

# The Climate Emergency is a Health Emergency & Our Vision to be the Greenest Region in the UK

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# Newcastle Hospitals

*“...Providing patient-centred healthcare to communities in the North East of England and beyond for over 250 years. We’re one of the largest NHS trusts in the UK, offering a wider range of specialist services than any other.”*

- Over **2 million patient contacts** a year
- Serve a **population of over 3 million**
- **17,000 staff** and **1,800 beds**
- **£1.3 billion** turnover
- **Five** main sites, plus many community sites
- **L1 Major Trauma Centre** with helipad at RVI
- Long history of **clinical excellence**:
  - *1<sup>st</sup> child heart transplant in Europe ('87)*
  - *1<sup>st</sup> single ('87) & double lung ('91) transplant in Europe*
- **CQC “Outstanding” 2016 & 2019** (only Shelford Trust)
- **First healthcare organisation in the world to declare a Climate Emergency**



# Proud History of Sustainability in Healthcare

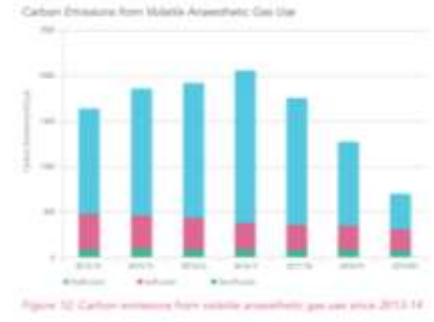


Figure 12 Carbon emissions from mobile anaesthetic gas use since 2013-18

# Establishing an Identity and Brand



**NUTH Sustainability**

@SustainableNUTH

@NewcastleHospitals Sustainability Team  
whilst delivering environmental and s

📍 Newcastle upon Tyne, England &  
📅 Joined March 2018

118 Following 799 Followers



## Energy

Minimise energy use and replace fossil fuels with zero carbon energy sources



## Water

Minimise water use



## Waste

Dispose of less, reuse and recycle more



## Buildings & Land

Provide healthy, sustainable and biodiverse spaces



## Journeys

Embed active, clean, low carbon travel



## Procurement

Work with our supply chain to decarbonise



## Care

Develop low carbon care pathways adapted to our changing climate



## People

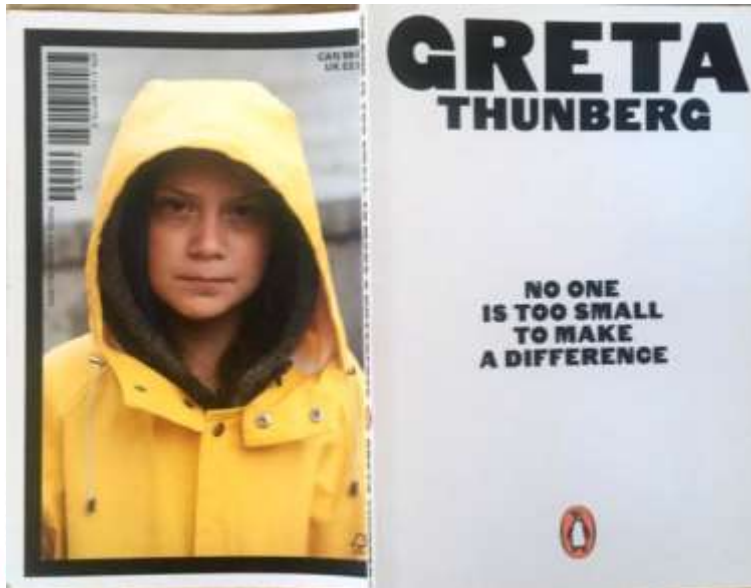
Inspire, inform and empower our people to deliver sustainable healthcare

# Declaring an Emergency: My Journey



## eco-anxiety

(n.) a feeling of worry, nervousness, or unease triggered by an awareness of the ecological threats facing the earth due to climate change.



# What is a Climate Emergency Declaration?

1. A public acknowledgement of the **climate crisis which threatens population health**
2. A commitment to **fast-tracking the reduction of our carbon emissions** which science demands
3. Collaborative action with our civic partners to **deliver a zero carbon Newcastle**

DECLARE A  
CLIMATE  
EMERGENCY 



# The reasons we declared...



ChronicleLive NEWS - IN YOUR AREA WHAT'S ON - BUSINESS - NEWCASTLE UNITED MORE -

News - North East News - Newcastle City Council

## Newcastle declares 'climate emergency' amid protests against council's 'perverse' decisions

Dozens of campaigners from Save Newcastle Wildlife, the Green Party, Defend Dewley Hill and Extinction Rebellion gathered

### Newcastle University declares a climate emergency

Published on: 18 April 2019

Newcastle University has signalled its commitment to climate change action by joining a number of organisations in the UK and all over the world to declare a climate emergency.

# The Climate Emergency is a Health Emergency



António Guterres  
@antonioguterres

The climate crisis is also a health crisis.

