



Public Health  
England

 Sustainable  
Development Unit



# Is Green the New Blue?

NHS England and NHS Improvement



# Sustainable Development Unit

- Funded by and accountable to NHS England and Public Health England
- Hosted within Strategy Group, NHS England
- Set up in 2008 as the Climate Change Act came into force (26/11/2008)
- To support the NHS to fulfil its potential as a leading sustainable and low carbon organisation

# NHS Scale

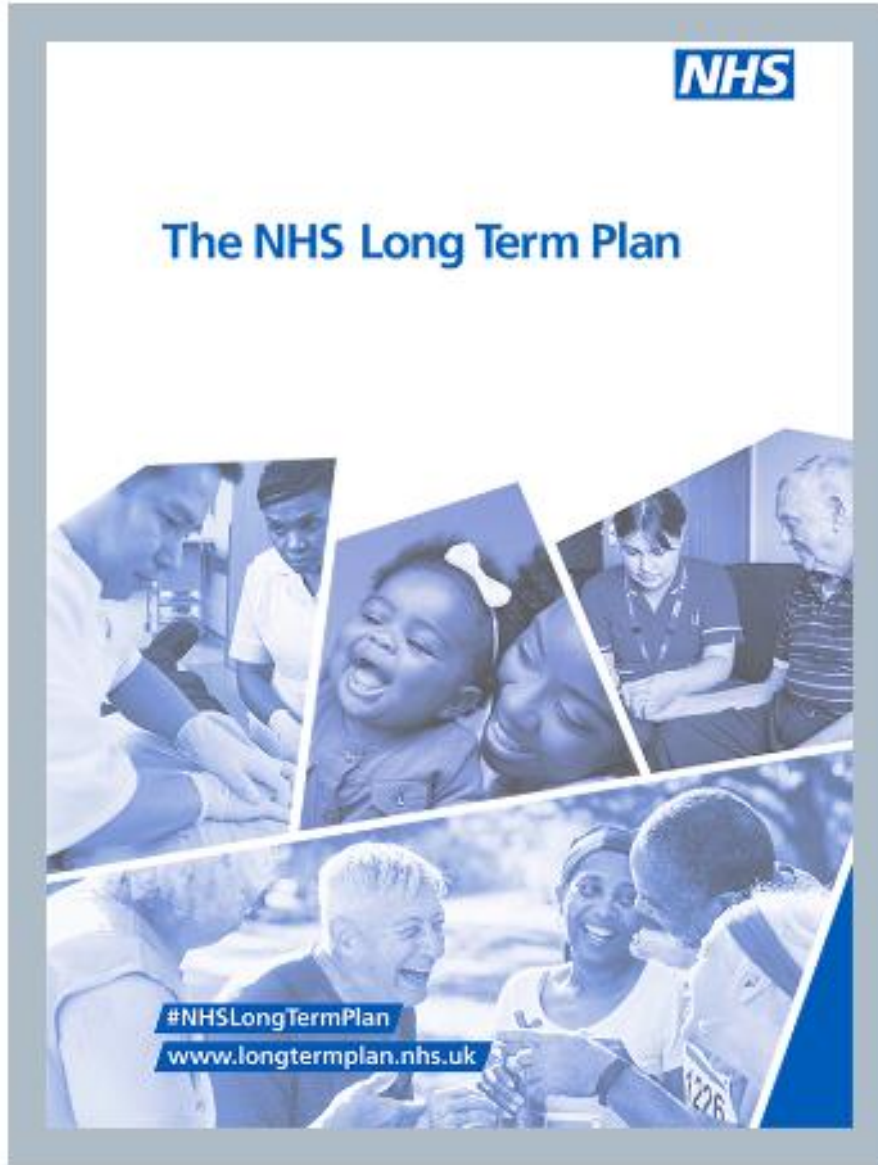
- The NHS...
- Helps over 20 million mental health service users a year<sup>1</sup>
- Conducts 5 million GP consultations every week<sup>2</sup>
- Serves over 1 million patients<sup>3</sup>, delivers 1,900 babies<sup>4</sup>, admits 64,000 people to A&E<sup>1</sup>, completes 28,000 operations a day<sup>1</sup>

# NHS impact on environment

- To deliver these services, the NHS is responsible for ...
- 21.4 Mt of CO<sub>2</sub> emissions, costing society up to £2bn pa in climate change damage
- 9.5 billion road-miles a year<sup>5</sup>
- health-related air pollution costing society £6.9 million every week<sup>6</sup>
- 11,300 tonnes of waste a day<sup>6</sup> (22.7% of which is plastic)
- Our impacts are often concentrated closest to the most vulnerable, potentially contributing to health inequalities

# Progress

- 18.5% CO2 reduction since 2007 whilst activity increased
- Water footprint down by 21% since 2010
- 71% NHS organisations have SD Management Plans (mostly providers)
- Sustainability assessments, tools and reporting increasing
- Integrated into NHS Contracts, NHS Constitution
- Further progress go much further than switching lights.



