

**Greener NCL: Our plan to
improve health and wellbeing
through sustainable
healthcare**

Barnet HOSC – 17 May 2023

Key messages

**Note: Glossary
included at the end**

Shared ambitions for net-zero carbon, healthy environment & healthy people

Recognise the scale of the challenge and amount of work happening

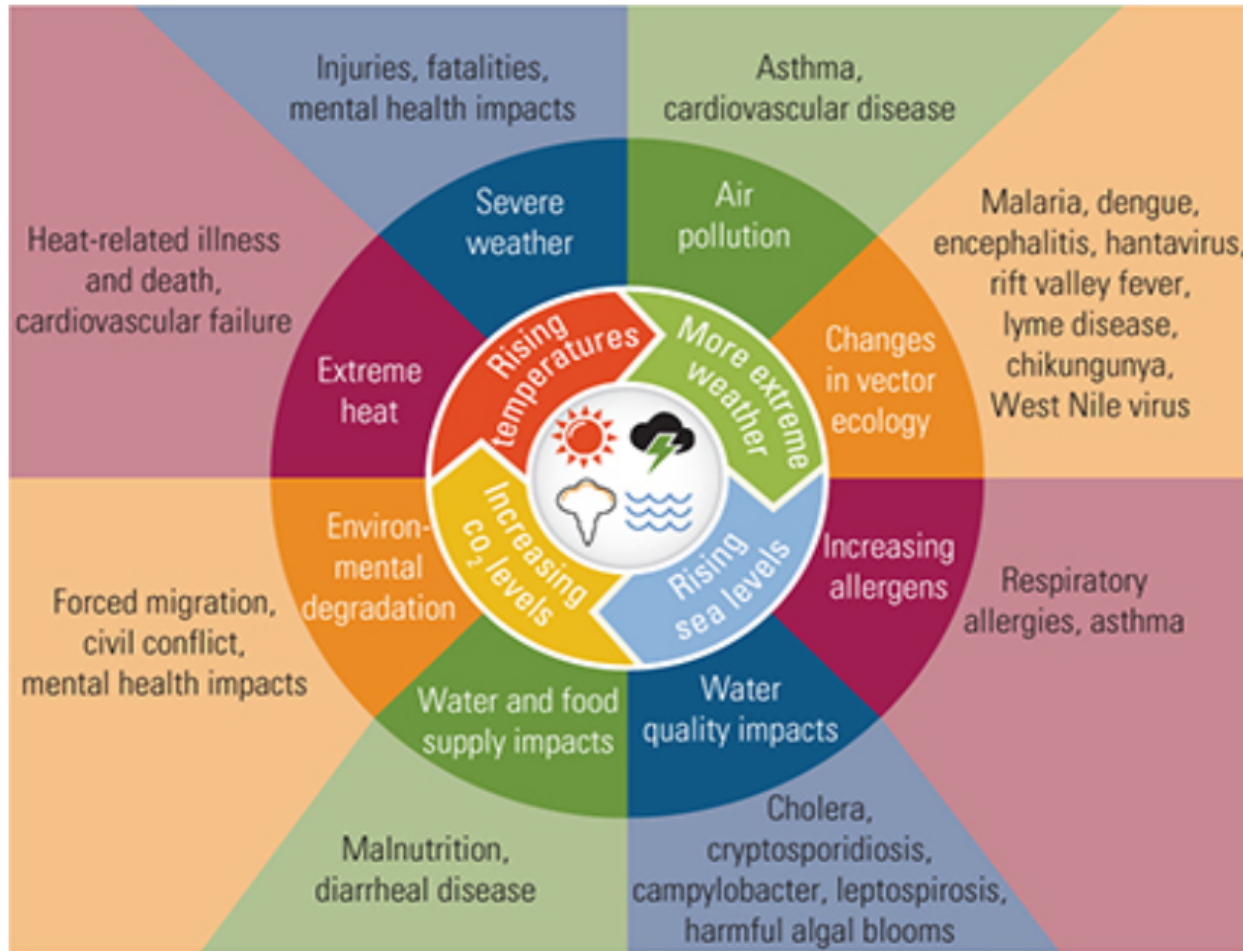
Greener NCL Programme working with local authorities to deliver

Opportunities to improve care through delivering sustainable healthcare (inhaler programme including as an example)

Further ways we can be working together to maximise our impact



Addressing health inequalities



Air pollution is the single greatest environmental threat to human health in the UK, accounting for 1 in 20 deaths.

The UK heatwaves of 2020 claimed more than 2,500 lives. Nine of the hottest years on record occurred out of the last ten.

Reducing emissions will mean fewer cases of asthma, cancer and heart disease.

50% deaths in deprived areas are avoidable; Black communities more likely to die prematurely from preventable causes.

