TITLE

HEALTH PROMOTION PROGRAMS IN SMALL BUSINESSES IN GENESEE COUNTY

by

Barbara J. Watkins

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ABSTRACT

Studies evaluating health promotion programs within the worksite environment demonstrate that these programs offer a wide range of benefits to both the employer and their employees. Accordingly, in 1985 the U.S. Government conducted its first national survey of health promotion programs in the private worksite domain. This inquiry was limited to businesses with greater than 50 employees, and concluded that 66% of these worksites had established programs for their workers. When the government re-administered this survey to the same population in 1992, results revealed that 81% of these worksites provided health promotion programs. Assuming that this increase attests to positive outcomes for corporate employers, an inference might be made that all worksites, regardless of size, would realize similar benefits from health promotion programs.

The ensuing survey of employers in Genesee County, limits its scope to employers with less than 50 employees. A database of the desired population was attained from the Project for Urban and Regional Affairs (PURA), located within the University of Michigan-Flint. The resulting sample of 95 respondents indicated that 43% of analyzed worksites offered some form of health promotion program. Three key findings (1) size of the worksite, (2) required level of employee education, and (3) length of employment were all related to the likelihood of a worksite having a health promotion program. Other criteria measured with this survey, which appeared to have less influence on an employer's decision to implement a health promotion program, included: average age of the employee, length of on-the-job training, and the provision of health care insurance.

Conclusion: Although benefits incurred from health promotion programs should be comparable, regardless of worksite size, employers with fewer than 50 employees are less apt to institute a health promotion program than their larger counterparts.

Impact: Approximately 80% of all U.S. companies are categorized under the small business classification. Finding ways to influence this segment of the workforce on the cost, benefits, and options available to them on worksite wellness programs could have a major impact on the health of this population and the economics of the nation.

INTRODUCTION

Although health promotion and worksite wellness are relatively new terms, this topic has been studied for several hundred years. During the 17th century, Dr. Bernadio Ramazzini, an Italian physician, examined the relationship between occupational fitness and health promotion. He observed deformities of cobblers and tailors and concluded that these conditions were a result of their poor working environment (Shephard, 1991). Working conditions and employer expectations have evolved as society has moved from an agricultural to an industrial, and into a service-oriented realm.

During the last 20 years, interest in health promotion and disease prevention has heightened. One reason for the increased attention on health has been the epidemic incidence of heart disease and cancer during the last two decades (Love, 1996). In fact, in 1993, 56% of all deaths in the United States were caused by these two diseases (MMWR, 1996). The relevance of health promotion lies in the knowledge that the etiology of these disorders can be traced to modifiable risk factors such as diet, smoking, exercise, and stress (Love, 1996). Significant research has been conducted on the positive influence of health promotion programs on the modification of smoking (Salina, 1994), nutrition and cholesterol intervention (Glanz, 1996), weight control (Hennrikus, 1996), and worksite fitness and exercise programs (Shephard, 1996). Intangible benefits of health promotion programs include improved employee morale and low turnover rates (Flynn, 1995).

Findings on the effects of health promotion programs becomes even more meaningful when evidence suggests participation in a health enhancing activity, such as exercise, may be declining. Since the 1980's, the practice of regular, vigorous physical activity has diminished and is currently concentrated in young, single, white males of high socioeconomic status with less than 10% of the total North American adult population engaged in a physical activity at the level that would promote cardiovascular fitness (Shephard, 1996). The workplace may be the most efficient environment for the advancement of exercise programs and other health-related activities to men and women at all socioeconomic levels. Additionally, although well-conditioned, energetic, fit workers do not happen by chance, they do exist at workplaces that have a commitment to health (Flynn, 1994). A growing number of corporations, as well as the government, are realizing the benefits of keeping individuals healthier through preventive measures.

National health was addressed in the U.S. Government's guide entitled <u>Healthy People 2000</u>: <u>National Health Promotion and Disease Prevention Objectives</u>. This U.S. Public Health Service document contains 300 objectives for improving the health of Americans by the year 2000 with specific guidelines for worksite wellness programs (ODPHP, 1992). Furthermore, the U.S. Public Health Service has coordinated projects and programs to develop model worksite interventions, generate policies, and document examples of successful worksite programs (ODPHP, 1992). Although government guidelines may have invoked the initiative toward the implementation of worksite wellness programs for some businesses, many large corporations have recognized that the health of their employees is a stable investment and a deterrent to spiraling health care costs.

Benefits to corporations which have instituted worksite wellness programs included increased production and efficiency, decreased absenteeism, decreased life insurance claims, and health care

cost savings (Smith, 1992; Golaszewski, 1992; Shephard, 1996). Examples of private-sector companies which benefitted from health promotion programs include: Johnson & Johnson Live For Life Program, which saved \$378 per employee through reduced absenteeism and decelerating health care costs; and McDonnell Douglas, which received a return of more than \$4 for every dollar spent on helping employees recover from alcohol-related problems (Boyce, 1991).

A way of broadening the scope of that effort would be for the small business owner to extend the benefit of health promotion programs to their employees. However, U.S. employers with fewer than 1000 employees do not believe they have the resources to implement a comprehensive wellness program (Thompson, 1990). Assuming small business owners are financially unable to implement a comprehensive wellness program, other factors could sway that determination. For instance, small and secondary firms are often labor-intensive service oriented or manufacturing firms with few skilled jobs and marginal or nonexistent benefits, leading to job dissatisfaction and high employee turnover rates (Zinn, Eitzen 1989). Many elements specific to the small business owner could contribute to their decision to initiate a worksite wellness program. The irony for these employers is that the failure to implement a wellness program may result in increased disability expenditure, lower employee productivity, and elevated health care cost.

Health care presently consumes a growing proportion of the GNP with projections for consumption by 2003 ranging from 17.8% to 23.9% (Keen, 1993). Hospital costs, doctors' fees, nursing home care costs, and home health care expenses continue to increase. Compounding factors include an aging population, high malpractice insurance rates, expensive medical treatments, and

larger numbers of uninsured people needing medical care (Boyce, 1992). Ways to provide access to care and methods to decrease spiraling costs are of concern to the government and private employers. An alternative to expenditures for illness is the promotion of wellness programs.

The purpose of this paper is to observe a specific population of small business owners for the number and type of health promotion programs they have currently instituted and possible reasons to the contrary. This includes an examination of the impact that health promotion programs have had on the corporate worksite environment with speculation on their applicability to the smaller company.

GOVERNMENT INVOLVEMENT IN HEALTH PROMOTION PROGRAMS

Prior to the first official government inquiry into corporate wellness programs in 1985, studies were commissioned which allowed them to look at the overall health of U.S. citizens and design measures for improvement. In 1979, the Public Health Service released <u>Healthy People: The Surgeon</u> <u>General's Report on Health Promotion and Disease Prevention</u>. This report reviewed the status of public health in the United States, identified 15 priority areas for the next decade, and established broad national health goals (ODPHP, 1979).

In 1980 the Office of Disease Prevention and Health Promotion published <u>Promoting</u> <u>Health/Preventing Disease: Objectives for the Nation</u>. The 1980 report defined quantifiable healthrelated objectives for the nation to achieve by 1990 (ODPHP, 1980). Additionally, the Federal Government increased the level of resources devoted to worksite health promotion activities in both the public and private sector throughout the 1980's. (ODPHP, 1992). When the U.S. Public Health Service released <u>Healthy People 2000</u>: National Health Promotion and Health Objectives in 1990, guidelines for worksite wellness were included within that document.

Government involvement with health promotion in the private business sector began in 1985. At that time, the ODPHP funded their first national survey to assess the level of health promotion activities in private worksites with 50 or more employees. That study provided evidence that worksite wellness was becoming a major channel for health promotion with 66% of worksites offering at least one health promotion activity (ODPHP, 1992). Furthermore, this survey revealed that there was a potential to improve the nation's health by increasing the number and variety of worksite health promotion activities (ODPHP, 1992).

In 1990 the ODPHP commissioned a second private worksite survey to quantify and characterize evolving trends in the nature and extent of worksite health promotion programs. That survey would establish a baseline for the year 2000 objectives which call for at least 85% of worksites with 50 or more employees to offer at least one health promotion activity (ODPHP, 1992). Private worksites were surveyed because they have historically taken the lead in providing innovative and effective health promotion activities for their employees (ODPHP, 1992). Moreover, the ODPHP survey demonstrated that "the worksite setting represents the single most important channel to systematically reach the adult population through health information and health promotion programs" (Lewis, 1988).

The major objectives of the 1992 survey were to determine:

- The nature and extent of worksite health promotion activities in small, medium, and large worksites and different types of industries.
- The level of change in the nature and extent of worksite health promotion activities since 1985.
- The level of progress toward meeting the <u>Healthy People 2000</u>: <u>National Health Promotion</u> <u>And Disease Prevention Objectives.</u>
- The administrative activities and policies used to support worksite health promotion activities.
- The employers' perceived and documented benefits derived from their efforts to promote health and prevent disease among their employees.

