'For a greener NHS' campaign

Response to the NHS Net Zero – Call for evidence

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About the Health Foundation

The Health Foundation is an independent charity committed to bringing about better health and health care for people in the UK. Our aim is a healthier population, supported by high quality health care that can be equitably accessed. From giving grants to those working at the front line to carrying out research and policy analysis, we shine a light on how to make successful change happen.

We use what we know works on the ground to inform effective policymaking and vice versa. We believe good health and health care are key to a flourishing society. Through sharing what we learn, collaborating with others and building people's skills and knowledge, we aim to make a difference and contribute to a healthier population.

The Health Foundation has supported a range of research and projects relevant to the Expert Panel's consultation, which we set out below. Climate change is also an issue being explored through the Health Foundation's Shaping Health Futures programme. We are currently scoping a set of climate change projects to deliver this year. Areas we are exploring include: the implications of coronavirus for action on climate change, the long-term implications of climate change for the health sector, and the role that the different national health and care organisations can play in the sector's response to climate change. Our work is in early stages, but we hope that our outputs will be useful for the campaign in future and we will share learning and insights from this work as it emerges.

Background

The NHS Net Zero Expert Panel launched a consultation on how the NHS can continue to reduce its carbon emissions and become greener. They invited submissions from anyone with an interest in health care or sustainability, members of NHS staff, a patient, carer, or an expert in a related field.

The consultation acknowledged that reaching "Net Zero" involves going beyond simply decarbonising buildings, travel, and the products we rely on, to reimagine aspects of how we deliver care, including providing greater access to telemedicine and digitalisation. It could enable more patients to make virtual appointments helping to reduce travel, while ensuring a better continuity of care for many patients. They welcomed a broad range of evidence including data, information, case studies, ideas and research, from within or outside a health care setting, nationally or internationally, that can be applied to the NHS.

Summary of Our Response

The Health Foundation welcomes the opportunity to provide evidence and insight from our work to help inform the work of the Net Zero NHS Expert Panel.

This submission includes a summary of a recent report *Building healthier communities: the role of the NHS as an anchor*, case studies from improvement work we have funded on virtual consultations, and work we are supporting led by the Centre for Sustainable Healthcare to embed sustainability into quality improvement in undergraduate and post graduate education and training for doctors and other health care professionals. The submission provides insight into the range of work being undertaken across the NHS to increase sustainability, as well as some of the challenges to consider.

Key points

- As "anchor institutions" NHS organisations have an impact beyond their role as providers of treatment and care and how they use their spending power and resources can maximise their contribution to the social, economic and environmental conditions for the populations they serve.
- Innovations such as telehealth and virtual consultations are often adopted to improve quality of care and patient experience, but they can also make a positive contribution to reducing carbon emissions – making this a more explicit aim of these initiatives might help to measure and monitor the impact.
- Building sustainability into existing strategies and programmes, including quality improvement, has the potential to help embed environmental sustainability considerations across a wider range of services and activities, thus ensuring greater spread. More work, such as our work with Centre for Sustainable Healthcare underway to embed and improve sustainability in quality improvement in medical education, is needed to understand the potential benefits but also how this can be done more effectively.

NHS organisations as "anchor institutions" (Research)

The Health Foundation's report, *Building healthier communities: the role of the NHS as an anchor institution* explores the ways in which NHS organisations can improve the health and wellbeing of their local communities, outside of their role as direct providers of health care.

Anchor institutions are large, public sector organisations that are unlikely to relocate and have a significant stake in a geographical area. The report highlights where NHS organisations are already implementing anchor practices and outlines how decision makers across the health care system can maximise the contribution the NHS makes to the social, economic and environmental conditions that shape good health.

As part of the research, we worked in partnership with the Centre for Local Economic Strategies (CLES) and The Democracy Collaborative to understand the evidence for health care anchor institutions and to show how NHS organisations act as anchor institutions in their local communities and can positively influence the social, economic and environmental conditions in an area to support healthy and prosperous people and communities.

One aspect of being an anchor institution is leading, influencing and creating a sustainable local environment. Our research identified two key ways in which NHS organisations can act as leaders on environmental sustainability:

a) Adopting sustainable practices within their own organisations and across the NHS, developing leadership and staff buy-in for efforts to improve environmental sustainability
b) Influencing sustainable practices in the community including through helping shape community environments and behaviours and influencing local suppliers.

Through our research we identified a number of exemplar NHS organisations who are leading the way in becoming more environmentally sustainable organisations and working with local suppliers, public sector organisations and local communities to support action on environmental sustainability. In the following section, we provide short case study examples drawn from our report, showing how NHS trusts are thinking more broadly about the patients and communities they serve, and going beyond the direct activities of patient care to maximise their impact on the social and environmental conditions in their communities.

Anchor case studies

University Hospitals of North Midlands NHS Trust launched an initiative to establish more sustainable and affordable energy sources and reinvest savings in the community. Recognising the links between hospital readmissions during winter and poor heating and living conditions, it worked with residents and the local council to crowdfund for 1,100 solar panels, installed on NHS hospital buildings. By switching to renewable energy, the trust saved nearly £300,000 that was invested in a local charity, Beat the Cold, which tackles cold-related sickness and fuel poverty. This initiative has helped strengthen relationships between the trust and residents. Early evaluation suggests the project has helped achieve savings by reducing the rate of readmissions, particularly among elderly people and other vulnerable groups.

