



Embedding sustainability in QI

Embedding sustainability as an explicit domain of quality improvement will provide a practical way to help minimise the health sector’s contribution to climate change. Early experience suggests that this may provide other immediate benefits too, including additional motivation for clinicians to engage in quality improvement, directing their efforts towards high value interventions and enabling capture and communication of a wider range of impacts on patients, staff and communities.

The [work of the Centre for Sustainable Healthcare](#) (CSH) provides a good framework for NHS trusts looking to embed sustainability within their quality improvement work. Key to this is identifying four stages at which sustainability can be considered in the QI process:

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

1. Setting goals - With finite resources available to deliver a high standard of patient care, quality improvement must look to maximise sustainable value, ie to deliver maximum health gain with minimum financial cost and harmful environmental impacts, while adding social value at every opportunity.

2. Studying the system - A whole-systems view enables the full range of inputs and outputs to be recognised, highlighting wastes and potential assets that could otherwise be overlooked. In addition, understanding the scale of carbon reduction commitments may stimulate creative thinking and encourage people to more radically challenge the status quo. A simple approach is to scan for environmental, social and economic resource use when mapping the current system. A good starting point for environmental costs are the ‘carbon hotspots’ for different care sectors described by the Sustainable Development Unit for NHS England and Public Health England, many of which can be surprising to practising clinicians.

3. Designing the improvement effort - CSH has defined four principles of sustainable clinical practice, aiming to first minimise the need for healthcare activity and then reduce the environmental impact of activity that is retained, while maintaining or improving health outcomes. The principles are numbered in descending order of importance:

- 1) prevention
- 2) patient empowerment and self-care
- 3) lean systems and pathways
- 4) preferential use of technologies and interventions with lower environmental impact

4. Measuring impact/value – Potential impacts (positive and negative) should be considered for



each of the following five variables in the sustainable value equation and outcome measures identified to capture the most important effects in each category:

- patient health outcomes
- population health outcomes
- environmental impacts
- social impacts
- financial impacts.