Thirty-four current worksite health promotion programs were studied in order to obtain comprehensive information about various components involved in the planning, implementation, and evaluation of existing programs, and to acquire the necessary data to develop a theory and corresponding hypotheses pertaining to successful worksite health promotion programs. The case study method was achieved through semi-structured personal interviews with a corporate representative from each company. A survey form instrument developed in 1982 by Janet A. Fuchs was used as a format for the individual interviews.

A wide range of size and type companies were among the sample worksite health promotion programs. Program elements and processes were described both individually and collectively for the thirty-four companies in the following areas: general reasons for offering a program; deciding factors leading to specific topics; methods, materials, facilities, and resources used; scheduling, eligibility criteria, staffing, financing, planning, and implementation of the program; publicizing and encouraging participation; data base and evaluative measurement criteria; and problems in im-
plementation of the program. Common program elements, processes, and problems were seen across all companies, as well as areas of more diversity. Some program aspects appeared to vary by the size or the type of company, and some common factors seemed to relate to the worksetting. A theory of the significant components incorporated in a successful worksite health promotion program evolved from this study, and a series of directional hypotheses were put forth.

Recommendations for future research on worksite health promotion programs address experimental study designs, program components, program methodologies, data base utilization, and evaluative measurement criteria. Recommendations for Education and Industry include coordinating their efforts in developing and implementing worksite health promotion programs and training the appropriate personnel. Education recommendations involve professional preparation curriculum and continuing education for health education and health promotion at the worksite, and in the management of a comprehensive health promotion program for employees. Industry recommendations involve the planning and assessment stages of program design. A training specialty for a Health Educator at the worksite, and a well-defined role in the business world, was strongly recommended.
Worksite Health Promotion Programs:
Thirty-four Case Studies

by
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CHAPTER I.

INTRODUCTION

Industry is becoming more actively involved in the management of diseases and the promotion of healthy lifestyles for the employed. In this nation, since industry finances a large part of the health insurance policies for the employed and their dependents, it has a primary interest in the potential for health promotion activities to contain the escalating costs of health care. The current corporate cost for health insurance is estimated to be greater than $70 billion for American businesses (Marcotte, 1983; Newsweek, 1984). This figure does not include the additional costs these companies accrue due to lost workdays and lower productivity associated with poor health. Reinertsen (1983) reports U.S. companies spend over ten percent of their total operating budgets on health care related costs. Although research has not yet been able to "scientifically document that health promotion yields concrete cost savings to the satisfaction of those interested primarily in bottom-line costs benefits" (Ware, 1980), worksite health promotion programs are growing in number.
Background to the Study

Prior to the 1940s, occupation health and safety focused mainly on working conditions and safety of the employee. This was due to the periodic passage of legislation addressing worker safety; however, these laws were not vigorously enforced (McKeiver, 1965). In reviewing the trends in employee health services, McKeiver reports an increase in medical services at the worksite between 1915 and 1941; but this was largely care for industrial injuries. It was rare for employers to provide medical care or financial assistance for non-occupational illness. It was after World War II when results on studies of absenteeism showed non-occupational illness to be the cause of ninety percent of sick absence in industry. After this finding, health education at the worksite began including health as well as industrial health and safety hazards (McKeiver, 1965).

The early attempts at health education generally consisted of informal, individual counselling with the company physician or occupational health nurse, and/or health information distributed through pamphlets and posters. In 1957, Young published the first report of health education programs in industry based on a fact-finding study of 25 plants in Massachusetts. All activities were primarily developed and implemented by outside community agencies, such as the American Heart Association, the American Cancer Society, and the Tuberculosis and Lung Association. Health information was provided mainly through the use of films, posters, and pamphlets. The activities were geared to the needs of the agency, usually to inform workers of the characteristics of community programs offered by the particular agency and fund-raising endeavors. These pro-
grams were of little interest and appeal to the management and union personnel (Young, 1957).

In the 1960s there were more studies on health education activities at the worksite. Klerman (1965) reported these programs were effective if based on interpersonal and interactive methods, rather than impersonal information dissemination. Nickerson (1967) concluded that "one-shot" program efforts had little apparent effect, and there needed to be an established commitment from management for success.

The Occupational Safety and Health Act of 1970 required information and training of workers concerning specified health hazards. This led to limited information programs for workers, and a greater emphasis on worker education did result (Ware, 1982). However, the greatest steps were taken after 1979 when the U.S. Department of Health, Education and Welfare (USDHEW) designated disease prevention and health promotion as the major strategies for reducing the rising health care costs of the nation (USDHEW, 1979). The current emphasis on worksite health promotion is different in that programs are being developed and implemented by a whole spectrum of departments: personnel, marketing, recreation, benefits, and health or medical departments. Health promotion is no longer the sole domain of medical departments and community agencies.

Currently, mutual benefits to employees and employers encourage the employer to implement worksite health promotion programs. For example, an employee who smokes costs his or her employer between $600 and $900 a year in expenses associated with excess medical care costs, premature mortality, increased incidence of accidents, excess absenteeism, lost productivity, and increased plant maintenance (Brennan, 1982a; Reinertsen, 1983); cardiovascular disease accounts for an annual loss of 140 million
work days (Butler, 1982); and on-the-job back injuries are causing much pain to individuals and costing employers an estimated $1 billion each year (Butler, 1982; Newsweek, 1984). Numerous studies report the benefits from ongoing programs as follows (Behrens, 1983; Chenoweth, 1983; Cox, 1981; Duff, 1984; Wilbur, 1983):

1) To the employee:
   a. regular participation
   b. contact with co-workers
   c. environmental and social support
   d. strong, steady promotion
   e. less expensive
   f. convenient
   g. look/feel better
   h. reduced risk of illness

2) To the employer:
   a. lower absenteeism
   b. increased morale among workers
   c. increased productivity
   d. less turnover
   e. decreased benefit claims submitted
   f. lower health and Worker's Compensation premiums
   g. higher recruitment
   h. improved community relations, especially if community resources are used

Blue Cross of Oregon, which employs 640 people, had a cost reduction of $979 per person in medical claims costs after implementing a health promotion program for one year (Blue Cross, 1984). Portland Ad-
ventist Hospital followed 612 employees and realized a savings of $377,000 in 1982 after developing its health education/wellness program (Portland Adventist Medical Center, 1984). Thus, it appears with over ninety million Americans in the workforce, health promotion programs at the worksite could have a significant effect upon the health of people and upon the cost of health care in this nation.

