



## Primary care training session 6

### Measuring your carbon footprint

Dr Amit Sharma

NEL NHS Primary Care Net Zero Clinical Lead





# Learning objectives



NEL ICS Green Plan



Launch of free carbon calculator training



**Presenter: Dr Matthew Sawyer, SEE Sustainability**



## Every step we take together to reduce our carbon footprint is a step towards great health and wellbeing.

- Every time we reduce the use of fossil fuels from travel and transport operations, we help our patients, staff and residents breathe cleaner air and reduce carbon emissions.
- Every time we support locally produced, low-carbon diets through our supply chains, we improve access to quality and affordable healthy food for people in NEL.
- Every time we nurture green space around health and care facilities, we improve wellbeing for patients and staff, and strengthen local ecosystems that absorb carbon.
- Every time we provide climate literacy training for staff, we empower our people to act and help shape our journey.

Our NEL Green Plan embodies collaboration, urgency, support, empowerment and trust - we are shaping our partnership culture to enable everyone to act.

**This is our journey to Net Zero and beyond - we welcome everyone to help shape the path.**

**“We need ALL staff across NEL Integrated Care System (ICS) making low-carbon decisions every day”**

**Zina Etheridge**



# The challenge

**NHS is 5% of UK carbon footprint.**

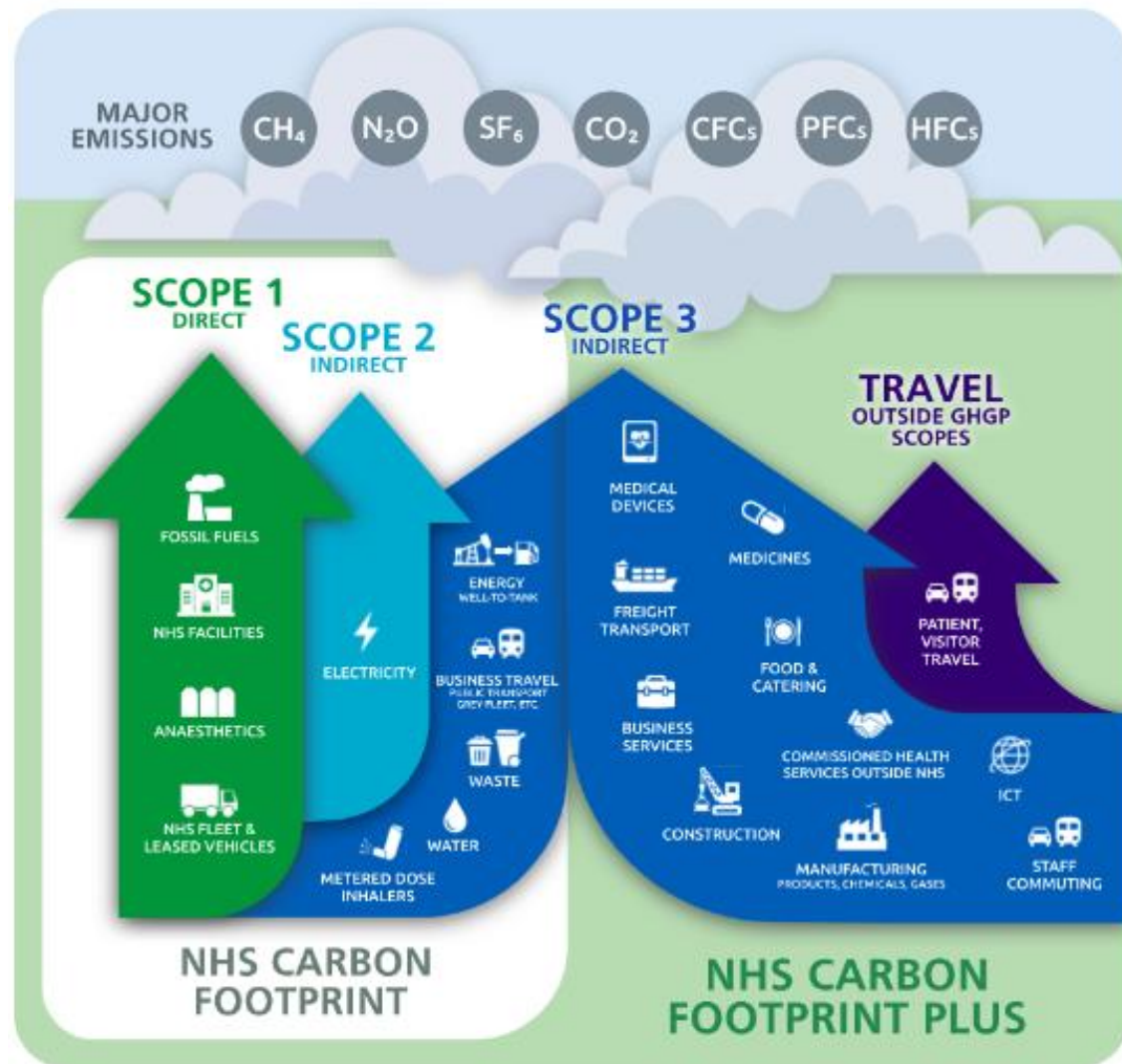
## NHS Carbon Footprint- our direct emissions

