

# An integrated approach to the prevention and promotion of health in the workplace: a review from international experience

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## Abstract

This paper reports the results of a review of health promotion programmes in the workplace. The aim of this review was to ascertain evidence of success in health promotion in the workplace. Workplace health promotion (WHP) programmes help to improve employee health by optimising an organisation's overall economic, structural and cultural environment. It also tends to reach the healthy workers at the best companies, which are employing the healthier individuals in the formal sectors of the economy.

The workplace is viewed as an effective setting for health promotion in order to achieve the goal of "Health for All", and for other benefits such as reducing and controlling healthcare costs as a result of the growing epidemics of communicable and non-communicable diseases. Strategies to facilitate workplace health promotion include health education, behaviour-directed prevention, and incorporating the organisation's development strategy into human resources policies to make prevention the essential part of the entire corporate strategy. A healthy, motivated and contented workforce is fundamental to the future social and economic wellbeing of any nation. The protection of employees against exposure to various occupational hazards can be achieved through implementing integrated programmes to improve employees' wellness and promoting a health- and safety-oriented culture in the workplace.

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### Introduction

The workplace is a key setting for promoting the health of adults.<sup>1</sup> The proportionately large amount of time individuals spend working during their lifetime<sup>2</sup> makes the workplace an arena that is especially amenable to the development and delivery of more integrated approaches to health care.<sup>3</sup>

Organisations can have a positive influence on the health of workers by creating healthy work environments, ensuring that organisational policies are conducive to good health, and by providing health promotion programmes and services at work.

Health promotion is the process of enabling people to increase control over, and to improve, their health.<sup>4</sup> Workplace health promotion is the combined efforts of employers, employees and society to improve the health and wellbeing of people at work. This is achieved through a combination of:

- Improving the work organisation and the working environment
- Promoting the active participation of employees in health activities
- Encouraging personal development

Workplace health promotion (WHP) programmes promote and support employees and their family health and wellness through awareness, education, skill-building activities and environmental/behavioural change. Employers have an increased interest in encouraging and supporting healthy lifestyle choices as they become more aware of the interrelationship of employee health and productivity. Employer costs for these programmes can be offset rapidly by fewer work-related injuries, reduced absenteeism, lower staff turnover and increased morale.

WHP involves an organisational commitment to improving the health of the workforce, providing employees

with appropriate information, establishing comprehensive communication strategies and involving employees in decision-making processes. It also involves developing a working culture that is based on partnership, organising work tasks and processes so that they contribute to, rather than damage, health, and implementing policies and practices that enhance employee health by making the healthy choices the easy choices. A WHP programme recognises that organisations have an impact on people and that this impact is not always conducive to their health and wellbeing.<sup>5</sup>

Health promotion programmes can include a number of strategies and activities. Some of the most popular activities include health risk assessments/appraisals, brown bag seminars or training classes on specific topics, newsletters, health fairs, incentive programmes, work/life programmes and exercise

facilities. Environmental and policy-level strategies include substance-free workplace gatherings, drug-free workplace policies, a smoke-free environment, and upper-level management participation. Health promotion topics presented in the workplace include stress management, nutrition/weight management, time management, smoking cessation, cardiac wellness, women's health, and substance use and abuse.

With the introduction of health promotion programmes in workplaces in South Africa, a need for reviewing such programmes is essential in order to evaluate their effectiveness and to learn from the international experience of developed countries.

**Review**

This review was conducted in four stages: identification of relevant studies, classification of these studies, review of the data and analysis of the findings. Different sources of published and unpublished research literature were searched to locate studies relevant to WHP interventions.

