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UNIVERSITY OF ALBERTA

WORKPLACE PHYSICAL ACTIVITY AND HEALTH PROMOTION INITIATIVES
IN ALBERTA:
A LONGITUDINAL STUDY

BY



NORA JANE JOHNSTON

A THESIS
SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR
THE DEGREE OF MASTER OF ARTS

DEPARTMENT OF PHYSICAL EDUCATION AND RECREATION

Edmonton, Alberta

Fall 1993



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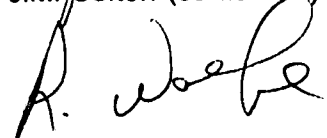
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The undersigned certify that they have read, and recommended to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled WORKPLACE PHYSICAL ACTIVITY AND HEALTH PROMOTION INITIATIVES IN ALBERTA: A LONGITUDINAL STUDY submitted by NORA JANE JOHNSTON in partial fulfillment of the requirements for the degree MASTER OF ARTS.



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Date: September 10, 1993

DEDICATION

To my parents,
for their everlasting love and support.

ABSTRACT

Health promotion programs in Canadian workplaces vary greatly in sophistication and sense of purpose. On one end of the scale is the seasonal aerobics class or periodic health lectures for interested employees. On the other end of the scale is the ongoing, comprehensive, professionally supervised and company-wide physical activity and health promotion program (Fitness & Amateur Sport, 1991). Overall, workplace health promotion has evolved from a focus on physical fitness to one with a broad base, incorporating a holistic approach to the well-being of workers.

The purpose of this study was to investigate the growth and changes of worksite physical activity and health promotion programs and opportunities in Alberta, and to compare and contrast the 1992 status of these programs and opportunities available in the same group of companies in 1986.

Data was collected by sending surveys to the human resources manager in existing companies in Alberta who responded to the "Employee Fitness and Leisure Lifestyle Opportunities in the Alberta Business Community" survey in 1986 (Marshall, Quinney & Glassford, 1987). A total of 198 questionnaires were received from the 396 companies eligible for the longitudinal survey. The population consisted of companies of all sizes, and from four industry groups: Trade and Commerce, Finance and Service, Industry and Manufacturing, and Petroleum-based industries.

Based on this research, it is evident that workplace physical activity and health promotion programs are not stagnant in this province. Despite decreases in individual sport, and fitness activities, the increases in team sport programming, and health education and lifestyle programming were strong. Companies without programs continue to show interest in starting programs. Companies continue to state that services and resources would be helpful, and the gaps between large and small companies seem to be lessening due to increasing involvement by small organizations. As awareness of the benefits of workplace physical activity and health promotion programs increase, there will continue to be growth in this field, which, using the existing data base, can be tracked by future research.

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CHAPTER I

INTRODUCTION

In 1980, researchers in Ontario conducted the first major Canadian study of employee fitness programs, and found that only 13 percent of responding companies provided fitness programs, 23 percent provided health and lifestyle education programs, while 46 percent offered sport and recreation programs (Baetz, 1980). Over the years, physical activity and lifestyle education programs for employees have become an increasingly important component of the corporate culture in Canada. In 1986, research at the University of Alberta indicated profound changes in the area of workplace physical activity and health promotion activities. The results of this work revealed that 35 percent of the responding companies offered some type of fitness programs, 71.5 percent offered health and lifestyle education programs, and 66.2 percent offered sport and recreation programs (Marshall, Glassford & Quinney, 1987). In Canada, much of the growth has been fuelled by increasing awareness by the government that the cost of ill-health is a major threat to the financial stability of the country, and that health promotion may lead to reduced medical care costs (Blair, 1987).

Numerous benefits have been reported to result from employee fitness and health education programs. These include economic benefits, psychosocial benefits, physiological health benefits, epidemiological benefits, and mental health benefits (Ellis and Richardson, 1991; Fitness Canada, 1988a). Companies have reported increases in motivation, productivity, morale, and fitness and health levels, as well as decreases in sick leave, stress-related problems, turnover and premature deaths, absenteeism, and health care costs (Baun, Bernacki, & Tsai, 1986; Ellis and Richardson, 1991; Fitness & Amateur Sport, 1988; Walker, Cox, Thomas, Gledhill, & Salmon, 1989).

The workplace movement comprises a variety of models that attempt to enhance positive health and prevent ill-health through the efforts of health education, prevention and health protection through the workplace setting (Downie, Fyfe, & Tannahill, 1990). Health promotion programs in Canadian workplaces vary greatly in sophistication and sense of purpose. On one end of the scale is the seasonal aerobics class or periodic health lectures for interested employees. On the other end of the scale is the ongoing, comprehensive, professionally supervised and company-wide physical fitness and health promotion program (Fitness & Amateur Sport, 1991). Overall, workplace health promotion has evolved from a

focus on physical fitness to one with a broad base incorporating a holistic approach to the well-being of workers.

Over the years, the Canadian government and numerous agencies have been encouraging organizations to become involved in health promotion. Achieving excellence in the business community is the passion of many corporations, however, an organization cannot attain organizational excellence without first helping the individuals within the organization to achieve personal excellence and peak performance (Klarreich, 1987; Pulvermacher, 1987). Corporate health promotion is being used as an increasingly common method to foster personal and organizational excellence.

Despite the report of the widespread popularity of employee health promotion from one-time surveys in Ontario, British Columbia, Alberta, and Canada, longitudinal reviews of the field have been sparse. The current investigation is being conducted in cooperation with the Canadian Fitness and Lifestyle Institute. It is part of a national initiative to examine the current status of workplace physical activity and health promotion programs and opportunities. It is also a study to address the void in the area of longitudinal research. It will provide information about the adoption and retention of health promotion programs over time. It will also provide information about the needs of the health promotion field, and whether their needs stated in 1986 have been met by initiatives in Alberta.

STATEMENT OF THE PROBLEM

The purpose of this longitudinal study is to investigate changes in the state of workplace physical activity and health promotion programs and opportunities, and to compare and contrast the current status of programs to those programs and opportunities that were available in 1986. The study will provide information about changes in:

1. Health promotion initiatives.
2. Physical activity promotion.
3. Companies without programs.
4. Interest in starting programs.
5. Materials or resources needed to facilitate programming.
6. Program evaluations.

JUSTIFICATION

As a result of the numerous reported benefits of physical activity and health education, motivation for involvement in employee health promotion programs has increased. However, research completed on workplace health promotion programs and opportunities have primarily been one-time investigations. Thus, systematic, longitudinal research is needed to provide answers about the on-going development of programs in work settings. There is a need to regularly assess how and to what extent employee fitness and lifestyle programs are being institutionalized in work settings (Hollander & Lengermann, 1988) in order to analyze the trends and changes in such programs. Follow-up studies have been neglected for the most part, with Ontario being the only province to conduct a longitudinal study. Thus, the paucity of longitudinal research on the status of workplace programs in Canada indicate the need for research in this area.

As this is a longitudinal study, there is a potential bias, in that the participating companies were the respondents in the 1986 survey (Marshall et al., 1987). Using the respondents from 1986 provides a longitudinal study, but does not necessarily provide a sample which is representative of Alberta, therefore caution must be used in attempting to generalize results to all companies in Alberta.

Within this sample, the results of this study will provide information on the current state of workplace health promotion programs and opportunities. It will also provide knowledge about: program growth and development; successes of past promotional efforts; interest in starting programs; and the need for future efforts. The results will provide essential information for employers, employees, consultants, researchers and policy makers interested in this area.

DEFINITION OF TERMS

Education - the systematic training and development of knowledge (Webster, 1981).

Employee Assistance Programs - essentially secondary prevention strategies that identify and offer assistance to a range of troubled employees as a means of job preservation and health promotion (Blum, Roman, & Patrick, 1990). In particular, alcohol dependence, drug dependence, and behavioural health problems.

Employee Fitness Programs - fitness programs which are promoted, subsidized, or provided by a business or organization for the employees of that organization.

Environment - the influences on health which are external to the human body over which the individual has little or no control (Lalonde, 1974). Examples of environmental factors are air pollution and noise pollution.

Exercise - a subset of physical activity that is planned, structured, and repetitive and has as a final or an intermediate objective the improvement or maintenance of physical fitness (Caspersen, Powell, & Christenson, 1985).

Health - a state of complete physical, mental, and social well-being, and not merely the absence of discord and infirmity (World Health Organization, 1987).

Health Education Programs (Health and Lifestyle Programs) - programs which are intended to enlighten participants about various factors involved in maintaining or attaining good health.

Health Promotion - the process of enabling employees to increase control over and improve their health (World Health Organization, 1987).

Holistic Health - an integration of mind/body connections in health and illness, personal responsibility, and a balanced lifestyle (Ardell, 1985).

Leisure Activity - activities that a person or group chooses to undertake during their discretionary time (Bouchard, Shephard, Stephens, Sutton, McPherson, 1990)

Lifestyle - an aggregation of behaviours, actions, and habits such as physical activity, eating habits, stress, weight, and smoking which affect individuals' health and over which they more or less have control (Lalonde, 1974).

Opportunity - a chance to participate in an event which may or may not be organized by the company.

Physical Activity - any bodily movement produced by skeletal muscles that results in energy expenditure (Bouchard et al., 1990). In daily living, physical activity can occur in occupational pursuits, sports, conditioning, household chores, or other activities (Caspersen et al, 1985).

Physical Fitness - the ability to carry out daily tasks with vigour and alertness, without undue fatigue and with ample energy to enjoy leisure-time pursuits and to meet unforeseen emergencies (Caspersen et al, 1985).

Physical Fitness Programs - those programs which are designed to enhance the aerobic fitness, strength and flexibility of the participants.

Well-Being - a feeling, a conscious perception, an awareness by the whole person that his or her physical, emotional, spiritual, intellectual, and social components of health are working together harmoniously as a unit. (Dickman, 1988)

Wellness - a conscious and deliberate approach to an advanced state of physical and psychological/spiritual health (Ardell, 1985)

LIMITATIONS

This study is limited by the following factors:

1. By the reliability and validity of the survey instrument.
2. By the respondent's ability to complete the survey accurately.
3. By the willingness of the subjects to complete and return the survey.
4. By the number and content of questions which could be directly compared from the 1986 survey instrument.

DELIMITATIONS

The study was delimited as follows:

1. To companies registered with 20 or more employees.
2. To companies in either the Industrial and Manufacturing, Trade and Commerce, Finance and Service, or Petroleum-based areas.
3. To companies operating in Alberta.
4. To reporting on programs offered by companies, with no reference to the participation levels in each activity or program.

ETHICAL CONSIDERATIONS

The primary ethical consideration of this study is confidentiality. The complete, returned surveys will be coded, in order to protect the identity of the responding companies.

The secondary concern is one of consent. A cover letter to the companies will explain the nature of the study, the use of the identifying number on the return envelope, and the role their companies take by participating. The return of the questionnaire will constitute their consent as a participant.

CHAPTER II

REVIEW OF LITERATURE

In order to understand the state of workplace health promotion programs and opportunities, it is necessary to understand the context. The purpose of this review is to highlight the major occurrences in recent history which relate to the emergence and continuation of workplace health promotion programs and opportunities.

THE TRADITIONAL CANADIAN MEDICAL SYSTEM

In Canada, the medical profession has developed a strong system of medical delivery, based on a curative philosophy. The traditional focus has been on patients with disabilities, signs or symptoms of illness or disease. The stress, therefore has been on institutional and clinical care (Alberta Community & Occupational Health, 1988b; Hill, Glassford, Burgess, & Rudnicki, 1988; O'Donnell, 1986b). Historically, resources have been spent on patient care, as well as upgrading and improving the quality and accessibility of the existing medical system (Hill et al., 1988; Lalonde, 1974). Consequently, Canada has a highly sophisticated and successful health care system (Pinder, 1988).

The provision of Canada's health care is primarily the responsibility of each provincial government, although money is transferred from the federal government to the provinces for health care funding. Virtually all costs are covered by tax dollars and health insurance premiums. Health care programs and services are almost entirely prepaid, leaving little or nothing for the patient to pay at the time of access to health care services. There are no limits to the number of days of hospital care or visits to a physician when an individual needs medical care. The coverage plans are universal, and the existence of easily accessible physicians makes it simple for patients to seek care (Lalonde, 1974). No Canadian lacks access to hospital and medical care for financial reasons (Gellman, Lechaine, & Law, 1977).

The success of the Canadian health care system is unquestioned. Through a high level of health care has been achieved for the Canadian people, the demand for more and better personal health care continues unabated (Lalonde, 1974). The need for Canadian tax dollars to fund health care is, therefore, ever increasing. Each year billions of dollars have been spent on health care. Annual costs have escalated far in excess of the

economic growth of the country (Lalonde, 1974; Somers, 1974). In the early 1970's, the rising costs and limited resources prompted a reaction from the federal government in the form of a document that would attempt to provide a new direction to the system.

A NEW PERSPECTIVE ON THE HEALTH OF CANADIANS

In an effort to curb the escalating health care costs, Health & Welfare Canada produced a working document entitled A New Perspective on the Health of Canadians (Lalonde, 1974). By presenting the health field concept which divided health into four broad categories - human biology, environment, lifestyle and health care organization - the document provided a new way of thinking about health (Pinder, 1988; Rootman, 1989). The document suggested that the traditional view of equating the level of health in Canada with the absence of disease and the availability of physicians and hospitals was inadequate (Epp, 1987; Lalonde, 1974). The federal government's main concern was that vast sums of money were being spent on treating so called "lifestyle" illnesses and diseases which could have been prevented in the first place at less cost and human suffering (Lalonde, 1974; Pelletier, 1989).

Lalonde (1974) presented the epidemiological evidence for the significance of lifestyle and environmental factors on health or sickness and also supported the efficacy and economy of disease prevention (Ardell, 1985; Hill et al., 1988). Lalonde contended that total health care costs could be decreased only if Canadians assumed more responsibility for their own health (Lalonde, 1974). These factors combined with the assertion that the future of improvements in the health of Canadians lie mainly in improving the environment and moderating self-imposed risks, drew attention to the importance of preventing illness and disease, and provided a mandate to expand the boundaries of the health field to incorporate other areas and arenas such as health promotion (Lalonde, 1974; Raeburn & Rootman, 1989; Rootman, 1989).

HEALTH PROMOTION

Over the years, the transformation of health care from a medical, curative model to a health promotion model spread throughout the world. It has taken various forms and has been described by a number of different terms. The overall goal, however, has been to maximize well-being (Egan, 1987). Health promotion (as it has been referred to in Canada)

is a movement away from an exclusive reliance on the medical model of health and illness (Hollander & Lengermann, 1988). The emphasis rather, is on health and the effort to prevent illness, disease, or premature death through behavioral and organizational behaviour changes (Sloan, Gruman, & Allegrante, 1987). It stresses the social and economic aspects of health, and portrays health as having a central place in a flourishing life (Downie, et al., 1990).

Lalonde's (1974) document, launched the transition from disease treatment toward health promotion (Hill et al., 1988). The New Perspective will likely be remembered most for its impact on the lifestyle element of health (Raeburn & Rootman, 1989). An exclusively lifestyle approach to health promotion began to fall into disfavour however. People considered it to be too individualistic and victim-blaming, suggesting that it was unrealistic to believe an individual could have the ultimate and complete control over life and death (Epp, 1986b). As a result, health promotion adopted an alternative approach of looking at health in an holistic perspective.

Health promotion began to target numerous areas such as social, intellectual spiritual and environmental health, rather than focusing solely on lifestyle. It began to include factors such as increasing awareness, changing knowledge, beliefs, attitudes, lifestyle practices and behaviours, as well as fostering supportive environments in hopes of reducing health risks and fostering optimal health (O'Donnell, 1986b,c). The goal was to add quality of life to the years people live (Epp, 1987).

The promotion of holistic well-being evolved with the establishment of the Health Promotion Directorate in 1978, within the Department of Health and Welfare (MacIntosh, Bedeck, & Franks, 1987). This was the first such official health promotion undertaking of this nature in the world, and as such, it served to legitimize health promotion in Canada (Pinder, 1988). It was the responsibility of the Directorate to promote the health and social well-being of Canadians. They were to achieve these goals by developing and implementing Lalonde's (1974) health promotion strategy.

The year 1986 proved to be a pivotal year for health promotion. Several influential events set the tone for health promotion for years to come, as the new definitions of health promotion rested on the contents of seven documents which were published. The first International Conference on Health Promotion in Ottawa, the Ottawa Charter, Epp's

Framework for Health Promotion, and the Fitness Summit proved to be integral parts of the health promotion movement.

OTTAWA CHARTER

The First International Conference on Health Promotion was held in Ottawa in November, 1986. The Conference was primarily a response to growing expectations for a new public health movement around the world. The World Health Organization (WHO) - Health Promotion Group, Health & Welfare Canada, and The Canadian Public Health Association sponsored the unique conference, the goal of which was to facilitate achieving Health For All by the Year 2000 (World Health Organization, 1987).

The Ottawa Charter was the result of discussions and meetings held at the Conference, and presented ideas for action to achieve the universal goal of Health For All. The Ottawa Charter espoused a social model of health promotion (as opposed to a lifestyle model), with the aim for all individuals to reach a state of complete physical, mental, and social well-being (World Health Organization, 1987). Thus, lifestyle was one of many components considered in the determination of overall health status. The Charter emphasizes the range of other social, political, economic and environmental forces in health (Raeburn & Rootman, 1989).

The Charter defined health as a positive concept, emphasizing social and personal resources as well as physical capabilities. However, according to the Charter, health promotion requires changes in society rather than focusing solely on the individual. Health promotion was described as going beyond lifestyle to well-being, to include peace, shelter, education, food, income, a stable ecosystem, sustainable resources, social justice and equity (Raeburn & Rootman, 1989). Neither people nor systems can be isolated when considering the concept of well-being. There is an interconnectedness between lifestyle and environmental matters which is critical when health is being considered. This concept granted the individual and the context equal importance, and it legitimized a combined lifestyle and system approach to health promotion (Green & Raeburn, 1988). Thus, the Ottawa Charter supported the adoption of a more holistic, ecological view of health (Raeburn & Rootman, 1989), aimed at facilitating the generation of safe, stimulating, satisfying and enjoyable conditions, in school, home, work and community settings (World Health Organization, 1987).

The challenge of the Ottawa Charter was for people to reorient thinking about health and health promotion. It called on the WHO and other international organizations to advocate the promotion of health in all appropriate forums and to support the establishment of strategies and programmes for health promotion. The health services field was challenged to move beyond merely providing clinical and curative services, to meeting the diverse needs of the individual as a whole person. It also suggested that policy makers in all sectors and at all levels to put health on their agenda (World Health Organization, 1987).

ACHIEVING HEALTH FOR ALL: A FRAMEWORK FOR HEALTH PROMOTION

The First International Conference on Health Promotion also saw the introduction of a paper entitled Achieving Health for All: A Framework for Health Promotion (Epp, 1986a). It reflected the commitment to Health For All by the Year 2000, in the context of Canadian institutions and cultures (Epp, 1987). The purpose of the Framework, was to provoke dialogue, and enable Canadians to meet emerging health challenges. It was also an attempt to move health promotion from the periphery of the health field to a central position as a cornerstone of policy (Epp, 1987). The Framework was intended to help formulate ways of dealing with day-to-day health issues. Epp encouraged people to use it to help visualize the kinds of mechanisms and strategies that were needed to support and encourage Canadians as they strive to live healthy and full lives (1986a, p. 11).

This document addressed health as a part of everyday living, describing it as an essential dimension of the quality of Canadian's lives. In this context, health promotion was viewed as an approach that complimented and strengthened the existing strong system of health care in Canada (Epp, 1987). From the large perspective of health care, health promotion remained a small, yet extremely important part of the health industry (O'Donnell, 1986a).

THE FITNESS SUMMIT

The Canadian Summit on Fitness, held in Ottawa in June, 1986, brought together 188 representatives from all areas of the physical education, recreation and fitness communities in Canada, in order to assist in, and foster the evolution of fitness development in Canada (Fitness Canada, 1986).

The mission of the fitness movement was linked with the overall concepts of the Ottawa Charter and the Framework, as its mission was to mobilize individuals, industry, and social institutions to develop the physical environments and social norms leading to optimal well-being as an integral part of Canadian life (Fitness Canada, 1986). The vision being, to assist Canadians in achieving a state of total well-being - physical, mental, emotional, spiritual, and social - and thus, to enhance the quality of life for Canadians (Fitness Canada, 1990). The Summit goal for the workplace was to encourage and provide support for physical activity and lifestyle promotion in the workplace for all levels of workers (Fitness Canada, 1986). The Summit also acknowledged physical activity as a benefit for personal growth and as a major contribution to physical, mental, and social well-being and an improved quality of life (Fitness & Amateur Sport, 1991). In hopes of facilitating change, the document provided a compendium of resolutions and proposed objectives, strategies, resource needs, incentives, and leadership requirements (Fitness Canada, 1988a).

Combined, these events and the three outcome documents set the stage for the new structure of health promotion in Canada, which came to hold a much stronger position than previously. The initiative that began as an attempt to control health care costs grew into a comprehensive method of encouraging optimal well-being for Canadians. For the government, the attractiveness of health promotion was centred in its potential for lowering health costs. For companies, the appeal was based on the potential for improving non-health concerns such as absenteeism, morale and productivity. As a result, workplace health promotion initiatives began to prosper.

