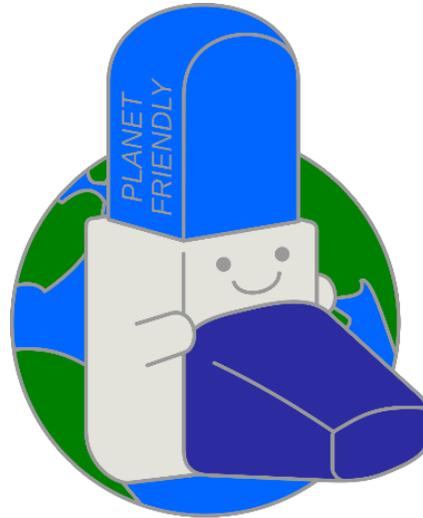




Sustainable Respiratory Care – King's College Hospital NHS Foundation Trust

Dr Laura-Jane Smith, Consultant Respiratory Physician

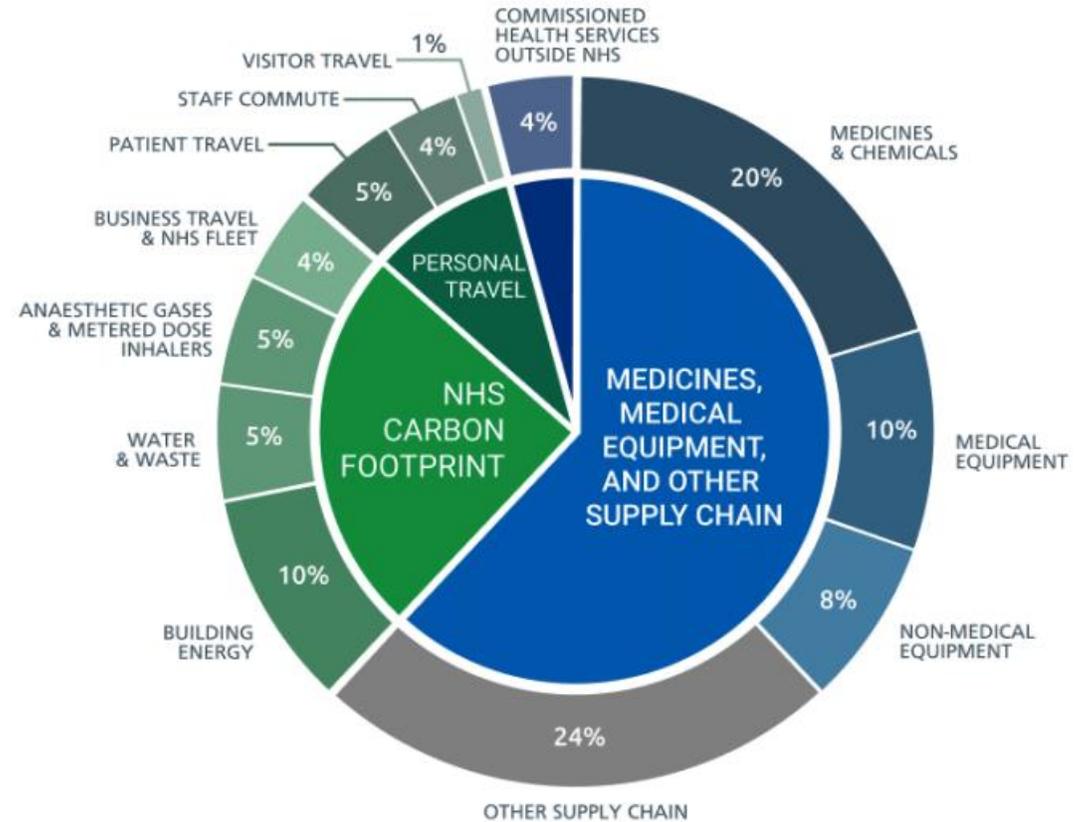
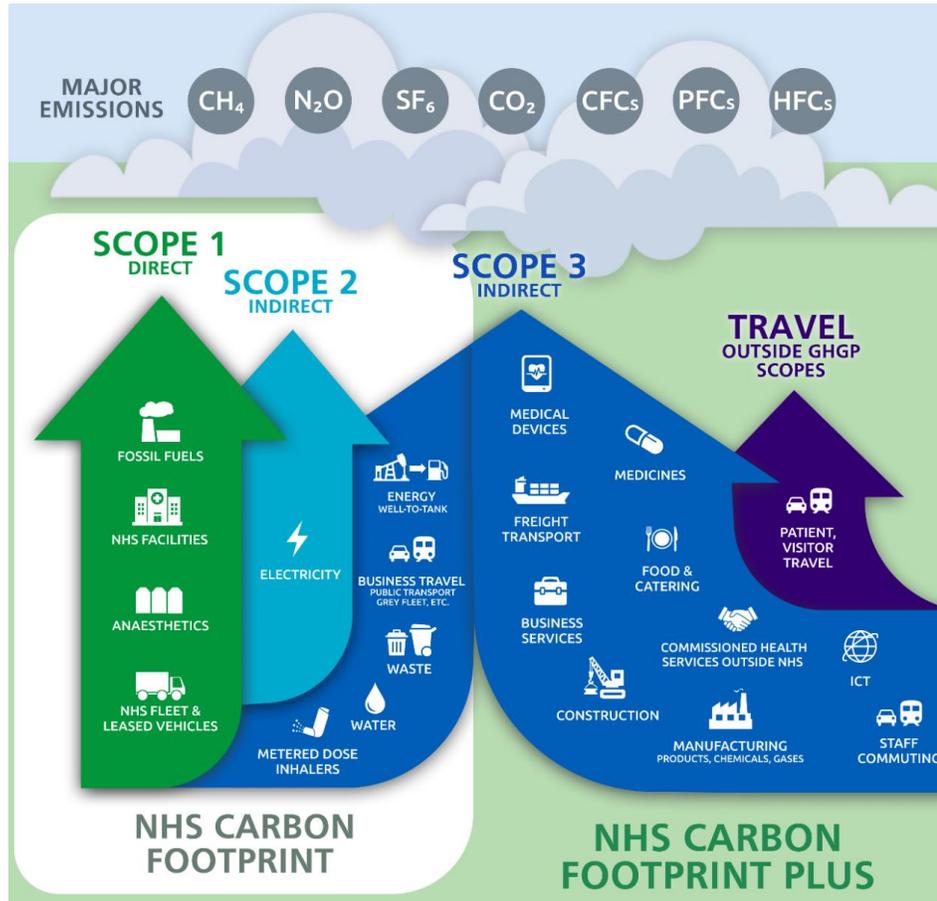


