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A review of the international literature on health promotion competencies: identifying frameworks and core competencies

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Abstract: Building a competent health promotion workforce with the necessary knowledge and skills to develop, implement and evaluate health promotion policies and practice is fundamental to mainstreaming and sustaining health promotion action. This paper reviews the international literature on competencies in health promotion, examines the competencies developed to date, identifies the methods used in their development and considers what can be learned from the experience of others when establishing international core competencies. The paper considers the advantages and disadvantages of employing a competency approach and the extent to which the competencies identified to date can enhance the quality of practice and update the skill set required to work within changing social, cultural and political contexts. (*Global Health Promotion*, 2009; 16 (2): pp. 12–20)

Key words: competencies, health promotion, international review

Introduction

The development of the health promotion workforce internationally has brought renewed interest in identifying competencies for effective health promotion practice and education. Within the context of capacity building and workforce development, the identification of competencies offers a means of developing a shared vision of what constitutes the specific knowledge and skills required for effective health promotion practice. A competent workforce with the necessary knowledge, skills and abilities in translating policy, theory and research into effective action is critical to the future growth and development of global health promotion. Competencies have been shown to provide a useful base for health

promotion training, academic preparation, and continuing professional development. Competencies inform the development of professional standards and systems of quality assurance as well as confirm health promotion as a specialized field of practice.

Competency models have been increasingly used since the 1970s to clarify the specific requirements for public health, health education and health promotion practice. A number of countries have made significant progress in delineating competencies for health promotion and health education practice, together with competency-based professional standards and quality assurance systems (see, for example, 1–10). However, progress is uneven and many countries lack the necessary resources and health promotion infrastructure to engage with these developments. It is, therefore,

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timely to review the competencies developed to date, identify the methods used in their development and recognize the lessons that can be learned when establishing international core competencies.

This paper draws on previous reviews (4, 9, 10) on literature searches on competencies for health promotion, health education and related fields and on the experience of the authors in developing competencies for health promotion and health education. The scope of the paper is limited to information on competencies frameworks available in English.

What are competencies?

There are many definitions of the terms ‘competency’, ‘competence’, and ‘competencies’, with some commentators placing great emphasis on the differences between the terms and others claiming that they are used interchangeably. Most health promotion competency frameworks use the term ‘competencies’.ⁱ Competency has been defined as a combination of attributes which enable an individual to perform a set of tasks to an appropriate standard, and competencies as being made up of attributes such as knowledge, abilities, skills and attitudes (3). The Professional and Academic Standards Working Group of the European Masters in Health Promotion (EUMAHP)ⁱⁱ project defined competencies as the knowledge, abilities and attitudes needed to implement specified health promotion actions within specified dimensions of practice according to a specific standard (9). These definitions highlight that competencies refer not only to knowledge, but also to skills and attitudes – often referred to as ‘knowhow’ and ‘showhow’ – a format found throughout the international literature reviewed.

Core competencies are characterized by Prahalad and Hamel (11) as those that:

- provide a set of unifying principles for the organization
- are pervasive in all strategies/markets
- are rare and/or difficult to imitate.

It could be argued that when developing international ‘core’ competencies only those aspects of practice that are ‘core’ to health promotion should be considered rather than others which are common to other disciplines (e.g. management, communication, etc.). Core

competencies for health promotion at international level, it is therefore suggested, are those which specifically support the activities of enabling, advocacy and mediation (12).

Competencies in health promotion: the current situation

The literature on health promotion and health education competencies focuses mainly on presenting completed frameworks and the processes by which they were developed. Discussion of the contexts which influence competency development, the value of the competency approach and the relationship between competencies and professionalization is also found. While the applicability of competencies to educational and practice settings is discussed in the literature, their usefulness or otherwise to health promotion research is not specifically addressed.

Health promotion competencies in Europe

A scoping study on health promotion accreditation and training in Europe, undertaken by IUHPE/EURO (13), found evidence of ongoing work on competencies in 16 countries and on standards in 12 countries.ⁱⁱⁱ A competency framework, based on consultation with key health promotion experts in Europe, was developed to underpin the EUMAHP educational programme (9). This framework provides insight into competency development at European level. Accreditation systems and standards for practice, which incorporate lists of required levels of practice (not always defined as competencies), have also been developed in Estonia and the Netherlands (13, 14).

