



Faculty of Public Health response to consultation on greening the NHS (March 2020)

1. Introduction

This paper forms the response of the UK Faculty of Public Health to the call for evidence for a greener NHS. This response is submitted under your category of 'something else', although it also includes references to case studies, ideas and research, but also includes some principles for consideration.

The UK Faculty of Public Health (FPH) is a joint faculty of the three Royal Colleges of Physicians of the United Kingdom (London, Edinburgh and Glasgow). Key elements of Public Health work are the wider determinants of health, of which the environment is a relevant part, addressing inequalities and encouraging prevention rather than cure where possible. Public health covers health protection, health improvement and healthcare public health. We are a membership organisation for approximately 4,000 public health professionals across the UK and around the world and our role is to improve the health and wellbeing of local communities and national populations. We do this by supporting the training and development of the public health workforce and improving public health policy and practice in partnership with local and national governments in the UK and globally.

Available on the FPH website are a set of resources that identify various aspects of climate change and what can be done to mitigate the threats. They were developed by the [FPH Sustainable Development Special Interest Group](#).

In the UK, the Faculty has members working across local authorities, Public Health England and the NHS as well as in a range of charities, third sector, private sector, NGOs and government departments, and many of these members have been instrumental in driving the climate change and sustainability agenda locally and nationally. In 2019 the Faculty of Public Health declared a climate emergency and recognised it as the largest public health crisis and opportunity of century. Our curriculum includes the development of many skills relevant to the greener NHS agenda, including leadership, environmental and social sustainability and climate change and health.

By any measure, the NHS is a behemoth. Its 1.3 million staff are spread out across 1,200 sites, in addition to a further 7,600 general practice sites in England alone. Every year NHS-related travel – including ambulance journeys, staff commutes and patient visits – adds up to 9.5 billion miles, which is further than the distance from Earth to Pluto. In England, 5 per cent of all road miles are attributed to the NHS, which is responsible for 13% of the NHS carbon footprint. In 2017, the NHS emitted 27.1 million tons of carbon dioxide equivalents into the atmosphere – roughly the same emissions as Jordan. But only 23 per cent of that comes from things the NHS can directly control, like heating and electricity, NHS transport and waste. The biggest slice of its emissions – 15.5 million tons of carbon dioxide in 2017 – comes from its vast supply chains. The carbon cost of medical equipment and drugs alone outweighs emissions from electricity, heating and business travel. However, the NHS can have an indirect effect on these through its purchasing mechanisms, encouraging suppliers that shift from carbon intensive power to renewables.

2. Principles

Specific topics in relation to greener NHS are identified below, but there are a number of principles that we offer for consideration.

- Inequalities are widening and life expectancy stalling: [Health Equity in England: The Marmot Review 10 years on](#).
- Climate change impacts unequally on deprived populations and vulnerable people, so health inequalities need to be a focus of the greener NHS agenda and both can be addressed together (see anchor hospitals below).
- Health systems, including the NHS, cannot become carbon neutral in isolation from the rest of the economy. However, the size of the NHS gives it tremendous 'clout' when it comes to influencing the rest of the economy (e.g. through its purchasing power- see anchor hospitals below).
- The greener NHS initiative will not be achieved if it is an 'add on' initiative to an NHS that is already overextended, even before Covid-19. Environmental and social value considerations need to be woven into the fabric of the NHS to be an integral part of day-to-day business, just as financial considerations are currently.
- Neither will greener NHS be achieved if it does not recognise that this needs both expertise and funding.
- Greener NHS is not starting from scratch - some organisations have considerable experience and expertise and these need to be built on and enhanced to support the delivery of the greener NHS agenda (e.g. SDU, CSH, UKHACC, RCGP, Soil Association).
- Capability, capacity and knowledge on all aspects of greener NHS is not in abundant supply throughout the NHS and needs to be harnessed, recognised and funded as well as built into training and curricular. Whilst facilities and estates managers may understand about energy and waste they will usually not have expertise across the full range of topics.
- Approaches to greener NHS need to cover all aspects of NHS: primary secondary and tertiary care, commissioning and providing, and wider primary care including dentistry, pharmacies and opticians but also regulation systems and advisory mechanisms e.g. CQC, NICE guidance, GIRFT, capital developments, procurement procedures etc.
- For the greener NHS to have traction it needs to be achieved by both 'top down' (e.g. requirements in planning guidance, directives, triple bottom line accounting etc) and by 'bottom up' (e.g. staff engagement, hearts and minds of clinicians) approaches.
- Where possible, things that can be achieved once on behalf of the NHS should be (e.g. sourcing and price negotiation for recyclable single use plastic cups) (see waste below).
- NHS needs to work with other organisations to learn lessons and achieve change – systems leadership and ICSs need to be engaged and develop their expertise in this field.
- In England, there are Directors of Public Health, consultants and trainees in public health based in local authorities (LAs) with links across to CCGs and the NHS. Many LAs have declared a climate emergency and are considering action on climate change. This affords an opportunity for the NHS to work across to LAs and we would encourage the use of public health professionals within foundation trusts and other parts of the NHS. This model has already proven successful where it has been developed. They have knowledge about the co-benefits of health and climate change, as well as place based and asset based approaches.

