

Cambridgeshire & Peterborough ICS Green Plan 2022-2025

DRAFT IN PROGRESS

1.0 EXECUTIVE SUMMARY

There is now undisputed evidence of the impacts of climate change upon both the environment and human health. A range of organisations from The World Health Organisation (WHO) to the British Medical Association view climate change as the greatest threat to global health of the 21st century. The urgency to act on climate change is reflected in various pieces of guidance and legislation. The Paris Agreement 2015 has created a plan to avoid the dangerous impacts of climate change by limiting global warming to well below 2°C above pre-industrial levels. The UK's Climate Change Act 2008 (since amended in 2019), has established a national target to achieve net-zero carbon emissions by 2050. As the UK's largest public sector employer and contributor towards approximately 4.4% of the nation's carbon emissions, the NHS has acknowledged its responsibility in this agenda. The organisation has committed to achieving a net-zero health service for its direct emissions by 2040, and for its indirect emissions by 2045 - five years earlier than the national target. As part of this commitment, NHS England and Improvement (NHSE&I) has made it mandatory for all Trusts and Integrated Care Systems (ICSs) to produce a board-approved Green Plan which establishes a sustainability strategy for the next three years.

This Green Plan is the response of NHS Cambridgeshire and Peterborough ICS to this call, establishing a system-level strategy for sustainability. Firstly, it presents the ICS's system level carbon footprint data and outlines the System's commitment to sustainability. It then summarises the ICS Trusts' carbon hotspots and the sustainability strategies employed to address them. It also describes how we are building an integrated approach with local authorities, the Cambridgeshire & Peterborough Combined Authority (CPCA) and wider partners across C&P.

Finally, a total of six workstreams are presented as areas of focus, to embed sustainability and carbon reduction within ICS programmes and strategies.

This Green Plan provides the framework and pathway to embed sustainability at an ICS level, and delivering these partnership actions, alongside individual organisational commitments, is established as a collective responsibility.

Meeting the NHS's carbon reduction targets will require transformational change at an unprecedented scale within the next decade. Unless we start to work on these changes this year, we will be unlikely to meet the interim targets of halving the carbon footprint of the NHS within 8 years. The pace and scale of this change represents a huge opportunity for improving clinical outcomes and reducing inequities. We have two new hospitals at the planning stage in our system and we need to work to ensure we can accommodate growth and development in a sustainable manner. It is through this Green Plan that we aim to identify and realise these benefits.

2.0 FOREWORD

[Insert text]

[Insert name]

Chief Executive Officer, Cambridgeshire & Peterborough Integrated Care System

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3.0 INTRODUCTION

3.1 Purpose of the Green Plan

The aim of this Green Plan is to set out the strategy for sustainability at the Cambridgeshire and Peterborough ICS for the next three years. It summarises and builds on the individual Trust green plans, whilst focusing on system level priorities and actions for local adaptation and implementation. As an ICS, we will be looking to build on the work undertaken at Trust level and establish wider connections and partnerships, including primary care, local authorities, the Voluntary, Community and Social Enterprise sector (VCSE) and suppliers.

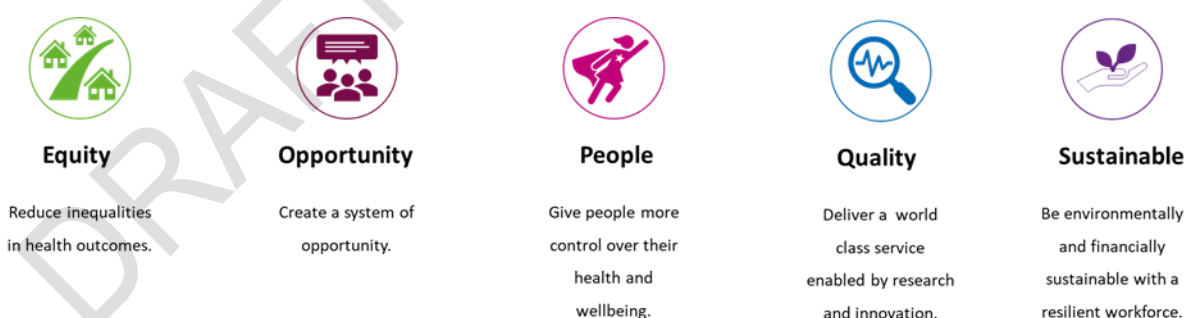
A separate Sustainable Action Plan to be delivered at the ICS level will be developed to support the implementation of specific interventions and help monitor the ICS's sustainability progress. This process has commenced and been informed by workshops and discussions with senior leaders and colleagues from across the ICS in Jan/Feb 2022 and will be further developed and refined through wider engagement with stakeholders in 22/23.

Our strategy has been created to support the ICS's overall objectives on improving health and patient care, addressing health inequality, and building a resilient healthcare system. By undertaking the interventions outlined in the following section, the ICS will make progress on realising its vision to become a sustainable healthcare organisation.

3.2 Our ICS

Within Cambridgeshire and Peterborough, sustainability is a fundamental goal that underpins our integrated care system and its role as an anchor system. We recognise the urgency with which we must act to address the climate change emergency.

The ICS Green Plan is a key cross-cutting chapter in our ICS strategy framework, with significant links and synergies across our all our major priorities and programmes, and those of our partners. Together we have set out, that we will enhance the social value for our communities and workforce, through five strategic aims:



We are committed to embedding sustainability principles across all these areas and seek to maximise our leverage by aligning strategies and plans. We will build on the strengths and assets of our partnership and set ourselves stretching but achievable targets for delivery.

3.3 System Priority Context

Delivering a net-zero NHS has the potential to secure significant health benefits across the population – particularly for vulnerable and marginalised populations – by addressing health inequalities. Our Green Plan aims to improve care locally, minimising our environmental

footprint and the consequent harm to health, which results from our current high carbon practices.

Realising the benefits brought by a net-zero NHS depends on the involvement of all stakeholders. It is important that our plan is aligned across the wider ICS to include health and care, along with other public sector bodies, businesses, the VCSE sector, and the communities we serve. A key alignment is with the Cambridgeshire and Peterborough Combined Authority (CPCA). It led a multi-agency response, to the report of the Cambridgeshire and Peterborough's Independent Commission on Climate, which was published in October 2021. This set out a suite of recommendations focusing on ways to address climate change in Cambridgeshire and Peterborough. There are significant opportunities for aligning our efforts through this programme of work and the wider CPCA's sustainable growth strategy, to maximise success in our joint agendas, including transport and travel, decarbonisation of estate, innovation and skills. We are working with the CPCA and local authorities, to map and build on the range of relevant initiatives and partnerships, in order to create collective understanding of ambition and shared leadership, while also working bottom up with communities to ensure our efforts are relevant to local needs.

3.3.1 Circular Economy

The NHS makes up 4.4% of the UK's carbon emissions. Procurement services and wider supply chain processes contribute approximately 62% of its overall carbon footprint. The NHS must achieve a 73% reduction in its total carbon emissions by 2039 at the latest from its 2019 baseline. We will not be able to achieve this unless we completely reframe the way we purchase and use products and services using circular economy principles.

Procurement is a key enabler in this. The NHS has established a roadmap which sets clear expectations of suppliers up to 2030. This is supported by a framework to embed sustainability into procurement processes. In addition, it is crucially important that we build a wider understanding throughout our organisations, of why sustainability is important, what it means for the way we all consume products, the potential for product re-use, recycle, and re-manufacture, and the associated financial benefits which may arise from bringing these streams to the market.

For a circular economy approach to be embedded into healthcare, we need to be better informed about the origin, composition, distribution, use and disposal of the items we buy, and use this to influence the decisions we make as consumers and users of those products. By ensuring that the carbon impact and wider environmental factors are more prevalent across all our decision making, we can reduce our waste, improve our efficiency and deliver social, environmental, and financial benefits.

3.3.2 Anchor Institution

An anchor institution is an institution that, alongside its main role, plays a significant and recognised function in a locality by making a positive impact on its local community and economy and enhancing social value through its sizeable spending power, workforce, buildings, and land. Anchor institutions have the leverage to make a positive impact on wider determinants of health, for example in terms of supporting improvements to socioeconomic factors through their role as workforce developers, employers, and procurers.

However, whilst we recognise that the constituent parts of our ICS are able to develop their role as anchor institutions, ICSs may have a greater impact by the institutions coming together and forming an anchor system approach. Through adopting an anchor system approach, ICSs will be able to champion priorities across the system, such as addressing long-standing health inequalities and the wider determinants of health, and maximise opportunities to enhance social value across the system for the benefit of our population.

The green agenda is a key area in which anchor institutions and systems can benefit their population, by taking decisions and actions that not only enhance sustainability but can have wider impacts too. An example of this is where organisations have used savings from energy efficiency schemes to invest in local fuel poverty schemes. This is an excellent example of how the green and anchor agendas align and how decision-making opportunities can be maximised to go further, for the population they serve.

