

NHS England and NHS Improvement Board meetings held in common

Paper Title: A Net Zero NHS – June 2021 Progress update

Agenda item: 8 (Public Session)

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Paper type: For approval and discussion

Organisation Objective:

NHS Mandate from Government	<input checked="" type="checkbox"/>	Statutory item	<input type="checkbox"/>
NHS Long Term Plan	<input checked="" type="checkbox"/>	Governance	<input type="checkbox"/>
NHS People Plan	<input type="checkbox"/>		

Executive summary:

In the Delivering a Net Zero NHS strategy we committed to providing regular progress updates on the NHS' net zero goals.

The purpose of this paper is to provide an update on the work completed since October 2020, outline areas for future action across the Greener NHS National Programme, and lay out the timelines and milestones leading up to the UN Climate Change Summit (COP26) this November.

Action required:

The NHS England and NHS Improvement Boards are asked to:

- A) Note the progress made on delivering a net zero NHS since October 2020;
- B) Endorse forthcoming plans for staff engagement campaign and accelerated work to develop trust and local system Green Plans;
- C) Agree to review progress reducing carbon emissions and delivering net zero at the Public Board every six months.

Background

1. In October 2020, the NHS England and NHS Improvement (NHSE&I) Board, approved a new strategy commissioned by Sir Simon Stevens to tackle climate change, becoming the world's first national health service to agree net zero commitments. The announcement was met with wide-spread support ranging from clinicians and Royal Colleges in the UK through to the Director General of the World Health Organization. Set against a 1990 baseline and taking account of the full emissions profile of the NHS, two ambitious, yet feasible targets were set:

- Net zero by 2040 for the emissions we control directly (the NHS Carbon Footprint), with an 80% reduction by 2028-2032;

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- Net zero by 2045 for the emissions we can influence but don't directly control (the NHS Carbon Footprint Plus), with an 80% reduction by 2036-2039.
2. Since then, a number of other health systems have begun to follow-suit, with NHS Wales outlining a plan to support the Government's net zero targets; the development of a new net zero strategy from NHS Scotland; and the formation of new climate and healthcare units in the US, Australia, and Canada. The net zero commitment has also been well received across Government, with strong connections and offers of support from the Department for Business, Energy & Industrial Strategy, the COP26 Unit within the Cabinet Office, and the Department for Environment, Food & Rural Affairs.
 3. As set out in our net zero strategy, we will provide regular updates on progress which will include data disaggregated by Region and by System.

Progress Tackling the NHS Carbon Footprint

4. The NHS has already made good progress reducing its emissions with a number of cost-effective measures focused on anaesthetic gases, virtual appointments, and energy efficiency measures.
5. **Anaesthetic and medical gases:** Anaesthetic gases are among the single-most carbon intensive medicines available, with desflurane among the most intensive. With a global warming potential almost 20 times that of its clinically equivalent sevoflurane, the NHS Standard Contract and engagement efforts with clinicians have targeted a reduction of desflurane as a percentage of all volatile gas use by volume, from 20% in 2020/21 to 10% in 2021/22 across all NHS providers. Significant progress has been made up to April 2021, with total use at 10.3% in 2020/21 (against a baseline of 23.1% in 2018/19). Combined with a reduction in overall desflurane use seen throughout the pandemic, this represents an annualised reduction of 52.9 ktCO_{2e}, the equivalent of 192 million miles travelled in an average car. The overall use of desflurane will rise in subsequent months with an increase in elective care. The focus will need to turn to work with our key partners, including the Association of Anaesthetists and Royal College of Anaesthetists, to ensure that, as we restore services and recover elective activity, we maintain progress and address variation across the system.
6. **Virtual Appointments:** The NHS Long Term Plan set several critical priorities to support digital transformation, seeking to embed digitally enabled care across all areas of our health and social care system. These approaches have been proven and scaled during the response to the COVID-19 pandemic, with a significant proportion demonstrating sizeable carbon reductions. The transformations that technology enables will play an accelerated role in the delivery of the wider net zero agenda, reducing emissions from travel and our estate. To this end, over the last 12 months:
 - More than 22 million virtual outpatient appointments have been delivered, leading to potential carbon savings of 111 ktCO_{2e}.

- In primary care over the same amount of time, almost 137 million appointments were delivered virtually, saving an estimated 75 ktCO_{2e}.

Going forward, emissions in primary care and outpatient appointments are expected to rise somewhat, with care needed to establish a new baseline which balances the need for face-to-face and digitally-enabled interactions, increasing access and efficiency.

