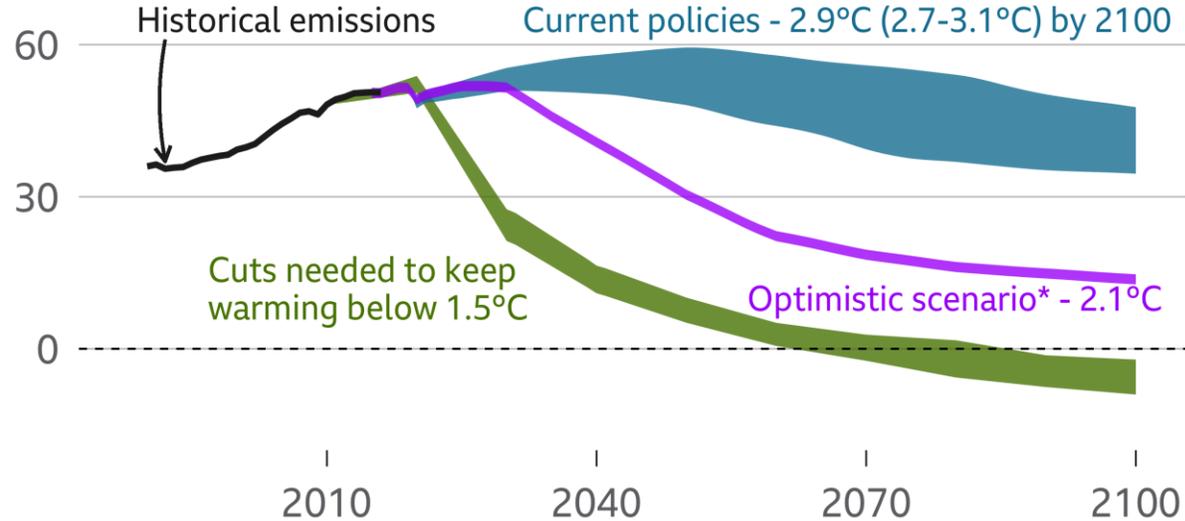


Principles and value of decarbonizing the health sector

Greenhouse gas emissions projections

Gigatonnes of global CO₂ equivalent emissions per year



*Based on new long term promises by China, US, EU and others

Source: Climate Action Tracker

