Coventry and Warwickshire ICS Green Plan 2022-2025

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Foreword

In Coventry and Warwickshire, great strides have already been made towards a greener, more sustainable NHS. However, this journey is a collective one that will require collaboration across our region.

As an anchor institution, the Integrated Care System (ICS) is best placed to achieve this. Across the region, we are working with our local authority partners to achieve our collective Net Zero carbon targets and ambitions. Senior leaders across Coventry and Warwickshire have agreed a single vision for our sustainability ambitions, as demonstrated within this Green Plan.

The system commits to weaving environmental and sustainable practices as a green thread throughout our workstreams. Climate change is one of the most significant challenges the NHS faces, with the potential to disrupt care and affect patients in numerous ways. As some environmental issues contribute towards health outcomes, such as cardiac problems, asthma and cancer, efforts across the NHS must be accelerated.

The system is best placed to achieve this as our role as an anchor institution leads the wellbeing of our communities being tied to our existence as an organisation. This plan outlines how we will reduce our environmental impact whilst improving health outcomes across the region.

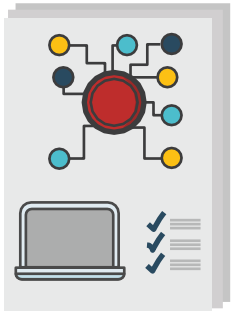
We are fully committed to playing our part in tackling climate change, not only for the global benefits but also for us to contribute to, promote and support the health and wellbeing of the community that we serve.

There are challenges associated with tackling this twofold problem, as decarbonising our delivery of care can be costly on resources, time, and capital. We can work to overcome these barriers by utilising our connections to local authorities and wider partners.

With the energy and commitment of all departments and individual members of staff within the ICS, we will endeavour to reduce every aspect of our environmental footprint across all areas of our operations, whilst working hard to provide sustainable services for the present and future generations.

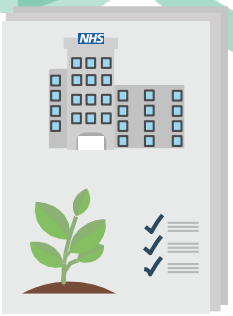
Laura Nelson – Director of Operational and Financial recovery
– Executive Lead for Sustainability.

Highlights



Coventry and Warwickshire ICS have a **Digital Transformation Strategy** already in place.

Coventry and Warwickshire ICS have an **Estates Strategy** already in place.



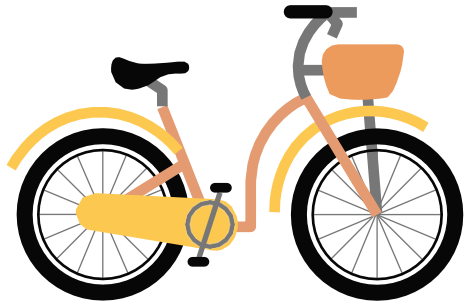
A **community diagnostic centre** already established at Stratford Hospital and new facility being built at George Eliot Hospital.

Digital Innovation Hub

at South Warwickshire Foundation Trust

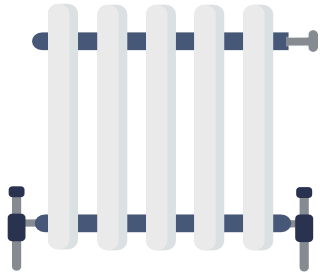
Cycle-to-work schemes

operated by all Trusts.



Decarbonisation of heating

and hot water at University Hospitals Coventry and Warwickshire.



Introduction

"While the NHS is already a world leader in sustainability, as the biggest employer in this country and comprising nearly a tenth of the UK economy, we're both part of the problem and part of the solution.

That's why we are mobilising our 1.3 million staff to take action for a greener NHS, and it's why we have worked with the world's leading experts to help set a practical, evidence-based and ambitious route map and date for the NHS to reach net zero."
Sir Simon Stevens, former NHS Chief Executive

Coventry and Warwickshire Integrated Care System, also known as the Coventry and Warwickshire Health and Care Partnership (CWHCP) is proud to share our Green Plan that seeks to embed sustainability and low carbon practice in the way that the system delivers vital healthcare services.

The Green Plan allows our ICS to set out our current position in addition to our goals for the next three years, with a view to helping the NHS to become the first health service in the world with net zero greenhouse gas (GHG) emissions.

The climate crisis is also a health crisis as rising temperatures and extreme weather will disrupt care and impact the health of our communities. As health and the environment are inextricably linked, climate action is not about sacrificing the quality of our patient care. Instead, it is about building new norms and establishing a green thread throughout our activity.

The NHS in England is facing growing financial and service pressures at a time of rising demand. 'Place-Based Systems of Care: a way forward for the NHS in England' proposes an approach to tackling these challenges.

It argues that NHS organisations need to move away from a 'fortress mentality' whereby they act to secure their own individual interests and future, and instead establish place-based 'systems of care' in which they collaborate with other NHS organisations and services to address the challenges and improve the health of the populations they serve.

This Green Plan will help us to achieve the twofold task of reducing our environmental impact whilst improving health outcomes, as many of the actions needed to reduce our carbon footprint have additional benefits for health. For example, the reduction of air pollution can decrease incidence of COPD. By reducing our system carbon footprint, we can improve the environment at the regional scale and therefore extend these additional health benefits across Coventry and Warwickshire.

There are four Trusts within the ICS:
- Coventry and Warwickshire Partnership NHS Trust (CWPT)
- George Eliot Hospital NHS Trust (GEH)
- South Warwickshire NHS Foundation Trust (SWFT)
- University Hospitals Coventry and Warwickshire NHS Trust (UHCW)

In this document we will summarise the Green Plans of our member organisations and contextualise them within the wider system.

Delivery of the Green Plan will be overseen by the Integrated Care Board (ICB), monitored by the workstream Green Leads, and reviewed internally on an annual basis.

ICS Overview

Coventry and Warwickshire ICS region has a very large NHS workforce and serves an urban, semi-urban and rural population of 1 million people over an area of 800 square miles in the West Midlands region.

Our ICS region has air quality issues, coupled with pockets of deprivation within urban populations. Just over a third of Coventry is in the highest 10% in the country for the proportion of fuel poor households. This also applies to approximately a third of Nuneaton and Bedworth, and various parts of Warwick, North Warwickshire and Rugby.

Poor living conditions and air quality are associated with the health conditions of coronary heart disease, lung cancer and alcoholic liver disease being the main causes of early adult death.

Coventry City Council, Warwickshire County Council, North Warwickshire Borough Council, Nuneaton and Bedworth Borough Council, Rugby Borough Council, Stratford-upon-Avon District Council and Warwick District Council provide local services within our ICS region, and the West Midlands Combined Authority devolves central government decision making to the locality. All these organisations are key partners within our ICS, and all local authorities have declared Climate Emergencies, committing their regions to achieve Net Zero.

The population is served by four secondary care NHS Trusts, providing acute medical and mental health care and services, and a Primary Care Network of GPs, dentists, community pharmacies and optometrists.

In addition to the statutory health and care services, the voluntary sector plays an important role in delivering care in the community.

ICS Structure

Coventry and Warwickshire ICS binds our partner organisations together with a common purpose to improve the health of our communities.

Our Integrated Care Board (ICB) works with our Integrated Care Partnership (ICP), which has been formed jointly with Local Authority and third sector Partners. Together the ICB and ICP form the ICS.

NHS Trusts and providers

The Coventry and Warwickshire ICS consists of the following NHS organisations:

- Coventry and Warwickshire Partnership NHS Foundation Trust (CWPT)
- George Eliot Hospital NHS Trust (GEH)
- South Warwickshire NHS Foundation Trust (SWFT)
- University Hospital Coventry and Warwickshire NHS Trust (UHCW)
- Primary Care: General Practice surgeries (Primary Care Networks)
- West Midlands Ambulance Service University NHS Foundation Trust (WMAS)[1]

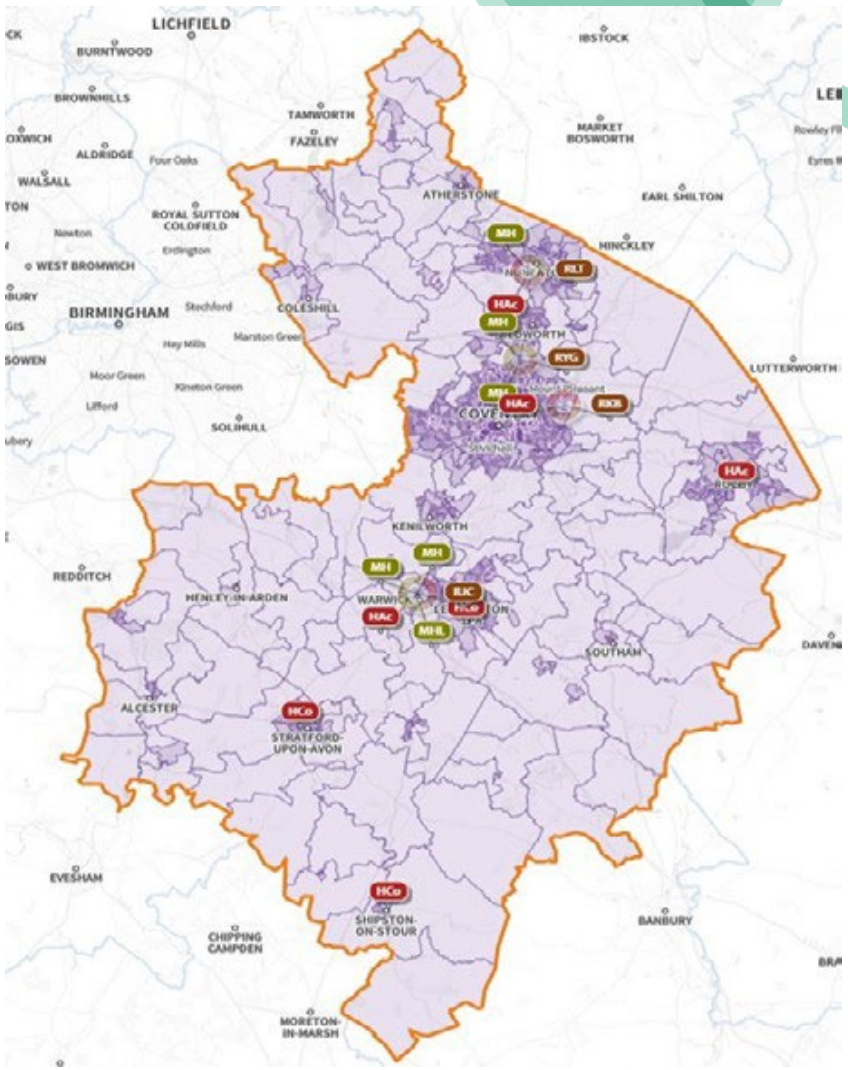


Figure 1 Map showing NHS hospital and other secondary care sites within our ICS region

[1] West Midlands Ambulance Service University NHS Foundation Trust (WMAT) covers the wider West Midlands region and is not a core Trust within the ICS

Coventry and Warwickshire
Integrated Care System

Primary Care

Primary care services provide the first point of contact in the healthcare system, acting as the ‘front door’ of the NHS.

There are 155 general practitioners (GPs) represented by 19 Primary Care Networks (PCNs), which are groups of GP practices working together with other local organisations, such as community, mental health, social care, pharmacy, hospital, and voluntary services.

GP practices across Coventry and Warwickshire have been working together for several years, through federations and partnerships. There are three GP federations within the footprint of Coventry and Warwickshire that aim to support local practices with recruitment and staff management, providing clinical services when surgeries are closed, and representing the views of GPs at local health and care meetings. The South Warwickshire GP Federation is made up of 31 GP practices, the small, but growing Warwickshire North GP Federation borders the Coventry and Rugby GP Alliance which comprises 94% of GPs in Coventry and 45% of practices in Rugby.

The NHS Long Term Plan and the new five-year framework for the GP contract have formalised this.

Primary Care faces many similar issues to the larger Hospital sites; however, the priorities and strategy may need to differ slightly in order to achieve the overall goals. For example, the Royal College of General Practitioners (RCGP) state “Most of general practice’s carbon footprint is from its clinical work. Prescribing accounts for over 60% of general practice’s carbon footprint”[2] .

The system consists of one Clinical Commissioning Group (CCG) that is being merged into the ICB. There is also one unitary authority, a county council, a city council, four borough councils and a district council.

2 https://www.rcgp.org.uk/policy/rcgp-policy-areas/climate-change-sustainable-development-and-health.aspx

How ICS actions are delivered

Figure 2 shows how work within the ICS spans neighbourhoods, places, and the wider system.

Geographical footprint	Name	Participating organisations
System (Population of 1-2 million)	Provider collaboratives	NHS Trusts, VSCE organisations, the independent sector
Place (Population of 250-500,000)	Health and wellbeing boards	ICS, Healthwatch, local authorities
	Place-based partnerships	ICB members, local authorities, VET, VSCE organisations, NHS Trusts, Healthwatch and primary care
Neighbourhood (Population of 30-50,000)	Primary care networks	General practice, community pharmacy, dentistry, opticians

Figure 2 Table showing how the ICS delegates its workstreams

The entire system across Coventry and Warwickshire sets the goals for the individual Places and PCNs and the strategy for success. The goal at system is to improving population health and health care, tackle unequal outcomes and access, enhance productivity, and value for money and help the NHS to support broader social and economic developments.

Provider collaboratives are partnership arrangements involving our NHS Trusts, the voluntary and private sector, working at scale across multiple places.

The aim of 'Place' is to bring together stakeholders from health and wellbeing boards, local authorities and place-based partnerships by integrating teams and services within a defined geographical area. They support the neighbourhood level of Primary Care Networks and connect them to broader services including those, provided by local councils, community hospitals or voluntary organisations whilst making sure that the wider health and care needs of their areas are recognised.

We have four Places: Coventry, Rugby, South Warwickshire and Warwickshire North.

The final tier is 'Neighbourhood', which is the remit of Primary Care Networks (PCNs), consisting of GP practices, dentists, community pharmacies and opticians.

We have 19 groups of GPs that have come together to work more closely within the PCNs. Their role is to support groups of GP practices, in partnership with community services, social care, mental health and other providers of health and social care including the voluntary sector.

There are necessary strong interlinkages with each collaboration, partnership and PCN within the system, with whole system being greater than the sum of its parts.

Local and Public Authorities

In addition to the local authorities already mentioned, the Coventry and Warwickshire Anchor Alliance aims to deliver transformative actions to address the inequalities in our communities in health and wellbeing, access to education, employment opportunities and supporting the development of enterprise and the economy. The alliance includes Coventry City Council, Warwickshire County Council, Coventry University, The University of Warwick, NHS Trusts, and the CWLEP.

Coventry is one of the seven cities in the UK invited to participate in the UK Marmot Network and become a Marmot City, providing the city with access to the international expertise of the Marmot Team based at University College London. The end goal of the Marmot Group is to reduce health inequalities and since becoming a Marmot City in 2013, progress has been made on health outcomes, life satisfaction, employment, and reductions in crime in priority locations.

Coventry and Warwickshire Local Enterprise Partnership (CWLEP) aims to drive economic growth within the region, collaborating with private and public sector leaders. Projects supported by the LEP such as free shuttle bus services for NHS staff during the COVID-19 pandemic and a digital partnership represent how the LEP can collaborate with the ICS going forwards.

West Midlands Police and West Midlands Fire Service are additional key partners in our ICS.

Health and Wellbeing Boards

Two Health and Wellbeing Boards are operational in Coventry and Warwickshire.

The Coventry Health and Wellbeing Board is run by Coventry City Council and collaborates with the Warwickshire Health and Wellbeing Board on the Coventry and Warwickshire Place Forum.

Within the Warwickshire Health and Wellbeing Board sit three place-based Health and Wellbeing Partnerships (HWP) for Warwickshire North, Rugby and South Warwickshire.

Healthwatch is an independent consumer champion for health and social care, and as part of a national scheme, every local council in England has their own Healthwatch. Healthwatch Warwickshire (HWW) and Healthwatch Coventry (HWC) have run several projects such as caring for the carers, dentistry in Warwickshire, social care experiences and access to healthcare with hearing impediments.

Education Sector

Two higher education establishments within our region have links with local NHS Trusts or other healthcare providers. These are:

- Coventry University
- University of Warwick

All establishments have health-related courses, and there is scope to work with them to embed sustainable models of care within course syllabuses. This will shape the healthcare staff of the future in being mindful of the social and environmental impact of care delivery and inherently be attuned to the NHS' Green agenda.

Furthermore, each university has their own sustainability agenda, and provide courses on environmental science, sustainability and/or sustainable technologies. University research departments may also work in partnership with the ICS to achieve mutually beneficial goals.

Transport Sector

Coventry and Warwickshire have major transport links (air, rail, motorway network, buses) in and around the area, which have a significant environmental impact in terms of emissions, air pollution and noise.

Therefore, it is important to work in partnership with local public transport providers to achieve the shared goals of reducing pollution and increasing accessibility (transport) to our healthcare sites.

As will be discussed late, ambitious plans are already underfoot to make transport cleaner in Coventry, with the local authorities taking the lead on enforcing air quality standards, creating electric vehicle infrastructures, and making places more cycle friendly.

Voluntary Sector

Warwickshire and Solihull Community and Voluntary Action or Warwickshire CAVA are a local VCS infrastructure organisation providing vital support to the volunteers working to strengthen our communities.

Voluntary Action Coventry collaborates with the volunteer centre, Healthwatch Coventry and the VSCE Alliance to coordinate volunteering efforts across Coventry.

Other partner organisations

Sustainability West Midlands (SWM) has set out ambitions to contribute to the national target of Net Zero whilst addressing health inequality and driving inclusive growth. Sustainability West Midlands provides a forum for the sharing of best practice and uniting organisations within the region on their journey to net zero.

Warwickshire Coventry and Solihull Local Nature Partnership (LNP) drives positive change in the local natural environment and contribute to national environmental objectives.

System Vision

Figure 3 C&W ICS 2021/22 Vision

Our Trusts have made considerable progress along their Net Zero journeys over the years. The challenge now is to set a long-term vision for sustainability within the ICS and define the actions that the ICS and our stakeholders will take to achieve it.

The end goal of the NHS Green Plans is to reach Net Zero by 2045. This plan will take us through the next three years. As the ICS develops and matures as an organisation, it will be possible to further develop our longer-term strategy and vision for 2045.

Change within the system is beginning at a steady pace, as the integrated care system itself is still in its infancy. However, as our relationships with stakeholders grow and develop, environmental progress is thought to increase exponentially.

This growth will allow conversations around funding and budgets to continue. Some financial saving will be feasible by choosing a more sustainable approach, but in many cases, investment will be needed too. Funding will therefore be central in the delivery of this Green Plan. The Net Zero journey will require changes to infrastructure, policies, practices, behaviours, values and the alignments of activities with the green agenda.

Therefore, it is important that a green thread persists throughout all our workstreams. Each area of focus details the actions Coventry and Warwickshire ICS will take to reach Net Zero within that workstream. The actions also need to ensure that the Green Plan will be rooted in the 'place' rather than the 'provider', meaning that it will bring broader regional focus.

The NHS has set national targets labelled 'Should do's and 'Could do's, which have been integrated into the target actions within our area of focus action tables. Below we have detailed our vision, objectives and targets that will be used to seek to enact far-reaching and impactful change on the environment and improved health outcomes.

The Green Plan adds further environmental and social dimensions to the delivery of care, especially in terms of the widely accepted climate and ecological crisis.

Green Plan Vision

Net Zero: resource consumption and Greenhouse Gas (GHG) emission reductions that align with NHS net zero targets and mitigate against climate change.

Climate Resilience: adaptation strategies that strengthen the Trust's ability to maintain quality care and provide a basis for us to become a climate change resilient organisation.

Social Value: actions that influence the collective social wellbeing of patients, staff and surrounding community.

Drivers for Change

Coventry and Warwickshire ICS is committed to deliver the NHS Long Term Plan, Standard Contract, and the recommendations in the Priorities and Operational Planning Guidance and 'Delivering a Net Zero NHS' report, all of which have informed the Green Plan and shape the ICS' Vision.

The ICS will work through this plan to fulfil sustainable development requirements from the NHS and other relevant legislation (as listed in the following tables in Figure 4) that are aligned with the relevant United Nations (UN) Sustainable Development Goals (SDGs). This includes obligations to minimise adverse impacts on the environment and secure wider social, economic and environmental benefits for communities.

International Policy Drivers	Relevance to Green Plan
Intergovernmental Panel on Climate Change (IPCC) AR5 2013	Sets out the 'Net Zero National Health Service 2020' strategy and the 'Greener NHS' guidance
UN Sustainable Development Goals (SDGs) 2016	Sets out the 'Five Year Forward View 2014' strategy
World Health Organisation (WHO) toward environmentally sustainable health systems 2016	Sets out the 'Sustainable Development Strategy for the Health and Social Care System 2014-2020'
World Health Organisation (WHO) Health 2020	Sets out the 'Adaptation Report for the Healthcare System 2015'
The Global Climate and Health Alliance. Mitigation and Co-benefits of Climate Change	Sets out 'The Carter Review 2016'
	Sets out the National Institute for Clinical Excellence (NICE)'s 'Physical Activity; walking and cycling 2012' strategy
	Sets out the 'Health Technical Memoranda' and 'Health Building Notes'
	Sets out the 'Sustainable Transformation Partnership' plans

National Policy Drivers	Relevance to Green Plan
Climate Change Act 2008 (Amended 2015)	Sets out emissions reduction targets
Public Services (Social Values) Act 2012	Sets out sustainability targets
HM Treasury's Sustainability Reporting Framework	Sets out sustainability targets
Public Health Outcomes Framework	Sets out health & wellbeing targets
Integration and Innovation: Working together to improve health and social care for all	Sets out legislative proposals for the subsequently approved Health and Care Bill 2021
Health and Care Bill 2021	Sets out Integrated Care Systems as statutory bodies

Local/Regional Policy Drivers	Relevance to Green Plan
WM2041 5 Year Plan 2021-2026	West Midlands Combined Authority's plan on carbon emission reduction
Coventry Climate Change Strategy	Coventry City Council's plans to achieve Net Zero
Rugby Net Zero	Rugby Borough Council's plan to achieve Net Zero
Taking Action on Climate Change	Warwick District Council's plan to achieve Net Zero
South Warwickshire Climate Action Support	Stratford-upon-Avon and Warwick District Council's combined plan to achieve Net Zero
Warwickshire Climate Emergency	Warwickshire County Council's plan to achieve Net Zero
Climate Change Action Plan	North Warwickshire Borough Council's plans to achieve Net Zero
Delivering our Future	Nuneaton and Bedworth Borough Council's plan to achieve Net Zero
Movement for Growth	The West Midlands Combined Authority's Strategic Transport Plan
West Midlands 2026 Delivery Plan for Transport	The West Midlands Combined Authority's vTransport Delivery Plan
West Midlands Natural Environment Plan: 2021 - 2026	Plan to improve the West Midland's natural capital by protecting, restoring and enhancing the natural environment

Figure 4 Legislative and regional drivers

The United Nations Sustainable Development Goals

Our ICS is working meaningfully towards the United Nations (UN) Sustainable Development Goals (SDGs) through our Green Plan, which we have aligned to relevant SDG targets.

