Response ID ANON-X2NJ-PQGJ-M

Submitted to **NHS Net Zero - Call for evidence**
Submitted on **2020-03-22 15:11:55**

Is this:

1 Is this:

A case study

Idea

2 Tell us about the idea you think we can implement:

Tell us about the idea you think we can implement::
Organisational change and a transition strategy are needed to accelerate the move of the NHS to a net zero greenhouse gas emission economy, to reduce emissions now and embrace commercially viable low carbon technologies and services to reduce future emissions. According to the Kings Fund the health and social care sector in England represent around 25% of government spend and around 10% of the workforce. As such, efforts to reduce the system's environmental impact and natural resource footprint will involve a significant proportion of the population. This will require top prioritisation with political and NHS champions and leaders to develop legislation and guidance that addresses the following areas:
1. Action Learning Approach
'Health' and 'sustainability' are mutually reinforcing and must involve cross-disciplinary action and participation. Action Learning approaches to enhancing health and environmental sustainability in local contexts are needed that involve collaborative partnerships between academics and practitioners e.g. in the NHS, local government, NGOs, and individuals. Sustainable Development is theoretically grounded in systems thinking and therefore more akin to socio-ecological models of health. In Nottingham City, the Primary Care Trust in partnership with Leeds University, trialled an action learning approach to Sustainable Development. In doing so commitments were made to developing knowledge-in-action, participation of practitioners as co-researchers, cycles of action & critical reflection and long-term collaborative relationships across the health system. This method developed individual & collective capacity for change. The outcomes included:
o improved collective responsibility
o carbon reduction agenda strengthened
o long-term public health agenda scrutinised for measurable outcomes
o scaling up the work to regional level
o commissioning sustainable health services as a system-wide challenge (not remit of one organization)
o full commitment to the agenda by one organisation
o resources being made available to reduce the carbon emissions of the organisation.
This was a very successful approach and should be utilised across the UK.
2. Steps that improve health today as well as in the future. For example, reducing fossil-fuel usage can improve air quality and mitigate climate change. (Ref 5. The Kings Fund 2012). Currently with Covid 19 there is decreased air, car, and public transport travel. Improvements in air quality are already being seen, as was the case in China during its 'lockdown'. Where car use is replaced with active travel then travellers also benefit from the physical activity.
3. Professional procurement and commissioning methods that incorporate carbon accounting e.g. using techniques such as life-cycle analysis in procurement processes to capture the costs associated with all stages of a product's life, from production to disposal, could help to reduce costs. Setting targets that result in the NHS only purchasing pharmaceuticals and medical supplies from organisations that are themselves carbon net zero by 2030 (with a series of interim targets on the way). Taking a whole supply chain approach to procurement will not only support a net zero transition, through looking at the total carbon cost of goods, but also encourage local procurement, local employment through Small Medium Enterprises, and will recycle money back into the local economy. which This in turn supports the health of the local population and could be focused to address inequalities.
4. Develop change management strategies and practice: Change management is needed at all levels of the NHS and Public Health. In particular commissioners need to work with academic, Local Authority and provider input in the areas of Commissioning, Procurement, Transport, Food, Estates, Nature, Energy, economists. For example; -
o get people on board with zero carbon and fine them if they fail to deliver
o Develop a network of champions through Action Learning with high level ownership and a political and legislative framework in England, Scotland, Wales and Northern Ireland.
o Incentivise – develop simple ways to incentivise change through – recognition and praise but also some practical ways e.g. a requirement to access new capital funding is a demonstration of progress on the carbon neutral goal.
5. Reduce waste and maximise value for patients: be smarter and more personalised through the use of new technologies and by understanding what actually matters to individual patients. This will reduce unnecessary demand and focus resources where it makes a real difference.
For example,
o reduce provision of treatments that are of limited clinical value;
o prevent unnecessary admissions to hospital;
o improve communication and co-ordination between different parts of the system;
o ensure that drugs are prescribed appropriately and taken as intended.
Low-carbon forms of care will become increasingly cost-effective relative to carbon-intensive alternatives because environmental costs will increasingly be reflected in the financial price paid by the NHS for energy, drugs, food and other resources.
6. Establish services that empower patients to look after their physical and mental health – both prevention of illness and improving access to personalised care and treatment will reduce unnecessary healthcare activity and will contribute to a reduction in carbon emissions. For example, social support and psychological interventions generally have a smaller carbon footprint than highly medicalised forms of care and could play a greater role in the treatment of some conditions.
7. Public health measures can have direct environmental benefits. Supporting fuel poverty initiatives and eating a healthier diet (less meat & more fruit and vegetables) can improve health while reducing our carbon footprint and can reduce demand for NHS services such as vascular surgery (Ref 5 The Kings Fund 2012) Embedding physical activity in clinical pathways and encouraging people to walk and cycle more, rather than rely on a car, has huge gains for health and

