



The Primary Care Respiratory Society

Greener Healthcare Quality Improvement Toolkit



The Primary Care Respiratory Society UK
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We are grateful to our corporate supporters including AstraZeneca UK Ltd, Boehringer Ingelheim Ltd, Chiesi Ltd, Cipla EU Ltd, for their financial support which supports the core activities of the Charity and allows PCRS to make its services either freely available or at greatly reduced rates to its members.

Date of preparation: March 2022

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About PCRS

The Primary Care Respiratory Society (PCRS) is the UK-wide professional society supporting any health professional working in or with primary care to deliver high value patient-centred respiratory care.

Our vision is “optimal respiratory health for all” which we seek to achieve through:

- Campaigning to influence policy and set standards in respiratory medicine, relevant to populations nationally and locally.
- Educating health professionals working in primary and community settings to deliver and influence out-of-hospital respiratory care through open access to succinct best practice, evidence-based clinical guidance and resources.
- Promoting and disseminating real life respiratory research relevant to population health needs that supports policy and education activities including through our scientific journal, *npj Primary Care Respiratory Medicine*, published in conjunction with Springer Nature.
- Describing how to deliver value-based healthcare, impacting on clinical effectiveness, patient safety and a better patient experience.
- A committed and engaged membership network providing mutual support enabling professional development to support the provision and commissioning of high value, patient-centred care.

PCRS have a vision of the future in which respiratory healthcare is greener and kinder to the environment, a vision which we seek to achieve by:

- Raising awareness and advocating for proactive strategies to reduce the impact of the environment on respiratory health and of respiratory healthcare on the environment.
- Enabling all those involved in the delivery of respiratory healthcare to deliver care that is kinder to the environment without compromising on quality of care, through early and accurate diagnosis and appropriate treatment that ensures optimal symptom control.
- Educating colleagues and patients about the environmental impact of respiratory healthcare and how they can reduce this impact without compromising on quality of care or symptom control.
- Enabling colleagues to take steps to avoid waste, whether that be resources or time, through optimization of patient care and consideration of ways in which patients interact with the healthcare system.



Introduction

PCRS launched the Greener Respiratory Healthcare Initiative in 2020 with the goal of educating and enabling healthcare professionals (HCPs) to deliver greener and more sustainable high quality respiratory healthcare that is kinder to the environment (PCRS 2020). Achieving greener respiratory healthcare requires evaluation of all aspects of the care we deliver, how that care is delivered and how patients interact with the healthcare system in which we operate. Attention has tended to focus on the carbon footprint of inhaled medications and, while important, this is only one element of the environmental impact of healthcare.



In 2021 we launched the Greener Respiratory Healthcare Pathway (PCRS 2021) as our initiative moves from an awareness and educational phase to an implementation phase. The Greener Respiratory Healthcare Pathway has been designed around the lived experience of patients with respiratory disease, reflecting the experience of those actively receiving regular clinical care as well as those who largely manage their condition with minimal clinical input. The pathway begins with 'Prevention' and moves from 'Diagnosis' to 'End of life care'. The pathway provides a framework through which healthcare professionals can access a range of educational and care delivery tools empowering them to become champions for greener respiratory healthcare in their local area.



Access the pathway and the suite of PCRS Greener Respiratory Healthcare materials here:

<https://www.pcrs-uk.org/greener-respiratory-pathway>

The PCRS Greener Respiratory Healthcare Quality Improvement toolkit

The PCRS Greener Respiratory Healthcare Quality Improvement (QI) toolkit has been developed to support HCPs working in the primary care setting to understand and evaluate the environmental impact of their clinical practice, identify ways to reduce this impact, set goals and priorities and evaluate progress. The toolkit has been designed around the PCRS Greener Respiratory Healthcare Pathway which signposts the user to a curated suite of resources and materials to guide and support HCPs in their journey towards sustainable respiratory healthcare.

