

Facing the future: Sustainability for the Medical Royal Colleges

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SUSTAINABLE
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Contributors

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Introduction

Aims

- To inform Medical Royal Colleges about sustainability initiatives occurring within other colleges.
- To share knowledge about college-led sustainability initiatives occurring within clinical specialties and amongst their membership.
- To provide guidance for colleges about how they can improve sustainability within their organisation, amongst their members and throughout their specialty.

Sustainable Healthcare

Sustainable healthcare involves ensuring the ability to provide good quality care for future generations by balancing the economic, environmental, and social constraints and demands within health care settings. A sustainable healthcare system maintains population health, reduces disease burden and minimises use of healthcare services.

Sustainability for Royal Colleges

Royal Colleges can demonstrate good practice by reducing the environmental impacts of their organisations and developing sustainability initiatives both within their organisations and amongst their members. Improving sustainability within clinical practice across medical and surgical specialties is vital because resources are scarce and constraints are increasing across economic and environmental domains.

Sustainability within Colleges

Royal Colleges should aspire to keep the carbon footprint of their organisation to a minimum. Improving sustainability involves ensuring that college policies align with national requirements and that corporate responsibility is embedded in routine operations.

This involves reviewing the following areas:

- Travel
- Procurement
- Facilities management
- Workforce behaviour
- Community engagement
- Buildings
- Recruitment and commissioning
- Quality Assurance

Influencing membership

Royal Colleges are in a unique position in their ability to reach and influence their membership. They lie at the heart of each specialty and can promote high quality, sustainable clinical care by embedding sustainability into the education and training of doctors. Colleges can provide guidance, leadership and incentives for doctors to develop the knowledge and skills needed to introduce sustainable models of care within their specialty. They do this through:

- Education and training
- Defining roles and responsibilities
- Guidance for revalidation
- Setting clinical standards
- Providing resources for clinicians
- Disseminating knowledge

The Royal College of Physicians has developed a number of sustainability initiatives within their organisation. They have:

- An Environmental Steering Group
- A '*Green Champion Scheme*' for college members of staff
- A '*Green Day*' to promote commitment to sustainability and offer opportunities for involvement of and practical guidance for staff
- A green RCP mailbox, where members are invited to share sustainable initiatives they are involved in at green@rcplondon.ac.uk
- A specific sustainability programme in: leadership, chemicals, waste, energy, water, transportation, food, pharmaceuticals, buildings, and purchasing
- An energy policy
- A free bike service scheme
- Become a member of the Global Green and Healthy Hospitals Network
- Nine wormeries in the RCP garden to recycle food and garden waste
- A Waste Hierarchy Policy that reduces waste sent to landfill and improves procurement decisions
- A 'green' college mascot (Eric the polar bear)
- Supplied branded '*Eric the polar bear*' glasses to staff and stopped using plastic cups

Sustainability

The triple bottom line of sustainability

The triple bottom line framework was developed to help organisations to understand their broader impacts¹ and consists of economic, environmental and social domains. Every organisation has impacts on, and uses resources from these three domains. To improve sustainability, an organisation must ensure that their resource use does not exceed available supplies, that their impacts do not negatively affect the wider community or future generations.

Sustainability in clinical practice

When we think of sustainability from a healthcare perspective a focus must be very explicitly maintained on the resources that healthcare services are using. Healthcare services use financial capital to develop and run services. They use environmental capital to manufacture medication and medical equipment, to procure food and other clinical supplies. They use social capital, in the form of staff, to run services. Given the number of constraints on healthcare today, doctors need to be aware of the full extent of the impacts of their practice.

The Royal College of Psychiatrists has invested in a two-year full-time sustainability fellowship for an advanced trainee. This has accomplished the following:

- Advanced the evidence base for sustainability in psychiatry
- Sustainability commissioning guidance (in development)
- National sustainability network of psychiatrists
- Annual sustainability summit
- Sustainability policy for members (in development)
- Clinical team award for sustainability
- Sustainability blog on college website
- Sustainability exhibition stand at faculty conferences

The Royal College of Pathologists has developed many clinical initiatives to reduce wasted resource including a 'Demand Optimisation' group that aims to ensure appropriate laboratory testing. In addition, some laboratories have stopped using paper laboratory reports. Two years ago one laboratory issued three million lab test results on pieces of paper each year. Changing to electronic results has reduced this number to five thousand pieces of paper. This laboratory represents 1% of the UK in terms of laboratory tests.