7. **Secondary Estate:** With over a decade of experience tackling climate change, and now equipped with a national net zero strategy, the NHS has successfully bid for over £260m in additional funding as part of the UK Government's Public Sector Decarbonisation Scheme. This funding flows directly to trusts and will be used to improve energy efficiency, including by decarbonising heating and lighting systems, improving building fabric, and the installation of solar panels. With 30 successful trusts, the scheme will lead to over £18 million in annual savings from reduced energy requirements and an estimated annual carbon saving of over 50 ktCO_{2e}¹. A breakdown of the successful bids is provided in Annex 1.
8. In addition, previously secured funding for the installation of LED lighting (£50m from the NHS Energy Efficiency Fund) will have been delivered by the end of June 2021, saving the NHS £14.3 million, and 34 ktCO_{2e} per year.
9. **Renewable Electricity:** As part of the updated 2021/22 NHS Standard Contract, trusts have been asked to purchase renewable electricity as soon as possible, with the ambition all trusts will have 100% renewable electricity supply by 1st April 2021.
10. **Non-Emergency Patient Transport Services:** The forthcoming NEPTS review, to be published in the coming months, will further support the transition to a net zero healthcare service. An extensive analytical and stakeholder engagement process will see the review provide a clear set of targets to an ultra-low emission, and eventually zero-emission non-specialist NEPTS fleet.
11. **Net Zero Ambulances:** Work on non-specialist fleets is paired with efforts to develop the world's first zero emission ambulance. Here, two of England's Ambulance Services are developing zero-emission emergency ambulances, both of which are in advanced stages of development:
 - Project ZERRO (Zero Emission Rapid Response Operations), led by London Ambulance Service, is working towards the world's first dual-fuel zero emission ambulance. This vehicle features an electric drive train with a hydrogen fuel cell to significantly extend the vehicle's range between charges. It is expected that a prototype will be ready to be showcased in November 2021 and will be subsequently trialled in service.
 - West Midlands Ambulance Service is developing a zero emissions emergency ambulance by replacing the diesel engine in a conventional vehicle with an electric drive train. Testing is underway and is due to

¹ Financial and carbon savings are based on estimated figures provided by only 25 of the successful 30 successful NHS Trusts.

conclude by the end of 2021.

The NHS 'Carbon Footprint Plus' – Supply Chain & Innovation

12. The second of the two targets is focused on our broader emissions from the NHS supply chain (our NHS Carbon Footprint Plus), with commitment to get to net zero by 2045. To this end, the net zero strategy was clear - "before the end of the decade, the NHS will no longer purchase from suppliers that do not meet or exceed our commitment to net zero". Delivering on this can only be done in collaboration with our global supply chain. At the end of April 2021 the first Sustainable Supplier Forum was held, where the draft supplier engagement strategy was presented to achieve the 2045 target, with trade bodies and major suppliers in attendance. Engagement with suppliers will continue over the summer, and ahead of COP26, NHS England and NHS Improvement will publish full details of a route to deliver on this commitment.
13. A number of the NHS' largest suppliers are already on their own paths to net zero, and many have expressed willingness to support the system's efforts. To this end, a new 'Net Zero International Leadership Group' has been formed. Chaired by Lord Prior, the group brings together the CEOs of some of our major suppliers, climate experts, business leaders, and UK's COP26 'High-Level Champion', Nigel Topping. Members include the CEOs of companies such as AstraZeneca, GSK, Biogen, Microsoft, Johnson & Johnson and Unilever, alongside leaders from the BMJ and the Health Foundation. Between now and COP26, the group will work to build support for the NHS net zero targets, with new commitments to be announced and celebrated at COP26.
14. Supplier carbon transparency will also be key to addressing supply chain emissions. Following the successful pilot with 27 suppliers last year, 500 of the NHS' largest suppliers were invited to voluntarily disclose their carbon emissions by the end of the summer – 110 have already committed to doing so.
15. Contracting will play an important role in enforcing the NHS' commitment to Net Zero, and as of the 1st April 2021, all procurement decisions made by NHS England and NHS Improvement now include a weighting for net zero and social value, supported by new Government-wide Procurement Standards, and an NHS Sustainability Impact Assessment tool.
16. Product and process innovation will also be key to reducing supply chain emissions. A new innovation competition targeting low-carbon healthcare is announced today, with successful projects planned to be announced ahead of COP26. The proposal has been developed by the National Greener NHS and Accelerated Access Collaborative teams, in collaboration with the Small Business Research Initiative (SBRI Healthcare). The SBRI Phase 1 research and innovation competition is worth up to £1 million in additional investment in low-carbon research and innovation.