- **40% reduction by 2025**
- An 80% reduction by 2028-2032
- Net zero by 2040

## NHS Carbon Footprint Plus- entire emissions

- An 80% reduction by 2036-2039
- Net zero by 2045

(MtCO <sub>2</sub> e)	November 2021	80% reduction by 2028 would bring us to
	136,420	27,284
	847,450	169,490





# North East London Health & Care Partnership



Carbon Literacy,  
Primary Care Carbon  
Calculation  
and Practice Action Plans

- Dr Matt Sawyer
- 23<sup>rd</sup> Feb 2023



# Dr Matt Sawyer

Medical doctor – GP for >15 years

Environmental MSc

Working on how to help primary care reach Net Zero

Runs a sustainability consultancy

[seesustainability.co.uk](https://seesustainability.co.uk)

Carbon Literacy trainer

Carbon footprints for practices





# Primary Care Carbon Calculation and Action Plan

<b>Audience</b>	<b>All staff working in General Practice - Clinical and administrative</b>
Difficulty rating	Beginners and beyond
Time commitment	8 hours in total including 3 ½ hour interactive workshop
Number of places	84 (12 in each workshop)
Start date	First sessions in April, then running again in May and June 2023.
<b>Format</b>	<b>100% virtual</b>
1:1	Yes
Group work	Yes
<b>Training provider</b>	
How to sign up	<a href="#">Click here to choose your dates.</a> If there are already 12 people signed up on a particular date, consider the session FULL.
Deadline to apply	22 May 2023

“I want to help 6,500 GP practices across England get to net zero. Attend my workshops to become carbon Literate, learn how to calculate the carbon footprint of your practice/s and create an action plan.”

Dr Matt Sawyer

Today...

**What can I do?**



**What do I and my practice need to know?**







# What is Carbon Literacy?

“An **awareness** of the carbon costs and impacts of everyday activities **and the ability and motivation** to reduce emissions, on an individual, community and organisational basis.”





**What can I do?**



# What can I do?

1. Become aware  
Carbon literacy training
2. “Know your number”  
Carbon footprint of practice

Carbon Literacy  
Project



HEALTH  
DECLARES

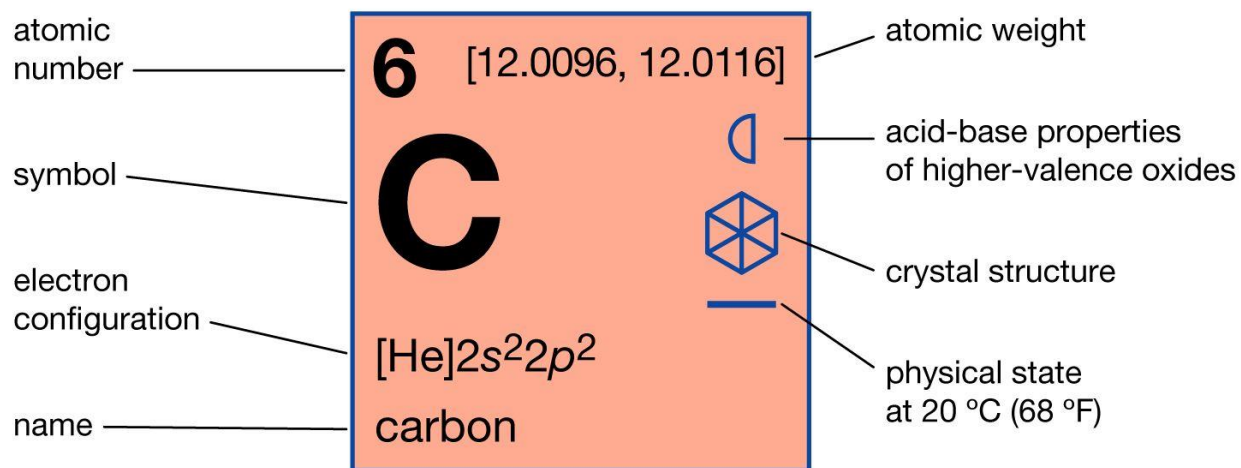


3. Turn intention into action –  
*Have a plan*
4. Declare a climate emergency



# What is carbon?

## Carbon



Other nonmetals	Solid
Hexagonal	Weakly acidic

- What is 'carbon literacy'?
- What are 'carbon emissions'?
- What is a 'carbon footprint'?
- What is 'net zero'?



# What is a carbon footprint?



“A carbon footprint is the total **greenhouse gas** emissions caused by an individual, event, organization, service, place or product, expressed as carbon dioxide **equivalent**.”