Need for the Study

Employers need to be encouraged to offer worksite health promotion programs and assisted in the difficult and hindering step of getting started. The Labor-Management Group created a Health Care Task Force in 1977 to address soaring health care costs. Its recommendations for program development to industry leaders were published and included (Labor-Management Group, 1978):

1. Labor and management should review their policies and programs with respect to the provisions of exercise facilities and smoking cessation clinics and the provisions of low-fat and low-calorie alternative menus and vending machine products. In addition, programs which encourage wiser use of existing employee health benefits should be supported.

2. Labor and management should make health education programs available to all employees, retirees, and their dependents, wherever feasible.

3. Labor and management should explore methods of providing cost-effective health education as an integral part of all health insurance benefits and direct medical care programs.

There is much literature on individual program successes or failures; however, there is a lack of descriptions on specific program components. Detailed descriptions are few, making comparative studies on program similarities and differences difficult. There is a need to look at a variety of ongoing programs in companies of differing size and type.
This would provide information to employers on which to base decisions about what to offer and how to offer a worksite health promotion program according to their company characteristics.

Purpose of the Study

The purpose of this study is twofold. First, the study uses Fuchs' validated survey form (Fuchs, 1982) for describing worksite health promotion programs in order to obtain comprehensive information about the programs as to: general reasons for offering a program; deciding factors leading to specific kinds of programs; methods, materials, facilities, and resources used; scheduling, eligibility criteria, staffing, financing, planning, and implementation of the program; publicizing and encouraging participation; data base available on employees and evaluation criteria; and problems in implementation of the program. The study uses a series of case studies in order to examine corporate-wide and specific site health promotion programs that exist in the Portland, Oregon metropolitan area. Secondly, the resulting data is used to develop hypotheses pertaining to worksite health promotion programs which can be followed up by future research studies.

The specific objectives are: 1) to specify program elements; 2) to collect data on all aspects of the program, not just those alleged to be important by the researcher; 3) to describe implementation processes of the programs; and 4) to generate a theory on the significant components in successful worksite health promotion programs. The study will aid employers by making available information about existing worksite health promotion programs in various size and type companies. The settings and actual processes of implementation of the programs will be documented.
The program elements (e.g., pre-existing conditions, program components) of each program will be delineated through this study, thus developing initial leads for future quantitative studies. This will serve to focus future research on some key areas to be studied in a subject that is now new and wide open for investigation at the present time.

The Use of Qualitative Research in Worksite Health Promotion Programs

The case study method is exploratory in nature and aims primarily at discovering and generating hypotheses. The power of this method lies in its ability to open the way for discoveries, rather than to generalize. "Whenever the investigator approaches a new area in which relatively little is known, the case study is his first methodological choice" (Bolgar, 1965). The Dictionary of Behavioral Science describes the case study method as an exploratory study of single cases which aims at discovering and forming concepts: it deals with complex relationships and tries to discern the relevant variables (Wolman, 1973).

In an article regarding productive research designs for health education investigations, Green and Gordon (1982) described one type of evaluative research which is applicable to this study. It is less concerned with certainty or replicability than with the practical question of how "this" program or method has worked "this" time. The measure of productivity of this type study is the immediate utility of the data to be used in making allocative decisions.

The importance of qualitative analysis as a foundation for and necessary supplement to total program evaluation and theory building efforts was demonstrated by Mullen and Iverson (1982). In addition, Mullen and
Iverson proposed the use of qualitative evaluations alone under some circumstances, pointing out that quantitative methods are wasteful and inefficient in their misplaced precision when they are based on inadequate prior qualitative work. Qualitative methods have been developed to discover or generate theory, whereas quantitative methods have been developed to confirm or verify theory. The researcher taking a qualitative approach uses methods adapted to understanding actions or situations which are already present, given, and unchangeable for research. Open-ended questions, semi-structured interviews, primary and secondary documents, and observational methods are commonly used to collect qualitative data (Green & Gordon, 1982; Mullen & Iverson, 1982). Mullen and Iverson provided a checklist of evaluation situations for which qualitative methods are appropriate. Included in this, and pertinent to this study, were the following:

1. Are decision makers interested in elucidating and understanding the internal dynamics of programs—program strengths, program weaknesses, and overall program processes?

2. Is detailed, in-depth information needed about certain client cases or program sites, e.g., particularly successful cases; unusual features; critically successful cases; unusual failures; critically important cases for programmatic, financial, or political reasons?

3. Is there interest in focusing on the diversity among, idiosyncrasies of, and unique qualities exhibited by individual clients or programs (as opposed to comparing all clients or programs on standardized, uniform measures)?

4. Is information needed about the details of program implementation—what clients in the program experience, what services are provided to clients, how the program is organized, what staff do? Have decision makers been informed as to what is going on in the program and how it has developed?

5. Are program staff and decision makers interested in the collection of detailed, descriptive information about the program for the purpose of improving the program, i.e., is there interest in formative evaluation?
In order to accomplish the purpose of this study, the more qualitative case study research design was chosen. Semi-structured personal interviews with corporate representatives from companies with worksite health promotion programs was the method used for data collection.

Limitations

Collection of data for these case studies was dependent upon companies with ongoing health promotion programs at the worksite, and a representative agreeing to participate in the study. The study and survey form were limited by design to descriptive data on worksite health promotion programs.

Assumption

The assumption is made that the corporate representatives responded accurately in describing their respective worksite health promotion programs.

Definition of Terms

The instrument used as a format for the personal interviews was a validated survey form developed by Janet A. Fuchs in 1982 at Southern Illinois University at Carbondale. For purposes of consistency, the same definitions used in developing the instrument will be used in this study (Fuchs, 1982). The original source will be noted after the specific definition where applicable.

Health Assessment consists of activities designed to identify existing or potential health risks and/or problems; a component of health promotion programs.
Health Education is "any combination of learning opportunities designed to facilitate voluntary actions (in individuals, groups, or communities) conducive to health" (Bureau of Health Education, 1980).

