

## Public Health Capacity Building in Times of Austerity: A Case Study From the University of East London

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### ABSTRACT

The University of East London (UEL) offers a BSc and MSc of Public Health (PH). The programmes are designed to build the workforce capacity by enabling access to higher education (HE) for future PH practitioners and specialists, and facilitating promotion possibilities within current employment. In 2009/10, the MSc and BSc programs had 143 and 70 students respectively, with 209 students undertaking PH combined degrees at the BSc level.

This paper presents methods and outcomes of aligning the programs with the United Kingdom Public Health Skills and Career Framework (UK PHSCF). The realigned MSc programme is a 1.5 year (full-time), six module (180 credits) programme with strong emphasis on epidemiology and research. The BSc programme lasts three years (full-time) and consists of 36 modules (360 credits) providing an introductory overview of the core functions of PH. The programmes' modules were mapped against the 9 UK PHSCF PH areas. Additional activities were built into the programs to enhance the learning experience and augment transferable skills.

After the realignment, the UK Government published in 2010 the White Paper for PH and, in spite of this, announced budget cuts to HE funding along with increased tuition fees. The programme changes are likely to contribute to PH capacity building but in a time when political reform adversely impacts on the development of the PH workforce.

**Key Words:** Public health education, Bachelors, Master and PhD programs in public health, capacity building, white paper on public health, University of East London.

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## **INTRODUCTION**

The University of East London (UEL) was established in 1992 following the transformation of United Kingdom polytechnic institutions to universities by the Further and Higher Education Act, 1992.<sup>1</sup> Between its two campuses, UEL provides HE to over 23,000 students from 120 countries worldwide. It has nine schools granting BSc, MSc and PhD awards in a variety of subjects.<sup>2</sup>

The School of Health, Sport and Bioscience (HSB) is responsible for the delivery and award of degrees for a wide range of undergraduate, post-graduate and research programs in scientific, medical and health subjects. One of its fields, Health Studies, offers programmes in Public Health (PH), Health Promotion and Health Services Management.<sup>3</sup> PH capacity building at UEL at practitioner and specialist levels is designed to secure a type of workforce that represents an important asset for any country.<sup>4</sup>

Following consultations with students and employers, PH degrees were created in 2005 at both under-graduate (replacing the BSc (Hons) in Health Studies) and post-graduate levels. The movement responded to an increasing interest among students and potential employers in more professionally orientated degrees. These awards were designed firstly, to incorporate the responsibilities of PH practitioners both inside and outside the National Health Service (NHS) and in other health and social organisations, thus boosting employment possibilities in the health sector. Secondly, these programmes would ensure that the BSc graduates are prepared for the post-graduate programme in PH. Thirdly, these degrees would offer degree level qualifications to diploma level nurses in order to broaden their professional horizons and facilitate career progression.

The BSc in PH provides students with the knowledge and skills necessary to identify population health needs and to develop policies and actions to improve PH. The core components include the social, political, economic, environmental, historical and cultural influences on PH. Skills in the areas of health research, evidence-based practice, epidemiology, policy-based approaches and health promotion are additional basic components.<sup>5</sup> In 2009-10, 70 students were enrolled in the single honours PH programme and 209 students combined their PH programme with another degree programme (e.g., International Development, Health Promotion, etc.).

The MSc in PH is a programme designed for health professionals and administrators and aims to provide a critical understanding of the concepts and principles of PH together with the necessary skills and knowledge to

conduct research and to be actively engaged in a variety of health issues.<sup>6</sup> Last year, 143 students were enrolled in the MSc programme at different stages of completion.

As a result of an external programs' subject review in 2009, both programs were aligned with the UK Public Health Skills and Career Framework (UK PHSCF),<sup>7</sup> making UEL the first university in the UK that, to the knowledge of the authors, guarantees a PH curriculum in accordance with the professional specifications. This initiative demonstrates a commitment to imparting academic knowledge, technical skill and transferable employability skills. The redesign provides evidence that our PH degree aligns with professional requirements for both PH practitioners and specialists. This paper illustrates the process of aligning and redeveloping existing BSc and MSc PH programmes in order to ensure alignment with core competencies and skills outlined in the UK PHSCF.

## METHODS

Programme leaders and lecturing staff mapped existing modules to the framework's nine core and non-core competencies (Table 1), at levels four and seven (undergraduate and post-graduate, respectively) of the Framework (Table 2) and developed new modules to cover deficits in student knowledge and skills.