Research shows that employers are becoming more involved in promoting the health of their workers. In 1996, 89% of employers had some type of health initiative, up from 64% in 1992. The most common health promotion initiatives were a smoke-free workplace (80%), education/training (78%), health risk assessment (76%), and special programmes (71%).<sup>6</sup>

A study of 8 334 employees of large organizations in Europe, who participated in Procter & Gamble's health promotion programme had significantly lower healthcare costs (29% lower total and 36% lower lifestyle-related costs) when compared with non-participants in the third year of the programme. Similarly, in the third year of the programme, participants had significantly lower inpatient costs, fewer hospital admissions, and fewer hospital days of care compared with non-participants. There were no differences noted in the first two years of the programme.<sup>2</sup>

**Table I:** Research studies on risk factors for cancer in the workplace

Most common targets	N*	Percentage
Tobacco cessation	27	39.1%
Diet changes	16	23.2%
Physical activity	14	20.3%
Weight loss	8	11.6%
Exposure to ultraviolet light	1	1.5%
Stress	-	-
Alcohol	3	4.3%
Drug abuse	-	-
<b>Total</b>	<b>69</b>	<b>100%</b>

\*N = number of high quality studies included in the review<sup>7</sup>

Table I shows research studies on risk factors for cancer in the workplace. In a review of 69 high-quality studies on risk factors for cancer, the authors found that 27 (39.1%) of the studies were on tobacco cessation, 16 (23.2%) on diet changes, 14 (20.3%) on physical activity, eight (11.6%) on weight loss, three (4.3%) on alcohol and one (1.5%) study was on exposure to ultraviolet light.<sup>7</sup> There were no high-quality studies conducted on stress and drug abuse as risk factors for cancer in the workplace. The authors conclude that, although it has frequently been assumed that worksite health promotion must have a positive effect, many of these studies were not adequately designed to evaluate whether such an effect was present. Many studies did not have a reference group, they were based on a small number of subjects, and they did not give quantitative estimates of the changes achieved by the interventions.<sup>7</sup>

A systematic and critical review has been conducted of 35 worksite health promotion programmes.<sup>8</sup> Table II indicates that all 11 (100%) of the studies without a comparison group were encouraging. Of the studies with a non-randomised comparison group, nine (56%) were encouraging, five (31%) were mixed and two (13%) were discouraging. With respect to studies that had a randomised comparison group, two (22%) were encouraging, five (56%) were mixed and another two (22%) were discouraging.

Large variations were found with regard to intervention methods and endpoints, sample size, participation rates, duration of follow up, and methodological study quality. The worksite health promotion programmes that were reviewed varied tremendously in the comprehensiveness, intensity and duration of the intervention activities. All of the programmes provided health education to employees. In a majority of the programmes, opportunities to learn and practise new skills were also offered. A smaller number of programmes incorporated modifications in organisational policy or the physical work environment. The authors concluded that the results of the studies reviewed provided both cautious optimism about the effectiveness of these worksite programmes and some general guidance as to the critical components and characteristics of successful programmes. Overall, the evidence suggests that a rating of indicative/acceptable may best characterise these examples in the literature.

A selection of 45 worksite health promotion trials following specific quality criteria were evaluated for behavioural changes in cancer risk factors and the effectiveness of different intervention components.<sup>7</sup>

Table III indicates that 29 (64.4%) of the high-quality studies were conducted in the USA, seven (15.6%) were conducted in European countries, five (11.1%) were conducted in Australia and only four (8.9%) were conducted in other countries. Janers, Sala and Kogevinas (2002) concluded that research has been performed in rich countries with a low mortality.

Tobacco control programmes found quit rates of about 5%, with relapse rates of 40% to 80% at six months after the intervention. They had a higher effect among managers, moderate smok-

**Table II:** Review of workplace health promotion programmes<sup>8</sup>

<b>Results</b>			
<b>Design evaluation:</b>	<b>Encouraging</b>	<b>Mixed</b>	<b>Discouraging</b>
<b>No comparison group</b>	100% (11)	0% 0%	
<b>Non-randomised comparison group</b>	56% (9)	31% (5)	13% (2)
<b>Randomised comparison group</b>	22% (2)	56% (5)	22% (2)

**Table III:** International experience on WHP research

Country of research for 45 high-quality studies	Number of studies	Percentage
United States of America (USA)	29	64.4%
Europe	7	15.6%
Australia	5	11.1%
Other	4	8.9%
<b>Total</b>	<b>45</b>	<b>100%</b>

