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## Building capacity in workplace health promotion: the case of the Healthy Together e-learning project

Margaret Hodgins<sup>1</sup>, Barbara Battel-Kirk<sup>2</sup> and Asa G. Asgeirsdottir<sup>3</sup>

**Abstract:** The current global economic crisis poses major challenges for workplace health promotion (WHP). Activities that are not perceived to obviously and directly contribute to profits could be sacrificed. This paper argues that WHP must remain centre-stage because of the rights of workers to a healthy, safe working environment but also because of WHP's beneficial financial implications for enterprises. Capacity building for WHP can be developed even within a recessionary environment, particularly if the focus is on the wider workforce, described here as people for whom workplace health promotion may not be their primary function but who have an important role to play in health improvement in workplaces. There is a strong case for the development of the wider workforce based both on the lack of suitably qualified specialists and on the practicalities of having WHP implemented within organizations, particularly for small and medium-sized enterprises (SMEs). SMEs make up a very significant proportion of the global economy and are identified as a priority area for action internationally. An example of an e-learning course, the Healthy Together programme, developed by a partnership of three countries, is discussed as an approach that has potential to develop capacity for WHP in the current climate. The findings of the evaluation of the Healthy Together programme indicate that there is a real potential in developing e-learning materials for training those with a brief for promoting workplace health and safety in SMEs. Although modifications in some aspects of delivery identified in the evaluation of the pilot course need to be considered, the course was well received, and was reported to be relevant to the learning needs of students, to their workplaces and specifically to small businesses in rural areas. Specific features of the e-learning approach increase its potential to address capacity building for WHP. (*Global Health Promotion*, 2010; 17(1): pp. 60–68)

**Keywords:** building capacity, e learning, SMEs, Workplace Health Promotion

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### Introduction

The current global economic crisis poses major challenges for workplace health promotion (WHP) as companies are likely to feel obliged to reduce their outgoings drastically, and thus anything that is perceived as not obviously and directly contributing to profits could be sacrificed. While there is evidence that WHP can be shown to contribute to productivity, the perception of WHP as an 'optional extra', may place it high on the list of activities tar-

geted for cost-cutting by companies around the world.

It is also the case, as with many social and environmental issues, that if there are increased limitations to WHP in the *developed world* these will be multiplied in the *developing world*. As there is compelling evidence that WHP is at best embryonic in developing countries, the global recession risks worsening this already-poor situation.

Even within countries with a stronger tradition of WHP, the economic crisis may see workers who

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previously enjoyed a degree of protection in the workplace experiencing a drop in standards. Further, in a situation where job security is low, workers may not have the confidence to challenge cuts in WHP provision for fear of losing their jobs, or for fear that WHP will be used as an 'optional extra' or a bargaining chip in negotiating wages and work conditions. Desperation to get or retain a job can cause workers to accept unhealthy and dangerous conditions.

This article will argue that WHP must remain centre-stage, even in recessionary conditions, not just because of the rights of workers to health and safety at work, but also because of WHP's beneficial financial implications for enterprises. It will argue that capacity building for WHP can be developed even within a recessionary environment, in particular within the wider workforce. An example of an e-learning course, developed by a partnership of three countries, will be discussed as an approach that has potential to develop capacity for WHP in the current climate.

## Work and health

Being employed and having good working conditions are now recognized as significant determinants of health at both individual and population levels (1). A healthy workforce is an asset to any population as it contributes to the maximization of the production of goods and services and reduces the costs of work-related morbidity and mortality.

Work, at an individual level, has been shown to have a positive effect on health. Having work gives meaning to life, and thus promotes health and a sense of well-being. Primarily, the key beneficial aspect of work is that it provides income that allows people to purchase goods and services which support healthy lifestyles, and access to health services. Work also allows people to develop and use skills and offers opportunities for a sense of personal control and achievement, social contact, and interpersonal relationships. There is substantial evidence that physical health and psychosocial functioning are negatively affected by job loss (2–4). Unemployment is associated with increased suicide risk (5) and poor mental health experiences such as depression, anxiety and lower self-esteem (2). Insecure or temporary employment has also been shown to have negative effects on health (6,7).