Health Promotion "is any combination of health education and related organizational, economic, or political interventions designed to facilitate behavioral and environmental changes conducive to health" (Green, 1980).

Health Promotion Program is "a system of components (e.g., exercise, nutrition, stress management, etc.) that attempts to integrate the traditional practice of treating diseases after they occur . . . . The components include a variety of educational/behavioral strategies that foster lifestyle modification and ensure the maintenance of health behavior change" (McGill, 1979).

Risk Reduction/Health Enhancement consists of activities designed to reduce existing or potential health risks/or to move from good health to better health; a component of health promotion programs.

Screening is "the use of quick, simple procedures to identify and separate apparently well persons who have, or have a risk of having, a disease from those who probably do not have the disease" (Committee on Interstate and Foreign Commerce, 1976).

Worksites are sites of companies, industries, corporations, and businesses where people are employed on a monetary basis in exchange for performance of specific tasks.
Summary

In summary, worksite health promotion programs developed over the years from primarily worker safety programs to more comprehensive programs emphasizing disease prevention and health promotion. Beneficial results associated with worksite health promotion programs make the programs desirable for both the employees and employers. However, there is a need to document the specific program components and process of various size and type companies. The purpose of this study is to describe a variety of current worksite health promotion programs in the Portland, Oregon, metropolitan area, and develop a theory of successful programs based on these preliminary findings. The case study design, using Fuchs' validated survey form, was the method chosen to best meet the objectives, and the use of qualitative research for investigating worksite health promotion programs was reviewed. The limitations and assumption for this research and the survey instrument were put forth, and terms associated with worksite health promotion programs were defined.
CHAPTER II

REVIEW OF LITERATURE

Chapter I introduced the research study and provided an historical overview of health programs at the worksite. This chapter will review the current literature pertaining to worksite health promotion programs and will cover the following topics:

1. The idea of health promotion at the worksite including the concept itself, and the incentives for its development.

2. Current worksite health promotion programs: comprehensive corporate programs; single topic programs/trials; employee assistance programs; and health screening programs.

3. The cost-effectiveness of programs.

4. A discussion of program design components: marketing; planning; implementation; promotion; maintenance; data base; and evaluation.

The Concept

The idea of health promotion at the worksite developed from the growing public opinion that this country should be investing greater attention in the prevention of avoidable illness, disability, and premature death. In an effort to improve the health and well-being of the employees and to reduce the costs of health benefits, many corporations are initiating health promotion programs at the worksite. The concept of health promotion is
to first identify and then intervene to minimize risks to health, and to in- 
i-tiate these programs at the place of employment is the idea of worksite 
health promotion programs.

Expansion of the nation's health system is likely to produce only 
marginal increases in the overall health status of the American peo-
ple...; the greatest benefits are likely to accrue from efforts to
improve the health habits of all Americans and the environment in
which they live and work.

This statement was made in 1979 by the Assistant Secretary of 
Health Education and Welfare (HEW) (Brennan, 1981), and represents the 
belief among health professionals that the health strategy for the nation 
must be changed to emphasize prevention. Preventing disease through 
health-promoting behavior is an effective and increasingly acceptable strat-
egy in health maintenance (Gray, 1983; Jennings and Tager, 1981; Novelli
and Ziska, 1982; Reinertsen, 1983). This view goes beyond health profes-
sionals; in a 1979 Harris Poll, as quoted by Brennan (1982a), 92.5% of 
those polled agreed with the statement: "If we Americans lived healthier 
lives, ate more nutritious food, smoked less, maintained our proper weight
and exercised regularly, it would do more to improve our health than any-
thing doctors and medicine could do for us."

The concept of health promotion is a radically different concept 
from medical care. A medical care system provides curative care. In the 
United States, this system has made tremendous advancements, as seen in 
such breakthroughs as organ transplants, heart bypass surgery, artificial 
limbs, and artificial body part replacement for many major organs. How-
ever, this progress has not been without cost. The national medical bill
was less than $40 billion in 1965, increasing to over $200 billion in 1979, 
reaching $287 billion in 1981, and jumping to $320 billion in 1982 (Brennan,
1981; Gray, 1983). Health care now accounts for more than 12% of the
federal budget, whereas it was less than 3% in 1955 (Gray, 1983; Marcotte & Price, 1983; Reinertsen, 1983). Although the advancements are impressive, it would be better to prevent the need for so many artificial devices by helping people learn to take better care of their own body parts.

Preventive maintenance for mechanical equipment has long been practiced in industry. The business world has found it both logical and cost-effective to avoid unpredictable downtime, premature replacement, and excessive wear. All business is dependent on human resources, and, yet, it is only recently that attention is being given to the health and well-being of the workforce as an important factor in productivity. Health related problems contribute to the business costs associated with absenteeism, personnel turnover, replacement cost, decreased productivity, employee morale, and health insurance benefits (Brennan, 1982; Shephard, 1983). Nationally, health insurance alone amounted to an aggregate corporate cost of $42 billion in 1978, $50 billion in 1980, $67 billion in 1982, and currently is over $80 billion (Gray, 1983; Iglehart, 1982; Marcotte & Price, 1983; Newsweek, 1984). Industry has traditionally accepted the expense of health care as being an uncontrollable cost of doing business, however, it is now showing an increasing interest in the cost and concept of health care.

The President's Committee on Health Education concluded that "a good place to reach many adults is through their place of employment since 40 percent of the population is working. Employees who are knowledgeable about health and who are motivated to prevent illnesses and accidents are an asset to themselves, their employers, their families, and to the nation," (Ware, 1982). The Committee also recommended that business, industry and labor be encouraged through tax incentives and other means to
plan, undertake and evaluate comprehensive health education programs for their employees, members, and families.

The worksite is often cited as the ideal setting for effective health promotion programs. It has some unique features which create great potentials for successful programs:

- There are over 90 million people in the workforce, approximately 40% of the adult population (Behrens, 1983; Marcotte & Price, 1983; Rocella, 1982). This offers a relatively stable population, and the regular presence of a large portion of the adult population in an organized setting. Thus, there is the opportunity for regular participation.

- Programs at work are convenient. Commuting time and travel costs in going to a community facility are eliminated. This increases the chance for incorporating health-promoting activities into an individual's routine (Brennan, 1982a; Rocella, 1982; Shephard, 1983). As many as 95% of employees will participate in multi-phasic screening programs at the worksite whereas community programs do well to get 30% (Marcotte & Price, 1983).