BBC



Centre on
Climate Change &
Planetary Health

Andy Haines

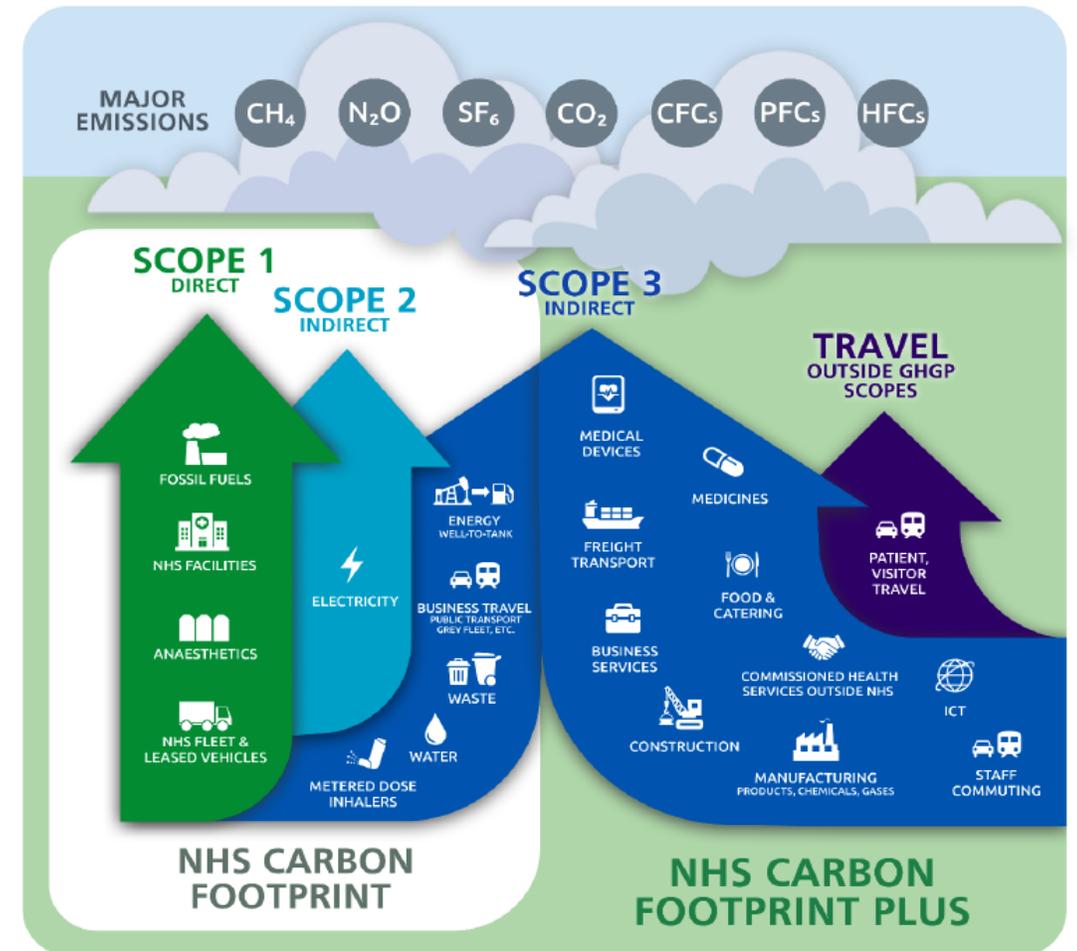


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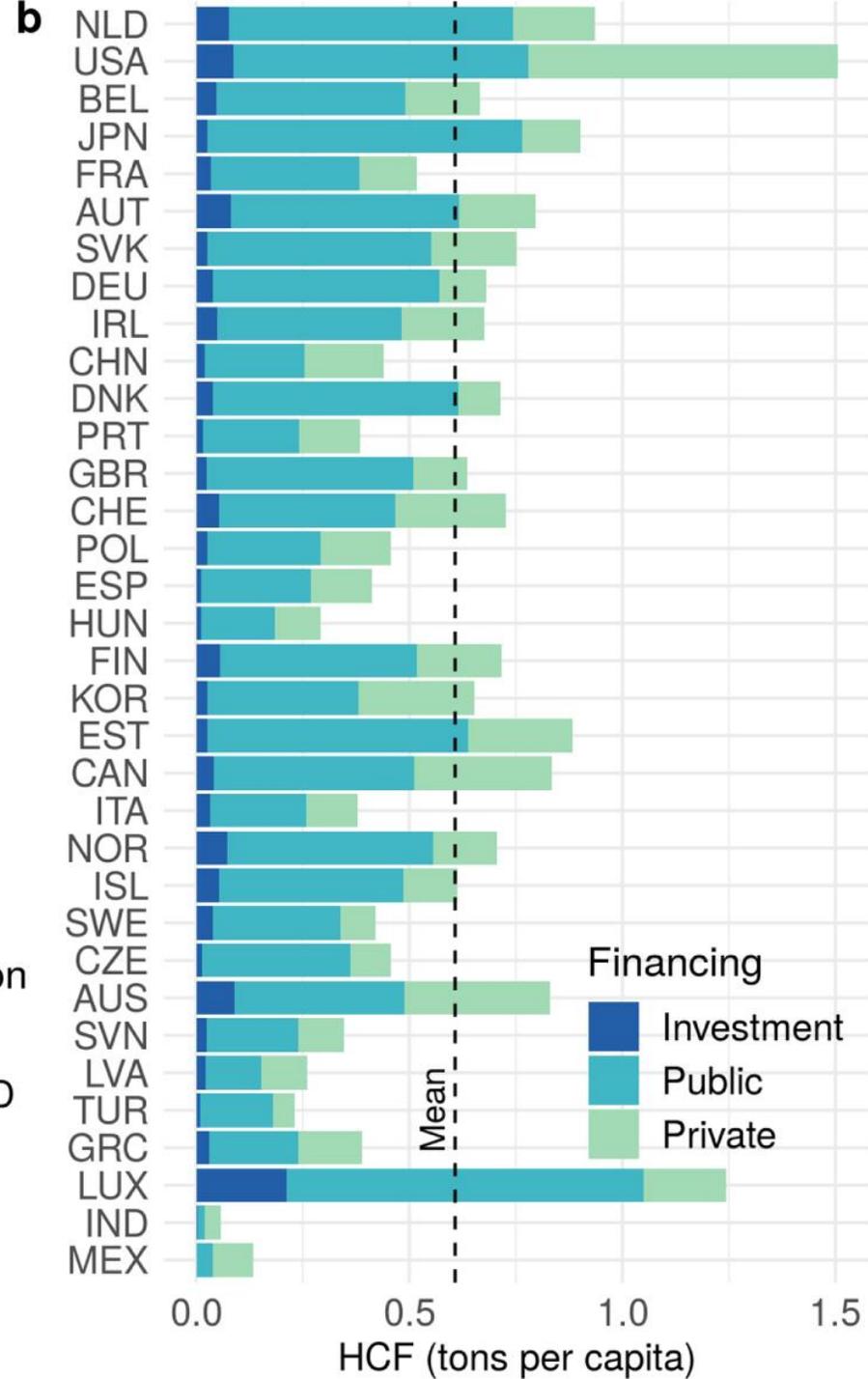
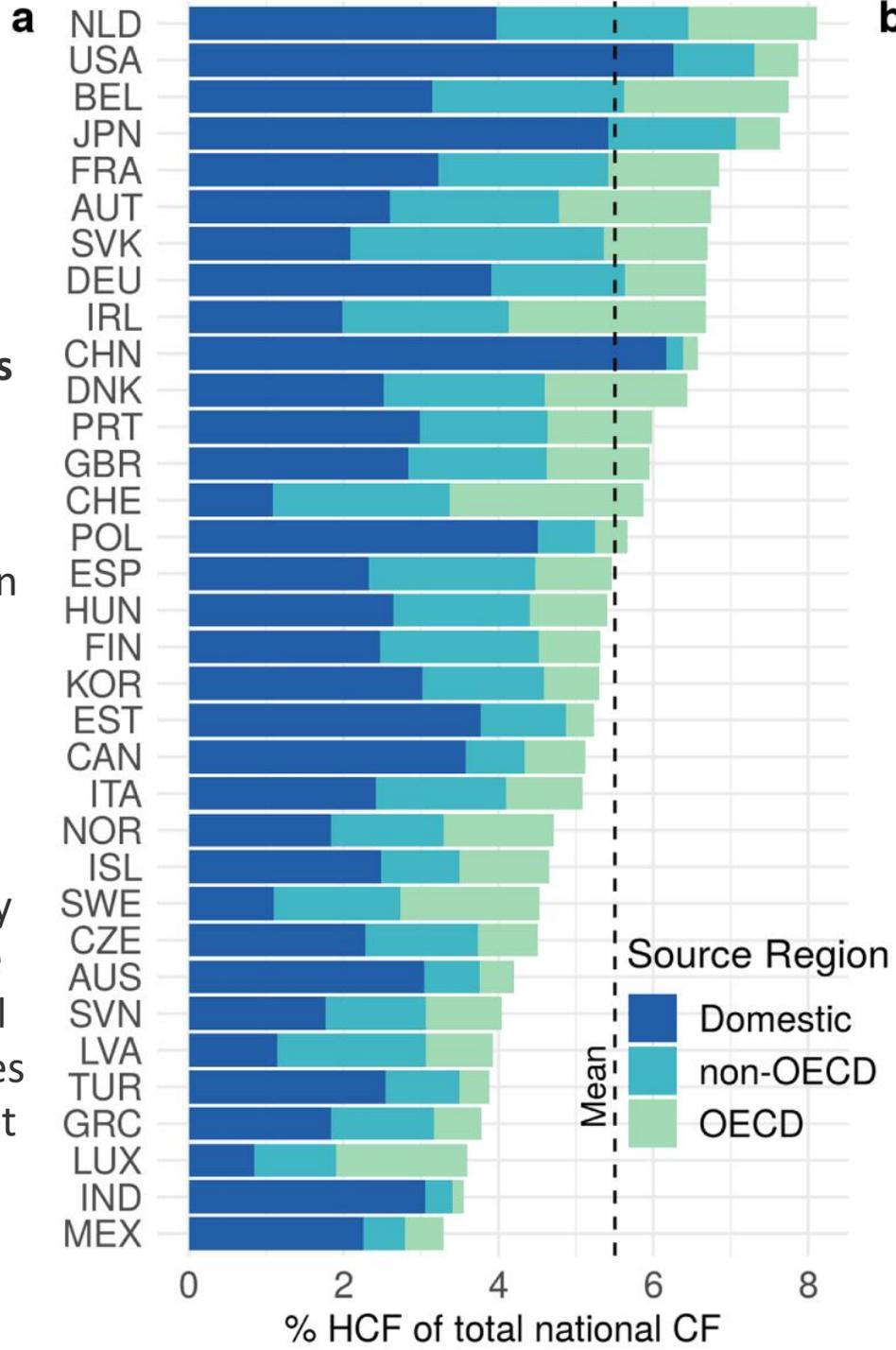
Reducing the carbon emissions from health care