# NHS Long Term Plan

# Simon Stevens quotes

“Climate emergency is a health emergency”

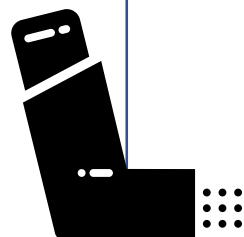
There is a need for the NHS to “be the change it wants to see.”



## Long Term Plan- Improving Air Quality

Targets	By 2023/24, we will cut business mileages and fleet air pollutant emissions by 20%
Key initiatives	<ul style="list-style-type: none"> <li>• Reducing NHS <b>fleet emissions</b> (including ambulances) and other specialist vehicles             <ul style="list-style-type: none"> <li>• Reducing <b>outpatient appointments</b> by a third</li> </ul> </li> <li>• Working with <b>local government</b> to reduce emissions</li> </ul>





## Long Term Plan- Reducing carbon, waste and water

<b>Targets</b>	<p>By 2025, we will reduce our carbon footprint by 51% against 2007 levels,</p>
<b>Key initiatives</b>	<ul style="list-style-type: none"> <li>• Greening our estates and facilities, including phasing out coal and oil fuel as primary heating                             <ul style="list-style-type: none"> <li>• Greener asthma inhalers</li> </ul> </li> <li>• Reducing the carbon footprint from anaesthetic gases</li> </ul>



## Long Term Plan- Reducing single use plastics

<b>Targets</b>	<p>We will deliver reductions in single use plastics throughout the NHS supply chain</p>
<b>Key initiatives</b>	<ul style="list-style-type: none"> <li>• Reducing single use plastics across NHS catering as well as clinical and supply chain domains</li> <li>• Working to improve the disposal and recycling processes for plastics</li> <li>• Providing alternative options through NHS supply chain</li> </ul>

## Enablers

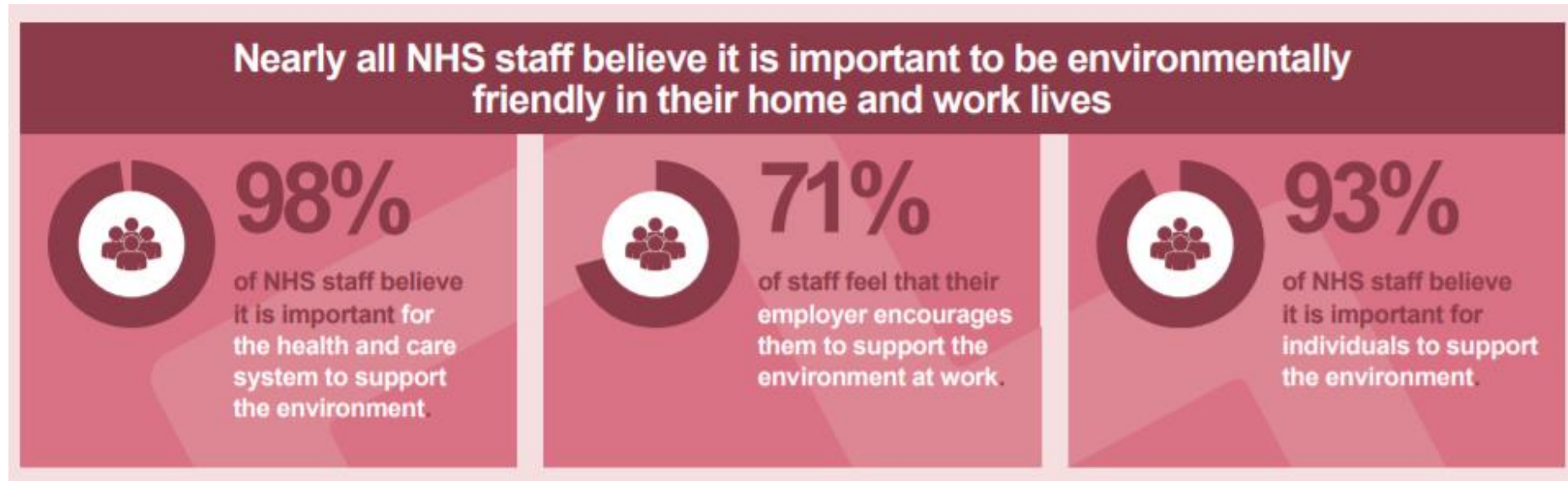
- Supporting data and analytics
- National procurement and supply chain
  - Innovation & Technology
- Communications & Engagement