3. Travel and transport

Transport affects health and inequalities through promoting (or restricting) access to healthcare, but also jobs, education, goods, services, social contacts; opportunities for physical activity or being sedentary; noise and air pollution; injuries; community severance (the barrier effects of busy roads, or of transport infrastructure); stress and urban heat islands.

In general, in a car-dominated society (such as most high income countries), the benefits of transport accrue to the more affluent and the harms fall on the more deprived. For noise and air pollution, more deprived groups have the 'double whammy' of greater exposure and greater susceptibility.

There are many synergies between 'green' and 'healthy' transport policies. The NHS could therefore make a large contribution to UK carbon reduction through changes to transport by:

- Reducing unnecessary journeys.
- Modal shift, to walking or cycling where possible, for those able to travel actively and for shorter journeys; to public transport; and/or car-sharing.
- Greening their fleets, e.g. changing fleet vehicles to electric vehicles (and where possible, generating renewable electricity onsite).
- Introducing travel plans for staff (and visitors and patients, where appropriate).
- Reducing car parking places and charging for parking - at least for staff who don't commute at antisocial hours - and using that money to subsidise public transport fares.
- Working with local bus companies to improve services at relevant times for staff, patients and visitors; keep costs down; ensure buses go right in to large sites (e.g. Nottingham City Hospital).
- To avoid unnecessary car use, no NHS meetings should be organised in venues that are accessible only by car, such as hotels at motorway junctions. Hotels and meeting places next to public transport hubs should be used instead.
- Flying should be reduced, ideally to zero, although recognising that this may disadvantage differentially rural or more remote NHS staff

4. Food

The NHS should be focussing on a substantial reduction in meat offer (particularly beef and lamb) in catering both for staff and patients. As an absolute minimum, there should be one meat free day per week. Some institutional caterers (e.g. Sheffield University) have removed beef and lamb from menus completely, and when done without notifying consumers, this has not been noticed. We feel confident that the same approach could be taken to the one meat free day per week across NHS catering.

There are examples of trusts who have focussed on local procurement, Nottingham University having achieved [Soil Association Food for Life Gold Award](#). The Soil Association also supports a network of hospitals striving to improve [food quality sustainability and local procurement](#).

5. Energy and Carbon cost

There is a risk that the greener NHS initiative focuses specifically on energy usage to bring down carbon emissions. For the initiative to have traction it needs to be systematic across all aspects of the NHS and to get the buy in of staff across the board.

As well as having to pick up (a lot of) the pieces in terms of the health impacts of climate breakdown, health services contribute significantly to carbon emissions, 6.3% in the UK and 4.4% globally. Health services both in the UK and further afield clearly have to eliminate these.

Health systems, including the NHS, cannot become carbon neutral in isolation from the rest of the economy. However, the large size of the NHS gives it enormous clout when it comes to influencing the rest of the economy. This applies both to those things that are under our proximate control (energy, building design and transport) as well as supply chains. The NHS can and should be demanding of all suppliers that they have clear credible plans to reach net zero soon.