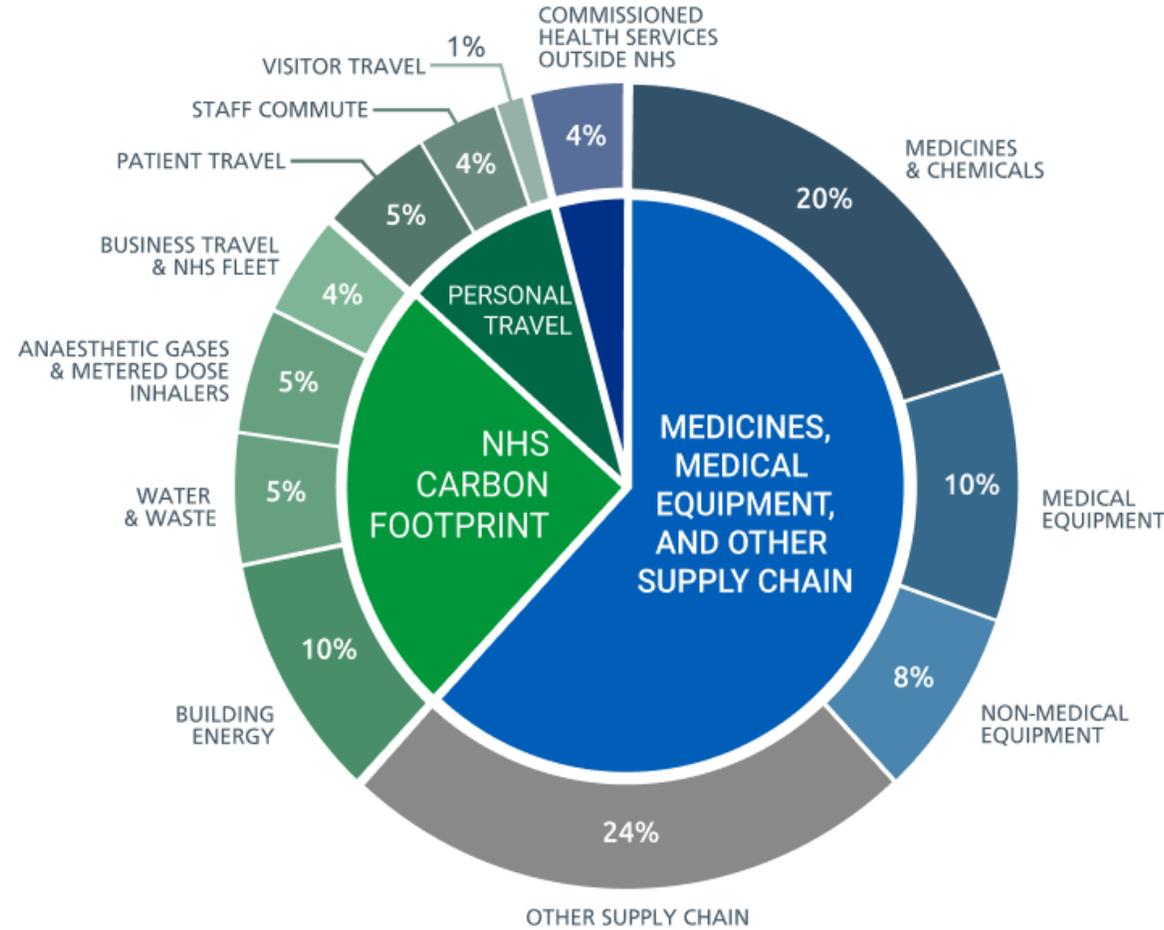
Figure 1: GHGP scopes in the context of the NHS



