

A Qualitative Examination of Comprehensive Workplace Health Promotion Strategies in
Some Workplaces in the Districts of Simcoe and Muskoka

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Abstract

The Ontario Public Health Standards [OPHS] (Ministry of Health and Long-term Care [MHLTC], 2008) recommend a population health promotion approach and evidence-based best practice for local boards of health to address lifestyle behaviours of employees in workplaces. To address chronic diseases in the workplace setting, the OPHS recommends a comprehensive health promotion approach including the Ottawa Charter for Health Promotion (World Health Organization, 1986) strategies of developing personal skills, creating supportive environments, building healthy public policy, and strengthening community action.

Based on the OPHS requirements and the Ottawa Charter for Health Promotion strategies, the Simcoe Muskoka District Health Unit [SMDHU] developed the Healthy Steps at Work [HSAW] toolkit. This electronic resource has downloadable components for workplaces to implement all the strategies of a Comprehensive Workplace Health Promotion [CWHP] program and for employees to improve their physical activity, healthy eating, and sun safety behaviours with a goal of reducing their risk of chronic disease development.

The purpose of this study was to provide more insight into the recommended strategies of CWHP and identify supports and barriers for workplaces to implement CWHP strategies for physical activity and healthy eating, as outlined in the HSAW toolkit. Twelve key informants, which included a manager and a HSAW coordinator from each of the six pilot sites in the districts of Simcoe and Muskoka that participated in the project over a one year period provided information in semi-structured interviews.

The results of the interviews offered some insights into the intricate, dynamic and interrelated issues and successes of CWHP programming. In general, respondents revealed that the management and employees in their organizations were receptive to some of the components in the toolkit but did not view all of the strategies of CWHP as a priority. Four key environmental supports for CWHP were identified: organizational commitment, wellness committees, organizational culture, and physical environment supports. The pilot sites appeared to gravitate toward the more basic skill building components in the HSAW toolkit and were hesitant to delve into the arena of policy development, community action, and program planning and evaluation, due to lack of knowledge and capacity.

The results of this study revealed that more ongoing education is needed, as well as dissemination of examples and resources of best practices to instill more confidence and acceptance of the concept of CWHP in such workplaces. In order to make CWHP more of a priority, it may be helpful if government offers incentives, such as tax breaks, or create macro-level strategies.

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Chapter One - Introduction

1.1 Statement of Problem

As most adults spend a good part of their waking hours at work (Engbers, vanPoppel, Paw, Marijke, & van Mechelen, 2005; Public Health Agency of Canada [PHAC], 1994) and given the importance of physical activity and healthy eating in the prevention of obesity and of many chronic diseases, it is important to understand how these behaviours can be addressed in the workplace setting (Butler-Jones, 2008; Chronic Disease Prevention Alliance of Canada [CDPAC], 2008; Ministry of Health and Long-Term Care [MHLTC], 2004). The Ontario Public Health Standards [OPHS] (MOHLTC, 2008) recommend a population health promotion approach and evidence-based best practice for local boards of health to address lifestyle behaviours of employees in workplaces. To address chronic diseases in the workplace setting, the OPHS recommends a comprehensive health promotion approach including the Ottawa Charter for Health Promotion (World Health Organization [WHO], 1986) strategies of *developing personal skills, creating supportive environments, building healthy public policy, and strengthening community action*. However, there is some controversy in the literature about the effectiveness of the Comprehensive Workplace Health Promotion [CWHP] approach in addressing lifestyle behaviours due to minimal evidence-based research with inconsistent findings (Heaney & Goetzel, 1997; McLeroy et al., 1988; Plotnikoff et al., 2005; Yassi, 2005).

Several researchers (Engbers et al., 2005; Green, Richard, & Potvin, 1996; McLeroy et al., 1988; Sallis & Owen, 1997; Simpson, Oldenburg, Owen, Harris, Dobbins, Math et al., 2000; Stokols, 1996) have noted that the reason there is minimal

research for CWHP approach is because of the dynamic environmental variables (e.g. policies, management support and organizational culture) with wide-ranging effects in the workplace setting. In conducting a literature review of 13 studies, Engbers et al. (2005) found that there were very few methodologically sound randomized control trials due to high cost, and most were not valuable in addressing the complex environmental interventions. With the lack of evidence and mixed consensus about the efficacy of CWHP, policy makers (Sallis & Owen, 1997) and workplaces might question this approach. There is critical need for more research for CWHP, especially for the strategies of creating supportive environments, building healthy public policy, and strengthening community action to shape future programs.

1.2 Background of Healthy Steps at Work

Based on the requirements by the MOHLTC for local boards of health to address chronic diseases in the workplace setting through the best practice of CWHP, the Simcoe Muskoka District Health Unit [SMDHU] identified unhealthy eating and physical inactivity in the workplace environment as priority areas to be addressed in the document Simcoe County Healthy Living Strategy: A Call to Action; Building a Lifetime of Good Health Begins Now (SMDHU, 2004). This document is based on several multi-faceted healthy weight and chronic disease prevention strategies from various public health organizations (CDPAC, 2008; IHLN, 2005; MHLTC, 2004; PHAC, 2005), requirements in the Mandatory Health Programs and Services Guidelines (MHLTC, 1997) and needs identified in the community. The needs of the community were determined by local surveillance information gathered by the SMDHU. Some of the local results were: 56% of adults over the age of 18 in Simcoe and Muskoka are overweight or obese (Statistics

Canada, 2005); 41% of residents 18 years and older in Simcoe and Muskoka are physically inactive (Statistics Canada, 2005); 53% of people 12 years and older in Simcoe and Muskoka consume less than 5 to 10 servings of fruits and vegetables daily (Statistics Canada, 2005); adults 18 years and older in Simcoe eat in restaurants on average twice per week (SMDHU, 2004); further, the majority (60%) of the population in Simcoe and Muskoka is in the 20 to 64 age range in which preventable chronic diseases are the primary cause of death (Statistics Canada, 2005).

Based on the limited best-practices literature available for workplace wellness programs, the SMDHU developed a CWHP program during the time frame of 2004-2006. In 2007, the SMDHU expanded the program, collaborating with seven community partners and used funding from the Public Health Agency of Canada's Diabetes Strategy to develop the Healthy Steps at Work [HSAW] toolkit. This on-line toolkit was designed as a resource for workplaces to create healthier work environments and for employees to improve their physical activity, healthy eating, and sun safety behaviours, thus reducing their risk of chronic diseases.

The HSAW toolkit is designed to be a user-friendly resource with downloadable components for workplaces to implement a CWHP program. It is based on the Ottawa Charter for Health Promotion (WHO, 1986) strategies with the topic areas divided into four sections:

1. Be aware – Education and *skill building* resources which instruct employers and employees how to integrate healthy eating and physical activity into everyday life for health benefits.

2. Make it easy – *skill building* resources and activities and *environmental support* information to help make healthy eating and physical activity easy, fun and accessible.
3. Be involved – *environmental support* information about how to develop and sustain a wellness program in the workplace. *Strengthen community action* resources and links to community activities or events are included in this section.
4. Speak out – *policy development* resources and information on how a workplace can support healthy eating and physical activity through sustainable policies. It includes examples of how to *strengthen community action* by supporting local community groups in making healthy eating and physical activity more accessible and affordable.

The HSAW advisory committee was established with members from the community who were knowledgeable about local workplaces in the geographic areas of Muskoka, Orillia, Midland, Collingwood, Barrie and South Simcoe, and who had a good understanding of the variety of workplaces needed for the pilot project. Advisory members strategically distributed invitation letters and applications for the pilot project to workplaces based on the following criteria:

1. Geographic representation.
2. Size of workplaces (from small to large: small being defined as less than 25 employees, medium between 25 and 100, and large greater than 100 employees).
3. Level of workplace wellness activities (ranging from no activities to active wellness committees).

4. Diversity of sectors (profit and not-for-profit, union and non-union, white collar and blue collar).
5. Number of offices (workplaces with location or satellite sites).

All applicants completed an SMDHU Environmental Scan (Appendix A) with questions based on the above criteria, to assist the HSAW advisory committee in selecting a variety of workplaces for the project. The HSAW advisory committee reviewed 11 applications and selected ten diverse pilot sites which included: a retirement home with 24 employees, two municipal government offices with 350 and 300 employees, a health care facility with 2,100 employees, a community health care provider with 60 employees, a recreation facility with 83 employees, two small manufacturing companies both with 90 employees, an academic facility with 1,500 employees, and a municipal library with 25 employees.

Each pilot site received a grant of \$250 and promotional items such as pens, cookbooks, pedometers and lunch bags. They all agreed to participate in the pilot project for one year (January 2008 to January 2009), attend a workshop to network with other pilot sites and learn more about the draft on-line toolkit (January 2008), participate in two teleconferences (February and March 2008), implement one or more of the activities suggested in the draft toolkit in their worksite (January to March 2008), track use of the draft toolkit (January to December 2008), and provide feedback after one year for the final evaluation through a key respondent interview and post-program survey (January 2009).

The data collection strategies for the HSAW evaluation conducted by the SMDHU included:

1. Pre- and post- program survey.

A pre- and post-program survey with a purposeful sample of HSAW coordinators, managers or key employees well versed with the HSAW program was conducted. The pre-program surveys (Appendix B) were completed in-person by key respondents from the ten pilot sites who attended the HSAW workshop, January 2008 at the beginning of the pilot project. The post program survey (Appendix C) was completed by the same participants, or someone in a similar position in the workplace, at the end of the project through a link to the survey website sent via email (SMDHU, 2010). Based on a five point Likert type scale, the purpose of comparing the pre- program survey and the post-program survey results was to determine if the toolkit resulted in an increase in the level of programming for each of the CWHP strategies.

2. Key respondent interviews of workplace project coordinators.

Participants in the key respondent interviews received an introductory letter and consent form (Appendix D) and the questions (Appendix E) before the interviews. The telephone interviews were conducted by health unit staff during the month of January 2009. Information from these interviews assisted the SMDHU in determining the usefulness and effectiveness of the toolkit and what revisions were necessary.

3. Tracking of HSAW activities.

Tracking forms (Appendix F) of resources used and activities implemented from the HSAW toolkit were completed by key respondents within the pilot sites. Information from the tracking forms assisted the SMDHU in determining specifically what resources the pilot sites used and how they were used, what worked and what did not work, as well as the number of employees reached.

Results of SMDHU evaluation

The SMDHU Evaluation Report (2010) indicated that the pilot site participants found the HSAW toolkit to be user-friendly and readily utilized the activities and resources in the skill building and environmental support sections. The pre- and post-program survey indicated there was an overall improvement amongst all the workplaces during the pilot project, in the provision of activities and supports for healthy eating and physical activity. Furthermore some workplaces used the resources from the policy development section of the toolkit for developing policies or for strengthening an existing policy. The report results suggested that these particular workplaces were probably farther along than others with workplace wellness programming which enhanced their ability to progress to this level. This finding substantiates other research indicating that policy development is a longer process that involves input from all levels of an organization including management.

For 'strengthen community action', the SMDHU Evaluation Report (2010) indicated that there was an increase in community-related activities from the pre-program to the post-program survey responses but that there was minimal mention of community activities during the key respondent interviews. Due to this disparity, the evaluation report identified a need for further context and clarity of what strengthening community action means, and specific questions related to this. The report concluded that the workplaces may not have been at this stage of change or readiness to look beyond their own setting for community level health promotion. In addition, in a few of the workplaces due to staff changes different people were involved in answering questions in the pre- and post-program surveys which may have impacted the results.

The SMDHU Evaluation Report (2010) concluded that generally workplaces start with the easier activities of CWHP as they raise awareness and promote skill building, then build momentum and support for higher level policy development. It also pointed out that even though the pilot workplaces were aware of the CWHP information as received during the training workshop, they leaned towards activities and resources related to the skill building sections of the toolkit. The report indicated that because of the short duration of the pilot project, the pilot sites may not have been at a stage in their workplace wellness programming to use the more complex health promotion components in the resource. Moreover, they may have needed more resources and support to develop policies and ensure comprehensiveness. The report acknowledged the need for future research regarding the feasibility of workplaces to implement a comprehensive model for workplace health promotion initiatives, including policies.

1.3 Purpose of Present Study

To provide more insight into the recommended strategies of CWHP, the purpose of this qualitative study was to further expand on the qualitative aspect of the SMDHU evaluation. Evidence-based research was utilized in the development of questions for the semi-structured key informant interviews to assess the CWHP strategies. Six of the original ten pilot sites agreed to participate in the research by allowing a manager and HSAW coordinator to partake in individual key respondent interviews. The 12 respondents provided a wealth of information about the supports and barriers to implementing a CWHP program in their workplaces.

1.4 Project Objectives

The study objectives were:

1. To identify which CWHP strategies were used by workplaces piloting the HSAW toolkit and determine how they were received by employees.
2. To discover what the supports and barriers were for implementing the CWHP strategies.

1.5 Benefits of the Study

It is anticipated that this qualitative study will contribute to the critically needed evidence-based research necessary for policy makers and the workplace sector to continue to support CWHP as part of the multi-faceted chronic disease prevention strategies. Findings and recommendations from this study will be shared with workplaces involved in the pilot project to assist them in improving and or sustaining their CWHP programs. As a result of the pilot project, the pilot sites may create sustainable healthier work environments that encourage employees to eat healthier and be more physically active, thus reducing their risk of developing chronic diseases.

Chapter Two - Literature Review

2.1 Background of Health Promotion

Building on the foundation of Bronfenbrenner's (1977) ecological systems theory there has been tremendous growth in health promotion approaches over the last few decades (Stokols, 1996). The ecological theory outlines how healthy behaviours are influenced by intrapersonal, social, cultural, and physical environment variables and how these variables interact at various levels and settings (Green et al., 1996; McLeroy et al., 1988; Sallis & Owen, 1997; Stokols, 1996). The ecological perspective is a complex "web of life" (Green et al., 1996) or "web of causation" (Sallis & Owen, 1997) involving interrelationships between the individual and subsystems including family, community, culture, physical and social environment that lead to healthy or unhealthy behaviours (Green et al., 1996; Sallis & Owen, 1997). Based on the ecological perspective, several researchers (Harris, Vita, Oldenburg, & Owen, 1999; Green et al., 1996; McLeroy et al., 1988; Oldenburg, Sallis, Harris, & Owen, 2002; Simpson et al., 2000) believed that health promotion can achieve its best results by focusing attention on the environmental causes of behaviour and identifying environmental interventions.

Expanding on the ecological perspective, health promotion has evolved over the years. The federal government's White Paper, *A New Perspective on the Health of Canadians* (Lalonde, 1974) was the first document to clearly identify the concepts of health promotion consistent with ecological perspectives (Sallis & Owen, 1997). The authors suggested a more socially contextualized definition of health that places less emphasis on individual health care and more on creating healthier environments (McMurray, 2007; Sallis & Owen, 1997). Based on this report, a number of health

promotion programs were designed in the 1970s to help people adopt healthy lifestyles rather than focusing only on health services (McMurray, 2007; PHAC, 1996a). These programs were primarily preventive in nature with strategies including health education, public awareness campaigns and legislative changes to reduce health-related risk behaviours (PHAC, 1996a).

During the late 1970s and early 1980s, the determinants of health including social, physical, environmental and political factors (McLeroy et al., 1988; McMurray, 2007) were further defined and summarized in the Alma Ata Declaration (World Health Organization [WHO], 1978) and the Achieving Health for All (WHO, 1977). This culminated in 1986, when Canada hosted the First International Conference on Health Promotion with the introduction of The Ottawa Charter for Health Promotion (WHO, 1986) and Achieving Health for All: A Framework for Health Promotion (Epp, 1986). These documents focused on the underlying conditions within society such as: income level, education, and the physical environment where one lives and works as important influences on health (PHAC, 2008; PHAC, 1996a, Sallis & Owen, 1997). Researchers (Green et al., 1996, Intersectoral Healthy Living Network [IHLN], 2005) also identified intersectoral collaboration as another important component of health promotion. Involving various sectors in health promotion enables best practices to be shared, allows for knowledge exchange, ensures consistent messaging across sectors and populations, assists community capacity in promoting and supporting healthy living, may counter the rising rates of chronic disease, overweight and obesity; and reduces health disparities (IHLN, 2005).

The Ottawa Charter for Health Promotion (WHO, 1986) is a comprehensive socio-ecological approach of health promotion (McMurray, 2007; Plotnikoff et al., 2005). It uses broad socio-political strategies, such as public policy, behavioural change (PHAC, 1996b) and coordinated action among stakeholders, including governments, non-governmental organizations, industry and the media (PHAC, 1996a). The five action areas for health promotion practice are to:

1. *Develop personal skills* – through health literacy, people will have the knowledge and skills (PHAC, 1996a) to potentially exercise more control over their own health (WHO, 1986). These skills need to be facilitated in various settings such as the workplace and community.
2. *Create supportive environments* – with the rapidly changing nature of society (PHAC, 1996a), such as sedentary behaviour as a result of the advances in technology, organization of work, commuting and leisure time, the environment clearly has an impact on health (WHO, 1986). With the link between people's health and environment (physical, social, economic, cultural, and spiritual) (PHAC, 1996a), a socio-ecological approach to health promotion can stimulate healthier living and working conditions (WHO 1986).
3. *Build healthy public policy* – ensure that health-promoting conditions are on the agenda (PHAC, 1996a) of policy makers in all sectors and at all levels through comprehensive approaches including legislation, fiscal measures, taxation and organizational change (WHO, 1986).
4. *Strengthen community actions* – communities have the capacity to influence health through resources that enhance self-help and social support (WHO, 1986). Through

public participation in health matters, communities can set priorities and make decisions on issues that affect their health (PHAC, 1996a).

5. *Reorient health services* - create systems (PHAC, 1996a) that move beyond traditional health care and encompass the broader social, political, economic and physical environmental components of health (WHO, 1986) and invite a true partnership among the providers and users of the services (PHAC, 1996a). This strategy also includes the need for research and dissemination of knowledge from the multiple perspectives involved in the socio-economic determinants of health (McMurray, 2007).

The Jakarta Declaration on Leading Health Promotion into the 21st Century (WHO, 1998a) and several researchers (Green et al., 1996, McLeroy et al., 1988; Plotnikoff et al., 2005; Sallis & Owen, 1997; Stokols, 1996) reaffirmed that the five multi-level socio-ecological strategies outlined in the Ottawa Charter for Health Promotion (WHO, 1986) are more effective than single track approaches. Building on this evidence, the Canadian Health Promotion and Programs Branch (now the Population and Public Health Branch) developed the three dimensional model Integrated Model of Population Health and Health Promotion (PHAC, 1996a) (Appendix G). The Ottawa Charter for Health Promotion (WHO, 1986) provides the “how” through comprehensive action strategies, the strategy for population health provides the “what” through the determinants of health, and both strategies outline the “who” through targeting multiple levels and various sectors of society (PHAC, 1996a). The model emphasizes evidence-based decision-making, including the value of qualitative and quantitative research, experiential learning, evaluation and values and assumptions, as underpinnings of the

model to ensure that policies and programs focus on the right issues, take effective action and produce sound results (PHAC, 1996a).

