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Moving Ahead.

Workplace Interventions to Reduce Physical Inactivity and Sedentary Behaviour

At a Glance

- Only 15 per cent of Canadian adults meet the Canadian Physical Activity Guidelines.
- In order to keep employees more physically active, employers can put in place specific interventions.
- In this briefing, we provide a model that highlights how employers can help employees change their behaviour.

Executive Summary

The Canadian Physical Activity Guidelines, established by the Canadian Society for Exercise Physiology, maintain that adults should get at least 150 minutes of moderate to vigorous physical activity every week in order to maintain their optimal health.¹ However, only 15 per cent of Canadian adults meet these guidelines.² Of equal concern, Canadians spend 10 of their waking hours each day being sedentary.³ Even when adults meet the recommended guidelines for physical activity, it is important for them to limit their sedentary time in order to improve or maintain their health.

What can employers do to help promote physical activity in the workplace and reduce sedentary behaviour? This is of particular concern since, in our knowledge-based economy, the workplace can exacerbate the situation. Employees often sit for hours in front of computers or workstations, increasing the amount of time they spend in a sustained sedentary state during their workdays. In order to keep employees more physically active, employers can put in place specific interventions to:

- educate employees on the benefits of increasing physical activity and reducing sedentary behaviour;
- provide opportunities for employees to participate in physical activity and minimize sedentary behaviour during the work day;
- ensure that employees take regular movement breaks in order to reduce their sedentary time;

1 Canadian Society for Exercise Physiology, *Canadian Physical Activity Guidelines*, 9.

2 Colley and others, *Physical Activity of Canadian Adults*.

3 Ibid.,

To promote employee-behaviour change, employers can make it easier to be more physically active and less sedentary at work.

- incentivize employees to take accountability for their own health and become more physically active and less sedentary;
- foster a work environment that reduces sedentary behaviour.

Employers must also be aware that some employees may have other health issues that could limit or affect the way they can participate in physical activities. For example, it may be unsafe for an employee with a known heart condition to join an intense aerobic activity without medical approval or supervision. Likewise, an employee with rheumatoid arthritis may need a specialized exercise program that does not cause flare-ups or a worsening of his or her condition. By understanding the health profile of the employee population, a wellness leader can identify risk factors within the organization and provide targeted interventions to ensure that all employees can safely become more physically active.

However, in order for any wellness initiative to be successful, employees must participate. This is a challenge in most organizations. When faced with competing priorities and looming deadlines, employees often feel that they cannot prioritize their health. There are several models to help employers encourage their employees to adopt healthier behaviours. In this briefing, we provide a model that highlights how employers can help employees change their behaviour in line with their willingness to change. In order for employees to try and adopt new behaviours, they must feel equipped to do so and confident that they can be successful. Employers can help employees adopt and maintain healthier lifestyles by putting in place specific strategies to support their movement along the behaviour-change continuum. In order to promote employee-behaviour change, employers can make it easier to be more physically active and less sedentary at work. This can include providing a physical environment that minimizes sedentary work and fostering a culture that encourages employees to stand while working or participate in walking meetings.

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The Conference Board of Canada's Canadian Alliance for Sustainable Health Care (CASHC) research series, *Moving Ahead: Healthy Active Living in Canada*, aims to identify cost-effective, scalable,⁴ and sustainable interventions that promote and improve healthy active living—minimizing physical inactivity and sedentary behaviour, promoting adequate nutrition and sleep, and highlighting the negative impacts of smoking and excessive alcohol consumption. A primer document preceding the series, *Moving Ahead: Making the Case for Healthy Active Living in Canada*, not only provided an overview of the links between modifiable healthy lifestyle risk factors and chronic conditions, but also laid the groundwork for the series.

The first briefing, *Moving Ahead: The Economic Impact of Reducing Physical Inactivity and Sedentary Behaviour*, offered an economic perspective of the benefits of improving physical activity and reducing sedentary behaviour. It found that if only 10 per cent of Canadians who are not meeting the guidelines for physical activity increased their activity a bit more and reduced their sedentary behaviour, the incidence of several chronic conditions (e.g., hypertension, diabetes, heart disease, and cancer) would be reduced significantly. This would lead to a cumulative reduction in health care costs of \$2.6 billion and an increase in GDP of \$7.5 billion by 2040.

Over the past decade, numerous international studies and reviews have been conducted on the effectiveness of healthy active living interventions. The second briefing of the series, *Moving Ahead: Taking Steps to Reduce Physical Inactivity and Sedentary Behaviour*, evaluated and synthesized the evidence on the effectiveness and scalability of different types of interventions that can be applied to varying population settings, including the workplace, communities, families, schools, and points of contact with the health care system.

4 Scalability refers to the ability for an intervention to be implemented on a more widespread basis. An intervention is “scaled up” when it is implemented on a larger population. Milat and others, “The Concept of Scalability.”

An active lifestyle can reduce the risk of developing cardiovascular disease, some forms of cancer, Type 2 diabetes, and depression.

This current briefing will provide Canadian employers with examples of organizational approaches and programs that may work best in their organizations, and how they can be implemented to effectively promote physical activity and reduce sedentary behaviour among employees.

Introduction

What does it mean to be physically active? It takes into account more than aerobic exercise. According to the World Health Organization, physical activity includes “any bodily movement produced by the skeletal muscles that uses energy.”⁵ This can involve structured activities such as sports and regular exercise, and also activities of daily living such as walking, household chores, and gardening.

There are many benefits of physical activity on an individual’s health. Decades of research have shown that an active lifestyle can reduce the risk of developing chronic diseases such as cardiovascular disease, some forms of cancer, Type 2 diabetes, and depression.^{6,7,8} It can also help slow the growing obesity rates in Canada.⁹ Despite this evidence, a majority of Canadian adults do not meet the recommended guidelines for physical activity. According to the *Canadian Physical Activity Guidelines*, adults between 18 and 64 years of age should build up to 150 minutes or more of moderate to vigorous physical activity each week, in intervals of 10 minutes or more.¹⁰ An analysis of the 2007 to 2009 Canadian Health Measures Survey showed that only 15 per cent of Canadian adults were meeting this recommended level of physical activity, and that 69 per cent of their waking hours were spent in sedentary activities.¹¹ This is of concern for the overall health of Canadians.

5 World Health Organization, *Ten Facts on Physical Activity*.

6 Warburton, Nicol, and Bredin, “Health Benefits of Physical Activity,” 801–4.

7 World Health Organization, *Global Recommendations on Physical Activity*, 10.

8 Gilmour, “Physically Active Canadians,” 45.

9 Christie and others, “Workplace-Based Organisational Interventions.”

10 Canadian Society for Exercise Physiology, *Canadian Physical Activity Guidelines*, 9.

11 Colley and others, *Physical Activity of Canadian Adults*, 4–5.

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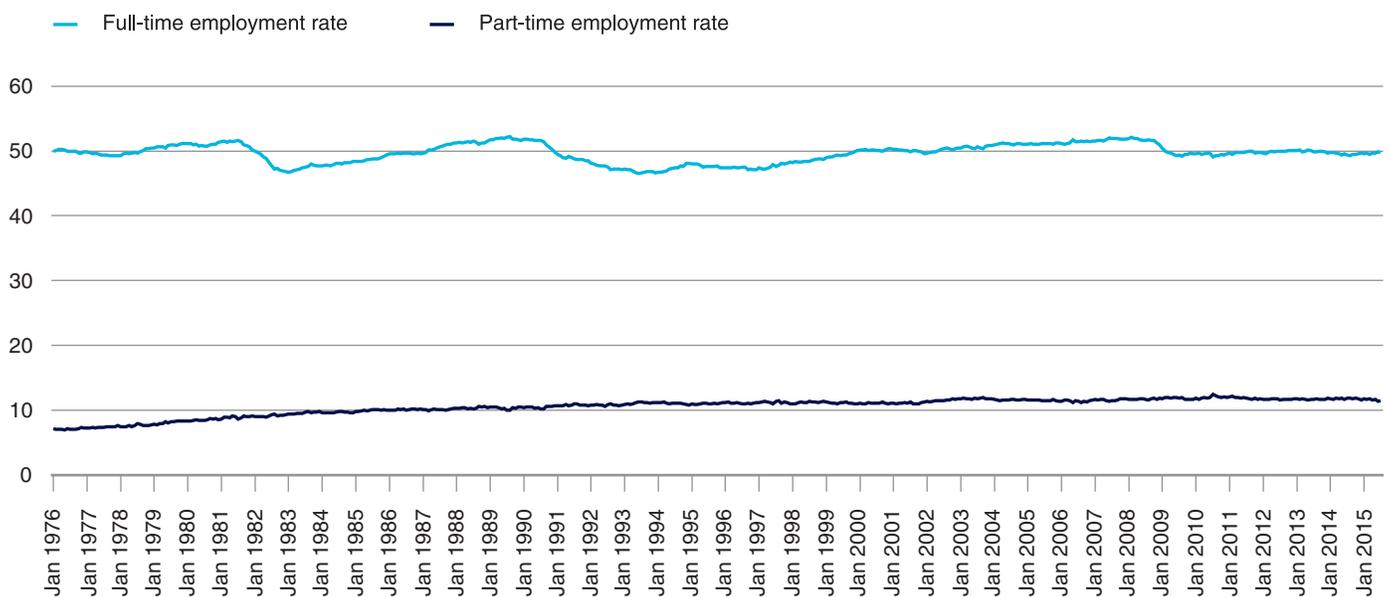
Workplace Interventions to Reduce Physical Inactivity and Sedentary Behaviour

As shown in Chart 1, in 2014, approximately 60 per cent of Canadian adults were working either part time (11.5 per cent) or full time (49.8 per cent) and more than half of Canadians spent at least one-third of their waking hours at work.¹² This makes the workplace an ideal setting for health promotion. As well, due to the increasingly sedentary nature of work, especially in knowledge-based industries, the workplace itself can actually increase an individual’s potential to be physically inactive. (See “Sedentary Behaviour.”) Employers have the ability to create supportive work environments and engage employees in effective health and wellness interventions to limit the impact of physical inactivity and sedentary behaviour both at work and at home.