THE UNITED STATES

In the United States, unlike Canada, there is no national or state health insurance program. Corporations pay for a large portion of the national health bill, primarily by providing medical insurance as an employee benefit. In 1989, health care expenditures in the United States totalled over \$1 billion per day, with private employers paying a substantial portion of the bill (Pelletier, 1989). During the past decade, the costs of health care have been increasing yearly at exponential rates. Rising medical costs cut into profits and lead to increases in the cost of operating a business. Organizations recognized a desperate need for something which would lessen the demand and need for economy-

ruining medical charges. In an effort at cost-containment, corporate health policies and wellness strategies began to emerge (Conrad, 1988) based on two assumptions. First, corporations assumed that it was far less costly to prevent illness than to cure it and, secondly, that optimal health could be approached through improved personal lifestyle (Saxl, 1984).

In the U.S., the large firms with substantial resources have been the pacesetters in innovative programs such as health promotion. Most original programs have been developed in large companies that possess unique corporate cultures (Danielson & Danielson, 1980; Santa-Barbara, 1987). Most other companies and businesses have adopted the methods established in those large companies.

The late 1970's and early 1980's saw the establishment of many innovative programs in the United States. Large, financially stable companies proved to be the leaders in the development of employee fitness and health promotion programs. Some good examples of comprehensive workplace well-being programs include the Kimberly Clark Corporation "Health Management Program", the Blue Shield of Northern California "Stay Well Plan", the Johnson & Johnson "Live for Life" program, the Control Data "StayWell", the AT&T "Total Life Concept", the Tenneco "Health Plan", and Xerox (Anderson, 1985; Fitness Canada, 1988b; Rosen, 1986).

Health promotion activities available to employees are numerous and varied, yet, there are three major similarities in their administration and organization. Firstly, each of the successful company programs have adequate financial resources and a consistent commitment of support from the management, which is necessary to gain the funding and personnel required to implement the programs, as well as to encourage and reinforce participation among employees (Cantlon & Carter, 1987). Secondly, the main interest of these companies is in enhancing the quality of work life and health for their employees. There is an intense and widespread belief throughout the culture of organizations that employees' well-being is important to the success of the organization (Santa-Barbara, 1987). Finally, each successful program has some type of ongoing evaluation or data collection (Baum & Landgreen, 1983; Breslow, Fielding, Herrmann, & Wilbur, 1990; Dedmond, 1979; Pritchard, Potter & Frankl, 1990; Smoczyk & Dedmond, 1985). Continuous monitoring of the project allows the organization to test the validity of certain health promotion efforts, to examine the effect of specific health education programs, and

generally make it possible to formulate decisions about the continuation of certain projects or the redesign of others, in order to develop the best program possible (Klarreich, 1987). The characteristics of these programs and their successes has led many other companies to implement, or at least consider, similar programs of their own (Hollander & Lengermann, 1988; Santa-Barbara, 1987).

In 1985, more than 50,000 firms in the United States were involved in some aspect of employee fitness or health promotion. Compared to the approximately 1,000 Canadian companies involved, the United States appeared to be years ahead of the Canadian counterparts (Cox, 1984). The difference unquestionably lay in the availability of universal health care in Canada, while the companies in the United States were desperate to find something that would curb the increasing demand for health insurance funding, and therefore hastened the development of workplace health promotion. Despite the inequality of program frequency in the United States and Canada, concern about physical fitness, good nutrition, lifestyle, and avoidance of health hazards has progressed beyond a fad and has become a common concern for numerous governments and organizations (Edelmann & Mandle, 1990).

FOCUS ON THE WORKPLACE

The workplace has been considered a prime centre for health promotion, because, for millions of Canadians, work is an area of everyday life where most people spend most of their time (approximately 60 per cent of their waking hours), and expend most of their energy (Health & Welfare Canada, 1991; Kickbusch, 1989; Offermann & Gowing, 1990). The manner in which these workers spend those hours and energy can have a profound impact on their health (Health & Welfare Canada, 1991).

The workplace provides health promotion specialists an opportunity to reach a large number of the adult population who may not normally be exposed to health promotion except through expensive mass media campaigns. The relatively stable structure of the work environment offers more control than other settings (Ilgen, 1990), and the continuous opportunity for contact with employees provides a means for sustained intervention (Pencak, 1991). The workplace environment also offers well-established communication channels, allowing easy access to employees in order to promote health (Kickbusch, 1989; Pencak, 1991).

More than two-thirds of the working population agree that the workplace is an appropriate place to promote good health habits (Health & Welfare Canada, 1988). This is important, as healthy lifestyle is, to a great extent, dependent on individuals' perceptions, and is influenced by the sociological culture and subcultures in which they participate (Derr, 1987). The culture of the workplace can provide strong peer support in the pursuit of healthy behaviours and environments (Shein, 1990). In a vast majority of non-worksite settings, successful wellness programs focus on creating better work, family and community environments (Allen & Allen, 1986). An important contribution to the promotion of health for employees is the creation of working conditions that are in keeping with a sense of human dignity and human needs (Milz, 1989). This has been done by undertaking health promotion activities, changing the physical setting, organizational policies, organizational culture, work protocols, organizational structures, and related programs in order to create a supportive environment that actively promotes responsible behaviour which is conducive to good health (Ilgen, 1990; Health & Welfare Canada, 1988; O'Donnell, 1986c; Pencak, 1991).

Organizational research indicates that, if an environment can be created that supports and encourages employees, the meaning derived from work may become more positive and fulfilling, and as a result, there is a greater chance that people will adopt and sustain long-term, healthy lifestyle behaviour changes initiated in that environment. A positive environment has the potential to enhance employee well-being. (Ilgen, 1990; O'Donnell, 1986c, Santa-Barbara, 1987). Thus, the workplace is one of the areas in which the promotion of good health and lifestyle behaviours has occurred.

EMPLOYEE FITNESS AND LIFESTYLE MOVEMENT

The impetus for health promotion in Canada came from the federal government, and to a lesser extent, from organizations and businesses across the country. The primary reason for government interest, as stated previously, was to combat the increasing costs of health care. Thus, a series of workplace initiatives began.

The first initiative was a joint venture between the federal government, the Canadian Public Health Association (CPHA) and the Summer Job Corps Program of Canada Employment & Immigration during the summer of 1977. The Standardized Test of Fitness Project involved performing a complete fitness appraisal on over 10,000 adult employees

from 52 Canadian businesses (Fitness & Amateur Sport, 1980). Nearly all of the employee groups involved requested more information on employee fitness and expressed interest in developing some kind of fitness program (Fitness & Amateur Sport, 1980), which lent support to the concept of employee fitness.

The Employee Fitness and Lifestyle Project, spearheaded by Fitness Canada, marked the next stage in the process of developing workplace health promotion (Laframboise, 1988). Between September 1977, and June 1978, a model employee fitness and research pilot project was conducted at two Toronto sites. In this project, the Canada Life Assurance Company was the experimental centre, while the North American Life Assurance company served as the control. At Canada Life, an integrated health promotion program emphasized and promoted the benefits of a healthy lifestyle while providing the opportunity to participate in activities such as fitness testing and a variety of group fitness classes (Fitness & Amateur Sport, 1980). This was a controlled trial which used a well-regulated employee fitness program to provide data on fitness levels, lifestyle characteristics, work performance, and job satisfaction (Cox, 1984). Results demonstrated the effectiveness of a large-scale professionally designed fitness program, which gave merit to the pursuit of promoting health in the workplace.

At the time, it was recognized that many organizations were not ready for the undertaking of a full-scale employee fitness program such as at Canada Life, thus, Fitness Canada and the CPHA initiated a basic yet innovative summer project designed to develop, implement and evaluate a lifestyle awareness campaign and a basic fitness program in a variety of workplaces (Fitness & Amateur Sport, 1980). Despite limited personnel, facilities, and restricted budgets, employees from across Canada took advantage of the project opportunities which included films and seminars, exercise breaks, fitness testing, or walking programs. The majority of organizations involved reacted positively to employee fitness, and expressed an intention to pursue some form of employee fitness program (Fitness & Amateur Sport, 1980). The project demonstrated that a low-cost, basic lifestyle awareness and fitness program was both feasible and desirable in a variety of diversified organizations and businesses (Fitness & Amateur Sport, 1980).

CANADIAN CONTRIBUTIONS

In 1985, the Canadian Chamber of Commerce, and Fitness and Amateur Sport joined forces in the development of joint initiatives. The coalition resulted in the development of a series of educational and promotional events which spread the message of workplace fitness programs to Canadian business leaders. One of the joint projects initiated was the Employee Fitness Awards Banquet. The Awards Program provided an opportunity to celebrate the achievements of the employee fitness community and to honour the companies that had recognized the value of fitness for their employees, and thus, had pioneered the development of fitness in the workplace (Canadian Chamber of Commerce, 1985). It also served as incentive for other companies considering the implementation of employee fitness programs (Bentz, 1992).

In 1985, the Canadian Fitness and Lifestyle Research Institute (CFLRI) was established. The mandate of the CFLRI is to promote, develop and enable the creation and delivery of knowledge concerning physical activity/fitness, and the interrelationship between physical activity, fitness and health to enhance the well-being of all Canadians (Ferris, Landry & Wall, 1988). Thus, Canada made a commitment to continue with the process of health promotion.

In order to make the workplace a health promotion vehicle, Health & Welfare Canada developed a comprehensive package, the Workplace Health System, which was designed to help Canadian companies put health programs and policies in place. The goal of the System is to integrate health considerations into the normal business routine (Health & Welfare Canada, 1991). The advantage of this system is that it provides a tested, practical, flexible formula for a health promotion program that meets the employees' needs.

The System consists of four components, the first two being, the Small Business Health Model, and the Corporate Health Model. These programs offer step-by-step instruction for introducing comprehensive health promotion programming into the workplace. The Corporate Challenge, another component of the System, consists of a one-day 'health challenge' which is held annually in over 150 communities across Canada. Finally, the Evalu-Life computer program is a computerized health risk appraisal for employees (Health & Welfare Canada, 1991). Combined, these components of the System provide a broad base of employee health promotion and active living opportunities.

The development of the Canadian Centre for Active Living in the Workplace (CCALW) in April, 1990 produced a new partner in the development of workplace physical activity in Canada. The national office is dedicated to the fitness community, services providers, and the development of workplace fitness professionals. The CCALW is involved in delivery systems development, leadership development, research and evaluation, promotion and resource development. In doing so, the CCALW perform four major functions; needs assessments, serving as a clearinghouse, facilitating and coordinating experts in the area, and the delivery of new initiatives (CCALW, 1991a).

Working Actively Together: Canada's Blueprint Toward Active Living in the Workplace, provides a planning document that outlines a national framework for action. It provides direction to many initiatives that promote an active lifestyle. The Blueprint provides a plan that can be used by all individuals and organizations interested in physical activity and the well-being of Canadians, and outlines the range of strategies and activities necessary to meet current and future needs. Thus, the Blueprint is a tool for planned change for people who are interested in promoting active living in Canada (CCALW, 1991b).

CANADIAN RESEARCH

Specific research on Canadian employee fitness programs has been lacking, and the studies that have been conducted have been limited, short-term ventures. The Canada Life Project provided Canada with the first controlled study relating participation in an employee fitness program to specific company benefits and improvements in the quality of life for employees (Walker et al., 1989). The purpose of this study was to examine the effects of long-term exposure to an employee fitness program.

Data was collected, which provided information on Canada Life employees fitness levels, lifestyle habits and history, blood lipid profiles, and absenteeism. The results have shown that involvement in an employee fitness program can improve fitness levels, reduce cardiovascular risk, and consistently lower absenteeism among those employees who have participated for ten years. The study also demonstrated a 'dose-response' relationship between cardiovascular risk and activity levels (Walker et al., 1989).

The Canada Life Project results illustrate that long-term benefits can be produced by workplace fitness programs. Not only did researchers find a decrease in absenteeism, but also a reduction in the employee turnover rate. These changes translate into money and

possibly lives saved by the implementation of a long-term employee fitness and health promotion program (Walker et al., 1989). These findings support the notion that employee programs are an integral part of a successful workplace.

Several major employee fitness surveys have contributed to our present understanding of the field. The major surveys include the Ontario surveys (1980, and 1984), the Canadian Chamber of Commerce National Survey of Fitness and Health Promotion in Canadian Business (1985), the British Columbia survey (1985), and Canada's Health Promotion Survey (1988).

Information about the general status of employee fitness in Ontario was provided when the Ontario Ministry of Tourism and Recreation conducted a province-wide quantitative survey of 996 corporations with 50 or more employees, in early 1980. The purpose was to allow for a description of the extent of nontraditional employee benefit programs in Ontario business and industry, and to aid organizations in their present or future plans. The results, based on a response rate of 68 percent, indicated that 13 percent of all responding companies had employee fitness programs, 23 percent offered health and lifestyle programs, and 46 percent offered sports and recreation programs (Baetz, 1980) (See Table 1). Companies with more employees were more likely than smaller companies to provide various types of health promotion programs. Almost half the companies surveyed requested information on fitness programs which indicated an interest in establishing such programs (Baetz, 1980; Ontario Ministry of Tourism and Recreation, 1984).

In 1984, the Ministry conducted a study to follow-up the 1980 survey. A questionnaire was mailed to 2000 companies with 50 or more employees in Ontario. The results, based on a response rate of 70 percent, indicated that employee fitness and related health programs had become more widespread in Ontario companies. One third of all companies offered at least one type of health promotion program. Employee fitness accounted for 10 percent of programs, 12 percent offered health and lifestyle programs, and 29 percent offered sports and recreation programs (Ontario Ministry of Tourism and Recreation, 1984) (see Table 1). While employee fitness programs tended to exist only in larger firms in 1980, by 1984, many large as well as small firms had developed fitness and

health promotion programs (Ontario Ministry of Tourism and Recreation, 1984). According to the results of the survey, many more companies were offering a wider variety of programs than in 1980, thus indicating, that Ontario businesses are committed to encouraging and supporting health promotion in the workplace (Ontario Ministry of Tourism and Recreation, 1984).

The Chamber of Commerce National Survey was the first such survey conducted on a national basis (Canadian Chamber of Commerce, 1985) which provided a valuable overview of the current extent and nature of employee fitness programs in Canada. The results of the National Survey were based on responses received from 1049 business establishments with 100 or more employees. The overall response rate for this group was 45 percent of the businesses contacted. The results showed that although a small percentage of firms offer all three types of programs, 13 percent offered some type of fitness program, 25 percent offered health education and lifestyle programs, and 44 percent provided sport and recreation programs (Canadian Chamber of Commerce, 1985) (see Table 1). The results also indicated that fitness programs and sport and recreation programs are more prevalent in the Prairie, and the Atlantic Regions than in Quebec, Ontario, or British Columbia, while health education and lifestyle programs are more prevalent in Ontario and British Columbia (Canadian Chamber of Commerce, 1985).

In 1985, British Columbia conducted a similar survey of businesses in that province. Due to the nature of the business community in B.C., with a high population of small businesses, the sampling for this survey included 1 789 firms with 20 or more employees. The results were similar to the 1984 Ontario survey. Twenty-six percent of the responding companies offered fitness activity programs (Casey, Chamberlayne, Kierns, & Pendray, 1986). Health education activities were much more prevalent, with 90 per cent of companies reporting participation in at least one health education program (see Table 1). Again, the large companies reported the highest frequency of fitness activities, as well as the highest degree of interest in initiating or expanding program activities (Casey et al., 1986).

Table 1
Summary of Previous Canadian Surveys

Survey	Type of Program (Percent)		
	Fitness	Health & Lifestyle	Sport & Recreation
Ontario, 1980	13	23	46
Ontario, 1984	10	12	29
Canada, 1984	13	25	44
B.C., 1985	26	90	N/A
Alberta, 1986	35	72	66

Canada's Health Promotion Survey (Health & Welfare Canada, 1988), produced some interesting results regarding health promotion at work. Almost one out of two employees received information about health at work; this provides a strong indication of the extent of health promotion programming in Canadian workplaces. Yet, once again, substantial inequities are apparent in terms of access to such information. Low income Canadians, those with less education, employees whose primary language was neither French nor English and employees who are at lower ranks in the organizational hierarchy are less likely to receive such information (Health & Welfare Canada, 1988). Similarly, there are large variations in access to health information, with employees of large firms generally having access to programs, while employees of smaller firms were not as likely to have access (Health & Welfare Canada, 1988).

Through these projects, the concept of employee fitness and lifestyle programs gained acceptance and began to flourish in the business community. The surveys assisted

in gaining the support of the federal government, national organizations, provincial governments and organizations, as well as employers and employees across Canada. Support and respect was gained at both levels, for the ideas and potential personal and fiscal benefits derived from a healthy, physically active workforce (Fitness Canada, 1988b).

ALBERTA BACKGROUND

Alberta's health care system is a model of highly accessible, modern, high technology curative medicine. However, the use of physicians and diagnostic services in Alberta, as in the rest of Canada, is increasing rapidly. This trend prompted concern about the health care system's continued ability to meet the needs and demands of the people of this province. Alberta's health expenditure per capita is the highest in the country (Government of Alberta, 1989; Mix, 1990). In an attempt to control the increases, it was suggested that Alberta's health care system become partners with labour and industry to ensure the highest possible levels of safety in the workplace, and to develop programs that reinforce a certain amount of individual responsibility.

In the summer of 1981, Imperial Oil's subsidiary company, Esso Resources opened the Esso Plaza Fitness Centre in Calgary (Fitness & Amateur Sport, 1991). The fitness program, housed in the Esso Plaza office tower was made available to all 2200 head office employees. Esso began collecting absenteeism data for employees who took out memberships in the fitness centre beginning in 1981. The results of the data collection indicated that aerobic fitness related significantly to a reduction in absence from work (Fitness Canada, 1988b), and, as personal attendance in fitness activities increased, the number of days absent decreased (Fitness Canada, 1988b). Such information gave some credibility to the idea that employee fitness and health promotion could decrease costs to the company, as well as foster improved health among participating employees. Further longitudinal data (1981-1991) from the Esso Plaza Fitness Project is currently being analyzed at the University of Alberta, and should provide further insight into the long term effects of physical activity programs.

Following the lead of Esso, Petro-Canada, Chevron, Mobil, Texaco, Shell, Gulf, Nova, and Dome/Amoco established similar in-house facilities for their staff. Rather than becoming involved in workplace fitness from a hard-line economic perspective, these oil companies were developing a new standard of employee benefits and enticements. Top

executives and employees, as well as workers looking for jobs within the oil industry were more likely to prefer a company based upon the availability of in-house fitness facilities (Bentz, 1992).

Alberta Recreation and Parks (ARP) became involved in the promotion of workplace health in 1984 (Bentz, 1992). As the only Ministry with the mandate to be involved in employee fitness, ARP became the key facilitator in the development and promotion of employee health promotion. ARP acted as a consultant-base and developed a partnership with industry in order to support the development of employee fitness and health education programs (Bentz, 1992).

In the role of facilitator, ARP became a contact point for information, providing background research, documentation to justify the establishment of programs, and resources, including slides, research documents, and 'how-to' booklets. Through their work in the field, credibility was established, and employee fitness, once thought of as threatening, became a positive factor for many workplaces (Bentz, 1992).

In 1986, The University of Alberta and Alberta Recreation and Parks conducted a survey to determine the status of employee fitness and leisure lifestyle opportunities in the Alberta business community (Marshall et al., 1987). The study identified the programs being offered in the areas of fitness, health education, and sports and recreation, and also collected information on the interest of companies to initiate or expand existing programs. In addition, the leadership and resources involved with running the programs were examined (Weiss, 1988).

The researchers mailed a survey and letter of explanation to a stratified random sample of 985 worksites in Alberta. The survey sample was stratified on the basis of worksite size and industry type. The four size strata were: 20 to 49 employees, 50 to 99 employees, 100 to 499 employees, and 500 or more employees. The four types of industry strata were: Industrial and Manufacturing worksites, Trade and Commerce worksites, Finance and Service worksites, and Petroleum-based worksites. In order to allow an accurate follow-up, and to guarantee confidentiality, only the return envelope identified the company completing the survey. Follow-up involved a post card reminder which was sent out one week after the initial mailing (Marshall et al., 1987).

Responses were received from 518 companies, which provided a response rate of 52.6 percent. The preliminary findings of the survey indicated that 35 percent of the

responding companies offered some type of fitness programs, 71.5 percent offered health and lifestyle education programs, and 66 percent offered sport and recreation programs (See Table 1). Similar to the Ontario and British Columbia surveys, the number of programs which were offered increased with the size of the company (Marshall et al., 1987).

In the late 1980's, the trend toward health promotion spurred activity in Alberta's health and physical activity communities. In January, 1988, the Leisure Lifestyles Division of Recreation, Parks and Wildlife was founded with a mandate to encourage Albertans to lead healthier, more active lifestyles. Included in its objectives was the use of environments such as the workplace to promote positive lifestyle choices to Albertans (Recreation, Parks and Wildlife Foundation, 1990). As part of their directive, and in cooperation with the University of Alberta, financial support was provided to create the Alberta Centre for Well-Being.

The Alberta Centre for Well-Being was developed to promote the concepts and benefits of well-being to professionals in the field, which assists them with the provision of information and services to all Albertans (Recreation, Parks & Wildlife Foundation, 1990). The Centre during its development, has identified the workplace as an area of interest, and has become actively involved in the area of health promotion in the workplace.