The 1992 survey queried respondents about their health promotion efforts in four main approaches: 1) worksite policies, 2) health-related screening (including referral and follow-up), 3) information activities (including individual counseling, group classes, workshops, lectures, special events, and resource materials such as publications and videos:, 4) and facilities and services (including fitness facilities and vending machines) (ODPHP, 1992).

Results of the 1992 survey of 1,507 worksites disclosed that 81% of businesses with 50 or more employees offered a health promotion program. Moreover, worksites with 750 or more employees consistently offered a greater proportion of worksite health promotion programs when compared to smaller worksites (ODPHP, 1992). These results indicated that firm size was a determining factor for the implementation of health promotion programs.

Although the 1992 National Survey was specific to businesses with greater than 50 employees, it

identified the need to formulate strategies for addressing the health promotion program issues specific to businesses with less than 50 workers (ODPHP, 1992).

MICHIGAN HEALTH INITIATIVE (MHI)

In 1987 the Michigan Legislature signed into law the Michigan Health Initiative. That law created a nationally recognized model for worksite wellness programs. Michigan was chosen for that initiative because it was rated by the Centers for Disease Control as among the worst states in the nation for deaths due to preventable chronic diseases (MHI, 1990).

The project offered one year grants from the Center for Health Promotion, Michigan Department of Public Health. The intent of that program was to provide grants to small and medium sized employers. The grants were to be used for the purchase of health promotion programs for their employees. Worksites with less than 500 employees were eligible to participate. During the years of 1989 to 1990, 1,166 applications were submitted and 1,053 were funded. Genesee county was one of 10 counties included in Region 5 of Michigan Health Initiative worksite project. Region five received 137 grants worth a total of \$233,085 (MHI, 1990).

Employers that received grants from the MHI project were asked to identify the benefits they expected from their worksite wellness program. The major benefits cited were: improved employee morale, improved employee health, increased employee productivity, decreased absenteeism, and decreased health insurance costs (MHI, 1990). The above list is indicative of stated benefits currently being obtained in the corporate environment (Shephard, 1996).

CORPORATE INTEREST IN HEALTH PROMOTION

Large corporations have taken the lead in health promotion with a measurable degree of success. While not all corporations offer identical programs to their employees, the most successful plans do share basic characteristics: (1) they focus on preventive measures, (2) provide health programs the employees will actually use, (3) have a culture that encourages healthy lifestyles on all levels, and (4) have top management support (Flynn, 1995). Although the above description may apply to a large number of programs throughout the corporate environment, a representative sample that exemplifies these characteristics has been ascertained.

The following comprehensive studies represent a cross section of corporate worksite wellness programs and their benefits:

1. Traveler's Insurance Company analyzed the cost/benefit ratio of health promotion program for the years 1986-1990 with projections to the year 2000. Their sample size was 36,000 employees and retirees nationwide. Their program "Taking Care" included lifestyle management, health risk appraisal, medical self-care book, newsletter, and videotapes. The total cost of the program was tracked and benefits calculated to reflect decreases in medical costs, absenteeism, life insurance claims, and increases in productivity. Different economic modeling was used for costs in each of these areas and then totaled. Findings indicated a positive return of \$1:\$3.4 for 1986-2000. The program reached a positive balance of \$330,000. A net cumulative benefit of more than \$146 million (for a \$60 million investment) is projected to accrue over the 15-year period (Golaszewski, 1992).

2. A smoking intervention program was established in 38 Chicago Companies over an evaluation period of two years. Workers were randomized into two groups with both receiving self-help manuals and a 20-day TV series over three weeks. In addition, one group received six classes and social support over 12 months. A pre and post tests were used. Twenty four months after the pretest, 30% of the participants in the full program had quit smoking and 19.5% in the other group (Salina, 1994).

3. The effects of worksite smoking cessation and weight control on absenteeism were evaluated in 32 Minneapolis-St. Paul companies. Participants included 200 employees each from each site for a total of 6400 participants. Intervention consisted of a series of behavior change classes repeated four times over two years. The evaluation design was a random selection of 32 worksites with a cohort and a cross-sectional analysis. Results indicated a 4.5% decrease in absenteeism in the intervention by cohort and 3.5% by cross-sectional analysis. Smoking was associated with sick days, but weight loss programs were not. The authors concluded that savings were accrued due to reduced absenteeism (Jeffery, 1993).

4. DuPoint corporation assessed the impact of worksite health promotion program on seven behavioral risks and self-reported sick days. Sample size was 7178 for the initial group and 7101 participants in a time lagged comparison group. The evaluation period was two years. The program consisted of health risk appraisals, coordinators, on-site classes, environmental changes such as smoking policy and cafeteria, and recognition. Results indicated that the number and level of behavioral risks improved over the 2-year intervention. Employees with three or more risk factors decreased by 14% and self-reported illness decreased by 12%. Risk levels most improved (4.5% to 79%) for six of the seven risk factors among high risk individuals. Reduction in illness days may imply cost-effectiveness, but this was not analyzed (Bertera, 1993).

5. An examination of the relationship between worksite health promotion and its relationship to medical claims was performed on 38 textile plants. Outcome measures were the number of claims per worker. The evaluation design was a cross-sectional analysis with a linear regression. Results indicated that claims per worker varied threefold. In a linear regression, age, sex, race, plant product, and medical access explained 23% of variance in medical claims. Health promotion (in interaction with plant product) explained 54% of claims (controlling for race, sex, and access variables) (Wheat, 1992).

INSURANCE COMPANIES AND HEALTH PROMOTION

The reason insurance companies have become advocates of health promotion programs is evidenced

by a 3-year study conducted by health consultants Williams & Robertson Inc. (Steve Brinker, author)

of 6,000 Chrysler Corporation employees and their dependents which found that (Verespe, 1995):

*Annual health-care claims from smokers are 31% higher than those of nonsmokers.

*Overweight individuals use hospital care 143% more than people of average weight.

- *People with high blood pressure spend 24% more time in hospitals than people with normal blood-pressure levels.
- *Health-care costs for those with "poor" eating habits are 41% higher than those with good eating habits.

Based on data such as this, some insurance companies are now rewarding customers for having healthier life styles. For instance, the nonsmoker may pay less for coverage than the smoker, depending on the insurance company (Baltimore Business Pub. Inc., 1995).

It is important to realize the impact that certain health-risk behaviors have on an employer outlay so that a company can identify those behaviors that yield the maximum cost savings. "Not all health-improvement efforts will translate into cost savings" for a health care plan admits Mr. Brinker. Each company must weigh the positive effects against the implementation costs (Verespe, 1995). However, employers should be aware that there are many options for program implementation that does not require a large financial outlay, and that companies have experienced tangible benefits from health promotion programs, such as improved productivity and reduced workers' compensation rates (Flynn, 1994).

MANAGED CARE AND HEALTH PROMOTION

Increasing evidence demonstrates that the self-insured, self-administered health and medical plans of large corporations, who have traditionally focused on health promotion and disease prevention, were and are the prototype of managed care (Pelletier, 1996). Furthermore, research demonstrates that health promotion and disease prevention within the managed care environment are both health and cost-effective (Chapman, 1995). For example, the largest HMO in Minnesota is in the process of

implementing health promotion and disease prevention programs for all of its 650,000 members (Wellness Management, 1995). This plan brings providers, plan members, and employers together to improve the health of a community. Initiatives such as this encourage efficient use of health care resources. Moreover, according to a survey by Towers Perrin, the increasing effectiveness of managed care combined with the expanding role of competition in the marketplace is expected to encourage the gradual decline in the cost of providing health care to employees (Campbell, 1995).

An opposing view comes from consulting firm A. Foster Higgins & Co. Inc. They urge businesses not to be lulled into complacency by the 1.1% decrease in health care costs per employee in 1995 and the low priority given to health-care reform. Three reasons that health-care costs will continue to soar are: (1) the 1.1% decline in health care costs resulted from employees switching to lower-cost plans (2) although the number of companies that offer managed care as their primary health plan increased since 1991 from 31% to 58%, lower costs are not guaranteed because many companies do not spend enough time screening potential managed care providers, and (3) most small companies lack the purchasing power to negotiate lower rates (Verespe, 1995).

A sensible alternative to the expenditure for illness is the promotion of wellness programs. Adoption of these programs allows concentration on preventive health rather than back-end solutions (Flynn, 1995). Responsibility for implementing wellness programs rests on the individual. However, prevention requires the pursuit of a public health agenda through legislation and social and economic policies (Fielding, 1994).

Another perspective on health promotion comes from Kenneth Warner, an expert in the health care field at the University of Michigan. He stated in an article in <u>Health Affairs</u> that "one hopes that the principle economic concern will have shifted from an interventions ability to save money to its ability to improve employee health in a cost-efficient manner (Grossman, 1994). In fact, a review and analysis of outcome studies of comprehensive worksite health promotion programs indicate that, "overall, such interventions are both health- and cost-effective"(Pelletier, 1996).

HEALTH PROMOTION PROGRAMS IN SMALL BUSINESS

Up to this point, this review has looked at health promotion programs at the corporate level, explored the benefits these programs have provided the employer and employee, and examined the relationship of government, managed care, and insurance companies within this sphere. A representative number of programs have been instituted and evaluated within the large business environment, allowing for an objective examination of this subject. However, few studies exist for the small business employer.