In the UK, national occupational standards (NOS) for health promotion were developed in 1997 (15) but had a short lifespan as, from the late 1990s onwards, multidisciplinary public health became the umbrella term for all disciplines with a health improvement remit including health promotion. Standards (NOS) for multidisciplinary public health were developed at specialist level in 2001 (7), followed in 2004 by those defined as for ‘the practice of public health’ (8). Attempts have been made to redefine and clarify the role of health promotion within these frameworks (16) and competencies for

health promotion have been distilled from them (4, 5). The experience gained in developing these standards and using them as the basis for registration systems is a useful source of information when developing international core competencies. The UK Public Health Skills and Career Framework, which builds on the standards (17), may also be useful as a means of presenting competencies for a diverse global workforce, as it allows for 'matching' of competencies for the workforce as a whole and for individual practitioners. The format used for the NOS has, however, been described as being overly complex (4) and the fact that health promotion is not made explicit may limit their usefulness in developing international core competencies.

Competency development in Australia and New Zealand

In Australia, Shilton et al. (3), drawing on earlier frameworks (18, 19) and on consultation with practitioners, identified a competency framework that has been further reviewed and updated (1, 20–24). This latest version of the competency framework is well established, is thoroughly reviewed and researched, and offers a validated model for developing international competencies. Cultural competencies for health promotion (25) have also been developed in Australia but these are not linked to the 'professional' competencies discussed above. Cultural competencies are an important element to be considered when developing competencies for a multicultural global health promotion community.

Health promotion competencies were developed in New Zealand through a two-year consultative process, specifically incorporating the views of Maori and Pacific Islanders (2, 26). The result is a culturally sensitive framework that identifies elements for each of seven knowledge-based and nine skill-based competency clusters. The ethical and cultural dimensions highlighted in this framework again make it of particular value in developing competencies for a diverse global audience.

Health promotion and health education competencies in the USA and Canada

Competency frameworks for health promotion have been developed in Canada including competencies

which form the basis for postgraduate programmes (6, 27–30). In 2007, Health Promotion Ontario drafted a set of health promotion competencies as part of the larger process emerging from the pan-Canadian Core Competencies for Public Health project (31). The competencies were written primarily for designated health promotion specialists, i.e. those with the term 'health promotion' in their job title, working in public health settings in Canada. The identification of competencies is presented as a resource to inform effective health promotion practice and is not presented as an initial step to a mandatory accreditation process. A consensus-building process concerning the proposed health promotion competencies is currently under way and is described further by Hyndman in this issue.

In the United States developments over the last 30 years have focused mainly on delineating competencies for health educators. The Role Delineation Study (1978–1981) developed the initial role specification for entry-level health educators (32, 33) using a national survey which targeted health educators working in all practice settings. This research sought to delineate the generic role of the health educator, which was defined as; 'The minimum core of areas of responsibilities and competencies common to and essential to the professional preparation of all entry-level health educators' and further explained as: 'The generic role is not merely a synthesis of skills and knowledge presently employed by practicing health educators whatever the work setting, but a new concept of the basic role independent of setting' (34). A framework comprising seven areas of responsibility, 27 competencies and 79 subcompetencies emerged from this research (34).

In 1988, the National Commission for Health Education Credentialing, Inc. (NCHEC)^{iv} was established as an independent, not-for-profit agency to administer a voluntary national credentialing system. The NCHEC administers a national competency-based examination, certifies individuals at entry level who pass the examination, and administers a national system for the continuing professional development of those certified. In 1992, a Joint Committee for Graduate Standards was established by the American Association for Health Education (AAHE) and the Society for Public Health Education (SOPHE) to develop graduate competencies. Postal questionnaires were sent to practitioners and institutions with graduate-level professional preparation programmes in health edu-

cation and the findings identified three new areas of responsibility, together with new competencies and subcompetencies (35).

In 1998 a new research initiative, the National Health Educator Competencies Update Project (CUP 1998–2004), aimed to reverify the role of the entry-level health educator and further define and verify the role of advanced-level health educators (36). A questionnaire was sent to a representative sample of health educators working in a variety of settings across the United States, with more than 4000 responses received (37). The CUP hierarchical model emerged from the findings, which identified three levels of professional practice based on the degree held and years of experience in health education, as presented in Table 1 (36–38). The model identifies seven areas of responsibility, 35 competencies and 163 subcompetencies to define the role of the health educator. This model is used as the basis for current professional preparation, credentialling and professional development of health educators in all practice settings in the United States (38, 39).