A number of recent documents have been released in the continuing effort to promote health in Alberta. Take Heart (Buffum, 1988), produced by the Red Deer Regional Health Unit was developed to put heart health into action at worksites. The document offers information on ways to conduct a comprehensive worksite heart health program in order to reduce the potentially devastating effects of cardiovascular disease.

The Rainbow Report: Our Vision For Health, produced by the Premier's commission on the future of health care for Albertans (1989) was intended to assist Albertans in understanding and willingly participating in the continuing journey toward ever-greater personal, organizational, societal and environmental health. The Commission believed that Albertans should be given the opportunity to pursue healthy lifestyles under the best possible social and environmental conditions (Premier's Commission on Future Health Care for Albertans, 1989).

Therefore, the Commission recommended that by April 1, 1995, at least one percent more of Alberta Health's overall operating budget be allocated for health promotion and

illness/injury prevention. The workplace was targeted as being of considerable importance in the one percent solution of achieving the vision of healthy Albertans living in a healthy Alberta (Premier's Commission on Future Health Care for Albertans, 1989).

Moving Into the Future: For the Health of Albertans was produced by Alberta Community and Occupational Health in 1988. This document challenged all Albertans interested in health to maintain or improve their current levels of health. It was intended to stimulate discussion, and assist in the thinking toward the development of effective programs and policies which will assist Albertans in the future (Alberta Community & Occupational Health, 1988b).

Clearing the Air is a booklet produced by Alberta Community and Occupational Health (1988a) in response to the increased demand for smoke-free workplaces. The booklet was designed to help determine the best kind of smoking policy for each workplace, and provides examples of successful programs. In Alberta in 1988, Edmonton and Red Deer were cities that include the workplace within their non-smoking ordinance. The need for such a publication reflects Alberta's interest in the prevention of unhealthy work environments, allowing employees to work in safer surroundings.

Working Towards Well-Being in Alberta's Workplaces was produced by the Alberta Centre for Well-Being (1990). It outlines the rationale for a workplace well-being program, potential benefits, and describes the necessary environment for success, as well as suggestions for implementation of such a program. This document was meant to be a promotional tool for the development of workplace well-being programs.

A major document produced by Alberta Recreation and Parks, Fitness and Leisure Services Section's (1991) was, Workplace Well-Being: Proposal Development guide. This is a comprehensive booklet providing information on developing proposals to initiate workplace well-being programs. It provides a step by step guide for the development of such a proposal, giving pertinent facts and figures which will assist the reader in the process of formulating a proposal to introduce the benefits of implementing an employee health promotion program.

The sudden increase in resources available and agencies involved in the area of workplace health promotion reflects the demand for assistance from employers and workplace health practitioners. This trend is not limited to Alberta. There have also been many such documents and aids produced at the National level.

The development of health promotion in Canada has been supported by various government agencies and organizations. The question remains, have the numerous national and Alberta initiatives had an influence on the extent to which Alberta organizations offer health promotion programs?

CHAPTER III

METHODOLOGY

This study was designed to compare and contrast the growth and development of physical activity and health promotion in workplaces in Alberta from 1986 to 1992. This chapter examines the general procedures which were used for this study, including: sample selection; development of the survey instrument; survey procedures; and, data management and analysis.

SAMPLE

Table 2 provides a summary of the sample distribution of this study. A stratified random sample of 1484 Alberta businesses was selected by CFLRI using Dun & Bradstreet's directory of current businesses in Alberta. The sample was stratified by number of employees and industry type, with a one in ten sampling ratio for both the 20-49 industry size and the 50-99 industry size. The entire population of the remaining industry size groups (100 or more employees) were sampled.

In order for longitudinal comparisons to be drawn from the results of the Employee Fitness and Leisure Lifestyle Opportunities in the Alberta Business Community survey (Marshall et al., 1986), it was essential that companies involved in the 1986 survey be included in the current sample. In order to do this, companies completing the 1986 survey were cross-referenced with the 1992 sample. Any companies still operating in Alberta and who were part of the 1986 study, but were not part of the 1992 sample were added. Current addresses of the companies who participated in the 1986 study but who were not part of the 1992 sample were verified through the examination of lists available at the Edmonton Public Library Reference Department, and through current telephone listings.

Table 2
Sample Distribution

Sample Group	Number of employees				Total
	20-49	50-99	100-499	500+	
CFLRI Sample of Alberta Businesses	407	126	844	107	1484
Match of CFLRI and 1986	19	93	73	48	233
Added non-CFLRI from 1986	65	22	81	16	184
TOTAL LONGITUDINAL SAMPLE	84	115	154	64	417

The longitudinal companies which were added to the survey belonged to one of four size strata utilized in 1986: 20 to 49 employees, 50 to 99 employees, 100 to 499 employees, or 500 or more employees. These companies also belonged to one of four industry strata: Industrial and Manufacturing worksites, Trade and Commerce worksites, Finance and Service worksites, or Petroleum-based worksites which are summarized in Table 3 (Marshall et al., 1986). The companies that responded in 1986 were identified through computer files established in 1986. A total of 518 companies were eligible to be part of this longitudinal replication study. After careful examination, 233 companies were found to be included in the CFLRI sample (see Table 2). An additional 184 companies were found to be currently operating in Alberta, and were added to the sample. Therefore a total of 417 companies were part of the longitudinal sample as shown in Table 2.

Table 3

Types of Companies in Each Industry Group

Industry Types			
Industry and Manufacturing	Trade and Commerce	Finance and Service	Petroleum Based
Agriculture Forestry Mining Construction	Transportation Communication Wholesale Trade	Banking Insurance Health Services Hotels	Oil and Gas Extraction Pipelines Natural Gas

SURVEY INSTRUMENT

The survey instrument was developed for data collection by the CFLRI, with input from experts located across Canada. A self-administered questionnaire comprised of both closed and open-ended questions was utilized for this investigation (See Appendix B). It was decided that the questionnaire format would best fit the purpose of the investigation due to the nature of the study, the large number of potential companies involved, and the lower cost of mail surveys.

The instrument was modified in order to replicate the original Alberta survey (Marshall et al., 1987), as closely as possible. However, it was crucial to maintain consistency with the national survey instrument to allow for direct comparisons. The survey aim was to provide information pertaining to physical activity and health promotion programs, services and opportunities currently available in businesses in Alberta.

There are advantages in conducting self-administered questionnaires: questionnaires ensure that the same structure is used in obtaining responses from all subjects; the respondent is guaranteed anonymity which may provide for more accurate information about the company. This may not occur if the researcher is present, as in the case of personal interviews; the respondent can fill out the questionnaire at their leisure which may provide a

more comfortable atmosphere, and allows the respondent time to refer to files needed to answer some questions (Fowler, 1988).

Questionnaires are not without their disadvantages, however. Return rates can be low, as there is little opportunity for the investigator to clarify questions or provide encouragement to the respondent to complete the survey. However, the use of a cover letter to explain and stress the importance of the study, attractiveness of the questionnaire lay-out, official sponsorship of the survey, follow-up reminder cards, and the mailing of a second survey to non-respondents have been reported to increase the response rates of surveys (Fowler, 1988).

When a survey is accompanied with a clear, concise cover letter, the response rates can rise from less than 30 percent, to approximately 50 % (Fowler, 1988). When follow-ups, such as a reminder card, and a second mail-out to non-respondents are utilized, the response rate can potentially increase to a level of 80 percent (Fowler, 1988). The purpose of follow-up mailings is to reduce the percentage of non-respondents and thereby make the survey more representative. No matter how high a percentage of response is achieved by the first mailing, a follow-up mailing will always produce some more returns (Erdos & Morgan, 1983). Reminder cards have been highly successful when mailed seven to 10 days after mailing the original survey, and a second complete survey package is effective when mailed to non-respondents 14 to 20 days after the original survey (Fowler, 1988). Thus, these methods were implemented in this study in order to increase the response rate.

PROCEDURE

The survey package was sent to all of the companies selected by the CFLRI, as well as to those companies added from the 1986 survey.

The initial mail-out, including cover letter (See Appendix A), survey, and postage-paid return envelope was sent to the Human Resources Manager of each company. Two weeks later, a follow-up reminder post-card was sent to all the companies selected by the sampling procedures. Following this, personal phone calls were made to all non-respondents who were part of the longitudinal survey, asking them if they received the original mailing and answering any questions they may have had. If they did not receive the initial mailing, or they had discarded it, a second survey package was forwarded. Four

weeks after the initial mailing, a second survey package was sent to all non-respondents. Throughout the surveying period, all packages returned with an incorrect address were noted, and efforts were made to reroute packages with current addresses.

DATA MANAGEMENT AND ANALYSIS

When the questionnaires were returned, the Dun & Bradstreet identifying number was marked on the top of the survey (this assisted in determining non-respondents). A running record of all questionnaire returns was kept. This record included surveys which were returned unanswered due to unknown or incorrect addresses, company amalgamations, and unwilling participants, as well as surveys which were returned completed (see Table 4). The responses were directly entered into the computer for analysis. The raw data was verified by random inspection and frequency tabulations, checking for outliers, completeness and consistency. Incomplete surveys (surveys with a major segment unanswered) were considered non-responses.

SPSSx was utilized for data analysis. The preliminary analysis was conducted using descriptive statistics including variable frequencies, percentages, and cross-tabulations. Further analysis included t-tests. The analysis will focus on the longitudinal investigation; comparison between the results from 1986, and the present study.

CHAPTER IV

RESULTS

The purpose of this study was to examine the evolution of workplace health promotion and physical activity over the past 6 years, and to consider the implications of this data on the further facilitation and development of this area. The response rates and general demographics of the 198 organizations that responded to the survey are highlighted in the first section of this chapter.

It is important to note that in the text, the term large business refers to companies with 100 or more employees, while small business refers to companies with up to 100 employees. Data has been reported in the order which appears on the survey instrument. The results have been rounded off to the nearest tenth.

RESPONSE RATE

Survey packages were sent to a representative sample of 417 organizations across Alberta. A total of 21 surveys (5.0 %) were returned due to an unknown or incorrect address, or duplicate surveys received as a result of company amalgamations. Of the remaining 396 surveys, 50.0 % (N=198) were completed and returned by the due date. The sampling data, response information and return rate are presented in Tables 4 and 5.

Although the study achieved a good response rate, factors may have influenced the number of companies participating. The subject matter may have been one deterrent for some companies, as many contacted felt the survey did not apply to them. The length of the survey may have been a barrier for some companies unable or unwilling to find time to complete the survey.

Table 4

Sampling Data

Number of Surveys	
Longitudinal Surveys sent out	417
Number of Invalid Addresses	17
Duplicate Surveys	4
TOTAL VALID SURVEYS	398

Table 5

Return Information

Number of surveys	
Total Valid Surveys	398
Returned Non-Participants	10
Number Not Responding	188
NUMBER RESPONDING	198
RESPONSE RATE	50.0 %

DESCRIPTION OF THE SAMPLE

The distribution of survey respondents' industry type and company size are shown in Table 6. From the Table, it can be determined that the majority of the respondents (65.2%, $n=129$) were from large companies (over 100 employees), while 42.9% ($n=85$) of the total responses were received from organizations in the Finance and Service Industry. Direct comparison to the make-up of the overall results from 1986 are not possible, as only a portion of that 1986 sample responded in 1992. However, using the results from only the companies responding to the 1986 study (Marshall et al, 1987), and the 1992 survey, direct comparisons can be made.

The high proportion of responses coming from companies with over 100 employees may be due to: larger companies being more stable during these times of economic recession; and those companies with 100 or more employees having a vested interest in the subject matter. The majority of programs and opportunities are found in companies with 100 or more employees.

Table 6

Longitudinal Return Demographics (1986 description in brackets)

Valid Surveys Returned		
Industry Type	<u>N</u>	%
Industry and Manufacturing	24	12.1
Trade and Commerce	53	26.8
Finance and Service	85	42.9
Petroleum Based Industry	36	18.2
Number of Employees		
Less than 10	5 (16)	2.5 (8.1)
11 to 19	10 (5)	5.1 (2.5)
20 to 49	28 (29)	14.1 (14.6)
50 to 99	26 (21)	13.1 (10.6)
100 to 249	64 (63)	32.2 (31.8)
250 to 499	31 (29)	15.7 (14.6)
500 to 999	20 (20)	10.1 (10.1)
More than 1000	14 (15)	7.1 (7.6)
TOTAL	198	100.0
1986	Less than 100 71 100 or more 127	
1992	Less than 100 69 100 or more 129	

SPORT AND RECREATION PROGRAMS AND OPPORTUNITIES

TEAM SPORT PROGRAMS AND OPPORTUNITIES

Overall

Results presented in Table 7 indicate that since 1986, there has been an overall increase in companies offering team sports (such as softball or hockey) as part of their sport and recreation programs. Team sport involvement has increased from 41.4 % ($n=82$) of the companies in 1986, to 57.6 % ($n=114$) of the companies in 1992.

Table 7

Companies Offering Team Sport and Individual Sport Programs and Opportunities (a)

	Year			
	1986		1992	
	\underline{n}	%	\underline{n}	%
Team Sports	82	41.4	114	57.6
Individual Sports	36	18.2	25	12.6

(a) the percentages in this Table are based on the total of 198 companies.

Team Sports: Company Size

Similar to results from 1986, larger companies continued to be more likely to offer team sport opportunities to employees. Team sport opportunities were offered in 15.5 % (\underline{n} =11) of the small companies in 1986, and that involvement increased to 40.6 % (\underline{n} =28) of small companies in 1992. In 1986, 55.9 % (\underline{n} =71) of the large companies offered team sport programs and opportunities, while in 1992, 66.7 % (\underline{n} =86) of the large companies offered such programs. Despite this disproportionate level of involvement, Table 8 presents results indicating that the large increase in small companies offering team sport opportunities has lessened the differences between large and small companies offering team sport programs and opportunities.

Table 8

Size of Companies Offering Team Sport and Individual Sport Programs and Opportunities (b)

	Year			
	1986		1992	
	programs		programs	
	\underline{n}	%	\underline{n}	%
Team Sports				
Less than 100	11	15.5	28	40.6
100 or more	71	55.9	86	66.7
Individual Sports				
Less than 100	6	8.5	1	1.4
100 or more	30	23.6	24	18.6

(b) the percentages in this Table are based on the demographics as shown in Table 6.

Team Sports: Industry Types

Based on the demographics of the respondents (see Table 6), in 1986, the Petroleum-based industry was the industry type with the highest percentage of companies (52.8 %, $\underline{n}=19$) offering team sports, as shown in Table 9. The Petroleum-based businesses continued to be highly involved in 1992, with 55.6 % ($\underline{n}=20$) of their companies offering team sport opportunities. However, the Trade and Commerce, and Finance and Service industries emerged as the groups with the highest percentages of their companies offering team sports in 1992. The Trade and Commerce industry involvement increased from 41.5 % ($\underline{n}=22$) in 1986, to 60.4 % ($\underline{n}=32$) in 1992. The Finance and Service industry's involvement increased from 40.0 % ($\underline{n}=34$) in 1986, to 60.0 % ($\underline{n}=51$) in 1992. The Industry and Manufacturing involvement was remained relatively low in 1986, with only 29.2 % ($\underline{n}=19$) of the companies involved in 1986, and increasing to 45.8 % ($\underline{n}=11$) in 1992.

Table 9

Industry Involvement in Team Sport and Individual Sport Programs and Opportunities (c)

		Year			
		1986		1992	
		<u>n</u>	%	<u>n</u>	%
Team Sport	Industry and Manufacturing	7	29.2	11	45.8
	Trade and Commerce	22	41.5	32	60.4
	Finance and Service	34	40.0	51	60.0
	Petroleum-based	19	52.8	20	55.6
Individual Sports	Industry and Manufacturing	2	8.3	-	-
	Trade and Commerce	5	9.4	6	11.3
	Finance and Service	19	22.4	15	17.6
	Petroleum-based	10	27.8	4	11.1

(c) the percentages in this Table are based on industry demographics as shown in Table 6.

INDIVIDUAL SPORT PROGRAMS AND OPPORTUNITIES**Overall**

Between 1986 and 1992, there was an overall decrease in companies reporting individual sports and recreation programs (such as tennis, swimming, or skiing) available to employees. In 1986, 18.2 % (n=36) of the companies provided individual sports and recreation opportunities, while in 1992, only 12.6 % (n=25) of the companies reported offering such programs (see Table 7).

Individual Sports: Company Size

Similar to the results from 1986, larger companies continued to be more likely to offer individual sport opportunities for employees. Individual sport programs and opportunities were available in 8.5 % ($n=6$) in 1986, and decreased to 1.4 % ($n=1$) in 1992. Large companies involved in individual sport also decreased from 23.6 % ($n=30$) of large companies in 1986 to 18.6 % ($n=24$) in 1992.

Individual Sports: Industry Types

In 1986, based on the demographics of the responding companies (see Table 6), both Finance and Service and Petroleum-based industry had the highest percentages of their companies with individual programs, having 22.4 % ($n=19$) and 27.8 % ($n=10$) involved respectively (see Table 9). The 1992 survey indicated that the Finance and Service industry was the industry with the highest percentage of individual programming, with 17.6 % ($n=15$) of the Finance and Service companies. The Petroleum-based industry no longer had the highest percentage of their companies involved, having had reductions in their involvement in the provision of individual sport programs from 27.8 % ($n=10$) in 1986, to 11.1 % ($n=4$) in 1992. In 1986, the Industry and Manufacturing companies had 8.3 % ($n=2$) of their companies offering individual sport opportunities, but in 1992, none of the Industry and Manufacturing companies provided the opportunity for employees to participate in company organized individual sport and recreation activities.

INTEREST IN STARTING SPORT OR RECREATION PROGRAMS

Overall

The scales used in the 1986 and 1992 surveys varied slightly, therefore, the data was collapsed for the moderate category (in 1986, categories 2 and 3 represented moderate interest, while in 1992, categories 2, 3 and 4 represented moderate interest). In 1986, there were 94 companies without physical activity programs, and in 1992, there were 64 companies without physical activity programs. Of the companies without physical activity programs in 1986, 50 were companies with less than 100 employees, and 44 were companies with 100 or more employees. In 1992, 35 companies were small, and 29 were large.

In the six years between surveys, interest from companies currently without programs in starting a sport and recreation program has increased, as summarized in Table 10 (very and moderately combined). The percentage of companies without physical activity programs or opportunities, stating they were very interested increased from 3.2 % ($n=3$) in 1986 to 6.3 % ($n=4$) in 1992, while companies without programs moderately interested increased from 30.9 % ($n=29$) to 62.5 % ($n=40$) of companies without programs in 1992. The incidence of companies indicating no interest decreased from 60.6 % ($n=57$) in 1986, to 31.3 % ($n=20$) in 1992, and the number of non-respondents decreased from 5.3 % ($n=5$) in 1986, to none in 1992.

The increased interest in starting sport and recreation programs can be seen when examining the mean values of responses from each year. In 1986, the mean score of responses was 1.56 on a scale of one to four (one being not interested, and four being very interested), while in 1992, the mean score was 2.19. The difference between the level of interest of companies interested in starting sport and recreation programs in 1986 and 1992 was found to be significant ($t=3.66$, $df=35$, $p<.001$).

Table 10

Interest in Starting a Sport or Recreation Program (d)

Response	Year			
	1986		1992	
	<u>n</u>	%	<u>n</u>	%
Very Interested	3	3.2	4	6.3
Moderately Interested	29	30.9	40	62.5
Not Interested	57	60.6	20	31.3
No Response	5	5.3	-	-

(d) the percentages in this Table are based on companies without physical activity programs or opportunities, refer to p. 41.

Interest in Starting: Company Size

The size of companies, and their interest in starting sport and recreation programs are shown in Table 11. Two percent (2.0 %, n=1) of companies with less than 100 employees were very interested in starting programs in 1986, compared to 2.9 % (n=1) of small companies in 1992. Companies with 100 or more employees had 6.8 % (n=3) of their companies indicating they were very interested in starting a sport and recreation program in 1986, and 3.4 % (n=1) of their companies in 1992.

In both 1986 and 1992, large companies were more likely to be moderately interested in starting sport and recreation programs for employees. In 1986, 10.0 % (n=5) of the small companies were moderately interested, compared to 48.6 % (n=17) of small companies in 1992. Thirty-six percent (36.4 %, n=16) of the large companies were moderately interested in 1986, and increased to 55.2 % (n=16) of large companies in 1992.

Companies not interested in starting programs decreased in both large and small companies between 1986 and 1992. Small companies without programs, not interested in starting programs decreased from 62.0 % ($n=31$) in 1986, to 42.9 % ($n=15$) in 1992. Large companies without programs not interested in starting programs decreased from 56.8 % ($n=25$) in 1986 to 17.2 % ($n=5$) in 1992.

Table 11

Size of Companies Interested in Starting Sport and Recreation Opportunities (d)

	Year			
	1986		1992	
	response		response	
	n	%	n	%
Very Interested				
Less than 100	1	1.4	1	1.4
100 or more	3	2.4	3	7.3
Moderately Interest				
Less than 100	15	21.1	19	27.5
100 or more	25	19.7	21	16.3
Not interested				
Less than 100	31	43.7	15	21.7
100 or more	28	22.0	5	3.9
No Response				
Less than 100	13	26.0	2	5.7
100 or more	-	-	7	24.1

(d) the percentages in this Table are based on companies without physical activity programs or opportunities, refer to p. 41.