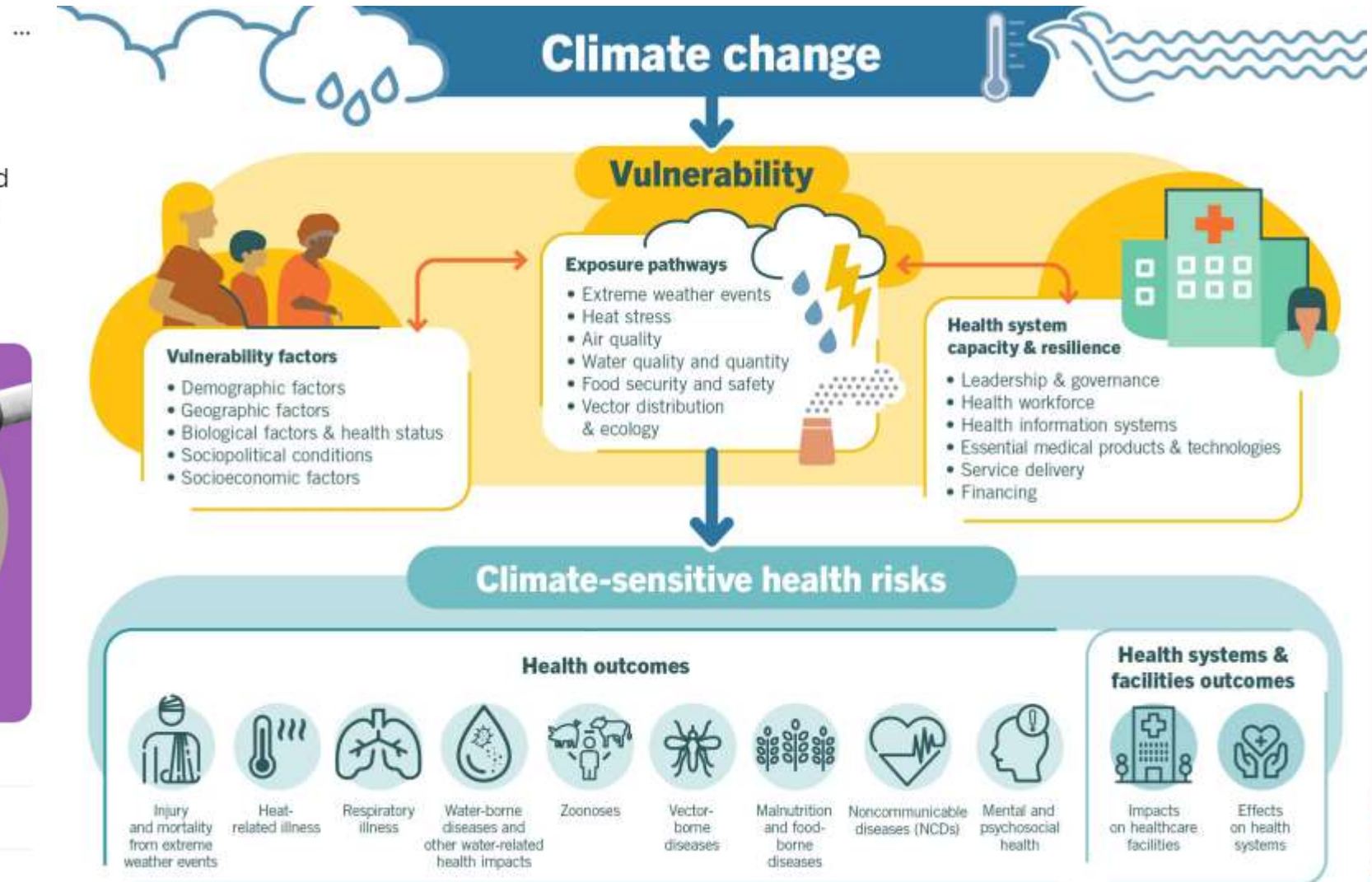
Air pollution, disease, extreme weather events & food insecurity are harming our health & taking millions of lives every year.

We need to [#ActNow](#) to protect people & planet.



12:30 PM · Feb 20, 2022 · Twitter Web App

338 Retweets 27 Quote Tweets 723 Likes





# Which is (Fossil) Fueling Health Inequalities

**Air pollution is at the heart of social injustice and global inequality**

The most vulnerable groups to air pollution



**Women and children**

Involved in domestic work such as cooking, are disproportionately exposed to air pollution, like smoke from dirty cookstoves and fuels.



**The elderly**

and individuals with pre-existing lung or heart diseases are particularly vulnerable to air pollution.



**Low-income groups:**

nearly 90% of air-pollution-related deaths occur in low- and middle-income countries, due to unprecedented rapid increase in the number of vehicles and other reasons.