However, while work has mainly positive effects, working conditions have a significant impact on the levels of health and well-being of individuals and the

workforce as a whole. Adverse working conditions can lead to both physical and psychosocial health hazards. The International Labour Organization (ILO) estimates that within the world's 2.7 billion workers, at least 2 million deaths have occupational causes (8). Based on a comparative risk assessment of 40% of these 2 million deaths for which data are available, the World Health Organization (WHO) concluded that occupational exposures account for 9% of all lung-related cancers and that 37% of all back pain and 16% of all hearing loss could be attributed to workplace factors (8). The conservative estimate of the global burden of disease and injury due to work-related health risks is 1.63%. However, Kjellstrom and Hogstedt advise that this estimate may be as much as three times lower than the true burden (9). When the figures are revised to allow for likely levels of underreporting, it is estimated that occupational hazards amount to 5.4% of DALYs<sup>1</sup> worldwide, outstripped only by underweight and malnutrition at 9.5% and unsafe sex at 6.3% (9). The relationship between adverse working conditions and negative health outcomes displays a strong social class gradient with higher risk for accident and illness clustering in lower-status occupations (1), indicating that working conditions contribute significantly to health inequities. These issues are of particular importance in the current climate of job losses, decreased working hours and greater pressures and stresses within the workplace.

The case for addressing workplace health is therefore very strong and never more so than in the current economic climate. The provision of employment and good working conditions can contribute very significantly to global health, through improving opportunities for health and well-being, reducing health inequalities and protecting people from exposure to physical, environmental and psychosocial hazards and risks.

## Workplace health promotion

Workplace health promotion (WHP) is defined as the combined efforts of employers, employees and society to improve the health and well-being of people at work. This is achieved through a combination of improving the work organization and the working environment, promoting the active participation of employees in health activities and encouraging personal development (10). Occupational health and safety functions are mainly associated with health protection in the workplace (11). However, in recent

years comprehensive models of workplace health promotion, reflecting the concepts of the ENWHP definition and the tenets of health promotion, have been developed (11,12). These models attempt to combine traditional measures to address health and safety through legislation and regulation, with tackling voluntary health practices (or lifestyles) and addressing the social and organizational environment within the workplace. The ultimate aim is to create a culture that addresses health and specific issues, such as stress, at an organizational level. In this comprehensive approach, the responsibility for health is shared, requiring cooperation between employees, employers and other stakeholders, including the local community.

While many studies indicate the importance of workplace health promotion in improving health, preventing accidents, decreasing absenteeism, and ultimately contributing to higher productivity, the lack of comprehensive evaluations of workplace health promotion has been noted (11,13). However, there is accumulating evidence that organizational factors are associated with positive health outcomes. Lowe for example, having reviewed the available evidence, concludes that certain work environment and organizational factors positively influence worker health. These factors include: leadership that values employees as key assets, supportive supervision, employee participation, job control, communication and creating a positive culture for work—life balance and wellness (14). In addition the evidence indicates that comprehensive workplace wellness programmes can deliver cost savings and improve productivity which are sufficient to justify investments to pursue broad-based workplace health promotion initiatives (14).

### Building capacity

Building capacity has become an important issue for health promotion, and was identified as one of the five actions in the WHO's Bangkok Charter for promoting health in a globalized world (15). Emerging theory in health promotion sees capacity building as an approach to the development of sustainable skills, organizational structures, resources, and commitment to health improvement in health and other sectors (16–18).

