

Pharmacy Sustainability Network



Join the Pharmacy Sustainability Network

As experts in medicines, pharmacy teams have a crucial role to play in meeting healthcare systems' net zero targets and addressing the environmental impact of pharmaceuticals.

Join our recently launched Pharmacy SusNet to connect with others in the profession and share knowledge and experience related to sustainable pharmacy practice and education.

Scan the QR code or visit
networks.sustainablehealthcare.org.uk/pharmacy-sustainability-network

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Pharmacy
susnet

INSPIRE

EMPOWER

TRANSFORM

 CENTRE for
SUSTAINABLE
HEALTHCARE
inspire • empower • transform

Climate change as a risk to respiratory health – the ‘greener’ agenda

Ms Ravijyot Saggu,

Medicines optimisation Lead & Respiratory pharmacist

Central London Community Health NHS Trust

CPhO clinical fellow ‘21/’22, Honorary clinical lecturer UCL &

Chair UKCPA respiratory committee

ravijyot.saggu@nhs.net



Outline

- Impact of climate change and air pollution on health particularly respiratory health
- National respiratory drivers/docs and their implications for improving Resp outcomes in the context of the Long Term Plan
- Principles of Shared Decision Making (SDM) including NICE guideline (published June 2021)
- Recognize the role pharmacy teams play to support better patient & planetary health, understanding the local and national landscape for action

Some issues with (delivering) resp/sustainable pt care and why?

On the ground 'real world' issues

- Perspective and priorities
- Time
- Resource
- Pt/staff understanding
- Supporting materials
- Other competing priorities
- Something else?



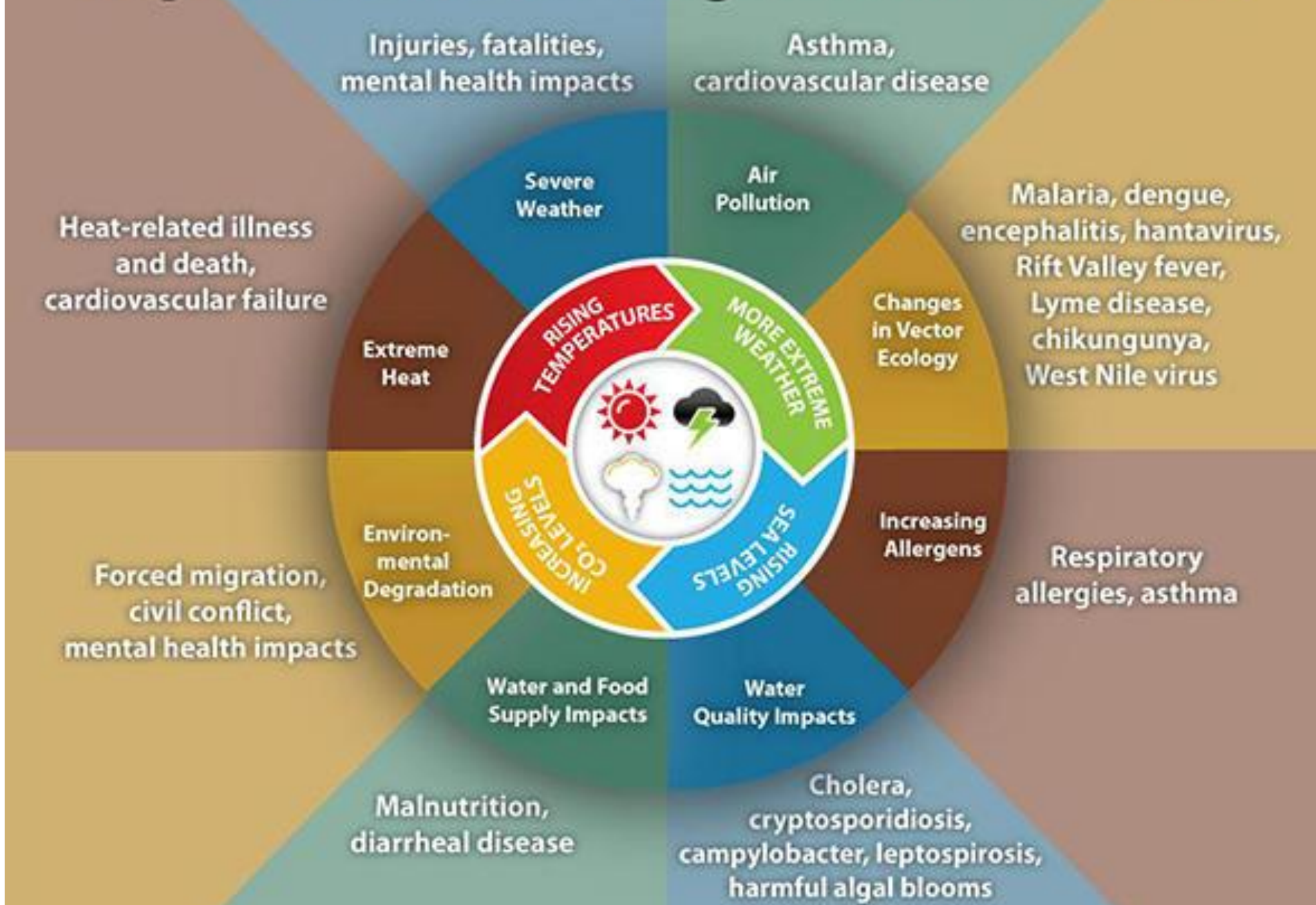
Respiratory issues

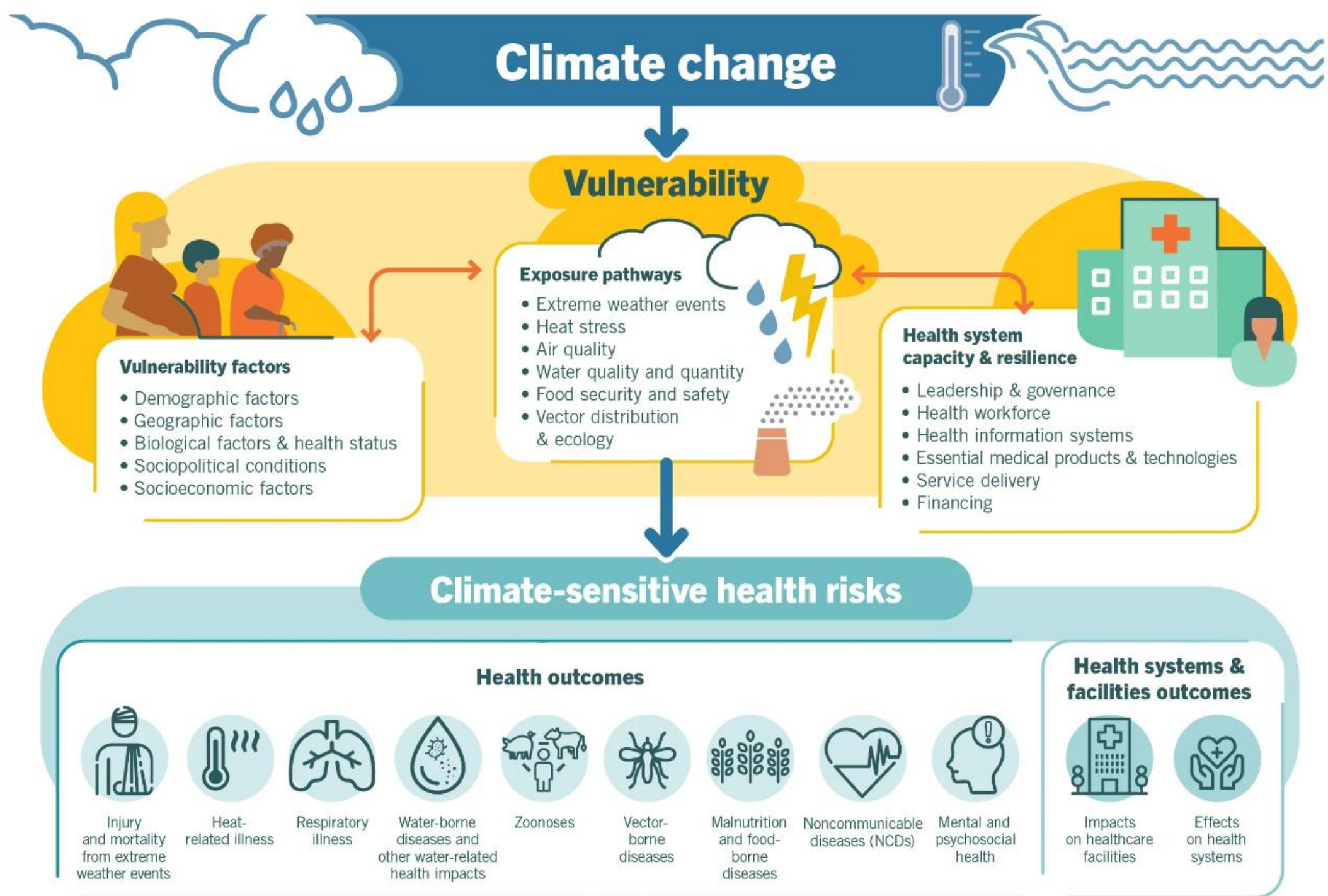
- SABA overreliance
- Insufficient ICS & maintenance use
- Inappropriate disease control → exacerbations
- Non-adherence
- Poor outcomes
- Some have severe asthma → need to access services/meds
- Smoking
- Breathlessness
- Social determinants of health – housing, obesity, air quality etc
- Polypharmacy
- A tired workforce – variation in skills
- **GP visit = 66 CO₂e (kg), a day of acute care = 125 CO₂e(kg)**

Global warming & climate change – no plan(et) B



Impact of Climate Change on Human Health





WHO
climate
sensitive
health risks

Countdown report Oct'22

#HealthyClimate Prescription

An urgent call for climate action from the health community

[#ClimatePrescription](#)



- Fossil fuels
- Deepening inequities
- COP26 & IPCC reports
- Future impact
- BTS supported recent ERS call to limit global warming to 1.5C
- **Climate crisis is a health crisis**
- **Countdown report Nov '23**