Quality Improvement
for our patients, people and planet

In partnership with:

Barking, Havering and Redbridge
University Hospitals NHS Trust
Imperial College Healthcare NHS Trust
King's College Hospital NHS Foundation Trust
Somerset NHS Foundation Trust
The Leeds Teaching Hospitals NHS Trust
Shrewsbury and Telford Hospital NHS Trust
Yeovil District Hospital NHS Foundation Trust

The Situation in the NHS



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Existing work on sustainable inhalers



The UK's primary care sustainability network

Home About us Information and Resources Join our network Take action Asthma toolkit Search

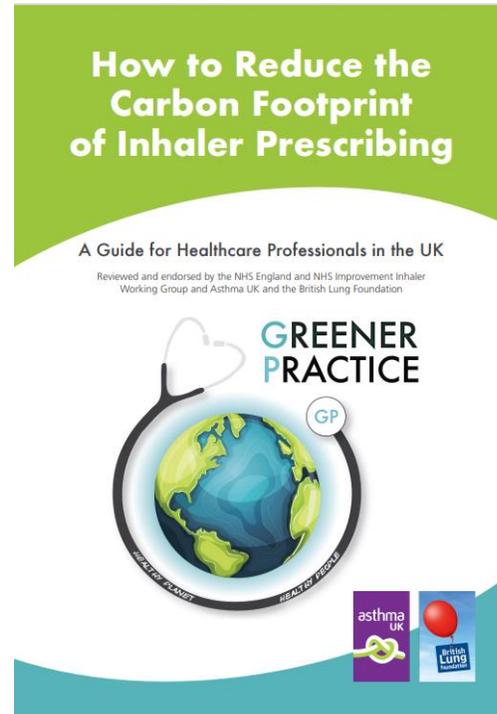
High Quality and Low Carbon Asthma Care

A toolkit to support quality improvement in primary care



About the toolkit

This toolkit is designed to help UK general practitioners...



Project types

Diagnosis

There are two projects in this section (IIF Indicator RESP-02)



Disease control

There are eight projects in this section (IIF indicators RESP-01 and RESP-02)



Device choice

There are five projects in this section (IIF indicators ES-01, ES-02)