Air pollution at high levels across London; Fuel poverty highest in Enfield & Haringey

c. 25% children in London are obese by the time they leave primary school; Enfield at 27%.

Those living w/serious mental health illness & learning disabilities experience large inequalities, as do the homeless

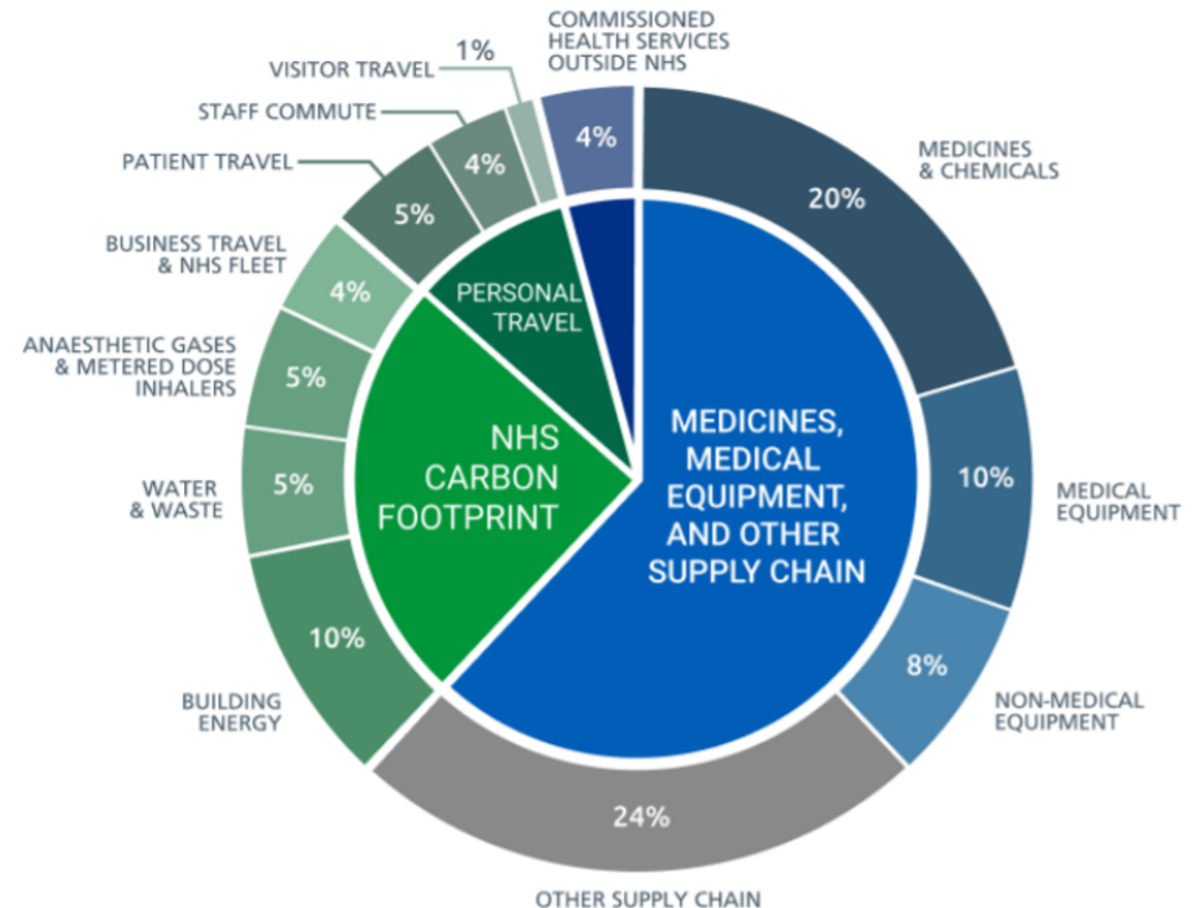
NHS and the climate emergency

The NHS is currently responsible for **4%** of England's carbon footprint.

National Greener NHS plan launched October 2020:

- For emissions **controlled directly** by the NHS (NHS Carbon Footprint), **net-zero will be reached by 2040**, with an ambition to reach an 80% reduction by 2028 to 2032;
- For the emissions that the **NHS can influence** (NHS Carbon Footprint Plus), we will **reach net zero by 2045**, with an ambition to reach an 80% reduction by 2036 to 2039

- Trusts signed off Green Plans by January 2022
- NCL ICS signed off the system Green Plan in March 2022 (link below)



Sources of carbon emissions by proportion of NHS carbon footprint plus (from Greener NHS)

Delivering sustainable healthcare

1. PREVENTION

Promoting health and preventing disease by tackling the causes of illnesses and inequalities

3. LEAN SERVICE DELIVERY

Streamlining care systems to minimise wasteful activities



2. PATIENT SELF-CARE

Empowering patients to take a greater role in managing their own health and healthcare

4. LOW CARBON ALTERNATIVES

Prioritising treatments and technologies with a lower environmental impact

Mortimer, F. The Sustainable Physician. Clin Med 10(2). April 1, 2010. D110-111.