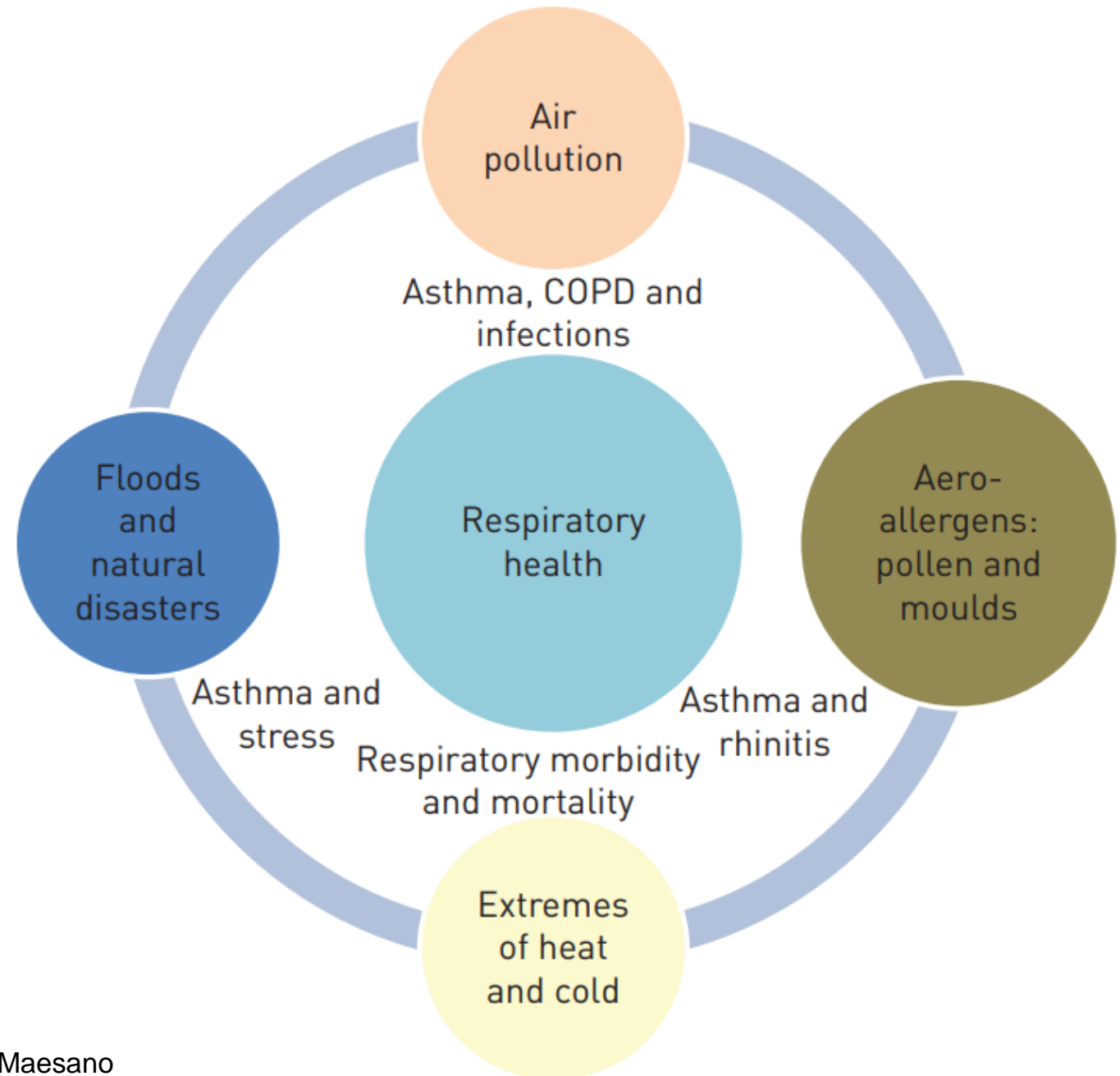
SUSTAINABLE DEVELOPMENT GOALS



Emergency preparedness, resilience, infrastructure

Climate impact to resp health

- COPD – smoking/biomass fuel exposure
- Asthma & allergy – pollen, allergen, mould
- Forest fire smoke
- Ozone & particulate matter
- Upper resp tract infections



Health inequalities



REDUCING HEALTHCARE INEQUALITIES

CORE20
The most deprived 20% of the national population as identified by the Index of Multiple Deprivation



The Core20PLUS5 approach is designed to support Integrated Care Systems to drive targeted action in healthcare inequalities improvement

PLUS
ICS-chosen population groups experiencing poorer-than-average health access, experience and/or outcomes, who may not be captured within the Core20 alone and would benefit from a tailored healthcare approach e.g. inclusion health groups

Target population

CORE20 PLUS 5



Key clinical areas of health inequalities

1



MATERNITY
ensuring continuity of care for 75% of women from BAME communities and from the most deprived groups

2



SEVERE MENTAL ILLNESS (SMI)
ensuring annual health checks for 60% of those living with SMI (bringing SMI in line with the success seen in Learning Disabilities)

3



CHRONIC RESPIRATORY DISEASE
a clear focus on Chronic Obstructive Pulmonary Disease (COPD), driving up uptake of Covid, Flu and Pneumonia vaccines to reduce infective exacerbations and emergency hospital admissions due to those exacerbations

4



EARLY CANCER DIAGNOSIS
75% of cases diagnosed at stage 1 or 2 by 2028

5

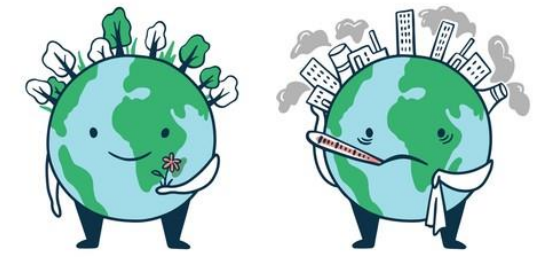


HYPERTENSION CASE-FINDING
and optimal management and lipid optimal management



SMOKING CESSATION
positively impacts all 5 key clinical areas

Climate crisis = health crisis...sustainability



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- Holistic care (whole pt/system, cross cutting, MECC)
- High quality = more sustainable
- Marathon AND sprint, parallel streams
- Care fundamentals – diagnosis/coding, smoking, vaccination, pulm rehab, non-drug, social Pxing
- LTP → life – pre/start to, best, end of
- **Health inequalities**, COVID, poor, social deprivation, living conditions, air quality geography, disabilities, CYP, BAME, life expectancy, digital exclusion, data
- **Those most affected underrepresented = widening gaps**



Equality



The assumption is that everyone benefits from the same supports. This is equal treatment.

Equity



Everyone gets the supports they need (this is the concept of "affirmative action"), thus producing equity.

Justice



All 3 can see the game without supports or accommodations because **the cause(s) of the inequity was addressed.** The systemic barrier has been removed.

Drivers & policy

- Health and Care bill 2022
- Climate emergency declarations/Climate change Act
- Carbon net zero report Oct '20
- NHS Long term plan - health inequalities
- WHO air quality standards
- National report on asthma deaths 2014/APPG'20
- ALUK figures – poor asthma outcomes
- The Marmot review 10 years on
- Incentive schemes & Meds Optimisation

NHSE

Classification: Official

NHS
England

Delivering a 'Net Zero'
National Health Service



House of Commons
Library

Debate Pack

Number 185
By Aaron Kalokiewicz,
Thomas Powell,
Elizabeth Rough,
Carl Baker
3 December 2021

Improving asthma outcomes in the
UK

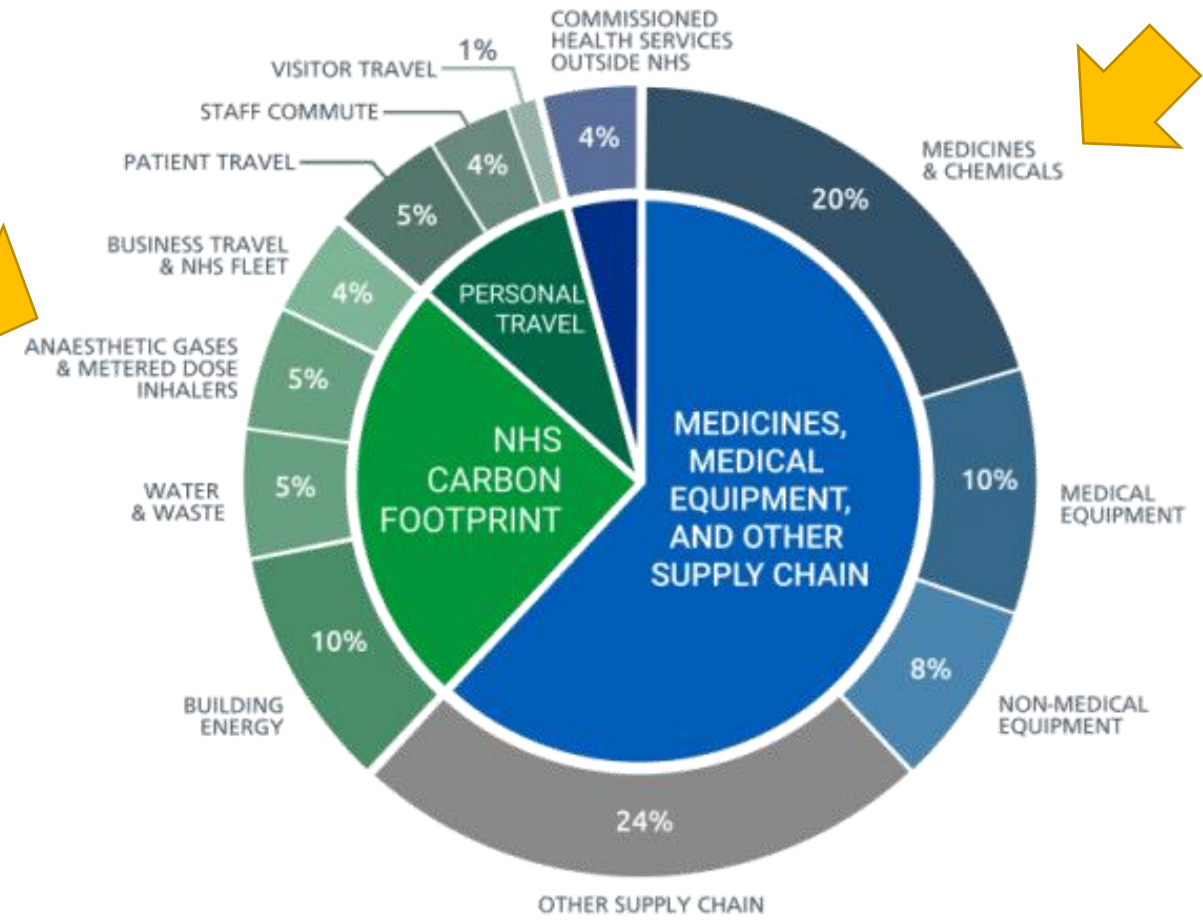
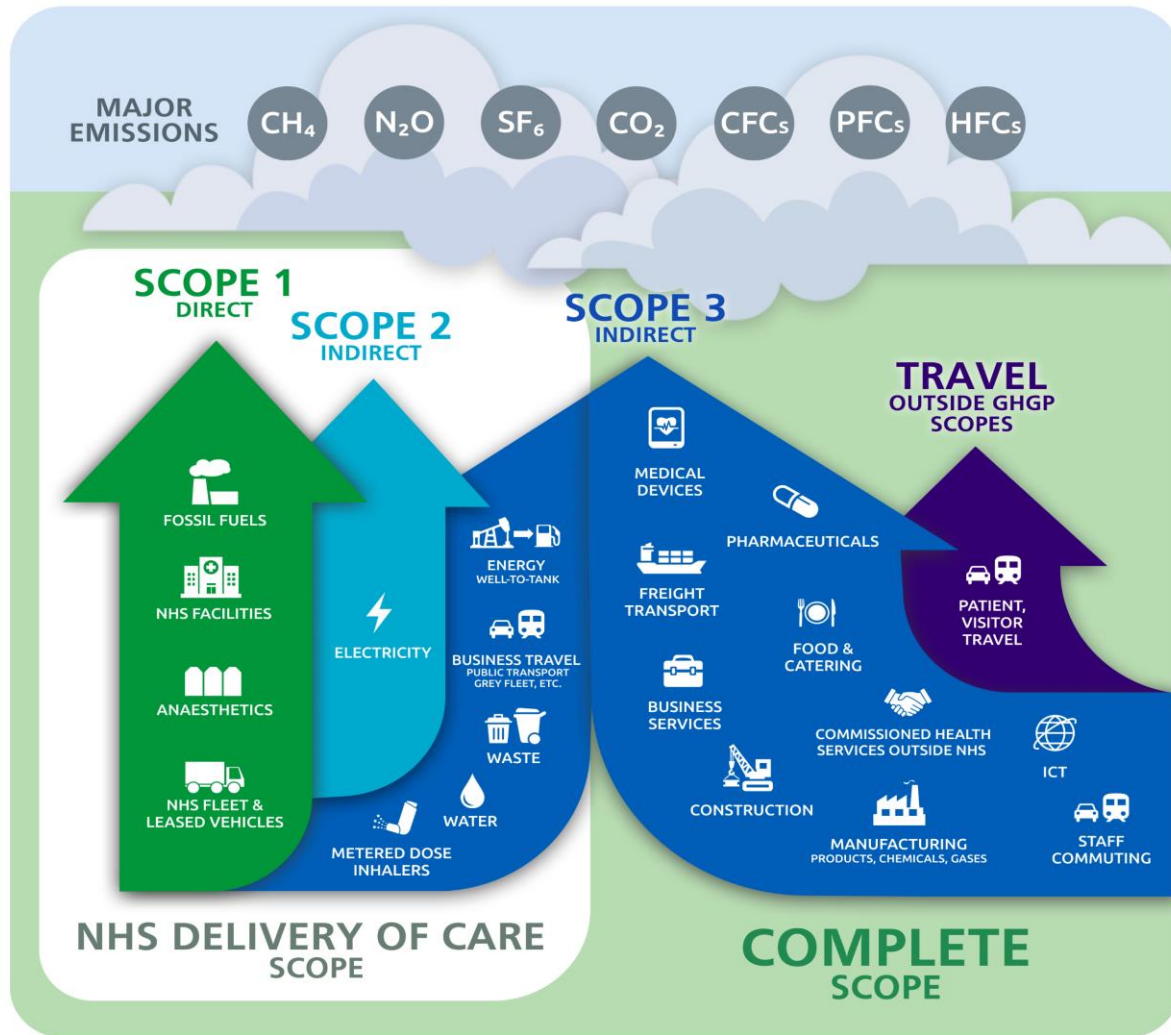
1	Background	2
1.1	What is asthma?	2
	Common symptoms of asthma	2
	Causes of asthma	3
1.2	Statistics	4
2	Improving asthma outcomes	5
3	Parliamentary Material	9
3.1	Parliamentary Questions	9
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Why asthma still kills
The National Review
of Asthma Deaths (NRAD)