Disposal

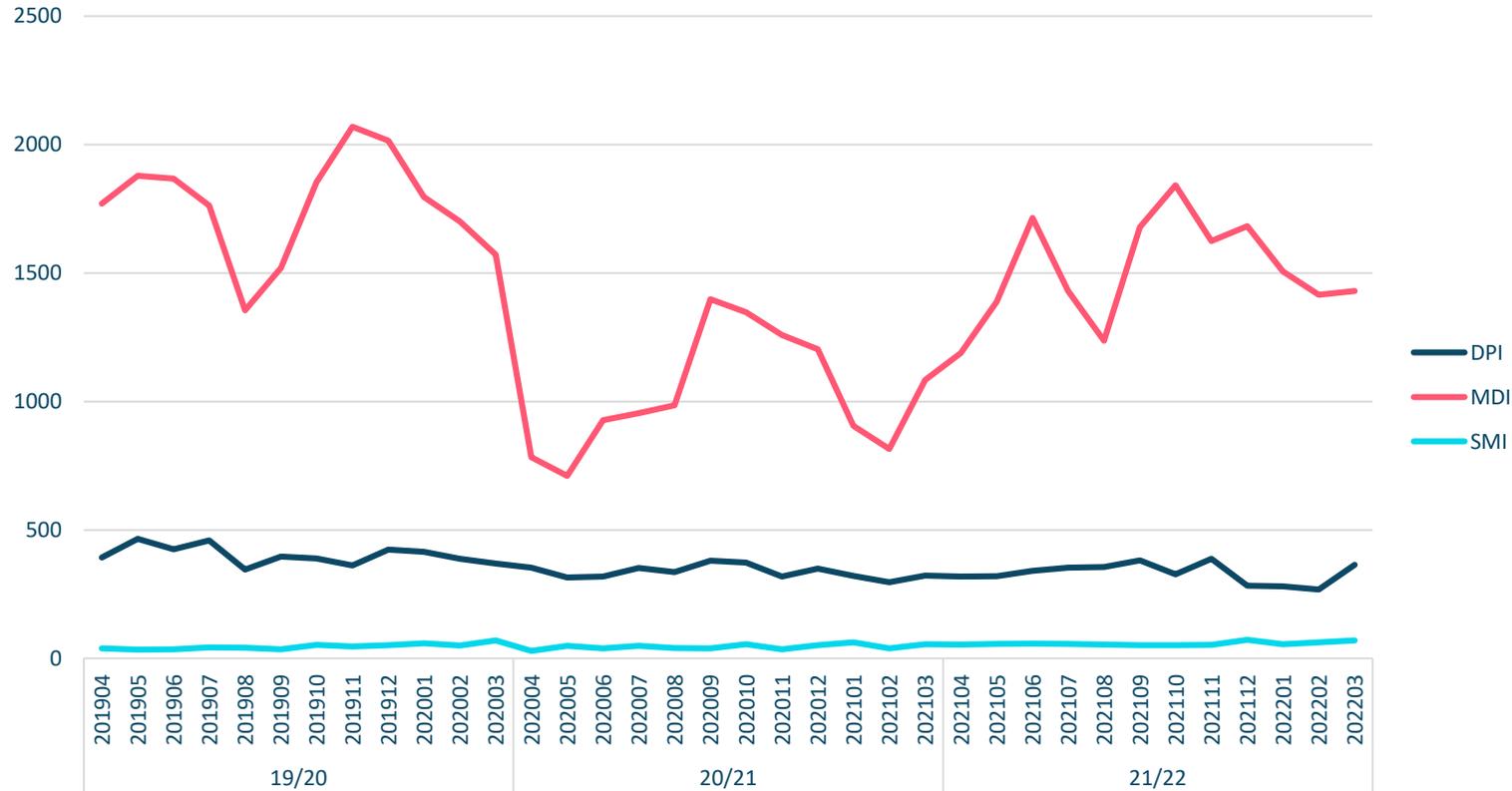
There are two projects in this section



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The Situation at King's College NHS Foundation Trust