Where we are taking action – summary from trust green plans submitted in January 2022)



High Coverage	Estates & Facilities	<ul style="list-style-type: none"> The sub theme of ‘Energy’ has the highest volume of initiatives across all 12 plans. However the type of initiative varies e.g. 8/12 plans include initiatives on LEDs, but only two mention heat pumps
	Supply Chain & Procurement	<ul style="list-style-type: none"> The majority of plans mention collaboration with other NCL members but only four mention PPS, LPP, PPP, or NHS Supply Chain Establishing minimum standards for suppliers are only mentioned by three plans Explicit CO2 reduction targets for procurement are only mentioned by one plan
Medium Coverage	Travel and Transport	<ul style="list-style-type: none"> Local measures, such as increased cycling, are included in ten plans and eight of the trusts include higher impact initiatives such as fleet electrification
	Workforce & System Leadership	<ul style="list-style-type: none"> The majority of trusts have a sustainability network and designated champions in place but there are varying levels of available employee training and local engagement
	Sustainable models of care	<ul style="list-style-type: none"> 8/12 plans include measures on providing care closer to home but a minority currently work with local partners or offer local community hubs
Low Coverage	Digital Transformation	<ul style="list-style-type: none"> Digital Transformation has the highest number of gaps across Green Plans with no mention of the lever from five trusts Only two trusts mention carbon implications relating to data and data storage
	Medicines	<ul style="list-style-type: none"> Medicines is not mentioned as a sustainability lever by four trusts Only one plan outlines measures beyond reducing inhalers and desflurane
	Food & Nutrition	<ul style="list-style-type: none"> Reviewing catering suppliers or including packaging and waste requirements are only mentioned in three plans Less than half the plans include initiatives on locally sourced food and healthy menus
	Adaption	<ul style="list-style-type: none"> Five of the plans include measures to engage staff and communities with awareness of climate change effects however only two include specific mitigations beyond future risk assessments

Capacity and delivery (Baringa)

Prioritised Recommendations for NCL

- The recommendations have been chosen from a long-list of potential ‘carbon-levers’ that we have seen being deployed cross sector.
- The recommendations are split between ‘Quick Wins’ and ‘Medium term, high impact’ defined as:
 - **Quick Wins** - The solution is available and well understood within the market. Delivery will need streamlining and coordinating to drive progress but is mainly dependent on capacity.
 - **Medium-term, high impact** – The solution is more complex and disruptive. Analysis and pilots required prior to roll out.