Chart 1

Part- and Full-Time Employment Rates in Adults (15 Years of Age and Over) in Canada, 1976–2015

(per cent; seasonally adjusted)



Source: Statistics Canada.

12 Employment and Social Development Canada, “Work: Employment Rate.”

Sedentary Behaviour

The metabolic equivalent of task (MET) is a unit of measure for energy expenditure that is based on “the resting metabolic rate.” It is the amount of oxygen an individual consumes while sitting quietly at rest in a chair, which is approximately 3.5 millilitres of oxygen per kilogram per minute (1.2 calories per minute for a 70-kilogram person).¹³ Sedentary behaviour is “any waking behaviour characterized by an energy expenditure less than or equal to 1.5 METs while in a sitting or reclining position.”¹⁴ Technological advancements in the workplace have made prolonged sitting (e.g., in front of a computer) the norm for many adults’ working lives.

Prolonged sitting has been linked to premature death, heart disease, certain cancers, and Type 2 diabetes.¹⁵ In fact, reducing the time spent in sedentary behaviours may be as important as increasing moderate to vigorous physical activity. For instance, an employee could be meeting the minimum guidelines for physical activity per week by engaging in structured activities like walking or cycling, but sits for prolonged periods each day at work or at home. This still places the individual at risk for health issues.

Employers should focus not only on increasing physical activity levels among their employees, but also on reducing sitting time, especially at work. Ways to actively reduce prolonged sitting in the workplace include:

- encourage employees to get up from their desks every 30 minutes for 2 minutes, or at least every hour for 2 to 4 minutes;
- introduce height-adjustable desks to promote standing;
- promote standing or walking meetings and provide meeting spaces that enable this behaviour;
- introduce two-minute stretch breaks every 30 minutes during meetings;
- provide extra-long telephone cords or headsets so that employees can stand during phone calls;

13 Jetté, Sidney, and Blümchen, “Metabolic Equivalents,” 555–65.

14 Ibid. Also see Dinh, *Moving Ahead* for a further explanation of METs.

15 Thorp and others, “Sedentary Behaviors,” 211–12.

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- organize work tasks so that employees can stand or sit while doing their work;
- foster an organizational culture that looks favourably upon reducing sedentary behaviour or increasing physical activity.¹⁶

Small nudges can also be implemented in the workplace to promote more movement during the workday. These can include encouraging employees to talk to colleagues in person as opposed to e-mailing or calling, and moving the printers, faxes, and water coolers further from workspaces.

It is important to remember, however, that not all employees are at the same fitness level, and the aforementioned activities would apply only to the able-bodied. This should be taken into consideration when implementing workplace policies, such as walking meetings or providing equipment like stand-up desks, to ensure that employees who are not as physically fit do not get injured at work and that employees who have physical challenges can still benefit from these initiatives.

Source: Niagara Region Public Health, *Investing in Physical Activity*.

The Business Case for Reducing Sedentary Behaviour and Encouraging Physical Activity in the Workplace

Adult Canadians spend a significant amount of time in the workplace. Creating a culture of wellness, reducing sedentary behaviour, and promoting physical activity in the workplace can have a positive impact on the health and wellness of employees, and also on organizations and society as a whole.

16 Exercise and Sports Science Australia Limited. *Physical Activity in the Workplace*, 9–10.

Physical activity has been found to increase an individual's lifespan.

For Individual Employees

Habitual inactivity has been found to increase the risk for obesity, Type 2 diabetes, heart disease, strokes, and metabolic syndrome.¹⁷ However, regular physical activity can provide many health benefits for individuals, not just while engaging in the activity but also in the long term. These benefits include:

- decreasing the risk of heart disease, since physical activity helps prevent plaque buildup in the arteries, resulting in a healthier balance of blood fats and cholesterols;
- reducing inflammation and discouraging the formation of blood clots in arteries;
- lowering blood pressure, which can help to prevent not only heart disease, but also strokes, aneurysms, and kidney disease;
- preventing Type 2 diabetes by reducing excess weight, reducing sugar levels in the blood, and increasing sensitivity to insulin;
- reducing the risk for colon and breast cancers;
- postponing age-related bone loss, when combined with adequate calcium and vitamin D intake and exposure to sunlight;
- easing mild and moderate depression by releasing mood-lifting hormones and relieving stress;
- improving the individual's ability to fight off infection.¹⁸

In fact, physical activity has been found to increase an individual's lifespan. Since 1948, the Framingham Heart Study—a long-term, multigenerational study that is examining and identifying the risk factors for heart disease and their impact on individuals—has found that, when compared to individuals who are inactive, men who engaged in moderate physical activity added an average of 1.3 years to their lifespan, and women added 1.5 years. High physical activity has led to an increase of 3.7 years to men's lifespan and 3.5 years for women.¹⁹

17 Leinwand, *Exercise*, 6.

18 *Ibid.*

19 Franco and others, "Effects of Physical Activity," 2355–60.

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Independent of whether or not an individual is meeting the *Canadian Physical Activity Guidelines*, prolonged sedentary behaviour, such as sitting, is also a unique health risk factor. Sedentary behaviour has been linked to larger waist circumference, metabolic syndrome, resistance to insulin, Type 2 diabetes, cardiovascular disease, and premature mortality.^{20,21}

Therefore, increasing physical activity and reducing sedentary behaviour have varied and significant benefits for individuals.

For Employers

According to Towers Watson's 2013/2014 Staying@Work Survey, Canadian employers recognize that employee health and well-being is a business imperative that affects an organization's performance. As shown in Chart 2, 49 per cent of employers in this latest edition of the survey identified physical inactivity as an important workforce issue in their organization; second only to stress. Also, the third challenge identified by employers—weight and obesity—is directly related to physical inactivity and sedentary behaviour.

For employers, implementing wellness initiatives that increase an employee's physical activity in and out of the workplace can have many organizational benefits. These include:

- reduced absenteeism (both from casual absences and longer disability leaves);^{22,23}
- a 50 per cent improvement in presenteeism (being at work but performing below expectations due to a health issue);^{24,25}

20 Owens and others, "Sedentary Behavior."

21 Hamilton, and Zderic, "Role of Low Energy Expenditure and Sitting," 2655–67.

22 van Dongen and others, "Systematic Review on the Financial Return," 1046.

23 Hutchinson and Wilson, "Improving Nutrition and Physical Activity," 240–9.

24 Meenan and others, "Economic Evaluation of a Worksite Obesity Prevention and Intervention Trial," S11–S13.

25 Brown and others, "Objectively Measured Sedentary Behavior," 951–2.

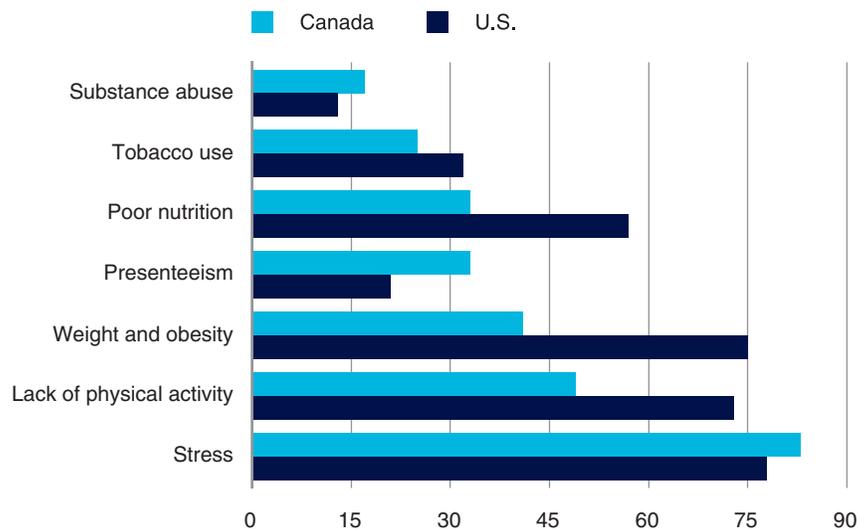
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- increased productivity and job performance;^{26,27,28}
- reduced work-related injuries;²⁹
- increased creativity, both immediately following physical activity and after a two-hour lag;³⁰
- reduced turnover;³¹
- intangible benefits, such as improved corporate reputation, improved relationships between management and unions, and increased employee satisfaction and loyalty.^{32,33}

Chart 2

Top Lifestyle Risk Factors Reported by Employers as a Workforce Issue, 2013

(per cent)



Source: Towers Watson, *2013/2014 Staying at Work Report*.