2.2 Population Health Promotion Model and the Ontario Public Health Standards

The population health promotion model provides a blueprint for action that has been accepted globally, nationally and provincially (PHAC, 1996a). In Ontario, the Ministry of Health and Long-Term Care [MOHLTC] uses the model as a foundation for chronic disease programs in the Ontario Public Health Standards OPHS (MOHLTC, 2008). The OPHS outline the requirements for public health programs and services to be delivered, managed and evaluated by local boards of health. The concepts of health promotion and population health are embedded in the OPHS in the form of (a) societal outcomes which include changes in health status, organizations, systems, norms, policies, environments, and practices; and (b) board of health outcomes which focus on changes in awareness, knowledge, attitudes, skills, practices, environments, and policies.

2.3 OPHS Defines Health Promotion Strategies for the Workplace

Using a population health approach for chronic disease prevention, the workplace setting is one of the sectors identified in the OPHS that requires comprehensive health promotion strategies (MHLTC, 2008). The OPHS states that:

The board of health shall use a comprehensive health promotion approach to increase the capacity of workplaces to develop and implement healthy policies and programs, and to create or enhance supportive environments to address the following topics: Healthy eating; Healthy weights; Comprehensive tobacco control; Physical activity; Alcohol use; Work stress; and Exposure to ultraviolet radiation.

2.4 Work Environment is a Determinant of Health

The OPHS address comprehensive workplace health promotion for chronic disease prevention as recommended broadly by international research and health organizations (WHO, 2008). Chu et al. (2000) define the workplace as one of the priority settings for health promotion in the 21st century. Within the multiple and complementary strategies and settings of health promotion practice, the workplace environment is an important determinant of health (Butler-Jones, 2008, PHAC, 2008, 1996a, 1994; Sallis & Owen, 1997; WHO, 1986). Workplaces have organizational characteristics, such as established channels of communication and existing support networks that can easily disperse broad health promotion programs (Katz, O'Connell, Yeg, Nawaz, Njike, Anderson et al., 2005; McLeroy et al., 1988; Shephard, 1996). The workplace setting provides regular access to 65% of the population 16 years and over (Clark, Iceland, Palumbo, Posey, & Weismantle, 2003) and is an important transmitter of social norms and values (McLeroy et al., 1988). Given that Canadian adults spend about one quarter of their lives (PHAC, 1994) and approximately half their waking hours at work (Engbers et al., 2005), this environment has a considerable influence on the health related behaviours of the adult population (Chu et al., 2000; Engbers et al.; Dunet et al., 2008; Katz et al., 2005; McLeroy et al., 1988; PHAC, 1994; Plotnikoff et al. 2005; Shephard, 1996).

2.5 Workplace Health is an Important Component of the Obesity Strategy

There is a marked increase in the prevalence of adult obesity largely attributable to workplace environmental conditions, such as sedentary jobs, access to unhealthy foods, and commuting long distances to work (Butler-Jones, 2008; Canadian Population Health Initiative [CPHI], 2006, 2004; Gates, Brehm, Hutton, Singler, & Poepelman,

2006; Hayne, Moran, & Ford, 2004; Katz et al., 2005; MHLTC, 2004). Nearly one quarter of adult Canadians (23%), 18 years or older are obese and 36% are overweight, bringing the total of adult Canadians who are overweight or obese to over 59% (IHLN, 2005). Over the last 25 years there has been such a dramatic increase in overweight and obese Canadians that it is now deemed an epidemic (CPHI, 2004; IHLN, 2005).

Sedentary lifestyles and escalating obesity rates are major determinants of non-communicable chronic diseases such as type II diabetes, heart disease, stroke, hypertension and some cancers (Butler-Jones, 2008; CPHI, 2004; MHLTC, 2004; Pender & Pories, 2005; SMDHU, 2004). Research indicates that obese and overweight people have a 41% greater risk of premature death compared to normal weight people (MHLTC, 2004).

Several public health reports (Butler-Jones, 2008; CPHI, 2006, 2004, 2003; CDPAC, 2008; IHLN, 2005; MHLTC, 2004; PHAC, 2005) and studies (Flynn et al., 2005; Garcia and Henry, 2000; Parker, Margolis, Eng, and Henriquez-Roldan, 2003) emphasize reversing the obesity trend through a broad multi-sectoral health promotion approach that addresses physical, social, cultural and environmental factors. A population health promotion approach to the obesity strategy requires research on multiple levels including individuals, families, workplaces, and communities with diverse methodologies and coordinated efforts (Butler-Jones, 2008; Sallis & Owen, 1997). Several reports (Butler-Jones, 2008; CDPAC, 2008; IHLN, 2005; MHLTC, 2004; WHO, 2004) have deemed the workplace setting as an important component of their obesity or chronic disease strategies.

Workplace wellness interventions are a crucial part of public health chronic disease strategies, and are becoming more important and relevant to workplaces (Chu et al., 2000; Gates et al., 2006). They improve worker productivity, and reduce absenteeism, injury, and health care costs associated with chronic diseases (Dunet et al., 2008, Pelletier, 2005; Reidel, Lynch, Baase, Hymel, & Peterson; 2001). In a series of reviews, Pelletier (2005) found that health promotion has evolved significantly in both large and small workplaces over the last three decades. This evolution has increased the need for dissemination of information about existing workplace wellness programs and best practices (Brissette, Fisher, Spicer, & King, 2008).

2.6 Comprehensive Workplace Health Promotion

Evidence-based literature has identified the Comprehensive Workplace Health Promotion (CWHP) approach, including the Ottawa Charter for Health Promotion (WHO, 1986) strategies, developing personal skills, creating supportive environments, building healthy policies, and strengthening community action, as the best practice for addressing chronic disease prevention for employees (HCU, 2004a; MHLTC, 2008, WHO, 2004). The premise of CWHP programs is that they provide a range of intrapersonal and environmental approaches to integrate health related norms and values into organizational ideology for sustainability (McLeroy et al., 1988; McMahon et al., 2002). Furthermore Wilson et al. (1999) explains that CWHP needs to be a multi-level approach that integrates individual, organizational and community-level strategies. McLeroy et al. (1988) believe that once CWHP becomes “institutionalized” into the organizational culture; it can then be the perfect “host organization” to diffuse support out into the community. Several researchers believe that most studies focus on

intrapersonal factors of employees including education and skill building strategies (Chu et al., 2000; Oldenburg et al., 2002; Sallis & Owen, 1997; Simpson et al., 2000; Yassi, 2005) and that strategies of creating supportive environments, policy development (Engbers et al., 2005; Gates et al., 2006; Glanz & Mullis, 1988; McLeroy et al., 1988; Plotnikoff et al., 2005; Simpson et al., 2000), and strengthening community action, which require more time and commitment, are under-emphasized.

Pelletier (2005) and Engbers et al. (2005) define environmental strategies as ways to reduce barriers and increase opportunities for healthy choices such as providing more healthy options and establishing policies. Glanz and Mullis (1988) define environmental strategies as all strategies that do not require the individual to self-select into a defined educational program. Engbers et al. believe that worksite interventions must be comprehensive and intensive, and aggressively pursue environmental factors to alter the workplace culture to become more health conscious. On the other hand, McLeroy et al. (1988) caution that policy approaches such as only allowing healthy foods in vending machines may be viewed as restricting individual rights and freedoms. McLeroy et al. (1988) believe that educating and involving individuals in health promotion programs reduces resistance and the perception of paternalism. A holistic approach including policy and environmental strategies and collective decision-making by employees and employers will promote long-term sustainability of the program (Matson-Koffman et al., 2005; Sorensen et al., 2004; Yassi, 2005).

Although the strategies from the Ottawa Charter for Health Promotion (WHO, 1986) are deemed ideal for CWHP, each one takes time for workplaces to establish thus requiring long-term commitment (HCU, 2004a; Makrides et al., 2008; Matson-Koffman,

Brownstein, Neiner, & Greaney, 2005; Sorensen, Linnan, & Hunt, 2004; Yassi, 2005). For example, it requires time and effort for workplaces to provide skill building opportunities such as resources, health fairs, 'lunch and learns' and activities for staff. Research (Prochaska & DiClemente, 1983) indicates that lifestyle changes require a minimum of six months to be maintained. Lowe (2004) believes that CWHP cannot happen overnight and the 'transformational' shift to a new culture takes three to five years through a sequence of small steps guided by a clear vision.

The document *Healthy Workplace Strategies: Creating Change and Achieving Results* prepared by Lowe (2004) for Health Canada identify organizational commitment as an essential ingredient to workplace wellness programs. Lowe believes that managers' support, reinforced by their behaviour, is important and recommends that workplace health be clearly identified in the long term vision of the organization as a priority. Drawing on evidence-based organizational change literature, Lowe notes that equally important to management commitment is involvement of all employee groups. He recommends that all stakeholders, such as human resource professionals, managers and supervisors at all levels, and employees should be engaged and supportive of the wellness-related organizational change from the beginning. A "homegrown" vision needs to be developed with representation from all of the organization and effectively communicated. This recommendation is similar to participatory action research where individuals throughout an organization, rather than a top-down approach, are enabled to extend their understanding of the issue and participate in formulating actions directed toward the resolution of the problems thus contributing to the social change (Stringer & Genat, 2004).

Lowe (2004) feels that organizational change should be transformational rather than superficial. As an example he illustrates introducing a fitness program or a policy on flexible work schedules as “superficial” change if they are not part of a larger strategy. Lowe states that most transformational change initiatives fail with success rates between 25-33 % for organizations to reach intended goals. He identifies that a healthy workplace strategy needs to consider each organization’s unique history, culture and other characteristics and that there is no easy checklist or template. For future research Lowe suggests: (a) examining workplace environmental factors (e.g. policies, incorporating into strategic plan, and management support) that contribute the most to employee and organizational health outcomes, (b) developing an inclusive approach for workplaces to implement CWHP, (c) determining what motivates managers to become CWHP champions and follow through with organizational change, and (d) investigating how healthy workplace goals can be incorporated into corporate social responsibility frameworks.

In a qualitative study by Wilson, Plotnikoff and Shore (n.d.), experts in the field of workplace wellness were interviewed to determine views about gaps and priorities for future research in CWHP. This study was conducted with the Canadian Consortium for Health Promotion Research (CCHPR) where 24 individuals with major commitments and experience in the field were recruited using a snowball technique to provide feedback in telephone interviews. Survey questions were developed with collaborative input from expert members of a working group of the CCHPR. It was not clear in the paper who conducted the interviews, or if an interview guide was used, which may have had an effect on inter-rater reliability and the results. The study revealed that the key respondents

felt that although the term “workplace wellness” is receiving greater recognition, the research to date predominantly focuses on individual lifestyle behaviours. Respondents also noted that evaluation for CWHP is dependent on economics and the need for cost-benefit analysis is consistently required. The participants also identified the need for a conceptual framework and evidence-based practice for CWHP. They also felt the need for more external supports, incentives and resources to assist the workplace sector with the policy context of CWHP. As indicated by many of the respondents, integrating policy and practice is a major shortcoming within many corporations. Creating effective policies that evolve with the constantly changing nature of work is a challenge and an effort that may not occur without some type of government incentive. Having the government step in to offer incentives such as tax breaks or create macro-level strategies to demonstrate the effectiveness of policy would likely result in greater adoption. Greater collaboration among various experts, government agencies and stakeholders was recommended to strengthen CWHP initiatives. Wilson et al. identified that the current research for CWHP relates to large workplaces and the evidence-based best practices cannot be applied to smaller workplaces. Based on the findings of the interviews, Wilson et al. recommended the development of a relevant business case based on empirical evidence and including a cost-benefit analysis. They also identified a need for better evaluations to support best practices, more supports for effective workplace policies and a comprehensive ecological perspective (i.e. intrapersonal, interpersonal and broader environmental factors) for CWHP. The researchers also noted that research is needed to examine the effects of the ever changing workplace and new conceptualizations about the nature of work.

Makrides, Heath, Farquharson, and Veinot (2007) conducted a qualitative study to examine the perceptions of CWHP programs from organizations in Atlantic Canada. Participants in the five focus groups were recruited from the Wellness Initiatives Network (WIN) and local Chambers of Commerce and business directory. The WIN was identified as a network group for organizations in Atlantic Canada to share knowledge and experience on workplace health. The focus group participants recommended that CWHP adopt broader strategies including personal health practices and coping skills and social and environmental factors. In their discussion, Makrides et al. stated that their findings confirm previous research undertaken by Shain and Suurvali (2000) that CWHP relies on the efforts of employers to create a supportive management culture and upon the efforts of employees to care for their own well-being. The focus group participants also believed that CWHP demonstrates a good return on investment for both employers and employees. The authors acknowledged that this was an exploratory project to gather valuable input into organizations' perceptions of workplace health. However, it is important to note that it was not apparent how many people participated in the focus groups. The type and percentages of positions of the participants (i.e. managers, human resources, business owners, etc.) was also unclear. The authors recognized that most participants were from larger organizations with structures conducive to implementing CWHP programs. All of these factors may have biased the results and precluded them from being generalizable to the workplace sector.

2.7 Research of CWHP Related to Nutrition, Physical Activity and Obesity

In a literature review by Hennrikus and Jeffery (1996) of worksite weight control programs, more than half of the 44 studies reviewed were pre-assessments and post-

assessments of a treated group, consisting largely of uncontrolled case studies and deemed methodologically weak. They also found very few studies that assessed health outcomes other than weight loss. At the time of the review, the authors rationalized that worksite weight control was relatively new and garnering information from weak designs was helpful. They recommended that future research include improved methods such as: strong research designs, including randomization, replication across sites, and consistent documentation. They also recommended more attention to secondary outcomes and more creative use of worksite environments.

Engbers et al. (2005) systematically reviewed 13 studies of blue and white-collar workers from a variety of industries for the effectiveness of CWHP including environmental modifications on physical activity and diet (i.e. fruit, vegetable and fat intake). Only peer reviewed, randomized control led trials that were written in English, German, or Dutch, targeting healthy employees and dealing with environmental modifications of the worksite or company canteen, were included. The main outcomes of interest were physical activity, dietary intake, or health risk indicators. Eleven of the studies were randomized control led trials with the worksite as the unit of randomization, and two of the studies used a controlled design (quasi-experimental). Half of the studies were replications or parts of other studies. There may have been many potentially useful studies that were overlooked because they were unpublished, cross-sectional, uncontrolled or observational which may have led to biased findings. Although they indicated that more high-quality randomized control led studies, especially for environmental interventions for physical activity, are needed, their findings are still noteworthy.

Participants in the studies were employed in a large variety of industries, including manufacturing sites, education, government agencies, health care and telecommunications. All of the CWHP programs in the review were multi-component in that they consisted of a mix of education, counseling, incentives and information to raise awareness. Because all that, the researchers were not able to ascribe the effects solely to environmental modifications.

Two of the studies included policy change for smoking but not for physical activity or healthy eating. In ten of the studies, the researchers observed that environmental modifications, such as food labeling, promotional materials, expanding availability of healthy products, and efficient food placement, had positive effects for dietary intake of employees. However, only two of these studies were assessed to be of relatively high quality. They also suggested that with the self-reported data, people may overestimate fruit and vegetable intake and underestimate fat intake. Three of the 13 studies found that CWHP with environmental modifications to promote physical activity had inconclusive results on physical activity levels of employees. Engbers et al. conceded that this disappointing finding was due to the small number of studies and the poor methodological quality.

Katz et al. (2005) conducted a systematic review of public health strategies for preventing and controlling overweight and obesity in the workplace setting as part of a series of systematic reviews by the Centers for Disease Control. They believe that the workplace setting is a controlled environment with existing channels of communication and social support networks where environmental and policy change can foster opportunities for healthy dietary practices and physical activity. Katz et al. provided

examples of environmental modifications including making stairs more accessible, modifying the nutritional environment, easy access to affordable and healthy food and adopting policies that provide employees with exercise breaks during work time. As with the other reviews, they used specified methods and criteria to create a “Community Guide” with recommended interventions to prevent or control overweight and obesity. All the studies in the review included control measurements between or within groups and were assessed to be of good or fair quality based on an assessment of study design, the number of quality limitations and the number of threats to validity. Effectiveness was defined as achievement of a mean weight loss of greater than four pounds measured at more than six months into the intervention. The authors admitted that relevant studies measuring other health outcomes may have been overlooked. Furthermore, they were uncertain if the four pound criteria yielded the greatest health benefit. Due to the limited number of studies with comparable outcomes, the review found insufficient evidence to determine the effectiveness of single component interventions of nutrition or physical activity. Based on seven studies in the review, the authors recommended worksite interventions with a combination of physical activity and nutrition to address overweight or obesity issues with employees. They further recommended combining instruction in healthier eating with a structured approach to increasing physical activity in the workplace setting. Two of these studies reported that the cost for on-site health promotion programs for weight loss is less than \$1 per employee per year to engage 1% of the population at risk.

A randomized control led study (Makrides et al., 2008) that examined the impact of CWHF programs on coronary risk factors for employees had some interesting findings

related to employee participation in wellness programs. Eight workplaces with 7,000 employees in the Halifax area participated in the study. Participants in the workplaces were screened for coronary risk factor criteria including tobacco use, physical activity levels, body mass index and cholesterol levels, and were randomly assigned into an intervention and control group. The intervention group received a 12-week health promotion program including analysis, education and counseling for the topics of exercise, nutrition and smoking. The researchers found that there was a statistically significant reduction in coronary disease risk in the intervention group that received the relatively short program compared to the control group that received no interventions. However, they found that these reductions were not sustained three months after the interventions were completed, thus underscoring the need for long-term commitment of workplace health. They also concluded that on-site programs at convenient times for employees may improve participation and retention in health promotion programs. There were several caveats to this study, such as how the workplaces were recruited, which may have influenced the type of workplaces and demographics represented in the study. Other researchers (Rost et al., Connell, Schechtman, Barzilai, & Fisher, 1990) suggested that persistent participants tend to be highly motivated, already involved in behavioural change and have fewer health problems, which may not be representative of the general employee population. Also, Makrides et al. (2008) identified a high attrition rate of participants at 35%, which was still lower than the 50% reported in other workplace health promotion studies (Shephard, 1996). A limitation in the Makrides et al. (2008) study was that it did not meet the requisite sample size and the power, and as a result the generalizability of the statistical analysis was limited. In addition, the study considered

only intrapersonal factors and none of the environmental components of CWHP. Thus, the researchers recommended further study of all components of CWHP with larger sample sizes and longer periods of time for intervention and follow-up.