- A strong social support is provided through contact with coworkers. This is believed to be a major force in promoting and sustaining positive lifestyle behavior changes (Behrens, 1983; Brennan, 1982a; Jennings & Tager, 1981; Rocella, 1982; Shephard, 1983).

- Daily environment supports and reinforcements are possible through personnel policies such as no smoking areas, healthy cafeteria and vending machine foods, and exercise facilities (Behrens, 1983; Brennan, 1982a).
- Programs based in an organizational structure may be less expensive than a comparable community program and/or be used as an employee benefit. Companies may be able to operate more efficiently because of already established internal communication networks and medical departments, and the convenience of detection and follow-up of employee health risks (Behrens, 1983; Brennan, 1982a; Jennings & Tager, 1981; Kaplan, 1983; Murphy, 1980; Roccella, 1982).

- There is also an opportunity for reaching outside the work setting into the community through employee dependents and retirees from whom much of the health care costs arise (Roccella, 1982).

Work is an integral part of the life of the employee and family members. In addition to the time actually spent on the job, there is the time spent preparing for work, commuting to and from work, recuperating and vacationing from work. A healthy lifestyle cannot be separated from work.

Goldbeck (1981) stated that "employee health is more than just a benefit to be paid, but a resource to be managed." Benefit payments are only a small portion of much larger health-related costs. There are important associations between employee health and worker’s compensation payments, absenteeism rates, turnover, and productivity losses. Substance abuse is linked with accidents on the job, which translates into substantial disability, lost time, and medical expense (Levin & Wolfson, 1982). Sixteen percent of American families report having at least one member who drinks too much (Cunningham, 1979), and American corporations pay approximately $20 billion, annually, for the deleterious effects associated with alcohol abuse (Brennan, 1982a). High blood pressure, at all ages, is
associated with sudden death, heart attack, congestive heart failure, stroke, and kidney failure. Problems from hypertension cost business and industry millions of disability days, lost productivity, premature employee death or retirement, and 26 million hospitalization days every year (Cunningham, 1979). Twenty-five percent of all heart disease deaths and eighty percent of all lung cancer deaths are related to smoking (Danaher, 1980). The risk of cardiovascular disease is far greater in people with cholesterol levels above 265mg/dl than those with lower levels (Bruno, et al., 1983). The sedentary population has more coronary risk factors (elevated blood pressure, elevated serum cholesterol and triglyceride levels, obesity) than those who exercise or engage in active occupations (Donaghue, 1977). The above examples all point to lifestyle behaviors. According to the Center for Disease Control, 54% of all deaths under age 65 are attributed to adverse lifestyles (Brennan, 1982a). The corollary idea is that changes in lifestyle can reduce this incidence of disease since the illnesses stem from habits and behavior developed long before any symptoms appear.

The incentive for companies to take an interest in employee health management is the potential for containing the corporate health-related costs, reducing medical insurance cost, and increasing productivity (Brailey, 1980; Merwin & Northrop, 1982). Companies involved in worksite health promotion programs are beginning to report cost savings and anecdotal information showing: (Beck, 1982; Behrens, 1983; Bowne, et al., 1984; Kristein, 1982; Shephard, et al., 1982).

- Reduced absenteeism. Healthier employees are sick less often, have less severe illnesses, and recover more quickly when sick.
- Improved recruitment and retention, and reduced turnover. Worksite health promotion programs can attract and keep employees to a company, keep employee morale high, and decrease replacement due to early retirement, death, disability, or termination.

- Reduced disability claims, insurance claims, and lost time. Healthier people, both mentally and physically, are less likely to have accidental injuries and expensive illnesses.

- Improved employee relations. Morale is higher, internal support is perceived, and there are better relations with family members and retirees especially if they are eligible for participation.

- Increased productivity. All of the above contribute to greater productivity.

The incentive for increasing productivity in American business is great. For the past decade, the productivity of American business and industry has stagnated, while German and Japanese productivity have been increasing by as much as 10% a year (Jennings & Tager, 1981). The Japanese management style in particular, with employee fitness programs and humanized working conditions, is generally recognized to have been a primary force in the rise to high-level productivity and high-quality products (Jennings & Tager, 1981).

There are many viable worksite health promotion programs ranging from simple, one-time health screenings to comprehensive educational, fitness, risk reduction, and counselling programs (Novelli & Ziska, 1982). Novelli and Ziska outlined the four categories that encompass most worksite programs. The "one-shot activity" consists of a single screening time, with little or no attendant counselling or follow-up referral and education. Secondly, there is the "fitness first" program where a company
first becomes involved in promoting physical fitness and weight control. From there, the health promotion program may be expanded to include other topics such as smoking cessation and high blood pressure control. The third category, labelled "mixed-bag," is really a variety of programs at one worksite, but which lacks cohesion or overall health promotion objectives. The "comprehensive approach" is the fourth category and consists of a well-planned, well-funded program with long-range objectives, broadbased participation and both cost and behavioral assessments.

Although there are an increasing number of worksite health promotion programs, more often a company is ambivalent. It is aware of employee interest and need, but is uncertain about the costs and benefits. Much of the uncertainty about health promotion programs centers on skepticism that health education can motivate and maintain behavioral change in large numbers of people over the long term (Brailey, 1980). Merwin and Northrop (1982) concluded that the view of many companies on worksite health promotion programs was to choose the line of least resistance when faced with scientific controversy, high levels of emotional involvement, economic priorities, conflicts among health values and individual liberties, and thus ignore complex employee health issues until they are surfaced as a specific problem situation.

Current Worksite Health Promotion Programs

Worksite health promotion programs vary from single-thrust endeavors to comprehensive programs. Program scope and type are usually determined by company size, management commitment and expectation, the philosophy of the human resources and medical departments, and profit
margins (Brennan, 1981). The health topics addressed in a health promotion program are from the following list:

- Exercise/Fitness
- Hypertension (high blood pressure)
- Weight Control
- Nutrition Training
- Smoking Cessation
- Substance Abuse (alcohol/drug abuse)
- Stress Management
- Screening Procedures (hearing, cancer, glaucoma, diabetes)
- Health Risk Appraisals
- Mental Health
- Safety/CPR/First Aid

**Comprehensive Programs**

Comprehensive programs include both health assessment activities and risk reduction/health enhancement activities. Some corporations are actively pursuing comprehensive worksite health promotion programs. As reflected in the literature, these tend to be the large corporations, both in work force and gross revenue (Herzlinger & Calkins, 1986). Following is a discussion of some of these well-established corporate programs.

