

Climate change and sustainability

The health service
and net zero



Key points

- The climate emergency is a health emergency: doctors already see the effects of air pollution and climate change on the health of their patients, and if this is unchecked it will have severe and far-reaching effects on public health in the future.
- The health service has a key leadership role to play in reducing its own carbon footprint and achieving net zero emissions. Health professionals can be important advocates for change.
- The NHS has made good progress on becoming a more sustainable and less carbon-intensive system; however, there remains significant work to do in order to reach net zero.
- There are a number of areas where we believe the UK's health services can develop further, including more detailed carbon reporting, reduction in single plastics use and the decarbonisation of NHS-related transport. The UK governments must play their part in helping the NHS to achieve these aims.
- The COVID-19 outbreak saw unprecedented changes to the way the NHS works as an organisation. We must identify the beneficial new ways of working that will improve the long-term sustainability of the health system.

Introduction

Climate change will be one of the defining public health challenges of the 21st century. The Inter-Governmental Panel on Climate Change warns that global warming rising above 1.5 degree Celsius could have disastrous consequences for millions of people's jobs, ways of life and health. Almost nine in every 10 BMA members (87%) surveyed in 2019 said they were concerned by the public health implications of climate change¹.

Achieving net zero carbon emissions will require fundamental societal change and unprecedented action from governments, businesses and the public. The health service has an important role to play in reducing its emissions, showing leadership, and advocating for change. This report looks at how the health sector can achieve this. It should be read alongside the BMA's report on sustainability in general practice².

The UK is the 14th largest global emitter of greenhouse gases per capita³ and is responsible for significantly higher levels of historical emissions. While it is encouraging that the UK has reduced its emissions by 29% over the past decade⁴ – the largest reduction by any of the G7 nations – the Government's own projections predict that this will slow to just 10% for the coming decade, seeing the UK fall significantly short of its legal targets.⁵

The health service contributes around 4-5% of total UK carbon emissions⁶. Given the grave threat that climate change poses to public health, the health service has a responsibility to reduce its emissions and help to safeguard the health of future generations.

1 Our survey had a response rate of 43%, (902/2,212).

2 BMA, 'Sustainable and environmentally friendly general practice report' 2020: <https://www.bma.org.uk/advice-and-support/gp-practices/gp-premises/sustainable-and-environmentally-friendly-general-practice-report>

3 Union of Concerned Scientists, 'Each Country's share of carbon emissions', 2018: <https://www.ucsusa.org/resources/each-countrys-share-co2-emissions>

4 Carbon Brief, 'UK Emissions have fallen 29% over the last decade', 2020: <https://www.carbonbrief.org/analysis-uks-co2-emissions-have-fallen-29-per-cent-over-the-past-decade>

5 UK Gov, 'Updated Energy and Emissions Projections 2018': 2019, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/794590/updated-energy-and-emissions-projections-2018.pdf

6 NHS, 'Delivering a 'Net Zero' national health service, 2020: <https://www.england.nhs.uk/greenernhs/wp-content/uploads/sites/51/2020/10/delivering-a-net-zero-national-health-service.pdf>

The response to the COVID-19 pandemic by the health service and the UK administrations is an opportunity to move forward sustainably and build a green and healthy recovery.

The climate emergency is a health emergency

Climate change will have a profound effect on public health. The World Health Organization estimates⁷ that following current trends, climate change will lead to an additional 250,000 deaths a year between 2030 and 2050.

Globally, rising sea levels will lead to malnutrition from food shortages and could displace hundreds of millions of people, leaving them shelter-less, unable to access vital medical treatment and greatly heightening the risk of communicable disease spread.

Extreme weather events such as floods and heatwaves have the potential to cause serious harm to health, either directly or through damaging access to resources and infrastructure. The UK is also particularly vulnerable to increased levels of heatstroke and other related illnesses, due to its older than average population and high levels of urbanisation.⁸

This higher prevalence of extreme weather events may in turn exacerbate mental health conditions and could lead to a wave of chronic mental health issues. The Centers for Disease Control and Prevention have previously noted the correlation between extreme weather events and a rise in mental health problems⁹, equally the UK Environment Agency has stated that there is an observed correlation between flooding and an increased prevalence of anxiety and depression.¹⁰

We can already see the health impacts of climate change and pollutants on a local level, with around 40,000 deaths directly attributed to air pollution in the UK alone.¹¹ It is therefore no surprise that eight out of every 10 (83%) of BMA members responding to a 2019 BMA survey reporting being worried about the public health impact of air pollution.

