



Sustainability in an NHS Vascular Access Department

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Sustainability in the NHS

The National Health Service produces approximately 4–5% of the UK's total carbon emissions each year, equating to 20–27 million tonnes of carbon. Approximately 70% of NHS carbon emissions result from what we consume; with the NHS target of Net-Zero by 2040, if this can be reduced through the circular economy practices (reduce, reuse, recycle) then it will significantly lessen emissions.

What is Sustainability?

Sustainability means meeting the needs of the current generation while ensuring that future generations can maintain the same standards of health and wellbeing. This requires balancing, economic pressures against social responsibility and environmental protection.

Several National policies guide NHS sustainability:

Health and Social Care Act 2022

Climate Change Act 2008 – commitment to Net Zero carbon emissions by 2040

Environment Act 2021

CUH green plan

Metric	Data / Impact
CUH waste per day	11.5 tonnes
Sharps Incinerated (2024–2025)	114 tonnes per year
Carbon Reduction Initiative	Removing scissors from sharps waste stream
CO ₂ Saving	44 kg CO ₂ saved – equivalent to driving Cambridge to Norwich in a petrol car
Lifetime use of scissors	10-15 years

References

- Delivering a “net zero” National health service. 2020. [online at] [B1728-delivering-a-net-zero-nhs-july-2022.pdf](#)
- CUH green plan, 2025. [online at] <https://www.cuh.nhs.uk/about-us/climate-emergency/our-action-50-green-plan/>
- Health and social care act. 2022. [online at] [Health and Care Act 2022](#)
- Climate change Act. 2008. [online at]. [Climate Change Act 2008](#)
- Environment Act. 2021 . [online at]. [Environment Act 2021](#)

Interventions

- Processes within the Vascular Access Unit were reviewed to identify opportunities to reduce single-use plastics sent for incineration.

Key Actions to promote circular system (re-use/recycle)

- Improved waste segregation by recycling bins placed in procedure rooms
- Reducing Single-Use Plastics e.g cleanable tourniquets for multiple uses
- Single-use items replaced with reusable consumables where possible to be processed by CSSD
- Optimising Procedure Packs by reviewing with industry partners
- Unused items removed to minimise unnecessary waste
- Encouraging Sustainable Behaviour, staff and patients encouraged to use public transport where possible
- Promotion of reusable drinks containers to reduce plastic waste
- Engage with our department working group to produce new ideas.
- Sponges that are unused from procedure pack repurposed for paediatrics department to use for crafting

Outcomes and Impact

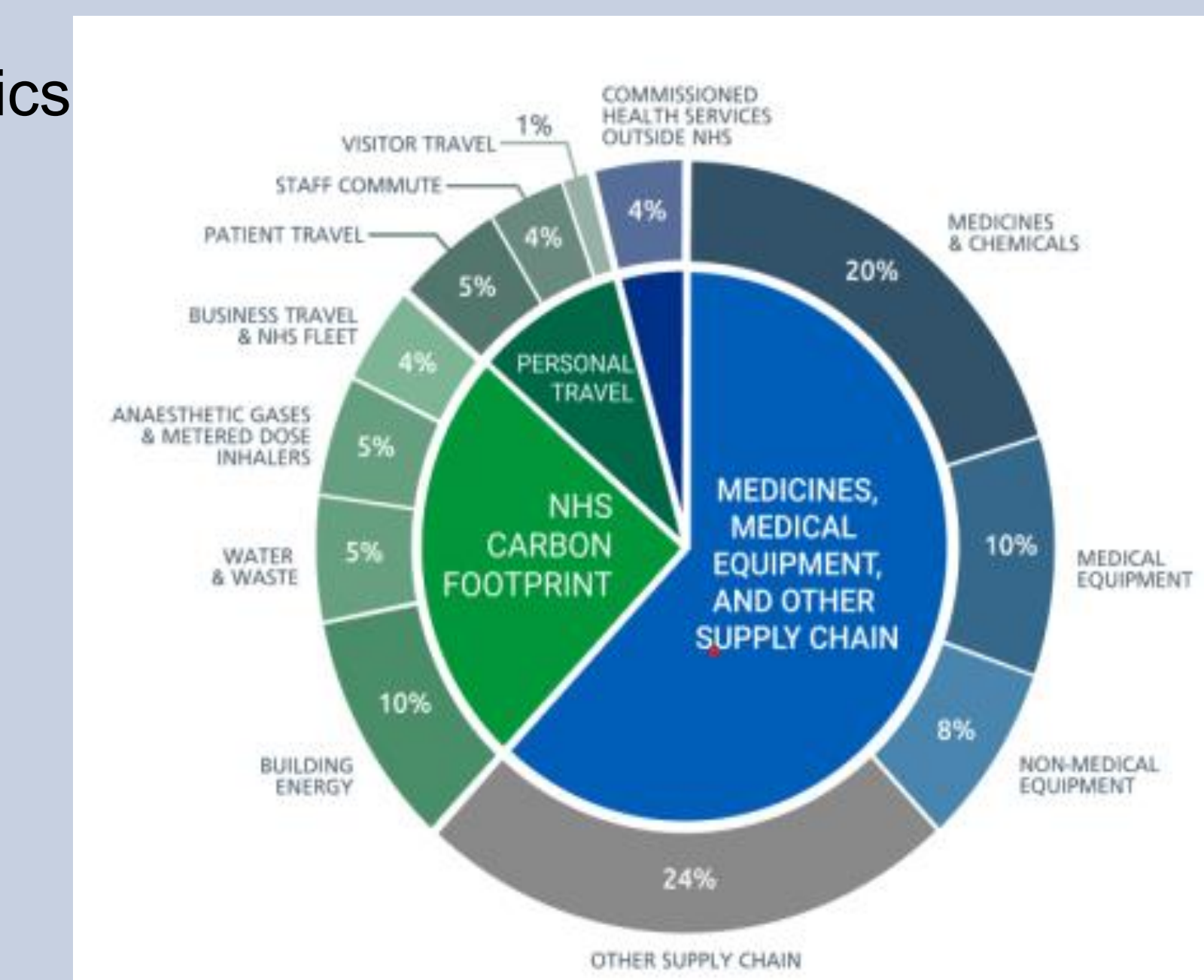
This project demonstrates that adopting environmentally sustainable practices can deliver both environmental and financial benefits, especially when developed in conjunction procurement teams and industry partners. The Vascular Access Unit is serving as a pilot within Cambridge University Hospitals NHS Foundation Trust, showing that sustainability initiatives can be successfully implemented and scaled across the wider Trust.

Key Takeaways

- Sustainable practices can reduce waste and operational costs
- Department-level initiatives can drive wider organisational change
- Small changes in practice can contribute to long-term NHS sustainability goals
- Long term reduction of NHS carbon emissions building resilience in how we provide care with climate in mind.

Planned Actions

- Medication stock rotation to redistribute stock to high-use departments before expiry, reducing pharmaceutical waste
- Expansion of reusable equipment use. Following some staff consultation we plan to continue replacing disposable items with multi-use equipment
- Improved Recycling Pathways
- Work with industry partners to identify high-value recyclable materials and send these materials to specialist recycling facilities rather than landfill



Sources of carbon emissions by proportion of NHS Carbon Footprint Plus

