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# Evaluation of a workplace cardiovascular health promotion programme in the Republic of Ireland

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## SUMMARY

*This paper describes a comprehensive evaluation of the organizational impact of a workplace health promotion programme, in the context of a framework devised by Nutbeam in 1998. The Happy Heart at Work programme, sponsored by the Irish Heart Foundation, has been in existence for 10 years and aims to promote a healthy lifestyle through specially devised modular materials. A postal census survey of 785 valid registered sites expressing any level of initial interest in the programme yielded a 40% response rate (n = 311). Of these, 194 (63%) were currently active and 114 were not. Active organizations were less likely to be Irish owned (54.5% versus 71.4%,  $p < 0.05$ ), and more likely to operate in shifts (72.3% versus 51.1%,  $p < 0.05$ ) or to have an occupational physician amongst the staff (36.9% versus 31%). Programme impact within active organizations, based on pre-defined Health Promoting Workplace parameters, was documented. There was agreement in*

*the questionnaire responses that participating organizations promote a smoke-free environment (mean rating on five-point scale = 4.42), employee health and well-being (4.21) and good nutritional practice (4.11). Triangulation of research methods, including a telephone survey of gatekeepers from within organizations (n = 18), focus groups with participant employees (n = 42) and a review of the staff opinions of the facilitating organization on the programme, all showed strong concordance with respect to the strengths and weaknesses of Happy Heart at Work. The programme was felt to help improve employees' lifestyle habits and morale, as well as the company's public image. The main drawbacks of the programme were its relatively low profile, even in actively participating organizations, and the fact that it was not seen to be independently sustainable without intensive and ongoing support.*

*Key words:* cardiovascular health promotion; programme evaluation; workplace health promotion

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## INTRODUCTION

Workplace health promotion may be defined as the application of the concepts, principles and strategies enshrined in the Ottawa Charter to both the 'community' of employees and managers, and to the organizational and environmental aspects of the workplace itself [World Health Organization (WHO, 1991)]. The workplace is seen as a natural setting in which to reach individuals (Chu *et al.*, 1997). Comprehensive workplace health promotion, according to Wilson and colleagues, stated that a multi-level approach

should be devised to integrate individual-, organizational- and community-level strategies (Wilson *et al.*, 1996). There have been successive and competing models of workplace health promotion activities in different countries and jurisdictions over many years. This has depended to a large degree on the provisions made for occupational health and safety services in different contexts and situations, and also on the emphasis placed on health education more generally in the community. Our best intuitive guess,

based on current evidence, is that workplace interventions will only be effective if the environment is generally conducive to health and well-being; so-called passive strategies are more feasible than active ones for blue-collar workers in particular (Kelleher, 1998; Hope *et al.*, 1999), and individual behaviour-based programmes must also take account of the wider environment. The Ottawa Charter model of health promotion (WHO, 1986) emphasizes the importance of the setting and the need to see health promotion activity as an integral part of ordinary work practice, rather than a stand-alone programme set in a particular venue or organization. This has implications for frameworks of evaluation, as it means that the criteria by which an initiative is judged depend on its appropriateness for the setting in question and the degree to which it contributes to the wider environment, as much as the process or output measures of the initiative itself. This presents both theoretical and methodological challenges.

### **Evaluation of health promotion programmes**

Macdonald has noted the increased interest in evaluation or evidence-based health promotion interventions arising from a renewed focus on quality assurance, as well as the need for policy makers to allocate resources based on effectiveness, need and evidence (Macdonald, 1996). However, there are many different interpretations of what represents 'value' from a health promotion programme. Nutbeam notes that different perspectives are potentially reflected, including the population who are to benefit, health promotion practitioners, managers and academics (Nutbeam, 1998). Value may accordingly be seen as dependent on whether or not the programme is participatory, whether it meets its defined objectives, whether it justifies further resource allocation and whether there is a proven link between cause and effect.