wellbeing and can reduce car dependency. There are already some initiatives on such issues as increasing physical activity e.g. Moving Medicine / Active hospitals, (PHE and Sports England) but they need scaling up.
8. Transport - promoting health while cutting carbon:
When staff, visitors or patients need to travel, enabling more walking and cycling can support significant health gains as well as cutting carbon. Regular physical activity reduces the risk of diseases such as type 2 diabetes, coronary heart disease, Alzheimers disease, depression and colon and breast cancer. Those who walk or cycle to work have reduced absenteeism, less stress and are more productive.
Ideas:
• Ebikes offer a viable alternative for commuting and business miles for many more staff and should be included in bike to work schemes.
• NHS employers should develop and implement comprehensive travel plans to incentivise and support staff, visitors and patients to make active travel and public transport the logical choice and set ambitious modal shift targets away from single occupancy cars.
• They should look to linking into and influencing local transport plans to support viable sustainable options for those travelling to and from NHS sites.
• Taking a more strategic, local approach to freight and deliveries with other local partners, could significantly reduce trips within an area, for example, combining deliveries with collections, the use of freight depots and using freight bikes as an alternative to other vehicles for smaller deliveries.
9 Energy
• Reduce energy demand in buildings: NHS organisations to be required to report to boards with projections of their energy and fuel costs over the next ten years and how they will increase energy efficiency of buildings and services, reduce energy use and change from using carbon-based energy to renewables, increase carbon capture and storage. Examples of easy ways of reducing energy use are improving building design, turning radiators off when windows are open, and better use of technology as an alternative to travel.
• Renewable energy. Switching to a renewable energy provider will help the NHS reach net zero but also utilise the economic power of the NHS to further the transition of England to renewable energy. Sheffield Teaching Hospitals have recently taken advantage of the end of their energy contract to switch to a renewable provider. It is important that the NHS leads by example and supports this transition.
10 Carbon Capture -
• NHS Forest: Land use to include more growing of trees, other natural habitats and food (Ref 10. Centre for Sustainable Healthcare). The NHS could make a UK commitment with the Woodland Trust to 'Forrest' all NHS estate currently not in active use and utilise local expertise e.g. through http://nhsforest.org/ in England. Access to nature and green spaces is also beneficial for health and wellbeing.
• Food: Dietary guidelines for healthy food also support carbon reductions. Global greenhouse gas emissions from meat and dairy are significant, whereas the CO2 emissions from most plant-based products, are as much as 10 -50 times lower than most animal-based products. The UK public service catering provision is responsible for nearly £2.5 billion annually. Reducing the amount of red meat, in particular, across the NHS, would have an impact on both greenhouse gas emissions but also health. In common with some local authorities, the NHS could encourage trusts to have a vegetarian only day once a month or more frequently for staff and/or patient meals. Or adopt the balanced scorecard measure of sustainability within food procurement. More local sourcing of food could also reduce the carbon footprint and support local producers, although the impact on greenhouse gas emissions is small compared to the importance of food type.
11 NHS workforce as citizens: Improve carbon literacy through individual carbon footprint calculators at work and include carbon equivalent calculations and action plans in departmental performance reviews. Encourage individual leadership on sustainability across the NHS.
12 The NHS as a leader: By setting an example and altering procurement patterns, the NHS can send a clear message to partners and the public that there is a need for change. The NHS has a key role to play in framing climate change as a health emergency and the urgency for everyone to take action, and communicating this to staff, patients, visitors and the wider public