## Average UK Footprint (CO<sub>2</sub>e)

- 35kg/day -> 13 tonnes/ year -> Over 1,000 tonnes/lifetime

Aim (to limit warming to >1.5°C)

- 8kg/day -> 3 tonnes/year -> 240 tonnes/lifetime

transportation

Carbon dioxide



fossil fuel combustion

coal and crude oil

agriculture

Methane



natural gas systems

landfills

cars

Nitrous oxide



manufacturing

agricultural soil management

hydrofluorocarbons

substitute of ODS



semiconductor manufacturing

perfluorocarbons

aluminium production



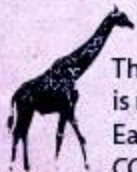
electrical transmission



sulfur hexafluoride

magnesium prod

### Greenhouse gases (GHG) and their sources



The global warming potential (GWP) of each GHG is measured using the equation 'Tg CO<sub>2</sub>Eq'. Each gas's GWP is measured against the reference gas, CO<sub>2</sub>. CO<sub>2</sub> is measured in 1 million metric tons. 1 metric ton is 1000 kilograms = average weight of a female giraffe.

CO<sub>2</sub>e

CO<sub>2</sub> = 1

CH<sub>4</sub> = 28

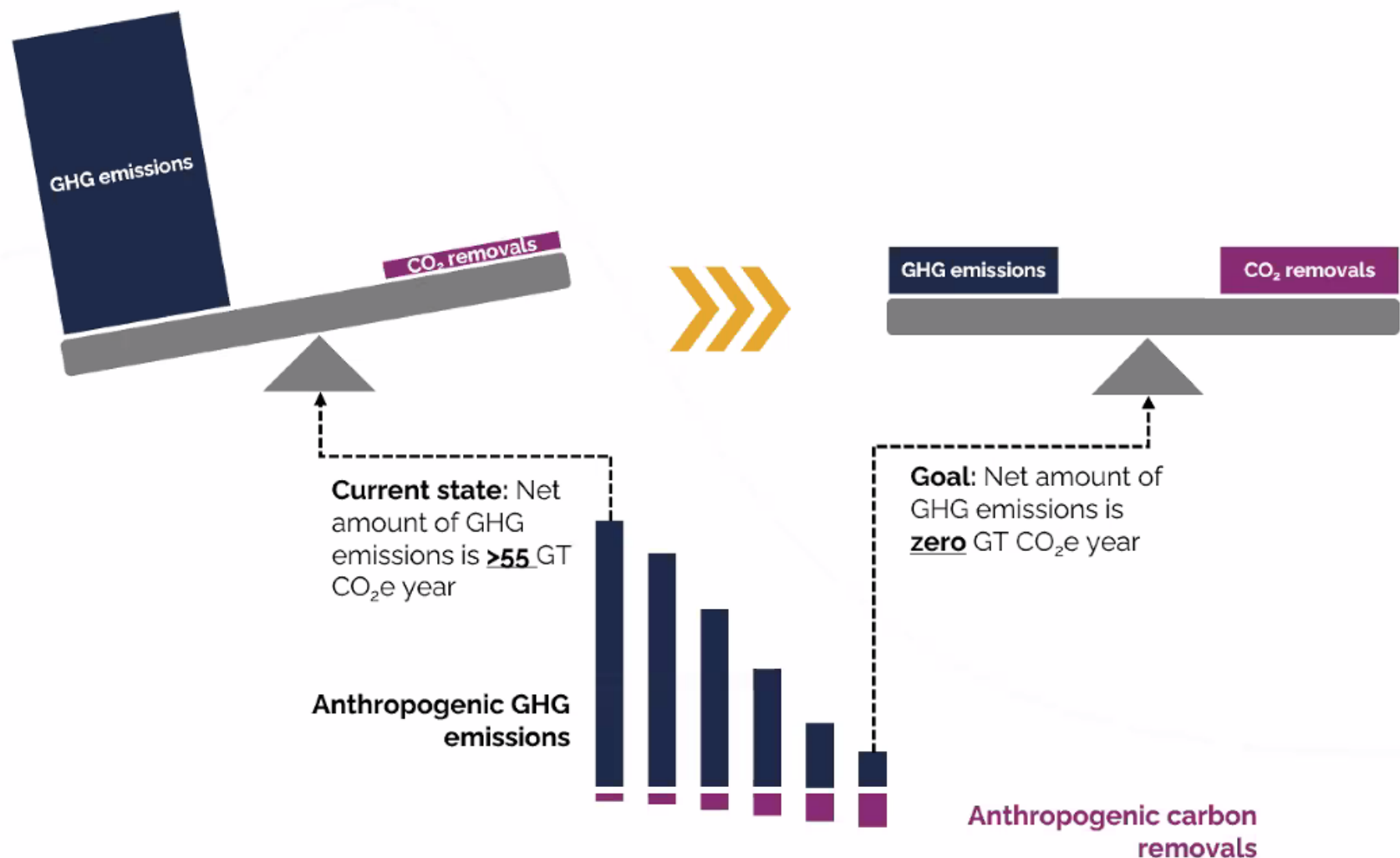
N<sub>2</sub>O = 273

F gases = 1,000s-10,000s



## What does net-zero mean?

Understanding net-zero at the global level



To limit global warming to 1.5°C, we must reach net-zero carbon emissions **no later than 2050**.



