

An introduction to Sustainable Healthcare


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SUSTAINABLE
HEALTHCARE
inspire • empower • transform

Rachel Stancliffe, Director
Centre for Sustainable Healthcare
Sustainable Dentistry, 29th June 2018

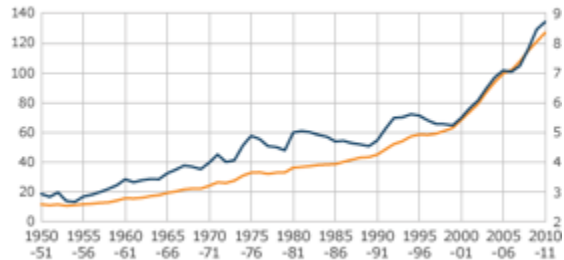
- 
- A. What is sustainable healthcare?
 - B. Why should healthcare professionals be concerned about sustainability?
 - C. What general steps have been taken to address sustainability in healthcare?
 - D. What steps have been taken towards sustainability in Dentistry?

Healthcare challenges in the 21st century

Spending on the NHS

Real net spending at 2010/11 prices
£ billion

As % of GDP



Source: King's Fund

ECONOMIC

- Rising demand
- Financial crisis
- Waste

ENVIRONMENTAL

- Climate change
- Air and water pollution
- Water scarcity



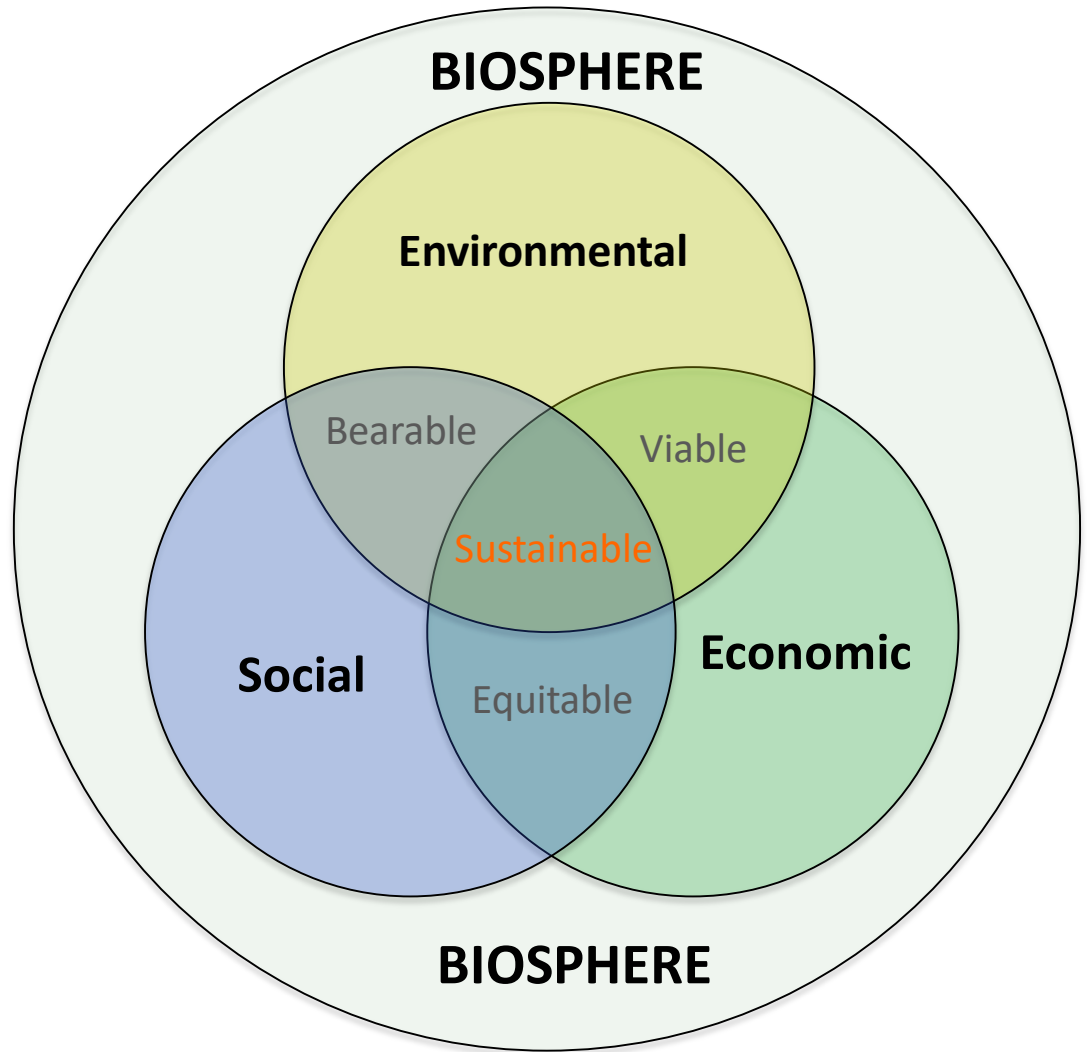
SOCIAL

- Inequalities
- Safety / quality
- Patient experience
- Staffing / morale



A. What is sustainable healthcare?

A healthcare system is sustainable if it works **within its financial, environmental and social resource limits, improving and protecting** health now and for future generations



A. What is sustainable healthcare?

B. Why should healthcare professionals be concerned?

B. Why should healthcare professionals be concerned about sustainability?

1. Climate Change is the biggest health threat of the 21st century. *Dr. Margaret Chan WHO Director-General*

THE LANCET

Volume 373, Number 9575, Pages 1725-1726, May 29-31, 2009

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

See The Lancet Commission page 1413

Comment

Compensation for brain drain from developing countries
See page 1405

Correspondence

Answers from 'Lancet Correspondence'
See page 1711

Articles

RESEARCH: Substitution for pneumococcal polysaccharide after 1000-year interruption
See page 1717

Articles

THEY: regional drought as a result of climate change for north-western China
See page 1726

The Lancet Commission

Management of health effects of climate change
See page 1413

‘Although vector-borne diseases will expand their reach and death tolls, the indirect effects of climate change on water, food security, and extreme climatic events are likely to have the biggest effect on global health.’

Lancet & UCL (2009). Managing the health effects of climate change.

B. Why should healthcare professionals be concerned about sustainability?

1. Climate Change is the biggest health threat of the 21st century
2. Healthcare contributes to climate change because of its high carbon emissions

Greenhouse gas emissions of healthcare

Healthcare emits:

