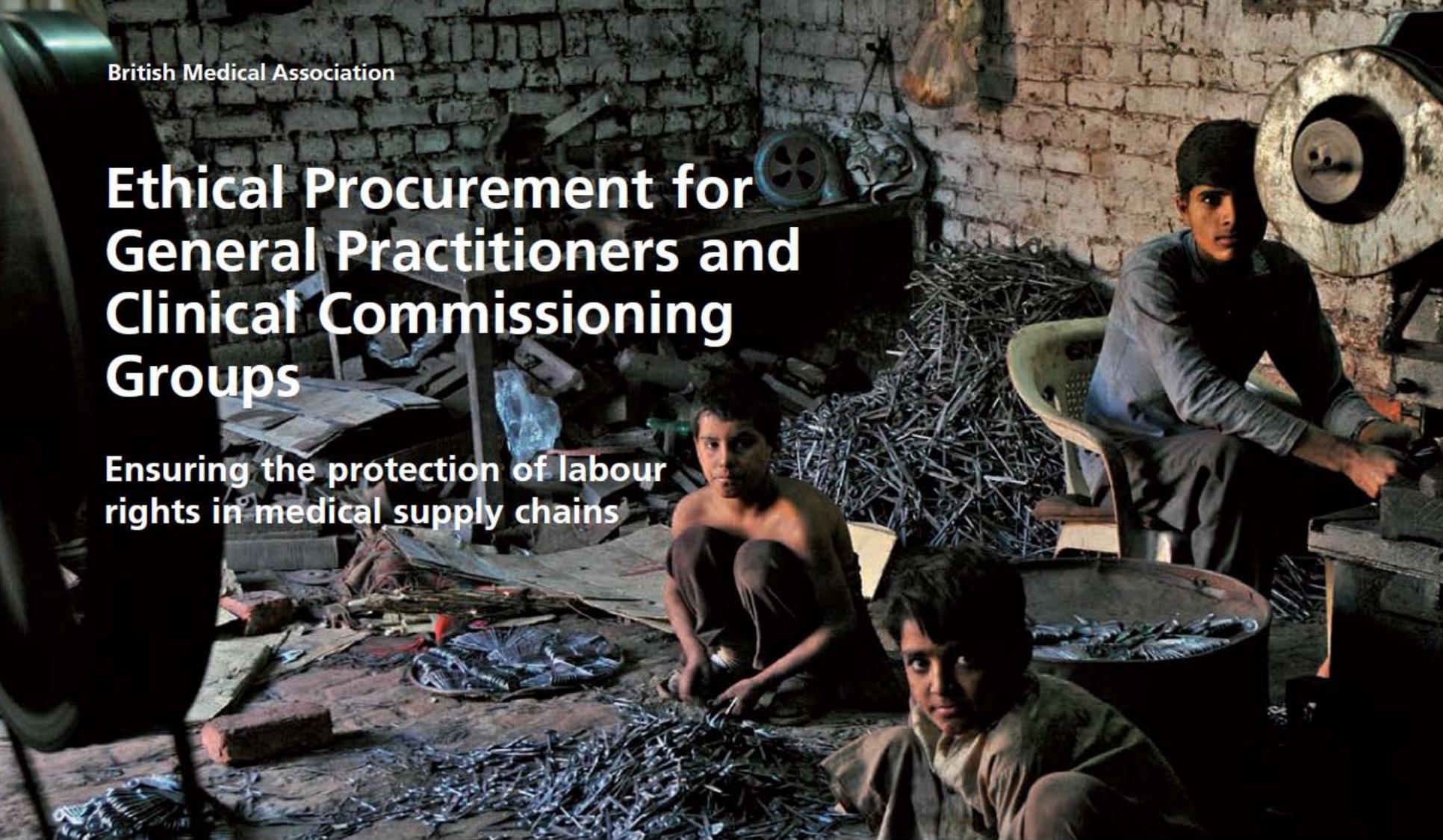
The world map reflecting mortality related to climate change.

“Climate Change presents the biggest threat to health in the 21st Century” The Lancet (373;9697 pp 1659-1734, May 16-22 2009).