The SDGs underpin a global action framework to 2030, adopted by every UN member country to address the biggest challenges facing humanity.

Each goal has targets and indicators to help nations and organisations prioritise and manage responses to key social, economic and environmental issues. We have considered how our ICS can contribute to the SDGs as a whole, as well as how sustainability objectives contribute towards the delivery of this strategy.

The NHS and its people contribute to multiple SDGs through the delivery of its core functions, for example, target 3.8, to achieve universal health coverage. Established on 5th July 1948, the UK's National Health Service is the world's first modern fully universal healthcare system, free at the point of use, and celebrating its 75th year in 2023.

Linking the Green Plan to NHS Net Zero

The Net Zero journey will require changes to infrastructure, policies, practices, behaviours, values and alignment of other activities with the green agenda.

Contributing to around 4% of the country's carbon emissions, and over 7% of the economy, the NHS has an essential role to play in meeting the net zero targets set under the Climate Change Act.

Two clear and feasible net zero targets for NHS England are outlined in the 'Delivering a 'Net Zero' National Health Service' report (aka NHS Net Zero Report):

- **The NHS Carbon Footprint** for the emissions under direct control, net zero by 2040.
- **The NHS Carbon Footprint 'Plus'** for the emissions under influence, net zero by 2045.

Integrated Care Systems are to align their Green Plans with NHS England's net zero ambitions. The emissions used in this Plan have been calculated from all the sources listed in the NHS Net Zero Report and should be reduced by approximately 4% year-on-year (akin to Science Based Targets) until each of the relevant target dates.

Greenhouse Gas Emissions

Greenhouse gas emissions are conventionally classified into one of three 'scopes', dependent on what the emission source is and the level of control an organisation has over the emission source. They are reported in 'tonnes of carbon dioxide equivalent' (tCO2e).

The emission sources and their 'scopes' are shown in the infographic (Figure 5).

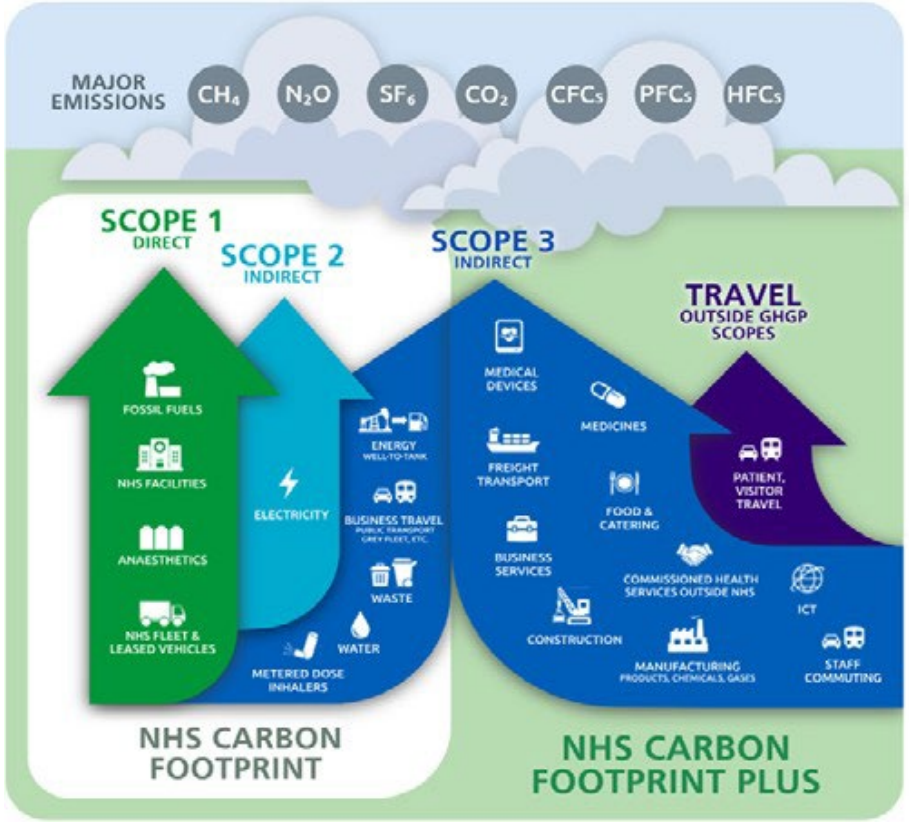


Figure 5 Greenhouse gas emission sources, and their 'scopes'

Coventry and Warwickshire Integrated Care System

Data and Methodology

The result of a GHG emission calculation varies in accuracy depending on the data set provided. The more accurate the data supplied, the more accurate the result, which will subsequently allow for better targeting of areas where improvements can be made.

Data Collection

The ICS-wide carbon footprint has been made up of the following data and emissions sources.

Energy, water and waste

Energy, water, and waste data for each individual NHS Trust were sourced from each Trust's Green Plan carbon footprint, except for Coventry and Warwickshire Partnership Trust (CWPT) and West Midlands Ambulance Service (WMAS), where the NHS' Estates Return Information Collection (ERIC) was used for financial years 2018/19 to 2020/21.

WMAS sites within the ICS region (Coventry and Warwick Ambulance Hubs) have been included for 2019/20 and 2020/21 only (as site-specific data is not available for 2018/19).

Travel

Travel data associated with Trust's fleet vehicles, staff mileage reimbursements and other business travel (rail, air, taxi etc.) were provided by some Trusts (as per their Green Plans).

Distances travelled by ambulances and rapid response vehicles by WMAS have been taken from their Sustainability Strategy 2021-2026 (for 2018/19 and 2019/20 only). An assumed proxy (akin to 2019/20 emissions was used for 2020/21 for completeness, though this will need to be changed when new data is released from WMAS.

Using the known area for the Ambulance Service's outreach of 4,428 square miles, the distance travelled, and associated emissions have been apportioned to our ICS area of 800 square miles.

This does not necessarily reflect the Ambulance Service's activity in our area, however. The emission factors for large diesel vans and large diesel cars were used for ambulance and rapid response vehicles accordingly.

The NHS' Health Outcomes of Travel Tool (HOTT) was used to estimate commuter, patient and visitor travel distances and emissions for each Trust (emission calculations already completed in HOTT).

Medicines

Volatile anaesthetic, nitrous oxide (total emissions for each anaesthetic agent in tCO2e) and inhaler data (numbers prescribed) for the ICS region was extracted from the NHS' Greener NHS Dashboard.

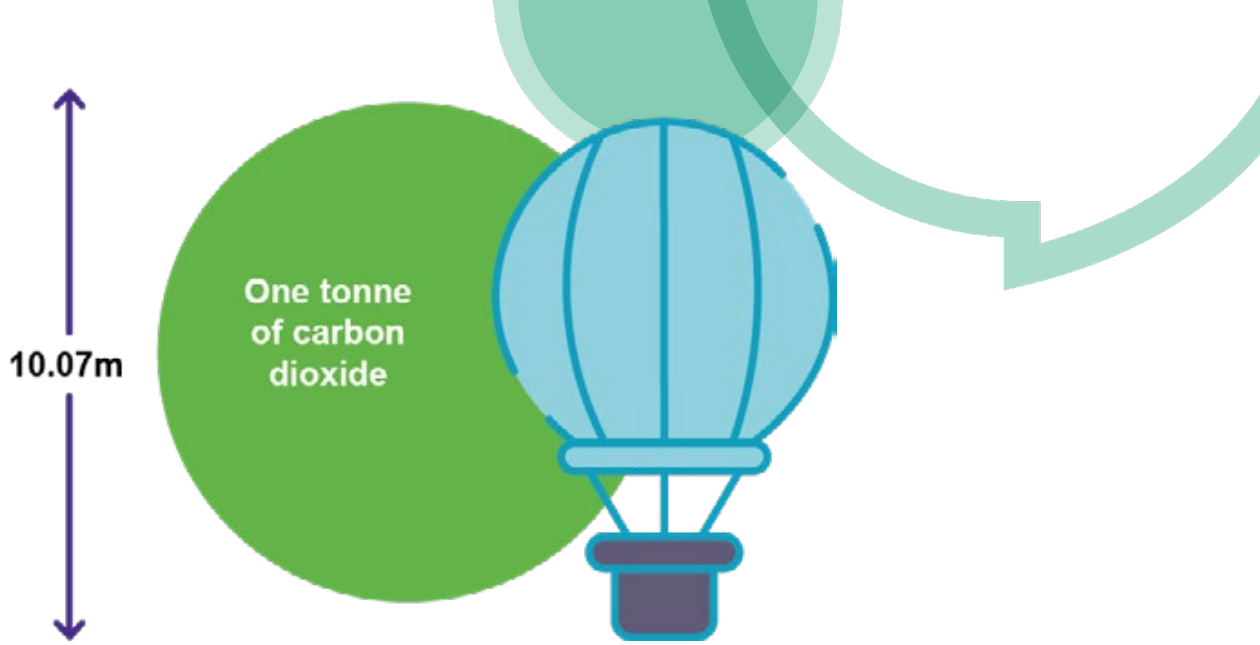
Individual Trust data (where provided) has also been used and adjusted against the NHS Greener Dashboard to prevent double counting.

Inhaler and nitrous oxide data from the NHS Greener Dashboard have only been released for 2020/21, and so will not show in 2018/19 or 2019/20 carbon footprints.

Inhaler data mostly relates to GP prescriptions in the community. Inhaler emissions were calculated using an industry average of 46 kgCO2e per metered dose inhaler, and 1 kgCO2e per dry powder inhaler.

Procurement

Published procurement data (above £25,000) were provided by three out of the four Trusts, as disclosed in their Green Plans.



What does 1 tonne of carbon dioxide look like?

One tCO_2e can be visualised as a volume of gas the size of a hot air balloon – a sphere about 10 metres in diameter.

The average 3-bedroom semi-detached home emits around 1 tCO_2e per year from electricity consumption and almost 2 tCO_2e from the use of natural gas for heating and cooking.

Primary Care Network (PCN)

Unlike NHS Trusts, primary care providers do not have to record or disclose energy use, waste arisings or travel information. Therefore, a questionnaire was sent to GP practices across the region, asking for energy, utility, and travel information for the previous financial year (2020/21). Data from returned questionnaires has been aggregated to provide a carbon footprint and other information for the Primary Care Network.

However, as mentioned, inhaler data from the NHS Greener Dashboard does include inhaler data from the PCN and is incorporated into the ICS' carbon footprint.

Data omissions

Procurement data were not provided by one Trust and is not reflected in the ICS carbon footprint.

Travel associated with Trusts' fleet vehicles, staff mileage reimbursements and other business travel (rail, air, taxi etc.) is inconsistently reported by the Trusts and does not reflect the true impact of travel in the carbon footprint. We have used a proxy for emergency vehicle travel by WMAS for 2020/21 for consistency.

Carbon Footprint

The correct BEIS carbon emission factors for each energy/utility source (from ERIC data) were used to calculate the emissions in tonnes of carbon dioxide equivalent (tCO2e), including well-to-tank emission factors, as per the GHG Protocol for Corporate Reporting and with ISO 14064:1 methodologies.

We have used Scope 3 well-to-tank emission factors for energy and travel. Emissions have been apportioned according to their scope (1, 2 or 3) as described in the previous section.

Emissions related to volatile anaesthetic gases, nitrous oxide and inhalers (per inhaler type and brand) have been calculated using peer reviewed journal data.

Emission values from each source, from each Trust have been aggregated to produce an ICS-wide carbon footprint from 2018/19 to 2020/21. An additional carbon footprint for the Primary Care Network is planned as a future endeavour, using the same methodologies as stated above.

We have chosen to use 2020/21 as our baseline year, as this represents the most cohesive data set.

Data improvement

It is hoped that as data collection and reporting methods evolve, we will incorporate Trust and PCN nitrous oxide and inhaler data, procurement-related emissions, and additional travel data into our footprint. At this stage, we may change the footprint year and readjust targets once more data is available.

Workshops

We ran two stakeholder engagement workshops to explain the purpose and aims of this Green Plan, and to gain valued feedback from participants. We used an interactive application called Mentimeter to receive this feedback, which was used to shape the narrative within this plan.

We will use ongoing workshops to disseminate information in this Green Plan and obtain further useful feedback and insights from stakeholders.

Regional policy drivers

Integrated Care Systems span a variety of geographies and political boundaries. To understand regional and local issues pertaining to sustainable models of care, climate change and other environmental issues, an analysis of regional and local socio-environmental data and local authority policies/strategies was undertaken ('policy scan'). The policy scan has been used to inform the Green Plan narrative and action plans.

The SHAPE Atlas tool and other governmental datasets were used to provide additional information or detail to the policy scan.

Maturity Matrix

Each Trust's Green Plan has been assessed in terms of alignment with the NHS' 'How to produce a Green Plan' guidance and the robustness of Trust's action plans.

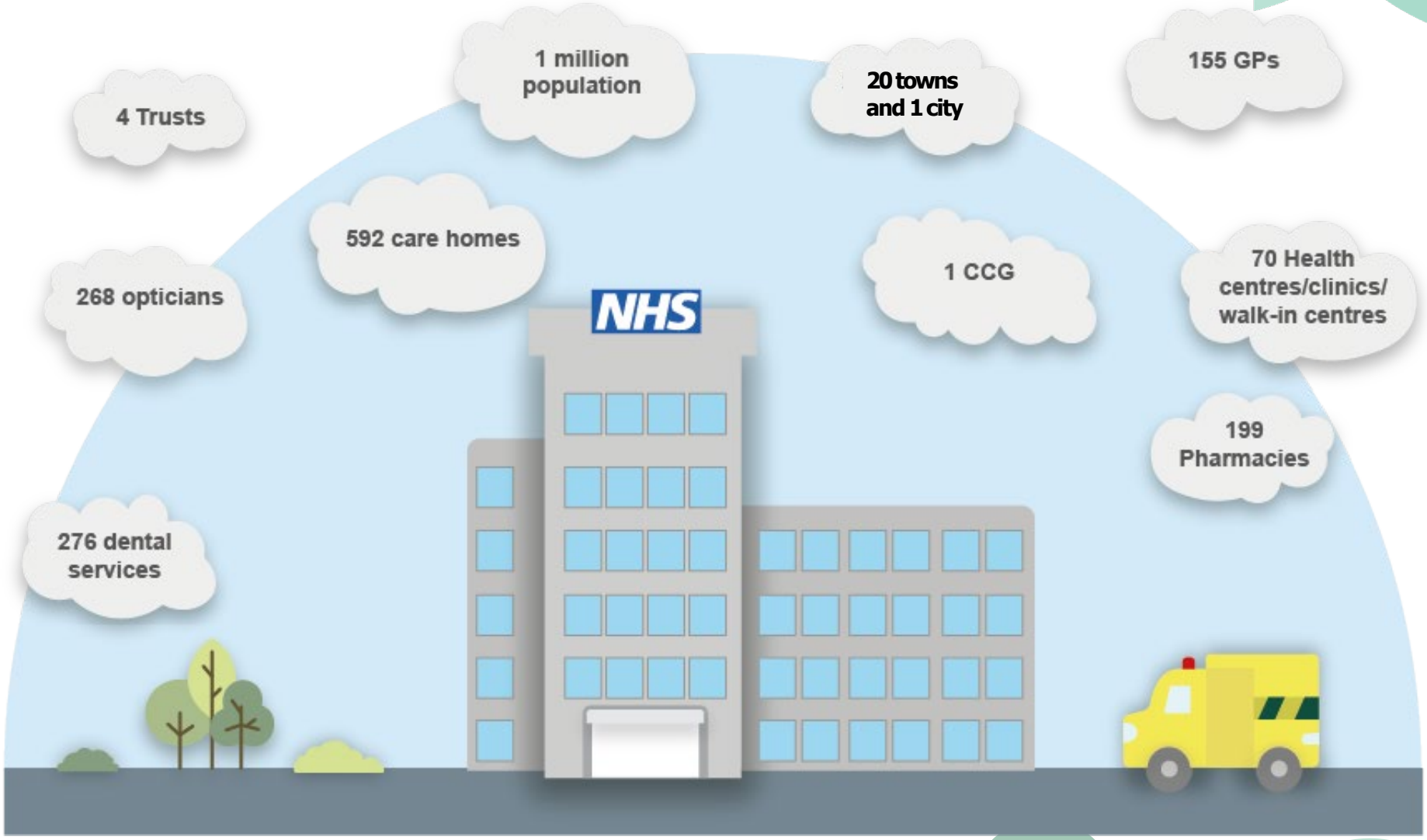
The assessment and scoring used the metrics as follows:

- Data completeness and presentation
- Existing strategies and narrative
- Future targeting

A radar graph for each Trust has been produced and amalgamated into an ICS radar graph to show the maturity of the Trusts' respective Green Plans.

While weighting for future targets remains equal across all areas of focus, the other two metrics fluctuate depending on how much data is needed in that area.

Current Position



Health Inequalities

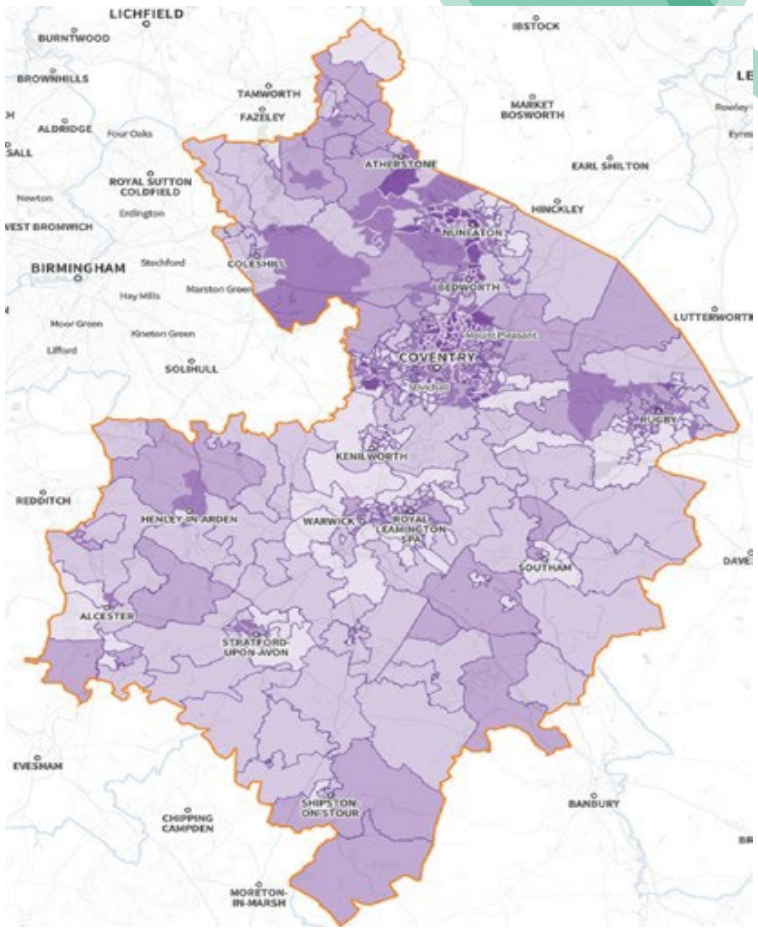
There are patterns of population health that are determined by broad social and economic circumstances into which people are born and live, which treatment alone cannot tackle. Local systems working together with strong leadership, joint planning, ambition and scale have important roles to play in helping to solve the complex web leading to health inequalities.

In the Index of Multiple Deprivation map shown in figure 6, levels of deprivation vary across Coventry and Warwickshire. Coventry in particular appears to have more areas within the upper quintiles of deprivation. The social and economic factors associated with IMD can result in increased occurrences of smoking and obesity.

Smoking is a significant contributor to health inequalities, as it accounts for significant differences in life expectancy between those living in the most and least deprived communities. Cardiovascular disease (CVD) and Alzheimer's are also strongly associated with health inequalities and where the associated risk factors can be linked to modifiable lifestyle risks.

Where the risk factors for health issues are environmental, the actions in the green plan could reduce their occurrences across the system. Chronic obstructive pulmonary disease (COPD) is an example of this, as it has been linked not only to smoking, but poor air quality. This demonstrates the crossover between social, economic and environmental factors with health.

The ICS approach to tackle health inequalities will consist of work in partnership with local authorities, Public Health teams, GPs, the Voluntary and Community sector and patients.



Key

Values for LSOAs within the sleceted boundary are shown. The larger the value and the deeper the purple, the greater the deprivation. The colours represent the quintiles:

33.26 to 92.73 | 21.56 to 33.25 | 14.25 to 21.55 | 8.63 to 14.24 | 0.54 to 8.62

Figure 6 maps out the Index of Multiple Deprivation (IMD) across the ICS region (taken from the SHAPE tool).

Coventry and Warwickshire Integrated Care System

Primary Care Network

GP practices work together with community, mental health, social care, pharmacy, hospital, and voluntary services in their local areas in groups of practices known as primary care networks (PCNs). There are 1,250 PCNs in England that serve between 30,000 to 50,000 people.

GPs are on the frontline in proactively delivering personalised and sustainable models of care. Through working in unison with the PCN, a larger impact and economies of scale can be achieved through collaboration with other GP practices and other local health and social care providers.

PCNs are led by clinical directors who may be a GP, general practice nurse, clinical pharmacist or other clinical profession working in general practice. There are 155 general practitioners (GPs) represented by 19 PCNs.

Primary Care Networks	30
GP practices	155
Health Centres, Clinics, Walk in Centres	70
Pharmacies	199

These GP practices are housed in buildings, all varying ages and types, which presents issues with energy efficiency upgrades. GPs are not mandated to record or report their energy consumption, waste arisings or distances travelled by doctors or nurses when delivering care. Until now, there has not been any work to quantify energy and emissions from GP practices.