# A corporate approach

- Develop a Plan approved at Board level ([SDMP](#))
- Evaluate organisations approach and progress
- Measure, monitor and report on carbon as a minimum
- Raise awareness in staff, patients and public

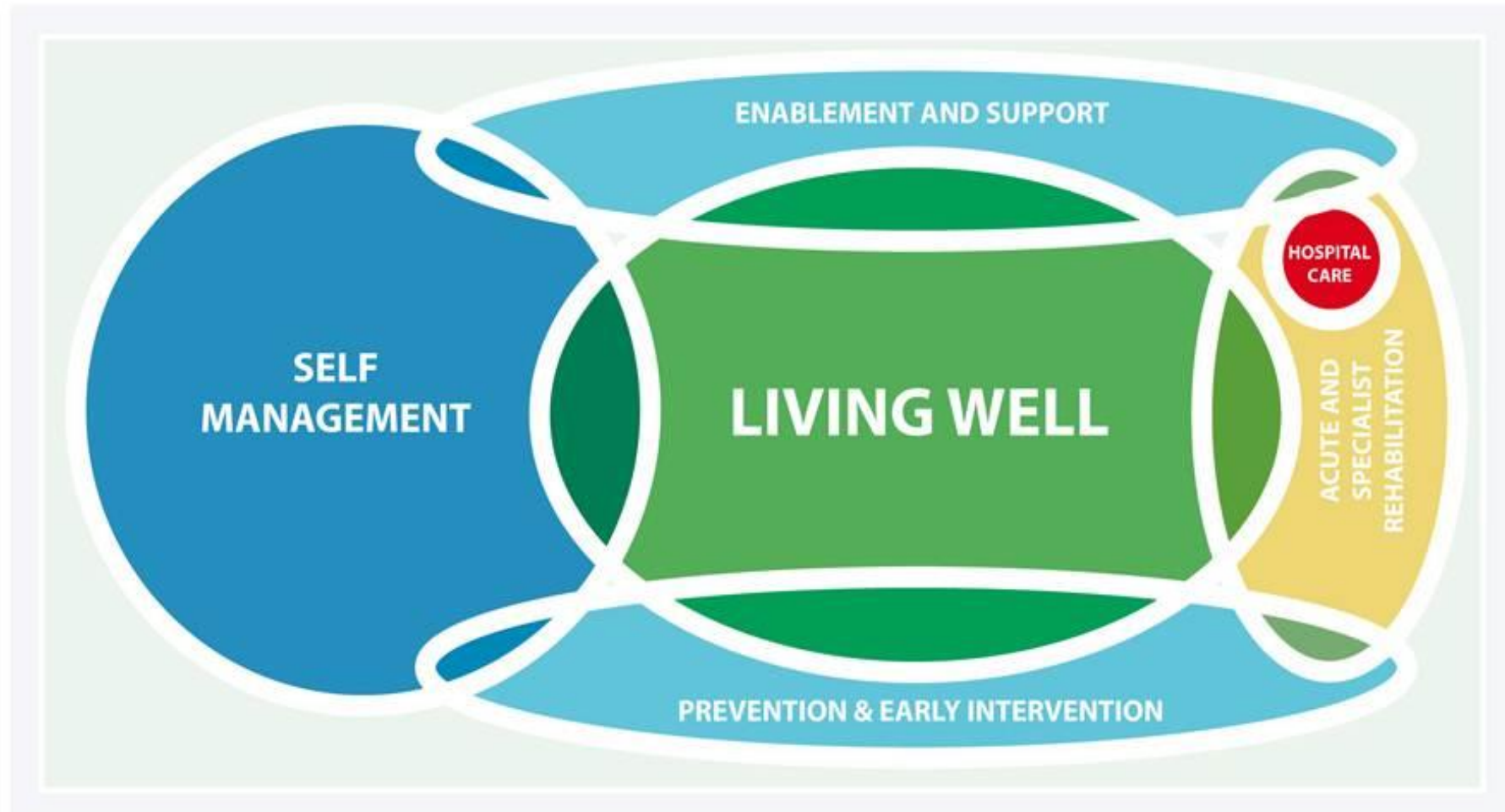


# Staff survey

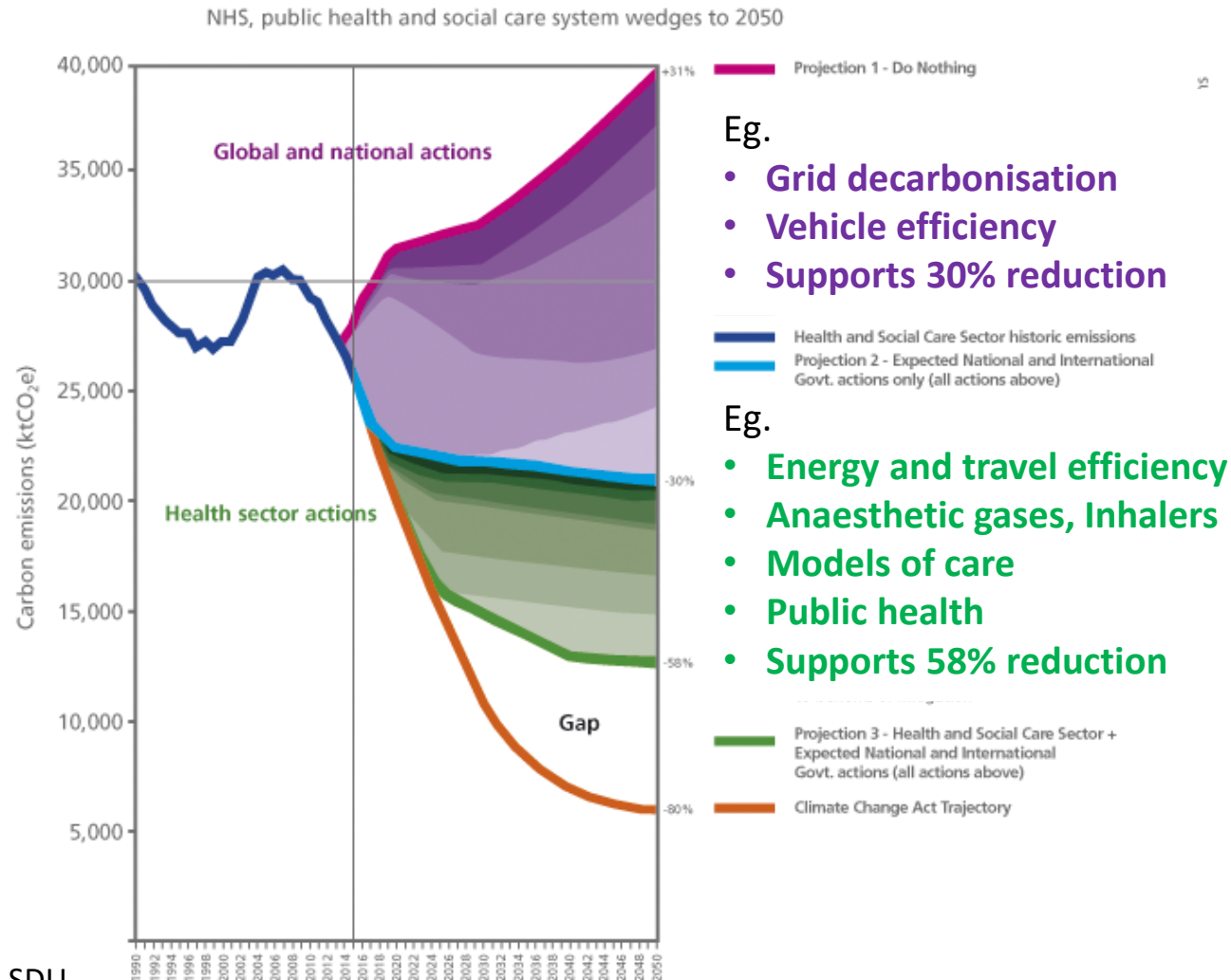


<https://www.sduhealth.org.uk/areas-of-focus/leadership-engagement-and-workforce-development/engagement/staff-and-sustainability-survey.aspx>

# Prevention



# Carbon



Source: SDU

# Plastics

No.	Product type	Weight 14/15 (t)	% Weight of plastic
1	Single Use Theatre Protective Clothing (inc drapes)	9,402	9%
2	Examination Gloves	7,952	8%
3	Disposable Wipes and Cleaning Cloth products	7,045	7%
4	Catering Products Tableware and Light Equipment	5,628	5%
5	Polymer Products (aprons and bags)	5,244	5%
6	Medical Hollowware	5,044	5%
7	Disposable Continence Care products	5,029	5%
8	Blood Collection Systems(sample tubes & syringes)	4,851	5%
9	General Woundcare	4,066	4%
10	Suction Consumables (catheters, tubing, drains)	3,823	4%
11	Syringes, Needles And Associated Products	3,353	3%
12	Clinical Waste Containers	3,216	3%
13	Medical Packs And Sterile Supplemental Products	3,028	3%
14	Needlefree Connection Systems Products	2,324	2%
15	Urology Products (Drainage bags, catheters etc)	2,296	2%
	TOTAL	72,301	69%