FITNESS ACTIVITIES

Table 12 presents results pertaining to the types of fitness activities offered in Alberta's companies in 1986 and 1992. As shown in the Table, there has been a general decrease in companies offering fitness opportunities for their employees. The prevalence of fitness testing decreased from 14.2 % ($n=28$) of all companies involved in 1986, to 12.6 % ($n=25$) in 1992. Individualized fitness program involvement has decreased from 15.2 % ($n=30$) in 1986, to 9.6 % ($n=19$) in 1992. Group exercise programs have decreased from being offered in 17.7 % ($n=34$) of the companies in 1986, to 14.1 % ($n=28$) in 1992. Jogging and running programs have remained steady at 9.6 % ($n=19$) of all responding companies. The provision of information about community programs has also remained constant at 22.2 % ($n=44$) of all companies since 1986.

Table 12
Companies Offering Fitness Programs and Opportunities (a)

	Year			
	1986		1992	
	<u>n</u>	%	<u>n</u>	%
Fitness Opportunities				
Fitness Testing	28	14.2	25	12.6
Individualized Fitness	30	15.2	19	9.6
Group Exercise	34	17.7	28	14.1
Jogging/Running	19	9.6	19	9.6
Community Information	44	22.2	44	22.2

(a) the percentages in this Table are based on the total of 198 responding companies.

FITNESS ACTIVITIES: FITNESS TESTING**Fitness Testing: Company Size**

Similar to the results from 1986, large companies continued to be more likely to offer fitness testing for their employees in 1992. There was a slight decrease in the percentage of large companies offering fitness testing to employees, from 18.9 % ($n=24$) of large companies in 1986, to 16.3 % ($n=21$) in 1992. Small company involvement remained stable between 1986 and 1992, with 5.6 % ($n=4$) of the small companies having fitness testing in 1986, and 5.8 % ($n=4$) in 1992, as shown in Table 13.

Table 13

Size of Companies Offering Fitness Programs and Opportunities (b)

	Year			
	1986		1992	
	programs		programs	
	<u>n</u>	%	<u>n</u>	%
Fitness Testing				
Less than 100	4	5.6	4	5.8
100 or more	24	18.9	21	16.3
Individualized Programs				
Less than 100	5	7.0	1	1.4
100 or more	25	19.7	18	14.0
Group Exercise Programs				
Less than 100	6	8.5	5	7.2
100 or more	28	22.0	23	17.8
Jogging/Running Programs				
Less than 100	4	5.6	1	1.4
100 or more	15	11.8	18	14.0
Community Info				
Less than 100	7	9.9	6	8.7
100 or more	37	29.1	38	29.5

(b) the percentages in this Table are based on the demographics as shown in Table 6.

Fitness Testing: Industry Involvement

Based on the demographics of the responding companies, the Petroleum-based industry group was the only industry type to record an increase in involvement in fitness testing. Twenty-two percent (22.2 %, $n=8$) of the Petroleum-based companies offered fitness testing in 1986, compared to 27.8 % ($n=10$) in 1992 (see Table 14). Finance & Service companies representation decreased from 16.5 % ($n=14$) in 1986, to 10.6 % ($n=9$) in 1992, while the Industry and Manufacturing and the Trade and Commerce industries maintained the same level of involvement. The Industry and Manufacturing industry had 8.3 % ($n=2$) of their companies involved, and the Trade and Commerce industry had 7.5 % ($n=4$) of their companies involved.

Table 14

Industry Involvement in Fitness Programs and Opportunities (c)

		Year			
		1986		1992	
		n	%	n	%
Fitness Testing	Industry and Manufacturing	2	8.3	2	8.3
	Trade and Commerce	4	7.5	4	7.5
	Finance and Service	14	16.5	9	10.6
	Petroleum-based	8	22.2	10	27.8
Individualized Programs	Industry and Manufacturing	1	4.2	-	-
	Trade and Commerce	5	9.4	3	5.7
	Finance and Service	17	20.0	11	12.9
	Petroleum-based	7	19.4	5	13.9
Group Exercise	Industry and Manufacturing	3	12.5	-	-
	Trade and Commerce	1	1.9	3	5.7
	Finance and Service	20	23.5	18	21.2
	Petroleum-based	10	27.7	7	19.4
Jogging/ Running	Industry and Manufacturing	1	4.2	-	-
	Trade and Commerce	3	5.7	1	1.9
	Finance and Service	10	11.8	11	12.9
	Petroleum-based	5	13.9	7	19.4
Community Information	Industry and Manufacturing	2	8.3	2	8.3
	Trade and Commerce	9	17.0	5	9.4
	Finance and Service	21	24.7	27	31.8
	Petroleum-based	12	33.3	10	27.8

(c) the percentages in this Table are based on industry demographics as shown in Table 6.

FITNESS ACTIVITIES: INDIVIDUALIZED PROGRAMS

Individualized Programs: Company Size

As in 1986, large companies continued to be more likely to offer individualized programs for employees in 1992 (see Table 13). Small company participation decreased from 7.0 % ($n=5$) in 1986, to 1.4 % ($n=1$) in 1992. Large company participation also decreased from 19.7 % ($n=25$) involvement in 1986, to 14.0 % ($n=18$) in 1992.

Individualized Programs: Industry Involvement

As shown in Table 14, despite overall decreases in individualized programming, the Petroleum-based and the Finance & Service industries continued to be the industry types most involved in offering individualized programming for employees, with 13.9 % ($n=5$) and 12.9 % ($n=11$) of their companies providing individualized programs, respectively. The Trade and Commerce industry had decreases in companies offering such programs, from 9.4 % ($n=5$) of their companies involved in 1986, to 5.7 % ($n=3$) in 1992. Companies from the Industry and Manufacturing industry group involved in individualized programs decreased from 4.2 % ($n=1$) in 1986, to no companies involved in 1992.

FITNESS ACTIVITIES: GROUP EXERCISE

Group Exercise: Company Size

Similar to the results from 1986, large companies continued to be more likely to offer group exercise opportunities to employees in 1992. Table 13 presents results indicating there was an overall decrease in companies offering group exercise opportunities. Between 1986 and 1992 small companies offering group exercise programs decreased from 8.5 % ($n=6$) of small companies, to 7.2 % ($n=5$). Large company involvement also decreased from having 22.0 % ($n=28$) to 17.8 % ($n=23$) of their companies offer group exercise programs in 1992.

Group Exercise: Industry Types

As in 1986, the Finance & Service (21.2 %, $n=18$) and the Petroleum-based (19.4 %, $n=7$) industries continued to be the industry types having the highest percentage of companies offering group exercise programs in 1992 (see Table 14). The Trade and Commerce industry

experienced an increase in companies offering group exercise programs, from 1.9 % ($n=1$) of their companies involved in 1986, to 12.5 % ($n=3$) in 1992. The Industry and Manufacturing companies had 12.5 % ($n=3$) of their companies offering group exercise programs in 1986, while in 1992, there were no Industry and Manufacturing companies involved in this area.

FITNESS ACTIVITIES: JOGGING AND RUNNING PROGRAMS

Jogging and Running Programs: Company Size

Although the overall number of companies offering jogging and running programs has remained the same since 1986, the representation of large and small companies has changed (see Table 13). The number of small companies providing such programs declined from 5.6 % ($n=4$) of small companies in 1986, to 1.4 % ($n=1$) in 1992, while the number of large companies involved increased from 11.8 % ($n=15$) in 1986 to 14.0 % ($n=18$) in 1992.

Jogging and Running Programs: Industry Types

The Finance and Service and Petroleum-based companies continued to have the highest percentage of companies offering jogging and running programs for employees in 1992 (see Table 14). The Finance and Service industry experienced increases in the percentage of companies offering jogging and running programs, from 11.8 % ($n=10$) in 1986, to 12.9 % ($n=11$) in 1992. The Petroleum-based industry had 13.9 % ($n=5$) of their companies involved in 1986, which increased to 19.4 % ($n=7$) of their companies in 1992. The Industry and Manufacturing industry had 5.7 % ($n=1$) of their companies offering such programs in 1986, but had no companies reporting jogging and running programs in 1992. Trade and Commerce had 4.2 % ($n=3$) of their companies offering jogging and running programs in 1986, and only 1.9 % ($n=1$) in 1992.

FITNESS ACTIVITIES: COMMUNITY INFORMATION

Community Information: Company Size

Similar to the results from 1986, large companies continued to be more likely than small companies to provide information about community programs in 1992. Table 13 presents results indicating slight decreases in companies offering community information for employees.

In 1986, 9.9 % ($\underline{n}=7$) of the small companies provided community information, while in 1992 8.7 % ($\underline{n}=6$) of small companies provided such information. The provision of information about community programs was found in 29.1 % ($\underline{n}=37$) of large companies in 1986, and increased slightly to 29.5 % ($\underline{n}=38$) in 1992.

Community Information: Industry Types

Similar to the results from 1986, the Finance and Service and Petroleum-based industry types continued to be the industry types having the highest percentage of companies providing employees with information about community programs in 1992 (see Table 14). The Finance and Service industry, had 24.7 % ($\underline{n}=21$) of their companies providing community information to employees in 1986, compared to 31.8 % ($\underline{n}=27$) in 1992. The Petroleum-based industry decreased from having 33.3 % ($\underline{n}=12$) of their companies providing information in 1986, to 27.8 % ($\underline{n}=10$) of companies providing information in 1992. The Trade and Commerce industry also experienced decreases in the percentage of companies providing such information, decreasing from 17.0 % ($\underline{n}=9$) in 1986, to 9.4 % ($\underline{n}=5$) in 1992. The Industry and Manufacturing involvement (8.3 %, $\underline{n}=2$) remained unchanged from 1982 to 1992.

INTEREST IN STARTING FITNESS PROGRAMS

The scales used in the 1986 and 1992 surveys varied slightly, therefore, the data was collapsed for the moderate category (in 1986, categories 2 and 3 represented moderate interest, while in 1992, categories 2, 3 and 4 represented moderate interest). In 1986, there were 94 companies without physical activity programs, and in 1992, there were 64 companies without physical activity programs. Of the companies without physical activity programs in 1986, 50 were companies with less than 100 employees, and 44 were companies with 100 or more employees. In 1992, 35 companies were small, and 29 were large.

Since 1986, interest in starting a fitness program increased (see Table 15). Four percent (4.3 %, $n=3$) of companies without programs in 1986 indicated they were very interested in starting a fitness program, compared to 4.7 % ($n=3$) of companies without programs in 1992. Moderate interest in starting fitness programs increased from 21.3 % ($n=20$) in 1986, to 57.8 % ($n=37$) in 1992. Companies indicating they were not interested decreased from 64.9 % ($n=61$) in 1986, to 26.6% ($n=27$) in 1992. The percent of non-respondents increased from 9.6 % ($n=9$) in 1986, to 10.9 % ($n=7$) in 1992.

In 1986, the mean score of responses was 1.47 on a scale of one to four (one being not interested, and four being very interested), while in 1992, the mean score was 2.35. With the large increase in companies not responding, there was a significant difference found between the level of interest in starting fitness programs in 1986 and 1992 ($t=4.12$, $df=33$, $p<.001$).

Table 15

Interest in Starting Fitness Programs (d)

	Year			
	1986		1992	
	<u>n</u>	%	<u>n</u>	%
Response				
Very Interested	4	4.3	3	4.7
Moderately Interested	20	21.3	37	57.8
Not Interested	61	64.9	17	26.6
No Response	9	9.6	7	10.9

(d) the numbers in this Table are based on companies without physical activity programs or opportunities, refer to p. 53.

Interest in Starting: Company Size

Nine percent (9.1 %, $n=4$) of companies with 100 or more employees were very interested in starting programs in 1986, compared to 6.9 % ($n=2$) in 1992 (see Table 16).

In both 1986 and 1992, large companies were more likely to be moderately interested in starting employee fitness programs. Moderate interest increased in small companies from 20.0 % ($n=10$) in 1986, to 54.3 % ($n=19$) in 1992. Large companies moderately interested increased from 27.3 % ($n=12$) of large companies without programs in 1986, to 62.1 % ($n=18$) in 1992.

Companies not interested in starting programs decreased in both large and small companies between 1986 and 1992. Small companies not interested decreased from 68.0 % ($n=34$) of small companies without programs in 1986, to 40.0 % ($n=14$) in 1992. Large companies without programs not interested decreased from 61.4 % ($n=27$) of large companies without programs in 1986 to 10.3 % ($n=3$) in 1992.

Table 16

Size of Companies Interested in Offering Fitness Opportunities (d)

	Year			
	1986		1992	
	response		response	
	<u>n</u>	%	<u>n</u>	%
Very Interested				
Less than 100	-	-	1	2.9
100 or more	4	9.1	2	6.9
Moderately Interested				
Less than 100	10	20.0	19	54.3
100 or more	12	27.3	18	62.1
Not Interested				
Less than 100	34	68.0	14	40.0
100 or more	27	61.4	3	10.3
No Response				
Less than 100	6	12.0	1	2.9
100 or more	1	2.3	6	20.7

(d) the percentages in this Table are based on companies without physical activity programs or opportunities, refer to p. 53.

SPORT, RECREATION AND FITNESS ACTIVITIES: DISCUSSION

The total number of companies involved in physical activity programming has increased from 52.5 % ($n=104$) in 1986, to 67.7 % ($n=134$) in 1992. Within that broad category, the number of companies involved in sport and recreation activities increased from 42.4 % ($n=84$) in 1986, to 59.1 % ($n=117$) in 1992, while companies involved in fitness activities decreased from 39.9 % ($n=79$) in 1986, to 32.8 % ($n=65$) in 1992. When examined, there appears to be a trend toward team sport activities, and away from individual sport and fitness opportunities.

These results appear to contradict the results of the 1992 Alberta Recreation Survey, which reported the most common forms of activity as walking, bicycling, swimming, ice skating (not hockey), golfing, and social dancing. Team sports such as baseball, volleyball, ice hockey, and basketball were reported by less than 20 % of the responding participants (Alberta Tourism, Parks and Recreation, 1992). However, unlike the Alberta Recreation Survey, the current survey reports on the types of programs companies offer, and does not offer any information on participation levels in each activity.

One explanation for companies offering more team sport programs and opportunities is that social support (as found in team sport) is one of the better predictors of physical activity participation (Dishman, Sallis, & Ornstein, 1985). Survey results have shown that people participate in physical activities for two main reasons - health benefits and enjoyment (Canada Fitness Survey, 1983). Team sport and recreation programs would probably cater more to enjoyment than to fitness goals, whereas the opposite would be true for individual and fitness activities. Continued involvement in programs is more dependent on enjoyment of the program, its convenience, and the social support received (Wankel, 1988).

Consistent with the results from 1986, large companies continued to be more likely to offer, and be interested in offering sport and recreation and fitness programs than small companies. Reasons for higher prevalence at larger worksites may include greater availability of full time staff to organize and manage these activities, competitive pressures to offer more benefits, and greater resources (Fielding, 1990). The positive relationship between the existence of sport and recreation programs and size of company may have indicated that small companies perceive such programs are beyond their means, or that with the number of employees in their company, they would not have the foundation to support the running of a program.

In 1986, the Petroleum-based industry represented the highest percentage of their companies offering sport, recreation, and fitness opportunities for employees, with the Finance and Service industry a close second, while Industry and Manufacturing and Trade and Commerce represented a relatively low percentage of companies involved. In 1992, the industry that emerged with the highest percentage of companies involved was the Finance and Service industry. Petroleum-based involvement came a close second, while the Industry and Manufacturing and Trade and Commerce industries remained at relatively low levels of involvement. This change may be interpreted several ways. First, in Alberta, the Petroleum-based industry was the first involved in employee physical activity and health promotion programs, starting in 1981. Following their lead, other Petroleum-based companies, and eventually other industry types began implementing such programs in their workplaces (Bentz, 1992). Over time, the Finance and Service industry has met and overtaken the Petroleum-based industry in industry involvement in sport, recreation and fitness activity involvement. Secondly, Finance and Service industries may have had a more stable income and been less likely to have been affected by changing economic conditions. Banks, trust companies, credit unions, insurance companies, hotels and other businesses within this category, while not "recession proof", may have been affected to a lesser degree by the economic conditions than industries such as Industry and Manufacturing. Thirdly, Finance and Service industries may have been more receptive to the notion of developing health promotion and physical activity programs for their company's employees. Such companies are in the business of providing services to people and services for people, and there may be a greater appreciation for the value of supporting a healthy, happy and productive workplace.

The Industry and Manufacturing and Trade and Commerce sectors are least likely than other industries to offer any type of physical activity programs (other than team sports). Although it is difficult to generalize, workers in these sector may not be as sedentary as in other types of industries. These industries may also have been more affected by the recession than some other industries, and therefore did not have the same opportunity to continue or begin physical activity programs in their workplaces.

Since 1986, overall interest in starting sport, recreation and fitness programs has increased. Results indicated that 68.8 % ($n=44$) of the companies without programs in 1992 were interested in starting sport and recreation programs, and 62.5 % ($n=40$) of companies without programs were interested in starting fitness programs in 1992, which is a positive result

from the overall health promotion standpoint. It is a strong indication that there is continued receptivity and interest in Canadian companies toward the philosophy and practice of increased physical activity in the workplace.

HELPFUL SERVICES AND RESOURCES FOR PHYSICAL ACTIVITY PROGRAMS

In 1986 there were 104 companies with some type of physical activity program, and in 1992, there were 134 companies with such programs. Of the companies with one or more type of physical activity program, 21 were companies with less than 100 employees in 1986, and 83 were companies with 100 or more employees. In 1992, 34 companies were classified as small, and 100 were classified as large. In 1986, eight (8) Industry and Manufacturing companies had physical activity programs, while in 1992, 11 had programs. Trade and Commerce had 27 companies with programs in 1986, and 34 in 1992. In 1986, the Finance and Service industry had 47 companies with programs, which increased to 63 in 1992. The Petroleum-based industry had 22 companies involved in physical activity programs in 1986, and 26 involved in 1992.

Table 17 presents results outlining what services and resources the companies with programs stated as being potentially helpful in planning or implementing physical activity programs. Of the companies with physical activity programs, companies reporting that seminars and workshops would be helpful increased from 29.8 % ($n=31$) in 1986, to 30.6 % ($n=41$) in 1992. Companies reporting that consultation services would be helpful decreased from 31.7 % ($n=33$) in 1986, to 23.9 % ($n=32$) in 1992. Reported interest in packaged information decreased from 72.1 % ($n=75$) in 1986 to 48.5 % ($n=65$) in 1992. Companies stating that A-V materials would be helpful in their physical activity programming have increased from 23.1 % ($n=24$) in 1986, to 37.3 % ($n=50$) in 1992.

Table 17

Helpful Services and Resources for Physical Activity Programs (d)

	Year			
	1986		1992	
	<u>n</u>	%	<u>n</u>	%
Type of Service or Resource (e)				
Seminars/Workshops	31	29.8	41	30.6
Consultation Services	33	31.7	32	23.9
Packaged Information	75	72.1	65	48.5
Audio-Visual Materials	24	23.1	50	37.3

(d) the numbers in this Table are based on companies with physical activity programs or opportunities, refer to p. 60.

(e) companies with programs may respond to one or more category

SERVICES AND RESOURCES: SEMINARS AND WORKSHOPS

Seminars and Workshops: Company Size

In 1986 and 1992, more small companies stated that seminars and workshops would be a helpful service than large companies (see Table 18). Of the small companies with physical activity programs, 38.1 % ($n=8$) indicated seminars and workshops would be helpful in 1986, compared to 44.1 % ($n=15$) in 1992. Twenty-eight percent (27.7 %, $n=23$) of large companies with programs in 1986 indicated seminars and workshops would be helpful, compared to 26.0 % ($n=26$) in 1992.

Table 18

Size of Companies Interested in Services and Resources (f)

	Year			
	1986		1992	
	response		response	
	<u>n</u>	%	<u>n</u>	%
Seminars/Workshops				
Less than 100	8	38.1	15	44.1
100 or more	23	27.7	26	26.0
Consultation Services				
Less than 100	9	42.9	10	29.4
100 or more	24	28.9	22	22.0
Packaged Information				
Less than 100	18	85.7	27	79.4
100 or more	57	68.7	38	38.0
A-V Materials				
Less than 100	3	14.3	20	58.8
100 or more	21	25.3	30	30.0

(f) the percentages in this Table are based on companies with physical activity programs or opportunities, refer to p. 60.

Seminars and Workshops: Industry Types

The overall increase in interest in seminars and workshops as potentially helpful may be a reflection of the increased participation of the Finance and Service industry. The Finance and Service industry had 38.1 % ($n=24$) of their companies indicating that these services would be helpful in 1992, an 8.3 % ($n=10$) increase since 1986 (see Table 19). The use of seminars and workshops declined for the Petroleum-based companies from 31.8 % ($n=7$) in 1986, to 15.4 % ($n=4$) in 1992. The Trade and Commerce industry had an increase in companies stating that seminars and workshops would be helpful, from 25.9 % ($n=7$) in 1986, to 29.4 % ($n=10$) in 1992. Although the actual number of companies in the Industry and Manufacturing industry group stating that seminars and workshops would be helpful remained the same since 1986, the percentage of companies with programs interested in seminars and workshops decreased from 37.5 % ($n=3$) in 1986, to 27.3 % ($n=3$) in 1992.