One example of inquiry concerning health promotion and the smaller worksite was conducted by the Centers for Disease Control and Prevention (CDC). The intervention involved an employee nutritional and cholesterol screening within 42 small worksites in Colorado, Minnesota, Missouri, and Washington. The total cost of a lowcost nutrition program was \$50/person/year for a program which proved to be effective in reducing cholesterol (Beyers, 1995). The CDC program demonstrates that, for a relatively small expense, worksites can benefit from health promotion regardless of their size. However, size remains the most accurate indicator of whether or not a business will offer a program.

In a 1992 government survey, companies with greater than 750 employees showed a 100% rate of participation in worksite wellness programs. Additional investigation reveals a survey compiled by Watson Wyatt Worldwide, a Washington, D.C. consulting firm. They found that 61% of firms with fewer than 250 workers offered some type of health-promotion program (Litvan, 1995). The irony for the small business employer is that failure to implement a wellness program may result in higher health care and disability costs and lower employee productivity (Thompson, 1990).

Assuming small-business employers are as concerned about their employee's well being as their corporate counterparts, one might speculate that some small firms would institute a health promotion program if it provided a positive economic outcome. With this in mind, what factors would most affect an employer's behavior regarding institution of a health promotion program?

RESEARCH QUESTIONS AND HYPOTHESIS

Outcomes of health promotion programs should be similar for all businesses, regardless of size. Therefore, small business employers could experience a positive cost-benefit ratio with the institution of worksite programs. This would be achieved through increased employee productivity, decreased absenteeism, and decreased health care costs. Variables that may affect the behavior of small business employers in their decision to implement a wellness program include, but are not limited to, the number of employees, average age of the employees, employee turnover, the skill of the employee, and employer provision of health care benefits. Explanations of the rational of the small business owner's behavior to these variables include:

1. The number of employees of the firm is directly related to the likelihood of the employer having or considering a health promotion program. Firms employing less than 50 employees will have fewer programs.

2. The average age of the employee is directly related to the probability of the employer having or considering a health promotion program. Employers with younger employees will have fewer programs.

3. Employee attrition rate is inversely related to the probability of an employer having or instituting a health promotion program. Employers who have a high-turnover rate will have fewer programs.

4. Employee skill is directly related to the likelihood of an employer having or instituting a health promotion program. Small business owners whom employee persons with a low skill base (length of time to learn the job and/or level of education required to perform the job) will have fewer programs.

5. Provision of health-care benefits is directly related to the likelihood of an employer having or instituting a health promotion program. Employers who do not provide health-care benefits will have fewer programs.

POPULATION-BASED, SURVEY RESEARCH DESIGN

A population-based mail (telephone follow-up) survey was conducted of worksite wellness activities among private worksites in Genesee County. The target population for this survey was the universe of private worksites in Genesee County with 10 to 50 employees. This population was acquired through a database. The term "private" refers to nongovernmental worksites.

Data were organized and analyzed by survey questions. The Chi square was used to assess relationships, an alpha at 0.10, using the Kwikstat Statistical Analysis Software Program, version 4.1, TexaSoft product, P.O. 1169 Cedar Hill, Texas 75106-1169, (214) 291-2115, Fax: (214) 291-3400, Internet: 70721.3145@compuserve.com.

SAMPLE SELECTION AND DESIGN

SAMPLE FRAME:

A database listing of small businesses in Genesee County was provided by the Project for Urban and Regional Affairs (PURA), University of Michigan-Flint. PURA's database provided the business classification, phone number, and sales volume per year.

PURA's database rendered a listing of 238 small businesses in Genesee County. Some businesses were listed under more than one category and two were not private companies. The elimination of these listings resulted in a total of 220 mailed questionnaires. Five questionnaires were returned by the post office, indicating that these businesses no longer existed as quoted in the database. The resulting population was 215 employers.

Five standard categories of size were used for classification. After contact was made with the worksites, some respondents provided size descriptions that differed from information specified in the database. Worksites that indicated a substantial deviation from the intended population, such as businesses that were subsidiaries of national corporations, were eliminated from the survey. However, because PURA's database was specific to business size, and the probability that the number of employees could deviate by a small degree, some divergence in size was tolerated.

PRETESTING

A pretest was conducted with five participants. The pretest elicited comments on the respondent's comprehension of the questions and overall clarity. Additional guidance was requested concerning the time required to complete the questionnaire and logic of the questionnaire sequence. As a result of the pretest, changes were made in the questionnaire and a subsequent pretest was conducted to finalize the revisions.

PRE-QUESTIONNAIRE POSTCARD

A pre-questionnaire postcard was sent to potential respondents informing them that they would be receiving a questionnaire concerning health promotion programs and the anticipated time that it would require for them to complete. (Refer to appendix B for a sample postcard)

SURVEY INSTRUMENT:

Questions were designed to collect demographic information on each worksite as well as data that could be used to extrapolate information on the variables hypothesized to affect employer behavior. The questionnaire and cover letters were mailed to employers in the Genesee county area gleaned from PURA's database. A self-addressed stamped envelope was included for return of the questionnaire. A time period of three weeks was allowed for the target population to return their questionnaires. A follow up telephone survey was conducted of employers who did not respond to the questionnaire. The identical questionnaire was used for the telephone survey.

COVER LETTER

The cover letter explained the purpose of the survey and defined the target population receiving the questionnaire. Assurance was made to the business owners that the survey was not being conducted by a government agency and that all information would remain confidential. Finally, the length of time to complete the questionnaire and potential importance of the survey were expressed. (Refer to appendix B for a sample cover letter)

QUESTIONNAIRE

The questionnaire addressed two issues relating to employer involvement in health promotion programs: (1) the extent to which the employer participated in the provision of a program for their employees, and (2) what characteristics each worksite possessed that might influence their behavior regarding the institution of a wellness program.

(Refer to appendix B for a sample questionnaire)

RESULTS

Details from the mailed questionnaire and telephone survey were compiled into a statistical database. Demographic information and hypothesized findings were analyzed from that database. The following tables represent final conclusions concerning health promotion programs in small businesses in Genesee County.

Table 1 displays the population of businesses in Genesee County (PURA's database). The resulting sample size, and the number of questionnaire respondents versus the telephone survey respondents.

EMPLOYERS	SUM	PERCENT OF TOTAL
Population	215	100%
Sample size	95	56% of population
Responded to mailed questionnaire	64	67% of sample
Responded to telephone survey	31	32% of sample

Table 1. DISTRIBUTION OF SAMPLING SUMMARY

Although firm size varied from expected, for analysis purposes companies with less than 10 employees and greater than 50 employees were included in the study. The basis for this decision rests in the fact that PURA's database was of a particular size description and there was no way of knowing how far these outliers were from the designated size.

A p-value of .1 was chosen due to the small sample size. It is difficult to detect even big differences in samples this small and in this sample, big differences were anticipated. For example, suppose the percentage of larger firms that offered health promotion programs was twice as great as the percentage of small firms offering programs. Although statistical significance was weak, if it were truly significant, it would be important. What was looked for was not statistical significance, but practical significance (Voelker, 1993).

BUSINESS CLASSIFICATION BY INDUSTRY

Employers were asked to describe the type of business they owned based on a list of categories. Table 2 displays the categories and responses of small business owners in Genesee County, and the proportion of health promotion program in each category.

BUSINESS CATEGORY	TOTAL RESPONDENTS	OFFERED A PROGRAM	PROPORTION OF BUSINESSES OFFERING A PROGRAM
Manufacturing	5	3	60%
Wholesale/ Retail	13	4	31%
Finance/ Real Estate/ Insurance	8	4	50%
Services	44	23	52%
Other*	25	9	36%
TOTAL	95	43	45%

Table 2. TYPES OF BUSINESSES SURVEYED/PROPORTION OF HEALTH PROMOTION PROGRAM

*The majority of businesses specified either health care or religious affiliation when they selected this option.

The largest number of respondents was in the classification of Services. In addition, some of the firms choosing the option of "Other," should have selected "Services", based on PURA's SIC code classification.

Note that the "Services" category had the highest percentage of health promotion programs.

TYPES OF HEALTH PROMOTION PROGRAMS OFFERED

Respondents were asked if they had provided a health promotion program to their employees in the previous 12 months. "Health promotion program" was defined as an activity or information. An activity included classes, workshops, lectures, or special events. Information included posters, brochures, pamphlets, or videos. The following table depicts the choices of health promotion programs, whether it was in the form of an activity or information, and the number of times each option was selected:

TYPE OF HEALTH PROMOTION PROGRAM	OFFERED AN ACTIVITY	PERCENT OF TOTAL SAMPLE	OFFERED INFO. ONLY	PERCENT OF TOTAL SAMPLE
Alcohol/Drug Abuse	7	7%	15	16%
Blood Pressure	3	3%	9	10%
Cancer	3	3%	8	8%
Cholesterol	5	5%	12	13%
Exercise	9	10%	12	13%
Mental Health/Stress	9	10%	10	11%
Nutrition	8	8%	14	15%
Sexually Transmitted Disease	6	6%	12	13%
Smoking Cessation	6	6%	10	11%
Weight Loss	8	8%	11	12%
Other*	6	6%	7	7%

 Table 3. TYPES AND PERCENTAGES OF HEALTH PROMOTION PROGRAMS

*Included hospital screening, holistic health, medicine management, CPR training, and information on blood-born pathogens.