The PCRS Greener Respiratory Healthcare QI toolkit will enable you to:

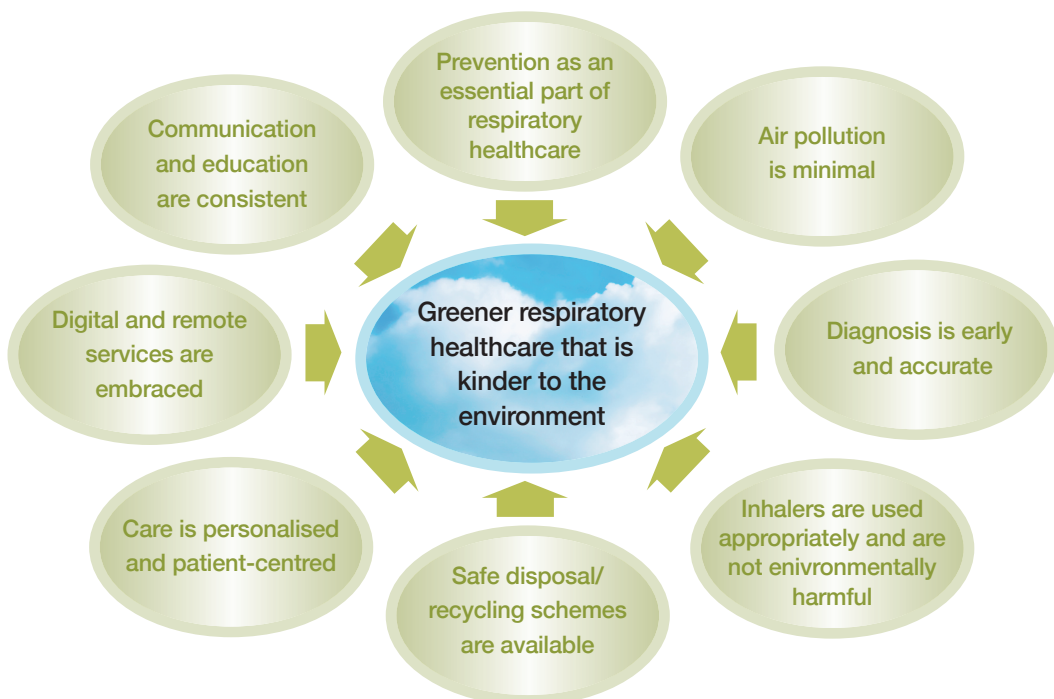
- Understand the environmental impact of providing respiratory healthcare for patients with respiratory disease in the primary care setting.
- Identify both quick wins and longer-term strategies to reduce the environmental impact of respiratory healthcare.
- Become a Greener Respiratory Healthcare Champion in your local area and identify ways to work with other stakeholders to drive the Green agenda in all aspects of health, social and local government decision-making.

The toolkit has been developed to enable even those not familiar with the QI process and who may need step by step guidance and support, to undertake QI initiatives focused on Greener Respiratory Healthcare. Additional sources of information and support about QI in primary care in the UK are provided in Appendix 1.

Greener respiratory healthcare: what does this mean, why does it matter and what can we do?

Greener respiratory healthcare that is kinder to the environment is healthcare that is patient-centred, focused on achieving and maintaining disease control, delivered through simple, efficient systems and aims for waste minimisation. Respiratory disease occupies a unique position in that it can be both caused by environmental pollution and, through the medical care required to manage respiratory symptoms, contribute to environmental pollution. For example, in the UK between 28,000 and 36,000 deaths are attributable to human-made air pollution (PHE 2019) while the reliance on pressurised metered dose inhalers (pMDIs) for the delivery of respiratory medicines contributes an estimated 705 kilotonnes of CO₂e/year (Janson *et al* 2020). To place this in context, the UK as a whole was estimated to have emitted 329.6 million tonnes of CO₂ in 2020 (www.ourworldindata.org).

The PCRS Greener Healthcare Initiative identified key areas that require action to move towards greener respiratory healthcare that is kinder to the environment (PCRS 2020).



While some of these areas require action from health care commissioners, professional organisations and the pharmaceutical industry, there is much that individual HCPs can do to reduce the environmental impact of their own clinical practice. The PCRS call to action asks individual HCPs to:

- Advocate for clean air for all by supporting strategies to reduce air pollution at a personal level as well as part of their own clinical practice.
- Ensure every patient receives timely and accurate diagnosis and the treatment most appropriate for them to achieve optimal control of their respiratory condition.
- Become knowledgeable about the impact of respiratory healthcare on the environment.
- Educate colleagues and patients about the environmental impact of respiratory healthcare.
- Consider and actively seek ways to minimise the associated environmental impact of respiratory healthcare without compromising quality of care.