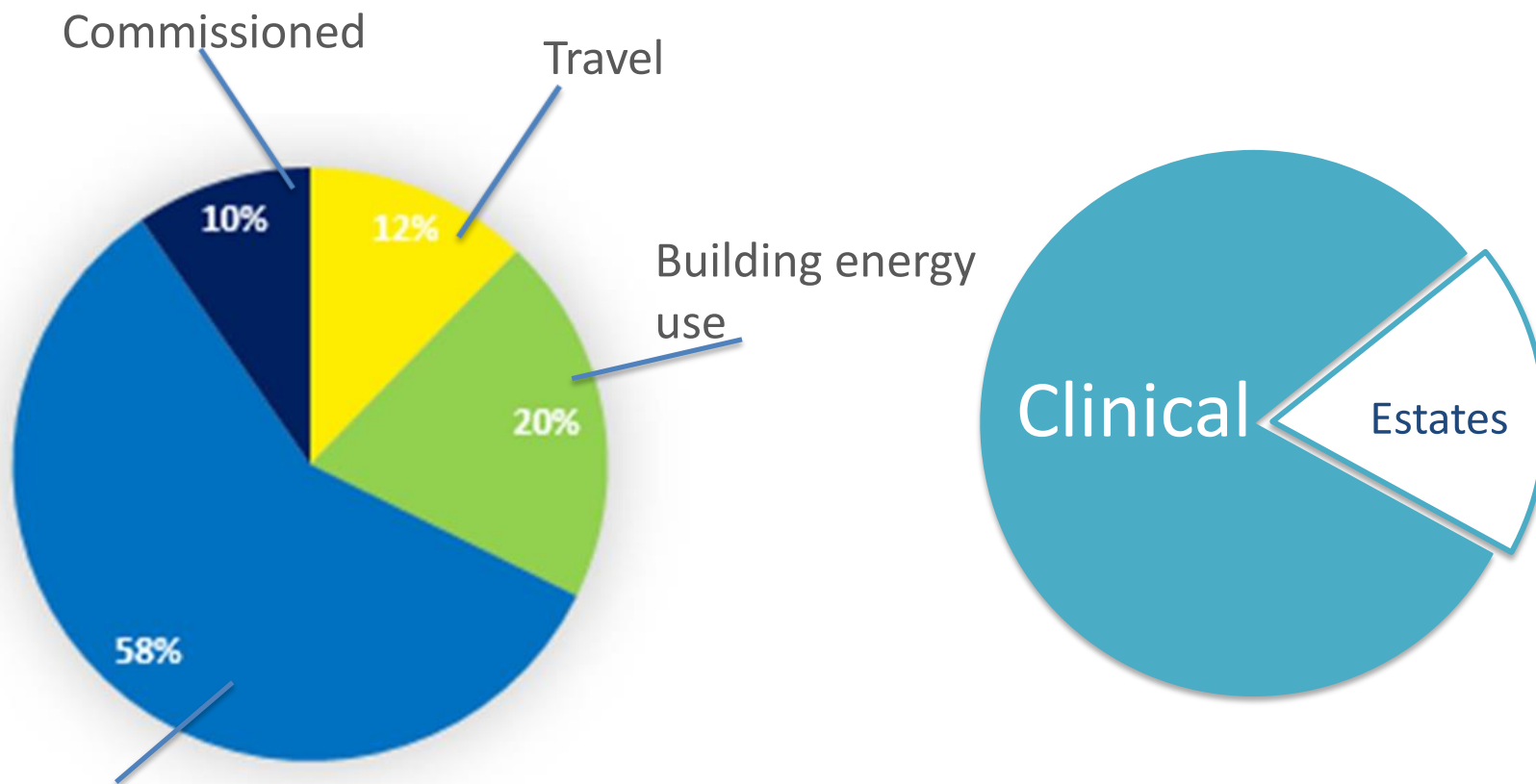
- 10% GHGs in the US¹,
- 7% GHGs in Australia², and
- 5% GHGs in England³

¹ Eckelman M J, Sherman J (2016). Environmental Impacts of the U.S. Health Care System and Effects on Public Health. *PLoS ONE* 11(6): e0157014

² Malik A, Lenzen M, McAlister S, McGain F. The carbon footprint of Australian health care. *Lancet Planetary Health* 2(1): e27-35

³ Sustainable Development Unit. (2016). Carbon Footprint update for the NHS in England.

NHS England carbon footprint (22.8 million tonnes CO₂e)



Procured (pharmaceuticals, equipment, everything else)

Sustainable Development Unit (2016). Carbon Footprint update for the NHS in England.

B. Why should healthcare professionals be concerned about sustainability?

1. Climate Change is the biggest health threat of the 21st century
2. Healthcare contributes to climate change because of its high carbon emissions
3. Resources are finite (water and scarce metals)
4. Legal reasons and international agreements (2008 CCA)
5. Healthcare professionals are respected advocates
6. Sustainability can improve productivity and value, saving money along the way


Sustainable value in healthcare

$$\text{Value} = \frac{\text{outcomes (goods – harms)}}{\text{environmental + social + financial costs (the “triple bottom line”)}}$$