International Day of Clean Air for blue skies



#CleanAirForAll

**Shine**  
Sustainable Healthcare in Newcastle

**Ella Adoo-Kissi-Debrah: Air pollution a factor in girl's death, inquest finds**

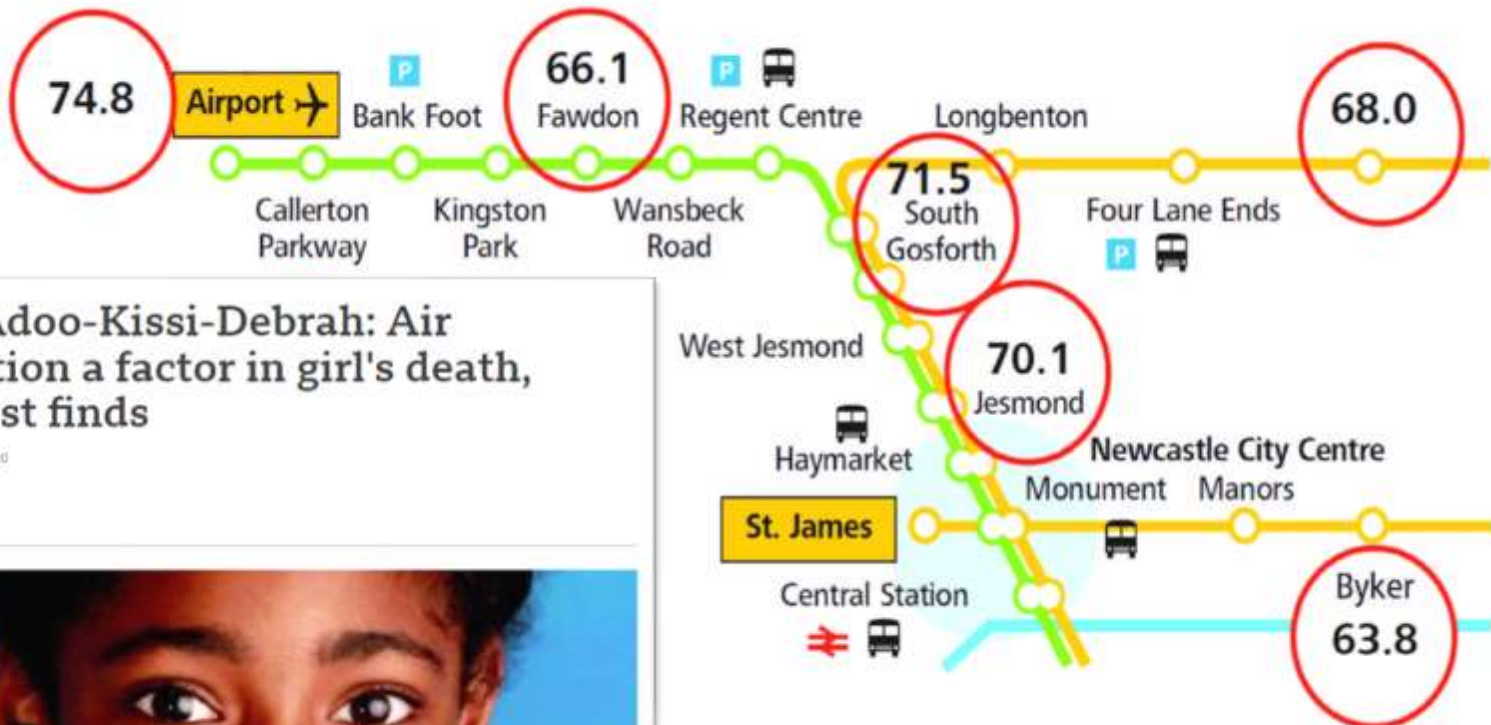
© 18 December 2020



| Ella Adoo-Kissi-Debrah lived 25 metres from the South Circular Road in south-east London.

A nine-year-old girl who died following an asthma attack has become the first person in the UK to have air pollution listed as a cause of death.

Ella Adoo-Kissi-Debrah, who lived near the South Circular Road in Lewisham, south-east London, died in 2013.



**NHS**  
The Newcastle upon Tyne Hospitals  
NHS Foundation Trust

# The National Context



 **Dr Nick Watts**  
@watts\_nick

Just wrapped up the first meeting of @NHSEngland's Net Zero work. Two things are clear:  
1)2020 is a moment for ambition and bravery  
2)We need all the help we can get from patients, the public, NHS staff, and all that's come before - submit your evidence @ [england.nhs.uk/greenernhs](https://www.england.nhs.uk/greenernhs)



 Sustainable Development Unit - Health  
@sduhealth

We are the world's first national health system to commit to become net zero, backed by clear deliverables and milestones. Read the full Report: [england.nhs.uk/greenernhs/a-n...](https://www.england.nhs.uk/greenernhs/a-n...) #greenernhs

 The NHS is the world's first national health system to commit to net zero

FOR A GREENER NHS



2:25 PM · Oct 9, 2020 · Hootsuite Inc.



