



Royal College of
Obstetricians &
Gynaecologists

Sustainability and climate change at the RCOG – workshop

27th July 2023



Agenda

- Introduction – **Dr Raneer Thakar, PRCOG**
- Sustainability and advocacy at the RCOG – **Kate Lancaster, Chief Executive, RCOG**
- The Green Surgery Report and towards sustainable care – **Dr Natasha Abdul Aziz, Dr James Phillips and Dr Alice Clack**
- Discussion – **All**
- Feedback
- Conclusion



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Introduction

Ranee Thakar PRCOG

July 2023



Supporting our membership to respond to the climate crisis and advocating for a healthier future for women and girls





Did you know

- Estimated **80 percent of people displaced by climate change are women** (UN Development Programme, 2017)
- Over the next decade around **14 million women are at risk of losing access to contraception** due to climate-related disruptions (MSI Reproductive Choices, 2021)
- **Air pollution particles have been found in fetal tissue** (Bongaerts et al, 2022)



Health effects of climate change on maternal and fetal health

- Direct risks of extreme weather
- Disrupts access to medical care
- Increased risk of vector-borne diseases
- Vulnerability to food or water contamination
- Food and water shortages
- Displacement, trauma and risk of violence



IMPACT OF AIR POLLUTION ON CHILDREN'S HEALTH

A child who is exposed to unsafe levels of pollution can face a lifetime of health impacts. Exposure in the womb or in early childhood can lead to:



Stunted lung growth
Reduced lung function
Increased risk of developing asthma
Acute lower respiratory infections



Impaired mental and motor development
Behavioral disorders



Low birth weight
Premature birth
Infant mortality



Childhood cancers



Increased risk of heart disease, diabetes and stroke in adulthood



IN 2016, AMBIENT AND HOUSEHOLD AIR POLLUTION CAUSED

543,000 deaths
in children under 5 years

52,000 deaths
in children aged 5 - 15 years



Household and ambient air pollution cause more than 50% of acute lower respiratory infection in children under 5 years in lower- and middle-income countries.

CLEAN AIR FOR CHILDREN'S HEALTH

#AirPollution



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Climate change-related impacts on health and health systems

Howard et al, Learning to treat the climate emergency together: social tipping interventions by the health community (The Lancet Planetary Health, 2023)

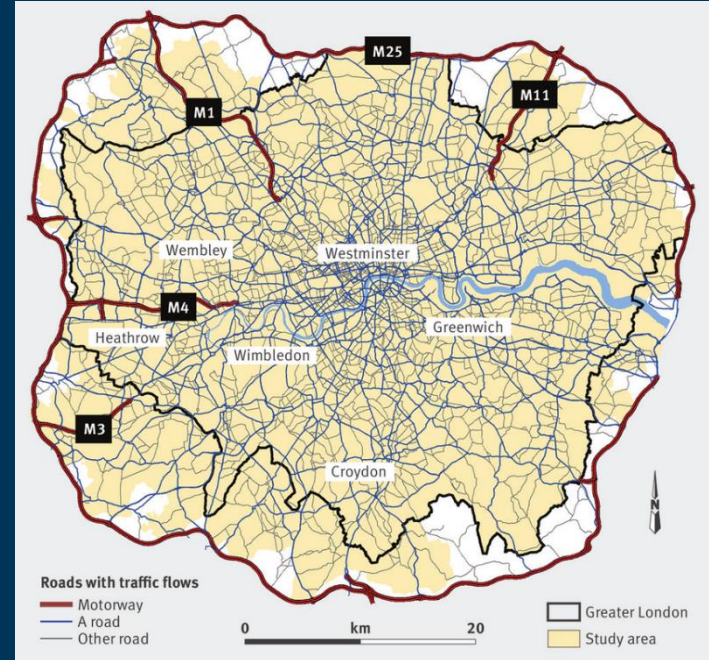
Impact of London's road traffic air and noise pollution on birth weight

Rachel B Smith et al BMJ 2017



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Air pollution from road traffic in
London is adversely affecting fetal
growth