It is this last point that the Greener Respiratory Healthcare QI toolkit seeks to support and in the following sections you will be guided through a QI process enabling you to evaluate your own clinical practice and local situation to identify ways to reduce the environmental impact of the respiratory healthcare you provide while maintain the high standards of care we all strive to deliver.

Step 1: Using the PCRS Greener Respiratory Healthcare Pathway

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Having completed this step you will understand:

- The environmental impact of respiratory healthcare as viewed along the patient's journey with respiratory disease
- How to use the Greener Respiratory Healthcare Pathway to conceptualise the environmental impact of your own clinical practice

The PCRS Greener Respiratory Healthcare Pathway can be accessed through the PCRS website at <https://www.pcrs-uk.org/greener-respiratory-pathway>

From this page you can click on any of the five waypoints along the patient journey with respiratory disease to access a suite of curated resources to help you understand, evaluate and take steps to reduce the environmental impact of respiratory healthcare.



The pathway begins with '**Prevention**'. This stage of the patient journey focuses on the impact of the environment on the emergence and worsening of respiratory disease. Air pollution and air quality, both indoor and outdoor, are the main factors here. We recommend you start by reading our article on reducing indoor and outdoor air pollution in healthcare settings. A range of resources are also provided to help you and your patients monitor local air quality and plan accordingly.



The next stage is '**Diagnosis**'. The focus for this stage of the patient journey is to ensure patients get an accurate diagnosis in a timely way so that they can begin treatment with the right medications that will help control their respiratory symptoms. A good place to start here is our article on the differential diagnosis of the breathless patient (<https://www.pcrs-uk.org/resource/differential-diagnosis-breathless-patient>). Of course, to achieve an accurate diagnosis, patients attending for care with respiratory symptoms who do not have a diagnosis or who's diagnosis may be incorrect must be identified. This toolkit will help you find ways to identify these patients.



Our pathway then moves on to '**Maintenance and comorbidities**'. To minimise the environmental impact of respiratory healthcare the aim is for all patients with respiratory disease to be as fit as they can be, active and symptomatically controlled. There are many factors at play here and many strategies that can be implemented to identify and support patients with inadequately controlled disease. This toolkit will help you to start identifying the strategies that will be most useful in your own clinical practice. You might like to view our on-demand webinar on *The building blocks of a good asthma review* (<https://www.pcrs-uk.org/resource/demand-webinar-building-blocks-good-asthma-review>).

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Despite our best efforts many patients might experience '**Periodic worsening**'. These episodes can be seen as an opportunity to review both medication and the broader lifestyle factors that may have contributed to the acute episode. For example, for a patient with COPD who has a rescue pack, did they recognise the impending exacerbation and use their rescue pack appropriately? Indeed, did they have a rescue pack at home? Our article on the appropriate use of rescue packs for patients with COPD covers this very important topic (<https://www.pcrs-uk.org/resource/appropriate-use-rescue-packs>).



'**End of life**' planning and care for patients with respiratory disease is as important as all the other points on the patient's journey and there are many opportunities to optimise care that will also have a beneficial environmental impact. Our position statement on caring for patients with respiratory disease and frailty in the community setting is a good place to start (<https://www.pcrs-uk.org/resource/position-statement-frailty>). This position statement provides guidance on how to conduct a medication review regarding the goals of treatment, likely benefit and likely side effects to ensure that patients receive only medications that are of benefit to them.

Of course, there is a lot to consider and so many opportunities for addressing the environmental impact of respiratory healthcare that it can seem overwhelming. It is for this reason that the pathway and this toolkit have been developed. Together these tools will support you in focusing your attention and developing effective and achievable strategies that will make a real and positive impact on patients and our environment.

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Step 2: Understanding the problem

Having completed this step you will understand:

- How to identify the elements of your own clinical practice that incur an environmental impact
- Potential barriers to change towards reducing the environmental impact of respiratory healthcare and how to overcome them
- How to engage with colleagues working in health or social care settings and influence local agendas to consider sustainability at all levels

We are all familiar with the need for a greener more sustainable approach to living in our personal lives. An area of focus that may be new to some of us is the need to apply this same thinking in our professional lives. We need to achieve a balance between providing the best respiratory healthcare for our patients and the need for sustainability. These are in fact not mutually exclusive and as you will now have learned from the 'Prevention' waypoint of the patient's journey, are in fact intimately related.