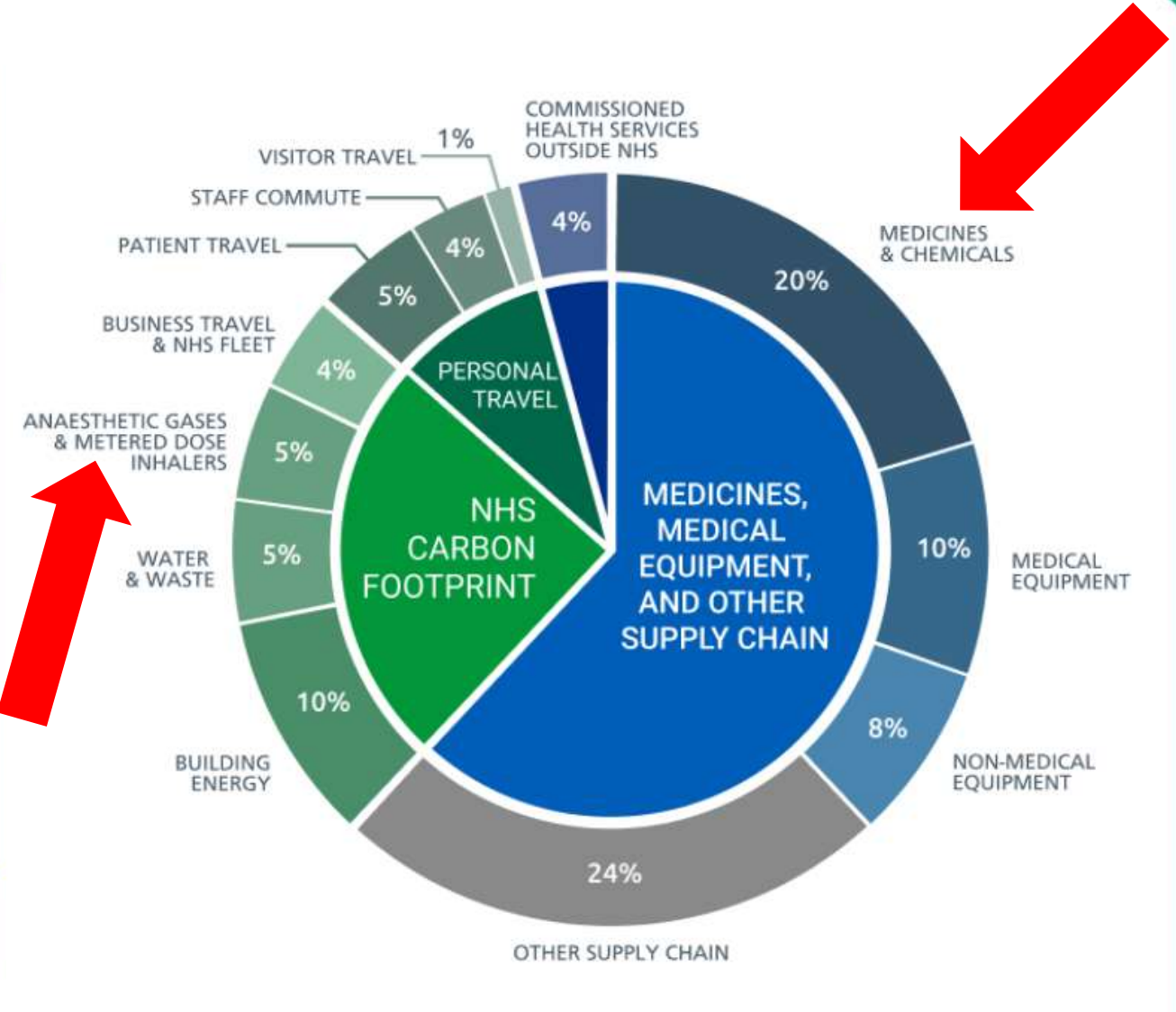
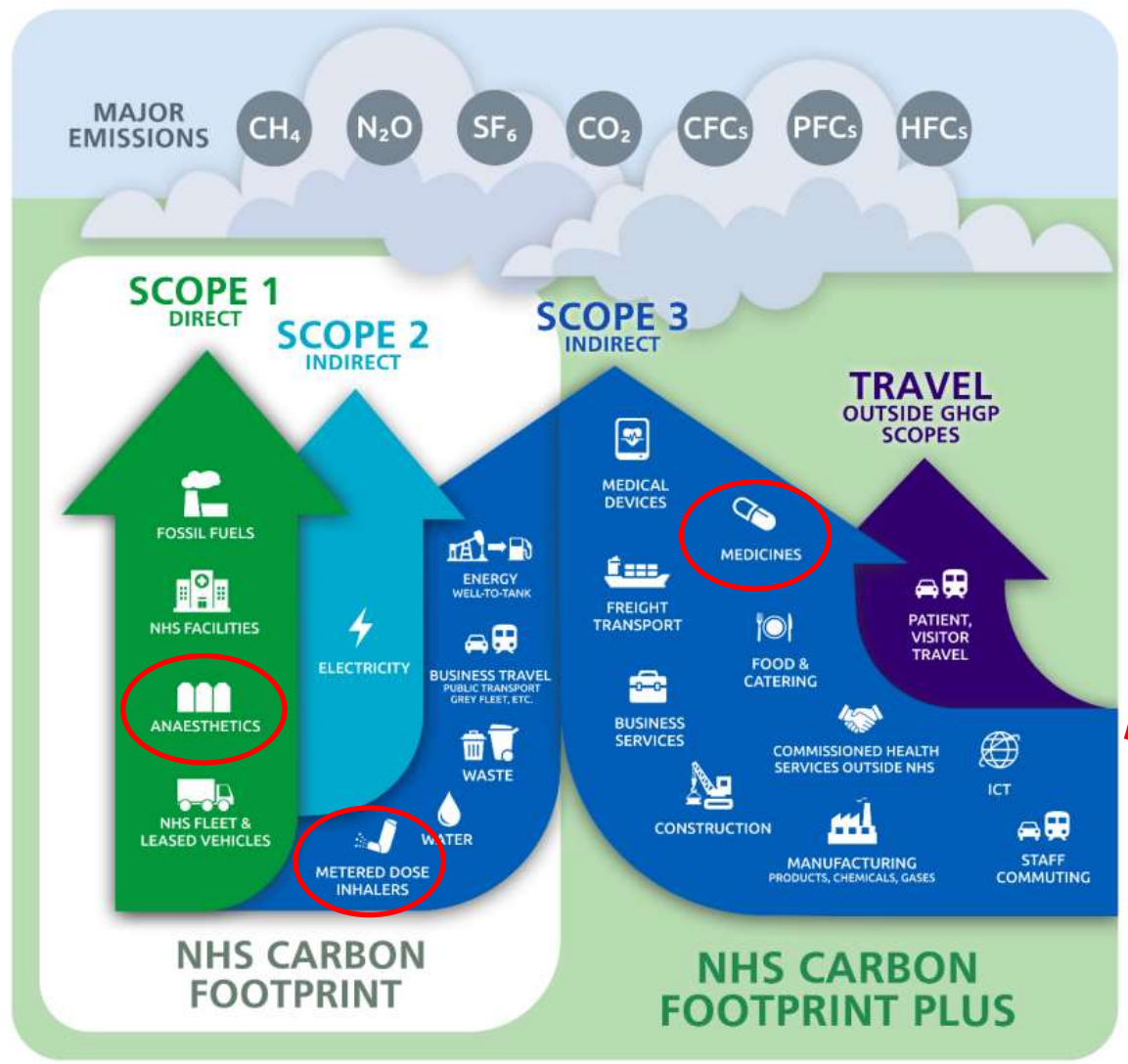