1.3 Million Actions to Tackle Climate Change

17. The UN Climate Change Conference (COP26) will be hosted in Glasgow from the 1st-12th November. The run-up to a Climate Change Conference is traditionally accompanied by a series of policy announcements and funding commitments from national governments to build momentum. COP26 will bring together heads of state, climate experts and campaigners to agree coordinated action to tackle climate change. Following engagement from the NHS and other organisations, health has now been identified as a 'Flagship Action Priority' for COP26.
18. For the purposes of the NHS, it serves as a powerful convening moment when the attention of the Government and international community will be on climate change, affording an opportunity to showcase our success and leadership on a domestic and global stage. This will be a moment for the NHS to make the links between climate change and human health clear, and demonstrate international leadership with a healthy, green recovery.
19. Three key moments have been identified to ensure the NHS takes advantage of this opportunity:
 - ***Laying the foundations (June)***
The launch of the net zero strategy was closely followed by the second wave of COVID-19, placing communications to the System regarding climate change and sustainability on hold. A forthcoming letter to trust CEOs and System leaders from Ian Dodge and Dr Nick Watts outlines requirements of the system to support the NHS net zero agenda and encourages a focus on this long-term challenge. A broad suite of net zero events were hosted at NHS Confed from leaders across the health service.
 - ***Building momentum (July to September)***
A nationwide staff engagement campaign will be launched, during the week commencing mid-July, centred on the idea that all 1.3 million of our staff have something they can personally do to tackle climate change while improving their own health and the health of their patients.
 - ***COP26 & the anniversary of the 'Delivering a Net Zero NHS' report (October to November)***
These engagement efforts will culminate with a 'Greener NHS week' to mark the one-year anniversary of our net zero commitment. Combined with the annual update to the NHS England and NHS Improvement Board on the 30th of September, it will shine a spotlight on the great progress made towards net zero. These efforts will conclude in November with an exhibition at COP26, revealing some 'world-firsts' for the NHS and showcasing the support of staff, teams and regions engaged throughout the summer.

Establishing the Greener NHS National Programme & Governance

20. **System Leaders & Green Plans:** Every NHS trust and integrated care system (ICS) will be required to confirm a Board-level Net Zero Lead by 1st October 2021, and develop refreshed Green Plans by 14th January 2022. ICSs will be expected to consolidated system-wide Green Plan by 31st March 2022. These Green Plans will set out the ambition and strategy to significantly reduce carbon emissions, beyond the opportunities highlighted above, for each trust and ICS. To support this updated Green Plan Guidance has recently been published, with supporting resources focused on emissions from Estates, Medicines and Supply Chain soon to follow.
21. **Public Reporting & Analytics:** Establishing consistent baselines and tracking progress is particularly challenging given the current data flows available across the NHS. To address this, a new net zero data collection framework has now been developed, designed to allow for more granular monitoring of progress by workstream, Region, and System. In September, an overview of the carbon footprint by Region and System will be provided alongside an assessment of the impact of COVID-19 on the emissions profile of the NHS, and outlining interventions for the year to come.
22. **Regional SROs & Regional Priorities:** All Regional Directors have now nominated Senior Responsible Officers, accountable for the regional and ICS-level co-ordination, implementation, and support of the net zero programme deliverables. To support the establishment of regional Greener NHS Programme teams, new funding has been allocated across the seven regions. In addition to a small number of nationally coordinated actions on reducing carbon emissions including inhalers, anaesthetic gases, and travel and transport, each region has agreed a set of local carbon reduction priorities, building on the work and ideas of their systems, organisations, staff, and existing sustainability networks.
23. **NHS Sustainability Board & Greener NHS:** The publication of the NHS net zero strategy coincided with the formation of the NHS Sustainability Board and the Greener NHS team. Chaired by Dr Nick Watts – the first NHS Chief Sustainability Officer – the Sustainability Board convenes Directors from each priority area across NHSE&I to monitor and drive the agenda forward. The work of the NHS Sustainability Board will be supported by two new bodies – a Net Zero Health and Care Committee (bringing together senior leaders from health and healthcare Arms-Length Bodies) and the Net Zero Advisory Group (providing expert input from guidance from key healthcare stakeholders across the country). The NHS Sustainability Board’s work will be further supported by a the new Chief Sustainability Officer’s Clinical Fellow scheme, established in partnership with the Faculty of Medical Leadership and Management.