In addition, the National Commission for Certifying Agencies (NCCA), a certification industry accrediting body which aims to ensure the health, welfare and safety of the public through the accreditation of certification programmes and organizations that assess professional competence, is the accrediting body for the NCHEC Certified Health Education Specialist (CHES) programme.

Table 1. CUP Model Hierarchical Approach (36, 37, 38)

<i>Levels of Practice</i>	<i>Competencies/ Sub-Competencies</i>
Entry (less than 5 years of experience and Baccalaureate or Masters degree)	Entry
Advanced 1 (5 or more years of experience and Baccalaureate or Masters degree)	Entry + A1
Advanced 2 (Doctorate and 5 or more years of experience)	Entry + A1 + A2

Competency development in other countries

Few references were found in the English language publications regarding the development of

health promotion and health education competencies in Africa, Asia and Latin America. However, this is not to indicate that such work does not exist and/or is published in other languages. In the Asian context, Sakagami (40) describes a health education credentialling system approved by the Japanese government in 2002, which draws on the CHES model from the USA. The Japanese system distinguishes between practical health educators and health education specialists, the latter being required to have more advanced skills in health education and promotion. In this issue, Professor Hans Onya discusses the development of competencies and accreditation for health promotion from an African perspective, and Dr Hiram V. Arroyo provides an overview of developments from Latin America. It is clear that greater effort will need to be made to include perspectives from across the globe in further developing and reaching consensus on the domains of core competency outlined in the Galway Consensus Conference Statement as described by Allegrante et al. (41) and Barry et al. in this issue.

Competency frameworks: commonalities, applications and concerns

It is impossible within the confines of this paper to list all the competencies reviewed, but most are available on the internet and are thus easily accessed for further exploration and appraisal. Common domains, though variously organized, can, however, be seen to emerge from the frameworks including:

- assessment
- planning and consultation
- implementation
- evaluation and research
- knowledge – principles, values and ethics
- communication
- policy, advocacy and strategy development
- organization and management
- working with communities, community empowerment
- partnership building and collaborative working
- strategic leadership.

There is, however, continuing debate about the overall usefulness and appropriateness of defining competencies for health promotion and, for some, the negative impacts of what is perceived as an overly

prescriptive approach outweigh the potential benefits. Meresman et al. (9), for example, suggest that establishing an 'officially agreed' interpretation of health promotion based on competencies could discourage diversity and creativity. Stirling (28) suggests that there is concern among health promotion practitioners that competencies will limit and restrict the evolutionary aspect of health promotion.

The potentially positive and negative aspects of competencies in relation to health promotion, based on Shilton et al. (3), can be summarized as follows:

Positive

- Useful as a shared/agreed language for defining the tasks, skills and knowledge required for practice.
- Useful in developing programmes, projects and curricula and in recruitment and selection of staff.
- Contributes to defining and consolidating the discipline.

Negative

- May be restricting/reductionist/mechanistic, may limit innovation, may not allow for the dynamic nature of health promotion.
- May undervalue professional judgement and experience.
- Values and principles may be disregarded.

The potential misuse of competencies as a means of bureaucratic and political control has also been identified as an area of concern. Shilton et al. (3) argue that this was not the case when developing competency frameworks in Australia, as there was an established specialist health promotion workforce supported by a strong professional association guiding the process. However, as with every aspect of health promotion, political and social contexts will influence if, and how, competencies are developed, how they are used, by whom and to what end. The value in developing internationally agreed core competencies is that these will become an authoritative reference point for all in relation to health promotion practice, education and research.

The level of detail required in competency frameworks to enable, rather than stifle, effective practice is difficult to judge from the frameworks reviewed. Some frameworks are complex and may be unwieldy to use. However, it has been argued that, if competencies are merely presented as broad statements, they

are open to a wide divergence of interpretation, thus defeating their purpose. The frameworks also differ between those that separate knowledge and skills into separate clusters (26) and the majority that do not, and those that define proficiency levels for the competencies (5, 26). There is a need, therefore, when developing international core competencies, to consider how they can be expressed to be meaningful, usable, relevant and succinct.

