



Child Health and
Wellbeing Network
North East and North Cumbria



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Section 4 – The Health Sector Sustainable Child Health



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Integrated Care System
North East & North Cumbria

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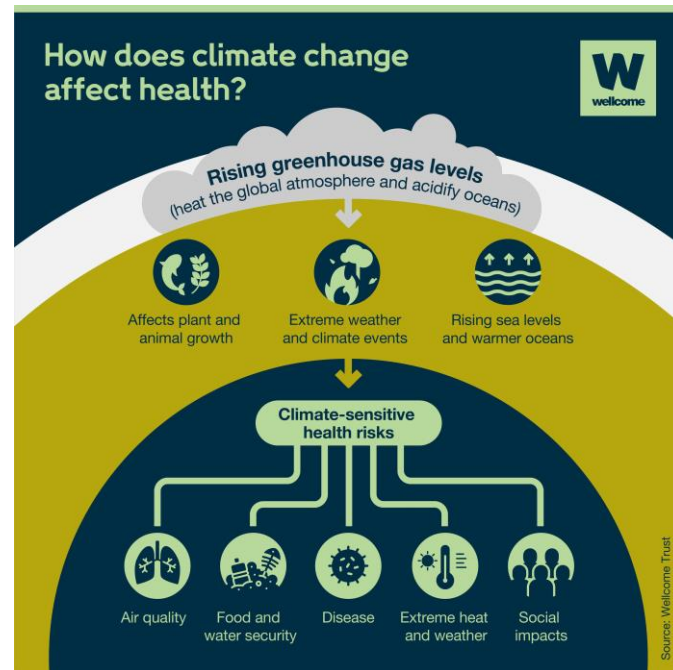
(Please note – There are some longer videos in this section which you may chose to skip or watch at a later date.)

The Health Sector



Health services are vulnerable, health services around the world are already under pressure from rising demand, staff shortages and chronic underfunding.

Climate related extreme weather events are now added to this list, impacting the functioning of hospitals and community services (e.g. GP surgeries and pharmacies) due to travel, power and water supply disruption, flooding or fires and, in the worst cases, damage to or destruction of healthcare facilities. These problems are often coupled with abrupt rise in demand due to the event itself. Additionally, supply chains for medication and medical equipment may be affected by events elsewhere. The Covid-19 pandemic has provided a taste of the challenges of sudden, non-linear changes to demand. There is a clear need for investment in adaptation and business continuity planning.



Climate Affects on Healthcare



Here are a few examples reported in the media of how climate change has affected health care:

Whipps Cross Hospital patients evacuated after flooding

© 26 July 2021 [Comments](#)



London flooding: What happened when a month of rain fell in one go



London NHS trust cancels operations as IT system fails in heatwave

Guy's and St Thomas' trust having to postpone and divert appointments, with doctors unable to see patients' notes



Both of the trust's data centres, one at Guy's hospital and the other at St Thomas', stopped working on Tuesday afternoon. Photograph: Maureen McLean/Rev/Shutterstock

A tiny symbol of resilience dies in hospital destroyed by Philippines typhoon after clinging to life for three days

Her parents had used a hand pump to squeeze oxygen into her newborn lungs, but Althea eventually died in a hospital lacking the electricity that might have saved her

The Telegraph
Nov 17, 2015 • January 25, 2015 • 2 minute read • [Join the conversation](#)



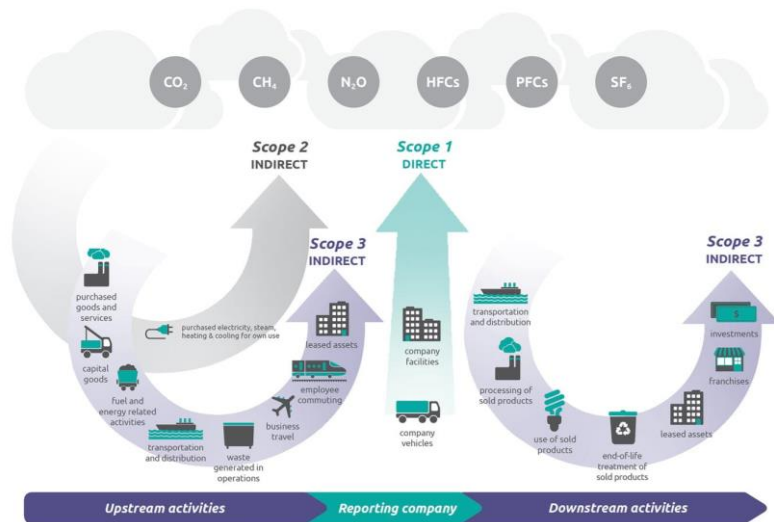
Healthcare is a Contributing Factor



If the global health care sector were a country, it's emissions would be the fifth largest on the planet, ranking just behind Japan. Estimates of healthcare sector emission are:

- European Union - 5%
- Australia - 7% and in the US it may be as high as 10%

The NHS is responsible for ~ 5% of all UK environmental emissions. NHS travel was responsible for 9.5bn road miles in 2017, equating to 3.5% of all journeys in England. By some estimates, [one in every 20 journeys](#) on UK roads is healthcare-related. Around 40,000 people die from air pollution in the UK each year. It is impossible to escape the conclusion that NHS activity is implicated in some of these deaths.



Healthcare is a Contributing Factor



In addition to greenhouse gas emissions the health sector also contributes to plastic waste, air and water pollution (including biologically-active pharmaceutical products), deforestation (e.g. for rubber plantations to supply glove manufacture) and depletion of scarce minerals for use in surgical instruments. Perversely, healthcare services can also undermine the capacity of communities to support and maintain health due to diversion of funding away from prevention and overreliance on treatment.

[Health Care Without Harm](#) is an international charity addressing hospital-generated pollution. This [8-minute](#) video offers a useful overview of the health risks and the challenges.





For an industry based on the principle of “first do no harm,” this sits uncomfortably. The healthcare sector must act quickly and collectively to reduce its own contribution to environmental and climate damage.



NHS Climate Change Policy



For an industry based on the principle of “first do no harm,” this sits uncomfortably. The healthcare sector must act quickly and collectively to reduce its own contribution to environmental and climate damage.

Climate change and air pollution poses a major threat to our health now and for future generations. By reducing harmful carbon emissions, we will improve health and save lives. That’s why the NHS was the world's first health system to commit to reaching net zero carbon. By 2040 we will reduce the emissions we control to net zero, saving lives and improving the world we live in. This [2 minute](#) video gives an overview



NHS England Net Zero Targets



In England Two Net Zero targets have been set:

Net zero by 2040 for the emissions the NHS controls directly (NHS carbon footprint-in green in the image below) with an ambition to reach an 80% reduction by 2028 to 2032.

Net zero by 2045 for emissions the NHS can influence (NHS Carbon Footprint Plus - in blue in the image below) with an ambition to reach an 80% reduction by 2036 to 2039.