**‘2020 has been dominated by COVID-19 and is the most pressing health emergency facing us. But undoubtedly climate change poses the most profound long-term threat to the health of the nation.’**

**Sir Simon Stevens**

Chief Executive Officer,  
NHS England and NHS Improvement





*Pharmaceuticals account for around a quarter of NHS carbon emissions*



The Newcastle upon Tyne Hospitals  
NHS Foundation Trust



# Climate Emergency Strategy 2020-2025



# What We Want To Achieve

## Our Vision

To be a global leader in sustainable healthcare delivery through collaboration and innovation, helping our patients and communities to thrive within the means of our planet

## Our Goals

To achieve our vision we have set three long-term goals:

### 1. Zero Carbon Care

- By 2030 the emissions we control will be net zero – our 'Newcastle Hospitals Carbon Footprint'
- By 2040 the emissions we can influence will be net zero – our 'Newcastle Hospitals Carbon Footprint Plus'

### 2. Clean Air

- By 2030 our operational transport activities generate no harmful air pollution
- By 2040 our healthcare facilities are accessed by only zero emission travel

### 3. Zero Waste

- By 2030 we will reuse and repair everything that can be reused and repaired
- By 2040 we will produce no waste. We will manage resources within the circular economy, with items surplus to requirements becoming a resource in another part of the system

# How We Plan To Achieve It

The following section of our strategy outlines what we want to achieve in each Shine priority area, during the life of this five year strategy, as well as how we aim to achieve it and how we will measure it.