McMahon et al. (2002) evaluated the “Happy Heart at Work” (HHAW), a CWHP program that promoted healthier lifestyle behaviour for employees with an emphasis on creating supportive environments through specially devised modular materials. They used the Ottawa Charter for Health Promotion (WHO, 1986) strategies as a conceptual framework to evaluate the organizational impact of the program. Worksites that had previously registered for the program and were actively using the resources were recruited for the evaluation. A well designed triangulated methodological approach to the evaluation was used including a postal survey of key respondents in 800 worksites that participated in the HHAW, random telephone survey of ten percent of the program coordinators in these worksites, seven focus groups with a random sample of employees from a willing cross section of worksites, and a review with the organizers involved in the overall planning or delivery of the program. The questionnaire was adapted from existing instruments but it was not apparent in the article if it was evaluated for validity or reliability. One limitation was that the researchers had difficulty getting permission from some workplaces, particularly manufacturers, to recruit employees for the focus groups which may have biased the findings.

The telephone interviews of coordinators of the HHAW program revealed that the program impacted on the workplace environment through improved canteen menus, increased awareness of health and the perception that management cared about employee health. In spite of that, they determined that it was difficult to sustain interest and

motivation. Barriers to implementing the program included insufficient time, resources and personnel, lack of enthusiasm, and negativity. Workload, type of work (e.g. production line) and shift work were also mentioned as barriers. Coordinators wanted more access to information, training and networking opportunities.

The focus groups of employees indicated they mainly identified HHAW with the 'Lifestyle Challenge', healthy eating and health awareness days, and not so much with the holistic and ongoing nature of the program such as policy development. Furthermore, there was an overall feeling that healthy eating and exercise was up to the individual and not the employer but improved facilities would have been welcome.

The organizers of the HHAW program felt that the program worked well when it was endorsed by management. They found that the main barrier for workplaces to implement HHAW was when managers were slow to commit to health promotion or to recognize the need for policy. They also felt that there needed to be a champion in each workplace interested in the program's success. They found that HHAW was not implemented as intended because of lack of understanding of the comprehensive approach. It was not viewed as a sustainable long term program but more as a one-off or ad-hoc initiative that lacked support from within the organization. The participants commented that it helped improve employees' lifestyle habits and morale; however, without intensive and ongoing support the program would be unsustainable. McMahon et al. (2002) concluded that the main obstacle to workplace wellness programming is lack of management commitment.

Grzywacz, Casey, and Jones (2007) examined cross-sectional and longitudinal associations between workplace flexibility and health behaviours and estimated the

importance of flexibility for effective CWHP programs. A large “family friendly” multinational organization with 3193 employees was chosen because of its commitment to flexibility such as compressed work week, flextime, job sharing and telework as well as conducting health risk appraisals for employees every year as part of their wellness program. Grzywacz, et al. used workplace flexibility as the independent variable and physical activity frequency and health education seminar attendance as two of the five dependent behaviour variables. Health risk appraisals from 2004 and 2005 were used for both the cross sectional and longitudinal analysis. A series of regression models were used to analyze set response options to questions. The results of this study revealed that physical activity frequency was positively related to perceived flexibility but attendance in health related seminars was not. The researchers concluded that workplace flexibility may contribute to positive lifestyle behaviours and may play an important role in CWHP.

2.8 Clinical and Cost Outcomes of CWHP

Pelletier (2005) conducted a comprehensive review of eight experimental and quasi-experimental research trials conducted in the United States between 2000 and 2004 focusing on the clinical and cost outcomes of workplaces with CWHP type programs. The inclusion criteria of research were: (a) the results be published in English, (b) minimal methodological quality of a non-experimental design with pre- and post-measures but no comparison group, (c) quasi-experimental or pre- and post-measures with a non-randomized control group, and (d) a true experimental design with pre- and post-measures plus a randomized control group evaluated for clinical and/or cost outcomes.

Pelletier's (2005) major conclusion was that providing individualized risk reduction for all employees within the context of CWHP is the critical element of worksite interventions. Based on this review and five previous reviews from 1991 to 2000, Pelletier concluded that most of the CWHP type programs clearly have favourable clinical and cost outcomes. He found that these programs are more likely to generate a greater return on investment, such as decrease in medical costs, decrease in absenteeism and an increase in productivity, when compared to programs not integrated into corporate objectives. Nevertheless, Pelletier notes that there was a decline in the number and quality of studies in this review compared to the previous five reviews. Only one of the studies in this review was a true experimental design. He cautions that there may have been publication bias because studies without statistically significant results tend not to be published. Valid and important studies may have been overlooked because they were limited to articles published in one language and researched in the United States. Single risk factor interventions and non-experimental research were also excluded. Pelletier mentioned that workplaces tend to conduct focused pre- or non-experimental evaluations on areas of specific importance to the employer. He warns that this is an "ominous trend" as it is a lost opportunity for more formal research while there is increasing demand for clinical and cost outcomes to justify corporate investment in CWHP.

2.9 Published Assessment Tools for CWHP

At the time of this literature review, there were not many published assessment tools to measure all of the strategies of CWHP; however, the few described below have moved beyond *skill building* to further investigate *environmental supports* and *policy development* but rarely *strengthening community action*.

Gates et al. (2006) used a qualitative approach through focus groups with managers and employees to analyze CWHP through the work environment. They used a community-based participatory research model involving academic researchers, human resources personnel and public health educators to plan and implement the environmental supports to prevent and reduce obesity in four small manufacturing companies. The “Diffusion of Innovations Theory” (Rogers, 1995) was used to create a list of more than 15 possible environmental interventions for physical activity and nutrition behaviour change. Focus groups were conducted with managers and employees in each of the four manufacturing companies to identify strategies in reducing barriers and developing communication channels to enhance employee participation in an environmentally based workplace health program. More than half of the focus group participants were managers, which may have provided more insight on this topic, but disproportionately may have biased some of the findings. Participants in the focus groups identified five environmental strategies they felt were important for CWHP including: (a) signs, (b) walking paths, (c) food changes, (d) educational strategies, and (e) advisory groups. These five strategies were used in the intervention phase of the study. The greatest challenges for all four manufacturing companies were related to time and the safety, weather and lighting of walking paths. The researchers recommended a multi-component intervention to enhance the chances of successful adoption of wellness programs to better accommodate the work settings and diverse needs and interests of workers.

Brissette et al. (2008) used a mailed cross sectional survey with 832 New York worksites to assess worksite policy and environmental supports for lifestyle-related factors and to identify the characteristics of worksites possessing these different types of

wellness supports. They developed a validated questionnaire with a 226-item inventory. It was evaluated for appropriateness using a question appraisal system and reviewed by experts in the field. The survey characterized existing worksite supports for physical activity, healthy eating, stress management and preventative health screenings. The existing worksite supports for physical activity and healthy eating identified were: a written policy supporting exercise or physical activity during work time, exercise facility available or a discounted or subsidized membership, an on-site physical activity-oriented program offered during the past 12 months, a safe place for recreational walking at the worksite, three or more healthy eating options available at the worksite, labels to identify healthier food choices, a policy to make healthy food options available to employees, and on-site programs on nutrition or weight management during the past 12 months.

Brissette et al. used a database of companies with more than 75 employees and a stratified random sample to ensure representation from both private and public sectors. The response rate was similar from both sectors. They found that the worksites reported having a greater number of nutritional supports than physical activity supports. Worksite size and the presence of organizational supports for wellness were associated with the availability of health promotion supports. Brissette et al. replicated the results of past studies revealing that the smaller worksites (75-99 employees) and medium small worksites (100-199 employees) have fewer healthy eating and physical activity CWHP supports than larger worksites. Worksites with either a wellness committee or wellness coordinator reported a greater number of health promotion supports than those without. Moreover, workplaces with both a committee and coordinator had more supports than those with only one. Brissette et al. believed that this was a robust predictor of supports

because it encompassed both employer and worker support for CWHP which have been demonstrated by other research (Matson Koffman, et al., 2005) to be critical to the success of CWHP. They felt that establishing a wellness committee or coordinator would help with the implementation of CWHP. Again their findings were consistent with the review by Matson Koffman, et al. that company attributes such as management support provide an infrastructure to support CWHP.

The Checklist of Health Promotion Environments at Worksites (CHEW) instrument (Oldenburg et al., 2002) is a published tool to measure the health promotion potential of the workplace physical environment. It was a direct observational instrument with a 112-item comprehensive checklist of skill building activities, environmental supports, healthy policies and some community activities associated positively and negatively with physical activity, healthy eating, alcohol use and smoking. The checklist assessed three items. The first item measures physical environment including availability of healthy food choices in food shops and canteens, facilities in lunch rooms such as microwaves and refrigerators, low fat and low salt food choices in vending machines, size of exercise rooms and type of equipment, open and green space for recreation, stair and stairwell characteristics, and showers and change rooms. The second measures information environment including: number of bulletin boards, number of visible health related postings (sponsored or not by the employer), health related newsletters, and signage for health related behaviour (i.e. not smoking, signs in food vending areas for low fat, low salt or low calorie choices). The last item measures neighbourhood characteristics including types of nearby restaurants and food shops, fitness centres, and parks, trails and green space. Although the tool mainly focused directly on observable

elements of the workplace environment, there was an interview component designed to obtain specific information about programs and policies. For example, there were questions in the interview under the heading “Incentives for Physical Activity Participation” that check for policies or programs such as flex time, time allocated to physical activity during working hours, discounts to community physical activity programs, company sponsoring sports teams and subsidized fitness memberships. There were no similar interview questions for healthy eating.

The checklist was tested for validity and inter-rater reliability with intra-class correlation coefficient scores between 1.00 and 0.80 the only exception being the ambiguous physical activity signage score at 0.47 which the researchers concluded was confused with safety signs. The measures were found to be relevant and useful by those assigned and those being assessed; however, the authors admitted scoring procedures needed to be further developed when expanded to other types of worksites and other observers or evaluators. For construct validity, Oldenburg et al. (2002) believed that there should have been a cross sectional analysis of CHEW variables with workers’ perceptions of support for health promotion in their workplace or with workers’ motivational readiness to change health behaviors. Oldenburg et al. suggested investigating workplace culture as well as measures of policies for future research to strengthen the indicators of CHEW. In addition, given that the CHEW was developed and pilot tested in Australia, it may need further research elsewhere to ensure the environmental attributes are more universal.

The CHEW instrument was used in the Australian National Workplace Health Project (NWHP), a well designed cluster-randomized trial of 20 blue collar workplaces.

Simpson et al. (2000) found that the common physical and environmental characteristics that influenced health-related behaviours were vending machines, showers, bulletin board and signs related to smoking. Uncommon physical and environmental characteristics were bicycle racks, visible stairways and signs related to alcohol consumption, nutrition and health promotion.

Using the CHEW instrument for guidance, Plotnikoff et al. (2005) developed standards of best practices for workplace physical activity and a “Workplace Physical Activity Assessment Tool” (WPAAT) to measure these standards. The WPAAT appears to be the most comprehensive to date with questions addressing all the strategies. These Strategies include: 1. Management and employee commitment. 2. Environment and needs assessments. 3. Individual level: knowledge, attitude and skills. 4. Social level: enhancing relationships. 5. Organizational level: leadership, capacity, will and infrastructure. 6. Community level: assets and partnerships. 7. Policy level: current physical activity policies and drafting new policies. 8. Program administration. 9. Safety and risk management.

The WPAAT was developed over three stages with expert and stakeholder reviews, inter-rater reliability, and workplace consultations. The first phase of the project involved the research and development of the standards in the WPAAT with an extensive review of 18 key documents to identify best practices. The recommendations from the literature were condensed and compiled into a list of nine predetermined corresponding components of the Program Standard and reviewed and evaluated by 15 national experts, stakeholders and practitioners involved in the field of physical activity. Phase two focused on the development of the Assessment Tool to measure the criteria identified in

phase one by reviewing existing instruments. Similar to phase one, 13 reviewers with expertise in the field provided feedback on the WPAAT tool. There was also a qualitative component in phase two where two certified Occupational Health and Safety auditors who had used the WPAAT tool to assess their workplaces provided feedback in a one-hour interview. As well, two individuals representing provincial-based and national-based workplaces also provided feedback through an interview and in writing. The final part of phase two included piloting the tool by 15 employees in three large multisite Alberta organizations including an educational institution, a large urban municipality and three affiliated hospitals. The results were compared between the three organizations to assess usability in diverse settings and inter-rater reliability.

Based on phase two, phase three of the WPAAT tool involved further refinement, to ensure consistency between the Program Standard and Assessment Tool and finally to pilot test the tool. It was pilot tested in four diverse workplaces in Alberta; however, it was not clear in the study how and what types of workplaces were recruited. The questionable recruitment process and small geographical location for the pilot project may have biased the results. The researchers found the inter-rater reliability to be high with a difference in the ratings ranging from 3 of 45 points in the workplace with 50 employees, 6 of 45 points in the workplace with 8 employees, 8 of 45 points in a very large workplace with 3,800 employees and 17 of 45 points in a multisite workplace with 170 employees. The researchers felt that the multi-site nature and diversity was the cause of the higher differences in scores emphasizing the need to employ WPAAT for separate departments within large organizations. Qualitative feedback was also obtained from participants using the tool and program standard. The general consensus was that the

WPAAT was an effective tool to measure the strengths and weaknesses in their organizations' ability to support and promote physical activity at work. The researchers indicated that the strength of the tool was that it raised awareness by identifying areas in the program requiring further attention. The researchers believed the tool could be used with other health-related behaviours such as smoking and nutrition.

2.10 Conclusion

The workplace setting is an important determinant of health and the ideal environment for population health promotion approaches to address obesity in adults. A CWHP approach to addressing obesity in the workplace setting is a recommended practice that requires additional evidence to become a "best-practice".

Several studies and reviews (Engbers et al., 2005; Gates et al., 2006; Oldenburg et al., 2002) have revealed a shift from individually-oriented analysis of health behaviour to both environmentally-based and behaviourally focused strategies of workplace health promotion. Nevertheless, most of the health promotion research to date has focused on intrapersonal factors such as knowledge, attitudes and skills (Chu et al., 2000; Oldenburg et al. (2002); Sallis & Owen, 1997; Simpson et al., 2000). There are few validated and reliable assessment tools in the research for CWHP that include all of the Ottawa Charter Health Promotion strategies. Given that research on workplace wellness mostly targets employees and not the more holistic approach (the organization and community), there is a lack of scientific consensus about the overall efficacy of CWHP interventions (Heaney & Goetzel, 1997; McLeroy et al., 1988; Plotnikoff et al., 2005; Yassi, 2005).

Various reviews of CWHP research (Engbers et al., 2005; Hennrikus & Jeffery, 1996; Pelletier, 2005) have found few methodologically sound studies with mixed

findings of effectiveness. Also many of the current workplace health promotion studies are directed at larger worksites (Dunet et al., 2008) even though small businesses, with up to 100 employees, employ half the workforce in Canada (Health Canada, 2007).

The various environmental and intrapersonal layers of CWHP make the traditional epidemiological approach to evidence-based “best-practices” very difficult (Engbers, et al., 2005; Green et al., 1996; Simpson et al., 2000). Criteria and methods for identifying, evaluating and applying evidence are different for public health and health promotion than they are for evidence-based medicine (CDPAC, 2008). In *Health Promotion Evaluation: Recommendations to Policymakers* (WHO, 1998b), it is identified that the use of randomized control led trials to evaluate health promotion initiatives is inappropriate, misleading and unnecessarily expensive. While randomized controlled trials are the gold standard of medical evidence, these are often not feasible for the complex, multi-faceted population health promotion approach (CDPAC, 2008).

Several researchers (Green et al., 1996; McLeroy et al., 1988; Sallis & Owen, 1997; Stokols, 1996) have indicated that research for CWHP is difficult and expensive because of the ubiquitous environmental variables with wide-ranging effects. Evidence for health promotion should not be limited to only hard gold-standard scientific research, but should be a more broad definition of evidence that includes context-related information from other types of knowledge (CDPAC, 2008).

Unfortunately, with the lack of evidence and mixed consensus about the efficacy of CWHP, policy makers (Sallis & Owen, 1997) and the workplace sector might question this approach. Evaluation of workplace health programs is at a critical stage to shape future programs and to assess the effectiveness of resources (Plotnikoff et al., 2005).

Additional qualitative research on CWHP strategies, especially for environmental supports, policy development and strengthening community action, is urgently needed.

Chapter Three – Methods

3.1 Research Design

The design of this study was qualitative to build on the findings of the SMDHU Evaluation Report (2010) of the HSAW pilot project and further explore the phenomenon of CWHP using a semi-structured in-depth interview process (Creswell & Plano Clark, 2007; Rubin and Rubin, 2005). A purposeful and convenience sample (Creswell & Plano Clark, 2007) of ten workplaces involved in the HSAW pilot project in the districts of Simcoe and Muskoka were approached to participate in the study, because of their experiences and previous participation in the SMDHU evaluation. Six of the ten HSAW pilot sites agreed to have a manager and HSAW coordinator familiar with the project participate in the research.

In-depth interviews were used because it provides more insights into the central phenomenon of CWHP than would the results of surveys, questionnaires or other data collection methods (Creswell, 2003). This study's design proposed to capture the respondent's perspectives of CWHP strategies, adding depth and richness to the information obtained previously (Creswell & Plano Clark, 2007) in the SMDHU Evaluation Report (2010). In particular the study was designed to address the following research questions:

1. To identify which CWHP strategies were used by workplaces piloting the HSAW toolkit and determine how they were received by employees.
2. To discover what the supports and barriers were for implementing the CWHP strategies.

Moreover, it is anticipated that this qualitative study will contribute to the critically needed evidence-based research necessary for policy makers and the workplace sector to continue to support CWHP as part of the multi-faceted chronic disease prevention strategies.

3.2 Data Collection Instrument

To address the research questions, the four health promotion strategies of develop personal skills, create supportive environments, policy development, and strengthen community actions were the main categories for ‘content mapping’ the semi-structured key informant interview (Rubin & Rubin, 2005). For ‘dimension and perspective mapping’, key questions for each of the strategies were designed to explore the multiple themes in breadth and to set the stage for probes and follow-up questions (Rubin & Rubin, 2005). The semi-structured interview questions (Appendix K) were adapted from several evidence-based CWHP type assessment tools described in the literature review to assess the four health promotion strategies as follows:

Develop personal skills

This section was based on an assessment of the individual level of CWHP (Plotnikoff et al., 2005) by utilizing the following research-based measures: how employees were encouraged to participate in the program (Gates et al., 2006), how receptive the employees were to the physical activity or healthy eating related programs offered (Brissette et al., 2008; Engbers et al., 2005; Gates et al., 2006; Makrides et al., 2008; Simpson et al., 2000), and what would make the program more appealing to employees (Gates et al., 2006).

