

Influencing employee health

The worksite is a key venue for promoting health among large segments of the population, if for no other reason than a large number of employees spend a great deal of time at work. Individual health practices are important, no doubt, but the physical and social work environment affects the health of large numbers of people as well.

Better employee health requires change at the individual, organizational, and population levels. A comprehensive, balanced approach focusing on the determinants of health and the interrelationships between individuals and their environments is required to create this type of change.¹

The relationships between the health of employees and their physical and social environment at work, their home environment, their personal health practices, and their personal resources for health have been examined through needs assessments gathered as part of the Workplace Health System—a comprehensive approach developed by Health Canada to promote health.

While the needs assessments do not represent a scientifically accurate picture of the working environments of Canadians generally (see *Caveats for the reader*), the findings do provide a rich source of insights into the relationships between health and the work and home environments, health practices, and personal resources supporting health.

Perceived health status

Perceptions of health encompass positive physical and emotional aspects of well-being

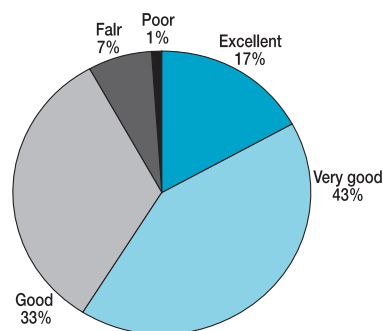
as well as the absence of sickness and disease.² In developing the needs assessment questionnaire, Shehadeh and Shain³ noted that perceived health status is a “reasonable proxy for actual health status, a partial predictor of future health status.” It also yields a “higher correlation with mortality than physician ratings” and constitutes a “better predictor of happiness, morale and life satisfaction than objective measures of health.”

In the questionnaire, employees were asked to rate their own health as excellent, very good, good, fair, or poor. The pie chart in Figure 1 shows that 60% rate their health as excellent or very good, 33% rate it as good, and the remainder rate it as fair or poor.

Health perceptions of men and women are roughly equivalent. However, perceptions of good health decrease across age groups. Younger employees are more likely than older employees to rate their health as excellent or very good. Positive health perceptions

Figure 1

SELF-RATED HEALTH



increase with education level. Finally, managers and professionals tend to rate their health higher than employees in clerical, sales, service, or trade jobs.

While the above findings are not drawn from a representative sample of Canadians, they are consistent with ratings of very good health by age, sex, and education group in recent, nationally representative surveys.^{4,5} In addition, the results for education and occupation groups are consistent with the relationship between social status and health that has led to the adoption of a determinants-of-health approach to developing health promotion/population health strategies in Canada.⁶

Physical environment at work

As many as 86% of employees report being either somewhat or very concerned with the physical work environment. The most important sources of concern consist of:

- unpleasant physical conditions such as too much noise and vibration, reported by over three-quarters of employees;
- personal safety, reported by over two-thirds of employees;
- exposure to dangerous chemicals and hazards, reported by 40% of employees.

While the needs assessments are not designed to be representative of the Canadian workforce generally, it is instructive to note the similarity and differences with other survey data. In the 1991 General Social Survey,⁷ two-thirds of employees reported exposure to a negative physical environment at work, including certain aspects of the physical work conditions, safety concerns, and exposure to hazards.

The needs assessment explores these aspects in more depth. For example, the 1991 survey probed safety concerns through exposure to “computer screens or display terminals” whereas the needs assessment

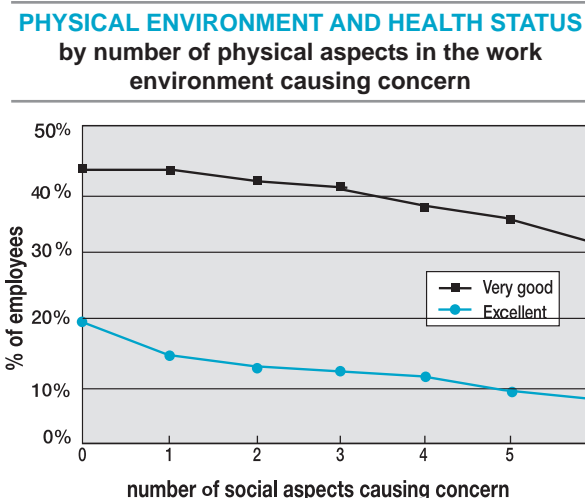
probed this as well as performing unsafe work, working with people under the influence of drugs or alcohol, working in a littered or messy work area, not having sufficient safety training, risking physical strains like back injuries, and using unsafe equipment. The greater depth of the needs assessment may explain why more employees report concern with the physical work environment (86% versus 66% in the General Social Survey).