Building capacity has been interpreted in a number of ways within health promotion (17). For example,

it can be taken to refer to increasing capacity to deliver specified services or responses to particular problems, through skill-enhancement or improved service structures – essentially service development (16). It can also be understood in a more generalized way – the capacity of a system to solve new problems or respond to unfamiliar situations (16). This level of capacity building, a system strengthening level, is described as requiring action across five keys areas.

Of these key action areas, workforce development is of particular importance in workplace health promotion, particularly in what are defined as *small or medium enterprises*<sup>2</sup> (SMEs), given the numbers of organizations thus classified, the high prevalence of work related accidents and disease in smaller organizations and their lack of occupational health services.

### Building capacity in SMEs

SMEs make up a very significant proportion of the global economy and are identified as a priority area for action by the ENWHP (10). In the EU, for example, SMEs comprise approximately 99% of all companies and employ about 77 million people, representing 66% of the workforce (19). However, their situation with respect to health and safety is less favourable than that of larger enterprises (20,21). Work-related ill-health risk increases as enterprise size decreases. Within EU states, occupational accident risk is much higher for small and medium-sized enterprises. Fatal accidents are twice as likely in companies with less than 50 employees compared to those with more than 250. Although data are sparse, where they exist, the indication is that occupational disease incidence displays a similar trend (19). This may be due in no small part to the fact that SMEs are underserved in terms of workplace health promotion and/or occupational health services. The ENWHP found that in 19 EU states the smaller the enterprise, the less likely occupational health services are available. For example, risk assessments were found to be conducted in 30–50% of small enterprises compared to 90% in larger companies (19).

### Workforce development for WHP

The workplace health promotion workforce can be divided into three groups that are not mutually exclusive and may overlap in practice:

1. Statutory organizations with national or regional briefs to promote health and safety and support occupational health services.
2. The specialist workforce comprising those whose job is primarily the promotion or improvement of health in workplaces. This group includes workplace health promotion personnel and occupational health nurses and doctors, who usually hold post-graduate qualifications in workplace health.
3. The wider workforce – described as people for whom workplace health promotion may not be their primary function but who have an important role to play in health improvement in workplaces. This includes, but is not limited to:
  - personnel or human resource officers;
  - trade union representatives with a brief for health and safety;
  - managers/owners; and
  - primary health care professionals (including for example, general practitioners, occupational therapists, physical therapists, practice nurses).

In relation to workplace health promotion there is a strong case for the development of the wider workforce based both on the lack of suitably qualified specialists and on the practicalities of having WHP implemented within organizations, particularly SMEs.

There is evidence that specialist services in health promotion are at different stages of development globally. In the EU, for example, a scoping study that overviewed the level of specialist training in health promotion across 33 European countries found considerable variation in countries' self-assessment of levels of expertise in health promotion and numbers of specialist posts (22). While access to postgraduate training is recommended for the specialist health promotion workforce (23), it is not always available, resulting in a shortage of specialist services generally and therefore also in support for WHP.

The person with a brief or responsibility for health in an SME is often the manager or owner, but may also be a member of the human resources team, a trade union representative with a brief for health and safety matters, or a member of a staff association with an interest in health. All of these, with adequate training and education, can play a significant role in improving workplace health.

Rantenen makes a strong case for the provision of basic-level services, delivered by staff who receive a

short, basic training in occupational health and concludes that

... it is vitally important that even the non-specialists have a certain minimum training in occupational health services (24).

## Workforce development in developing countries

Developing countries are particularly in need of workforce development in workplace health. People in developing countries bear more than 80% of the global burden of occupational disease, injury and death (8). For example, Kjellstrom and Hogstedt, comparing selected countries, find that where as the USA has five occupational fatalities per 1,000 workers Argentina has 15 and Zimbabwe has 20 (9). In African countries, injury rates in forestry, manufacturing and transport are all greater than 30 per 1,000 workers (25). These inequalities are inextricably linked with poverty and disadvantage and need to be addressed at many levels. Further, they are likely to be, exacerbated by the economic crisis. However, specialist services and supports are not likely to be available to the vast numbers of informal and low-skilled workers in developing countries. Providing basic training to the wider workforce has greater potential to improve working conditions for this section of the global workforce.