Current challenges

The challenge we face in healthcare is to continue to provide high quality services despite wide-ranging constraints:

Limited financial resources

Healthcare is unlikely to have a real funding increase in next ten years² but healthcare activity increases 4-5% year on year³.

Government legislation

The Climate Change Act (2008) has set standards of an 80% reduction to the carbon footprint by 2050. The NHS is legally bound to meet these targets. Importantly, the majority of the NHS carbon footprint is made up of clinical factors such as clinical procurement (pharmaceuticals and medical equipment) and clinically related travel⁴, rather than buildings and direct energy use.

Health effects of climate change

The World Health Organisation and the Lancet commission stated in 2009 that climate change is ‘the biggest threat to global health in the 21st century’⁵. Climate change can and will increasingly affect health in the UK. Services need to be adaptable to the health conditions that will be caused or affected by these changes.

Increasing demands

Patients’ expectations are increasing, which, along with an ageing population leads to increased demand on healthcare services⁶.

Advancing technology

The internet and social media are revolutionising the way people live and the way they seek health advice.

The Royal College of Ophthalmologists has produced a position paper entitled “Sustainability in Ophthalmology” calling for leadership to develop best practice in sustainability and to integrate this into service redesign.

The Royal College of Physicians and Surgeons of Glasgow has set up video conferencing facilities and have radically reduced domestic travel by 50%

What does a sustainable healthcare service look like?

- It prioritises prevention
- It empowers patients, carers and communities to promote health
- It promotes self-care
- It promotes positive behaviour to improve and maintain health
- It creates balance between economic, environmental, and social constraints
- It uses resources responsibly, effectively, and efficiently
- It reduces waste
- It embraces low carbon technologies which improve the quality and experience of care

The Royal College of General Practitioners has:

- Been involved in developing a part-time sustainability fellow
- Developed sustainability exam questions for membership examinations
- Developed a carbon footprint tool for primary care
- A board level sustainable development management plan
- Appointed a formal Board level sustainability lead
- Internal and external sustainability policy documents
- Published about sustainability in the BJGP journal

The Royal College of Anaesthetists has appointed an environmental advisor for the college, is forming links with engineers and the working environment to consider the impact on theatre energy use, and has developed an environmental calculator for anaesthetic gases.

The Royal College of Radiologists:

- has developed radiology referral guidelines the aim of which is to offer patients ‘the best test first’, saving time and money, avoiding delay and minimising radiation exposure
- has advocated introducing radiology networks to reduce patient travel by providing radiological expertise where it is not available locally
- has proposed improved use of IT in the NHS to transfer images, reducing repeat tests, limiting patient exposure to radiation and travel, and speeding up diagnosis
- looks to services being re-configured so that radiology is more closely integrated with primary care

The Royal College of Obstetricians and Gynaecologists aims to produce a comprehensive carbon footprint of the college (internal / external personnel, national / international activities). Since 2013 they have been monitoring the CO2 produced by members travelling on college business, and electricity, gas and water usage.

The Royal College of Paediatrics and Child Health has a ‘Go Green Week’ where each day is themed to raise awareness and encourage staff, members and visitors to make small changes to their working habits to positively impact the environment and create a more sustainable way of working. ‘Green champions’ are appointed and points are awarded for various activities, sustainability tips, quizzes, and personal pledges.

