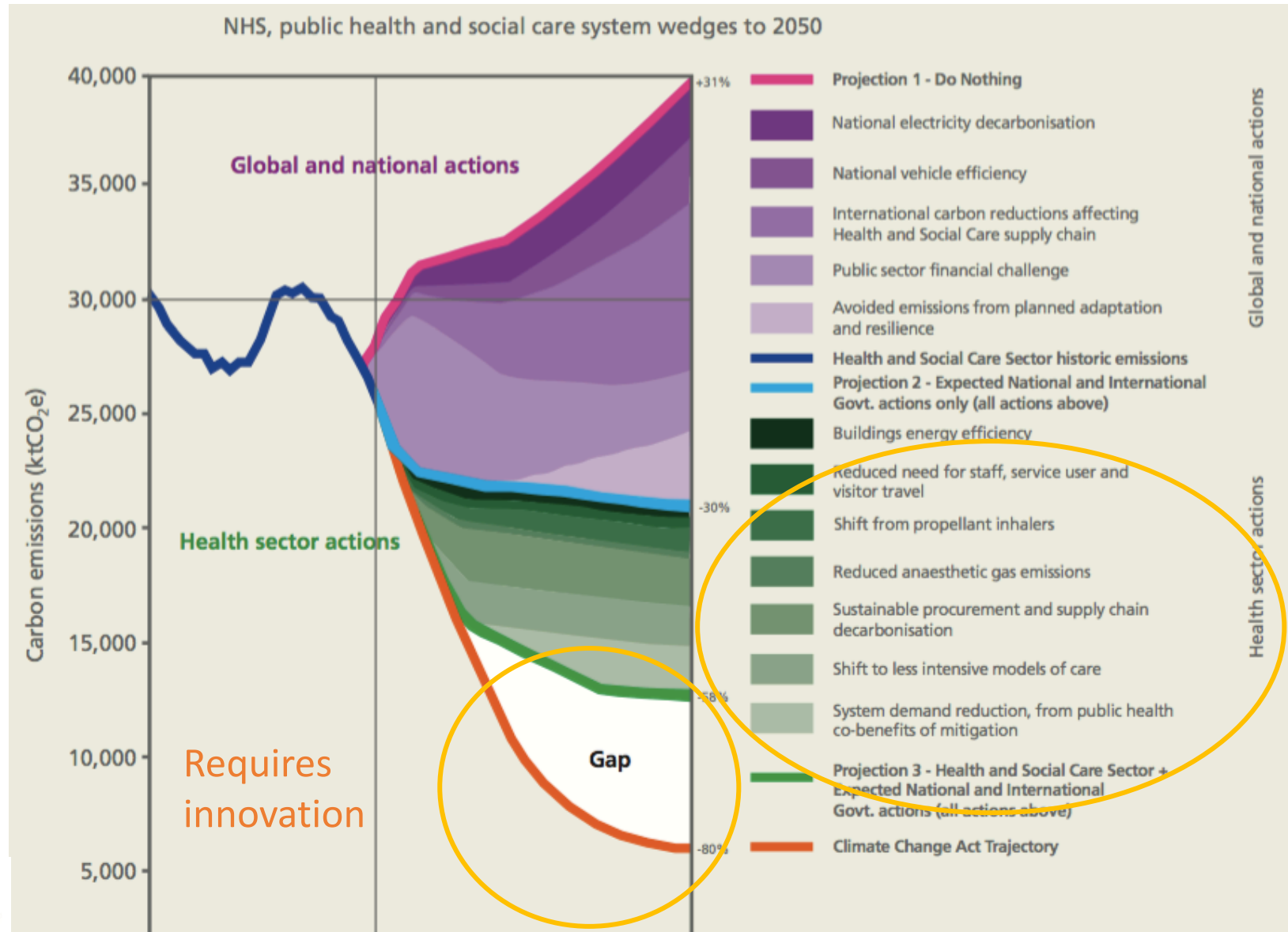


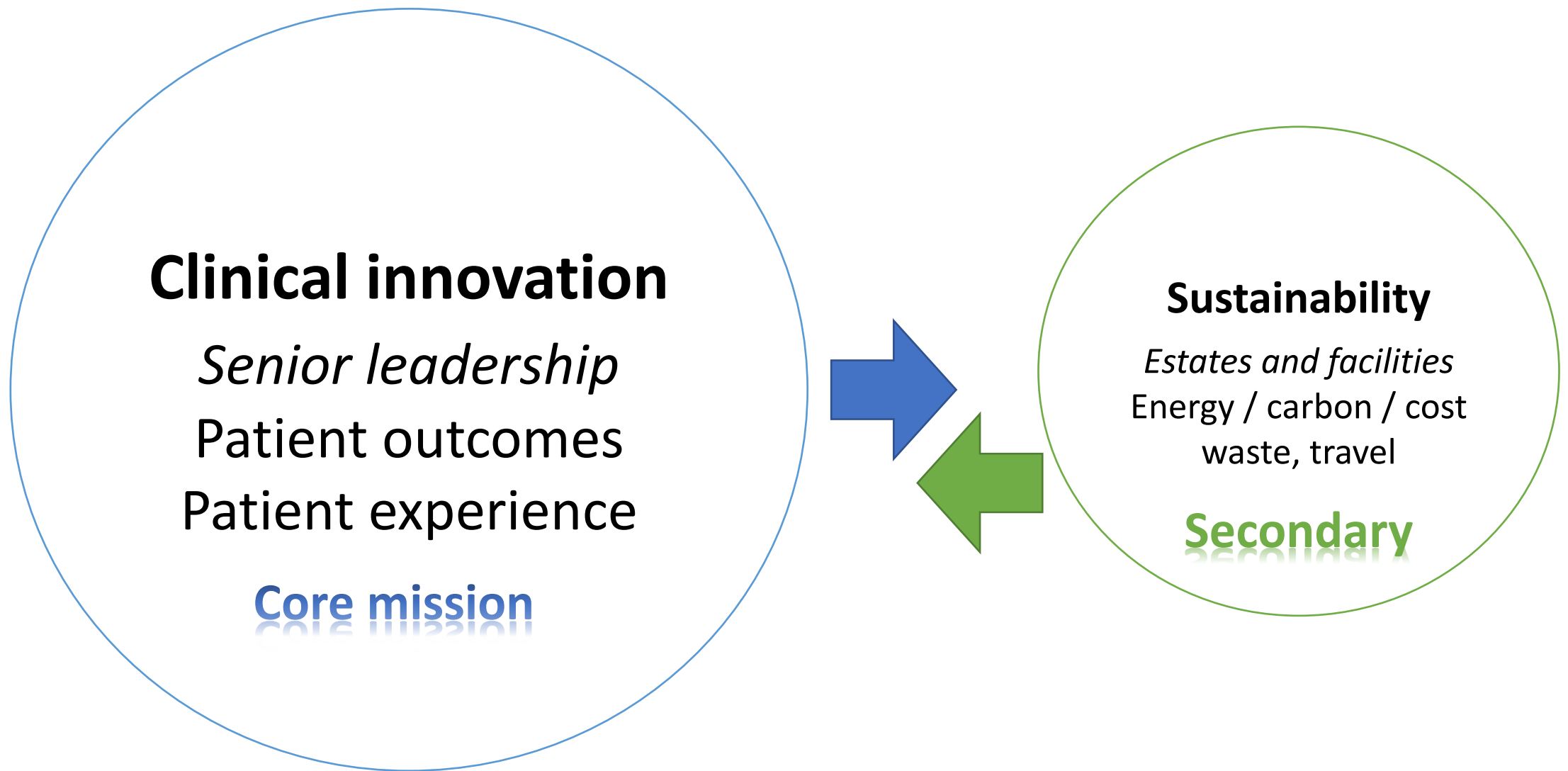
Sustainability in quality improvement

Dr. Frances Mortimer
Centre for Sustainable Healthcare, Oxford, UK



Greener NHS – how will 80% carbon reduction be achieved?