SUMMARY OF WORKSITE PROGRAMS

The summation in Table 4 represents the number of worksites that offered a worksite program and whether it was in the form of an activity or information.

EMPLOYERS	SUM	PROPORTION OF TOTAL RESPONDENTS
Sample size	95	100%
Offered a program (activity and/or information)	43	45%
Offered both an activity and information	6	6%
Offered an activity only	20	21%
Offered information only	17	18%

Table 4. SUMMARY OF HEALTH PROMOTION PROGRAMS

Forty five percent of the businesses surveyed offered a health promotion program in the form of an activity, information, or both. Of these 43 firms, almost 50% offered a program to their employees in the form of an activity. This would generally not be an anticipated behavior of the small business owner due to the greater expense of classes, workshops, lectures, or special events.

ANALYSIS OF HYPOTHESIZED VARIABLES

Five variables were hypothesized to influence the small business owner's decision to implement a health promotion program. These variables were: (1) size of firm, (2) the average age of the employee, (3) employee attrition, (4) employee skill (differentiated as either on-the-job training, or degree of education required for entry-level employees, and (5) the provision of health care benefits by the employer.

Size was measured by the number of employees and was predicted to have a direct relationship with the provision of a health promotion program. It was hypothesized that smaller businesses would have fewer health promotion programs. The questionnaire offered a size range rather than asking the employer to list a specific number of employees. Figure 1 displays the five size divisions, the number of respondents to each category, and the total number and proportion of firms in each classification that offered a health promotion program.

SIZE OF FIRM	TOTAL RESPONDENT	PERCENTAGE OF TOTAL	# OF FIRMS WITH HEALTH PROMOTION PROGRAMS	PROPORTION OF FIRMS WITH PROGRAMS
1-9 Employees	7	7%	4	57%
10-19 Employees	14	15%	4	29%
20-29 Employees	37	39%	15	41%
30-50 Employees	25	26%	11	44%
50 or > Employees	11	12%	9	82%
No Response	1	1%		
TOTAL	95	100%	43	

Figure 1. HEALTH PROMOTION PROGRAMS/SIZE OF FIRM

	DF	Va	lue	p-value
Chi-Square		4	8.232	0.085

Analysis indicates statistical significance. It appears that, as the size of the firm increases, the number of health promotion programs offered rises.

Although the categories of 1-9 employees and >50 employees were not originally intended to be part of the survey, PURA's database was specific to firms with 10 to 50 employees. Therefore, some exceptions were made to the size guidelines.

AVERAGE AGE OF EMPLOYEES

Figure 2 represents the number of health promotion programs offered in selected employee age categories.

AVERAGE AGE OF EMPLOYEES	TOTAL RESPONDENT	PERCENT OF TOTAL RESPONDENT	# OF FIRMS OFFERING A PROGRAM	PROPORTION OFFERING A PROGRAM
16-19 years of age	2	2%	0	0
20-29 years of age	32	34%	12	38%
30-49 years of age	57	60%	30	53%
50 years of age	4	4%	1	25%
TOTAL	95	100%	43	

Figure 2. HEALTH PROMOTION PROGRAMS/AVERAGE AGE OF EMPLOYEES

	DF	Value	P-value
Chi-square	3	4.344	0.228

An analysis of the average age of employees versus the decision by the small business owner to implement a health promotion program does not demonstrate statistical significance. However, two categories (20-29 and 30-49 years of age) represent 94% of the total respondents. Comparison of these two groups, indicates that a greater proportion of health promotion programs are offered in businesses with older employees. Note that as the average age of employees increases to 50 years or greater, this trend collapses. Further investigation of this reversal may be irrelevant due to the small number of respondents in this category.

AVERAGE LENGTH OF EMPLOYMENT

The next variable theorized to alter the decision of the small business owner concerning the implementation of a health promotion program was the average length of employment. It was hypothesized that employers having a high turnover rate would be less likely to have a program.

Figure 3.	HEALTH PROMOTION PROGRAMS/AVERAGE LENGTH OF EMPLOYMENT

AVERAGE LENGTH OF EMPL.	TOTAL RESPONDENT	PERCENT OF TOTAL RESPONDENT	# OF FIRMS OFFERING A PROGRAM	PROPORTION OFFERING A PROGRAM
less than one year	10	11%	1	10%
1-4.9 years	46	48%	22	45%
5 years or greater	36	38%	18	50%
No response	3	3%		
Total	95	100%	41	43%

	DF	Value	P-value
Chi-square	2	5.465	0.066

A Chi-square analysis of the relationship between the average length of employment and the decision to enact a health promotion program demonstrates statistical significance. The hypothesis that there is an inverse relationship between length of employment and the provision of a health promotion program is valid.

EMPLOYEE SKILL

An assumption was made that the amount of skill an employee needed to perform their job would bias a small business owner's decision to implement a health promotion program. For the purpose of this study, skill was subdivided into two categories: 1) the amount of time required for an entry-level employee to learn a task (on-the-job training), and 2) the amount of education required by the firm for the entry-level employee.

OJT TRAINING REQUIRED	TOTAL RESPONDENT	PERCENT OF TOTAL RESPONDENT	# OF FIRMS OFFERING A PROGRAM	PROPORTION OFFERING A PROGRAM
none	3	3%	0	0
1-7 days	38	40%	15	39%
8-29 days	22	23%	10	45%
30 or > days	29	31%	16	55%
no response	3	3%		
TOTAL	95	100%	41	43%

Figure 4. HEALTH PROMOTION PROGRAMS/ON-THE-JOB [OJT] TRAINING

	DF	Value	P-value
Chi-Square	3	- 3.829	0.282

The Chi-Square analysis does not indicate statistical significance. There was not a meaningful difference between groups. However, there appeared to be a tendency for small business owners to be more inclined to offer a health promotion program as the degree of on-the-job training increased.

AVERAGE EMPLOYEE EDUCATION	TOTAL RESPONDENT	PERCENTAGE OF TOTAL FIRMS	# OF FIRMS OFFERING A PROGRAM	PROPORTION OFFERING A PROGRAM
none	13	14%	1	8%
high school diploma	46	48%	24	52%
technical education	20	21%	10	50%
1-4 years of college	12	13%	6	50%
>4 years of college	3	3%	0	0%
no response	1	1%		
TOTAL	95	100%	41	43%

Figure 5. HEALTH PROMOTION PROGRAMS/AVERAGE EMPLOYEE EDUCATION

	DF	Value	P-value
Chi-Square	4	10.921	0.029

The hypothesis that the number of health programs offered by the small business owner would increase as the educational requirement for an entry-level employee increased is valid. There is evidence of a relationship between these two variables, however, it is not direct. It appears as if employees with some education of any kind stand at least a 50-50% chance of being offered a program.

Note that 48% of employees were only required to have a high school education. That may be representative of job requirements within Genesee County where a large proportion of the population work for General Motors and are not required to have a college degree.

HEALTH CARE INSURANCE

The provision of health care insurance was the final variable hypothesized to affect the small business owner's determination to offer a health promotion program. An assumption was made that the small business employer that provided health care insurance would be more cognizant of their employee's health. Based on the supposition that health promotion programs may alter health-risk behaviors, the cost of health care premiums could be reduced.

# OF EMPLOYEES ELIGIBLE FOR HCR INSURANCE	TOTAL RESPONDENT S	PERCENTAGE OF TOTAL FIRMS	# OF FIRMS OFFERING A PROGRAM	PROPORTION OF TOTAL
none	11	12%	3	27%
1-10	24	25%	10	42%
11-20	27	28%	13	48%
21-29	17	18%	8	47%
40-50	10	11%	6	60%
no response	6	6%		
TOTAL	95	100%	40	42%

Figure 6. HEALTH PROMOTION PROGRAMS/HEALTH CARE COVERAGE

	DF	Value	P-value
Chi-Square	4	2.551	0.636

The Chi-Square analysis shows no statistical significance. However, there is a general trend for higher proportion of health promotion programs in small businesses that offer health care insurance to their employees.

Employers were asked to give 2 or 3 reasons they did not offer their employees a health promotion

program. Table 5 summarizes the number of times each choice was given.

REASONS FIRMS DID NOT OFFER A HEALTH PROMOTION PROGRAM	NUMBER OF TIMES THIS OPTION WAS CHOSEN	PERCENTAGE OF TOTAL
Other priorities	26	24%
Employees healthy	17	15%
High employee turnover	13	12%
Too costly	12	11%
Worksite lacks expertise	12	11%
Employees not interested	9	8%
Program will not save money	7	6%
Dispersed workforce	7	6%
Worksite lacks facilities	6	05%
No response	2	2%
Total	111	100%

Table 5. REASONS EMPLOYERS DID NOT OFFER PROGRAM

Employers were asked to indicate the top 2 or 3 reasons they did not offer a health promotion programs to their employees. The largest number specified that they had other priorities which they perceived to be more important than health promotion programs. Furthermore, they felt their employees did not need a program because they were already healthy. Other high indicators for the exclusion of a health promotion program were high employee turnover (attrition rate) that it would be too costly and that the worksite lacked the expertise to institute a program.