Top 20 Carbon Reducing Initiatives and Coverage Across Trust Plans

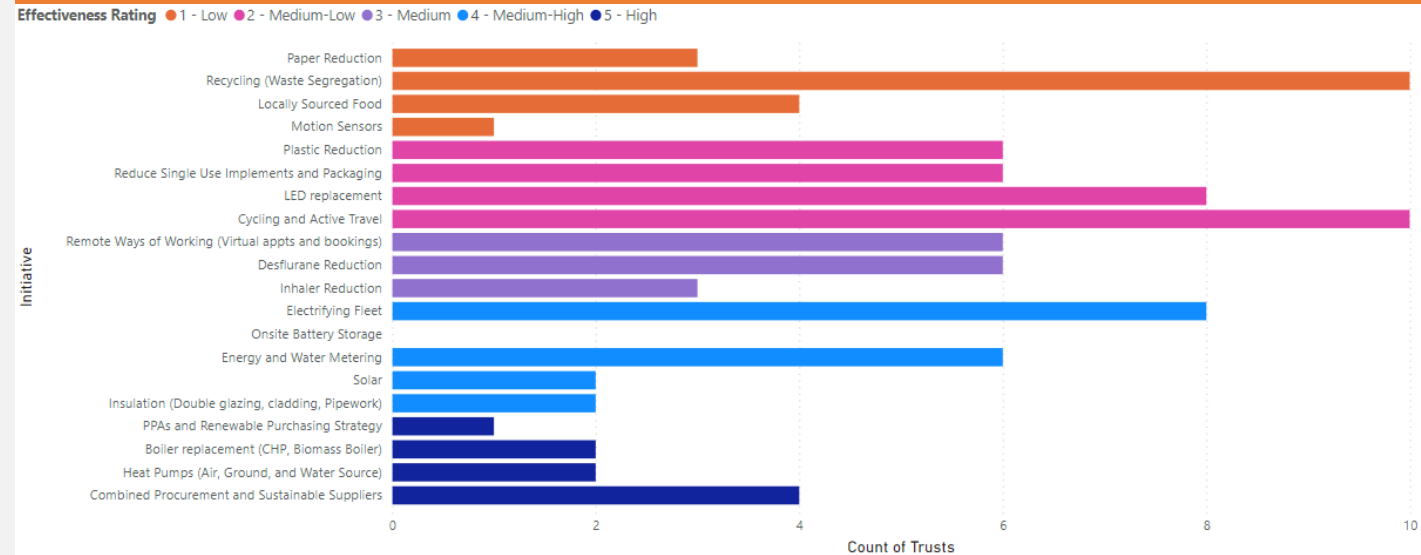


Fig. 2. Top 20 Carbon Reducing Initiatives and Coverage Across Trusts

The table above demonstrates the ‘Top 20’ Carbon reducing initiatives within NCL’s Green Plans. It has been categorised by ‘impact’ of the initiative and coverage of the initiative within the Green Plans. The graph demonstrates that there is ‘low coverage’ across NCL for some of the highest reducing carbon initiatives

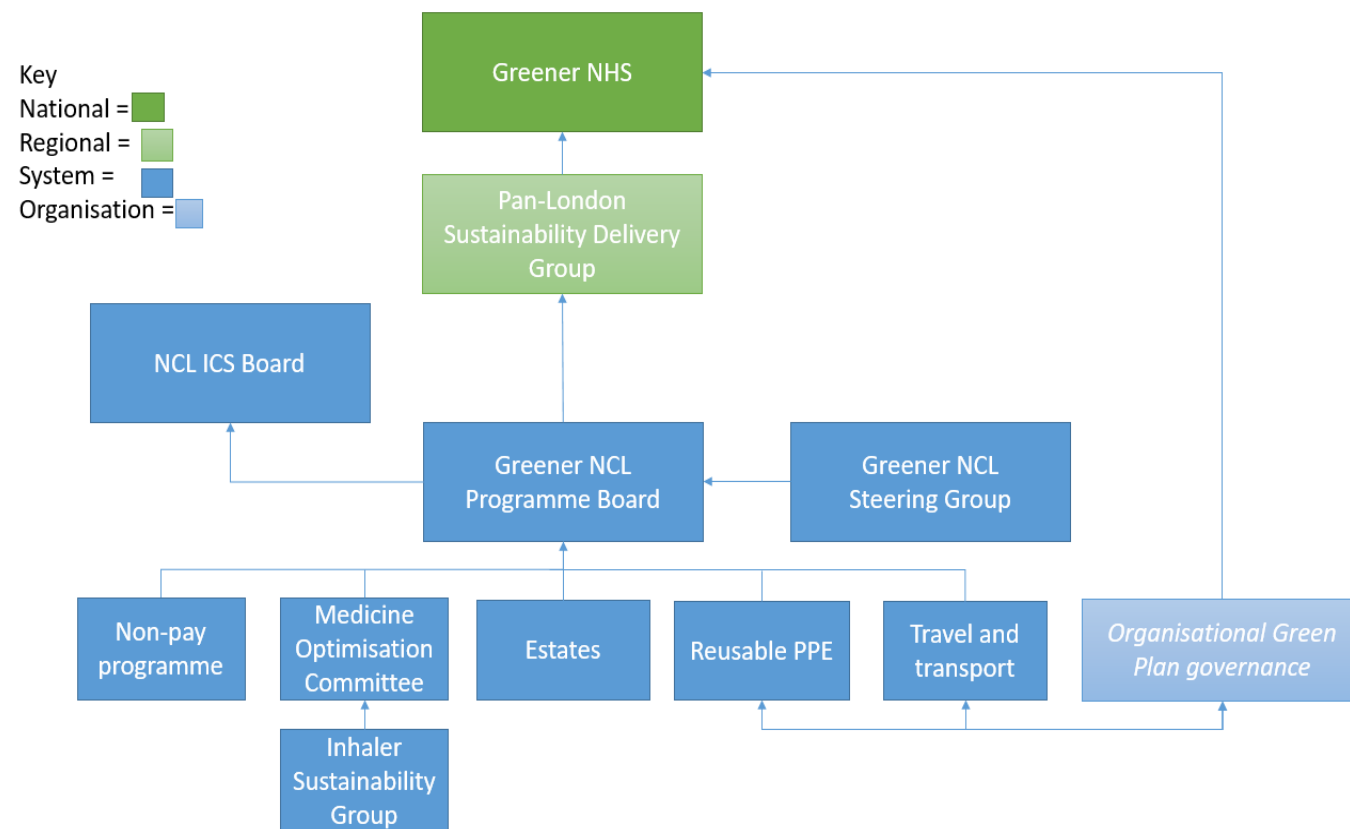
NCL ways of working

Greener NCL Programme

- ICB accountable for delivery
- Paul Fish, Chief Exec RNOH, as chair
- Wide partnership meeting – VCSE, trusts, primary care, local authority & ICB colleagues (estates etc)
- Working through Borough Partnerships and council teams
- Social movement