As part of our Green Plan, we are engaging with GPs via the PCNs to get a measure on their energy/utility use, what resource efficiency actions have been undertaken and whether social prescribing is being used.

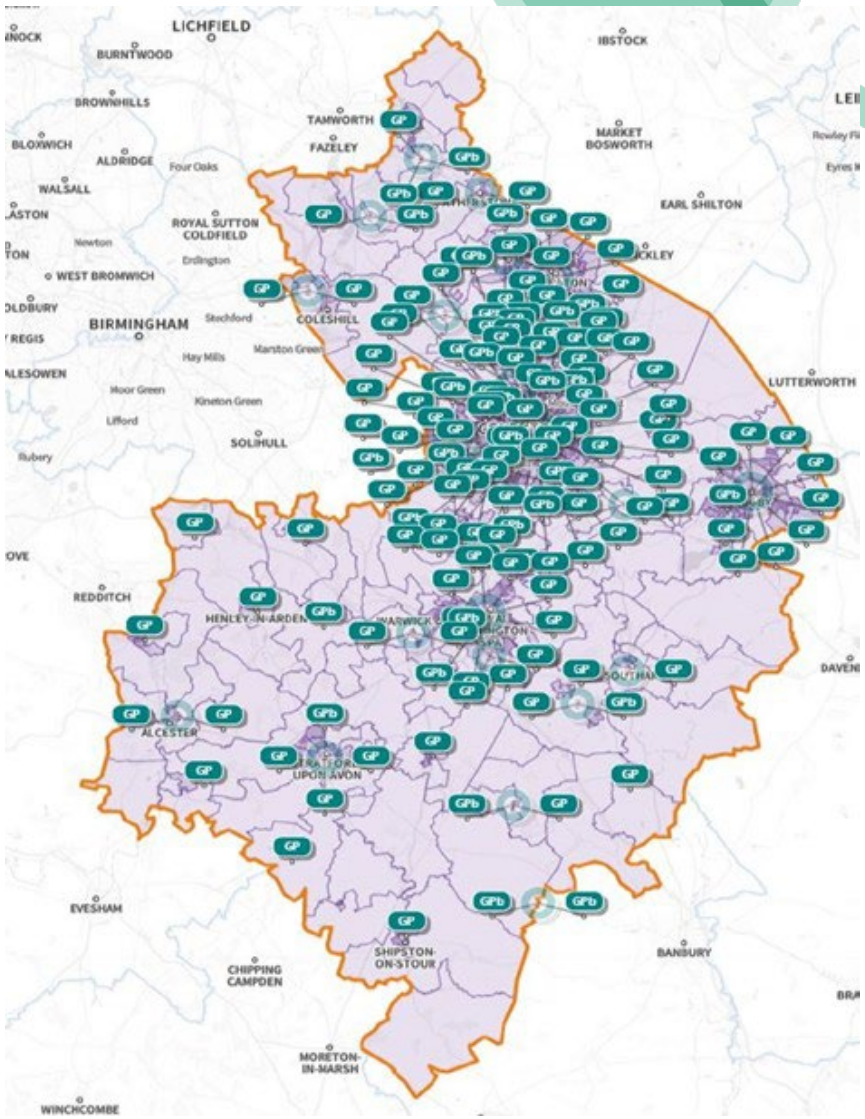


Figure 7 Primary Care Network facilities

Questionnaire results

A total of 4 practices responded, representing 3% of all GP practices. Unfortunately, no resource consumption data was received, thus a carbon footprint for the GP estate has not been calculated.

Electricity and Gas

Only 50% and 25% of practices record both the consumption and cost of their electricity and gas consumption respectively, as shown in Figures 8 and 9. No practices reported using renewable electricity.

Gas is the predominant heating fuel. No practices reported using heating oil, though 50% of respondents did not know or did not answer the question.

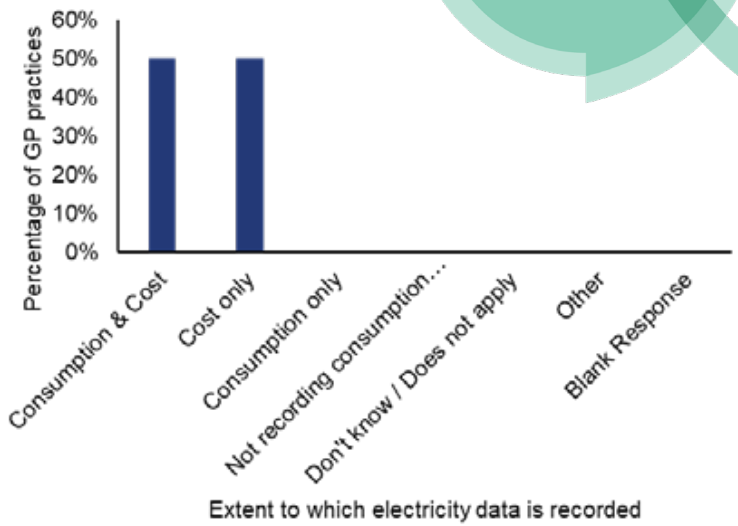
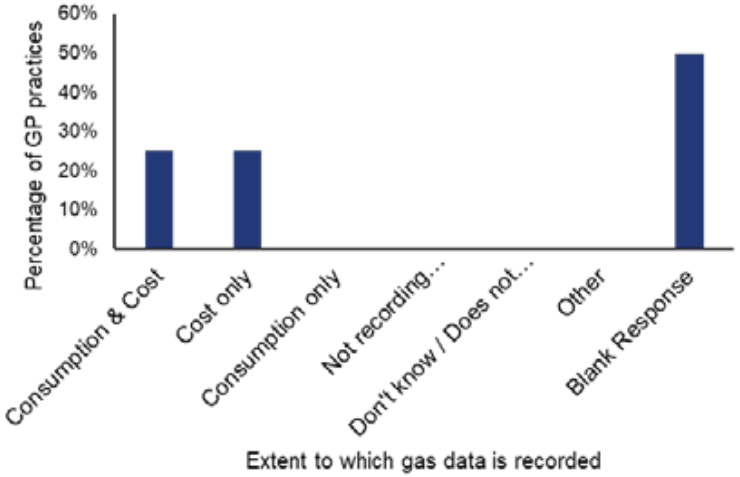


Figure 8 GP practices recording electricity data F



igure 9 GP practices recording gas data

Energy efficiency improvements

Only one GP practice has made energy efficiency upgrades (LED lighting upgrades) to their buildings within the last 3 years.

Water

Only 50% of GP practices record their water consumption and/or cost, and 50 % submitted a nil response. None of the practices stated they had made water efficiency improvements.

It is not known whether most practices have water meters installed and are relying on standardised charges for their water consumption. Ensuring that all practices have water meters installed is a priority.

Waste

We did not receive any quantifiable data for waste arisings.
In fact, no respondents stated they collate waste data, with 50% having a nil response.

As shown in Figure 11, only 25% of practices have mixed recycling bins, though 25% have additional paper/card.

It is imperative that where practices are in control of waste collections (as opposed to a landlord), waste data is recorded monthly. Additionally, the ICS must ensure that all Waste Transfer Notes and Waste Consignment Notes (for hazardous waste) are collected and filed as per waste legislation and legal compliance.

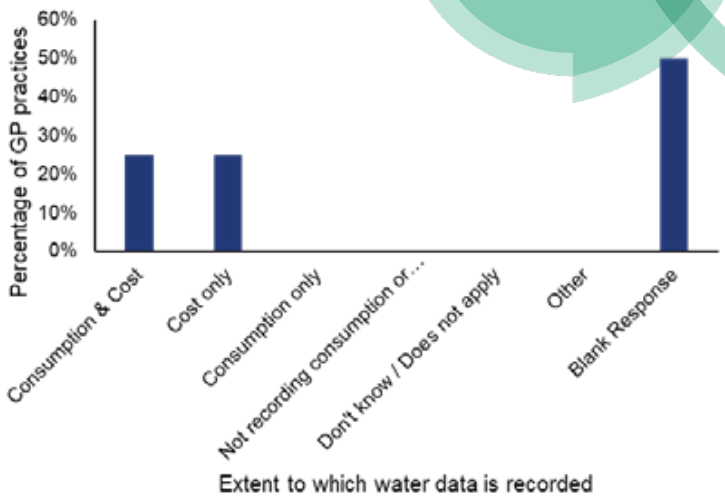


Figure 10 GP practices recording water data

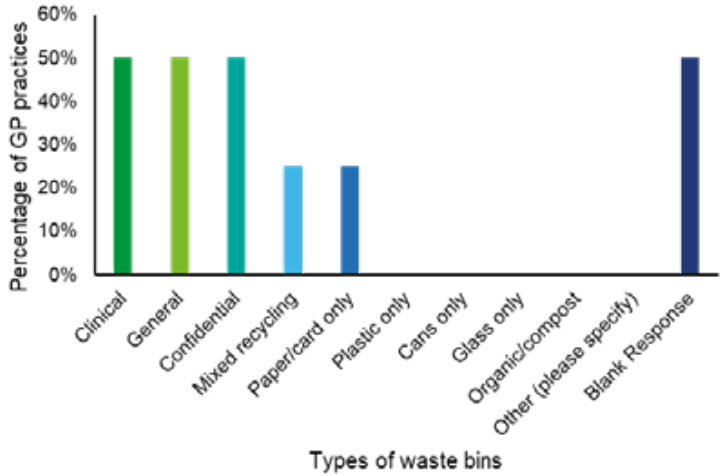


Figure 11 Percentage of waste bin types at GP practices

Waste communications

The importance of waste segregation appears to be well communicated, with 50% respondents agreeing that their communications are effective. This is done via a mixture of signage, verbal reminders, and email communications. However, we cannot infer that most practices are segregating their waste sufficiently and warrants further investigation.

Inhaler recycling

No practice stated they were involved in an inhaler recycling scheme.

Travel

Less than half of the GP practices actively promote other ways to commute (as shown in Figure 12). No travel related data has been provided, and so emissions relating to work-related travel or commuting have been calculated.

Social prescribing

Social prescribing is used by 50% of the respondents, as shown in Figure 13. There was a 50% nil response rate.

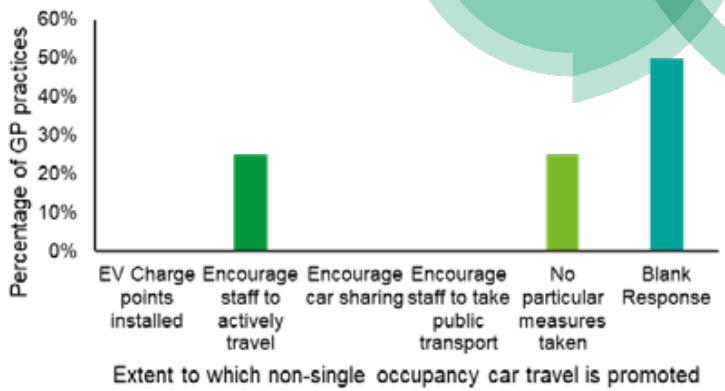


Figure 12 Percentage of GP practices promoting non-single occupancy car travel

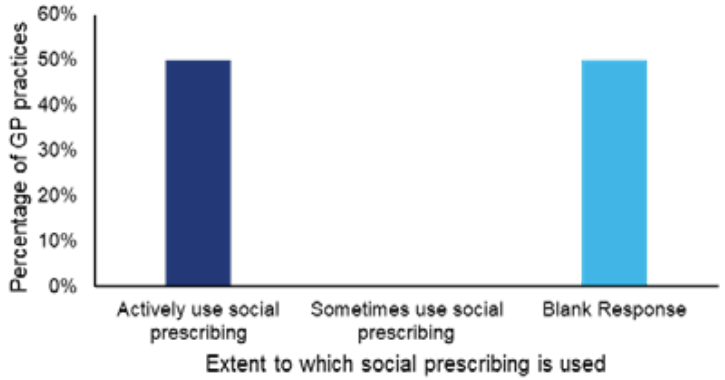


Figure 13 Percentage of GP practices using social prescribing

Future engagement

We would like to map resource consumption and emissions from the general practice estate in its entirety, and we are at the beginning of this journey.

We are aiming for GP practices, with the support of the PCNs, to submit timely reports to the us. One such method of capturing this data would be the use of the Green Practice for Health Toolkit.

This will enable a granular understanding of their resource use and emissions, and inclusion within our ICS carbon footprint.

Ongoing Green Plan communications with the PCNs will help GP practices foster their own net zero aspirations. We will encourage GP practices to use resources such as Primary Care Support England and Greener Practice.

Maturity Matrix

The Maturity Matrix below displays how comprehensively each area of focus has been portrayed by each Trust within their Green Plan. While a useful guide to highlight areas which may benefit from further investigation and improvement within each Trust, this only reflects how extensively each area has been covered within the Green Plan, not the actual performance of the Trust.

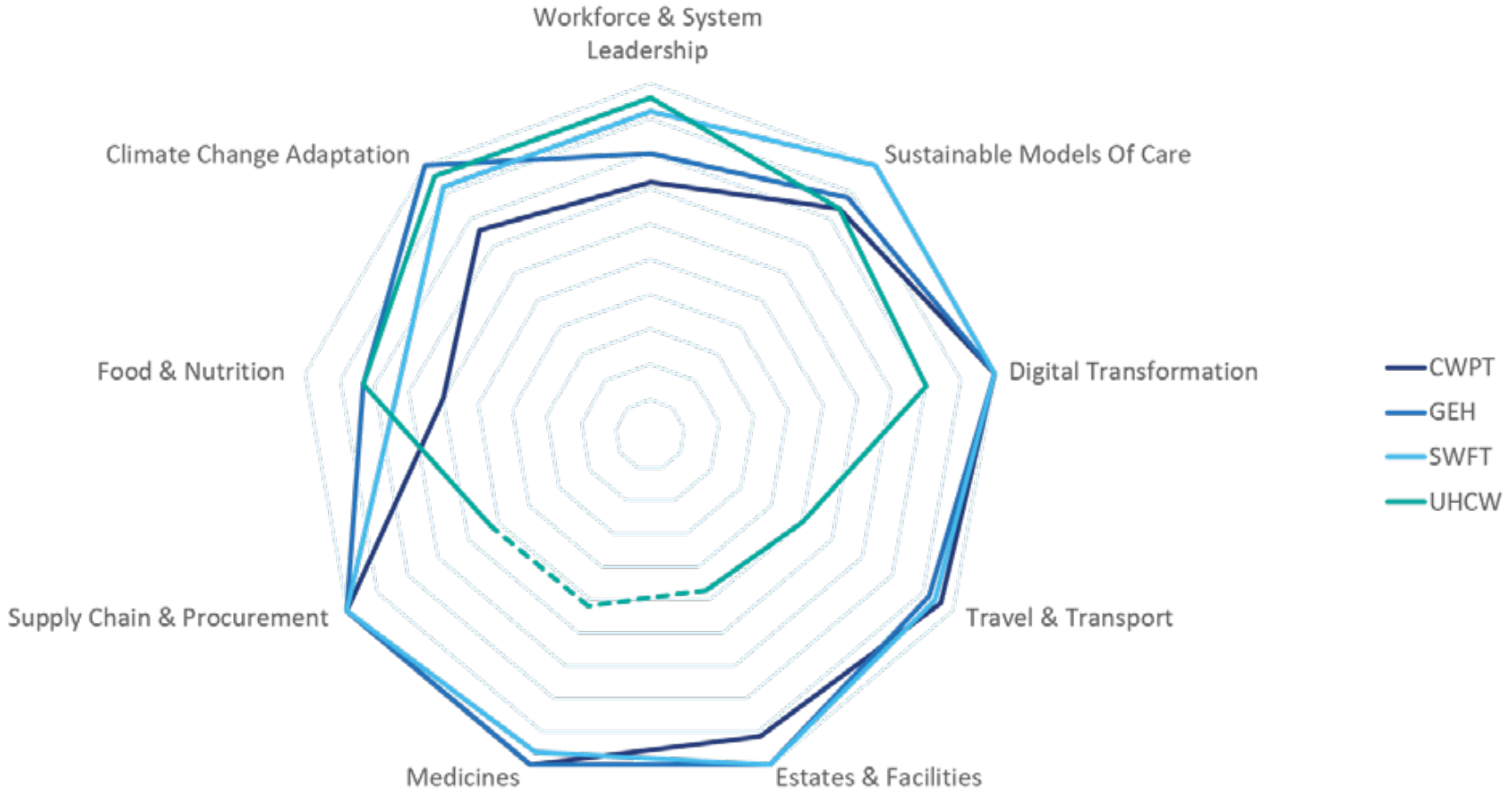


Figure 14 Maturity matrix diagram

In Figure 14, we can see that all four Trusts showed strengths in different areas within their Green Plans, which is useful for informing how systematic actions can help Trusts collaborate and share best practice. We recognise that this is in the early stages of plan development and implementation for many of our Trusts, and we will engage with them on the areas of focus in the months and years ahead.

Workforce & System Leadership

Workforce and System Leadership saw all Trusts scoring highly, especially UHCW, due to the provision of strong links to existing workforce strategies and achievable, time-bound targets. CWPT could have scored higher here by providing more evidence of staff engagement initiatives.

Sustainable Models of Care

For Sustainable Models of Care, each Trust again scored highly, especially SWFT, due to the highlighting of the inequalities impacting delivery of care, identifying existing sustainable models of care strategies in place, and setting out specific, measurable, targets for the future.

Digital Transformation

In Digital Transformation, every Trust scored full marks apart from CHCW, who would have benefitted from providing stronger evidence of transitions to virtual systems.

Travel & Transport

The Travel area of focus saw most Trusts score well, as they included travel emissions data across a number of years in their carbon footprint calculations, allowing them to set out a trajectory for their emissions reductions. The gaps in data presentation are reflected in UHCW's score for this section, but presents an opportunity for facilitation at system level, and setting up a shared learning approach between UHCW and the other Trusts.

Estates & Facilities

For Estates and Facilities, every Trust presented strong evidence of existing estates strategies currently in place, with UHCW let down in part by the omission of comprehensive estates data over consecutive years and presenting this as an emissions trajectory towards 2045.

Medicines

The Medicines area of focus is not applicable to CWPT as they do not administer anaesthetics or provide inhalers to patients. Every Trust presented this section well, due to providing evidence of existing medicines strategies, and the inclusion of medicines emissions data presentation of that data on a trajectory towards net zero

Supply Chain & Procurement

There is a good opportunity for shared learning in Procurement. All Trusts identified strong links to existing procurement strategy, with CWPT, GEH and SWFT also providing detailed accounts of their existing strategies, alongside the provision of emissions data related to their procurement activity. This provided the opportunity to present this data as part of their overall carbon footprint, as well as an emissions trajectory, something UHCW could benefit from.

Food & Nutrition

Under Food and Nutrition, all Trusts presented achievable and measurable future targets. CWPT were let down by the omission of comprehensive rundowns of current food and nutrition strategies in place.

Climate Change Adaptation

For Climate Change Adaptation, every Trust identified potential climate risks, and most also provided details of Risk Assessments and Heat Wave Plans which made for strong narrative sections.

However, CWPT could have scored better by including their existing climate change adaptation policies and strategies.

As the Trust Plans continue to develop over the next three years, collaboration and sharing of best practice, alongside regional facilitation of these conversations where appropriate, will mean that Trusts are better placed for reaching the targets they have set themselves on their routes to achieving Net Zero.

ICS Carbon Footprint

The Carbon Footprint in 2020/21 was 258,211 tCO2e.

To meet the NHS Net Zero commitments, around 8,400 tCO2e needs to be avoided from all sources each year until 2040/45.

Akin to the NHS Net Zero report, most of the emissions (72%) came from sources not under the Trust's direct control.

The remaining 28% arose from sources that can be controlled or strongly influenced.

See Figure 5 for the split of each emission category, as per the NHS Net Zero report categorisation. Data shown relate to emissions in tCO2e and their relative proportion of the footprint.

NHS Net Zero report categorisation. Data shown relate to emissions in tCO2e and their relative proportion of the footprint.

Key

Delivery of Care:

Personal Travel:

Supply Chain:

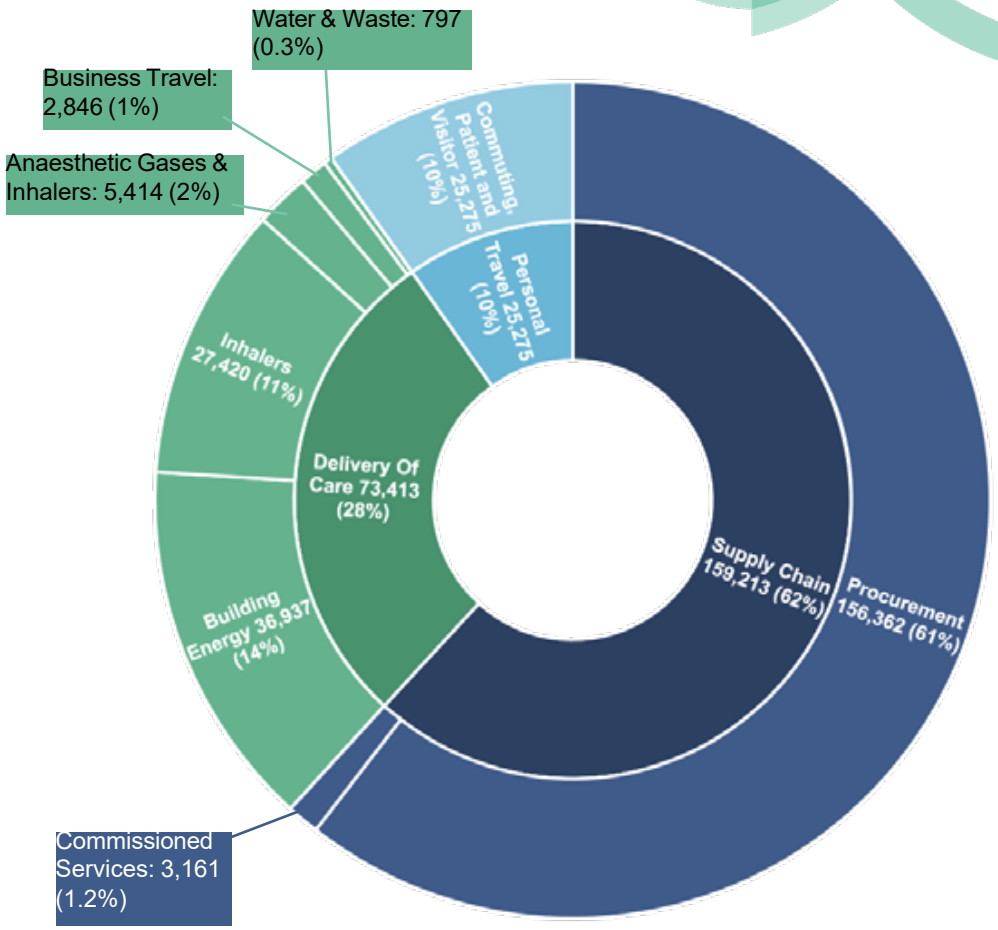


Figure 15 Total carbon footprint in 2020/21

Trajectory to 2045

To reach net zero by 2045, each of our member organisations will need to achieve a 4% year on year reduction if they fall into the ‘net zero by 2040’ category, and a 5% year on year reduction if they are in the ‘net zero by 2045’ category. The trajectory for this in each of the key areas of greenhouse gas emissions can be seen in Figure 16.