Climate justice and health equity

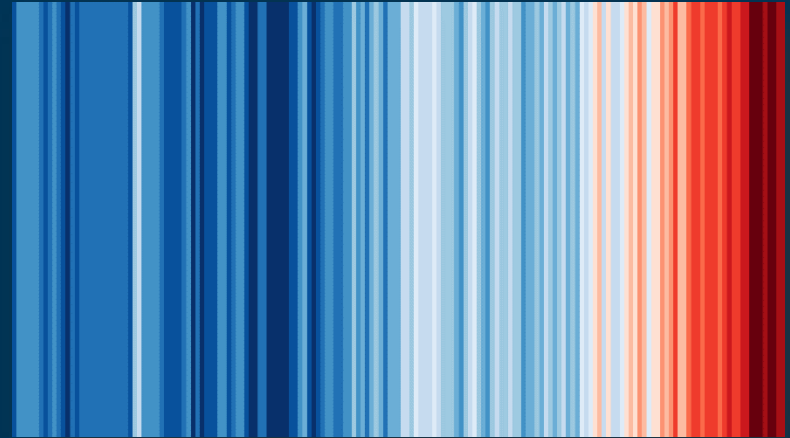
- Connection between historic and ongoing exploitation, racism and environmental inequalities
- People who are culturally, economically, institutionally, politically, socially or otherwise marginalized, such as persons with disabilities, are particularly at risk of harm from the adverse effects of climate change (OHCHR, 2020)
- Reinforces and exacerbates existing health inequalities, including within the UK



Why now?

“Any further delay in concerted global action will miss a brief and rapidly closing window to secure a liveable future”

– Hans-Otto Pörtner, Intergovernmental Panel on Climate Change co-chair, 2022



**Global temperature change, 1850-2022
(University of Reading)**

The role of obstetricians and gynaecologists



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- Every one of us has a role to play!
- Healthcare professionals are trusted voices, and may witness health impacts directly
- Healthcare in the world's largest economies accounts for over 4% of global CO2 emissions

“There are multiple, feasible and effective options to reduce greenhouse gas emissions and adapt to human-caused climate change, and they are available now”

– Intergovernmental Panel on Climate Change, 2023





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Looking to the future

- Supporting **meaningful changes** in the way we deliver care to ensure the specialty becomes increasingly sustainable
- Advocating for a healthier future for women and girls
- Stay in touch by emailing **policy@rcog.org.uk**





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College progress on sustainability and climate change

Kate Lancaster, Chief Executive

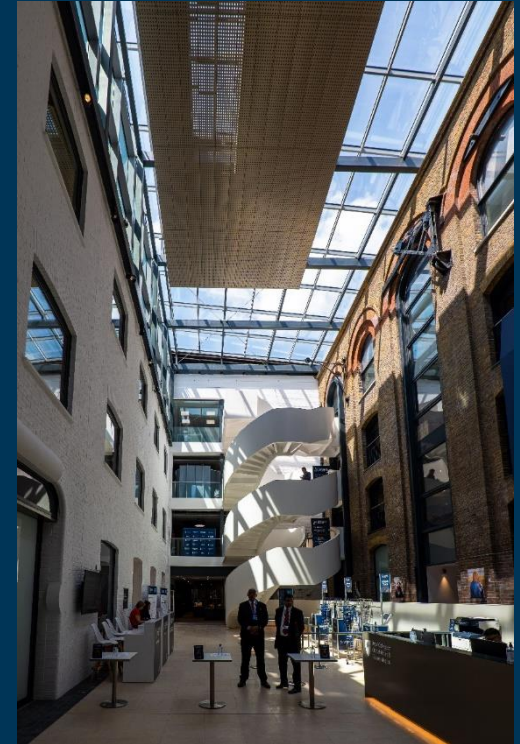
Sustainability – at the heart of the College's strategy



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Significantly reducing our carbon footprint and ensuring our environmental sustainability is one of four College strategic goals for 2020-2025.