26 Brown and others, "Does Physical Activity Impact on Presenteeism," 257–60.

27 Hutchinson and Wilson, "Improving Nutrition and Physical Activity."

28 Barr-Anderson and others, "Integration of Short Bouts of Physical Activity."

29 Ackland and others, *Workplace Health and Physical Activity Program Review*, 11–12.

30 Blanchette and others, "Aerobic Exercise and Cognitive Creativity," 261–63.

31 van Dongen and others, "Systematic Review on the Financial Return," 1046.

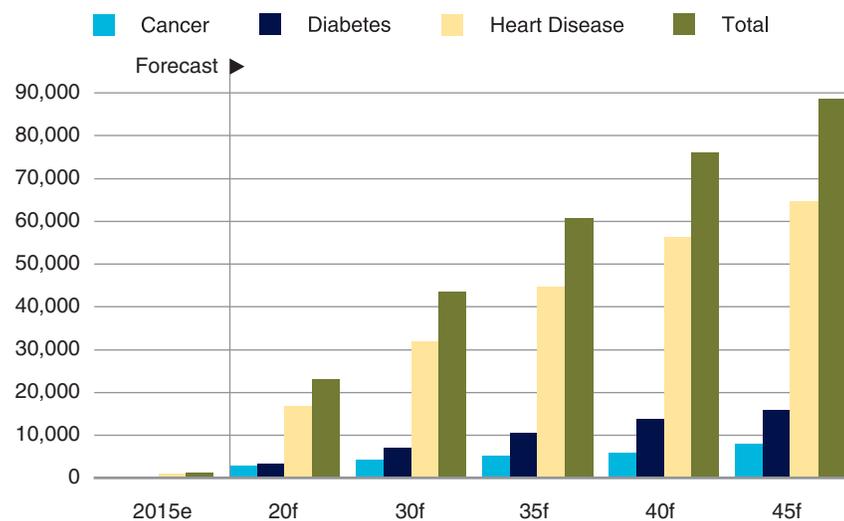
32 Ibid, 1046–7.

33 Ackland and others, *Workplace Health and Physical Activity Program Review*, 12.

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In fact, recent Conference Board of Canada research has shown that even a slight improvement in physical activity would significantly reduce the prevalence of four chronic conditions in the Canadian population—hypertension, diabetes, heart disease, and cancer—and that this would have a substantial impact on absenteeism in the workplace. As seen in Chart 3, if 10 per cent of the employee population became more physically active (for example, from not walking at all to walking one to five hours per week), Canadian workers would miss almost 90,000 fewer work days due to illness by 2040.³⁴

Chart 3
Reduction in Work Absences Due to Physical Activity Initiatives
(days)



e = estimate; f = forecast
Note: Hypertension was not included due to a lack of appropriate data.
Sources: The Conference Board of Canada; Statistics Canada.

The decrease in the prevalence of these chronic conditions would also have a significant impact on the duration of short- and long-term disability leaves. The analysis found that the labour force would increase

34 Bounajm, Dinh, and Thériault, *Moving Ahead*, 20.

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by 3,600 by 2040, due to a reduction in the number and duration of disability leaves alone.³⁵ In fact, the decrease in premature mortality, disability, and absenteeism resulting from a small change in the physical activity of Canadians is estimated to lead to an increase in GDP of \$7.5 billion by 2040.³⁶

However, implementing a physical activity program and initiatives to reduce sedentary behaviour in the workplace have also shown other more intangible impacts that employers may find beneficial. They can contribute, for example, to a more positive corporate image and reputation, enhanced employee morale and motivation, improved work environment, and better communication and teamwork.³⁷ Each of these outcomes can strengthen an organization's overall productivity and performance.

For Society

The majority of Canadians are physically inactive and sedentary.³⁸ Physical inactivity is an important risk factor for chronic disease and a major cost driver for the Canadian health care system. In 2009, the total health care costs incurred by physical inactivity in Canada were found to equal \$6.8 billion, or 3.7 per cent of overall health care spending.³⁹ This is a significant concern to the sustainability of the Canadian health care system. Furthermore, inactivity affects the quality of life and productivity of individuals, which further hurts the Canadian economy.

35 Ibid.

36 Ibid, 21.

37 Hooper and Bull, *Healthy Active Workplaces*, 12.

38 Spence and Dinh, *Moving Ahead: Taking Steps*, 3.

39 Janssen, "Health Care Costs," 805–6.

Initiatives directed to the entire employee population are aimed directly at employees or at their environment.

Types of Initiatives to Promote Physical Activity and Reduce Sedentary Behaviour

What can employers do to promote physical activity and reduce sedentary behaviour in their workplaces? There are two broad types of initiatives that employers can use in their workplaces to effect change. The first is to implement initiatives that are meant for the entire employee population, independent of each employee's particular needs. The purpose of this type of initiative is to move the health profile of the workforce in a healthier direction. They are meant to encourage all employees to become more physically active and reduce sedentary behaviour. These can be aimed directly at employees or at their environment.

The second type of initiatives target the particular needs of specific, high-risk employees. For these targeted initiatives, employers must first evaluate the health profile of the organization, as well as the nature of the work and the work design. Programs based on this evaluation will help treat or manage the predominant health conditions or occupational and individual health risks found among the employee population. These may, for example, be initiatives aimed at getting employees who are overweight to become more physically active or at reducing the time office workers spend sitting in front of their computers. Some examples of both types of initiatives are found in the following sections.

Initiatives must fit with the organizational culture so that employees are more likely to participate. For example, if the culture is one where friendly competition is appreciated, a team pedometer challenge may be of interest to the employees. However, if the culture is one where knowledge and reflection are prized, a pedometer-based campaign that translates steps into distance so employees can virtually "travel around the world" might be of more interest.

It is also critical to evaluate initiatives to ensure that they are effective. Their impact can be compared to the original analysis to determine if the initiative was successful. (See "Criteria of Effective Initiatives.")

Criteria of Effective Initiatives

To evaluate which health promotion initiative has the greatest potential to be effective within an organization, the wellness leader can rate them according to the following criteria:

1. Scalability

- How feasible is it to implement the initiative throughout the organization?
- Are there adequate resources to offer this initiative to all targeted employees (e.g., budget, time, space)?
- Is the initiative relevant or of interest to the employee population? Does it fit the organizational culture?

2. Reach

- How likely are employees to participate in the initiative? Are targeted employees (e.g., physically inactive employees, sedentary employees) also likely to participate?
- This may require an in-depth understanding of the profile of the employee population (e.g., health profile, race/ethnicity, sex, age, socio-economic status) to determine the type of initiatives, the cost to be borne by the employees, the location of the initiative, and the communication of campaign elements.

3. Adoption of a program

- How willing are the various facilities or business units within the organization to implement the initiative?
- Is there potential resistance from key stakeholders (e.g., managers, unions, employees)? Why?
- What are potential solutions to reduce or remove this resistance?

4. Strategic context

- Is the initiative or program consistent with the organization's wellness strategy? Is this strategy aligned with business priorities?
- Without this alignment, managers and employees are less likely to participate in the initiative.

Source: The Conference Board of Canada.

Face-to-face initiatives have been shown to be more effective than more passive methods.

Initiatives for the Entire Employee Population

These initiatives are meant to inform or effect change in the entire employee population, independent of the employees' particular needs. They aim to increase the employees' physical activity and decrease sedentary behaviour, both in the workplace and in their leisure time.

Initiatives to Raise Awareness or Educate

The workplace is the ideal venue to educate individuals on how they can improve and take responsibility for their health. This can be done in a variety of ways. Employers can, for example, post health posters on the walls of their buildings, send health messages and information to employees by e-mail, or post information on the company's intranet. They can also organize "lunch and learns" or other educational sessions like health fairs, where employees can receive information on the importance of physical activity and the risks associated with excessive sedentary behaviours.

Employers can also offer health risk assessments or biometric screening clinics where an employee's health risks are identified. Employees then receive individual reports detailing their health risks, and the employer can get a summary of the results that can then be used to put in place targeted initiatives.