# Who else is talking about carbon?

- For a greener NHS
- A Net Zero NHS**
- National ambition
- What's already happening
- Get involved
- News and updates
- How to produce a Green Plan

[Home](#) > [For a greener NHS](#) > [A Net Zero NHS](#)

## A Net Zero NHS

The UK government has committed to reaching net zero carbon by 2050. This means significantly reducing emissions as well as off-setting using carbon capture, such as planting trees.

The health and care system in England is responsible for an estimated 4-5% of the country's carbon footprint so has a major role to play in supporting this. The NHS has therefore committed to reaching net zero as soon as possible.

<b>Total emissions</b>	
NHS	25 million tonnes CO <sub>2</sub> e
Primary care	5.75 million tonnes CO <sub>2</sub> e



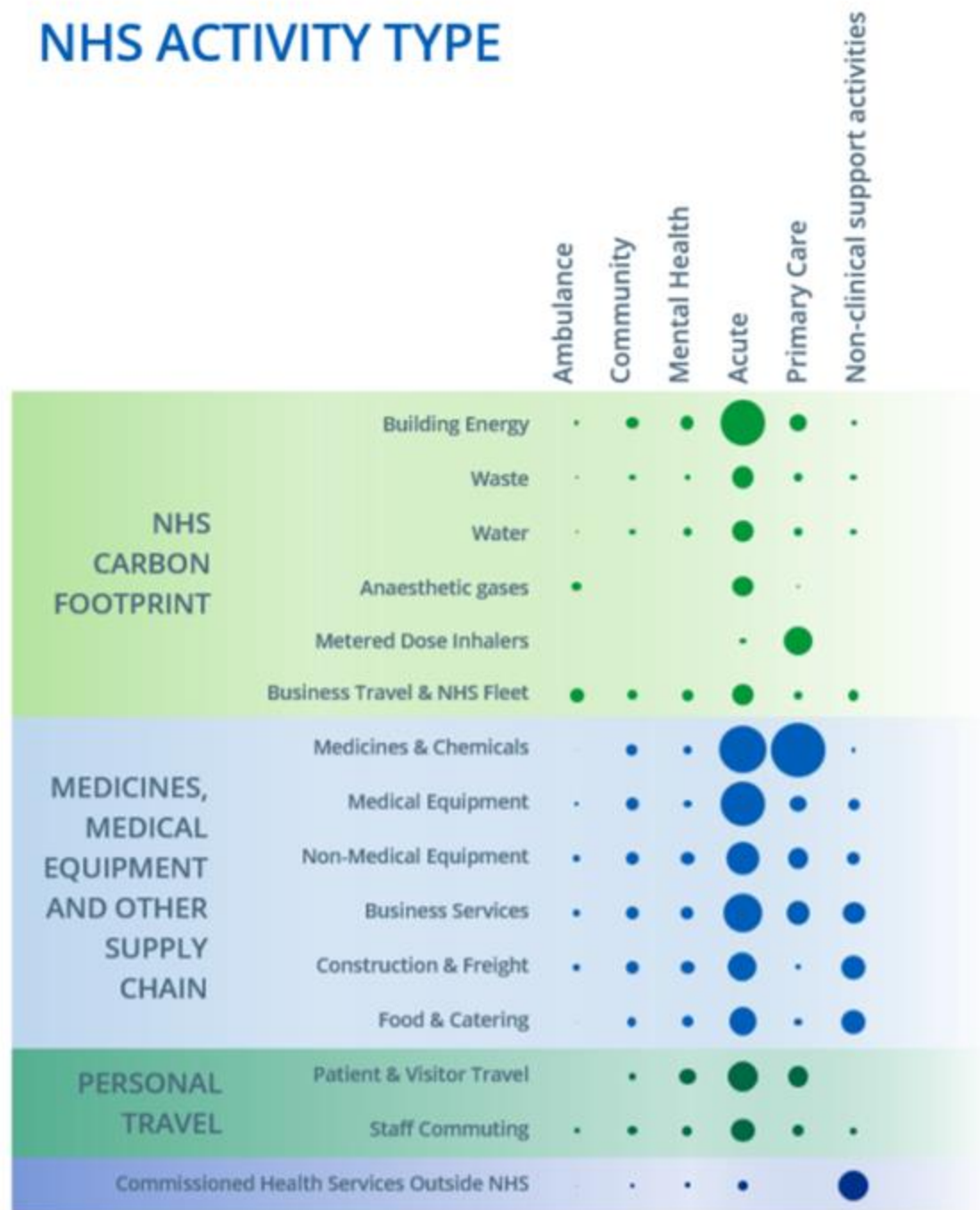


# Where are we now?

Primary care is responsible for

- **23%** of the total NHS emissions footprint
- about **5.75 million tonnes CO<sub>2</sub>e** per year
- **1%** of UK total emissions.