This is the way Cambridgeshire and Peterborough ICS aims to operate. To do this, the system will develop an anchor charter, a document that all partners are able to sign up to that formalises the anchor approach we will take pan system. The anchor charter will be firmly built into our ICS strategy and implementation of this strategy will be monitored at the most senior level of the ICS.

One of the key pillars of our charter will be the green agenda, to build its prominence within the system and strengthen the opportunities integration can bring in advancing this agenda. We will capture work that is already happening in our system that is aligned to our anchor aspirations and share best practice, as well as bringing in learning from other areas.

3.3.3 Impacts of climate change on health

There is a close relationship between the environment and human health. The drivers of climate change can have immediate impacts on health, for example air pollution impacts on cardiovascular and respiratory disorders. Climate change itself can impact health directly in a variety of ways. Cambridgeshire and Peterborough is at risk of extreme weather events including drought, flooding and extreme temperatures. Rising sea levels and the local topography make parts of the region particularly vulnerable to flooding. These events can cause immediate loss of life as well as having broad health impacts, such as increased skin cancers, cardiovascular and respiratory events, transmission of infectious disease and increases in mental health disorders. Climate change may also have indirect impacts on health, for example, by impacting food security or displacing communities.

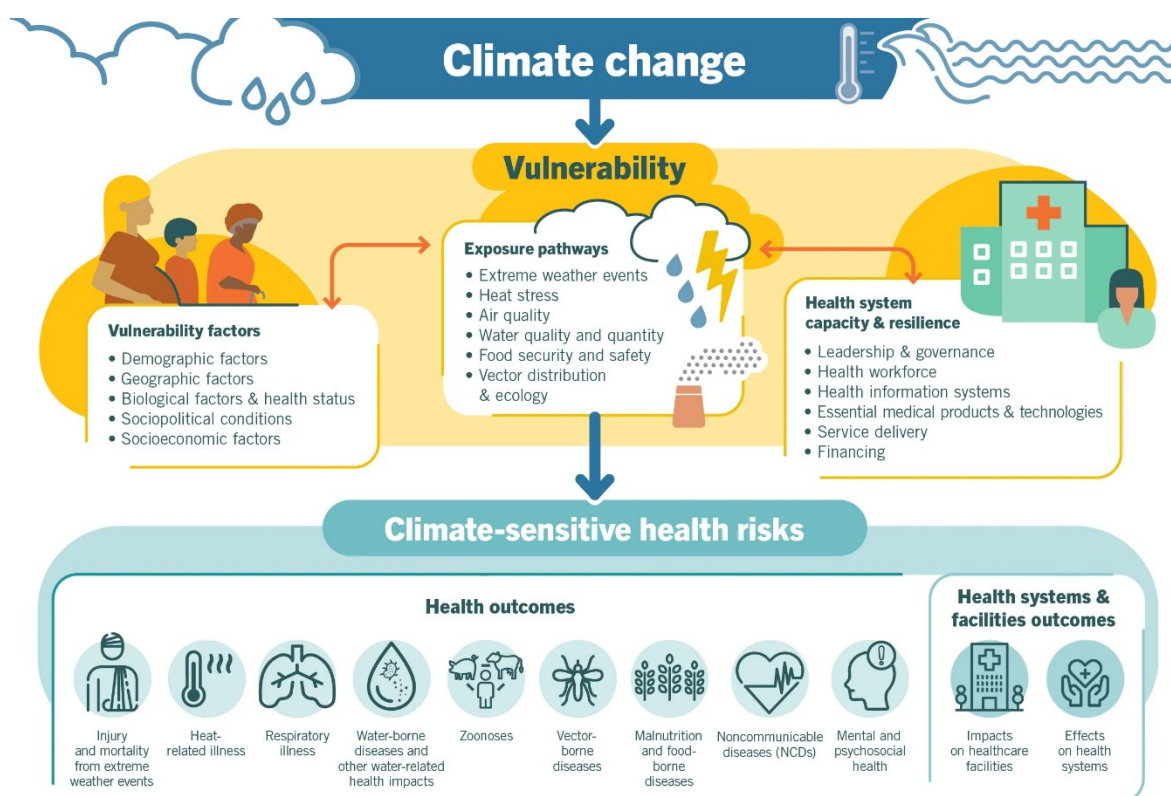


Fig: An overview of climate-sensitive health risks, their exposure pathways and vulnerability factors. (WHO: [Climate change and health \(who.int\)](https://www.who.int/publications-detail/11-years-on-climate-change-and-health))

3.3.4 Adaptation

Extreme weather events such as flooding, drought, and overheating are only expected to increase and intensify. They are likely to lead to increased pressure on emergency departments and on the system's healthcare services, as well as having the potential to disrupt local infrastructures, transportation of goods and services and supply chains.

It is vital that our ICS enhances its resilience in the face of these risks. We will identify a named adaptation lead, to ensure clear leadership and accountability in this area. We need to build plans to mitigate the risks and effects of climate change and severe weather conditions on our functions. This includes plans to mitigate the effects of flooding and heatwaves on the organisation's infrastructure, patients, and staff across sites identified as being at risk.

More than any area, this relies on multi-agency action. We need to work with our partners at system and particularly place level to adopt shared goals and plans on adaptation. The Local Resilience Forum is a key forum for developing a shared approach across partners on emergency planning and it is increasingly focusing on climate change within its scope, with a new sub-group recently established to tackle Climate Change, Sustainability and Future Risks.

Seeking alignment with the UK Government's Heatwave Plan and Cold Weather Plan, this partnership will bring together multiple agencies to mitigate the effects of climate change, make plans for severe weather events, and seek to undertake training. Plans have already been made to hold four workshops across the year to address the climate risks across the region, and these will be headed up by organisations such as the Environment Agency and the MetOffice. In ensuring regional resilience to climate change, the ICS acknowledges that

some of the actions may require the use of additional resources, which could potentially increase the systems carbon footprint. Finding a balance between mitigation and adaptation is therefore fundamental to achieving the long-term sustainability of the ICS.

3.4 What is Sustainability?

Sustainability has been defined by the United Nations Brundtland Report (1987) as:

“...development that meets the needs of the present without compromising the ability of future generations to meet their own needs...”

Sustainability is based upon environmental, economic, and social considerations. These three issues are often referred to as the ‘three pillars of sustainability’.

A fully sustainable health and care system can be achieved by delivering high quality care and improved public health within the ecological boundaries of the planet, realising the benefits of social and financial opportunities within the scope of action taken (see Figure 1).

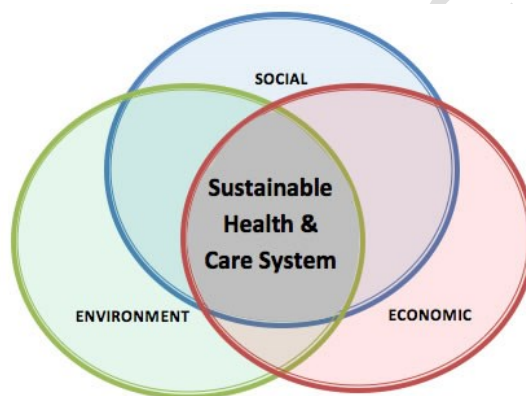


Figure 1: Model of Sustainability for the Health and Care Sector

Addressing a single issue like air pollution provides a strong example of how all three pillars of sustainability can be improved as per the example below:

Air pollution is caused by excess emissions of pollutants such as particulate matter, nitrogen oxides, ozone and carbon monoxide. This creates a negative environmental impact, through increased stresses on biodiversity, the pollution of the environment, and by contributing to climate change.

From a social perspective, air pollution causes and exacerbates cardiovascular, respiratory, and mental health issues. It is estimated that high levels of air pollution contribute towards an annual 40,000 premature deaths in the UK. Air pollution also disproportionately impacts more deprived communities, leading to health inequalities.

The increased incidence of illness also has an economic impact. People suffering from illness caused by air pollution may not be able to work, negatively impacting their financial status. Additionally, high rates of illness within a population place increased stress on the NHS due to higher patient numbers and associated costs. The increase in NHS activity leads to an increase in carbon emissions, which in turn contributes to air pollution and more illness which places yet more demand on NHS services.

Consequently, working to reduce carbon emissions from NHS activities can deliver a more sustainable and equitable health and care system, as reduced air pollution will reduce the environmental, social, and economic impacts of the ICS.

Reducing the environmental impact of our services will have co-benefits for the health of our staff and patient population. Most obviously, joining national and international efforts to reduce carbon emissions will help to minimise rises in global temperature that lead to climate change. In addition, local adaptation will help to ensure that our population is less affected by extreme weather and other climate impacts.

