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Background to the Sustainable Development Unit

The Sustainable Development Unit (SDU) was formed in 2008 to further understand the implications of the UK Climate Change Act (2008) for the NHS (government funded healthcare services in England). Initially the focus was on the NHS contribution to carbon emissions and therefore climate change. The remit has broadened out in two ways. Firstly, to include all government funded health and care services. Secondly, in terms of scope, this now includes adaptation to climate change, climate change impacts on use of health services, use of finite resources and health impacts of air pollution from health services. The SDU is contributing in many ways as a leader on climate change in healthcare globally[1].

Climate change is a health issue as it creates unavoidable risks to human health[2]. The economic evidence is clear that delaying action on climate change would be both dangerous and costly[3]. Responding effectively has many strands which are also interlinked. Therefore, the SDU has taken a systems thinking approach to climate change and its implications. Both risks to population health and demand for services are likely to increase with increasing climate change, some of these impacts are identified and quantified[4] while others have not been identified or quantified. Building resilience (or adaptive capacity) for unknown risks will be needed alongside adapting to known impacts to health.

The health sector also contributes to climate change through services, the goods and services to health providers and the potent greenhouse gases used for some treatments. The Lancet described in 2009 as "the biggest global health threat of the 21st century"[5] and revisited in 2015 as the "the greatest opportunity for global health"[6]. Grasping this opportunity will include mitigating emissions by the health sector in addition to building resilience for both the health sector and population.

We have grouped the questions and our response into five sections to align with the approach we have taken in the UK.

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1. Establish current knowledge on the implications of climate change for health in Western Australia (WA) and recommend a framework for evaluating future implications.
2. Identify and recommend a program of work to manage the implications of climate change for health in WA, which will protect the public from the harmful health impacts of climate change.
8. Recommend the Terms of Reference, scope and preferred methods for undertaking a climate change vulnerability assessment for the health sector.

Resilience, Adaptation and Recovery are interdependent and form a continuum of requirements which includes health services being aware of and able to support vulnerable populations and people. The implications of climate change on health will depend upon the ability of individuals and health systems to respond well to climate change. The UK Climate Change Risk Assessment highlights the population health risks from expected climate change[7]. This analysis builds upon the international impacts as collated by the IPCC[8].

Accountability is already increasing with the Environmental Audit Committee of UK government currently conducting a public inquiry into Planetary Health (2018)[9]. Aligning to these existing frameworks and approaches would capture existing understanding on the impacts and approaches.

3. Identify and recommend a program of work to manage the implications of climate change for health in WA, which will strengthen the preparedness and resilience of communities and health services against extreme weather events, with a focus on the most vulnerable in the community.
9. Recommend the Terms of Reference, scope and preferred methods for developing a Climate Change Adaptation Plan for the health sector.

We collated the first system wide ARP in 2015[10] and are doing the same again this year. System wide engagement means this includes not just surveillance and population health but also how services are adapting (or not) to climate change risks. A similar format could be used as a framework for evaluating future implications in Western Australia.

For example, in the UK we're reviewing the resilience and adaptation to the existing estate and services. One of the key risks identified is overheating so we have much to learn from countries like yourselves. As hospitals often care for vulnerable populations such as the elderly then preventing overheating becomes a health issue, not just an environmental issue.

4. Identify and recommend a program of work to manage the implications of climate change for health in WA, which will reduce the contribution of WA health services to climate change and other detrimental impacts.
5. Identify and recommend a program of work to manage the implications of climate change for health in WA, which will enable WA Health services to implement change, including energy efficiency, to a more sustainable model.

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We set out the first health system footprint that we have been tracking and modelling the change required over the years. The first set relates to the Carbon Reduction Strategy 2009[11] and the latest to the Natural Resources Footprint[12]. The Sustainable Development Strategy 2014[13] incorporated adaptation, broader opportunities for sustainable development, building social value and improving health now and for future generations.

Four key actions were identified early on as drivers for understanding and action in the health care sector: Plan, Monitor, Evaluate and Engage[14]. The specific plans, measures, priorities and stakeholder groups are then dependent on organisation, activities and potential opportunities. Specific health related opportunities have also been identified in: air pollution and travel, single use plastics, carbon, waste and water. Action has been enshrined in the NHS Long Term Plan, outlining the policy direction for the next 10 years (see DoH role later).

6. Evaluate the likely benefits (health and wellbeing, social and economic) arising from climate change mitigation strategies, with a focus on WA health services.

For individual hospitals and other health care organisations the financial case for action is clear following research such as Healthy Returns[15] and Securing Healthy Returns[16].

Through these reports and processes we have modelled the monetary savings[17] from reducing carbon emissions, the health benefits[18] as well as the scale of action needed[19]. Experience from the UK suggests short term direct financial savings are often prioritised over the full costing of changes in service provision or supply of goods and services. The full costs include health benefits, resilience or climate change costs. We have therefore worked with the pharmaceuticals and medical instruments sector to develop carbon footprinting guidance for service delivery pathways[20] to evaluate the carbon emissions from changes to service delivery. Similarly, healthcare products such as pharmaceuticals and medical devices[21] have their own guidance for carbon and resource use. These guides make the environmental impacts available to include in the evaluation of services both in the UK and internationally.

7. Define the role of the Department of Health in leading public policy on climate change and health.

As identified in the 'wedges'[22], there's a long way to go for the health sector to reduce carbon emissions in line with the international agreement of a 1.5-degree trajectory. The analysis identifies the contribution from various actions by government, the health sector and internationally. Policy work to define the scale of change is needed if government departments are going to lead public policy on climate change and health.

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Based on this analysis the Long Term Plan (LTP)[23] commits the NHS to a trajectory of carbon emissions reductions and to deliver care closer to home, with the proposed primary care networks and digitalised care[24]. The largest single contribution to reducing health and care sector emissions is through reducing the need for health services. The personalised care approach outlined in the strategy reduces inequalities and individuals are supported through their own unique circumstances, which reduces unnecessary treatment.

The LTP also includes commitments on air pollution, single use plastics, waste and water. Reductions in these areas have co-benefits for both health and climate change. Highlighting direct health benefits and co-benefits can be used to strengthen action in the health sector.

Clear and substantial shifts are required if the health and care system is to meet future carbon reduction targets. Greening the health sector as part of demonstrating leadership and the importance of the agenda to health. This also links into zero carbon products and economy so health policy can also play it's wider part in this shift. The policy landscape will only support mitigation if financial savings such as those identified in Healthy Returns[25] and Securing Healthy Returns[26] are clear and available for organisations working in health and care.

Visioning a sustainable health and care system in 2030 requires engagement with stakeholders, for example using the Route Map to Sustainable Health[27]. These dimensions of a sustainable health and care sector are cross-cutting and not dependent on the organisational structures.

Enabling everyone to take action – at a citizen level, health professional level (e.g. change of prescribing practice) and for patients too (to support circular economy concepts) – There has been a lot of work over time to support changes in practice with clinicians and other health professionals (e.g. finance managers, GPs etc). For example, nursing staff improving patient environments while saving energy – operation TLC[28] or improving air quality around hospitals[29]. Reducing waste has promoted a whole lifecycle and circular economy approach including this summary for clinicians[30]. We have worked to encourage an evidence base of case studies. These flagship projects, such as installing solar panels or clear reductions in single use plastics are there to overcome the impression that Climate Change is too difficult[31].

Accountability has been invaluable in supporting the agenda with the public scrutiny of the Environmental Audit Committee for Sustainability in the NHS (2015)[32]. Given the context of advancing international agreements it is likely that both national and international accountability for climate change action will increase.

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