Create supportive environments

This section was based on an assessment of the organizational level and the social level of CWHP (Plotnikoff et al., 2005) by utilizing the following research-based measures: sustainability of workplace wellness committees or CWHP programs (Brissette et al., 2008; Gates et al., 2006; Makrides et al., 2008; Plotnikoff et al., 2005), management and employee buy-in to CWHP (Makrides et al., 2008; Plotnikoff et al., 2005), incorporation of health related programs into the company culture (Gates et al., 2006), and organization of on or off-site physical activity or healthy eating related skill building opportunities (Brissette et al., 2008; Engbers et al., 2005; Makrides et al., 2008).

Examples of environmental supports from the literature review were provided in the interview to the key respondents including: convenient times for programs (Makrides et al., 2008), time off or restructuring work hours to encourage employees to participate in physical activity (Katz et al., 2005; Makrides et al., 2008), physical environment supports such as showers, bicycle racks, visible stairways, and safe walking paths (Simpson et al., 2000; Katz et al., 2005; Plotnikoff et al., 2005); information environment supports such as bulletin boards, promotion of health-related events, health fairs, newsletters, signage, etc. (Plotnikoff et al., 2005); availability and affordability of healthy food products and food labeling in cafeterias, canteens and vending machines (Brissette et al., 2008; Engbers et al., 2005; Gates et al., 2006; Katz et al., 2005; Plotnikoff et al., 2005); and availability and affordability of exercise facilities on- or off-site (Brissette et al., 2008; Plotnikoff et al., 2005).

Policy development

This section provided an assessment of the policy level of CWHP (Plotnikoff et al., 2005) with research based questions about policies and guidelines supporting physical

activity and healthy eating during work and break time (Brissette et al., 2008; Plotnikoff et al., 2005).

Strengthen community action

This section was based on an assessment of the community level of CWHP (Plotnikoff et al., 2005) with research-based questions about lifestyle-related partnerships and collaborations in the community.

3.3 Participants

A purposeful and convenience sample of ten workplaces from the districts of Simcoe and Muskoka, originally recruited for the HSAW pilot project was invited to participate in this qualitative study. The recruitment process of workplaces for the HSAW pilot project was previously described in detail in section 1.2 *Background of Healthy Steps at Work*.

A letter from the SMDHU (Appendix H) was sent to the ten pilot sites seeking permission for the Lakehead University researcher to contact them. Six of the ten pilot sites agreed to participate in the research project including: (a) a municipal office with 350 employees, (b) a health care facility with 2,100 employees, (c) a community health care provider with 60 employees, (d) a municipal library with 25 employees, (e) a recreational facility with 83 employees, and (f) an academic facility with 1,500 employees. Two manufacturing workplaces, a health care facility and a municipal office involved in the SMDHU pilot did not agree to participate. Lack of time, staff turnover and economic downturn were cited as reasons why they would not participate.

For a balanced representation of perspectives (Creswell & Plano Clark, 2007; Rubin and Rubin, 2005), managers and project coordinators familiar with the HSAW

pilot project in each of the six pilot sites were intentionally selected to participate in separate interviews. Purposeful sampling targets information-rich participants familiar with the concept and practice of CWHP (Patton, 1990) thus allowing for an in-depth qualitative analysis.

3.4 Data Collection Methods

An information package was emailed, including a cover letter (Appendix I), consent form (Appendix J), and questionnaire and guide (Appendix K) to the key respondents prior to the interviews. Once the consent forms were signed and received by the researcher, the managers and HSAW coordinators from each of the six worksites were independently interviewed for approximately one-hour each. Due to the considerable distances between the researcher and the participants, the interviews were conducted by telephone at a convenient location for the participants, a practice which has become increasingly common (Rubin and Rubin, 2005). For validity of data, permission was received by all the participants to have the interviews tape-recorded during the telephone interview.

A semi-structured interview process was used for every interview, in that the questionnaire and guide (Appendix K) provided a deductive framework for analysis but an inductive approach (Patton, 1990) was used to allow themes to emerge. Because of the potential bias due to the researcher having experience in the field of health promotion and CWHP, the semi-structured evidence-based questions provided a solid foundation for the interviewing process to limit the possibility of bias (Rubin & Rubin, 2005). The semi-structured approach also allowed for probing to encourage participants to clarify or

expand upon their responses and for any unexpected perspectives to be further explored (Rubin & Rubin, 2005).

3.5 Data Analysis

Recordings of the interviews were transcribed anonymously by both an administrative assistant at the SMDHU and by the researcher. Analysis of the transcribed data was undertaken manually by the researcher using thematic analysis (Creswell & Plano Clark, 2007). The underlying principle of thematic analysis used for this study was listing patterns of perceptions into common themes and then identifying sub-themes using direct quotations from participants (Aronson, 1994). To increase reliability of the researchers' interpretation of the data into comprehensive themes, the results were reviewed and received written feedback from two peers with expertise and experience in CWHP and qualitative research (Creswell & Plano Clark, 2007) and revised as necessary.

Chapter Four – Results

4.1 Introduction

The results of the interviews with 12 respondents, including six wellness coordinators and six managers from each of the six workplaces were organized with the sub-headings based on the four health promotion strategies: develop personal skills, create supportive environments, build healthy public policy, and strengthen community action and the research questions about: implementation and receptiveness, successes, and barriers followed by the indented thematic headings. For confidentiality purposes, the coding of the quotes comprised of each of the six workplaces identified as W1 - W6 and the managers and coordinators identified as M and C respectively.

4.2 Develop Personal Skills – Implementation and Receptiveness

Information environment

All of the workplaces shared health promotion information and resources (e.g. Dietitians of Canada approved cookbooks, Farm Fresh Guide, Canada's Physical Activity Guide, Heart and Stroke brochures, Employee Assistance Program [EAP] material, etc) either electronically (i.e. in newsletters and emails) or at visible locations (e.g. on bulletin boards, book cases and tables in lunch rooms for wellness resources). One respondent did not like to use pamphlets in their workplace: (W2-C) "We don't find pamphlets have enough impact and we are trying to be paperless as much as we can so we are trying to use e-newsletters and bulletin boards for splashy stuff."

Educational opportunities and campaigns

All of the workplaces provided time limited educational campaigns, such as pedometer and stairway challenges to highlight the health promotion information and

encourage staff to take action. Some workplaces organized healthy workplace theme days, weeks or months in line with the topics and resources provided in the HSAW toolkit as well as quizzes and talks. Respondents in two workplaces mentioned that they attempted ‘Lunch and Learns’ which had poor attendance. One workplace adapted and integrated their education sessions into everyday work rather than continuing with stand alone sessions:

(W2-C) We haven’t had great success with *Lunch and Learns* ...so we are trying to go to staff meetings and then promote our stuff there rather than hope people come to our workshops. ...I totally changed the way I do my work. Now I contact managers and say: “When can we meet? Can I have 15 minutes? Can I parachute in?”

Physical environment

All of the workplaces made use of and promoted their physical environment to support physical activity (e.g. gym facilities, stairs and walking paths) and healthy eating (e.g. vending machines, cafeterias and kitchen facilities). To further educate and reinforce the healthy lifestyle information provided, most workplaces (n=5) offered discounts or passes to physical activity related facilities, promoted local activities related to physical activity and healthy eating, and offered on-site exercise or ‘Weight Watchers’ classes.

Educational tools and incentives

Several workplaces (n=5) used educational tools, pedometers and incentives as ways to increase staff uptake of the health messages. Personal enticements, such as draws, prizes, and promotional items, such as cookbooks, and lunch bags were utilized.

Needs assessment

Two workplaces conducted needs assessments to assist them in providing suitable lifestyle related activities and information for their staff. For example, a survey in one workplace revealed that staff in the satellite offices wanted the same physical activity opportunities that existed in the head office. As a result this workplace provided resources such as equipment and exercise videos to address those needs. In one workplace, the wellness committee conducted an informal needs assessment by talking to key people in specific departments to determine what 'Lunch and Learns' to provide to staff: (W6-C) "I think it helps us having topics that people are interested in as opposed to just picking a topic and putting on the *Lunch and Learns*."

Evaluation

When asked about evaluation, the feedback was mainly based on respondent's observations, conversations and perceptions, but two people acknowledged that they should have evaluated more: (W3-M) "We haven't really measured in a formal way but I think it is being accepted. I haven't really heard any negative comments." The majority (5) of the workplaces used a form of process evaluation for some of their programs such as monitoring number of participants in activities and/or number of ballots for draws, and keeping track of resources distributed. All the workplaces that used this method of evaluation felt there was an increase in information going out and an increase in participation in activities. One workplace did an evaluation of a skating event that replaced the traditional staff party:

(W5-M) We had less people at our staff function than we normally would ...but it is hard to say whether that was timing or related to it...we had to do it on a Sunday night...the weather wasn't great...so there were some other factors... but

the people who did participate had a fantastic time and really liked the fact that they could be physically active and include their families as opposed to just sitting around and socializing. ... It is hard because the people who didn't come we didn't evaluate them but we evaluated the people who did attend and it was quite positive.

Two of the workplaces conducted formal evaluations using survey tools. One did a general cafeteria satisfaction survey and found that: (W1-C) "healthier choices for entrees" information was highly valued and the salad bar was the most popular item. Another workplace did a survey of the programs and found that: (W2-C) "People are actually reading the newsletter and people want more articles."

Positive perceptions

When asked how receptive the employees were to the physical activity and healthy eating activities and information provided over the last year, all of the interviewees had positive perceptions. Respondents in half of the workplaces (n=3) explained that the concept of workplace wellness was new and that perceptions will improve over time. One person explained how there was a mix of participation:

(W2-M) There [is] a core of people that take in the information. They don't really need to be preached to but they enjoy the new incentives and the new programs and anything that might change things up. And then there is always a few that something catches their eye and gets them involved. There is also quite often a small percentage of folks that just don't want to be involved.

One person found that employees were receptive to health promotion information if they didn't have to make an effort:

(W3-M) If you are at the all-staff day and you are passing around a tray of healthy fruit and veg, they will try them but if you ask them to enter a draw then the participation wasn't as good. The more effort required the least enthusiastic they were.

4.3 Develop Personal Skills - Barriers

Time and workload

When asked what the barriers were for employees to be more physically active and eat healthier, time was expressed by respondents as a major barrier in all of the workplaces. They explained that employees with a heavy workload found it difficult to take a break and participate in healthy lifestyle related activities. Some elaborated on how employee stress, shift work and high workload contributed to very unhealthy behaviours in the workplace such as missing breaks and eating junk food as well as presenting a challenge for wellness committees to organize programs: (W3-M) "We have a lot of part time people and a lot of shifts – different shifts – so for us to organize an activity at a certain time, you know, only half the people would even be here." Half the interviewees portrayed the influence work-life balance had on employees participating in lifestyle related activities at work: (W3-M) "A lot of people at lunch go home because ... they can put a load of stuff in the dryer or letting the dog out or taking a dog for a walk."

Attitudes and motivation

Nine respondents mentioned staff not being motivated or feeling uncomfortable as barriers to participating in physical activity initiatives. Examples included low morale, people feeling self conscious exercising in a group, and people preferring to exercise on their own at their own pace. Healthy eating had barriers as well with three respondents

reflecting that it was perceived as a personal choice thus making it difficult to address in the workplace: (W3-C) “ ... what people bring for lunch isn’t really our business.”

Physical environment

Limited or no access to physical environment opportunities for healthy eating and physical activity was mentioned by respondents in most (n=5) of the workplaces. For example, a few respondents explained that employees working certain shifts or out of the office did not have access to the healthy food choices in the cafeteria or to the fitness facilities. Cost of running a fitness facility was another barrier mentioned by respondents in two workplaces:

(W1-M) We have looked at trying to allocate space for a workout facility within the organization but space is at a premium and that becomes a huge barrier for us because it’s more fiscally prudent to use that space for [work] versus allocating it to a tiny workout facility, so that is a big part of it.

Vending machines were expressed as a support as well as a barrier to healthy eating with both healthy and unhealthy food choices and poor labelling. Service providers for both the vending machines and cafeterias were mentioned by one person as a possible barrier “if they don’t have a healthy eating focus”. Weather was a natural physical environment challenge noted by two people.

Organizational commitment

Respondents in four workplaces felt that a lack of organizational commitment such as dedicating time, resources and energy toward workplace wellness were barriers for wellness committees to organize skill building activities and for employees to

participate: (W2-C) “ ... people weren’t taking breaks and the manager was not modeling.”

4.4 Develop Personal Skill - Supports

Organizational commitment

All of the interviewees felt that having organizational commitment and a supportive environment where skill building activities are accessible, easy and fun would make it more appealing for staff to participate, thus reinforcing a ‘cultural shift’ toward the acceptance of workplace wellness: (W6-C) “Make it acceptable for people to get away from their desk at lunch if we make it acceptable for people to go out on their breaks.” (W4-C) “We need the whole group to buy into it and a group that gets along really well and has fun together.” Examples of making skill building activities more fun included having more interactive education sessions and demonstrations, competitions, clubs and incentives such as prizes and rewards: (W3-C) “ ... if we had a budget that was a little more significant that you could actually have prizes that people would want to win.”

The two workplaces that had problems with employees in their satellite offices getting involved in workplace wellness activities provided them with the appropriate resources so they could become engaged.

Physical environment

Four people depicted their cafeterias, vending machines, on-site physical activity facilities as physical environments that fostered healthy eating and physical activity.

Planning and evaluation

Five people explained how important planning, evaluation and using best practices are to providing appropriate healthy eating and physical activity programs to staff:

(W1-C) Have an actual plan reviewed or evaluated in a high level way that would allow people to celebrate what they actually have accomplished ...a work team in an area want to be more physically active or eat better set small goals they can aim for over the next couple of months and celebrate the fact that 80% have done it and then they can move to another level and benchmark against that.

4.5 Creating Supportive Environments – Implementation and Receptiveness

Encourage activities during breaks

All of the workplaces created a supportive environment for physical activity and healthy eating by providing opportunities at work during breaks such as lunch clubs that served healthy foods and walking clubs:

(W2-C) One sort of environmental change has been the *Take Back the Lunch Break* campaign. I am thinking culture shift - so getting people to take a break, get away from their desk A health break could mean that I have gone to the gym...I have gone outside to meet with a friend. I am just in the staff room having lunch hopefully there would be some nutrition going on in there but also some kind of activity.

Incorporate into work time

Five workplaces incorporated physical activity and healthy eating into actual work:

(W2-C) [stretch break reminders] popped up on my laptop in the middle of the presentation so we got up and everyone did a stretch. It popped up every 20 minutes so all through the two hour workshop we did it. No one thought it was weird. It is all how you approach it.

A few of the respondents thought it was easier to bring wellness programs to the staff rather than trying to attract them to separate events: (W6-M) “The wellness topics that are in the safety talks are compulsory so everybody gets that info.” Two workplaces incorporated physical activity and healthy eating into off-hours staff events such as healthier food served at a barbeque and a staff skating party.

Incorporate into strategic plan

Respondents from three of the workplaces felt that the health promotion concepts from the HSAW program fit in well with their existing vision and/or strategic plans, or were added in as a result of the program:

(W5-C) Well, I think our mission and vision are definitely recognized as a leader in lifelong health and personal growth. We need to get our staff on board and being active, and eating healthy, and dedicated to lifelong health and personal growth to be a leader in our community. So in that sense, I think this is a good way for us to remind our staff of that, that we all need to walk the walk and talk the talk.

Flexible work time

Four of the workplaces had flexible work hours which allowed staff to select and schedule their working hours to make it easier for employees to eat healthier and be more physically active:

(W2-M) I also have staff that if their lunch hour is a non traditional lunch hour, they've asked to push it to about 2:00 so that it's not as busy in the fitness centre and so we've worked that out. I have some staff that prefer to not have a lunch hour and then they work out either before or after their work day.

Physical environment

The majority of workplaces (n=5) were portrayed as having facilities to support being physically activity such as showers, bike racks, locker rooms and gyms. Half of the workplaces (n=3) are encouraging the use of available resources such as using the stairs instead of the elevator. Respondents in four workplaces explained that having a nice atmosphere, safe walking paths and being located close to amenities as important features that encouraged physical activity: (W3-C) "It's near downtown so people are often going to the bank at lunch and they will get out and walk. We have a field next door that you could do an activity on. It's not like we're surrounded by concrete."

Respondents in almost all the workplaces (n=5) identified well equipped kitchen facilities as a physical environmental support for healthy eating. The workplaces (n=4) with cafeterias, vending machines and snack bars had healthy food choices available for staff: (W2-M) "I know the cafeteria has provided special healthy menus and selections. They list the healthy items. (W2-C) "... at least there are some choices [in the vending machine] like *Oatmeal to go*, cereal bars, and food not so bad. Not all chocolate bars and chips." One workplace made the environment more difficult for staff to eat unhealthy food:

(W5-M) One thing that we did implement in regards to unhealthy food was made it a little bit harder for it to be convenient, so if staff go and get takeout (fries etc.)

then they must go eat it in the back room. They can't eat it out in the public area. No one ever wants to eat in the back room. They end up making healthier choices because they've made it harder.

Wellness committees

Respondents in all of the workplaces expressed the importance of the wellness committees for wellness programming. Several (n=5) explained how the structure of the wellness committee, such as having representation from all departments and having a Terms of Reference, built support and commitment to the wellness programming. In one workplace the wellness committee was part of the Health and Safety committee which also ensured there was representation from staff and management.

Sustaining the workplace wellness committee

When asked about sustaining a workplace wellness program after participating in the HSAW program, respondents in all of the workplaces felt that there was some degree of commitment from employees, wellness committees and management to continue and expand:

(W4-M) Our workplace wellness committee plus the healthy steps have really opened our eyes and made it a priority to eat healthier and stay physical and I think that it has created a culture here in the [name of office] that appreciates that and has come to sort of expect that.

(W4-C) Yes, because it has been successful and we're hearing a lot more about it and the importance of it especially regarding workplace balance and that is one of our focuses this year and it is really important and I think management recognizes that and it's a start and it has been evolving.

One manager indicated their workplace would not be continuing a wellness committee because they did not have a formal structure to their committee. Respondents in two workplaces explained how their wellness committees would expand and evolve with more evaluation: (W2-C) “We are developing a work plan. We have a mandate. So evaluating is challenging and we are trying to get data from the employee engagement survey so hopefully we will have some more longitudinal data.” In one workplace the wellness coordinator and manager had differing opinions whether their wellness committee would be sustained: (W5-C) “Yes. It has to do with the nature of our workplace it’s what we eat/breathe/sleep.”