Net zero and the NHS

The international health sector is a significant contributor to global carbon emissions, accounting for between 4-5% of total emissions.¹² A large part of this is the supply chain with around 70% of the sector's emissions coming from the production and transportation of medical equipment.¹³

UK health service emissions correspond to that global average, accounting for between 4-5% of the UK's total carbon emissions. The health service has made good progress in reducing emissions in the past decade. Data from the Sustainable Development Unit (SDU) shows that NHSE (NHS England) has reduced its emissions by around 18.5% since 2007¹⁴, despite an increase in overall NHS activity.

Tackling climate change and reducing health service emissions will help to safeguard the health and well-being of the UK, both now and in generations to come. It is vital that health services across the UK continue to show leadership through initiatives like NHSE's 'For a Greener NHS' campaign and help to drive the discourse towards a greener and healthier UK. The sooner we as a society achieve net zero the better it is for health.

7 WHO, 'Climate change and Health', 2018 : <https://www.who.int/news-room/fact-sheets/detail/climate-change-and-health>

8 The Lancet, '2019 report on health and climate change' 2019: [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(19\)32596-6/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(19)32596-6/fulltext)

9 CDC, 'Climate and Health': https://www.cdc.gov/climateandhealth/effects/mental_health_disorders.htm

10 UK Environment Agency, 'Prepare for flooding to reduce impact on mental health', 2020: <https://www.gov.uk/government/news/prepare-for-flooding-to-reduce-impacts-on-mental-health>

11 UKHACC, 'Moving Beyond the Air Quality Crisis', 2018 : http://www.ukhealthalliance.org/wp-content/uploads/2018/10/Moving-beyond-the-Air-Quality-Crisis-4WEB-29_10-2018-final-1.pdf

12 Healthcare without harm, 'Health care's climate footprint' 2019: https://noharm-global.org/sites/default/files/documents-files/5961/HealthCaresClimateFootprint_092319.pdf

13 Healthcare without harm, 'Health care's climate footprint' 2019: https://noharm-global.org/sites/default/files/documents-files/5961/HealthCaresClimateFootprint_092319.pdf

14 Sustainable Development Unit, 'Natural Resources Report', 2018: <https://www.sduhealth.org.uk/policy-strategy/reporting/natural-resource-footprint-2018.aspx>

The recent NHSE report 'Delivering a Net Zero health service'¹⁵ sets out a comprehensive road map towards this exact goal. It shows clear and deliverable aims at the system level that have the goal of making the NHS the first net zero health service in the world by 2045. The BMA welcomes this report, it is an excellent step towards a sustainable health service. The challenge now is to see the interventions laid out in the report filter down to trusts and health boards as this will ultimately be where the carbon reductions will be delivered. Our research laid out in this report suggests that there is considerable discrepancy between the performance of individual trusts and health boards when it comes to sustainability; delivering these aims will therefore require interventions at the trust and health board level including funding and the sharing of best practice across the health service.

Changes doctors want to see

As set out earlier in this report nearly nine in every 10 doctors (87%) are concerned about the public health impacts of climate change with 83% saying they are concerned about the public health impact of air pollution.

We asked our members how the NHS could better prepare for climate change and to suggest, based on their own frontline experience, areas that NHS trusts and health boards could improve on.

There were three topics that were of particular concern.

Recycling/waste management

'Unnecessary waste of resources is shocking and needs to be addressed urgently; sustainability, green energy and recycling needs to become routine practice.'
– Consultant, Wales

Both the Royal College of Nursing¹⁶ and the Royal College of Physicians¹⁷ have argued that the NHS could reduce its carbon footprint and save money by changing its waste management practices.

Adaptation

'Research into potential impacts on health in the UK, including public health impact of increased flooding, emergence of "tropical" diseases as temperatures rise and the impact of food shortages' – Retired GP, England

Adaptation and ensuring that the NHS is ready to deal with the consequences of climate change, such as preparing for heat-related illness and a changing spectrum of disease, was also a high priority for our members.