Measurement is key - if we don't measure it, we can't manage it. Rigorous carbon accounting, including assessment of the carbon costs in supply chains (>60% of total emissions) is essential.

Methodologies must be developed for calculating the carbon cost of different interventions, so that an overall 'carbon cost per QALY' can be calculated. This should lead to explicit consideration as to whether the QALY gains are worth the carbon cost, and in some cases the decision to forego particular interventions on the grounds that the carbon cost is not justified by the QALY gain. One approach to stimulating such consideration would be if the NHS generally and individual ICs/CCGs/Trusts/ GP practices are giving fixed, and progressively shrinking, carbon budgets. This would also incentivise health services, and elements in the supply chain, to reduce the carbon costs of their activities.

Further consideration needs to be given as to how renewable energy e.g. installing solar panels or wind turbines on NHS facilities could be incentivised and afforded.

6. Waste

Between 2013 and 2018, NHS services across England used more than 600 million disposable cups and millions of other disposable cutlery pieces, as well as many other avoidable single-use clinical and non-clinical plastic items. The NHS is a major contributor to the 34 billion tons of plastic that will pollute our natural environment by 2050. NHS Trusts have pledged to reduce this waste.

Whilst there is some guidance on this initiative, some suggested using ceramic mugs and metal spoons which required washing up and therefore reintroduced other complexities, environmental impacts and costs. When trusts tried to explore recyclable plastic cups for example they found that many 'badged' as recyclable were only partially so or that they were compostable (but not through current NHS waste disposal mechanisms) or that they were considerably more expensive. This is a situation where the size and capacity of the NHS should enable a 'one off' exploration to find a suitable product for all NHS Trusts and the purchasing clout of the NHS to negotiate a cheaper price for all.

General waste in hospitals is dealt with by segregation into recyclable, general and clinical waste. However there are often a complex array of waste 'bins' and segregation is poorly managed. Simpler systems and better engagement of staff to achieve proper recycling etc is needed. Many trusts are now achieving reduction in paper usage by electronic means but this still has further to go.

Clinical waste includes pharmaceutical waste, which is considerable: for example, there are £160m pills that patients don't need. Whilst much of this is through prescribing in primary care there is still considerable overprescribing in hospitals. All clinical waste has to be disposed of through high temperature incineration and only one plant in the UK is capable of recovering energy from this process, and Guy's Hospital uses [this facility](#).

7. Hospitals as Anchor organisations

Hospitals and other health services need to recognise how important they can be in their local communities; the Health Foundation Report, [Building healthier communities: the role of the NHS as anchor institution](#). Together with other public services, such as local authorities, hospitals are often the major employer and are substantial local purchasers of services and goods.

They can utilise these attributes both for the benefit of the local community, to address inequalities and to develop more sustainable practices. For example:

- Employment -many trusts have vacancies across all staff groups, for some they could utilise links with local schools or further education to encourage applications and could focus these efforts in more deprived areas, perhaps to encourage apprenticeships
- Procurement – local suppliers and SMEs should be encouraged, which would reduce travel miles for supplies and increase local 'GDP' and potentially employment. This approach may be appropriate for such items as local food or small business suppliers but not for major medical devices for example.
- However through all procurement the NHS should be requiring all suppliers to demonstrate their sustainability qualities and only accept suppliers who can demonstrate these attributes, ideally those aiming for carbon net zero by 2030 (with intermediate targets on route) and shifting to renewables.. Many suppliers can deliver on these requirements and many consider the NHS to be behind the curve in requiring such assurances in their procurement processes.
- To make such procurement changes, the approach needs to be built into procurement policies and specifications, and form part of the procurement quality evaluation framework.
- Many larger suppliers (who may be less local), such as building contractors, should be required to include training and apprenticeships etc. specifically for the long term unemployed or 'NEET' (Not in Education, Employment or Training) young people.

Such initiatives, built into the existing processes of the NHS, can help to address local inequalities, which in itself relates to improved health, and can ultimately reduce demand on health and public sector services and reduce the NHS carbon footprint.