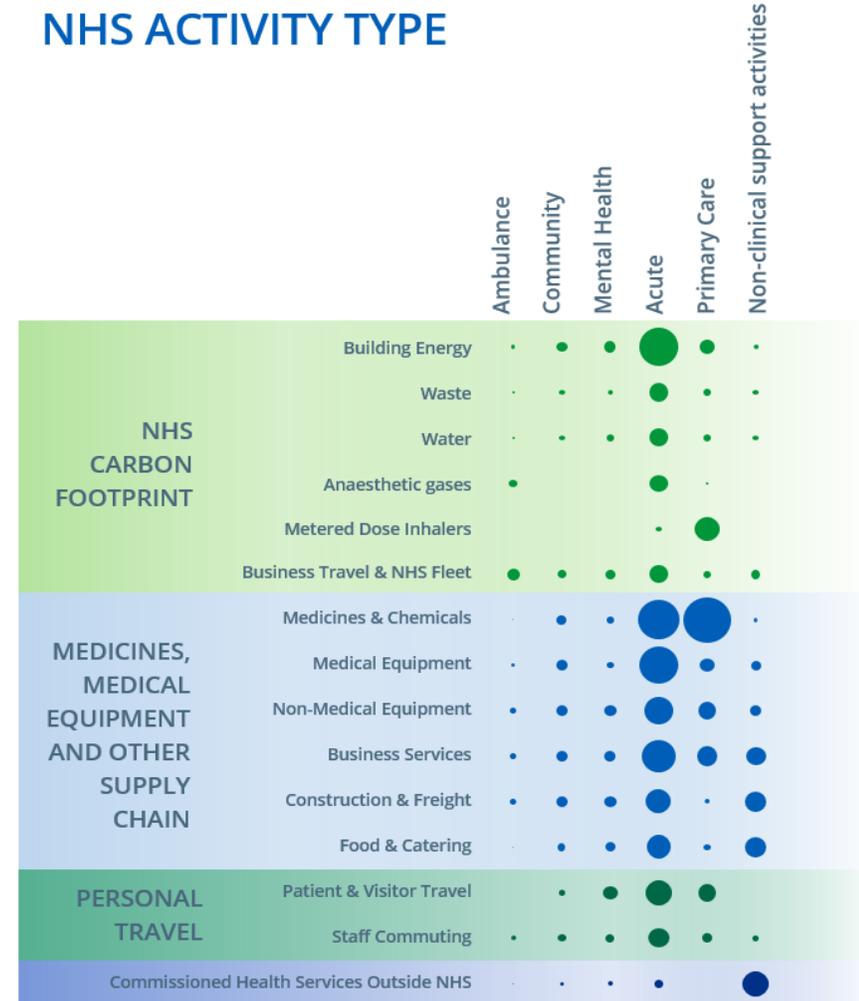
Health carbon footprint (HCF) as percentage of national carbon footprint (CF) grouped by region where the emissions occurred (a) and health carbon footprint per capita grouped by financing scheme (b) in 2014, for all available countries in 2014. (Pichler et al ERL 2019)



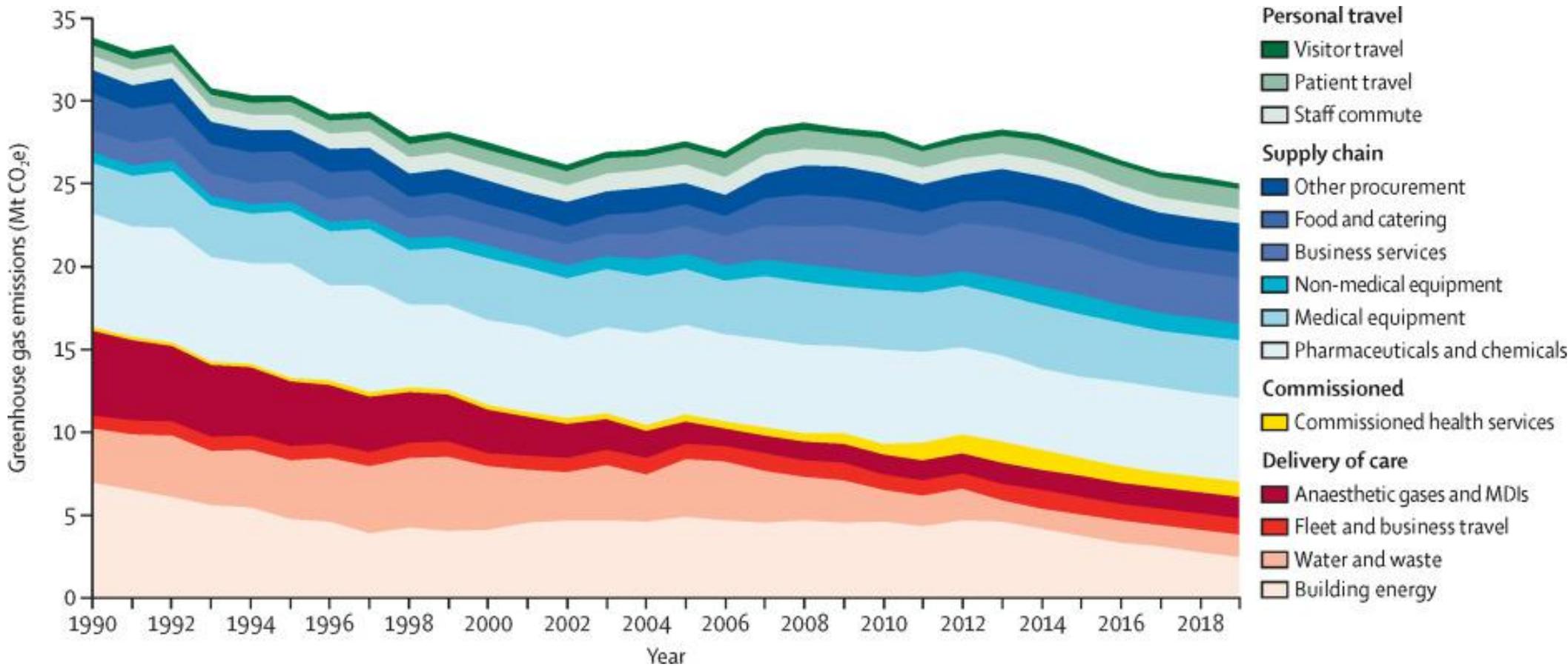
The Carbon Footprint of the NHS --NHS England commits to net zero by 2040 for direct emissions and by 2045 for indirect emissions

