



## Becoming the world's first net zero national health service

The tone, timing and text of this policy document is fascinating.

October 1<sup>st</sup> 2020 may well become remembered as the second most significant date in NHS history after the inception on 5<sup>th</sup> July 1948, since it recognises climate change as a health issue and signals a commitment to become net zero health organisation over the next 25 years.

In his third introductory paragraph Sir Simon Stevens recognises that *“the burden of coronavirus has been exacerbated and amplified by wider, deep-seated social, economic and health concerns. The right response is therefore not to duck or defer action on these longer-term challenges, even as we continue to respond to immediate pressures. It is to confront them head on”*.

This report builds on the work of the *Lancet Commission on Health and Climate Change* which outlined the impact of climate change on future generations. *“The life of every child born today will be profoundly affected by climate change, with populations around the world increasingly facing extremes of weather, food and water insecurity, changing patterns of infectious disease and a less certain future. Without accelerated intervention, this new era will come to define the health of people at every stage of their lives”*.

The Delivering Net Zero report also recognises that climate change will disproportionately impact deprived and vulnerable communities and that the forthcoming transition to a low carbon economy must provide benefits to those least responsible for carbon emissions by improving their health through improvements in public/population health and health equity.

The NHS net zero agenda complements the NHS Long-Term Plan implementation which has taken a back seat during the COVID pandemic. The first action, in the series of eight, is to introduce new models of care which simultaneously improve outcomes, reduce carbon emissions and increase NHS adaptive capacity and resilience.

Examples would include boosting ‘out-of-hospital’ care; empowering people to have more control over their health; digitally enabling primary and outpatient care and increasing prevention of illness and injury through a greater focus on population health.

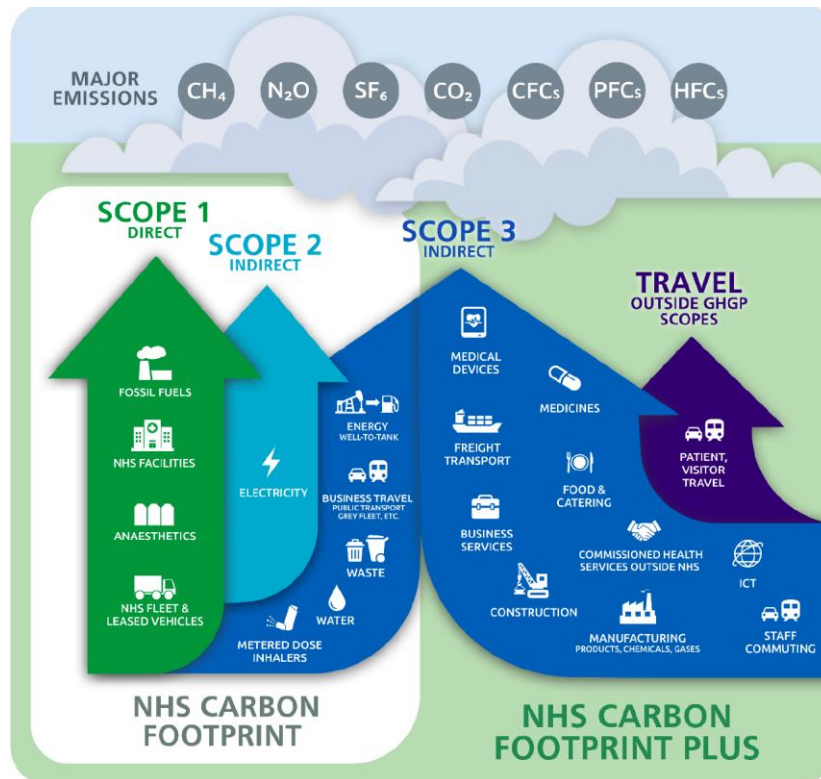
## **The 8 net-zero strands**

1. **Our care:** developing new models of care as part of the NHS Long-Term Plan.
2. **Our medicines and supply chain:** working with our suppliers to meet net zero emissions in a decade.
3. **Our transport and travel:** a shift to zero emission vehicles by 2032.
4. **Our innovation:** ensuring the digital transformation agenda aligns with being a net zero NHS.
5. **Our hospitals:** the construction of 40 new “net zero hospitals” and a new net zero carbon hospital standard.
6. **Our heating and lighting:** insulation, low energy lighting, smart heating, renewables.
7. **Our adaption efforts:** by building resilience and adaption into the heart of our net zero agenda.
8. **Our values and governance:** updating the NHS Constitution and launching ‘for a greener NHS’ with measures to monitor progress and a Board level net zero lead in every trust.

