

Green Hospital Initiative

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The background


- The need is clear.
- The public health issue is clear.
- However, climate change notwithstanding, it makes intuitive sense to make reforms that minimise the environmental impact of our health services.

We are behind on this


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- <https://www.england.nhs.uk/2020/01/greener-nhs-campaign-to-tackle-climate-health-emergency/>
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- <https://www.england.nhs.uk/greenernhs/>


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- The causes of air pollution and climate change are often the same, so the [‘For a greener NHS’ campaign](#) will help address both. The health and care system in England is responsible for an estimated 4-5% of the country’s carbon footprint.
 - A recent study by Kings College London looking at nine English cities demonstrated that on high pollution days there are 673 additional out-of-hospital cardiac arrests and hospital admissions for stroke and asthma, with spikes in ambulance 999 call outs.


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- The changing climate is leading to more frequent heatwaves and extreme weather events such as flooding, including the potential spread of infectious diseases to the UK. Almost 900 people were killed by last summer's heatwaves while nearly 18 million patients go to a GP practice in an area that exceeds the World Health Organisation's air pollution limit.


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- Health chief Sir Simon Stevens has today announced three steps the NHS will take during 2020 to tackle this problem.
 - First, NHS England is establishing an expert panel to chart a practical route map this year to enable the NHS to get to 'net zero', becoming the world's first major health service to do so.

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- The NHS in England is the only health-care system in the world that is routinely reporting on greenhouse gas emissions. The Expert Panel will look at changes the NHS can make in its own activities; in its supply chain; and through wider partnerships – thereby also contributing to the government’s overall target for the UK.

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- These include the [Long Term Plan](#) commitment to better use technology to make up to 30 million outpatient appointments redundant, sparing patients thousands of unnecessary trips to and from hospital. It is estimated that 6.7 billion road miles each year are from patients and their visitors travelling to the NHS.
 - It will also look at changes that can be made in the NHS's medical devices, consumables and pharmaceutical supply, and areas the NHS can influence such as the energy sector as the health service moves to using more renewable energy.

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- **Dr Katherine Henderson, president of the Royal College of Emergency Medicine, said:** “This is an important initiative for the NHS, and we would encourage all staff to sign up.
 - “The air pollution and increased frequency of adverse heat events caused by the burning of fossil fuels lead to higher rates of respiratory and cardiovascular diseases and mental health crises, all of which will increasingly impact on the already stretched emergency care system.
 - “The Royal College of Emergency Medicine has declared a climate emergency and is exploring ways in which we can help tackle the problems, both as an organisation and a specialty. We encourage every organisation and specialty in the healthcare sector to look at what they can do to be ‘greener’ and supporting the ‘For a Greener NHS’ campaign is a great place to start.”

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- The impact of extreme weather events, heatwaves, thunderstorm asthma in Australia is well documented, both on the community and the health service.
 - Vulnerable members of the community at at greatest risk.
 - Increase in all cause mortality with every extreme heat event.


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- In 2009 and 2014:
 - 64% and 60% respective increase in ED patients requiring immediate resuscitation.
 - 26 and 27% increase in emergency presentations
 - 25 and 16% increase in urgent presentations to the ED.
 - Increase in overall deaths ranging from 13% to 24% across SE Australia during that period.



What are we doing about it?

- The Minister for Health.
- The Sustainable Health Review.
- The Climate and Health review.
- WACHS
- GGHH
- SW Coastal

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- The Minister for Health has been a very active driver of the Health Service exploring the best way forward to mitigate its environmental impact and to adapt to our changing climate.

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- As a key recommendation of the Climate and Sustainability Forum in July 2018 attended by the minister and a key priority of the Sustainable Health Review, the Climate Health Inquiry was initiated, conducted by Professor Tarun Werramanthi.
 - Will run March 2019-March 2020.
 - We can expect findings and recommendations to be released within the coming months.



GGHH

- The minister also wrote to CEs encouraging them to join the Global Green and Healthy Hospitals network.
- SW Coastal joined in 2018.
- WACHS as an entire organisation joined in 2019.



GGHH

- An international organisation that brings learnings together from its members.
- Over 1000 registered members globally representing around 36,000 health services.
- SW WACHS became a member in 2018.
- WACHS as a whole has now joined.



What GGHH offer

- Guidance documents (building, energy, waste, water).
- Interactive platform to discuss challenges.
- Webinars, involvement in and recordings
- Exemplars.
- A data centre to help calculate current situation and to track progress.
- A help centre.



The Pillars

- Leadership
- Chemicals
- Waste
- Energy
- Transport
- Food
- Water
- Pharmaceuticals
- Buildings
- Purchasing



Chemicals

- PVC/Phylates
- Cleaning products
- Mercury
- Substitution for more environmentally safe alternative products.

Waste

- Single use plastic
- Stainless steel
- PVC
- Copper wiring
- Organic matter (food, flowers, coffee grounds etc)
Community gardens.



Energy

- Reduction strategies- lights/ reducing temp control for areas not used at night.
- PV systems
- Renewable energy target
- Emissions target



Transport

- Offset transport emissions.
- Hybrid/electrical vehicle fleet
- Charging stations for interhospital vehicles
- Communal staff transport eg MR to Busselton.
- End of trip facilities for cyclists



Food

- Local production and sourcing
- Co-ops with local quality producers (mutual community benefit)
- Flexibility in menu, seasonally and produce dependent.



Water

- Water recycling systems
- Rainwater collection systems

Pharmaceuticals

- Anaesthetic agents
- Inhalational v TIVA
- Sevo/Iso/desflourane 44kg/190kg/886kg CO₂e for a 250ml bottle
- Use of N₂O. 3.4kg cylinder-1054kg CO₂e
- 1.1/3.2/14/110 yrs atmospheric lifespan
- Low flow v higher flow techniques (increased recycling of gasses into pt)
- Uk measured this as approx. 5% of organisational carbon footprint for hospital sector



Buildings

- Energy efficiency.
- Solar passive design in new works.

Purchasing

- A central environmental impact assessment process to all new contracts/ purchases.




The SW Coastal Plan

- To create a Green Hospital Template for the SW Coastal region.
- To develop business cases to apply the template recommendations to the 3 hospitals in this region.
- To export a workable template to other sites to make it easier for them to do this work.



Project Officer

- One year full time position to drive the project.
- Initial role will be documenting current activities and carbon footprint.
- Expected at the end of 12 month period to have done this and generated workable solutions to issues raised and where appropriate created business cases for funding.

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- Can we aim for net zero emissions also?
 - An exemplar to export to every health service.
 - Money saving and carbon offset.