## Developing the wider workforce for WHP – the Healthy Together training programme

The *Healthy Together* e-learning training course provides an example of basic training in workplace health promotion that can build capacity within the wider workforce. The e-learning method of education and training delivery, if delivered correctly, has a number of benefits which are particularly relevant for participants from the wider workforce and which are also useful in the context of limited resources for WHP in the current economic climate, including:

- Reduced travel cost and time to and from course venue
- Course work can be scheduled around personal and professional work demands

- Learners can study wherever they have access to a computer and Internet
- Self-paced learning modules allow learners to work at their own pace
- Flexibility to join discussions on the bulletin board threaded discussion areas at any hour, or visit with classmates and instructors remotely in chat rooms
- Different learning styles are addressed and facilitation of learning occurs through varied activities
- Development of computer and Internet skills transferable to other facets of learners' lives (26)

The *Healthy Together* project<sup>3</sup>, funded through the Leonardo Da Vinci programme of the European Commission<sup>4</sup>, aimed to create an easily transferable e-learning course for health practitioners, occupational health and safety specialists and relevant others to promote workplace health in small and medium-sized enterprises (SMEs) in rural communities. The project targeted SMEs in rural communities as the evidence indicates a lack of WHP and occupational health services within SMEs in general and particularly in rural communities, where resources and access to support for workplace health are reported as being even scarcer (19). The International Labour Organisation, for example, has recognized that workers in rural areas are often ignored or hard to reach in relation to workplace health (27).

The Healthy Together project involved six partner organizations from three countries in the development and piloting of the online course<sup>5</sup>. It also benefited from the input of two leading WHP experts (from Ireland and Iceland respectively) who reviewed the course materials, and from independent consultants on WHP. The project thus incorporated international academic and practitioner expertise in the development of the course. The e-learning course focused on building basic competency in running workplace health programmes by developing students' awareness of workplace health issues and introducing ways of making better use of local resources and services to support workplace health. It was planned that participants would, with the use of easily transferable instructional material, learn how to plan a WHP programme and be familiar with the legal and practical requirements for a risk assessment. In addition some resources such as *toolkits* were included in the course for participants' use in practice settings, together with reference lists for online and other easily assessable tools to support their practice.

The *Healthy Together* course material is competency based, in keeping with the recognition within health promotion that to develop and strengthen workforce capacity, it is necessary to develop core competencies, standards and assurance systems (28,29). Learning sessions in the course include a number of critical success factors in workplace health promotion, for example: focus on employee needs, use of on-site resources, participation and evaluation (12) to support competency development. The course content is also consistent with recommendations for the development of basic occupational health services, i.e. that it should include planning, assessment, information and evaluation (25).

The course was designed to run over a six-week period, with students accessing the learning materials online and having contact with a tutor (one per country) and other students, both nationally and with those in the other countries, on a regular and agreed basis.

The course was structured into six *blocks* or sections and students were expected to complete one block each week. Each block comprised either three or four lectures (see Figure 1). All material was accessible to students to download via a Virtual Learning Environment (VLE). Students attended two workshops: a preliminary session at which they exchanged information with one another and the tutor and tested the VLE and a meeting at the end of the six-week period which focused on student presentations based on their assignments and which also provided an opportunity to reflect on learning.

The course was simultaneously piloted with a learning group in each of the three participating countries, from April to May 2008<sup>6</sup>. The evaluation of the pilot course incorporated both process and summative elements and drew on the current literature on evaluation approaches for e-learning (for example, 30–32). A range of quantitative and qualitative data collection and analysis methods was employed in the evaluation, including questionnaires, focus groups and pre/post-testing on aspects of the course and learning outcomes and semi-structured interviews (33).