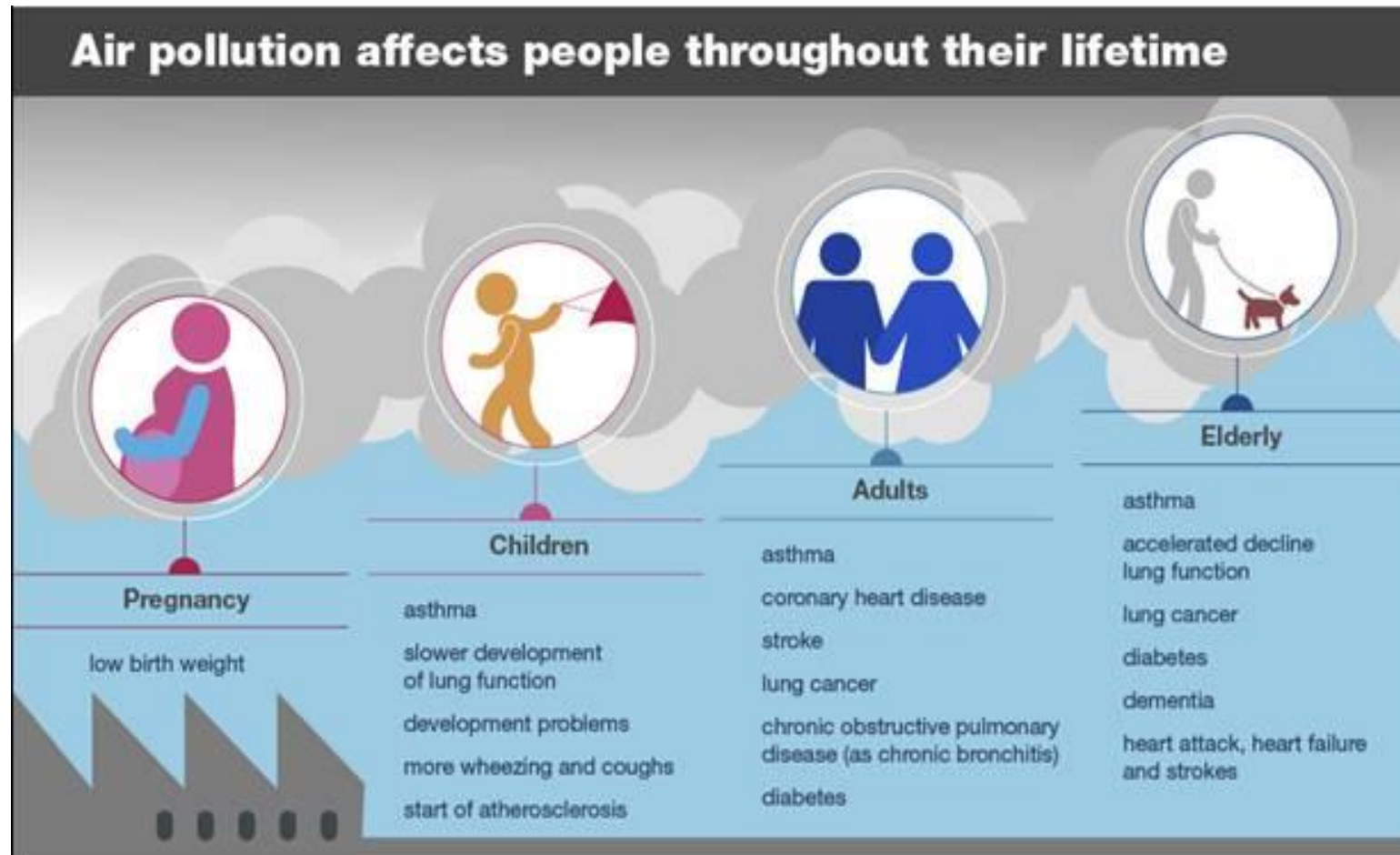
# Plastics actions

*'...delivering improvements, including reductions in single use plastics, throughout the NHS supply chain'*

- NHS Plastics- visible commitments from organisations?
- RCN Gloves campaign?
- What other SUPs could be reduced locally?