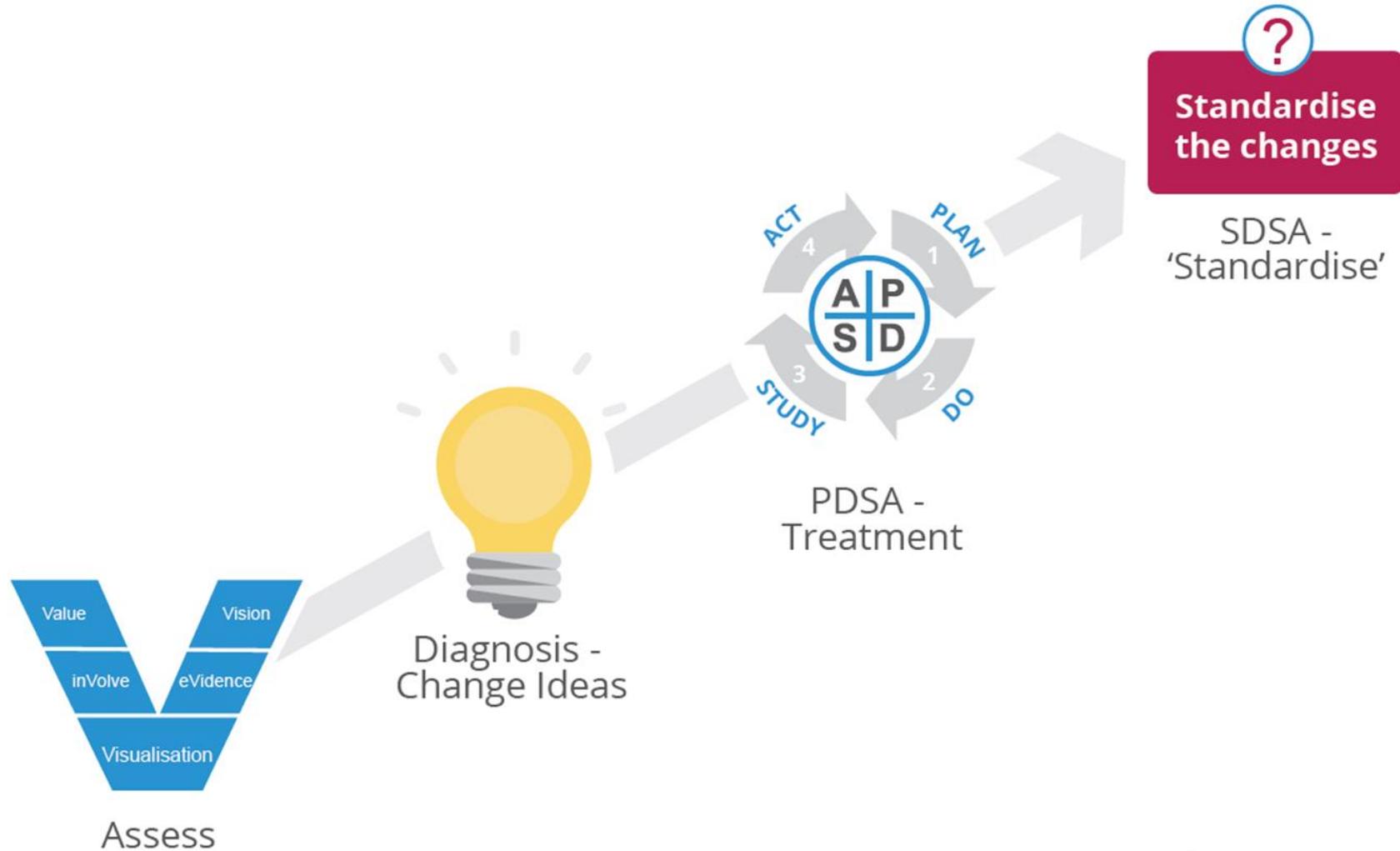


- Over the period of 19/20 to 21/22 the Trust used over 66,300 inhalers, 78% of these were MDI (51,672)
- In comparison the Trust used a total of just over 12,800 DPIs in the same time period

Quality Improvement
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The FCA Roadmap for Improvement



Quality Improvement
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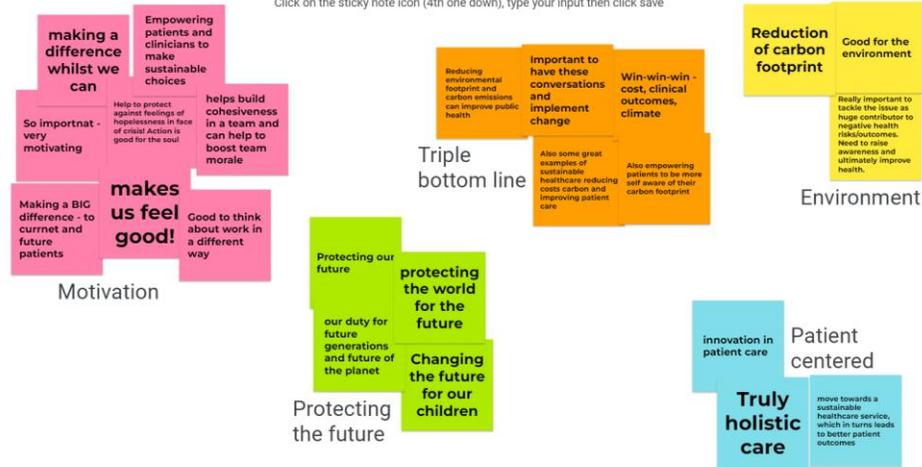
Define



How can we support the KCH to become more sustainable by reducing its carbon footprint to support better patient experience and care?

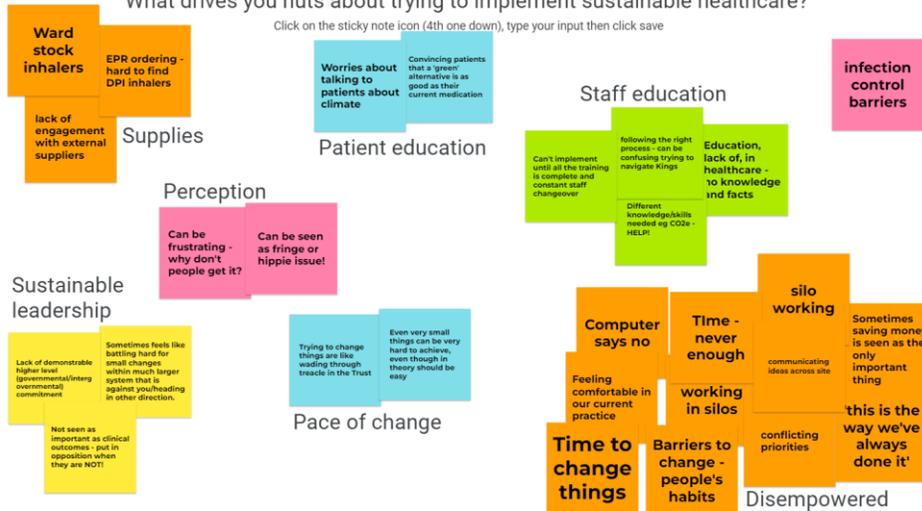
What do you love about the idea of sustainable healthcare?