The report builds on the approach taken by the Greenhouse Gas Protocol (GHGP) which should enable both future monitoring in the UK with international comparisons.

- **GHGP scope 1:** Direct emissions from owned or directly controlled sources, on site.
- **GHGP scope 2:** Indirect emissions from the generation of purchased goods and energy.
- **GHGP scope 3:** All other indirect emissions that occur in producing and transporting goods and services, including the full supply chain.

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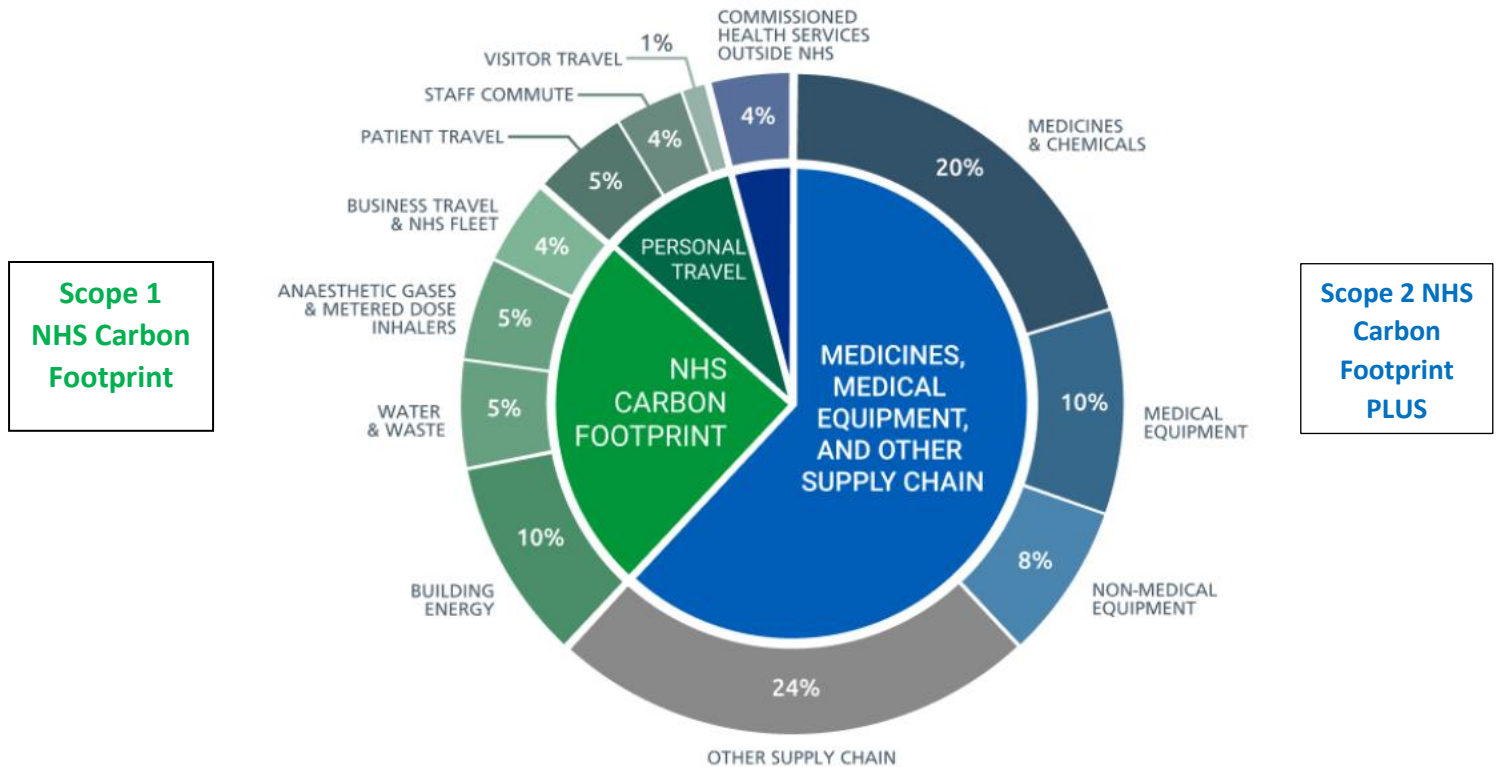


The NHS net zero report re-badges GHGP scope 1+2(3) as the “the NHS Carbon Footprint” to be achieved by 2040 and the GHDP scope 3 as “the NHS Carbon Footprint **Plus**” by 2045.