## Findings of the evaluation

40 students started the course (Iceland: 16, Italy: 12, Ireland: 12) and 26 (65%) completed it,



- Introduction: health, health in the workplace, improving health in the workplace (the disciplines of workplace health promotion, occupational health and safety) and the special case of SMEs
- Safety as a pre-requisite for workplace health promotion, conducting a risk assessment, development of a safety statement
- Planning a workplace health promotion programme — (a) creating a supportive environment (taking a planned approach, developing a multidisciplinary group, devising a communication strategy)
- Planning a workplace health promotion programme — (b) conducting an internal assessment, action planning and implementation
- Evaluation of health promotion programmes (process, impact and outcome) and ethical issues
- Specific topics of relevance: stress, musculoskeletal disorders, workplace mobbing/bullying, accessing community resources, management issues (students select 4 of these lectures)

Each block contains 3-4 lectures with associated exercises. Lectures consist of slides and an audio track and last between 20 and 30 minutes. After each lecture, students either read some additional material, or undertake an exercise, or both.

**Figure 1.** Learning blocks

21 of whom also completed the evaluation. All of the students had some form of post-secondary level education<sup>7</sup>, with 71% having a postgraduate qualification and all had some previous training relevant to WHP. The students were drawn from a wide range of sectors and job titles (see Table 1).

Overall the course was positively evaluated and was reported to be relevant to the learning needs of students, to their workplaces and specifically to small businesses in rural areas. The quality of learning materials, website, tutor support and pre-and post-course meetings also received positive feedback. Student assessment of their learning from the course, and the impact they considered this would have on how they work and on their workplace, was very positive and 95% of those responding stated that they would recommend the course to colleagues.

Aspects of the course less well received included the number of assessments and the time required to complete the course. In light of this feedback, it was recommended that when the course was offered in

the future it should be extended to 8 to 12 weeks but that the number of assessments should stay the same, which means that students will have more time to complete them.

Accreditation of the course for future students was rated as being very important, with most of those responding indicating that they would expect a university to be the awarding body (32).

### E-learning as a method of delivery

The pilot course closely reflected many of the advantages identified for e-learning, and confirmed its significant potential for workforce development in workplace health promotion. Students in the three pilot countries all used the same course material and were able to discuss the material and their learning both with a locally based tutor via email and with the other students and tutors via an online discussion forum. The students and tutors only met together twice but it is important to note that the

**Table 1.** Student job sectors and titles

Accounts administrator (3)	Clerical officer	Executive assistant
Occupational therapist	Nutritionist	Medical director
Health and safety manager	Occupational health nurse (2)	OSH manager
Medical doctor (7)	Trade union employee	School nurse
Physiotherapist (2)		

initial meeting was described by tutors as ‘invaluable for getting to know and establishing a rapport with students’. Students also reported benefits from meeting together. It may be that a mix of e-learning and a small number of workshops provides the best learning environment for this type of workplace health promotion training but this must be weighed against the demands of time, distance and costs.

The online discussion forum, which formed part of the course, aimed to support a wider exchange of ideas and was described as useful by students as it encouraged them to reflect on the material covered within a given block and discuss it with other students and the tutors at the end of the week. It also allowed tutors to monitor students’ understanding and progress through the course material by the level and quality of their participation. However, tutors reported that some students appeared to lack experience in such online forums and were therefore somewhat limited in their interactions. Tutors intervened to stimulate discussion and reported that the students generally did engage more as they became more competent and confident in their online skills. It was recommended that for future courses, methods of building confidence in using the Internet and maximizing participation need to be explored.

Issues of equity, at a wider level, also need to be considered in the roll-out of the course across different countries and regions as it requires access to broadband technology which will be problematic in some parts of the world.

The fact that students could study their material at any time during the week permitted flexibility around working life, a key advantage of e-learning. It was interesting to note, however, that almost two-thirds of the pilot groups (60%) were permitted time off work to study the materials and it is questionable if this high rate would be the norm for other groups of aspiring students.