Table 19

Industry Interest in Services and Resources (d)

		Year			
		1986		1992	
		<u>n</u>	%	<u>n</u>	%
Seminars/ Workshops	Industry and Manufacturing	3	37.5	3	27.3
	Trade and Commerce	7	25.9	10	29.4
	Finance and Service	14	29.8	24	38.1
	Petroleum-based	7	31.8	4	15.4
Consultation Services	Industry and Manufacturing	4	50.0	2	18.2
	Trade and Commerce	8	29.6	8	23.5
	Finance and Service	14	29.8	18	28.6
	Petroleum-based	7	31.8	4	15.4
Packaged Information	Industry and Manufacturing	8	100.0	8	72.7
	Trade and Commerce	22	81.5	20	58.8
	Finance and Service	34	72.3	29	46.0
	Petroleum-based	11	50.0	8	30.8
A-V Materials	Industry and Manufacturing	2	25.0	5	45.5
	Trade and Commerce	7	25.9	14	41.2
	Finance and Service	11	23.4	23	36.5
	Petroleum-based	4	18.2	8	30.8

(d) the percentages in this Table are based on companies with physical activity programs, refer to p. 60.

SERVICES AND RESOURCES: CONSULTATION SERVICES

Consultation Services: Company Size

The helpfulness of consultation services to assist companies with their physical activity programs was higher in companies with less than 100 employees in both 1986 and 1992. In 1986, 42.9 % ($n=9$) of small companies with physical activity programs stated that consultation services would be helpful, while only 28.9 % ($n=24$) of the large companies stated the same. In 1992, 29.4 % ($n=10$) of small companies with programs indicated that consultation services would be helpful, compared to 22.0 % ($n=22$) of large companies (see Table 18).

Consultation Services: Industry Type

The most notable change in stated helpfulness of consultation services is the decrease across all industry types (see Table 19). The Finance and Service industry companies reporting that these services would be helpful, decreased from 29.8 % ($n=14$) in 1986, to 28.6 % ($n=18$) in 1992. Other marked changes include a decrease in Petroleum-based companies from 31.8 % ($n=7$) in 1986, to 15.4 % ($n=4$) in 1992. The Trade and Commerce industry had a decrease in the percentage of companies, from 29.6 % ($n=8$) in 1986, to 23.5 % ($n=8$) in 1992. Interest in consultation services decreased from 50.0 % ($n=4$) in 1986, to 18.2 % ($n=2$) in 1992 for the Industry and Manufacturing companies.

SERVICES AND RESOURCES: PACKAGED INFORMATION

Packaged Information: Company Size

In 1986, 85.7 % ($n=18$) of small companies indicated that packaged information would be helpful, compared to 79.4 % ($n=27$) in 1992 (see Table 18). The helpfulness of packaged information for companies with 100 or more employees decreased from 68.7 % ($n=57$) in 1986, to 38.0 % ($n=38$) in 1992.

Packaged Information: Industry Type

Since 1986, there has been an overall decrease in companies stating that packaged information would be helpful in the implementation and management of their physical activity programs (see Table 19). The Petroleum-based industry had the lowest percentage of companies stating the helpfulness of packaged information (50.0 %, $n=11$ in 1986, and 30.8

%, $n=8$, in 1992). Interest in obtaining packaged material decreased for the Industry and Manufacturing industry from 100.0 % ($n=8$) in 1986, to 72.7 % ($n=8$) in 1992. The Trade and Commerce industry also reported decreases, from 81.5 % ($n=22$) in 1986, to 58.8 % ($n=20$) in 1992. Finance and Service companies stated helpfulness of packaged information decreased from 72.3 % ($n=34$) in 1986, to 46.0 % ($n=29$) in 1992.

SERVICES AND RESOURCES: A-V MATERIALS

A-V Materials: Company Size

The stated helpfulness of A-V materials increased since 1986, with the largest increase coming from companies with less than 100 employees (see Table 18). In 1986, only 14.3 % ($n=3$) of small companies with programs stated that A-V materials would be helpful, compared to 58.8 % ($n=20$) in 1992. Interest in A-V materials also increased from 25.3 % ($n=21$) in 1986, to 30.0 % ($n=30$) in 1992 for large companies.

A-V Materials: Industry Types

Companies stating that A-V materials would be helpful in their physical activity programming increased since 1986, as shown in Table 19. Of the services and resources to assist companies, this is the one with the largest difference since 1986. The large increases in stated helpfulness of A-V materials in all industry types resulted in stated interest being evenly distributed across industry types.

Industry and Manufacturing companies stating the helpfulness of A-V materials increased from 25.0 % ($n=2$) in 1986, to 45.5 % ($n=5$) in 1992. Trade and Commerce experienced increases in the number of companies stating that A-V materials would be helpful, from 25.9 % ($n=7$) of companies, to 41.2 % ($n=14$) in 1992. Finance and Service experienced increases in their companies stating that A-V material would be helpful, from 23.4 % ($n=11$) in 1986, to 36.5 % ($n=23$) in 1992. Petroleum-based companies also noted an increasing interest in the use of A-V materials (from 18.2 % ($n=4$) in 1986, to 30.8 % ($n=8$) in 1992).

HELPFUL SERVICES AND RESOURCES FOR PROGRAMS: DISCUSSION

It would appear from the results that the survey participants with physical activity programs continue to want services and resources to assist them in their physical activity programs, with increased demand for seminars and workshops and A-V materials.

Of the four categories of services and resources (seminars/workshops, consultation services, packaged information, and A-V materials), the greatest inclination for physical activity programmers continued to be toward packaged information. Between 1986 and 1992, a number of documents were produced on both the provincial and national level to assist in the implementation and continuation of programming. The quality of these existing documents may account for the decreased interest in packaged information in 1992. However, packaged information may be the most popular service or resource because print information is relatively inexpensive, can be used at any time, and is easily accessed compared to the other services and resources. With the growth in popularity of health as a topic, relevant print materials have proliferated. Universities, health units, newspapers, magazines, and hospitals have greatly increased their publication of such materials (Sloan et al., 1987).

Despite the popularity of packaged information, the area with the greatest increase was the resources of A-V materials. This large increase in the stated helpfulness of A-V materials may be due to the increased availability of VCR's in the mid to late 1980's and early 1990's, therefore increasing the demand for visual tools.

In both 1986 and 1992, small companies were more likely to cite the various services and resources as potentially helpful. This may reflect the trend toward small companies developing programs.

An increased number of Finance and Service companies stated the helpfulness of services and resources, which may reflect their increased involvement in programming. In contrast, Petroleum-based companies showed a decreased stated helpfulness, which may reflect their experience in the area, and the well-developed nature of the programming in these companies.

PHYSICAL ACTIVITY PARTICIPATION RATES

In 1986 there were 104 companies with some type of physical activity program, and in 1992, there were 134 companies with such programs. Results indicate an increase in the number of companies stating that their employees participate in physical activity programs. Companies with physical activity programs reporting 1 - 20 percent participation have decreased from 38.5 % ($\underline{n}=40$) of companies with programs, to 32.1 % ($\underline{n}=43$). In the 21 - 40 percent category, the 1986 companies with programs had 14.4 % ($\underline{n}=15$), while in 1992, the total increased to 25.4 % ($\underline{n}=34$). There was also an increase in companies reporting 41 - 80 percent participation; from 2.9 % ($\underline{n}=3$) to 5.2 % ($\underline{n}=7$) in 1992. The summary of participation rates is shown in Table 20.

Table 20

Physical Activity Program Participation Rates (f)

	Year			
	1986		1992	
	<u>n</u>	%	<u>n</u>	%
Percent Participation				
1 - 20 percent	40	47.6	43	36.8
21 - 40 percent	15	17.9	34	29.1
41 - 80 percent	3	3.6	7	6.0
No Response	26	31.0	33	28.2

(f) the numbers in this Table are based on companies with physical activity programs or opportunities.

PHYSICAL ACTIVITY PARTICIPATION RATES: DISCUSSION

The increases in participation are a positive sign for employee physical activity programs. A program's immediate success is often gauged by enrolment, but ongoing and increased employee participation is central to intermediate and long-term success of most programs (Lovato & Green, 1990). Similar to the continued interest in starting physical activity programs, the increase in employee participation presents strong support for the continued viability and acceptance of employee physical activity programming in companies in Alberta.

PHYSICAL ACTIVITY PROGRAM PARTICIPANTS

In 1986 there were 104 companies with some type of physical activity program, and in 1992, there were 134 companies with such programs. Table 21 summarizes results of the people permitted to participate in programs provided by companies in this sample. Companies allowing all employees to participate in physical activity programs has increased slightly from 52.9 % ($\underline{n}=55$) of companies offering programs in 1986, to 57.4 % ($\underline{n}=77$) in 1992. Management only programs have increased slightly from 4.8 % ($\underline{n}=5$) of companies offering physical activity programs in 1986, to 6.0 % ($\underline{n}=8$) in 1992. Full-time employees only programs also increased from 2.9 % ($\underline{n}=3$) in 1986, to 9.7 % ($\underline{n}=13$) in 1992. Companies allowing family members to participate in their physical activity programs have increased from 12.5 % ($\underline{n}=13$) in 1986, to 19.4 % ($\underline{n}=26$) in 1992.

Table 21

Physical Activity Program Participants (f)

	Year			
	1986		1992	
	\underline{n}	%	\underline{n}	%
Program Participants (e)				
All Employees	55	52.9	77	57.4
Management Only	5	4.8	8	6.0
Full-Time Only	3	2.9	13	9.7
Family Members	13	12.5	26	19.4

(f) the numbers in this Table are based on companies with physical activity programs and opportunities.

(e) companies may respond to more than one category.

PHYSICAL ACTIVITY PROGRAM PARTICIPANTS: DISCUSSION

The fact that the highest proportions of physical activity programs are available to 'all employees' is significant. Very few companies offer 'management only' programs, which suggests that these programs are programs for all, rather than programs for the company elite. Opportunities to participate were extended to all levels of management and staff, as well as being extended to employees' family members in some cases, which is a major step toward creating a healthy and productive workforce.

PROGRAM FUNDING

There has been an overall shift away from company only, and employee only program funding (see Table 22). Between 1986 and 1992, company only funding decreased from 40.4 % ($\underline{n}=42$) in 1986, to 11.9 % ($\underline{n}=16$) in 1992. Employee funded programs also decreased from 40.4 % ($\underline{n}=42$) in 1986, to 9.0 % ($\underline{n}=12$) in 1992. Although not addressed in the 1986 survey, 32.1 % ($\underline{n}=43$) of the companies responding to this question in 1992 indicated that the costs were shared between employees and company.

Table 22

Physical Activity Program Funding (f)

	Year			
	1986		1992	
	\underline{n}	%	\underline{n}	%
Funding Sources				
Company Only	42	40.4	16	11.9
Employees Only	42	40.4	12	9.0
Shared Costs	-	-	43	32.1
Other Response	-	-	13	9.7
No Response	20	19.2	33	37.3

(f) the percentages in this Table are based on companies with physical activity programs or opportunities, refer to p 70

PROGRAM FUNDING: DISCUSSION

In the 1986 survey, programs were either funded by the company only or the employees only. Having the company pay all costs may be appropriate with periodic or one-time programs such as blood pressure clinics, cancer education and health fairs, but may not be appropriate with behaviour modification programs such as smoking cessation and weight control. When employees pay all the costs, participation may be curtailed if cost is perceived as too expensive.

Reflecting the nature of the field in 1986, the possibility of the cost being shared was not included in the survey. In 1992, cost sharing was included in the survey, and 32.1 % ($n=43$) of all companies indicated that the costs of programs were shared between employees and the company. This was an important change, which pointed to more of a shared commitment and responsibility for programs which was not evident in 1986. Partial payment by the company shows that the company cares about its employees, while partial payment by the employees makes employees more dedicated to participation in the programs. .

PROGRAM EVALUATION

Program evaluation has not been a common practice for physical activity programs in either 1986 or 1992. As shown in Table 23, there were very few companies evaluating their programs in any way. Participation rates were the most common form of evaluation within companies with programs. The small numbers make it difficult to make any general comments on companies utilizing program evaluation tools measurement and evaluation.

Table 23

Program Evaluation (f)

	Year			
	1986		1992	
	<u>n</u>	%	<u>n</u>	%
Evaluation Tools (e)				
No Formal Evaluation	48	46.2	56	41.8
Staff Turnover	1	1.0	4	3.0
Productivity	2	1.9	3	2.2
Medical Records	1	1.0	4	3.0
Participation Rates	18	17.3	14	10.4
WCB Claims	2	1.9	7	5.2
Absenteeism	2	1.9	7	5.2
Changed Fitness/Health Status	6	5.8	9	6.7

(f) the percentages in this Table are based on companies with physical activity programs or opportunities, refer to p. 70.

(e) companies may respond to one or more category

PROGRAM EVALUATION: DISCUSSION

A very small proportion of companies reported any type of formal measurement to assess program impact and effectiveness. There are several possible interpretations. First, companies may have believed that programs should be offered because they were perceived to be beneficial by the employee population. Self-reported feelings of improved morale and greater job satisfaction by the employee population may have been sufficient rationale for the maintenance of programs. Secondly, companies may have not considered evaluation to be an important issue. The benefits and rationale for program operations were accepted. Thirdly, companies may have had the view that the costs of evaluation, in terms of human and financial investment, were greater than the likely results.

The skills to perform an evaluation may not have been available within the company. Few health promotion program managers are equipped with the skills needed to perform an effective, credible evaluation of their programs. Most health promotion professionals come from health related backgrounds with neither the financial/management skills nor the measurement/statistical expertise needed for objective program evaluation (Murphy, Gasparotto & Opatz, 1987).

Between 1986 and 1992, companies reporting evaluations increased slightly, as the time for blind acceptance of health promotion's efficacy has passed. This may be due to the economic situation during this time period. Companies facing possible cut-backs, demand for fiscal responsibility, and economic justification of 'non-essential' programs may have forced companies to examine and provide data to support the continuation of their programs using various types of program evaluation (Murphy, et al., 1987). Employers and programmers have also realized that a haphazard approach to health promotion is not reaching the high-risk individuals, and are starting to set clear expectations for measurable outcomes.

HEALTH EDUCATION AND LIFESTYLE PROGRAMS AND OPPORTUNITIES

With the exception of safety and accident prevention programs, there has been an overall increase in companies offering some type of health education and lifestyle opportunity since 1986 (see Table 24). Companies offering one or more health education and lifestyle program increased from 69.7 % ($n=138$) in 1986 to 85.4 % ($n=169$) in 1992. Information bulletin boards were found in 18.7 % ($n=37$) of the companies in 1986, and 37.9 % ($n=75$) in 1992. Companies providing information newsletters increased from 12.1 % ($n=24$) in 1986, to 20.2 % ($n=40$). Smoking cessation programs were found in 20.2 % ($n=40$) of the companies in 1986, and 30.3 % ($n=60$) in 1992. Back care programs were available in 15.7 % ($n=31$) of the companies in 1986, increasing to 28.8 % ($n=57$) in 1992. In 1986, 24.4 % ($n=48$) of the companies provided nutrition information for employees, while in 1992, 35.9 % ($n=71$) of the companies provided such information. Weight management programs were found in 13.3 % ($n=26$) of the companies in 1986, and 13.6 % ($n=27$) in 1992. There has been a slight increase in the percentage of companies offering blood pressure checks (13.6 %, $n=27$, in 1986, to 14.1 %, $n=28$ in 1992). Stress management programs could be found in 25.3 % ($n=50$) of the companies in 1986, and 32.3 % ($n=64$) of the companies in 1992. There was a slight decrease in companies offering safety and accident prevention programs (54.0 %, $n=107$ in 1986, and 52.5 %, $n=104$ in 1992). Retirement planning became more common since 1986, when 19.7 % ($n=39$) of the companies offered such programs. In 1992, 33.8 % ($n=67$) of the companies offered retirement planning as part of their health education programming.

Table 24

Health Education and Lifestyle Programs and Opportunities (a)

	Year			
	1986		1992	
	<u>n</u>	%	<u>n</u>	%
Type of Programs and Opportunities				
Information Bulletin Board	37	18.7	75	37.9
Newsletter	24	12.1	40	20.2
Smoking Cessation	40	20.2	60	30.3
Back Care	31	15.7	57	28.8
Nutrition Information	48	24.4	71	35.9
Weight Management	26	13.3	27	13.6
Blood Pressure Checks	27	13.6	28	14.1
Stress Management	50	25.3	64	32.3
Safety and Accident Prevention	107	54.0	104	52.5
Retirement Planning	39	19.7	67	33.8

(a) the percentages in this Table are based on the total of 198 responding companies.

HEALTH AND LIFESTYLE OPPORTUNITIES: BULLETIN BOARDS**Bulletin Boards: Company Size**

As shown in Table 25, large companies were more likely to have information bulletin boards than small companies. In 1986, 7.0 % ($\underline{n}=5$) of small companies had information bulletin boards, compared to 24.6 % ($\underline{n}=17$) in 1992. Large companies experienced an even larger increase in the availability of information bulletin boards, from 25.2 % ($\underline{n}=32$) in 1986, to 45.0 % ($\underline{n}=58$) in 1992.

Table 25

Size of Companies with Health Education and Lifestyle Programs and Opportunities (c)

	Year			
	1986		1992	
	\underline{n}	%	\underline{n}	%
Bulletin Boards				
Less than 100	5	7.0	17	24.6
100 or more	32	25.2	58	45.0
Newsletters				
Less than 100	5	2.5	5	7.2
100 or more	19	15.0	35	27.1
Smoking Cessation				
Less than 100	9	12.7	19	27.5
100 or more	31	24.4	41	31.8
Back Care				
Less than 100	5	7.0	7	10.1
100 or more	26	20.5	36	27.9

Table 25 continued over.

Table 25 continued.

Nutrition Info				
Less than 100	6	8.5	11	15.9
100 or more	42	33.1	60	46.5
Weight Management				
Less than 100	3	4.2	2	2.9
100 or more	23	18.1	25	19.4
Blood Pressure Checks				
Less than 100	3	4.2	3	4.3
100 or more	24	18.9	25	19.4
Stress Management				
Less than 100	6	8.5	44	63.8
100 or more	44	34.6	53	41.2
Safety and Accident Prevention				
Less than 100	24	33.8	25	36.2
100 or more	83	65.4	79	61.2
Retirement Planning				
Less than 100	2	2.8	12	17.4
100 or more	37	29.1	55	42.6

(c) the percentages in this Table are based on the employee number demographics as shown in Table 6.

Bulletin Boards: Industry Type

In 1986 and 1992, the Petroleum-based industry had the highest percentage of companies using bulletin boards, with 25.0 % ($n=9$) in 1986, and 44.4 % ($n=16$) in 1992 (see Table 26). The Industry and Manufacturing industry experienced increases in their companies using bulletin boards, from 12.5 % ($n=3$) in 1986, to 33.3 % ($n=8$) in 1992. More companies in the Trade and Commerce industry group using bulletin boards resulted in an increase from 17.0 % ($n=9$) in 1986, to 37.7 % ($n=20$) in 1992. The Finance and Service industry also observed an increase in their companies with bulletin boards, from 18.8 % ($n=16$) of their companies in 1986, to 36.5 % ($n=31$) in 1992.

Table 26

Industry Types Providing Health Education and Lifestyle Programs and Opportunities (c)

		Year			
		1986		1992	
		<u>n</u>	%	<u>n</u>	%
Bulletin Boards	Industry and Manufacturing	3	12.5	8	33.3
	Trade and Commerce	9	17.0	20	37.7
	Finance and Service	16	18.8	31	36.5
	Petroleum-based	9	25.0	16	44.4
Newsletters	Industry and Manufacturing	1	4.2	3	12.5
	Trade and Commerce	4	7.5	6	11.3
	Finance and Service	9	10.6	16	18.8
	Petroleum-based	10	27.8	15	41.7
Smoking Cessation	Industry and Manufacturing	6	25.0	4	16.7
	Trade and Commerce	10	18.9	15	28.3
	Finance and Service	13	15.3	29	34.1
	Petroleum-based	11	30.6	12	33.3
Back Care	Industry and Manufacturing	3	12.5	6	25.0
	Trade and Commerce	8	15.1	10	18.9
	Finance and Service	14	16.5	28	32.9
	Petroleum-based	6	16.7	13	36.1
Nutrition Information	Industry and Manufacturing	2	8.3	4	16.7
	Trade and Commerce	10	13.9	13	24.5
	Finance and Service	23	27.1	35	41.2
	Petroleum-based	13	36.1	19	52.8

Table 26 continued over.

Table 26 continued.

Weight Management	Industry and Manufacturing	2	8.3	1	4.2
	Trade and Commerce	9	17.0	4	7.5
	Finance and Service	8	9.4	13	15.3
	Petroleum-based	7	19.4	9	25.0
BP Checks	Industry and Manufacturing	2	8.3	1	4.2
	Trade and Commerce	8	15.1	4	7.5
	Finance and Service	8	9.4	13	15.3
	Petroleum-based	9	25.0	10	27.8
Stress Management	Industry and Manufacturing	2	8.3	2	8.3
	Trade and Commerce	13	24.5	11	20.8
	Finance and Service	22	25.9	34	40.0
	Petroleum-based	13	36.1	17	47.2
S & A Prevention	Industry and Manufacturing	12	50.0	15	62.5
	Trade and Commerce	34	64.2	25	47.2
	Finance and Service	32	37.6	35	41.2
	Petroleum-based	29	80.6	29	80.6
Retirement Planning	Industry and Manufacturing	3	12.5	10	41.7
	Trade and Commerce	10	18.9	27	50.9
	Finance and Service	14	16.5	35	41.2
	Petroleum-based	12	33.3	17	47.2

(C) the percentages in this Table are based on industry demographics as shown in Table 6.

