



## CLIMATE CHANGE AND THE DETERMINANTS OF HEALTH IN MEDICAL SCHOOLS

### BACKGROUND & IMPLEMENTATION GUIDE

#### PROJECT SUMMARY

Eight medical schools in England have joined the National Network of Public Health Educators at Medical Schools (PHEMS) “Climate change and the Determinants of Health in Medical Schools” Project in 2009-10. The aim of the project is to pilot effective educational approaches to help students understand the links between health and climate change, and to share outcomes.

A shared set of learning objectives and resource library have been developed, which participating medical schools have been encouraged to draw upon in their teaching. Exchange of knowledge and experience have been supported through email and quarterly telephone meetings. In addition to this Guide, important outputs of the project include contributions to national meetings on medical education (including Royal College of Physicians policy dialogues and a workshop at the Academy of Medical Educators meeting in January 2010) and publications planned for relevant journals later in the year.

#### BACKGROUND

The health profession has recently recognised the effect that climate change will have on the social, economic, and demographic determinants of health and therefore on the way in which public health and medicine are conceived of and practised.

There is now growing health sector support for mitigation of climate change (e.g. advocating for the health co-benefits of a low-carbon society) and adaptation (e.g. planning for the new epidemiological transition of disease distribution resulting from climate change). It is clear that tomorrow’s doctors must be prepared for a very different world.

The *NHS Carbon Reduction Strategy* (SDU, 2009) calls upon “NHS organisations and Strategic Health Authorities [to] work in partnership with Higher Education Institutions to ensure that sustainability and carbon reduction concepts are included in undergraduate curricula.” This imperative is a natural consequence of the GMC Duty of a Doctor to “protect and promote the health of patients and the public”, and also aligns with *Tomorrow’s Doctors’* Outcome for Graduates to “recognise the role of environmental and occupational hazards in ill-health and discuss ways to mitigate their effects.”

In June 2009, “Climate Change and the Determinants of Health for Medical Students” was chosen as the theme for the PHEMS annual meeting. For many medical schools represented, these were entirely new topics. However, delegates immediately recognised their importance to their students – both as global health challenges and in shaping the future of healthcare delivery.

Following the event, eight medical schools decided to join the PHEMS Climate change and the Determinants of Health in Medical Schools Project in academic year 2009-10.

Addressing complex global issues such as climate change and the wider determinants of health can greatly enrich the course for medical students: connecting clinical experiences to their social,

political and environmental context, and developing a broader understanding of the professional role of doctors in society. Where possible, teaching is integrated across the curriculum, from clinical specialties to medical ethics, from evidence appraisal to healthcare management and leadership.

## POTENTIAL BARRIERS TO INTRODUCING TEACHING ON CLIMATE CHANGE AND HEALTH

Barriers encountered by the pilot medical schools have included:

- Lack of available curricular time – *look for opportunities to link to existing areas of the curriculum, e.g. ethics, professionalism, health promotion, healthcare systems*
- Variable levels of pre-existing knowledge among students; perceptions that the subject matter may be “too heavy” – *make sure you convey to students that the learning will be interesting and achievable.*
- Scepticism among a minority of students – *ensure that teaching relates to health outcomes for patients, link to clinical teaching wherever possible*
- Shortage of faculty confident to teach in this area – *provide opportunities for colleagues to learn about climate change and health, and arrange joint teaching sessions where you can; invite guest speakers from other departments in the university*
- Challenge of teaching behaviour change – *highlight good practice elsewhere; explore use of role models; provide opportunities for practice (e.g. oral presentations)*
- Challenges in evaluating behaviour change – *borrow methodology from other disciplines, and from across the PHEMS network; consider undertaking a research study on perceptions of students at the beginning and the end of the course*

## IMPLEMENTATION GUIDE: INTRODUCING CLIMATE CHANGE AND DETERMINANTS OF HEALTH INTO MEDICAL SCHOOL TEACHING

This guidance has been compiled from the diverse experiences of the pilot medical schools – its application will depend on the style of curriculum and many other factors. We hope you find it useful!

1. Identify supportive individuals in the medical school – both faculty (raise at a meeting or circulate an email) and students (does your medical school have an active branch of Medsin, [www.medsin.org?](http://www.medsin.org?))
2. Review the recommended learning outcomes [LINK] and opportunities to cover them within the existing curriculum. Aim to relate these to the core curriculum, but look out also for opportunities for more in-depth, student-selected learning. Try to integrate across clinical as well as public health teaching.
3. Decide whether there is a need for curriculum change – if so, then you will need to find out about and engage with your medical school’s curriculum development process. Usually, you will have to submit a paper to the Curriculum Committee, and it is well worth pre-briefing the committee members in person before they meet. If the curriculum is at a time of flux, this is a great opportunity for innovation – make sure you take it up!  
*NB: curriculum development often takes place 12-18 months before implementation*



4. Even if curriculum change is not necessary, it will be helpful to have senior level support for the initiative: approach the medical school dean and the public health course director for their endorsement/practical support.
5. If you have responsibility for a relevant topic area, then you can get on and plan your teaching. Decide on:
  - learning outcomes – see [PHEMS recommended learning objectives](#)
  - pedagogical format – will depend partly on the teaching sessions available to you; use the case studies above for ideas, and have a look at “Curriculum for culturally responsive healthcare” by Jeffrey Ring et al., Radcliffe Publishing Ltd. (2008).
  - materials – many materials are open access - see resource list [LINK]
  - evaluation – plan how you will evaluate knowledge, skills, attitudes & behaviours. Sample evaluation tools. [LINK]
6. It is a good idea to involve a range of staff in teaching on climate change – it broadens the students’ exposure to the topic, and helps to embed the changes in the course. However, remember that this could be your colleagues’ first encounter with the subject matter. Perhaps you could run a separate “train the trainers” workshop on climate change, the determinants of health & low carbon healthcare. Look out also for relevant national or regional meetings which you could invite them to attend.

### **Finally...**

Don't do it all on your own! The PHEMS climate change group is there to support exchange of experience and ideas. PHEMS may also be able to arrange a link with another medical school for individual support

### **FURTHER INFORMATION:**

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