Work streams with lead trusts who have the authority to set direction for the system, innovate, ‘fail fast’ and support NCL in regional / national work:

- Reusable PPE: UCLH
- Staff & patient travel (strong working with LA)
 - Active travel / staff travel – North Mid & CLCH
 - Patient transport / fleet – ICB
- Medicines waste & wider medicines priorities – GOSH, support from UCLH and sharing from RFL



- Greener NCL monitoring: quarterly
- MOU from NHSE to regional for delivery
- Quarterly regional programme boards

Achievements so far: highlights

- Improved opportunities for cycling for NHS staff, such as the **e-bike trial at CLCH**.
- **GOSH has integrated air quality alerts** based on a patient's home postcode and has provided guidance to staff to support conversations, as well as template letters to lobby MPs and councillors.
- Implemented a supply and distribution model within NCL via the Distribution and Storage Hub at Unit 2 Chalk Mill Drive – **releasing two NHS Supply Chain vehicles per day** from the road!
- Commissioned Enfield Climate Action Network & Enfield Race Equality Council to deliver **community panels & focus groups** in Edmonton to include residents in our plans; which is informing work on community energy & green pace
- Included a **social value** weighting of 10% social value (which includes sustainability) in procurements for taxi and courier services so that as part of the tender, providers were required to state how they would minimise impact on the environment.
- Secured support through the Business Climate Change Programme for up to 15 **GP practices to receive support to improve energy efficiency**
- **Incorporated sustainability into ICB programmes** such as the Long-Term Conditions Locally Commissioned Service (LTC LCS) and the redesign of surgical hubs.

NCL IPMO Inhaler Sustainability Group

Shahid Gani

NCL ICS, Project lead pharmacist

IPMOP- Integrating Pharmacy Medicines Optimisation Program team

Move towards lower carbon impact inhalers



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175 miles – London to Sheffield



shutterstock.com • 239726425

4 miles – London to... another bit of London



Equivalent tailpipe greenhouse gas emissions from a Ventolin Evohaler (containing 100 2-puff doses) and a Ventolin Accuhaler (60 1-puff doses). Assumes car achieves 100gCO₂/km.

Medicine-specific areas



Inhalers

Led by the NCL IPMO Inhaler Sustainability Group

NCL Targets:

- Increase DPI/reduce pMDI use;
- Reduce over-prescribing of SABAs;
- Increase 'greener' disposal;
- Use of fixed combination devices

- Prescribing of lower carbon impact inhalers has risen to 27.4%
- New asthma guidance available; COPD guidance in development
- Working with Trusts and ICB teams to support local initiatives
- Further work on comms, education & training, and disposal on workplan



Anaesthetic gases

Led by individual Trust departments

NCL Target: Reduce desflurane to less than 5% of total volatile anaesthetic gas use

- Trend towards overall decrease of volatile anaesthetic gases
- Desflurane is <5% use in all NCL Trusts (currently 0%)
- Ad-hoc use of desflurane expected (e.g., desflurane preferred in bariatric patients)



Nitrous oxide

Led by NHS England (London Region)

NCL Target: To reduce nitrous oxide use by 40%

- Workplan is overseen by NHSE London, who will work with London ICSs and Trusts
- Increase in 2021/22 by 2.7% compared with 2018/19 (increases in maternity and A&E)
- Requires further work and information sharing

Integrating Pharmacy and Medicines Optimisation (IPMO): **NCL Inhaler Sustainability Group**

- **Revamped July 2022**
- **Terms of Reference**
- **Membership:**
 - Two Co-Chairs
 - Secretariat
 - Acute Trust Respiratory Consultant Representatives
 - Acute Trust Respiratory Pharmacist Representative
 - NCL ICB Medicines Management Team
 - LPC representative
 - NCL JFC Representative
 - Patient representative
 - Co-opted members to be invited when their advice is required
- **Based on NCL Green Plan 2022-25 and NHSE&I Greener practice**
- **Agreeing workplan**

NCL Inhaler Sustainability Group

Strategic Objectives

- **To reduce the carbon footprint of inhaler prescribing:**
 - Optimise asthma and COPD care following national guidelines.
 - Offer dry powder inhalers or soft mist inhalers as first choice when clinically appropriate.
 - If pMDIs are needed for an individual, then choose brand and regime with care to minimise carbon footprint.
 - Ask patients to return all used or unwanted inhalers to community pharmacies or dispensaries for disposal by incineration or re-cycling.
- **To safely and effectively change inhalers:**
 - Focus on finding the right medication and device for each individual in consultation with them and their carers, through shared decision making.
 - Assess and optimise inhaler technique at every opportunity.
 - Follow patients up to ensure suitability of device and disease control.
 - Do not undertake blanket switching if changing the device type or medication.