**This Climate Emergency Strategy sets out how we plan to go to the next level. It is a vitally important call to action and guide for our next steps**

Dame Jackie Daniel



## Energy

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## Water

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## Journeys

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## Care

Develop low carbon care pathways adapted to our changing climate



## People

Inspire, inform and empower our people to deliver sustainable healthcare



# Care



### What do we want to achieve by 2025?

Low carbon care pathways adapted to our changing climate:

- Engage in research and innovation in order to lower carbon across our care pathways
- Lead on the systematic reduction of anaesthetic gas environmental impact across all care pathways
- Collaborate to reduce the carbon footprint of respiratory care through a detailed review of inhaler prescription and use
- Empower our clinicians to improve the sustainability of their models of care
- Resilient care services that are adaptive to our changing climate

### How will we achieve it?

- Collaborate and engage with industry, research centres of excellence and other key partners to lower the carbon of our care pathways
- Trial use of innovative technologies to capture and destroy environmentally damaging anaesthetic gases
- Bring together expertise externally and internally to understand and reduce the impact of inhalers on our carbon footprint
- Embed sustainability (SusQI) within our Improvement Faculty processes
- Develop and implement training, tools and resources to enable clinicians to improve the sustainability of their models of care
- Work with service leads and Business Continuity colleagues to ensure our patients continue to receive outstanding care in the face of a changing climate
- Ensure business development and investment decisions undertake a formal Sustainability Impact Appraisal (SIA)

### How will we measure it?

- Carbon emissions from anaesthetic gases (tCO<sub>2</sub>e)
- Carbon emissions from inhaler prescribing (tCO<sub>2</sub>e)
- Percentage of Quality Improvement projects with positive sustainability impacts (%)
- SDAT score for 'Sustainable Care Models'
- SDAT score for 'Adaptation'

**Low carbon care pathways adapted to our changing climate**





**Caring for patients who use inhalers**   
The Newcastle upon Tyne Hospitals NHS Foundation Trust

Prescribers and those administering medications must check that patients have the correct device (the one that they are prescribed) at their bedside / with them.

Improving respiratory care is better for the patient, better for the hospital, better for the environment and lower carbon.

For more information about inhalers and inhaler technique visit: [www.righttoatbte.com](http://www.righttoatbte.com) 



**How to check inhaler technique**  
Ask patient to demonstrate use of their own inhaler (without putting capsule in). Look for the following:

<p><b>For DPIs, breath-actuated MDIs or SMIs:</b></p> <ol style="list-style-type: none"> <li>1. Correctly primes (twist / add capsule depending on device)</li> <li>2. Sits up straight with head tilted slightly up to open airway</li> <li>3. Long breath out to empty lungs</li> <li>4. Good seal on inhaler with mouth and strong deep breath in</li> <li>5. Holds breath for 10 seconds</li> </ol>	<p><b>For MDIs (including breath actuated MDIs):</b></p> <ol style="list-style-type: none"> <li>1. Shakes inhaler and attaches a spacer* correctly</li> <li>2. Sits up straight with head tilted slightly up to open airway</li> <li>3. Long breath out to empty lungs</li> <li>4. Positions spacer with good seal on mouth (and nose if applicable)</li> <li>5. Presses inhaler to release 1 or 2 doses into spacer and takes 5 breaths from spacer</li> </ol>
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\*A volumetric spacer is preferred because it allows better delivery of the medication to the lungs than an aerochamber



**MEDCLAIR** 



**Sustainable Healthcare Coalition**

 **Institute for Healthcare Improvement**

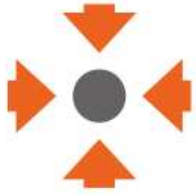
## Successes

- **Anaesthesia** - Successful trial of nitrous oxide cracking technology (baby Rosie, first in UK), Desflurane & Nitrous Oxide removed at Freeman
- **Respiratory** – Sustainable Respiratory Care MDT working on projects to reduce inhaler carbon footprint (pt. education & empowerment)
- **Renal** - dialysis care pathway carbon footprint mapping (to help inform reduction plans)
- **SusQI** - Shine is being embedded into Newcastle Improvement as part of the IHI partnership work

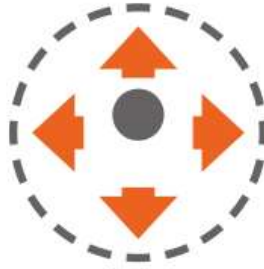
## Challenges

- **Capacity** for clinicians to engage in lowering the carbon of care pathways.... (*though our Clinical Sustainability Fellows plans to help with this*)

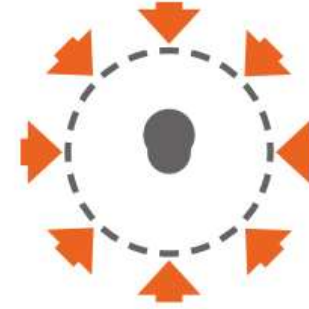
# Collaboration for System Change



LOCAL ACTION



NATIONAL ACTION



INTERNATIONAL ACTION





# Green Plan 2022-2025



## 2. SUSTAINABILITY VISION

### 2.1 Our 2030 vision

**By 2030, we will be England's greenest region.**

**We will achieve the maximum health and wellbeing dividend for our population by being sustainable in all aspects of our work.**

While environmental sustainability is the main thrust of this green plan, our vision acknowledges the interdependence between the environment and public health. A healthier environment (and associated behaviour such as active travel) means healthier people who have a lower impact on the environment by requiring less treatment and/or fewer medicines. Our vision is underpinned by the four sustainable healthcare principles as set out by the Centre for Sustainable Healthcare:<sup>4</sup>