Nutbeam considers that evaluation of health promotion interventions is not necessarily best achieved by measurement of conventional long-term health outcomes (Nutbeam, 1998). Evaluation may prove more useful by the employment of diverse methodologies, combining the advantages of qualitative and quantitative techniques. Nutbeam proposes a model that evaluates health promotion outcomes resulting from a programme in lieu of assessing intermediate and long-term health outcomes, such as lifestyle, morbidity and

mortality. However, the literature on settings evaluations, in primary care generally and more specifically in the workplace, has to date mainly been based upon traditional, epidemiological evaluations (Kelleher, 1998). Even within that paradigm, however, there has been evidence of effectiveness. A series of recent reviews in the primarily North American context reveals differential effectiveness in different topics and contexts (Glanz *et al.*, 1996; Murphy, 1996; Shepard, 1996). A critical issue in the work environment is equity (Chu *et al.*, 1997). It is important both to meet the needs of all workers within a specific setting, particularly those with most to gain (Hope *et al.*, 1999b), but also in different settings, especially the one in which most people are employed, the small-scale enterprise sector (Hope *et al.*, 1999a; Kelleher *et al.*, 2001). Arguably, therefore, equity should be a criterion of evaluation. There is a major deficit in the international literature of evaluations conducted using this broader conceptual framework.

### **Workplace health policy in Ireland**

Workplace health policy was enshrined in Irish legislation through the 1989 Health and Safety Act. While the legislation does not refer specifically to workplace health promotion, the act is broadly supportive in that it takes a proactive, comprehensive approach to both the definition of health, and the scope of duties and responsibilities of both employers and employees. It has in this sense provided an enabling framework for new initiatives, and emphasizes strongly the concept of self-regulation and monitoring rather than a more top-down policing approach. Wynne found legislation to be the main driving force in promoting workplace health in Ireland (Wynne, 1993). Correspondingly, lack of finance was the most important barrier, particularly in the early stages, as organizations sought to act on legal requirements for the first time.

The 1998 Department of Health and Children report *Healthy bodies—Healthy work* reviewed the state of workplace health promotion in Ireland and concluded that general levels of awareness and activity were low. The report noted a consistent association between level of such activity and company size. The main obstacles to progress were lack of management commitment, the special difficulties of small/medium enterprises (SMEs), an ad-hoc, uncoordinated approach, lack of information and lack of expertise.

One initiative has been ongoing in Ireland for over a decade. The Happy Heart at Work (HHAW) programme is provided by the Irish Heart Foundation (IHF), a voluntary organization established in the Republic of Ireland in the 1970s to promote cardiovascular health. HHAW seeks to provide a practical action plan for the workplace, in order to develop positive attitudes and behaviours at both the individual and organizational level, towards modifiable risk factors for cardiovascular disease. The programme is comprised of a combination of active or participative and passive or organizational change strategies, and consists of four modular elements, with a purpose-designed manual. These are Healthy Eating, Going Smoke-Free, Exercise in the Workplace and Stress Management. HHAW advocates needs assessment, participation and skills development, and emphasizes the importance of a supportive environment. Over 600 organizations at 800 locations have registered an interest in participation since its inception, with a potential coverage of 215 000 employees. Because it is possible to make use of only some parts of the total package and because some have not proceeded beyond an expression of interest, organizations may participate with varying levels of involvement. This paper describes a process evaluation of the HHAW programme, conducted using the evaluation principles described above as the theoretical basis and hence utilizing Nutbeam's framework (Nutbeam, 1998).

## METHODS

The IHF commissioned the Centre for Health Promotion Studies (National University of Ireland, Galway) to carry out an independent evaluation of the HHAW programme, formally in operation since 1992. The programme was first evaluated (in terms of penetration and short-term impact) after its third year in operation (IHF, 1995). It was then felt necessary to carry out a more comprehensive, external evaluation to assess whether client need was being met appropriately, whether the achievements to date were in keeping with the general objectives set for itself as an organization by the IHF, and whether the programme should be modified from its present format. A triangulated methodological approach to the evaluation was conceived, employing both quantitative and qualitative

approaches, in consultation with the senior IHF staff involved with the programme. First, a postal census survey of all organizations was planned, together with telephone interviews with 'gatekeepers' who coordinated the programme in individual organizations, then a series of focus groups with employees, and finally a review by IHF staff involved in its planning and delivery. To complement this, a detailed literature review of international best practice in the four topic areas was undertaken.

### Postal survey

The questionnaire consisted of 47 mainly closed-ended questions, adapted from a number of existing instruments already developed for previous surveys within the Centre (Health Promotion Wales, 1986; O'Brien, 1995). The instrument was piloted with a small sample of organizations. It included questions about the demographics of the organization and employees, the degree of involvement with and the perceptions of HHAW, and health promoting facilities and policies held by the organization. Over 800 workplaces were surveyed, i.e. all those who had requested information at any time about HHAW or had registered for the HHAW programme on some level. This involved a detailed review of the records to create a database in the first instance. The questionnaire was sent to the named contact person on the existing record, generally someone from the occupational health, personnel or catering departments, with a second mailing to non-responders after 6 weeks. At this stage, a random sample of 10% of non-responders was telephoned to discover why they had not returned the questionnaire, and to obtain further demographic details of these companies. Data were entered and analysed using the statistical package SPSS 10.0 for Windows.