British Medical Association

Ethical Procurement for General Practitioners and Clinical Commissioning Groups

Ensuring the protection of labour
rights in medical supply chains





Mahmood Bhutta

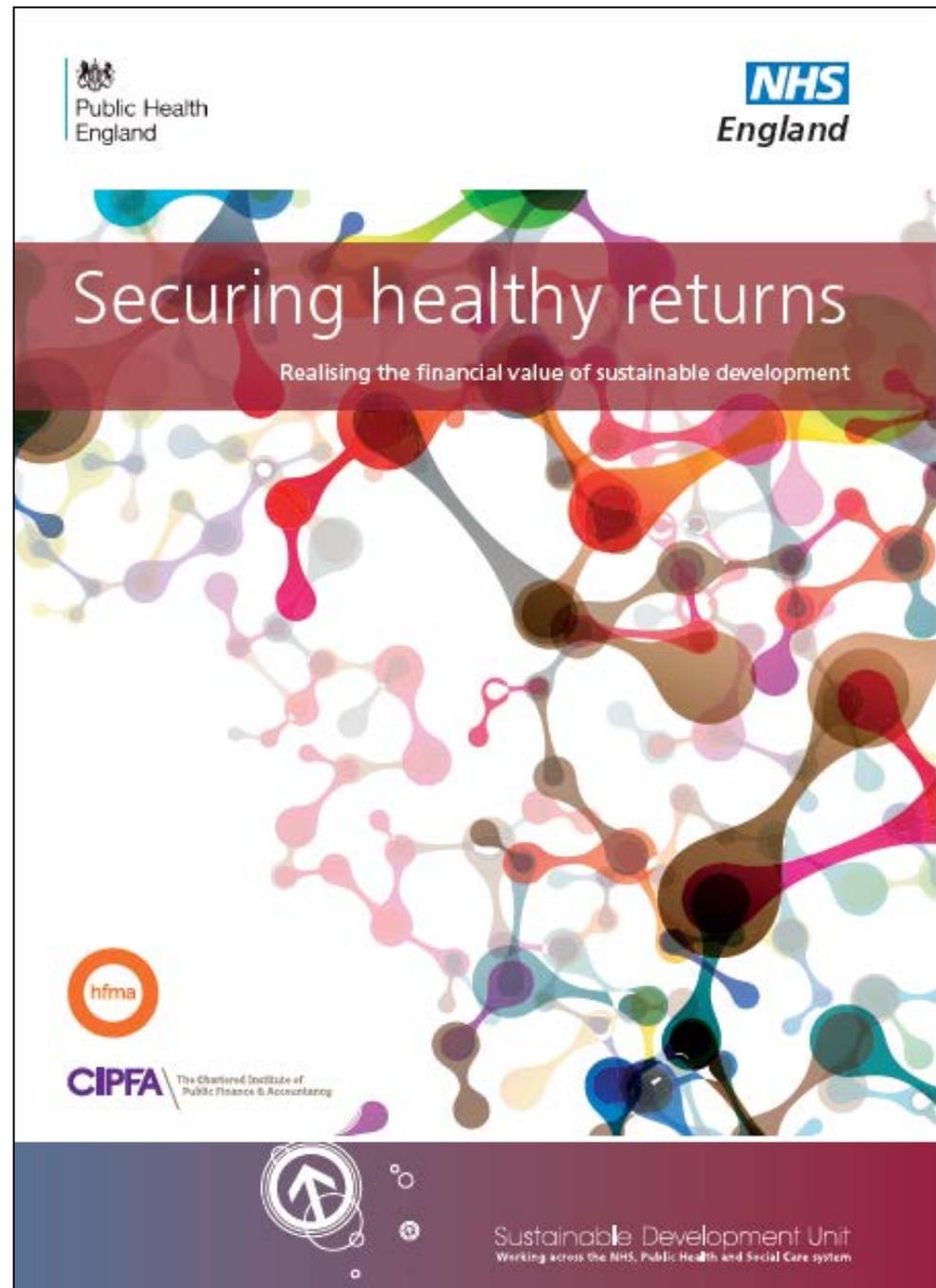
ENT Surgeon & Co-founder BMA Medical Fair and Ethical Trade Group