Relationship with health

Positive health perceptions tend to be less frequent among employees facing stress due to physical working conditions. Employees who are somewhat or very concerned with their physical working conditions are more likely than employees who are less concerned to rate their health as good at best, and less likely to rate their health as excellent. Similarly, employees who are concerned about safety issues and exposure to worksite hazards are less likely than others to report being in excellent health.

Furthermore, as the number of physical-environment aspects raising concerns increases, employees are less likely to rate their health as excellent. As shown in Figure 2, employees concerned with more than one aspect of the environment—conditions, safety, or hazards—are less likely than employ-

Figure 2



ees reporting no concern to rate their current health as excellent.

The physical work environment has been shown to exert a modest negative influence on employees' perceptions of their current health through reductions in their sense of mastery and control over their work.³ Such a negative influence on health perceptions is consistent with the needs assessment results.

It should be noted that these findings describe *associations* between the physical environment and health, not cause-and-effect relationships. The impact on future health has yet to be determined, but even the modest relationship identified here between the work environment and current health raises the issue of the impact on future health, which could be considerable. A previous study revealed that one-third of Canadian workers believe that their physical work environment is having a negative impact on their health, either now or in the future.⁷

Social environment at work

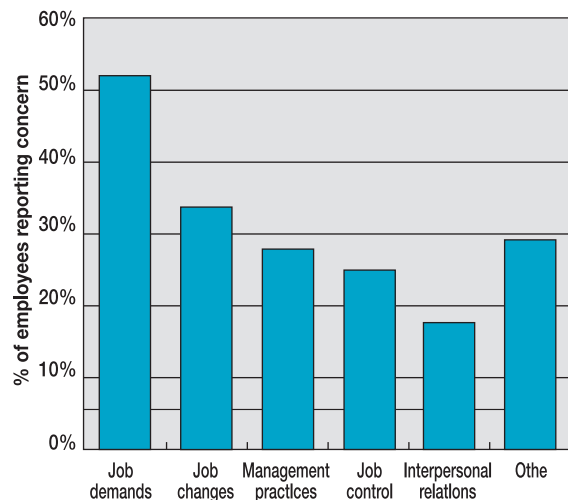
The social environment encompasses aspects of social interactions and corporate culture. These include interpersonal relations, management practices, the amount of change inherent in employees' jobs, job demands, and the sense of personal control that employees have over their jobs. As shown in Figure 3, many employees are either somewhat or very concerned with

- job demands (52%);
- job-related changes (33%);
- management practices (28%);
- lack of job control (25%);
- interpersonal relations (18%); and
- other aspects of the social environment at work (29%).

Data from the 1991 General Social Survey suggest that 11% of employees face stress from interpersonal relations at work,⁷ whereas the current data indicate that 18% of employees experience this kind of stress. Overall, the needs assessment indicates that three-quarters of Canadian workers experience stress due to the social environment at work, and about half derive stress from two or more sources. Given the General Social Survey data, the current estimate of 18% is likely an overestimate of the number of Canadians whose health may be affected by the social environment at work. Nonetheless, the number is substantial and warrants action.

Figure 3

STRESS ARISING FROM THE SOCIAL ENVIRONMENT



Relationship with health

All aspects of the social environment at work appear to be related to health perceptions. Employees experiencing stress as a result of difficult interpersonal relations and poor management practices are less likely to rate their health as excellent. Poor management practices such as lack of feedback, lack of fair treatment, harassment, and discrimination are associated with poorer health perceptions.