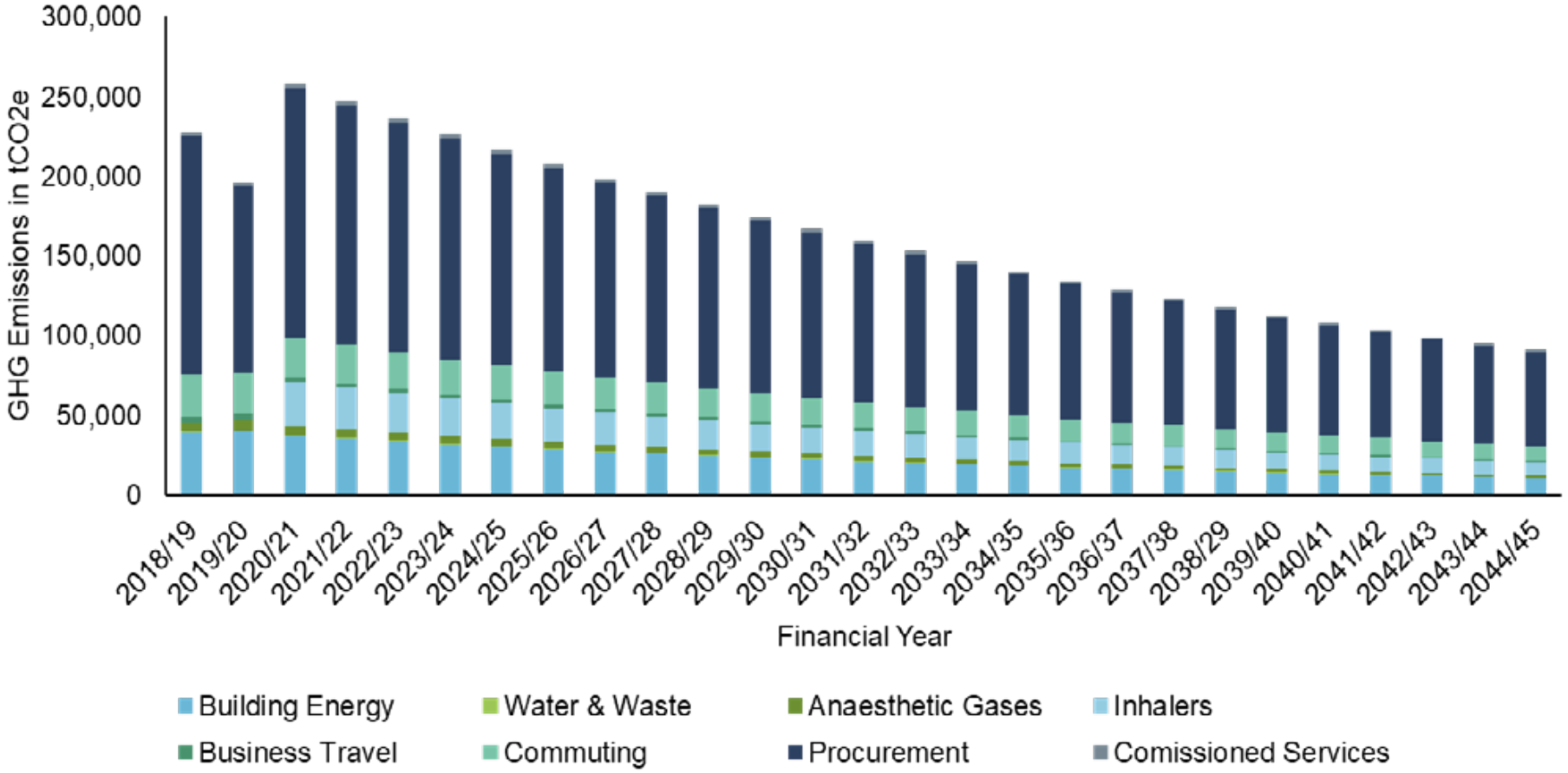


Figure 16 Coventry & Warwickshire ICS trajectory to Net Zero. Note: Total ICS anaesthetic gases and inhaler data were only available for 2020/21 and residual emissions will need to be offset by 2040/45.

Areas of Focus Contents

The following ‘Areas of Focus’ give an overview of our current performance/status and an Action Plan. Each area of focus has been assigned a list of actions that have been drawn from NHS and government guidance, and any additional measures that will facilitate our journey towards net zero. The actions within these tables have been given an ‘NHS Requirement’ column that includes an abbreviation for the document or guidance that it can be linked to; detailed in the table below.

PAR 662	The ICS People Function
PTOM	ICS Based Procurement Guidance
SRG	Public sector annual reports: sustainability reporting guidance
GAHPH	Green Allied Health Professional Hub
NZ	Delivering a Net Zero NHS
SC	Standard Contract
GNHS	Greener NHS
ENZCDP	Estates Net Zero Carbon Delivery Plan
LTP	Long Term Plan
NHSEI	NHS England and NHS Improvement
IIF	Impact Investment Fund
PG	Planning Guidance
OPE	One Public Estate
eJPG	e-Job Planning Guidance
eRG	e-Rostering Guidance
GGICT	Greening government: ICT and digital services strategy 2020-25
PP	People Plan
EOE	East of England Greener NHS: Green Plan framework and guidance
3AR	Third Adaptation Report
SSR	NHS Sustainable Supplier Framework

Workforce and Systems Leadership

We will build our Green Plan into our strategic planning and governance, including our clinical and operational policies and procedures to ensure sustainable development is a part of our daily work and how we measure success.

Workforce

This is a shared journey, and we invite our colleagues to be a part of it. Education is crucial to convey to our colleagues as to why the Green Plan is important, in addition to raising awareness of, and engagement with, net zero goals and sustainable development.

We will support our partner organisations in maintaining the health and wellbeing of NHS colleagues and taking action to ensure that they can encourage high rates of workforce recruitment and retention. Across the system, we have a responsibility to consider all our member organisations in the decisions we make, including primary and secondary care, and how these link to our partner organisations.

Systems Leadership

This Green Plan is approved by our ICB and will be reviewed (and revised if necessary) at least annually to keep us on track with the NHS net zero goals and our own targets. These reviews and our progress against the actions in the Green Plan will be submitted to our Coordinating Commission.

Working as part of a wider system is beneficial, as sustainability is an issue best addressed as a common purpose. Drawing expertise from across primary and secondary care alongside our partner institutions will allow us to embed sustainability in everything that we do.

Integrated Care Systems have a pivotal leadership role, with the aim of progressively deepening relationships between the NHS, local authorities, and other social and healthcare organisations. The ICS proactively ensures quality governance arrangements, adhering to the National Quality Board's (NQB) quality commitments and position statement.

The ICS operates a Greener NHS Delivery Board that allows workstream leads from across our member organisations to discuss priorities and initiatives needed to ensure the delivery of the actions within this Green Plan.

We also collaborate across primary care, and there are two GP federations in Coventry and Warwickshire (Coventry and Rugby GP Alliance and South Warwickshire GP Federation) that we work alongside to ensure that GPs can focus on the delivery of care. Primary care partnership will be key to addressing lack of capacity and resilience within this area of the ICS.

We will utilise our anchor institution status to seek funding to support the roll-out of Green Plan actions. Our system has considered how sustainability can be embedded across our strategies and plans. This Green Plan has been developed to align with our Digital Strategy.

Workforce and Systems Leadership Action Plan

No	C&W Green Plan Actions	Target Year	Progress	Cost to achieve	Emissions reduction	Health Benefit	Responsible lead/dept.	NHS Req.
	ICS Specific							
1	Ensure that the ICS and Trusts have board level Net Zero lead.	22/23					ICB	SC 18.2.2
2	Appoint additional members from across the ICS into the Greener NHS Delivery Board.	22/23					ICB	NZ 4.2.1
3	Ensure ICP SROs and ICB members are adequately trained in sustainability and carbon literacy and how this links to health impacts.	22/23					ICB	NZ 4.2.1
4	Ensure that the Green Plan delivery is reflected on the ICS corporate risk register.	22/23					ICB	LTP 2.24,17
5	Ensure that Sustainability Impact Assessments are integrated to the ICB's main strategy's decision- making processes.	22/23					ICB	SC 18.1
6	Ensure that Sustainability Impact Assessments are integrated to the ICS' Estates Strategy.	22/23					ICB	SC 18.1

No	C&W Green Plan Actions	Target Year	Progress	Cost to achieve	Emissions reduction	Health Benefit	Responsible lead/dept.	NHS Req.
	ICS specific							
7	Produce an annual granular carbon account in line with HM Treasury's 'Public sector annual reports: sustainability reporting guidance', with the intention of widening its scope and data quality, when possible, along with an annual review of the progress against the Green Plan actions / emission reduction targets.	23/24					ICB	NZ 3.1.1, 3.1.2 SC 18.3
8	Create plans to support the adoption and spread of clinical carbon reduction innovations throughout primary and secondary care, and higher education establishments	23/24					ICB	NZ 3.5
9	Run a series of ongoing knowledge transfer workshops to ICS members.	23/24					ICB	LTP 17
10	Support Local Authorities and other public bodies' sustainability groups to incorporate healthcare within their plans.	24/25					ICB	LTP 1.53, NZ 4.1.3
11	Incorporate PCN resource data and associated emissions within the ICS carbon footprint when data is available	24/25					ICB	LTP 1.53, NZ 4.1.3

No	C&W Green Plan Actions	Target Year	Progress	Cost to achieve	Emissions reduction	Health Benefit	Responsible lead/dept.	NHS Req.
Trust /PCN specific								
12	Support Trusts in developing sustainability training for their identified Green Plan responsible leads.	22/23					ICB	NZ 4.2.1
13	Ensure that all Trusts produce a comprehensive and granular carbon account for energy, water, waste, transport, volatile anaesthetics and inhalers	22/23					ICB	SC 18.3
14	Require Trusts to provide regular updates on progress against their Green Plans and act accordingly	22/23					ICB	SC 18.2.1
15	Help PCN member organisations record and collate energy, water, waste, transport and inhaler data	23/24					ICB	SC 18.3
16	Set up a reporting mechanism for the PCN to report their energy data and calculate emissions	23/24					ICB	SC 18.2.1, 18.3

Sustainable Models of Care

The NHS Long Term Plan introduced sustainable care into the NHS service model. Sustainable models of care can reduce health inequalities by streamlining care pathways, making them more efficient, and focusing on preventative care. Relevance to the Green Plan comes with the emission reduction that is associated with these effects.

At the Trust level, this means transforming community and urgent and emergency care to prevent inappropriate attendance at emergency departments (ED) and reducing the length of stay. At the ICS level, we are streamlining care delivery by working to ensure that NHS111 is used as the primary route to access urgent care

The National Patient Safety Improvement Programmes and the Investment Impact Fund indicators (IIF) provide underpinning principles for sustainable models of care. Staff training and empowerment are critical to deliver this.

Adhering to the Getting it Right First Time programme (GIRFT) contributes to this area as it helps to avoid additional hospital bed days and patient and visitor travel to our clinics, as well as their associated environmental impacts. Strong interagency partnership working within the ICS enhances the principles of GIRFT.

The National Pathway Improvement Programme and GIRFT will be important in developing accredited plans for the national elective recovery programme. The ICS will be instrumental in ensuring that the NHS can reach the targets set in the elective recovery plan, which set out a vision to reduce wait times that have increased due to the COVID-19 pandemic.

Coventry and Warwickshire ICS will build on what we have learned during the pandemic to transform the delivery of services, accelerate the restoration of elective and cancer care and manage the increasing demand on mental health services. We also commit to link Greenhouse Gas (GHG) reductions with our delivery of the Long Term Plan sustainable care model.

Community Diagnostic Centres can be used to make our care delivery more sustainable, as they facilitate earlier diagnoses, reduced hospital visits, wait times and patient journeys. Such a hub already exists in the new Stratford Hospital, whilst the space available in the old Stratford Hospital will be utilised to enable a quick mobilisation of additional diagnostics. In the North of Warwickshire, a new facility is being built at the George Eliot Hospital site.

Outside of secondary care, there should be an emphasis on expanding primary care capacity to improve access, local health outcomes and address health inequalities.

Sustainable Models of Care Action Plan

No	C&W Green Plan Actions	Target Year	Progress	Cost to achieve	Emissions reduction	Health Benefit	Responsible lead/dept.	NHS Req.
	ICS Specific							
1	Establish plans to embed carbon reduction principles in our delivery of care across the system.	22/23					ICP	SC 18.4.2.1, NZ 4.1.1, 4.1.2
2	Work with clinicians locally to consider which pathways could be decarbonised.	22/23					ICP	SC 18.4.2.1, NZ 4.1.1, 4.1.2
3	Develop an accredited National Pathway Improvement Programme & GIRFT plans for the National Elective Recovery Programme.	22/23					ICB	LTP 2.26 SC13.9. 1, 18.4.2.1 NZ 4.1.3
4	Facilitate sharing of best practice on decarbonisation of care pathways across Coventry & Warwickshire.	22/23					ICP	LTP 7.15
5	Support the development of the Community Diagnostic Hub at George Eliot Hospital and develop more Community Diagnostic Hubs.	22/23					ICB	PG22 C1
6	Support the adoption and spread of clinical carbon reduction innovations (competitions and collaborations).	23/24					ICP	LTP 17
7	Develop decarbonisation of care materials and disseminate to ICP.	23/24					ICP	LTP 17
8	Roll out monitoring systems for community-based care e.g., oximeters.	24/25						

No	C&W Green Plan Actions	Target Year	Progress	Cost to achieve	Emissions reduction	Health Benefit	Responsible lead/dept.	NHS Req.
Trust / PCN specific								
9	Collate data on how each Trust is complying with GIRFT.	22/23					ICB	LTP 6.16
10	Encourage GP practices use the RCGP's Green Impact for Health Toolkit and send reports back quarterly	22/23					ICP	LTP 17 NZ 4.1.3
11	Ensure each Trust uses the Embedding Public Health into Clinical Services Programme's toolkit and has a lead SRO.	23/24					ICB	LTP 2.26 SC13.9.1, 18.4.2.1 NZ 4.1.3
12	Ensure each Trust uses the Sustainability in Quality Improvement (SusQI) Framework and has a Quality lead SRO.	23/24					ICB	LTP 2.26 SC13.9.1, 18.4.2.1 NZ 4.1.3
13	Work with local authorities, PCNs and the voluntary sector to improve access to care in areas of deprivation (transport, signposting, community-based initiatives).	23/24					ICP	PG22 D1

Digital Transformation

A digitally enabled integrated care system helps to improve the quality and experience of the services we provide. Digital transformation allows our colleagues to collaborate and work in a multi-disciplinary manner, services to be resilient, public information to be disseminated consistently and the system to make best use of its resources.

Digital infrastructure and tools allow us to join up our services and make it easier for individuals to access them, whilst using population-level intelligence to improve population health through service redesign.

To fully utilise the potential of digital systems, the ICS needs to:

- Build smart digital and data foundations
- Connect health and care services
- Use digital systems to transform care
- Put citizens at the centre of care

The NHS Long Term Plan commits all NHS bodies to focus on digital transformation by establishing a ‘digital front door’, enabling patients to be able to engage in ‘digital first care’. The NHS App is one example of these, providing patients with a simple and secure way to access NHS services on their smartphone.

The NHS Planning Guidance requires that at least 25% of all clinically necessary outpatient appointments should be delivered remotely by telephone or video consultation. Streamlining and digitising administrative functions reduces paper waste and expedites processes. However, we must ensure that digitalisation does not unintentionally further digital exclusion in Coventry and Warwickshire. The Government’s Greening ICT and Digital Services Strategy 2020-2025 is also taken

into consideration when looking at the improvement of our digital care services.

The What Good Looks Like framework describes how arrangements across a whole ICS can support success. There are seven success measures: to be well-led, ensure smart foundations, safe practice, support people, empower citizens, improve care, and healthy populations.

Our ICS has a Digital Transformation Strategy to establish the framework and direction for delivering digital and data solutions. The strategy details our planned integrated care record which will support information sharing across the system and enable more sustainable models of care. There is also a virtual health and care platform designed to enable digitised support and virtual interactions between and amongst health and care professionals, citizen, and patients including virtual consultations and virtual wards.

Other capabilities include digital workforce tools, population health management platform, electronic health and care record, advanced analytics and easy retrieval of data. These have been summarised in Figure 17.

At the Trust level, we have two Digital Innovation Hubs at SWFT and UHCW, which we aim to bring together through the provision of a system-level framework. UHCW also provides digital patient clinics and plans to report on the number of virtual clinics.

GEH has moved to digitalised or telephone follow-up outpatient appointments for certain departments, which helps to negate travel. GEH, SWFT and CWPT also have a blended working approach with hot desk facilities and Microsoft Teams Provision.

Citizen and patient portal: Centralised digital access to health and care records, personalised resources and self-serve support and management

Integrated care record: Read-only view of records from primary care, secondary care, mental health, community and social care, ambulance and NHS 111.

Virtual health and care: Virtual interactions between health and care professionals, citizens, and patients, enabling the remote monitoring of patients

Digital workforce tools: Agile working, collaboration, training, people management, and self-serve access capabilities.

Population health management platform: Intelligence platform fed by linked datasets across care settings with data aggregation and analytical capabilities.

Electronic health and care record: Information system with read/write, real-time access to citizen and patient records – system of record.

Figure 17: Digital capabilities as derived from our Digital Transformation Strategy.

For staff, there is a My George-app which allows staff to see payslips, car schemes, and Electronic Staff Records data. CWPT offers Attend Anywhere video consultations and Zoom group therapy and education sessions to negate travel. The Trust has also launched a Digital Champions Network, an Oxehealth system for night-time observations across Dementia and Mental Health Wards, an integrated care record and a Cambio bed Management System to replace ward whiteboards.

SWFT offered 139,333 digital appointments since adapting to the pandemic, which accounts for 41% of outpatient appointments and have digitised paper records through an electronic patient record (EPR), electronic ED system, patient portal, and virtual appointments.

Patient notes are digitised through Lorenzo and Kainos Evolve, and training is provided online through eLearning or online classroom sessions. SMS messages are also used for appointment reminders. Expense claims are also digitised, and all of our community-based workers have access to mobile phones.

Our local authority partners have engaged with digital transformation and can provide another stream of expertise on how best to use digital strategy to further the Green Agenda.

Digital Transformation Action Plan

No	C&W Green Plan Actions	Target Year	Progress	Cost to achieve	Emissions reduction	Health Benefit	Responsible lead/dept.	NHS Req.
	ICS Specific							
1	Ensure the ICS has a Digital Transformation Plan, which is shared with the ICP.	22/23					ICB	PAR 662
2	Ensure ICP staff are digitally literate.	22/23					ICB	PAR 662
3	Support ICP members to upgrade IT hardware to enable shared digital platform(s).	22/23					ICB	PG21 H
4	Ensure the use of NHS111 as the primary route to access urgent care and the timely admission of patients to hospital who require it from emergency departments.	22/23					ICB	LTP 1.10
5	Continue to develop inter-agency Integrated Care Record platform that adheres with the What Good Looks Like Framework.	23/24					ICB	PG22 H
6	Implement Electronic Prescribing and Medicines Administration (ePMA) across primary care.	23/24					ICB	PG22 D1

No	C&W Green Plan Actions	Target Year	Progress	Cost to achieve	Emissions reduction	Health Benefit	Responsible lead/dept.	NHS Req.
	ICS Specific							
7	Support Trusts to deliver more virtual outpatient appointments: reach the 25% target.	23/24					ICB	PG21 C1
8	Support the PCN to significantly increase the use on online consultations, as part of embedding total triage.	23/24					ICB	LTP 1.17
9	Develop a Digital Mental Health Strategy and ensure that digitally enabled models of therapy are rolled out in specific mental health pathways.	23/24					ICB	PG21 C3
10	Work with the local authorities to ensure digital connectivity for all ICP members and remove signal 'dead zones' in the geography.	23/24					ICB	LTP 5.16
11	Collaborate with our partners to improve digital literacy across Coventry and Warwickshire to reduce levels of digital exclusion.	23/24					ICP	LTP 5.16
12	Baseline an ICT footprint in line with published materials by HMG Sustainable Technology Advice and Reporting (STAR).	24/25					ICB	GGICT
13	Calculate the carbon associated with moving toward digital systems and make choices based on the most carbon friendly.	24/25					ICB	NZ 4.1.1, 4.1.2

No	C&W Green Plan Actions	Target Year	Progress	Cost to achieve	Emissions reduction	Health Benefit	Responsible lead/dept.	NHS Req.
Trust / PCN specific								
14	Coordinate 'Digital Front Door' access across ICS region: ensure all Trusts have the same format (uniformity) and that ICP members have hyperlinks to each Trust's 'Digital Front Door' on their respective websites.	23/24					ICB	LTP 4.1.43
15	Ensure all ICP members are aware of the NHS/ Trust 'Digital Front Door' services (training and signposting) as part of citizen-centred care.	23/24					ICP	LTP 17
16	Ensure all Trusts use e-job planning and e-rostering and have access to relevant guidance (e-job and e-rostering).	23/24					ICB	PG22 A
17	Develop digital tools and systems tools to allow for collaborative working.	23/24					ICP	PG22 F3

Travel and Transport

Air pollution

The NHS Net Zero plan calculates that reaching UK ambitions on emissions reductions in line with Paris Agreement targets could save 38,000 lives with improved air quality: air quality forms a direct link between climate change and health outcomes.

According to the World Health Organisation (WHO), poor air quality leads to over 7 million deaths globally and that 9 out of 10 people worldwide breathe polluted air.