Click on the sticky note icon (4th one down), type your input then click save



What drives you nuts about trying to implement sustainable healthcare?

Click on the sticky note icon (4th one down), type your input then click save



Challenges at this stage:

- multiple teams involved in inhaler prescribing/dispensing

Recommendations to anyone looking to do something similar:

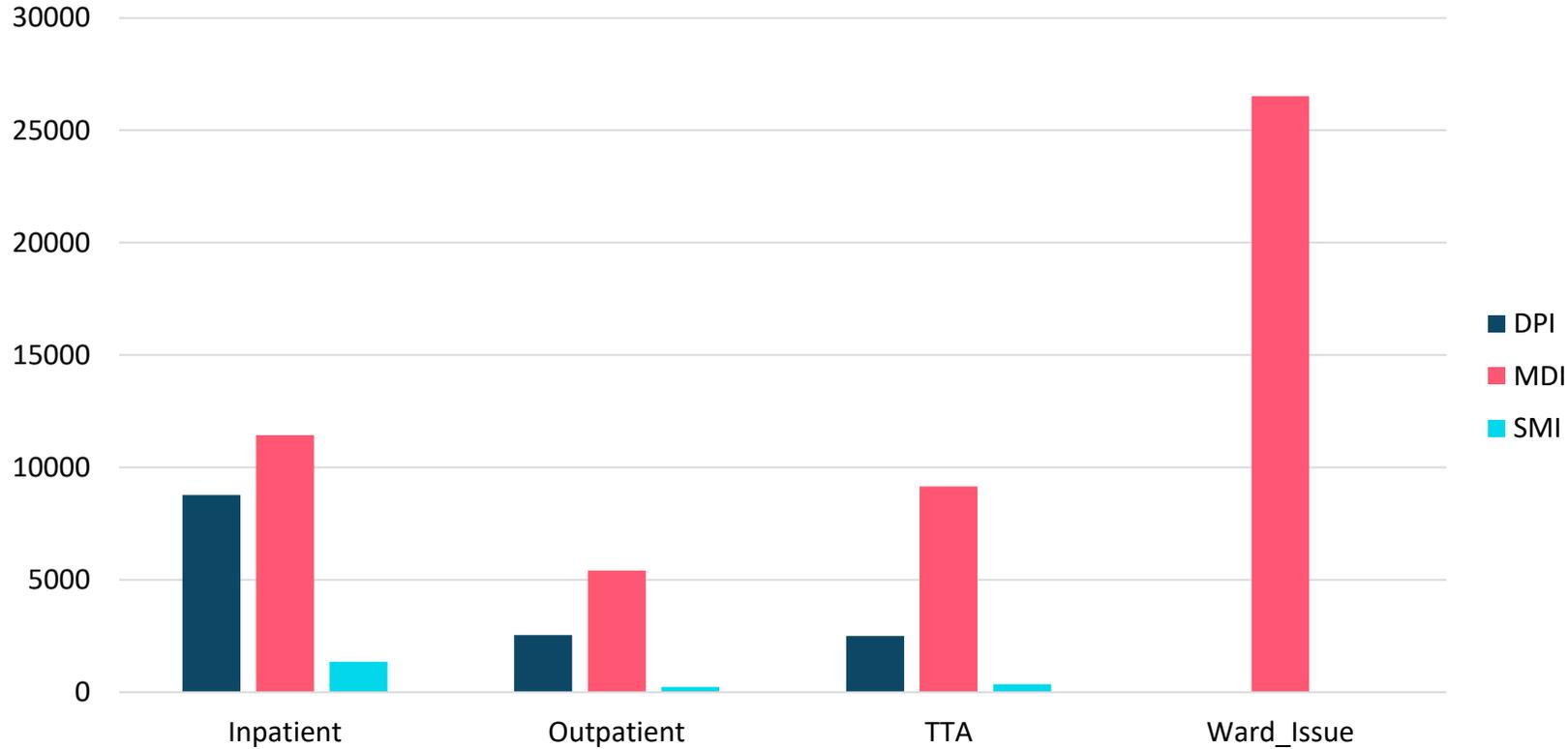
- Involve pharmacy team as well as prescribers from different areas from the start