There are more immediate benefits for health too:

- Efforts to reduce carbon emissions from travel, promote increased active travel. This has a positive impact on weight, respiratory and cardiovascular disease and mental health.
- Reduced air pollution has a positive impact on respiratory and mental health.
- Reduced traffic and travelling at slower speeds, can result in fewer road traffic accidents.
- Creating and promoting access to green spaces and tree cover have significant benefits for mental and physical wellbeing.
- Prevention of ill-health through sustainability efforts, means less use of healthcare services, leading to reduced carbon emissions.
- Sustainable food policies can lead to improvements in diet among staff and patients.
- Changes to patient pathways to make them more sustainable, can also provide an opportunity to make services more accessible.

3.5 What is Net-Zero?

Carbon net-zero, often referred to as being 'carbon neutral', is defined as a state in which an organisation avoids emitting greenhouse gases (GHGs) through its generation and use of energy, travel, waste, medicines, and supply chain. Achieving net-zero carbon emissions is a core aim of national and local policy and a key driver of this Green Plan.

To achieve net-zero emissions, the ICS must strive to reduce emissions as much as possible, and then offset any remaining emissions that cannot be mitigated. Within the NHS, there are instances where the generation of carbon emissions is unavoidable. Where carbon emissions are very hard to eradicate (for example in some forms of transport or embedded in some classes of goods and materials) there may ultimately be a need to 'off-set' residual emissions so that there is no 'net' increase in human-made emissions. This could be undertaken through investment into bio sequestration (e.g. tree planting or soil carbon sequestration-where CO₂ is removed from the atmosphere and stored in soil through photosynthesis) and technology-based carbon capture and storage. However, given the scale and urgency of the challenge we face, it is carbon reduction, rather than offsetting which should ultimately be prioritised.

3.6 Format of this Green Plan

This Green Plan is structured as follows.

- Section 4 reviews the local and national legislative drivers and contractual requirements, with which the Cambridgeshire and Peterborough ICS must align, and establishes several targets to achieve a more sustainable performance.
- Section 5 details the carbon footprint of the ICS at both system and Trust-level, and provides narrative on the actions that the Trusts have determined in their Green Plans to address their respective environmental aspects.
- Section 6 outlines the ICS's commitment to sustainability, its strategic sustainability objectives, and the interventions that the ICS will deliver, with an explanation of how they will be delivered in an integrated way. It also outlines the benefits of the joint interventions and by whom they shall be led.
- Finally, Section 7 discusses the governance and oversight framework for the delivery of the interventions identified.

4.0 POLICY DRIVERS & TARGETS FOR HEALTHCARE ORGANISATIONS

A report published in March 2022 by the Intergovernmental Panel on Climate Change (IPCC) followed decades of updates which stressed the threats that climate change poses to the environment. In recent years, climate change has also been recognised as a significant risk to human health. The World Health Organisation (WHO), British Medical Association, and various Royal Colleges are just some of the organisations which view climate change as the greatest threat to global health of the 21st century. The urgency to act is mirrored by various levels of guidance and legislation to which the Cambridgeshire and Peterborough ICS and this Green Plan responds.

4.1 Driving the Net-Zero Transition in Healthcare

4.1.1 International and National Drivers

The Paris Agreement 2015 has set out an international action plan, to avoid the dangerous impacts of climate change, by limiting global warming to well below 2°C above pre-industrial levels. Government bodies, including that of the UK, are expected to scale up their efforts to reduce emissions. The United Nations' (UN) Sustainable Development Goals (SDGs) also recognise that strategies to tackle health deprivations must go together with addressing climate change. In accordance with the Climate Change Act 2008, the UK has established a mandatory target to reduce carbon emissions to net-zero by 2050. The NHS is the UK's largest public sector employer and contributes approximately 4.4% of the nation's carbon emissions. Thus, it is essential that the organisation plays a vital role in supporting these national and global targets.

In 2020, NHS England and Improvement (NHSE&I) released a report called *Delivering a Net Zero National Healthcare Service* which provides a sector-wide approach for achieving decarbonisation objectives in healthcare settings. Alongside a range of potential pathways, the plan sets two net-zero targets – to achieve net-zero by 2040 for the NHS Carbon Footprint and by 2045 for the NHS Carbon Footprint Plus. Figure 2 illustrates the scope of these two carbon footprints.

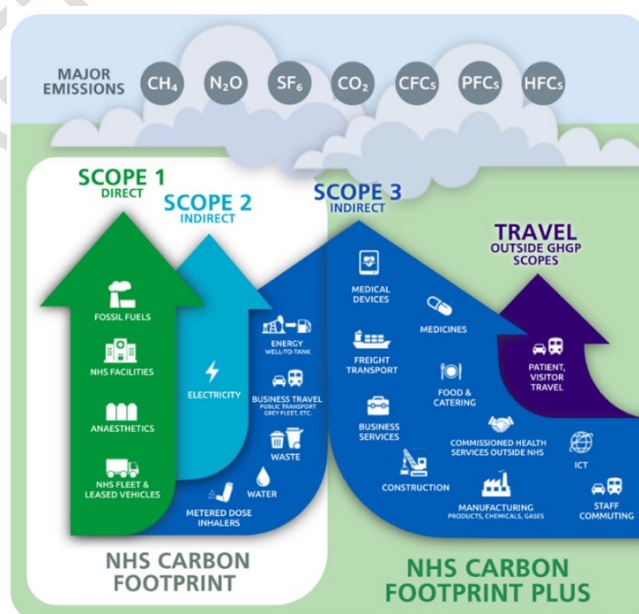


Figure 2: NHS Greenhouse Gas Emission Scopes

Simultaneously, the “For a Greener NHS Campaign” was published by the Chief Executive Officer (CEO) of NHSE&I, which provides top-down support to NHS organisations to decarbonise their operations, reduce their impact on the environment, and improve health. The campaign builds upon the work already being carried out within the NHS to improve sustainability and will ensure that high-level backing is provided to support NHS organisations in their work to become net-zero.

To become a net-zero health service, reduce air pollution, and reduce waste, the NHS requires the commitment of all Trusts, staff, and partners. An expert panel has subsequently been formed to map the best path for the NHS to become carbon net-zero, the findings of which shall be continually reviewed by the ICS and used to update this plan as required.

Additional drivers for sustainability in the NHS are set out in a suite of documents mandated by NHSE&I for use by NHS organisations. These documents include:

- NHS Long Term Plan
- NHS Standard Service Contract 2021/22
- NHS Operational Planning and Contracting Guidance
- Delivering a Net Zero National Health Service

The *NHS Long Term Plan* details the method by which the NHS will develop until 2030 and includes considerations pertaining to sustainable development. The *NHS Standard Service Contract 2021/22* highlights several targets and objectives associated with sustainability within the NHS, including the reduction of water used and waste generated. The *NHS Operational Planning and Contracting Guidance* provides advice on the actions required to assist the NHS in achieving the national carbon reduction targets and to improve the organisation’s resilience, such as delivering at least 25% of outpatient activity remotely.

Delivering a Net Zero National Health Service provides a national-level framework for action on climate change and sustainability. It makes clear that every NHS organisation has an essential role to play in meeting the national net-zero ambition. It provides a detailed account of the modelling and analytics that have been used to determine the NHS carbon footprint and trajectories to net zero. It also covers the actions that will be implemented by the organisation to reduce emissions, including a series of immediate interventions that must be taken to meet the 2040 net-zero target. To ensure that the NHS is on track to meet its long-term commitments and retains the ambition it requires to achieve them, this report will be continuously reviewed.

Significant progress has already been made on reducing carbon emissions within the NHS, with a 62% reduction between 1990 and 2020 having been achieved nationally, through the implementation of several strategies. However, as climate change is growing in significance and the time available to address the problem diminishes, the number and scope of drivers for change are expected to increase. The NHS is continually updating guidance to ensure the organisation is tackling climate change effectively. This includes the new *Net Zero Carbon Hospital Standard*, which establishes best practice requirements for the integration of sustainability in capital projects and energy efficiency. The Cambridgeshire and Peterborough ICS will continue to engage with the NHS’s sustainability agenda and will monitor legislation and guidance changes as progress towards net-zero is made.

4.1.2 Local Drivers

The Local Authorities across Cambridgeshire and Peterborough have responded to the increasing pressure to act on climate change. In 2019, Cambridgeshire County Council, Cambridge City Council and Peterborough City Council all formally declared a climate emergency and have established targets in accordance with national guidance to achieve carbon neutrality across area.

Achieving the targets established across the above local authority areas, will require all actors to make a sustained effort. There is a clear commitment to reducing carbon emissions to net-zero throughout the region, with the offering of support from the above partner organisations. Across the broad network of members in which the Cambridgeshire and Peterborough ICS operates, a collaborative approach will be taken to reducing emissions, as set out in this Green Plan.

4.2 Our Targets

In line with the series of national and local drivers outlined above, the Trusts of Cambridgeshire and Peterborough ICS will aim to achieve the following targets:

4.2.1 Carbon Reduction

- Achieve a 100% reduction of direct carbon dioxide equivalent (CO₂e) emissions by 2040. A 47% reduction (from a 2019 baseline) will be achieved by 2032 at the latest.
- Achieve a 100% reduction of indirect CO₂e emissions by 2045. An 73% reduction (from a 2019 baseline) will be achieved by 2039 at the latest.

