

## Paper for PCF5: Health Theme Round-table Discussion

### Building Public Health Capacity using Open Educational Resources

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#### BACKGROUND

One of the major barriers to health in developing countries is the capacity of the public health workforce in these countries. The migration of trained health workers from low- to high-income settings has recently been the subject of increased attention, and Public Health is no exception to this trend. The need to travel overseas to receive training restricts access to those who can afford the costs involved, and may lead to the permanent migration of the student. Traditional public-health education programmes in countries in the 'south' are often oversubscribed and have produced only a small proportion of the required number of trained Public Health professionals. The costs of attending education programmes in countries in the 'north' can be prohibitive. Although distance education programmes have the potential to reduce the impetus for the migration of health workers, the need for universities in the 'north' to charge fees means that the costs to students even of distance programmes is higher than can be afforded by the majority of those who could benefit. The commitment of universities in the 'north' to help solve the capacity building problems of countries in the 'south' can be overwhelmed by their need to meet their business cases.

The Peoples-uni.org (<http://www.peoples-uni.org>) has been established recently to help address the problem of building capacity for Public Health in the 'south' (Heller *et al.*, 2007). It is based on the existence of an expanding body of high quality, online Open Education Resources (OERs) becoming available through the Internet (Downes, 2007). Examples in the field of Public Health include <http://hso.info> and <http://ocw.jhsph.edu/>. Such resources are produced by universities and many other organisations, although they do not usually include either instruction or accreditation.

Discussions on the development of the Peoples-uni.org started in 2006, and by mid 2008, we have made considerable progress. A pilot of an initial online course covering Maternal Mortality was offered from October to December 2007, involving 38 participants from eight countries, including four Commonwealth countries. Instruction was provided by a combination of general and content-expert facilitators using the open-source Moodle platform. An evaluation of the course was undertaken to assess how well it met the needs of the participants, and is summarised below. The purpose of this Round-table Discussion is to reflect with colleagues and experts on this initiative and the information from the pilot, with a view to the future development of this or other initiatives.

#### THE PILOT EXPERIENCE

##### Description of course

A course module covering Maternal Mortality, aimed at Public Health professionals, was prepared in Moodle. It consisted of the following five topics: magnitude of the health problem; implementation of improved data collection and accuracy; relationship of personal and environmental factors to cause; potential evidence-based solutions to reduce the burden of illness; and, policy-based solutions that can be implemented.

The module was offered over a 10-week period, to fit between the end of Ramadan and the onset of the Christmas and Eid festivals. Each of the five topics was covered over two weeks, which included an identified competence to be met, a set of online resources relevant to that competence, and a focussed discussion question for all participants. Links were provided to the online resources, along with some background information to guide the learners. The focussed discussions were guided by expert facilitators

and summarised at the end of each topic.

## **Participation**

38 people enrolled in the pilot, following word of mouth information about the course by members of the advisory group and others, and 5 other people were turned away as we did not feel we could cope. One person left before starting due to work commitments, and 7 did not enter the course to enrol at all (although they received automatic e-mails of the discussion postings). 22 posted at least once to a Discussion forum, and an additional 5 posted to the Introduction (but not to the Discussions). 13 submitted at least one Assignment. The country of origin of the 38 participants was: Pakistan 2; Turkey 5; Democratic Republic of Congo (DRC) 5; India 8; Nigeria 12; Sudan 4; Ghana 1; USA 1.

## **Facilitation**

One highlight of the pilot was the contribution of guest facilitators, one who joined most of the discussions and two other content experts who were asked to join specific weeks. They were recruited through personal contacts, and their enthusiasm and pointers to additional resources were very valuable. Another highlight was the strength of the support for students by the volunteer technology-support group on Moodle. This support was well received by the participants (see evaluation below), despite the need for an emergency rescue two-thirds of the way through the course when a server problem led to the loss of all course material for a two-week period.

## **Evaluation**

An evaluation questionnaire was sent to all participants via an e-mail prompt to an online form hosted by Survey Monkey. It was returned by 19 respondents, which represented most of those who engaged in the Discussions. Gaining knowledge and skills were rated as more important than academic credit, and the academic value of the course was judged excellent or good by 15 of the respondents. While 13 felt that this module was relevant to their job or career and 12 would enrol in more course modules, fewer (9 respondents) said that the practical value of the course was excellent or good. The survey questionnaire asked about priorities for future course modules - 'research methods' was ranked highest and a mix of 'problem-based' and 'basic sciences' of Public Health titles were selected. Other responses are presented in the Appendix.

Individual e-mails were sent to the 16 people who did not participate in the course by posting to a discussion or submitting an assignment, which included all five of the people from the DRC whose first language is French. Responses suggested that lack of time and Internet access outside the work environment were major contributing factors to non-participation. These findings will be used to guide future plans for online offerings.