Job demands and stresses such as feeling physically and mentally tired constitute two

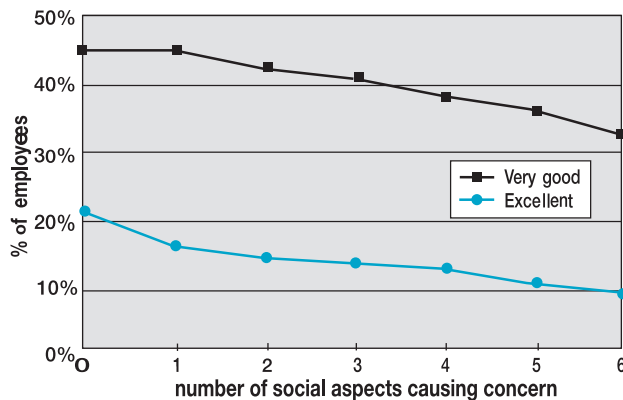
more sources of stress accompanied by poorer health perceptions. Employees reporting excessive job demands are less likely to rate their health as excellent. Lack of personal control over one's job follows a similar pattern. Job-related change, however, has a somewhat different relationship to health. Employees reporting excess stress due to job-related change are about as likely as other employees to rate their health as excellent. Unlike job demands and lack of job

and health. Shehadeh and Shain also found that these types of job-related stresses are significantly related to heavy alcohol consumption. This behaviour alone could lead to increased risk of poor health.

In any case, the association between health perceptions and the social environment at work is worth noting. Stress arising from each individual aspect of the social environment increases the likelihood that employees will rate their health as only average or worse. Furthermore, the greater the number of sources of stress within the social environment at work, the greater the likelihood that employees perceive their health as only average or worse.

Figure 4

SOCIAL ENVIRONMENT AND HEALTH STATUS by number of sources of social stress at work



control, some job changes such as a promotion may result in increased perceptions of control over one's own health, thereby positively influencing health perceptions.

Social environment stressors take a cumulative toll. As shown in Figure 4, the more sources of stress there are in the work environment, the less likely employees are to rate their health as excellent.

In their examination of the factors that influence wellness, Shehadeh and Shain found that stress due to the social environment at work does not directly impact health perceptions, but rather impacts health by influencing employees' feelings of control over their work and their health.³ The observation that sources of stress in the social work environment are related to poorer perceptions of health may therefore be due to a reduction in employees' feelings of control over their work

Home life

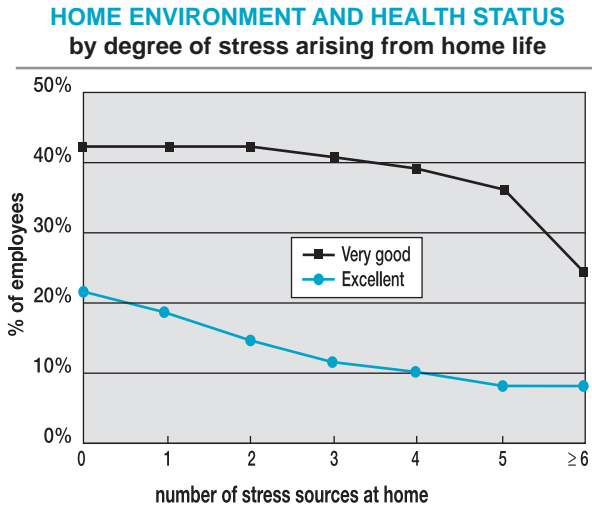
Stress with various aspects of home life poses the same issues for employee health as it does for aspects of the social environment at work.³ In the needs assessment, seven aspects of home life were examined:

- finances, a source of excess worry, nerves, or stress for 40% of employees;
- illness or death in the family, reported by one-quarter of employees;
- concerns related to children, cited by 10% of employees;
- relationships, causing stress among one-third of employees;
- demands of home life, a concern for 21%;
- stress arising from moving to a new home or other living arrangement, reported by 14%; and
- high-risk behaviours of the employee or other family member, mentioned by 7%.

Relationship with health

Financial worries come up as the most frequent source of home-related stress and are accompanied by poorer health ratings. The least frequent worry—risky behaviours—also tends to be accompanied by poorer health ratings.

Figure 5



Family illness and death, relationships, and the demands of home life follow a different pattern. Employees worried about these aspects are not much more likely to report excellent health than are their peers who don't share these worries.

A high degree of stress due to home life tends to be accompanied by lower ratings of health. As shown in Figure 5, the more sources of home-related stress employees face, the less likely they are to rate their health as excellent or very good. Women are more likely than men to report three or more stressors in the home environment. For an equal number of stressors, however, men and women are equally likely to report being in excellent health.