How do I find out how well my practice/local area is doing?

An important initial step is to understand what is happening in your own practice and local area. Who is the lead in your practice for the greener healthcare agenda? If there isn't one, could it be you? Is there a senior clinical lead or director with responsibility for greener issues? Are there colleagues locally that already have an interest in greener healthcare that you could work with? Are there any initiatives or programmes in place already that you could promote?



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Questions you might want to ask your practice:

How green is our building? Do we have any policies in place (eg on waste disposal, cleaning materials)?

Is anyone else in my practice interested in the greener healthcare agenda?

Do we have a sustainability representative working at Primary Care Network/Integrated Care System level?

Do we have any clinical guidance in place on ensuring delivery of sustainable respiratory healthcare?

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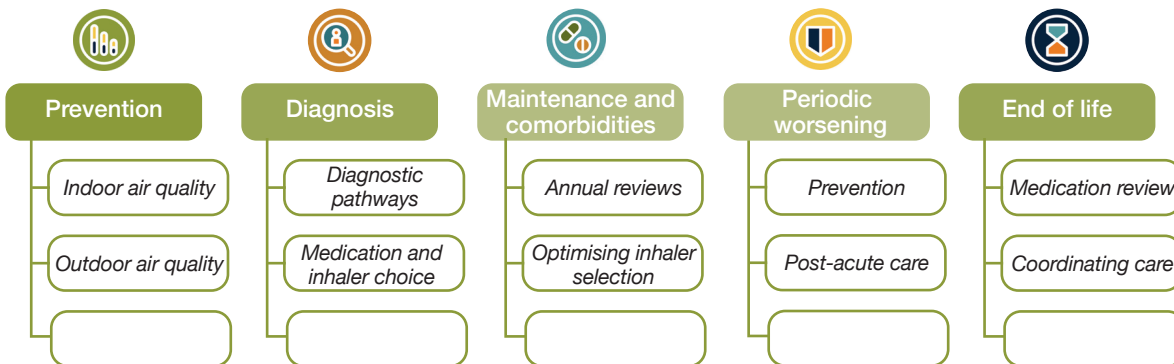
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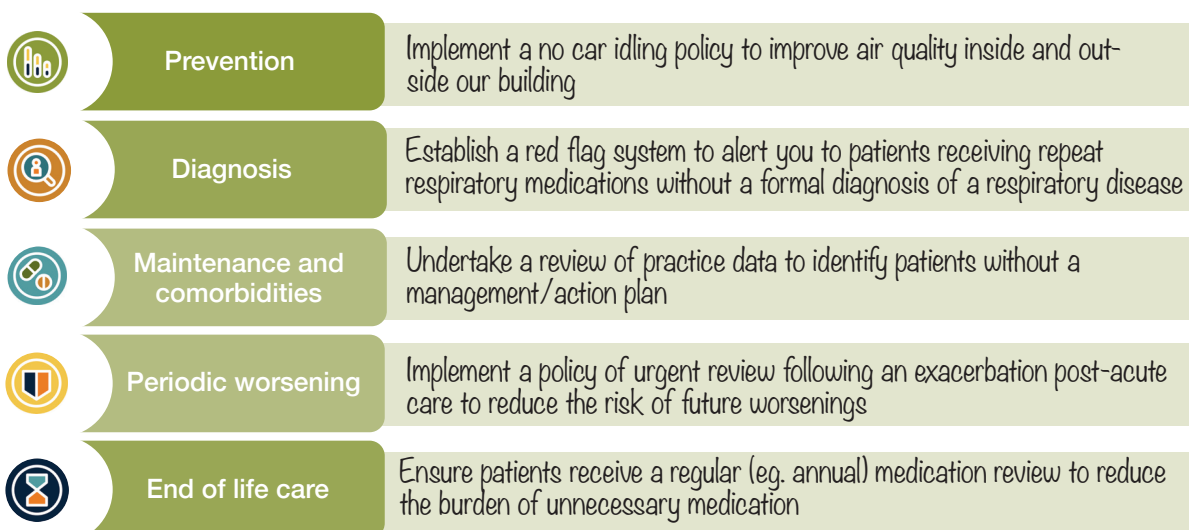
You may want to become a greener respiratory healthcare champion in your area to raise awareness and drive the greener agenda wherever the key health and social care decisions are made. To support you in this PCRS have published a Top Tips article on how to make the case for greener respiratory healthcare and influence upwards (<https://www.pcrs-uk.org/resource/top-tips-making-case-greener-respiratory-health-care-and-influencing-upwards>).