4.2.2 Air Pollution

- Convert 90% of the fleet to low, ultra-low and zero-emission vehicles by 2028.
- Cut air pollution emissions from business mileage and fleet by 20% by March 2024.

As an ICS, our goal is to put sustainability at the core of our strategies and decision-making, and to strengthen organisational approaches to carbon reduction, through collaborative working, at system level, sharing of best practice and adoption of innovation.

We will be working with our partners to define success measures and a shared framework for tracking our progress against each of the green plan strategic objectives and workstreams.

5.0 THE ICS SUSTAINABILITY LANDSCAPE

The Cambridgeshire and Peterborough ICS includes five NHS Trusts, each of which accounts for a portion of the ICS carbon footprint. The data below reflects this footprint from a top-down perspective. It was produced by the NHS national team in 2021 based on an exercise which investigated energy use across the ICSs and serves as a useful but indicative baseline.

It reveals that the ICS's 2019-20 NHS Carbon Footprint emissions (Scopes 1 and 2) totalled 123,310 tCO₂e, much of which derived from the use of electricity and gas for building energy requirements, but also included substantial carbon contributions from business travel, fleet vehicles, anaesthetic gases, and metered dose inhalers (see Figure 3).

Meanwhile, the ICS's 2019-20 NHS Carbon Footprint Plus emissions (Scope 3) totalled 516,340 tCO₂e, almost 50% of which came from the procurement of medicines, medical equipment, and non-medical equipment (see Figure 4). It is important to note that the carbon data presented below is indeed wholly indicative of the ICS's emissions rather than being a precise assessment. This is because the ICS does not yet have a fully verified direct emissions data set, and the indirect emissions have been quantified using requisite spend data against economic-based carbon factors. However, data is being refined all the time, and the ICS is seeking to improve the quality and reporting of its carbon footprint in the future.

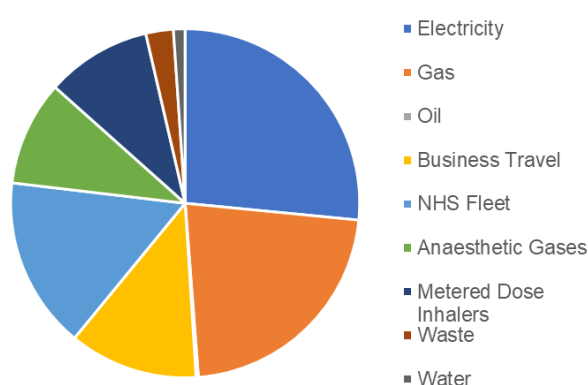


Figure 3: C&P ICS Carbon Footprint

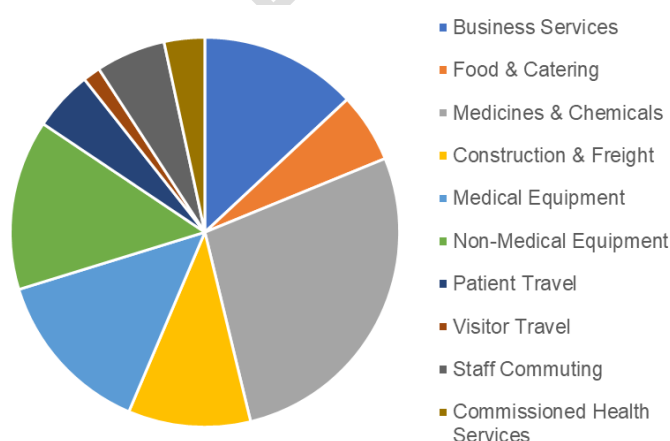


Figure 4: C&P ICS Carbon Footprint Plus

These graphs show Cambridgeshire and Peterborough ICS's Carbon Footprint (Figure 3) and Carbon Footprint Plus (Figure 4) emissions from 2019-20. The footprints are broken down into several categories, each of which is listed to the right of the graphs and represented by a colour.

The order by which these categories are listed corresponds to the order by which they appear in a clockwise sequence within the graphs. For example, in Figure 4, the first listed category of 'Electricity', represented by a medium blue, corresponds to the first wedge from the top of the graph. The second listed category of 'Gas' corresponds to the orange wedge as found in clockwise direction after the 'Electricity' wedge.

The following sections provide summaries of each of the Cambridgeshire and Peterborough ICS's organisation-level Green Plans. Firstly, the Trusts' main environmental aspects and carbon hotspots are highlighted. Following this, each organisation's key actions, which have been determined at a Trust-level to address these aspects, are detailed. It is important to note that the data included has not been collected in a uniform way by each Trust, and therefore varies significantly in terms of scope and detail. Consequently, the data discussed is merely indicative of our organisations' impacts, cannot be used for comparison purposes, and requires further analysis, which we are committed to working on.

5.1 Cambridge Community Services NHS Trust (CCS)

CCS provides community-based health services across Cambridgeshire, Bedfordshire, Norfolk, and Suffolk, serving approximately 3.3 million people.

CCS accounts for about 3,000 staff operating from more than 50 sites, many of which are shared with other organisations. Therefore, the Trust is largely unable to directly control aspects such as energy supply in buildings, and quantifying the related carbon emissions is a difficult task. In addition, CCS is a Trust whose carbon footprint is increasing all the time due to the growth of its service provisions. In the last two years, for example, CCS has expanded its service delivery in Suffolk for dental healthcare providers, which added three more buildings to its estate. Consequently, CCS has not been able to measure its carbon footprint in the same way as its partners.

The organisation's Green Plan nevertheless outlines the actions it will take over the next 3 years to reduce carbon emissions, one of which is monitoring the practical ways of trying to collect carbon data which the Trust can use for its carbon-reduction decision making. Other major plans include the use of Net Zero Champions and e-learning modules to mobilise behaviour change, efforts to manage resources more sustainably through product lifecycle approaches and engaging with procurement teams, and tailoring estate development plans towards being able to adapt to extreme weather conditions.

5.2 Cambridgeshire and Peterborough NHS Foundation Trust (CPFT)

CPFT is a health and social care organisation with services including mental health, specialist learning disability and substance misuse. It supports a population of just under 1 million people. Due to the wide geography across which its services are delivered, its carbon footprint is equally as expansive. and employs nearly 4,000 staff across 50 different locations, CPFT is one of the largest Community Trusts in England.

In 2020/21, CPFT's Carbon Footprint Plus equalled 24,466 tCO₂e, formed mainly from supply chain-related emissions (18,180 tCO₂e), but also from patient, visitor, and staff travel (3,962 tCO₂e). It should be noted that as CPFT is a community health provider, its generation of carbon emissions is small compared to the likes of an acute care provider. However, 75% of its emissions are based on supply chain processes, highlighting a need for the organisation to step and reduce its Scope 3 emissions.

CPFT's Green Plan outlines the Trust's plans to undertake action on several key areas to reduce its carbon emissions over the next 3 years. The first key area to be focused on is that of the estate and infrastructure. The Trust will move away from unsustainable forms of heating and lighting through increased use of renewable energies, and improve the energy efficiency across its buildings through targeted schemes. The second key area is that of travel. Actions include delivering services through digital means such as virtual consultations wherever appropriate, or through the development of an active travel plan for both staff and patients. The final key area is that of procurement and commissioned services. The supply chain accounts for an enormous amount of CPFT's carbon emissions, and progress will be made through factoring energy efficiency into procurement decisions, including sustainability into tender evaluations, and working directly with suppliers to capture carbon data.

5.3 Cambridge University Hospital NHS Foundation Trust (CUH)

CUH comprises Addenbrooke's and The Rosie hospitals. Addenbrooke's provides emergency, surgical, and medical care for a local population of a half a million, whilst also being a regional centre of excellence for specialist services such as transplantation, neurosciences, and genetics, for a regional population of 6 million people. The Rosie is a women's hospital and the regional centre of excellence for maternity care. CUH's role as an acute and specialised care provider means that its carbon footprint is large and diverse. CUH accounts for 12,000 staff and volunteers.

In 2019/20, CUH's Carbon Footprint Plus totalled 216,600 tCO₂e, formed mainly from emissions related to the supply chain (165,700 tCO₂e), but also from patient, visitor, and staff travel (24,300 tCO₂e), electricity (12,400 tCO₂e), and gas (10,600 tCO₂e).

CUH's Green Plan presents an array of strategic priorities for the Trust over the next 3 years. These are broken down into 4 key 'action sets' which outline the types of interventions to be pursued. Action Set 1 concerns the immediate engagement of the workforce in the net-zero agenda through focus groups, training packages, and the incorporation of sustainability into staff policies, procedures, and processes. Action Set 2 focuses on the importance of reducing direct emissions through estate-based interventions such as technology upgrades and changes to clinical practice. Action Set 3 is an extension of the former action set and prioritises wider changes such as the promotion of salary sacrifice schemes for electric vehicles and reducing waste associated with the purchase of catering, cleaning, and paper products. Finally, Action Set 4 focuses on the supply chain, with actions looking to tackle clinical and other wastes, as well as the consideration of offsetting measures.