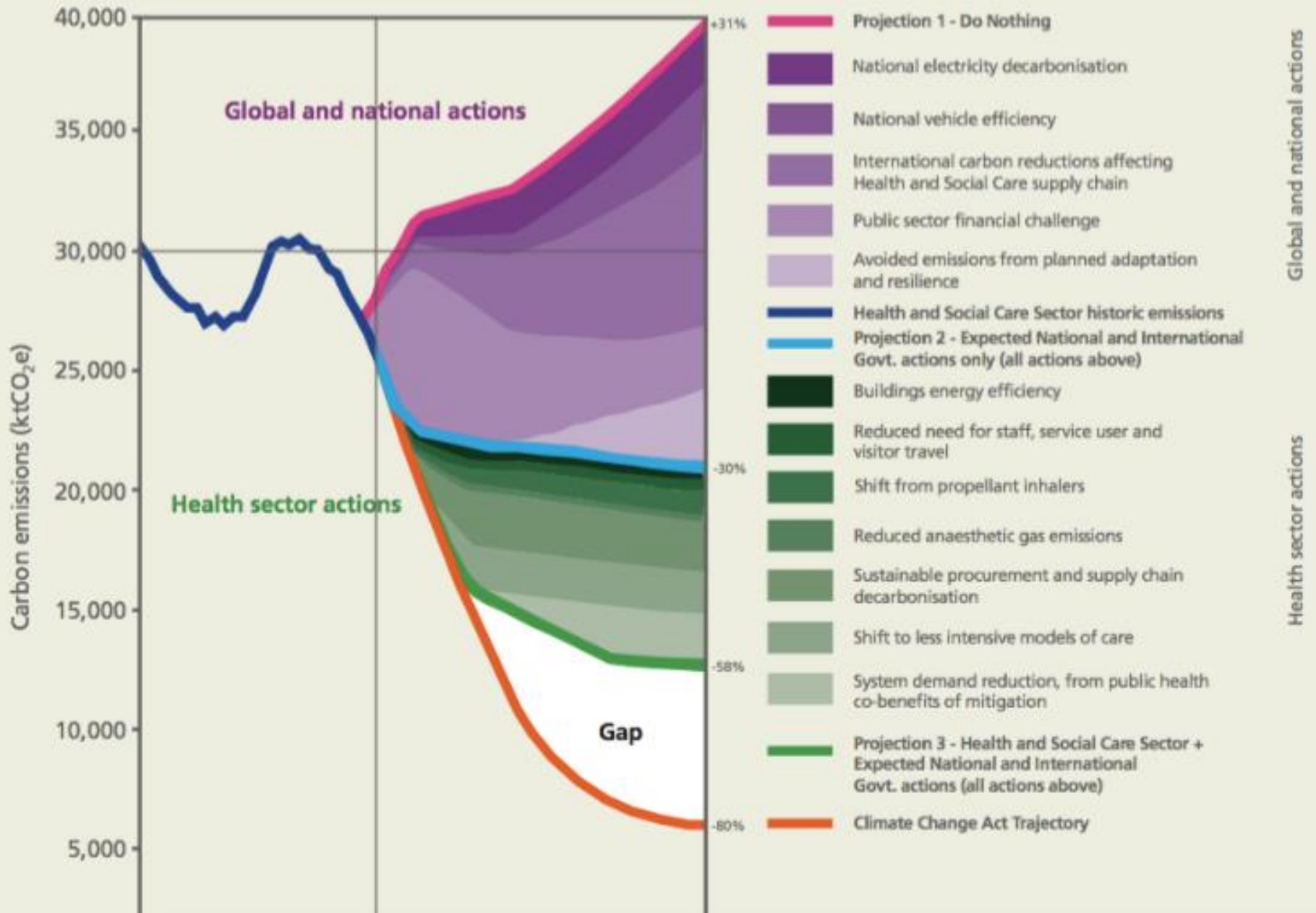
Informed by patient *values*



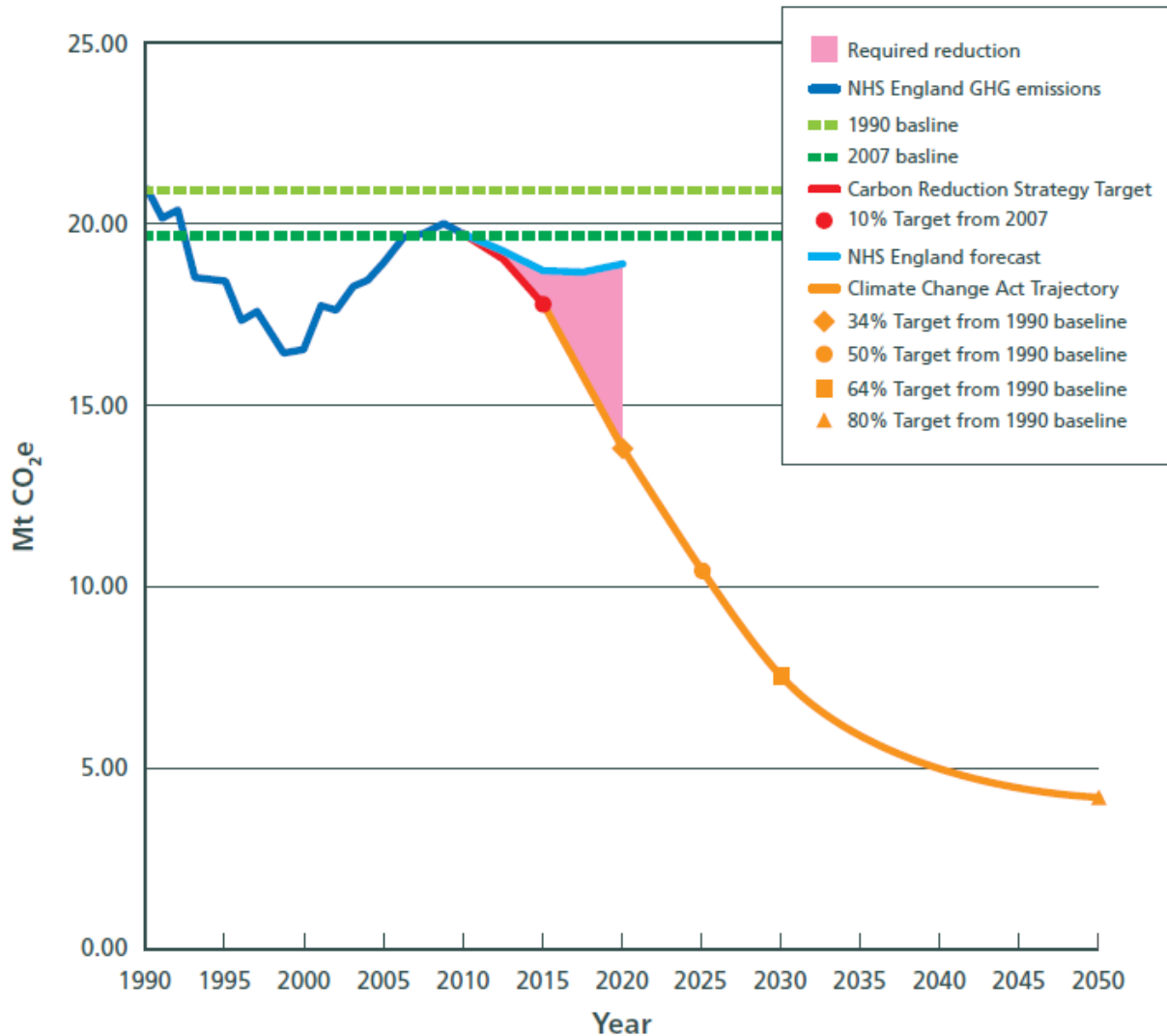
Academy of Medical Royal Colleges, 2016 (with CSH)

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 - C. What general steps have been taken to make healthcare more sustainable?

NHS, public health and social care system wedges to 2050



Summary of progress



Governance

- Analysing healthcare's greenhouse gas emissions and identifying its hotspots
- Securing support at executive level
- Developing organisational sustainable development management plans
- Developing partnerships to support the embedding of sustainable principles within healthcare

THE LANCET

June, 2015

www.thelancet.com

Health and climate change



"Tackling climate change could be the greatest global health opportunity of the 21st century."