**Table IV:** Tobacco control programmes in the workplace<sup>7</sup>

Smoking cessation	Percentage
Overall effect	6% quit rate
Continuous abstinence	1 to 6%

ers, smokers of light tobacco and smokers who had smoked for a shorter time. Janer, Sala and Kogevinas (2002) concluded that the lasting effect was small and that the largest effect was among those who have the smallest need for smoking cessation from a health point of view.<sup>7</sup> Table IV indicates the quit rate percentage for the overall effect on smoking cessation (6%) and continuous abstinence (1 to 6%).

A survey of health promotion at the worksite in 333 large organisations in Europe showed substantial differences in the prevalence of health promotion efforts in dealing with the 11 selected health issues. The type of educational and policy methods used to address these issues also varied widely. The prevalence of health promotion programmes appeared to be influenced, for example, by the size of the organisation and the availability of government support.<sup>2</sup> The most prevalent efforts dealt with substance abuse (67% of respondents), including antismoking activities and alcohol and drug programmes. Slightly less than half of respondents reported efforts to increase employee fitness, screen for heart disease or improve nutrition. Health counselling was the most widely used method to promote employee wellbeing, followed by the use of pamphlets and literature.<sup>2</sup>

An economic evaluation has been undertaken of four worksite-based cardiovascular risk factor interventions.<sup>9</sup> Outcome data from a randomised worksite intervention trial was used to examine the cost-effectiveness of four cardiovascular disease (CVD) risk-reduction programmes: health risk assessment (HRA), risk factor education (RFE), behavioural counselling (BC), and behavioural counselling plus incentives (BCI). At the 12-month follow-up (i.e. the "maintenance" stage of lifestyle

change), BC was the only programme found to produce a significant reduction in CVD risk. Individualised behavioural counselling was found to be a cost-effective strategy for initiating and maintaining a reduction in CVD risk factors.<sup>9</sup>

As part of the European Union (EU) project, "Success Factors and Quality for Workplace Health Promotion", researchers identified Swedish models of good practice of WHP. Some of the organisations that have extensively integrated WHP are ASTRA (a pharmaceutical company), Länsförsäkringar Wasa (an insurance company), and the Malmö Fire Brigade. They have all used different solutions to create a healthy work place from a physical, psychological and social point of view. The WHP programme at ASTRA includes developing and implementing policies (e.g. alcohol and drug policy, maternity policy), personnel care projects for groups at risk (holistic analysis of work situation, including hours, health profiles, attitude surveys and ergonomics), and a selection of health-promotion activities, including excellent exercise facilities, a culture room, education and massage.

The WHP strategy at Länsförsäkringar Wasa is also based on a holistic view of health. Health and work profiles are compiled as a base for the programme design, with a commitment from management to undertake the necessary changes that are revealed in the profiles. All programme components feature a yearly follow-up and evaluation. At the Malmö Fire Brigade, the Fire Chief leads the development of a healthy organisation, which was started with an alcohol and drug programme in 1986. The programme has now expanded to include a work environment policy, a rehabilitation policy and a leadership policy with the slogan, "We care". Sug-

gestions for improvement of the work environment are often implemented and, if not approved, employees always hear the reason. An open and straightforward dialogue between all parties is a trademark of the organisation.

The first step in the integration of WHP programmes is to develop an overall workplace health policy. The policies governing employee health must be aligned with the organisation's corporate mission and its vision and values, supporting both short- and long-term goals. Integrated and comprehensive workplace health promotion initiatives must be responsive to the unique needs of the procedure, organisation and culture of each workplace.

The results from the studies cited above indicate a need for an integrated approach to health promotion in the workplace. Research on many of these WHP programmes indicates that they are disjointed, fragmented and, in a few cases, there is duplication of effort.