5.4 North West Anglia NHS Foundation Trust (NWAFT)

NWAFT provides a variety of acute care services across 5 sites for approximately 700,000 residents living in Peterborough, the northern part of Cambridgeshire, South Lincolnshire, and other neighbouring counties. It accounts for 7,000 staff and volunteers. Its role as an acute care provider means that its carbon footprint is significant.

In 2020/21, NWAFT's Carbon Footprint equalled 13,651 tCO₂e, formed mainly from the consumption of gas (6,124 tCO₂e) and electricity (6,697 tCO₂e). It should be noted, however, that NWAFT's carbon emissions are much more significant than this data suggests. This is because it does not include emissions from traditionally carbon-intensive aspects such as

supply chain processes, travel by patients, visitors, and staff, and medicines such as anaesthetic gases and metered dose inhalers. Consequently, NWAFT has much work to do to reduce its carbon footprint.

NWAFT's Green Plan highlights three key workstreams through which it will focus its efforts over the next 3 years. The first concerns the reduction of transport-related emissions which, aims to promote and encourage the use of sustainable travel for site users, embed agile approaches in everyday working practices, and begin the transition to an electric fleet. The second key workstream concerns the Trust's carbon footprint specifically, which it aims to decrease through the development of a sustainable management solutions to energy, water, and waste, and schemes to reduce the impact of medical gases. NWAFT's third and final key workstream embodies an aspiration to onboard its workforce through a 'Net Zero Heroes' initiative focusing on the education and engagement of staff in the sustainability agenda through dedicated training packages and partnerships.

5.5 Royal Papworth Hospital NHS Foundation Trust (RPH)

RPH is the UK's leading heart and lung hospital, treating around 50,000 patients per year. In addition, it is also home to the UK's largest Respiratory Support and Sleep Centre. It accounts for around 2,000 staff.

Given its size, the Trust has a correspondingly small carbon footprint in comparison with other Trusts within the ICS. RPH has not yet quantified its carbon emissions, However, RPH is hoping to improve its data collection processes in the future, particularly those of its Scope 3 emissions which are currently incomplete but will be updated to include procurement-related emissions.

RPH's Green Plan details a range of areas in which its efforts to reduce carbon emissions shall be focused over the coming years. A significant action focuses on the mobilisation of its workforce in the sustainability agenda, underpinned by interventions such as creating a network of Sustainability Champions and rolling out role-specific sustainability training. Another important set of actions are focused on travel, with interventions such as rolling out increased charging points and developing expenses policies to incentivise use of electric vehicles and other forms of sustainable transport. Finally, the Trust has a core interest in making nutrition more sustainable through the identification of local suppliers, the development of a sustainable food policy, and efforts to build liaison between stakeholders such as catering services, dieticians, and staff.

5.6 Future developments

We have two new hospitals in development in the System. Cambridge Children's and The Cambridge Cancer Research Hospital, will both be built at the Cambridge Biomedical Campus. Along with significant redevelopment of Addenbrookes Hospital, it represents an opportunity to build in a sustainable way, acknowledging that it will contribute to our existing carbon footprint. However this is what sustainable development is about. It does not mean that we stay where we are but acknowledges that we need to progress and develop. In order to do so sustainably we need to also focus on how we change the way we currently operate to mitigate the impact. Behaviour change, new technologies, preventative action and working in partnership as a whole system are key to our success.

6.0 OUR STRATEGIC SUSTAINABILITY OBJECTIVES

As a partnership of diverse organisations, we recognise our responsibility to urgently minimise our contribution to climate change, to improve the wellbeing of the local population. The region of Cambridgeshire and Peterborough is particularly affected by extreme weather events and flooding, with direct impacts on population health.

The member organisations of the Cambridgeshire and Peterborough ICS already have a strong commitment to sustainability. We want to ensure that high-quality care is provided in a way which does not negatively impact the environment, achieves positive financial performance, and contributes to the wellbeing of our communities. We have formed a series of strategic sustainability objectives to demonstrate this commitment and make progress on our targets.

The workstreams, visions, strategic sustainability objectives and the cross-cutting priority areas of the Cambridgeshire and Peterborough ICS are presented in Table 1 below. Additionally, the actions that our ICS has been either mandated or suggested to undertake by the NHS at both national and regional levels can be found summarised in Appendix 1.

Table 1: Our strategic sustainability objectives

System Priorities		No.	Workstream	Vision	Strategic Objective
Circular Economy	Anchor Institution & Adaption	1	Workforce & Leadership	A knowledgeable and motivated workforce that understands sustainability and feels empowered to act on the issue in the workplace and independently.	Promote, increase awareness of and embed sustainability within the ICS through integrated training programmes, strategic processes, and voluntary opportunities.
		2	Estates & Facilities	An ICS that minimises its climate impact whilst being prepared for future extreme climatic events.	Construct and retrofit buildings to the latest standards and pursue renewable energy solutions through partnerships to maximise efficiency and resilience. Identify opportunities to provide green space and plant trees.
		3	Research & Innovation	An ICS with strong partnerships with business and academia to enable investment into and rollout of technologies and innovations.	Leverage the strengths of C&P innovation and research networks to help assess, test and implement innovative products and practices, that can support delivery of our green plan targets.
		4	Active & Sustainable Travel	A workforce and patient base that is inspired and incentivised to use sustainable modes of transport where possible.	Align with and promote an active and public travel strategy for staff and patients to reduce carbon emissions from travel and improve health.
		5	Supply Chain, Procurement & Waste	An ICS that drives emission reductions throughout the wider supply chain with a circular economy approach to procurement and waste.	Reduce emissions from the supply chain through the implementation of holistic procurement practices and more sustainable utilisation of consumables across healthcare service delivery
		6	Sustainable Models of Care	An ICS that adopts sustainable healthcare practices, minimises preventable ill health, and supports people to manage their health and wellbeing through person-centred care.	Create forums for knowledge sharing and best practice, optimising medicines prescribed, reducing the use of clinical gasses, maximising digital healthcare solutions, and promote personalised care, population health management and social prescribing.

6.1 Workforce & Leadership: Promote, increase awareness of and embed sustainability within the ICS, through integrated training programmes, strategic processes, and voluntary opportunities

In order to make progress on sustainability and carbon reduction, our organisation must create an environment conducive of staff participation and involvement. Behaviour change comes for a place of understanding, confidence and motivation. Within C&P ICS we aim to support our workforce to feel empowered and enabled to make sustainable workplace and lifestyle choices, as a result of an increased understanding of sustainability. Enhancing the knowledge and leadership attributes of staff is essential when it comes to advancing the sustainability agenda. The co-benefits between sustainability improvements and healthcare efficiency need to be promoted and communicated effectively, to help motivate and inspire action within the ICS.

These aspirations align with our system's people plan and workforce strategy. The people plan highlights the need to train and educate the workforce in new ways of working to deliver the best possible care for patients. A compassionate working culture is core to this approach, and requires that organisational strategies be inclusive of and fair to all staff.

Colleagues from across the ICS have been concerned about disparities in pay, which can be a factor in seeking employment further afield with longer commutes and associated carbon emissions. At the same time, care is increasingly delivered in patients' homes, and the inclusion of sustainability within skills training for healthcare professionals is becoming more important. To effectively support sustainability within the workforce, it is important to address both employment processes and training.

There has been clear consensus among stakeholders that education and training programmes are essential to improve sustainability knowledge. However, it has been noted that the role-specific training burden on current staff is already significant and there is a desire to avoid a "tick box" approach in favour of meaningful participation.

Proposed actions to raise sustainability awareness across the ICS workforce:

- Integrate sustainability awareness and leadership as part of existing training and leadership development programmes at organisational and team level
- Develop an ICS sustainability induction eLearning module as part of on-boarding for all new ICS staff
- Learn from and utilise successful approaches in collaboration with the Greener NHS team and our ICS partners
- Seek collaborative opportunities with the CPCA, local authority, voluntary sector and ICS partners, to promote green literacy across staff and local communities, aligned with the Economic and Skills strategy

Proposed actions to embed sustainability into employment processes:

- Promote sustainability as part of ICS and organisational values, with a clear understanding about how this translates into everyday practice at organisational, governance and individual staff level
- Expand opportunities for volunteering programmes and support for community sustainability projects
- Introduce sustainability innovation awards to encourage and reward individual and team initiatives that support delivery of our Green Plan
- Promote co-benefits for sustainability and health, as part of staff wellbeing initiatives.

The collective mobilisation of both our existing and future workforce across the region through training, strategic, and voluntary approaches will not only build a regional culture shift that will reduce carbon emissions, but also lead to increased efficiency and improved resilience.

6.2 Estates & Facilities: Construct and retrofit buildings to the latest standards and pursue renewable energy solutions through partnerships to maximise efficiency and resilience

NHS facilities and estates play a critical role in achieving the NHS's net zero carbon emissions, with direct responsibility for a significant proportion of building and service-related emissions, and expertise to support other business areas in sustainability goals.