3 Is the idea already happening somewhere in the NHS or outside NHS?

Both

Where can we find out more? (For example contact details, webpage etc)::
1. Greta Thunberg "No one is too small to make a difference" 2019
2. Dept for BEIS https://www.gov.uk/government/news/uk-becomes-first-major-economy-to-pass-net-zero-emissions-law accessed 18/3/2020
3. World Health Organisation "Health and climate change" 2018 https://www.who.int/news-room/facts-in-pictures/detail/health-and-climate-change Accessed 1/9/2019
4. The Intergovernmental Panel on Climate Change (IPCC) "Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty" - Headline Statements from the Summary for Policymakers. October 2018
https://www.ipcc.ch/site/assets/uploads/sites/2/2019/06/SR15_Headline-statements.pdf accessed 29/8/2019
5. The Kings Fund – "What if the NHS were to go carbon neutral?" "Sustainable Health and Social Care Connecting environmental and financial performance" 2012 https://www.kingsfund.org.uk/reports/thenhsif/what-if-carbon-neutral-nhs/ accessed 21/8/19
6. Sustainable Development Unit - Public Health England and NHS England "Reducing the use of natural resources in health and social care 2018 report" Accessed 21/8/2019
https://www.sduhealth.org.uk/policy-strategy/reporting/natural-resource-footprint-2018.aspx
7. Sustainable Development Unit – Public Health England & NHS England Low carbon travel, transport and access Accessed 16 September 2019
https://www.sduhealth.org.uk/areas-of-focus/carbon-hotspots/travel.aspx
8. Sustainable Development Unit - Public Health England and NHS England – Sustainable Development in the Health and Care System Health Check 2018
https://www.ecosia.org/search?q=Sustainable+Development+in+the+Health+and+Care+System+Health+Check+2018 Accessed 29/8/19
9. Sustainable Development Unit - Public Health England and NHS England "Carbon Footprint update for NHS in England 2015" January 2016
https://www.sduhealth.org.uk/policy-strategy/reporting/nhs-carbon-footprint.aspx Accessed 1/9/2019
10. Centre for Sustainable Healthcare NHS Forest - http://nhsforest.org/ Accessed 1/9/2019
11. Sustainable Development Unit- Public Health England and NHS England "Achieving a reduction in Carbon Equivalent emissions in the NHS: Cutting Carbon Cuts Costs" June 2015
12.
https://www.sduhealth.org.uk/search/resources.aspx?q=east+midlands+nhs+carbon+reduction+project&zoom_query=east+midlands+nhs+carbon+reduction+project accessed 21/8/2019

4 Upload any supporting documents here:

Upload any supporting documents here::
East_Midlands_NHS_Carbon_Reduction_Project_-_SUMMARY_REPORT.pdf was uploaded

5 What is the potential impact of this idea?

Carbon reduction, Air pollution impacts, Plastics impacts, Waste/water reduction, Other greening of the NHS

Other::

6 Would you like to submit another idea/case study/research or something else?

Yes

Case study

7 Tell us about the case study:

Tell us about the case study:
The East Midlands NHS Carbon Reduction project innovation pilots; - Energy in Buildings, Procurement, NHS Forest, Food, Electric Vehicle, Care Homes and Procurement.

Any information you have on what the impact has been and costs.
These innovation pilots delivered: -
• a minimum of 2,556 tonnes of Carbon Dioxide equivalent savings for at least one year and annually in some instances, with the potential for much more if scaled up across the NHS and implemented in full utilising the technologies available.
• Financial Savings: The project demonstrated that initiatives that save carbon equivalent emissions can also result in financial savings. The pilots alone were estimated to save between £1.5 and £1.6 million.
1. Health and Wellbeing: As carbon emissions damage health, all pilots in Phases 2 and 3 achieve wellbeing improvements by reducing carbon equivalent emissions. Other, more immediate health and wellbeing improvements were also made (Ref 11: Sustainable Development Unit 2015).

8 Is this in the NHS or outside of the NHS?

Both

Where can we find out more? (for example contact details, webpage etc)::
https://www.sduhealth.org.uk/search/resources.aspx?q=east+midlands&zoom_query=east+midlands

hzross2@myphone.coop

9 Please upload any supporting documents here:

Upload any supporting documents here :
East_Midlands_NHS_Carbon_Reduction_Project_-_FULL_REPORT.pdf was uploaded

10 What has the impact of this case study been?

Carbon reduction, Air pollution impacts, Other greening of the NHS

Other::

11 Would you like to submit another idea/case study/research or something else?

No

Research

12 Tell us about the research and how this can help make the NHS greener:

Tell us about the research and how this can help make the NHS greener::
A Net Zero NHS by 2030

“Sometimes we just simply have to find a way. The moment we decide to fulfil something, we can do anything. And I am sure that the moment we start behaving as if we were in an emergency, we can avoid climate and ecological catastrophe. Humans are very adaptable: we can still fix this. But the opportunity to do so will not last for long. We must start today. We have no more excuses.”
Ref 1. Greta Thunberg “No one is too small to make a difference” 2019

The Faculty of Public Health Sustainable Development Special Interest Group (SD SIG) commends the NHS for already significantly reducing emissions, but is aware that the actions being taken need to be properly resourced, scaled up and accelerated in order to avert climate change on a scale that will endanger the health of the population, not just in the UK, but around the world.