Despite the potential of the course to reach the wider workforce, it should be noted that in the pilot phase, there was a high initial withdrawal rate in two of the three groups (approximately 50%). All who withdrew did so in the early stages of the course. The main reasons given for withdrawal were difficulties with language (mainly from Italian students) as the pilot course was offered in English only, while in Ireland and Iceland a range of issues such as unexpected work-related travel, family problems and other personal matters were the reasons given for not

completing the course. All who withdrew also referred to the amount of work required to complete the course and indicated that this was more than they had expected. This finding suggests that more advance information on course requirements and opportunity for students to plan their time is required. Currently the course is available in English (all materials and audio track), although the slides have been translated into Italian and Icelandic. The need to have such courses available in students’ own language is also an important consideration but will necessitate additional resources. In-depth need analysis with future prospective students should, it is suggested, be undertaken to assess students’ needs and timescales to enable adaptation of the course structure and timescales to local requirements.

While the course was specifically developed to meet the needs of SMEs in rural communities, it could easily be adapted to larger organizations within a variety of settings. The e-learning method of delivery, while particularly useful for those in more isolated rural communities, can be equally useful for those in urban settings with limited time and resources for training centre attendance and travel.

## Conclusion

The need to build capacity in workplace health promotion cannot be overstated. Globalization of the world economy and technological advances change the nature of work and employment practices resulting in employees being exposed to new pressures and health risks. It is therefore all the more important for workplaces to become healthy environments supportive of employee health. It is likely that the current global economic crisis will impact on employee health and well-being in many ways and possibly for an extended period of time. Increased financial stress on organizations and individuals creates workplace health challenges that require innovative approaches and solutions that fit tight budgets. E-learning is a useful approach to developing workplace capacity for WHP within the current climate as it provides opportunities for managers, practitioners, staff, and all with enthusiasm for WHP to share information and experiences on common issues and challenges of workplace health. It also facilitates the acquisition of the necessary tools, knowledge and skills that will make them better able to identify health threats and build on existing strengths. The findings of the evaluation



of the *Healthy Together* programme indicate that there is a real potential in developing e-learning materials for training those with a brief for promoting workplace health and safety in SMEs. Although modifications in some aspects of delivery identified in the evaluation of the pilot course need to be considered, the course was generally well received, and has the potential to address capacity building for WHP.

As demonstrated, the course is a tool that can support the development of the wider workforce in developing knowledge and skills in WHP and provides resources not only for learning, but, through various *toolkits* and practical resources, for the implementation of workplace health interventions. By adding to the knowledge and skills of the wider workforce and providing supportive resources it can contribute to the quality and sustainability of WHP interventions. As the programme was based on a comprehensive model of health promotion and focused on building competency in generic skills of planning, implementation and evaluation of workplace health promotion activities, it offers opportunities to build capacity at the *systems strengthening* level of capacity building. It supports a problem-solving approach to enable individuals and organizations to take a generic approach to solving health problems and to develop skills to affect the decisions that affect their health. The focus of the course on linking to and making better use of resources in the local community facilitates partnership approach to WHP, which has the potential to both draw on and contribute to health improvement in the community at large. The course therefore can contribute to the greater capacity of people, organizations and communities to promote workplace health in recessionary times by maximizing training opportunities within limited available resources.