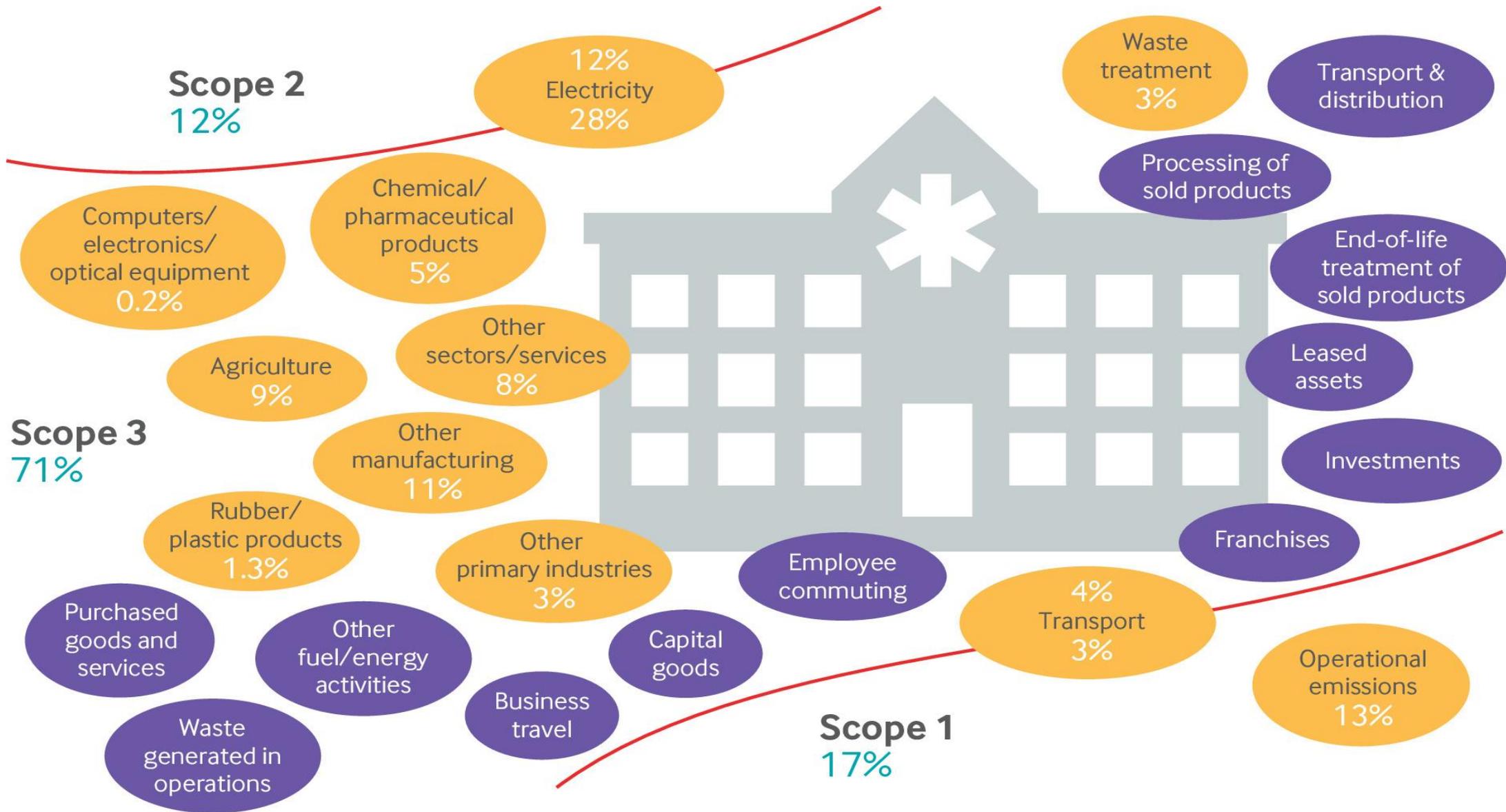


NHS ACTIVITY TYPE



‘In 2019, the NHS emissions totalled 25 megatonnes CO₂e, a reduction of 26% since 1990, and a decrease of 64% in the emissions per inpatient finished admission episode.’ (Tennison et al Lancet Planetary Health 2020)





Many components of scope 3 are “unmeasured” and are not fully captured in the 71% of total emissions. These are depicted in purple.

Public support

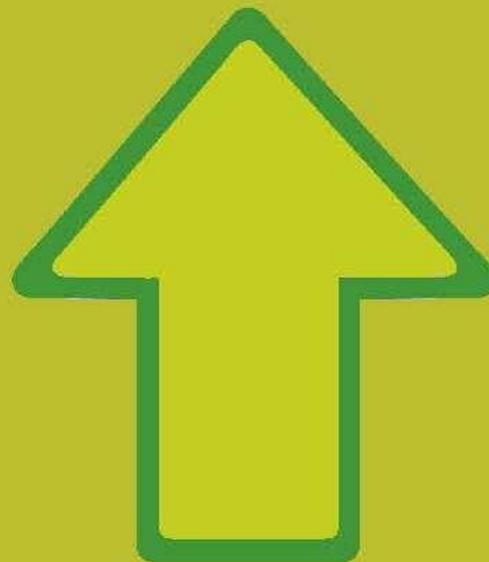
92%



89%

92% of the public think it is important for the health system to work in a more sustainable way – (was 92% 2011, 89% 2013)

43%



36%

43% of the public said that the health system should act in a more sustainable way even if there is a cost involved – (was 33% 2011, 36% 2013)