- Committed to reducing our carbon emissions by 50% by 2030 from a 2019 baseline
- 100% renewable energy in Union Street
- Streamlining and digitising operations
- Updated travel and investment strategies
- Greater focus on plant-based options and a move to reusable, plant-based or easily recycled materials in our Union Street catering





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Committed to progress on sustainability and climate change

- UK Health Alliance on Climate Change member commitments
- Participate in annual Climate and Health Scorecard
- Reviewing all activity in terms of environmental impact and equality, diversity and inclusion
- Shortlisted for the 2023 Memcom Sustainability Award





Supporting our membership

- Regularly spotlight at our annual World Congress
- Upcoming RCOG Learning on climate change, women's health and sustainable care
- Green Surgery Report
- Priority area – scoping future work

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FIGO
International Federation of Gynaecology and Obstetrics

The Impact of Climate Change on Women's Health

Jeanne Ann Conry, MD, PhD
President, The International Federation of Gynaecology and Obstetrics
The Royal College of Obstetricians and Gynaecologists
13 June 2023

RCOG WORLD CONGRESS 2023
12-14 JUNE 2023 | LONDON

JOIN THE CONVERSATION USING #RCOG2023

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FIGO President Dr Jeanne Conry at RCOG
World Congress 2023

College advocacy on climate change



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- UK Health Alliance on Climate Change –
 - Clean air
 - Just fossil fuel transition
 - Sustainable diets
 - Climate justice
- Collaborations – RCOG, UKHACC and RCPCH UK policy brief for the *Lancet Countdown on Health and Climate Change*

RCPCH
Royal College of Paediatrics and Child Health
Leading the way in Children's Health

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UK Health Alliance on Climate Change

7th November 2022

Health leaders call on Alok Sharma to put health at the forefront of discussions at COP27

Thirty seven health leaders from organisations across the UK have called on COP26 President Alok Sharma to use his leadership at COP27 to put health at the forefront of discussions.

LANCET COUNTDOWN: TRACKING PROGRESS ON HEALTH AND CLIMATE CHANGE

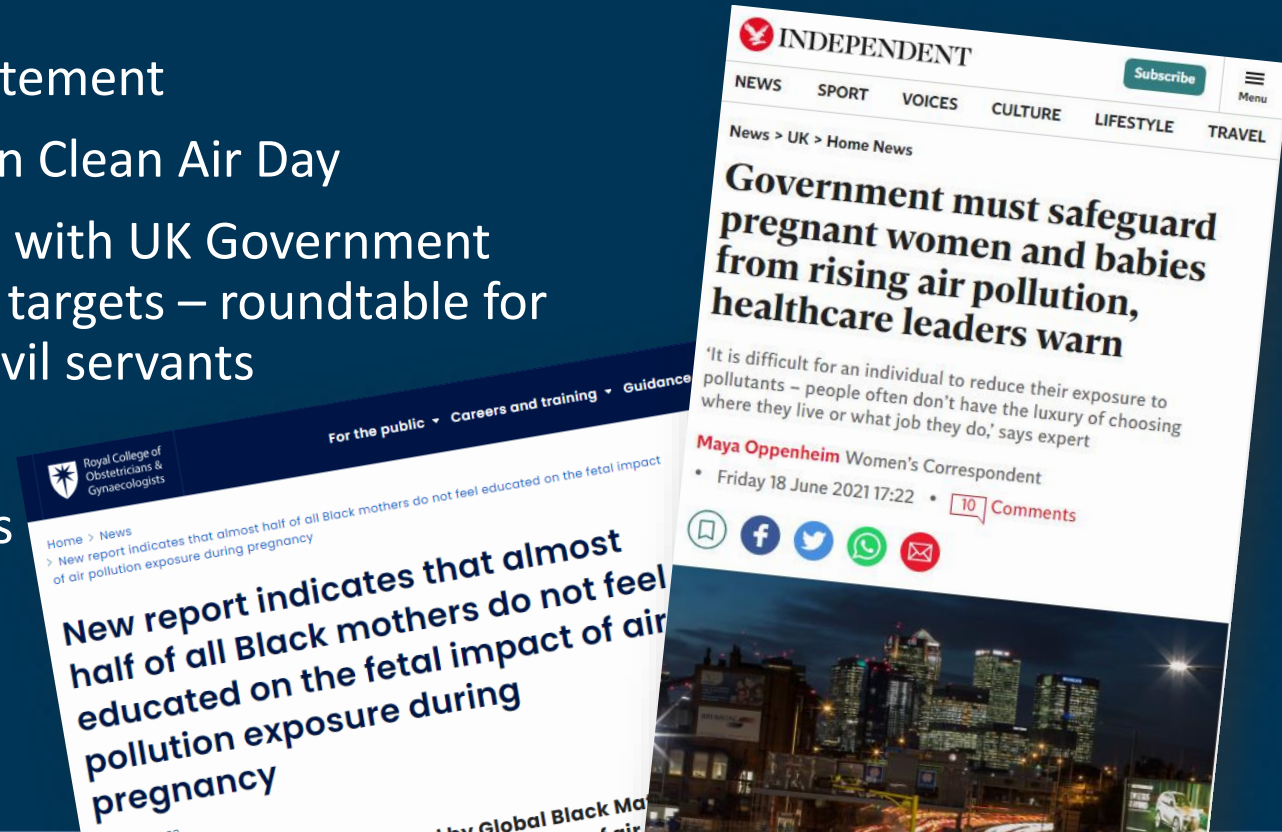
...nce it deserves in COP meetings.
...be catastrophic harm to health, but
...s to health.
...rganisations from the UK Health
...ome Sharma's recent calls for more
...ers to step up and increase
...rs to Alok Sharma here