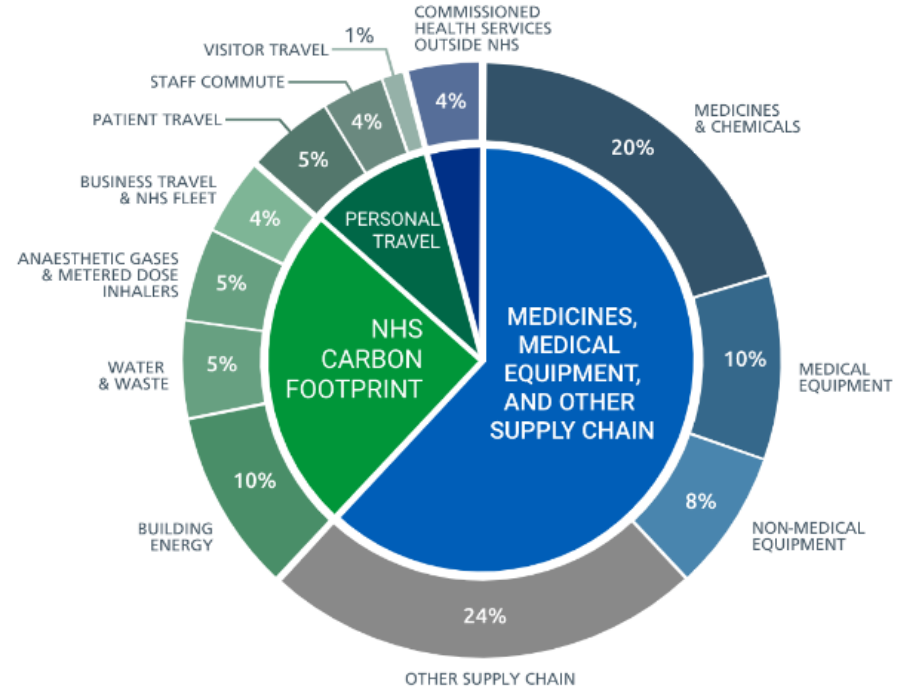




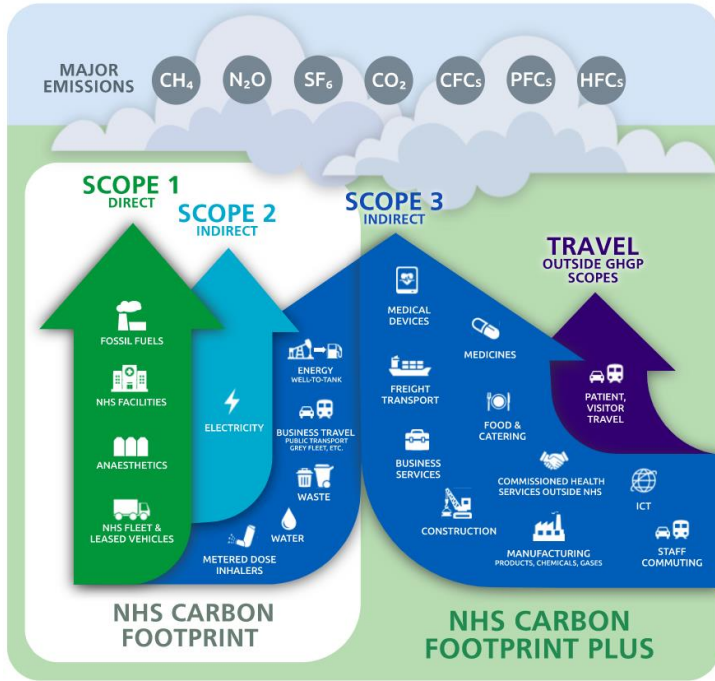
How will this be delivered?

Click on the country for information on plans for each of the UK nations: [England](#) | [Wales](#) | [Scotland](#) | Northern Ireland – strategy yet to be produced

The UK Health Alliance on Climate Change discusses the pros and cons of net zero targets here: [Is Net Zero a Good Idea? - UK Health Alliance](#). To get our emissions down as fast as possible we should target our efforts towards where the bulk of them are coming from – the ‘carbon hotspots’. NHS England has done extensive work to map emissions sources. The pie chart shows how emissions are distributed by source. *Figure 1: [Delivering a Net Zero NHS](#)*



Carbon Footprint of Health Care



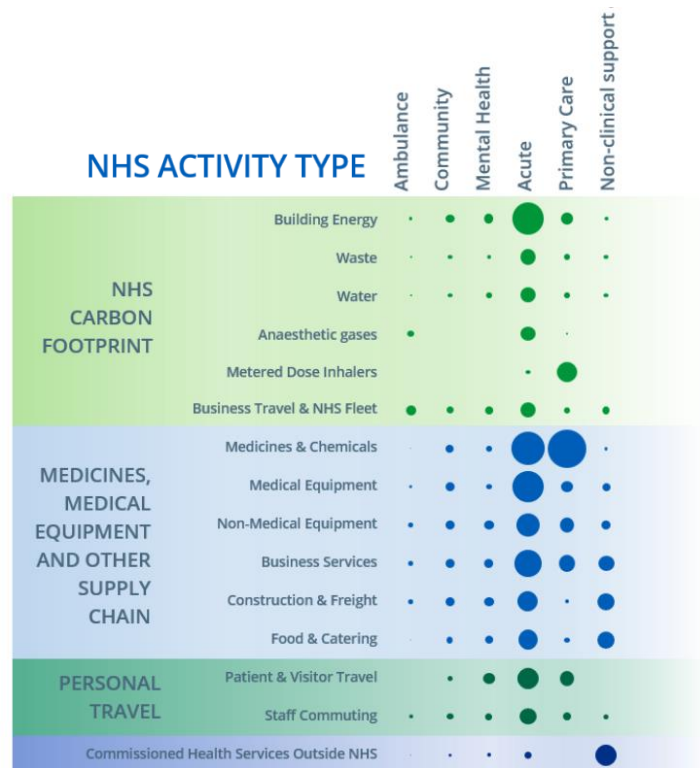
You may be surprised to see that 35% of the NHS carbon footprint is related to medicines and medical equipment, whilst buildings and energy account for only 10% and waste (often the first target of local action through recycling) contributes less than 5%. This means we can't leave the drive to sustainability to estates departments, clinical teams must be involved. It is clinical decisions which:

- Determine resource use through the system: pharmaceuticals, equipment and consumables for investigations and procedures.
- Determine how many appointments and journeys are needed and how many days a person spends in hospital.