Transport

'Working with local government to improve infrastructure for clean transport. It's shocking that there is still way more individual car parking on offer at my local hospital than safe cycling storage, there is very limited access to public transport to get to hospitals.'
– GP England

Health and social care related travel accounts for around 5% of total UK road travel and our research shows that the fleet is still heavily weighted towards petrol and diesel cars. While it is obviously important to reduce travel by car as much as possible, this needs to be balanced against the needs of the NHS fleet and we must explore the most practical ways of greening NHS transport.

15 NHS, 'Delivering a 'Net Zero' national health service, 2020: <https://www.england.nhs.uk/greenernhs/wp-content/uploads/sites/51/2020/10/delivering-a-net-zero-national-health-service.pdf>

16 Royal College of Nursing, 'Waste management report in the NHS, 2018 <https://www.rcn.org.uk/professional-development/publications/pdf-006683>

17 Royal College of Physicians, 'Less waste, more health' 2018: <https://www.rcplondon.ac.uk/projects/outputs/less-waste-more-health-health-professionals-guide-reducing-waste>

Assessing progress on sustainability

At the start of 2020 the BMA submitted a Freedom of Information request to every NHS trust and health board in the UK to gain a greater understanding of how they measured their carbon footprint, the composition of their vehicle fleet, their recycling or waste policies and whether they had received external funding for sustainability initiatives. The findings from our survey and this research inform the recommendations set out below.

Of the 250 trusts and health boards we contacted 218 responded, a response rate of 87%, but there was significant variation in the quality of the data that individual trusts and health boards were able to provide. Some of the findings were encouraging. Almost every trust and health board (96%) reported to us that they are taking steps to reduce their fossil fuel usage. Notable ways in which NHS trusts and health boards reported that they were taking this forward included: the installation of energy efficient lighting; procuring or producing more renewable energy; acquiring or upgrading a building management system; and the installation of solar panels. However, given the scale of the task at hand there will need to be continued, sustained and ambitious actions taken across the UK's health services – with Government support where required – to reach net zero.

Sustainability and the NHS: Recommendations for action

There are a range of policies that need be introduced to help the UK's health services reduce their carbon footprint and make them more sustainable organisations. Below we set out a series of recommendations – drawn from both our FOI research and wider research into health services' sustainability – detailing how trusts and health boards and the UK's governments can best manage the transition to a zero-carbon sustainable healthcare sector.

1 Trusts and health boards should publish consistent and detailed reporting on their carbon footprint

Knowing your impact on the environment is crucial to improving your carbon footprint. Our research suggests that there is inconsistent carbon reporting at trust and health board level. Some trusts and health boards, notably those in Scotland, were able to provide us with yearly, detailed data on their carbon footprint; ie data on direct, indirect and supply chain emissions. Most trusts and health boards were able to provide us with some data, typically on their direct emissions. Around 19% of trusts, all in England, stated that they did not record any data on their emissions. As completeness is an important principle in carbon reporting¹⁸, trusts and health boards should aim to have as detailed an understanding as possible of their carbon footprint which is reported yearly.

2 Trusts and health boards should develop and publish locally focused adaptation plans

Adaptation is an important part of combating climate change and the need for adequate adaptation plans was laid out in the Climate Change Act (2008). This is particularly true for the health service; adaptation will be vital in order to ensure that we are prepared to deal with the effects of climate change and allow services to run effectively in the future. NHSE announced that there will be an updated adaptation plan for health and social care in England published in the next few months¹⁹ and the Welsh Government published their adaptation plan for Wales last year²⁰.

18 HM Gov, 'Environmental Reporting Guidelines', 2019: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/850130/Env-reporting-guidance_inc_SECR_31March.pdf

19 NHS, 'Delivering a 'Net Zero' national health service, 2020: <https://www.england.nhs.uk/greenernhs/wp-content/uploads/sites/51/2020/10/delivering-a-net-zero-national-health-service.pdf>

20 Welsh Government, 'Prosperity for All: A Climate Conscious Wales, 2019: https://gov.wales/sites/default/files/publications/2019-11/prosperity-for-all-a-climate-conscious-wales_0.pdf

However, despite these very positive high-level reports there is equally data from the SDU in the sustainable healthcare dashboard (2019) which²¹ shows that around 30% of English trusts do not have an approved SDMP which is where adaptation plans sit. The new updated standard contract now requires trusts to publish 'Green Plans' so we hope to see this improve.