The majority of the frameworks reviewed state that they are primarily for use by health promotion practitioners, but some also indicate that this focus is not meant to 'exclude' others with a remit for health promotion (6, 26–28). This inclusive approach contrasts with the definition of core competencies as being 'rare' and 'difficult to imitate' (11) and competencies are used by many other professions to identify, define and protect professional boundaries. The dilemma is, therefore, that either health promotion competencies are for all – which would appear to dilute the concept of health promotion as a specific area of practice – or they are claimed by a 'specialist' group to delineate professional boundaries. The potentially negative impact of such professionalization on health promotion has been raised as an area of concern, most explicitly in Canada (6, 27, 28). This issue will have to be addressed when developing competencies for the global health promotion community, as differing views on health promotion as a professional entity are likely to be encountered.

Overall, the health promotion frameworks reviewed have much to offer in the development of international core competencies. However, as each has different formats, terminology and degrees of complexity, it is difficult to marry either competency sets or discrete elements to make a new set of competencies. The challenge for developing core competencies at an international level will be to produce competencies that are broad enough to be relevant to a wide-ranging audience while being robust and meaningful.

Methodologies used to identify competencies

While there are some differences in the methods used to develop the competency frameworks reviewed, common elements can be identified. Many use a literature review and existing competencies

to inform the development stages, followed by an information-gathering exercise focusing on what actually happens in practice. This may include observing or interviewing (or both) an 'exemplary' practitioner to identify the actions, content and context involved in their 'exemplary practice' (42) or undertaking a survey of a representative sample of practising professionals to determine what they actually do in practice (36). Functional analysis is also used in developing competencies (7, 8) which involves identifying the core functions of a group or organization to form a functional 'map', followed by identifying key tasks and the competencies required to fulfil these tasks. Functional analysis has, however, been criticized as 'overly reductionist' with too much focus on tasks, and on how tasks should be undertaken, to allow what has been described as the 'artistry' of health promotion (43).

The next stage in the development process is usually the drawing up of draft competencies which are disseminated for consultation and feedback to as wide a range of practitioners (and other relevant stakeholders) in as many settings as possible. Various methods have been used in the consultation processes including questionnaires, focus groups, workshops and consensus building through the Delphi technique^v (3, 20–24) and often combinations of all of these methods. The Delphi technique, although frequently used, has been criticized as it is suggested that it reduces competencies to a meaningless 'middle ground' and that the political aspects of health promotion can be lost in the 'move towards the centre' (43).

Multiple 'rounds' of consultation are used to ensure the widest scope of feedback possible. The feedback from the consultation process is then analysed and a final draft of the competencies is developed for ratification and dissemination.

It is interesting to note that the NCCA^{vi} in the United States does not prescribe any single method to define competencies, performance domains, tasks and associated knowledge and/or skills that are the basis of a certification. A range of development strategies are all recognized as appropriate including: committees of representative experts, rating scales (e.g. frequency and importance), logs, observations of practice, interviews, and reviews by an independent panel of experts. In developing international core competencies, a 'multiple-method'

approach would seem to be appropriate in order to capture the complexities of health promotion in a global context.

Some issues which arise in the development processes reviewed require further discussion. For example, while reference is made to integrating theory into competency development, no methodology has been identified which explains how this is achieved or how the process is informed by the health promotion evidence base, other than possibly through the use of expert panels. Such panels are commonly used in the development process, although their remit is not always made explicit and questions can arise as to who are the 'experts' and who appointed them, reflecting concerns about the possible use of competencies as a means of control rather than enhancing practice.

It can be also argued that, by basing competencies on practice as described and defined by practitioners, what is reflected is not necessarily 'best' or evidence-based practice but rather what is commonly 'done'. There are also limitations in using current (or what might be termed 'past' practice given that the development of competencies is a slow process) as the basis for competencies, particularly if they are to be used for future planning. Prastacos et al. (44), for example, indicate that, in the business environment, competencies are often 'backward-looking' and recommend the use of a forward-looking development model which takes cognizance of the context and the current trends within which the organization operates. A strategic approach that looks to the future, as well as current practice, when developing health promotion competencies (3) and the importance of grounding competencies in current policy have also been highlighted (4). Meresman et al. (9) recommend that competency development should be seen from an evolutionary perspective and that competencies should be reviewed and revised regularly within their specific contexts. It is also recommended that a plan for reviewing the framework, including a timescale, is agreed as part of the development process (42).