Air pollution and women's health



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- RCOG position statement
- Media coverage on Clean Air Day
- 2022 engagement with UK Government on environmental targets – roundtable for MPs, Peers and civil servants
- Link to maternal health inequalities





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Green Surgery Report and Theatre Checklist

Natasha Abdul Aziz

James Phillips

July 2023



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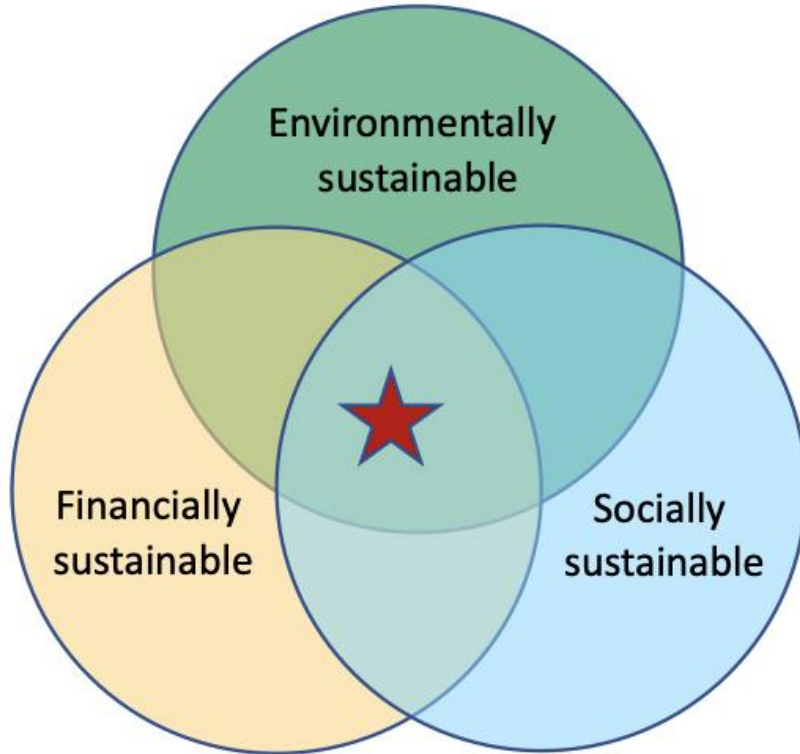
Green Surgery report

Executive Summary

The Green Surgery report provides initiatives and recommendations to improve the environmental impact of surgical care, based upon evidence synthesis and case studies. It also considers barriers and facilitators to implementation. Within the operating theatre, the key contributors to greenhouse gas emissions are products (particularly single-use items), energy consumption, and anaesthesia.

In line with these concepts, 'sustainable healthcare' is defined in this report as the **provision of healthcare in a manner which meets health and wellbeing needs in a way which does not directly or indirectly negatively impact on health** (or potential to provide healthcare) of other populations, separated by socioeconomic status, geography, or time. This report focuses on the environmental element of sustainable healthcare, and the term 'sustainability' and 'sustainable' are used hereon in to refer to environmental sustainability.