Describe



“Ward Issue” inhalers



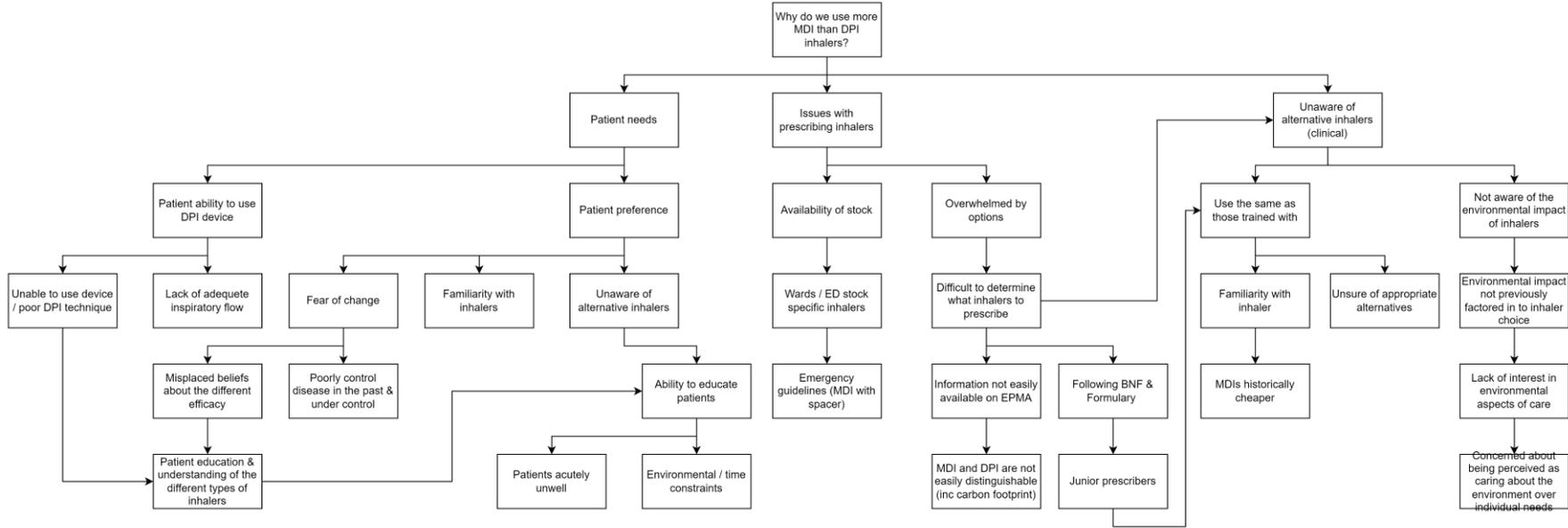
Challenges at this stage:

- Actual ward usage cannot be determined without an independent audit

Recommendations to anyone looking to do something similar:

- Understand your data and its' limitations

Describe



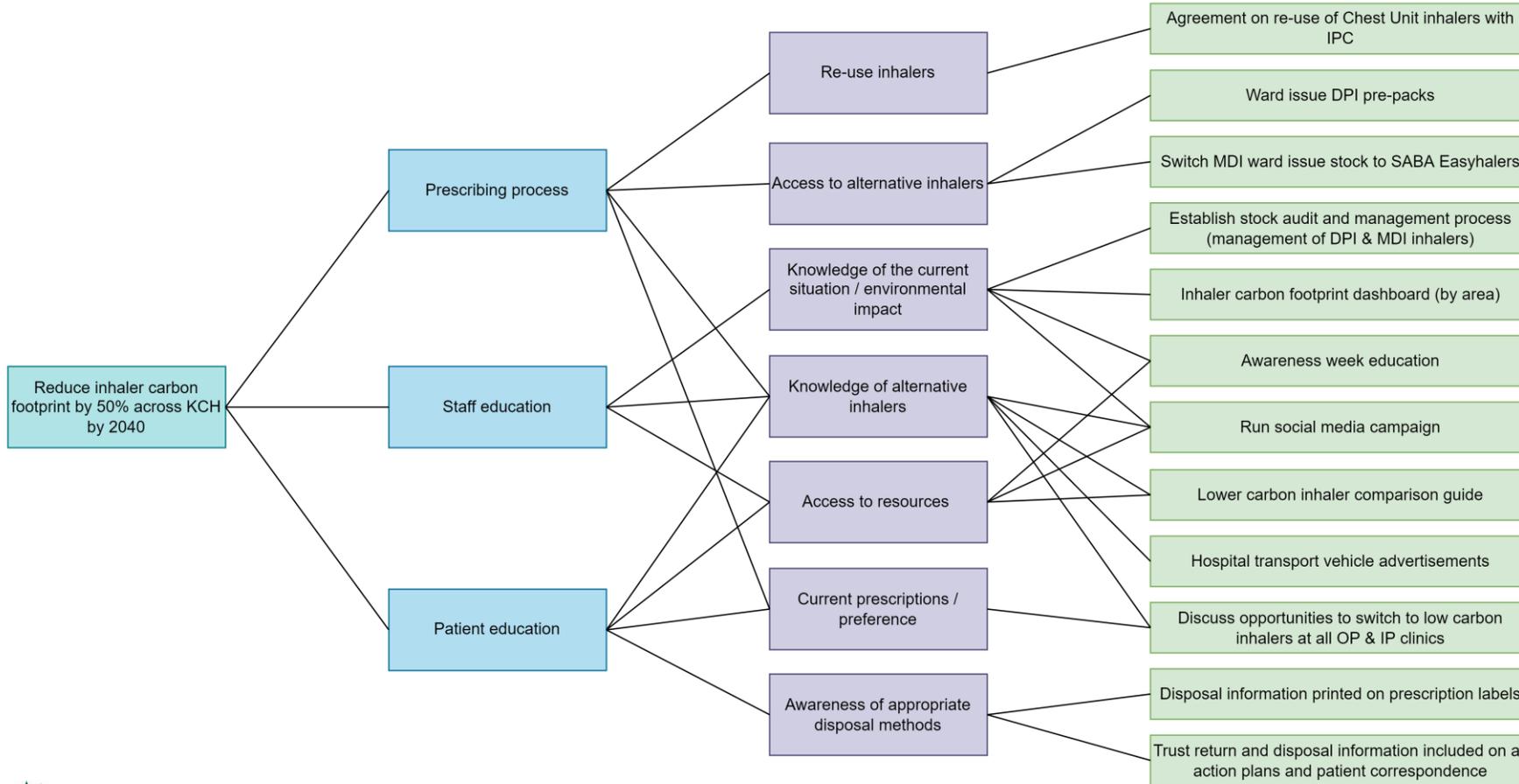
Challenges at this stage:

- Inhaler prescribing is more complex than other medications

Recommendations to anyone looking to do something similar:

- Involve multiple teams and professionals in identifying root causes

Design



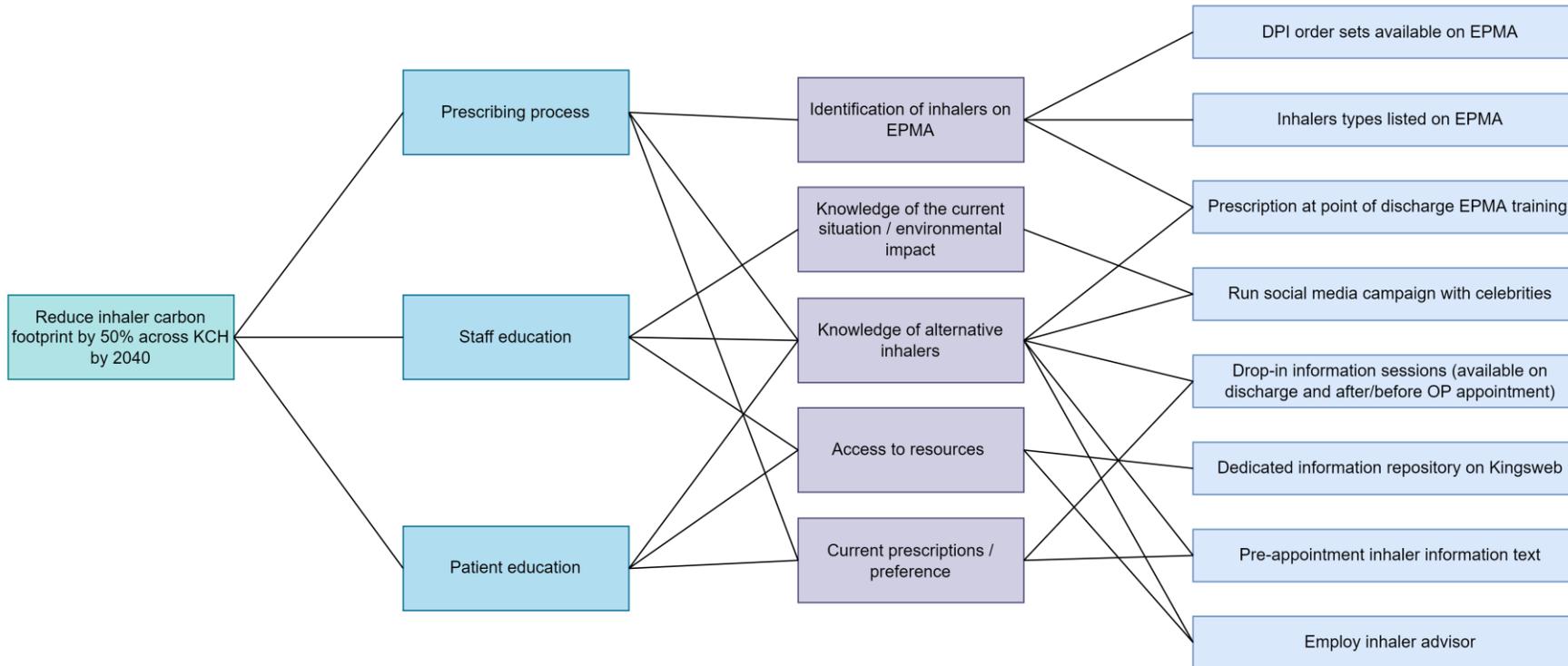
Challenges at this stage:

- Some interventions required input from external teams eg comms/infection control

Recommendations to anyone looking to do something similar:

- Be realistic about your capacity

Design



Challenges at this stage:

- Lack of dedicated resource

Recommendations to anyone looking to do something similar:

- Select a strategic intervention to pursue if it will have a significant impact on your project aims

