



Case Study: Special Study Module in Sustainable Healthcare

Summary

Two final year medical students in Oxford took part in a two-week special study module (SSM) on “Sustainable Healthcare” in 2011-12. The students each chose to focus on one of the four dimensions of sustainable healthcare identified by the Sustainable Healthcare Education (SHE) Network, and undertook a related project.

Start date: February 2012

End date: March 2012

Background

The Centre for Sustainable Healthcare is based in Oxford and seeks to support the transformation of healthcare for a sustainable future. We wished to offer medical students in Oxford the opportunity to learn about sustainability, to gain some practical experience, and to reflect upon the opportunities to benefit health through preventative, low carbon healthcare in their future careers.

Course Description

Learning outcomes

Both students were expected to achieve the following core learning outcomes:

- Understand that the spread or containment of diseases, globally and locally, is affected by human behaviour and environmental and climatic change
- Understand that clinical care contributes significantly to environmental degradation, due to resource use (mainly water, raw materials and fossil fuels) and waste production (mainly carbon, other greenhouse gases, non-clinical waste for landfill and clinical waste for incineration).
- Understand that clinicians can maximise the sustainability and quality of care by using medical technologies effectively, managing information appropriately, minimising low value activities and using natural resources (non-pharmacological interventions) and human resources (self care) effectively

In addition, each student was asked to review the SHE Network recommended learning outcomes (see <http://sustainablehealthcare.org.uk/sustainable-healthcare-education/resources/2012/01/sustainable-healthcare-priority-learning-outcomes>) and to select an area to focus on in further reading and for a project.

One student chose the “Management” theme. She attended an NHS Sustainable Development conference, with focus on Trust and Estates management. She collaborated with an anaesthetist and an operating department practitioner at the John Radcliffe Hospital in Oxford, who had been responsible for introducing recycling into the operating theatres, to plan and carry out a theatre waste audit and write up a case study, published online at <http://map.greenerhealthcare.org/oxford-radcliffe-hospitals-nhs-trust/introducing-recycling-operating-theatres>. In order to support further change in staff recycling behaviours, she (and students from another SSM) created a poster to inform staff about the initiative and feed back the impacts to date.

The second student chose the “Clinical Practice” theme. She carried out a literature review on evidence for walking interventions in hypertension and wrote an article to communicate this topic in a clinical framework for a student/GP audience (currently under revision). In addition, she attended Green Week lectures on climate change and health at the Whittington Hospital and interviewed participants in their Green Ward competition for a blog article, which was posted in the Sustainable Healthcare Education Network at <http://sustainablehealthcare.org.uk/sustainable-healthcare-education/blog/2012/03/medical-student-reports-whittington-hospital-green-wee>

Pedagogical format

Because the students were undertaking the SSM in two separate 2-week blocks, the main format was individual study, with educational supervision via email and face-to-face meetings.

Materials used

1. Sustainable Healthcare Priority Learning Outcomes (SHE Network)
2. Marmot Review of Health Inequalities (Marmot, 2010)
3. NHS Carbon Reduction Strategy (NHS SDU, 2012)
4. Sustainable in the NHS Health Check 2012 (NHS SDU, 2012)
5. Moynihan R. The Greening of Medicine. *BMJ* 2012;344:d8360
6. Mortimer F. The Sustainable Physician. *Clinical Medicine* 2010, Vol10, No2: 110-11
7. Horne R. Compliance, Adherence, and Concordance: Implications for Asthma Treatment. *Chest* 2006;130;65S-72S
8. Green Nephrology case study template, accessible from <http://sustainablehealthcare.org.uk/green-nephrology/case-study-template>
9. Preventing damage from pharmaceuticals A primer (Health Care Without Harm, 2007), accessible from http://www.noharm.org/lib/downloads/pharmaceuticals/Prevent_Damage_from_Pharma.pdf

Curriculum

The SSMs are student-selected and take place after the completion of medical finals in Year 6, so there are few restrictions on the content and learning outcomes chosen.

Assessment

The learning was not graded or formally assessed but feedback was provided in person and on the SSM Self-Assessment & Sign-off form.

Lessons Learned

The original plan had been designed around a small group of students and was more structured, including activities such as an ethics debate, a joint project and presentations to the group. The peer support and interaction would have been useful, but the two students who chose to take up the SSM were allocated different two-week sessions. In future we plan to offer the SSM only once, with the aim that students will undertake the course together. It was good to keep the practical focus with the projects and to offer the opportunity to take part in sustainability action in a clinical setting. We were fortunate with timing that there were relevant events (NHS Sustainable Development Conference and Whittington Hospital Green Week), which the students were able to attend to gain different perspectives. Without this, the course would have benefited from invited speakers.

Quotes

"I undertook the Sustainable Healthcare SSM with the Centre for Sustainable Healthcare. I was able to pursue my own interests in how recycling can be implemented into NHS hospitals and got involved in running a project to assess the impact of introducing recycling bins into theatres. The SSM enabled me to better understand the impact of healthcare on the environment. Through implementing the recycling project I got to experience the challenges of change management on ground level and the strategies that can be used to overcome these challenges."

Felicity Hughes, medical student

"I thoroughly enjoyed learning about sustainability in the NHS, a subject I had not previously really thought a great deal about. However, climate change is happening and the health implications are vast, so we, of all people, should be the biggest protagonists for change. The most poignant take home message from the two weeks was of "moral offset" - something I have thought about a lot in the months since my SSM - and that just because we feel we may do good in one area of our lives, that it lets us off the hook elsewhere."

Emily Clark, medical student

For further information, please contact:

Frances Mortimer, Medical Director, Centre for Sustainable Healthcare

frances.mortimer@sustainablehealthcare.org.uk