Green Theatre checklist



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Intercollegiate Green Theatre Checklist



Below are a list of recommendations to reduce the environmental impact of operating theatres. All the relevant guidance and published evidence has been included in the Compendium of evidence, accessed via the QR code:

Anaesthesia

- 1 Consider local/regional anaesthesia where appropriate (with targeted O₂ delivery only if necessary)
- 2 Use TIVA whenever possible with high fresh gas flows (5-6 L) and, if appropriate, a low O₂ concentration
- 3 Limit Nitrous Oxide (N₂O) to specific cases only and if using:
 - ▶ check N₂O pipes for leaks or consider decommissioning the manifold and switching to cylinders at point of use;
 - ▶ introduce N₂O crushers for patient-controlled delivery.
- 4 If using inhalational anaesthesia:
 - ▶ use lowest global warming potential (sevoflurane better than isoflurane better than desflurane);
 - ▶ consider removing desflurane from formulary;
 - ▶ use low-flow target controlled anaesthetic machines;
 - ▶ consider Volatile Capture Technology.
- 5 Switch to reusable equipment (e.g. laryngoscopes, underbody heaters, slide sheets, trays)
- 6 Minimise drug waste ("Don't open it unless you need it", pre-empt propofol use)

Preparing for Surgery

- 7 Switch to reusable textiles, including theatre hats, sterile gowns, patient drapes, and trolley covers
- 8 Reduce water and energy consumption:
 - ▶ rub don't scrub: after first water scrub of day, you can use alcohol rub for subsequent cases;
 - ▶ install automatic or pedal-controlled water taps.
- 9 Avoid clinically unnecessary interventions (e.g. antibiotics, catheterisation, histological examinations)

Intraoperative Equipment

- 10 REVIEW & RATIONALISE:
 - ▶ surgeon preference lists for each operation - separate essential vs. optional items to have ready on side;
 - ▶ single-use surgical packs - what can be reusable and added to instrument sets? what is surplus? (request suppliers remove these);
 - ▶ instrument sets - open only what and when needed, integrate supplementary items into sets, and consolidate sets only if it allows smaller/fewer sets (please see guidance).
- 11 REDUCE: avoid all unnecessary equipment (eg swabs, single-use gloves), "Don't open it unless you need it"
- 12 REUSE: opt for reusables, hybrid, or remanufactured equipment instead of single-use (e.g. diathermy, galliots, kidney-dishes, light handles, quivers, staplers, energy devices)
- 13 REPLACE: switch to low carbon alternatives (e.g. skin sutures vs. clips, loose prep in galliots)

After the Operation

- 14 RECYCLE or use lowest carbon appropriate waste streams as appropriate
 - ▶ use domestic or recycling waste streams for all packaging;
 - ▶ use non-infectious offensive waste (yellow/black bags), unless clear risk of infection;
 - ▶ ensure only appropriate contents in sharps bins (sharp/drugs);
 - ▶ arrange metals/battery collection where possible.
- 15 REPAIR: ensure damaged reusable equipment is repaired, encourage active maintenance
- 16 POWER OFF: lights, computers, ventilation, AGSS, temperature control when theatre empty

DISCLAIMER: These suggestions are based upon current evidence and broadly generalisable, however, specific environmental impacts will depend upon local infrastructure and individual Trusts' implementation strategies.

Intercollegiate Green Theatre Scorecard, November 2022

General Principles for Greener Surgical Care Pathways

Although this checklist focuses on the operating theatre alone, there are a number of other interventions that can be introduced along the whole surgical patient pathway. The biggest way to reduce the carbon footprint of surgery is primary prevention of surgical disease. The first principle of sustainable surgery is therefore health promotion and disease prevention/optimisation through lifestyle changes, dietary advice, patient education and patient empowerment.⁴

It is important to note however, that surgery in itself may actually be less environmentally impactful (as well as more economical) than conservative or medical management of certain chronic conditions.⁵

When surgery is necessary, the whole pathway should be rationalised and streamlined, including utilising virtual consultations, one-stop clinics, diagnostic hubs, daycase surgery⁶ whenever possible and clinically appropriate.