HEALTH AND LIFESTYLE OPPORTUNITIES: NEWSLETTERS

Fitness or Health Newsletters: Company Size

Table 25 presents information which indicates that large companies are more likely to provide newsletters to employees than small companies. Between 1986 and 1992, there was a slight increase in small companies providing newsletters, from 2.5 % ($n=5$) of small companies, to 7.2 % ($n=5$) in 1992. In 1986, 15.0 % ($n=29$) of the large companies provided a health or fitness newsletter, compared to 27.1 % ($n=35$) in 1992.

Fitness or Health Newsletters: Industry Type

The number of companies providing newsletters to employees has increased since 1986, regardless of industry type (see Table 26). Twenty-eight percent (27.8 %, $n=10$) of the Petroleum-based companies provided newsletters for employees in 1986, compared to 41.7 % ($n=15$) in 1992.

In 1986, 4.2 % ($n=1$) of the Industry and Manufacturing companies had a fitness or health newsletter, compared to 12.5 % ($n=3$) in 1992. The Trade and Commerce industry had an increase in their companies providing newsletters, from 7.5 % ($n=4$) in 1986, to 11.3 % ($n=6$) in 1992. The Finance and Service industry also increased their percentage of companies providing newsletters from 10.6 % ($n=9$) of their companies in 1986, to 18.8 % ($n=16$) in 1992.

HEALTH AND LIFESTYLE OPPORTUNITIES: SMOKING CESSATION PROGRAMS

Smoking Cessation Programs: Company Size

In 1986, the provision of smoking cessation programs was predominantly found in large companies (see Table 25). Since 1986, small companies have become increasingly involved in the provision of smoking cessation programs, from 12.7 % ($n=9$) of small companies in 1986, to 27.5 % ($n=19$) in 1992. An increase in the provision of smoking cessation programs was also noted in large companies (24.4 %, $n=31$ in 1986, and 31.8 % ($n=41$) in 1992.

Smoking Cessation Programs: Industry Type

In 1986, the Petroleum-based (30.6 % ($n=11$)) and the Industry and Manufacturing (25.0 % ($n=6$)) groups reported the highest percentage of their companies offering smoking cessation

programs (see Table 26). Since 1986, large increases in Finance and Service companies offering such programs (15.3 % ($n=13$) in 1986, to 34.1 % ($n=29$) in 1992) resulted in the Finance and Service industry group emerging as offering the highest percentage of companies with smoking cessation programs in 1992. Industry and Manufacturing involvement decreased from 25.0 % ($n=6$) in 1986, to 16.7 % ($n=4$) in 1992. Trade and Commerce companies offering smoking cessation programs increased from 18.9 % ($n=10$) in 1986, to 28.3 % ($n=15$) in 1992. Petroleum-based companies involved increased from 30.6 % ($n=11$) in 1986, to 33.3 % ($n=12$) in 1992.

HEALTH AND LIFESTYLE OPPORTUNITIES: BACK CARE PROGRAMS

Back Care Programs: Company Size

Presented in Table 25 results demonstrate that large companies are more likely than small companies to offer back care programs. In 1986, 7.0 % ($n=5$) of the small companies offered back care programs, while in 1992, 10.1 % ($n=7$) offered such programs. A large increase in large companies offering back care programs resulted in an increased difference between the two groups in 1992. In 1986, 20.5 % ($n=26$) of large companies had back care programs, which increased to 27.9 % ($n=39$) in 1992.

Back Care Programs: Industry Type

As shown in Table 26, there were large increases in the percentage of Finance and Service, Petroleum-based, and Industry and Manufacturing companies offering back care programs. The Finance and Service industry had 16.5 % ($n=14$) of their companies involved in 1986, which increased to 32.9 % ($n=28$) in 1992. Seventeen percent (16.7 %, $n=6$) of Petroleum-based companies offered back care programs in 1986, and 36.1 % ($n=13$) in 1992. Industry and Manufacturing involvement in back care programs increased from 12.5 % ($n=3$) of their companies in 1986, to 25.0 % ($n=6$) in 1992. The involvement of the Trade and Commerce companies increased slightly, from 15.1 % ($n=8$) in 1986, to 18.9 % ($n=10$) in 1992. Despite the overall increases, the Finance and Service and Petroleum-based groups had the highest percentage of companies offering back care programs as part of their health promotion programming.

HEALTH AND LIFESTYLE OPPORTUNITIES: NUTRITION INFORMATION

Nutrition Information: Company Size

Similar to the results from 1986, larger companies continued to be more likely to offer nutrition information to employees in 1992 (see Table 25). In companies with less than 100 employees 3.5 % ($n=6$) offered nutrition information in 1986, and 15.9 % ($n=11$) had such programs in 1992. Companies with 100 or more employees increased between the two surveys, with 33.1 % ($n=42$) in 1986, and 46.5 % ($n=60$) in 1992.

Nutrition Information: Industry Type

There was an overall increase in companies stating that nutrition information was available for employees as part of their health promotion programming (see Table 26). As in 1986, the Petroleum-based industry had a high percentage of their companies providing such information, increasing from 36.1 % ($n=13$) in 1986, to 52.8 % ($n=19$) in 1992. The Finance and Service industries also had a high percentage of their companies providing nutrition information for employees in both 1986 (27.1 %, $n=23$) and in 1992 (41.2 %, $n=35$). Both Trade and Commerce and Industry and Manufacturing continue to have low percentages of companies providing nutrition information for their employees. The number of Trade and Commerce companies providing nutrition information increased from 18.9 % ($n=10$) in 1986, to 24.5 % ($n=13$) in 1992. The Industry and Manufacturing industry had 8.3 % ($n=2$) of their companies offering nutrition information in 1986, which increased to 16.7 % ($n=4$) in 1992.

HEALTH AND LIFESTYLE OPPORTUNITIES: WEIGHT MANAGEMENT

Weight Management: Company Size

Similar to the results from 1986, larger companies continued to be more likely to offer weight management programs to employees in 1992, as shown in Table 25. Between 1986 and 1992, there was very little change in the number or percentage of small and large companies offering weight management programs for employees.

Weight Management: Industry Type

In 1986, the Trade and Commerce and Petroleum-based industries had the highest percentage of companies offering weight management programs to employees with 17.0 % ($n=9$) and 19.4 % ($n=7$), respectively (see Table 26). Since 1986, there have been decreases in the Trade and Commerce industry offering weight management programs, from 17.0 % ($n=9$) in 1986, to 7.5 % ($n=4$) in 1992, and increases in the Finance and Service companies offering such programs, from 9.4 % ($n=8$) of their companies in 1986, to 15.3 % ($n=13$) in 1992. Due to these changes, the Finance and Service and Petroleum-based industries represented the industries with the highest percentage of companies offering weight management programs in 1992 with 15.3 % ($n=13$) and 25.0 % ($n=9$), respectively.

HEALTH AND LIFESTYLE OPPORTUNITIES: BLOOD PRESSURE CHECKS

Blood Pressure Checks: Company Size

Similar to the results from 1986, larger companies continued to be more likely than small companies to offer blood pressure checks for employees in 1992. Table 25 presents results indicating that there were a small changes in companies offering blood pressure checks.

Blood Pressure Checks: Industry Types

In 1986, the Trade and Commerce and Petroleum-based industries had the highest percentage of companies offering blood pressure checks for employees, while the Industry and Manufacturing and Finance and Service industries had the lowest (see Table 26). The period between 1986 and 1992 resulted in decreases in both Industry and Manufacturing (from 8.3 %, $n=2$ in 1986, to 4.2 %, $n=1$ in 1992), and Trade and Commerce companies (from 15.1 %, $n=8$ in 1986, to 7.5 %, $n=4$ in 1992) offering blood pressure checks for their employees. There were increases in Finance and Service (from 9.4 %, $n=8$ in 1986, to 15.3 %, $n=13$ in 1992) and Petroleum-based companies (from 25.0 %, $n=9$ in 1986, to 27.8 %, $n=10$ in 1992) offering blood pressure checks. As a result, the Petroleum-based industry remained one of the industries with the highest percentage of their companies offering blood pressure checks, and the Finance and Service industry also emerged with a high percentage of their companies offering such checks for employees.

HEALTH AND LIFESTYLE OPPORTUNITIES: STRESS MANAGEMENT

Stress Management: Company Size

Since 1986, there has been an increase in the number of companies offering stress management programs for employees. Table 25 summarizes the increases that have occurred in both large and small companies. Small companies offering stress management programs, increased from 8.5 % ($n=6$) of small companies in 1986 to 63.8 % ($n=14$) in 1992. The percentage of large companies offering such programs also increased between 1986 and 1992, from 34.6 % ($n=44$) to 41.2 % ($n=53$) of large companies in 1992.

Stress Management Programs: Industry Types

As shown in Table 26, in 1986 and 1992, the Finance and Service and Petroleum-based industries had the highest percentage of their companies offering stress management programs for employees. Finance and Service companies increased their percentage from 25.9 % ($n=22$) in 1986, to 40.0 % ($n=34$) in 1992. Petroleum-based companies had 36.1 % ($n=13$) of their companies offering such programs in 1986, and 47.2 % ($n=17$) in 1992. Similarly, the Industry and Manufacturing and Trade and Commerce industries continued to have a low percentage of companies offering stress management programs in 1992. The Industry and Manufacturing industry had 8.3 % ($n=2$) of their companies offering stress management programs in 1986 and 1992. The Trade and Commerce industry companies involvement declined from 24.5 % ($n=13$) offering stress management in 1986, to 20.8 % ($n=11$) in 1992.

HEALTH AND LIFESTYLE OPPORTUNITIES: SAFETY AND ACCIDENT PREVENTION

Safety and Accident Prevention: Company Size

As in 1986, larger companies continued to be more likely to offer safety and accident prevention programs for employees (see Table 25). Small companies had a very small increase, with 33.8 % ($n=24$) of small companies involved in 1986, and 36.2 % ($n=25$) in 1992. Large companies experienced a small decrease, from 65.4 % ($n=83$) in 1986, to 61.2 % ($n=79$) in 1992.

Safety and Accident Prevention: Industry Types

Due to the nature of the work in the Industry and Manufacturing and Petroleum-based companies, they continued to be the industry with the highest percentage of companies offering safety and accident prevention programs in 1992. The Industry and Manufacturing industry experienced increases in their companies offering such programs, from 50.0 % ($\underline{n}=12$) in 1986, to 62.5 % ($\underline{n}=15$) in 1992 (see Table 26). Petroleum-based companies had 80.6 % ($\underline{n}=29$) of their companies involved in both 1986 and 1992. Finance and Service industry also experienced an increase in their companies involved in safety and accident prevention, having 37.6 % ($\underline{n}=32$) of their companies involved in 1986, and 41.2 % ($\underline{n}=35$) in 1992. Trade and Commerce involvement decreased from 64.2 % ($\underline{n}=34$) in 1986, to 47.2 % ($\underline{n}=25$) in 1992.

HEALTH AND SAFETY OPPORTUNITIES: RETIREMENT PLANNING

Retirement planning has not been defined in this survey. Often retirement planning is related to financial planning, however, in a health education program, it may also include lifestyle related planning. It is not known what the retirement planning programs reported in these results entail.

Retirement Planning: Company Size

Similar to the results from the companies in 1986, large companies continued to be more likely than small companies to offer retirement planning for employees in 1992 (see Table 25). Both large and small company groups experienced increases in companies involved between 1986 and 1992. Small companies had 2.8 % ($\underline{n}=2$) of their companies involved in 1986, increasing to 17.4 % ($\underline{n}=12$) in 1992. Large companies involvement increased from 29.1 % ($\underline{n}=37$) in 1986, to 42.6 % ($\underline{n}=55$) in 1992.

Retirement Planning: Industry Types

As shown in Table 26, in 1986, the Petroleum-base industry had the highest percentage of their companies offering retirement planning for employees (33.3 % ($\underline{n}=12$)). However, due to increases in the number of companies in other industry types offering retirement planning programs, the Petroleum-based industry was no longer the industry type with the highest

percentage of companies involved in retirement planning in 1992. The Industry and Manufacturing industry experienced increases in their companies involved in retirement planning programs, from 12.5 % ($n=3$) in 1986, to 41.7 % ($n=10$) in 1992. Large increases in Trade and Commerce (from 18.9 %, $n=10$, in 1986, to 50.9 %, $n=27$ in 1992) and Finance and Service industries (from 16.5 %, $n=14$ in 1986, to 41.2 %, $n=35$ in 1992) resulted in a more even distribution of programs across industry types in 1992.

INTEREST IN STARTING HEALTH EDUCATION AND LIFESTYLE PROGRAMS

The scales used in the 1986 and 1992 surveys varied slightly, therefore, the data was collapsed for the moderate category (in 1986, categories 2 and 3 represented moderate interest, while in 1992, categories 2, 3 and 4 represented moderate interest). In 1986, 60 companies did not have health and lifestyle education programs, and in 1992, 29 companies did not have such programs. Of the companies without programs in 1986, 39 were companies with less than 100 employees, and 21 had 100 or more employees. In 1992, 19 companies had less than 100 employees, and 10 had more than 100 employees.

The interest in starting new fitness programs among companies without health education and lifestyle programs has increased between 1986 and 1992 (see Table 27). Companies indicating they were very interested in starting a health education and lifestyle program decreased from: 1.7 % ($n=1$) of companies without programs in 1986, to no companies in 1992. Moderate interest increased from 28.3 % ($n=17$) in 1986, to 48.3 % ($n=14$) in 1992. Companies indicating they were not interested in starting a program decreased from 45.0 % ($n=27$) in 1986, to 24.1 % ($n=7$) in 1992. The number of non-respondents increased from 25.0 % ($n=15$) in 1986, to 27.6 % ($n=8$) in 1992.

In 1986, the mean score of responses was 1.78 on a scale of one to four (one being not interested, and four being very interested), while in 1992, the mean score was 2.11. No significant difference found between the level of interest in 1986, and 1992 ($t=1.14$, $df=17$).

Table 27

Interest in Starting Health Education and Lifestyle Programs (f)

	Year			
	1986		1992	
	<u>n</u>	%	<u>n</u>	%
Very Interested	1	1.7	-	-
Moderately Interested	17	28.3	14	48.3
Not Interested	27	44.0	7	24.1
No Response	15	25.0	8	27.6

(f) the percentages in this Table are based on companies without health education and lifestyle programs or opportunities, refer to p 90

Interest in Starting: Company Size

The size of companies, and their interest in starting health education and lifestyle programs are shown in Table 28. Five percent (4.8 %, n=1) of companies with 100 or more employees were very interested in 1986, compared to 10.0 % (n=1) in 1992.

In both 1986 and 1992, large companies were more likely to be moderately interested in starting health education and lifestyle programs. Moderate interest increased in small companies from 17.9 % (n=7) in 1986, to 36.8 % (n=7) in 1992. Large companies moderately interested increased, from 38.1 % (n=8) in 1986, to 70.0 % (n=7).

Companies not interested in starting programs decreased in both large and small companies between 1986 and 1992. Small companies not interested decreased from 41.0 % (n=16) in 1986, to 21.1 % (n=7) in 1992. Large companies not interested also decreased from 52.4 % (n=11) in 1986, to no companies in 1992.

Table 28

Size of Companies Interested in Offering Health Education and Lifestyle Opportunities (f)

	Year			
	1986		1992	
	response		response	
	<u>n</u>	%	<u>n</u>	%
Very Interested				
Less than 100	-	-	1	5.3
100 or more	1	4.8	1	10.0
Moderately Interest				
Less than 100	7	17.9	7	36.8
100 or more	8	38.1	7	70.0
Not Interested				
Less than 100	16	41.0	7	36.8
100 or more	11	52.4	-	-
No response				
Less than 100	16	41.0	4	21.1
100 or more	1	4.8	2	20.0

(f) the percentages in this Table are based on companies without health education and lifestyle programs or opportunities, refer to p. 90.

HEALTH EDUCATION AND LIFESTYLE PROGRAMS AND OPPORTUNITIES: DISCUSSION

The major finding in this section was the increase in the total number of companies involved in health and lifestyle education. The level of involvement increased from 69.2 % ($n=139$) of all responding companies in 1986, to 85.4 % ($n=169$) of all responding companies in 1992 - an important change over the six years. These results are similar to the 1992 National Survey of Worksite Health Promotion Activities in the United States where 81 percent of the worksites offered at least one health promotion activity compared with 66 percent in 1985 (U.S. Department of Health and Human Services, 1992). This trend toward providing health and lifestyle education in the workplace can be seen particularly with back care programs, nutrition information, stress management, and retirement planning.

The overall trend in companies reflect the trends in society as a whole. Individuals are becoming more health conscious, and are taking more responsibility for their own health and well-being. Related to societal changes, companies in the 1990's seems to be concerned about the development of, and care for employees. A philosophy emerging in companies in the 1990's, is that employees represent the company's most important resource, and that employee's health and safety are crucial to the success of the company.

Consistent with results of major surveys, large companies continue to be more likely to offer health and lifestyle education programs and opportunities for employees. Small companies have become more involved since 1986, with large increases in the use of bulletin boards, smoking cessation programs, stress management programs, and retirement planning. Large companies involvement increased significantly in the use of newsletters, nutrition information, stress management, and retirement planning.

Similar to physical activity programs, reasons for higher prevalence in larger worksites may include greater resources to accommodate programs, including; financial, space, and expertise. The positive relationship between the existence of health and lifestyle education programs and size of company indicate that small companies perceive such programs as beyond their means, or that with the number of employees in their company, they would not have sufficient numbers to support such programs.

Industry types predominately involved in health and lifestyle education vary with the type of program being offered. Based on the demographics of the sample, the Petroleum-based industry had the highest involvement in both 1986 and 1992. Between 1986 and 1992, both Petroleum-based and Finance and Service industries experienced an increased number of

companies offering health and lifestyle education programs, while both Industry and Manufacturing and Trade and Commerce industries experienced decreases in various programs, which may be due in part to the economic conditions between 1986 and 1992 in Alberta.

As with physical activity programs, the Petroleum-based industry was the first to become involved in employee physical activity and health promotion programs in 1981 (Bentz, 1992). With that early involvement came a commitment to the health and well-being of employees. Over time other industry types became involved, however, the Petroleum-based industry has the most companies committed to the health of their employees. Finance and Service companies have emerged as the second-most involved industry.

Despite having 85.4 % of the companies involved in offering health and lifestyle education program, there has been an increase in companies without programs interested in starting health and lifestyle education programs in 1992. In 1986, 30.0 % of the companies without programs were interested in starting programs, which increased to 48.3 % in 1992. The increase between 1986 and 1992 indicates an interest in starting programs, which is a positive result for the future of workplace health and lifestyle education programs. As with physical activity programs, it indicates continued receptivity and interest in such programs in the workplace setting in Alberta.

HEALTH EDUCATION AND LIFESTYLE OPPORTUNITIES: HELPFUL SERVICES AND RESOURCES

In 1986 there were 138 companies with some type of health and lifestyle education program or opportunity, and in 1992, there were 169 companies with such programs. Of the companies with one or more type of health and lifestyle education program, 32 were companies with less than 100 employees in 1986, and 106 were companies with 100 or more employees. In 1992, 50 companies were classified as small, and 119 were classified as large. In 1986, 15 Industry and Manufacturing companies had physical activity programs, while in 1992, 19 had programs. Trade and Commerce had 40 companies with programs in 1986, and 44 in 1992. In 1986, the Finance and Service industry had 51 companies with programs, which increased to 74 in 1992. The Petroleum-based industry had 32 companies involved in physical activity programs in 1986 and 1992.

Table 29 presents results outlining what services and resources the companies would find helpful in planning or implementing health education and lifestyle programs and opportunities. In 1986, 31.9 % ($n=44$) of the companies with health and lifestyle education programs stated that seminars and workshops would be helpful in planning or implementing their health education and lifestyle programming. The results from 1992 indicate decreased interest in such services, as 29.6 % ($n=50$) of the companies reported they would be helpful. There was a decrease in the companies stating that consultation services would be helpful. In 1986, 26.8 % ($n=37$) of the companies with programs stated they would be helpful, while in 1992, 23.7 % ($n=40$) of the companies stated that consultation services would be helpful. Packaged information is perceived as slightly less helpful in 1992 than in 1986. Companies stating that packaged information would be helpful decreased from 62.3 % ($n=86$) in 1986, to 49.7 % ($n=84$) in 1992. The service or resource with the largest increase in companies stating its helpfulness are the A-V materials. In 1986, 29.0 % ($n=40$) of all companies indicated a need for these resources, while that interest increased to 35.5 % ($n=60$) in 1992.

Table 29

Helpful Services and Resources for Health Education and Lifestyle Programs (f)

	Year			
	1986		1992	
	<u>n</u>	%	<u>n</u>	%
Type of Service or Resource				
Seminars/Workshops	44	31.9	50	29.6
Consultation Services	37	26.8	40	23.7
Package Information	86	62.3	84	49.7
Audio-Visual Materials	40	29.0	60	35.5

(f) the percentages in this Table are based on companies with health education and lifestyle programs, refer to p. 95.