Confidential Enquiry report
May 2014

The NHS Net Zero targets

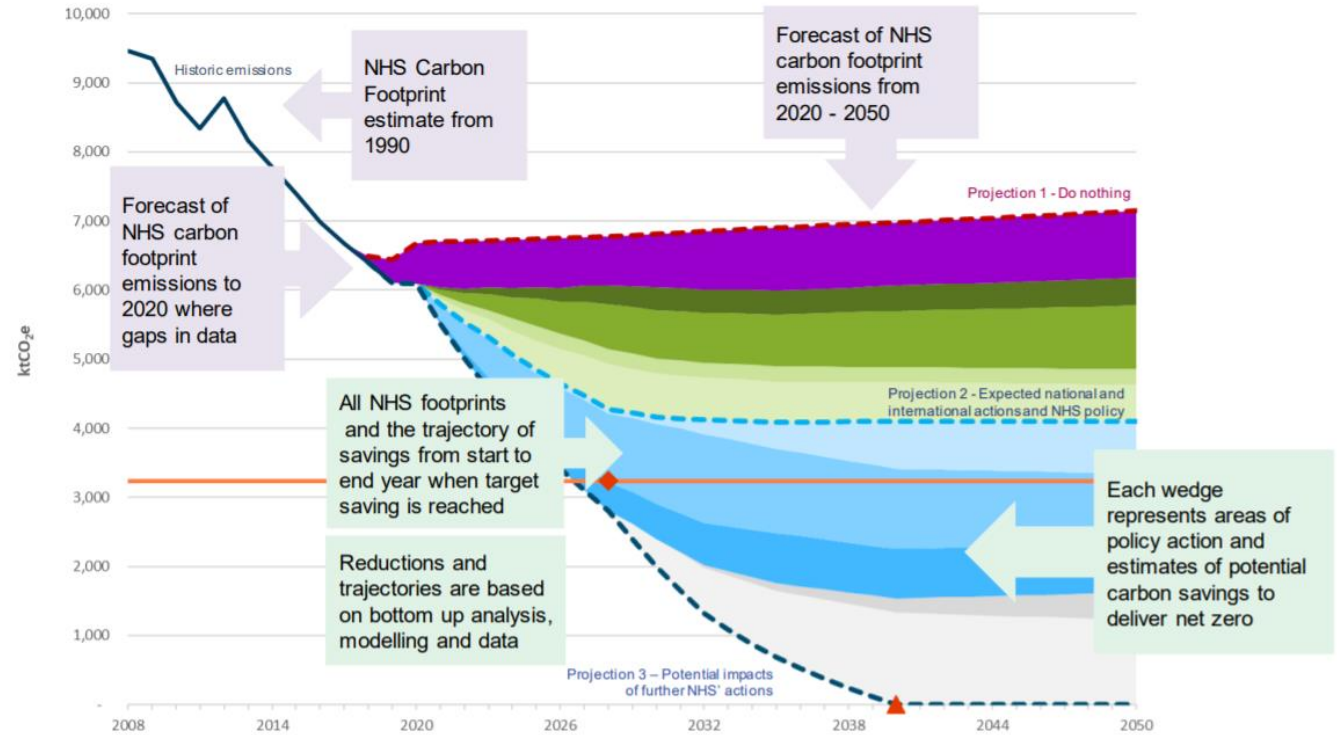
- Net zero carbon by **2040** for the emissions we control directly (the NHS Carbon Footprint), with an ambition to reach an **80% reduction**, compared with a 1990 baseline, **by 2028 to 2032**.
- Net zero for all emissions, including those embedded in the supply chain (the NHS Carbon Footprint Plus) by **2045**, with an ambition for an **80% reduction**, compared with a 1990 baseline, **by 2036 to 2039**.



NHS Early steps to decarbonise

- Our care
- Heating & lighting
- Medicine & supply chain
- Transport and travel
- Innovation
- Hospitals
- Adaptation efforts
- Values and governance

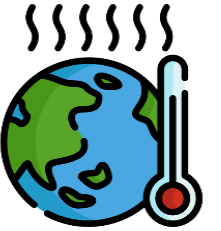
NHS modelling of the impact of NHS and others action



- International Pharmaceutical Aerosol Consortium (IPAC) is coordinating a consortium of large pharmaceutical companies to develop a programme encouraging return of inhalers to pharmacies for green disposal.

Carbon impact medicines...

- Medicines account for 25% of emissions within the NHS.
- A small number of medicines account for a large portion of the emissions, and there is already a significant focus on two such groups – **anaesthetic gases (2% of emissions) and inhalers (3% of emissions)**
- **significantly increasing the use of DPIs, which may be clinically equivalent for many pts but significantly lower carbon emissions**
- **increasing frequency of the greener disposal of used inhalers**
- **supporting the innovation in & use of lower carbon propellants & alternatives**



Greenhouse gases (GHGs) trap heat

Ref IPCC <https://www.ipcc.ch/site/assets/uploads/2018/02/ar4-wg1-chapter2-1.pdf#table-2-14>

Long lived GHGs

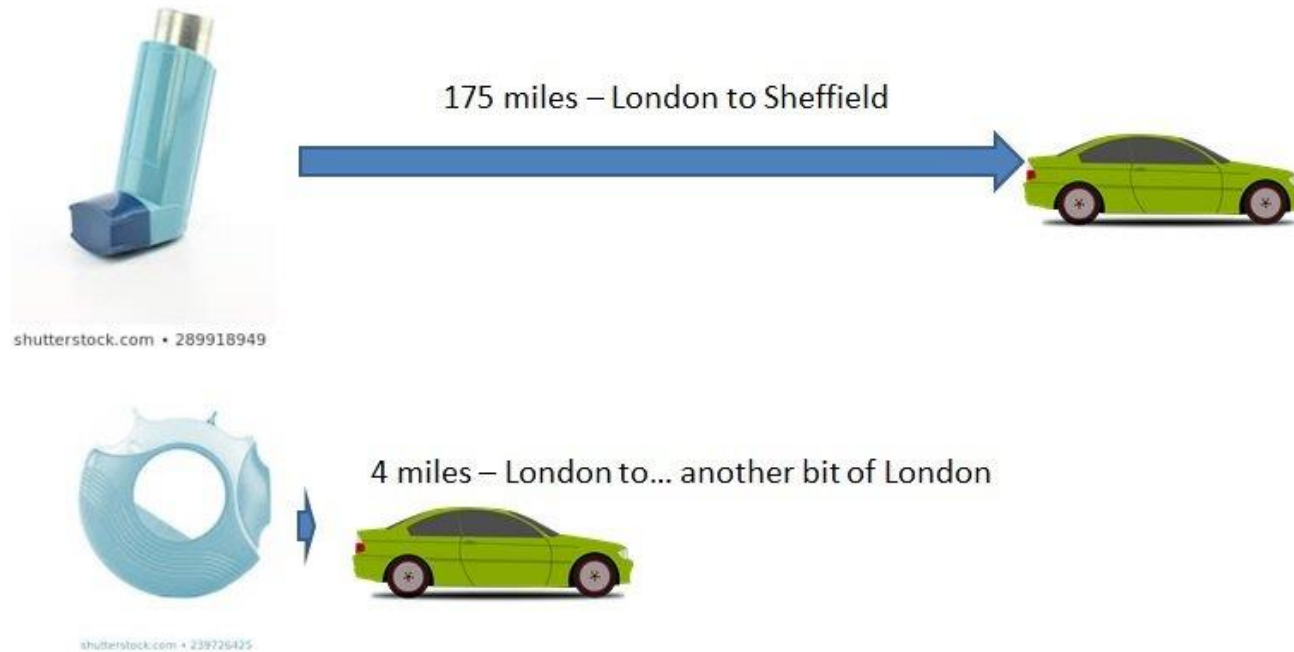
- Water vapour (oxidation of CH₄)
- Methane CH₄
- CO₂ – burning fossil fuels
- Nitrous Oxide (N₂O)
- Halocarbons – Fluorine, bromine, chlorine gases inc Sulphur hexafluoride

Duration in atmosphere

- Short lived (days)
- 12 years
- 20-200 yrs
- 114 years
- <1yr >1000!