The Social Value Act 2012 requires public authorities to have regard to economic, social and environmental wellbeing in connection with public services. Some hospitals have already recognised the importance of this approach to Social Value (SV) - addressing the social pillar of the three pillars of economy, environment and social. [Cheshire and Merseyside Partnership](#) is one of the NHS Social Value accelerator sites and have developed a [social value charter](#). Similarly, Dorset County Hospital NHS Foundation Trust is also adopting a SV approach and aims to roll it out within its ICS (Integrated Care System) across Dorset.

This approach should not be about introducing another initiative to the NHS when they were already overloaded (even before Covid-19 came along), but about building in environmental sustainability and addressing inequalities (as in the LTP) to the practices and procedures that the NHS already has to undertake for its day to day existence. Ideally the NHS should undertake Triple Bottom Line accounting – people, planet and prosperity – to measure social value, environmental and financial sustainability.

8. Ethical divestment

There have been some important developments in the ethical divestment/fossil fuel divestment debate that may be of interest to the wider NHS. Many medical royal colleges have committed to the goal of carbon neutrality by 2030, starting with divestment in fossil fuel companies. Thereafter they commit to a process of incremental change in their investment portfolio which reduces their carbon footprint over time. This process should facilitate putting positive pressure on companies, often utilising their role as shareholders, to produce robust, timely plans to significantly reduce their carbon footprint as well as allowing a good, prudent return on investments. All organisations committed to:

- Carbon neutrality by 2030, recognising the profound environmental and health benefits of this action.
- Taking practical action to use renewable energy in their premises.
- Achieving good energy efficiency performance in line with international standards.
- Playing an exemplar role in bringing attention to the serious health implications of climate change and therefore regularly provide information to the public on this issue.

Whilst this is not directly relevant to the NHS, as they are not investors, it is a model for charitable funds and a suitable approach to adopt with suppliers. It may be particularly important for large suppliers of pharmaceuticals, medical equipment or capital developments and a way the NHS can lever change.

9. Rewilding the NHS

Although the drive to reach net zero carbon emissions is welcome, the climate emergency is accompanied by a related, but distinct ecological emergency. As numerous reports, among which feature the UK's 2019 State of Nature Report and the IPBES, have demonstrated, ecosystems upon which all life on earth depend are rapidly deteriorating and are at risk of collapse. To respond to this crisis, action is needed from all sectors of society. The Government's 25 Year Environment Plan includes a goal to achieve 'thriving plants and wildlife' and also focuses on 'connecting people with the environment to improve health and wellbeing'; the NHS can play an important role in contributing to both of these aims.

The Greener NHS programme should include a greater focus on the wider environmental impacts of the NHS' activities, rather than just focusing on reducing carbon emissions. The Greener NHS Strategy should identify areas where the NHS impacts adversely on ecological systems, and develop measures to reduce these adverse impacts and to improve the natural environment.

NHS Forest should be rolled out as an integral part of all NHS estates strategies. It is currently a project coordinated by the [Centre for Sustainable Healthcare](#) and funded by charitable trusts and corporate and individual sponsorship. The project's central aims are to:

- improve the health and wellbeing of staff, patients and communities through increasing access to green space on or near to NHS land;
- encourage greater social cohesion between NHS sites and the local communities around them;
- spark projects that bring together professionals and volunteers to use new and existing woodland for art, food crops, reflection and exercise, and to encourage biodiversity; and
- highlight innovative ideas to encourage the use of green space for therapeutic purposes.

The [North Bristol NHS Trust has a Biodiversity Management Plan](#), which demonstrates how NHS organisations can contribute to restoring nature, creating a thriving natural environment for people and wildlife. However, this needs to be reflected in a strategic approach across the whole of the NHS.

The key factors behind the recent ecological decline are habitat destruction, degradation and fragmentation; the use of harmful pesticides; and pollution. The NHS could therefore act to:

- Green hospitals and GP surgeries to create spaces for wildlife and improve the quality of place for staff and patients. This could include tree planting, creation of wildflower meadows and ponds, provision of allotments etc.
- Evaluate the impact on products used within the NHS on the natural environment and ecological systems, in addition to their carbon footprint.
- Consider the impact on the natural environment when procuring food within the NHS: intensive agricultural systems are the principal cause of the decline in wildlife in the UK. Additionally, intensively produced food has a worse nutrient profile than organically grown food; better food procurement could therefore also contribute to improving patients' health.