In summary,

(1) the size of the firm had a direct relationship on the decision of the small business employer to implement a health promotion program. As the size of the firm increased, the number of programs appeared to rise.

(2) There was evidence of a relationship between the amount of education required and the number of health promotion programs provided. Small businesses that required a technical education prior to employment offered the highest proportion of worksite programs.

(3)) The association between average length of employment and the number of health promotion programs demonstrated statistical significance. There appears to be an inverse relationship between length of employment and the provision of a health promotion program.

(4) The age of an employee was not a significant factor in the determination of the small business employer to implement a health promotion program. However, businesses with employees whose average age was between 30-40 years represented 60% of the total respondents and had the largest proportion of health promotion programs.

(5) The employee skill category that measured the degree of on-the-job-training required for entrylevel employees compared to the number of health promotion programs implied no statistical significance. The degree of training was not a factor in the decision of an employer to implement a health promotion program.

(6) The final variable concerns the number of employers that offer health care insurance to their employees. Although there was a trend suggesting that firms offering health care insurance to their employees might be more willing to offer a health promotion program, no statistical significance was proven.

CONCLUSION

The survey of small business owners in Genesee county indicated that 45% provided a health promotion program to their employees. That percentage was significantly less than the findings of the 1992 government survey which confirmed that 81% of firms with greater than 50 employees offered a health promotion program. In addition, of the worksites in Genesee County with less than 50 employees, 40% offered their program in the form of a pamphlet, poster, brochure, or video. Programs offered in that format is not only the least expensive vehicle for providing a health promotion program, they are the most accessible for employers. This corresponds to the findings that some employers did not provide a program because they considered them too costly or that they lacked the necessary expertise to institute a program.

Of the measured variables, three appeared to have a relationship on the number of health promotion programs offered, (1) size of the worksite, (2) length of employment, and (3) the amount of education required of entry-level employees. Two of these variables, size of worksite and length of employment, may be interrelated. Larger firms and ones that have been functioning for a longer period of time may be more financially stable than a newly established business with few employees. This could allow for the institution of a worksite wellness program. The third variable, educational status, may coincide with concept of financial security, or be related to the intrinsic value an employer might place on their employees. Worksites that require persons with higher educational status may realize that replacement of these employees could be difficult. Offering the benefit of a worksite wellness program may be an incentive for employees to remain with that firm. Alternatively, small business employers may not understand that worksite wellness could be a benefit.

The reason most frequently cited that small business owners did not provide a health promotion program to their employees was "other priorities." This statement may be indicative of financial priorities, or perhaps their primary concern refers to personal time constraints. During the telephone survey, some employers stated that they had not even considered a health promotion programs because they were so absorbed in the daily operations of their business. However, if the small business owner were informed of the advantages of health promotion programs to both themselves and their employees they may be more inclined to prioritize this benefit. Small business employers need to be made aware that it may be more costly for them not to implement a health promotion program. This could be evidenced by increased absenteeism, decreased productivity, and elevated health care expenditure brought about by employees participating in health-risk behaviors.

Due to the growing number of employees that make up the populace called "small business," it is of utmost importance that this group be able to take part in some form of health promotion program. The worksite appears to be the best channel for this participation. The future of health promotion programs in small business lies in the education of employers on the value of worksite wellness programs for the health of their employees and their organization.

POLICY SIGNIFICANCE

Our nation's businesses continue to become increasingly service oriented. That indicates that the number of small firms is multiplying at a greater rate than their industrial counterparts, making them a potential facet of health care control. Assuming health promotion programs create a more fit workforce while decreasing the cost of national health care, the expansion of worksite programs to

the small business arena would be of benefit to everyone. Presumably, the effects of these programs should have both a micro and a macro influence on our environment.

Microeconomic benefits of health promotion programs at the worksite include, but are not limited to: (1) improved employee health, (2) improved employee morale, (3) reduced insurance costs, (4) reduced absenteeism, and (5) increased productivity. These outcomes benefit both the employee and the employer. As the small business employer becomes more aware of the positive effects of health promotion programs, their worksite may become a more efficient and productive environment. Therefore, education of the small employer on types of worksite programs available to them, their benefit to cost ratio, and agencies that will provide services to them is essential.

Of the small businesses in Genesee County that interacted in the survey, size of the firm was a contributing factor on the number of health promotion programs offered. The fact that larger firms were more apt to offer a worksite wellness program to their employees was established in the 1985, and the 1992 government surveys of businesses with greater than 50 employees. Although it may not be true in all cases, larger firms are generally more established and have budgets that would allow more flexibility in the number and type of health promotion programs offered to employees. However, the size of the firm should not be a limiting factor on the health of the worker. Employees in small firms should be able to experience some level of improved health through modified versions of health promotion programs or less expensive interventions. Adoption of health promotion programs by firms of all sizes would ensure a healthier workplace and community.

The degree of education for entry-level employees was an indicator of the likelihood of a small business employer's propensity to embrace a worksite wellness program. That finding may be an indication that an elevated value may be placed on employees with advanced education or that the type of firm hiring that employee would have a more lucrative budget. However, employees with less education may have the highest incidence of modifiable health-risk factors. The small business employer must realize that it may be more costly not to have a worksite wellness program for these employees. That will be accomplished when the employer understands how they, as well as their employees, can benefit from the institution of worksite wellness programs.

Length of employment influenced the surveyed employer in their determination to implement a program. When employees have been retained by the same firm for a period of time, they become harder to replace. Training and orientation of new employees can be an expensive project for employers. However, employees may be more inclined to remain with a firm that offered worksite wellness programs.

Reviewing the reasons employers did not offer a health promotion program to their employees may reveal indicators to the lack of initiative some employers had toward the implementation of a worksite wellness program. The reason most often stated that small business owners did not implement a program was "other priorities." That statement may be an indication that these employers are unaware of the multiple benefits their firm could be experiencing if health promotion programs were included in their budget. The next most often cited reason for not offering worksite wellness was that their "employees are healthy." However, Michigan, including Genesee county was chosen for the Michigan Health Initiative because it was rated by the Centers for Disease Control as among the worst states in the nation for deaths due to preventable chronic diseases. In fact, Small business employers may perceive that their employees are healthy, and not be aware of high-risk behaviors that may lead to chronic disease. Hypertension, heart disease, and cancer may go undetected for long periods of time before treatment is required. Attempting to eliminate high-risk behaviors before serious disease ensues is the most efficient and effective avenue to better health.

When an employer stated that they did not implement a health promotion program because it was "too costly" or that their "worksite lacks expertise" it may indicate that the employer was unaware of the variety of programs that could be implemented with a small investment of the employers finances and time. Education on these issues by wellness agencies, HMOs, or the government may help the small business owner to prioritize worksite wellness programs.

Expansion of health promotion programs could conceivably benefit individuals, firms, and the general public. The individual may experience improved health and well-being through participation in programs designed to decrease illness, improve fitness, and extend life. Firms could stand to benefit from improved employee behavior resulting from enhanced health and decreased out-of-pocket expenses incurred through provision of health care benefits. Society will profit through their ability to use scarce resources on other, perhaps more desirable, options.

EPILOGUE

THE FUTURE OF HEALTH PROMOTION PROGRAMS IN SMALL BUSINESS

A recent publication by Roy J. Shephard, University of Toronto and Brock University, reviewed 52 studies of worksite fitness and exercise programs. Shephard examined methodology and effect on health-related fitness, cardiac-risk factors, life satisfaction and well-being, and illness and injury. Targeting the years between 1972 and 1994, he confirmed problems in methodology, such as difficulty in allowing for Hawthorne effects, substantial sample attrition, and poor definition of the intervention (Shephard, 1996). Shephard concluded that although these factors contributed to a low program participation rate, worksite wellness programs were of benefit in augmentation of health-related fitness and the reduction of risk-taking behavior. Studies such as this indicate that health promotion programs should be increased and supported in the worksite environment, with attention to program design that will limit methodology problems. At the present time there are organizations that will assist and support employers that are interested in beginning or expanding a worksite wellness initiative.

Nonprofit organizations, such as WELCOA, support higher levels of health promotion. Although its mission is to promote healthier life styles to all Americans, it targets worksite health promotion through a network of councils throughout the country. In 1994 there were 2,220 employers and 1.8 million employees represented by WELCOA (Flynn, 1995). Small businesses are represented as well as large corporations. Disseminating information regarding alternative support mechanisms, especially to the often neglected small business owner, may be a key factor in the initiation of a

worksite wellness program. Partial responsibility for this education may abide with those most involved in the distribution of health care.