(W5-M) I would say no and the reason being everyone’s plate is quite full and if you ask someone to take something else on, on a voluntary basis, people won’t. I think that it could be something that someone may take on, but to maintain it, would be difficult and that’s just me being realistic.

Positions dedicated to workplace wellness

Three workplaces had positions dedicated to workplace wellness to support the wellness committees and sustain the programs:

(W1-M) We just created a new position called Manager of Employee Engagement and that person’s role will be to work on these wellness initiatives within the organization and ensure we are sustaining that for the future as we expand.

One respondent expressed how a champion spearheaded and motivated the work of the wellness committee but when this person was not available the committee had difficulties.

Access to resources

Half the respondents felt that having a budget and access to resources such as the HSAW and 'Employee Assistance Programs' helped to sustain the wellness committee and wellness programs: (W6-C) "I think if we continue to have access to resources such as the Healthy Steps at Work program that will really help us sustain the wellness program."

Management support

Five of the respondents explained how the HSAW program improved or strengthened management support for workplace wellness by recognizing the benefits such as having more productive employees, decreased work-related stress and injuries, and work/life balance:

(W6-C) Management support in the past was an issue, but the Healthy Steps at Work program was a very big help into getting the management buy in so it is not such a big issue now than it used to be I think managers are now realizing okay maybe we do need to remind people about these things and maybe we do need to have policies in the workplace that encourage people to do these things.

With visible management support a few respondents explained how it motivated employees to participate: (W2-M) "administration is very active, our president, a member of the gym and we see him out there and staff see him out there making a presence which is positive."

One respondent explained that once they developed a 'Take Back Your Lunch' program which was endorsed by upper management it became culturally acceptable to take a break: (W2-C) "Our president was very supportive and quite surprised that people

were not taking breaks we have seen a culture shift ... we are seeing the anecdotal changes and seeing departments now having breaks that didn't before.”

Staff acceptance

Respondents in several of the workplaces (4) felt that employees were accepting of the HSAW program:

(W4-M) ... it's something that I would say seventy percent of all the [name of workplace] employees in [location of workplace] participate in actively. I think it's because of the wellness committee, and the time that everyone puts forth. We have management support from our Executive Director and site managers. It's a real team effort to keep it going and it's been really successful.

Two people were unsure of changes to the employee culture in their workplace:

(W6-M) “ I am not sure if it has become part of the culture yet or if it is still just... yeah - I think we are still in the infancy stage of it so I am not sure they feel that it is part of who we are yet.”

Better morale

Respondents in three workplaces stated that morale was better in the workplace because of the HSAW program: (W5-C) “Over the last year moral, motivation and involvement has increased.”

Improved communication of wellness

Respondents in four workplaces stated that the HSAW program improved communication of health promotion information with staff: (W6-C) “It helped with work/life balance - communication to employees through the newsletter.” (W5-C) “So by

using the healthy steps program, it has shone the light that there are different areas that need to be targeted more than others, so it helped to increase the awareness.”

4.6 Creating Supportive Environments – Barriers

Management support

Most (n=11) of the respondents expressed how their managers showed some degree of commitment toward workplace wellness yet were cautious or unsure about how much time, energy and resources the organization should dedicate to it because it was not a priority: (W3-M) “ if we are doing this on work time we all have jobs to do too so they are saying sure you can do workplace wellness we’ll give you the time to meet and a bit of time to carry out your activities but you cant do it 50% of the time.”

(W5-M) It becomes the bottom of the list because it is not a priority - because everything else that is required to be done whether it be budgets or strategic planning or whatever consistently gets put on top of the list - because those have to be done by a deadline - where this is something that is easy not to do.

One coordinator expressed her frustration that workplace wellness was not as valued as other timely topics:

(W2-C) We had someone working on environmental issues and she got a \$30,000 budget and I am doing workplace wellness without a budget. So to me the messaging is around who is getting money. Now I know there is legislative stuff as well like Health and Safety and things coming down from the ministry like recycling. It is just that there was zero budget for healthy workplace compared to the environment. That makes me sad.

Employee support

Nine of the respondents explain how low morale, stress, workload and personal beliefs fostered an environment where employees were negative toward or incapable of supporting workplace wellness: (W6-C) “I think acceptance. Some people were very resistant to change and making it more acceptable to have an apple or an orange at a meeting instead of a *Timbit*.”

Wellness committee support

Respondents in four workplaces thought that time and workload were barriers for their wellness committees: (W2-C) “We just need manpower and we just need to do it. I don’t think there is resistance. I just have manpower barrier.” One person mentioned the stress on wellness coordinators: (W2-C) “I think that because they are [wellness coordinators] alone they are probably wondering if they are ever making a difference.” One manager believed that they were unable to have an effective wellness committee because of the time and workload issues:

(W5-M) There is no committee. ...if you ask someone to take something else on, on a voluntary basis, people won’t. Everyone’s plate is quite full We’re all working 50 to 60 hours per week, so to add one more thing, in general it would be challenging. I think people look at it as a little overwhelming. Because it is voluntary, people just feel that they don’t have time.

One person was concerned that their wellness committee would disappear because it did not have a formal structure:

(W3-M) Right now we don’t have a Terms of Reference or regularly scheduled meetings and we aren’t treating it the same way as a labour management or health

and safety committee ... It would be too easy for it to disappear now and I don't want that to happen.

Two respondents expressed how their wellness committees did not have the knowledge, capacity or support to follow best practices such as planning and evaluation:

(W2-C) We can't use attendance here nature of the work ... we can measure attendance ... but it is not accurate. A lot of wellness programs use attendance to measure their benefits – people coming to work and they are not sick so we must have a good wellness program I can't get HR to give me any aggregate data for drug use or EAP.

One respondent expressed the negative effect this lack of knowledge had on the wellness committee: (W2-C) "... because it is hard to measure quantifiably - like wow you have improved 22%. Wow what does that mean? Or if you go down one percent - and then you feel like a failure but you are still doing great work."

Nature of the workplace

For most of the workplaces (n=5), the nature of the workplace such as large number of staff, multiple departments and shift work were expressed by respondents as barriers to creating a culture supportive of workplace wellness: (W1-C) "... some inconsistencies in what might be provided to various departments and some of it is because of the size, function of the department. I think our size is challenging." A few interviewees identified the physical building characteristics such as size, space, satellite offices and location as issues to building support with all staff:

(W6-C) I think locations again because we are so spread out that that can be an issue. That is actually our biggest issue - it is easy enough for us to get people

involved when they are at a head office - the outside location we try so hard to try and get them involved - try to get them to participate - but we don't know what else we can do - and we find that very frustrating. So we feel bad that everything we do is kind of centralized but we don't really have any way to get out to them. Not having a safe surrounding environment inhibited staff in one workplace from doing some types of physical activity:

(W3-M) We have some bicycle racks at the front of the library but they are not very secure and one of our employees actually had her bike stolen from it. So they were asking for something more secure but we really don't have space inside the building to put one I am not really sure that has deterred people from bringing their bikes to work or not. But there is definitely a space issue. We don't really have room for it and we can't put it in places where people are going to be falling over it.

Respondents in a few workplaces expressed lack of control over wellness programming as an issue. For example, a manager in one workplace explained how they get direction from head office and do not have the power to make decisions about workplace wellness. Respondents in another workplace were unable to provide some opportunities to their employees for workplace wellness because of the type of workplace:

(W6-M) I think in our [type of organization] I think we have to really be careful of the optics. We don't want the public to be walking into our building and seeing an exercise class going on ... you can just imagine what they are going to be saying ... so I think how the public would perceive some of the things that we are

doing ... private companies can source prizes from external service providers and we are hesitant to do that.

4.7 Creating Supportive Environments – Supports

Organizational commitment

Several respondents (n=9) believed that having organizational commitment for CWHP, such as having visible management support for programs and policies, dedicating more time and resources and allowing staff time to participate, would make wellness programs more successful:

(W6-C) They [managers] are the ones who really have to accept the policies that we put in place, for example the healthy eating policy. If we were to ever put something in place; it would have to be senior management buying into that for it to actually happen – because we can write all the policies we want about healthy eating and how you should have healthy food at meetings but if senior management doesn't agree it is never going to fly.

Return on investment

Half the respondents (n=6) thought that if management could see a return on investment through the benefits to their staff as a result of CWHP, it would make it more appealing to them:

(W1-C) ... it is understanding that the need to invest within their staff members to reduce sick time, improve productivity, improve morale, creative thinking, so it is that whole understanding of the return on investment piece They are getting it more as they are having problems recruiting people and retention. It is also tying

workplace wellness into customer service and need to tie it in and to start with staff first. Reinvesting into the staff, get dividends return of at least one in three.

A few people thought that having research and evidence to provide a business case to managers would be useful. Several people (n=5) felt that evaluating and validating workplace wellness programs would help show the return on investment to management:

(W6-M) Develop some benchmarks and have some way of measuring things like attendance and employee moral, things like that, where we could show some lowered costs in terms of repaying for time and effort that's expended on these things, and increasing employee moral and things like that.

One person mentioned having proper tools to evaluate and validate the benefits CWHP brings to the workplace:

(W1-M) I think there needs to be tangible benefit for the organization for undertaking these different initiatives, and that becomes the more difficult thing for us to do is to measure the impact or benefit of having these initiatives in the workplace. Tools or mechanism to help us validate the activities that we are providing or the initiatives that we are engaging in, create and support the health and welfare of employees would be beneficial because that becomes easier to make that business case for funding to continue with and sustain what we are trying to do.

Access to resources and networking

Several people (n=4) mentioned that external supports for expertise and resources from a third party such as public health would help wellness committees save time and energy developing wellness programs:

(W3-C) We need more step to step of what we need to do, obviously some research into different ones. ... more of a finished product that we can “take them and run with it” pretty quickly as opposed to having to really make it fit your workplace. More support/ tools, and decrease the amount of time it takes for you to actually implement something.

One-third of the interviewees thought that networking opportunities with similar organizations to share ideas and resources would also be helpful. They thought it could be accomplished through conferences, teleconferences, regional meetings, websites and list serves:

(W2-C) I think if there are other networks where people get supports from each other and don't feel alone – because when you are the healthy workplace leader you're very isolated and you really think you are doing it all by yourself so maybe if there was a conference in this area for all people in this area doing workplace wellness stuff coming together and sharing ideas Idea sharing or a pool somewhere like the HSAW website I think that would be more appealing.

Champion or dedicated position

Four respondents believed that finding a “champion”, hiring someone or having a third party oversee the program would also make it easier for a wellness committee to implement programs.

Recognition

Three respondents felt that wellness committees would feel validated for their efforts if they received recognition both internally from staff and management and externally from the community and media: (W2-C) “Anytime we have the workplace

wellness award everyone is so excited; we won the award because we are doing all this stuff. They want to be perceived as a great place to work if it was recognized they want it in the media.”

Mandatory programs

Two respondents recommended mandatory CWH in all workplaces so that organizations would be accountable for the provision of wellness programs:

(W2-C) I think if we had to be accountable to another body and had to demonstrate we were doing something like health and safety it seems to get their attention this right now is more grass roots – we care about employees’ initiative rather than this really makes a difference to the work we do.

(W5-M) It would have to be mandated as a requirement of your job for someone to do that If it was part of our strategic plan or part of our required actions, then it would be done, but because it is voluntary, people just feel that they don’t have time.

4.8 Building Healthy Public Policy – Implementation and Receptiveness

Healthy food choices for meetings

Respondents in one workplace mentioned already having a policy in place for serving healthy food choices at staff meetings:

(W4-M) We’ve changed our in-services to only service healthy. We have two educational days a year that all [name of workplace] staff attends and for the last three years the lunches and snacks have been fruit and healthy sandwiches instead of pizza and donuts that we would have had before.

The coordinator in one workplace explained how they used the HSAW as a guide to help them create a healthy eating catering policy that focused on: (W1-C) “healthier choices and suggested menu items for a small meeting, lunch or dinner.” The manager on the other hand did not think they had developed any new policies. A manager in another workplace stated that they created a guideline for serving healthy lunches at meetings in the last year. The remaining workplaces (n=4) indicated that healthy eating policy or guidelines were something they are working on.

Healthy food choices in facilities

One workplace had a policy to ensure they have least 50 percent healthier food choices in their vending machines. A few workplaces were looking at a policy for food service providers:

(W1-C) I have drafted a food philosophy and I have that going forward because we will be entertaining partnerships of other food service providers i.e. Tim Horton’s. My thought is to develop this so that when we are going into a contractual partnership with someone else, some of the things will still be in place.

Access to fitness

Four workplaces had existing policies for staff to have access to, or be subsidized for a membership to fitness facilities. In one workplace the coordinator thought they had a subsidy for physical activity but the manager did not think it was a written policy. One coordinator wanted a policy in their workplace to cover fit breaks in meetings: (W2-C) “My next dream would be to have a meeting culture policy – so that at every meeting

there would be healthy choices offered and at every meeting there would be a fit break if it is more than two hours.”

Flexible work time

Half the workplaces (n=3) had existing flexible work time policies: (W4-M) “One of the policies is allowing a more flexible schedule to allow staff to go for walks on work time and use a half hour to go out to walk.”

4.9 Building Healthy Public Policy – Barriers

Not a priority

Nine respondents thought that developing health related policies was not a priority to management, wellness committees or employees in their workplace:

(W3-M) You can't sort of push, push, push with things [with management]. I am not sure if they see a need for all of these guidelines just at the moment. I think too that one of the barriers about these guidelines has been that we may not have thought that we really needed them. We may just not have thought of that yet

I don't think it really has been on the radar but we could put it on the radar.

(W4-C) “As an employee it would be great if it was a priority, but my clients are the first priority.”

Time and process

Most (n=9) of the respondents pointed out that time and process were barriers for an employee or the wellness committee as a whole to take the lead to develop health related policies:

(W2-C) Time – because to get a policy developed you have to take the policy on a road show around here ... and trying to get input from people, talk to the right

people, did I go to the right union table, did I go to this table, do I go to senior managers, did I go to the board.

Implementation of policies

Five respondents thought that the supports for implementation of health policies such as enforcement, education and resources would be a barrier for their workplace:

(W1-M) “It comes down to some of the enforcement of it. I mean once you make it a policy that becomes something that we have to enforce. Sometimes that is not always possible to enforce some of those things.” (W2-C) “It is not enough to have a policy, but is there education that follows after that – so is one thing to have a policy but have we got the resources in place to follow up with what needs to happen to make a culture change.”

Three respondents expressed how they favour guidelines over policies because of politics and enforcement issues: (W1-C) “How political is it. Sometimes easier to have guidelines developed and if it becomes an issue then turn into a policy.”

Nature of the workplace

Characteristics of the workplace such as variety of departments and type of work (e.g. shift work, office work or outdoor work) were expressed by three respondents as barriers to developing health related policies accessible to everyone:

(W5-M) It’s hard because in every department break times and flex times are very different; we have such different departments and divisions that it’s hard to make consistent rules or provide consistent policies and guidelines that are the same for everyone.

4.10 Building Healthy Public Policy – Supports

Return on investment

Half of the respondents thought that showing a return on investment for policy development would make it more appealing to a workplace. Some also thought that a business case showing the benefits of health related policies would be helpful:

(W1-C) I guess if they understand the full scope of what the return on investment for having activities going on and then policy is key to keeping it going and evaluating it - they probably would want to do it. Business case for decision makers.

Organizational commitment

Five respondents expressed a variety of ways to foster organizational interest in health related policies such as educating staff and showing the need for policy. Both internal and external pressure from staff, media and government were mentioned as motivational factors for workplaces to take policies more seriously:

(W5-M) If it was promoted within the community, it would probably be more motivating. If word got out that we were making a positive step toward etc. etc. Good press is always motivating. Bad press - or if there were negative consequences, then they might be motivated to do things.

(W1-C) “Business case for decision makers. Needs to come from a broad spectrum of people interested in wellness – human resources lead, wellness team is definitely key.”

Resources and networking

Several interviewees felt that resources, experiences and examples from other workplaces or networks would help their workplaces develop and implement policies:

(W3-M) What would be helpful to me is if we have some guidelines like a template for some of these things that we could look at and review and customize

to our situation. I think that might be helpful for us as a committee so that we don't have to do all the work.

Simpler process

One person mentioned that their workplace needed a simpler process for developing policies:

(W2-C) A simpler process for policy development and a standard change management system so that when we have a policy developed there is a rollout of some kind of process that would make sure we have done everything that we needed to do. How are we going to inform, communicate, educate, build awareness, make sure people are doing it?

4.11 Strengthening Community Action – Implementation and Receptiveness

Charitable organizations/fundraising

All of the workplaces worked with charitable organizations that incorporated healthy lifestyle activities such as: Dragon boat races, walkathons, 'Meals on Wheels', golf tournaments, and food bank donations.

Community collaboration

The majority (n=5) of the workplaces collaborated with community partners by promoting community activities to staff through emails, bulletin boards or displays and providing in-kind supports off or on-site, such as providing space, resources and staff time for activities. One workplace was involved in supporting healthy lifestyle related improvements to their community: (W2-C) "... we are on the communities' sustainable walk to work ... that is trying to get more bike and walkable trails that people could leave their cars."

Networking

Four of the workplaces participated in the Simcoe County Workplace Wellness Network (SCWWN), a community network that provide newsletters and educational opportunities to its members, and Good for Life, a community heart health project where community groups use heart health promotion strategies to foster changes in the community. Two workplaces participated in provincial networks that collaborate on workplace wellness:

(W6-C) ...we do have the ability to share things and gather things from other [type of workplace] ... although up until now it has been more health and safety related. We are expanding and getting on to the wellness topics with other [type of workplaces] - so sharing knowledge and experience.

Nature of the workplace

Respondents in three workplaces explained how they were obligated to provide health promotion activities out in the community because of the nature of their work or it was part of their strategic direction: (W2-C) “So it is very important that we are connected to our community ... for being a good corporate citizen...it is just what we do.”

*4.12 Strengthening Community Action – Barriers**Time and energy*

Eight interviewees believed time and energy were barriers for employees to get involved in community activities:

(W3-M) When I went to management and said that I thought this would be a good idea they said yeah sure that is great but you look after it and it is sort of one

of those things that it is my job for life. When you suggest something like that you usually get the task of looking after it. I think it is a lack of initiative or I think management would be generally supportive of things.

Not a priority

Half of the interviewees explained that their workplaces may not have been as active in the community due to competing priorities and employees and management not seeing the value of it: (W3-M) “It may just be people haven’t suggested it or stepped up to do it.” (W6-C) “... if you don’t have management buy-in then we don’t have the ability to go out and canvass employees to support.”