In context

- Ventolin pMDIs (two puffs): 500g CO₂e per dose
- DPIs (1 dose): 20g CO₂e per dose (NICE patient decision aid)



- If every inhaler-user in the UK returned all their inhalers for one year, this could save 512,330 tonnes of CO₂e – **the same as a VW Golf car being driven around the world 88,606 times**

Previous incentive scheme – NOT in 23/24!!

- Primary Care Network (PCN) Directly Enhanced Service (DES) specification for structured medication reviews (SMR) & meds optimisation requirement of PCNs to “actively work with their CCG to optimise the quality of prescribing of MDIs, where a low carbon alternative may be appropriate”
- NHSEI impact investment fund (IIF): 2021/22 and 2022/23 four indicators (RESP-01, RESP-02, ES-01, ES-02) to support (i) improved respiratory care and health outcomes for people with an asthma diagnosis
- (ii) reduce avoidable carbon emissions through encouraging choice of lower carbon inhaler alternatives, where clinically appropriate and to improve respiratory care and health outcomes for people with asthma
- CVD, personalized care & other updated indicators

National guidance

- British Thoracic Society (BTS)/SIGN 2019 asthma guidelines:
 - Prescribers, pharmacists and patients should be aware that there are significant differences in the global warming potential (GWP) of different pMDIs
 - Inhalers with low GWP should be used when they are likely to be equally effective
 - Where there is no alternative to pMDIs, lower volume HFA-134a inhalers should be used in preference to large volume or HFA-227ea inhalers
- NICE guidance/qual standards & SDM Jun 21
- RPS CPCS – community pharmacist consultation scheme

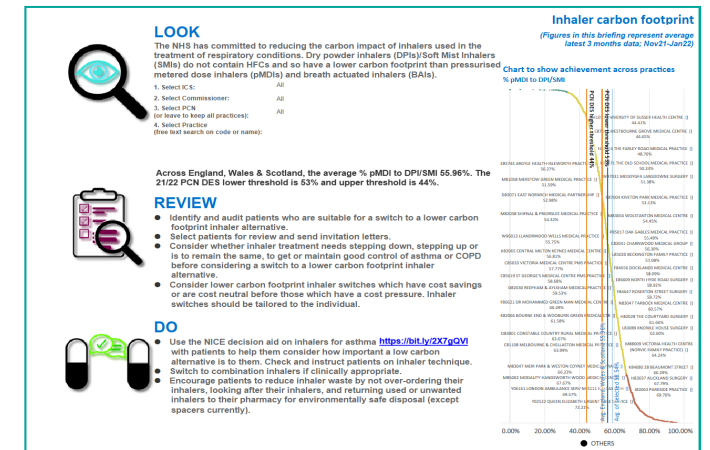
PrescQIPP - Partnership with NHSEI

- Resources published on PrescQIPP website – bulletin 295 & briefing:
 - ✓ Inhaler carbon impact data
 - ✓ Audit tools
 - ✓ GP system searches
 - ✓ Advice for HCP doc
 - ✓ Inh technique, pt leaflets
 - ✓ Leaflets, posters & logos e.g. returning inhalers

Further strategic levers/tools

- Joint national asthma guideline due in '24
- Inclusive Pharmacy practice prog
- NHSE CORE20+5
- Population health management, data insights & intelligence
SHAPE/FINGERTIPS tool
- PrescQIPP pseudo anonymised data
- NHSBSA dashboards, SPECTRA prednisolone
- DMS CQUIN, Structured med reviews
- Integrated care
- AACollaborative – asthma/biologics pathway

100%
SENSIBLE



Inhaler carbon footprint

(Figures in this briefing represent average latest 3 months data; Nov21-Jan22)



LOOK

The NHS has committed to reducing the carbon impact of inhalers used in the treatment of respiratory conditions. Dry powder inhalers (DPIs)/Soft Mist Inhalers (SMIs) do not contain HFCs and so have a lower carbon footprint than pressurised metered dose inhalers (pMDIs) and breath actuated inhalers (BAIs).

1. Select ICS: All
2. Select Commissioner: All
3. Select PCN (or leave to keep all practices): All
4. Select Practice (free text search on code or name):

Across England, Wales & Scotland, the average % pMDI to DPI/SMI 55.96%. The 21/22 PCN DES lower threshold is 53% and upper threshold is 44%.



REVIEW

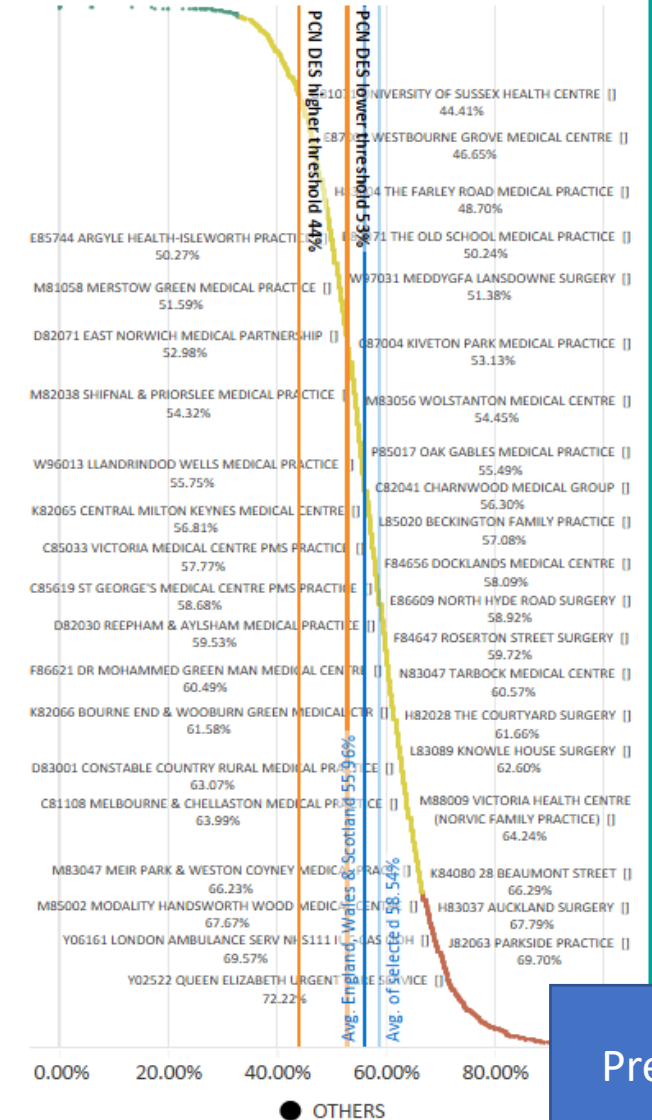
- Identify and audit patients who are suitable for a switch to a lower carbon footprint inhaler alternative.
- Select patients for review and send invitation letters.
- Consider whether inhaler treatment needs stepping down, stepping up or is to remain the same, to get or maintain good control of asthma or COPD before considering a switch to a lower carbon footprint inhaler alternative.
- Consider lower carbon footprint inhaler switches which have cost savings or are cost neutral before those which have a cost pressure. Inhaler switches should be tailored to the individual.



DO

- Use the NICE decision aid on inhalers for asthma <https://bit.ly/2X7gQVI> with patients to help them consider how important a low carbon alternative is to them. Check and instruct patients on inhaler technique.
- Switch to combination inhalers if clinically appropriate.
- Encourage patients to reduce inhaler waste by not over-ordering their inhalers, looking after their inhalers, and returning used or unwanted inhalers to their pharmacy for environmentally safe disposal (except spacers currently).

Chart to show achievement across practices % pMDI to DPI/SMI



Fingertips visualisations

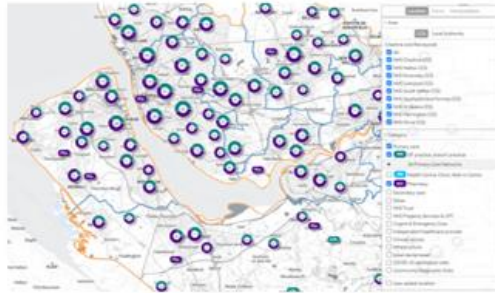
Indicator	Period	England	East of England region	East Midlands region	London region	North East region	North West region	South East region	South West region	West Midlands region	Yorkshire and the Humber region
CS1 - Total prescribed LARC excluding injections rate / 1,000	2019 -03- 30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4
CS2a - Under 15s conception rate / 1,000	2019 -03- 16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7
CS2b - Under 15s conception rate / 1,000	2019 -03- 2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
CS3a - Obesity in early pregnancy	2019/15 -03- 10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1
CS3b - Drinking in early pregnancy	2019/15 -03- 4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
CS3c - Smoking in early pregnancy	2019/15 -03- 10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4
CS4 - Low birth weight of term babies	2019 -03- 2.98	2.98	2.98	2.98	2.98	2.98	2.98	2.98	2.98	2.98	2.98
CS5a - Baby's first feed breastmilk	2019/19 -03- 47.4	47.4	47.4	47.4	47.4	47.4	47.4	47.4	47.4	47.4	47.4
CS6 - Smoking status at time of delivery	2019/20 -03- 14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4
CS7 - Proportion of New Births (NBs) completed within 14 days	2019/20 -03- 94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9

- Overview
- Comparing areas
- Trends
- Maps
- Comparing indicators
- Box plots
- Inequalities

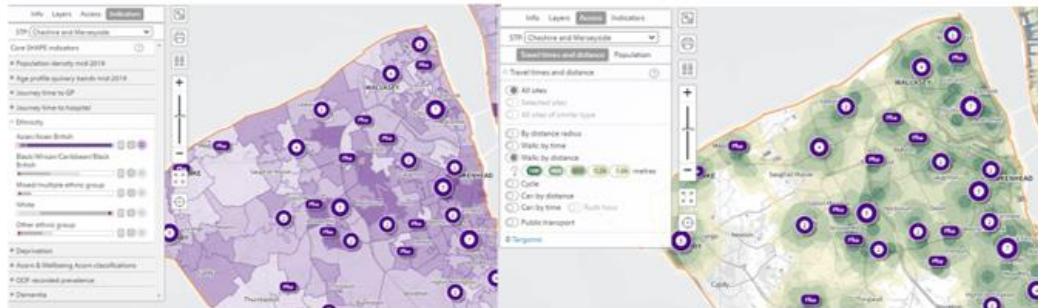


PHE data intelligence tools

SHAPE maps



- Plots GPs, pharmacies, hospitals and other community sites
- Travel time analysis to sites
- Mapping demographics of community (deprivation, ethnicity)
- Mapping health indicators