A primary participant in the distribution of health care in the 1990's is managed care. The original endeavor of the managed care organization has been to curtail the "supply" side of health care. Many HMO's presently offer information on health promotion programs (Litvan, 1995). Moreover, some small companies have been moving forward aggressively to curb the "demand" side of health-care expenditures by encouraging their employees to decrease their need for health care (Grossman, 1994). A synergistic relationship must exist between health care distributors and the small business owner. The primary outcome of this relationship should be putting more information regarding worksite wellness programs into the hands of the employeer and their employees. Once employees are knowledgeable about the benefits of health promotion programs, they must be supported in their efforts to integrate them into their daily life. Perhaps more importantly, employers should provide their health promotion program over an extended period of time and in a form that is accessible to most employees. "Studies have shown that there is an 80% failure rate for individuals attempting to make lifestyle changes" (Flynn, 95). An alternative to group programs, which most people do not attend, is innovative self-care (Soflan, 1991), which allows guided, personalized health enhancement. Furthermore, small business employers should start with small-scale programs and increase them as they become more successful (Epes, 1994).

The following is a comparison of various health promotion programs by Scott Campbell, president

of Cost-Effective Wellness in Rewston, Va., and a consultant to employers and managed-care

organizations on consumer health and medical education programs (Campbell, 1995):

- 1. Company gym or health club memberships
 - *Inaccessible to or not used by most employees or dependents.
 - *Address a narrow scope of health issues.
 - *Very expensive.
 - *No documented evidence of net savings.
- 2. Health seminars, classes or luncheon presentations
 - *Inaccessible or not attended by most employees or dependents.
 - *Address one issue at a time.
 - *Nominal to significant expense.
 - *Documented evidence of net savings virtually nonexistent.
- 3. Print or telephone communications approach
 - *Accessible to all employees and to all dependent households.
 - *Accessible to many time, 24 hours a day, when need or interest arises.
 - *Free to nominal expense.
 - *Provides help on a full range of health and safety issues.
 - *More than 90 percent of employee households report using the information.
 - *More than 90 percent of employee households say they appreciate the information.

*Many studies document net savings in less than 12 months.

For small business employers one of the most important aspects of an employee wellness program

is expense. Several lowcost resources for health promotion programs include (Nations's Business,

1995):

- 1. Wellness Council of America, sells memberships for \$250 per year. (402) 572-3590.
- 2. Wellness in the Workplace: How to Plan, Implement, and Evaluate a Wellness Program, \$9.95. 1-800 442-7477.
- 3. The American institute for Preventative Medicine in Farmington Hills, MI. Self-help guide. 1-800 345-2476.

- 4. Occupation Health Strategies Inc. Program "Healthy Achievers." \$495 per year with. (404) 636-3127).
- 5. Healthier People Network Inc. Software and newsletter \$195. (404) 636-3127.
- 6. The National Wellness Institute offers referrals to consultants and a yearly conference. 1 800 234-8694.
- 7. The American Cancer Society. Health promotion pamphlets, videos, and guest workshop speakers at no charge. 1 800 227-2345.
- 8. The American Heart Association offers "Heart at Work" kits for wellness workshops. \$200 to \$600. 800 242-8742.
- 9. Many health-maintenance organizations (HMO's) and other managed-care providers offer member employers health-promotion materials.

REFERENCES

- 1. Aguirre-Molina M. Ethnic/racial populations and worksite health promotion. State of the Art Reviews: <u>Occupational Medicine</u>, Oct-Dec 1990 JC:u9p 5(4):789-806.
- 2. Alexy, B., Eynon, D. A strategy for health promotion at multiple corporate sites. <u>Aaohn Journal</u>, Feb 1991 JCaaO 39(2):53-6.
- 3. Alderman, Michael H. Academic medicine and the workplace. <u>The American Journal</u> of Public Health, March 1993 v83 n3 p313(2).
- 4. Anderson, Rebecca Cogwell, Anerson, Kim Edward. Positive changes and worksite health education <u>Psychology Reports</u>, 1994 v74 p607-610.
- 5. Appleby, Chuck. Fit to be cared for. <u>Hospitals & Health</u> <u>Medicine</u>, August 20, 1995, il v69 p34(3).
- 6. Baxter, Judith B. <u>The American Journal of Public Health</u>, March, 1993 v83 n3 p395(7).
- Barratt, Alexander, Reznik, Robert, Irwig, Les, Cuff, America, Simpson, Judy M., Oldenbury, Brian, Horvath, John, Sullivan, David. Work-site cholesterol screening and dietary intervention: the Staff Healthy Heart Project. Jama, The Journal of <u>American Medical Association</u>, May 1994 v84 n5 p779(4).
- 8. Battaglia, Lisa M. A baker's dozen of wellness program do's. <u>Wellness Management</u>, Fall 1994 v10 p5(1), Newsletter of the National Wellness Association.
- 9. Bellingham, R. Dubunking the myth of individual health promotion. <u>State of the Art</u> <u>Reviews: Occupational Medicine</u>, Oct-Dec 1990 JC:u9p 5(4):665-75.
- Bertera, Robert L. The effects of workplace health promotion on absenteeism and employment costs in a large industrial population. <u>American Journal of Public Health</u>, Sept 1990 v80 n9 p1101(5).
- 11. Beyers T, Mullis R, Anderson J, Dusenbury L, Gorsky R, Kimber C, et al. The cost and effects of a nutritional education program following worksite cholesterol screening. <u>American Journal of Public Health</u>, 1995;85:650-5.
- 12. Bertera RL. Planning and implementing health promotion in the workplace: a case study of the DuPoint Company experience. <u>Health Education Quarterly</u>, Fall 1990 JC:g20 7(3):307-27.

- 13. Binstock, J. Health objective series. Stress management consulting for workplace mental health and wellness. <u>Aaohn Journal</u>, Feb 1991 JC:aaO 39(2):62-63.
- Boyce, Robert. Health promotion leads to cost savings. <u>Public Management</u>, May 1992 p16-20.
- Boyer ML, Vaccaro, VA. The benefits of a physically active workforce: an organizational perspective. <u>State of the Art Reviews</u>: Occupational Medicine, 1990 JC:u9p 5(4):691-706.
- Breslow L., Fielding J., Herrman AA., Wilber CS. Worksite health promotion: its evolution and the Johnson & Johnson experience. <u>Preventive Medicine</u>, Jan 1990 JC:pm4 19(1)13-21.
- 17. Bricklin, Mary. The power of proactive prevention: how we can make a preemptive strike against poor health and high costs. <u>Prevention</u>, Feb 1994 v46 n2 p45(3).
- Byers, Tim, Mullis, Rebecca, Anderson, Jennifer, Dusenbury, Linda, Gorsky, Robin, Kimber, Chris, Krueger, Karen, Kuester, Sarah, Mokdad, Ali, Perry, Geraldine, Smith, Carol A. The costs and effects of a nutritional education program following work-site cholesterol screening. <u>The American Journal of Public Health</u>, May 1995 v85 n5 p650(6).
- 19. Campanelli, L. The aging workforce: implications for organizations. <u>State of the Art</u> <u>Reviews: Occupational Medicine</u>, Oct-Dec 1990 JC:u9p 5(4):817-26.
- 20. Campbell, Scott. Better than the company gym. HRMagazine, June 1995 p108(4).
- 21. Chapman, LS. Proof Positive: an analysis of the cost-effectiveness of wellness. 2nd edition. Seattle: Corporate Health Designs, 1995.
- 22. Corry, JM. Metlife's experience with fitness and wellness programming. <u>Statistical</u> <u>Bulletin - Metropolitan Insurance Companies</u>, Oct-Dec 1990 p19-20, 22-5.
- 23. Crib, A., Haycox, A. Economic analysis in the evaluation of health promotion programs. <u>Community Medicine</u>, Nov 1989 JC:dni 1(4):299-305.
- 24. Elixhauser, A. The costs of smoking and the cost effectiveness of smoking-cessation programs. Journal of Public Health Policy, Summer 1990 JC:hs5 11(2)218-37.
- 25. Erfurt, JC., Foote, A., Heirich, MA. The cost-effectiveness of work-site wellness programs for hypertension control, weight loss, and smoking cessation. Journal of Occupational Medicine, Sept 1991 JC:jfr 33(9):962-70.

- 26. Epes, Barbara. Tips for starting a wellness program. <u>HR Focus</u>, July 1994 v71 n7 p3(1).
- 27. Eskildson, Loyd, Yates, Gary R. Improving health care's suppliers. <u>Quality Progress</u>, April 1992 v25 n4:107(2).
- 28. Eubanks, Paula. Hospitals offer wellness programs in effort to trim health costs. Hospitals, Dec 5 1991 p42(2).
- Fielding, Jonathan and Halfon, Neal. Where is the health in health system reform? <u>JAMA, The Journal of American Medical Association</u>, Oct 26, 1994. v272 n16 p129(5).
- 30. Flynn, Gillian. Companies make wellness work. <u>Personnel Journal</u>, Feb 1995. v74 n2 p63(4).
- Foote, Andrea, Erfurt, John C. The benefit to cost ratio of work-site blood pressure control programs. <u>JAMA, Journal of American Medical Association</u>, March 13, 1991 v265 n10 p1283(4).
- 32. Glanz, Karen, Sorensen, Glorian, Farmer, Anna. The health impact of worksite <u>The American Journal of Health Promotion</u>, July/August 1996 v10 p453-470.
- Golaszewski, T., Snow, D., Lyncy, W., Yen, L., Solomita, D. A cost-to-benefit analysis of a work-site health promotion program. <u>Journal of Public Health Policy</u>, Summer 1990 JC:jfr 34 (12):1164-72.
- Gormel, Michelle, Oldenburg, Brian, Simpson, Judy M., Owen, Neville. Work-site cardiovascular risk reduction: a randomized trial of health risk assessment, education, counseling, and incentives. <u>The American Journal of Public Health</u>, Sept 1993 v83 n9 p1231(8).
- 35. Grossman, Steve. Inroads in intervention. <u>The Kansas City</u> <u>Business Journal</u>, July 15 1994, p13(3).
- Gunsch, Dawn. Employees exercise to prevent injuries. <u>Personnel Journal</u>, July 1993 v72 n7 p58(4).
- Hennrikus, Deborah, Jeffery, Robert W. Worksite intervention for weight control: Review of the literature. <u>American Journal of Health Promotion</u>, July/August 1996 v10, p471-497.