Health boards in Scotland do include adaptation plans in their reporting to the sustainable Scotland network and we would like to see something akin to this across England, Wales and Northern Ireland. Adaptation and mitigation strategies can often have beneficial overlapping consequences, green infrastructure for example can both be a source of carbon reduction and help protect against potential adverse weather conditions such as flooding or heatwaves.²²

3 All trusts and health boards should have a policy and an ambitious target to reduce single-use plastic waste and should explore and support the sterilisation of reusable medical equipment

Healthcare is a plastic-intensive sector. NHS supply chain have estimated that around a quarter of the NHS' waste in England and Wales is plastic²³. However, at the start of the year, nearly six in every 10 (57%) English trusts responding to our FOI reported having no policy to deal with single-use plastics. This is despite NHS England Plastics Pledge²⁴ and identification of plastics as a key waste stream in the Long-Term Plan. Similarly, very few trusts and health boards in the devolved nations – for example only 12% of respondents from Wales – reported that they had a policy for reducing single-use plastics.

4 UK governments should introduce a 'Clean Fleets Fund' for trusts and health boards to facilitate the electrification of vehicles fleets

Transport is a major contributor to carbon emissions. The UK Government has recently moved forward the date by which it will ban the sale of diesel, petrol and hybrid cars to 2035, they have also announced £37 million pounds of funding for research into electric transport options. However, the majority (66%) of trusts and health boards reported to us that their fleet was still over 90% diesel or petrol. There were notable exceptions – three trusts in England reporting having a 100% electric fleet – but generally the NHS fleet is still heavily weighted towards diesel and petrol vehicles. One of the main barriers to uptake of electric vehicles is the upfront cost of the necessary infrastructure, such as charging points and increasing on-site electricity capacity. The Scottish Government has provided funding through the 'switched-on fleet' initiatives to NHS health boards to address these and this has had tangible effect. Nearly 7 in every 10 (69%) health boards in Scotland – higher than in any other nation – reported having at least some electric vehicle presence in their fleet. The BMA would like to see dedicated funding in every UK nation to enable health services to electrify its vehicle fleet and a plan setting out timescales for delivery.

21 Sustainable Development Unit, Sustainable Healthcare Dashboard, 2019.

22 Welsh Government, 'Prosperity for All: A Climate Conscious Wales, 2019: https://gov.wales/sites/default/files/publications/2019-11/prosperity-for-all-a-climate-conscious-wales_0.pdf

23 NHS Providers, 'Not so fantastic plastic', 2019: <https://nhsproviders.org/news-blogs/blogs/not-so-fantastic-plastic>

24 NHS England, 'Plastics Pledge', 2019 : <https://www.england.nhs.uk/2019/09/provider-bulletin-25-september-2019/#plastics-pledge>

5 Trusts and health boards need more targeted capital funding to improve sustainability of the NHS estate²⁵

The majority of trusts or health boards (55%) who replied to our FOI request had no capital funding to improve efficiency or sustainability of their estates. Of those who had received funding, this was typically from SALIX²⁶, NEEF²⁷ or a nation-specific fund like Invest2Save²⁸ from the Welsh Government. The impressive uptake on these schemes shows that they have been successful in helping to reduce the CO2 output of NHS trusts and health boards and modelling from the SDU shows that often this can save a trust or health board money over the longer term.²⁹ We would like to see the Government and the health service commit to an annual pot of money specifically for sustainability projects. The capital maintenance backlog and the prevalence of old physical infrastructure is also an area of serious concern for UK health services. Governments must ensure that when responding to this problem, low carbon environmentally friendly building and construction are firmly prioritised.

6 Trusts and health boards must improve active travel infrastructure and support

Active travel reduces carbon emissions, lowers pollution levels and improves physical and mental wellbeing. It is estimated that for every £1 spent on active travel infrastructure, the equivalent of £19 is returned in the form of improving population health or reducing congestion, among other benefits³⁰. The increase in reliability, popularity and affordability of electric cycles should greatly improve accessibility as they make it far easier for people to start cycling. To increase the uptake of active travel, infrastructure has to be installed – this includes lockers, safe bike storage facilities, showers and changing facilities – in order for more staff and patients to consider travelling this way. Far more people are cycling as a result of the COVID-19 pandemic, it would therefore be prudent – given the numerous associated health benefits of cycling – that the NHS tries to capitalise on this increased interest. We would like to see trusts and health boards develop a 'Green Transport Plan' that sits within their SDMP. This should facilitate active travel options and ensuring health service buildings are accessible via public transport or active means of travel.