Figure 18 visualises the Level of PM10 Particulate Matter as sourced from the Consumer Data Research Centre: Access to Healthy Assets and Hazards (AHAH) (exported from SHAPE Atlas).

Travel is a key contributor to air pollution, and with as many as 1 in 20 road journeys in the UK attributable to the NHS, systematic intervention alongside our local authority partners has the potential to have an enormous impact both on our communities' air quality and therefore health outcomes.

As seen in Figures 18 and 19, despite being a rural region, Coventry and Warwickshire displays moderate levels of PM10 with the highest levels in the west of North Warwickshire, in the north of Rugby, in the south of Nuneaton and Bedworth and in the central and northern parts of Coventry. However, in no parts of the region are the areas of PM10 in the top 10% of the country. This is a commonly used proxy indicator for air pollution, as it affects people's health to a higher degree than any other pollutant.

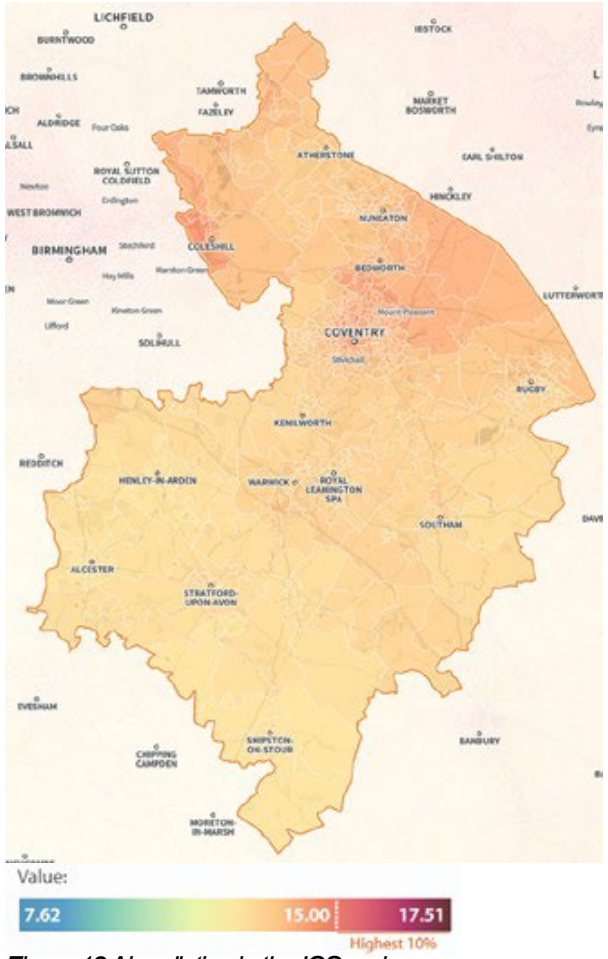


Figure 18 Air pollution in the ICS region

Air pollution measures have been introduced specifically in Nuneaton and Bedworth Borough, where an Air Quality Management Area (AQMA) was declared in 2007 along the A57 Leicester Road in Nuneaton town centre where NO2 levels were predicted to exceed the annual mean objective. A second AQMA was declared in 2009.

Coventry City Council have designated the city as an Air Quality Management Area since 2009. Emissions from road transport are the major source of pollution in Coventry, with emissions from industry as a contributing factor. As a partner of the Low Emissions Towns and Cities programme (LETCP), the Council is working together with its West Midlands neighbours to improve air quality and reduce emissions from road transport.

There are some Air Quality Specific action plans across the region, including Warwick District Council's Air Quality Action Plan which commits to seven actions to improve air quality, and North Warwickshire's Air Quality Progress Report.

The system commits to tackle this issue through investment and engagement with staff, patients and our partner local authorities. We will give special consideration to the air quality across Coventry and Warwickshire and aim to mitigate the impacts whilst contributing to a reduction in air pollution across the region.

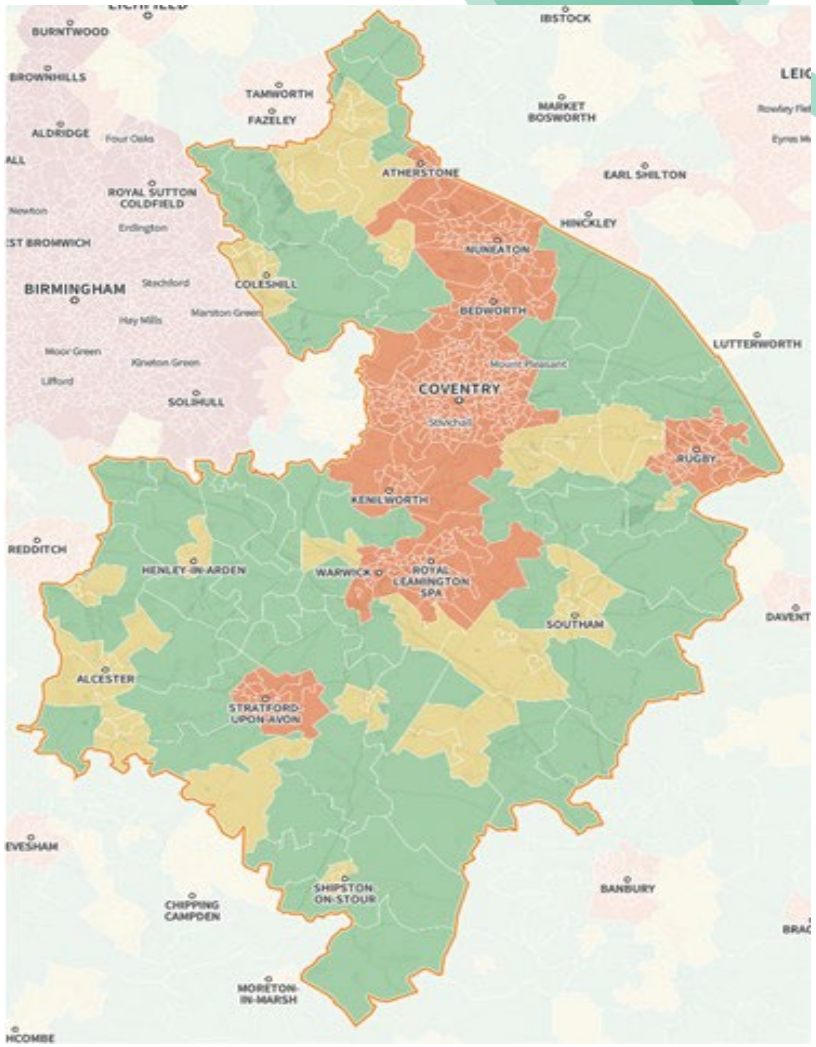


Figure 19 visualises the ONS 2011 rural/urban classification (exported from SHAPE Atlas).

Public transport

Bus and rail travel allow staff, patients and visitors that live far away from our sites to travel in a more sustainable manner. This requires infrastructure, which the ICS can help to develop through our partnership with local authorities.

UHCW has encouraged public transport use by staff through several methods. The Trust offers discounted bus passes for staff, they have expanded their bus stops to an interchange at the University Hospital in Coventry and are working with bus operators to improve services to the site.

Electric vehicles (EV)

Before making decisions regarding the fleet, NHSEI suggests that Trusts undertake green fleet reviews to identify any petrol/diesel cars that are underutilised and can be removed from the fleet. Once this has been done, appropriate transitions can be made to Ultra Low Emission Vehicles (ULEVs) and Zero Emission Vehicles (ZEVs).

Charging infrastructure is a potential barrier to encouraging electric vehicle uptake by patients, visitors, and staff. By partnering with Warwickshire County Council, who have secured £1 million to install 80 twin-headed EV charging points across the region, and Coventry City Council, we seek to improve the region's charging infrastructure.

UHCW have installed electric vehicle charging points at University Hospital and have plans to install further charge points at the Hospital of St Cross, Rugby. SWFT has a total of five EV charging points across their sites with plan to provide an additional eleven at the redevelopment of the Ellen Badger Hospital. GEH and CWPT do not currently have EV charging points but there are plans to change this soon.

Active travel

Travel on bikes and on foot produces the fewest carbon emissions in addition to being the lowest cost to the user as a method of transport, making active travel a key focus for decarbonisation of travel. Cycle lanes and streetlights as they ensure that cyclists feel safe on the roads. There are some barriers to active travel that can be addressed from a system perspective.

At our sites active travel can be addressed using several methods. Cycle-to-work salary sacrifice schemes are an example of this, and their uptake can be encouraged through implementation of lockers and showers, and by offering Dr Bike sessions. UHCW, SWFT, CWPT and GEH all operate cycle-to-work schemes, which are supported by facilities and showers at SWFT.

UHCW has been an active travel partner within the West Midlands and Warwickshire transport networks and have been engaged in improving sustainable travel solutions on site and across the region. The Trust has also worked with partners to develop cycle routes.

Another potential consideration is making e-bikes available through cycle-to-work schemes, as some staff members may have longer distances to travel than others.

WMCA is investing a total of £1.1m in a range of transport schemes being delivered by TfWM, including active travel such as cycling and walking. Warwickshire County Council run a Safe and Active Travel Award to promote the health and environmental benefits of active travel, with an aim to reduce the number of school-related car journeys.

Travel plans

Travel surveys can be used to inform travel planning, as collecting data on cycling, public transport, electric vehicle use and car sharing can give a more accurate picture of travel and transport emissions. A Green Travel Plan has already been developed for UHCW that is being reviewed to reflect the NHS Net Zero targets.

Encouraging staff, patients and visitors to share cars through schemes could reduce greenhouse gas emissions. At the Trust level, priority parking spaces could be introduced whilst at the system level, the council could be encouraged to explore car sharing lanes.

Travel carbon footprint

Some emissions from travel are under our Trusts' direct control, such as fuel used in fleet vehicles. However, most emissions associated with travel are from the grey fleet (use of employees own vehicles for business purposes) and commuting. Patient and visitor travel are beyond the ICS' or Trusts' control, though at a system level, we can help influence travel choices.

Figure 20 shows the carbon footprint for our Trusts' business travel during 2020/21, whereas Figure 21 shows the total fleet and grey fleet emissions and reduction forecast for the ICS. For the system to reach net zero by 2040/2045, emissions must be reduced by 429 tCO2e by 2024/25.

Commuting, patient, and visitor travel emissions were calculated using the NHS' Health Outcomes of Travel Tool (HOTT).

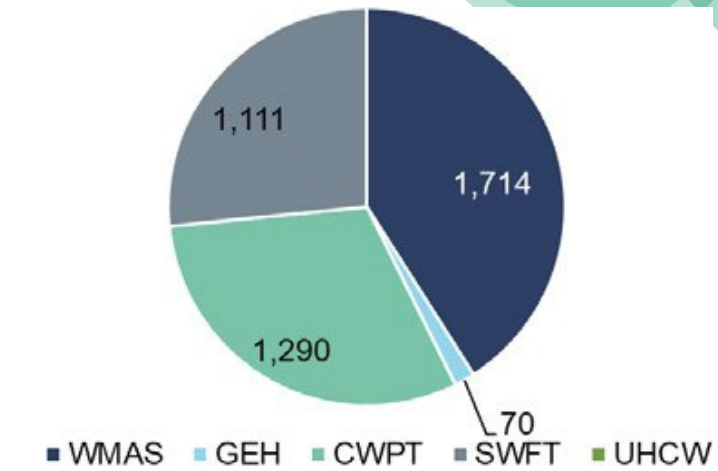


Figure 20 Emissions from business travel for NHS Trusts

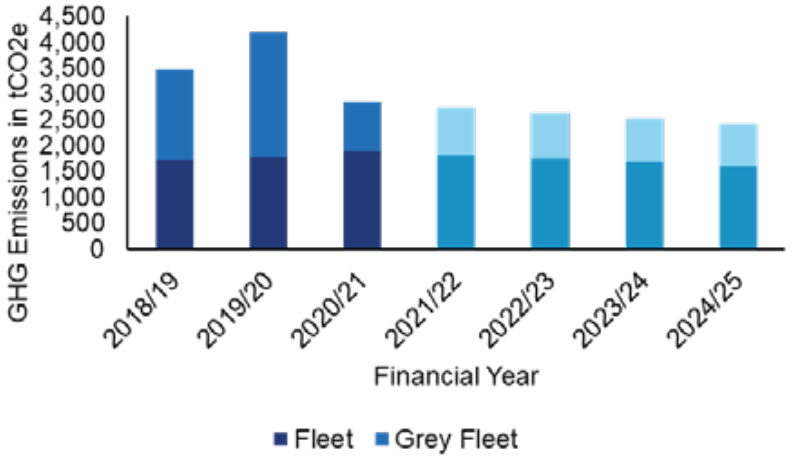


Figure 21 Emissions from NHS Trust fleet and grey fleet

Figure 22 shows the carbon footprint for our Trusts' commuting during 2020/21 and Figure 23 shows the emissions reduction trajectory to 2024/25.

For the system to reach net zero by 2045, emissions from these sources must be reduced by 3,808 tCO2e by 2024/25. The electrification of transport, and uptake of active and clean public transport will be critical to achieve this.

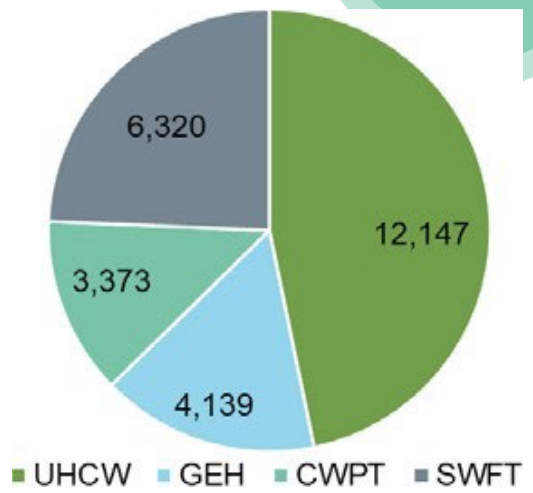


Figure 22 Emissions from commuting, patient, and visitor travel for NHS Trusts

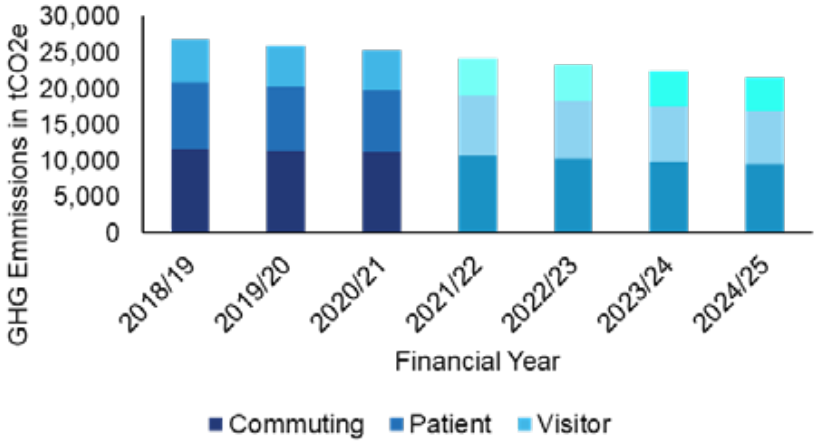


Figure 23 Emissions from commuting, patient, and visitor travel

Travel and Transport Action Plan

No	C&W Green Plan Actions	Target Year	Progress	Cost to achieve	Emissions reduction	Health Benefit	Responsible lead/dept.	NHS Req.
	ICS Specific							
1	Work with all local transport providers and assist Trusts and partners to embed salary sacrifice season ticket schemes.	22/23					ICP	ENZCDP 5 NZ 3.2.1 3.2.2
2	Assist member organisations to access EV charging funds/grant schemes.	22/23					ICP	NZ 3.2.1
3	Assist member organisations in improving EV charging infrastructure.	22/23					ICP	NZ 3.2.1 SC 18.3.1.4
4	Ensure that EV charging infrastructure is in place where appropriate across primary and secondary care.	23/24					ICB	ENZCDP 5 NZ 3.2.1 SC 18.3.1.4
5	Implement the Clean Air Hospital Framework across all hospital sites.	23/24					ICB	NZ 3.2.2 SC 18.3.1
6	Create an ICS-wide Travel Plan, conjoining Trust, local authority, and other partner Travel Plans.	23/24					ICP	LTP 2.21, 3.82, 17 SC 18.3.1.3 NZ 3.2, 3.2.2

No	C&W Green Plan Actions	Target Year	Progress	Cost to achieve	Emissions reduction	Health Benefit	Responsible lead/dept.	NHS Req.
	ICS Specific							
7	Work with local authorities to further develop schemes to encourage active travel.	23/24					ICP	NZ 3.2.2
8	Work with local authorities and transport providers to improve public transport links and access to healthcare.	23/24					ICP	NZ 3.2.1
9	Work with local authorities to explore introducing a region-wide car sharing scheme.	23/24					ICP	NZ 3.1.1, 3.1.2 SC 18.3
10	Work with local authorities to improve EV charging infrastructure across the region.	23/24					ICP	NZ 3.2.1
11	Roll out air quality monitors to patients in areas of low air quality.	24/25					ICP	NZ 3.2.2, SC 18.3.1
12	Work with Trusts and Distribution Network Operators (DNOs) in pre-empting additional kVA capacity to accommodate extra EV charging, especially mega-chargers for large vehicles (up to 1MW per charge point).	24/25					ICB	NZ 3.2.1
13	Work with local authorities and private sector to explore where industrial battery storage and EV charging hubs can be located.	24/25					ICB	NZ 3.2.1

No	C&W Green Plan Actions	Target Year	Progress	Cost to achieve	Emissions reduction	Health Benefit	Responsible lead/dept.	NHS Req.
Trust / PCN specific								
14	Ensure Trusts have Travel Plans, a Travel Plan lead and undertake annual Travel Plan Surveys that map commuting patterns and travel modes.	22/23					ICB	ENZCDP 5 LTP 2.21, 3.82, 17 SC 18.3.1.3 NZ 3.2, 3.2.2
15	Ensure Trusts report on all travel modes / types (fleet, grey fleet, business travel (rail, air, taxi, bus etc.) in their Green Plans.	23/24					ICB	LTP 2.21, 3.82, 17 SC 18.3.1.3 NZ 3.2, 3.2.2
16	Ensure Trusts and ICS partners improve facilities for cyclists / walkers	23/24					ICB	ENZCDP 5 NZ 3.2.2
17	Ensure that all new purchases and lease arrangements for cars are ULEVs or ZEVs only, aligning with any ultra-low emissions or clean air zones.	23/24					ICB	ENZCDP NEPS SC18.4.1.1 , 18.4.1.4 NZ 3.2.1
18	Ensure only ULEVs or ZEVs are made available to staff through salary sacrifice schemes, aligning with any ultra-low emissions or clean air zones.	23/24					ICB	ENZCDP SC18.4.1.1 , 18.4.1.4 NZ 3.2.1

Estates and Facilities

The carbon footprint across the built environment of the system is significant. Overall, the health and care system in England is responsible for an estimated 4% of the country's carbon emissions.

The ICS member organisations provide important services across numerous sites, meaning that our energy and resource consumptions are substantial. Therefore, we need to optimise energy use in our buildings and move away from using fossil fuels to meet NHS Net Zero goals.

The estate comprises a mixture of buildings of different types, ages and usage, which presents challenges to retrofitting resource efficiency measures and heating improvements. Within the primary care estate there is fragmented ownership across individual practices, GP partnerships, private sector, NHS Property Services, and Community Health Partnerships, presenting challenges in our decarbonisation efforts.

A potential method to reduce the environmental impact of our estate is improving utilisation of space which can reduce running costs and potentially free up surplus land.

One programme that aims to achieve this is One Public Estate (OPE), a collaboration between the Local Government Association (LGA) and the Cabinet Office's Government Property Unit. Geared towards supporting locally led partnerships of public sector bodies to collaborate on public service delivery strategies and estate needs, OPE has set a new goal to encourage partnerships between NHS organisations and councils.

The programme sees councils sees as important public sector partners for this work because they can concentrate on building houses while the NHS can offer to sell the spare land.

For our region, a key objective will be utilising our partnership with Warwickshire Care Homes and Care Associates Coventry to ensure there is sufficient coverage of care homes and hospices in the region. This topic is of high importance as we care for an ageing population; 17.1% of the population is projected to be 70 years or older in 2025 in Warwickshire.

We will be following the four-step approach within the NHS' 'Estates 'Net Zero' Carbon Delivery Plan' to address our estate:

1. Making every kWh count: Investing in no-regrets energy saving measures
2. Preparing buildings for electricity-led heating: Upgrading building fabric
3. Switching to non-fossil fuel heating: Investing in innovative new energy sources
4. Increasing on-site renewables: Investing in on-site generation

Figure 24 shows the carbon footprint for our member organisations' building energy during 2020/21, and Figure 25 shows the total energy consumption and emissions across the ICS. It will be necessary to reduce building energy emissions by 6,852 tCO2e by 2024/25 to facilitate the system to reach net zero by 2040.

One potential energy solution for the decarbonisation of electricity and heat is the use of decentralised energy networks. Coventry District Energy Company operates a District Energy Scheme which includes many of the city's government and cultural buildings.

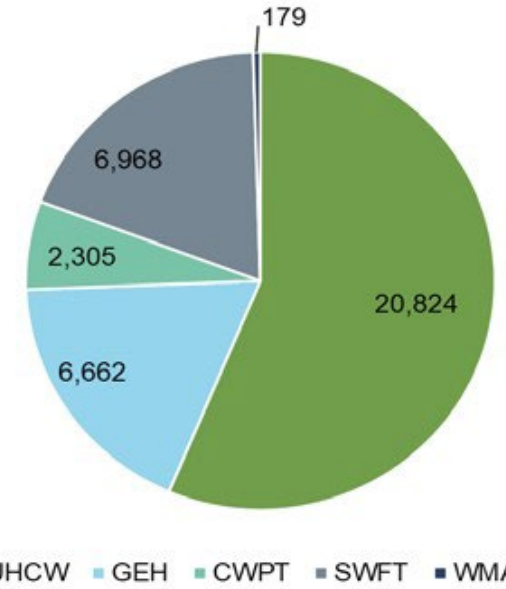


Figure 24 Building energy emissions in tCO_2e from our Trusts in 2020/21

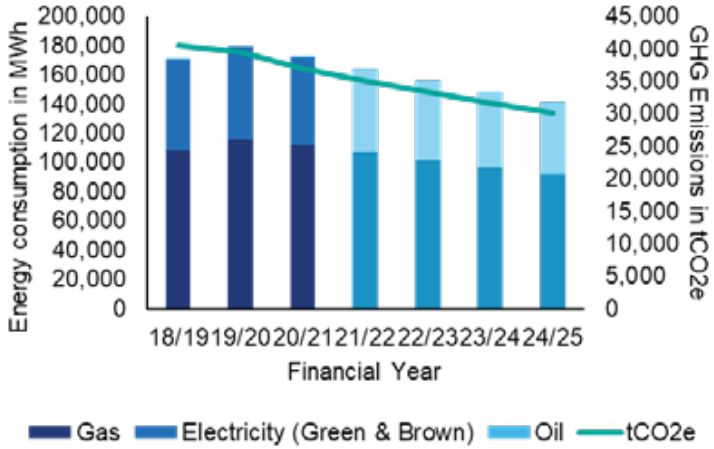


Figure 25 Energy consumption and GHG emissions for all NHS Trusts and reduction trajectory to 2024/25

renewable electricity and at present, all three Trusts have committed to this target. To go a step beyond, the procurement of Green Gas can also be explored and facilitated by the system.