## **Conclusion**

Our conclusions are that the delivery of education in this way was both feasible and valuable to many of the participants, and we have therefore gained encouragement to continue. The pilot and its evaluation have given us much detailed information to help with future planning.

## **ROUND-TABLE DISCUSSION**

A proposed format for the Round Table is a short presentation of the key features of this paper followed by a discussion centred on the following five topics.

### **1. How can OERs be best used for public-health capacity building?**

There are an increasing number of OERs available, and a massive need for capacity building that is not being met by the traditional university system. In fact, even though many universities are providing public access to their material, they are not providing a formal or organised approach to setting these in an educational context. No university has yet agreed to work with the Peoples-uni. How can we encourage universities to broaden their approach to fully utilise the OERs they produce? Is there a real wish from the education sector to help, or is it just a way of advertising their courses in the hope of increasing market

share?

## 2. Is the experience of the Peoples-uni.org generalisable to other Commonwealth countries?

We have shown the potential of the Peoples-uni approach through the pilot course module. Is it possible to extend this to offer more course modules to other students and other countries? What are the potential benefits, constraints and limitations that participants can identify to the roll out of the Peoples-uni in their own country? Despite the heterogeneous make-up of the Commonwealth, which contains both developed and developing countries, some key characteristics, including language, are shared. Variation in access to the Internet and various cultural and economic factors may need to be taken into account.

## 3. How can we engage participants to improve the educational experience and add local relevance, consistent with the principles of Web 2.0?

As part of the pilot and its aftermath, including the evaluation, we have attempted to involve the students in refining the course material and the educational context. We have found the students largely reluctant to make real contributions although there are some exceptions and a number have made helpful suggestions. How can we replicate the energy of the Open Software movement in getting real input beyond the course 'faculty', especially from people in the 'south' whose contributions should be so valuable in ensuring relevance of the education to solving local problems and given the specific nature of some Public Health issues to some parts of the world?

## 4. How might the issue of appropriate accreditation be addressed?

The Peoples-uni has come to an agreement with the UK Royal Society of Health who will supervise the assessment process and offer awards at various levels to those who meet the identified competences. Will such awards be valued by members of Commonwealth countries and others? How can we encourage the university sector to recognise this kind of learning, when appropriate?

## 5. Future directions and/or partnerships.

Participants at the Round Table are encouraged to suggest future directions and to join the Peoples-uni as individual or institutional partners.

## REFERENCES

Downes, S. (2007) 'Models for Sustainable Open Educational Resources' *Interdisciplinary Journal of Knowledge and Learning Objects*, 3, 29-44. [Electronic] Available from <<http://ijklo.org/Volume3/IJKLOv3p029-044Downes.pdf>> [Accessed 5 January 2008]

Heller RF, Virasakdi Chongsuvivatwong V, Hailegeorgios S, Dada J, Torun P, Madhok R, Sandars J. (2007) Capacity-building for public health: <http://peoples-uni.org>. *Bulletin of the World Health Organization*, 85 (12), 930–934.

## APPENDIX. SUMMARY OF EVALUATION RESPONSES

19 responses in total

How important were these potential reasons for you to enrol in this course module?	Very important	A little	Not at all
To get academic credit	10	6	2
To gain Public Health knowledge	16	2	0
To gain Public Health skills	15	1	1
To look at the resources	12	4	2

To join in a discussion with others	13	5	0
To get experience in e-learning	12	5	1

<b>Technical aspects: how did you find the following?</b>	<b>Good</b>	<b>Mostly OK</b>	<b>Bad</b>
Internet access	8	9	1
Access to course module and Moodle (apart from problem at end of November)	11	5	0
Information on how to use the course materials and take part in discussions	10	8	0
Access to materials on module	9	9	0
Response to problems from course support team	16	2	0

<b>Course benefits</b>	<b>Excellent</b>	<b>Good</b>	<b>Useful</b>	<b>Not of use</b>
The general interest of the course	8	9	1	0
The academic value from the course	11	4	2	1
The practical value from the course	6	3	5	3
The input to the discussions from other 'students'	5	12	1	0
Input to the discussions from facilitators	11	2	3	1

#### **The future**

	<b>Yes definitely</b>	<b>Yes probably</b>	<b>No</b>
Would you enrol in more course modules?	12	4	0
Would you be interested in continuing to a Diploma or Masters degree?	13	0	3
Was this relevant to your job or career?	13	1	2
Would you recommend this to others?	12	3	0

#### **Changes for the future**

	<b>Yes definitely</b>	<b>Possibly</b>	<b>No</b>
Does the content need to be changed for local situations?	4	10	3
Would you be prepared to help make changes?	9	6	1
Would you be prepared to join in as a tutor or other role in the future?	10	6	1