## NHS ACTIVITY TYPE





# What do I and my practice need to know?

## Understanding

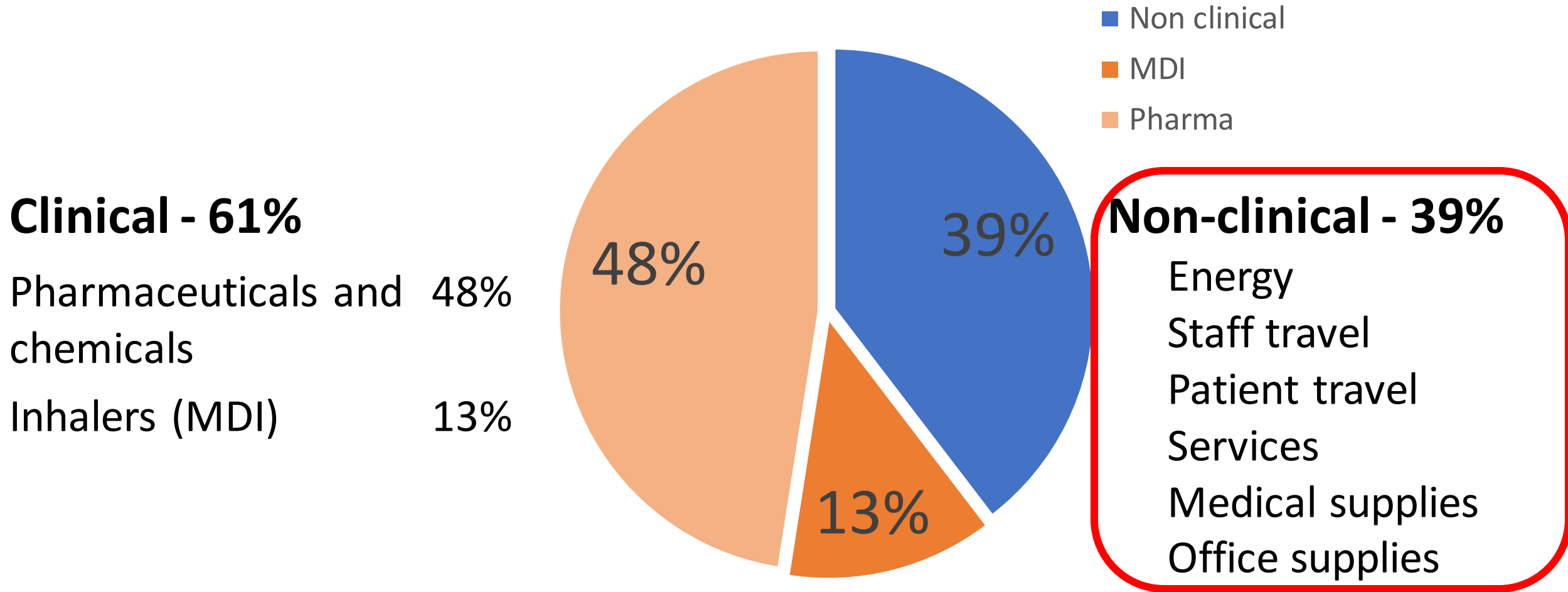
- Low carbon is the only direction of travel
- It is better for our patients
- It is better for our populations
- It is better for our practices

## Knowledge

- How do I?
- How do we?



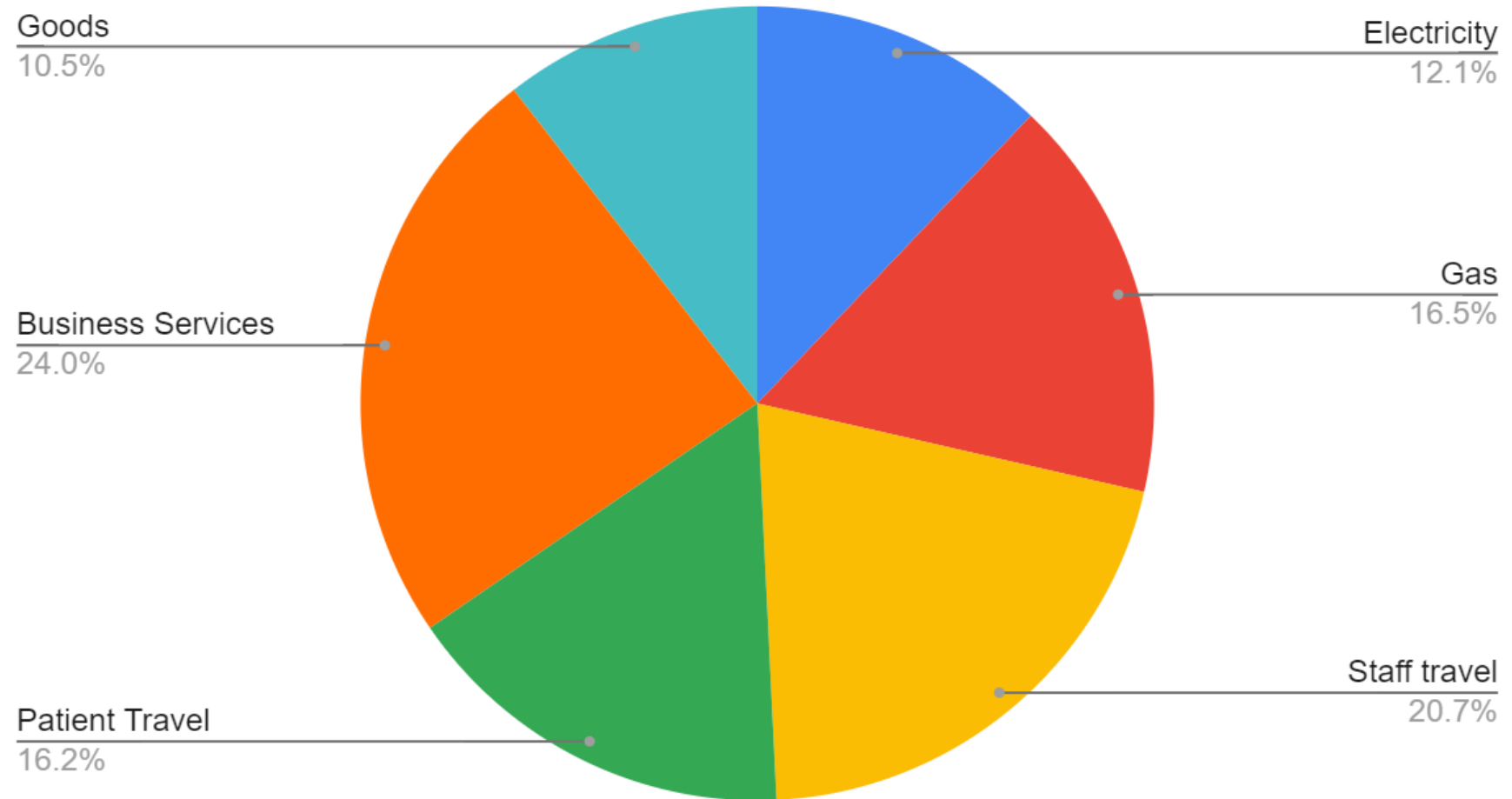
# Greenhouse gas emissions from general practice