25%



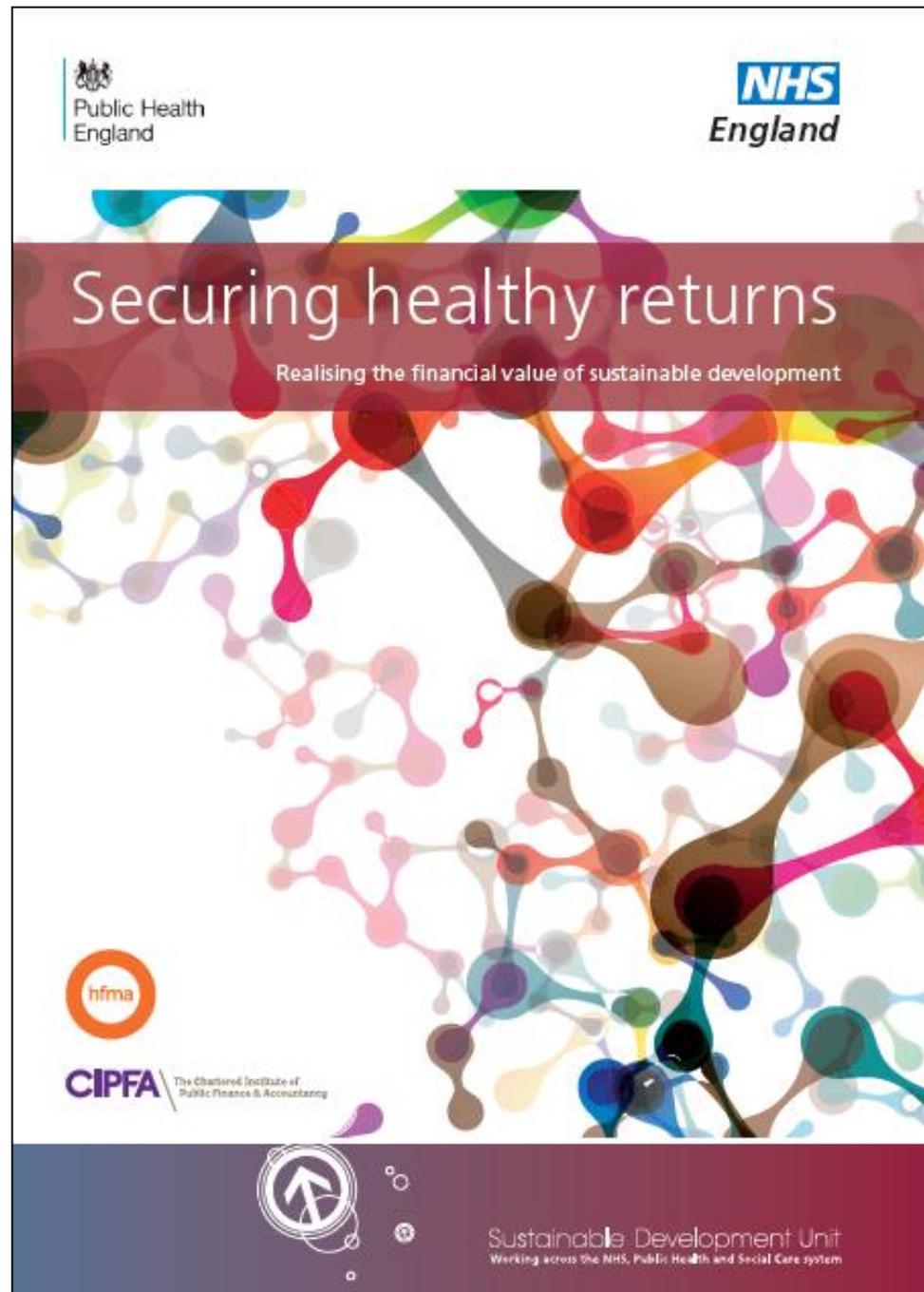
19%

25% of the public felt that sustainability should be a top priority – (was 19% 2011, 19% 2013)

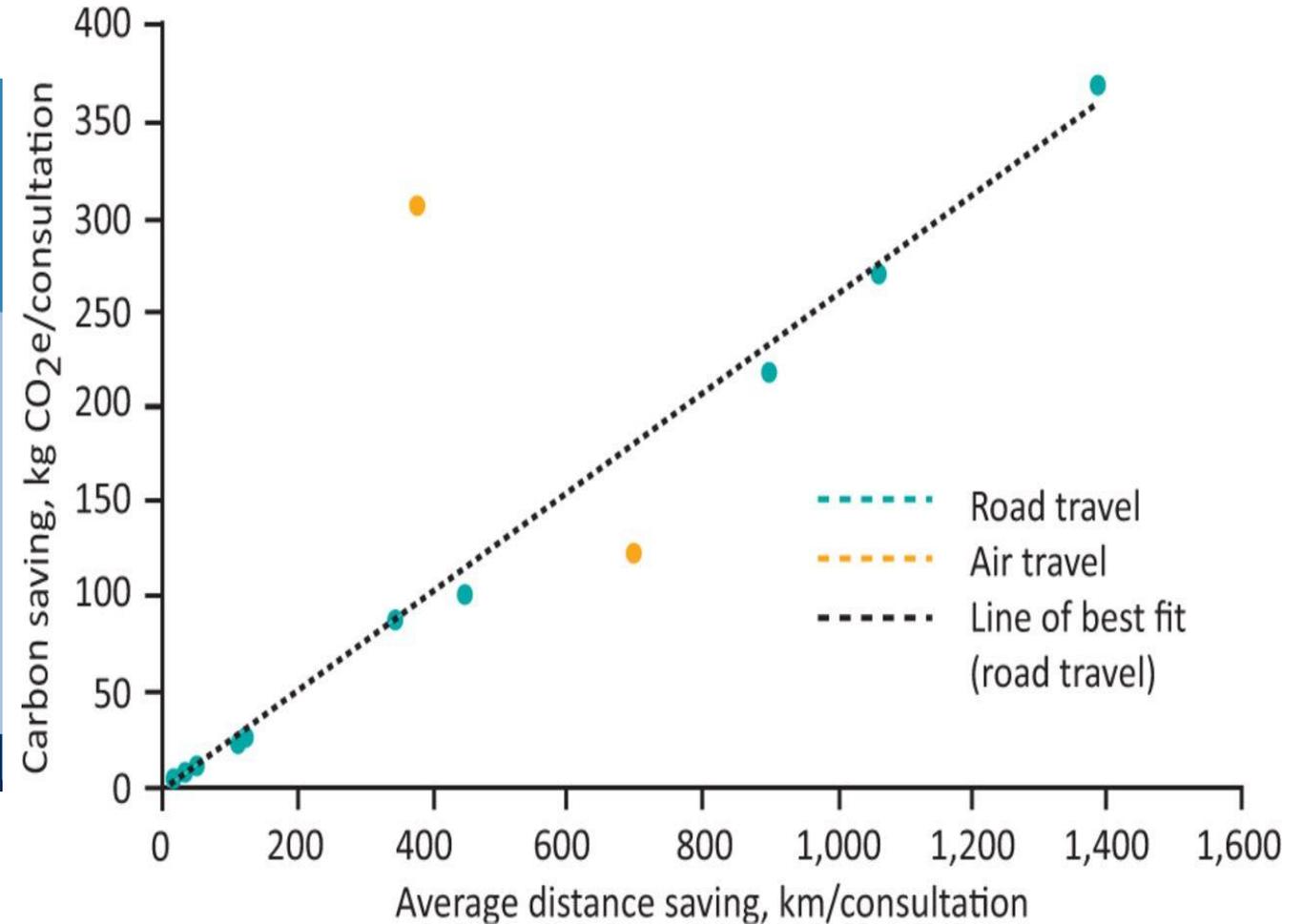
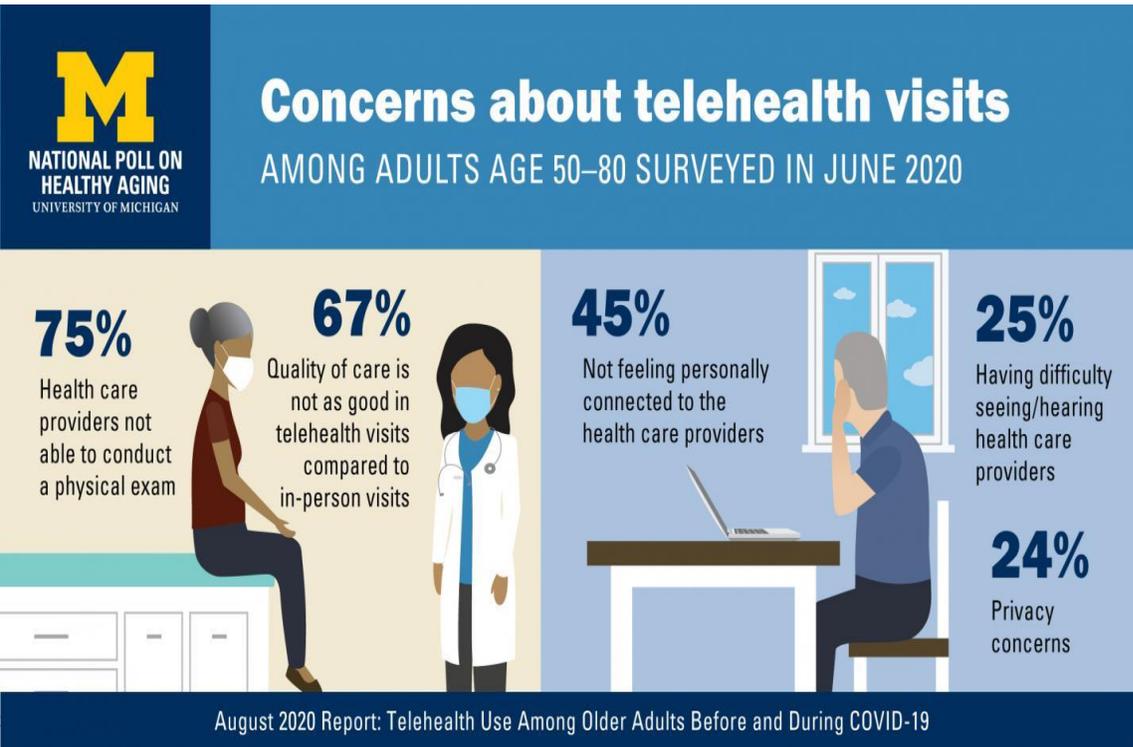
Financial Case