Decreasing energy consumption can help to reduce the associated cost of divesting from fossil fuel energy, which can be done through detailed building energy surveys. These can provide robust energy efficiency recommendations at each of our sites, building upon the works already completed.

On-site renewable energy systems such as solar photovoltaics and integrated large battery storage technologies can also be used to decarbonise and provide additional resilience in the event of a power outage.

Several energy efficiency measures have already been taken across the Trusts, including upgrading to LED lighting at UHCW, GEH and CWPT. UHCW and SWFT have installed renewable energy technology such as solar panels and low carbon heating and cooling through Air Source Heat Pumps.

This is part of an ongoing decarbonisation of heating and hot water at UHCW, where the BMS has also been upgraded and work with Private Finance Initiative (PFI) partners to improve energy efficiency and reduce energy usage across the estate. GEH has set up pre-planned maintenance (PPM) across the estate and designated a Utilities Lead to work on energy efficiency across the estate. CWPT has also improved the thermal efficiency of their estate.

Estates and Facilities Action Plan

No	C&W Green Plan Actions	Target Year	Progress	Cost to achieve	Emissions reduction	Health Benefit	Responsible lead/dept.	NHS Req.
	ICS Specific							
1	Ensure there is a plan to optimise the estate through a reduction in void costs, rationalisation and space planning.	22/23					ICB	OPE
2	Where possible, consolidate and co-locate acute provider services with suitable healthcare partners.	23/24					ICB	OPE
3	Determine how other public buildings can be used for local healthcare delivery to provide care closer to home.	23/24					ICB	OPE
4	Where land is vacated or sold across the estate, it should be prioritised for the development of affordable and key worker housing, where there is a need.	23/24					ICB	OPE, LTP 6.17 vii
5	Work with the Warwickshire Care Homes and Care Associates Coventry to ensure extensive provision of care homes and hospices across the region.	23/24					ICB	NZ 4.2.1
6	Discuss the submission of ICS and Trust carbon footprints to local authorities to be included in two county carbon footprints.	23/24					ICB	SC 18.3
7	Work with partner organisations to increase access to supported living options.	24/25					ICB	NZ 4.2.1

No	C&W Green Plan Actions	Target Year	Progress	Cost to achieve	Emissions reduction	Health Benefit	Responsible lead/dept.	NHS Req.
Trust / PCN specific								
8	Work with partner organisations to explore whether providers can share buildings (co-location).	22/23					ICP	OPE
9	Conduct a system-wide estates review across secondary care.	23/24					ICP	ENZCDP, SC 18.3.2.1
10	Conduct a review of the estate across the system to determine our ability to absorb increases in acute demand.	23/24					ICP	ENZCDP NZ 4.2.1

Building Energy Action Plan

No	C&W Green Plan Actions	Target Year	Progress	Cost to achieve	Emissions reduction	Health Benefit	Responsible lead/dept.	NHS Req.
	ICS Specific							
1	Demonstrate plans for primary care services to transition purchasing renewable electricity.	22/23					ICB	SC 18.5
2	Create a programme to assess the state and energy efficiency of the PCN estate and develop plans and targets to improve the building fabric/ energy efficiency and reduce emissions.	22/23					ICP	SC 18.5 NZ 3.1.1, 3.1.2
3	Support Trusts to create Heat Decarbonisation Plans and transition away from fossil fuels, including developing low-carbon district heating schemes	23/24					ICP	ENZCDP LTP 17 SC 18.3.2.1 NZ 3.1.1, 3.1.2
4	Work with Trusts who have CHPs to start the journey to decarbonising the system (e.g., green gas, hydrogen-ready, heat pump alternatives and district heat schemes).	23/24					ICP	ENZCDP SC 18.3.1.2
5	Work with partners to develop Community Renewable Energy initiatives.	24/25					ICP	ENZCDP SC 18.4 LTP 17
6	Explore the procurement of Green Gas across the system.	24/25					ICB	NZ 4.2.1

No	C&W Green Plan Actions	Target Year	Progress	Cost to achieve	Emissions reduction	Health Benefit	Responsible lead/dept.	NHS Req.
Trust / PCN specific								
7	Support Trusts in reviewing and refining their Building Energy Management Systems (BEMS) to optimise building controls and energy consumption.	22/23					ICB	ENZCDP
8	Support Trusts to upgrade all fluorescent lighting to LED equivalents.	22/23					ICB	ENZCDP
9	Ensure Trusts can install sub-meters across shared sites to accurately determine energy and emissions per Trust.	23/24					ICB	ENZCDP
10	Support Trusts to utilise/optimise roof space to install PV systems.	23/24					ICB	ENZCDP
11	Support Trusts to review Air Handling Units (AHUs) and look to replace belt-driven fans with modern direct-drive units and make other AHU efficiencies.	23/24					ICB	ENZCDP

Capital Projects

The Built Environment of the NHS influences both the quality of our care and our environmental impact.

How we design and construct our buildings in the future will play a decisive role in our collective ability to achieve net zero. Buildings have significant environmental impacts in terms of emissions resulting from the use of gas, electricity and water. Improving the energy efficiency of a building is pivotal to reducing these impacts, as detailed in the previous section.

However, there are embodied carbon emissions within materials, such as cements, steel and glass which are used in the construction of buildings. These indirect ‘Scope 3’ emissions are generally much greater than emissions caused by the operation of a building. We can explore how these embodied emissions can be reduced alongside local authorities.

Cement and concrete production on its own accounts for a huge 8% of all global greenhouse gas emissions from all sources, according to the Dutch Environmental Assessment Agency.

Across our Trusts, capital projects already consider sustainability. UHCW has green roofs which have over time become habitats for plants and insects whilst bringing greenspace closer to patient recovery areas, whereas BMS automation has been incorporated into extension projects such as new theatres to ensure optimisation of controls at SWFT.

The system’s plans will focus on the reduction of building emissions from all sources, including Building Research Establishment Environmental Assessment Method’s (BREEAM) ‘Excellent’ or above standards.

Capital Projects Action Plan

No	C&W Green Plan Actions	Target Year	Progress	Cost to achieve	Emissions reduction	Health Benefit	Responsible lead/dept.	NHS Req.
ICS Specific								
1	Ensure capital development accounts for risks identified in climate adaptation plans and addresses these in design/delivery.	22/23					ICB	SC 18.3.2.3
2	Facilitate our member organisations in accessing funding for ambitious and sustainable new projects.	22/23					ICB	SC 18.3.2.3
3	Capture staff, patient and community views on the sustainable elements of our design process.	22/23					ICB	LTP 16 SC 18.3.2.1 NZ 3.1.1
4	Implement the upcoming Net Zero Hospital Building Standard in any new builds and BREEAM 'Excellent' for any major refurbishments.	22/23					ICB	LTP 16 SC 18.3.2.1 NZ 3.1.1
Trust / PCN specific								
5	Explore how to connect new buildings to existing district heat networks.	23/24					ICB	SC 18.3.1.2

Water

Although water is typically a low percentage of an ICS's total emissions, reducing our water consumption is a small step in the direction of reaching Net Zero whilst being in line with the UN SDGs. Global warming is likely to put increasing pressure on clean water supplies, so sustainable water use will be an important way for the NHS to adapt to climate change.

As a water efficiency and leak preventative measure, we will look to facilitate the installation of Automatic Meter Readers (AMRs) to water networks across the primary and secondary estate. This will help our member organisations to pinpoint areas of high water usage, understand how and where water is being used, locate leaks and take remedial action.

Water conservation and sustainable drainage shall also be explored. Rainwater harvesters collect rainwater for non-potable purposes, such as for flushing toilets. They will help reduce water stress and potentially alleviate flooding by attenuating surface water run-off in storm events.

As shown in Figure 26, emissions from water use and wastewater treatment are relatively low compared with building energy emissions. However, water should not be overlooked – we need to save over 100,000 m³ of water, equivalent to the volume of 40 Olympic swimming pools, by 2024/25, saving an additional 113 tCO2e.

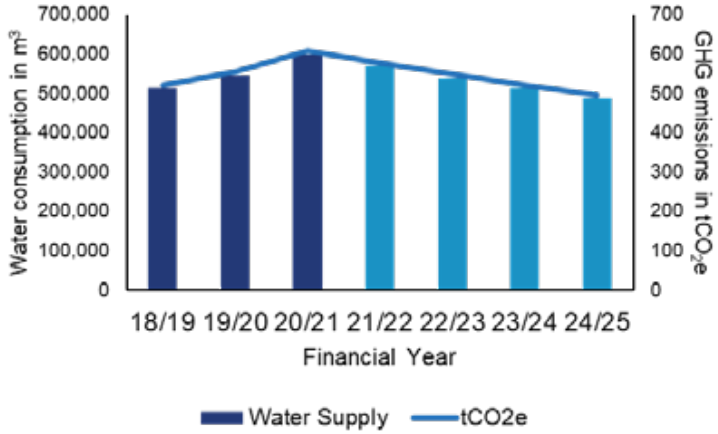


Figure 26 Stacked bar chart to show total water emissions from supply and wastewater treatment, and emissions reduction trajectory to 2024/25

Water Action Plan

No	C&W Green Plan Actions	Target Year	Progress	Cost to achieve	Emissions reduction	Health Benefit	Responsible lead/dept.	NHS Req.
ICS Specific								
1	Assist member organisations to develop Water Management Plans.	23/24					ICB	SC 18.3.3.1
2	Assist member organisations in communicating the importance of water efficiency.	23/24					ICB	LTP 17 SC 18.3.3.1 NZ 3.1
Trust / PCN specific								
3	Ensure Trusts and the PCN have water efficiency targets.	23/24					ICB	LTP 17 SC 18.3.3.1 NZ 3.1
4	Ensure Trusts explore the installation of rainwater harvesters and grey water systems.	23/24					ICB	NZ 3.1

Waste

For larger Trusts, a high waste output can contribute significantly to their total carbon footprint. The most effective way of reducing waste emissions is by following the waste hierarchy: Reduce, Reuse, Recycle and Recovery.

- Reduce: Avoid disposal of items by reusing and redistributing products.
- Reuse: Reclaim medical equipment after use by patients.
- Recycle: Increase recycling rates through staff awareness campaigns and by implementing more dry mixed recycling bins.
- Recovery: Recover energy from waste by converting it to Refuse Derived Fuel (RDF).

These principles must be embedded across the ICS including across primary and secondary care. The ICS as an anchor institution also strives to ensure that we facilitate the move to a circular economy, continuously reducing waste and increasing what we can reuse.

As shown in Figure 27, we need to reduce total waste arisings by over 1,000 tonnes by 2024/25, with an associated saving of around 40 tCO2e.

GEH have signed into the West Midlands Clinical Waste Consortium for all clinical waste streams, which could be explored by our other member organisations. The Trust also provides training to clinical staff promoting increased use of tiger stripe clinical waste disposal bags where appropriate to ensure clinical waste is segregated correctly, which is included at induction and in mandatory training.

Figure 27 Total waste arisings, emissions, and reduction trajectory to 2024/25

Waste Action Plan

No	C&W Green Plan Actions	Target Year	Progress	Cost to achieve	Emissions reduction	Health Benefit	Responsible lead/dept.	NHS Req.
	ICS Specific							
1	Collaborate with our member organisations / create an ICS-wide waste contract that ensures zero waste to landfill (except for offensive waste) and encompasses food waste collections.	23/24					ICB	ENZCD P NZ 3.1
2	Set ICS-wide recycling targets and ensure Trusts have adequate Dry Mixed Recycling bins in place.	23/24					ICB	ENZCD P NZ 3.1
3	Set ICS-wide waste reduction targets.	23/24					ICB	ENZCD P NZ 3.1
4	Support member organisations in the implementation of ISO-14001 Environmental Management Systems.	24/25					ICB	NZ 3.1 LTP 17 SC 18.4.3.1
	Trust / PCN specific							
5	Ensure that member organisations communicate the importance of waste segregation to staff and visitors.	22/23					ICB	NZ 3.1 LTP 17 SC 18.4.3.1
6	Ensure member organisations explore whether reusable alternatives to single-use PPE items (aprons, wipes, face masks) are clinically appropriate across the system.	23/24					ICB	NZ 3.1 LTP 17 SC 18.4.3

Green Space and Biodiversity

"Access to greenspaces have positive mental and physical health impacts, and these beneficial effects are greatest for those from socioeconomically disadvantaged groups. However, these groups also have the least access to greenspaces." *– Delivering a Net Zero NHS*

Access to greenspace at a regional level has been linked to good mental health and wellbeing for our communities, whilst the plants in our greenspaces absorb carbon dioxide from the atmosphere.

Coventry and Warwickshire ICS will consider opportunities and risks for biodiversity in the areas we operate in, such as our priority habitats: floodplain grazing marsh, fens, lowland meadows, mixed deciduous woodland, purple moor grass, reedbeds and wet woodland.

The Warwickshire Coventry and Solihull Local Nature Partnership (LNP) comprises of representatives from the public private and third sectors and can be used to plan projects to enhance the rich biodiversity of our region.

The purpose of the partnership is to drive positive change in the natural environment, contribute to national environmental objectives, and become local champions to influence environmental decision-making. Coventry and Warwickshire ICS can collaborate with the LNP to further the region's biodiversity ambitions.

UHCW, in partnership with the Centre for Sustainable Healthcare, created a nature reserve at University Hospital to give staff, patients, visitors and the local community access to a green space for positive mental and physical health.

SWFT promotes access to greenspace, and in many cases is actively incorporated into our patient therapies. Therapy gardens are provided in the Nicol Unit at Stratford, Ellen Badger and RLS Hospitals.

Even at Warwick Hospital, where space is constrained, access to greenspace is provided in courtyards such as Castle Ward, Helen Clarke Suite, the Quiet Garden and the Secret Garden.

We ensure that our sites have dedicated green areas for staff, patients and visitors. These include courtyards and gardens, which are maintained by staff.

The Chapel Garden and Sanctuary space has been improved through work with local volunteers. Investments have also been made into Health and Wellbeing garden spaces, including the Bob Jakin area. Grounds and greenspaces are managed with minimal pesticide use, which ensures infection prevention protocols are followed for pest removals.

West Midlands Natural Environment Plan sets out the regional goals to launch a community green grants programme, co-ordinate an ambitious regional tree planting programme, set up a wildlife corridors commission, develop regional national capital data, produce a natural capital investment plan, and explore how to ensure biodiversity net gain across transport infrastructure.

Warwickshire County Council is the only authority in the UK to have made a written commitment to seek a net gain for habitat biodiversity within their future plans. Coventry City Council commits to maintaining its Green Belt and ensuring that Local Green Space is designated.

Green Space and Biodiversity Action Plan

No	C&W Green Plan Actions	Target Year	Progress	Cost to achieve	Emissions reduction	Health Benefit	Responsible lead/dept.	NHS Req.
	ICS Specific							
1	Facilitate Biodiversity Working Groups within the member organisations to facilitate collaborative working.	22/23					ICB	SC 18.1
2	Create an ICS Biodiversity and Greenspace Plan.	22/23					ICB	SC 18.1
3	Working with partners such as NHS Forest to develop further biodiversity and greenspace initiatives across the system.	23/24					ICB	SC 18.1
4	Support the Warwickshire, Coventry and Solihull Local Nature Partnership in preserving the region's biodiversity.	24/25					ICB	SC 18.1
	Trust / PCN specific							
5	Ensure Trusts amend their capital planning process so that project approval includes green spaces/ biodiversity criteria.	22/23					ICB	SC 18.1
6	Explore whether green roofs could be implemented across the system.	24/25					ICB	SC 18.1

Medicines

The Long Term Plan commits the NHS to reduce GHG emissions from anaesthetic gases by 40% (which on its own could represent 2% of the overall NHS England carbon footprint reduction target that the NHS must meet under Climate Change Act commitments) and significantly reduce GHG emissions by switching to lower global warming potential (GWP) inhalers. We will support our member organisations in achieving these commitments across the system.

Prescriptions written by GPs and filled by community pharmacies mean that primary care has an important role to play around medicines.

UHCW is leading the way on medicines emission reduction amongst our member organisations. They have reduced waste and dispose of waste medicines responsibly, have a low carbon inhaler lead, anaesthetic lead, and a pharmacy lead for Net Zero. The Trust also offers training on alternative anaesthetic techniques such as total intravenous anaesthesia.

Medicines Management and Optimisation

The use of medicines is the most common therapeutic intervention in the NHS. Around 15-20% of a commissioning organisation's money is spent on medicines.

Medicines management is a term which encompasses all aspects of the supply, use and disposal of medicines. Medicines optimisation is about ensuring that the right patients get the right choice of medicine at the right time. It aims to help people get the most from their medicines,

take medicines correctly, avoid taking unnecessary medicines, improve medicines safety, and reduce wastage. Medicines optimisation is the antidote for what is known as ‘polypharmacy’.

It is important that our regional communications on this topic aligns with the rest of the NHS.

Formularies

A formulary is a locally developed document which lists the medicines that are deemed suitable for prescribing within the local NHS. It may also include some other products which can be provided on prescription, such as dressings.

The formulary which is used within Coventry and Warwickshire is the Coventry and Warwickshire Area Prescribing Committee (CWaPC) Formulary. The committee consists of representatives from primary care, the local hospitals, mental health care providers and community services.

Medicines that are included on the CWaPC formulary are assessed by a committee of clinicians and medicines experts for their suitability for local use. The committee will generally consider medicines in terms of safety, clinical effectiveness, cost effectiveness and patient factors. The commissioning organisation will also consider affordability.

All NICE-approved medicines (i.e., those with a positive NICE technology appraisal) are automatically included in the formulary.

Many medicines accepted for use will be prescribable by GPs, hospital doctors and other healthcare professionals who are qualified to prescribe, but some medicines will have local restrictions on their use. Some will be prescribable in limited circumstances, and some will only be prescribable in hospital settings. Some medicines will not be included on the formulary at all. All prescribers are expected to consider whether the medicine they intend to prescribe is on the formulary.

The formulary which is used within Coventry and Warwickshire is the Coventry and Warwickshire Area Prescribing Committee formulary (CWaPC). Medicines that are included on the formulary are assessed by a committee of clinicians and medicines experts for their suitability for local use. The committee will generally consider several factors in the prescription of medicines.

Coventry and Warwickshire ICS will collaborate with the formulary to ensure that environmental impact is included as a factor, so that DPIs can be preferentially prescribed.

Medicine data

We extracted medicine data from the Greener NHS Dashboard for the ICS level. However, we will work with the Trusts and the PCN to provide accurate prescription/consumption data and integrate this into our future carbon footprints.

Nitrous oxide

Nitrous oxide is routinely used in maternity wards and Accident and Emergency. In 2020/21, our use of nitrous oxide emitted over 4,990 tCO2e, comparative to the previous year (see Figure 28).

There are innovations in capturing and catabolising exhaled nitrous oxide, including ‘cracking’ devices. Such devices are being trialled by other NHS trusts, and if rolled out, will dramatically reduce the amount leaking into the atmosphere.

Furthermore, nitrous oxide use is steadily falling in surgery, as more efficacious anaesthetic and analgesic agents are superseding its use. However, Entonox™ still plays an important role in maternity.

Methoxyflurane (Penthrox™) pen-inhalers can be used instead of nitrous oxide to treat moderate to severe pain associated with trauma. Methoxyflurane can be self-administered under medical supervision, in a similar fashion to nitrous oxide. It has a lower global warming potential (GWP) than nitrous oxide and switching to methoxyflurane would lessen emissions at point-of-use.

However, this comes at a cost, as methoxyflurane is delivered in non-reusable 3ml inhaler pens, creating additional non-recyclable waste. By using ‘cracking’ machines or other methods to reduce consumption, our target it to reduce emissions from nitrous oxide by over 750 tCO2e by 2024/25.

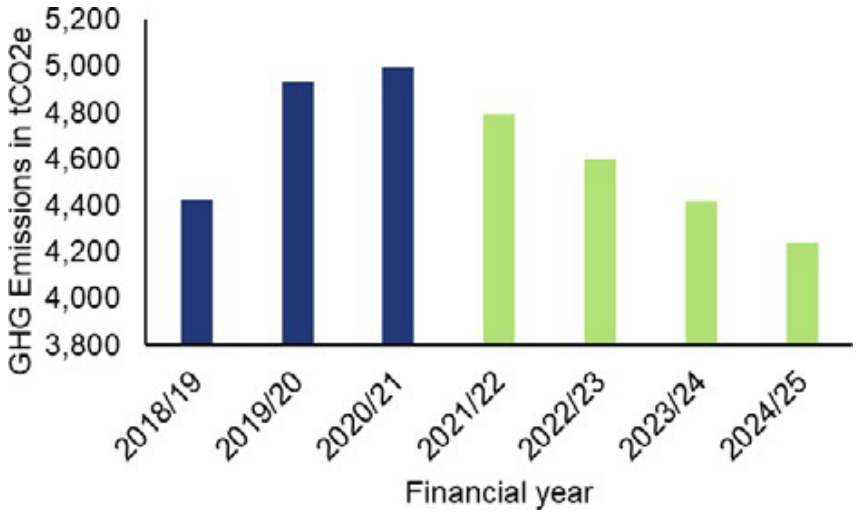


Figure 28 Nitrous oxide use from 2018/19 to 2020/21, with forecast emission reductions to 2024/25

Desflurane

Desflurane is a fluorinated volatile anaesthetic. Like many fluorinated compounds (such as refrigerants and propellants), it has a very high GWP. Desflurane has a GWP rating of 2,540, meaning it is 2,540 times more potent as a greenhouse gas than carbon dioxide.