It is vital that the NHS acts upon the call for evidence, case studies, data, ideas and research through the 'For a greener NHS' programme, not just to enhance existing knowledge, but to further reduce Health Service emissions at scale. The actions need to be embedded into the way that health services are commissioned and provided. Staff from every field of healthcare need to play their part. The NHS, through its key anchor institution role, has significant economic power it can leverage to enable change. The NHS is often the largest employer in an area and touches on the lives of many, many more. It has a pivotal role to play in providing leadership and vision to inspire change.

1. Action Learning Approach
This proposal is for 4 Universities to develop action learning sets with 6 Health organisations each at Commissioning and provider levels in each of the 4 countries of the UK to agree action plans for meeting the targets of the respective countries and report to the Faculty of Public Health and UK Health Alliance on Climate Change with a view to rolling out the learning throughout the UK.

This is because 'Health' and 'sustainability' are mutually reinforcing and must involve cross-disciplinary action and participation. Action Learning approaches to enhancing health and environmental sustainability in local contexts are needed, that involve collaborative partnerships between academics and practitioners e.g. in the NHS, local government, NGOs, and individuals. Sustainable Development is theoretically grounded in systems thinking and therefore more akin to socio-ecological models of health. In Nottingham City, the Primary Care Trust in partnership with Leeds University, trialled an action learning approach to Sustainable Development. In doing so commitments were made to developing knowledge-in-action, participation of practitioners as co-researchers, cycles of action & critical reflection and long-term collaborative relationships across the health system. This method developed individual & collective capacity for change. The outcomes included:
• improved collective responsibility
• carbon reduction agenda strengthened
• long-term public health agenda scrutinised for measurable outcomes
• scaling up the work to regional level
• commissioning sustainable health services as a system-wide challenge (not remit of one organization)
• full commitment to the agenda by one organisation
• resources being made available to reduce the carbon emissions of the organisation.

This was a very successful approach resourced through the NHS Innovation Fund and should be utilised across the UK.

2 A research body could set up systems now to capture the learning from the reduction in patient and staff trips due to Covid-19. There will be lots of innovation happening and this gives us an opportunity to gain something beneficial from a serious worldwide health issue to capture what works well and what doesn't.

NHS staff themselves are unlikely to have capacity to do this sort of research but perhaps an academic body or the SDU might be interested in setting something up in a sensitive manner.

3 Travel:
The NHS transport fleet will replace petrol and diesel vehicles with electric or other alternative fuelled vehicles by 2023 (England). Fossil fuelled vehicles will be banned from NHS premises by 2024 (England). The Programme for Government in Scotland will decarbonise the public sector fleet (small/medium) by 2025 (and the whole fleet by 2030). This will help to push the wider transport system in the right direction. Research will be needed both to examine the impact of these changes and to find ways of making advances in the use of fuels such as hydrogen.

4 Research programmes:
The FPH SD SIG in conjunction with the National Institute for Health Research (NIHR) held 2 workshops – one in London and one in Glasgow. Although this consultation relates only to England, the Scottish experience can inform research across the UK.
A summary of Key "Take Home" Messages and Questions are included here:

1. Both UK and Scottish Governments have committed to net zero carbon emissions. This is now a given rather than an option. We need to get radical. Changing to net zero requires industrial de-carbonisation, a policy shift and engagement with the wider community to find out what the key challenges are. Public Health has a key role to play in this work, especially in engaging the community and informing policy makers about the health benefits of the forthcoming changes.
2. We work within complex, living systems that are unpredictable & difficult to change. The Mental Model Challenges provides a way of understanding the challenges to change which can be applied to Public Health and Climate Change.
3. We need to develop research that helps us to prevent catastrophic climate change which would affect the poorest first, adding to injustice. Whole system change is needed requiring a paradigm shift. The cost benefit analysis is a no brainer. This opportunity for Public Health can only be tackled in a robust manner through a partnership approach leading to practical action.
4. NIHR Evaluation, Trials & Studies Coordinating Centre (NETSCC)funds 4 main programmes which, together spend approximately: £100 million pa on research.
5. The impacts of public health interventions are often complex and wide-reaching. Studies should acknowledge this by adopting a broad perspective, taking account of costs and benefits to all relevant sectors of society. - An appropriate health, economic and environmental analysis to inform a whole cost effectiveness, affordability or return on investment should be included.
6. https://phinder.ning.com – connects public health practice with research tweet @researchphinder
7. Planetary health does not sit in isolation. There is no human health without planetary health
8. Public Health Scotland will create new and ambitious leadership for public health research, innovation and applied evidence through The Scottish Public Health Evidence, Research and Innovation for Action (SPHERIA) Hub in order to meet the complex challenges confronting health systems in the 21st century. An engagement hub facilitates research being translated into practice.
9. All aspects of research need to support a massive change to address the causes and effects of climate change.
10. A systems approach is needed: Patient pathways to be developed -including health and sustainability co-benefits -to meet net zero carbon emissions targets.