<https://www.youtube.com/watch?v=-uqal-bWbg4>

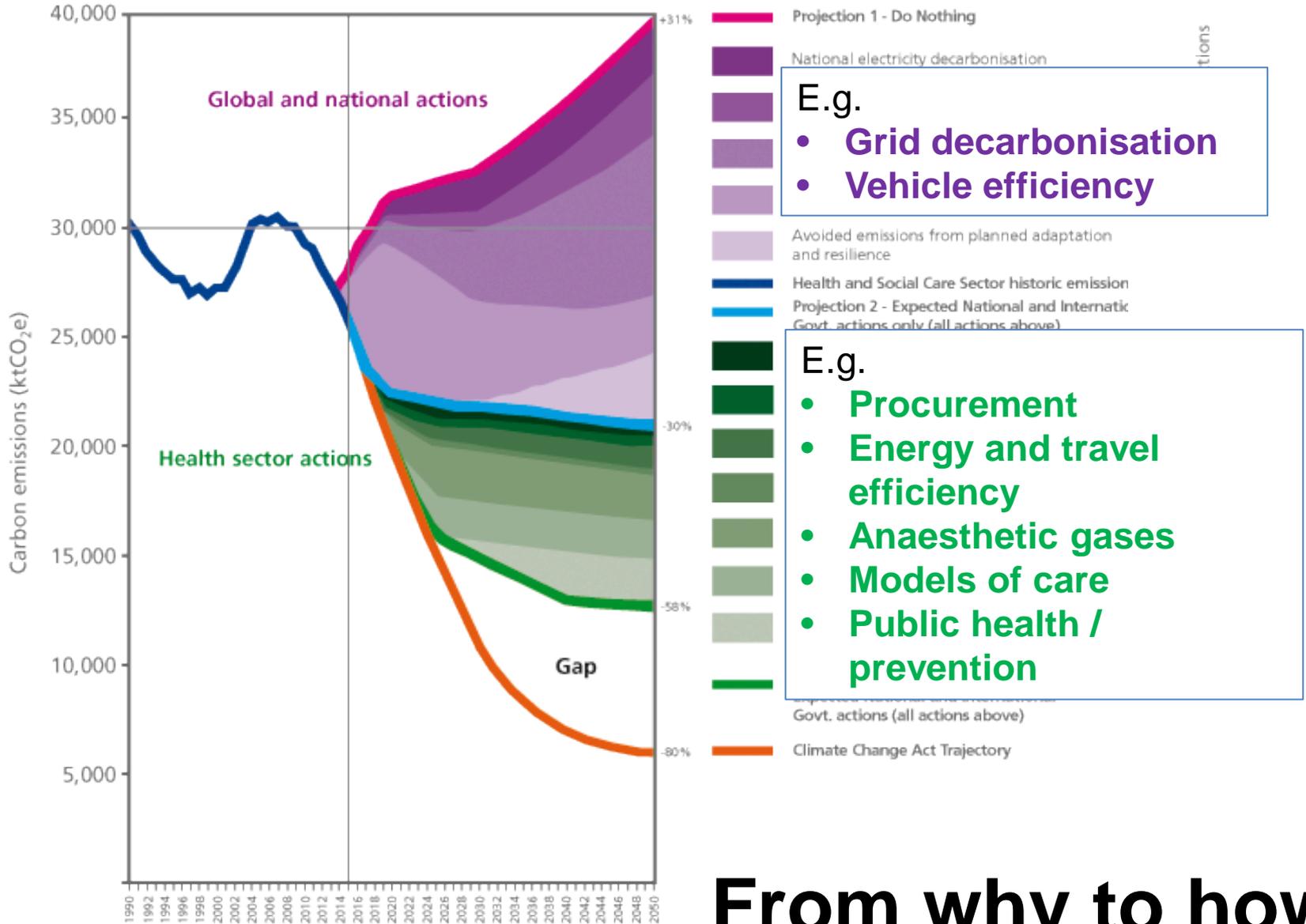
Financial Case

From energy measures alone

- £1.85bn saving since 2007
- £190m annual saving in 2015
- £370m savings pa by 2020
- *Money kept in local health economies*