Table 1 Buildings, energy and procurement

Activities

	Faculty of Dental Surgery	Faculty of Intensive Care Medicine	College of Emergency medicine	Faculty of Occupational Medicine	Faculty of Pharmaceutical Medicine **	Faculty of Public Health	Royal College of Anesthetists	Royal College of General Practitioners	Royal College of Obstetricians & Gynecologists	Royal College of Ophthalmologists	Royal College of Paediatrics & Child Health	Royal College of Pathologists	Royal College of Psychiatrists	Royal College of Physicians	Royal College of Physicians of Edinburgh	Royal College of Physicians of Ireland	Royal College of Physicians & Surgeons of Glasgow	Royal College of Radiologists	Royal College of Surgeons	Royal College of Surgeons of Edinburgh	Royal College of Surgeons of Ireland	Royal College of Radiologists	
Solar Photovoltaic Panels														•									
College carbon footprint/monitoring								•	•		•			•						•			
Sustainable Development Management Plan								•									•						
Energy Policy								•									•			•			•
Collecting data/action on member travel								•	•		•				•					•			
Improved heating efficiency / reduction in room temperature								•	•						•		•			•			•
Sustainable procurement														•									•
Video conferencing								•	•			•			•		•			•	•		•
Transfer to virtual servers								•												•			•
Waste policy / zero waste to landfill								•			•			•	•						•		
Sustainable requirements of contracted services								•	•						•		•			•			•
Progress on paper reduction							•	•	•					•	•						•		•
Examined viability of paperless publishing*				•				•			•	•		•	•						•		
Efficient / LED / infrared lighting							•	•	•						•		•			•	•		•
In-house filtered water system / end to bottled water							•	•	•					•	•					•			
Sourcing at least some organic, local and fair trade food								•	•		•			•						•	•		•
Signatories to 10:10						•		•															
Onsite food composting														•							•		
Green/growing roof										•													

Table 2 Staff engagement

Activities	Faculty of Dental Surgery	Faculty of Intensive Care Medicine	College of Emergency medicine	Faculty of Occupational Medicine	Faculty of Pharmaceutical Medicine **	Faculty of Public Health	Royal College of Anaesthetists	Royal College of General Practitioners	Royal College of Obstetricians & Gynecologists	Royal College of Ophthalmologists	Royal College of Paediatrics & Child Health	Royal College of Pathologists	Royal College of Psychiatrists	Royal College of Physicians	Royal College of Physicians of Edinburgh	Royal College of Physicians of Ireland	Royal College of Physicians & Surgeons of Glasgow	Royal College of Radiologists	Royal College of Surgeons	Royal College of Surgeons of Edinburgh	Royal College of Surgeons of Ireland	Royal College of Radiologists	
Green champions/green group									•					•						•			
Sustainability day/week									•		•			•									
Encouraging physical activity in staff								•		•	•			•	•					•		•	
Staff cycle to work scheme								•			•									•	•	•	
Reduction in plastic/paper cup use									•					•						•	•		
Sustainability featured in staff newsletter							•		•					•						•			
Clothing recycling														•									

*Currently not financially viable due to HMRC VAT rules

** Pharmaceutical medicine is a non-clinical specialty that exists largely in the private sector where separate initiatives may exist that would fall into section 4.

Table 3 Leadership on sustainability

Activities

	Faculty of Dental Surgery	Faculty of Intensive Care Medicine	College of Emergency medicine	Faculty of Occupational Medicine	Faculty of Pharmaceutical Medicine **	Faculty of Public Health	Royal College of Anaesthetists	Royal College of General Practitioners	Royal College of Obstetricians & Gynecologists	Royal College of Ophthalmologists	Royal College of Paediatrics & Child Health	Royal College of Pathologists	Royal College of Psychiatrists	Royal College of Physicians	Royal College of Physicians of Edinburgh	Royal College of Physicians of Ireland	Royal College of Physicians & Surgeons of Glasgow	Royal College of Radiologists	Royal College of Surgeons	Royal College of Surgeons of Edinburgh	Royal College of Surgeons of Ireland	Royal College of Radiologists	
Sustainability lead (clinical or administrative)						•	•	•	•					•								•	
Sustainability focus within training / exam question underway						•		•		•			•	•	•								
Sustainability climate / change college policy / position statement							•	•		•	•		•									•	
Sustainability featured in clinical journal/ president's bulletin								•					•	•							•		
Sustainability as feature of main college conference (past or planned)						•		•		•			•	•	•								
Conference / event on sustainability (past or planned)								•	•		•		•	•					•				
Sustainability page on website						•			•					•									
Publication on sustainability / climate change						•	•	•															
Sustainability as a work stream within committee or clinical group										•													
Clinical sustainability network						•							•	•									
Action on hazardous chemicals														•					•			•	
Signatory to Climate & Health Council Pledge					•	•	•	•			•		•	•			•						
Member of Global Green and Healthy Hosp Network														•									
Warwick Manifesto on sustainability and health						•																	

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** Pharmaceutical medicine is a non-clinical specialty that exists largely in the private sector where separate initiatives may exist that would fall into section 4.