What if... sustainability became a mainstream part of
quality improvement?

QUALITY IMPROVEMENT Sustainability in quality improvement: redefining value

$$\text{Value} = \frac{\text{Outcomes for patients and populations}}{\text{Environmental + social + financial impacts
(the 'triple bottom line')}}$$

Mortimer et al., Future Healthcare Journal 2018, Vol 5, No 2: 88-93

Integrating sustainability with healthcare improvement – the SusQI Framework

Table 2. Building sustainability into quality improvement ('SusQI'): intended benefits

QI element	Sustainability content	Intended benefits
1 Setting goals	Sustainability as a domain of quality; relationship to other domains	New motivation to contribute to QI, energy for change
2 Studying the system	Understanding environmental and social resource use / impacts; carbon hotspots in the NHS; 'seven capitals' matrix	Highlights wastes and opportunities which are often overlooked; stimulates radical thinking
3 Designing the improvement effort	The Centre for Sustainable Healthcare principles of sustainable clinical practice (prevention, patient empowerment and self-care, lean systems, low carbon alternatives) ^a – drivers and process changes	Directs towards highest value improvements, future proofing
4 Measuring impact / return on investment	Triple bottom line / sustainable value equation; measuring carbon	Drives sustainable change; allows benefits to be communicated to broader audience, not exclusively regarding financial cost-benefit

^aFrom Mortimer *et al*, 2010.¹² QI = quality improvement

Aim of Sustainable QI:

“to deliver care in a way that maximises positive health outcomes and avoids both financial waste and harmful environmental impacts, while adding social value at every opportunity.”