Although they can be more expensive to implement, face-to-face initiatives or individualized health information (as in the case for health risk assessments and biometric screening clinics) have been shown to be more effective than more passive methods of sharing information (as in the case of posters).⁴⁰

40 Cook and others, "Changing Risk Behaviours," 177–78.

Walking Interventions

Initiatives meant to increase walking usually focus on the number of steps an employee will take in one day. During this type of initiative, employees may be provided with a pedometer and encouraged to raise their physical activity levels by increasing the number of steps they take in one day. These initiatives have been shown to have a significant impact on employee wellness, particularly in the percentage of body fat lost, waist circumference, blood pressure, and resting heart rate of participating employees.^{41,42} Since employees develop new routines that include walking, this behavioural change is maintained even after the campaign is completed.⁴³

A walking initiative is most effective when employees receive assistance with setting an appropriate goal for the number of steps to take, self-monitor their steps regularly (often through diaries), and are provided with walking routes near the workplace.^{44,45,46} It is interesting to note, however, that a walking intervention works particularly well for employees who are originally sedentary or not very physically active.^{47,48} The work by Chan and others demonstrates that a walking challenge will not be as effective in increasing the physical activity level of employees who were already physically active prior to the initiative. There is a maximum level of physical activity that an individual can participate in and still complete other requirements of daily living. There is a ceiling effect for physical activity.

41 Gilson and others, "Walking Towards Health," 168.

42 Chan, Ryan, and Tudor-Locke, "Health Benefits of a Pedometer-Based Physical Activity Intervention," 1220–21.

43 Thomas and Williams, "Promoting Physical Activity in the Workplace," 102.

44 Gilson and others, "Walking Towards Health," 168–69.

45 Chan, Ryan, and Tudor-Locke, "Health Benefits of a Pedometer-Based Physical Activity Intervention," 1220–21.

46 Thomas and Williams, "Promoting Physical Activity in the Workplace," 100–102.

47 Chan, Ryan, and Tudor-Locke, "Health Benefits of a Pedometer-Based Physical Activity Intervention," 1218.

48 Blake, Zhou, and Batt, "Five-Year Workplace Wellness Intervention."

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Furthermore, research has demonstrated that the effectiveness of a walking initiative can decrease when the intervention lasts more than six months.⁴⁹ There is no doubt that employees often become bored and disengaged when they participate in a wellness initiative for a prolonged length of time. Employee participation is essential, and can be encouraged if the initiatives offered are fun and varied.⁵⁰

Depending on their workplace culture, employers can use challenges to encourage participation in a walking initiative. If competition or teamwork is valued in the organization, a walking challenge where employees form teams and record the number of steps they take each day may be very successful. (See “Increased Physical Activity.”)

Increased Physical Activity Results in Higher Employee Performance at Standard Life

Standard Life has been doing business in Canada for the past 180 years. It provides savings, investment, and insurance services to more than 1.4 million Canadians.⁵¹ At Standard Life, health and wellness are important to the organization’s mission. The organization wants to be a role model for its clients by ensuring that they promote and support their employees’ physical and mental well-being.

Standard Life is in the process of implementing a comprehensive and integrated workplace health and wellness strategy. It aims to touch on individual health habits, mental health, the work environment, work–life balance, and management practices. The goal is to integrate health and wellness initiatives with health and absence management. As part of the wellness strategy, it offered a health risk assessment (HRA) to its employees to determine the health risk factors that were predominant in the employee population. The results of the HRA showed that mental health, weight, and cardiovascular issues were the predominant risk factors present among the employees. Since physical activity

49 To and others, “Workplace Physical Activity Interventions,” e120–e121.

50 Chénier, Hoganson, and Thorpe, *Making the Business Case*, 8–13.

51 Standard Life, *About Standard Life*.

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has been found to reduce stress, ease mild to moderate depression, help control weight, lower blood pressure, and, as a result, help manage cardiovascular problems, Standard Life implemented a corporate-wide physical activity program to try to help employees reduce these health risk factors.

As part of the physical activity program, the wellness leaders implemented a series of varied initiatives. By offering a varied selection of physical activities and learning sessions, they are able to engage more employees in the sessions. They offer:

- engagement events and activities to raise employees' awareness of their own health risks (e.g., health risk assessments, biometric screening clinics);
- behaviour change activities, and continuous and varied physical activities;
- manager training and interventions, since they must be involved to get employees to participate in activities;
- two health weeks per year where they hold education sessions, free massage sessions, various physical activity lessons, and kiosks, along with a team activity;
- a gym in their Montréal headquarters and gym subsidies for other employees across Canada;
- sponsorship of employee sport teams and a corporate team for the Ride for Heart event.

Standard Life recently held one of its health weeks, and close to 200 employees participated in a 5-km walk/run event that was held during the week-long awareness-raising initiative. It also offers continuous physical activities like yoga classes, training sessions with a professional trainer, Zumba classes, boot camps, salsa dancing, and Tai Chi. It has recently included bachata and martial arts sessions in its menu of physical activity sessions. Standard Life also offers various opportunities for employees to try new activities in order to engage them in physical activity and maintain their interest.

Manager training sessions have also been very popular. For any wellness initiative to succeed, it is essential to get the support of front line managers. If managers participate in wellness initiatives, their direct reports are more likely to do so as well. However, the reverse is also true. If managers do not believe that time spent on physical activity is beneficial to the organization, employees are not going to participate in activities even if senior leaders promote the events. Therefore, Standard Life has recently begun to instruct managers on the link

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between health, physical activity, and employee performance. It has already started to see the effect of these educational initiatives as more and more employees participate in physical activity and wellness events.

The most successful physical activity initiative implemented at Standard Life has been the Global Corporate Challenge (GCC). This team-based challenge begins in May each year and runs for 100 days. Employees form teams and receive a starter pack that includes accelerometers. Employees enter their daily number of steps taken into the GCC website. Participants are encouraged to try for 10,000 steps per day. Steps are then converted to distance, and the team's journey is shown along a virtual tour of the world. The company has held this event for the past four years and it has gained in popularity each year. The wellness team no longer needs to actively promote the initiative; word of mouth has made it a sought-after resource. This year, Standard Life's wellness team simply put an announcement on its intranet to inform employees that the GCC was to take place, and within an hour it had almost 500 participants. Every year, Standard Life receives a report from the provider, and the results have been outstanding. For example, at the end of the 2013 challenge, 54 per cent of participants had lost weight. As well, 57 per cent of employees reported reduced stress levels due to the activity and 33 per cent reported an increased productivity levels at work. In order to encourage employee participation and demonstrate its commitment to the health of employees, the executive team participates in the initiative as well; they are walking the talk.

Alain Sauv , Health and Wellness Coordinator, and Eric Pfeiffer, Senior Consultant, Health and Wellness, firmly believe that the focus of a physical activity program in the workplace should be on encouraging movement and being active, not on turning employees into athletes. Employees must be made aware that any little change they make throughout the day (e.g., taking the stairs for a few flights instead of the elevator, going out for a short walk at lunch) can have a profound effect not only on their physical health, but on their mental well-being as well. When framed that way, it is easier and less intimidating for inactive employees to participate. By offering a variety of fun initiatives, they hope to encourage employees to take that first small step to becoming more physically active.

The health risks associated with sedentary behaviour are due to the extended time an individual spends sitting or reclining.

The wellness team at Standard Life is currently partnering with l'Université du Québec, in Montréal, to try to determine more precisely what the return on investment has been for its wellness program. The team hopes to get a better picture of the program's financial impact within three years.

Source: Eric Pfeiffer (Senior Consultant, Health and Wellness, Standard Life) and Alain Sauvé (Health and Wellness Coordinator, Standard Life), phone interview by Louise Chénier, June 5, 2014.

As well, some organizations, such as the Healthy Active Living and Obesity Research Group (HALO) at CHEO's Research Institute in Ottawa, have instituted "walking meeting rooms." These "virtual rooms" are pre-determined walking routes (employees can also choose to map their own routes) of various lengths of time, booked through the existing meeting room booking technology.⁵²

Initiatives to Reduce Sedentary Behaviour

The health risks associated with sedentary behaviour are entirely due to the extended time an individual spends in a sitting or reclining posture—not the actual work or activity being done while sedentary. Therefore, initiatives to reduce this risk in the workplace can focus on getting employees to stand or move while they work. Standing workstations, for example, can allow the employee to continue working while reducing sitting time. This is also the case for equipment such as foot pedals, cycling workstations, and longer telephone cords. In some organizations, computer software has been installed to prompt employees to get up and stretch after sitting at their computers for an extended period of time. However, research on the effectiveness of these interventions is still in its infancy.⁵³ There is a need for further research in this area.