Other volatile anaesthetics, such as sevoflurane and isoflurane have far lower GWP ratings, 130 and 510, respectively. Shifting away from desflurane to these alternatives will significantly reduce emissions. However, both sevo- and isoflurane use will have an impact on the atmosphere.

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.

Across the ICS, desflurane represents only 4% by volume of all anaesthetic agents used in 2020/21. However, we will work with Trusts to continue to reduce their desflurane usage further.

Despite desflurane use being low, it accounts for 72% of all emissions from volatile anaesthetics. In 2020/21, emissions from desflurane alone were 303 tCO2e, out of a total 423 tCO2e for all volatile anaesthetics (as shown in Figure 29).

Figure 29 also shows the emissions reduction trajectory as desflurane is phased out, with an increased usage of sevo- and isoflurane as alternatives. By 2024/25, we aim to reduce emissions from these anaesthetics by 266 tCO2e.

At UHCW, 17% of total anaesthetic gas usage is down to Desflurane alone, which has encouraged the Trust to reduce use in surgery to less than 10%. In comparison, GEH does not use desflurane at all. CWPT do not use volatile anaesthetics.

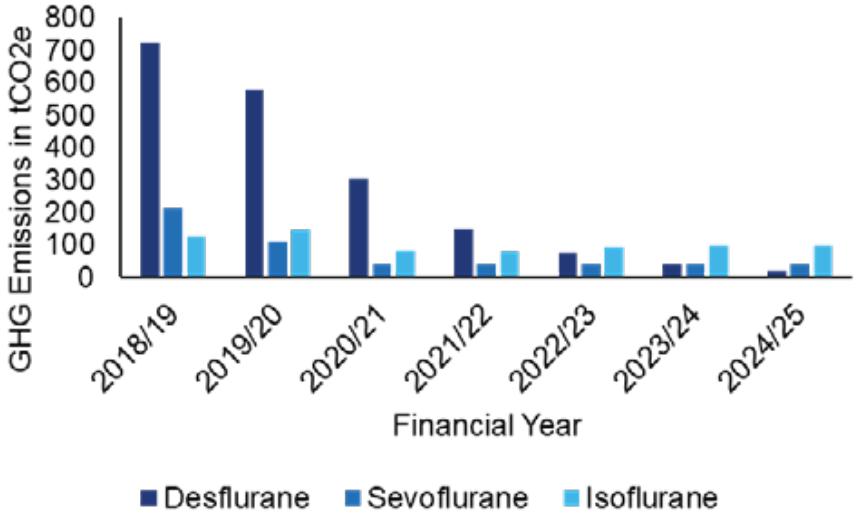


Figure 29 Volatile anaesthetic use from 2018/19 to 2020/21 and forecast emission reduction to 2024/25

Inhalers

Inhalers help to open the airways and allow more air to move in and out of the lungs, helping people to breathe during asthma attacks. Asthma and other breathing-related health issues can often be attributed to air pollution, which this plan is seeking to reduce. In reducing greenhouse gas emissions, inhaler prescriptions may fall leading to a cycle of greenhouse gas emission reduction.

The NHS Standard Contract stipulates that 30% of all inhalers prescribed across NHS England should be Dry Powder Inhalers (DPIs), potentially saving 374 ktCO2e per year, according to the NHS Net Zero report. New Impact and Investment Fund (IIF) indicators have been released, which provide an additional steer on prescribing lower-carbon inhalers.
Dry-powder inhalers are an appropriate choice for many patients and contain as little as 4% of the GHGs emissions per dose compared with metred-dose inhalers (MDIs). Fluorinated gases in MDIs mean that each 10ml to 19ml inhaler cannister has the equivalent emissions of 30 to 80kg of carbon dioxide!

In 2020/21, emissions from inhalers totalled 27,420 tCO2e across the ICS – the bulk of emissions arising from inhalers prescribed by GPs. UHCW, SWFT and GEH prescribe inhalers, whereas CWPT only continues to fill existing inhaler prescriptions, and thus have no direct control over the inhalers that the Trust prescribes. However, accurate inhaler prescription/ emissions data was only available for SWFT and GEH. UHCW and the PCN could benefit from reporting accurate prescription numbers allow a more accurate ICS footprint to be determined.

We did not achieve the 30% DPI target set by the Standard Contract in 2020/21. We prescribed 588,000 MDIs (76% of all inhalers), emitting 27,320 tCO2e and 188,000 DPIs (24% of all inhalers), emitting just 190 tCO2e, as shown in Figures 30 and 31.

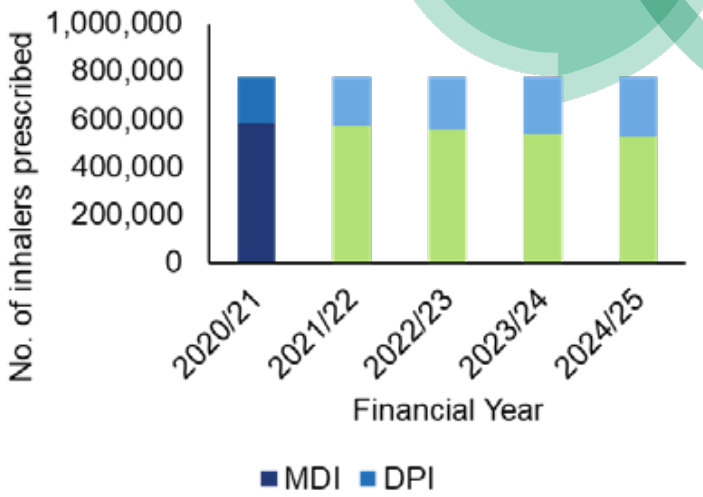


Figure 30 Inhalers prescribed by type in 2020/21 and forecast uplift in prescribing 30% DPI inhalers by 2024/25. Note, this assumes total inhaler prescribing remains static

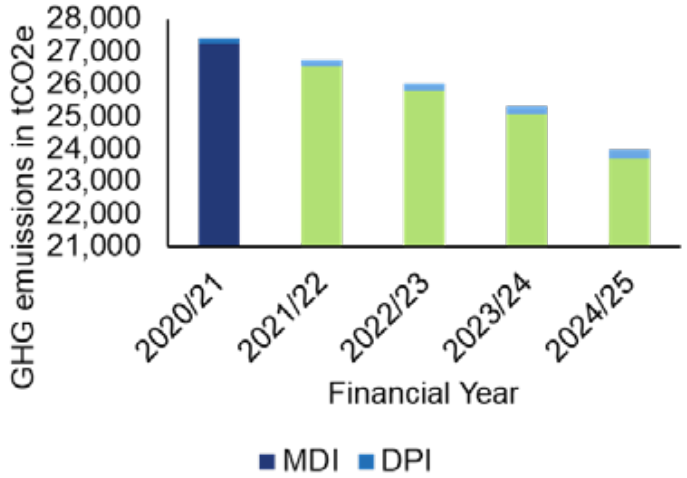


Figure 31 GHG emissions from inhalers, per type, in 2020/21, with forecast emission reductions due to the uplift in DPI prescribing

Attaining the 30% DPI target will reduce our total emissions from all inhalers by over 3,430 tCO2e by 2024/25. Coventry and Warwickshire ICS will collaborate with CWaPC to ensure that environmental impact is included as a factor, so that DPIs can be preferentially prescribed.

SWFT is leading the way on DPI prescriptions as the percentage prescribed by the Trust already exceeds the NHS target rate - 32% of all inhalers prescribed are DPIs! GEH could learn best practice from SWFT, as their DPI percentage is much lower at 5%. However, their total emissions for this area are lower as the Trust prescribes less inhalers in total.

At the end of use, inhalers still contain as much as 20% of high-global warming potential propellant. If all inhalers in the UK were returned for safe disposal, the NHS could save around 512,330 tCO2e! Greener disposal of these items, where residual fluorinated gases are captured and destroyed, is therefore another key priority.

Lastly, overuse of inhalers leads to 250,000 tonnes of equivalent carbon emissions (250 ktCO2e) annually across the UK, according to a new study.

We will need to work with PCNs and Local Pharmaceutical Committees (LPCs) to reduce inhaler emissions across the system, including the use of inhaler return schemes.

Medicines Action Plan

No	C&W Green Plan Actions	Target Year	Progress	Cost to achieve	Emissions reduction	Health Benefit	Responsible lead/dept.	NHS Req.
	ICS Specific							
1	Establish a system-wide inhaler recycling scheme across primary care.	22/23					ICB	LTP 17 SC 18.4.4.2
2	Work with NHSEI to establish a high-temperature incineration waste contract to neutralise F-gases in inhalers across the system.	22/23					ICB	PCNP V NZ 4.2.1 SC 18.4.4.2
3	Engage with CWaPC Formulary committee to discuss ways of preferentially prescribing Dry Powder Inhalers (DPIs) over Metered Dose Inhalers (MDIs).	22/23					ICB	NZ 3.4.1 IIF ES- 01 IIF ES-02 LTP 17 SC 18.4.4.2
4	Establish Green Inhaler guidance and training across the system for primary and secondary care.	22/23					ICB	NZ 3.4.1 IIF ES- 01 IIF ES-02 LTP 17 SC 18.4.4.2
5	Support Trusts to develop plans to optimise and reduce waste from N2O, such as nitrous oxide 'cracking' devices.	23/24					ICB	LTP 17 SC 18.3.2.2 NZ 4.2.1
6	Embed sustainability as a medication decision criterion.	23/24					ICB	LTP 17
7	Create a working to group to optimise medicines and reduce polypharmacy	23/24					ICB	LTP 17
	sustainable packaging for medication.							

No	C&W Green Plan Actions	Target Year	Progress	Cost to achieve	Emissions reduction	Health Benefit	Responsible lead/dept.	NHS Req.
Trust / PCN specific								
9	Roll out inhaler carbon calculator to all Trusts and PCN, and report prescriptions and emissions quarterly.	22/23					ICB	NZ 3.4.1 IIF ES- 01 IIF ES-02 LTP 17
10	Request volatile anaesthetic use data (desflurane, isoflurane and sevoflurane) and emissions from each Trust quarterly and ensure Trusts are achieving reductions in desflurane use.	22/23					ICB	LTP 17 SC 18.3.2.2 NZ 4.2.1
11	Ensure Trusts have plans to reduce/phase out the use of desflurane in surgery to as little as practically possible.	22/23					ICB	LTP 17 SC 18.3.2.2 NZ 4.2.1
12	Request nitrous oxide use data and emissions from each Trust quarterly.	22/23					ICB	LTP 17 SC 18.3.2.2 NZ 4.2.1

No	C&W Green Plan Actions	Target Year	Progress	Cost to achieve	Emissions reduction	Health Benefit	Responsible lead/dept.	NHS Req.
Trust / PCN specific								
13	Request PCNs to submit inhaler prescription data quarterly and produce an emissions figure (inhaler carbon calculator).	22/23					ICB	NZ 4.2.1
14	Ensure the PCNs have plans to meet the IIF targets: only 25% of non-salbutamol inhalers prescribed will be MDIs and prescribing lower carbon salbutamol inhalers.	23/24					ICB	NZ 3.4.1 IIF ES- 01 IIF ES-02 LTP 17
15	Request nitrous oxide use data and emissions from each dentist.	23/24					ICB	LTP 17 SC 18.3.2.2 NZ 4.2.1

Supply Chain and Procurement

The NHS is a major purchaser of goods and services, with NHS England alone procuring around £30 billion of goods and services annually. Procurement has major potential social, economic, and environmental impacts both locally and globally.

This includes the use of local suppliers, the climate performance of our equipment and estate, and preventing modern slavery in supply chains. An ICS has a pivotal role in developing sustainable procurement practices within the System and its partner organisations.

Figure 32 Emissions from procurement (spend-based approach on spends over £25k) from 2018/19 to 2020/21 and emissions reduction trajectory to 2024/25

Within the ICS, most items and services are procured through centralised NHS/government frameworks, such as the NHS Supply Chain. These centralised frameworks already provide best value through bulk purchasing power and consolidation of orders.

However, there is latitude to join forces with other public bodies and partner organisations at an ICS to increase buying power; achieving better economies of scale and influence over the environmental and social aspects of specialist and local products and services procured via the tendering process.

Since February 2010, Coventry, Solihull, Warwickshire, Nuneaton and Bedworth and Rugby Councils have been working together as a shared procurement service. Along with Solihull Community Housing and

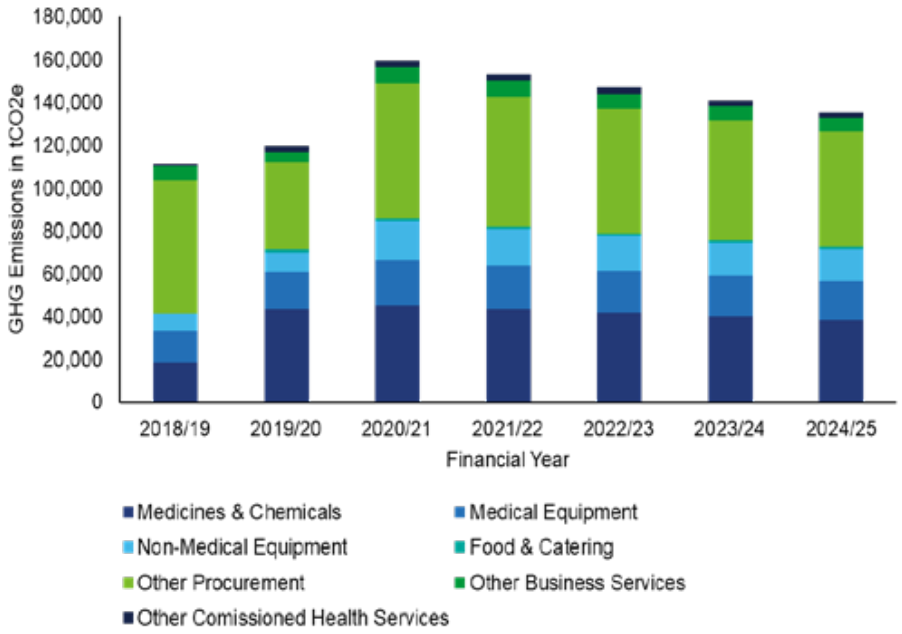


Figure 32 Emissions from procurement (spend-based approach on spends over £25k) from 2018/19 to 2020/21 and emissions reduction trajectory to 2024/25

other local district councils, they use a collaborative E-Tendering portal called CSW-Jets, enabling them to advertise opportunities across all authorities through the same system.

In addition, Warwick and Stratford-upon-Avon District Council have committed to review their procurement policies and practices to ensure that climate change mitigation and adaptation are incorporated into specifications, are given weight in evaluations, and are managed throughout the life of the contract.

We are committed to engaging with our suppliers to meet Green Plan targets and support the sustainable procurement objectives of NHS England wherever practicable. We can support our partner organisations in enhancing their own sustainable procurement practices and potentially create an ICS-wide sustainable procurement strategy that all partner agencies can use.

The NHS, in line with recent government requirements, is mandated to adopt new social value and environmental standards now and in the future. The Evergreen Sustainable Supplier Framework was launched in January 2022, and from April 2022, all NHS tenders will include a minimum 10% net zero and social value weighting (as per Policy Procurement Note 06/20).

From April 2023, contracts above £5 million will require suppliers to publish a carbon reduction plan for their direct emissions as a qualifying criterion (as per Policy Procurement Note 06/21).

By 2030, all suppliers will be required to demonstrate progress in line with the NHS' net zero targets, through published progress reports and continued carbon emissions reporting.

These additional requirements will enable us to determine the carbon and social impact of the products and services we buy more accurately, and ensure suppliers are reducing the emissions associated with their operations and products.

In the interim, we will explore ways to reduce single-use plastic items and research how we can incorporate reusable items, such as masks and aprons, into our clinical practice. These products are currently purchased through the NHS Supply Chain, which holds the ambition to reduce plastics across the value chain.

UHCW, SWFT, CWPT and GEH have all signed up to the NHS Single Use Plastics pledge. Our overall ambition in this area is to move away from a linear economy to a circular economy.

NHS England Sustainable Procurement Objectives		
Net Zero	**Modern Slavery**	**Social Value**
Achieve the NHS Supply Chain Net Zero Targets	Eliminate Modern Slavery in the NHS supply chain both domestically and abroad	Ensure NHS procurement is a force for good helping local economies and improves wider determinants of health

Official NHS Sustainable Procurement Objectives Source: NHS website

Product retainment and lifecycle extension

Ensuring best value for money and robust social and environmental benefits in our procurement processes will remain a core principle for the wider NHS and across the system.

Product lifecycle analysis will ensure products are kept in service for as long as possible, and maintenance and repairability, fundamental to a circular economy, drives down waste and may have economic benefits in the medium to long term.

NNHS Trusts already maintain critical care medical products in good working, as per manufacturer's and the Medical and Healthcare Products Regulatory Agency's (MHRA) guidance. Only when an item is no longer supported by the manufacturer, or is beyond economic repair, are items considered for disposal.

However, items such as mobility aids (walking frames, crutches and walking sticks), given to outpatients are often never returned to the issuing authority. This has a financial impact, as new items are continually procured to make up the loss, but also environmental impacts – the resources being used in the manufacture of equipment and the incorrect disposal of 'waste' mobility aids by the public.

Mobility aids are robust pieces of kit, with long service lives. Reclaiming, cleaning/refurbishing and reissuing mobility aids would negate useful items being scrapped. Furthermore, a pool of serviceable mobility aids could be used by partner organisations, with additional cost-saving and social benefits for communities where care is delivered.

UHCW has implemented a reuse scheme for re-purposing walking aids and a swap shop for furniture and equipment. SWFT's walking aid supplier provides a reuse and recycling scheme that collects around 15% of provided items, which the wheelchair team also provides, collecting 35-50% of items. Outdated equipment is sold using an auctioning supplier to recoup the costs at SWFT, CWPT and GEH.

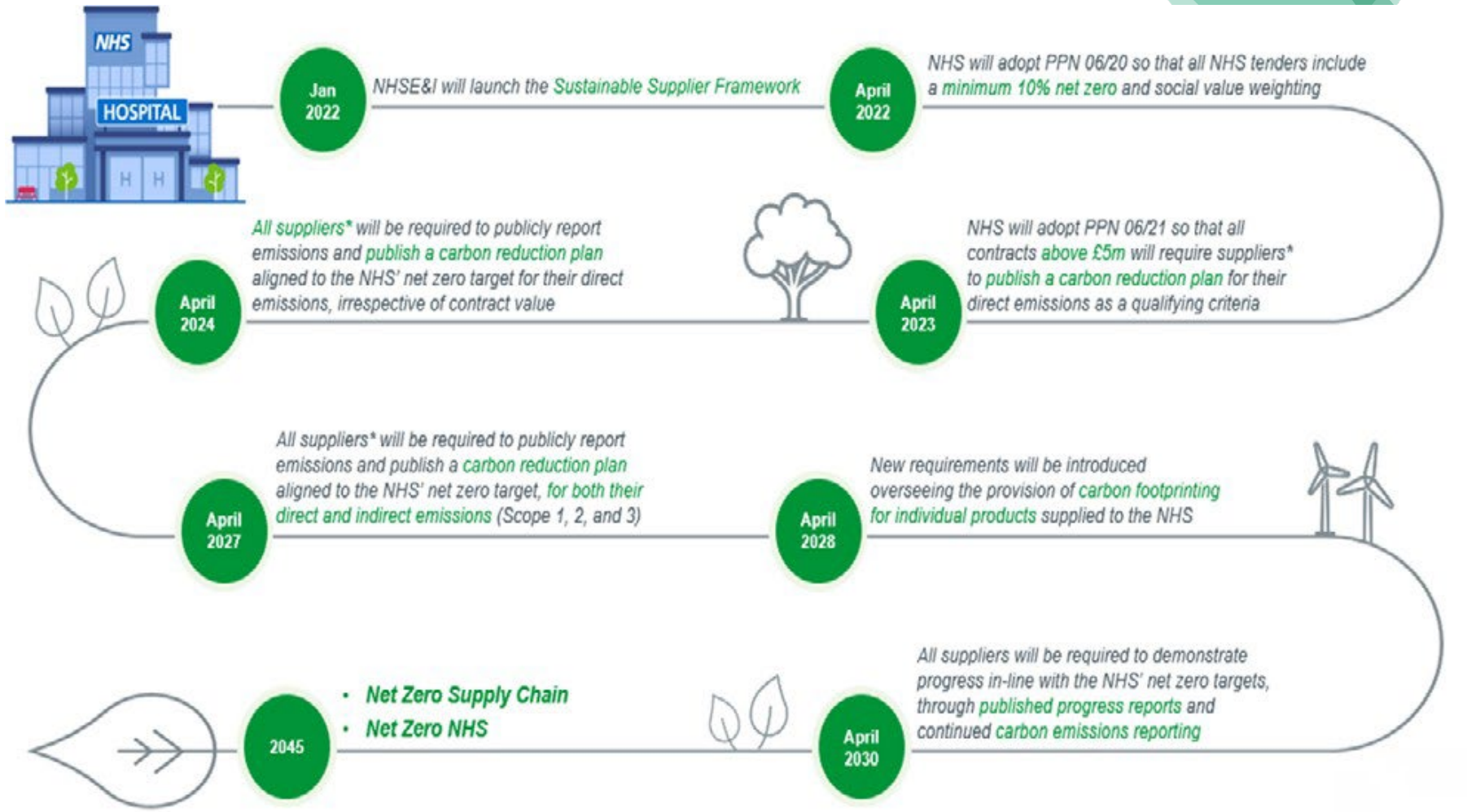


Figure 32 Building net zero into NHS Procurement – shows how NHS England will require all suppliers to provide carbon and social value reporting by 2030

Supply Chain and Procurement Action Plan

No	C&W Green Plan Actions	Target Year	Progress	Cost to achieve	Emissions reduction	Health Benefit	Responsible lead/dept.	NHS Req.
	ICS Specific							
1	Appoint an ICS Sustainable Procurement SRO.	22/23					ICB	ICSP G SSF
2	Set up an ICS sustainable procurement working group.	22/23					ICB	ICSP G SSF SC 18.6 NZ 3.3
3	Ensure ICS / Trusts adhere to the Evergreen Sustainable Supplier Framework.	22/23					ICB	SSF LTP 6.17ii SC 18.6
4	Provide sustainability training for procurement specialists.	22/23					ICB	ICSPG
5	Develop and ICS-wide purchasing consortium to all ICP members.	22/23					ICB	ICSP G SSF SC 18.6 NZ 3.3
6	Develop an ICS-wide ISO20400 Sustainable Procurement Strategy that all Trusts can use (possibly other ICP partners too).	23/24					ICB	NZ 3.1.1, 3.1.2 SC 18.3
7	Explore the creation of a Sustainable Distribution Centre with other partner organisations.	24/25					ICP	NZ 4.2.1

No	C&W Green Plan Actions	Target Year	Progress	Cost to achieve	Emissions reduction	Health Benefit	Responsible lead/dept.	NHS Req.
Trust / PCN specific								
8	Ensure the procurement of 100% recycled paper across the system.	22/23					ICB	SC 18.6 ICSPG
9	Ensure Trusts are taking action to address and reduce single-use plastics.	22/23					ICB	LTP 17 SC 18.4.3.
10	Support Trusts in calculating their supply emissions using a spend-based methodology, and ensure these emissions are reported to the ICS annually and reflected in their Green Plans.	22/23					ICB	NZ 3.3
11	Ensure ICS / Trusts / partner members have a Sustainable Procurement Policy.	22/23					ICP	LTP 6.17ii
12	Ensure that all Trusts run or have access to mobility aid refurbishment scheme.	23/24					ICB	SC 18.4.3.5 NZ 3.3

Food and Nutrition

The NHS Long Term Plan commits us to promoting plant-forward diets and reducing unhealthy options like sugary drinks on NHS premises. Not only will these actions help prevent obesity and non-communicable disease, but they will also play a role in reducing our greenhouse gas emissions and environmental impact.