#### Notes

1. DALYs = Disability Adjusted Life Years -The sum of years of potential life lost due to premature mortality and the years of productive life lost due to disability (WHO; [http://www.who.int/mental\\_health/management/depression/daly/en/](http://www.who.int/mental_health/management/depression/daly/en/)).
2. Companies with fewer than 50 employees are categorized as *small* and those with fewer than 250 as *medium*.
3. Leonardo da Vinci – Community action programme on vocational training Procedure B, Second phase: 2000–2006; Pilot project, Agreement No 2006 – ISL/06/B/F/PP-164007.
4. [http://ec.europa.eu/education/lifelong-learning-programme/doc82\\_en.htm](http://ec.europa.eu/education/lifelong-learning-programme/doc82_en.htm)
5. Iceland: Vinnueftirlit ríkisins – Administration of Occupational Safety and Health (project leader); Lýðheilsustöð Public Health Institute; Háskólinn í Reykjavík – Reykjavík University. Italy: Università degli Studi di Perugia. Ireland: Health Service Executive, West Health Promotion Services; National University of Ireland, Galway, Health Promotion Department.
6. Iceland, Ireland, Italy.
7. Post-secondary education refers to education that leads to university entrance-level qualifications.

#### References

1. World Health Organization. Closing the gap in a generation. Final report of the Commission on Social Determinants of Health. WHO: Geneva; 2008.
2. Warr P. Work, unemployment and mental health. New York: Oxford University Press; 1987.
3. Bartley M. Unemployment and ill health – understanding the relationship. *J Epidemiol Community Health*. 1994; 48: 333–7.
4. Mathers C, Schofield D. The health consequences of unemployment: the evidence. *Medi J Aust*. 1998; 168: 178–82.
5. Lewis G, Sloggett A. Suicide, deprivation, and unemployment: record linkage study. *Br Med J*. 1998; 317: 1283–6.
6. Virtanen M et al. Temporary employment and health: a review. *Int J Epidemiol*. 2005; 34(3): 610–22
7. Kim I, Muntaner C, Khang Y, Paek D, Cho S. The relationship between nonstandard working and mental health in a representative sample of the South Korean population. *Soc Sci Med*. 2006; 63(3): 566–74.
8. Rosenstock L, Cullen M, Fingerhut M. Disease control priorities in developing countries, 2nd edn. New York: Oxford University Press; 2006.
9. Kjellstrom T, Hogstedt C. Reassessing the global burden of disease and injury due to occupational hazards. Paper presented at Conference on Occupation and Environmental Health for the Americas, Costa Rica; February 2005.
10. European Network of Workplace Health Promotion. Luxembourg Declaration on Workplace Health Promotion in the European Union; 1997 [Internet]. Available from: [http://www.enwhp.org/fileadmin/downloads/press/Luxembourg\\_Declaration\\_June2005\\_final.pdf](http://www.enwhp.org/fileadmin/downloads/press/Luxembourg_Declaration_June2005_final.pdf) (accessed May 2009).
11. Fleming P. Workplaces as settings for development. In: Scriven A, Garman S (eds) *Public Health and Social context*. Acton Maidenhead: Open University Press; 2007.
12. The Health Communication Unit. The case for comprehensive workplace health promotion. Centre for Health Promotion, University of Toronto; 2004.
13. Dugdill L, Springett J. Evaluating health promotion programmes in the workplace. In: Rootman I, Goodstadt M, Hyndman B, McQueen D, Potvin L, Springett J, Ziglio E. *Evaluation in health promotion, principles and perspectives*. WHO Regional Publications, European Series; 2001, No. 92.