Objectives taken from How to Reduce the Carbon Footprint of Inhaler Prescribing: A Guide for Healthcare Professionals in the UK: Greener Practice. (Page 3).

NCL inhaler data

Data source: ePACT and DEFINE; 3 months data 2022

Inhalers	Primary care	Secondary Care	Total DDDs
Salbutamol inhalers	2,403,000 (92%)	136,000 (8%)	2,539,000
Non – salbutamol inhalers	1,683,000 (95%)	143,000 (5%)	1,825,000
Total	4,086,000	279,000	4,365,000

Primary Care

Chemical substance	Usage (DDD's)	% of total DDDs
Salbutamol	2,403,000	59%
Beclometasone dipropionate	1,061,000	26%

85%

Secondary Care

Chemical substance	Quantity (DDD)	% of total DDD's
Salbutamol	136,000	49%
Beclometasone	32,000	11%
Formoterol and beclometasone	24,000	9%

60%

Focus on high impact areas: salbutamol and beclometasone inhalers

Workplan

Successes:

- Agreed principle: Not to undertake blanket switching.
- Named leads assigned to priorities
- Data driven decision making. Salamol (preferred pMDI) and Clenil (review).
- NCL Asthma guidelines (published 18th Nov) and comms plan
- EMIS search (IIF ESO1 & 2) to NCL support practices
- NCL HCP Education Inhalers programme £30k funding

Developments:

- NCL COPD guideline being updated (due May 2023)
- UCLH inhaler sustainability project (in progress)
- Comms plan (May 2023 launch)
- Shared NCL resources: PILs, videos, posters, decision aids (due May 2023)

Medicines

Action	Timescale	Lead	Update
1. Work with trusts with >5% desflurane use, sharing practice from other trusts to bring all use in all trusts to <5%	Year 1	NHS England (London Region)	Latest data (Oct '22) at 0.7% for NCL. All Trusts used <5% in Oct '22. The general trend is an overall decrease in volatile anaesthetic gases in NCL. We did note sporadic/ ad-hoc usage of desflurane, but recognise this would happen (we were informed anaesthetists do prefer desflurane in bariatric patients)*
2. Work with trusts to reduce nitrous oxide use by 40%	Year 1	NHS England (London Region)	No improvement yet in NCL (increase by 2.7% in 2021/22 compared with 2018/19). Some reduction in surgical units, though increases seen in maternity and A&E units. Requires further work and sharing of information across the network. Work to reduce nitrous oxide is being led by NHS England (London region). We have reached out for an update and are awaiting comment.
3. Reducing the over-prescription of salbutamol inhalers by optimising adherence to preventer inhalers and improving inhaler technique	Ongoing	NCL Sustainable Inhalers Group	A re-focused Sustainable Inhalers Group has been formed with an updated workplan (the NHSE MOU is being implemented by NCL Training Hub).
4. Rationalising several separate inhalers to a single fixed combination inhaler	Ongoing		Action 3: Latest data from NHS BSA demonstrates a decrease in the number of patients prescribed >6 SABA inhalers per annum. In Jan-Dec 2022, the NCL average was 23.9%, compared to the national average of 24.2% - representing the first time (Ref: Inhalers dashboard, NHS BSA data)
5. Increasing the frequency of the greener disposal of used inhalers	Year 1		Action 4: An ongoing action. No clear target has been assigned to this. It will have a focus through the Sustainable Inhalers Group in 23/24 as to how this can be measured and assigned an appropriate target.
6. Use of lower carbon impact inhalers (DPIs and SMIs) as a proportion of all inhalers (30% by end of Y1, 45% by end of Y2 and 65% by end of Y3)	Year 1 to 3		Action 5: Cannot be completed as there is no greener disposal scheme available. This needs to be escalated to a London or national level for support. Action 6: Underway in both primary and secondary care. Latest data on IIF indicators in NCL primary care in Sept 2022 shows the proportion of lower carbon impact prescribing to be 27.4% (Ref: Greener NHS Dashboard).
7. Link with work on clinically appropriate de-prescribing and polypharmacy to capture sustainability outcomes	Year 1	UCLP/ NCL Overprescribing Group	Ongoing discussions around polypharmacy support with UCLH to enable and support this work into 23/24