A Commission by The Lancet

‘No regret’ policies will improve health, enhance resilience, alleviate poverty and address inequality:

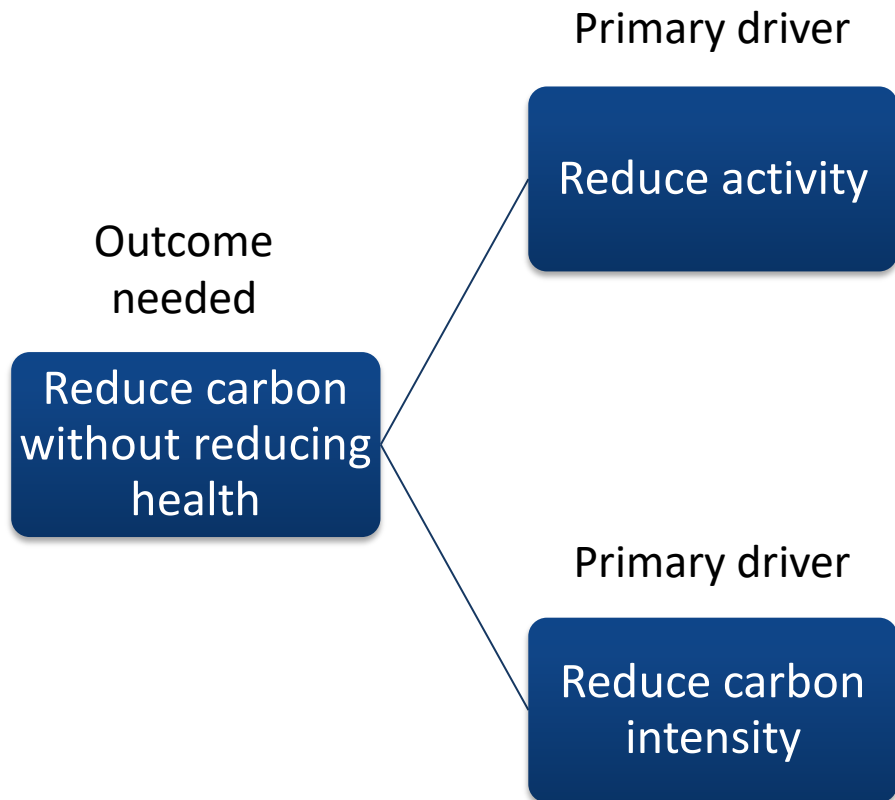
- Clean energy
- Active travel
- Housing improvements
- Green spaces

Three min. film:

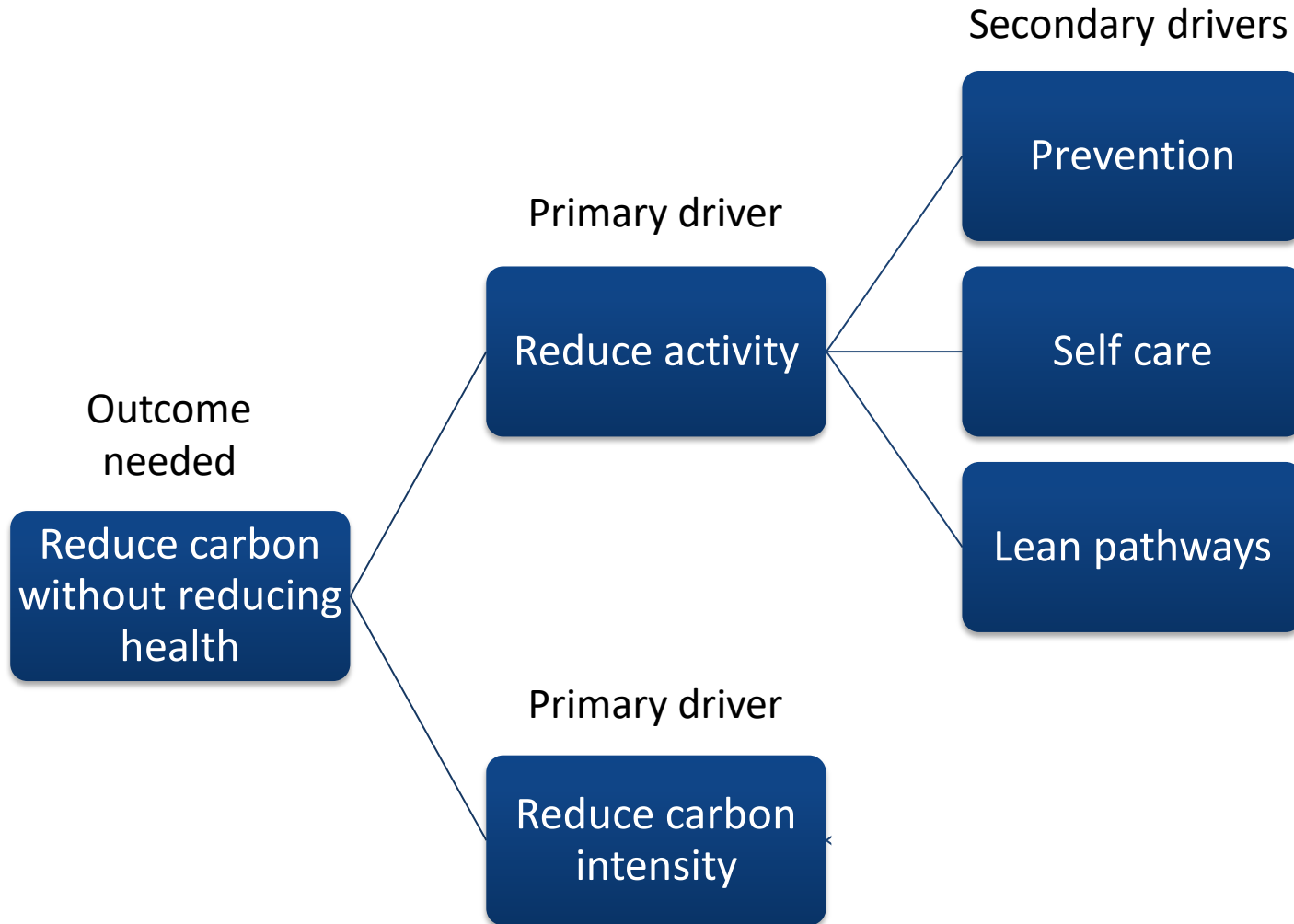
<http://www.thelancet.com/cms/attachment/2033405756/2049484881/mmc2.mp4>