14. Lowe G. Healthy workplaces and productivity: A discussion paper. Prepared for the Economic Analysis and Evaluation Division, Health Canada; 2003.
15. World Health Organization. The Bangkok Charter for Health Promotion. Geneva: WHO; 2005.
16. Hawe P. Capacity building: For what? NSW Public Health Bulletin. 2000; 11(3): 22–4.
17. Hawe P, Noort M, King L, Jordens C. Multiplying health gains: the critical role of capacity building within health promotion programs. Sydney: Health Policy Branch, NSW Department of Health; 1997.
18. Eade D. Capacity building: an approach to people-centred development. London: Oxfam; 1997.
19. European Network for Workplace Health Promotion (ENWHP). Small healthy and competitive: new strategies for improved health in small and medium enterprises; 2001.
20. European Agency for Safety and Health at Work. Improving occupational safety and health in SMEs. Fact Sheets; 2003 [Internet]. Available from: <http://osha.europa.eu/en/publications/factsheets/37> (accessed April 2009).
21. Griffin B, Hall N, Watson N. Health at work in small and medium-sized enterprises. Health Educ. 2005; 105(2): 126–41.
22. Morales A SM, Barry M. A scoping study on training, accreditation and professional standards in health promotion. IUHPE Research Report Series, Volume II, Number 1, (11), 1; 2007 [Internet]. Available from: [http://www.iuhpe.org/upload/File/RRS\\_1\\_07.pdf](http://www.iuhpe.org/upload/File/RRS_1_07.pdf) (accessed April 2009).
23. Workers' Health: global plan of action; 2007 [Internet]. Available from: [http://apps.who.int/gb/ebwha/pdf\\_files/WHA60/A60\\_R26-en.pdf](http://apps.who.int/gb/ebwha/pdf_files/WHA60/A60_R26-en.pdf) (accessed May 2009)
24. Rantenen J. Basic occupational health services, Finnish Institute of Occupational Health; 2005.
25. Loewenson R. Globalisation and occupational health: a perspective from southern Africa. Bulletin of the World Health Organization. 2001; 79(9) [Internet]. Available from: [http://www.scielosp.php?script=sci\\_arttext&pid=SOO42-96862001000900012](http://www.scielosp.php?script=sci_arttext&pid=SOO42-96862001000900012) (accessed March 2009).
26. FUTECH [Internet]. Available from: [http://www.futechservices.com/existing\\_clients\\_elearning.php](http://www.futechservices.com/existing_clients_elearning.php) (accessed May 2009).
27. International Labour Organisation (ILO). Safework Global Programme on Safety, Health and the Environment. Available from: <http://www.ilo.org/public/english/protection/safework/mandate.htm> (accessed April 2009).
28. Allegrante JP et al. Domains of core competency, standards, and quality assurance for building global capacity in health promotion: The Galway Consensus Conference Statement. Health Educ Behav. 2009; 36: 427–38 [Internet]. Available from: [http://www.sophe.org/upload/Galway%20Consensus%20Conference%20Statement%20-%20Final\\_84911642\\_6302008111733.pdf](http://www.sophe.org/upload/Galway%20Consensus%20Conference%20Statement%20-%20Final_84911642_6302008111733.pdf) (accessed April 2009).
29. Battel-Kirk B, Barry M, Taub A, Lysoby L. A review of the international literature on health promotion competencies: Identifying frameworks and core competencies. Glob Health Promot. 2009; 16(2): 12–20.
30. Deepwell F. Embedding quality in elearning implementation through evaluation Educational Technology and Society. 2007; 10(2): 34–43 [Internet]. Available from: [http://www.ifets.info/download\\_pdf.php?j\\_id=35&a\\_id=748](http://www.ifets.info/download_pdf.php?j_id=35&a_id=748) (accessed April 2009).
31. Franklin T, Armstrong J, Oliver M, Petch J. Towards an effective framework for the evaluation of elearning. Elearning Research Centre, University of Manchester; 2004. Available from: [http://franklin-consulting.co.uk/LinkedDocuments/framework\\_for\\_evaluation.doc](http://franklin-consulting.co.uk/LinkedDocuments/framework_for_evaluation.doc) (accessed April 2009).
32. Phillips R. (ed.) 2001 Handbook for learning-centred evaluation of computer facilitated learning projects in higher education. Available from: <http://www.tlc.murdoch.edu.au/archive/cutsd99/finalpdfreports/Frontpages.pdf> (accessed April 2009).
33. Battel-Kirk B. Healthy Together: course evaluation; 2008 [Internet]. Available from: <http://www.healthy2gether.net>