# What is the footprint of running a GP practice?

Average practice emissions for 9,200 patients





**How can we do it?**



**FREE** at [www.gpcarbon.org](http://www.gpcarbon.org)

If you can't  
measure it,  
you can't  
improve it



GP Carbon  
Calculator



See Sustainability

## General practice non-clinical carbon calculator

A practical calculator for general practices

[Start Calculation >](#)

In association with



Boehringer  
Ingelheim



Sustainable  
Healthcare  
Coalition



**FREE** at [www.gpcarbon.org](http://www.gpcarbon.org)

SCAN ME

## Quote from a GP

“

**I think it's fantastic.**

I must admit that I have been stuck trying to work out my practice's carbon footprint for the last year or two as I seem to keep hitting brick walls. Every now and again I try for another time, and then give up, so this is definitely a very helpful tool that I think all practices could use.

I really like the way you have broken it down into manageable steps.

I would love it to become something that CCGs commission from you and ask all practices to do once a year so they could finally see where savings could be made

”





# Practice Decarbonisation Plan

Including how to educate, engage and empower staff with green communities

Area	Current footprint	Aim/target					
		Within 6 months time		Within 2 years time		Within 5 years time	
		% reduction	How	% reduction	How	% reduction	How
Energy – electricity							
Gas							
Travel – staff							
Travel – patient							
Business services							
Procurement – Medical							
Procurement – Office							
Medication							
Total							