Food production accounts for up to 26% of global greenhouse gas emissions. While promoting healthier foods and reducing emissions, the NHS can also source more food from local and regional producers where possible, increasing the positive economic impact for our communities and reducing the emissions associated with food transport.

We will work to fulfil Long Term Plan priorities for food provision on our premises, promoting plant-forward diets, higher welfare and more sustainable food options, and supporting regional producers wherever we can.

The Coventry Food Network (CFN) is a local multi-agency food partnership involving statutory, voluntary, and private organisations across sectors and researchers from the two Universities in the City.

It has evolved from the work carried out by Feeding Coventry, a registered charity set up in 2016 with a vision to make Coventry a “food resilient city where no one goes hungry”. The ICS could collaborate with CFN to ensure food poverty can be eliminated.

The network adopted a work plan established three key themes that could be adopted by the ICS:

- Food strategy – taking a citywide collaborative approach food.
- Sustainability health – creating a fair, vibrant and sustainable food economy, including local growing and procurement to tackle diet related ill-health.
- Food crisis – ensuring a stable and suitable food supply for CFN’s projects that minimises food waste.
- Food poverty – supporting people in crisis and preventing future hunger.

At the Trust level, UHCW use VegWare packaging in all retail outlets and consolidate consumables into single packaging. They also provides healthy choices, low-processed foods, has a Food for Life bronze award, and seasonal menus high in fruit and vegetables.

Waste vegetable oil is also recycled into biofuel and work is ongoing to reduce overall food waste.

Food and Nutrition Action Plan

No	C&W Green Plan Actions	Target Year	Progress	Cost to achieve	Emissions reduction	Health Benefit	Responsible lead/dept.	NHS Req.
	ICS Specific							
1	Appoint a Food and Nutrition SRO.	22/23					ICB	NZ 3.3.2
2	Support Trusts to create sustainable food working groups that include dieticians, to develop healthier and more sustainable food choices, and feedback activity to the Food and Nutrition SRO.	22/23					ICB	NZ 3.3.2 NZCDP 9
3	Implement methods of measuring, monitoring, and reducing food waste across our member organisations.	22/23					ICB	NZ 3.3.2
4	Establish Healthy Eating Partnerships with partner organisations and the council.	23/24					ICB	NZ 3.3.2 LTP 2.24
5	Explore whether food poverty projects alongside the councils could be implemented.	23/24					ICB	NZ 3.3.2 LTP 2.24

No	C&W Green Plan Actions	Target Year	Progress	Cost to achieve	Emissions reduction	Health Benefit	Responsible lead/dept.	NHS Req.
			ICS Specific					
6	Ensure Trusts use Defra's 'A plan for public procurement: Food and catering: the balanced scorecard' to assess catering provision, and ensure caterers meet or exceed the requirements outlined in the Report of the Independent Review of NHS Hospital Food.	22/23					ICB	NZ 3.3.2 NZCDP 9
7	Ensure there are plans to introduce a digital menu ordering system in Trusts where they do not already exist.	22/23					ICB	NZ 3.3.2
8	Ensure Trusts have plans and/or are implementing plant-forward diets, seasonal menus and the use of local products.	22/23					ICB	NZ 3.3.2 NZCDP 9 LTP 2.18
9	Ensure each Trust conducts a hospital food review.	23/24					ICB	NZ 3.3.2 NZCDP 9 LTP 2.18

Climate Adaptation

"As climate change accelerates globally, in England we are seeing direct and immediate consequences of heat waves and extreme weather on our patients, the public and the NHS. Adaptation is the process of adjusting our systems and infrastructure to continue to operate effectively while the climate changes. It is critical that the NHS can ensure both continuity of essential services, and a safe environment for patients and staff in even the most challenging times."

- Greener NHS

Climate-related hazards that have been identified as posing a distinct threat to our region include sea level rise, an increase in seasonal extremes and rising temperatures.

The changing climate poses risks for vulnerable populations in our community, but also impacts the Trusts' estate, their ability to operate and the supply chain.

Climate change has serious implications for our health, wellbeing, livelihoods and society. Its direct effects result from rising temperatures and changes in the frequency and strength of storms, floods, droughts, and heatwaves — with physical and mental health consequences (The Lancet, 2017).

The NHS Long Term Plan reinforces the requirement to embed resilience and sustainability into our healthcare services. Climate change adaptation is critical to achieving this. The impacts of climate change on our health, services, infrastructure and our ability to cope with extreme weather events will place significant additional demands on our services in the future.

The ICS will analyse climate change risks and develop actions for our care delivery, estate planning and management, including flood risks across our estate and service area. The ICS and its partner organisations will develop a climate change adaptation plan to mitigate the consequences to health and service delivery of climate change.

Climate change adaptation in the NHS is about organisational resilience and the prevention of avoidable illness, embracing every opportunity to create a sustainable, healthy and resilient healthcare service. Reducing our impact on the environment may not only help to mitigate against climate change, but reduce our organisational running costs, ensure business continuity, and reduce health inequalities. Above all, it's about ensuring that the NHS, our buildings, services, staff and patients are prepared for what lies ahead.

One of the focus areas for Sustainability West Midlands is adapting to Climate Change and the WMCA has a green paper containing plans for adaptation. Warwickshire County Council have also set up a climate change adaptation task and finish group based on recommendations from the Met Office's UK climate projections for 2050.

These projections included warmer summers and extreme rainfall will special consideration for the areas of Warwickshire subject to floor risk from rivers and surface water. Water management was the recurring theme from the climate change adaptation task and finish group, which can be facilitated using Sustainable Urban Drainage Systems (SuDS) to capture and reuse rainwater.

Figure 33 demonstrates the risk of flooding across Coventry and Warwickshire. Despite being drained by two rivers; the region has a relative low risk of flooding.

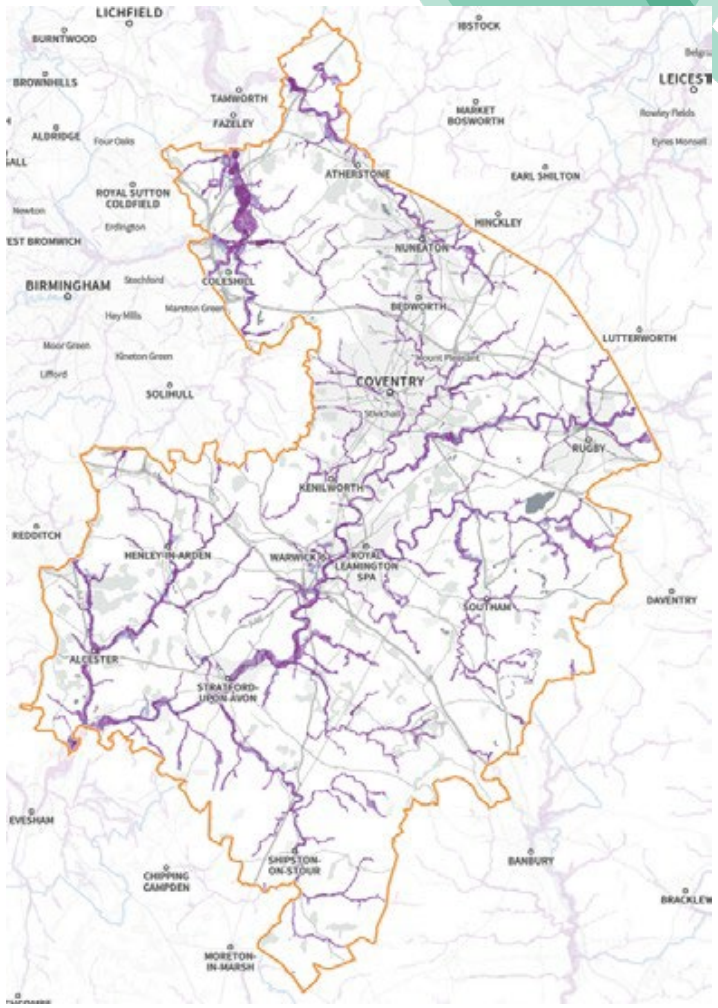


Figure 33 Flood risks within our ICS region

Climate Adaptation Action Plan

No	C&W Green Plan Actions	Target Year	Progress	Cost to achieve	Emissions reduction	Health Benefit	Responsible lead/dept.	NHS Req.
	ICS Specific							
1	Declare a Climate Emergency across the ICS.	22/23					ICB	3HA
2	Appoint an ICS Climate Change Adaptation Lead.	22/23					ICB	SC 18.3.2.3 3HA SD1
3	Provide climate change adaptation training to members of the ICS.	22/23					ICB	SC 18.3.2.3 3HA SD1
4	Ensure climate change is incorporated in the ICS Corporate Risk Register.	22/23					ICB	SC 18.3.2.3 3HA SD1 NZCDP 10
5	Develop an ICS-wide Climate Change Adaptation Plan and/or develop a regional ISO14090 plan with local authorities.	23/24					ICB	SC 18.3.2.3 3HA SD1 NZCDP 10
6	Communicate climate change risks and opportunities across the ICS.	23/24					ICB	SC 18.3.2.3 3HA SD1 PCNP

No	C&W Green Plan Actions	Target Year	Progress	Cost to achieve	Emissions reduction	Health Benefit	Responsible lead/dept.	NHS Req.
Trust / PCN specific								
7	Ensure Trusts incorporate climate change as a risk in their Corporate Risk Registers.	22/23					ICB	SC 18.3.2.3 3HA SD1 NZCDP 10
8	Ensure Trust Estates Strategies incorporate Climate Change readiness and are actively assessing the built environment to make climate- ready upgrades.	23/24					ICB	SC 18.3.2.3 3HA SD1 NZCDP 10

Challenges

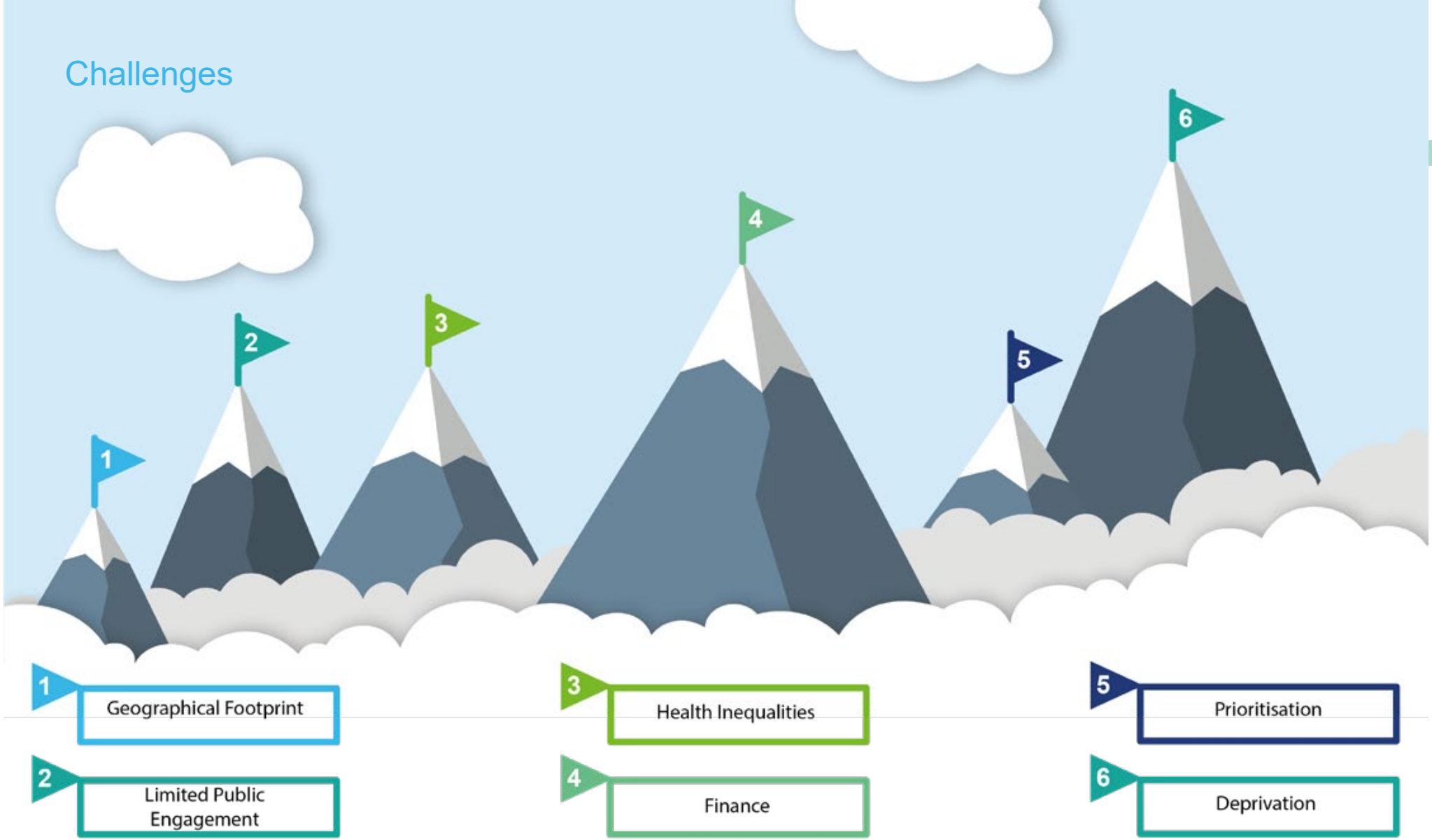


Figure 34 Challenges and Opportunities

In each of the areas of focus, there are barriers to achieving net zero, as shown in Figure 34 above. The system will need to address these challenges and navigate the barriers that may stand in the way of fulfilling the targets set out in this Plan.

Our geographical footprint covers a combined region of Coventry and Warwickshire. Becoming a new organisation, with a wider footprint across both localities means there is a risk that if we don't change how we do things, we will lose our local connections and be unable to understand the nuances behind the needs of our different communities and the health outcomes of our services.

The pressures of the pandemic and conflicting healthcare priorities at system level mean that the green agenda has the potential to be side-lined. To avoid this eventuality, we must strive to build sustainable practice into every action we take forward and nurture a behavioural shift towards an ingrained sustainable working environment.

Using digital transformation strategies, we aim to tackle the health inequalities impacting our region. In order to maintain quality care provision at place level, our ICS needs to work closely with our PCNs to understand the barriers to healthcare facing our communities.

The introduction of digital strategies will mean care can be provided more efficiently, while maintaining a tailored approach based on the individual care needs of our patients.

When developing the actions, we want to take forward to achieve net zero, engagement with the public will be essential for spreading awareness of our targets and strategies. Without strong integration with Comms teams across our primary and secondary care estates, our message will not reach local communities, which may slow progress.

Funding is an ongoing barrier to progress in reaching net zero, as many of the actions suggested within this plan will have a significant upfront cost. Retrofitting buildings and procuring reusable PPE for example, can add more monetary pressure on systems that already struggle to stretch budgets. By accessing government funding, these pressures can be alleviated.

Socioeconomic factors underpin every one of these potential barriers. As a region, deprivation levels fall below the national average, however pockets of deprivation around Coventry need tackling as part of our wider efforts to understand how we can provide healthcare equality, improved education, reduced unemployment, and secure project funding.

Social Sustainability Promotion

Equality, Diversity and Inclusion

Coventry and Warwickshire ICS is committed to promoting equality, diversity and human rights among the communities we serve and our staff.

The urgency to address health inequalities has never been greater, and our region faces unique challenges as we seek to ensure that our services reach every person in Coventry and Warwickshire, especially those most vulnerable.

Economic factors are one of the accessibility issues that must be addressed as part of ensuring our services remain inclusive to everyone. 19% of Coventry neighbourhoods are amongst the 10% most deprived nationally.

As a city, Coventry has significant inequalities in health and healthy life expectancy between the most and least deprived areas and tackling health inequalities is central to its role as a Marmot City. The importance of taking a partnership approach to tackling health inequalities is also embedded in the Coventry Health and Wellbeing Strategy 2019-2023.

Over in Warwickshire, the Warwickshire Health and Wellbeing Board leads tackling health inequalities locally and one of the priorities of their Health and Wellbeing Strategy 2021-2026 is reducing inequalities in health outcomes and the wider determinants of health.

The ICS is committed to support the valuable work of our partner organisations to tackle health inequalities across our region and ensure our services remain inclusive to all.

This work also reflects the ICS itself. Regardless of the financial pressures currently faced by health economies across the country, we want our every employee to feel pride in our organisation, and for every patient to feel that they have been offered the best possible service.

For this to happen, we must be fair and consistent in managing the needs of our staff, partners, and service users.

Equality Impact Assessment (EIA)

As part of its compliance with Equality and Human Rights legislation, the ICS must ensure that all policies and strategies have a completed EIA. This identifies the groups which may be impacted upon, or disadvantaged by, any change in service provision.

Where an EIA identifies a potential impact, targeted engagement is undertaken with communities of interest to ensure that they can give their views and that any potential impact is minimised.

We commit to have due regard to the Workforce Race standard and use it as a force for driving change. The CCG has already done excellent work on EDI that the ICS is hoping to take forwards as we establish ourselves as a healthcare system.

Our goal is to promote and progress an inclusive working environment where everyone can be themselves and where differences are understood, respected and valued. The network plans to bring the lived experiences of disabled people to our attention and to remove any barriers for them.

So far, the CCG work programme has already included raising awareness and suggesting resources and training available around Asperger Syndrome, hearing difficulties, Downs Syndrome, Epilepsy, Autism, MS, Ehlers-Danlos Syndrome, Accessibility, Learning Disabilities and Post Traumatic Stress Disorder.

Social Value

Social Value can be defined as the quantification of the relative importance that people place on the changes they experience in their lives.
Activities to deliver these changes can be categorised into economic, social and environmental benefits. Some examples are shown below.

Social	Economic	Environmental
upskilling	local recruitment	carbon reduction
training	employment	environmental sustainability practices
volunteering	apprenticeships	green space development
community engagement and support	local investment	waste reduction
	sponsorship	
	charitable donations	

With more than 60% of the NHS carbon footprint based within the NHS supply chain of over 80,000 suppliers, we need the support of every supplier if we are to reach net zero by 2045. Supporting the NHS in reducing harmful carbon emissions offers suppliers the opportunity to play a part in improving health now and for future generations. Going forward the system will follow the NHS roadmap to help suppliers align with our net zero ambition between now and 2030. This approach builds on UK Government procurement policy (PPN 06/21).

Net Zero Supplier Roadmap

From April 2023

The NHS will adopt the Government's 'Taking Account of Carbon Reduction Plans' (PPN 06/21), requiring all suppliers with new contracts for goods, services, and/or works with an anticipated contract value above £5 million per annum, to publish a carbon reduction plan for their direct emissions.

From April 2024

The NHS will expand this requirement for all new contracts, irrespective of value.

From April 2027

All suppliers with contracts for goods, services, and/or works for any value, will be expected to publish a carbon reduction plan that takes into account the suppliers' direct and indirect emissions.

From April 2028

New requirements will be introduced overseeing the provision of carbon foot-printing for individual products supplied to the NHS. The NHS will work with suppliers and regulators to determine the scope and methodology.

From April 2030

Suppliers will only be able to qualify for NHS contracts if they can demonstrate their progress through published progress reports and continued carbon emissions reporting through the supplier framework.

Conclusion

The system Green Plan was composed to ensure a collaborative approach to health and sustainability would be taken across Coventry and Warwickshire. By facilitating this collaboration with our partners, we can achieve a more unified system, where learning can be shared when Trusts are making strides. An example of this would be utilising the digital innovation hubs at SWFT and UHCW to ensure that digitisation occurs across the system.

Throughout this plan it has been established that there are some regional barriers to achieving NHS net zero. Whilst our ICS has some challenges that may present barriers to reaching our sustainability goals, by uniting with our key stakeholders we can overcome these challenges. This includes local authorities, which have their own ambitious Net Zero targets.

Across the West Midlands, there have been great strides to tackle climate change and ensure that the region is well equipped to reduce our environmental impact and adapt to any potential effects. Therefore, the goal of our ICS Green Plan is to set out how Coventry and Warwickshire ICS can contribute. Healthcare represents a significant portion of greenhouse gas emissions, and our efforts will aim to minimise this whilst embedding sustainability across our system.

Coventry and Warwickshire ICS take full ownership of this plan and commits to its targets. This is a living document, which will be reviewed and updated if necessary. The targets outlined in this plan, whether intermediate or final, are impossible to reach without the support of our colleagues across the ICS and we want to reach our ambitions in a mindful dialogue involving our colleagues and local communities.
Each aspect of the health service has its role to play in the NHS net zero, and we can ease this journey by working together. By becoming a more sustainable ICS, we can help improve health outcomes across our counties through the impacts of our successes as we work through this plan target by target. Together we can become a greener, and healthier, NHS.

Coventry and Warwickshire
Health and Care Partnership

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This Green Plan was created for for Coventry and Warwickshire ICS in partnership with Inspired PLC.

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