NHS, public health and social care system wedges to 2050



From why to how







Healthcare
Architecture

AFL

PICK
EVERARD

St. Luke's Hospital

EV
PICK
EVERARD



Children's Wellbeing Village

ALDER HEY

IN THE PARK

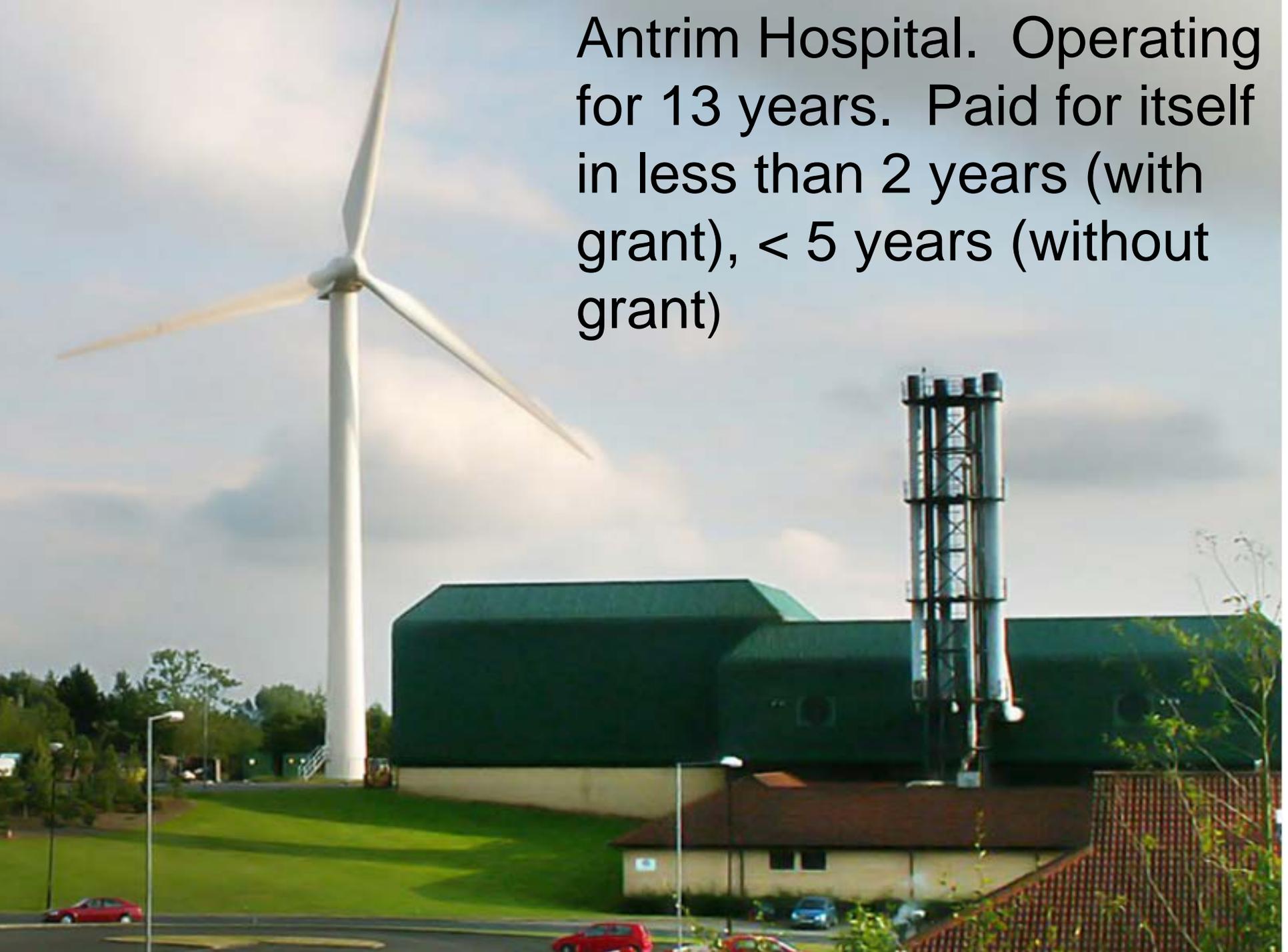
Inspired by Children

Alder Hey Children's
NHS Foundation Trust



nhs.uk

Antrim Hospital. Operating for 13 years. Paid for itself in less than 2 years (with grant), < 5 years (without grant)



The future is already
happening – it's just
unevenly distributed.