Where to start?

You may want to work your way along the Greener Respiratory Healthcare Pathway or begin with the waypoint of the pathway where most of your own clinical practice is focused. It's important to remember that you do not have to do everything at once. QI is an ongoing process. You might like to begin by collating all the factors you have identified for your selected starting point to begin the process of setting goals. We have started to add some factors for each of the patient waypoints below. Use these or add your own factors that are relevant to your practice or local area.



The next task is to translate these factors into achievable goals. To help you get started PCRS colleagues have made a few suggestions for actions for each way point along the PCRS Greener Respiratory Healthcare Pathway:



You are now ready to move to Step 3 and being setting goals and planning strategies.

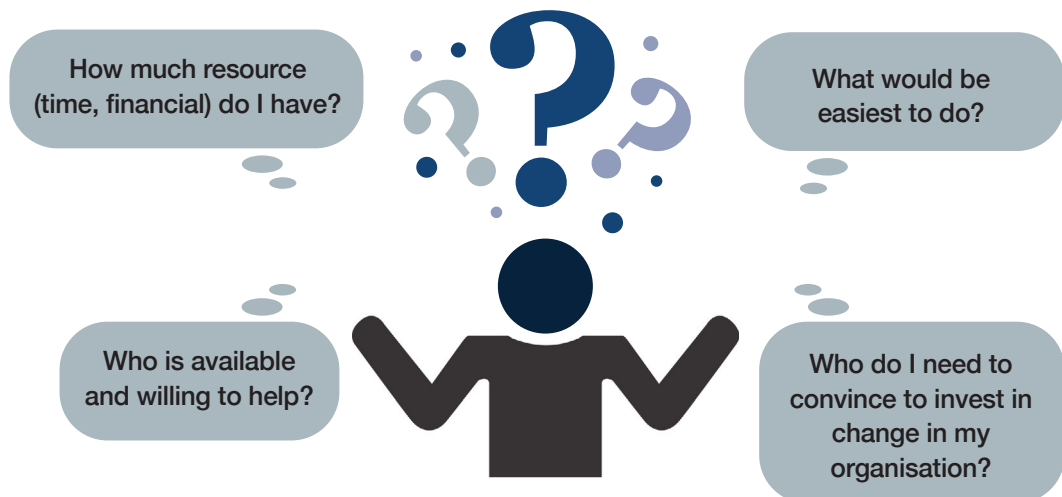
Step 3: Getting started and setting quality improvement goals

Having completed this step you will be able to:

- Identify targets for QI in your own clinical practice to address the environmental impact of the healthcare you provide for patients with respiratory disease
- Set goals for QI for the next 12 months

At this stage you have to hand a wealth of information to help you implement a QI initiative. You will have a good understanding of the impact of respiratory healthcare on the environment, the area(s) you want to focus on first and the factors contributing to the environmental impact of respiratory healthcare you want to target.

You will likely need to prioritise your goals at this stage, decide on an achievable target, the specific steps you need to take and the timeframe for your initiative.



Using these actions as an example your goals for the next 6 months might be:



Prevention

Key resources: <https://www.pcrs-uk.org/greener-respiratory-pathway/prevention>

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In the next week I will:



Propose a meeting with colleagues to discuss ways to make our building more environmentally friendly (e.g. switch to eco-friendly cleaning materials, remove air fresheners, ensure recycling bins are in place)

In the next month I will:

Arrange a practice level/team meeting to discuss implementation of a no car idling policy in our car park and a no parking scheme near doorways or windows that must be open

TOP TIP See our article on reducing indoor and outdoor air pollution in healthcare facilities at: <https://www.pcrs-uk.org/resource/reducing-indoor-and-outdoor-air-pollution-healthcare-settings>

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In the next 6 months I will:

Review the use of remote consultations as a tool for routine review of patients with respiratory disease

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Notes:

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Maintenance and comorbidities

Key resources: <https://www.pcrs-uk.org/greener-respiratory-pathway/maintenance-and-comorbidities>



In the next week I will:

Familiarise myself with the medication devices available for prescription and the carbon footprint of each

TOP TIP See the greeninhaler.org website for the carbon footprint of current inhalers: <https://greeninhaler.org/inhaler-comparison/>



In the next month I will:

Initiate discussions with patients during routine reviews for whom a lower carbon footprint device is clinically appropriate about their preferences

TOP TIP See our guidance on making safe and clinically appropriate changes to inhalers at: <https://www.pcrs-uk.org/resource/pcrs-guidance-making-safe-and-clinically-appropriate-changes-inhalers>



In the next 6 months I will:

Work with colleagues to review the practice database to identify all patients using pMDI devices and determine whether a lower carbon footprint alternative is suitable



A blank version of this planner is provided in Appendix 2.

Notes:

Horizontal lines for notes.



Step 4: Deciding on actions and prioritising

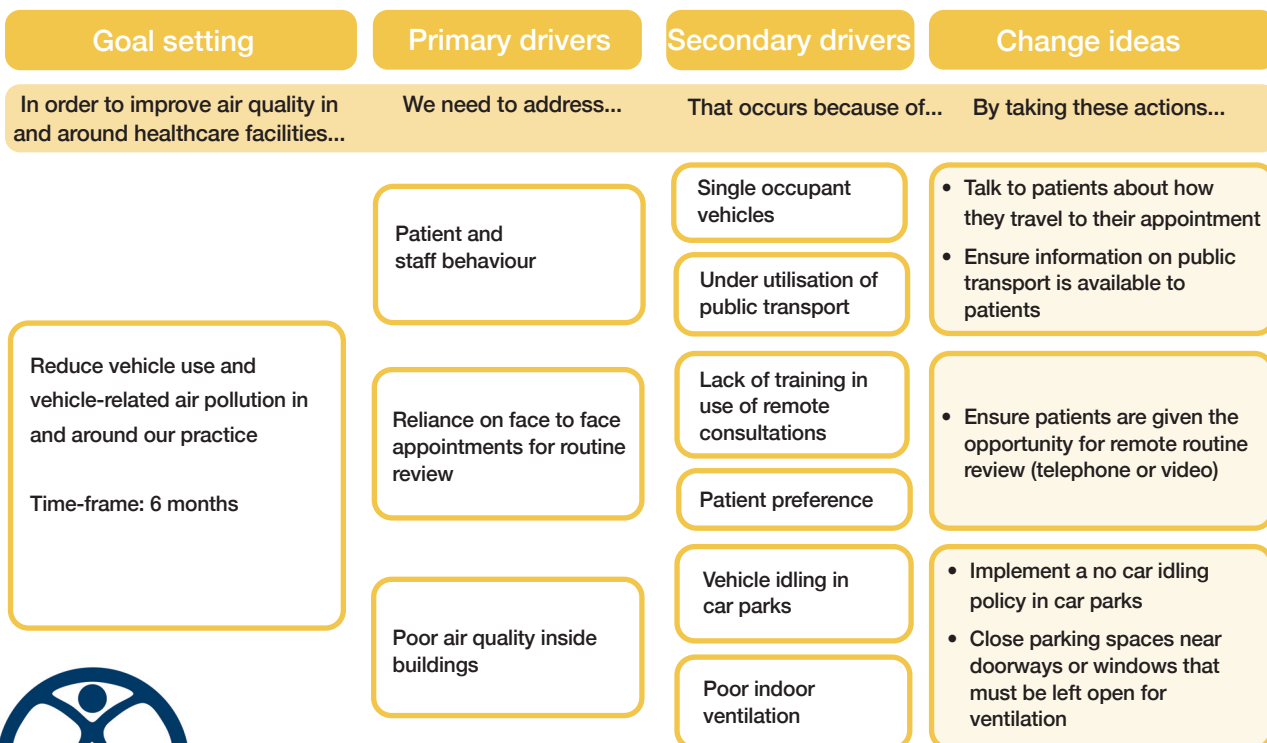
Having completed this step you will be able to:

- Prioritise SMART objectives to help you meet your QI goals
- Develop a plan of action that captures all the steps and actions you need to take to deliver your QI goals