Activity Sessions Led by an Instructor

To further promote physical activity and reduce sedentary behaviour in the workplace, employers can also encourage activity sessions led by a qualified wellness leader or instructor. These sessions can be led

52 CHEO Research Institute, *Walking Meeting Rooms*.

53 Shrestha and others, "Workplace Interventions for Reducing Sitting at Work."

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formally by a kinesiologist, or by an employee volunteer. Employees can be surveyed to determine which activity sessions they would most value. These could include yoga, Pilates, or Zumba, for example. The key to success is to ensure that a variety of activities are available and that they are fun and entertaining. (See “Chevron Canada” for an example of an organization that offers formal activity sessions on the premises.)

Chevron Canada: Creating a Culture of Healthy Active Lifestyles in the Workplace

Chevron Canada is one of the world’s leading integrated energy companies, and has been a major player on the national energy landscape since 1938. The organization employs over 350 people, with 2,500 indirect or contracted employees.⁵⁴

Like many employers today, Chevron Canada faces challenges relating to the physical inactivity and sedentary behaviour of its employees. This is due, in part, to the fact that employees face competing commitments that may prevent them from participating in physical activities during and outside of work hours. As well, demanding workloads in different departments, different types of roles within the organization, and varying personalities of employees can exacerbate this situation.

At its headquarters in Calgary, Chevron Canada has established a number of wellness initiatives to improve and encourage healthy, active lifestyles. In fact, investing in its employees’ health and well-being is core to “The Chevron Way”—the core values and beliefs of the organization. Chevron Canada has put in place an Operational Excellence Management System that provides a framework to achieve world-class performance in health, safety, environment, efficiency, and reliability. The specific initiatives that promote physical activity include:

54 Chevron Canada, *About Chevron Canada*.

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- **On-Site Lifestyle Centre:** The Lifestyle Centre is located on the main floor, which provides easy access to employees. It is free for permanent employees, and contract employees can also use it at a minimal cost. The Lifestyle Centre provides strength equipment, aerobic machines, and an aerobic studio with group exercise programming.
- **Employment Assistance Program—Fitness Connects:** Employees can receive a “Fit-Bit,” which is a device that tracks physical activity. It also contains a log for nutrition tracking, and can measure how long and how well the employee sleeps.
- **Healthy Heart Program:** Employees are offered free health screening assessments by a third-party provider. This allows individual employees to know their health numbers, information that they can then bring to their family doctor. They can also meet with a health professional from the Lifestyle Centre to discuss their health risks.
- **Calgary Corporate Challenge:** Employees have the opportunity to participate in athletic and non-athletic events to raise money for charity.
- **Lunch & Learns and Nutrition Clubs:** These sessions allow employees to learn from nutritionists and other health professionals in an informal, welcoming setting.
- **Ergonomic Program:** This software, installed on every employee's computer, monitors key and mouse strokes. Once a certain amount of strokes is reached, the employee's computer will lock and the monitor will show demonstrations of stretching and active movements that employees can do to break up their sedentary time.
- **Fit Breaks:** Twice a day (at 9:15 a.m. and 2:45 p.m.), employees have the opportunity to engage in a Fit Break where trained leaders take them through a series of stretching exercises.

While these initiatives are available at Chevron Canada's Calgary headquarters, the organization realizes that some employees work in offices at different sites (i.e., St. John's, Newfoundland), as well as in remote locations (i.e., the oil sands). To overcome the unique challenges these employees face, Chevron Canada has developed targeted strategies to promote their healthy lifestyles. In St. John's, Newfoundland, the organization subsidizes memberships to a fitness centre in the same building. Employees at these offices also have access to dietitians and kinesiologists to help them develop strategies for healthier living. For employees working in remote locations, Chevron Canada

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Benefits of active work breaks improved health, decreased stress, increased energy and a more tightly knit team.

has employed dietitians who work alongside its chefs to create healthier meals. The organization has also deployed trailers that contain fitness equipment available to these employees.

Chevron Canada has benchmarked these initiatives using Towers Watson's Pathway to Health and Productivity Program. Chevron's Health and Productivity Best Practices Score is almost double the national and industry averages, which further demonstrates that these key healthy living strategies have enabled Chevron Canada to see higher revenues per employee, lower medical costs per employee, and fewer lost days due to unplanned absence and disability compared to their peers.

Source: Jen Huebner (Health and Productivity Coordinator, Chevron Canada) and Marco Iafrate (Health and Wellness Consultant, Chevron Canada), phone interview by Louise Chénier and Charles Boyer, July 11, 2014.

Work breaks are an often underutilized opportunity for employers to promote physical activity and help to reduce sedentary behaviour in the workplace. In many work environments, employees receive formal 15-minute breaks in the morning and afternoon, and a 30-minute break for lunch. During this time, employees often pursue activities that can negatively impact their health, such as smoking, drinking coffee, and eating high-caloric, low-nutrition snacks. Physical activity breaks in the workplace can also help to mitigate this situation. Typically, these breaks include a combination of flexibility, stretching, and toning exercises, as well as aerobic activity. They can be led by trained volunteer employees, an in-house or contract wellness leader, or a kinesiologist. Some of the individual and organizational benefits of active work breaks have included improved health, decreased stress, increased energy and enjoyment, and a more tightly knit team.⁵⁵ (See "The Booster Break" for an example of a work-break initiative that can be implemented in small or large organizations at low cost.)

55 Taylor and others, "Evaluation of Booster Breaks in the Workplace," 531.

The Booster Break

Booster Breaks are “organized, routine work breaks intended to improve physical and psychological health, enhance job satisfaction, and sustain or increase work productivity.”⁵⁶ The program’s goals are to increase movement and reduce extended sedentary periods during the work day. The Booster Break typically has four elements:

1. a warm-up session that includes aerobic exercises (lasting 1 to 2 minutes);
2. aerobic, stretching, strengthening, and toning exercises (lasting 10 to 12 minutes);
3. a cool-down session that includes flexibility exercises (lasting 1 to 2 minutes);
4. relaxation (lasting 15 to 30 seconds).⁵⁷

These breaks are led by specially trained volunteer employees. Apart from the expense of training the volunteer facilitators, they can be implemented at no additional cost to the organization. Yet, they can result in substantial benefits for employees and the employer, including:

- increased activity level and reduced sedentary behaviour;
- positive feelings among participants;
- a sense of team membership and camaraderie;
- the ability to take structured breaks.⁵⁸

Since this type of initiative is cost-effective and requires few resources, it can be easily implemented in a small- or medium-sized organization.

Finally, many employees, especially at the professional and management levels, spend a majority of their work days in meetings. However, meetings promote sedentary behaviour, as employees often sit around a boardroom table to discuss issues. Many employers are now instituting 2-minute stretch breaks every 30 minutes during meetings. These breaks usually include a combination of flexibility, stretching, and

56 Taylor, “Transforming Work Breaks,” 462.

57 Taylor and others, “The Booster Break Program,” 435.

58 Taylor and others, “Evaluation of Booster Breaks,” 531.

To encourage active commuting, employers need to put in place the appropriate infrastructure.

toning exercises, and can be led by a trained volunteer employee, by an in-house or contract wellness leader, or a kinesiologist. Even just standing up in the middle of a long meeting can help to reduce sedentary behaviour—in a very cost-effective way. It is important, however, to ensure that the organizational culture is aligned with this behaviour. In order for employees to feel comfortable participating in these activities or standing in meetings, the initiatives must be supported and modelled by senior leaders and managers.

Active Commuting

This type of initiative aims to increase the active travel of employees, particularly to the workplace. This can be done by encouraging employees to walk or cycle to work. There is limited information on the success of these initiatives. However, a study by a public sector organization in the U.K. did show that an intervention promoting walking or cycling to work, where employees received written information on the benefits of active commuting, did increase the amount of walking, but not cycling, to work.⁵⁹ It is important to remember that to encourage active commuting, and in particular cycling to work, employers also need to put in place the appropriate infrastructure (e.g., bicycle parking racks, storage cages or lockers, shower facilities, and change rooms). Without these amenities, few employees will participate in this type of initiative.

Active commuting can also be encouraged by providing bus or other public transport passes to employees. Offering an employer-sponsored transit pass, for example, has been found to help employees reach physical activity guidelines.⁶⁰ Using public transportation also allows employees to include physical activity in their daily lives, instead of having to schedule workout times.

Incentives to Be More Physically Active at Home

Employers also have levers at their disposal to encourage employees to be physically active and less sedentary during their leisure time. They can do this by offering wellness-related incentives, such as a

59 Mutrie and others, “Walk In to Work Out,” 411.

60 Lachapelle and Frank, “Transit and Health,” S87.

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wellness subsidy, that can be used to buy sports equipment or a gym membership. If the organization offers flexible benefits, employees can then fund fitness counselling or activities that promote physical fitness, strength, mobility, and balance. Finally, employers can offer other wellness-related incentives, such as gift cards at sports stores, when employees participate in corporate wellness initiatives like completing a health risk assessment. This encourages employees to not only participate in wellness initiatives, but also to use their reward to become more physically active at home. (See “RBC” for an example of an organization that encourages employees to take accountability for their health.)