# Air Quality



Source: PHE

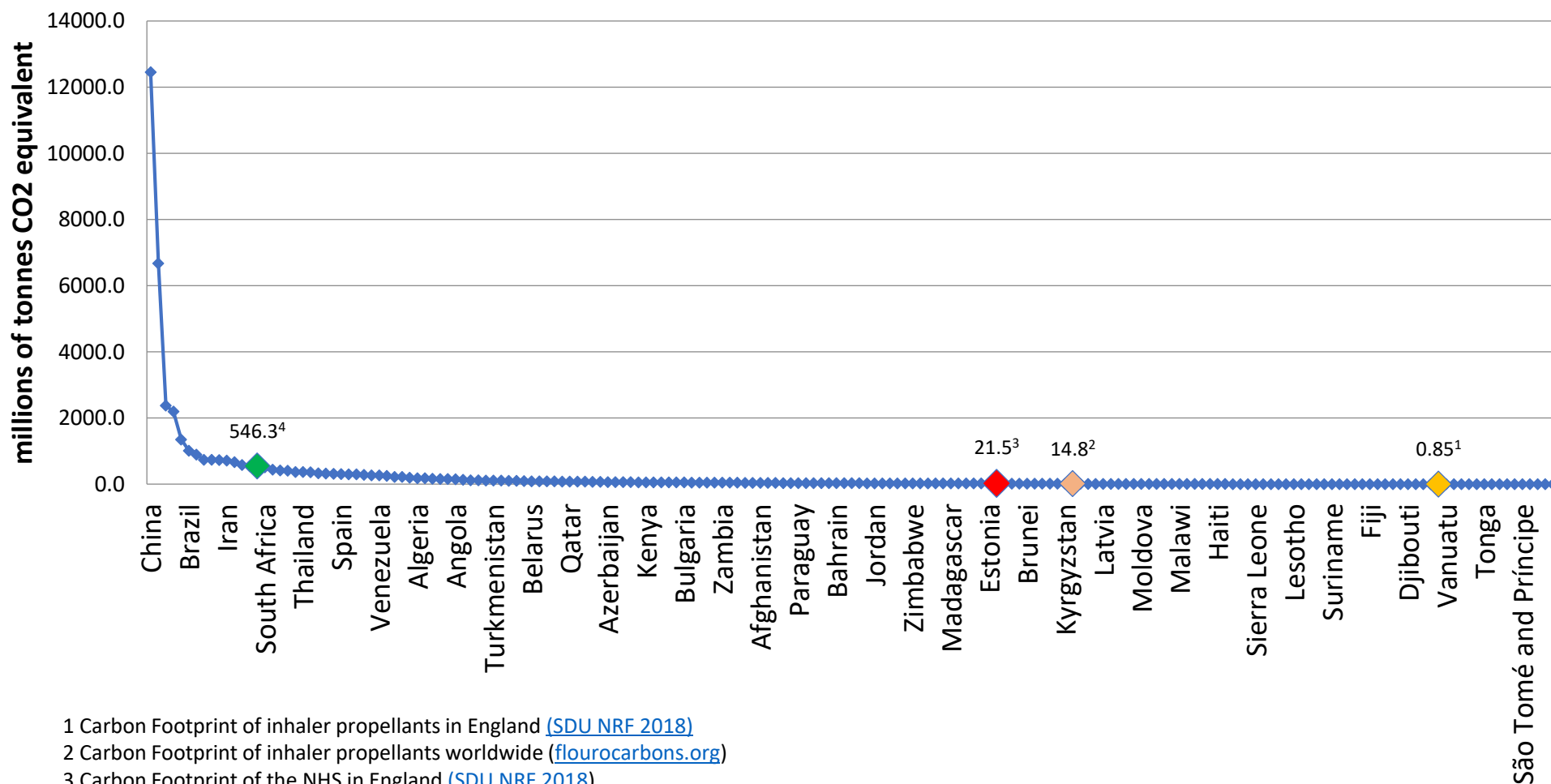
# Air Quality Actions

*‘Redesigned care and greater use of ‘virtual’ appointments’ ‘will also reduce the need for patient and staff travel.’*

*‘..the NHS will work to reduce air pollution from all sources’*

- Walking or public transport?
- Digital or phone consultations?
- Encourage EV use?

# Carbon footprint of pressurised Inhalers



# Inhaler Actions

***‘A shift to lower carbon inhalers will deliver a reduction of 4%, with a further 2% delivered through transforming anaesthetic practices’***

- Lower carbon alternatives could be highlighted in training, such as
  - DPI, SMI, Smaller MDI
- Return to pharmacy for environmentally safe disposal or recycling

[BTS/SIGN guidelines](#)

[NICE patient decision aid](#)