### Telephone interviews

A further series of telephone interviews were carried out, with a random 10% sample of 'gatekeepers' from among the responders who facilitated the programme in individual organizations. The objective of this was to amplify qualitatively information on the acceptability and utility of the programme already included in the questionnaire. A semi-structured process was followed using the questionnaire as a prompt. Interviews took 10 min on average and were

conducted by a researcher from the Centre for Health Promotion Studies.

**Focus groups**

A sample of respondents to the postal questionnaire were asked to assist in setting up a focus group discussion session with ordinary staff members to assess their perspective on the HHAW programme. These were selected on a purposeful basis at random from among agreeable respondents. An equal balance of blue- and white-collar groups was sought, as well as a balance of groups from Dublin, the capital city where the IHF headquarters is based, and at least one from each of the provinces of Ireland. Seven focus group sessions were carried out by a team of three facilitators according to the procedure suggested by Kreuger (Kreuger, 1994). Content analysis using the QSR\*NUDIST package was employed.

**IHF staff review**

Twelve of the IHF personnel who were involved in the planning or actual delivery of the programme were asked to give their opinions of the programme via a structured, closed questionnaire, either in writing or via e-mail. Questions focused on their perceptions of the programme’s strengths, weaknesses, acceptability to workers and management, barriers to successful implementation of HHAW, and future direction of the programme.

**RESULTS**

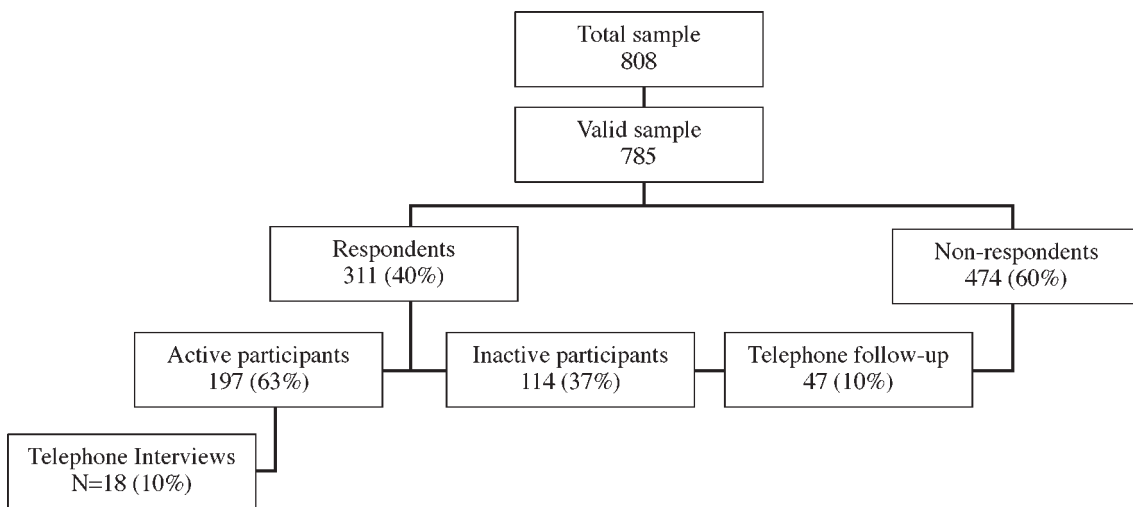
**Postal survey: profile and level of participation of actively involved organizations**

Of 808 questionnaires posted, 23 were returned as respondents were no longer at the given address. These were excluded, leaving a valid sample of 785. After 6 weeks, 215 questionnaires had been returned and a second round of questionnaires was sent out. Total response rate after 12 weeks was 311 questionnaires, or 39.6% (see Figure 1).

A random sample of 10% of non-responders ( $n = 47$ ) was telephoned to establish reasons for non-response. The majority of these (55%) said either that the wrong person was contacted or that they were unaware of whether their company was still participating in HHAW. A further 26% had not returned the questionnaire because they were no longer participating in HHAW. Only 17% of non-respondents confirmed that they were still participants. About 36% of companies had >50 employees and 6% employed <50 people; the other non-respondents were unable to establish at the time of the phone call the exact numbers of employees.

A substantial minority of respondents to the questionnaire itself [114 (36.7%)] stated that their organization was not an active participant in HHAW. This left 197 organizations (63.3%) that were deemed active participants in the HHAW programme.