RBC: Connecting and Communicating a Healthy, Active Lifestyle

The Royal Bank of Canada (RBC) is one of the largest banks in the world, operating in more than 40 countries and employing approximately 79,000 full- and part-time employees.⁶¹ Approximately 60,000 of those employees work in over 1,000 locations across Canada, in both large urban centres and small rural communities.

With employees working in so many branches and offices all over Canada, RBC has developed a wellness communication strategy that involves both online and grassroots approaches to ensure all employees can participate in wellness initiatives and access helpful resources, regardless of where they are located.

By communicating the importance of healthy living in innovative and engaging ways, making a variety of wellness initiatives and resources available, and providing financial incentives to participate, RBC’s wellness program encourages employees across a wide range of demographics and geographies to act on their wellness goals.

61 Royal Bank of Canada, *Corporate Profile*.

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Connecting With Employees Online

RBC has created multiple online platforms to support and communicate the importance of a healthy active lifestyle to its employees. When RBC first launched its wellness program in 2006, it created an employee intranet site, called Living Well, where employees could access wellness tools and resources. Some of these include:

- An online health risk assessment tool available through a third-party provider, which is promoted annually, allowing employees to assess their individual health risks while also providing RBC with an aggregate health-risk profile and a measure of employee “readiness to change.” This information, along with health and disability claims, trends, and other relevant metrics, is used to identify areas of focus and direction for the wellness program.
- Online wellness campaigns and challenges throughout the year, where employees can track their healthy living behaviours, get expert advice, share tips, and engage in friendly competition with colleagues. For example, this past spring, RBC’s Go for Gold campaign encouraged regular physical activity in and outside the workplace for a chance to earn “gold medals.” Employees could earn medals by tracking their physical activity online (e.g., playing sports, attending fitness classes, taking a walking meeting or the stairs, performing physical work around the home), achieving personal goals for regular physical activity, and for posting tips and encouragement to the “communication wall.”
- Online access to informative articles, videos, podcasts, and more so employees and their families have 24/7 access to current expert advice on physical activity, nutrition, mental health, and other related topics.
- RBC uses Traditional communication methods such as email bulletins, intranet news articles, and messages from RBC leaders, which build awareness of these resources and encourage employees to take action. RBC also uses RBC Connect, a recently launched online collaboration tool with a social media feel, where employees can share tips and best practices, suggest and vote on ideas, obtain feedback, and generally collaborate much more efficiently on complex, interdependent, work-related activities across a virtual and adaptive network. There are many diverse topics covered within RBC Connect, with wellness-focused groups and discussions continuing to grow in popularity (jumping from a rank of 256 in 2013 to 130 in 2014, out of 3,635 RBC Connect “communities”). This online forum, which allows employees to “join” and “follow” both individuals

One way that RBC evaluates the effectiveness of its wellness strategy is by looking at participation rates of individual programs.

and communities, allows employees to get real-time wellness program updates, exchange fitness tips, or just connect with other RBC employees who are committed to healthy living.

Championing Wellness Locally

With employees located all over Canada, online approaches are necessary for RBC to communicate and deliver wellness initiatives. But recognizing that an on-site presence would contribute to RBC's workplace wellness culture, it launched a community of "Wellness Champions" to help spread the word. These RBC employees (currently numbering over 200) volunteer their time to promote wellness at the ground level of the organization and help spread the wellness message to other employees. RBC provides Wellness Champions with a tool kit ahead of campaigns or challenges, which includes key messaging, PDF posters for printing, a PowerPoint presentation to use at team meetings, and ideas for on-site events, among other resources. This makes it easy for them to pick up the torch and help spread the overall RBC wellness message to employees. In the recent Go for Gold physical activity campaign, Champions led teams within their workplaces in friendly competition against other locations. Online leader boards allowed them to track their results and see how their efforts were contributing to participation rates in different business platforms and geographies.

Incentives to Encourage Action

To encourage participation in its wellness initiatives and reward healthy behaviours, RBC provides "wellness credits" for employees participating in these programs. By completing the online health risk assessment and participating in wellness campaigns throughout the year, employees can earn up to \$140 in wellness credits annually. Credits are deposited into a personal wellness account, from which claims can be made for wellness-related expenses such as fitness equipment, gym memberships, weight-loss programs, counselling, and more. In addition to wellness credits, participants are also entered into draws for wellness-related prizes such as gift cards to local sporting goods retailers.

One way that RBC evaluates the effectiveness of its wellness strategy is by looking at participation rates of individual programs. This year, over 12,300 employees participated in the Go for Gold campaign and over 18,100 participated in the Eating Well at RBC nutrition campaign. This is more than triple the participation rate of the early years of RBC's wellness

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program. According to Julie Gaudry, Director, Benefits, Wellness and Financial Education, participation rates like this (roughly 20 to 30 per cent of its Canadian working population) can be attributed to the team's ongoing focus on innovative communications, providing incentives to nudge employees to take action, and working with key stakeholders across the organization who recognize the connection between healthy, happy employees and an engaged, productive workforce.

For companies just starting to put together their wellness program and strategy, Julie Gaudry recommends that companies do a pulse check of what's currently going on within the organization (i.e., overall health status of their employees, current wellness resources available, and identified wellness supporters throughout the organization). By leveraging a variety of communication and engagement strategies and tying wellness into the brand of the organization through its vision and values, a wellness strategy will resonate with leaders, managers, and supervisors, as well as gain grassroots support and enthusiasm from employees.

Source: Julie Gaudry (Director, Benefits, Wellness and Financial Education, RBC), phone interview by Louise Chénier and Charles Boyer, August 7, 2014.

Programs for High-Risk Employees

Initiatives can be targeted to effect change in high-risk employees. Although targeted initiatives are usually more expensive, this tailored approach is most effective in promoting behavioural change in individuals. (See Table 1.)

Targeted Initiatives to Raise Awareness or Educate

Employees who live with chronic illnesses can benefit from receiving targeted information on how to manage their conditions, including how physical activity can help them promote and maintain their health. For example, an employee living with arthritis may benefit from understanding how low-intensity flexibility, stretching, and toning exercises can help them maintain their range of motion. By identifying the predominant chronic conditions in its workforce, an organization can tailor specialized information sessions to help high-risk employees regain

or maintain their health. For organizations with limited resources, many non-governmental organizations, such as the Arthritis Society or the Heart and Stroke Foundation, offer the services of an expert who can visit a workplace to provide these educational sessions.

Table 1

Effect of Individual Health Counselling on Physical Activity Levels of Employees

Characteristics	With Counselling			Without Counselling		
	n	Before intervention	After intervention	n	Before intervention	After intervention
Physically active* (per cent)	76	42.1	48.7	116	36.2	30.2
PACE score of physical activity **	73	5.2	5.6	117	4.9	4.9
Energy expenditure (kcal/day)	69	1155.3	1219.5	111	1178.8	1049.6

*performing 30 minutes or more of moderate-intensity physical activity for 5 days a week or more

**index score ranged from 1 to 8; the higher the score, the more physically active

Source: Proper and others, "Effect of Individual Counselling."

Health Coaching or Counselling

Once employees have participated in a health risk assessment or biometric screening clinic, high-risk employees can be identified by the third-party provider and directed to specialized, individual health coaching or counselling. A health coach helps the employee determine an action plan to increase their fitness and, in particular, their physical activity levels. Then, through regular follow-up sessions (by telephone, person-to-person, or online), employees are accountable to follow through with their action plans. Action plans can also be facilitated by an on-site wellness leader, or employees can access a telephone nurse

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line. Several studies have demonstrated that this type of high-touch initiative is very effective at promoting physical activity and other lifestyle behavioural changes in employees.^{62,63,64,65}

Targeted Activity Sessions Led by an Instructor

If a specific chronic condition that can be better managed with physical activity is predominant in an organization, it may be beneficial to hold activity sessions targeted to these employees' special needs. For example, if a significant proportion of an organization's workforce is dealing with chronic pain, it may be beneficial to institute a regular yoga session targeted specifically to help employees manage this condition. These targeted sessions, however, should be led by a qualified professional who is aware of the special requirements of the particular chronic condition so employees are not injured while trying to increase their physical activity and manage their medical condition.

As well, some business units in an organization may face unique challenges and pressures that make them more vulnerable to physical inactivity and sedentary behaviour. For example, office workers are much more likely to be sedentary than field workers. Special targeted initiatives, such as exercise regimens before or after shifts, could be implemented for those business units. Since no particular medical condition is present in this instance, a trained employee volunteer could lead these sessions. However, it is important to remember that every employee is different and is at a different level of physical fitness. Any activity session should be tailored with this in mind. (See "Promoting Physical Activity" for an example of an organization that has developed targeted activity sessions.)

62 Proper and others, "Effect of Individual Counseling."

63 Aittasalo, Miilunpalo, and Suni, "The Effectiveness of Physical Activity Counselling," 199–201.

64 Østerås and Hammer, "The Effectiveness of a Pragmatic Workplace Physical Activity Program," 55–57.