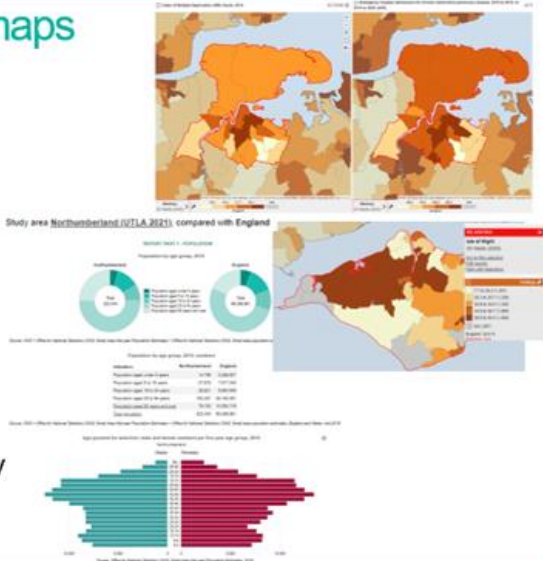


Local Health maps and reports

Maps indicators on community, risk factors, disease, causes of death and life expectancy

Maps can compare areas and indicators

Reports – community and indicators



Net zero – linking policy to practice

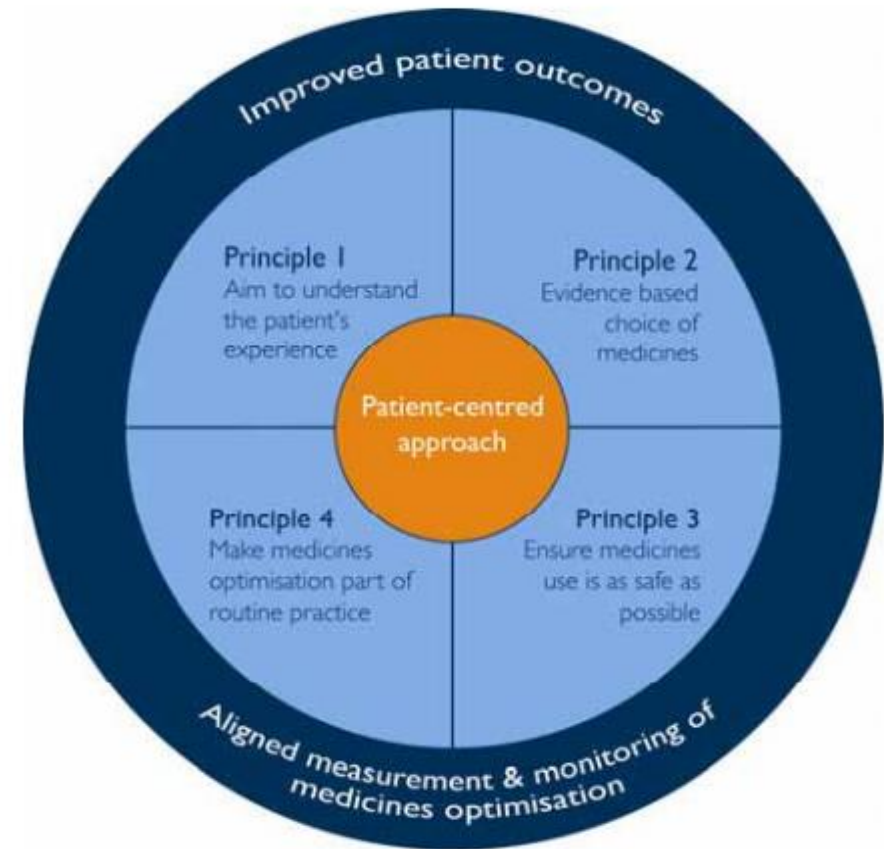
- People power, perceptions
- Opportunity – asthma control, SABA overuse, >3x wk +red flags
- Demystify, upskill, enable, streamline
- Risks, consequences
- ICS formation - flux
- NHS Workstreams – inc models of care (pathways), virtual wards, care closer to home, estates, meds etc



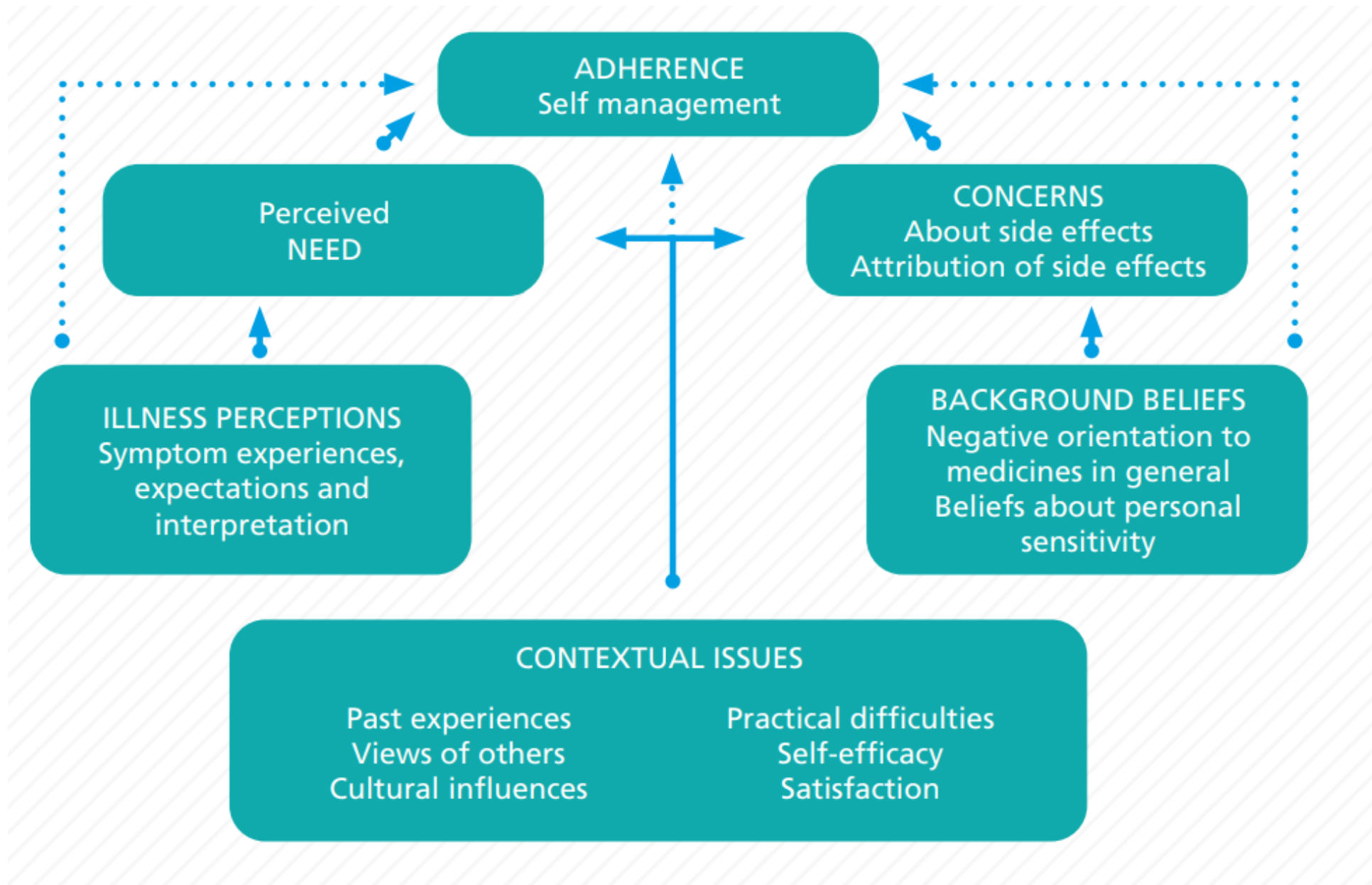
Medicines optimisation...

- Focuses on patients & outcomes rather than processes & systems (pt journey)
- Opportunity to reduce preventable harm
- **About ensuring the right choice of medicine for the right pt at the right time**

“a person centred approach to safe & effective meds use, to ensure people obtain the best possible outcomes from their medicines” NICE 2015