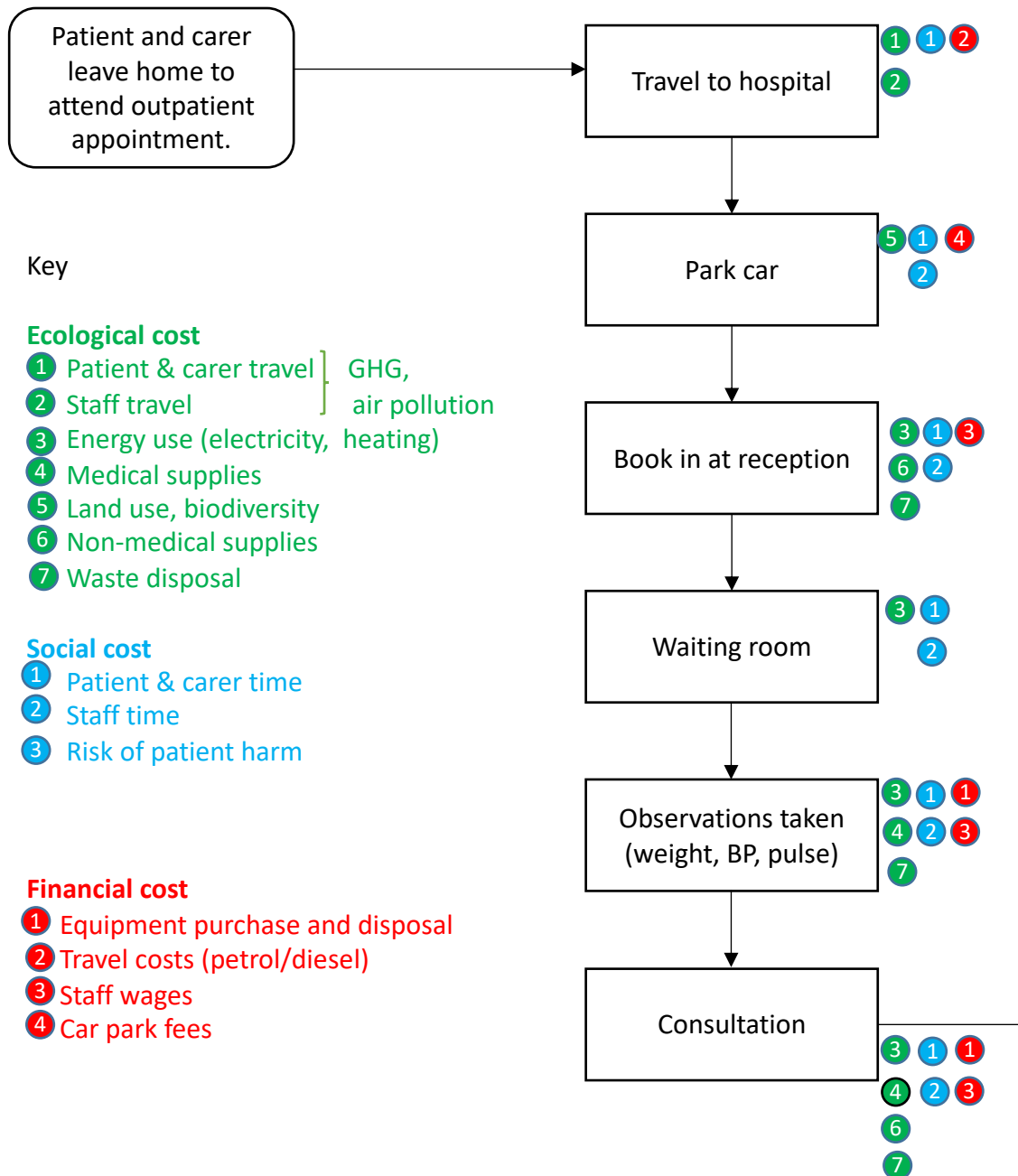
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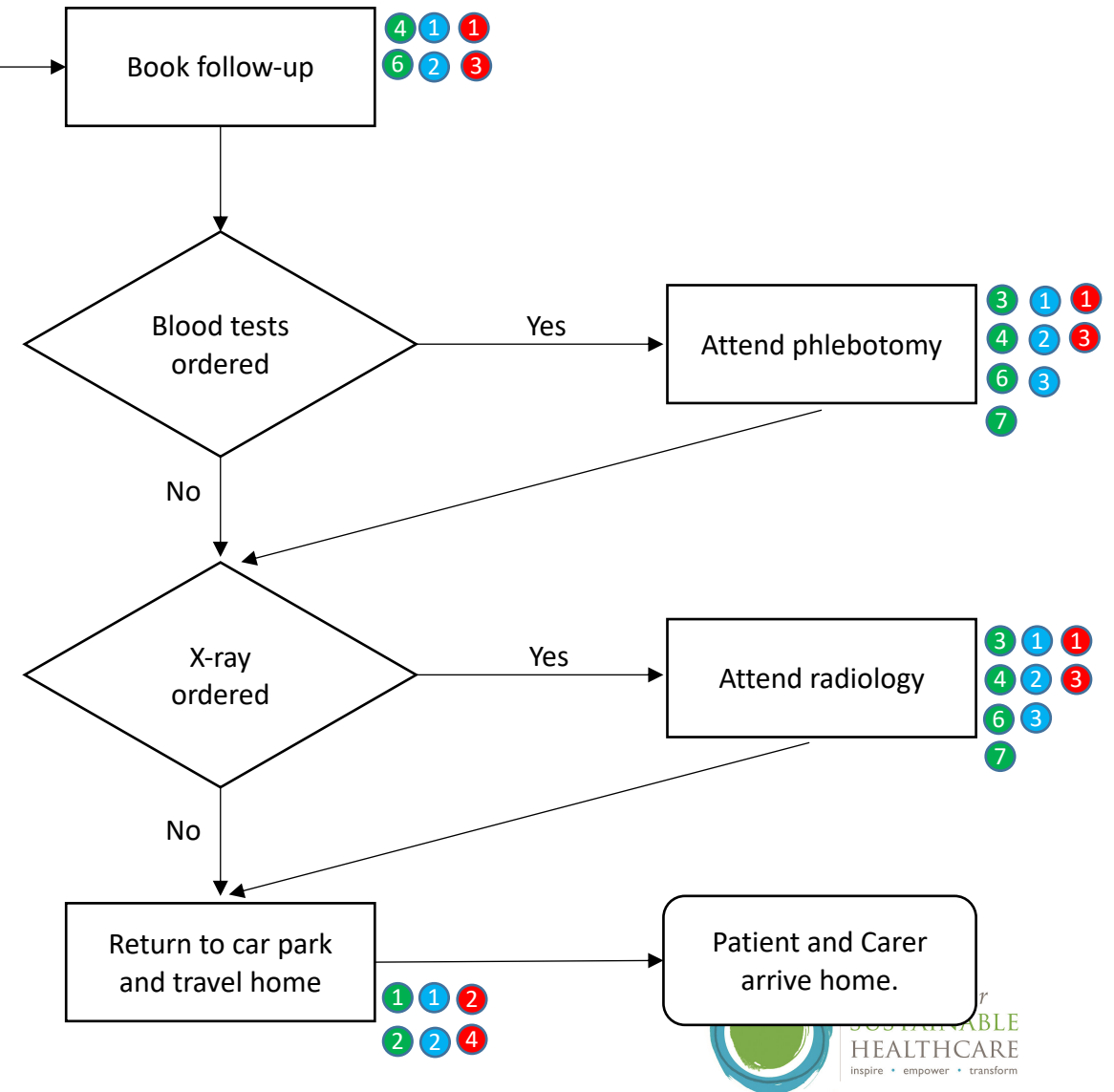
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Outpatient appointment process map