North Bristol NHS Trust changed its approach to the procurement of catering services in order to purchase more food locally. In 2018, 54% of its food spend went towards local produce. It has been awarded Food for Life certification by the Soil Association, recognising excellence in catering that provides environmentally sustainable, and ethical food. To make this change, the catering team conducted a large audit to identify what produce was available locally and the financial implications of switching suppliers. They removed certain menu options (lamb) that could not be sourced within a 50-mile radius in order to decrease their carbon footprint. This increased costs slightly: for example, beef cost 1p more per meal when sourcing from a local and organic provider. The director of facilities, who was supportive of the change from the start, looked for savings from elsewhere to offset the increase.

Epsom and St Helier University Hospitals NHS Trust has been working with local councils to improve public transport links to the hospital for staff and the local community. After receiving repeated complaints about the difficulty of getting to the hospital via public transport, the sustainability officer at the trust negotiated with local councils to pilot a new 'on-demand' bus service for residents in Surrey, with a designated bus stop on the hospital

site. The staff shuttle bus has become a public bus service, and the trust has negotiated with Transport for London to further extend bus services to the hospital.

Sussex Community NHS Foundation Trust developed a Care without Carbon strategy. As part of the strategy, the trust is working with suppliers to reduce carbon emissions, which make up 60%–70% of the trust's overall carbon footprint. The sustainability team has embedded sustainability criteria and metrics into the tendering process by setting targets for suppliers to reduce their vehicle emissions over the lifetime of the contract.

Learning from these case studies and our interviews with NHS leaders, frontline staff and others, we have identified a number of important factors which support anchor institutions to have a greater impact on environmental sustainability and which require action at national, local and organisational level. These include: clear metrics; the development of tools and resources across all domains of environmental sustainability; shared goals and strategies across organisations at a local system level; strong organisational leadership and alignment of work with wider organisational priorities; and a focus on developing buy-in and building the capability of frontline staff.

Telehealth and virtual consultations (Health Foundation funded case studies)

Below we summarise some of the insights generated from two Health Foundation funded improvement projects focused on improving the quality of care by using virtual consultations and telehealth. Both projects have had a positive impact on carbon emissions, although that was not the primary objective of the service change.

1. Barts Health NHS Trust – Virtual outpatient consultations

Background
Traditional models of outpatient care are not always aligned to the needs of patients and can be difficult for them to access. This has led to high rates of non-attendance at appointments and poor patient engagement, resulting in poor health outcomes and greater use of emergency care, as well as rising costs.[1,2]

The Health Foundation supported Barts Health NHS Trust to explore the use of video consultations for outpatient consultations as an alternative to traditional face-to-face appointments and the impact on patient attendance rates, patient satisfaction, efficiency savings and carbon emissions.

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[1] https://www.health.org.uk/improvement-projects/scaling-up-virtual-consultations-across-the-nhs-%E2%80%93-implementing-evaluating-and

[2] Royal College of Physicians. Outpatients: the future – adding value through sustainability. London: RCP, 2018.

Initially, Barts provided video consultations for outpatient appointments within their diabetes services at Newham University Hospital Foundation Trust and, subsequently, in some cancer services. Following the successful demonstration of this model for some patients at Barts, the team has been working to spread the model to Oxford University Hospitals NHS Foundation Trust and Northumbria Healthcare NHS Foundation Trust.

A study led by the Nuffield Department of Primary Care Health Sciences at the University of Oxford discussed the strengths and limitations of virtual online consultations and showed that the reality of setting up and delivering a virtual consultation service in a busy NHS clinic is far more complex and difficult than most policymakers assume. Additionally, for practical and safety reasons, video consultations are not appropriate for every patient or every consultation; they seem to work better when the clinician and the patient already know and trust each other. Technical issues must also be addressed. Not all patients and staff are sufficiently skilled or confident to know how to deal with connectivity problems when these arise. However, the study also found that when clinical, technical and practical preconditions are met, video consultations appear to be safe and popular with both patients and staff.

Environmental impact

Barts and their evaluation partners are also exploring the environmental impact of video consultations by mapping distances travelled to clinics in two contrasting specialties: diabetes and tertiary surgical oncology. Initial calculations of the carbon footprint were done by taking the mode of transport, tracing the miles travelled on google maps and using Defra CO_2/km values for different subsets of transport. The infographic below shows the local carbon footprint of an average return journey to local diabetes and oncology clinics from data collected by Barts Health NHS Trust.