SERVICES AND RESOURCES: SEMINARS AND WORKSHOPS**Seminars and Workshops: Company Size**

The stated helpfulness of seminars and workshops is shown in Table 30. Small companies with programs were more interested in seminars and workshops than large companies with programs in 1986 and 1992. Small companies had 34.4 % (n=11) of their companies citing this in 1986, and 32.0 (n=16) in 1992, while large companies had 31.1 % (n=33) in 1986 and 28.6 % (n=34) in 1992.

Table 30

Size of Companies Interested in Services and Resources (f)

	Year			
	1986		1992	
	response		response	
	<u>n</u>	%	<u>n</u>	%
Seminars/Workshops				
Less than 100	11	34.4	16	32.0
100 or more	33	31.1	34	28.6
Consultation Services				
Less than 100	9	28.1	13	26.0
100 or more	30	28.3	27	22.7
Packaged Information				
Less than 100	23	71.9	32	64.0
100 or more	68	64.2	53	44.5
A-V Materials				
Less than 100	6	18.8	24	48.0
100 or more	34	32.1	43	36.1

(f) the percentages in this Table are based on companies with health and Lifestyle education programs and opportunities, refer to p 95

Seminars and Workshops: Industry Type

The overall increase in interest in seminars and workshops may be a reflection of the increased participation of the Finance and Service industry. Table 32 shows that the Finance and Service industry had 35.2 % ($\underline{n}=18$) of their companies indicating that these services would be helpful in 1986, and 33.8 % ($\underline{n}=25$) in 1992. Petroleum-based companies interested in seminars and workshops decreased from 28.1 % ($\underline{n}=9$) in 1986, to 12.5 % ($\underline{n}=4$) in 1992. The Trade and Commerce industry had an increase in companies stating that seminars and workshops would be helpful, from 32.5 % ($\underline{n}=13$) in 1986, to 34.1 % ($\underline{n}=15$) in 1992. Companies in the Industry and Manufacturing group stating that seminars and workshops would be helpful increased from 26.7 % ($\underline{n}=4$) in 1986, to 31.6 % ($\underline{n}=6$) in 1992.

Table 31

Industries Interested in Services and Resources (f)

		Year			
		1986		1992	
		<u>n</u>	%	<u>n</u>	%
Seminars/ Workshops	Industry and Manufacturing	4	26.7	6	31.6
	Trade and Commerce	13	32.5	15	34.1
	Finance and Service	18	35.2	25	33.8
	Petroleum-based	9	28.1	4	12.5
Consultation Services	Industry and Manufacturing	5	33.3	-	-
	Trade and Commerce	10	25.0	13	29.5
	Finance and Service	15	29.4	20	27.0
	Petroleum-based	7	21.9	7	21.9
Packaged Information	Industry and Manufacturing	10	66.7	8	42.1
	Trade and Commerce	28	70.0	30	68.2
	Finance and Service	35	68.6	35	47.3
	Petroleum-based	13	40.6	11	34.4
A-V Materials	Industry and Manufacturing	4	26.7	6	31.6
	Trade and Commerce	12	30.0	22	50.0
	Finance and Service	16	31.4	29	39.2
	Petroleum-based	8	25.0	9	28.1

(f) the percentages in this Table are based on companies within each industry with health and lifestyle education programs and opportunities, refer to p. 95.

SERVICES AND RESOURCES: CONSULTATION SERVICES

Consultation Services: Company Size

Among companies with programs, small and large companies are equally as likely to indicate that consultation services would be a helpful service in the administration of their health promotion programs in 1992. Results presented in Table 30 show the results of large and small companies between 1986 and 1992. Despite slight increases in small companies with programs stating that consultation services would be helpful, and slight decreases in large companies, the differences between large and small companies are still very small.

Consultation Services: Industry Type

The Industry and Manufacturing group had the largest changes in companies stating that consultation services would be helpful (33.3 %, $n=5$) in 1986, and none in 1992) (see Table 38). The Finance and Service industry companies reporting that these services would be helpful, decreased from 29.4 % ($n=15$) of their companies in 1986, to 27.0 % ($n=20$) in 1992. Petroleum-based companies stating that consultation services would be helpful remained at 21.9 % ($n=7$), while the Trade and Commerce industry had an increase in companies stating the need for consultation services, from 25.0 % ($n=10$) in 1986, to 29.5 % ($n=13$) in 1992.

SERVICES AND RESOURCES: PACKAGED INFORMATION

Packaged Information: Company Size

The stated helpfulness of packaged information is shown in Table 34. In 1986, there were more small companies stating that packaged information would be helpful, compared to large companies. There was a decrease in small companies wanting packaged information, from 71.9 % ($n=23$) of the small companies with programs in 1986, to 64.0 % ($n=32$) in 1992. There was also a decrease in large companies stating such information would be helpful, from 64.2 % ($n=68$) in 1986, to 44.5 % ($n=53$) in 1992.

Packaged Information: Industry Type

There has been an overall decrease in companies stating that packaged information would be helpful in the implementation and management of their health education and lifestyle programming (see Table 31). The Trade and Commerce industry remained the industry type that had the highest percentage of companies stating the helpfulness of packaged information in both 1986 (70.0 %, $n=28$) and in 1992 (68.2 %, $n=30$). The Industry and Manufacturing group experienced decreases in their companies stating the helpfulness of packaged information, from 66.7 % ($n=10$) of their companies in 1986, to 42.1 % ($n=8$) in 1992. Finance and Service companies experienced an increase in the percentage of their companies reporting that such resources would be helpful, changing from 68.6 % ($n=35$) in 1986, to 47.3 % ($n=35$) in 1992. Petroleum-based companies had a decreased percentage from 40.6 % ($n=13$) in 1986, to 34.4 % ($n=11$) in 1992.

SERVICES AND RESOURCES: A-V MATERIALS

A-V Materials: Company Size

Table 30 presents results showing that the stated helpfulness of A-V materials to assist in health promotion in their companies. There was a large increase in interest in companies with less than 100 employees, from 18.8 % ($n=6$) in 1986, to 48.0 % ($n=24$) in 1992. An increase in interest in A-V materials was also noted in large (32.1 %, $n=34$) in 1986, and 36.1 %, $n=43$ in 1992).

A-V Materials: Industry Type

Companies stating that A-V materials would be helpful in their health education and lifestyle programming increased since 1986, as shown in Table 31. Industry and Manufacturing companies stating that A-V materials would be helpful increased from 26.7 % ($n=4$) in 1986, to 31.6 % ($n=6$) in 1986. The Trade and Commerce group continues to have one of the highest percentage of companies stating that A-V materials would be helpful, increasing from 30.0 % ($n=12$) in 1986, to 50.0 % ($n=22$) in 1992. A large increase in the number of Finance and Service companies indicating that A-V materials would be helpful resulted in an increase in the percentage of Finance and Service companies responding, from 31.4 % ($n=16$) in 1986,

to 39.2 % (n=29) in 1992. The percentage of Petroleum-based companies indicating that A-V materials would be helpful also increased from 25.0 % (n=8) of their companies in 1986, to 28.1 % (n=9) in 1992.

HELPFUL SERVICES AND RESOURCES: DISCUSSION

It would appear from the results that workplace practitioners continue to want services and resources to assist them in their health education and lifestyle programs, with increased demand for seminars and workshops, A-V materials, and consultation services.

Of the four categories of services and resources (seminars/workshops, consultation services, packaged information, and A-V materials), the greatest inclination for health and lifestyle programmers was toward packaged information, despite a decline between 1986 and 1992. It may be the most popular service or resource, because print information is relatively inexpensive, can be used at any time, and is easily accessed compared to the other services and resources. With the growth in popularity of health as a topic, relevant print materials have proliferated. Universities, health units, newspapers, magazines, and hospitals have greatly increased their publication of such materials (Sloan et al., 1987).

Despite the popularity of packaged information, the area with the greatest increase was the resources of A-V materials. This large increase in the stated helpfulness of A-V materials may be due to the increased availability of VCR's in the mid to late 1980's and early 1990's, therefore increasing the demand for visual tools.

Small companies continue to be more likely to cite services and resources as potentially helpful in their programming. There have been decreases in companies indicating that these services and resources would be helpful, with the exception of A-V materials.

Generally, Trade and Commerce companies stating the helpfulness of services and resources have increased, which may reflect their increased involvement in programming. In contrast, Petroleum-based companies showed a decreased stated helpfulness, which may reflect their experience in the area, and the well-developed nature of the programming in these companies.

HEALTH EDUCATION AND LIFESTYLE PROGRAM PARTICIPATION RATES

As shown in Table 32, results indicate a slight decrease in the number of companies in the sample stating that their employees participate in health education and lifestyle programs. Companies with programs, reporting 1-20 percent participation decreased from 35.5 % ($n=49$) in 1986, to 16.0 % ($n=27$) in 1992. In the 21-40 percent and the 41-80 percent participation categories, the 1986 sample stating these levels of participation rates represented 14.5 % ($n=20$) of the companies with programs, and 16.6 % ($n=28$) in 1992. There has also been an increase in companies with programs stating 81-100 percent participation, increasing from 5.1 % ($n=7$) in 1986, to 6.5 % ($n=11$) in 1992.

Table 32

Health Education and Lifestyle Program Participation (f)

	1986		1992	
	n	%	n	%
<hr/>				
Percent Participation				
<hr/>				
1 - 20 percent	49	35.5	27	16.0
21 - 40 percent	20	14.5	28	16.6
41 - 80 percent	20	14.5	28	16.6
81 - 100 percent	7	5.1	11	6.5
No Response	42	30.4	75	44.4
<hr/>				

(f) the percentages in this Table are based on companies with health education and lifestyle programs and opportunities, refer to p. 95.

PARTICIPATION RATES: DISCUSSION

Despite the small decrease in companies indicating participation in programs, health and lifestyle education programs remain strong with 85.3 % ($n=169$) of all responding companies offering programs. Unlike physical activity programs which continue indefinitely, health education programs often have an end point. Programs such as smoking cessation, weight management, and stress management, if successful, will have decreased participation as time goes on, as fewer and people within each company will need those programs. Therefore, it is not surprising that there have been slight decreased in participation rates between 1986 and 1992.

REASONS FOR NOT OFFERING PROGRAMS

In 1986, there were 60 companies without programs, while in 1992, there were only 29 companies without programs. Between 1986 and 1992, there was a decrease in the number of companies without programs (see Table 33). Responses stating inadequate space on site decreased from

41.7 % ($n=25$) of the companies citing no programs 1986, to 37.9 % ($n=11$) in 1992. Companies stating that no facilities are close by increased from 18.3 % ($n=11$) of companies without programs in 1986, to 20.7 % ($n=6$) in 1992. The lack of company funds was cited by 28.3 % ($n=17$) as a reason for not offering programs in 1986, and 34.5 % ($n=10$) in 1992. Inflexible shifts were cited as a barrier by 11.7 % ($n=7$) of the companies without programs in 1986, and 17.2 % ($n=5$) in 1992. Twenty-eight percent (28.3 %, $n=17$) of the companies without programs indicated that low employee motivation to participate was a reason for not offering programs in 1986, while 20.7 % ($n=6$) cited this reason in 1992. Companies without programs stating that low employee motivation to organize programs was the reason for not offering programs was cited by 23.3 % ($n=14$) of the companies in 1986, and decreased to 13.8 % ($n=4$) in 1992. In 1986, 41.7 % ($n=25$) of the companies without programs had never considered offering programs, while in 1992, that percentage increased to 51.7 % ($n=15$) in 1992.

Table 33

Reasons For Not Offering Programs (g)

	Year			
	1986		1992	
	<u>n</u>	%	<u>n</u>	%
Reasons Reported				
Inadequate Space on Site	25	41.7	11	37.9
No Facility Close By	11	18.3	6	20.7
Lack of Company Funds	17	28.3	10	34.5
Inflexible Shifts	7	11.7	5	17.2
Low Employee Motivation to Participate	17	28.3	6	20.7
Low Employee Motivation to Organize	14	23.3	4	13.8
Never Been Considered	25	41.7	15	51.7

(g) the percentages in this Table are based on companies without programs, refer to p. 106.

BARRIERS AND CONSTRAINTS FOR OFFERING PROGRAMS: DISCUSSION

Survey results indicate the major barriers and constraints to offering programs in 1992 were (aside from programs never being considered) financial and environmental elements. The most common limiting factor to offering programs was 'inadequate space on site', followed by the 'lack of company funds'.

The limiting role played by the cost factor is not at all surprising given the economic situation in Canada in 1992. Thirty-five percent (34.5 %, $n=10$) of the companies without programs indicated they lacked funds to offer programs, an increase from the 1986 results.

Citing the lack of facilities, or inadequate space was the second most common reason for not offering programs, with 37.9 % ($n=11$) responding that this was a barrier. Despite the fact that the number of companies citing the lack of space as a barrier, the number has dropped since 1986 when 41.7 % ($n=25$) companies gave this reason. Citing a lack of facilities may be less a serious impediment to health and physical activities, and more a lack of commitment by the company concerned.

It is important to note that with the promotion of Active Living, many programs and activities do not necessarily involve large commitments of funding, or adequate facility space in the company. The effects of Active Living on worksite health and physical activity programming may be observed in the next few years, which may increase programming in all industry types, and all company sizes.

CHAPTER V

SUMMARY AND CONCLUSIONS

The primary purpose of this study was to investigate the state of worksite physical activity and health promotion opportunities, and to compare and contrast the current status of programs to those programs and opportunities that were available in the same group in 1986.

The 198 companies that responded were also respondents from the 1986 survey sample (Marshall et al, 1987). The population included companies with less than 10 employees, to companies with over 1000 employees, and was from four industry groups, including; Industry and Manufacturing, Trade and Commerce, Finance and Service, and Petroleum-based industries.

The first major finding of this study was that the area of health and lifestyle education has expanded greatly since 1986. Health education and lifestyle programs and opportunities could be found in 85.4 % ($n=169$) of all companies in 1992, compared to 70.2 % ($n=139$) in 1986. The only type of program to show decreased involvement between 1986 and 1992 was safety and accident prevention, with 52.5 % ($n=104$) of the companies involved in 1992, down from 54.0 % ($n=107$) in 1986. The remaining health education programs experienced increases in companies offering such programs. The provision of information bulletin boards increased between 1986 and 1992, to 37.9 % ($n=75$) from 18.7 % ($n=37$). Publication of health newsletters increased to 20.2 % ($n=40$) of companies, from 12.1 % ($n=24$) in 1986. Smoking cessation programs were in 30.3 % ($n=60$) of companies in 1992, up from 20.2 % ($n=40$) in 1986. Nutrition information was available in 35.9 % ($n=71$) of companies in 1992, an increase from 24.4 % ($n=48$) in 1986. Weight management increases slightly from 13.3 % ($n=26$) in 1986, to 13.6 % ($n=27$) in 1992. Fourteen percent (14.1 %; $n=28$) of all companies offered blood pressure checks in 1992, up from 13.6 % ($n=27$) in 1986. Stress management increased from being offered in 25.3 % ($n=50$) of all companies in 1986, to 32.3 % ($n=64$) in 1992. Retirement planning also increased from 19.7 % ($n=39$) in 1986, to 33.8 % ($n=67$) of all companies offering programs in 1992.

The second major finding was that large companies continue to be more likely to offer programs and opportunities than small companies in almost all types of programs. Large increases were found in large companies providing bulletin boards, newsletters, nutrition information, stress management programs, and retirement planning programs. Increases

among small companies involved in programs occurred with team sports, stated helpfulness of A-V materials, provision of bulletin boards, smoking cessation, stress management, and retirement planning. Small and large companies showed similar interest in starting programs.

The third major finding was that total involvement in fitness activities decreased between 1986 and 1992, with 32.8 % ($n=65$) of all companies offering at least one type of fitness program, compared to 39.9 % ($n=79$) in 1986. Jogging and running programs and the provision of community information remained constant with 9.6 % ($n=19$), and 22.2 % ($n=44$) respectively. Fitness testing involvement in 1992 was 12.6 % ($n=25$), a decrease from 14.2 % ($n=28$) in 1986. Individual fitness programming had 9.6 % ($n=19$) of the companies involved in 1992, down from 15.2 % ($n=30$) in 1986. Group exercise program involvement in 1992 was 14.1 % ($n=28$), a decrease from 17.7 % ($n=34$) in 1986.

Fourth, between 1986 and 1992, there was an increase in companies involved in sport and recreation opportunities, with 59.1 % ($n=117$) of the companies offering at least one sport and recreation program or opportunity, compared to 42.4 % ($n=84$) in 1986. The trend within this category is toward team oriented sport and away from individual sport. Team Sport opportunities were in 57.6 % ($n=114$) of the companies in 1992, an increase from 41.4 % ($n=82$) in 1986. In 1992, 12.6 % ($n=25$) of the companies offered individual sports, a decrease from the 18.2 % ($n=36$) that offered such programs in 1986.

Other major findings included:

Packaged information continued to be the service or resource that most companies stated as potentially helpful with their programming. A-V materials emerged as the second-most popular resource, experiencing large increases between 1986 and 1992. Seminars and workshops ranked third, while consultation services was the service with the least number of companies stating its helpfulness.

Finance and Service, and Petroleum-based companies are most likely to offer physical activity programs and opportunities, while Petroleum-based companies were most likely to offer health education and lifestyle programs and opportunities. Similarly, Trade and Commerce, and Industry and Manufacturing were least likely to offer such programs.

Based on this research, it is evident that workplace fitness and health education programs are not stagnant. Despite decreases in individual sport, and fitness activities, the increases in health and lifestyle education, and team sport programming were strong.

Companies continue to show interest in starting programs, although cited barriers to offering programs are decreasing slightly. Companies continue to state that services and resources would be helpful, and the gaps between large and small companies seem to be lessening.

As awareness of the benefits of workplace physical activity and health education programs increases, there will continue to be growth in this field. The first programs in this field were referred to as fitness programs, and employee assistance programs. These later became employee fitness and leisure lifestyle education programs. As time passes, these programs change, to reflect the needs, issues and values of the ever changing workforce.

With the introduction of the *Active Living* concept, and Albertan's increasing awareness of health issues, workplace programs will continue to grow, change, and flourish in this province.

Recommendations for Future Research

The rationale behind the questions about what services or resources would be helpful was to determine areas for development in Alberta, and to garner an understanding of what information or resources have met the needs of workplace professionals. Despite the general understanding gained from these questions, specific knowledge of the workplace professionals specific needs is lacking. It is important to know what areas the professionals want and need covered with those services and resources before organizing and producing new services and resources. In order to determine these needs, questions should be added to the survey to or, a short follow-up survey could be sent to companies across Alberta to determine the topics the professionals want to assist them in their programming when they stated specific services and resources would assist them in their programming.

It is recommended that some open-ended questions be included in further research. The open-ended questions could offer information about respondent's motivations which are not attained by closed-ended questions used in this study. Areas addressed could include: the company management's rationale for the adoption and maintenance of worksite programs; successful programs; and length of time programs are offered.

Finally, it is recommended that this longitudinal study continue. By charting the remaining 198 companies over time, we may gain further insight into the rationale behind the maintenance of workplace programs in Alberta. With a data base established, it is an opportunity to produce much needed longitudinal research in the area of workplace physical activity and health education programming.

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APPENDIX A

March 23, 1992

Dear Human Resources Manager:

A REQUEST REGARDING PHYSICAL ACTIVITY
AND HEALTH PROMOTION INITIATIVES IN ALBERTA

Your company has been selected to participate in a study on the status of healthy environments, physical activity, and health promotion in Alberta workplaces, as part of a Canada-wide research project. This study is being conducted by researchers at the Alberta Centre for Well-Being, in conjunction with the Canadian Fitness and Lifestyle Research Institute, Alberta Tourism, Parks and Recreation, and Alberta Recreation Parks and Wildlife Foundation.

A number of companies in Alberta offer employees a variety of programs or opportunities to work in healthy environments, and to participate in physical activity, and health promotion efforts. The enclosed survey is designed to determine the extent and nature of such initiatives in Alberta businesses. The researchers are interested in learning about the efforts of companies in providing health-oriented working environments, including information about the work environment, physical activity programs and opportunities, and health promotion programs and opportunities, as well as how many employees are taking advantage of these opportunities.

In order to assess the situation, we need your input. By taking 20-25 minutes of your time and filling out the enclosed survey, you will assist us in obtaining information on the current status of workplace physical activity and health promotion initiatives in Alberta.

The responses will be kept strictly confidential. To ensure confidentiality, please return the questionnaire in the postage-paid envelope provided. The envelope has an identity number for mailing and potential follow-up purposes. This allows us to check your company off the mailing list when your questionnaire is returned. All responses will be reported in combination with others, therefore, specific companies will not be identified.

We thank you, in advance, for your cooperation in helping us obtain information on an important aspect of corporate activity. If you have any questions about the survey, please do not hesitate to contact the researchers.