The diagram below is a useful illustration of the challenge ahead. Achieving net zero for the NHS Carbon Footprint of 6.1 MtCO<sub>2</sub>e will be more achievable than the ambitions of the NHS Carbon Footprint Plus of 24.9 MtCO<sub>2</sub>e. (MtCO<sub>2</sub>e = Metric tons of carbon dioxide equivalent)

There are still some emissions that fall outside both GHGP scopes such as NHS patient and visitor carbon emissions.

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Delivering these targets will require action at every level and in every corner of the NHS; the obvious areas being within estates and facilities, medicines and consumables, travel and transport, all supported by new models of care, an empowered workforce to innovate and improve within integrated health systems especially in prevention. This must all happen while national and international governments/organisations also decarbonise their energy production, transport systems and supply chains.

In parallel the NHS will need to consider offsetting strategies including solar panels, biosequestration, together with carbon capture and storage. Biosequestration offers the opportunity to plant trees and grow food on hospital/community sites with the potential to support better mental health and social prescribing.

The impact of climate change, sustainable development and an understanding of health economics will also need to be embedded into all undergraduate and postgraduate curricula across all the professions who contribute to the NHS, to enable them to positively engage with the net zero agenda throughout their working lives.

## **Equality and health inequalities**

It is excellent to see tackling inequalities as an integral part of the NHS net zero plan, particularly the need to improve local environments both physically (better insulated homes and green spaces) and socially (greater participation and community networks) while enabling sustainable local economies, all within the public sector equality duty. This will be monitored with equality and health inequalities assessments (EHIA) within both work streams.

Many of the strategies in use by the NHS will be equally applicable to the 1.4 million NHS staff who will also need to reduce their personal greenhouse gas emissions equivalent to 2.5 tonnes of CO<sub>2</sub> per person per year by 2030 (at the moment only 5% of families in Europe achieve this). A range of measures will be needed at home including better insulation, renewable energy production and use, low energy appliances, local food consumption, electric vehicles, more active travel, coupled with reduced consumption of goods and more reuse, repair and recycling.

## **Communication**

The paper acknowledges the challenges involved with a long-term commitment and the action required to achieve a net zero health service and that this will be an iterative and adaptive process running for the next 25 years. To support this process there will be changes to the NHS Constitution to reflect the importance of sustainable development, a national Greener NHS programme supported by a Greener NHS dashboard of measures to monitor progress and the importance of feedback and reflection to enable the NHS to truly become the world's first net zero health service.

## ***Health organisation responses***

- Appoint a senior climate change lead at Board level.
- Lead by example within the organisation.
- Highlight climate change and delivering NHS net zero at every opportunity with a wide range of professional groups within the NHS.
- Introduce sustainable development into all forms of training.
- Learn from the initiatives of other organisations both inside and outside the NHS to reduce the carbon footprint of clinical care and associated infrastructure.

*“Net Zero emissions are achieved when anthropogenic emissions of greenhouse gases to the atmosphere are balanced by anthropogenic removals over a specified period.”*

## **References**

Delivering a Net Zero NHS

<https://www.england.nhs.uk/greenernhs/wp-content/uploads/sites/51/2020/10/delivering-a-net-zero-national-health-service.pdf>

Greenhouse Gas Protocol (GHGP)

<https://ghgprotocol.org/>

Lancet Commission on Health and Climate Change

[https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(18\)32594-7/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(18)32594-7/fulltext)

Well-being of Future Generations (Wales) Act 2015 Principles Long term Prevention Integration  
Collaboration Involvement

<https://www.futuregenerations.wales/about-us/future-generations-act/>