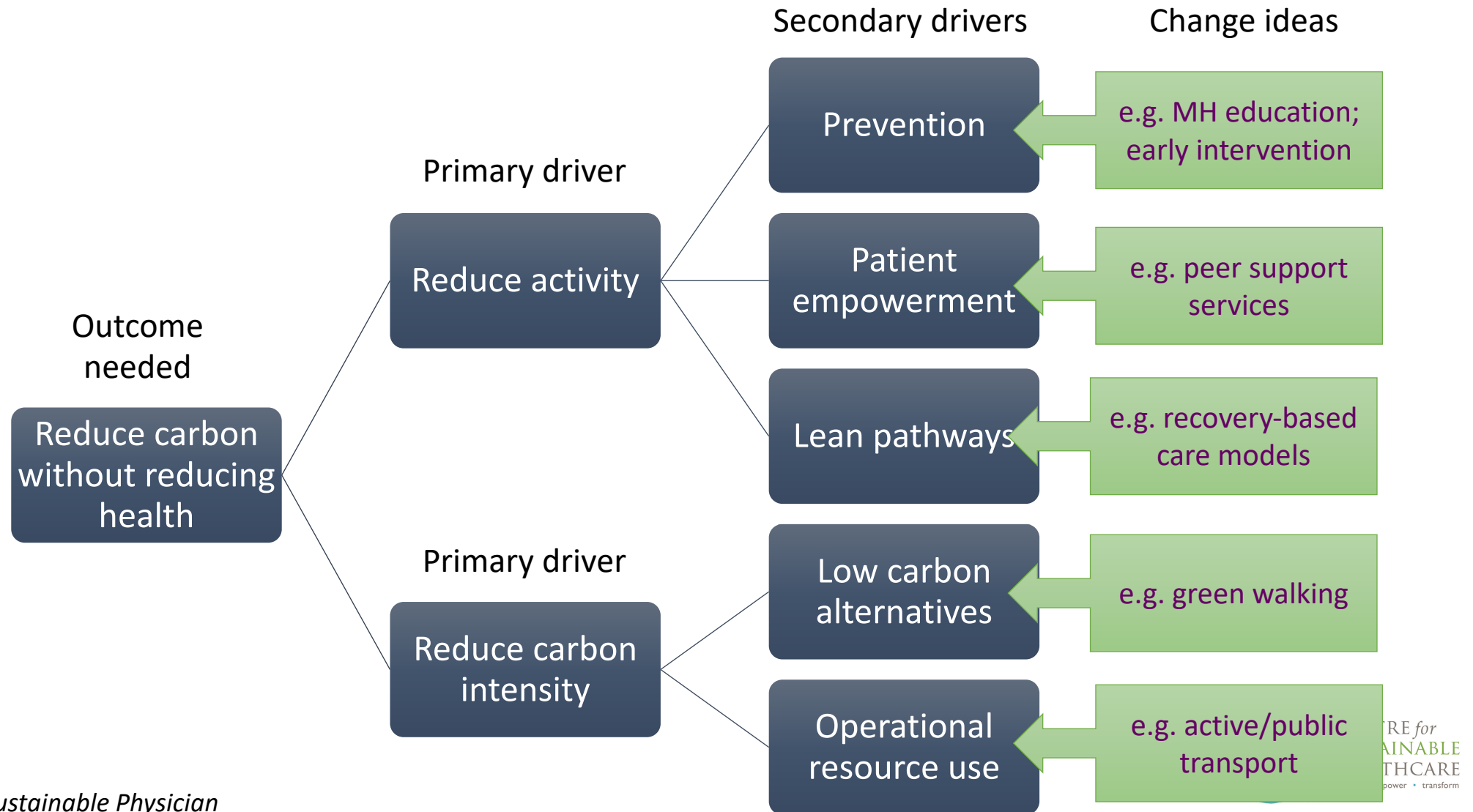
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Applying sustainable clinical practice principles