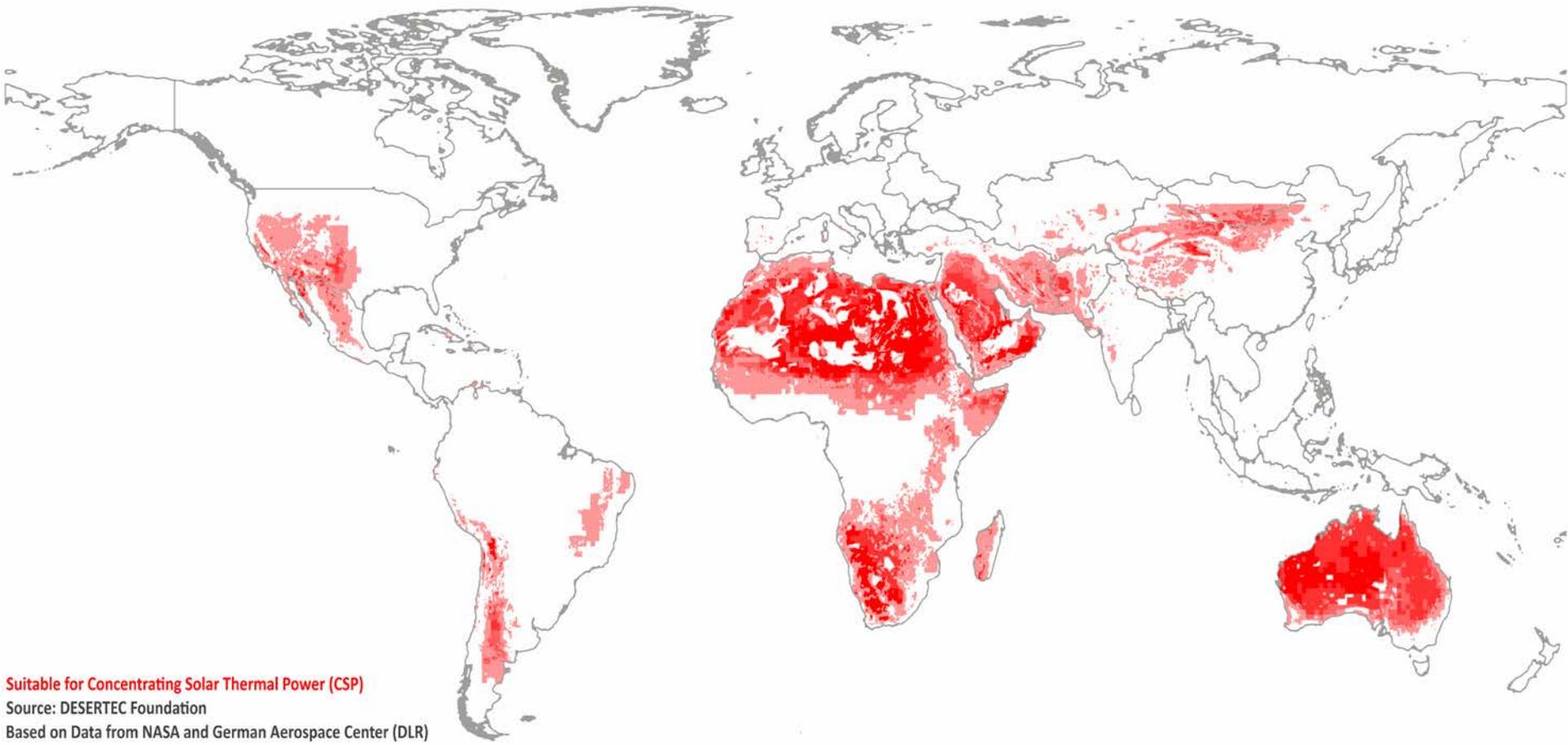




Within 6 hours, the deserts of the world receive more energy than the world's human population uses in a year.