Additional information is available from the [Bristol Green Capital Partnership Guide for responding to the Ecological Emergency](#).

10. Engaging staff and clinicians – sustainable clinical pathways

Engagement of NHS staff will be crucial to achieving zero carbon. The recent focus on young people supporting the climate emergency can be utilised to mobilise younger members of staff and younger members of the population will welcome the greener NHS initiative. Efforts will need to be made across the NHS and throughout all aspects of NHS.

Engagement of clinicians needs to be seen as a key aspect of the greener NHS initiative and one route in may be through the topic of air pollution and its link to respiratory disease. It also demonstrates the co-benefits of addressing health and climate change together.

There are 40,000 excess deaths per year in UK due to air pollution and the incidence of respiratory diseases such as asthma and COPD increases with air pollution. Reducing air pollution by reducing car travel etc is a benefit for patients, a benefit for the NHS, and a benefit for the planet. Reducing car travel also increases active travel such as cycling and walking which increases people's physical activity, which reduces obesity, cardiac, respiratory diseases and cancer. These sort of multi-benefit issues demonstrate the health co-benefits of addressing climate change. A similar positive co-benefit is achieved by addressing housing, as retrofitting to reduce energy loss will reduce ill health consequences of damp or substandard housing.

Clinicians can be engaged through their clinical roles. The co-benefits between health and environment are paramount. Clinicians with the [Centre for Sustainable Healthcare](#) have developed models of sustainable healthcare in a number of specialties such as renal, respiratory, mental health etc. All clinicians need to be encouraged to consider their clinical pathways through from prevention to care and consider sustainability as part of their deliberations. Sustainability can be embedded into quality improvement initiatives.

Issues such as sustainable anaesthetic gases and low carbon inhalers should be required across the NHS. Other sustainable models of care should be encouraged or required. Similarly sustainable dentistry and nursing should be promoted. Efficient and sustainable models of health care should be a required part of GIRFT (Getting it Right First Time) and CQC assessments.

These approaches do not only apply to providers of healthcare; sustainable commissioning should also be required and implemented, as exemplified by commissioning for mental health services and [sustainable system wide commissioning](#).

Similarly, they apply to primary care as well as secondary care. The new primary care networks and social prescribing may provide opportunities to reduce 'medicines' prescribing and encourage physical activity, utilising green spaces more, to improve both physical and mental health. The NHS can encourage and utilise its own green spaces better to encourage local communities to increase their physical activity. [Moving Medicine](#) is a similar initiative and PHE and Sports England have a current, though at the moment limited, initiative around [active hospitals](#).

The LTP encourages prevention and, as the FPH, we would support a stronger focus on prevention and addressing inequalities in local populations, for example through social value (see Anchor hospitals).

More generally, across many specialties, 'one stop shops' for diagnostic tests and multidisciplinary clinics for such patients as people with diabetes, to review their kidneys, eyes and feet in one clinic visit, constitute both good practice for patients, efficient use of NHS resources and reduce travel and transport related to the NHS, hence reducing carbon footprint.

11. Impact of Covid-19

Most recently, the NHS will need to learn the early lessons from the Covid-19 pandemic and the potential impact on climate change. The current situation is requiring a reduction in travel and increased working from home where possible. The NHS is a 'meetings-heavy' culture. However, many meetings, conferences and other events are now either being postponed, cancelled or being undertaken via teleconferences or other technology. Whilst Covid-19 and its resultant pandemic may be a product of globalisation and potentially related to climate change in itself, we should be systematically learning from this experience and examine if suitable changes can be made, once the immediate danger is over, to change systems and behaviour for a longer period in order to reduce carbon emissions and address the climate emergency. Already, with the reduced travel, there has been an improvement in air quality.

12. Further information

Further information is available from the Faculty of Public Health, president@fph.org.uk.