Competencies for capacity building, education and training

The competency approach has been generally welcomed in relation to workforce capacity building. For example, Wise (45) suggests that a knowledgeable,

skilled health promotion workforce is a key component of the capacity required by nations to promote the health of their populations. There are differences, however, in the appropriateness of using competencies as the basis for education and training. Talbot et al. (46), for example, argue that competency-based standards are a powerful guide for providers of professional education, and Howat et al. (47) report on a successful project which mapped competencies to university courses. Others disagree: for example, Mendoza et al. (43) consider that competencies could be used as a 'checklist' of behavioural tasks without a theoretical context leading to a 'single model of vocational education' across all educational settings.

Despite ongoing debate, it is likely that future education and training in health promotion will incorporate competencies. By defining core competencies which reflect the principles and values embodied in the Ottawa Charter (12), a basis for education and training that is reflective of international best practice can be fostered.

Conclusion and recommendations

Based on the literature reviewed, the following recommendations are made for developing internationally agreed core competencies:

- Agree definitions of health, health promotion and the principles and values that will underpin the framework.
- Agree the methodologies by which the competencies will be developed and validated. It is suggested that multiple methods be used to capture the complexities of health promotion.
- Consider the degree to which consensus can be sought from a large and diverse group of respondents while maintaining ethically sound and meaningful competencies.
- Explore the best formats to ensure that the competencies are clear, meaningful, robust and succinct.
- Ensure that the development process is clear and transparent and that the health promotion community as a whole has a sense of ownership of the core competencies.
- Analyse current trends and forecasted changes within relevant environments to ensure that the competencies are appropriate for future practice and workforce planning.

- Be aware of the differing levels of health promotion development between and within countries and regions, and of the diverse cultural, social and political contexts.

Finally, the core competencies should identify what is specific and unique to health promotion and the theoretical, research and ethical principles which underpin its practice.

The international literature on competencies for health promotion provides valuable insight into the differences and commonalities across frameworks and development processes which can be used to inform the development of effective core competencies at international level. In identifying the way forward it will be important to take account of current and future health promotion challenges, the diversity and trends within the health promotion workforce, and the rate of development of health promotion policy, knowledge and infrastructure globally. Developing consensus on the core competencies in health promotion could serve as a useful basis for strengthening workforce capacity building and thereby contribute to advancing the quality of practice, education and training globally.

Notes

- i. The UK uses the term 'competences'.
- ii. EUMAHP was set up in 1998 with the aim 'to improve the quality of health promotion through the professional training of health promoters in European Union countries'.
- iii. Few of these are currently available in English.
- iv. <http://www.nchec.org/>.
- v. A structured process for collecting and distilling knowledge through a series of questionnaires and feedback loops to build consensus.
- vi. <http://www.noca.org/Resources/NCCAAccreditation/tabid/82/Default.aspx>.

Editor's Note:

This article is one of a collection of manuscripts related to "Toward International Collaboration on Competencies and Accreditation in Health Promotion and Health Education: the Galway Consensus Conference," held June 16-18, 2008, at the National University of Ireland, Galway. The conference sponsors, the International Union for Health Promotion and Education (IUHPE) and the Society for Public Health Education (SOPHE), are pleased to provide open access to all of the related

manuscripts, half of which are published in IUHPE's *Global Health Promotion* and half of which are published in *SOPHE's Health Education & Behavior*. To read the entire collection of articles, go to <http://online.sagepub.com/> and search for the journal titles.