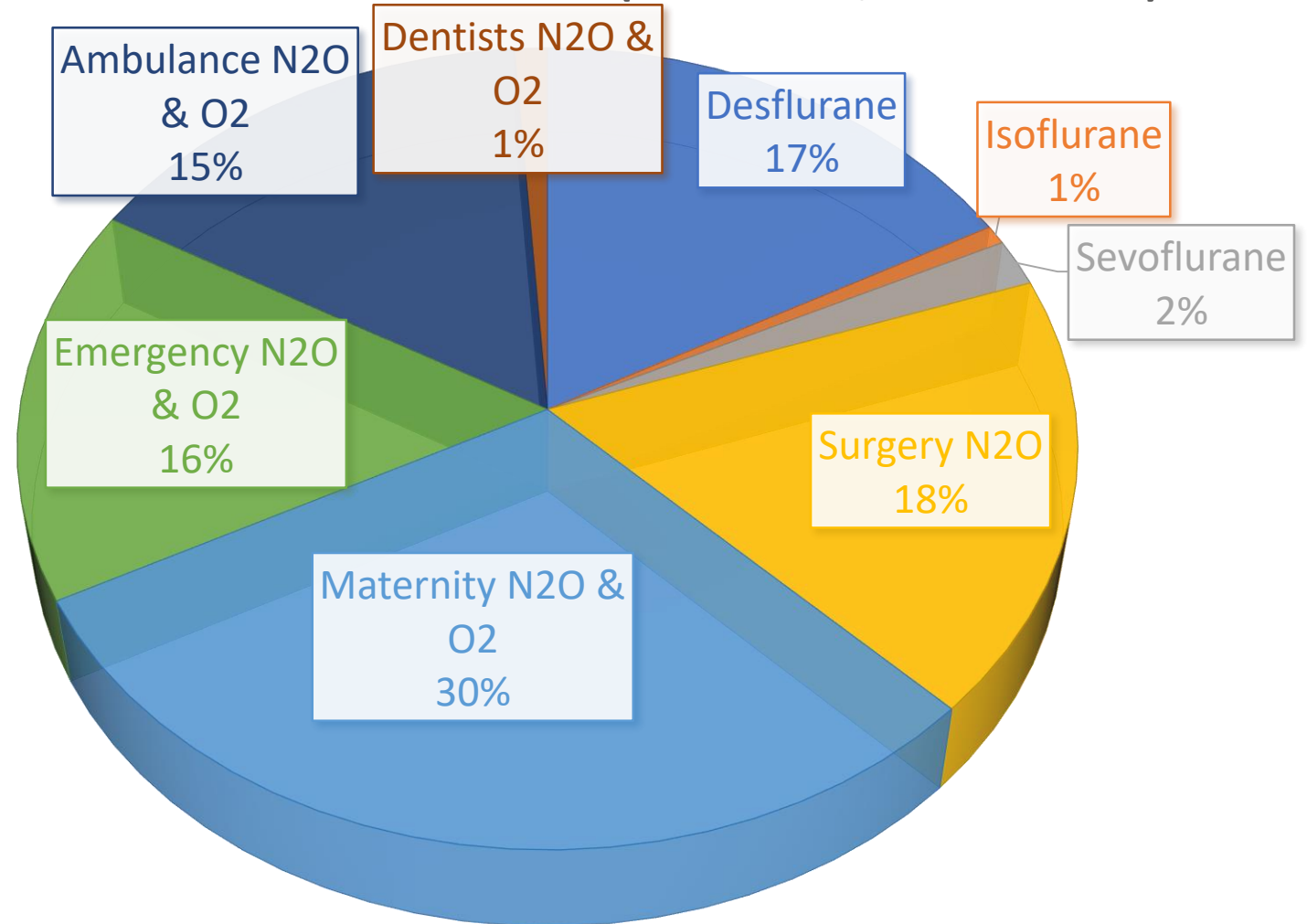
# Anaesthetics

C500,000 tonnes CO2  
equivalent

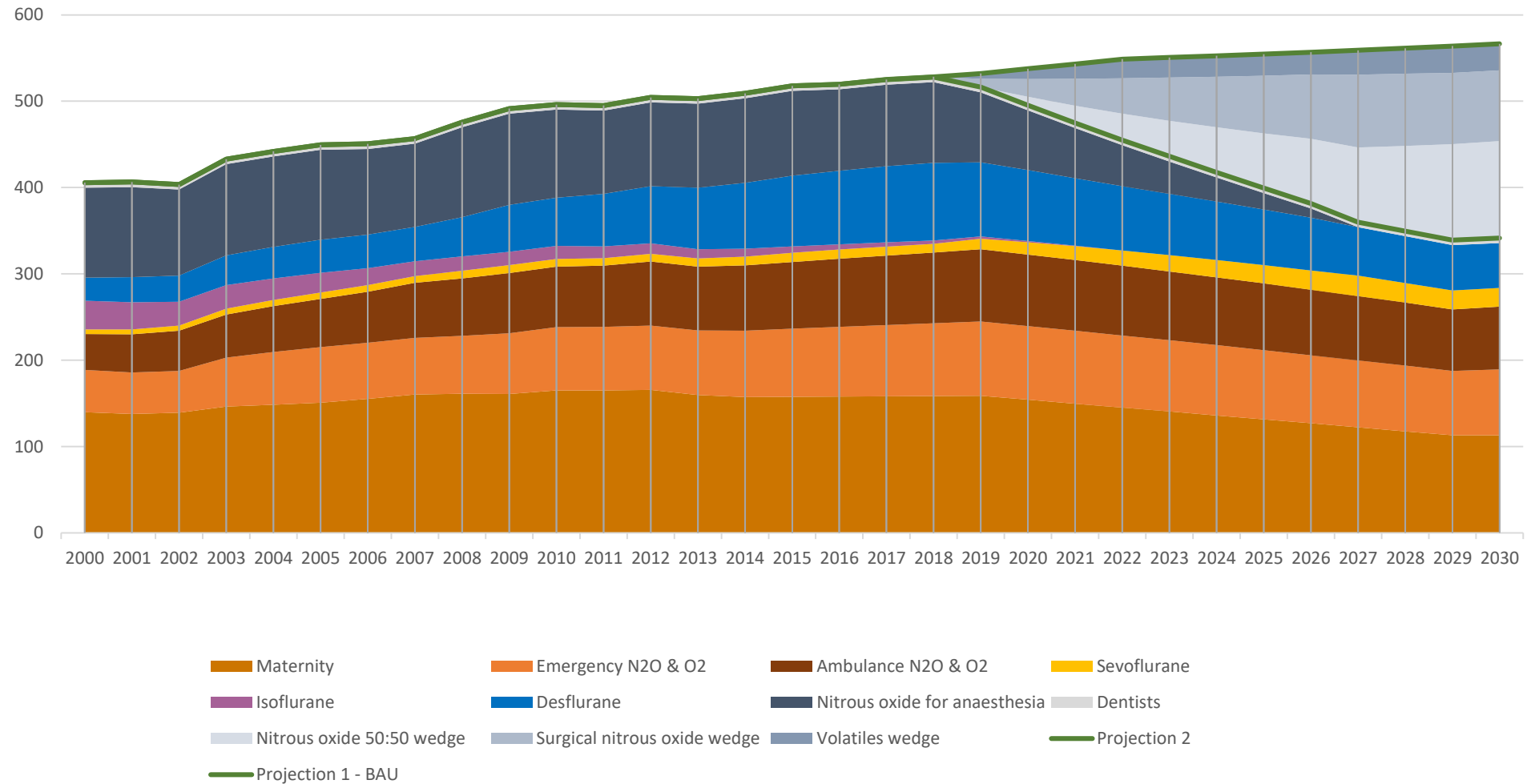
Similar to the CO2 impact  
of 1.5m NHS staff business  
miles

*'A shift to lower carbon  
inhalers will deliver a  
reduction of 4%, **with a  
further 2% delivered  
through transforming  
anaesthetic practices***

CO2 FROM ANAESTHESIA 2017 (TOTAL 525,000 TONNES)



# Anaesthetic gases 2000-30



# Anaesthetic actions

Nitrous Oxide 300 x climate impact of CO<sub>2</sub>

Sevoflurane 130 x CO<sub>2</sub>

Desflurane 2540 x CO<sub>2</sub>

- Use sevoflurane instead of desflurane in surgery
- Identify clinically appropriate ways to release less N<sub>2</sub>O to atmosphere e.g less waste, better handling, appropriate use, alternatives.



# Working with Industry

BNF CHEMICAL NAME	ASSOCIATED BNF SECTION NAME
Adalimumab	Drugs Used In Rheumatic Diseases & Gout
Amoxicillin	Antibacterial Drugs
Atorvastatin	Lipid-Regulating Drugs
Beclometasone Dipropionate	Corticosteroids (Respiratory)
Budesonide	Corticosteroids (Respiratory)
Co-Codamol (Codeine Phos/Paracetamol)	Analgesics
Co-Dydramol (Dihydrocodeine/Paracet)	Analgesics
Enteral Nutrition	Oral Nutrition