Your next step is to begin to develop a plan of action. One way to achieve this is using a Driver Diagram and SMART objectives. A Driver Diagram is a useful tool to help you to capture and visualize goals, barriers, opportunities and strategies to achieve your goals. SMART objectives are:

- **Specific:** Identify a single specific goal that will reflect a real-world change.
- **Measurable:** Ensure you can measure the change. This is important in evaluating the success of your efforts.
- **Achievable:** Set goals that are realistic and consider breaking your goals down into small steps to achieve a longer-term target.
- **Relevant:** Make sure the change you want to achieve will achieve the broader objectives of your initiative.
- **Time-bound:** Set a timeframe for your activity at which point you can review your success of failure and adjust your activities accordingly.

An example (shown below) which has been completed by PCRS colleagues for the improvement of indoor and outdoor air quality at healthcare facilities.



A blank version of this planner is provided in [Appendix 3](#).



Step 5: Evaluating success

Having completed this step you will be able to:

- Evaluate the success of your QI program
- Determine which strategies worked and which did not
- Quantify your success in terms of the environmental impact of your clinical practice

Evaluating, celebrating and publicising the success of your QI initiative is a good opportunity to thank all those who have supported your work and start the process of engagement with your next initiative. It is also an important opportunity to learn from any challenges you faced and how these were overcome.

The two most important questions you might like to ask are:

- Did you meet the goals you set out in your project plan?
- How has your initiative impacted on the approach to environmental sustainability in your practice/local area?



You might also want to start planning for your next round of Greener Respiratory Healthcare QI by considering what went well and what proved challenging.



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Step 6: Re-evaluating and setting more goals

Having completed this step you will be able to:

- Review your progress and decide on your next QI goal

Congratulations! You should by now have completed a successful QI initiative. You and your patients are already beginning to benefit from your efforts and your colleagues can see the benefits of QI and the possibilities of targeting sustainability in healthcare provision.



Take the time to share your success story with colleagues (tag our Twitter account @PCRS and we will share your stories) and consider writing up your experiences for presentation at the PCRS annual conference (<https://www.pcrs-uk.org/annual-conference>).

QI should ideally be a career-long part of all our clinical practice as we strive to improve the care we offer and the health and wellbeing of the patients we care for. A successful QI initiative is a springboard for your next goal. Take time to revisit your original goals, they or their prioritisation may have changed because of your first initiative.



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References

Janson C, *et al.* Carbon footprint impact of the choice of inhalers for asthma and COPD. *Thorax* 2020;**75**:82–4.

Primary Care Respiratory Society. PCRS Greener Respiratory Healthcare That is Kinder to the Environment. White paper and call to action, 2020 Available at: <https://www.pcrs-uk.org/resource/greener-healthcare>. Accessed March 2022.

Primary Care Respiratory Society. The Greener Respiratory Pathway: A PCRS Initiative, 2021. Available at: <https://www.pcrs-uk.org/greener-respiratory-pathway>. Accessed March 2022.

Public Health England. Review of interventions to improve air quality and public health. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/937341/Principal_interventions_for_local_authorities-air_quality_public_health.pdf. Accessed March 2022.



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Appendix 1: Resources for quality improvement in Primary care in the UK

- NHS England. An introduction to quality improvement in general practice. April 2019.
Available at: <https://www.england.nhs.uk/wp-content/uploads/2019/03/an-introduction-to-quality-improvement-in-general-practice.pdf>
Accessed March 2022.
- NHS England Sustainable Improvement Team. Improvement capability building and delivery team.
Available at: <https://www.england.nhs.uk/sustainableimprovement/>
Accessed March 2022.
- The Health Foundation. Improvement in general practice.
Available at: <https://www.health.org.uk/what-we-do/supporting-health-care-improvement/improvement-in-general-practice>
Accessed March 2022.

Appendix 2: Simple goal planner

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In the next week I will:

In the next month I will:

In the next 6 months I will:

In the next 12 months I will:

Appendix 3: Driver diagram

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Goal setting	Primary drivers	Secondary drivers	Change ideas
In order to improve air quality in and around healthcare facilities...	We need to address...	That occurs because of...	By taking these actions...

Set a SMART objective:

- Specific
- Measurable
- Achievable
- Relevant
- Time-bound