Deliver

SABA

Low carbon – use first line if no contraindication:

- Salbutamol Easyhaler 100mcg/dose
- Ventolin Accuhaler 200mcg/dose
- Bricanyl Turbohaler 500mcg/dose

Higher carbon – use if lower carbon alternative not appropriate

- Salamol Easibreathe 100mcg/dose

ICS/LABA

Low carbon – use first line if no contraindication:

- Fostair Nexthaler 100mcg/6mcg
- Symbicort Turbohaler 100mcg/6mcg
- Relvar Ellipta 92mcg/22mcg

Higher carbon – use if lower carbon alternative not appropriate

- Fostair MDI 100mcg/6mcg

Very high carbon – avoid unless no alternative available

- Flutiform 125mcg/5mcg

Promoting Respiratory health via ... PLANET FRIENDLY INHALERS

- Low carbon living supports Respiratory health
- NHS → ~5% of UK's carbon footprint*
- Metered-dose inhalers (MDIs) → ~3% of NHS carbon footprint
- Dry Powder Inhalers (DPIs) & Soft Mist Inhalers (SMIs) often a suitable alternative
- carbon footprint 20-30 times < MDIs*
- NICE and the British Thoracic Society support low carbon inhaler use ^{1,2,3}

Equivalent CO₂ emissions in car miles²:
 MDIs → 175 miles: London - Sheffield
 DPIs → 4 miles: Denmark Hill - Victoria

Getting the most out of your inhalers

King's College Hospital NHS Foundation Trust

Some people can get as good, if not better, control on a DPI (dry powder) or SMi (soft mist) inhaler. These do not contain greenhouse gases like the MDIs (metered dose inhalers). If you're interested in learning more talk to your GP, respiratory nurse or consultant.

When choosing an inhaler your health is ALWAYS the priority, so having an inhaler that works well for you is most important.

Scan the QR codes to check how to use each device.

Other carbon-saving strategies!

Review of inhaler technique

Careful education to reduce need for reliever

Choose reusable inhalers/replace cartridges where possible

Prescribe combination inhalers where possible

REMEMBER: The most sustainable inhaler is the best supports the patient and minimises hospital visits

When to switch:

- Spacer not required
- Patient happy to change
- Able to achieve required technique

When not to switch:

- Low inspiratory flow
- Patient preference
- Risk of destabilising

Other carbon-saving strategies!



Challenges at this stage:

- Other work prioritised ahead of green initiatives

Recommendations to anyone looking to do something similar:

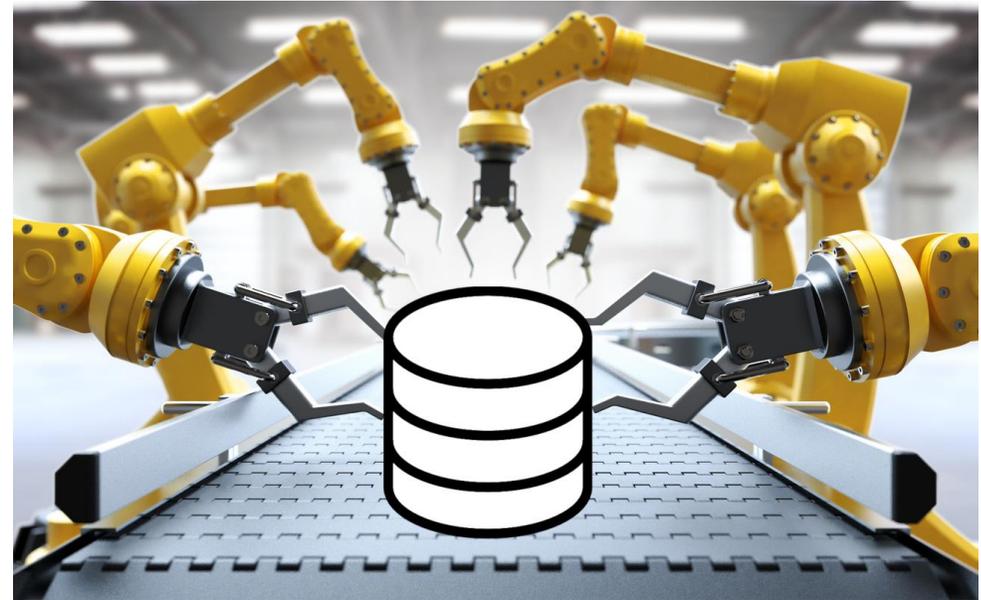
- be persistent

Quality Improvement
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Next steps

KEEP
GOING
KEEP
GROWING



Quality
Improvement
for our patients, people and planet



Lessons Learned



1. Understanding a complex process through QI methodology opens doors to action
2. A multi-professional team is essential to both identify and solve barriers to change
3. Prescribing behaviour is slow to change but consistent messaging is essential and pays off
4. It is vital to align the narratives of best clinical care with most sustainable care
5. The biggest wins may come from unexpected places

Thank you!

Any Questions?