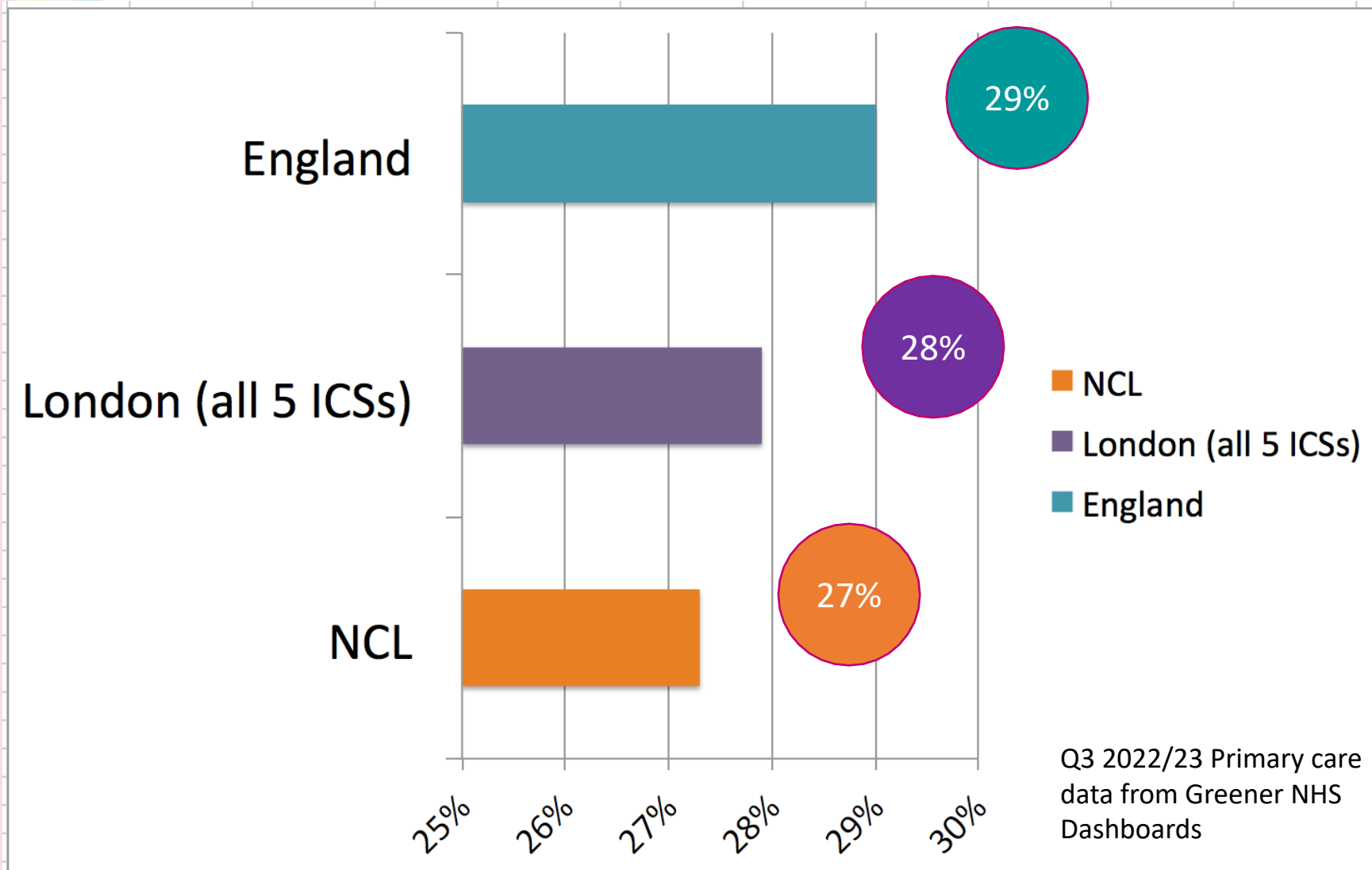
See last slide for glossary

*Although desflurane use is small in each Trust, it still equates to a significant proportion of the overall carbon impact from volatile gases. However, as usage of desflurane is <5%, the overall carbon impact is still minimal.

Delivering education to primary care on inhalers to support the movement of patient choice to less carbon intensive inhalers where clinically appropriate

Greener NHS Dashboard data

% DPIs+SIMs as proportion of all inhalers (based on NHSBSA data)