- 38. Jackson County Health Department. Worksite Health Promotion Project, 1987. Jackson Worksite Health Promotion Project.
- 39. Jeffery, Robert W, Forster, Jean L, Frence, Simone A, Kelder, Steven H, Lando, Harry A, Mcgovern, Paul G, Jocobs, David R., Baxter, Judith E. The Healthy Worker Project: a work-site intervention for weight control and smoking cessation. <u>The American Journal of Public Health</u>, March 1993 v83 n3 p395(7).
- 40. Katz, PP, Showstack, JA. Is worth it? Evaluating the economic impact of worksite health promotion. <u>State of the Art Reviews: Occupational Medicine</u>, Oct-Dec 1990 JC:u9p 5L(4):837-50.
- 41. Keigher, Sharon M. Naive, not Stupid. <u>Health and Social Work</u>, Feb 1995 v20 nl p70(5).
- 42. Leviton, LC. Can organizations benefit from worksite health promotion? <u>Health</u> <u>Services Research</u>, June 1989 JC:g2124(2):159-189.
- 43. Lewis, CE. Disease prevention and health promotion of primary care physicians in the United States. <u>American Journal of Preventive Medicine</u>, 1988 v4 p9-16.
- 44. Licciardone, JC. The planning, development, and implementation of a work-site health promotion program: a case study. Journal of the American Osteopathic Association, Feb, 1992 JC:g90:9213-8.
- 45. Litvan, Laura M. Preventative Medicine. Nation's Business, Sept 1995 p32(3).
- 46. Love, B., Davoli, G., Thruman, Q. Normative beliefs of health behavior professional regarding the psychosocial and environmental factors that influence health behavior change related to smoking cessation, regular exercise, and weight loss. <u>American</u> Journal of Health Promotion, May/June 1996 vol 10, Number 5 p371-9.
- 47. Lundberg, George D. The failure of organized health system reform now what? Caveat aeger-let the patient beware. JAMA, The Journal of American Medical Association, May 17 1995 v2/3 n19 p1539(3).
- 48. Lynch, WD., Golaszewski TJ., Clearie, A., Vickery, DM. Characteristics of selfselected responders to a health risk appraisal: generalizability of corporate health assessments. <u>American Journal of Public Health</u>, July 1989 JC:3xw 79(7):887-8.
- 49. Masur-Levy, Tavris, Dale R., Elsely-Pica Lucille. Cardiovascular risk changes in a work-site health promotion program. Journal of the American Dietetic Association, Oct 1990 v90 n10 p1427(2).

- 50. Marmor, Theodore R., and Goldber, Mark A. Reform Redux, (health care reform) (Roundtable on the Defeat of Reform). <u>The Journal of Health Politics, Policy, and</u> <u>Law</u>, Summer 1995, 20 n2 p491-494).
- Mason, JO, McGinnis JM. "Healthy People 2000: an overview of the national health promotion and disease prevention objectives. <u>Public Health Reports - Hyattsville</u>, Sept-Oct 1990 JC 105(5):441-6.
- 52. Mayer, Jeffery p., David, Jacklin K, (preface by O'Donnell, Michael P.) Worksite health promotion: needs, approaches, and effectiveness. <u>Michigan Department of Public Health</u>, 1991 p(229).
- 53. McBeth, WH. Health for all: a public health vision. <u>American Journal of Public</u> <u>Health</u>, Dec 1991 JC;3xw 81(12):1560-5.
- 54. McIntyre, L. The evolution of health promotion. <u>Probe</u>, Spring 1992 JC:pob 26(1):15-22.
- 55. Michigan Health Council, 1990 (29)p 27cm Fiscal Year 1989-1990. Michigan health initiative (MHI): worksite wellness program annual report.
- Miller, Adriane, B. Sometimes it pays to be fit; employers hope investing in wellness saves in the long run. (Special report: Health Care-Employee Benefits). <u>Baltimore</u> <u>Business Journal</u>, July, 1995 p15(20).
- 57. Minkler, M. Health education, health promotion and the open society: an historical perspective. <u>Health Education Quarterly</u>, Spring 1989 JCg2o 16(1):17-30.
- 58. <u>Morbidity and Mortality Weekly Report</u>, Jan 22, 1993. Worksite health promotion New Hampshire, 1992.
- Office of Disease Prevention and Health Promotion (ODPHP) of the U.S. Public Health Service (PHS), Department of Health and Human Services (DHHS). Healthy People: The Surgeon General's Report on Health Promotion and Disease Prevention, 1979.
- 60. Office of Disease Prevention and Health Promotion (ODPHP) of the U.S. Public Health Service (PHS), Department of Health and Human Services (DHHS). Promoting Health/Preventing Disease: Objectives for the Nation, 1980.
- 61. Office of Disease Prevention and Health Promotion (ODPHP) of the U.S. Public Health Service (PHS), Department of Health and Human Services (DHHS). Health People 2000: National Health Promotion and Disease Prevention Objectives.

- 62. Office of Disease Prevention and Health Promotion (ODPHP). 1985 National Survey of Worksite Health Promotion Activities.
- 63. Office of Disease Prevention and Health Promotion (ODPHP). U.S. Department of Health and Human Services (DHHS). 1992 National Survey of Worksite Health Promotion Activities (Final Report). Reproduced by U.S. Department of Commerce, National Technical Information Service (NTIS).
- 64. Patton JP. Work-site health promotion: an economical model. Journal of Occupational Medicine, Aug 1991 JC:jfr33(8):868:73.
- Pelletier, Kenneth R. A review and analysis of the health and cost-effectiveness outcome studies of comprehensive health promotion and disease prevention programs at the worksite: 1993-1995 update. <u>Health Promotion</u>, May/June 1996 v10 n5 380-88.
- 66. Journal of Safety & Health, March 1993 v147 n3 p62(1). A pat on the back says you've done the right thing. (Healthy People 2000 plan gets the support of the Wellness Councils of America).
- 67. Salina, D., Heckler, LA., Kaufman, J., Lesondak, L., McMahon, SD. A follow-up of a media-based, worksite smoking cessation program. <u>American Journal of</u> <u>Community Psychology</u>, 1994 v22 p257-61.
- 68. Shephard, Roy J. A short history of occupational fitness and health promotion. <u>Preventive Medicine</u>, May 1991 v20 p436-445.
- 69. Shephard, Roy J. Worksite fitness and exercise programs: A review of methodology and health impact. <u>Health Promotion</u>, July/August 1996 v10 n6 p436-452.
- 70. Sherer, Jill L., Grant, Brenda, Mangone, Carol, and Thompson, Barbara A. Vested interests. <u>Hospitals & Health Networks</u>, Nov 20 1994 v68 n22 p44(4).
- 71. Smith, Carrie. Occupational medicine could cure what ails the work force. <u>Safety</u> and <u>Health</u>, August 1992 v146 n2 p24(4)..
- 72. Soflan, Neal S. Health promotion can be a valuable strategy to assist in cost containment. <u>Occupational Health & Safety</u>, Dec 1991 p26(2).
- Stoklos, Daniel, Pelletier, Kenneth R., Fielding, Jonathan E. Integration of medical care and worksite health promotion. <u>JAMA, The Journal of American Medical</u> <u>Association</u>, April 12, 1995 v2/3 n14 p1136(7).

