

RESPIRATORY MEDICINE 2020 – HIGH QUALITY, LOW CARBON

“We have an opportunity to develop a paradigm of care for the 21st century, one which is better for patients and better for the environment. Healthcare has a responsibility not to follow but to lead on carbon reduction; respiratory medicine should be at the forefront.”

Dr Robert Winter OBE, National Clinical Director for Respiratory Disease, 23 March 2012

Introduction

In March 2012, leading members of the respiratory care community attended a Summit entitled “Respiratory Care 2020: High Quality, Low Carbon”ⁱ. The meeting identified priority areas for action to improve the environmental sustainability of respiratory services. This document outlines the imperative for sustainability in healthcare and the opportunities identified at the Summit to reduce carbon while benefiting respiratory patients and care.

Summary Statement

1. Sustainability is fundamental to health

Human health is fundamentally dependent on the health of ecosystems, which provide the essentials to life, including food, water and oxygen. These ecosystems are currently threatened on a global scale by climate change, combined with the loss of natural habitats. The impact of climate change on mortality is already being felt through changing patterns of communicable disease, diarrhoea and malnutrition in developing countriesⁱⁱ. The projected impacts of a further temperature rise are catastrophic; the UCL Lancet Commission has identified climate change as the greatest global health threat of the 21st centuryⁱⁱⁱ.

People with chronic respiratory diseases are particularly vulnerable to climate change and loss of urban green space, both of which have a direct impact on air quality^{iv}.

2. The health sector has a responsibility to lead on improving sustainability

Mitigating the effects of climate change at all levels is therefore a public health imperative^{vi}, and leading physicians worldwide have called upon governments to act decisively on climate change^{vii}. Yet, at the same time, the health sector is itself a major contributor to greenhouse gases: the NHS in England produced 20 million tonnes of CO₂ equivalents in 2010, approximately 25% of public sector emissions^{viii}. The responsibility of the health service to lead on improving sustainability and reducing greenhouse gas emissions is recognised in strong position statements from a number of medical Royal Colleges^{ix x xi xii} and has led to the commitment by the NHS to reduce carbon emissions to 80%

below 1990 levels, by 2050, in line with the legally-binding targets set by the UK Climate Change Act (2008)^{xiii}.

3. Transformation to an environmentally sustainable health system offers an opportunity to improve the quality and affordability of respiratory care, while preventing respiratory disease and safeguarding services for the future.

In March 2012, leading members of the respiratory care community attended a Summit entitled “Respiratory Care 2020: High Quality, Low Carbon”, convened by the Centre for Sustainable Healthcare. The group identified priority areas for action to improve the environmental sustainability of care for patients with chronic obstructive pulmonary disease (COPD).

Among the priorities identified were:

- Prevention of COPD/acute episodes by increasing provision of evidence-based smoking cessation interventions^{xiv}, promoting physical activity and by influencing policies affecting air quality
- Supporting patients to take a greater role in managing their own health by increasing access to and uptake of pulmonary rehabilitation programmes and incorporating behaviour change support
- Redesign of clinical systems to minimise low-value activity, improving the timeliness and targeting of care, for example through the implementation of discharge care bundles^{xv}, and via better integration of respiratory, emergency and primary care systems.
- Supporting preferential use of clinically-effective, low-carbon treatments and technologies by analysing the carbon costs of clinical pathways and publicising the carbon impacts of common treatments, e.g. relative carbon impact of metered-dose inhalers (MDI) vs. dry powder inhalers (MDIs have a large carbon impact due to the global warming potential of the propellants used).

17.4.2012

NOTES & REFERENCES

ⁱ Summit attendees: Dr Angshu Bhowmik, Geraldine Cunningham, Dr Robert Winter (Chair), Dr Derek Chase, Dr Noel Baxter, Lindsey Hayes, Dr Toby Hillman, Dr David Pencheon, Dr Nicholas Hopkinson, Dr Jennifer Quint, Dr Jonathan Fuld, Mark Rhodes, Marcel de Jong, Tim Harris, Lucy Bramwell, Dr Mark Starr, Dr Frances Mortimer, Dr Deon Louw, Rachel Stancliffe.

ⁱⁱ Organization WHO/UNEPaWM. Climate change and human health - risks and responses. France: WHO, 2003 (the authors of this report estimate that the climatic changes which have occurred since 1961 have caused 150,000 deaths per year and have been responsible for a total loss of 920,300 Disability-Adjusted Life Years (DALY) across the world)

ⁱⁱⁱ Costello et al. Managing the Health Effects of Climate Change. The Lancet, Volume 373, Issue 9676, Pages 1693 - 1733, 16 May 2009

- ^{iv} IPCC Fourth Assessment Report: Climate Change 2007 (AR4), Chapter 8, Human Health. Intergovernmental Panel on Climate Change, 2007.
- ^v Broadmeadow, M.S.J and Freer-Smith, P.H (1996). Urban woodland and the benefits for local air quality. DOE Research for Amenity tree Series No. 5. The Stationery Office, London.
- ^{vi} Griffiths JS, Lindsay. Sustaining a healthy future: taking action on climate change. Faculty of Public Health, 2008.
- ^{vii} Politicians must heed health effects of climate change. *BMJ* 2009;339:b3672
- ^{viii} Sustainability in the NHS: Health Check 2012, NHS Sustainable Development Unit, 2012
- ^{ix} It's time to act on climate change, joint statement from the Faculty of Public Health and 20 other organisations, January 2008.
- ^x Royal College of Paediatrics and Child Health, Position Statement on Climate Change (2009)
- ^{xi} How doctors can close the gap Tackling the social determinants of health. Policy Statement, Royal College of Physicians 2010.
- ^{xii} Royal College of General Practitioners Position Statement on Climate Change and Health (2010)
- ^{xiii} Saving Carbon, Improving Health: NHS Carbon Reduction Strategy for England. NHS Sustainable Development Unit, 2009.
- ^{xiv} Hoogendoorn M et al. Long-term effectiveness and cost-effectiveness of smoking cessation interventions in patients with COPD. *Thorax* 2010, vol 65, 711-718
- ^{xv} Hopkinson NS et al. Designing and implementing a COPD discharge care bundle. *Thorax* 2012 (67) 90-92