**Table 1**

*PH framework areas as defined in the UK PHSCF*

| Core Areas  | Non-Core (Defined) Areas          |
|---|-----------------------------------|
| 1. Surveillance and assessment of the population's health and wellbeing   | 5. Health improvement             |
| 2. Assessing the evidence of effectiveness of interventions, programmes and services to improve population health and wellbeing | 6. Health protection              |
| 3. Policy and strategy development and implementation for population health and wellbeing                                       | 7. Public health intelligence     |
| 4. Leadership and collaborative working for population health and wellbeing   | 8. Academic public health         |
|   | 9. Health and social care quality |

**Source:** Department of Health. Public Health Resource Unit. Skills for Health (2008). UK Public Health Skills and Career Framework (UK PHSCF). London: DoH. p.8.

**Table 2**  
*UK PHSCF levels*

| <b>Framework Levels</b> |  |
|-------------------------|--|
| <b>Level 1</b>          | Has little previous knowledge, skills or experience in public health. May undertake specific public health activities under direction or may acknowledge the value of public health in a wider context.  |
| <b>Level 2</b>          | Has gained basic public health knowledge through training and/or development. May undertake a range of defined public health activities under guidance or may use knowledge to influence public health in a wider context.   |
| <b>Level 3</b>          | May carry out a range of public health activities or small areas of work under supervision. May assist in training others and could have responsibility for resources used by others. May use public health knowledge to set priorities and make decisions in a wider context.           |
| <b>Level 4</b>          | Has responsibility for specific areas of public health work with guidance, which may have a breadth and/or depth of application  |
| <b>Level 5</b>          | Has autonomy in specified areas, continually develops own area of work and supports others to understand it. May contribute to a programme of work in multi-agency or multidisciplinary environment.   |
| <b>Level 6</b>          | Has autonomy and responsibility in coordinating complex work, reflecting wider and deeper expertise in own area of work. Able to develop, facilitate and contribute to programmes of work in multi-agency or multidisciplinary environment   |
| <b>Level 7</b>          | Has autonomy and expertise in areas of public health. Will lead on areas of work within a defined field.   |
| <b>Level 8</b>          | Has a high level of expertise in a specific area of work or across a substantial breadth of service delivery and/or programmes. Is accountable for work across boundaries and agencies. Has leadership responsibility and autonomy to act. Sets strategic direction in own area of work. |
| <b>Level 9</b>          | Sets strategic direction across organisations and/or areas of work. Provides multi-disciplinary or multisectoral public health leadership that determines priorities   |

**Source:** Department of Health. Public Health Resource Unit. Skills for Health (2008). UK Public Health Skills and Career Framework (UK PHSCF). London: DoH. p.9.

The undergraduate programme was also mapped with the Health Studies Subject Benchmarks.<sup>8</sup> Additionally, the Health Studies Field designed its own 'Key Skills for Employability' Framework, which was utilised to drive forward both curricular and employability advancements. The post-graduate programme was also mapped based on the UK Faculty of PH curriculum.<sup>9</sup> The revalidation approval process involved internal (UEL) and external review. Students were also consulted in the process.

## RESULTS

Student consultations revealed that the clear definition and alignment of the programmes were well accepted. Programmes were submitted to and approved by internal and external reviewers from the Health Protection Agency and the UK Faculty of Public Health. A specific challenge presented by the realignment was transitioning current students into the new programme structure. This challenge was addressed by additional enhancement learning sessions, and including necessary content into the current modular structure where appropriate.

The MSc programme consists of four core taught modules (120 credits), a fifth optional taught module (30 credits) and a 30-credit dissertation (Table 3) mapped against the nine PH competences as defined in the UK PHSCF.<sup>7</sup>

**Table 3**

*MSc Public Health Core Modules*

| <b>Modules (MSc Public Health)</b>                        | <b>PHSCF Competency (1-9)</b> |
|---|-------------------------------|
| HSM101 Introduction to Public Health                      | 1, 2, 5, 7, 8 and 9           |
| HSM100 Research and Epidemiology for Health Professionals | 1, 2, 5, 6, 7, 8 and 9        |
| HSM102 Public Health Policies and Strategies in Practice  | 3 and 4                       |
| HSM103 Health Promotion: Theory and Practice              | 5 and 9                       |
| HM110 Dissertation*                                       | 1 – 9                         |

\* Area covered in HSM110 will depend on main focus of the dissertation.