Table 1 provides a demographic profile of companies interested in HHAW, categorized



**Fig. 1:** Response to postal questionnaire.

**Table 1:** Demographic characteristics of organizations

	Active		Inactive	
	<i>n</i>	(%)	<i>n</i>	(%)
Type of organization				
Manufacturing	63	33	18	29
Health/social work	39	21	12	19
Education	14	8	4	6
Hotels/restaurants	14	8	5	8
Public administration/defense	14	8	7	11
Financial	11	6	0	0
Transport/storage/communication	8	4	4	6
Employee category				
Professional	–	28.5	–	35
Managerial and technical	–	18.4	–	20
Non-manual	–	9.5	–	8
Skilled manual	–	16.2	–	10.5
Semi-skilled	–	18	–	16
Unskilled	–	10.6	–	7
Employee gender				
Male	–	48.4	–	49
Employee age				
Mixture of age groups	68	38.6	13	34.2
Number of employees				
>200	120	63.2	30	63.8
<50	16	8.4	6	12.8
Ownership				
Irish owned <sup>a</sup>	102	54.5	40	71.4
Shift work				
More than one shift daily <sup>a</sup>	135	72.2	23	51.1
Length established				
>20 years	139	75.4	34	72.3
Occupational health service				
Nurse	73	36.9	3	13.2
Doctor <sup>a</sup>	73	36.9	5	13.1
Staff trained in first-aid	138	80.7	28	87.5
Health consultancy	67	39.4	16	14.9
Health promotion policy	83	44.4	13	11.4

<sup>a</sup>Statistically significant difference ( $p = 0.05$  level).

according to whether they were currently active or inactive in the programme. Active companies were statistically less likely to be Irish-owned than part of a multinational group [ $\chi^2 = 5.192$ , degrees of freedom (d.f.) = 1,  $p = 0.023$ ]. They were more likely to operate only one shift daily ( $\chi^2 = 7.727$ , d.f. = 1,  $p = 0.005$ ). Active companies were more likely than non-active companies to state that they had an occupational health doctor ( $\chi^2 = 8.204$ , d.f. = 1,  $p = 0.004$ ).

Companies active in HHAW most commonly became aware of the programme through direct mailing from the IHF (32.7%). Management (28.1%) or occupational health staff (20.9%) generally introduced HHAW into the company.

Occupational health staff were significantly more likely to have facilitated the introduction of the programme in larger companies (>201 employees) ( $\chi^2 = 12.7$ , d.f. = 6,  $p = 0.048$ ).

Table 2 shows the levels of agreement with potential benefits that the HHAW programme could have in the workplace, as well as a profile of the participating workplace as a health-promoting environment.

Most organizations (64.4%) did not have a representative health promotion committee or team. In those that did, the team was mainly composed of staff representatives and managers. Table 3 summarizes general workplace health policy in active organizations.

**Table 2:** Perceived benefits of Happy Heart at Work and the workplace as a health-promoting environment

	Strongly disagree		Disagree		Uncertain		Agree		Strongly agree		Mean rating
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	
HHAW can help:											
Improve lifestyle habits	0	0	0	0	11	6.0	132	71.7	41	22.3	4.17
Improve staff morale	1	0.5	4	2.2	31	16.9	118	64.5	29	15.8	3.92
Improve company's public image	0	0	9	4.9	30	16.5	119	65.4	24	13.2	3.87
Improve productivity	0	0	10	5.5	80	44	85	46.7	7	3.8	3.48
Reduce absenteeism	1	0.6	19	10.7	71	39.9	79	44.1	8	4.5	3.43
Reduce medical insurance costs	4	2.2	14	7.7	79	43.6	75	41.4	9	5.0	3.4
Our organization:											
Promotes a smoke-free environment	9	5.4	17	10.2	7	4.2	65	39.2	68	41	4.42
Actively promotes the health and well-being of all employees	4	2.4	17	10.1	12	7.1	91	54.2	44	26.2	4.21
Promotes good nutritional practice	4	2.4	17	10.4	23	14	83	50.6	37	22.6	4.11
Takes every opportunity to enhance the physical environment	4	2.4	20	12.1	32	19.4	79	47.9	30	18.2	4.01
Has developed good links with the IHF to plan a coherent HHAW programme	7	4.3	29	17.8	48	29.4	54	33.1	25	15.3	3.9
Provides stimulating opportunities to exercise for all employees through a wide range of activities	19	9.8	59	36	50	30.5	33	36	6	9.8	3.83
Promotes a stress-free environment	16	9.8	43	26.2	55	33.5	43	26.2	7	4.3	3.8