The Estates Net Zero Carbon Delivery Plan sets a clear framework via four step approach to decarbonise the NHS Estate:

1. Investing in energy saving measures;
2. Preparing buildings for electricity-led heating;
3. Switching to non-fossil fuel heating;
4. Increasing on site renewables. There are specific immediate targets for the purchase or generation of 100% of electricity from renewable energy sources and the replacement of LED lighting as part of BAU maintenance.

All the C&P Trust Green Plans set out specific objectives and steps towards the decarbonisation of their estate. These include:

- Measures to reduce energy consumption
- Purchase of energy from renewable energy sources (as per NHS standard contract) and move from gas to electricity
- Phased/BAU replacement of lighting to LED
- Development of sustainability criteria for capital investment
- Net zero standard for all new build
- Generating power from renewable energy sources

Our estate is a broad mixture, from newly built PFI hospitals and centres, to Victorian houses. Some of the hospital sites have a complex mixture of buildings added to over many years. Partner approaches will therefore differ greatly.

As regards the primary care estate within C&P, there are 21 Primary Care Networks covering 130 sites, including 42 branches. 60% of these sites are GP owned with 76 properties recorded as being Freehold, 10% NHS Property Services (NHSPS) properties and the remainder private or third party owned. There is a data gap of 24% of sites where this level of detail is not yet captured on the current data set.

At present we do not have a full set of data on the condition of primary care premises, with notable gaps in environmental management. A six-facet survey has been commenced, which will cover 70% of these sites. This will include environmental management and provide information on energy performance, water consumption, waste management and transport and procurement. We plan to include the remaining 30% in future projects (most of it is included in the NHS Property Services portfolio and may be covered there).

The age of the current estate also presents challenges from a sustainability perspective. Only three of the current primary care premises have been recorded as being constructed between 2015 to 2021. Applying decarbonisation solutions retrospectively to old buildings is likely to have significant upfront cost implications.

Investment in energy saving measures is the first step towards decarbonisation of the estate, as set out in the NHS Estate Net Zero Carbon Delivery Plan. NHSPS is working towards delivering against a Net Zero Carbon Delivery Plan within the estate it manage. For privately owned premises, the responsibility lies with the individual providers, and it is important they have access to information, advice, training and resources to support them with sustainability plans and improvements.

Potential areas of focus:

- Switching electricity to renewable energy or REGO certified tariffs
- LED lighting
- Insulation
- Smart systems and metering
- Compliance for all new builds/extensions with the NHS new Estate Net Zero Carbon Delivery Plan
- Working with NHSPS to support Net Zero Carbon Delivery within its estate and to share learning and best practice
- Supporting the use of the free online carbon calculator tool for general practices (<https://www.gpcarbon.org>) to inform our plans and measure progress locally.
- Promotion of tree-planting on NHS sites as a carbon capture method

Our system needs to minimise its climate impact whilst being prepared for a future of unpredictable extreme climatic events. Buildings and infrastructures across the ICS need to be able to combat the threat of events such as heatwaves. The construction and retrofitting of buildings to the latest standards, as well as the pursuit of additional renewable energy solutions, are critical to reducing carbon emissions and maximising the system's resilience and efficiency. In parallel, efforts are required to mitigate the effects of heatwaves through tree planting to provide shade.

The ICS will use the Capital Planning Tool to support decarbonisation of the estate and replace lighting with LED lights as part of routine maintenance. As part of this, green space

and biodiversity will be further integrated where possible into new estates projects in line with planning policy. The ICS Estates Strategy will align with the deliverables in the Estates Net Zero Carbon Delivery Plan.

In pursuing energy efficiency solutions within the ICS, we will seek joint approaches and partnerships which can help us utilise investment, resources, expertise and supplier influence in the most efficient way. We will look for joint procurement arrangements where it makes sense to do so. There is a clear alignment with the CPCA Energy infrastructure and retrofit investment programme with shared priorities on the decarbonisation of the public sector estate and efficient energy infrastructure to support sustainable growth and healthy communities. This includes for example the CPCA £2 million pilot programme to support care homes transition to net-zero and the wider programme of support for retrofits focusing on low income/vulnerable households and public buildings.

6.3 Research & Innovation: Improve sustainability performance and build resilience through partnerships, investment and research into emerging technologies and innovations

Research and innovation will be a key element to help deliver the rapid changes required in clinical practices, care pathways and business models, to reduce carbon emissions and at the same time maintain and enhance the quality of care. Innovative greener products and services will be required to help all six workstreams reach their targets. With the backing of research and an evidence base, these newly embedded innovations and services could provide spread and adoption opportunities beyond C&P.

In C&P we have global leaders in research and innovation centred around the Cambridge biomedical cluster and are strengthening our partnerships here. At the same time, we are already progressing the exploration and piloting of sustainable innovations, including but not limited to: green inhalers, air pollution monitoring, fly-ash capture technologies, smart valves, plastic alternatives/recycling and digital applications; all of which have the potential to be key drivers of carbon reductions. There is a significant alignment of this agenda with the CPCA economic strategy and innovation investment programme. Finally, the recently established Cambridge Innovation Adoption Hub is a key delivery partner within the ICS for implementing our sustainability and innovation agenda.

The vision of Cambridgeshire and Peterborough ICS is to be seen as a leader for innovation, facilitated through strong partnerships with both business and academia to enable investment, research, and rollout of emerging technologies and innovations.

To meet our goals, we will:

- Map key areas and opportunities for research and help make connections with innovation and research networks that can support their development
- Support collaborative research and innovation projects with local academic partners (such as Cambridge Zero and Public Health sustainability initiatives at the University of Cambridge and the Global Sustainability Research Institute at Anglia Ruskin University) as well as student placements linked to the goals and objectives of the ICS green plan
- Ensure where possible all research and innovation collaborations consider environmental sustainability
- Promote the adoption of effective green innovations and practices across the system with partners such as Eastern Academic Health Science Network.

- Create forums for bringing together clinicians, sustainability leads, wider staff and public, to discuss opportunities for sustainability, clinical waste reductions and adaptation strategies.

6.4 Active & Sustainable Travel: Align with and promote an active and public travel strategy for staff and patients to reduce the carbon impact of healthcare related travel

The public health benefits of active travel are well documented. Encouraging our communities to walk or cycle for the many short local journeys made, will have a significant impact on their health and wellbeing as well as reducing air pollution. In line with regional priorities, C&P ICS is committed to ensuring:

- All new purchases and lease arrangements should be for ultra-low emissions vehicles (ULEVs) or zero emissions vehicles (ZEVs)
- Only ULEVs or ZEVs are made available to staff through salary sacrifice schemes
- There is a cycle to work lead in the ICS and member Trusts

There is a need to address the wider factors and local context for achieving improvements in sustainable and active travel. Despite the pandemic-related increase in home working, there continues to be heavy traffic congestion within urban areas, while public transport networks are not always able to support the needs of clinical staff working across the ICS. The ICS needs to consider how to not only motivate but enable its workforce in using public transport.

An essential element of the successful development of the Cambridgeshire and Peterborough ICS Green Plan will be engagement with local policy makers. Cambridgeshire County Council is developing an Active Travel Strategy for Cambridgeshire and it is planned to be adopted in early 2023. The Strategy builds on the vision for active travel from both central government's Gear Change and Transport Decarbonisation Plan, as well as the emerging Cambridgeshire and Peterborough Local Transport and Connectivity Plan, currently being produced by the CPCA.

The Strategy's overarching vision is to embrace active travel in all transport policies, projects, investment, and development in Cambridgeshire, to make active travel the 'go to' choice for local journeys as well as part of longer journeys made by sustainable modes, focusing on encouraging mode shift away from private car. This Strategy aims to be bold but also realistic, setting out a step change in transport priority, but delivered over many years to reach the longer-term net-zero carbon targets by 2045.

There are four key themes, Embrace, Enhance, Expand and Encourage. These encapsulate the key areas of change needed, to ensure active travel in Cambridgeshire meets the overarching vision and objectives of the Strategy, and the wider long-term benefits for our communities now and for generations to come.

There will be a short-term focus on better collaboration, within the Council and with key partners to improve internal processes, prioritise active travel in all decision making, supported by a clear active travel network vision and developing a future pipeline of schemes. Implementation of the pipeline of schemes will be dependent on securing funding opportunities to design and deliver them as part of the Council's Transport Investment Plan.

The Active Travel Strategy will be an important tool to support the ICS Green Plan and encourage staff and visitors to use sustainable and active modes of travel, reducing car

journeys. Continued engagement as both emerging strategies develop, will ensure future opportunities for coordinated collaborative working are maximised.

The ICS will also seek a system-wide approach to installing charging infrastructure and promote active travel among patients and staff, through communication and engagement campaigns, in collaboration with local partnerships and communities.