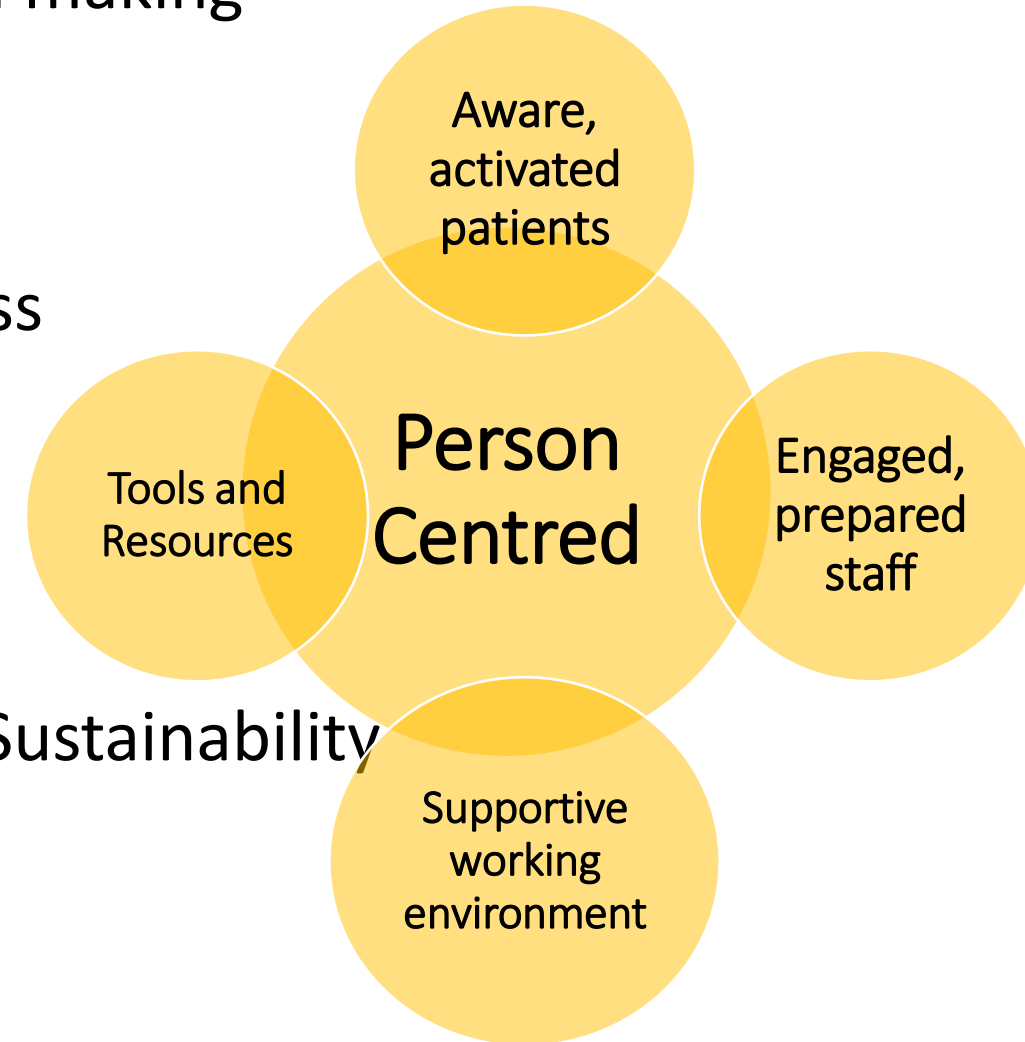


Adherence



Supporting patients

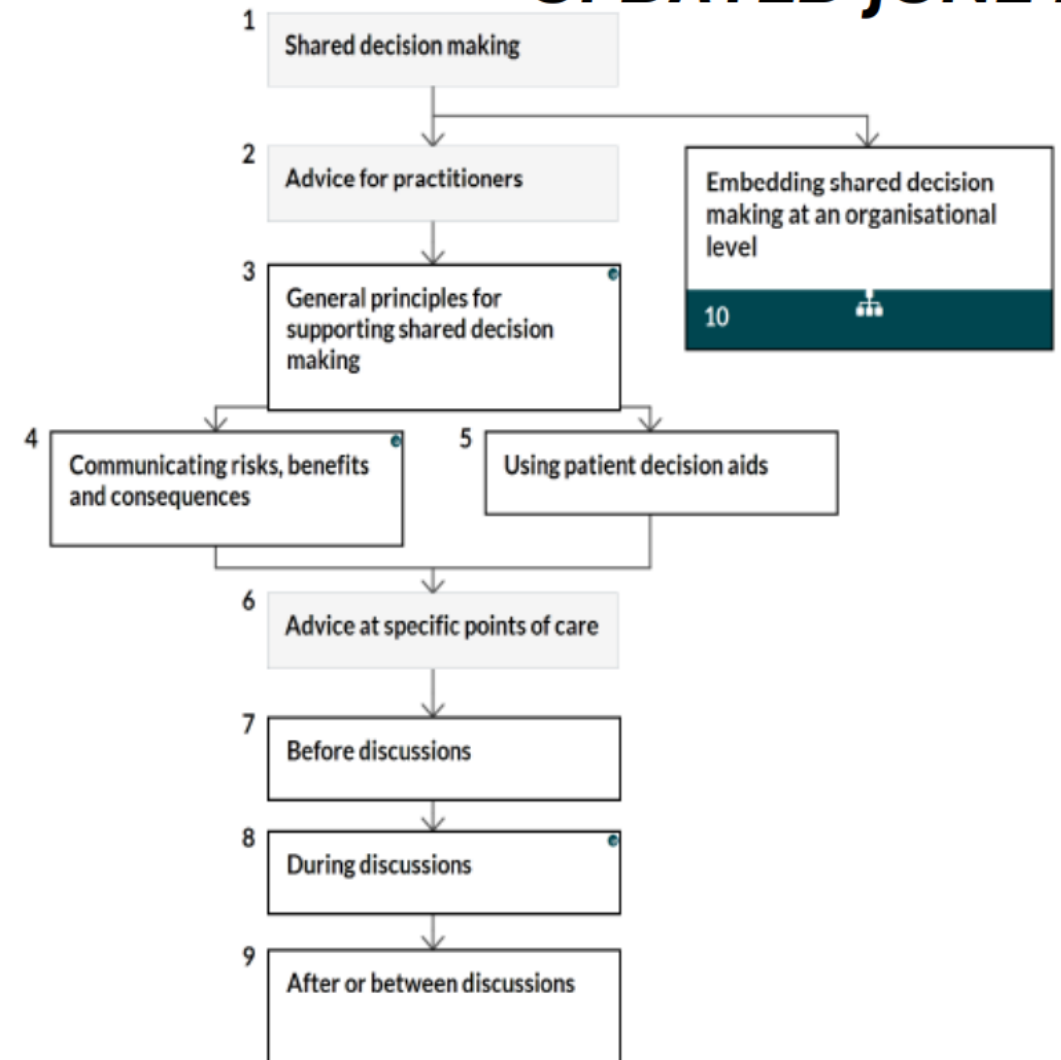
- Supported self management & shared decision making
- Responsible antibiotic/steroid use
- Inhaler technique & adherence
- Non-drug interventions (eye/nose), mindfulness
- Physical activity
- Indoor air quality
- Child health lung charter
- BTS → Environment & lung health, Air quality, Sustainability
- Prevent future deaths



NICE SDM guidance NG197

- Organisational level: Make a board member accountable & responsible for the leadership & roll out of SDM across the organisation or system
- Supporting practitioner skills & competences: Organisations should ensure that knowledge, skills & confidence to support SDM are included in the training & CPD of all healthcare staff

UPDATED JUNE 2021



Shared decision making (SDM)

- What, how?
- Provide information, explore ambivalence
- Motivational interviewing
- Informed consent (law)
- Medicines optimisation
- Keele university app/NICE

Choosing Wisely UK **NHS**

Make the most of your appointment

It can be a bit daunting having an appointment – but asking your healthcare professional the four **BRAN** questions can help you make the right choice for you.

- Benefits**
What are the Benefits?
- Risks**
What are the Risks?
- Alternatives**
What are the Alternatives?
- Nothing**
What if I do Nothing?

Ask 3 Questions

NHS

Normally there will be choices to make about your healthcare. Make sure you get answers to these three questions:*

- What are my **options**?
- What are the **pros** and **cons** of each option for me?
- How do I get **support** to help me make a decision that is **right for me**?

Your healthcare professional needs you to tell them what is important to you

Shared Decision Making

<http://www.advancingqualityalliance.nhs.uk/SDM/>

AQUA Advancing Quality Alliance

Right Care Shared Decision Making Programme

*Ask 3 Questions has been adapted with kind permission from the MAGIC programme, supported by the Health Foundation. Ask 3 Questions is based on Shephard et al, et al. Three questions that patients can ask to improve the quality of information physicians give about treatment options. A crossover trial. Patient Education and Counseling, 2011, 84, 179-85.

ICS Green plans & sustainability 'checklist'

<https://nclhealthandcare.org.uk/wp-content/uploads/2022/04/North-Central-London-Green-Plan-2022-2025.pdf>

<https://drive.google.com/file/d/1BhIkrKjDs3HrQmL4seMOALxKthfJdqWu/view>



Leadership	
1	Nominate an ICS Pharmacy & Medicines Optimisation Sustainability lead pharmacist to develop and co-ordinate key individuals/teams across the ICS.
2	Develop a multi-sector, multi-year ICS pharmacy & medicines optimisation Green Plan that includes actionable targets.
3	Include ICS Pharmacy Green Plans as a standing agenda item at all ICS pharmacy & medicines optimisation committees.
4	Utilise data & analytics to track Green Plan progress and delivery. Benchmark Green Plan metrics across and between systems using available data sources.
5	Include population health tools and progress with health inequality metrics such as Core20PLUS in ICS pharmacy & medicines optimisation Green Plans, to demonstrate action targeting ill-health prevention, a cornerstone of sustainable healthcare.
6	Recognise/incorporate the sustainability benefits of work streams throughout the NHS Long Term Plan such as digital integration and new models of care across health and social care networks.
7	Build sustainability and Net Zero targets into all ICS pharmacy commissioning contracts.
8	Incorporate sustainability and Net Zero objectives into all Pharmacy job descriptions.
9	ICS leadership should support/promote wider NHS sustainability programmes which in turn will reduce the need for healthcare utilisation and medicines use, such as Active Travel and estate decarbonisation .
Respiratory	
1	Support the recommendations held within Greener Practice Guide ' How to Reduce the Carbon Footprint of Inhaler Prescribing ' (endorsed by the NHS England and NHS Improvement Inhaler Working Group, Asthma UK and the British Lung Foundation)
2	Develop updated adult and paediatric (where applicable) respiratory care guidance allowing for non-MDI use at each stage of care.
3	Update drug formularies to reflect new models of care, migrating towards a regional formulary as per local respiratory networks to standardise choice and availability whilst incorporating carbon footprint information.
4	Utilise/create a cross-sector patient and staff communications package explicitly on the topic of principles of Greener Respiratory Care.
5	Support PCN users of the Network Contract Direct Enhanced Service Investment and Impact Fund to deliver on Respiratory Indicators
6	Support primary care pharmacy teams to support training and delivery of Respiratory elements of the Pharmacy Quality Scheme 21/22
Anaesthesia	
1	Desflurane reduction - As per NHS Standard Contract , ensure desflurane use in acute Trusts is no greater than 5% of total volume inhaled anaesthetic use.
2	Nitrous Oxide mitigation – As per the Greener NHS Nitrous Oxide Toolkit , ensure that users of nitrous oxide review functionality of systems to reduce waste

Resources: Greener Practice & L Resp Network

ICS/LABA Combination Inhalers by Adult Dose and Carbon Footprint				
	ICS/LABA	Low Dose	Medium Dose	High Dose #
Low Carbon Footprint (<2kg CO2e per inhaler) Use where clinically appropriate	Beclometasone dipropionate (extrafine) with formoterol			
	Fostair Nexthaler	100/6 one dose twice a day	100/6 two doses twice a day	200/6 two doses twice a day
	Budesonide with formoterol			
	Duoresp Spiromax Fobumix Easyhaler	160/4.5 one dose twice a day	320/9 one dose twice a day*	320/9 two doses twice a day
	Symbicort Turbohaler	200/6 one dose twice a day	400/12 one dose twice a day*	400/12 two doses twice a day
	Fluticasone propionate with salmeterol			
	Seretide Accuhaler	100/50 one dose twice a day	250/50 one dose twice a day	500/50 one dose twice a day
	Fusacomb Easyhaler	n/a	250/50 one dose twice a day	500/50 one dose twice a day
	AirFluSal Forspiro Stalpex DPI	n/a	n/a	500/50 one dose twice a day
	Fluticasone furoate with vilanterol			
Relvar Ellipta	n/a	92/22 one dose once a day	184/22 one dose once a day	
High Carbon Footprint (10-20kgCO2e per inhaler) Use if low carbon footprint alternative not appropriate	Beclometasone dipropionate (extrafine) with formoterol			
	Fostair pMDI	100/6 one dose twice a day	100/6 two doses twice a day	200/6 two doses twice a day
	Fluticasone propionate with salmeterol			
	Combisal pMDI Seretide Evohaler (Other brands exist)	50/25 two doses twice a day	125/50 two doses twice a day	250/25 two doses twice a day
Highest Carbon Footprint (>34kgCO2e per inhaler) Avoid unless no appropriate alternative or switching is inappropriate clinically	Fluticasone propionate with formoterol			
	Flutiform pMDI	50/5 two doses twice a day	125/5 two doses twice a day	250/10 two doses twice a day
	Flutiform K-haler (discontinued 2021)	50/5 two doses twice a day	125/5 two doses twice a day	250/10 two doses twice a day
	Budesonide with formoterol			
	Symbicort pMDI	100/3 two doses twice a day	200/6 two doses twice a day	n/a

Only use after referring the patient to specialist care. * Alternative regimes exist consisting of more doses of lower strength per day. All doses listed are licensed for adult asthma.