Previous studies have shown that having supportive relationships from family and friends is associated with better health,⁸ which may help to buffer employees from the stresses of the work environment. On the other hand, if such relationships are a source of added stress, the reverse may occur. Indeed, it has been found that stress related to the social environment at work is exacerbated by home-related stress.³ Stress on the home front is, therefore, of particular concern for those facing job stress from the social environment at work as well.

Health practices

Personal practices such as sedentary living, smoking, alcohol consumption, and poor nutrition can negatively influence health. Even drugs prescribed to improve health can have negative ramifications through potential side effects. Sedentary living and smoking are leading causes of premature death, and are both primary risk factors for cardiovascular disease—the number one killer of men and women in Canada. Heavy or improper use of alcohol is also linked to premature death, mainly as a result of accidents.

In light of this, employees participating in the needs assessment were asked about their physical activity patterns, tobacco and alcohol use, and use of medication. Results show that:

- lack of regular activity is the most prevalent lifestyle risk factor—over 40% of employees are active fewer than three times a week;
- smoking cigarettes is also prevalent, being reported by 24% of employees;
- heavy alcohol use occurs among 20% of employees; and
- 45% of employees use medication, with the most frequent prescribed medication being used to reduce pain (fewer than 5% of employees report occasionally using drugs for non-medical reasons).

The relationships found between health perceptions and selected lifestyle practices, namely physical activity, smoking, and alcohol use, mirror similar associations found in national surveys and are consistent with the relationships reported in the literature.^{4,7}

Regularly active employees tend to have more positive perceptions of their health. In contrast, employees who are active less than twice a week are less likely to rate their health as excellent. Similarly, employees who use alcohol in moderation tend to have more positive health ratings than employees who drink more heavily. Finally, smokers are

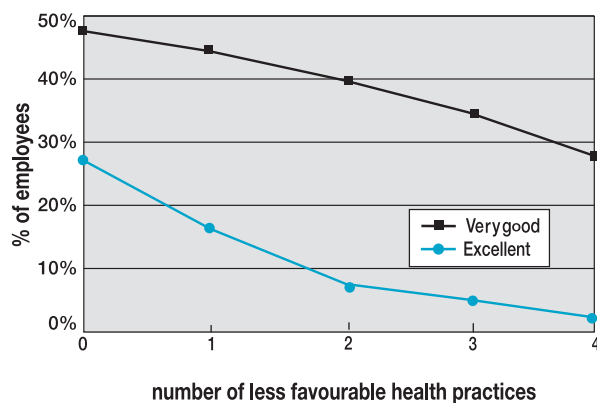
less likely than non-smokers to report excellent health.

Three types of medication were considered in examining the relationship between medication use and health. These included pain relievers, sleep medication, and drugs to calm down. Employees were classified as using medication to a limited extent if they used pain medication rarely and other medication not at all. Not surprisingly, poor health perceptions appear to be associated with the use of medication.

Prior to the mid 1980s, interrelationships among health practices were either nonexistent or weak.⁹ Subsequently, interrelationships between smoking and physical inactivity^{9,10} and between smoking and alcohol use have been noted.⁷

Figure 6

HEALTH PRACTICES AND HEALTH STATUS
by number of less favourable health practices



These interrelationships are of concern because while less favourable lifestyles negatively impact health, they may do even more harm when they are present together. The Workplace Health System needs assessment shows that having more than one such practice exacerbates the situation. In Figure 6, employees with healthier lifestyles (fewer unfavourable health practices) are shown to be more likely to rate their health as very good or excellent than are employees with less

favourable lifestyles. These findings suggest a cumulative effect of negative health practices upon health perceptions and, ultimately, health itself.

Personal resources

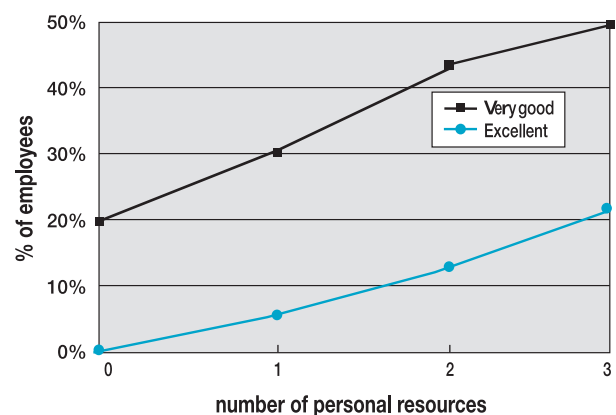
Social support and self-efficacy (feeling of control) over work and health have been found to mediate workplace stressors and enhance perceptions of health.³

Most employees (83%) responding to the needs assessment have one person or more to whom they can turn for support. The majority also feel in control of their own health (87%) and feel that they can influence things that happen to them at work (62%). Having these personal resources increases the likelihood of reporting better health. Excellent health is more often reported among those who:

- feel in control of their own health;
- have influence over their work;
- can count on at least one person for help.