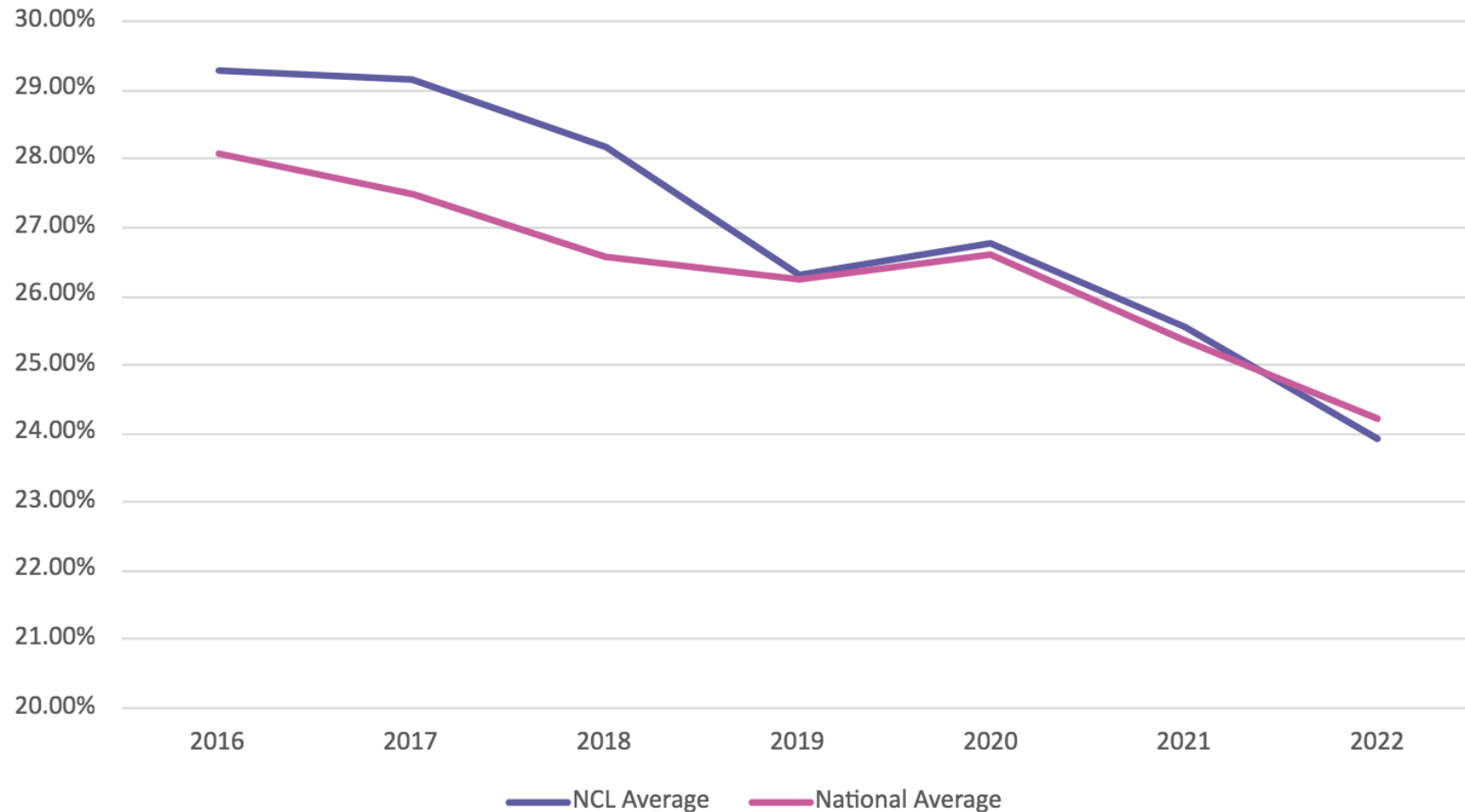
The NCL Green Plan proposed target would be to increase the use of lower carbon impact inhalers (as a proportion of all inhalers used) to:

- 30% at the end of year 1
- 45% for year 2
- 65% for year 3

Incentives: IIF, now PQS

% Patients on ≥ 6 SABA

Proportion of patients receiving 6+ SABA inhalers NCL vs. National between 2016 - 2022



Q3 2022/23 (ePACT):

24% of NCL patients on SABA receiving ≥ 6 SABA inhalers in 12 months

Need support with

- Patient communication and promotion
- Greener disposal for inhalers
(NCL plan deadline March 2023)

Glossary

BEH = Barnet Enfield Haringey Mental Health Trust
GOSH = Great Ormond Street Hospital for Children
NHS Foundation Trust
DDD = Defined Daily Dose
DPI = Dry powder inhalers
ICB = Integrated Care Board
ICS = Integrated Care System
IPMO = Pharmacy and Medicines Optimisation (IPMO)
LCS = Locally Commissioned Service
LTC = Long term condition
LPP = London Procurement Partnership

MOU = Memorandum of Understanding
NCL = North Central London
NHS BSA = NHS Business Services Authority
NHSE = NHS England
NLP SS = North London Partners Shared Services
pMDI = Pressurised metered-dose inhalers
RF Charity = Royal Free Charity
RFL = Royal Free London NHS Foundation Trust
RNOH = Royal National Orthopaedic Hospital
UCLH = University College London Hospital NHS Trust