65 Dugdill and others, "Workplace Physical Activity Interventions," 9–10.

Promoting Physical Activity in a Global Context: CGI's Approach

Founded in Canada in 1976 by Serge Godin and André Imbeau, two Quebec entrepreneurs, CGI quickly became one of the leading global information technology and business process services firms, with over 68,000 employees in 40 countries.^{66,67}

For CGI, the health and wellness of its professionals are of paramount importance. The company believes strongly that these elements are crucial to its success. This is why CGI has implemented Oxygen—its in-house health and wellness program—throughout Canada and across the globe. The Oxygen program is backed by a multidisciplinary team specializing in health and wellness workplace management. Oxygen's key goals are to promote healthy lifestyle habits and support professionals who wish to adopt or maintain healthy behaviors.

Like most IT professionals, CGI professionals mainly work in front of a computer, which makes promoting physical activity and reducing sedentary behaviour in the workplace a challenge for CGI health experts. So how does Oxygen work to promote physical activity and reduce sedentary behaviour in the workplace? Since sedentary behaviour is such a significant risk factor in the industry, Oxygen makes physical activity an important aspect of its approach.

The Oxygen program offers and administers a wide range of services and activities for promoting physical and mental health, such as the following:

- **Oxygen Portal:** This interactive health portal ensures that employees can take accountability for their health. It provides many resources and varied health information. This allows employees to discover and use local health services and gives them concrete ways to improve their health and wellness. Currently, 40,651 professionals are registered for the Oxygen Portal.
- **Walk Around the World:** For this global event, thousands of CGI professionals join together for a collective walk as a way to show their commitment—and CGI's commitment—to health and wellness. Over 20,000 professionals took part in this event in 2014.

66 CGI, *CGI in Canada*.

67 CGI, *CGI History*.

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Data from the Health Click questionnaire are analyzed by region to develop targeted health initiatives.

- **One Destination:** This initiative supports professionals throughout their health journey by giving them the tools they need to achieve their health objectives. By taking part in program activities, CGI professionals can collectively accumulate health points in a global bank. In return for these points, health challenges are tackled with Oxygen's support.
- **Health Click:** This interactive 15-minute health questionnaire provides each professional with a personalized and confidential health assessment that highlights areas of strength and health risk factors, and provides suggestions and tools for making positive change. In 2014, 21,764 professionals completed the Health Click questionnaire.

Anonymous data from the Health Click questionnaire are used to evaluate the overall health of CGI's employee population and identify the strategic priorities of the health and wellness team. Furthermore, this information is analyzed by region to develop targeted health initiatives.

The initiatives for most regions vary and have their own local flavour. In some countries, health experts will organize races and marathons; in others, they will organize team charity walks or subsidize gym memberships. To encourage participation in these events, each region tailors initiatives to their employee population and offers a variety of choices.

According to CGI health and wellness manager Valérie Langevin, it is better to offer fewer, higher-quality initiatives than an array of programs that are never evaluated for their effectiveness.

In Canada, where CGI has been operating the longest, professionals can receive personalized assistance. Ten kinesiologists are in place nationwide to help professionals lead healthier, more active lives. The kinesiologists offer health-coaching services and develop individual health plans in cooperation with their in-house clients.

The team has evaluated the health risk assessment results of professionals who have used the service for several years in a row. This year, 6.9 per cent of those professionals had improved their overall health score—including their physical activity level—compared with the previous year.

Constant communication of the program is also essential. And for a global organization, this communication must be done globally as well as locally. The health experts strive to convey the same message: "No matter an employee's

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current level of physical activity, he or she can take little steps to be more active and get healthier as a result.” Although the message is global, the communications team works constantly with local teams to create targeted wellness messages that will resonate with local professionals.

In the near future, Oxygen is looking to build on its success and ensure that its initiatives have an even greater impact on their professional population by focusing on its local presence. So far, health experts—all of whom have been provided with a specific budget—are present in the following countries: Canada, the U.S., the U.K., India, and France. The Oxygen leadership team has developed global guidelines in order to structure operations, facilitate program implementation, and achieve program goals.

Oxygen’s overarching vision is to engage employees across different cultures in managing their own health, while building a company-wide culture of health, enhancing productivity, and strengthening CGI’s global brand.

Source: Valérie Langevin (Manager, Health and Wellness, CGI Group Inc.), phone interview by Louise Chénier, June 2, 2014.

Barriers in the Workplace

How can employers put a physical activity initiative into practice? How can they help reduce sitting time and sedentary behaviour? There are many challenges to promoting physical activity and reducing sedentary behaviour in the workplace. These can be divided into two broad categories: individual and logistic challenges.⁶⁸

Individual Challenges

Individual challenges refer to barriers that are innate to the person or arise from his or her relationship with others. They may include:

- lack of motivation, competence, or self-efficacy;
- physical limitations;

68 Exercise and Sports Science Australia, *Physical Activity in the Workplace*, 10.

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- perception that exercise or behaviour undertaken to become less sedentary is inappropriate (e.g., due to age, organizational norms);
- unsupportive family members or friends;
- unsupportive colleagues or managers.

Employers can assist employees overcome individual challenges by offering health coaching, individual counselling, or group counselling. They can also address interpersonal barriers that arise from the workplace itself (e.g., unsupportive management and team) and ensure that the organization's culture is supportive of physical activity. This starts with senior management's visible commitment to the health and wellness of employees.

Logistic Challenges

Logistic challenges arise from participating in the actual physical activity itself or adopting a less sedentary working style. They may include:

- the lack of opportunity (e.g., lack of workplace resources or infrastructure to participate while working);
- the cost of the activity (e.g., membership fee to a fitness centre);
- the cost of equipment in the workplace (e.g., sit-stand desks, foot pedals, cycling workstations);
- the time commitment to participate;
- inadequate infrastructure (e.g., unsafe area to walk, inadequate lighting, no bicycle paths, meeting spaces and offices not set up for standing).

Employers can help employees overcome these challenges. For example, the organization can subsidize part or all of the cost of an activity or provide fitness facilities or classes in the workplace. They can also provide flexible work arrangements to allow employees to balance their work and family commitments, which can help them find the time to participate in physical activity. Employers can also analyze their employees' work space and design to ensure that they are not spending too much time in sedentary behaviour. Does their work involve sitting in front of a computer or at a phone for extended periods of time? Should

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equipment be supplied to increase their movement at work? Is there enough space in their work area for them to stand up and stretch? Is the organizational culture supportive of physical activity or activities that reduce sedentary behaviour at work?

However, just as inadequate infrastructure can inhibit physical activity and encourage sedentary behaviour, enhancements to the built environment—even aesthetic ones—can influence employees to change their behaviours. This can include ensuring that pathways around the building are groomed or that shower facilities are available for employees who commute actively to work. However, subtle enhancements can also lead to a great impact. Research has demonstrated that stair use, for example, can be increased significantly when motivational signs are displayed and music is played in the stairwells.⁶⁹

Supporting Behaviour Change

For any workplace physical activity program to be successful, inactive employees must decide to change their behaviours. They must choose to reduce their sedentary time and increase their activity levels. Although this is an individual choice, employers cannot expect their employees to make rational choices in an environment that does not support the right decision.⁷⁰ As such, employers can help, or “nudge,” employees to make this conscious change.

Several elements are needed to ensure that employees are ready to make this change. Employees must understand the importance of becoming more physically active and the health benefits that can result. They must also feel confident that they are competent to make this change. Finally, they must have the opportunity to participate in activities to change their lifestyle behaviours.

69 Kahn-Marshall and Gallant, “Making Healthy Behaviors the Easy Choice,” 767–68.

70 Spence and Dinh, *Moving Ahead: Taking Steps*.

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Not all employees are ready to change. Several models and frameworks have been created to try to explain why some individuals change their behaviours while others do not, and how the behaviour change can be encouraged. In the second briefing in this series, *Moving Ahead: Taking Steps to Reduce Physical Inactivity and Sedentary Behaviour*, we described an intervention framework (The Behaviour Change Wheel) that can be used to identify the factors that influence behaviour. In the following section, a model based on the stages of change will be used to provide a stepped approach that can be implemented in the workplace to encourage healthy behaviour change.

According to the transtheoretical model, behaviour change occurs through a series of stages. As shown in Exhibit 1, these stages of change include:

- precontemplation (i.e., the inactive person is not thinking about becoming more active);
- contemplation (i.e., the inactive person is thinking of increasing his or her activity level);
- preparation (i.e., the inactive person is doing some physical activity);
- action (i.e., the person is doing enough physical activity);
- maintenance (i.e., the person is making physical activity a habit).⁷¹

However, the behaviour change process is not linear. An individual who is maintaining a new behaviour can, for a variety of reasons, relapse. Employers can put in place a specific strategy to help employees move forward along the change continuum and maintain their new behaviour.