Etanercept	Drugs Used In Rheumatic Diseases & Gout
Fluticasone Propionate (Inh)	Corticosteroids (Respiratory)
Gabapentin	Antiepileptics
Ibuprofen	Soft-Tissue Disorders & Topical Pain Rel
Metformin Hydrochloride	Drugs Used In Diabetes
Naproxen	Drugs Used In Rheumatic Diseases & Gout
Paracetamol	Analgesics
Salbutamol	Bronchodilators
Simvastatin	Lipid-Regulating Drugs
Sodium Valproate	Antiepileptics
Sulfasalazine	Chronic Bowel Disorders
Tiotropium	Bronchodilators



NICE quote – “For NICE, the goal is to routinely consider environmental factors in the development of clinical guidelines and in the appraisal of new drugs and technologies.” Gill Leng

BMJ 2019;366:l4930 doi: 10.1136/bmj.l4930 (Published 2 August 2019)

# Next phase?

- Sustainable clinical practice
- Partnerships with local government
- Partnerships with industry
- Innovation and solution focussed
- Holding ourselves to account

# Thoughts to take away

- What opportunities are there in our own teaching or clinical practice to improve?:
  - Waste reduction
  - Low impact prescribing or clinical practice
  - Low impact/less travel
- Can we encourage engagement in our organisations' approaches?
  - SDMP
  - Clinical group/committee
  - Patient travel
- Other?