- 74. Thompson, Dennis. Wellness programs work for small employers, too. <u>Personnel</u>, March 1990 p26(3).
- 75. U.S. Office of Disease Prevention and Health Promotion. Prevention/ U.S. Department of Health and Human Services: Public Health Service, Office of Disease Prevention and Health Promotion, 1982. Washington DC
- 76. Verespe, Michael, A. If you ignore, your costs may soar. <u>Industry Week</u>, May 1995 p65(2).
- 77. Voelker, David H., Orton, Peter Z. Statistics. Copyright 1993 by Cliffs Notes, Inc.
- 78. Wachsman, Barbara E., Swanson, Kevin J. Managed health versus managed care: one part of cost management. <u>HR Focus</u>, May 1992 v69 n5 p11(1).
- 79. Weisbrod, R. Exercise Programs offer the highest level of participation. <u>Public</u> <u>Health Report</u>, 1991.
- 80. Weisbrod, Rita R. Pieie, Phyllis L, Bracht, Neil F., Elstun, Peggy. Worksite health promotion in four Midwest cities. Journal of Community Health, June 1991 v16 n3 p1690(9).
- 81. <u>Wellness Management</u>, Newsletter of the National Wellness Association, Winter 1995 v11 n4. HMO Focuses on Wellness.
- Wheat, JR., Graney, MJ., Schachtman, RH., Ginn, GL., Patrick, DL., Hulka, BS. Does workplace health promotion decrease medical claims? <u>American Journal of</u> <u>Preventive Medicine</u>, 1992 v8 p110-4.
- 83. Witte, Kim. Management style and health promotion programs. <u>Social Science & Medicine</u>, Feb 1993 v36 n3 p227(9).
- 84. Wolfe, Richard, Parker, Donald, Napier, Nancy. Employee health management and organizational performance. Journal of Applied Behavioral Sciences, March 1994 v30 n1 p22(21).
- 85. Zarkin, Gary A, Garfinkel, Steven A, Potter, Francis J, and NcNeill, Jennifer, J. <u>Inquiry</u>, Fall 1995 v32 n3 p310(10). Employment-based Health insurance: Implications of the sampling unit for policy analysis.
- 86. Zinn, Maxine B, Eitzen, Stanley D. The Reshaping of America: Social Consequences of the Changing Economy. Copyright 1989 by Prentice Hall, Inc.

APPENDIX A

YEAR	AUTHOR	SUBJECT	COMMENT
1979	Office of Disease Prevention and Health Promotion (ODPHP)	The Surgeon General's Report on Health Promotion and Disease Prevention	Government study on the health of U.S. citizens
1980	McKinlay, JB McKinlay, SM	Medical measures and mortality rates in the U.S.	Increased mortality in spite of medical intervention
1984	Naditch, MP	A Handbook of Health Promotion and Disease Prevention	Ways to inform the public on health measures
1985	Office of Disease Prevention and Health Promotion (ODPHP)	1985 National Survey of Worksite Health Promotion Activities	The government looks at large worksites for number and types of wellness programs
1988	Lewis CE	Disease Prevention and Health Promotion in Primary Care Physicians	A survey indicates that the work setting is the single most important channel for health promotion.
1989	Leviton, LC	Can Organizations Benefit from Worksite Health Promotion?	A projection of the effects of selected worksite programs finds positive financial outcomes possible.

TRENDS IN WORKSITE WELLNESS/SELECTED REFERENCES

1990	Bertera, RL	The Effects of Workplace Health Promotion on Absenteeism and Employment Costs in a Large Industrial Population.	Measurable cost benefits for large companies using worksite wellness programs.		
1990	Thompson, D	Wellness programs work for small companies too.	Most small companies don't believe they have the resources to adopt worksite wellness.		
1991	Foote, A	The benefit to cost ratio of worksite blood pressure control programs	Connecting health care costs and specific worksite wellness programs.		
1992	Eskildson, L	Improving health care's suppliers	Cooperation needed between 3rd-party payors and employers.		
1993	Heirch, MA Foote, A Effurt, JC Konopka, B	Worksite physical fitness programs: comparing the impact of different program designs on cardiovascular risks	General Motors finds that the least expensive programs for reducing CHD risks were the most effective.		
1994	Aldana, SG Jacobson, BH Harris, CJ Kelley, PL Stone, WJ	Influence of a mobile worksite health promotion program on health care costs	Data showing positive outcomes of worksite programs provided by CIGNA Healthplan (carrier).		
1995	Byers, T Mullis, R Anderson, J Dusenbury, I Gorsky, R Kimber, C et al.	The cost and effects of a nutritional education program following worksite cholesterol screening	Study conducted by the CDC on 42 small worksites indicates positive results at a cost of \$50/person/yr		

1996 Pelletier, KR	A review and analysis of health and cost- effective outcome studies of comprehensive health promotion and disease prevention programs at the worksite: 1993-1995 update	Overall, most research involving health promotion at the worksite indicates health and cost effectiveness.
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APPENDIX B

Find attached:

- One original pre-questionnaire postcard
 One original cover letter
 One original questionnaire

HEALTH PROMOTION PROGRAMS/SMALL BUSINESS RESEARCH PROJECT

Dear Business Owner/Ma

As a graduate stu survey of small-busine subject of health prom companies, but little business.

Your group makes Genesee county. Furth health promotion becom employers, regardless

Please understand associated with the go safety program. Mored voluntary and confider names or identifying i reported.

The questionnaire thank you now for your Hopefully, our investi efficient ways to inst businesses.

Sincerely,

Barbara Watkins

Barbara Watkins, Graduate Student School of Health Programs and Studies 402 Murchie Building University of Michigan-Flint Flint, Michigan 48502-2186

Dear Business Owner/Manager:



In 7-10 days you will be receiving a brief questionnaire regarding health promotion programs. This is being sent to you in partial fulfillment of my course requirement (HCR 595) for the Masters of Public Administration degree at UM-Flint. This form will take less than 5 minutes to complete.

Your participation is a valued and significant factor in this research.

Thank you.

Barbara Watkins

Barbara Watkins, Graduate student

HEALTH PROMOTION PROGRAMS/SMALL BUSINESS RESEARCH PROJECT

Dear Business Owner/Manager:

As a graduate student at the UM-Flint, I am conducting a survey of small-business employers in Genesee county. The subject of health promotion programs has been studied in larger companies, but little is known about their application in small business.

Your group makes up greater than 80% of all business in Genesee county. Further, with the advent of health care reform, health promotion becomes an important consideration to all employers, regardless of their companies size.

Please understand that this survey is not in any way associated with the government, OSHA, or any worker health and safety program. Moreover, all information you provide is voluntary and confidential. Although responses will be recorded, names or identifying information will not be used when data is reported.

The questionnaire takes less than 5 minutes to complete. We thank you now for your time and consideration in this research. Hopefully, our investigations and your response will influence efficient ways to institute health promotion programs in small businesses.

Sincerely,

Barbara Watkins

Barbara Watkins, Graduate Student School of Health Programs and Studies 402 Murchie Building University of Michigan-Flint Flint, Michigan 48502-2186

HEALTH PROMOTION PROGRAM/SMALL BUSINESS RESEARCH QUESTIONNAIRE

Please read each question and place a <u>check mark</u> in the space provided.

1a. During the past 12 months did your business offer any of the following health promotion programs? [ACTIVITIES include: classes, workshops, lectures, or special events. INFORMATION includes: posters, brochures, pamphlets, or videos.]

[check all that apply]

[If you checked any boxes in question 1a, proceed to question 2]

- 1b. Check this box if your business did *not* offer a health promotion program during the last 12 months.
 - [Please proceed to question 3]
- 2. Which employees are eligible to participate in your health promotion program(s)?

[check all that apply]

All employees Full-time only High-risk only Hourly workers only Top management only Union members only Other (specify)

Volunteered response

[Please proceed to question 4]

3. What are the top 2 or 3 reasons your business did not offer a health promotion program during the last 12 months?

[check 2 or 3]

Dispersed workforce
 Employees are healthy
 Employees not interested/won't participate
 High employee turnover
 Organization doesn't believe it will save money
 Other priorities
 Too costly
 Worksite lacks expertise/staff
 Worksite lacks facilities

4. The following list represents criteria that could be used to evaluate health promotion programs. Does your business presently keep records of:

[check all that apply]

.....Absenteeism
.....Employee health behaviors
.....Employee health status
.....Employee morale
.....Health care costs
.....Productivity
.....None of the above data collected

5. The approximate number of employees eligible for your (medical) health insurance plan is:

[check one]

	•	•		•	•	•	•		•		•		1 - 1 0
													11-20
													21-39
	•	•	•	•	•	•	•	•	•	•	٠	•	40-50
\Box	•	•	•	•	•	•	•	•	•	•	•	•	None

6. The average length of employment for the majority of employees in your business is:

[check one]

7a. What is the average length of on-the-job training your company provides for entry-level employees?

[check one]

7b. What is the average level of education your company requires of entry-level employees.

[check one]

.....High school diploma
.....Technical/specialized education
.....College degree of 1-4 years
.....College degree of greater than 4 years
.....None

8. Which of the following criteria describes the *majority* of persons employed by your company?

[check as many as apply]

.....Hourly workers
.....Salaried workers
.....Work full-time (35 hours or more per week)
.....Part-time (less than 35 hours per week)
.....Represented by a union

9. The average age of a person employed by your company is:

[check one]

10. The total number of persons presently employed at your business is:

[check one]

 11. Which of the following statement(s) apply to your business.

[check all that apply]

.....Locally owned
Single site
Multiple site (total # of employees greater than 50)
Multiple site (total # of employees 50 or less)
Part of a national company, but make your own policy
Part of a national company which sets policy

12. Which category best describes your business?

[check one]

Please fold this questionnaire so that the University of Michigan-Flint address and pre-paid postage stamp are exposed, tape, and place in the return mail.

Thank you again for taking your valuable time to provide the information needed for this research project.

HEALTH PROMOTION PROGRAMS QUESTIONNAIRE

> Barbara Watkins c/o Health Care Department 402 Murchie Science Building University of Michigan-Flint Flint, MI 48502-2186