- **Prevention: improving public health by tackling underlying causes of disease**
- **Patient empowerment and self-care: educating the public and giving patients a greater role in their own health**
- **Lean systems: being more efficient in healthcare delivery**
- **Low carbon alternatives: e.g. low carbon medicines**

### 2.2 Meeting our vision

This is a three-year plan, but it has been developed to put ICS members on the right trajectory to meet this 2030 vision. To meet this 2030 vision and align our ambition with the majority of local authorities in the region, the ICS and its members will have to cut their carbon footprint at a faster rate than the NHS national targets of 2040/2045. Therefore, the ICS will declare a climate emergency, adopting an aspirational target of net zero for its NHS footprint by 2030 and its NHS-plus footprint emissions by 2040. As ICS members currently have a variety of net zero goals ranging from 2030 to 2040, the ICS will support its members to move further faster and thus exceed their targets.



#### TARGET

**T0.1:** NENC ICS will strive to achieve net zero for its NHS footprint by 2030 and its NHS-plus footprint emissions by 2040 and members move further, faster on carbon reductions.

The NHS has suggested that where outpatient attendances are clinically necessary, at least 25% of outpatient activity should be delivered remotely, resulting in direct and tangible carbon reductions, but NENC ICS has set a higher target.



#### TARGET

**T2.2:** 30% of outpatient activity will be delivered remotely by Dec 2024.

#### ACTION

**A2.9:** Review remote healthcare opportunities across primary and secondary care post-Covid-19.

### 3.2.5 Over-prescribing

Over-prescribing is the use of a medicine where there is a better non-medicine alternative, or the use is inappropriate for that patients' circumstances and wishes.

It occurs in several ways:

- **There is a more effective alternative**
- **The medicine is not appropriate for the individual**
- **The patient's condition changes, but the prescription is not reviewed**
- **The patient no longer needs or benefits from the medicine but continues to be prescribed it**

The extent of overprescribing is a result of weaknesses in the healthcare system and culture, not the skills or dedication of individual healthcare professionals.

Waste medicines are a significant burden and need to be disposed of carefully, to avoid harm to patients and the public, and to minimise harm to the environment. The manufacture and distribution of medicines, and the use of some medicines, has a significant carbon footprint, accounting for 25% of the NHS carbon footprint, therefore the waste of medicines must be minimised to meet net zero.

#### ACTION

**A2.10:** Overprescribing to become a key priority of ICS medicines planning and oversight - to make patient care better and safer, support the NHS, and reduce carbon emissions.

### 3.2.6 Nature-based prescribing

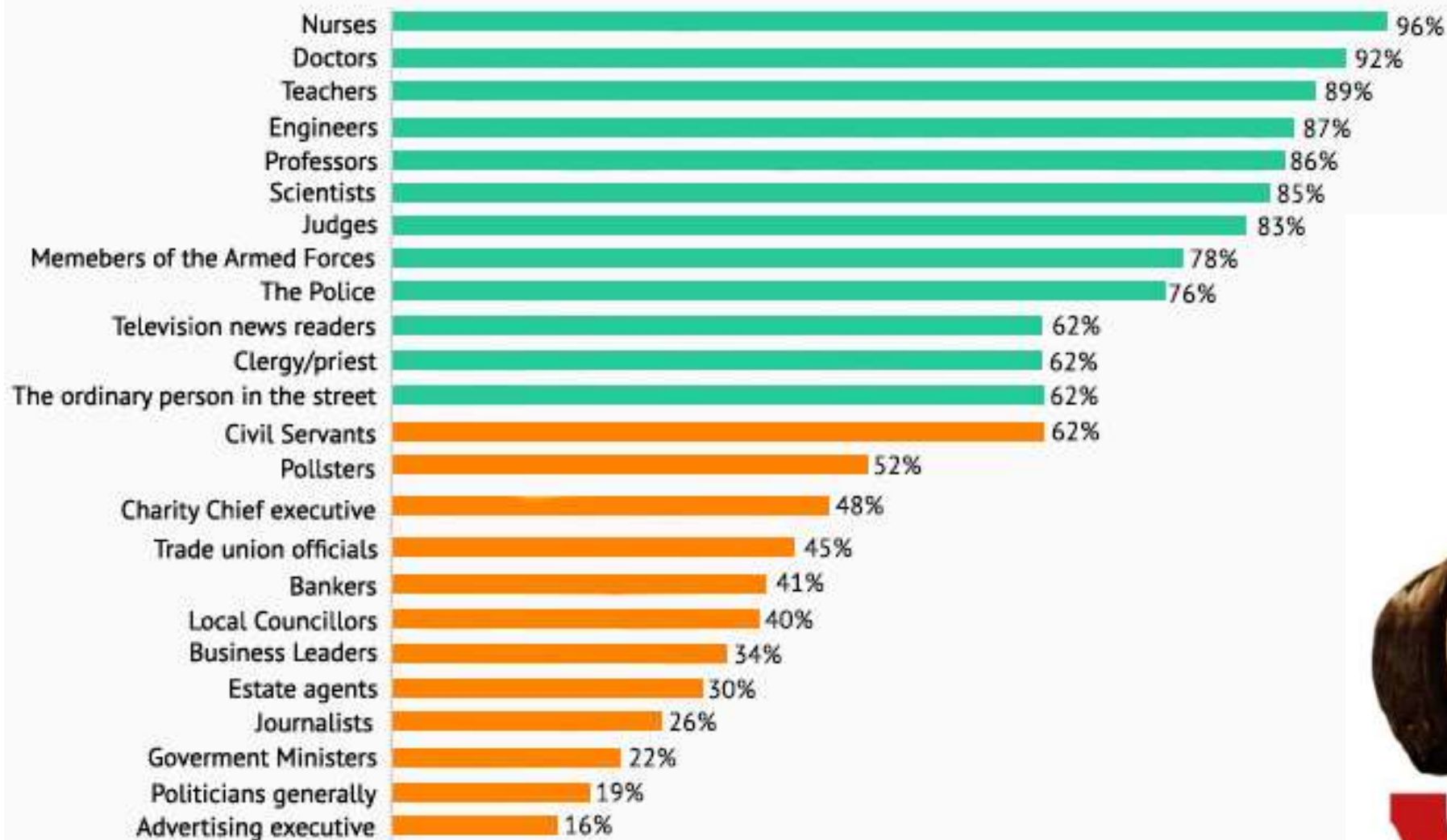
Social prescribing is a way of taking a holistic approach to people's health and wellbeing. Patients are assigned a link worker to connect people to community groups and statutory services for practical and emotional support. As well as benefits for the user, this approach may