**Table 3:** General workplace health policy

	<i>n</i> (%)
Workplace policy on:	
Smoking	146 (88.5)
Stress	50 (36)
Nutrition	43 (31.2)
Exercise	19 (14.1)
Responsible for HHAW	
Occupational health staff	32 (20.1)
Management	25 (15.5)
Employees	24 (14.9)
Health and safety representatives	22 (13.8)
IHF, union representatives	Remainder
Specific budget for:	
Occupational health	87 (54.4)
HHAW	34 (21.4)
HHAW included in training/professional development programmes	19 (11.4)

Table 4 indicates the levels of activity of health promoting initiatives in organizations in each of the four areas that comprise HHAW.

Programme activities were not evaluated in 81.3% of organizations. Only 4.5% formally evaluated the programme, for example by monitoring changes in sickness rates and smoking rates.

**Table 4:** Specific health-promoting initiatives

	<i>n</i> (%)
Smoking	
Policy protecting non-smokers	138 (93.2)
Policy protecting smokers	128 (88.3)
Information on smoking available	125 (76.2)
Information on passive smoking available	110 (71.4)
Participate in national campaigns	91 (55.2)
HHAW smoking cessation courses in use	60 (35.9)
Nutrition	
Catering facility	138 (82.6)
Healthy food choices on offer	131 (86.8)
Healthy food choices pricing policies	57 (36.8)
Information on healthy eating	137 (81.5)
Catering staff training offered on healthy eating	73 (46.8)
Participate in 'Healthy Eating Week'	122 (73.5)
HHAW Catering Award	61 (39.4)
Exercise	
Employee access to exercise facilities on or off site	79 (47.6)
Facilities for cycling to work	69 (41.8)
Subsidized membership to local exercise facilities	66 (40)
Exercise groups	58 (35.6)
Participate in the IHF's Lifestyle Challenge	40 (24.4)
Stress	
Confidential counselling/support to stressed employees	115 (70.1)
Information on stress provided	101 (61.2)
'Coping with Stress' training courses	63 (39.6)

### **Telephone interviews: reasons for active involvement**

A total of 18 telephone interviews were completed from among actively participating organizations. Organizations decided to adopt HHAW for a variety of reasons, for example because they felt obliged to undertake some sort of health promotion, which they interpreted conceptually as a circumscribed lifestyle-related activity. Other motivations included being impressed by the quality of the information, the initial contact with IHF staff, because they perceived their workers would like the programme content, or because sales improved in their canteen as a result of the nutrition programme.

The main strength of the programme was thought to be the literature provided: both the coordinator's guides and the information leaflets. The literature was felt to be easy to read, practical, well structured, bright and cheery. The credibility and high profile of the IHF was also mentioned. Programme facilitators felt well supported by IHF staff. HHAW increased awareness of factors influencing health and reinforced the work of the occupational health department, and it was easy to set up and use; each part could be independently adopted, and it dovetailed with other health promotion programmes in the workplace.

The main weakness of the programme was the lack of follow-up support from the IHF, a feature of the relatively modest resource support available. Several respondents stated that the IHF should make its presence felt by more frequent, personal contact. Some found it difficult to find the time or resources to implement the programme, while others found that elements of the programme itself were tricky to implement, e.g. removing chips from the canteen menu. Several found it difficult to maintain an ongoing interest in HHAW and there were no incentives offered for staff to participate.

It was generally agreed that the programme offered value for money. Some mentioned monetary benefits to the organization, e.g. increased revenue in the canteen and lowered absenteeism. Only one person said it did not offer value for money, and suggested providing tangible benefits such as a free T-shirt.

Most organizations viewed the programme as 'very acceptable' to employees, especially visits from IHF staff. HHAW was also 'very acceptable' to management, mainly because of its low cost

and effect on absenteeism. HHAW had impacted on the workplace environment in several ways: improved canteen menus, increased awareness of health, and a general feeling of goodwill as management are perceived to be concerned about employee health. However, it was generally felt that it was difficult to sustain interest and motivation.

Insufficient time, resources and personnel, lack of enthusiasm and/or negativity were the main barriers to implementing the programme successfully. It was difficult to move staff away from the production line or their desks, and to reach employees on shift work.

Most respondents were interested in more personal contact with, and site visits from, representatives from the IHF, including the mobile screening unit. If this was not possible then a more frequent and prolific flow of information was suggested. Monitoring of the programme was felt to be important in order to keep up standards. Better training for those facilitating the programme, and meeting up with peers facilitating the programme in other organizations were suggested improvements.

