



Professor Geraldine Walters
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9 May 2019

Dear Professor Walters,

NMC – Future Midwife Consultation response

We are writing in response to the Future Midwife Consultation to ask you to consider the role of midwives in reducing climate change emissions from the use of nitrous oxide.

Climate change has been identified as the greatest health threat of the 21st century.¹

The “Lancet Countdown: Tracking Progress on Health and Climate Change” (2018) recommends that all health science faculties rapidly integrate education on the health impacts of climate change and healthcare practices that reduce emissions². This requires all members of the health professions to be aware of the scale of the problem, the need for an urgent response, and examples of how this is being achieved in their specialty. The General Medical Council now includes “*principles, methods and knowledge of ... sustainable healthcare*” in its required outcomes for medical graduates³.

The National Health Service was the first health system in the world to measure its carbon footprint, and its Sustainable Development Unit has shown that despite a 27.5% increase in clinical activity, between 2007 and 2017 it was able to reduce its carbon emissions by 18.5%⁴. However, much greater reductions are required going forwards.

The NHS Long Term Plan (LTP) sets out commitments to deliver on the carbon reduction requirements of the 2008 UK Climate Change Act. By 2030, further annual carbon savings of 10,360 ktCO₂e are required, of which 2% (i.e. 210 ktCO₂e) will be delivered through “transforming anaesthetic practices” – including the use of nitrous oxide across healthcare.⁵

This is a significant challenge as it represents a 45% reduction in emissions from current use of anaesthetic gases, of which maternity services account for more than one quarter:

Carbon footprint breakdown for anaesthetic gases⁶

Anaesthetic gases total: 477 ktCO₂e

- Surgery (N₂O and other gases): 209 ktCO₂e
- Mobile (ambulance / emergency, N₂O): 138 ktCO₂e
- **Maternity (N₂O): 130 ktCO₂e**

¹ Costello A, Abbas M, Allen A, et al. Managing the health effects of climate change. *Lancet* 2009; 373: 1693–733.

² Watts N. et al, The Lancet Countdown on health and climate change: from 25 years of inaction to a global transformation for public health. *Lancet* 2018; 391: 581-630

³ General Medical Council, *Outcomes for graduates 2018*: GMC, 2018.

⁴ Sustainable Development Unit (2018). Natural Resource Footprint: Reducing the use of natural resources in health and social care.

⁵ NHS England (2019). The NHS Long Term Plan. Appendix: Health and the environment.

Note: the delivery of the LTP commitment on transforming anaesthetic practice is being supported by a working group chaired by the Sustainable Development Unit and the Association of Anaesthetists, with representation from the Centre for Sustainable Healthcare.

⁶ Sustainable Development Unit (2016). NHS Carbon Hotspots Update for the health and care sector in England 2015 (Appendix 4)

We believe that the implications for midwifery practice of the LTP commitment on reducing climate change emissions should be considered, and should be reflected in the training of midwifery students.

In addition to reducing climate change emissions, this is an opportunity to address the potential harm caused to midwives from occupational exposure to nitrous oxide⁷, which has been linked to a range of health effects including infertility⁸.

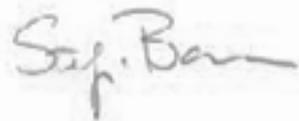
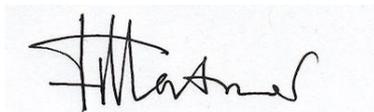
Sustainable midwifery education and practice

Many health professional degree programmes have already incorporated sustainability, however midwives have a particularly powerful role in society as trusted guardians of family health and wellbeing. For this reason there is a tremendous opportunity for midwives to:

- Influence policy within and beyond the profession by responding to global environmental threats to health – including through NMC leadership.
- Influence culture (society) by leading by example in their personal and professional lives, demonstrating that environmental sustainability can help improve personal and population health.
- Reduce waste and greenhouse gas (GHG) emissions in clinical practice. The health sector is a significant contributor to chemical pollution, plastic waste and GHG emissions, but sustainable quality improvement measures can improve care, reduce costs and reduce emissions.

Please get in touch at frances.mortimer@sustainablehealthcare.org.uk if we can help in any way.

Yours sincerely,



Dr. Frances Mortimer & Ms. Stefi Barna
Co-Directors, Sustainable Healthcare Education, Centre for Sustainable Healthcare



Professor Anthony Costello
Chair, The Lancet Countdown on Health and Climate Change
Chair, Sustainable Healthcare Education Steering Committee, Centre for Sustainable Healthcare

⁷ Henderson KA, Matthews IP, Adisesh A, et al Occupational exposure of midwives to nitrous oxide on delivery suites Occupational and Environmental Medicine 2003;60:958-961

⁸ Baird PA. Occupational exposure to nitrous oxide—not a laughing matter. N Engl J Med 1992;327:1026–7