Photovoltaic (PV) Cells or Reflecting Mirrors for Concentrated Solar Power (CSP), provide important shade for crop growing in hot countries.



Suitable for Concentrating Solar Thermal Power (CSP)
Source: DESERTEC Foundation
Based on Data from NASA and German Aerospace Center (DLR)



Engagement, awareness, advocacy

1. Simple clear messages, repeated often, by a variety of trusted voices.
2. The less you say, the more you are heard.
3. Say the things are most relevant to people
4. Understand (by listening and researching) which messages have most value to others.

Ed Maibach,
PHE Conference 2017

Public Services (Social Value) Act 2012

“...all public bodies in England and Wales are required to consider how the services they commission and procure might improve the economic, social and environmental well-being of the area.”

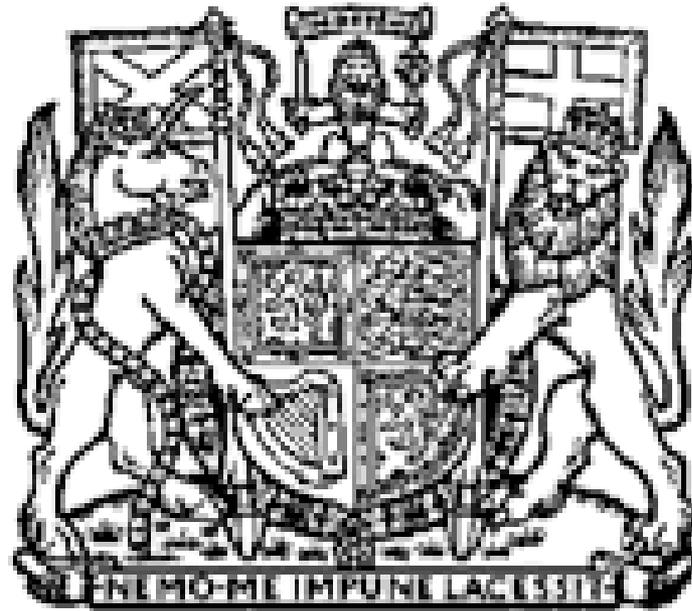
Well-being of Future Generations (Wales) Act 2015

The Essentials



Llywodraeth Cymru
Welsh Government

www.gov.wales



Climate Change (Scotland) Act 2009

**“It's easier to act your way
into a new way of thinking,
than to think your way
into a new way of acting.”**

Jerry Sternin

The Power of Positive Deviance

Emotions drive people.
People drive change.



Public opinion survey

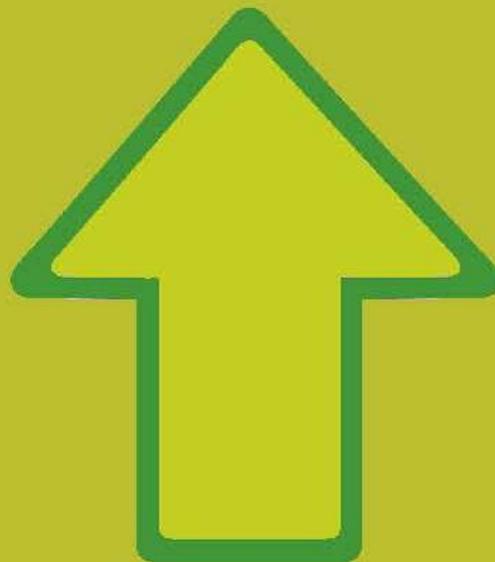
92%



89%

92% of the public think it is important for the health system to work in a more sustainable way – (was 92% 2011, 89% 2013)

43%



36%

43% of the public said that the health system should act in a more sustainable way even if there is a cost involved – (was 33% 2011, 36% 2013)

25%



19%

25% of the public felt that sustainability should be a top priority – (was 19% 2011, 19% 2013)



World Health Organization



Dr. Margaret Chan, DG of WHO:

“...climate change is the defining issue for the 21st century... The evidence is there, and it is compelling. Here is my strong view: climate change, and all of its dire consequences for health, should be at centre-stage, right now, whenever talk turns to the future of human civilizations. After all, that's what's at stake.”