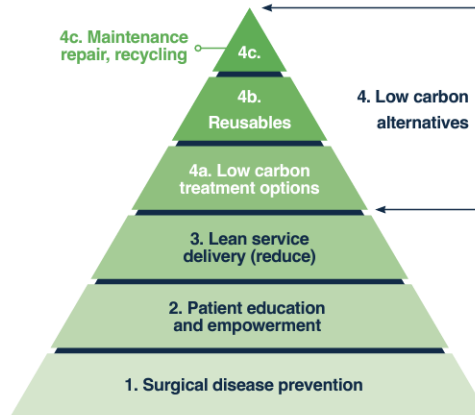


Figure 1. Principles of sustainability in healthcare.⁴



The Centre for Sustainable Healthcare

Website: www.sustainablehealthcare.org.uk

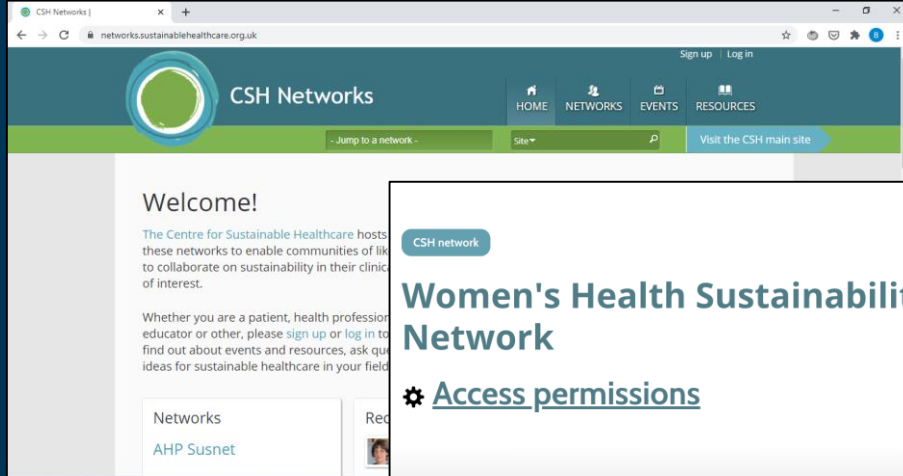


- Courses include a half-day self-study, a half day online workshop and online project follow-up forums
 - Introduction to sustainable healthcare
 - Sustainability in Quality Improvement
- SusQI website: www.susqi.org





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CSH network

Women's Health Sustainability Network

[Access permissions](#)




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to visit the
network





Where next?

We want to hear your views

- How can the College support you to integrate sustainability into your day-to-day practice?
- Which issues should the College be talking about with policymakers?
- How can the College support you in talking to patients about climate change, environmental pollution, or sustainable healthcare?
- Do you have examples from your own hospital, Trust or Health Board which others in the specialty should be considering?





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Thank you!

policy@rcog.org.uk



References

- UNDP, [Gender and Climate Change](#) (2015)
- MSI Reproductive Choices, [The Impact of the Climate Crisis on Reproductive Choice](#) (2021)
- Bongaerts et al, 'Maternal exposure to ambient black carbon particles and their presence in maternal and fetal circulation and organs: an analysis of two independent population-based observational studies' *The Lancet Planetary Health* (2022) [doi.org/10.1016/S2542-5196\(22\)00200-5](https://doi.org/10.1016/S2542-5196(22)00200-5)
- Giudice et al, 'Climate change, women's health, and the role of obstetricians and gynecologists in leadership' *IJGO* (2021) doi.org/10.1002/ijgo.13958
- Greenpeace and the Runnymede Trust, [Confronting injustice: racism and the environmental emergency](#) (2022)
- RCOG, [UK Government consultation on environmental targets: target proposals for air quality](#) (2022)
- World Meteorological Organization, [Past eight years confirmed to be the eight warmest on record](#) (2023)
- Intergovernmental Panel on Climate Change, [Synthesis Report of the Sixth Assessment Report](#) (2023)
- Office of the United Nations High Commissioner for Human Rights, [Analytical study on the promotion and protection of the rights of persons with disabilities in the context of climate change](#) (2020)
- Howard et al, 'Learning to treat the climate emergency together: social tipping interventions by the health community' *The Lancet Planetary Health* (2023) [doi.org/10.1016/S2542-5196\(23\)00022-0](https://doi.org/10.1016/S2542-5196(23)00022-0)
- <https://ukhealthalliance.org/sustainable-healthcare/green-surgery-project/>