Three people thought that having to put resources, such as staff time, toward external groups were barriers for their workplaces to participate in lifestyle related community activities:

(W1-M) The biggest barrier would be trying to ensure we are participating in things that are adding value and one thing would be that you can’t participate in everything so I am sure there are things that we best participate more in but resources just aren’t there for us to do that all the time.

Two respondents explained that their workplaces did not have the knowledge or desire to learn how to connect or participate in community activities:

(W4-M) I think it’s just been know how. I have no idea what goes on in the community that has to do with different organizations getting together to promote wellness. So that type of know how, plus how to get involved with it - what it would consist of. I don’t think we’ve looked outside our own little backyard.

Nature of the workplace

One person felt that their workplace had to be careful with who they supported in the community: (W6-C) “Because we are [type of workplace], it is kind of hard. We sometimes have to limit what we do because of the exposure and the visibility that we have to the public.”

No policies/inconsistent support

One coordinator felt that not having a policy made it difficult for everyone in the workplace to participate in community activities:

(W2-C) Barrier - there is not a written policy or something in our benefit package that would say that you could take a day off – so even though it would probably be supported - but maybe another manager in another dept wouldn't because it isn't written anywhere or it is not in our benefits there could be some inequities there ... it is not across the board.

4.13 Strengthening Community Action – Supports

Return on investment

Most respondents (n=10) expressed that if their management knew the value to their workplace by investing time and energy into lifestyle related community activities, it would be more appealing. Examples of some of the benefits to organizations for community action included recognition from the community, cost and resource sharing for lifestyle activities and improved staff morale and/or sense of wellbeing:

(W1-C) Buy into return on investment for their own staff and work/life balance and benefits and future focus. Recruitment and retention - it helps them become the employers of choice - when you are looking at workforce replacement succession planning, that kind of thing.

(W3-M) I would say they would have to be free or low cost activities. Sometimes we like to partner with other organizations so if there were offers of partnerships or something by another organization that might look after some of the details for us ... because it is sharing the workload and time.

Resources and networking

Five of the interviewees thought that community networking or a database that provided a forum to share experiences and learn about community needs would make it easier for workplaces to participate in community activities:

(W1-M) Knowing where to find info on what is happening in the community ... I don't always know what is happening in the community so having a central location to find that info would be great Organizations can see how they can get involved, what it would mean to that community event or how does that benefit the community at large would be good to have. Find out what other organizations are doing or what the different community agencies are doing. If there was a way to network more with the agencies in the community... There is a number of agencies but you always think of the most prominent ones - but there are a number of smaller community agencies that the general person doesn't know a whole lot about.

Organizational culture

Four people thought that organizations could make the workplace environment easier for staff to participate in community activities, such as having a policy allowing paid time for community activities. A few mentioned educating staff about the benefits of community volunteering:

(W6-C) If there is anything that the employer can do to make it easier and help the employees I think that would make it more appealing. Make it acceptable, find ways the employees could get involved and help out with that. I think the hardest part is the employee wants to do something but they don't know how to do it, so, as the employer, we could provide them with resources on what they can do and how they can do it that may help them. Education and time.

Conversely, two people thought that if staff came forward and justified why there was a need to participate in community activities, management would have been receptive:

(W2-C) So we would have to have people formally come forward to say that they want to volunteer - but can I get time off work to do that - and bring awareness of that to senior management team. If they could demonstrate that they want to do something. ... I need the day off they would have a really good case - I don't think it is an issue to participate.

Social responsibility

Having a sense of social responsibility was expressed by half the interviewees as a motivating factor for workplaces to be more involved:

(W5-M) We are a part of the community. That is the way we see ourselves, so we're here to support our community as much as we can. We try as much as we can to support the community in all sorts of ways, and it is a good way for us to get our [people at the workplace] actively engaged and involved in the community as well. I think that we have a responsibility to our community.

Chapter Five – Discussion

5.1 Introduction

The purpose of this study was to identify supports and barriers for workplaces to implement CWHP strategies, as outlined in the HSAW toolkit, in addressing the physical activity and healthy eating behaviours of employees. Questions for the key informant interviews were adapted from a variety of evidence-based assessment tools used to evaluate CWHP programming. Twelve key informants, which included a manager and a HSAW coordinator from each of the six pilot sites that participated in the project over a one year period, provided information in telephone interviews to address the following questions:

1. How were initiatives from each of the strategies of CWHP in the HSAW toolkit implemented by the workplaces and received by the employees?
2. What are the barriers and facilitators for workplaces to implement each component of CWHP and for employees to participate in CWHP?

The results of the interviews were analyzed for common themes and compared to other relevant CWHP research. The following main findings provide some insights into the intricate, dynamic and interrelated issues and successes of CWHP programming.

5.2 Interconnectedness of CWHP Strategies

The interconnectedness of the CWHP strategies was apparent when developing the questions for the interviews and analyzing the data. In writing this discussion, the components of the CWHP strategies could not be clearly delineated, thus emphasizing the importance of this interrelationship. An evidence-based document about CWHP by the HCU (2004b), a Health Promotion Resource Centre affiliated with the University of

Toronto, explains how the various strategies are often separated in theory, but complex and overlapping in practice.

Respondents in this study often discussed strategies within other strategies reinforcing the evidence that they are not necessarily distinct but complimentary, for example: Implementing *policies*, such as flexible work time and fitness subsidies, to encourage employees to participate in *skill building* activities; educating and raising awareness (*develop personal skills*) of staff about the benefits of *community action*; building mutually beneficial relationships with *community partners* to strengthen and provide *skill building* opportunities; and allocating a budget and resources to wellness committees (*environmental supports*) to support educational and *skill building* activities.

5.3 Information Environment

This study revealed that all the workplaces involved in the HSAW pilot project created information environments as a first step for CWHP. Every single wellness committee readily made use of the downloadable educational information from the HSAW toolkit for bulletin boards and information centres. As a result, the wellness committees saved time and effort researching and developing best-practice resources and activities but still had to put energy into organizing and implementing the programs and motivating employees to participate. All the worksites provided educational sessions and demonstrations as a way to bring the health information to life. They suggested making skill building activities fun and appealing to all employees by offering prizes, competitions, buddy systems or clubs as incentives. In a similar qualitative study (Gates et al., 2006) of a CWHP program, with manager and employee focus groups, the authors recommended that workplaces obtain resources to assist with planning and implementing

programs from public health similar to what was provided in the HSAW toolkit. Gates et al. also identified educational strategies as one of the most important environmental supports workplaces can provide for CWHP. The participants in their study suggested kickoff events and campaigns to educate employees about impending CWHP changes in their workplace. They also recommended ongoing educational strategies for CWHP, including the use of interactive games and quizzes and healthy recipes to be provided as handouts or electronically, similar to this study.

5.4 Skill Building

All the respondents in this study expressed positive perceptions of receptiveness of employees to the CWHP resources and skill building activities. Some respondents in this study felt certain employees were more receptive than others. Employees most likely to participate on a regular basis tend to be highly motivated, already involved in healthy behaviour and have fewer health problems, which may not be representative of the general employee population (Rost et al., 1990). Respondents perceived the lack of interest due to several reasons including lack of time, heavy workload, and stress. Work-life balance, for instance using breaks to run errands, was depicted as affecting employee's ability to participate in activities occurring on personal time. The negative mindset toward CWHP was also attributed to employees lacking motivation or feeling uncomfortable participating in activities. Similarly, Gates et al. (2006) determined from the manager and employee focus groups that the greatest challenges for people to participate in activities were related to lack of time and enthusiasm. In another study where coordinators of a Healthy Heart at Work CWHP program were surveyed, McMahon et al. (2002) also identified insufficient time, resources and personnel, and

lack of enthusiasm and/or negativity as barriers for CWHP. Additionally, they found workload, type of work (e.g. production line) and shift work as barriers for implementing programs. Respondents in this study of the HSAW pilot sites also expressed how their wellness committees struggled with programming because of the nature of the workplace including shift work, number of staff and being accountable to the public.

A randomized controlled study (Makrides et al., 2008) in eight workplaces revealed that providing on-site programs at convenient times for employees may improve participation and retention in health promotion programs. The results yielded from the HSAW respondents were somewhat different in that, although all of the workplaces provided on-site activities during breaks and convenient times, there was poor participation and low motivation when employees had to do it during personal break time. Respondents repeatedly recommended making it convenient and easy for staff to participate by allowing paid time and flexible working hours, especially for physical activity programs. Grzywacz et al. (2007) examined the association between workplace flexibility and healthy behaviours and found that the frequency of physical activity was positively related to perceived flexibility and that it plays an important role in CWHP.

Several HSAW respondents recommended their workplaces go a step further in their commitment to CWHP by incorporating physical activity and healthy eating into actual work. Compulsory health talks during meetings, serving healthy food choices at meetings and having stretch breaks come up on computers at regular intervals during work time were deemed to be effective strategies, although not apparently evaluated. Comparing employee attitude regarding on-site programs offered during work time and break time warrants further investigation.

5.5 Environmental Supports

Based on the evidence-based research (Brissette et al., 2008; Engbers et al., 2005; Gates et al., 2006; Makrides et al., 2008; Pelletier, 2005; Plotnikoff et al., 2005; Simpson et al., 2000), the examples provided in the interviews to assess the four CWHP strategies (skill building, environmental supports, policy development and strengthening community action) were in fact environmental supports. Environmental supports, defined as ways the workplace makes wellness programming easy, acceptable and part of the norm for employees, are the heart of CWHP (Engbers et al., 2005; Gates et al., 2006; Glanz & Mullis, 1988; McLeroy et al., 1988; Plotnikoff et al., 2005; Simpson et al., 2000). Four key themes for environmental supports were repeatedly identified as both barriers and successes for CWHP including wellness committees, organizational commitment, organizational culture and physical environment.

Wellness committee

The respondents in the HSAW pilot sites identified the necessary role of wellness committees in planning, developing and implementing the dynamic CWHP programs during the year of the pilot project. Having a formal committee with Terms of Reference and representation from all levels of management and departments was deemed essential. Some suggested linking their wellness committee with their Occupational Health and Safety committee because it is a mandatory formal committee already in existence with employee and management representation. Having dedicated positions, access to resources and management support were also expressed as vital to the fundamental nature of wellness committees. Correspondingly, in the Gates et al. (2006) study, the focus groups of managers and employees identified 'advisory committees' or wellness

committees as an important environmental support for CWHP. Gates et al. established that the wellness committees served as the ‘champions’ and the ‘communication hub’ for maintaining and sustaining CWHP. The managers in their focus groups suggested the wellness committees be combined with other company meetings to make it easier and be ‘less of a burden’, as well as have representation from all job categories, be short, structured and fun, whereas the employees in their focus groups recommended more organizational supports such as allowing meetings during company time and management support. Similarly McMahon et al. (2002) found that respondents in their study believed there needed to be a “champion” interested in the CWHP program in order to maintain and sustain its evolution. Brissette et al. (2008) concluded from results of a survey from randomly selected worksites in New York that workplaces with a wellness committee or wellness coordinator were associated with more health promotion supports than those without. Moreover, they found that workplaces with both types of supports had more health promotion programs for healthy eating and physical activity than those with only one.

The wellness committee was acknowledged by the HSAW respondents as a key support for fostering the culture of acceptance and interest of both employees and managers for CWHP. Conversely, having a culture that is supportive of CWHP makes it much easier for the wellness committees to do their job. Evidence suggests (Brissette et al., 2008; Matson-Koffman et al., 2005; Serxner et al., 2004) that having both employee and employer support through a wellness coordinator or committee are strong indicators for successful and sustainable CWHP programs.

Organizational commitment

The majority of the respondents recognized that their managers showed some degree of commitment to CWHP yet were cautious or unsure of how much to commit. It appeared that the pilot sites in this study were more receptive to the fun and simple components of CWHP the wellness committees were responsible for, and employees participated in on their own time. Some respondents explained how their management was reluctant when they had to invest time, responsibility or budget to the more serious environmental supports of CWHP such as policy development or allowing paid time for staff to participate. Similarly in focus groups conducted by Gates et al. (2006), the employees and managers believed their organizations lacked the resources and time to plan and implement CWHP programs. Gates et al. countered this finding by discussing how environmental approaches can be low-cost requiring minimal personnel time and resources, as well as being more sustainable over time. The HSAW results also dispelled this finding as respondents provided examples of environmental supports widely ranging in costs and level of effort required; however, their effectiveness has yet to be evaluated. McMahon et al. (2002) found that the main obstacle to CWHP was when managers were slow to commit or to recognize the need for policy. Lowe (2004) succinctly defined resistance of CWHP from front-line managers as the 'Achilles heel'.

Along with organizational commitment toward the wellness committee, respondents in this study suggested several other supports necessary to sustain and maintain CWHP including having visible management support, encouraging employee support, making it a priority and incorporating it into the vision or strategic plan, and utilizing planning and evaluation to determine employee needs, provide direction for effective programming and recognize the accomplishments of the wellness committee. The environmental

supports described in this study were similar to examples provided in a Health Canada workplace health discussion paper (Lowe, 2004) which included incorporating health into the business strategy, integrating health into corporate values and vision, including health into an 'employer of choice' strategy, identifying health and wellness problems and needs within the organization, and building on earlier health promotion initiatives. Other research also recommended the alignment of wellness objectives with senior management (HCU, 2004a; Makrides, et al., 2007; Marshall, 2004; McMahon et al., 2002; Serxner et al., 2004; Shain & Suurvali, 2000) as essential to provide an infrastructure of support (Matson-Koffman et al., 2005).

Organizational culture

Although the results of this study clearly showed the importance of management support for CWHP, respondents also identified employee commitment as essential for fostering a culture of acceptance. Some felt employees could have played more of a role in identifying the healthy lifestyle issues in the workplace and advocating for CWHP. This corresponds with the HCU (2004a) information package on CWHP that emphasized the importance of management commitment for CWHP as well as the management practices being influenced by the workplace culture (HCU, 2004b). Similarly, a discussion paper by Health Canada (Lowe, 2004) pointed out that significant involvement from all employee groups in an organization is equally as important as management support. Lowe cited Tushman and O'Reilly (1997, p. 200) who stated that "If there is one clear result from the research on change management, it is that employee participation increases individual ownership and excitement and, in turn, decreases individual resistance to change."

Respondents in all the workplaces in this study expressed, to some degree, a culture shift for both managers and employees in accepting and normalizing CWHP as a result of participating in the HSAW program. Many recognized that it takes time for the culture to shift but some found that during the year of the pilot project staff morale and workplace wellness communication amongst staff and management improved. McMahon et al. (2002) also found that the participants in their study felt that the CWHP program helped improve employees' morale and gave employees the perception that management cared about their health.

Physical environment

Wellness activities incorporated into the existing physical environments such as fitness facilities, showers, vending machines, and cafeterias were a good fit for some workplaces. The workplaces that did not have the luxury of these types of supports, made use of inexpensive on-site or surrounding facilities and amenities such as stairways, hiking paths and tennis courts, or provided subsidies or passes to off-site fitness facilities.

Similar to the findings in this study, a randomized controlled led study (Simpson et al., 2000) of CWHP programs, found vending machines, showers, and bulletin boards to be common physical and environmental characteristics influencing health related behaviours. Simpson et al. also established bicycle racks, visible stairways and signs related to nutrition and health promotion as uncommon physical and environmental characteristics. This was not quite the case for the HSAW pilot sites, as they all had bicycle racks available, and half of the workplaces used stairways as environmental supports for health promotion activities. Signage, on the other hand, was not mentioned by any of the respondents, similar to Simpson et al.'s finding. In the qualitative study of

CWHP by Gates et al. (2006), it was interesting to note that they concluded nutrition and health promotion signage to be one of the key environmental supports. Since signage was not emphasized in the HSAW toolkit, these differences in findings may be related to how much they are emphasized as an environmental support in a CWHP program or resource.

Employees at the HSAW pilot sites were receptive to healthy food choices available in facilities such as cafeterias, snack bars and vending machines. Unfortunately these supports were also expressed as barriers because of the simultaneous availability of the convenient unhealthy food choices to which staff gravitate when they are busy or stressed. Allowing unhealthy food to be consumed only in a back room away from public view was perceived to be an effective intervention, although it was not evaluated. Having more stringent nutrition supports, such as ensuring there are three or more healthy food choices available as identified by Brissette et al. (2008), or totally banning unhealthy foods at point of purchase or at catered events merits further investigation.

Although the physical environment was a support for workplaces, it also presented some issues for wellness programming due to multiple sites, space, unsafe neighborhoods and inclement weather. Similarly, employees and managers in the Gates et al. (2006) focus group study identified safety, weather and lighting of walking paths as a challenge for CWHP programming.

5.6 Policy Development

Although respondents in all the HSAW pilot sites identified the need for lifestyle related policies for sustaining the strategies of CWHP, the results showed that only a few workplaces developed new policies or guidelines related to healthy eating as a result of

the pilot project. Flexible work time and fitness subsidies were already established in some workplaces. Most of the respondents indicated that development of lifestyle related policies were not a priority for management, staff or wellness committees. This result was similar to findings of a key respondent survey of experts in the field of CWHP (Wilson et al., n.d.) who acknowledged policy development as a major shortcoming with many organizations.

Respondents in the HSAW pilot sites explained that management in general may not be keen on policy development because it is controversial and would require resources for enforcement and education. Avoidance by management along with a “time consuming” and “convoluted” process were expressed as barriers for wellness committees to undertake policy development. Some respondents questioned the potentially political and restrictive nature of policies over the softer approach of health promotion and viewed healthy eating and physical activity as personal choices and not the business of the organization. Correspondingly, the focus groups of employees in the McMahan et al. (2002) study revealed that there was an overall feeling that healthy eating and exercise was up to the individual and not the employer but improved facilities would be welcomed. This authenticates the caution that McLeroy et al. (1988) made in their study about how policy approaches, such as only allowing healthy foods in vending machines, may be viewed as restricting individual rights and freedom.

Most of the respondents in this study explained how more demand and support internally and externally is needed for their workplaces to address wellness policies. McLeroy et al. (1988) believed that educating and involving individuals in CWHP reduces resistance and the perception of paternalism. Furthermore several researchers

(Matson-Koffman et al., 2005; Sorensen et al., 2004; Yassi, 2005) suggested that collective decision-making by employees and employers for CWHP policy and environmental strategies will promote the long-term sustainability of the program.

In this study it was interesting to note that there were differing opinions in one workplace about whether or not there were lifestyle policies in place and some respondents were also not clear on the difference between policies and guidelines. Similarly, in a study by McMahon et al. (2002) the employees who participated in their focus groups were aware of the lifestyle initiatives of the CWHP program but not of policies and practices that impacted the workplace environment. This may indicate that employees are not aware or do not understand the significance of lifestyle related policies and that it needs to be better defined in future research, or the concept better promoted. Wilson et al. (n.d.) recommended more external supports, incentives and resources to assist the workplace sector with the evolving policy context of CWHP for better adoption. They further suggested that the government may have to step in to offer incentives such as tax breaks or create macro-level strategies.