References

1. James R, Howat P, Shilton T, Hutchins C, Burke L, Woodman R. Core health promotion competencies for Australia 2007. Perth: Australian Health Promotion Association, Public Health Association of Australia, IUHPE SW Pacific Regional Committee; 2007. http://www.healthpromotion.org.au/branches/wa/reports/core_hp_competencies_2007.pdf (accessed December 2008).
2. McCracken H, Rance H. Developing competencies for health promotion training in Aotearoa–New Zealand. *Promotion & Education*. 2000; 7 (1): 40–3.
3. Shilton T, Howat P, James R, Lower T. Health promotion development and health promotion workforce competency in Australia. *Health Promotion Journal of Australia*. 2001; 12 (2): 16–123.
4. Health Scotland. Competencies for health promotion practitioners: interim report. Edinburgh: Health Scotland; 2003.
5. Health Scotland. Competencies for health promotion practitioners. Edinburgh: Health Scotland; 2005.
6. Hyndman B. Towards the development of Canadian health promotion competencies: where we've been, where we are, and where we're going. *Ontario Health Promotion E-Bulletin*, 25 October 2007. 2007 http://www.ohpe.ca/ebulletin/index.php?option=com_content&task=view&id=9068&Itemid=789 (accessed December 2008).
7. Skills for Health/Healthworks UK. National standards for specialist practice in public health. Bristol: Skills for Health; 2001.
8. Skills for Health. National occupational standards for the practice of public health. Bristol: Skills for Health; 2004.
9. Meresman S, Colomer C, Barry M, Davies JK, Lindstrom S, Loureiro I, Mittelmark M. Review of professional competencies in health promotion: European perspectives. *International Journal of Health Promotion and Education*. 2004; 21 (2): 153–9.
10. Moloughney B. Development of a discipline-specific competency set for health promoters: findings from a review of the literature. Paper prepared for Health Promotion Ontario; 2006.
11. Prahalad CK, Hamel G. The core competence of the corporation. *Harvard Business Review*. 1990 May–June.
12. World Health Organization. Ottawa Charter for Health Promotion. Geneva: WHO; 1986.
13. Santa-María Morales A, Barry M. A scoping study on training, accreditation and professional standards in health promotion. IUHPE Research Report Series; 2007; II (1). http://www.iuhpe.org/upload/File/RRS_1_07.pdf. (accessed December 2008)
14. Santa-María Morales A, Battel-Kirk B, Barry MM, Bosker L, Kasmel A, Griffiths J. Perspectives on health promotion competencies and accreditation in Europe. *Global Health Promotion*; 16 (2): 21–31.
15. Department of Health. Professional activity in health promotion and care occupational standards for health and care professionals in the NHS. London: Department of Health; 1998.
16. Department of Health. Shaping the future of public health: promoting health in the NHS project. London: Department of Health; 2005.
17. Public Health Research Unit. Public health skills and career framework. London and Bristol: PHRU and Skills for Health; 2008.
18. Howat P, Shilton T, Collins J, Bull E, James R, van Asselt K, Henderson H, Maycock B. Identification of competencies for health promotion practitioners: phase 2. Presented at The Sixth National Health Promotion Conference, Melbourne; 1994.
19. Van Asselt K, Howat P, Henderson H, Shilton T. Identification of competencies for health promotion practitioners: phase one. Presented at The Sixth National Health Promotion Conference, Melbourne; 1994.
20. Shilton T, Howat P, James R, Lower T. Review of competencies for Australian health promotion. Western Australian Centre for Health Promotion Research, Curtin University; 2002.
21. Shilton T, Howat P, James R, Lower T. Health promotion development and health promotion workforce competence in Australia. *Health Promotion Journal of Australia*. 2002; 12 (2): 16–123.
22. Shilton T, Howat P, James R, Lower T. Development of competencies for health promotion practitioners in Australia. *Promotion & Education*. 2003; 10 (4): 162–71.
23. Shilton T, Howat P, James R, Burke L, Hutchins C, Woodman R. Revision of health promotion competencies for Australia: final report. Western Australian Centre for Health Promotion Research, Curtin University, Australia; 2006.
24. Shilton T, Howat P, James R, Burke L, Hutchins C, Woodman R. Health promotion competencies for Australia 2001–5: trends and their implications. *Promotion & Education*. 2008; 15 (2): 21–6.
25. Centre for Cultural Ethnicity and Health Cultural Competencies for Health Promotion Initiatives, Victoria, Australia. http://www.ceh.org.au/docs/Resources/Cultural%20Comp/ceh_poster_4thdraft.pdf (accessed December 2008).
26. New Zealand Health Promotion Forum. Health promotion competencies for Aotearoa–New Zealand.