**Johnson and Johnson.** The Johnson and Johnson "Live for Life" Program began in 1979, with two primary goals: to provide the means for Johnson and Johnson employees to become among the healthiest in the world; and to determine the degree to which the program would be cost beneficial (Wilbur, 1983). The employees begin participation in the program with a health screening, which measures a wide range of health,
lifestyle, and attitudinal characteristics. This screening is offered on company time, and the primary responsibility for organizing, promoting, recruiting, and scheduling of employees for the health screen lies with selected volunteer leaders from the company work force. The screening service is provided by the "Live for Life" corporate staff.

Approximately six weeks after completing the health screen, the employee attends a Lifestyle Seminar. At this point, the employee is introduced to the Program options, and the idea of taking personal responsibility for his/her own health. They are given their Lifestyle Profile, a document containing the results of their health screen, which provides a base from which to note changes resulting from participation in the "Live for Life" Programs. The seminar is offered on company time and is conducted by the program staff. However, company leaders again are responsible for the promotion, recruitment, and scheduling of employees. They are also responsible for advertising the health enhancement opportunities offered through the "Live for Life" Action Programs at their company site. These are formal programs offered regularly in smoking cessation, weight control, stress management, nutrition, exercise, and high blood pressure control. These programs use a variety of methods for each topic, including groups, individual counselling sessions, self-help kits and the telephone "Live for Life" program staff conduct the programs, company leaders promote and schedule the programs, and regular feedback is given to the employees in order to sustain participation. For example, a structured incentive system using earned "points" for participation in "Live for Life" activities is successful and popular. Non-monetary rewards are given to those earning a predetermined number of "points." Regular information on program quality, participation levels, and results are given to
company leaders and management to maintain the level of enthusiasm and involvement. The program staff are responsible for providing these reports (Wilbur, 1983).

Johnson and Johnson is one of the few companies to evaluate the impact of their health promotion program on a wide range of health and lifestyle characteristics, and to measure the costs and benefits of the program. The results of a two-year epidemiological study are currently being analyzed. Wilbur (1983) describes the analysis methods. The sample population was equally divided between three control and four treatment sites and involved approximately 4,000 employees from whom data were collected annually. The variables included in the study were biometric (e.g. blood lipids, blood pressure, body fat, weight, and estimated maximum oxygen uptake), behavioral (e.g. smoking, alcohol use, physical activity, nutrition, coronary prone behavior pattern), and attitudinal (e.g. general well-being, satisfaction with job performance and working conditions, company perception and health attitudes) measurements. The objectives for the economic evaluation included the calculation of economic differences among individuals with different baseline measurements, the economic change between treatment and control groups over two years, and development of predictive models for calculating excess costs and projecting the possible economic benefits that could be realized through different levels of biometric, behavioral and attitudinal change.

The personnel of Johnson and Johnson feel the success of their program is due to the strategic decisions made during the extensive planning process. Their health promotion program is linked to a cost containment strategy, is managed by numbers, like other business endeavors, and health promotion is conceptualized as a "total marketing process."
The program is currently available to 16,000 employees worldwide (Wilbur, 1983).

**Campbell Soup.** The Campbell Soup Company health promotion program is managed by the occupational medical departments at 20 company plants. The program was initiated in the late 1960s and focused on early disease detection. The screening efforts led to more targeted programs, such as the Arteriosclerosis Prevention Program and the Down with High Blood Pressure Program (Wear, 1983). Intervention programs now address hypertension, obesity, exercise, and smoking cessation. Employees requiring drug therapy are usually referred to a community physician; however, their progress is monitored in the company program. Extensive screening procedures are available for eligible employees (5 years employment with the company), including mammography, proctosigmoidoscopy, stool testing for occult blood, blood pressure, weight and serum lipids. The program emphasizes behavior change for important health-related behaviors, and is facilitated by counselling sessions with health professionals who initiate regular follow-up activities. Sufficient data is not collected to prove money is saved through reduced health-care costs, but management supports these programs and believes they are cost effective (Wear, 1983).

**IBM.** The IBM Corporation developed a comprehensive health strategy in response to rapidly rising benefit claims costs. Their strategy has five principles; the individual should take responsibility for his/her own good health, non-job related programs are voluntary, health care and lifestyle data are confidential, the company will assist with respect to a healthy environment and partial reimbursement, and health care programs should be cost effective. IBM's health promotion program, "A Plan for
Life," includes early detection, health education, employee involvement programs, and a cost-effective benefits design. Employees, their families, retirees and their spouses are all eligible to participate (Beck, 1982).

Beck (1982) outlines the IBM program components. The health screening examination involves a 170-item questionnaire relating to health habits, illness, and disease. In addition, there are urine and blood tests, a colorectal cancer test, vision, glaucoma and hearing tests, resting ECG, blood pressure, and family history. The entire examination is administered by a nurse. The examination is first offered at age 35 and at five-year intervals, thereafter. Nationally, 65 to 70 percent of the employees participate. With this large data base, IBM is developing an age/risk oriented examination schedule, with more follow-up activities which will be used in the future (Beck, 1982). Classes are available in exercise, smoking cessation, stress management, weight control, healthy back, nutrition and First Aid/CPR. Community facilities, resources, and specialists are used, and the courses are conducted outside of working hours.

"Theme" days are held as localized programs in order to run special screening programs for all employees, such as breast self-exam, high blood pressure, diabetes, and glaucoma. These are relatively low in cost to the company, yet popular among employees. A detailed administrator's guide was developed to be used by program coordinators at different company sites, in order to avoid hiring permanent professional staff. IBM also provides partial reimbursement for certified community courses rather than the IBM-run courses.