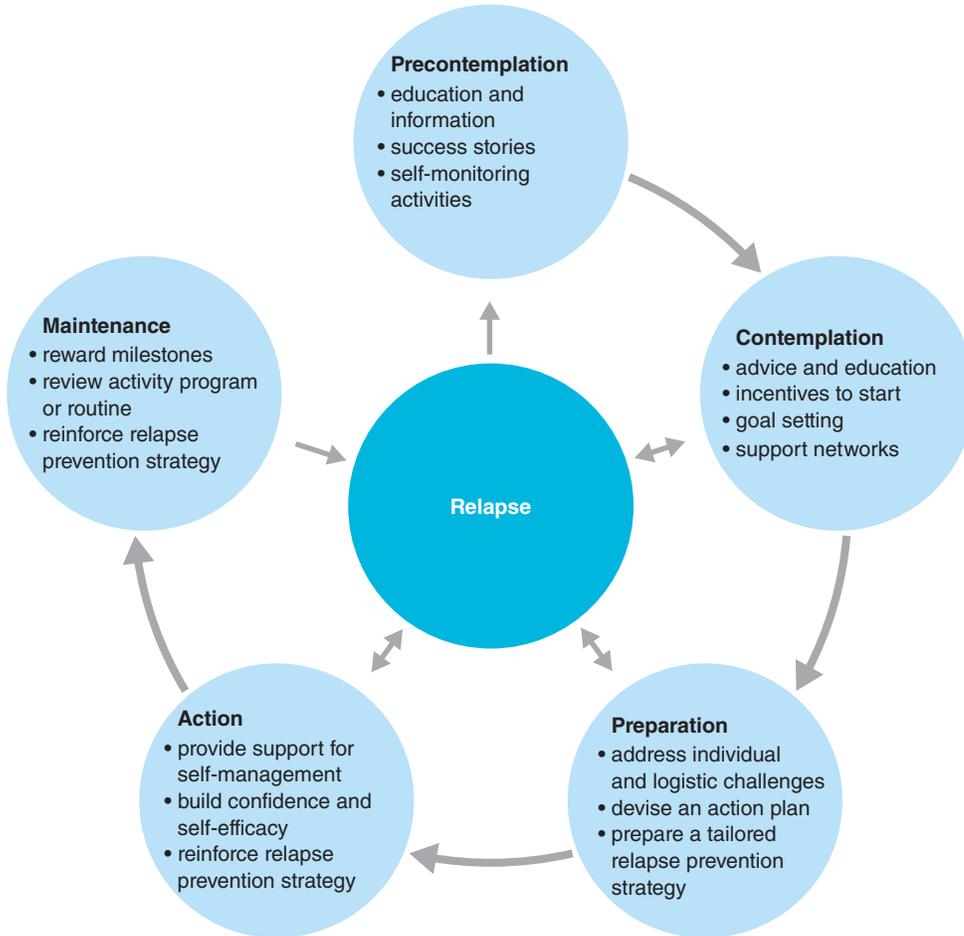
Precontemplation Stage

Inactive employees in the precontemplation stage are not planning to become more physically active in the near future. Often, these individuals are not aware of their own risk factors or the benefit of increasing their physical activity levels. Education and awareness-raising are essential to promote behaviour change. This can include offering

71 Cancer Prevention Research Center, *Detailed Overview*.

Exhibit 1

Strategies to Encourage Behaviour Change



Sources: The Conference Board of Canada; Exercise and Sports Science Australia.

health risk assessments and biometric screening clinics. Information pamphlets or seminars on physical activity and the negative impact of sedentary behaviour can also be effective. In order to build the employee's confidence so they can successfully improve their health, an employer can also provide success stories of employees who have begun to increase their physical activity, the steps they took, and the benefits they received from this behaviour change. Finally, to increase

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the employee's awareness of her or his sedentary lifestyle, employers can also promote self-monitoring of activity levels—for example, by providing pedometers.

Contemplation Stage

Employees enter the contemplation stage when they have a desire to change. During this stage, they evaluate the pros and cons of changing their behaviour by identifying the individual and logistic challenges that may prevent them from pursuing more physical activity. Ambivalence is the enemy and can prevent many employees from advancing to the next stage. Employers can support employees in this stage by providing advice and education to help in the evaluation. They can provide a health coach who will help employees set achievable goals and build confidence in their ability to do so. This can also be done by implementing a peer support group in the workplace.

Preparation Stage

When employees decide that the pros of becoming more physically active outweigh the cons and they intend to take action in the near future, they enter the preparation stage. Many individuals in this stage have attempted to become more physically active in the past but have been unsuccessful. Therefore, they are not confident that they can actually change their behaviour. During this stage, a health coach can help the employee identify and address all potential barriers to success. Together, they can develop an action plan that the employee can follow to become more active. This action plan should include strategies to use in case of relapse—what the employee can do to address the situation if, for any reason, he or she has been inactive for an extended period of time.

Action Stage

Employees who have been physically active at the recommended level for less than six months are in the action stage.⁷² The goal during this stage is to make physical activity a consistent, routine part of the individual's life. Employers can provide resources that can help employees self-manage their activity levels. However, there is a risk of relapse. Therefore, the health coach or wellness professional can also assist employees refine a relapse-prevention strategy. Employees can identify and list the things that help maintain their behaviour change and the elements that are likely to trigger a relapse. For example, while subsidies can encourage employees to go to the gym, the onset of winter weather can prevent them from walking outside. The health professional can work with the employee to develop a preventative action plan for each challenge, which includes alternative activity options. Finally, the health professional can reassure employees that lapses are normal and that they should not get discouraged, and can help the employee overcome unhelpful thoughts or values (e.g., the idea that behaviour change is "all or nothing") while providing positive reinforcement.

Maintenance Stage

Individuals who have followed the recommended guidelines for physical activity for more than six months are at the maintenance stage of the behaviour change continuum. Physical activity is now a routine part of these employees' daily activities. Yet, there is still a risk of relapse. Therefore, employers can assist employees maintain their new healthy behaviours by highlighting the benefits that the employee has already received from increasing activity levels. The wellness leader can also ensure that the activity programs or routines that were developed for the employees through individual action plans are still adequate for their needs. Finally, as during the action stage, the wellness professional can reinforce the relapse-prevention strategies to help employees maintain their physical activity levels.

72 Exercise and Sports Science Australia, *Physical Activity in the Workplace*, 14.

Final Thoughts

Each workplace is different, with its own unique organizational culture. Therefore, to ensure success, initiatives that promote physical activity or reduce sedentary behaviour must be tailored to each unique corporate environment.

As with any other organizational initiative, a program that focuses on physical activity and sedentary behaviour will only be successful if senior leaders show their commitment for the initiatives and provide their consistent support. This includes their participation in the initiatives, their financial support for the program, and their support of employees who participate in initiatives.

Different initiatives should also be offered to fulfill the varied needs of a diverse workforce. Not all employees want to participate in the same physical activity. They will not participate in initiatives they do not consider fun, challenging, or important to their own well-being. They will also not participate in initiatives if they believe that they are not capable of doing so, either because of a lack of physical ability or fitness level. Their participation, however, can be encouraged in a variety of ways (e.g., financial or wellness-related initiatives, competitive team challenges). This is important since the program will not have the desired outcomes without their active participation. Finally, the program should also be evaluated regularly to ensure that it still meets the needs of individual employees and the organization.

Physical inactivity and sedentary behaviour are costly to individuals, employers, and society. Instituting initiatives to address physical inactivity and sedentary behaviour in the workplace are necessary, but not sufficient for employers to effect change. Without a workplace culture that supports active behaviours, efforts to promote physical activity and reduce sedentary behaviour will fail. Yet, the payoff for these efforts is significant if employers and employees can collaborate to create a more physically active work environment.

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The next set of briefings in this series will examine multi-setting interventions to reduce physical inactivity and sedentary behaviour, including in schools, communities, and within the primary health care delivery system.

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Dr. Ian Janssen, CRC Chair in Physical Activity and Obesity, Queen's University

Ciara Shattuck, Healthy Workplace Consultant, Healthy Living and Healthy Populations Branch, Manitoba Health, Healthy Living and Seniors

Dennita Fitzpatrick, Director, Health & Extended Benefits, Workers' Compensation Board of Nova Scotia

Peter Gove, Innovation Leader, Health Management, Green Shield Canada

Eric Pfeiffer, Senior Consultant, Health and Wellness, Standard Life

Alain Sauvé, Health and Wellness Coordinator, Standard Life

Jen Huebner, Health and Productivity Coordinator, Chevron Canada

Marco Iafrate, Health and Wellness Consultant, Chevron Canada

Julie Gaudry, Director, Benefits, Wellness and Financial Education, RBC

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APPENDIX A

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Louise Chénier

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The Conference Board
of Canada

255 Smyth Road, Ottawa ON

K1H 8M7 Canada

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Fax 613-526-4857

Inquiries 1-866-711-2262

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