Table 4 Sustainable practice within the specialty

Activities	Faculty of Dental Surgery	Faculty of Intensive Care Medicine	College of Emergency medicine	Faculty of Occupational Medicine	Faculty of Pharmaceutical Medicine **	Faculty of Public Health	Royal College of Anesthetists	Royal College of General Practitioners	Royal College of Obstetricians & Gynecologists	Royal College of Ophthalmologists	Royal College of Paediatrics & Child Health	Royal College of Pathologists	Royal College of Psychiatrists	Royal College of Physicians	Royal College of Physicians of Edinburgh	Royal College of Physicians of Ireland	Royal College of Physicians & Surgeons of Glasgow	Royal College of Radiologists	Royal College of Surgeons	Royal College of Surgeons of Edinburgh	Royal College of Surgeons of Ireland	Royal College of Radiologists	
Sustainability fellow								•					•										
Sustainability standards set for specialty							•																
Tools for sustainable clinical practice developed							•	•															
Work underway to consider environmental impact of specialty							•	•		•		•	•	•	•			•					•
Patient involvement initiative													•	•									
Supporting members to develop sustainable clinical practice								•					•	•									
Position paper on sustainable clinical practice within the specialty								•		•													
Discussion at exec/board level on the development of sustainability within the specialty				•			•					•	•										
Engaged with Choosing Wisely Initiative and/or Academy Waste Report							•		•			•	•	•	•			•	•	•			
Other waste reduction initiatives within the specialty												•	•				•	•	•				•
Redesign of clinical processes to reduce paper use within the specialty												•											

*Currently not financially viable due to HMRC VAT rules

** Pharmaceutical medicine is a non-clinical specialty that exists largely in the private sector where separate initiatives may exist that would fall into section 4.

Recommendations: within college

Level 1: Understanding sustainability

1. Appoint a Board level sustainability representative
A college Board member who can present opportunities for sustainable improvement within the college
2. Include sustainability as an agenda item at each Board meeting
To ensure sustainability is embedded in all college processes
3. Develop a sustainable development management plan
A Board approved document that defines college objectives on sustainable development, and sets out a plan of action

Level 2: Integrating sustainability

4. Complete an internal audit of the carbon footprint of college activities
To provide focus on areas of college activity that are carbon intensive
5. Arrange staff away days that focus on improving the sustainability of the college
To include areas such as healthy lifestyles and incentivising active travel
6. Stop paper-based communications with college staff and membership
Use email and e-newsletters to inform members about college news

Level 3: Embedding sustainability

7. Install video conferencing facilities throughout the college
To reduce costs associated with travel and wasted staff time
8. Develop paperless college conferences
Use emails to advertise conferences and use 'apps' for conference programmes
9. Transfer energy supply to company that only uses renewable energy sources
To reduce environmental impacts associated with college buildings
10. Transfer to electronic distribution of college journal publications
To demonstrate to members the college's commitment to sustainability

Recommendations: amongst membership

Level 1: Understanding sustainability

1. Appoint a college member as a sustainability representative
A college member who can highlight opportunities for improving sustainability within the specialty at a college level and to college members
2. Publish a college sustainability policy
Focused on how doctors can improve the sustainability of their clinical practice
3. Develop an online case study series outlining sustainable practices in the specialty
A set of case studies that demonstrate local, clinical sustainability projects

Level 2: Integrating sustainability

4. Fund part-time (or 'mini') fellowships in sustainability
A foundation or core trainee with funds to spend regular time during their training exploring sustainable models of care
5. Create a college award for sustainability
To encourage doctors to initiate service improvement projects that improve the sustainability of their service
6. Develop a national sustainability network
An online forum for doctors in the specialty to meet and discuss their experiences and share ideas about improving the sustainability of clinical care

Level 3: Embedding sustainability

7. Fund a full time research fellowship in sustainability
A core or advanced trainee to spend one or two years out of programme increasing awareness of sustainability and contributing to the evidence base
8. Embed sustainable learning objectives in the postgraduate curriculum
To include: understanding the concept of sustainability, awareness of the health effects of climate change, and mitigation and adaptation strategies
9. Include sustainability exam questions at membership level examinations
To ensure trainees are aware of sustainable and low carbon clinical practice
10. Run an annual sustainability conference
A college meeting that focuses on sustainability within the specialty

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