# Greenhouse gas emissions from general practice

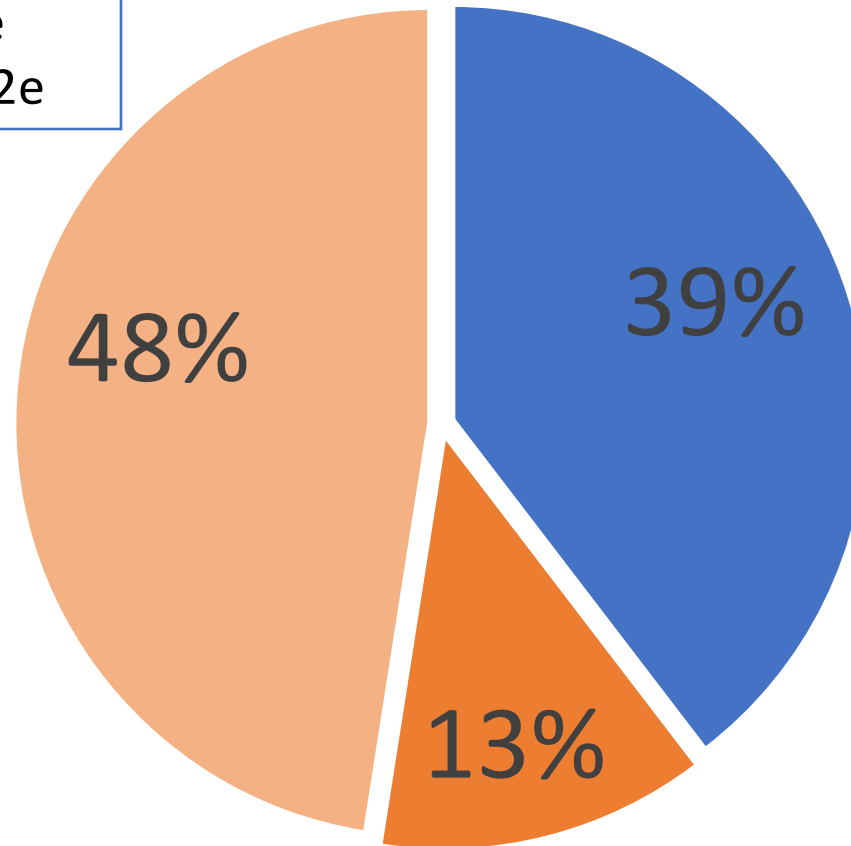
## Total emissions

NHS	25 million tonnes CO <sub>2</sub> e
Primary care	5.75 million tonnes CO <sub>2</sub> e

## Clinical - 61%

Pharmaceuticals and chemicals 48%

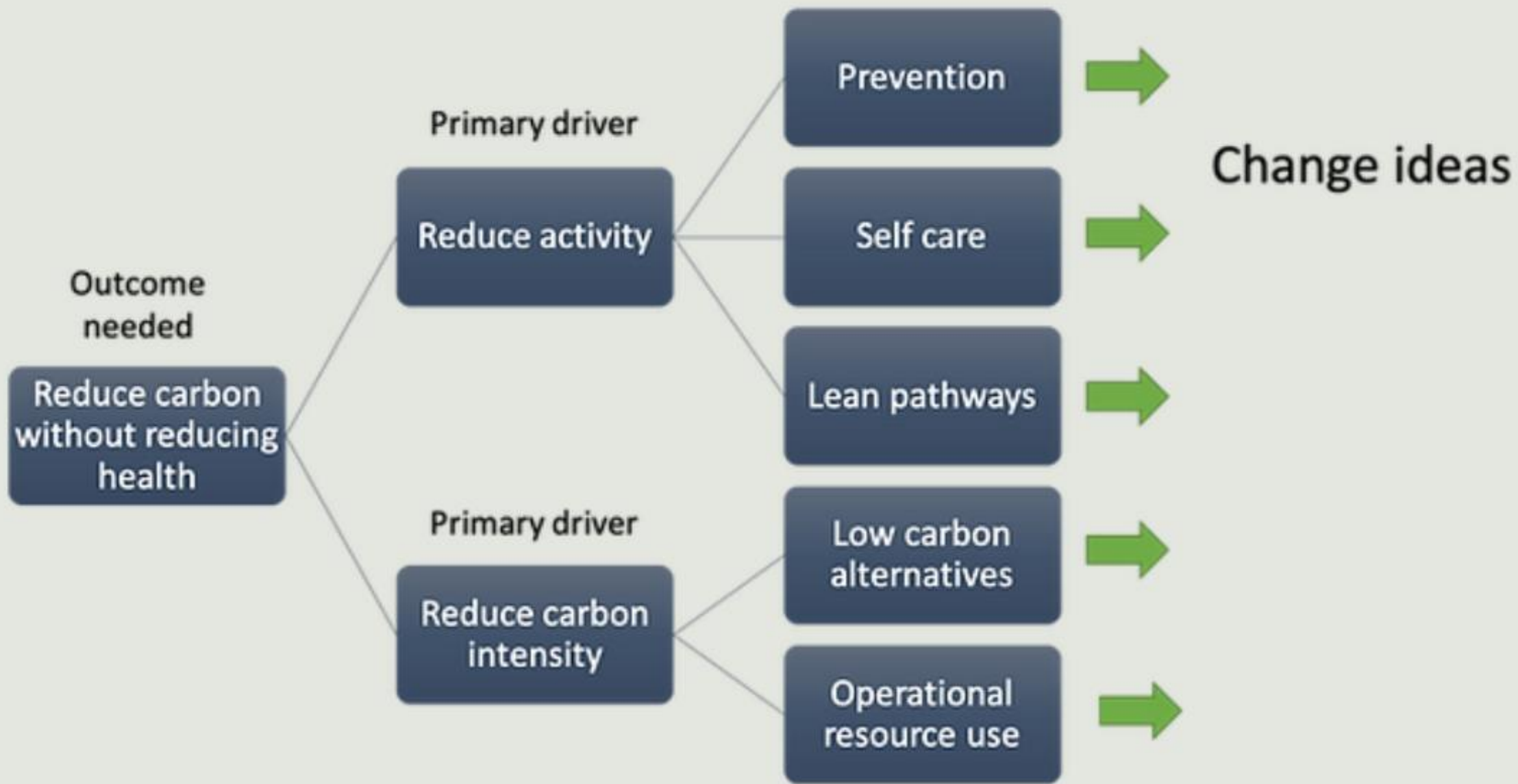
Inhalers (MDI) 13%



- Non clinical
- MDI
- Pharma

## Non-clinical - 39%

- Energy
- Staff travel
- Patient travel
- Services
- Medical supplies
- Office supplies





# QI toolkit on High Quality and low carbon asthma care

[www.greenerpractice.co.uk](http://www.greenerpractice.co.uk)

## Educational resources

Videos, tips on successful QI in primary care

### Diagnosis

- Improve asthma diagnosis and coding
- Find the “lost” patients on SABA-only therapy with no diagnosis

### Disease control

IIF

- Address SABA over-reliance
- Identify patients with other high-risk medication use
- Optimise asthma reviews (self-management)
- Link to SENTINEL etc.