Blue Cross and Blue Shield of Indiana. Blue Cross and Blue Shield of Indiana provides a program called The Health Promotion Service, designed and developed by the American Health Foundation. This service
uses the organizational structure of the worksite to aid in program delivery and utilizes support from worker peer groups to help facilitate behavior change. The program is delivered by trained "health interventionists", working with support from a consulting family physician. Grove, Reed, and Miller (1979) report the three basic principles of the program are support and cooperation of top management, voluntary employee participation, and employee record confidentiality. The Health Promotion Service includes four phases. Phase I is the planning/prescreening education and is the time for planning, promoting, scheduling, and recruiting employees for the program. It ends with the completion of health risk questionnaires by the employees. Phase II is the screening activities, which include measures of height, weight, blood pressure, cholesterol level, and carbon monoxide level. Exit interviews are conducted where individual results are reviewed, and employees are encouraged to participate in appropriate risk intervention programs. Phase III, Intervention is to promote positive lifestyle changes. Peer groups are formed to focus on smoking cessation, weight reduction, blood pressure reduction, and lowering of cholesterol levels. The group sessions consist of education, behavior modification principles, peer support, and self-monitoring. Maintenance and follow-up activities are conducted during Phase IV. Individuals are telephoned periodically to provide support and encouragement for their new behaviors and to check on their progress. Rescreening is done at six months and one year, in order to provide both a motivating factor and measurable data to evaluate over time. A computer file is kept for comparison, analysis, long-term follow-up, and ongoing program evaluation.

Control Data. Control Data Corporation developed a comprehensive health promotion program called, "Stay Well." The program begins with
orientations for employees and management. Next, a confidential health screening and health hazard appraisal is done to assess height, weight, blood pressure, blood chemistry (20 tests) and lifestyle. This results in a Health Risk Profile, which is the subject during individual risk interpretation counselling (Berry, 1981; Jennings & Tager, 1981). Lifestyle-change courses designed to promote healthy behavior in stress management, fitness, weight control, nutrition, and smoking cessation are offered. This program is free for all employees and spouses. An individualized computer-based instruction program is available which uses personalized responses with respect to the employee's habits, personality, and compliance with the program. Since 1979, employee participation has ranged from 65% to 95% of the 22,000 employees in 14 U.S. cities. Cost-effectiveness data pertaining to the program is not yet available (Herzlinger & Calkins, 1986). In addition, a Control Data subsidiary, Life Extension Institute, is marketing this worksite health promotion program to other American companies (JAMA, 1981).

Kimberly-Clark. The Kimberly-Clark Corporation developed a comprehensive worksite health promotion program with the ideas of controlling health care costs and helping to recruit and retain high-caliber employees. The program offers health screening; the employee is assessed through multiphasic screening, complete physical examination, health history, health risk appraisal and cardiovascular stress testing on a treadmill. Health education and intervention programs cover nutrition counselling, smoking cessation, blood pressure control, weight reduction, drug and alcohol abuse, and exercise (Berry, 1981). The company has a $2.5 million health services center with a full-time staff of 15 and an annual operating budget of $600,000 (Marcotte & Price, 1983). This facility is located at the Neenah,
Wisconsin headquarters and includes an 8,000-square foot multiphasic screening unit and a 37,000-square foot exercise and fitness complex, with olympic-size pool, indoor running track, saunas, whirlpool, shower and lockers. Health education areas are included which were designed for both large and small groups. In addition to the health and fitness programs, there are readily accessible printed materials; brochures, self-help manuals, a health education library, and extensive audio-visual materials. Although no impact on health care costs has been shown, absenteeism and accidents have declined, screening has detected a significant number of employees at high risk for disease, program participants have shown meaningful declines in weight, body fat, and blood pressure. The rehabilitation success rate for substance abuse is more than 70% (Herzlinger & Calkins, 1986).

New York Telephone. New York Telephone instituted a health care management program with a goal of focusing on each individual's complete health status. The medical department implements the program. It provides treatment for medical problems, but emphasis is placed on health promotion and disease prevention. A detailed history and physical examination are done on a voluntary, confidential basis to provide a health profile for the employee. In-house programs for changing health behaviors stress long-term objectives and are available in fitness, smoking cessation, cholesterol reduction, blood pressure control, stress management, and healthy back. Colorectal and breast cancer screening are provided for high-risk employees. A successful alcohol rehabilitation program is also available. The program was developed as an integrated approach in order to target the interventions to the specific problems of each employee.
This program reaches 80,000 employees at 1,237 locations (Berry, 1981; Herzlinger & Calkins, 1986).

**Rodale Press.** Rodale (1983) reports of the Rodale Press health promotion program which boasts of uniquely strong support from the company. The company is owned and controlled by health enthusiasts and the product line is health oriented.

The four company dining rooms serve fresh, low-fat, low-salt, whole grain foods. Smoking is banned within the company. All employees are encouraged to participate in exercise programs offered for their level of physical ability and to incorporate this as a natural part of their participation in the company. An extensive collection of up-to-date health and medical literature is available, which emphasizes self-help skills for individual health management. Although data is collected on changes in employee health and fitness, it has not been analyzed as yet. Upper management is already convinced that health and fitness programs are cost-effective, so research is directed at creating new programs rather than proving the worth of existing programs.

**Other Programs.** As seen above, some major corporations are offering comprehensive worksite health promotion programs. Many times fitness is the key ingredient in large corporations, where the program revolves around a company fitness center and the program scope then expanded, such are the cases in the Shaklee, Xerox, and Sentry Corporations (Jennings & Tager, 1981; Marcotte & Price, 1983; Newsweek, 1984). However, large-scale national companies are not the only cases reported in the literature. Love, Morphis, and Page (1981) describe a health promotion project implemented at an American university for faculty and administrative staff. This program made use of base line physical, psycho-
logical, and health knowledge tests for individuals, offered workshops and
group programs promoting self-care skills and social support for main-
taining healthy lifestyles, conducted mass media campaigns promoting and
reinforcing healthy behaviors, and provided individual health consultant ser-

vices for participants. As well as being a popular project with an enthu-
siastic employee population, statistically significant changes resulted in all
group base line measurements. Foreign studies also report positive health
results at the worksite in programs such as the Belgian Heart Disease
Prevention Project (Kornitzer, et al., 1983) where factory men were pro-
vided with an information program and given face-to-face counselling on
the major coronary risk factors.