For COPD and paediatric asthma please check licensing and dosing in the British National Formulary.

Carbon Footprint (kgCO2e per inhaler)	Inhaled Corticosteroid (ICS) containing inhalers			Non-ICS containing inhalers			
	ICS	ICS/LABA	ICS/LABA/LAMA	SABA OR SAMA	LABA	LAMA	LAMA/LABA
Highest (>35 kgCO2e) Avoid unless no appropriate alternative		Flutiform pMDI & K-haler Symbicort pMDI		Ventolin Evohaler			
High (10-20 kgCO2e) Use only if low carbon footprint alternative not clinically appropriate	Clenil Modulite Kethale Qvar Autohaler Qvar EasiBreathe Soprobec Alvesco Flixotide Evohaler	Fostair pMDI Seretide Evohaler Combisal AirFluSal pMDI Sirdupla Aloflute Sereflo	Trimbow pMDI Trixeo	Airomir AirSal Salamol Airomir Autohaler Salamol Easibreathe Atrovent	Serevent Evohaler Soltel Neovent Vertine Atimos Modulite		Bevespi
Low (<1kg CO2e) Use where possible	Beclometasone Easyhaler Budesonide Easyhaler Pulmicort Turbohaler Budelin Novolizer Flixotide Accuhaler Asmanex Twisthaler	Fostair Nexthaler Duoresp Spiromax Fobumix Easyhaler Symbicort Turbohaler Seretide Accuhaler Fusacomb Easyhaler Aerivio Spiromax AirFluSal Forspiro Stalpex Orbicel Fixkoh Airmaster Relvar Ellipta	Trelegy Trimbow Nexthaler	Salbutamol Easyhaler Salbulin Novolizer Ventolin Accuhaler Bricanyl	Foradil Formoterol Easyhaler Oxis Onbrez Striverdi Serevent Accuhaler	Spiriva Handihaler Spiriva Respimat Braltus Zonda Tiogiva Acopair NeumoHaler Incruse	Spolto Ultibro Duaklir Anoro

THIS DOCUMENT WILL BE REVIEWED ON A 6 MONTHLY BASIS FOR CHANGES TO ALLOW FOR CHANGES IN AVAILABLE MEDICATIONS

Pharmacy teams

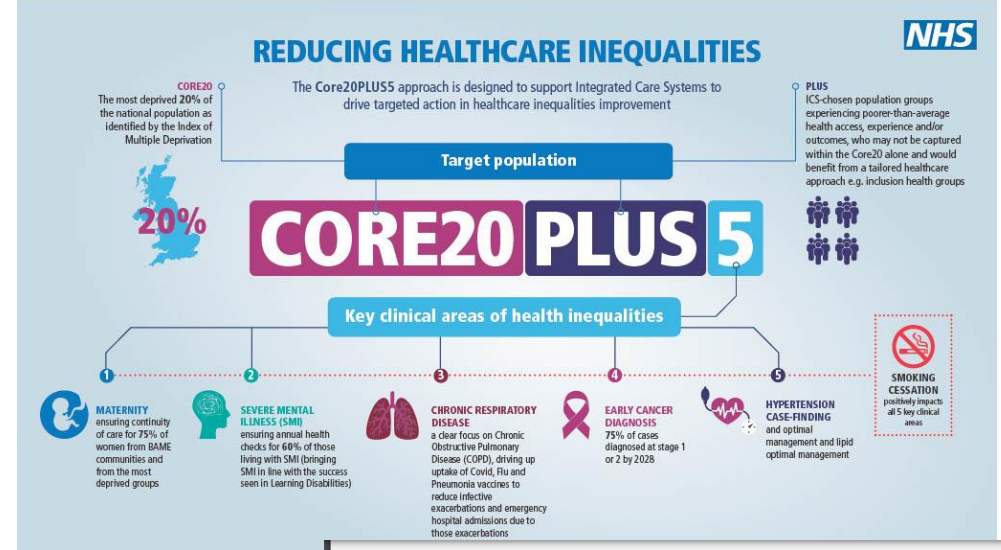
- Holistic drug dealers!
- Prevention and treatment
- Health & wellbeing practitioners
- What's bigger picture & what can we do?
- Understand carbon footprint
- Start a Mexican wave
- Set up/join community of practice
- Advocacy & allyship



Inclusive pharmacy practice

CPCS, Tobacco dependency, case finding closing the loop. Holistic care

- Fundamentals of care inc non-pharmacological
- Inhalers – technique & adherence important
- Co-morbidities & social prescribing (de-prescribing)
- Consider interactions, side effects inc add on therapies e.g. long term macrolide, mucolytics
- **Worsening breathlessness may require referral/palliation**



Improving asthma outcomes in the UK

Debate Pack
Number 185
By Aaron Kulakiewicz,
Thomas Powell,
Elizabeth Rough,
Carl Baker
3 December 2021

1	Background
1.1	What is asthma?
	Common symptoms of asthma
	Causes of asthma
1.2	Statistics
2	Improving asthma outcomes
3	Parliamentary Material
3.1	Parliamentary Questions
3.2	House of Commons Library

Chronic obstructive pulmonary disease in over 16s: non-pharmacological management and use of inhaled therapies

Confirmed diagnosis of COPD

Fundamentals of COPD care:

- Offer treatment and support to **stop smoking**
- Offer **pneumococcal and influenza vaccinations**
- Offer **pulmonary rehabilitation** if indicated
- Co-develop a personalised **self-management plan**
- Optimise treatment for **comorbidities**

These treatments and plans should be revisited at every review

Start **inhaled therapies** only if:

- all the above interventions have been offered (if appropriate), and
- inhaled therapies are needed to relieve breathlessness and exercise limitation, and
- people have been trained to use inhalers and can demonstrate satisfactory technique

Review medication and assess inhaler technique and adherence regularly for all inhaled therapies

Offer SABA or SAMA to use as needed

If the person is limited by symptoms or has exacerbations despite treatment:

No asthmatic features or features suggesting steroid responsiveness ^a	Asthmatic features or features suggesting steroid responsiveness ^a
Offer LABA + LAMA	Consider LABA + ICS^b
Person has day-to-day symptoms that adversely impact quality of life	Person has day-to-day symptoms that adversely impact quality of life, or has 1 severe or 2 moderate exacerbations within a year
Consider 3-month trial of LABA + LAMA + ICS^{b,c}	Offer LABA + LAMA + ICS^{b,c}
Person has 1 severe or 2 moderate exacerbations within a year	Person has 1 severe or 2 moderate exacerbations within a year
If no improvement, revert to LABA + LAMA	Explore further treatment options if still limited by breathlessness or subject to frequent exacerbations (see guideline for more details)

^a Asthmatic features/features suggesting steroid responsiveness in this context include any previous secure diagnosis of asthma or atopy, a higher blood eosinophil count, substantial variation in FEV1 over time (at least 400 ml) or substantial diurnal variation in peak expiratory flow (at least 20%).
^b Be aware of an increased risk of side effects (including pneumonia) in people who take ICS.
^c Document in clinical records the reason for continuing ICS treatment.



Good for you, good for us, good for everybody

A plan to reduce overprescribing to make patient care better and safer, support the NHS, and reduce carbon emissions

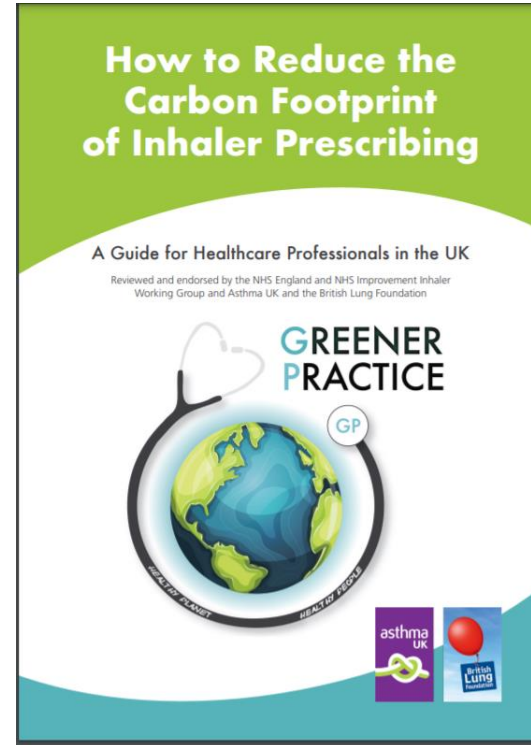
Published 22 September 2021

Joint National Plan for Inclusive Pharmacy Practice in England

10 March 2021

Delivering high quality respiratory care & Carbon reduction

- Implications - your setting
- Modelling & measuring, QI, LEAN
- Roles & responsibilities
- E+T, resources, carbon calculators
- Who/what's in place (gap analysis)?
- How will it work?
- What needs to change/support?



Quick reference low carbon high quality asthma care



Education

in every section of the document there is an education project. This is because for change to happen we need team involvement and improved awareness.

Diagnosis

1. Improving the **diagnosis of suspected asthma**
2. Patients on **SABA therapy only**

Disease Control

1. SABA over-reliance & **Prescription requests**
2. SABA over-reliance & **routine medication review**
3. SABA over-reliance & **Asthma reviews**
4. **Using the prescription label** & SABA over-reliance
5. **High risk patients** and optimising care
6. Increasing the **default prescribing interval**
7. Improving **asthma review** and **patient self-awareness**
- 8: **Wider determinants** and **non-pharmacological management**

Device

1. **Quick reference guide** to lower carbon alternatives
2. Offering patients a **low-carbon device**
3. Targeting highest the **highest carbon footprint preventers**
4. **Fostair pMDI to DPI (Nexthaler)**
5. Ventolin Evohaler pMDI to **Salamol or Airomir**

Disposal

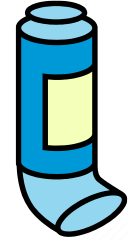
1. **Empty inhalers**
2. **Inhaler recycling and returning**
3. **Disposal of inhalers**
4. Set up an **inhaler collection point** in your surgery

Resource pack

There are a number of resources for the above projects including patient facing information, videos, search templates and charts to fill.