Sincerely,

Judy Sefton, Ph.D.
Director,
Alberta Centre for
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(453-8692)

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HEALTH PROMOTION**APPENDIX B**

1. Is the health of employees considered to be: (Check only one)
- ☐ only the responsibility of the employee
 - ☐ a matter of interest and concern for the employer
 - ☐ a matter of interest and responsibility of both the employer and employee
2. How does your company decide on its health promotion activities? (Check all that apply)
- ☐ survey of employee needs and interests
 - ☐ problems such as absenteeism, injury, turnover, productivity, etc.
 - ☐ requests for programs or assistance from employees
 - ☐ perception of needs by human resources, personnel, or health and safety committee
 - ☐ effective sales presentations by service providers
 - ☐ information about health and fitness from the popular press
 - ☐ interest of the owner, CEO, Head of Personnel, etc.
3. Who directs the process and makes decisions about health promotion programs? (Check one)
- ☐ top management only
 - ☐ top management and the union executive
 - ☐ top management, but input is sought from employees on specific points
 - ☐ top management, but input is sought from employees on all aspects of the program
 - ☐ top management and employees
 - ☐ employees take the initiative
4. The following is a list of health and safety hazards and unpleasant working conditions. In your opinion, how concerned about these conditions are people at your work place? (Circle one per line)
- | | Not at all
concerned | | | Very
concerned | Don't
know |
|--|-------------------------|---|---|-------------------|---------------|
| too much heat or cold | 1 | 2 | 3 | 4 | 5 |
| bad air, stuffy, not enough air, etc. | 1 | 2 | 3 | 4 | 5 |
| noise and vibration | 1 | 2 | 3 | 4 | 5 |
| poor or not enough work space | 1 | 2 | 3 | 4 | 5 |
| poor lighting | 1 | 2 | 3 | 4 | 5 |
| unsafe types of work | 1 | 2 | 3 | 4 | 5 |
| working with others under influence of drugs/alcohol | 1 | 2 | 3 | 4 | 5 |
| fire or explosive hazards | 1 | 2 | 3 | 4 | 5 |
| litter or mess in the work area | 1 | 2 | 3 | 4 | 5 |
| not enough safety training | 1 | 2 | 3 | 4 | 5 |
| risk of physical strain such as back injuries | 1 | 2 | 3 | 4 | 5 |
| risk of eye strain | 1 | 2 | 3 | 4 | 5 |
| dangerous chemicals | 1 | 2 | 3 | 4 | 5 |
| biological agents or infectious diseases | 1 | 2 | 3 | 4 | 5 |
| unsafe equipment or machinery | 1 | 2 | 3 | 4 | 5 |
| x-rays, or other radiation, video display terminals | 1 | 2 | 3 | 4 | 5 |
| electrical hazards | 1 | 2 | 3 | 4 | 5 |
| long hours, lack of rest | 1 | 2 | 3 | 4 | 5 |
| lack of physical activity on the job | 1 | 2 | 3 | 4 | 5 |
| no relief from daily chores | 1 | 2 | 3 | 4 | 5 |
| worry and carelessness | 1 | 2 | 3 | 4 | 5 |
| conflict between workers | 1 | 2 | 3 | 4 | 5 |
| competing demands of child-care and work | 1 | 2 | 3 | 4 | 5 |
| other | 1 | 2 | 3 | 4 | 5 |

5. In your opinion, how much stress do people in your company face from: (Circle one per line)

	None			A great deal	Don't know
unscheduled overtime	1	2	3	4	5
conflict in job duties or among workers	1	2	3	4	5
constant tight deadlines	1	2	3	4	5
fear of lay-off	1	2	3	4	5
repetitive or boring work	1	2	3	4	5
difficulty understanding written instruction or labels	1	2	3	4	5
financial uncertainties	1	2	3	4	5
sedentary jobs	1	2	3	4	5
unsafe, unhealthy conditions	1	2	3	4	5
hours that are too long, lack flexibility or choice	1	2	3	4	5
shift work	1	2	3	4	5
conflict with supervisors or management	1	2	3	4	5
mental fatigue	1	2	3	4	5
physical fatigue	1	2	3	4	5
harassment	1	2	3	4	5
unrealistic expectations	1	2	3	4	5
lack of fairness in the way people are treated	1	2	3	4	5
discrimination	1	2	3	4	5
isolation	1	2	3	4	5
lack of feedback on performance	1	2	3	4	5
lack of proper training to do job assigned	1	2	3	4	5
lack of proper tools or equipment	1	2	3	4	5

6. Which of the following are available to help your employees cope with job stress? (Check all that apply)

- ☐ supervisor training to increase sensitivity to employee concerns
- ☐ open communication with employees
- ☐ employee input on the design and organization of work
- ☐ employee control over some aspects of their own work, especially in matters affecting their own health and safety
- ☐ employee influence over some of the things that happen to them at work
- ☐ employee assistance programs
- ☐ other
- ☐ no help available

YOUR HEALTH PROMOTION PROGRAM

7. Which of the following policies, information and programs are available to encourage good health practices? (Circle all that apply)

	Policy	Information	Programs	None	Don't Know
alcohol use	1	2	3	4	5
smoking cessation	1	2	3	4	5
stress management	1	2	3	4	5
preventive back care	1	2	3	4	5
safety training and accident prevention	1	2	3	4	5
safety audits	1	2	3	4	5
nutrition	1	2	3	4	5
weight management	1	2	3	4	5
blood pressure	1	2	3	4	5
blood cholesterol	1	2	3	4	5
men's or women's health issues	1	2	3	4	5
physical activity/recreation	1	2	3	4	5
health and lifestyle services available in the community	1	2	3	4	5
nurse's services	1	2	3	4	5
medical services	1	2	3	4	5
health assessment	1	2	3	4	5
wellness days	1	2	3	4	5
health newsletter, billboards, etc.	1	2	3	4	5
communicable diseases	1	2	3	4	5
HIV/AIDS	1	2	3	4	5
environmental hazards	1	2	3	4	5
healthy environments	1	2	3	4	5
recycling program	1	2	3	4	5
industrial hygiene	1	2	3	4	5
ergonomics/making working environments more efficient for people	1	2	3	4	5
employee assistance programs	1	2	3	4	5
harassment	1	2	3	4	5
ventilation	1	2	3	4	5
air quality	1	2	3	4	5
others:					
_____	1	2	3	4	5
_____	1	2	3	4	5
_____	1	2	3	4	5

8. Which of the following policies, information and programs are available to your employees?
(Circle all that apply)

	Policy	Information	Programs	None	Don't Know
child care	1	2	3	4	5
elder care	1	2	3	4	5
parenting skills	1	2	3	4	5
maternity/paternity leave	1	2	3	4	5
bereavement leave	1	2	3	4	5
education leave	1	2	3	4	5
education subsidies	1	2	3	4	5
financial planning	1	2	3	4	5
retirement planning	1	2	3	4	5
management courses	1	2	3	4	5
employee education and upgrading	1	2	3	4	5
career development	1	2	3	4	5
workload management	1	2	3	4	5
employee empowerment	1	2	3	4	5
service excellence recognition	1	2	3	4	5
quality management practices	1	2	3	4	5
conflict resolution/problem solving	1	2	3	4	5
communication	1	2	3	4	5
confidential counselling	1	2	3	4	5
job replacement planning	1	2	3	4	5
pay equity	1	2	3	4	5
employment equity	1	2	3	4	5
permanent part-time	1	2	3	4	5
flextime	1	2	3	4	5
job sharing	1	2	3	4	5
telecommuting/working at home	1	2	3	4	5
others:					
_____	1	2	3	4	5
_____	1	2	3	4	5
_____	1	2	3	4	5

Your responses to questions 7 and 8 outlined what we meant by your health promotion program. Please think about all of those responses as a whole when answering the other questions in this section.

- 9 Below are a list of factors that have an impact on health. In your opinion, which of these factors have the greatest influence on how well employees feel? (Check only 3)

☐ social work environment
☐ physical work environment
☐ home environment
☐ influence over aspects of their work
☐ influence over aspects of their health
☐ social support received from others
☐ health practices

10. How interested is your company in starting or expanding your health promotion program in the following areas?

	Not at all		Moderately		Very
policies	1	2	3	4	5
information	1	2	3	4	5
programs	1	2	3	4	5
financial support	1	2	3	4	5

11. What services and resources would be helpful to you in planning or implementing health promotion programs at your work place? (Check all that apply)

☐ workshops
☐ consultation services
☐ packaged information
☐ audio-visual materials
☐ access to community facilities
☐ staff training programs
☐ needs assessment tool
☐ evaluation tool
☐ "how-to" implementation guide
☐ networking with others who offer health promotion programs
☐ grants, subsidies and interest-free loans
☐ knowledge of community resources and services
☐ other
☐ not interested (Skip to question 13)

12. What area of your company is, or would be, responsible for your health promotion program? (Check all that apply)

☐ personnel/human resources
☐ health/occupational safety
☐ administrative services
☐ owner/operator
☐ other

13. How long has your health promotion program been in operation?

☐ less than 1 year
☐ 1 to 4 years
☐ 5 to 10 years
☐ 11 to 15 years
☐ 16 years or more
☐ no program (Skip to Question 22)

14. Who can participate in your health promotion programs? (Check all that apply)

☐ all employees. If only some may, please indicate which ones:
☐ full-time employees
☐ part-time employees
☐ salaried employees
☐ hourly or commissioned workers
☐ contract workers
☐ senior management
☐ professional
☐ clerical
☐ skilled trades
☐ general labour
☐ retired employees
☐ employees family members
☐ members of the community
☐ other (please specify)

15. Where does your health promotion program take place? (Check all that apply)

☐ on-site
☐ community facility (e.g. community health services, YM/YWCA)
☐ private facility (e.g. weight loss clinic)
☐ other

16. When are health promotion programs offered? (Check all that apply)

☐ before work
☐ during lunch
☐ after work
☐ during work
☐ evenings or weekends
☐ other

17. Approximately what percentage of your employees participate in some part of the health promotion program? (Give your best estimate)

participate _____%
 do not participate _____%
 100%

18. Who manages your health promotion program? (Check all that apply)

☐ employee association
☐ union
☐ employer
☐ employee/employer committee
☐ union/management committee
☐ other

19. Who funds the health promotion program's operating costs? (Check all that apply)

☐ company only
☐ employee only
☐ union only
☐ shared between employer and employees
☐ shared between employers and union
☐ other

20. In your opinion, what are the main benefits of having a health promotion program? (Check all that apply)

☐ increased productivity
☐ reduced absenteeism
☐ reduced health-care costs/insurance premiums
☐ lower personnel turnover/recruitment incentive
☐ reduced number of accidents
☐ greater job satisfaction
☐ better employee relations
☐ improved corporate culture
☐ reduced Worker's Compensation claims
☐ rehabilitation of employees on long-term disability
☐ improved employee health/wellness
☐ improved morale
☐ fulfills collective agreement responsibilities
☐ demonstrates that we care about our employees
☐ other

21. How does your company evaluate its health promotion program? (Check all that apply)

☐ employee turnover rates
☐ employee productivity
☐ program participation rates
☐ Worker's Compensation claims
☐ absenteeism records
☐ other health-related records
☐ changes in employee health practices
☐ cost-benefit analysis
☐ other
☐ **program is not formally evaluated**

Who conducts the evaluation?

☐ senior management
☐ health/wellness committee
☐ external evaluator
☐ human resources department
☐ personnel department
☐ other

COMPANIES WITHOUT A HEALTH PROMOTION PROGRAM

22. How interested is your company in starting a program in the following areas?

	Not at all	1	2	Moderately	3	4	Very	5
health promotion	1	2	3	4	5			
health education opportunities	1	2	3	4	5			
lifestyle change opportunities	1	2	3	4	5			

23. In your opinion, what are the main reasons your company does not offer a health promotion program? (Check all that apply)

- ☐ it has never been considered
- ☐ inadequate space on site
- ☐ no facilities close by
- ☐ lack of management support
- ☐ lack of company funds
- ☐ lunch breaks too short
- ☐ inflexible shifts
- ☐ low employee interest/motivation to participate in program
- ☐ low employee interest/motivation to organize the program
- ☐ lack of time due to work demands
- ☐ lack of child-care services
- ☐ lack of full-time staff
- ☐ lack of liability insurance
- ☐ too high a capital outlay is required
- ☐ low managerial interest in a program
- ☐ don't have the required personnel or volunteers to manage a program
- ☐ would like to start a program, but are not sure how to go about it
- ☐ not convinced there is any benefit in starting a program
- ☐ there are no resources/services available to facilitate a program
- ☐ health is the employee's responsibility, not the employer's
- ☐ other

24. What do you see as the main benefits of offering a health promotion program? (Check all that apply)

- ☐ increased productivity
- ☐ reduced absenteeism
- ☐ reduced health care costs/insurance premiums
- ☐ lower personnel turnover/recruitment initiative
- ☐ greater job satisfaction
- ☐ better employee relations
- ☐ low capital outlay to implement a program
- ☐ other
- ☐ no benefits

25. What services and resources would be helpful to you in planning and implementing health promotion programs in your workplace? (Check all that apply)

- ☐ seminars
- ☐ workshops
- ☐ consultation services
- ☐ packaged information
- ☐ audio-visual information
- ☐ access to community facilities such as schools
- ☐ staff training
- ☐ networking with others offering health education programs
- ☐ grants, subsidies and/or interest-free loans
- ☐ more evidence of the benefits of a program
- ☐ other
- ☐ not interested

26. Have you ever offered, then discontinued a health promotion program?

- ☐ yes
- ☐ no (Skip to Question 28 - PHYSICAL ACTIVITY PROGRAM)

DISCONTINUED HEALTH PROMOTION PROGRAMS

27. In your opinion, what are the main reasons why your company discontinued the health promotion program?

- ☐ low employee participation/interest
- ☐ management was not committed to the program from the outset
- ☐ low awareness of the program
- ☐ volunteers did not have enough time to manage
- ☐ difficulties keeping the volunteers to manage the program
- ☐ the program did not meet the interests/needs of the employees
- ☐ the program worked well, but failed because of lack of financial support
- ☐ there were no services/resources in our area to facilitate the program
- ☐ health and lifestyle are the employee's responsibility not the employer's
- ☐ time constraints made it difficult to deliver a program
- ☐ other _____

PHYSICAL ACTIVITY PROMOTION

28. Which of the following are available to encourage your employees to be physically active? (Check all that apply)

- ☐ flexible hours
- ☐ fitness/health bulletin board
- ☐ fitness/health newsletter
- ☐ incentive program
- ☐ information on walking, bicycling paths
- ☐ information about physical activity programs in the community
- ☐ other physical activity promotion
- ☐ none

29. Which of the following are available through your work site? (Check all that apply)

- ☐ bicycle racks
- ☐ showers
- ☐ exercise equipment such as weights or stationary bicycles
- ☐ change area/locker rooms at work
- ☐ specific area for sports and recreation activities at work
- ☐ specific area for exercise activities at work
- ☐ paid/subsidized program at a community facility
- ☐ paid or subsidized programs at a private club
- ☐ other
- ☐ none

30. Which of the following sport recreation opportunities are provided to your employees? (Check as many as apply)

- ☐ team sports such as softball, hockey
- ☐ individual sports such as tennis, swimming, skiing, outdoor clubs
- ☐ recreational events such as ski trips, golf tournaments
- ☐ special physical activity events such as Sneaker Day, Corporate Challenge
- ☐ related events such as Environment Awareness Days, walk/bicycle to work
- ☐ other sport activity - please specify
- ☐ none

31. Which of the following fitness opportunities are provided to your employees?

- ☐ exercise breaks
- ☐ jogging or running program
- ☐ fitness testing or counselling
- ☐ individualized programs
- ☐ group exercise programs
- ☐ employer's financial subsidy at local fitness facilities (YM/YWCA, or club)
- ☐ group discount negotiated at local facilities
- ☐ other physical activities - please specify

_____ none

32. Your answers to questions 28 to 31 outlined your physical activity program. How long has your physical activity program been in operation?

☐ less than 1 year
☐ 1 to 4 years
☐ 5 to 10 years
☐ 11 to 15 years
☐ 16 years or more

☐ **no program**
 (Please go to question 45)

33. When are physical activity programs offered? (Check all that apply)

☐ before work
☐ during lunch
☐ after work

☐ during work
☐ evenings or weekends

☐ other

34. How interested is your company in expanding its physical activity program in the following areas?

	Not at all		Moderately		Very
	1	2	3	4	5
information					
physical					
activities	1	2	3	4	5
sport/recreation	1	2	3	4	5
equipment/facilities	1	2	3	4	5
financial support	1	2	3	4	5

Questions 12 to 27 asked about the participation and benefits of your health promotion program. While they are similar, questions 35 to 52 deal only with your physical activity program.

35. Who may participate in the physical activity programs? (Check all that apply)

☐ all employees. If only some employees may, please indicate which ones:
☐ full-time employees
☐ part-time employees

☐ salaried employees
☐ hourly or commissioned workers
☐ contract workers

☐ senior management
☐ professional
☐ clerical

☐ skilled trades

☐ retired employees
☐ employee family members
☐ members of the community

36. Approximately what percentage of your employees participate in physical activity through your work program? (Give your best estimate)

participate _____%
 do not participate _____%
 100%

37. Approximately what percentage of physical activity program participants are: (Give your best estimate)

male _____%
 female _____%
 100%

38. Who funds the physical activity program's operating costs?

- ☐ company only
- ☐ employee only
- ☐ union only
- ☐ shared between employer and employees
- ☐ shared between employer and union

☐ other

or ☐ same as health promotion program

39. Who is responsible for the management of your physical activity program?

- ☐ employee association
- ☐ union
- ☐ employer
- ☐ employee/employer committee
- ☐ union/management committee

☐ other

or ☐ same as health promotion program

40. What area of your company is responsible for the physical activity program?

- ☐ personnel/human resources
- ☐ health/occupational safety
- ☐ administrative services
- ☐ owner/operator

☐ other

or ☐ same as health promotion program

41. In your opinion, what are the main benefits of having a physical activity program?
(Check all that apply)

- ☐ increased productivity
- ☐ reduced absenteeism
- ☐ reduced health-care costs/insurance premiums
- ☐ lower personnel turnover/recruitment incentive
- ☐ reduced number of accidents
- ☐ greater job satisfaction
- ☐ better employee relations
- ☐ impr owner, manager
- ☐ human resources
- ☐ personnel
- ☐ administration
- ☐ health and safety
- ☐ employee relations
- ☐ physical activity program
- ☐ other _____

Do you have any comments you would like to make concerning the survey or your programs?

Thank-you for your participation.

The Canadian Fitness and Lifestyle Institute and the Canadian Centre for Active Living in the Workplace would like to thank those who have supported this project and assisted in its development:

Government of Canada, Fitness and Amateur Sport
Health Promotion, Health & Welfare Canada
Health Promotion, Ministry of Health, British Columbia
B.C. Alliance for Fitness and Health
Alberta Tourism, Parks and Recreation, Government of Alberta
Alberta Centre for Well-Being
Recreation, Parks and Wildlife Foundation, Alberta
Health Promotion Branch, Ministry of Health, Saskatchewan
Manitoba Fitness Directorate, Industry and Culture, Manitoba
Sport and Fitness Branch, Ministry of Tourism and Recreation, Ontario
Direction des sports, Ministère du Loisir, de la Chasse et de la Pêche, Quebec
Recreation Branch, Tourism, Recreation and Heritage, New Brunswick
Community Health Services, Department of Health and Fitness, Nova Scotia
Youth, Fitness and Recreation Branch, Department of Community and Cultural Affairs, Prince Edward Island
Fitness Section, Department of Culture, recreation and Youth, Newfoundland

APPENDIX C

April 22, 1992

Dear Human Resources Manager:

Four weeks ago, a survey was mailed to your company regarding healthy environments, physical activity, and health promotion in the workplace. Information gathered from this survey will assist us in determining appropriate initiatives for developing a healthier workforce in Alberta. Therefore, responses are important from **all** companies; with or without physical activity or health promotion programs. We need your input.

The responses will be kept strictly confidential. To ensure confidentiality, please return the questionnaire in the postage-paid envelope provided. The envelope has an identity number for mailing and potential follow-up purposes. This allows us to check your company off the mailing list when your questionnaire is returned. All responses will be reported in combination with others, therefore, specific companies will not be identified.

If you have already responded, thank-you for your time and cooperation. If you have not yet responded, please fill out the enclosed survey and return it by May 20, 1992. If you have any questions, please do not hesitate to contact me.

Sincerely,



Nora J. Johnston, B.P.E.
Research Assistant,
Alberta Centre for Well-Being
(453-8692)

APPENDIX D

Reminder Card #1



*Your company was recently mailed a questionnaire entitled **SURVEY OF WORKPLACE PROGRAMS**. In cooperation with your provincial Ministry, this national survey is being conducted by the Canadian Fitness and Lifestyle Research Institute and the Centre for Active Living in the Workplace.*



Your response to these questions will help us to profile current health promotion and physical activity programs in the workplace. Please assist us by taking a few minutes to complete the questionnaire and return it as soon as possible in the postage paid return envelope that was provided.

Thank you in advance for your time and cooperation in helping us obtain this important information.

Reminder Card #2



Your provincial Ministry, in cooperation with the Canadian Fitness and Lifestyle Research Institute and the Canadian Centre for Active Living in the Workplace, would appreciate you taking a few minutes to complete the attached questionnaire.



The questions concern health promotion and physical activity programs offered to employees by your company.

Your responses are crucial in helping us to examine current health promotion programs across Canadian businesses. Your participation at this time will help us to avoid costly telephone follow-up to collect the information.

Whether your company offers these programs or not, your answers are equally important in profiling the current status of workplace programming in Canada. Thank you in advance for your time and cooperation in helping us obtain this important data.