Securing Healthy Returns
Realising the financial, social and environmental value of sustainable development

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Sustainable Development Unit
Quick Q.
Sustainable Development Strategy
Sustainable?

**SOCIO-ENVIRONMENTAL**
- Health & Safety
- Legislation
- Public awareness

**ENVIRONMENTAL**
- Compliance
- Bio-diversity mgmt
- Emissions to air
- Water/chemical usage & discharges

**SOCIAL**
- Diversity
- Human rights
- Equal opportunity
- Outreach programmes

**ECONOMIC**
- Consistent, profitable growth
- Total shareholder return
- Risk management

**ECO-ECONOMY**
- Resource efficiency
- Energy efficiency
- Global climate/energy issues

**SOCIO-ECONOMIC**
- Employment
- Training & development
- Local economies
SD in health and care report

• 2016 - State of the system
• 3.4Mt carbon saving since ’07
• 18% increase in activity
• 70% of NHS providers now have SD Management Plans
• Almost universal annual sustainability reporting
The UK Health System performs well against International Comparators I (2014 Commonwealth Fund ranking)

EXHIBIT ES-1. OVERALL RANKING

<table>
<thead>
<tr>
<th>COUNTRY RANKINGS</th>
<th>AUS</th>
<th>CAN</th>
<th>FRA</th>
<th>GER</th>
<th>NETH</th>
<th>NZ</th>
<th>NOR</th>
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OVERALL RANKING (2013)

| Quality Care     |     |     |     |     |      |    |     |     |      |    |    |
| Effective Care   | 2   | 9   | 8   | 7   | 5    | 4  | 11  | 10  | 3     | 1  | 5  |
| Safe Care        | 4   | 7   | 9   | 6   | 5    | 2  | 11  | 10  | 8     | 1  | 3  |
| Coordinated Care | 3   | 10  | 2   | 6   | 7    | 9  | 11  | 5   | 4     | 1  | 7  |
| Patient-Centered Care | 5   | 8   | 10  | 7   | 3    | 6  | 11  | 9   | 2     | 1  | 4  |

Access

| Cost-Related Problem | 8   | 9   | 11  | 2   | 4    | 7  | 6   | 4   | 2     | 1  | 9  |
| Timeliness of Care  | 9   | 5   | 10  | 4   | 8    | 6  | 3   | 1   | 7     | 1  | 11 |

Efficiency

| Equi    | 6   | 11  | 10  | 4   | 2    | 7  | 8   | 9   | 1     | 3  | 5  |
| Healthy Lives | 4   | 8   | 1   | 7   | 5    | 9  | 6   | 2   | 3     | 10 | 11 |

Health Expenditures/Capita, 2011**

<table>
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<tr>
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<th>UK</th>
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<tr>
<td>$3,800</td>
<td>$4,522</td>
<td>$4,118</td>
<td>$4,495</td>
<td>$5,099</td>
<td>$3,182</td>
<td>$5,669</td>
<td>$3,925</td>
<td>$5,643</td>
<td>$3,405</td>
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</table>

Notes: * Includes ties. ** Expenditures shown in $US PPP (purchasing power parity); Australian $ data are from 2010.

Scale of influence

1.4m staff - 1m WTE

£20bn goods and services

40% Public emissions
Securing Healthy Returns

From energy measures alone
• £1.85bn total saving since ’07
• £190 annual saving in 2015

Investment with SD weighted also ensures longer term health returns
Now need to be thinking broader than NHS.

- Across the whole Health and Social Care Sector.

- Local health and social care communities.

- 1.4m HSC staff as citizens.
N2O, Anaesthetics and HFCs

- 3.5% UK health footprint from Inhalers (HFCs)
- DPIs equiv. cost and clinical benefit.

- 2.5% N2O and other anaesthetic gasses
- Acute trusts 15-25% of energy footprint
- 2 main UK suppliers Air Liquide, BOC.
- Leftover N2O in cylinders vented in car park
Which Anaesthetics

Carbon intensity - Global Warming Potential

- Nitrous oxide (N2O)
- (CF3)2CHOCH2F
- Isoflurane
- CF3CHClOCHF2
- Desflurane

Carbon dioxide equivalent emissions
NHS in England (tonnes)

- Nitrous oxide
- Sevoflurane
- Isoflurane
- Desflurane

Carbon intensity - Global Warming Potential (GWP 100 year in kgCO2e/kg)

Carbon dioxide emission (tCO2e)
The issue

• N2O usually piped around Trusts from centrally located cylinders to theatres, A&E and maternity areas.
• One Trust confirmed that moving from old site to a new, N2O usage halved
New Reporting Requirement

- **UK must submit data to UNFCCC**
- **Non-CO2 GHG reporting by BEIS includes N2O (2G3a_Medical applications)**
- **ERIC returns from 17-18**
## Data definition

<table>
<thead>
<tr>
<th>Ref.</th>
<th>Field Name</th>
<th>Unit</th>
<th>Definition</th>
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</thead>
<tbody>
<tr>
<td>XX</td>
<td>Nitrous oxide (N2O) use</td>
<td>litres</td>
<td>Total volume of nitrous oxide gas at atmospheric pressure and 15 degrees centigrade purchased by the trust during the year. Cylinder volumes conversion into volume of nitrous oxide gas is available here: <a href="http://www.sduhealth.org.uk/areas-of-focus/carbon-hotspots/anaesthetic-gases.aspx">http://www.sduhealth.org.uk/areas-of-focus/carbon-hotspots/anaesthetic-gases.aspx</a>. Nitrous oxide supplied in cylinders mixed with oxygen “gas and air” should be converted to litres of nitrous oxide and reported.</td>
</tr>
</tbody>
</table>
Solutions

• Estates, Clinician collaboration needed
• Supplier engagement needed
• Will require combination of changes to:
  – Supplier practice
  – Estates investment/practice
  – Impacts/opportunity in clinical practice.
Innovation

• 1. Demand
• 2. Awareness
• 3. Resources
Resources-Mandates

- NHS standard service contract clause 18
- DH GAM +FT ARM sustainability reporting mandatory
- PHOF- SDMP as an indicator
- Public Service (Social Value) Act
- PSSRU- ‘Unit Costs of Health and Social Care’
- CQC- KLOE ‘Innovation, Improvement + Sustainability’
- NICE- Environmental footprint alongside cost..
- NHSI- ‘Use of Resources’?
• Ed Smith- Chair, NHSI

‘savings and investment are lasting and effective when the efficiencies and transformations we make are also socially and environmentally sustainable.’

‘There is a critical role for healthcare finance professionals to play in this area, through supporting development of local leadership, governance arrangements and organisations’ plans and reporting.’
SDMPs

‘healthcare as a catalyst for health’

Developed with finance staff:

– support CIPs
– Inform business case templates
– Ensure SD integrated wider
Sustainability Reports

- SDU guidance, HMT aligned
- Financial + non-financial indicators
- With finance staff
  - Ensure prominence and space
  - Capture SD from business cases?
  - Show wider social value in financial decisions?
  - Encourage SD in providers/suppliers
How to support?

• Ensure anaesthetic gasses are included in your trusts Sustainable Development Management Plan
• Ensure reporting in your Sustainability Report
• Look for best clinical and estates practice in N2O2 use to minimise vent to atmosphere.
• Look to ensure that data is available from suppliers
• Clinicians can state impact concerns
Public Services (Social Value) Act 2012

“An Act to require public authorities to have regard to economic, social and environmental well-being in connection with public services contracts; and for connected purposes.”
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