From energy measures alone

- £1.85bn saving since 2007
- £190m annual saving in 2015
- £370m savings pa by 2020
- *Money kept in local health economies*



Appropriate use of technology-- Carbon footprint against travel distance savings of telehealth interventions.



Amy Purohit et al. *Future Healthc J* 2021;8:e85-e91

Gadegaard A, Penny T. "Lifelong Type 2 Diabetes Management Care Pathway," *Coalition for Sustainable Pharmaceuticals and Medical Devices (CSPM)*, October 2015

<http://www.sduhealth.org.uk/areas-of-focus/carbon-hotspots/pharmaceuticals/cspm/case-studies.aspx>



Care Pathways: Guidance on Appraising Sustainability
 Case Study: Type 2 Diabetes Management Care Pathway

October 2015
 Coalition for Sustainable Pharmaceuticals and Medical Devices (CSPM) www.sduhealth.org.uk/cspm




Marsh K et al. "Expanding Health Technology Assessments to Include Effects on the Environment," published online in *Value in Health*, January 2016

[http://www.valueinhealthjournal.com/article/S1098-3015\(15\)05128-1/abstract](http://www.valueinhealthjournal.com/article/S1098-3015(15)05128-1/abstract)

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ELSEVIER

Expanding Health Technology Assessments to Include Effects on the Environment

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The views expressed herein are those of the authors and do not reflect the views of their employers.

ABSTRACT

There is growing awareness of the impact of human activity on the climate and the need to assess this impact. Public health care decision makers from Sweden and the United Kingdom have started assessing environmental impacts when assessing new technologies. The article considers the case for incorporating environmental impacts into health technology assessment (HTA) process and discusses the associated challenges. Two arguments have been incorporated into environmental impact (EIA) 1) environmental changes could directly affect people's health and 2) policy decision makers have limited resources to make the process. First, the current evidence base is insufficient to support the accurate comparison of technologies' environmental impacts. Second, cost-utility analysis, which is favored by many HTA agencies, could capture some of the value of environmental impacts, especially those generating health impacts, but might not be suitable for addressing broader concerns. Both cost-benefit and multi-criteria decision analysis are potential methods for evaluating health and environmental outcomes, but are less familiar to health care decision makers. Health care is an important and visible sector of the economy that could warrant closer policy attention to its impact on the environment. Considerable work is needed to build decision maker' demand, improve the environmental evidence base, and develop robust methods for capturing and incorporating environmental data as part of HTA. **Keywords:** economic evaluation, environmental impacts, health technology assessment.

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Introduction

The role of health technology assessment (HTA) is to assess the impact of health interventions on society, with a view to allocating the limited resources to maximize health and well being in the broadest possible sense. The limited data available to inform such assessments have, however, put practical restrictions on their objectives and scope. As a result, HTA has predominantly been focused on optimizing the use of resources within the health sector. Specifically, it has tended to consider primarily changes in health-related quality of life (HRQL) and health care, and related costs, as exemplified by the approach taken by the National Institute for Health and Care Excellence (NICE) in the United Kingdom [1].