### **Focus groups: views of staff employees on the programme**

A total of seven focus groups were held in companies that were actively involved in HHAW. Many organizations declined to participate in the focus groups. The majority of HHAW coordinators contacted said that they would not get permission to remove employees, particularly blue-collar workers, from their posts for any length of time. This can be seen as indicative of the difficulties coordinators have in implementing the programme on a day-to-day basis. Selection of sites was weighted according to the geographical distribution of participants. Dublin city and county are both the most populous part of the country, the location of the IHF headquarters and the base of almost half of the organizations. Three focus groups were held in Dublin-based companies, with four in provincial Ireland. Three of these were for blue-collar employees and four were for white-collar employees. The groups consisted of between five and 10 employees (42 in total), who were randomly chosen to represent a cross-section of employees in each site and were asked by the HHAW coordinator in their organization to participate on a voluntary basis. There were similar numbers



of men ( $n = 19$ ) and women ( $n = 23$ ) in each session.

There were high levels of awareness of general workplace policy and practices regarding nutrition, smoking and exercise. However, overt awareness of the HHAW programmes, and IHF influence on policies, practices and the workplace environment was negligible, with the exception of the Lifestyle Challenge (exercise) for those groups who had participated.

All the participants in the focus group sessions were aware of a workplace nutrition policy. Both blue- and white-collar groups were aware that not all foods on offer in the canteen were healthy, but the choice was available and 'it is left up to the individuals themselves' [focus group (FG) 7]. With regard to the effect that HHAW had on their individual eating habits, there was increased awareness: 'When you see it there and you see everyone else having it you realise oh that's healthy' (FG1); 'Basically people are much more conscious of cholesterol and health' (FG7). Some felt their choice to be influenced by watching their weight rather than heart health per se. Only one participant mentioned that this awareness extended outside the workplace: 'they make you aware when you go shopping for yourself and the rest of the family' (FG6).

All the participants showed high levels of awareness of smoking policy in the workplace. There were designated smoking areas in each workplace and there was agreement in all groups except one that smoking policy was adhered to, at least during the day shifts. Workplaces in Dublin were more likely than other workplaces to mention various HHAW initiatives such as 'posters', 'annual no-smoking days', 'people have come to give talks' (FG6) and 'there are courses' (FG2). One group agreed that for 'people who were thinking of giving up smoking, it meant there was support for them ... it made a focus' (FG4). Another group was more negative, however, stating that the impact of HHAW on smoking was 'not very much' (FG1).

All employee groups were unaware of any organizational policy relating to exercise. However, they acknowledged that most participating workplaces did have exercise facilities. Shower facilities were mentioned by three of the groups, but the general feeling was that they were inadequate. There was an overall feeling, particularly amongst blue-collar participants, that exercise was 'up to the individual' (FG1), and not really under the remit of the employer, although

improved facilities would be welcomed. Two workplaces had taken part in the Lifestyle Challenge. With the exception of those two groups, there was little awareness of the exercise component of HHAW. The opinions of those whose workplace had taken part in the Lifestyle Challenge were mainly positive.

None of the groups were aware of any organizational policy in relation to stress. The issue of stress was discussed mainly among the groups of white-collar workers. Two of the three white-collar groups had attended stress management courses or one-off talks. In the third, it was admitted that 'there's a lot of stress here' (FG6). But the group revealed that 'the managers go on the courses, but it doesn't work its way down' (FG6). Two other groups were unhappy that 'the whole health thing seems to be focused around the diet, whereas stress is a big factor' (FG3). In terms of individual impact of the Stress Management course, most agreed that the course was 'relaxing', 'great' and 'lovely for that day' (all FG4). Ironically, while some participants kept 'the list of dos and don'ts to reduce stress', they confessed that 'we don't have time to read it'. (FG4) The blue-collar workers were unaware that stress management was part of the HHAW programme. This group agreed that:

'There are areas where there's a lot of stress and that would affect your heart, then you won't have a happy heart. So I would firmly believe in stress counselling. Its very important' (FG1).

However, the group admitted that any such counselling would have to be done discreetly, 'on the QT' (FG1).

With the exception of the groups that had taken part in the Lifestyle Challenge, HHAW meant healthy eating and health awareness days to focus group participants. There was a lack of awareness of the holistic and ongoing nature of the programme: 'I didn't realise that we were involved in this', 'I wouldn't be very conscious of it, well I mean it was never really very well publicized' (FG3). Those that were aware of being involved in HHAW stressed the need for regular reminders 'as time goes on you just take it for granted' ... 'it hasn't got any kind of a profile' (FG1).