Tips for high quality sustainable asthma care

- Identify & address SABA overuse – case finding, care transitions
- Regular ICS use – r/v (non)adherence – optimise inc inh technique
- MART therapy/add ons
- Review of oral steroid use/exacerbations, onward specialist referral
- Device/therapy change where appropriate (shared discussion) – follow up
- Personalised asthma action plans, self management
- Consistency of device type, combo inh, spacers
- Strategies to reduce repeat Rx (refill/reuse, fewer puffs higher strength) & how long inh lasts
- Supportive resources
- Disposal/recycling – not in domestic waste



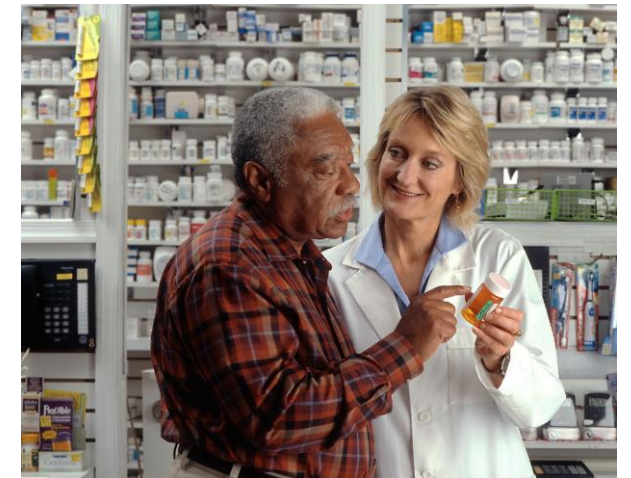
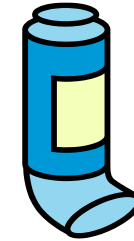
Crisis (opportunity!) Everyone's business

- Quality care – holistic & adherence, disease control
- **Inhalers - Not rote MDI switches but consider DPIs & clinical appropriateness**
- Understand (audit) local area practice, QI
- Formulary alignment
- Raise awareness, connect & collaborate
- Staff/Patient education + review
- Disposal – use, care & how long inhaler lasts
- Pharmacy sustainability strategy?
- What's happening locally?



In your current role...~~Green inhalers~~

- The scale of the problem & carbon impact? Modelling?
- Levers – DMS CQUIN, PCN DES, SMR etc
- Implications of device changes? Who & how? SDM
- Consider information provision – patients in clinics/hosp before appt/ discharge, community, resources?
- Education & awareness inc smoking, return/recycle
- LEANer processes & ‘waste’
- Top down & bottom up – leadership & champions
- Stakeholder collaboration & engagement



Cont.

- RPS advanced/consultant practice APF
- Research domain – audit/evaluation

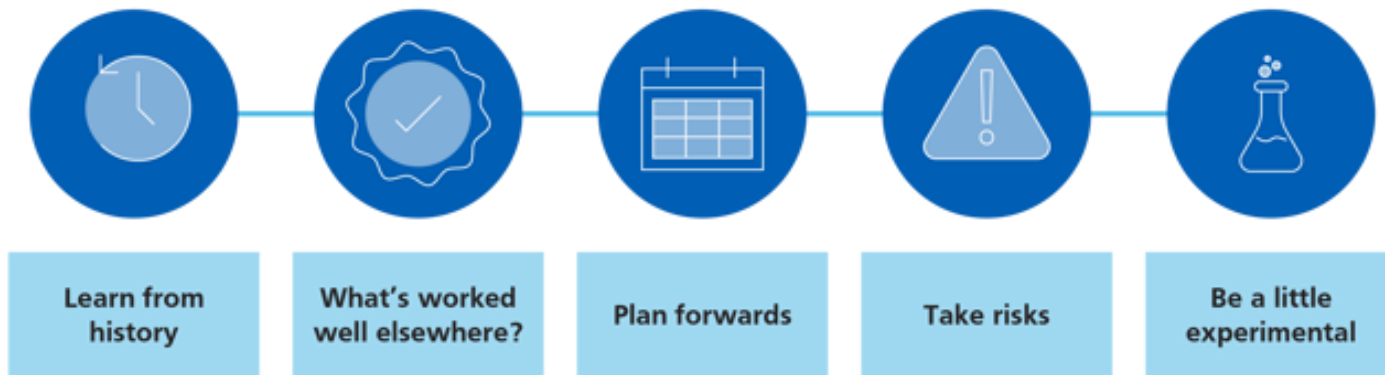


- **Circular economy principles** i.e. how we manage resources
- How we make & use products
- What we do with the materials afterwards

What else can you do?

- Find your green pals
- Join a sustainability network
- Become a green champion
- Carbon literacy training & other
- Work out your carbon footprint
- Listen and ‘take people on the journey’ with you

5 methods for leading in unpredictability

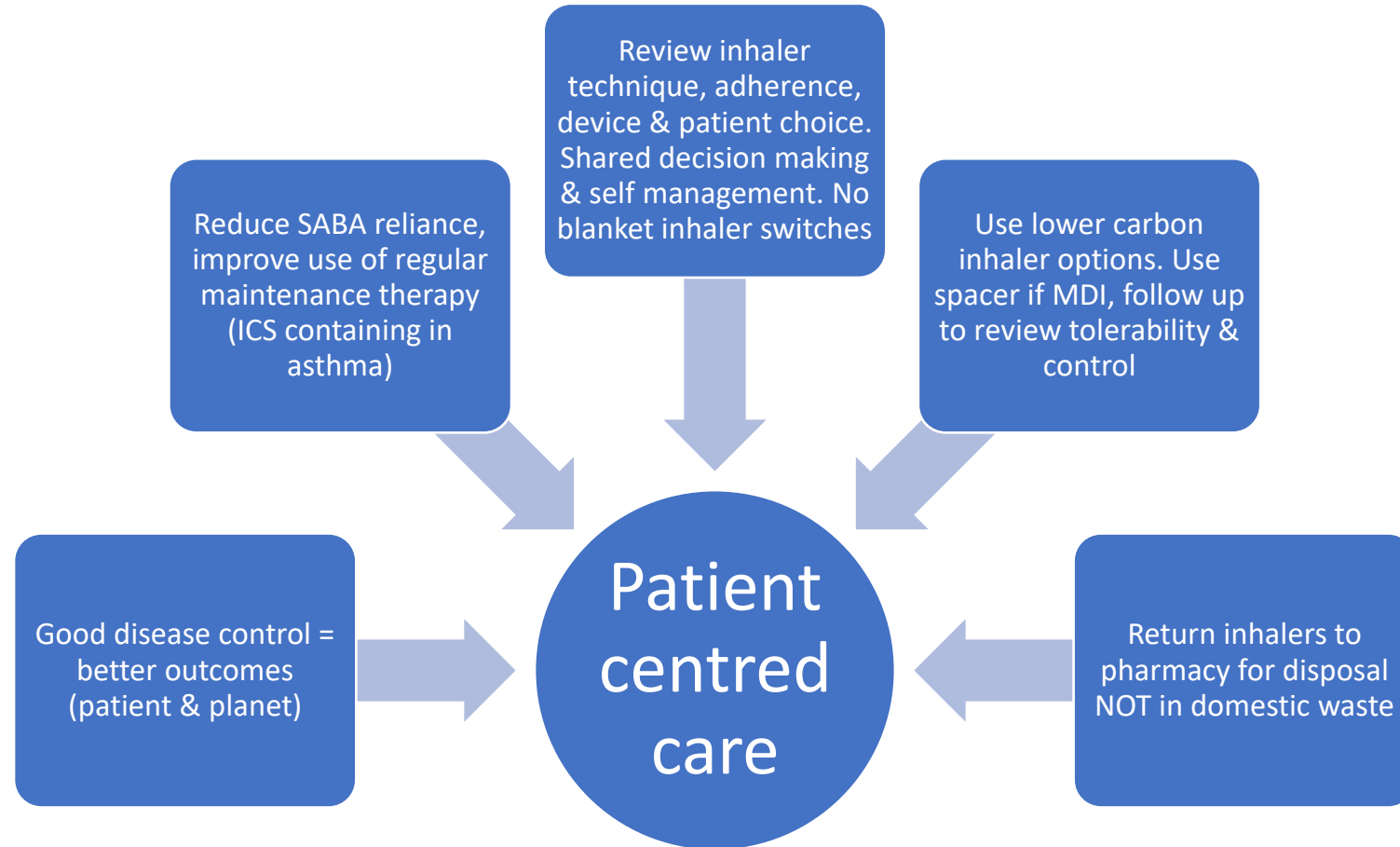


Get involved – we are a sum of our parts...

- If no alternative use lower vol HFA134 MDIs in preference
- Cars & travel – better options, less journeys
- Avoid 'idling'
- Healthier living and being – activity & diet
- More 'plant forward' diets
- Reuse bottles etc – less plastic
- Conserve green spaces
- Divest from fossil fuels
- Banking



Sustainability respiratory messages



Considerations & horizon

- Awaiting joint national asthma guideline NICE/BTS/SIGN
- London resp network inhaler formulary?
- Lower HFA propellant MDIs/DEFRA F gas review
- Different pathways/virtual options
- Commissioning landscape change
- The triple bottom line (£, social, environmental)
- IPC challenges – wearing gloves, single use plastic
- <https://www.tandfonline.com/doi/full/10.1080/17425247.2023.2179984>



Expert Opinion on Drug Delivery >
Volume 20, 2023 - Issue 3

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25 Altmetric

Listen

Review

High inhaler resistance does not limit successful inspiratory maneuver among patients with asthma or COPD

Ville A Vartiainen, Federico Lavorini, Anna C Murphy & Klaus F Rabe

Pages 385-393 | Received 16 Jan 2023, Accepted 09 Feb 2023, Published online: 26 Feb 2023

Cite this article <https://doi.org/10.1080/17425247.2023.2179984> Check for updates

Summary

- Make it easy to do the right things (right)
- No blanket inhaler switches
- Efficiencies & value → not just cost improvement/box ticking
- Whole pt & system approach, care closer to home
- Make every contact count– person centred
- Shared, informed decisions, deprescribing where appropriate
- **What do YOU need to do this/make change/Green plan targets?**



Where are you now?



Acknowledgements

- PrescQIPP
- Sarah Preece - OHID

Thank you!

Next steps:

- Ensure that you have joined the pharmacy network!
- Share your thoughts, questions, learning and experience.
- Spread the word!
- Join us at our next event.