Insurance companies are some of the forerunners in the area of
worksite health promotion programs for both the company employees and
as consultants for corporate policy holders. The leading companies include
Metropolitan Life, New York Life, Equitable Life, Safeco, Pacific Mutual,
State Mutual, and Blue Cross/Blue Shield (Brennan, 1982; Karson, 1982).
The insurance industry has the capabilities of instituting policies and pro-
grams to further health promotion. An Advisory Council on Education for
Health made up of experts in the field of health promotion gave two rec-
ommendations to the insurance industry: 1) provide nonsmoking incentives
through the insurance mechanism to both individual and group policyholders;
and 2) sponsor a national clinical trial to determine the elements of an ef-
fective system of preventive health services (Karson, 1982). Both recom-
mendations were given priority consideration within the industry and were
being planned shortly thereafter. Specific corporate health insurance pol-
icy suggestions have been put forth, such as the use of a modifiable-risk-
factor index to adjust premiums up or down, an additional payment for
hospital stays resulting from risk-related disease, where the individual had a high index of modifiable risk factors, or a policy with premiums which incorporate a high deductible or coinsurance for hospitalizations due to lifestyle-related diseases (Brailey, 1980; Herzlinger & Calkins, 1986).

**Single Topic Programs**

Risk-reduction programs are often reported individually in the literature as single topic worksite health promotion programs or trials. These topics will be described.

**Exercise/Fitness.** Exercise/Fitness programs at the worksite range from simple exercise promotion encouraging employees to exercise on their own time, to programs involving certified exercise leadership, company time, and complete facilities. Bonnie Bell provides shower facilities for employees when they take advantage of the available tennis courts or jogging track with exercise stations on site (Berry, 1981). General Foods, on the other hand, provides a fully equipped gymnasium staffed with professional trainers (*Newsweek, 1984*).

Many research studies of fitness programs at the worksite are being done to determine changes in biochemical and circulatory functions that may reduce cardiovascular disease. The common methodology is the use of employee volunteers, who are given individualized prescriptions for aerobic exercise level and the suggestion to exercise for 20 to 30 minutes at least three times per week (Brown, 1981; Herzlinger & Calkins, 1986; Pate & Blair, 1983). The major physiological changes related directly to frequency of exercising are a decrease in resting heart rate (lower workload on heart), decrease in body weight, improved flexibility, increased maximum oxygen uptake, decrease in blood pressure, and
decreased total triglycerides and cholesterol level (Pauley, et al., 1982; Rhodes & Dunwoody, 1980; Shephard & Cox, 1982; and Shephard, Youldon, & West, 1980). Through self-report and supervisor evaluations, the attitudinal and work performance changes included improved self-concept, greater physical working capacity, less absenteeism, positive job attitude, and a positive perceived health status (Pauley et al. 1982; Rhodes & Dunwoody, 1980; Shephard & Cox, 1982; and Shephard, Youldon & Cox 1980). Shephard, Corey, and Cox (1982) have also reported a decrease in other risk factors, particularly cigarette smoking and alcohol consumption, in individuals participating in an employee fitness program.

Haskell and Blair (1980) and Pate and Blair (1983) have outlined the components of an employee fitness program believed to be important factors in a successful program. The single most important determinant of success is knowledgeable leadership, and the most important facility a company can provide is a shower and changing room. During program promotion, small group discussions were more successful in recruiting participants than were large group lectures. The program itself should be voluntary in nature, be convenient, make use of evaluative measures for both employee progress and program standards, have a variety of activities, give recognition based on participation, encourage social support from peers and family, and, if at all possible, have a shared approach concerning employee personal or work time for the exercise sessions. The specific exercise program should be designed to meet the characteristics of a particular industrial setting.

Hypertension. Worksite hypertension control programs basically fall into one of two categories; screening at the worksite and referral to community resources; or screening and treatment at the worksite. In both
cases, a systematic follow up procedure has been a valuable component of
the program since as many as half of the hypertension patients who begin
treatment do not remain under care or adhere adequately to therapeutic
recommendations (Alderman, Green, and Flynn, 1980).

The Massachusetts Mutual Life Insurance Company offered a
company-wide program of education and on-site screening, referral to
community physicians, and a company-based follow-up system and the com-
pany assumption of all patient costs. Seventy-nine percent of those de-
tected with hypertension fully adhered to the program performance criter-
ia, and this group achieved the greatest lowering of blood pressure and
compiled the best work attendance record (Alderman & Melcher, 1983).

Southern Bell-Georgia has a similar program, they, however, use
personal counselling sessions with a company nurse to educate the em-
ployee on hypertension. Irons and Marx (1984) report a 79% compliance
rate for this program, and attribute the high level of support to the per-
sonal contact with each employee. In a comparison of community and oc-
cupationally provided antihypertensive care, Logan, et al. (1982) describe
greater employee satisfaction and adherence to the worksite treatment. In
addition, the percent of patients at or below their goal blood pressure was
significantly greater than those patients in community-based care.

One of the success factors for worksite hypertension programs is
a systematic and diligent follow-up of patients and of physicians if treat-
ment is referred outside the company (Alderman, Green, & Flynn, 1980).
Several studies have pointed out the strong incentive provided when coin-
surance and deductibles are waived, resulting in no direct cost to the pa-
tient (Alderman, Green & Flynn, 1980; Alderman & Melcher, 1981; Alder-
man & Melcher, 1983). In reviewing 11 studies on improving compliance,
Alderman, Green and Flynn (1980) concluded compliance is greater when the contact time with the health care provider allows for discussion, there are regular and appropriately spaced contacts at the worksite, the patient actively participates in treatment, a significant other person becomes involved for social support, and patients have the opportunity to monitor their blood pressure and keep records of changes. Bertera and Cuthie (1984) also suggest the use of automated blood pressure devices at the worksite for employees to self-monitor their blood pressure. They found that employees self monitoring blood pressure at work, at least once a week, showed significant improvement in lifestyle behaviors related to smoking, dieting, exercise, and salt intake. Although hypertension is one area where a company can invest modestly, yet potentially benefit greatly through preventing future medical care costs, only 10.1 percent of 424 California employees offered high blood pressure detection and follow-up programs (Fielding & Breslow, 1983a).