“NICE is committed to exploring methods for building sustainability into NICE guidance and to promoting sustainable growth in the life sciences industries. We warmly welcome this guidance. It represents an important extension of the scope and methods of carbon accounting. It’s also a very practical support to industry efforts to reduce the carbon footprint of the drugs and medical devices that are so important to NHS patients.”

Sir Andrew Dillon CBE
CEO of the UK National Institute for Health and Clinical Excellence

NHS

National Institute for Health and Clinical Excellence



Department of Health

Strategic priorities for UK Department of Health Chief Medical Officer.

1. Antimicrobial resistance
2. Pandemic influenza
3. Demographic changes
4. Bioterrorism
5. Climate Change



Breaking the fever: Sustainability and climate change in the NHS

For report references and more
information, visit our website
www.rcplondon.ac.uk/projects/healthcare-sustainability

Every breath
we take:
the lifelong
impact of
air pollution

What it means for you
February 2016



“Each year in the UK, around 40,000 deaths are attributable to exposure to outdoor air pollution, with more linked also to exposure to indoor pollutants.”

Air pollution plays a role in many of the major health challenges of our day, and has been linked to cancer, asthma, stroke and heart disease, diabetes, obesity, and changes linked to dementia.”



40,000 early deaths across the UK per annum attributable to air pollution.
(60,000 if NO_x from e.g. diesel engines included)

Average 8 month loss of life for every person
Especially lung disease and stroke

**HIGH QUALITY
CARE FOR ALL,**



Embed this in “Quality”

Box 2. The seven domains of quality.¹⁵

Patient experience: The patient should be the definitive focus of healthcare delivery. ‘Quality healthcare’ may not be the same for every patient.

Effectiveness: Healthcare should be underpinned by the deployment of beneficial interventions at the right time and to the right patients.

Efficiency: Healthcare must make best use of limited resources. Avoidance of waste should apply to material and abstract (eg time, ideas) resources.

Timeliness: Timeliness is key to avoiding waits and potentially harmful delays in the delivery of healthcare, incorporating the deployment of health interventions to anticipate and prevent illness.

Safety: While risk in healthcare cannot be reduced to zero it must be actively managed with the minimisation of harm a definite objective.

Equity: Healthcare must strive for a level playing field, in which patients determine their own high-quality care, and in which the needs of the many and the few are balanced.

Sustainability: Sustainability should be viewed as a characteristic of healthcare which must run through and moderate other domains. Healthcare should be considered not only in terms of what can be delivered to an individual today, but also to the population in general and the patients of the future.