Most of the comments on programme delivery were positive 'you couldn't fault them' ... 'I think they did a good job' (both FG5). This was particularly true if there had been personal involvement with planning or implementing the

programme. 'We have two awards' (FG1) ... 'they try to get a person from each section involved' (FG5). There were very few negative comments in relation to programme delivery. One group was disappointed overall with the catering standards and remarked 'you would participate more if the food choices were consistent' (FG2). Another group, while aware that 'its just your personal choice', argued in favour of 'doing something a bit more forceful' (FG7).

### **IHF staff review of programme strengths and weaknesses**

The general belief amongst IHF personnel involved with HHAW was that the programme raised employee awareness of health, was easy to implement, inexpensive, flexible and adaptable, with a wide range of high quality written information, materials and posters. The IHF has a good profile, is highly regarded and is seen as a reliable source of information, support and advice. The possibility existed for the workplace coordinator to convert a passive and ineffective intervention (e.g. a request for a talk) into a more active and effective intervention such as a health awareness session or catering audit. Implementation of HHAW also served to raise morale amongst employees. IHF staff agreed that, on the whole, HHAW was very well accepted by employees, particularly when employees are consulted in advance about any changes that may be introduced and when it is well endorsed by management.

However, managers were slow to commit to health promotion or to recognize the need for policy. This was the main barrier to the successful implementation of HHAW. It was also essential for a key person in the organization to be interested for HHAW to succeed: high staff turnover in the workplace often meant a lack of continuity. Insufficient understanding of the holistic and ongoing nature of the programme on the part of the participating organizations meant that HHAW was not generally implemented as intended. HHAW was not always seen as a sustainable, long-term health promotion package, but rather as a one-off or ad-hoc initiative that lacked both tangible and intangible support from within the organization, and was therefore unlikely to be maintained.

The main weakness of the programme was the fact that there were insufficient resources to allow the IHF to interface with companies on a

one-to-one basis and provide sufficient ongoing support services in many areas of the country. In particular, accurate and continuing monitoring of canteens taking part in the Healthy Eating part of the programme was impossible. There was also felt to be a lack of resources in order to source new companies and identify organizational needs. It was suggested that the IHF should concentrate on being more supportive and proactive in the companies already registered with the HHAW programme, rather than trying to recruit larger numbers. With regard to programme content, the only weakness noted was in the Stress Management programme, which deals with stress at an individual level only, and does not include organizational factors.

It was believed that given recent policy developments, the IHF should, with improved staffing and resources, establish stronger links with the workplace coordinators in regional health boards, the Health and Safety Authority, trade unions, etc. The IHF could then adopt a monitoring rather than a hands-on role. At the time of this study the IHF employed only one coordinator to support the programme nationally, which was insufficient. More regular and proactive contact between the IHF and individual organizations was suggested.

### **DISCUSSION**

This evaluation sought to assess in a novel and comprehensive way how a circumscribed, topic-specific cardiovascular health promotion programme was received. It is a large national programme in a country with the highest rates of heart disease in the European Union (Department of Health and Children, 1999) and was designed specifically to suit the Irish context. A triangulated approach to the evaluation was employed and the findings from each stage of the evaluation tend to be in broad internal agreement. In essence, those registering an interest in the programme were mainly larger scale organizations, and the limited evidence we have from non-responders was that these were on a smaller scale and less organized than those proceeding with the programme. We took a concerted decision to contact all the available names on the database, although we were aware that many were not likely to have proceeded beyond the level of enquiry because we wanted, if possible, to explore reasons for not participating.