The programme can be completed in one and a half years of full-time study and in up to six years if taken part-time. Post-Graduate Diploma and Post-Graduate Certification qualifications are also offered as exit pathways. The MSc programme has a strong curricular profile with emphasis on epidemiology and research. The core module, “Public Health: Theory and Practice” teaches core contents of the discipline beyond epidemiology and research. The module on “Research Methods and Epidemiology” has an extended number of contact hours that enables the inclusion of an array of themes and techniques used in both research and epidemiology. This module includes teaching of IBM<sup>TM</sup> SPSS<sup>TM</sup> for statistical analysis and NVivo<sup>TM</sup> software for data management. Policy and management components are taught in one module—“Policy and Strategy in PH” and

the “Health Promotion” module covers practices and theories developed in major social science in general and health promotion in particular as applied to PH. An optional module provides students with an introduction to specific areas of PH (e.g., impact of globalization on health and development). The MSc dissertation is delivered innovatively as a semi-taught module where students receive individual supervision, but also peer support via student-led presentations. Students present the various components of their research, and provide and receive feedback from their peers as well as the lecturer. These sessions have been successful in focusing students’ work and improving the quality of the research, thus allowing students to achieve higher grades.

The BSc (Hons) programme consists of 36 modules (360 credits) taken over three years (full-time) and five years (part-time). There are nine core PH specific modules (180/200 credits) in which, as with the post-graduate programme, the nine core competencies are embedded (Table 4).

**Table 4**

*BSc Public Health Core Modules*

| <b>Core Modules (BSc Public Health)</b>                          | <b>PHSCF Competency (1-9)</b> |
|--|-------------------------------|
| HS1112 Introduction to Public Health                             | 1-4, 5 and 8                  |
| HS1113 Understanding Epidemiology in Public Health               | 1, 2, 7 and 8                 |
| HS2101 Assessing Population Health Needs                         | 1, 6, 5 and 7                 |
| HS2106 Health Inequalities                                       | 2, 5 and 9                    |
| HS2112 Research Skills for Public Health                         | 2, 3 and 8                    |
| HS2115 Contemporary Issues in Public Health and Health Promotion | 3 and 5                       |
| HS3102 Public Health Policies and Strategies in Practice         | 3 and 4                       |
| HS3121/22 Individual Research Project (20 or 40 credits)*        | 1 – 9                         |
| HS3114 Impact of Globalisation on Health and Development         | 8                             |

\* Area covered in HS3121/22 will depend on main focus of the research project.

The remaining modular programme consists of key skills modules (e.g., “Personal and Professional Skills”) and other core optional modules (e.g., “Understanding Health and Environment and Health”).

Additionally, efforts have been made to enhance the informal learning environment and improve transferable skills in both the under- and the post-graduate programs. Hence, initiatives include:

1. monthly lunchtime epidemiology sessions;
2. health student society (a student-led group to engage in relevant discipline-related activity, e.g., hosting events and discussions);
3. short-course introduction to the MSc programme focusing on transferable skills (e.g., presentation skills, European Computer Driving Licence\*);
4. enhanced programme Blackboard™ sites\*\* where aside from traditional features (e.g.: upload of learning materials and quick link to relevant websites), innovative features are now routinely utilised such as: on-line quizzes, podcast (video and audio) of support lectures, online feedback on assessments and student discussion forums, among others;
5. program-tailored academic English language sessions for all students who are identified as needing additional support (based on an academic written English diagnosis test upon entry); and
6. strengthening links with and input from local and national PH practitioners.

## **DISCUSSION**

This paper presents the methods and outcomes used and obtained in transforming both under- and post-graduate programs in PH at UEL into programs aligned with the UK PHSCF.<sup>7</sup> It is expected that benefits from realigning the programmes with the professional framework endorsed by the UK Department of Health will be seen among programme graduates in that they will be granted degrees that were designed to guarantee their best chances of employment and career progression.

The UEL BSc programme contributes to the aim of PH capacity building in several ways. For instance, it provides access to HE to those from working-class and non-traditional educational backgrounds—with the consequent impact on the reduction of the health and social inequality gap. Our programs train PH practitioners, thereby positioning them for entry-level jobs in health organisations including the NHS. Additionally,

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\* The European Computer Driving Licence is a computer literacy certification programme provided by the ECDL Foundation. Available at URL: <http://www.ecdl.com/> (Accessed 1 June, 2011)

\*\* Available at URL: <http://www.blackboard.com/> (Accessed 1 June, 2011)

they open promotion possibilities for those with lower-level clinical roles in NHS (e.g., diploma nurses and care assistants) and enable access to further education and training in PH at the specialist level, such as an MSc or MPH. Our MSc programme provides a solid and strong training for those transitioning to the path of PH specialist from their current professions (e.g., medicine, nursing, dentistry, medical biosciences) who form a key part of the national workforce of NHS, or returning to their country of origin to contribute to the improvement of PH in specialist and ultimately, in senior positions.