**THIS ONE
RUNS ON FAT
AND SAVES YOU MONEY**



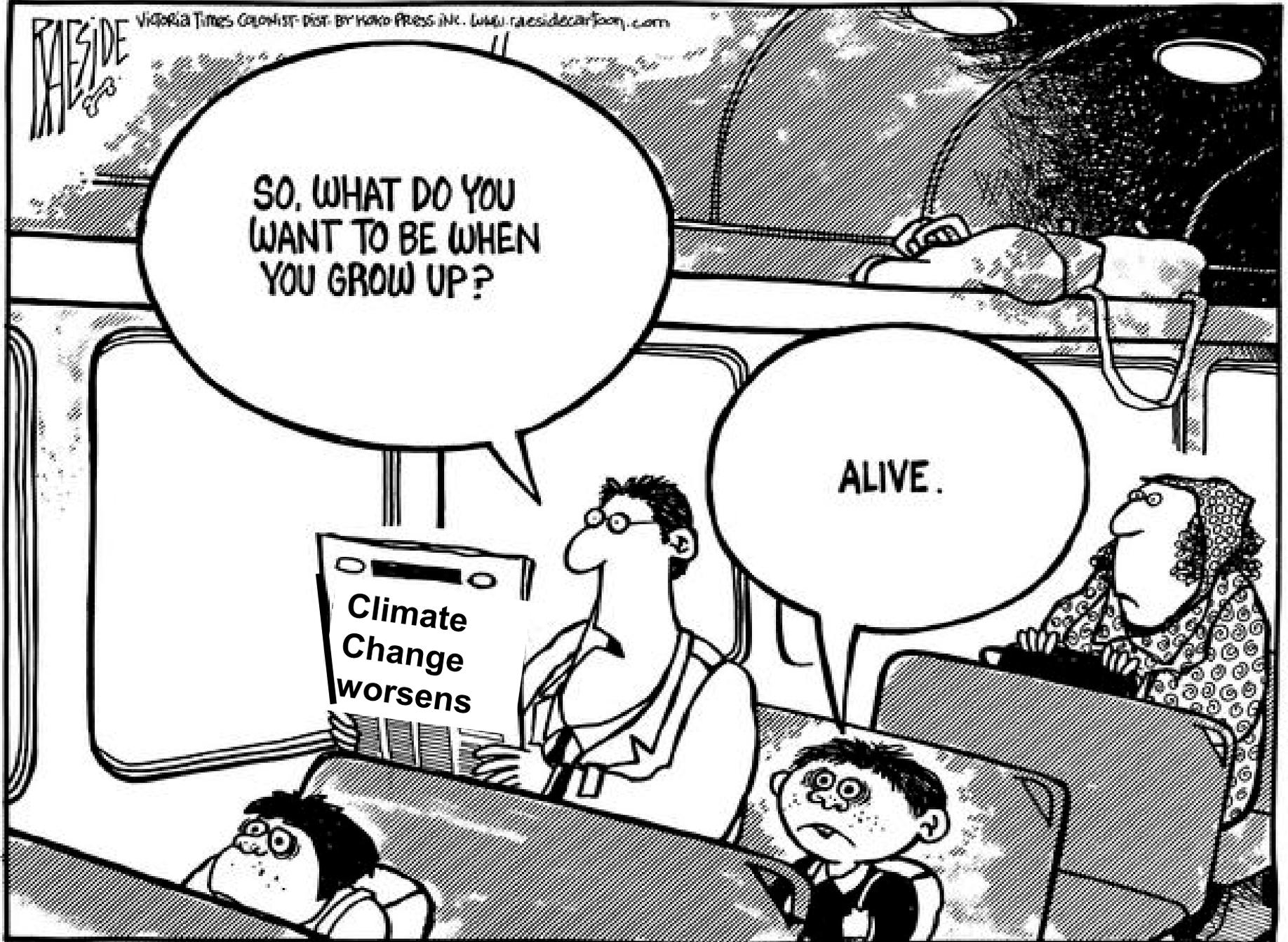
**THIS ONE
RUNS ON MONEY
AND MAKES YOU FAT**



SO, WHAT DO YOU WANT TO BE WHEN YOU GROW UP?

ALIVE.

Climate Change worsens





folb

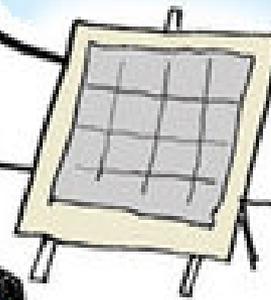
*“Yes, the planet got destroyed. But for a beautiful moment
in time we created a lot of value for shareholders.”*



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.



12/19 USA TODAY
DEL PITT

200 years of health professionals taking action

1. Slavery
Abolition
Bill, 1833



2. Cholera: Broad
Street Pump,
1854



3. Smoking and
tobacco,
1962



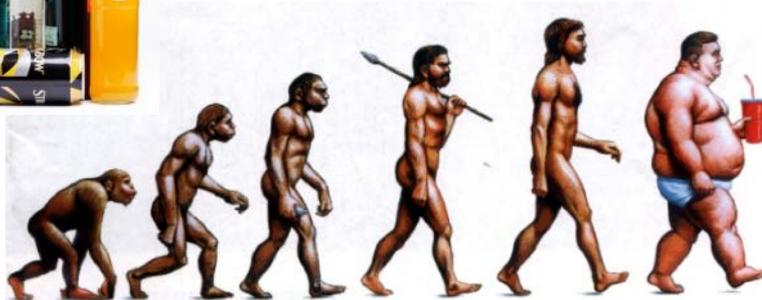
4. Nuclear
proliferation



5. Alcohol



6. Obesity



7. HIV/AIDS



8. Sustainable
development,
climate change





Head in the sand...or....line in the sand?

d.pencheon@exeter.ac.uk

@pencheon1