# What Can You Do?

- **Educate yourself**
  - free 30min e-learning module (*Building a Net Zero NHS*)
  - other low-cost courses from HENE Faculty of Sustainable Healthcare
- **Connect with others**
  - GHP Sustainability ([www.ghp.org.uk/sustainability/](http://www.ghp.org.uk/sustainability/))
  - Pharmacy Declares ([www.pharmacydeclares.co.uk/](http://www.pharmacydeclares.co.uk/))
- **Implement the four principles of sustainable healthcare in your work**
  - prevention, patient empowerment, lean systems & low carbon alternatives

# The UK's most and least trusted professions



Study Conducted By Ipsos



## Actions that health professionals can take to counter the climate emergency and improve their health

November 8, 2019

Richard Smith calls on readers to help with his list of things we can do to counter the climate emergency



I have recently become the [chair of the UK Health Alliance on Climate Change](#), and one of things I would like to do is to encourage as many health professionals as possible to make changes in their own lives to counter the climate emergency and improve their own health. To that end I have devised a list of possible actions, and I'd welcome your additions, deletions, and comments.

People can feel powerless about their capacity to do anything about the climate emergency, but there are, of course, many things you can do—and here is a list of easy, less easy, and least easy things you can do. I'm doing many of them already, but I doubt that no health professional, no matter how busy, no matter how old, no matter how far from the climate emergency, does all these things.

<https://blogs.bmj.com/bmj/2019/11/08/actions-that-health-professionals-can-take-to-counter-the-climate-emergency-and-improve-their-health/>



### Your organisation

#### Easy

Campaign within your organisation for it to make changes to reduce its carbon footprint and make it greener.

#### Less easy

Join the discussion to work out how to make clinical care greener

#### Least easy

Make your clinical care greener

### With your patients

#### Easy

Put leaflets about how people can improve their health and reduce their carbon footprint in your waiting room or outpatient clinics  
Put up posters with the same information  
Help patients who use inhalers to move to greener versions

#### Less easy

Whenever the opportunity arises talk to patients about how they can improve their health and reduce their carbon footprint  
Whenever possible move patients from drug responses to their problem to non-drug responses

#### Least easy

Offer the chance to ALL patients to discuss with you how they can improve their health and reduce their carbon footprint  
Prescribe to patients a way to improve their health and reduce their carbon footprint and monitor their progress

### Diet

#### Easy

Reduce the amount of meat that you eat (recognising that the order of amounts of carbon emissions resulting from meats in descending order is beef, lamb, pork, chicken, fish)

#### Less easy

Stop eating meat and fish

#### Least easy

Become (or remain) Vegan



## Contact us

Email: [nuth.environment@nhs.net](mailto:nuth.environment@nhs.net)

Twitter: @SustainableNUTH

## Find our more

Read our Strategy:

[https://bit.ly/CEStrategy\\_NUTH](https://bit.ly/CEStrategy_NUTH)

See our video:

<https://bit.ly/Shine-vid>

Read our latest Shine Report:

<https://bit.ly/Shine-2021>