Increased uptake of active travel amongst staff and the community will lead to better physical and mental health, contributing to reduced healthcare pressures in the future, as well as reduced carbon emissions.

6.5 Supply Chain, Procurement & Waste: Reduce emissions from the supply chain through the implementation of holistic procurement policies and stakeholder engagement processes

At a regional scale, there is a pressing need for Cambridgeshire and Peterborough ICS to address four key priorities related to the supply chain, procurement, and waste. C&P ICS and is committed to:

- Inform suppliers and adhere to the commitments established in the NHSE&I's supply chain roadmap, which includes a 10% minimum weighting on social value from April 2022.
- Purchase 100% recycled paper and reduce paper usage more generally.
- Take action to address single use plastics, and eliminate unnecessary plastics used for catering purposes.
- Support take-up of walking aid reuse and remanufactured devices
- Adopt approaches and practices that seek to reuse, reprocess and minimise waste.

A common theme amongst our members' Green Plans is the need for effective and sustainable procurement and waste management practices. Procurement is the single largest contributor to carbon emissions within the ICS, and therefore offers the potential for significant emissions savings.

We are committed to working collaboratively across our region to improve our knowledge, engage with wider supply chain, pilot work, develop the evidence base of what works and potentially engage in both ICS and regional wide solutions where appropriate.

We will seek to embed circular economy principles in the way we procure, use and manage resources, considering the cost of carbon and waste as part of our decision making.

To achieve the desired changes within the supply chain and wider procurement, the ICS will develop a sustainable procurement policy, with the aim of steering suppliers to change their practices in line with our objectives and vision. The size of our ICS means that by using a consistent approach to supplier requirements and procurement practices, we can instigate change within these organisations and bring them on the sustainability journey with us, embedding best practice within the whole supply chain. The policy will be written in line with the Greener NHS supplier roadmap, incorporating the *Evergreen* supplier framework and the Government's *Social Value Model* and *Taking Account of Carbon Reduction Plans*. This will help simplify the procurement process and provide consistency for the purchasing of low carbon goods and services across the ICS. We will also seek a joint approach across local authorities and NHS in assessing social value as part of procurement processes.

We will further focus on waste and plastics. Single use plastics represents between 25% and 40% of the total NHS waste stream per annum and only a small proportion of this is currently recovered. Moreover, it is estimated that 40% - 50% of non-infectious plastic waste is misclassified.¹ There is therefore a significant opportunity, both environmentally and financially, to sort and connect this plastic waste back to the supply chain and reduce the demand for virgin plastic in the first instance. The ICS will be encouraging and supporting participation in pilot programmes and feasibility studies to test and develop the processes that are deemed necessary to enable our organisations to sort and retain the value of their clinical plastics. A fundamental aspect of this part of the project is the collaboration with our partners and stakeholders in the identification of system level solutions across the supply chain.

We will be supporting the implementation of the regional plastic project 'Developing a circular approach for single use clinical plastics' in the following ways;

- Sharing the plastics project widely across our ICS- and sharing the knowledge and learning that has been developed through the project.
- Support pilots & feasibility studies. We will be encouraging and supporting our trusts to take part in feasibility studies and pilot programmes in order to test and develop our thinking about the type of sorting processes that we need to introduce to enable our trusts to sort and retain the value of their clinical plastics.
- Coming together to find system level solutions across the supply chain. Engaging with with/providing representation on the planned 'Single Use Plastics Circular Economy Innovation and Awareness Group' to ensure ICS partners (sustainability, procurement and waste leads, clinicians and suppliers are connected and able to benefit from and respond to the learning gained during the pilots and feasibility studies).
- Improve staff awareness – redefining waste as an asset, understanding where it goes, and influencing staff behaviour around purchase, use and disposal.

Staff engagement, and particularly clinical engagement and leadership are crucial in this area.

Other potential areas of focus at system level include:

- Adopt programmes looking to reuse items, such as reusable caps, gowns and walking aids.
- Investigate the whole life cycle of objects.
- Create a map across healthcare providers to identify where there is particular expertise to help others scale up efforts.
- Run forums for ICS stakeholders for continuous dialogue, learning, and assessment.
- Form partnerships with local start-ups, charities and other organisations that offer recycling, up-cycling, or reuse schemes.

By making carbon considerations central to our decision-making and working practices, we can achieve economic benefits and efficiencies as well as progress towards sustainability goals.

¹ East of England plastics project "Developing a circular approach for single use clinical plastics"

6.6 Sustainable Models of Care: Medicines optimisation, create forums for knowledge sharing and best practice, pursue digital healthcare solutions, and promote personalised care, population health management and social prescribing

Medicines are responsible for around 25% of the overall NHS carbon emissions and it is estimated that over 60% of the carbon footprint in general practices is associated with prescribing. A large part of the prescribing footprint is specifically due to metered dose inhalers (MDIs). Dry powder inhalers (DPIs) and soft mist inhalers (SMIs) have a carbon footprint which is typically a small fraction of that of MDIs (range 3-70x less). The NHS long term plan supports the use of these inhalers where it is clinically appropriate.

C&P has fallen behind other parts of the country in recent years when it comes to a move towards using more low carbon dry powder inhalers. C&P CCG published new asthma guidance in 2021 which supports and enables greater DPI use.

Resources are available for specialists, prescribers and patients to support decision-making, including the Greener Practice Guide for Reducing the Carbon Footprint of Inhaler Prescribing and the National Institute for Health and Care Excellence's (NICE's) Asthma Patient Decision Aid to support shared decision-making and a shift to low carbon inhalers. Inhalers are a key focus of the Medicines Sustainability programme, with a number of incentives and tools available to support implementation of clinical best practice in prescribing and management of asthma and COPD.

In addition, the C&P Pharmacy and Medicines Optimisation sustainability plan sets out a number of key priorities to reduce the environmental harm from medicines, recognising that optimised use of medicines can deliver better health outcomes as well as environmental benefits. The priorities, which are relevant for all prescribers as well as the pharmacy workforce, include:

- Ensuring appropriate and necessary prescribing with regular medication reviews
- Greener prescribing where clinically appropriate, taking into account the environmental impact of medicines
- Ensuring information and tools to support decision making for prescribers and patients and encouraging shared decision making
- Tackling medicines waste, through increasing public awareness for prudent use and safe disposal, reducing single use plastics and supporting local recycling schemes

Work is also being undertaken across the system to reduce the use of clinical gasses, in particular on hospital sites.

Sustainable healthcare is also about effective use of resources; reducing waste; preventing ill-health; empowering patients and supporting person-centred care. For example, empowering patients to self-manage their conditions and connecting them with relevant community resources and support can lead to better health and wellbeing as well as reductions in healthcare use and carbon footprint. By maximising these practices as part of everyday care and promoting them through their role as trusted sources of health information and guidance for the public, health care professionals can play a major role towards a net zero NHS. Giving people more control over their health and wellbeing is one of the five strategic priorities of our ICS and there are a number of programmes of work within this theme (including the obesity strategy and CardioVascularDisease (CVD) prevention strategy) contributing towards this shared goal.

Population health management is an ICS strategic priority and can play an important role in preventing ill-health. Maximising prevention is a way for systems to reduce the need for health services and contribute to the net zero target.

Digitally enabled care is also important, and a key priority within the ICS digital strategy, in line with the NHS's "What Good Looks Like" framework. C&P ICS partners will seek to maximise opportunities for digital care and virtual connectivity, while also ensuring that inequalities in relation to digital inclusion are actively addressed.

There are existing and emerging initiatives and networks promoting green practice including Greener Practice which has a local group in Cambridge, which all professionals in C&P are welcome to attend (www.greenerpractice.co.uk), the "Green impact for health audit tool" (<https://www.greenimpact.org.uk/giforhealth>), and the NHSE endorsed Greener Practice Asthma QI Toolkit (<https://www.greenerpractice.co.uk/high-quality-and-low-carbon-asthma-care/>). In addition, training courses and events on sustainable primary care are available through the C&P Training Hub and the Centre for Sustainable Healthcare (<https://sustainablehealthcare.org.uk/>). RCGP East Anglia is funding initiatives and training on sustainable primary care. There is also a developing network bringing together clinicians with an interest or lead role in sustainability across all ICSs.

Proposed areas of focus within our ICS:

- Raising awareness and sharing good practice on low carbon inhaler prescribing through primary care, medicines management and clinical networks
- Ensure all practices are aware of the NHS Investment and Impact Fund inhaler targets, understand the barriers to achieving these targets, and support practices to meet them.
- Encourage and empower patients to be part of the decision-making process, supporting them with the tools and information to do so
- Learning from systems that have managed to successfully switch over from MDIs to lower carbon inhalers
- Consciously design-in sustainability, as part of pathway redesign and consider the carbon reduction opportunities at every step, tracking the carbon reduction impact.
- Ensure the opportunities of digital care are maximised across all care settings in an inclusive way.
- Use population health management approaches to prevent the use of health and care services and maximise the efficiency of patient pathways.
- Promote social prescribing and personalised care as key enablers of population health and prevention
- Promote forums for sharing good practice, reviewing emerging approaches and innovations, and supporting their adoption across the ICS

By integrating sustainability goals and principles in the way we deliver care and services we can directly improve patient health and reduce costs as well as contribute towards carbon reduction.