7 Where clinically appropriate, expand digital and remote capability across the whole of the health sector

In adapting to the COVID-19 pandemic the health service has seen a significant increase in the number of digital consultations, particularly in primary care, but also for hospital consultations. The main benefit of digital consultations is that they have the potential to significantly reduce health service-related travel emissions; health and social care related travel accounts for 5% of annual UK road journeys. Face-to-face consultations will remain an integral part of clinical practice but, where clinically appropriate, provision of digital consultations should be retained and expanded. This will require financial support to ensure the necessary infrastructure is in place and support for doctors to help them overcome any legal or practical barriers. Some meetings, training events, and teaching could also be delivered digitally, where this is a suitable format.

25 BMA, Sustainable and environmentally friendly general practice report – 2020: <https://www.bma.org.uk/advice-and-support/gp-practices/gp-premises/sustainable-and-environmentally-friendly-general-practice-report>

26 SALIX is an organisation funded by BEIS that offers loans to public sector organisations in England, Scotland and Wales in order to help improve energy efficiency and reduce carbon.

27 NEEF – NHS Energy Efficiency Fund was a scheme offering a loan or public dividend capital to trusts from the Department for Health and Social Care to improve energy efficiency – specifically LED lighting uptake – in England.

28 Invest to Save provides short-term funding to public service organisations to help them become more efficient and effective.

29 Sustainable Development Unit, 'Healthy Returns' 2015: <https://www.sduhealth.org.uk/delivery/engage/health-returns-infographic.aspx>

30 UKHACC, 'Moving beyond the air quality crisis', 2018: http://www.ukhealthalliance.org/wp-content/uploads/2018/10/Moving-beyond-the-Air-Quality-Crisis-4WEB-29_10-2018-final-1.pdf

8 Collaborate across the health and social care sector and ensure that environmental best practice is at the heart of healthcare systems across the UK

The NHS in England has committed to the System model as the primary platform to deliver the Long-Term Plan. We would like to see NHS England commit to an 'Environmental audit' that ensures that sustainable practices are main-streamed and are at the heart of current and new system developments and embedded within system COVID-19 recovery plans. Manchester ICS is an excellent example of how systems can deliver sustainable outcomes at scale; the system has significantly reduced its plastic usage³¹ and is working collaboratively with the Mayor's office in order to achieve an ambitious net zero target by 2038.

Opportunities for systems to think and plan locally with respect to procurement should be explored and there should be a mechanism for best practice to be shared across the sector. We would like to see the Welsh Government commit to a similar aim as a part of its new 'A Healthier Wales Action Plan'³² – combining health and social care into an integrated system affords an opportunity to make large scale improvements.

9 Empower and support staff to make sustainable choices and appoint sustainability champions

NHS staff are overwhelmingly in favour of making the NHS more sustainable. The 2017/18 SDU staff survey shows that 93% of respondents in England thought that it was important the NHS support the environment.³³ Modelling by the SDU also demonstrates that encouraging staff to act more sustainably at work by correctly sorting waste or turning off lights is an accessible and cost-effective way to reduce emissions. The Welsh Government has also previously emphasised the importance of empowering staff in response specifically to air pollution as part of its 'A clean air plan for Wales' report. However, despite this, very few trusts and health boards cited staff empowerment as a way in which they were taking steps to reduce emissions. While the most significant gains are likely to come from organisation or system-wide initiatives and reductions, staff should be seen as important partners in making health services more sustainable organisations. Trusts and health boards should consider the introduction of a 'Sustainability Champion' and consider opportunities for healthcare professionals to undertake quality improvement projects in this area.

31 HSJ, 'ICS cracks down on use of 2m pieces of plastic cutlery', 2020: <https://www.hsj.co.uk/efficiency/ics-cracks-down-on-use-of-2m-pieces-of-plastic-cutlery/7026609.article>

32 Welsh Government, 'A Healthier Wales Action Plan' 2019: <https://gov.wales/sites/default/files/publications/2019-10/a-healthier-wales-action-plan.pdf>

33 Sustainable Development Unit, Staff Survey, 2018 : <https://www.sduhealth.org.uk/areas-of-focus/leadership-engagement-and-workforce-development/engagement/staff-and-sustainability-survey.aspx>

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