

Supporting patient understanding of the inhaler carbon footprint: East of England (EoE) awareness campaign

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Background

- Inhalers account for 3% of all NHS carbon emissions
- NHS has committed to a 51% reduction in carbon footprint by 2025
- Delivering a 'Net Zero' NHS actions include to reduce carbon emissions from inhalers and substitute high with low carbon alternatives
- EoE had one of the highest inhaler carbon footprint of all regions
- Upskilling clinicians and patients on asthma control and inhaler carbon emissions and environmental impact was needed
- Aims were to have consistent messages across systems for clinicians and patients and to do once and share.

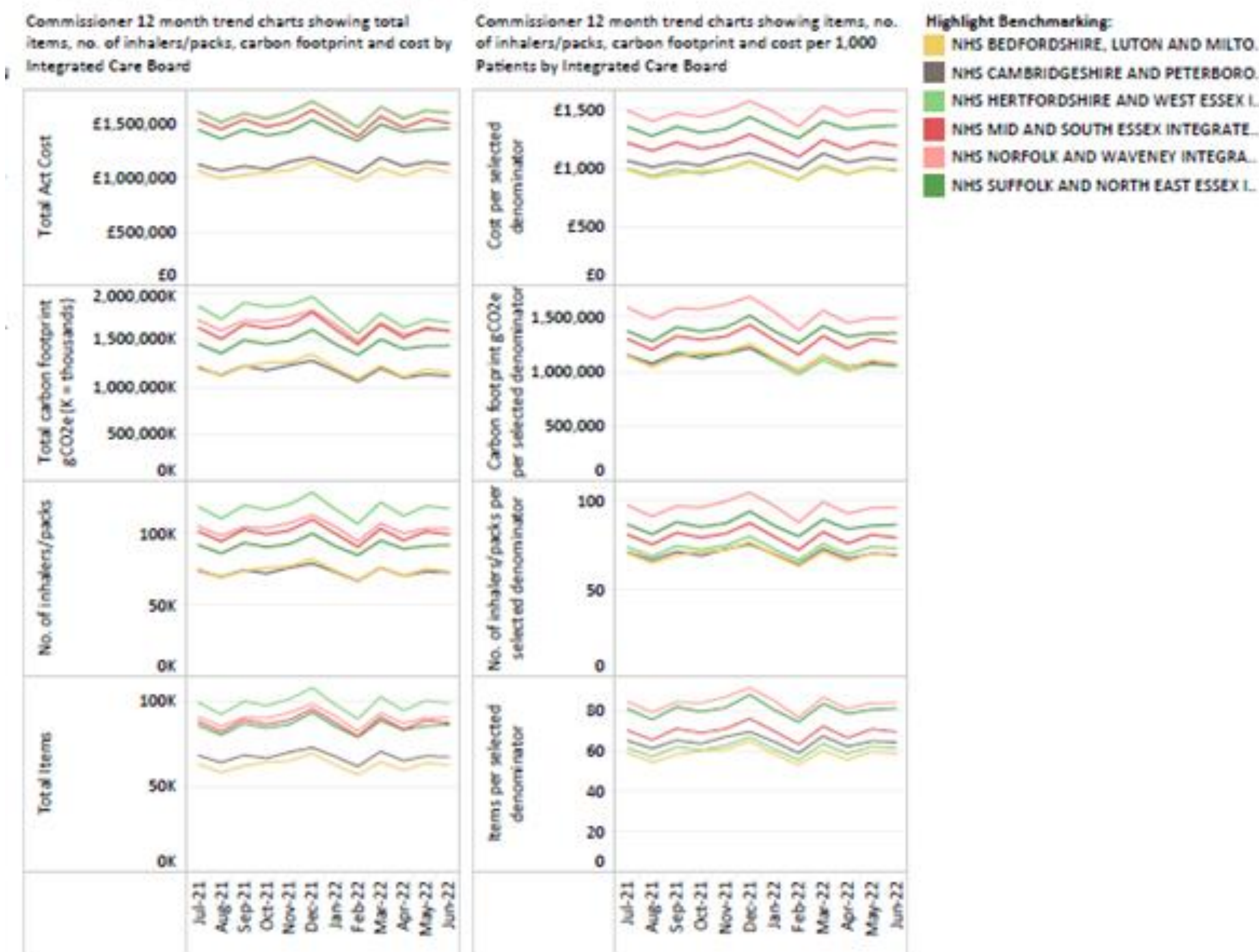
Method

- Campaign messages designed in February 2022 with input from patient representatives
- Campaign tested with a wide range of key stakeholders including the NHSE Inhaler Working Group Members, ICB medicine optimisation leads and pharmaceutical companies
- Three campaign themes agreed:
 - Environmentally friendly inhaler choices
 - Your salbutamol inhaler is changing to a more environmentally friendly version Salamol
 - What should I do if I need to use my reliever inhaler often for my asthma?
- Campaign resources produced include:
 - Patient information leaflets, video and animation on each of the three campaign themes.
 - Short clip video explaining the campaign materials and how these can be used with patients
 - Interactive patient friendly inhaler carbon footprint comparison table
 - Webinar for community pharmacists
- Health and Care Innovations Limited (HCI) produced the videos, short clip video and animations based on agreed scripts

Results

- A total of 660,740 salbutamol inhalers with a carbon footprint of 15,580,058k gCO₂e and a cost of £1,094,011 were dispensed from Apr-June 22 in EoE. The salbutamol carbon footprint per inhaler was 23,578g CO₂e. This represents a reduction compared to Apr-June 21 of:
 - 178,796 salbutamol inhalers
 - 5,371,521K gCO₂e total carbon footprint**
 - 1,378 gCO₂e carbon footprint per salbutamol inhaler**
 - £285,870 salbutamol costs
- A total of 593,626 pMDIs (excluding salbutamol) with a carbon footprint of 9,799,196K and a cost of £12,770,407 were dispensed from Apr-June 22. This represents a reduction compared to Apr-June 21 in EoE of:
 - 79,434 pMDI (excluding salbutamol)
 - 2,973,672K gCO₂e total carbon footprint**
 - £3,229,426 pMDI (excluding salbutamol) costs

Inhaler Carbon Footprint Visual Snapshot



Results (cont'd)

- Short clip video explains campaign resources available and how clinicians can use them with patients



- The interactive patient friendly inhaler carbon footprint comparison table can be used to show patients their current inhaler and help them choose an alternative lower carbon footprint inhaler and support medicines formulary choices.

SABA	SAMA	LABA	LAMA	ICS	ICS+LABA/ ICS+LABA (MART)	LABA+LABA	ICS+LABA+ LAMA
ICS+LABA+LAMA							
Inhaler brand name	Inhaler image	Carbon footprint	Active ingredient(s)	Type of inhaler			
Enerzair® Breezhaler® 114/46/136 micrograms DPI		low CO ₂	Mometasone furoate & indacaterol & glycopyrronium	ICS + LABA + LAMA			
Trelegy® Ellipta® 92/55/22 micrograms DPI		low CO ₂	Fluticasone furoate & vilanterol & umecclidinium	ICS + LABA + LAMA			
Trimbow® 87/5/9 micrograms pMDI		high CO ₂	Beclometasone & formoterol & glycopyrronium	ICS + LABA + LAMA			
Trimbow® 172/5/9 micrograms pMDI		high CO ₂	Beclometasone & formoterol & glycopyrronium	ICS + LABA + LAMA			
Trimbow® NEXThaler® 88/5/9 micrograms DPI		low CO ₂	Beclometasone & formoterol & glycopyrronium	ICS + LABA + LAMA			
Trixeo® Aerosphere® 5/7.2/160 micrograms pMDI		high CO ₂	Budesonide & formoterol & glycopyrronium	ICS + LABA + LAMA			

Conclusions

- 'Do once and share' model across the region has supported change
- The campaign materials present the key messages in forms suitable for a range of individuals
- The campaign materials and messages help explain to patients:
 - How to manage their respiratory disease
 - Be aware if they are using their inhalers too frequently or infrequently
 - The impact the inhalers have on the environment and how this can be reduced in a way suitable to the individual
- Although produced for the EoE, these campaign resources have been made freely available for use by NHS organisations in their own inhaler carbon awareness campaigns
- Asthma clinical education was provided to healthcare professionals to support the campaigns

Acknowledgements

We would like to acknowledge the input of Health and Care Innovations Limited in producing the videos, animations and short clip video.

Inhaler carbon footprint QR code to webpage