Figure 1: Barts Health NHS Trust: calculation of local carbon footprint of average return journeys to a local diabetes clinic and a tertiary surgical oncology clinic

Local diabetes clinic

Ave. **1,182 gCO2** each return journey, from **79** appointments

(Ave 5.8 miles return using transport) 44 travel via public transport, 26 car, 7 taxi, 10 walk, 1 hospital transport

Tertiary surgical oncology clinic

Ave. **5,837 gCO2** each return journey, from **19** appointments

(Ave. 26.0 miles return using transport) 10 travel via public transport, 5 taxi, 5 car

Source: Morris, J, Remote video consultations in the NHS – delivering a more sustainable model of healthcare – e-poster presentation, ISQUA 2019. Available at:
*https://epostersonline.com/isqua2019/node/2572?view=true*T

The infographic above shows the extent of the current problem as well as the potential benefits of video consultations, which not only improve healthcare sustainability by reducing patient travel time but also lead to a reduction in carbon footprint associated with traditional outpatient appointments. In the context of Barts Health NHS Trust, the UK's largest acute care provider, the carbon footprint savings are potentially significant considering that there are around 1 million appointments across the trust each year and that the associated travel (often using carbon emitting transport) amounts to an estimated 16 million miles annually.

2. NHS Highland – Pharmacy Anywhere & NHS Near Me

Background

Providing pharmacist-led medication reviews for residents in the Highlands, a sparsely populated area in the north Scotland with difficult terrain and poor transport links, can be particularly challenging. NHS Highland identified that, without timely reviews, there was a risk that patients would not get maximum benefit from their medicines or could even be exposed to harm due to unaddressed side effects. To try to address these challenges, NHS Highland sought to deliver the clinical pharmacy service using telehealth, significantly reducing the need for pharmacists to travel. It involved three clinical pharmacists working part-time with three rural dispensing practices.

The innovative model used telehealth in two ways. First, pharmacists were given remote access to medical records so they could access the clinical information required to review medicines effectively. Second, pharmacists were provided with a video conferencing system to enable them to speak remotely to patients in their own home. Although video was the preferred method of communication, it was recognised that internet connectivity is limited in rural locations and not every patient has a computer or smartphone for video calling, so telephone consultations were also offered.

The six-month project had some positive results. For example, 70% of consultations resulted in an intervention to ensure safe and effective medicines use, Crucially, the project showed that telehealth is a viable means of delivering clinical pharmacy services in a large, sparsely populated area, and can potentially overcome challenges with geography and recruitment. Pharmacy Anywhere paved the way for NHS Near Me, a video consulting service developed by NHS Highland which aims to provide outpatient consultations as close as possible to home, for a wide range of clinical services – including cardiology, diabetes and obstetrics. NHS Near Me appointments take place either at home, a local NHS clinic where clinical support is required, or NHS Near Me rooms, which have been set up across the Highlands for patients who cannot or do not want to have a video call at home.

Environmental impact

The main aims of the Pharmacy Anywhere and NHS Near Me initiatives were to improve patient experience and outcomes, as well as staff retention, through reducing travel time for patients and staff, reducing waiting times and offering more convenient outcomes. The projects also aimed to reduce the environmental impact associated with the delivery of health care services in the Highlands, in line with the Scottish Government's commitment to a 42% reduction in greenhouse gas emissions by 2020. The telehealth and virtual consultation models employed in Pharmacy Anywhere and NHS Near Me have led to a marked reduction in patient and staff travel, and the journeys saved are likely to lead to a reduction on CO_2 emissions.

The NHS Near Me initiative has been rapidly mobilised to scaled up to other parts of the country in response to the COVID-19 pandemic. There will be valuable learning from this experience of rapid mobilisation and a drive to shift to remote service delivery which could be used to accelerate progress towards a greener NHS in the future.

Embedding sustainability in quality improvement (QI) (Other)

The Health Foundation is supporting the to develop a programme of work to integrate sustainability into quality improvement (QI) as a practical way to address environmental and ethical challenges in health care while providing a fresh motivation for staff to engage in QI and directing teams towards the highest value improvements. The ambition is that this project will help to bridge the gap in knowledge and skills for sustainable health care among health professionals, raise their awareness and concern about the climate and ecological emergency, and support efforts to meet the government and NHS commitments on carbon reduction.

Co-funded by Health Education England and King's College London, the 2-year project will refine and pilot the implementation of a framework for sustainability and quality improvement in professional education. Through this project, the Centre for Sustainable Healthcare (CSH) will work with medical schools, to pioneer the integration of sustainability in undergraduate QI education and catalyse its widespread uptake across UK medical schools as well as stimulating adoption into postgraduate and inter-professional education.

The overall goal of this project is to equip health care professionals with the knowledge and skills to address environmental and ethical challenges through service improvement. The project aims to equip students and faculty to: recognise the importance of sustainability to maintaining and improving patient care; understand environmental, social and financial resource use in their service; identify sustainable improvements; and measure the impact of their QI projects on sustainable value.

CSH will work with a partner medical school to create a beacon of excellence in Sustainability in Quality Improvement (SusQI) in medical education: building on the existing links to sustainability in QI teaching so that this becomes an integral part of student QI projects. CSH will evaluate the impact on student engagement, and the methodology and impact of QI projects. Learning will be shared with other medical schools in real time, and open access resources made available as they are developed, aiming to stimulate a transformation in quality improvement education, equipping current and future doctors to innovate for sustainable healthcare.