Carbon Footprint of Health Care



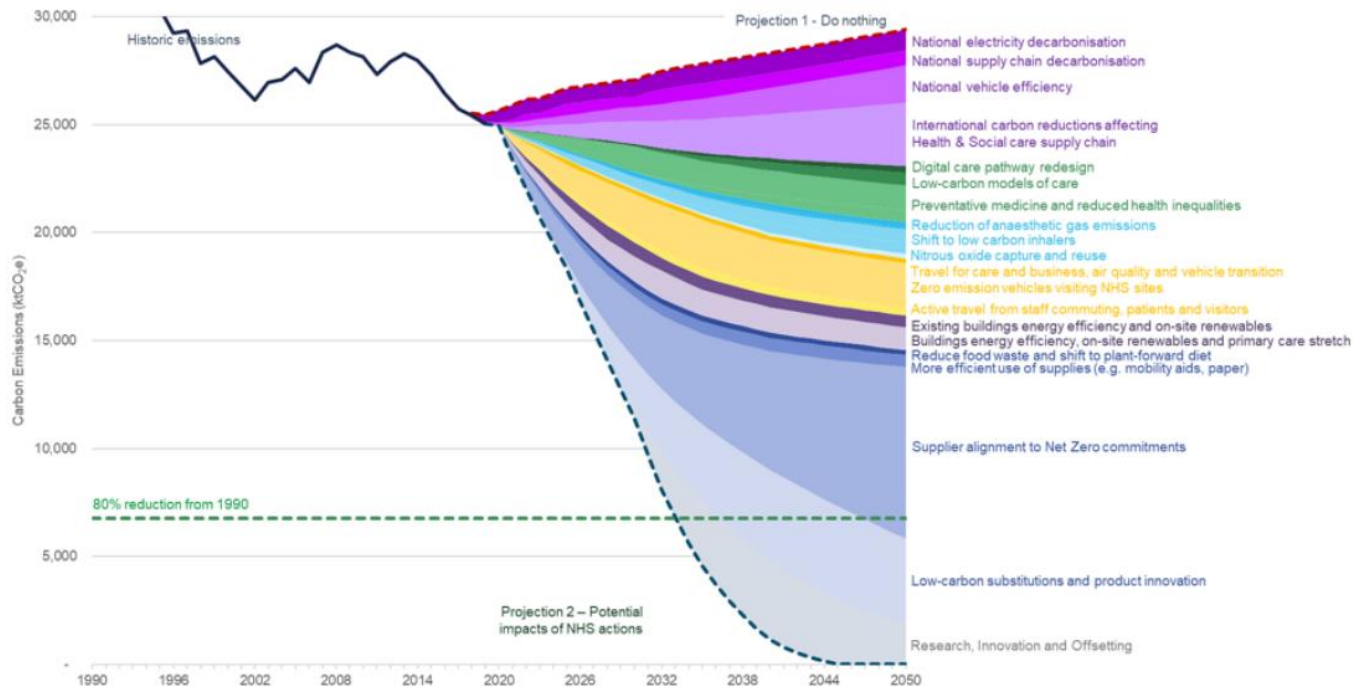
This diagram shows how carbon intensity is distributed across the specialities and hot spots within each speciality. Acute hospitals are by far the biggest sources of emissions. Whilst primary care prescribing appears to be the biggest single contributor it is important to reflect that this is heavily influenced by secondary care for mental and physical health. Delivering a “[net zero](#)” National Health Service



The Scale of the Challenge



This graph shows the journey we must make to get to net zero.



- National and international action
- New models of care and preventative medicine
- Anaesthetics and inhalers
- Travel and Transport
- Estates and Facilities
- Medicines, NHS Purchasing, and Supply Chain

The Scale of the Challenge



Clinicians will need to be involved in everything other than the bright purple section at the top of the [previous slide](#) (which relates to energy supply and vehicle efficiency). From increasing focus on prevention, to adapting to digital working, to changing and reducing what we prescribe and investigations we order, to procurement decisions, to remembering to turn off lights and equipment, to supporting changes to hospital food systems, to innovation - clinicians have the power and responsibility to embrace and lead this journey.

Discussion – is there anything about the distribution of emissions sources that surprised you?