Figure 7

PERSONAL RESOURCES AND HEALTH STATUS
by number of personal resources



Conversely, lower health perceptions—ratings of good to poor—are more prevalent among employees who

- are not in control or are unsure of their control over their health;
- do not have social support;

Building healthier workplaces

- do not have or are unsure of their control over work.

In addition, the more resources employees have, the more likely they are to rate their health positively (Figure 7). Employees who have someone to count on for help, and who also feel that they are in control of their own health and things that affect them at work, are twice as likely to perceive their health as either very good or excellent compared with employees who do not have these resources.

This finding has important implications for worksite interventions to improve health. For greater impact on employee health, interventions should increase social support among workers *and* improve their sense of control over things that happen to them at work.

Workplace health promotion programs can be both health and cost effective.¹¹ This study shows that when the physical and social environments at work are less of a cause for concern, when home-related stress is low, and when favourable lifestyle practices are followed, employees tend to have better health. Having a support network and feeling in control over things that happen at work and that affect personal health also increase the chance of positive health perceptions.

A healthier workplace requires the development of complementary behavioural and environmental interventions. It is important not only to focus on individual risk and emphasize individual responsibility for health but also to address occupational sources of stress and influences on behaviour.¹²

Improve lifestyles

- Use a variety of health promotion strategies to support employees in their efforts to improve lifestyle practices. Success in changing one lifestyle practice may increase employees' confidence in their

ability to make changes generally and encourage other lifestyle changes.

- Reinforce and support employees' efforts to improve their health. Make stairs attractive and post signs to encourage their use. Display Canada's Food Guide in the lunchroom. Adopt and enforce smoking bans, and introduce employee programs to stop smoking.
- Create an employer–employee forum for discussing health-related issues. Seek the active participation and input of the workforce often through labour-management committees or collective bargaining.
- Provide comprehensive programs with opportunities for risk-reduction counseling for high-risk employees. Long-term, intensive programming fosters an organizational context supportive of employee health and is more effective than programs aimed at increasing awareness of health issues.¹³

Improve the work environment

- Involve employees in identifying concerns related to the physical work environment and in creating practical solutions that address the issues.
- Examine explicit and implicit policies and practices governing management practices and interpersonal relationships between management and employees as well as between employees. Establish procedures for vetting and resolving issues in these areas.
- Review Employee Assistance Programs or policies to include strategies that assist employees to deal with home-related issues.
- Help employees balance work and home life by building flexibility into policies and the scheduling of work wherever possible.

- Involve employees in job redesign to increase their control over their jobs. Make sure they are confident in their abilities to use this control and can in fact experience this enhanced control directly.¹⁴
- Link workplace strategies to the larger community system, including educational, medical, technological, and regulatory strategies to enhance the health of employees.¹⁵
- Create a healthy work environment—one in which respect, support, security, safety, opportunities for learning, skill development, and the exercise of control in meeting challenges are prominent.¹²

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Caveats for the reader

1. The results presented in this bulletin apply to the Workplace Health System sample only.

Although the sample is made up of about 50,000 employees nationwide, it is not a random sample. Only companies interested in implementing Health Canada's Workplace Health System took part in the needs assessment, so we can't generalize the findings to the general working population. The results may however provide useful insights and an indication of what may be in store for the rest of the workforce.

2. No significance testing can be done on these data.

Because the data are not random, we can't do significance tests, only discuss relationships where substantial differences (i.e., 5 percentage points) appear.

3. This type of study cannot yield cause-and-effect relationships.

If we say, for example, that employees with a higher degree of home stress are more likely to report poor health, we may *not* conclude that home stress causes poor health (or that poor health causes home stress), simply that the two appear together *more often than by chance alone*. To prove cause and effect, a strong theoretical framework supported by the weight of empirical evidence is needed. When you see these words:

- associated with;
- related to;
- linked to;
- more likely to;

do not replace them with “caused by”!

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