7.0 GOVERNANCE, OVERSIGHT, RESOURCES AND INVOLVEMENT

The ICS is required to have a Net Zero Board level lead, reporting into the Regional Greener NHS Delivery Group. This role will be embedded within the new ICS governance structure. In addition, the following mechanisms are proposed within C&P:

- A Programme Board to develop, oversee and actively contribute to the continued development and updating of an Action Plan. This will ensure continued focus on delivery, closely linked with the C&P Climate Action Group, ensuring streamlined mechanisms for engagement and reporting
- Action plans and targets integrated within the constituent strategies and plans of the ICS, with identified leads and regular reporting
- Clinical leadership roles and champions within these structures

These arrangements will be incorporated into the governance structures of the ICS as they are established.

While Trust governance and leadership on net zero is more clearly established, particular attention needs to be given within the ICS to engagement and leadership within primary care and place-based partnerships, where the institutional landscape is more complex.

A separate sustainability action plan will set out clear deliverables and accountabilities for implementation, with initial focus on 22/23 priorities. This will be further developed with partners during the first year of implementation.

In addition, a key ambition of the Cambridgeshire and Peterborough ICS is to continue to improve the monitoring and quantification of its carbon footprint. We will work with the regional team to gather this data in a consistent way and to track progress throughout the timeframe of this Green Plan.

Many of the actions in this plan can be pursued by refocusing our existing strategies and resources. The ICS has allocated resource for co-ordination and programme management at system level and will further review options for investment in specific interventions within our 3 year plan.

Finally, this plan can only be successful with the engagement and involvement of staff, partners and communities, which will be a major focus of our work throughout 22/23. We will be seeking input and involvement from a wide range of stakeholders and groups including place partnerships, clinical and professional groups, VCSE, staff and patients to support the development of this programme of work and to establish ongoing engagement mechanisms, working jointly with our ICS partners and community networks.

8.0 GLOSSARY OF TERMS

Air Pollution: the presence and introduction into the air of a substance which is harmful to human health.

Carbon Intensity: a means of calculating the amount of carbon generated for a specific energy source (e.g., electricity).

Carbon Net-Zero: a state in which an organisation emits no carbon emissions from its activities. Or a state in which all remaining carbon emissions are offset.

CO₂e (Carbon Dioxide Equivalent): a unit used to express total greenhouse gas emissions. There are multiple GHGs, each with a different impact on climate change. CO₂e equates all GHGs to the impact of carbon dioxide. CO₂e is used to report all GHG emissions.

Co-benefits: measures that contribute to sustainability at the same time as improving population health.

Direct Emissions: CO₂e emissions from sources which are owned or controlled by the Trust.

Greenhouse Gas (GHG): a gas that contributes to the greenhouse effect, leading to climate change (e.g., CO₂).

Global Warming Potential (GWP): a measurement that enables the comparison of global warming impacts of different greenhouse gases.

kWh (Kilowatt Hours): a unit of measurement for energy usage (e.g., gas and electricity).

Indirect Emissions: CO₂e emissions from sources which are not owned or immediately controlled by the consumer, but are a consequence of consumption processes (e.g., embedded in purchased goods and materials or from patient and visitor travel).

PFI: Private Finance Initiative- a way of funding public capital projects – such as NHS hospitals – using private sources of money to pay for the upfront costs of their design, build and maintenance. The costs of this borrowing are repaid annually over many years, giving the private sector a profit and the NHS a new hospital.

Scope 1 Emissions: direct emissions from owned or controlled sources (e.g., on-site fuel combustion, company vehicles, anaesthetic gases).

Scope 2 Emissions: indirect emissions from the generation of purchased electricity, steam, heating, and cooling.

Scope 3 Emissions: all other indirect emissions that occur in an organisation's supply chain (e.g., purchased goods, employee commuting, waste disposal).

Soil Carbon Sequestration Soil carbon sequestration is a **process in which CO₂ is removed from the atmosphere and stored in the soil carbon pool**. This process is primarily mediated by plants through photosynthesis, with carbon stored in the form of SOC.

Appendix 1 Regional 'Should dos' and 'Could dos'

	Should do: Could do:	22-23	23-24	24-25
Estates & Facilities	1. The organisation should describe how it will purchase or generate 100% electricity from renewable energy sources from April 2022.			
	2. Estates plans are aligned with deliverables in the Estates Delivery Plan Nov 2021. Inc. replacing lights with LED, removal of coal/oil boilers, renewable energy generation.			
	3. The organisation uses the Capital Planning Tool to support decarbonisation of the estate			
	4. Plans in place to replace lighting with LED lights, as part of BAU maintenance.			
Supply chain & procurement	5. To inform suppliers & adhere to the commitments in the supply chain roadmap, including the 10% minimum social value weighting from April 2022.			
	6. Only purchase 100% recycled paper and be reducing paper usage.			
	7. Take action to address single use plastics, and specifically eliminate unnecessary catering plastics.			
	8. To introduce or participate in a remanufactured devices collection programme and introduce the use of remanufactured devices.			
	9. To run programmes or projects to reduce the use of clinical single use plastics.			
Medicines	10. Adopt programmes looking to reuse items, such as reusable gowns.			
	11. To establish a walking aids reuse programme or build on an existing programme to increase the rate of return.			
	12. The organisation has plans to reduce the use of desflurane in surgery to as little as practically possible.			
	13. Developing plans for clinically appropriate prescribing of low carbon inhalers-target 50% reduction by 2028 & a 6% reduction in 21/22 on a 19/20 baseline.			
	14. The organisation should implement approaches to optimise the use of medical gases, including reducing nitrous oxide waste.			
Digital transformation	15. Plan describes the Trust's participation in inhaler disposal schemes.			
	16. The plan describes how the Trust is looking at other high carbon emissions and seeking to reduce usage or prescribe alternatives.			
	17. To increase/allow patients to access virtual outpatient and primary care appointments, where clinically appropriate.			
Travel & transport	18. To follow NHSx's "What Good Looks Like" framework.			
	19. Baseline ICT footprint in line with published materials by HMG Sustainable Technology Advice & Reporting (STAR).			
	20. All new purchases and lease arrangements are for cars that are ultra-low emissions vehicles (ULEVs) or zero emissions vehicles (ZEVs).			
	21. Only ULEVs and ZEVs are made available to staff through car salary sacrifice schemes.			
	22. The organisation has a named "cycle-to-work" lead.			
	23. Implementing a staff salary sacrifice cycle-to-work scheme.			
	24. Plan provides details on the organisation's approach to improving air quality, e.g. through developing a plan to support active travel, participating in the anti-idling cleaner air hospital framework.			
	25. To align with any ultra-low emission or clean air zones.			
Sustainable models of care	26. Transition plans ensure plans in place for charging infrastructure is installed where appropriate.			
	27. Ensuring secondary sites have facilities to encourage staff and visitors to cycle to work, such as cycle parking.			
	28. Implementing the cleaner air hospital framework.			
	29. To have plans for embedding carbon reduction principles in the way that all care is delivered, including digitally-enabled care, default preference for lower-carbon interventions where clinically equivalent, and reducing unwarranted variation in care delivery & outcomes resulting in unnecessary carbon emissions.			

	Should do: Could do:	22-23	23-24	24-25
	30. Work with clinicians locally to consider pathways or clinical specialities that could be decarbonised and share best practice.			
Adaptation	31. The organisation has a named adaptation lead by April 2022. 32. Ensure the organisation has plans to mitigate the risks or effects of climate change and severe weather conditions on its business and functions. This should include specific plans to mitigate the effects of flooding or heatwaves on the organisation's infrastructure, patients and staff where sites are identified as being at risk.			
	33. The organisation's plans to mitigate the impact of climate change are on the organisation's risk register.			
Workforce & system leadership	34. The organisation has a net zero board level lead. 35. Plans should demonstrate how all staff will be encouraged to undertake climate change awareness training, e.g. the Delivering a NZ NHS "e-learning for Healthcare"			
	36. Plans could also demonstrate how all staff will be encouraged to undertake carbon literacy training. 37. Plans could demonstrate how the co-benefits of sustainability and health will be incorporated into workforce wellbeing strategies.			
Food & nutrition	38. Implement approaches to measure and reduce food waste. 39. Review and adapt menus to offer (fresh, locally-sourced) healthier lower carbon options for patients, staff and visitors.			
	40. The organisation demonstrates its plans to change its menu at least twice a year by 2025 to maximise the use of seasonal ingredients.			
Other areas	41. The organisation's Green Plan takes into account air pollution reduction measures. 42. Health inequalities and social value are considered.			
	43. The organisation has plans in place to improve local biodiversity and green spaces.			