### Device

IIF

- Effective inhaler use
- Offer patients switch to lower carbon devices
- Bulk switch where safe (same drug, same device)
- Support staff to make lower carbon prescribing choices

### Disposal

- Raise awareness of inhaler disposal and recycling
- Support patients to dispose of inhalers safely

Resources

QI: step-by-step project guides, clinician resources  
IT: searches, asthma review templates, prescription templates  
Comms: SMS/ email/ letter templates, patient information

Resources



# The offer

1. Carbon Literacy
2. Carbon Footprint
3. Practice Green Action Plan





# The offer

Carbon Literacy Training	
Difficulty rating	Beginners and beyond
Audience	<b>All</b> staff working in General Practice - Clinical and administrative
Time commitment	8 hours in total including 3 ½ hour interactive workshop
Number of places	84
Start date	First sessions in April, then running again in May 2023.

Max 2 per practice

Carbon Footprint Calculator	
Time commitment	Drop in lunchtime workshops Online demonstration with interactive Q&A
Group work	Yes

Practice Green Action Plan	
Offer	Assistance in prioritisation, guidance in
Group work or 1 to 1 review	Lunchtime drop in Q&A



# Pre Carbon Literacy workshop learning

4 hours of online content

Understand science and impact of the Climate Crisis

Learn at your own pace

## CARBON LITERACY NEL ICS

Welcome!

Carbon Literacy is an awareness of the carbon costs and impacts of everyday activities and the ability and motivation to reduce emissions, on an individual, community and organisational basis.

This online Carbon Literacy course has been specifically produced for healthcare staff. It has been designed to allow a clear path through the available information, but with opportunities to stop and explore as the learner desires followed by a live workshop to help peer-to-peer support, ideas and discussion.

The course covers the science of greenhouse gases, emissions and hotspots, the impact and focus on healthcare and uses action planning to help you develop a plan for reduction to achieve better patient outcomes at a lower financial and carbon cost.

Becoming Carbon Literate requires a relative amount of hard work. Learning about climate change isn't easy, but it's the most important thing you'll ever learn.



**SCAN ME**

[seesustainability.co.uk/clfornelics](https://seesustainability.co.uk/clfornelics)



# Workshop

- Online
- Interactive
- Idea generation for Practice Green Action Plan
- Work with peers across practices



# Carbon Footprint Calculator

- 1 hour lunchtime session
- Drop in
- Walk through the Carbon Calculator tool ([gpcarbon.org](http://gpcarbon.org))

## What to bring (minimum)

- Total energy use (gas and electric)
- Number of staff; number of patients
- Total spend on goods; total spend of services





# Dates

## CL training interactive online workshops

- 7 half days

## Carbon Footprint Calculator and 'How to get started on a Practice Green Action Plan inc Q&A

- Rational - highlighting priority areas etc
- Drop in lunch sessions

## Dates

Wed 19<sup>th</sup> April (9am-12.30),  
Fri 21<sup>st</sup> April (9am -12.30),  
Tue 25<sup>th</sup> April (9am-12.30)  
Thurs 27<sup>th</sup> April (13.30-5pm)  
Fri 19<sup>th</sup> May (9am-12.30)  
Tue 23<sup>rd</sup> May (9am-12.30)  
Fri 26<sup>th</sup> May (9am-12.30)

## Dates:

28<sup>th</sup> April

11<sup>th</sup> May

1<sup>st</sup> June

**Time : 12.30-13.30**



# How to apply?



Doodle poll

[doodle.com/meeting/participate/id/aMZnAX5b](https://doodle.com/meeting/participate/id/aMZnAX5b)

12 is FULL!



# Scale and pace for leadership and action

- How can my practice lead?
- How can we provide low carbon primary healthcare within the next 24 to 36 months?
- Who could be our partner(s) to achieve net zero primary care?

This can't be a 'nice to have' anymore....



# Thank you for listening

[seesustainability.co.uk/clforanelics](https://seesustainability.co.uk/clforanelics)

Doodle poll for signing up to workshops





## What you can do today

Check out how you are helping deliver the [NEL ICS Green Plan](#)

Complete the short [Sustainable Healthcare Module](#)

Email [nelondon.nelgreenteam@nhs.net](mailto:nelondon.nelgreenteam@nhs.net) to [join the Green Team](#)

Join our [Greener NHS Community](#) and connect with likeminded people across the NHS

Follow the campaign on social media: [www.twitter.com/GreenerNHS](https://www.twitter.com/GreenerNHS)

Sign up for the national Ebulletin: <https://www.england.nhs.uk/email-bulletins/greener-nhs/>

Anyone working with/in primary care can join the [Greener Practice North London Network](#)



# Final session

 **16 Mar.**

Session 7: Best of Net Zero in Primary Care.

