Sustainability in quality improvement: harnessing clinical innovation

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The environment is really important – but I’m not sure what I can do about it.

Maybe there are some changes we could make at work – but I don’t feel able to talk about it there.

Perhaps I should re-train in sustainable building design???
How will 80% carbon reduction be achieved?
Clinical innovation

Senior leadership
Patient outcomes
Patient experience

Core mission

Sustainability

Estates and facilities
Energy / carbon / cost
waste, travel

Secondary
What if... sustainability became a mainstream part of quality improvement?
Sustainability as a domain of quality

Sustainable clinical practice: principles

Secondary drivers

- Primary driver
  - Reduce activity
    - Outcome needed
      - Reduce carbon without reducing health
  - Primary driver
    - Reduce carbon intensity

Mortimer-F. The Sustainable Physician
Sustainable clinical practice: principles

Reduce carbon without reducing health

Reduce activity

Primary driver

Prevention

Secondary drivers

e.g. warm, pain-free patients post-op

e.g. pre-habilitation

e.g. streamlined pre-op assessment

Patient empowerment

Lean pathways

Outcome needed

Reduce carbon intensity

Primary driver

Mortimer-F. The Sustainable Physician
Sustainable clinical practice: principles

**Primary driver**

- Reduce activity
  - Prevention
  - Patient empowerment
  - Lean pathways
  - Low carbon alternatives
  - Operational resource use

**Secondary drivers**

- e.g. warm, pain-free patients post-op
- e.g. pre-habilitation
- e.g. streamlined pre-op assessment
- e.g. regional vs general anaesthesia
- e.g. capture and resupply of volatiles

**Outcome needed**

- Reduce carbon without reducing health

**Primary driver**

- Reduce carbon intensity
What if... sustainability became a mainstream part of quality improvement?

How would it work?
Sustainability in quality improvement: redefining value

Authors: Frances Mortimer, Jennifer Isherwood, Alexander Wilkinson and Emma Vaux

Value = Environmental + social + financial impacts (the 'triple bottom line')

# Sustainability in quality improvement: redefining value

**Authors:** Frances Mortimer, Jennifer Isherwood, Alexander Wilkinson and Emma Vaux

## Table 2. Building sustainability into quality improvement (‘SusQI’): intended benefits

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

*From Mortimer et al, 2010. QI = quality improvement*
Understanding env/soc/£ impacts: process map

[Diagram showing a process map with decision points and flow.]
In practice...
In practice...

“The project has brought about real cultural and behavioural changes in the department. Now that we have participated ... many clinicians are approaching me with ideas for other sustainability projects. We have a long list!”

Dr Cassie Worth, Emergency Medicine Consultant, Royal Devon & Exeter hospital
In education...

“my students (working nurses) on the ICU nursing course are using the SusQI framework for their quality improvement project assignment. I’m marking essays now and adding in sustainability as a component of quality has enhanced the academic writing this year – it has also prompted the students to develop more interesting projects”

Dr Heather Baid, University of Brighton
Thank you!

http://sustainablehealthcare.org.uk/susqi

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@FrancesMortimer #SusQI