Towards a Net-Zero NHS

Kate Dapré
Head of Energy & Sustainability, NHS National Services Scotland
Why ‘Net-Zero’?
Health Impacts

- Fuel poverty: £80M p.a. to NHS
- Poor air quality: £2 billion cost p.a. to NHS; 2,000 deaths p.a.
- Physical/mental health impacts of adverse climate events
- Procurement costs: £1.7 Bn on pharmaceuticals, plus ethical/moral responsibility
- Social costs: rising health inequalities
- Climate change impacts on health service delivery and reputational risks
Health and climate: co-benefits

Example interventions
These interventions have benefits both for health and for reducing climate change (also known as mitigation).

- Produce more renewable energy
- Improve insulation in homes
- Encourage use of lower emission vehicles
- Promote active transport
- Reduce solid fuels used for cooking
- Less food from animal sources
- Encourage locally produced fruit and veg

Health benefits
- Better mental health
- Fewer deaths from extreme heat
- Less cardiovascular disease
- Less respiratory disease
- Lower rates of cancer
- Lower rates of obesity

Reduced climate change
- Fewer fossil fuels used
- Improved outdoor air quality
- Reduced heat in urban areas
- Improved indoor air quality
- Reduced humidity and damp
- Reduced cooking fuels
- Less noise

Indirect benefits
Reducing climate change also leads to further benefits downstream:
- Fewer deaths and injuries from extreme weather events
- Less skin cancer from UV radiation
- Reduced spread of vector-borne diseases to new areas
- Less deforestation
- Reduced livestock production
- Less meat consumed
- Local fruit and veg

Fewer methane emissions

Designed by Will Stahl-Timmins
Content: Nick Watts
Thanks to: Soledad Cuervas, Duncan Jervies, John Waring

© 2016 BMJ Publishing Group Ltd
Progress to Date
NHSScotland Estate GHG Emissions 1990 - 2019

Since 1990, energy consumption down >41% and CO2 down >60%
How Have We Done It?

Fuel Change/ Energy Centres

Energy Efficiency

Low/ Zero Carbon Design

Greenspace

Circular Economy

Anaesthetic Gases
The ‘Net-Zero’ Challenge
NHSScotland Estate GHG Emissions 1990 - 2045

- 53% between 2018 and 2032
- 90% between 1990 and 2050
- 100% between 1990 and 2045
Initial Climate Change Commitments

1. NHSScotland will be a ‘net-zero’ GHG organisation by 2045 at the latest.
2. All NHSScotland new buildings and major refurbishments to be designed to have net-zero GHG emissions from April 2020.
3. Each NHSScotland Board should undertake a Climate Change Risk Assessment covering all operational areas and will produce a Climate Change Adaptation Plan to ensure resilience of service under changing climate conditions.
4. NHSScotland transport GHG emissions from its owned fleet (small/medium vehicles) will be net-zero by 2025.
5. The NHS supply chain will be reviewed to determine the extent of associated GHG emissions and environmental impacts. Once the extent of environmental impacts is established, a programme of work will be undertaken to minimise these impacts.
6. Each NHSScotland Board will establish a Climate Change/Sustainability Governance Group to oversee their transition to a net-zero emissions service.
Q1: Are these commitments realistic?
Q2: How do we define ‘net-zero’?
Current GHG Reporting

Scope 1
- Building direct burned fuel (gas, oil, LPG, biomass, etc)
- Owned fleet fuel (petrol, diesel)
- Anaesthetic gases F-gases

Scope 2
- Building electricity
- Building purchased heat and steam
- Owned fleet (electric)

Scope 3
- Water consumption
- Waste water treatment
- Waste arisings
- Business travel
- Staff commuting
- Patient travel
- Supply chain
Recommendation

Scope 1
- Building direct burned fuel (gas, oil, LPG, biomass, etc)
- Owned fleet fuel (petrol, diesel)
- Anaesthetic gases F-gases

Scope 2
- Building electricity
- Building purchased heat and steam
- Owned fleet (electric)

Scope 3
- Water consumption
- Waste water treatment
- Waste arisings
- Business travel
- Staff commuting
- Patient travel
- Supply chain
Q3: How do we offset residual emissions?
NHSScotland Residual Emissions

**Scope 1 - residual**
- Backup generation (e.g. diesel generators)
- Anaesthetic gases
- F-gases
- + Interim other

**Scope 2 - residual**
- Purchased heat steam (non-renewable)
- + Interim other

**Scope 3 - residual**
- Water consumption & treatment (unless decarbonised)
- Waste arisings
- Business travel
- + Other
Thank you

Kate Dapré

k.dapre@nhs.net

0141 207 1870