The limitations of such an approach are highlighted by the extensive literature on whether, or how, HTA methods should capture other outcomes, such as differences in access to health care or effects on caregivers and families of patients or on other evidence that the delivery of health care, like any other industry, has environmental implications. For instance, the National Health Service (NHS) in England has estimated that its CO₂ emissions were 24.7 million metric tons of carbon dioxide equivalent (MCO₂e) in 2012 and that pharmaceuticals accounted for 2% of these emissions [2]. In addition, the entire US health care sector produced 16.6 MCO₂e in 2007, accounting for approximately 8% of the overall greenhouse gas emissions in the United States for that year [4].

The recognition of such effects has been accompanied by a small, but growing, number of instances where health policymakers have included the consideration of environmental impacts in decision [3,5–8]. These moves have been driven partly by external pressure to take this broader view into account in the current recommendations from the Global Commission on the Economy and Climate "to accelerate low-carbon transformation by integrating climate into core economic decision-making processes" [10] and international climate change negotiations at the Conference of Parties (COP) 19 session of which COP19 held in Bali in December 2013 [1].

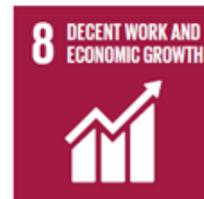
Recent government developments consistent with these intentions include the Swedish government's consideration of a plan

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<http://dx.doi.org/10.1016/j.jval.2015.11.008>

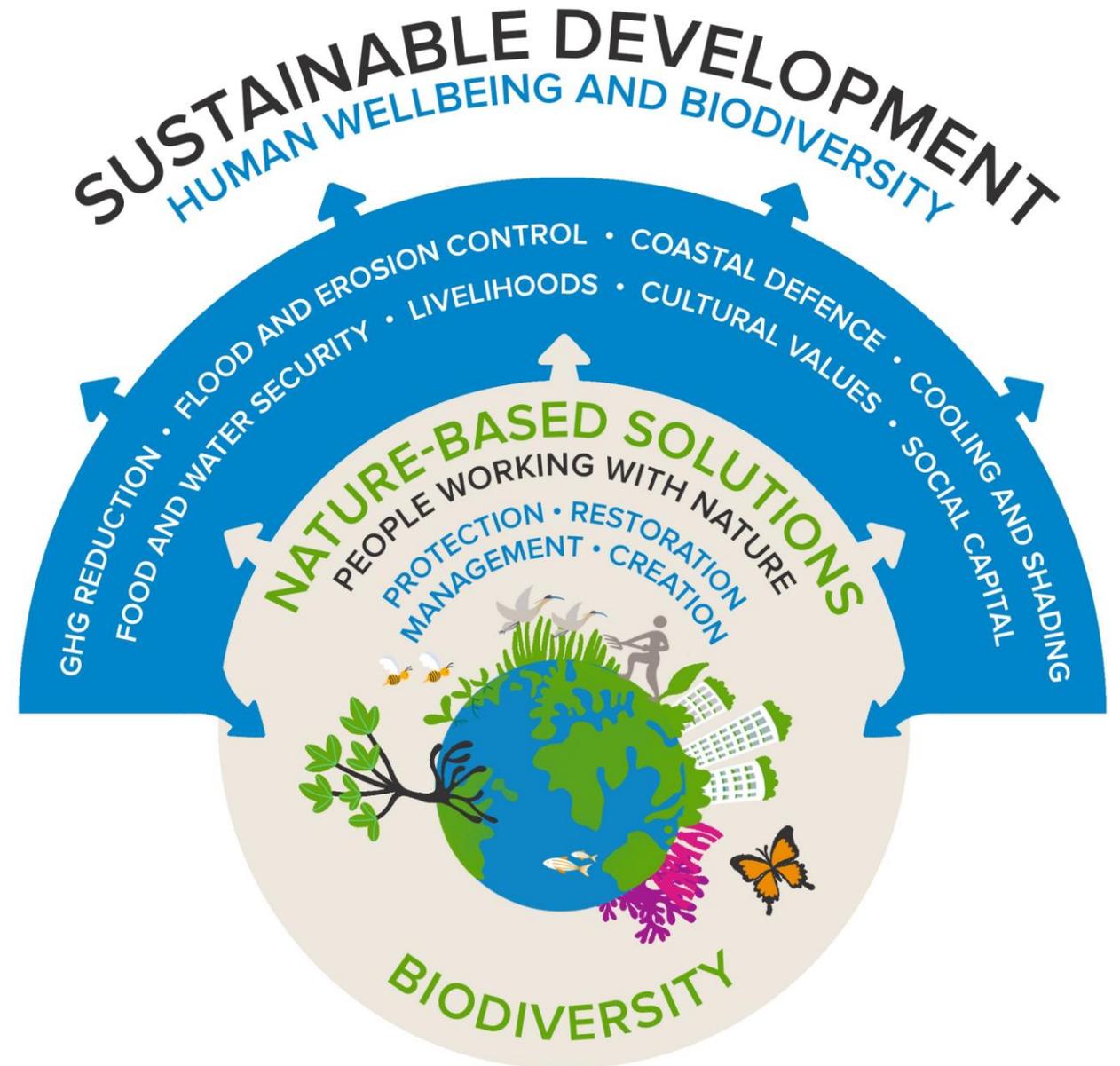
Win wins

-Saving lives with solar

- **University Hospitals N. Midlands**
- **Public investment raised £336K**
- **Community owned solar on hospital.**
- **No capital cost to NHS**
- **£300k to tackle local fuel poverty**



Nature-based solutions



Developing tool kits to support change----

Green Impact for Health Toolkit - x +

greenerpractice.co.uk/green-impact-for-health-toolkit



GREEN IMPACT FOR HEALTH TOOLKIT

Our Work

OUR WORK

WORKING WITH RCGP

WORKING WITH CCGS AND PCNS

GREEN IMPACT FOR HEALTH TOOLKIT

Green Impact for Health Toolkit

We have been encouraging local practices to use the RCGP [Green Impact for Health Scheme](#) which is a useful tool to get started on the road to sustainable healthcare. See the “For GPs” section for more information.

Greener Practice was instrumental in developing the RCGP South Yorkshire and North Trent

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23/01/2021

Towards net-zero resilient health systems

image from <https://www.calgary.ca/UEP/ESM/Pages/Energy-Savings/Climate-Change.aspx?redirect=/climateprogram>