- <http://www.hpforum.org.nz/page.php?28#246> (accessed December 2008).
27. CATCH. Final report from the Symposium for Teachers of Health Promotion and Community Health, Canada; 2000. <http://www.utoronto.ca/chp/CCHPR/teacherssymposiumreport> (accessed December 2008).
 28. Stirling A. Learning health promotion: many journeys, many paths. Ontario Health Promotion E Bulletin. 2007, updated from 2004. http://www.ohpe.ca/index.php?option=com_content&task=view&id=8894&Itemid=78 (accessed December 2008).
 29. University of Toronto Core Competencies of a Health Promoter. MHSc Health Promotion Program, University of Toronto. http://www.phs.utoronto.ca/mhsc_health_promotion4.asp29 (accessed December 2008).
 30. Ontario Health Promotion. Pan-Canadian discipline-specific competencies for health promoters: progress report. http://www.ohpe.ca/index.php?option=com_content&task=view&id=9849&Itemid=78 (accessed December 2008).
 31. Public Health Agency of Canada. Core competencies for public health. Release 1.0. Ottawa: Public Health Agency of Canada; 2007. <http://www.phac-aspc.gc.ca/ccph-cesp/stmts-enon-eng.html> (accessed 25 June 2008).
 32. Henderson AC, McIntosh DV. Role refinement and verification for entry-level health educators (HFW-0904273). Springfield, VA; National Technical Information Service; 1981.
 33. Cleary HP. The credentialing of health educators: an historical account 1970–1990. New York: National Commission for Health Education Credentialing; 1995.
 34. National Task Force on the Preparation & Practice of Health Educators. A framework for the development of competency-based curricula for entry-level health educators. New York: National Commission for Health Education Credentialing; 1985, reprinted 1990.
 35. American Association for Health Education, National Commission for Health Education Credentialing, Inc., Society for Public Health Education. A competency-based framework for graduate-level health educators. Allentown, PA: AAHE, NCHCEC, SOPHE; 1999.
 36. Gilmore GD, Olsen LK, Taub A, Connell D. Overview of the national health educator competencies update project, 1998–2004. *Health Education and Behavior*. 2005; 32 (6): 725–37.
 37. Gilmore GD, Olsen LK, Taub A. National health educator competencies update project, 1998–2004: technical report. Allentown, PA: American Association for Health Education, National Commission for Health Education Credentialing, Inc., and Society for Public Health Education; 2004.
 38. American Association for Health Education, National Commission for Health Education Credentialing, Inc., Society for Public Health Education. A competency-based framework for health educators, 2006. Whitehall, PA: AAHE, NCHCEC, SOPHE; 2006.
 39. Gilmore GD, Olsen LK, Taub A. Applying the national health educator competencies update project model to health education. *Californian Journal of Health Promotion*. 2007; 5 (2): 103–11.
 40. Sakagami K. Development of competencies and responsibilities for Japanese health education specialists. *Japanese Journal of Health Education and Promotion*. 2006; 14: 66, 67.
 41. Allegrante JP, Barry MM, Airhihenbuwa CO, Auld ME, Collins J, Lamarre MC, et al. Domains of core competency, standards, and quality assurance for building global capacity in health promotion: The Galway Consensus Conference Statement. *Health Education & Behavior*. 2009; 36 (3): 476–82.
 42. Center for Health Policy. The competency-to-curriculum toolkit. Columbia University School of Nursing and the Association for Prevention Teaching and Research; 2008. http://www.cumc.columbia.edu/dept/nursing/chphsr/pdf/Toolkit05_08.pdf (accessed December 2008).
 43. Mendoza J, Parker E, Fresta J. 'If the suit doesn't fit why wear it?' Competency-based training and health promotion. *Health Promotion Journal of Australia*. 1994; 4 (2): 9–14.
 44. Prastacos GP, Soderquist KE, Vakola M. A strategic forward-looking approach to competency modelling. *Strategic Leadership Review*. April 2005.
 45. Wise M. The health promotion workforce and workforce development. *Health Promotion Journal of Australia*. 2003; 14 (1): 4–5.
 46. Talbot L, Graham M, James, EL. A role for workforce competencies in University of Toronto MHSc Health Promotion Programme. *Promotion and Education*. 2007; XIV (1): 28–33. <http://www.redorbit.com/news/display/?id=960882> (accessed 10 October 2008).
 47. Howat P, Maycock B, Jackson L, Lower T, Cross D, Collins J, van Asselt K. Development of competency based university health promotion courses. *Promotion & Education*. 2000; 7 (1): 7–33.