Integrating sustainability with healthcare improvement – the SusQI Framework

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Measuring impact

Sustainable
value

=

Outcomes for patients and populations
Environmental + social + financial impacts
(the 'triple bottom line')

Measuring environmental cost: carbon footprint

Resource use	x emissions factor	= (CO ₂ equivalents)
Energy (kWh)	<i>0.35276 kgCO₂e/kWh</i>	
Travel - staff, patients (km)		
Medical supplies (£)		
Non-medical supplies (£)		
Anaesthetic gas (bottles)		
Waste (kg)		
	<i>Total :</i>	

Measuring environmental cost: carbon footprint by units of healthcare activity



Care Pathways Guidance on Appraising Sustainability (SDU, 2015)

Social Impacts – identifying outcome measures

Group affected	Impact area	Outcome measure
<i>e.g. carers</i>	<i>employment</i>	<i>% in employment / time off work</i>
<i>e.g. staff</i>	<i>health</i>	<i>sickness / absence</i>

Thinking sustainably within a QI project

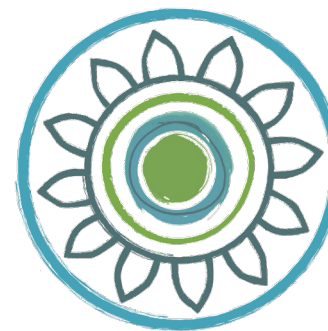
1. Apply sustainability approach at the different stages of **ANY** project
2. Choose a project area that **relates closely to sustainability**, e.g.
 - a. Prevention, patient empowerment, etc.
 - b. Reducing pharmaceutical waste
 - c. Reducing over-investigation / over-treatment

SusQI open access learning resources



<https://sustainablehealthcare.org.uk/susqi>

In practice...



GREEN WARD COMPETITION

CENTRE FOR SUSTAINABLE HEALTHCARE



Royal Cornwall Hospitals **NHS**
NHS Trust

Dartford and Gravesham **NHS**
NHS Trust

Ashford and St. Peter's Hospitals **NHS**
NHS Foundation Trust

University Hospital Southampton **NHS**
NHS Foundation Trust

NHS
Whittington Health
NHS Trust

University College **NHS**
London Hospitals
NHS Foundation Trust



<http://sustainablehealthcare.org.uk/susqi>

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@FrancesMortimer #SusQI