11. Scotland has declared a climate emergency –environmental priorities to be at the centre of the Public Health Framework.

Key Questions
How will the Government targets for net zero carbon by 2045 and 2050 affect and change the direction of research funding programmes?
How do you change people's behaviour as you live, move and consume to deliver the triple win of health and wellbeing, sustainability and equity? (sustainable development goals).
How can research programmes:
• engender true interdisciplinary efforts to secure health equity and a sustainable planet for human health to flourish?
• embed an environmental conceptualisation of public health going forward that addresses the causes and effects of climate change?
• help navigate complexity to produce coherent answerable research questions that simultaneously improve health, health equity and sustainability? Use of complexity and social models with a return to making the environment at the heart of Public Health.
• Apply cost benefit analysis to environment and equity as well as health and £. e.g. Water management in Lanarkshire to avoid downstream flooding.
How does the NHS need to change to deliver health services in a way that meets net zero carbon emissions?
What would Lancet EAT diet look like in Scotland (with local food)? –What is a sustainable diet in Scotland?
How can we implement active travel rather than research the benefits?
How can we shift staff from being stuck into carbon intensive commuting patterns into active travel and public transport patterns?

5 Research needed into;
• realistic Public Health consequences of climate inaction – what narratives are needed to motivate politicians?
• Showing how public health policies are also good for addressing climate change.
• Credible evidenced narrative about the realistic consequences of climate change.
• Piloting climate positive practice e.g. reduce meat/animal products.
• A systems approach to tackle climate change and health.
• Developing patient pathways -including health and sustainability co-benefits -to meet net zero carbon emissions targets
• including environmental priorities at the centre of the Public Health Framework.
• Applying cost benefit analysis to environment and equity as well as health and financial costs. e.g. water management in Lanarkshire to avoid downstream flooding.
• Creating a positive vision. Nature based solution.
• Alternatives to GDP that better reflect wellbeing and a good environment.
• What motivates the decision makers? Narratives for immediate benefits?
• Subtle changes to make positive public health and climate choices easy
• Primary aim – How to make the world a better place –i.e. have climate change as a by-product.
• Cash strapped NHS: pilot ideas that better for patients, better for environment –cheaper alternatives e.g. less meat in hospital food, reusable equipment.

13 Where can we find out more about the research?

Where can we find out more about the research?:
No1 Helen Ross – chair of the FPH SD SIG – hzross2@myphone.coop

No 2 Ruth Gelletlie - ruth.gelletlie@gmail.com

No 4 - FPH SD SIG web page -
https://www.fph.org.uk/media/2793/building-sustainability-into-uk-public-health-research-workshop-scotland-report-final-no-emails-2.pdf

14 Please upload any supporting documents here:

Please upload any supporting documents here::
No file was uploaded

15 What does the research focus on?

Carbon reduction, Air pollution impacts, Plastics impacts, Waste/water reduction, Other greening of the NHS (please specify below)

Other::
Planting trees and plants and green and blue spaces that increase biodiversity and help to reduce carbon emissions in all NHS premises

16 Would you like to submit another idea/case study/research or something else?

Yes

About you

20 Your name:

Your name::
Helen Ross

21 Email address/contact information:

Email address::
hzross2@myphone.coop

Contact information::
Helen Ross
Faculty of Public Health
Chair - Sustainable Development Special Interest Group

Telephone - 07890 397 924

22 Primary organisation(s):

Primary organisation(s) :
Faculty of Public Health

23 Primary area(s) of expertise:

NHS staff -Primary Care, NHS Staff – Regional/National, Sustainability expert

Other::