5.7 Strengthen Community Action

McLeroy et al. (1988) concluded that once CWHP becomes “institutionalized” into the organizational culture, it can then be the perfect “host organization” to diffuse support out into the community. McLeroy et al. (1988) believed that the workplace environment is an important transmitter of social norms and values. The majority of the HSAW workplaces indicated that they promote fitness programs, farmers markets, surrounding outdoor facilities and other lifestyle related community activities, to their staff. Some partnered with or invited community partners on-site to provide lifestyle

related skill building opportunities to their employees. It was not clear if the HSAW workplaces were participating in charitable community activities to benefit the health of employees and people in the community or for other reasons such as corporate image. For example, several workplaces made donations to the food bank; however, there was no mention of healthy food choices being donated.

This study revealed that competing priorities and minimal management support were expressed as reasons why workplace involvement in the community may have been limited. Respondents perceived that management in general may not see the value in the extra responsibility and expenses related to community work. They also indicated that workplaces may find it overwhelming to determine which groups to work with or how to get involved.

Respondents in all the workplaces explained that there was a lack of interest in volunteering or getting involved in community activities because of the insufficient time, energy and personal resources needed. Lack of organizational commitment, such as policies, management support or paid time to participate, was also mentioned as deterrents for employees. Conversely, without employees showing interest or expressing the need to participate in community activities, employers may not have been motivated to take action and maintain partnerships or collaborations. In writing this discussion, it was discovered that there was not a great deal of research on this topic and therefore it was difficult to make comparisons.

Minimal management and employee support for community activities may indicate that there needs to be more education of the reciprocal benefits the “strengthening community action” component of CWHP can provide to employees and

people in the community. Correspondingly, experts in the field identified in a survey that there needs to be more promotion of the comprehensive ecological perspective (i.e. intrapersonal, interpersonal and broader environmental factors) for CWHP (Wilson et al., n.d.).

5.8 Return on Investment

Respondents in this study believed that educating and raising awareness of the workplace sector in general about the financial and health benefits related to investing in all the strategies of CWHP would make it more appealing. The perceived benefits to employees and the organizations mentioned by respondents included reduced absenteeism, improved health, productivity and morale, creative thinking, better recruitment and retention of employees, customer service and public image, and positive media attention. Similarly, focus group participants in the Makrides et al. (2007) study also believed that CWHP programs in their workplaces demonstrated a good return on investment for both employers and employees. HCU (2004a) literature explains that when organizations value and improve the health of employees, it improves their organizational profile and attracts and retains better employees. Several studies (Dunet et al., 2008; Katz et al., 2005; Pelletier, 2005; Reidel et al, 2001) have established that wellness programs integrated into the organizational culture provides a greater return on investment by improving clinical and cost outcomes associated with chronic diseases when compared to programs not integrated into the organizational culture. Wilson et al. (n.d.) recommended the development of a relevant CWHP business case for the workplace sector based on empirical evidence and cost benefit analysis.

5.9 Resources and Knowledge Exchange

The respondents in this study explained the need for workplaces to have access to published information, research, evidence and best practices to help overcome the barriers of time, effort and lack of knowledge when implementing CWHP. They recommend other external supports such networking and educational opportunities, having an external third party to lead the program and making CWHP mandatory with legislation. Similar to this study, coordinators in the focus groups conducted by McMahon et al. (2002) expressed the need for access to more information, training and networking opportunities. McMahon et al. concluded that without intensive and ongoing support within organizations, CWHP would not be sustainable. In a survey of several worksites, Brissette et al. (2008) also concluded that there was a need for more information about existing on-site wellness supports. Brissette et al. also concluded that worksites with fewer than 200 employees have an increased need for assistance in establishing environmental and policy supports for lifestyle behaviour topics. Half of the pilot sites in this study fall in this size category and exhibited the same need for assistance. The discussion paper on workplace health by the Canadian Council on Integrated Healthcare (2002) indicated that the government can play a critical role through policy, communication strategies, and tax incentives in enabling and encouraging healthy workplaces.

5.10 Planning and Evaluation

A few workplaces conducted a needs assessment to help their wellness committees determine where to effectively target their efforts, and achieve better results. In HCU literature about CWHP, it clearly identifies that

[a]ssessing and understanding employee's needs and preferences is an essential part of the process. If a workplace health promotion program is going to be successful, it has to reflect what employees themselves consider important. Data collected and assessed should include the following: Baseline information/profile, employee needs assessment, organizational culture assessment (HCU, 2004a, p.10).

Effective use of planning and evaluation strategies were rarely mentioned by the pilot sites in this study; however, it was not asked for specifically in the interview questions. All of the interviewees used anecdotal observations and conversations to determine receptiveness of their wellness programs and activities. The majority of the workplaces used process evaluation for some of their activities which revealed number of participants and number of resources distributed. One workplace used a survey tool for an activity; however, only people in attendance were surveyed, which created bias in the results. Two workplaces used formal survey tools to evaluate receptiveness of the wellness activities in general. Respondents acknowledged that lack of evaluation was a problem because it did not validate the work of the wellness committees; nevertheless, they felt they did not have the capacity or knowledge to conduct them. Correspondingly, Lowe (2004) clearly indicated the importance of evaluation for providing learning opportunities for employees and managers and improving programming. Lowe also felt that if evaluation is done it should be converted into useable knowledge to institute decisions and actions; otherwise it is a useless ritual that wastes resources. Likewise, other experts and practitioners in the CWHP field identified the need for the workplace sector to better conduct evaluations of CWHP programs in order to contribute to the knowledge base and support best-practices (Wilson et al., n.d.). Conversely they also

believed that planning and evaluation is dependent on economics and that workplaces may need external resources and expert supports.

5.11 Long-term Commitment

The results of this study revealed that CWHP programming is complex with many inter-related layers that require a lot of time to build organizational comfort and commitment. With the HSAW pilot project only being one-year in length, a few respondents expressed that the concept of CWHP was new and that they were just getting started. Long-term commitment for CWHP has been deemed necessary by several researchers (HCU, 2004a; Lowe, 2004; Makrides et al., 2008; Matson-Koffman et al., 2005; Sorensen et al., 2004; Yassi, 2005). Riedel et al. (2001) believed that a CWHP program should be sustained for at least three to five years to demonstrate cost benefits. Programs that include a variety of interventions to serve employees at all stages of readiness, have management support, and are sustained for more than one year are more likely to be effective (Health Canada, 1995; HCU, 2004a; Serxner et al., 2004).

5.12 CWHP Model

Most of the respondents indicated that their organizations did not think all of the strategies of CWHP were a priority and that management and wellness committees seemed to be hesitant to move beyond the fun and easy activities and into the more serious areas such as policy development. It appeared as though all the pilot sites gravitated toward the more basic and easy to implement skill building components in the HSAW. For example, when respondents talked about expanding CWHP, many of them focused on education and 'fun' activities. The respondents' perceptions of receptivity of

employees for CWHP was also centred on the skill building activities; however, this may not have been asked clearly for each of the strategies.

The findings from the HSAW pilot sites were similar to the findings in the focus groups conducted by McMahon et al. (2002), which revealed that employees mainly identified the lifestyle challenge, healthy eating and health awareness days and not so much with the holistic and ongoing nature of the program such as policy development. McMahon et al. found that their CWHP program was not implemented as intended because of lack of understanding of the comprehensive approach. It was not viewed as a sustainable program but more as a one-off or ad-hoc initiative that lacked support from within the organization. These study results may demonstrate why most of the research to date has focused on intrapersonal factors such as knowledge, attitudes and skills and not on the organization itself and why there is minimal scientific consensus about the overall efficacy of CWHP interventions (Chu et al., 2000; Heaney & Goetzel, 1997; McLeroy et al., 1988; Oldenburg et al. (2002); Plotnikoff et al., 2005; Sallis & Owen, 1997; Simpson et al., 2000; Yassi, 2005). According to the findings of interviews with CWHP experts and practitioners, it was identified that there is a need for a more conceptual framework and evidence-based practices for CWHP applicable to a variety of workplaces and employees (i.e. small businesses, shift workers) (Wilson et al., n.d.).

While it may be important for researchers to define the broad multi-layered strategies to address the complex issues surrounding CWHP, it may be an easier concept for the workplace sector to grasp if it was simplified. Engbers et al. (2005) believed that workplace interventions need to aggressively pursue environmental factors to alter the workplace culture to become more health conscious. A CWHP model that emphasizes

environmental supports may reduce workplaces from leaning toward the simple skill building activities that place most of the responsibility on individuals rather than both the individuals and organization.

5.13 Limitations of the Study

As with any qualitative research, this study had limitations. Most importantly, since the pilot sites were not randomly selected, the findings from the six worksites in Simcoe and Muskoka may not be transferable to other workplaces. Although the HSAW advisory committee utilized criteria and attempted to approach a variety of workplaces representative of Simcoe and Muskoka to apply for the pilot project, selection bias (Creswell & Plano Clark, 2007) may still have occurred. Once the pool of workplace applicants was gathered, the HSAW advisory committee attempted to strategically select a variety of 10 workplaces using an environmental scan. There may have been volunteer bias; workplaces that agreed to participate may have been motivated to change or have more attributes (e.g. time, management commitment, human resources, etc.) enabling them to be more involved than other workplaces that declined (Neutons & Rubinson). With the limited number and type of workplaces participating in the study, the findings may not have been representative of other employees or worksites in general (Creswell et al., 2007).

Some limitations with the survey design were identified in the discussion section. The questions could have been better worded to elicit more information about the receptiveness of employees to environmental supports, policy development and strengthening community action, and better defined for strengthening community action

and policy development. The key respondent interview questions were not pre-tested; therefore reliability and validity must be considered when interpreting the results.

Establishment of CWHP programming requires long term commitment, and changes to the workplace environment may take longer than one year. As mentioned in the SMDHU Evaluation Report (2010) evaluating the pilot project over one year may not have allowed time for the more process-oriented and sustainable components of CWHP, thus impacting the findings. Also acknowledged in the SMDHU Evaluation Report (2010) from the pre and post-program survey was that the pilot sites were at various stages in their workplace health programming when they started the pilot project; some having established programming, others having none, which would have certainly impacted the results.

Even though an interview guide was used and the interviews were transcribed verbatim, bias in interpreting the results was possible due to the researcher's experience in public health and workplace wellness programming; although that bias could've been counteracted by the researcher's training in qualitative research as well as using evidence-based semi-structured interview questions.

This qualitative study, involving a small number of key respondent interviews, was exploratory in nature providing rich and valuable insights into the HSAW coordinators and managers perceptions, but was not intended to be generalized (Creswell & Plano Clark, 2007).

Chapter Six – Conclusions and Recommendations

6.1 Conclusions

Developing the information environment and implementing skill building activities appeared to be the first step for CWHP programming for the HSAW pilot sites. Although employees were generally receptive of activities, some were not as interested due to type of work, workload, lack of time, and attitude. It was identified that more environmental supports, such as integrating physical activity and healthy eating into actual work, were needed to motivate employees and make it easier for them to participate. The findings of this study reveal that a comparison of employee attitude towards on-site programs offered during work time and break time warrants further investigation.

Four key environmental supports were identified in this study namely organizational commitment, wellness committees, organizational culture, and physical environment supports. Organizational commitment was identified as the most important environmental support because it legitimized organizational interest in employee's health. Examples of organizational commitment included dedicating resources to programming, allowing employees paid time to participate in activities, and incorporating CWHP into the strategic plan or vision. It was expressed as key for fostering the work of wellness committees and the acceptance of CWHP by employees. Organizational commitment can make healthy eating and physical activity more accessible for employees by allowing and encouraging supports such as flexible working hours, serving healthy food in meetings and allowing mini fit breaks during work time. Integrating these supports into policies would make them more equitable, sustainable and acceptable in workplaces.

Wellness committees were portrayed as the heart of CWHP programming in that they built interest and support for the program. Although wellness committees were defined as crucial, many struggled with lack of resources, and minimal support from both management and employees. Evidence-based literature suggests that workplace wellness is a shared responsibility and wellness committees work best with representation from all levels of management and all groups of employees for buy-in and sustainability (Brissette et al., 2008; HCU, 2004b; Lowe, 2004). Some committees felt they needed a champion to lead the CWHP program since they did not have the capability, time or knowledge to do more than education and skill building. This study revealed that it is essential for wellness committees to function beyond tokenism, to have organizational commitment for all the best practice components of CWHP, and to have external supports such as best practice resources and networking opportunities.

It was evident in this study that the environmental supports of organizational commitment and wellness committees were critical for integrating the shared concept of workplace wellness into the culture of the organization. Equally important was that organizational culture was shown to impact the efforts of the wellness committee as well as sway the level of organizational commitment. With more education and awareness about CWHP, employees may be better able to influence wellness in their workplaces.

This study indicated that the environmental supports of organizational culture, organizational commitment and wellness committees have an interconnected relationship in that if one component is weak, CWHP programming may falter. For example, having minimal organizational commitment for workplace wellness may foster a lack of interest from employees which may make it difficult and unrewarding for wellness committees to

delve into the more sustainable and beneficial components of CWHP. The relationship between organizational commitment, organizational culture and wellness committees warrant further research.

Other environmental supports discussed by the pilot sites focused on the physical environment supports. While lack of resources was expressed by some respondents as a barrier for this type of support, respondents countered it by providing examples widely ranging in costs. Although some workplaces may not have had the more expensive supports, such as on-site fitness facilities and cafeterias, many examples provided were of medium expense, such as exercise equipment (*dyna* bands and free weights, videos), and kitchen facilities (eating area, microwave and fridge), and lower expense, such as contracted vending machines, use of stairways, and use of surrounding trails and farmers markets.

Policies can be a powerful support, but this study showed that there was some confusion around the concept of lifestyle related policy development and how workplaces did not consider it to be a priority. There was a lack of interest, knowledge or capacity for the workplaces to address policy development. Furthermore management and wellness committees seemed hesitant to delve into the arena of policy development because of the serious and political nature of the process and the resources it would require for enforcement and education. Respondents indicated that there was a general belief that healthy eating and physical activity are personal choices and not the responsibility of the organization. There needs to be more education around the importance and benefits of lifestyle related policies targeted towards the workplace sector in general to increase acceptance of and comfort with the concept. More external supports, incentives and

resources from government or public health may be necessary to assist the workplace sector with the complex policy context of CWHP.

With regard to strengthening community action, the workplaces evidently supported charitable organizations; nevertheless, it was not clear if it was done to benefit the health of employees and people in the community or for other reasons such as improving corporate image. Some workplaces promoted lifestyle related community activities or invited community partners on-site to provide lifestyle related skill building opportunities.

Competing priorities and minimal management support were expressed as reasons why workplace involvement in the community may have been limited. Management may not see the value in the extra responsibility and expenses related to community work. In addition, without employees showing interest or expressing the need to participate in community activities, employers may not have been motivated to take action. Respondents believed employees showed a lack of interest because of the time, energy and personal resources required for volunteering or getting involved in community activities. Other deterrents mentioned were lack of organizational commitment in areas such as policies, lack of management support or paid time to participate. More education is needed about the socio-ecological concept that by means of CWHP organizations can provide reciprocal health benefits for employees and the community. The workplace sector needs more external resources and supports such as education about the benefits and return of investment for community activities. A network or database to help organizations connect with their communities is also crucial.

Although planning and evaluation is a best-practice that improves program effectiveness, demonstrates the value of the programs and contributes to the knowledge base, it was minimally used during the pilot project. This study supports other research that demonstrated that workplaces in general do not have the experience, desire or capability to perform the planning and evaluation of CWHP programs. This may indicate the need for more education and support, which, due to the complex nature of health promotion planning and evaluation, may need to be provided by experts in the field, such as public health.

In general, respondents in this study revealed that the management and employees in their organizations were receptive to some of the components but did not view all of the strategies of CWHP as a priority. Although the pilot sites appeared to gravitate toward the more basic skill building components in the HSAW, it is important to acknowledge that the pilot project was only one year in length and that research indicates that CWHP requires more than one year to foster organizational comfort and commitment. Nevertheless, there still seemed to be uncertainty around the capacity to utilize and implement the multifaceted strategies. It may be that without external supports, guidelines or legislation outlining CWHP, the pilot sites were unsure of how much time and energy they should commit to all components of CWHP.

6.2 Recommendations

To encourage more confidence, comfort and acceptance of the concept of CWHP in the workplace sector, there needs to be more ongoing education and dissemination of examples and resources of best practices especially for policy development, strengthening community action, and planning and evaluation. This information needs to

be in a language the workplace sector can relate to, such as a business case identifying the clinical and financial benefits of investing in a CWHP program.

Although it may be important for researchers to define the complex multilayered strategies of CWHP, the workplace sector may find a simplified model of environmental strategies an easier concept to grasp. By emphasizing environmental supports, it may reduce workplaces from leaning toward the skill building activities that place most of the responsibility on individuals rather than both the individuals and the workplace environment. Employees need to speak out more for their rights to a healthy workplace, to stress the fact that healthy eating and physical activity are not just personal choices but shared responsibility of both individuals and their organizations.

Not only does there need to be internal support for CWHP from the employees but also external pressure from communities, public health and government. In order to make CWHP more of a priority, government may have to step in to offer incentives, such as tax breaks, or create macro-level strategies. Similar to occupational health and safety, government can play a critical role in enabling and encouraging healthy workplaces.

Findings from this qualitative research contribute new perspectives to the intricate and interconnected strategies of CWHP programs. They also provide insights into ways to make CWHP more appealing and practical for the workplace sector to implement. With these recommendations complementing the knowledge base, it is hoped that policy makers will enhance and continue their support of CWHP as part of a multi-faceted healthy weight and chronic disease prevention strategy.