Self evidently, this had an effect on the overall response rate although we regard this as a finding in itself about the reality of initiating workplace programmes. We also identified valuable information about the differences between organizations who continued with or sustained the programme, in that ownership was significantly more likely to be by multinational corporations and hence to have both an existing ethos supportive of such programmes and presumably a better infrastructure. The feedback from each of the qualitative stages suggested that good networks, a supportive key player and a high profile of both materials and IHF staff was important. Organizations tended to have the same topic priorities as the modules' content and, in keeping with the wider legislative context, smoking policy, nutrition, exercise and stress management were prioritized, in that order. This suggests that in contrast to the debate among both academic and service health promotion personnel (Lovato and Green, 1990; Macdonald, 1996; Chu *et al.*, 1997; Kelleher, 1998), organizations themselves are still at a very limited level of understanding of the scope, meaning and potential of workplace health promotion. We were not attempting to establish whether there was any meaningful change in individual level behaviour, making the assumption that this would be the case with an effective programme (Pelletier, 1996), but rather to see whether the organizational needs or demands were being met. In a 1996 editorial, Macdonald suggested an alternative three-fold approach to evaluation of health promotion interventions. The first strand acknowledged the inappropriateness of quasi-experimental research and advocated a hierarchy of qualitative methods, including process or formative studies. The second strand encouraged the development of intermediate and indirect indicators of change, and thirdly, Macdonald advised combining good qualitative and quantitative approaches. The evaluation methods we used, according to the framework suggested by Nutbeam, are novel in terms of their focus on process rather than outcome, and thus have important implications for future policy (Nutbeam, 1998).

HHAW meets Dejoy and Southern's criteria that workplace interventions be integrated and comprehensive, offering multiple, coordinated activities, and giving consideration to environmental factors as well as individual lifestyle modification (Dejoy and Southern, 1993). Over the years, United States-based programmes in

particular have examined consequences of programmes on factors such as absence from work (Knight *et al.*, 1994; Pelletier, 1996). However the converse is also true, in that the organizational characteristics predict likely initial participation and sustainability of programmes. This suggests the need to attend to particularity of work culture, both within and between countries. Biener and colleagues found in medium-sized enterprises that a favourable financial outlook was an important contributory factor (Biener *et al.*, 1994). The findings of Ribisl and Reischel support the view that lifestyle programmes are more acceptable in organizations with a positive work climate (Ribisl and Reischel, 1993). Programmes that take account of more general health and safety considerations are also more likely to attract blue-collar participation (Sorenson *et al.*, 1996; Hope *et al.*, 1999b). Goodman and colleagues discuss the concept of institutionalization, meaning the production, maintenance and managerial characteristics that best predict whether a programme will be integrated into an organization's mainstream in the long term (Goodman *et al.*, 1993). The comprehensive review of Lovato and Green highlights that sustainability is not just a problem in the work environment, and stresses the reinforcing value of short-, intermediate- and long-term incentives for both employees and the organization as a whole (Lovato and Green, 1990).

The literature also suggests that support by management and a sense of ownership by participants is essential if a programme is to thrive (Lovato and Green, 1990; Goodman *et al.*, 1993; Kelleher, 1998). It was apparent from all data sources that participating companies have a positive attitude towards the HHAW programme, with the widespread perception that HHAW could improve workplace morale, productivity, the company image and especially employee lifestyle habits.

Organizations participating in HHAW were most likely to be from the manufacturing sector and to employ >200 employees. As a modular programme of this kind is readily adaptable for smaller organizations, particularly on a group basis, these should be specifically targeted and provided with extra support in terms of trained facilitators working in close partnership with personnel. Awareness levels amongst workers of health promotion programmes were said to be low in Ireland (Department of Health and Children,

1998), and the main obstacle to progress in Irish workplace health promotion was lack of management commitment. This was confirmed in our focus and interview findings with employees, gatekeepers and IHF staff. The service offered by the IHF overcomes the other obstacles mentioned, lack of information and expertise, but is shown to be tremendously under-resourced.

As indicated previously, while the literature highlights improvement in absenteeism as an incentive for taking on workplace programmes (Knight *et al.*, 1994), only 4.5% of companies evaluate the HHAW programme by overtly monitoring sickness and absence rates. This is a particular feature of the Irish health care system, which is funded from central taxation, not work insurance.

Overall, organizations participating in HHAW did tend to view their workplace as a health promoting one, at least in terms of smoking and nutrition policy. However, employees who participated in the focus groups were less likely to see the reasoning behind this concept. According to the participants, gatekeepers and personnel involved in delivering HHAW, its strengths lie mainly in programme material and design. The reputation and expertise of the IHF and the back-up support potentially available from the IHF were also seen as valuable assets. While HHAW was perceived to be relatively easy to initiate in a workplace, it was, rightly or wrongly, not seen as independently sustainable without the continuing input and support of the IHF. The programme had a low profile from the participants' point of view. Gatekeepers were discouraged by lack of follow-up from the IHF over time. The IHF in turn were frustrated by being constrained in the degree of support they felt able to offer participating organizations, particularly outside the capital. In conclusion, this comprehensive and innovative evaluation of a workplace health promotion programme has served to highlight its strengths and weaknesses, to provide indications for its future development and to confirm its long-term value in the Irish workplace setting.

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