Our initiative is timely as it was followed by the publication of the UK Government White Paper for PH: *Healthy Lives, Healthy People*.<sup>10</sup> The paper acknowledges the tremendous contribution of PH to the health of the UK, where “most of the major advances in life expectancy over the last two centuries came from PH rather than healthcare”,<sup>10</sup> but at the same time acknowledges important deficiencies in the health of the UK population and challenges ahead, in saying that “the UK PH profile is that of the main causes of premature death linked to life styles: smoking, unhealthy diet, excessive alcohol consumption and sedentary lifestyles”.<sup>10</sup> The document also acknowledges the impact of social inequalities and how they transfer into health inequalities utilising the findings from the Marmot Review<sup>11</sup> to remind us that there are gaps of up to seven years in life expectancy between the richest and poorest neighbourhoods in the UK, despite a universal national health service. The government’s strategy as described in the White Paper is ambitious and revolutionary. It poses PH at the centre of the health agenda for the country: “It is time to prioritise public health”<sup>10</sup> allocating a ring-fenced budget to it.<sup>10,12</sup> Understandably, to address these challenges, attention needs to be given to training and enhancing the skills of the PH workforce. Thus, the need for a strong, well trained PH workforce is recognised in the White Paper as part of its strategic points, “We envisage that the public health workforce will be known for its: expertise—public health staff, whatever their discipline and wherever they work, will be well-trained and expert in their field”.<sup>10</sup> The paper also provides several examples where specific PH practitioners and specialists will be needed (e.g., 4,200 further health visitors) and presents a vision of empowered and well motivated PH practitioners from all sectors, including healthcare.<sup>10</sup> UEL programmes provide tools for achieving these new government goals. The publication of the PH Workforce Strategy next autumn will bring further direction.

UEL provides access to HE to sectors of the population acknowledged in the White Paper as most vulnerable to ill health. A significant proportion



of our students are from low socio-economic backgrounds, and members of ethnic and religious minorities. UEL, therefore, plays a large role in the widening participation agenda, but also provides opportunities that reduce social inequalities which lead to health gaps.<sup>13</sup> The rise of tuition fees to up to £9,000 from the current cap of £3,290<sup>14</sup> has prompted a wide belief that higher fees will deter capable students coming from poorer backgrounds, preventing access to HE. In the long run it is likely to contribute to the widening of the gap between those coming from working and low-income backgrounds and those from more affluent backgrounds. Meanwhile and in tandem, universities are faced with cuts of up to 40 percent, given that the HE budget will drop from £7.1 billion to £4.2 billion by 2014.<sup>15</sup>

For PH in particular, such measures will potentially compromise workforce numbers at both practitioner and specialist levels, as well as training quality and effectively restrict the future availability of health professionals.<sup>4</sup> Additionally, there is the potential that those completing their formal education will be employed at lower levels due to reduced quality education. Efforts to provide highly skilled and employable workers are likely to be hampered by these budgetary cuts. UEL and HSB are reacting to the cuts by reducing the directly allocated costs of teaching in different ways (i.e., reducing the number of staff, reducing the support for staff development).

The quality of the teaching will be jeopardised as it is impossible to provide students with the same quality when funding is severely reduced. With fewer lecturers, the workload in direct-teaching and teaching-related activities will increase in a scenario where it is already too high (e.g., UEL student/staff ratio = 23.3; only four other universities reach a student/staff ratio of 23).<sup>16</sup> This may result in more pressure on direct delivery by fewer academics, and less expertise will be found across subjects, causing lecturers to teach outside their expertise. Research and scholarship activities are weak in the so-called “new universities” and excellence and innovation will be further impaired as academic teams shrink and must accommodate the same teaching workload. Furthermore, such a modus operandi will be an important added deterrent to attract adequately qualified lecturers. As a result of recent political measures it would seem that the students who require the most support are forced to attend universities with fewer resources.

In PH education, the latest White Paper and the HM Treasury Spending Review<sup>17</sup> are in a deep conflict. While the White Paper puts PH at the centre of the agenda, the Spending Review compromises the achievability of such commitment with cuts and fee increases that will jeopardise the capacity and quality of PH education. The UK government has not provided

explanation for the potential negative impact on the employability of future graduates, in a climate of academicalisation of professions—where employers increasingly expect degree-level employees. In spite of the difficulties identified, the authors argue that efforts to improve the quality of the PH programmes will go some way towards ameliorating the negative implications by ensuring better trained and adaptable graduates in order to build the necessary capacity as expressed in recent and impending government reforms.

**Acronyms list:**

HSB = The School of Health, Sport and Bioscience

HE = Higher Education

NHS = National Health Services

PH = Public Health

UEL = The University of East London

UK PHSCF = UK Public Health Skills and Career Framework

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