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Appendix A

SMDHU Healthy Steps at Work Environmental Scan

Name of workplace:

Address:

Contact person:

Title:

Phone #, Ext:

Email:

Number of employees:

Provide a brief description of your workplace (i.e. manufacturer with an assembly line, charitable organization, health sector, education etc):

Please answer the following questions about your workplace:

- a) Do you have shift work? Y___ N___ if yes number of shifts _____
- b) What are your hours of operation? Number of hours a day _____ Number of days a week _____
- c) Are you unionized? Y___ N___
- d) Do you have an employee lunch/break room? Y___ N___
- e) Do you have a food preparation room (with refrigeration, sink, microwave)? Y___ N___
- f) Do you have vending machines? Y___ or N___ If yes please describe what is available in them _____
- g) Do you have multiple offices in different locations? Y___ N___

Approximately what percentage of employees work in each of the following settings:

- _____ In office, with mix of desk and non-desk tasks
- _____ In office, mainly at desk or mainly on computer
- _____ On assembly line, moving frequently
- _____ On assembly line, sitting with mainly hand movement
- _____ Mobile in community moving frequently
- _____ Other (briefly describe): _____

Please check all that apply to your current workplace wellness programming:

- _____ We have a workplace wellness committee separate from our health and safety committee
- _____ We do some workplace wellness activities through our health and safety committee

- We do not have a workplace wellness committee and are not thinking of starting one
- We do not have a workplace wellness committee but are thinking of starting one
- We have a workplace wellness committee but are struggling to provide workplace wellness programming
- We don't provide any workplace wellness programs
- We provide sporadic workplace wellness programs when needed
- We provide regular workplace wellness programming
- We have workplace wellness related policies
- We assess our workplace wellness programs
- We have a wellness committee and provide regular workplace wellness programs
- We are implementing a planned series of workplace wellness initiatives based on assessing employee needs
- We have an occupational health professional on staff
- We have management representation on the workplace wellness committee

Do you have management commitment to participate in the pilot project as outlined in the application letter?

Y____ N____

If you are interested in becoming part of this pilot project please complete the attached application and return to Brenda Marshall before November 1, 2007. The community advisory group will review all the applicants to ensure there is a cross section of workplaces throughout Simcoe and Muskoka. All applicants will be notified after November 7, 2007 as to their involvement in this initiative. We thank everyone in advance for their interest in this exciting project.

Appendix B

SMDHU Healthy Steps at Work Pre-Program Survey

Healthy Steps at Work

Survey of Workplace Health Programming of the Pilot Workplaces

We would like to obtain additional information about your workplace health programming prior to your workplace starting the Healthy Steps at Work project and at the end of the Healthy Steps at Work project. This valuable information will assist us in assessing the effectiveness of the project on your workplace health programming.

The information collected will be kept confidential. Your participation in this survey is completely voluntary. The results will be pooled and reported in general terms in a final report.

Should you decide not to participate in this survey; it will in no way affect any support and/or services you may receive from Simcoe Muskoka District Health Unit.

If you have any questions or concerns please contact Mary Gibson, Supervisor, Healthy Lifestyle Program, Simcoe Muskoka District Health Unit at 721- 7330 extension 7336

Name of Worksite:

Position/Job Title:

Please answer the following questions to tell us about your workplace health programming in the last 6 months. Please circle the appropriate number for your response.

	Not at all	Once in a while	Sometimes	Often	Most of the time	Always
My workplace provided educational information about lifestyle topics (physical activity, nutrition, smoking etc)	○	1	2	3	4	5
My workplace provides coordinated activities that promote physical activity/healthy eating	○	1	2	3	4	5
We have healthy foods served at meetings and special events	○	1	2	3	4	5
My workplace sponsors or participates in community activities/events i. e. sponsors a sports team, sits on a community	○	1	2	3	4	5

committee						
-----------	--	--	--	--	--	--

Please indicate how much you agree with the following statements in relation to your workplace health programming in the last 6 months. Please circle the appropriate number for your response.

	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
Our workplace has effective policies that promote physical activity	1	2	3	4	5
Our workplace has effective policies that promote healthy eating	1	2	3	4	5
Our workplace has effective policies that promote sun safety	1	2	3	4	5
I feel that our workplace generally supports healthy lifestyle behavior	1	2	3	4	5
Our workplace is considering healthy lifestyle policies	1	2	3	4	5

Thank you for participating in this survey.

Appendix C

*SMDHU Healthy Steps at Work Post-Program Survey***Healthy Steps at Work****Post HSAW project Survey**

Name of Worksite:

Dear Workplace Health Partner: In January 2008 you or a representative from your workplace completed a survey prior to your workplace starting the Healthy Steps at Work project. Now that we are at the end of the project we would like to do a comparison survey.

The information collected will be kept confidential. Your participation in this survey is completely voluntary. Should you decide not to participate in this survey, it will in no way affect any support and/or services you may receive from Simcoe Muskoka District Health Unit. The information you provide will be pooled and reported in general terms in a final report.

Please click on the link below and it will take you directly to a survey in Survey Monkey.

This information is collected under Section 5 of the Health Protection and Promotion Act. The information collected in this form will be used only for the purposes of program planning and service delivery. Questions regarding the collection and use of information should be directed to Mary Gibson, Supervisor, Healthy Lifestyle Program, Simcoe Muskoka District Health Unit, 15 Sperling Drive, Barrie ON L4M 6K9, telephone (705) 721 – 7520 extension 7336.

Please answer the following questions to tell us about your workplace health programming in the last 6 months. Please circle the appropriate number for your response.

	Not at all	Once in a while	Some-times	Often	Most of the time	Always
My workplace provides educational information about lifestyle topics (physical activity, nutrition, sun safety etc)	<input type="radio"/>	1	2	3	4	5
My workplace provides coordinated activities that promote physical activity/healthy eating/sun safety	<input type="radio"/>	1	2	3	4	5
We have healthy foods served at meetings and special events	<input type="radio"/>	1	2	3	4	5
My workplace sponsors or	<input type="radio"/>	1	2	3	4	5

participates in community activities/events i. e. sponsors a sports team, sits on a community committee						
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Please indicate how much you agree with the following statements in relation to your workplace wellness programming in the last 6 months. Please circle the appropriate number for your response.

	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
Our workplace has policies that promote physical activity	1	2	3	4	5
Our workplace has policies that promote healthy eating	1	2	3	4	5
Our workplace has policies that promote sun safety	1	2	3	4	5
I feel that our workplace generally supports healthy lifestyle behavior	1	2	3	4	5
Our workplace is considering healthy lifestyle policies	1	2	3	4	5
Our workplace is currently developing healthy lifestyle policies	1	2	3	4	5

If you answered not sure to any responses please indicate why

Thank you for participating in this survey.

Appendix D

SMDHU Healthy Steps at Work Introductory Letter and Consent Form for Key Informant Interview

Tel: 721-7520
 Toll free: 1-877-721-7520
 www.simcoemuskokahealth.org

Your Health Connection

Healthy Steps at Work Project Evaluation

Dear Workplace Health Partner:

The final evaluation of the **Healthy Steps at Work Project** is being conducted by the Simcoe Muskoka District Health Unit. We would like to obtain your valuable feedback from your perspective regarding the use of the **Healthy Steps at Work** toolkit. This would involve an interview with you that will take approximately a half an hour. The interview can be conducted by meeting with you at your worksite or by telephone, whichever is more convenient for you. Participation is voluntary and responses will be kept confidential.

During the interview your comments will be tape recorded and referenced in general terms, which means they will not be linked to you. Transcribed notes will be kept secure and destroyed upon completion of the final report.

The pooled findings will be used to assist the health unit in revising the **Healthy Steps at Work** toolkit. This will support workplaces in creating a healthier work environment for all employees. The report will be made available to all participating workplaces.

If you have any questions about the Healthy Steps at Work project please contact: Mary Gibson, Supervisor, Healthy Lifestyle Program, Simcoe Muskoka District Health Unit, telephone (705) 721 – 7520, extension 7336.

Thank you for considering participation.

I understand the purposes and uses of the **Healthy Steps @Work project** and I consent to participate in this interview.

I consent to the interview to be tape recorded Yes _____ No _____

Signature _____

Date _____

Please ensure there is a Confidentiality notice on the fax form cover sheet you use to return your consent form. Below is a sample of a notice.

Confidentiality Notice:

The contents of the document(s) accompanying this facsimile transmission are confidential and intended only for use by the individual(s) named above. It may contain information that is privileged, confidential, or otherwise protected from disclosure. Any review, dissemination or use of this transmission or its contents by persons other than the addressee is strictly prohibited.

If you received this transmission in error, please notify me immediately at the office referenced above.

Appendix E

SMDHU Healthy Steps at Work Key Informant Interview

Hello, my name is _____ and I am a member of the Workplace Health Workgroup with the Chronic Disease Prevention -Healthy Lifestyle Program of the Simcoe Muskoka District Health Unit

The final evaluation of the **Healthy Steps at Work Project** is being conducted by the Simcoe Muskoka District Health Unit. We would like to obtain valuable feedback from your perspective regarding the use of the **Healthy Steps at Work** toolkit. Participation in this interview is voluntary and responses will be kept confidential. Should you decide not to participate in this survey, it will in no way affect any support and/or services you may receive from Simcoe Muskoka District Health Unit. During the interview you may request to stop at any time and can choose not to answer any question you do not wish to answer.

During the interview your comments will be tape recorded (or hand written notes will be taken – depending on what the person agreed to in their letter of consent) and referenced in general terms, which means they will not be linked to you. Transcribed notes will be kept secure and destroyed upon completion of the final report.

The pooled findings will be used to assist the health unit in revising the **Healthy Steps at Work** toolkit. This will support workplaces in creating a healthier work environment for all employees. The report will be made available to all participating workplaces.

Do you have any questions before we begin?

Key respondent interview questions

1. How were you involved in the Healthy Steps at Work project? (Role, process, activities)
2. Overall, how useful was the health information and resources provided in the **Healthy Steps at Work Toolkit**? Please comment
3. How did you like the design (lay-out, graphics) and format of the **Healthy Steps at Work Toolkit**? Please comment
4. Did the Toolkit help you to plan and implement a workplace wellness initiative? If yes, please give examples of the initiatives you implemented as a result of help from the Toolkit.
5. Which tools/resources did you find useful?
6. Is there anything you would suggest adding or changing in the Toolkit?

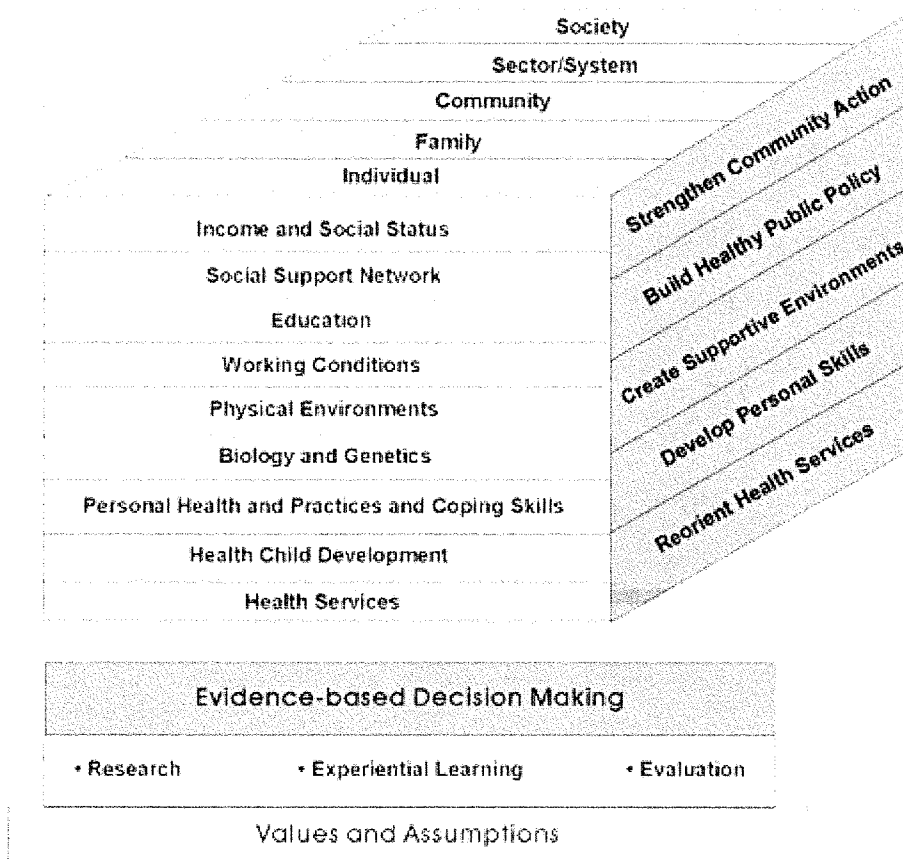
Appendix F

SMDHU Tracking Form of HSAW Activities

Name of Strategy or Resource	How was it Used	Number of Participants	Rate the Resource What worked well and what did not work well

Appendix G

Population Health Promotion Model



Population Health Promotion Model

(PHAC, 1996a)

Appendix H

SMDHU Permission Letter for Healthy Steps at Work Pilot Sites to be contacted by Researcher

Date

(Contact for pilot site)

As you are aware your workplace is one of the 10 pilot sites in Simcoe County and the District of Muskoka participating in the ***Simcoe Muskoka District Health Unit Healthy Steps at Work Project***. Brenda Marshall, who is a public health promoter at the Simcoe Muskoka District Health Unit, will be conducting a separate study, as a Master of Public Health student at Lakehead University, as part of her Master program requirements. She would like to contact your workplace as a potential participant in this study to further examine additional tools, resources and supports that would increase the usefulness of the Healthy Steps at Work toolkit.

If you are in agreement to have your contact information shared with her please indicate on this form below permission to do so.

Organization:

Signature: _____
Title: _____
Date: _____

Please email or fax this form back to:
Christine Bushey
705-721-1495
christine.bushey@smdhu.org

Sincerely,

Christine Bushey,
Manager CDP – Healthy Lifestyle Program
Simcoe Muskoka District Health Unit

Appendix I

Research Project Introduction Letter

As one of ten pilot sites participating in the *Simcoe Muskoka District Health Unit Healthy Steps at Work* project, Brenda Marshall, Master of Public Health student at Lakehead University is seeking your assistance in her research project. The purpose of her study is to explore the perceptions of managers and Healthy Steps at Work coordinators in implementing the health promotion strategies outlined in the Healthy Steps at Work toolkit. This study will add to the evidence-base research needed for public health workplace wellness programming.

As a (coordinator of the Healthy Steps at Work program/manager with knowledge of the Healthy Steps at Work program) you are invited to provide your perspective of the workplace health promotion program through an interview. The interview will be conducted and digitally recorded over the telephone by Brenda Marshall and will take approximately 30 minutes to 1-hour. The *Key Informant Interview Question Sheet* is enclosed to provide you the details of the interview. You may at any time choose to stop participating in the study or to not answer one or more of the questions in the interview.

If you are interested in participating in the questionnaire, please sign the enclosed consent form and return to Brenda before January 30th, 2008. Once the consent form is signed, you will be contacted to arrange a convenient time for the interview during the month of February.

To maintain confidentiality and anonymity, the information from the interview will be coded by the researcher for analysis. All the information collected will be kept in a secure file at the Simcoe Muskoka District Health Unit for seven years. Your workplace will receive a copy of the final report on June 30, 2009.

If you have any questions, please contact Brenda Marshall at (705) 684-9090 ext 7775, or brenda.marshall@smdhu.org. You may also contact Lakehead University's Research Ethics Board at (807) 343-8283.

Sincerely

Brenda Marshall,
Master of Public Health Student, Lakehead University

Appendix J

Research Project Consent Form

I _____ (*please print your name*) agree to participate in the ***Healthy Steps at Work interview*** being conducted by Brenda Marshall, Master of Public Health student at Lakehead University. I have read the cover letter and understand the nature of the study, its purpose and procedures.

I am aware that the interview will be based on my perceptions of the barriers and successes to implementing components of the *Healthy Steps at Work* program that occurred in my workplace over the last year.

I understand that my voluntary participation in the interview gives me a chance to contribute to research needed for public health workplace wellness programming. As a volunteer I can choose to not participate in the questionnaire at any time. There is no right or wrong answers to the questions and if a question makes me uncomfortable, I do not have to answer it.

The confidential interview will be digitally recorded over the telephone and will take place in February at a convenient time. All of my personal information will be coded to ensure anonymity and kept in a secure file at Simcoe Muskoka District Health Unit for seven years. If the results are published, I will not be identified in any way. I will be able to access a copy of the final report through my workplace after June 30, 2009.

Signature of Participant

Date

Appendix K

Research Project Key Informant Interview Questions

Organization

Position

A) Develop Personal Skills

1. Over the last year, what sort of educational material (i.e. displays, bulletin boards, email, newsletters, pamphlets, etc.) and or promotional activities (i.e. pedometer challenges, walking clubs, lunch and learns, health fairs, etc.) did your workplace provide to encourage employees to be more physically active and eat healthier?
2. How receptive were the employees to the physical activity and healthy eating information and activities provided?
3. What are the barriers to employees being more physically active and eating healthier at your workplace?
4. What would make it more appealing for employees to take action and be more physically active and eat healthier at your workplace?

B) Create a Supportive Environment

1. Over the last year how has your workplace created an environment that supports healthy eating and physical activity?
(i.e. Make the environment convenient - offer activities at suitable times at work; allow time off or flexible working hours; make healthy food products affordable and available; offer discounts to exercise facilities, etc.
Physical environment – showers, bicycle racks, visible stairways, safe walking paths, well equipped kitchen, exercise equipment, etc.
Information environment – bulletin boards, promotion of health-related events, health fairs, newsletters, signage, visible nutrition displays and food labeling in cafeteria, canteens and vending machines, etc.)
2. Over the last year how has the Healthy Steps at Work program fit into your company culture?
(i.e. incorporation of a healthy living philosophy into vision, management support for employee health, social support from employees, employees feel appreciated, boost to employee morale, communication, work-life balance, healthy policies, etc.)
3. Will your workplace sustain a workplace wellness program? Why or why not? If so how?

(i.e. management and employee commitment and involvement, designated time, and resources to a program, wellness committee, budget, work plan, evaluate programs, policy, etc.)

4. What are the barriers to implementing environmental supports in your workplace?
5. What would make it more appealing for workplaces to take action and create a supportive environment for employees to be more physically active and eating healthy?

C) Policy Development

1. Over the last year has your workplace developed any policies or guidelines related to healthy eating or physical activity?
(i.e. Healthy eating guidelines for meetings, flextime policies, off-site subsidies for fitness facilities, supporting break-time policy, etc.)
2. What are the barriers to implementing health related policies in your workplace?
3. What would make it more appealing for workplaces to take action and develop policies related to physical activity and healthy eating?

D) Strengthen Community Action

1. Over the last year how has your workplace collaborated or participated in life-style related community activities?
(i.e. sponsors sports teams, participate in the Simcoe County Workplace Wellness Network, share knowledge and experience with other workplaces, promote or support community health related events such as blood donor clinics, community center programs, charity walk/hiking events, sponsoring or advocating for hiking trails, community sports events, tournaments, adopting and cleaning sections of the highways, volunteer for other organizations - school breakfast programs, food banks, fund raising for charitable organizations, etc.)
2. What are the barriers to your workplace getting involved in lifestyle related community activities?
3. What would make it more appealing for workplaces to take action and get involved in lifestyle related community activities?