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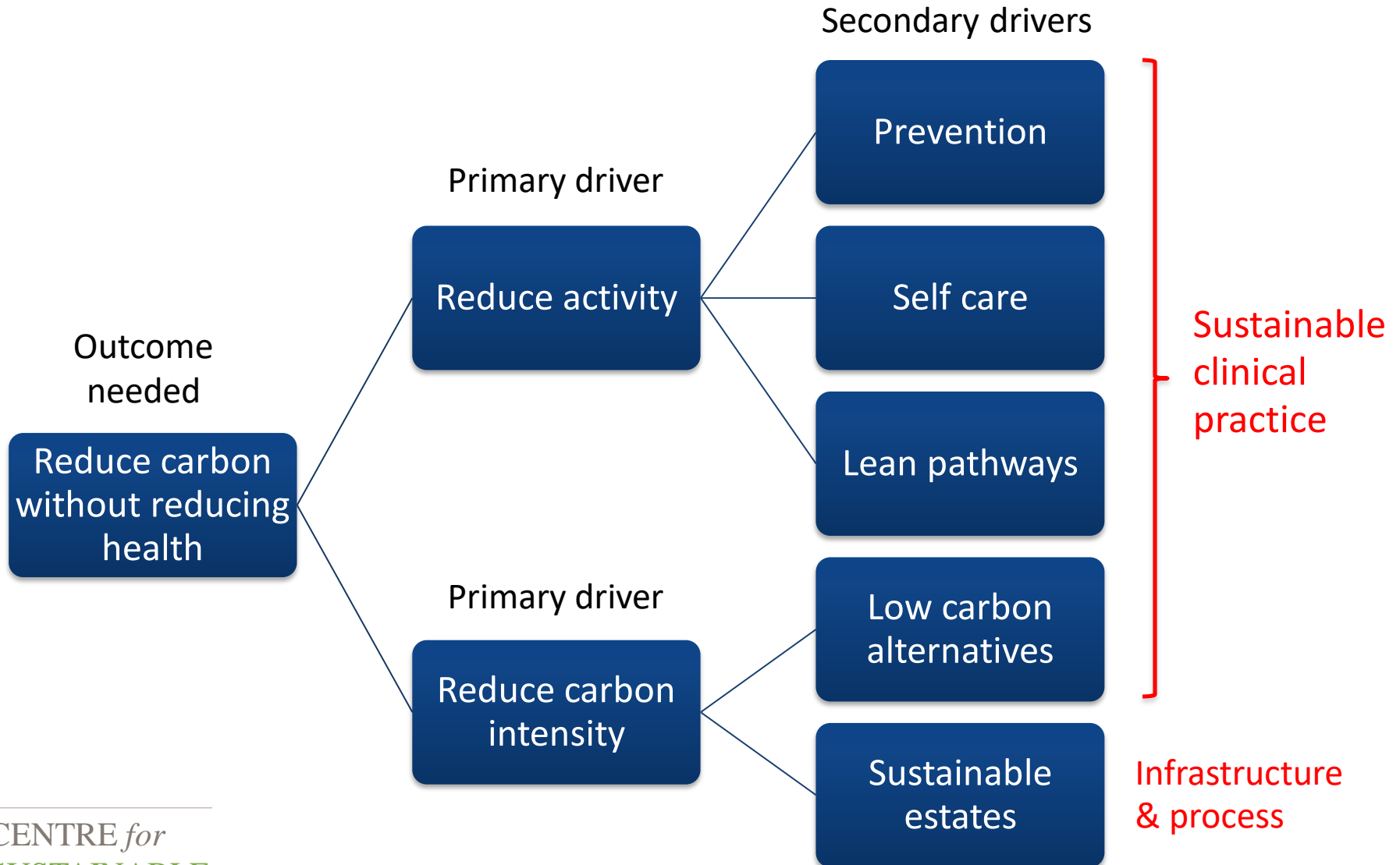
Sustainable clinical practice



Sustainable clinical practice




Sustainable clinical practice



The 4 Principles of Sustainable Healthcare

- **Prevention** - promoting health and preventing disease by tackling the causes of illnesses and inequalities
- **Patient self-care** - empowering patients to take a greater role in managing their own health and healthcare
- **Lean service delivery** - streamlining care systems to minimise wasteful activities
- **Low carbon alternatives** – prioritising treatments and technologies with a lower environmental impact

Developed by Frances Mortimer at the Centre for Sustainable Healthcare *Mortimer-F. The Sustainable Physician, Clinical Medicine 2010, Vol 10, No 2: 110–11*

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Working Groups

- CSH Sustainable Dentistry Programme
wonderful dental scholars with input
from Brett Duane
- Dental Sustainability Advisory Group
with representation from: GDC, BDA,
LDC, PHE, HEE, CSH and many others
- Network Dental Susnet
<https://networks.sustainablehealthcare.org.uk/network/dental-susnet>

Carbon footprinting and Triple Bottom Line Analysis in Dentistry

- **Taking a bite out of Scotland's dental carbon emissions in the transition to a low carbon future.**
Duane et al. Public Health 2012 Sep;126(9):770-7
- **An estimated carbon footprint of NHS primary dental care within England. How can dentistry be more environmentally sustainable?** Duane, B., Berners Lee, M., White, S., Stancliffe, R. & Steinbach, I. BDJ (2017) 223: 589–593
- **Carbon Footprinting of Dentistry in England.**
Ingeborg Steinbach and Brett Duane, . PH England,



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www.sustainablehealthcare.org.uk

<https://networks.sustainablehealthcare.org.uk/network/dental-susnet>

rachel@sustainablehealthcare.org.uk