

Sustainability in medicines optimisation

Recommendations on lowering the inhaler carbon footprint plus implementation resources are available in the [PrescQIPP inhaler carbon footprint](#) resources. This briefing focuses on sustainability and reducing the carbon footprint of medicines more broadly.

Recommendations

- Ensure that all staff have undertaken carbon awareness training so that they appreciate the impact which global warming has on the planet, healthcare and medicines in addition to the part they can play individually associated with the work they do to reduce the medicine carbon footprint.
- Each organisation should appoint a medicines optimisation sustainability lead.
- Ensure that medicines sustainability is a standing agenda item for team meetings and clinical networks.
- Discuss, agree and regularly review a carbon footprint lowering strategy across the local health system.
- Consider the medicine carbon footprint reduction initiatives examples in table 1 (pg7 in the bulletin), national guidance and other initiatives for incorporation into this strategy.
- Consider using a planning tool to support strategy development, e.g. attachment 5 – a sustainability in medicines optimisation project planning tool.
- Incorporate consideration of the environmental impact of medicine optimisation initiatives into routine practice, such as area prescribing committee medicine appraisals.
- Healthcare professionals, where appropriate, should be encouraged to work towards making discussions on sustainability issues routine during contacts with patients and during consultations.
- GPs including the wider general practice team should be aware of how to signpost people to local social prescribing services where available and encourage people to exercise and eat healthy diets.
- Review the [PrescQIPP inhaler carbon footprint](#) and [inhaler carbon footprint clinical snapshot](#) resources for respiratory and inhaler sustainability initiatives.

NHS carbon footprint and carbon savings

In 2019 the total NHS carbon footprint in England was 25.0Mega tonnes(Mt)CO₂e. Pharmaceuticals and chemicals accounted for 5.06MtCO₂e, metered dose inhalers accounted for 0.80 MtCO₂e and anaesthetic gases 0.48MtCO₂e.¹

It is estimated that every pound spent on pharmaceuticals generates greenhouse gas (GHG) emissions of 0.621 kgCO₂e.² By reducing the prescribed items and associated spend, it can be estimated that for every £1 saved on drug spend, approximately 0.621kgCO₂e would be saved annually.

A 10% reduction in NHS prescription spend arising from a number of medicine optimisation carbon reduction initiatives resulting in deprescribing could result in a carbon avoidance of approximately 0.66MtCO₂e annually.

Reducing medicine waste by 10% could produce carbon avoidance savings for NHS prescribed medicines of approximately 0.027MtCO₂e annually.

Summary

Climate change impacts health both directly and indirectly and reducing greenhouse gases can result in improved health.³ All UK health services have committed to net zero carbon emissions.⁴ NHS organisations should locally agree medicine optimisation initiatives which support reductions in the medicines carbon footprint. Addressing the medicines carbon footprint now aims to prevent the approximately 250,000 additional deaths per year from malnutrition, malaria, diarrhoea and heat stress that the WHO expects climate change to cause between 2030 and 2050.³

The [PrescQIPP scorecards](#) include 12 months carbon avoidance data to support prioritisation of medicine optimisation initiatives and ongoing monitoring. These priorities can also be viewed in the [PrescQIPP practice planning report and practice visit and progress reports](#). This data will support the development of medicine optimisation carbon reduction strategies by allowing organisations to see the cost and carbon impact of medicine optimisation initiatives they are considering.

References

1. Tennison I, Roschnik S, Ashby B et al. Health care’s response to climate change: a carbon footprint assessment of the NHS in England. The Lancet Planetary Health 2021; 5(2): E84-E92. [https://www.thelancet.com/journals/lanplh/article/PIIS2542-5196\(20\)30271-0/fulltext#sec1](https://www.thelancet.com/journals/lanplh/article/PIIS2542-5196(20)30271-0/fulltext#sec1)
2. Department for Environment, Food & Rural Affairs. UK and England’s carbon footprint to 2020. Conversion factors KgCO2 per £ spent, by SIC code 2020. Multipliers by SIC 2020 tab (Basic pharmaceutical products and pharmaceutical preparations). <https://www.gov.uk/government/statistics/uks-carbon-footprint>
3. World Health Organization. Climate change and health. 12 October 2023. <https://www.who.int/news-room/fact-sheets/detail/climate-change-and-health>
4. Department of Health and Social Care. UK health services make landmark pledge to achieve net zero. 9 November 2021. <https://www.gov.uk/government/news/uk-health-services-make-landmark-pledge-to-achieve-net-zero>

Additional resources available	Bulletin	https://www.prescqipp.info/our-resources/bulletins/bulletin-340-sustainability-in-medicines-optimisation/
	Tools	

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