Before adopting integrated workplace health promotion programmes, it is important to consider the cost and effectiveness of such programmes. It is recommended that worksite health-promotion programmes should be more widely adopted only if they can be demonstrated to be effective and cost-effective in reducing the risk of disease and in promoting health.<sup>9</sup>

There are some lessons to be learned before introducing integrated workplace health promotion programmes. Most WHP programmes take place in rich, industrialised countries with low morbidity and mortality. These programmes target working individuals who are healthier than non-working individuals, and are limited to the formal and urban sector of the economy and to larger companies. Companies with WHP programmes tend to have better working conditions than workplaces without WHP. Participation rates are generally low (average approximately 50%) and the participants tend to be the more healthy managers and white collar workers.<sup>10</sup>

There are also good examples of models of integrated workplace health promotion programmes focusing on only one occupational health problem, such as stress. Baker *et al.* (1996) developed an integrated model of occupational stress that includes a broad definition of stress and the domains traditionally covered by both health promotion and health and safety practitioners.<sup>11</sup> By incorporating a number of stressors or

objective conditions that are conducive to stress, and the individuals' perception of these conditions as stressful, the integrated model provides a broad conceptualisation of occupational health, thereby incorporating areas that are of concern to both worksite health promotion and occupational health and safety practitioners. The model suggests that health is the result of the interrelationships among a number of factors and that no single intervention to improve health in the worksite is likely to be sufficient.<sup>11</sup>

Results from well-conducted randomised trials suggest that providing opportunities for individual risk-reduction counselling for high-risk employees within the context of comprehensive programming may be the critical component of an effective worksite health promotion programme. Just offering low-intensity, short-duration programmes aimed at increasing awareness of health issues for the entire employee population may not be sufficient to achieve the desired outcomes.<sup>8</sup>

Appropriate WHP programmes have an integrated approach with a special emphasis on preventive and promotive health. They have a high quality of medical/nursing care and pay more attention to inter-personal communication and the provision of counselling. They also provide confidentiality and informed consent, where necessary.<sup>10</sup>

It is very helpful to know the characteristics of an effective workplace health promotion programme. A study conducted by the European Network for Workplace Health Promotion on an integrated approach to health promotion in the workplace says that effective WHP programmes include an organisational commitment to improving the health of the workforce and to provide employees with appropriate information through comprehensive communication strategies. Effective WHP programmes also involve employees in the decision-making processes, develop a working culture that is based on partnership, organise work tasks and processes so that they contribute to, rather than damage, health and implement policies and practices that enhance employee health by making the healthy choices the easy choices. They further recognise that organisations have an impact on people and that this is not always conducive to their health and wellbeing.<sup>12</sup>

Individual health promotion programmes work only in already healthy

organisations. Such programmes place all responsibility for health enhancement and risk reduction on the individual, independent of the health norms within the organisation. This strategy is not designed for maximum success. In contrast, organisational health promotion programmes focus primarily on improving the corporate culture and on enhancing the environment in which people work. Differences in the effectiveness of wellness programmes can be attributed to the degree to which the corporate culture supports a comprehensive productivity/wellness plan.<sup>13</sup>

It was discovered that the effectiveness of WHP programmes increased if the intervention lasted at least six months, and if there was repeated contact with the participants, continuous support and tailored messages. There was less evidence for the long-term effectiveness of incentives. Trials on diet, alcohol, physical activity, being overweight and solar radiation showed the same positive trends. The overall evidence indicates a modest but positive effect of health promotion trials at worksites, and the effect for smoking cessation trials is slightly greater than that of community-based trials.<sup>7</sup>

### Conclusion

Research has shown that WHP tends to reach the healthy workers, at the best companies in the formal sector of the economy employing the healthier individuals, and in the rich industrial countries. If anything, WHP will increase the inequality of health in the world. A well-planned and systematic provision of health promotion activities is very important in maintaining good quality and productive human resources. An integrated occupational health system with special emphasis on a preventive-promotive approach will help to establish cost-effective WHP programmes. The international experience shows that integrated and effective WHP programmes have an organisational commitment to improving the health of the workforce and providing employees with appropriate information through comprehensive communication strategies.

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