Nutrition and Weight Control. Worksite weight control programs are often part of a nutrition education program (Foreyt, Scott & Gotto, 1980; Seidel, 1983). Weight control and diet are interrelated and their significance to health is emphasized by Seidel (1983) and Farnon (1981) who note than an imprudent diet is a risk factor in 6 of the 10 leading causes of sickness and death in the United States. The Food and Nutrition Board of the National Academy of Sciences recommended that persons at risk for heart disease should follow a diet aimed at maintaining ideal body weight and lowering plasma cholesterol (Foreyt, Scott, & Gotto, 1980). Some programs at the worksite use consumer education at the point of sale of foods. Boeing Company features high fiber, low fat foods identified with tags in the company cafeteria, and promotes these foods by a
nutrition education campaign through the company media (Farnon, 1981). The National Institutes for Health (NIH) developed the “Food for Thought” game to influence food selection at the NIH worksite cafeteria (Zifferblatt, Wilbur, & Pinsky, 1980). The game involves employees collecting playing cards designed with humorous pictures and messages that impart nutritional information, and can be exchanged for prizes upon collection of predetermined card combinations. Zifferblatt, et al. (1980) reported a significant change in food sales as a result of the NIH program, with employees overall purchasing more skim milk, less desserts and a lower number of calories per day per person. In the Ford Motor Company, the Kimberly-Clark Corporation, and the Campbell Soup Company, employees are first screened for obesity, blood pressure, elevated cholesterol, and serum lipids, then encouraged to participate in risk intervention groups or individual counseling on site (Foreyt, et al., 1980). Other worksite program methods include computer programs to generate interest and awareness in individual diet, monetary contracts for weight loss, or community weight loss programs conducting their classes on site (Foreyt, et al., 1980). An educationally based program incorporating the concepts of competition and self-responsibility was implemented at Lockheed Missiles and Space Company (Seidman, Seveleus & Ewald, 1984). Seidman et al. (1984) reported 70% full participation of initial participants. The program included nutrition information distributed through posters, pamphlets, and newsletter articles, a weight loss contest between company departments, and a nutrition fair using volunteer health-related community organizations. The program was economical and 90% of the full participants lost weight.
A randomized controlled trial of a nonpharmacologic cholesterol reduction program at New York Telephone Company resulted in significant decreases in serum cholesterol levels and body weight and an increase in nutrition knowledge (Bruno et al., 1983). The program approach was based on various environmental and self-management techniques.

After reviewing worksite weight control and nutrition education programs, Foreyt et al (1980) concluded that behavior modification techniques were superior to other treatment modalities. The behavior modification techniques for diet and weight control are self-monitoring, record keeping, contingency contracting, self-reinforcement, stimulus control, slowing the act of eating, and physical activity (Bruno, et al., 1983; Foreyt, et al., 1980). Some other suggestions for corporate policies have been nutritional alternatives available in the cafeteria and vending machines (Farnon, 1981), minimal requirements for employee participation (Zifferblatt, et al., 1980), and a company atmosphere conducive to weight control (Farnon, 1981; Seidman et al., 1984).

Smoking. Smoking has been labeled the largest single preventable cause of illness and premature death in the United States (Danaher, 1980; Herzlinger & Calkins, 1986; Walsh, 1984). More and more companies are looking at smoking cessation programs at the worksite as a way to bring down excess costs associated with health insurance and absenteeism (Danaher, 1980; Herzlinger & Calkins, 1986). Dow Chemical used a reward smoking cessation program in which lotteries and financial awards motivated 25% of the targeted population to quit smoking (Berry, 1981). Other companies have used weekly bonuses for abstinence (Berry, 1981), physician counselling or the use of consultants (Danaher, 1980), distribution of "how to quit" materials (Kent & Cenci, 1982), and corporate no smok-
ing policies (Walsh, 1984), although the objective for the latter was usually cited as avoidance of possible danger to products and equipment, rather than the protection of workers' health. Walsh (1984) reports the findings of a Bureau of National Affairs survey of 313 companies in which 14% sponsored programs to help employees quit smoking. The business firms were more likely to be large (more than 1,000 employees) than small, and a greater percent of nonmanufacturing firms had programs than did manufacturing firms.

Through a consensus of the current research, a 30 percent abstinence level has been established as a general measure of efficacy of specific smoking cessation programs (Danaher, 1980). Danaher describes the various trends in worksite smoking cessation programs. The aversive smoking method (mainly rapid smoking procedures) combined with self-management strategies have ranked above the 30 percent level in effectiveness. Self control approaches, whether in self-help manuals, video taped programs, or group clinic sessions, include situational controls, positive reinforcement or punishment for smoking (i.e. forfeiture of a financial deposit), and contingency contracting. Physician counselling has been most effective when associated with employees who have recently experienced a myocardial infarction. Commercial programs, such as SmokEnders, which uses gradual smoking reduction, report high success rates but are reluctant to permit careful, outside evaluation of their effectiveness. A number of nonprofit organizations, the most widely known being the American Cancer Society, also participate in smoking control programs. Danaher (1980) concludes that worksite programs should offer a range of smoking cessation methods and are more effective in the long term when maintenance meetings are available. If these meetings are open to all ex-
smokers, no matter where or how they achieved cessation, a greater percent of the workforce will continue their smoking abstinence. Danaher also suggests that the multi-target approach, where smoking cessation becomes just one component in a comprehensive worksite health promotion program, assists in recruitment of smoking employees and has the greater potential for employees to acquire a repertoire of non-smoking substitute behaviors.

Substance Abuse. Substance abuse programs (drug abuse/alcohol abuse) provided by employers usually consist of detoxification followed by long-term management (Herzlinger & Calkins, 1986). The reason industry is taking an interest in this as part of their worksite health promotion programs is summed up by Dr. R. J. Hilker, medical director for Illinois Bell, who writes, "If industry takes the position that rehabilitation is not its responsibility, and these employees are simply dismissed, then inefficient, impaired persons will continue to be taken into employment, trained, disciplined and dismissed. The company, meantime, will suffer from absenteeism, inferior service or productivity, management frustration, poor morale and increased insurance costs" (Dupont & Basen, 1980).

Treatment for behavioral disorders may be more effective when implemented at the worksite than within the medical community (Marcotte & Price, 1983). Marcotte & Price summarized that this may be true due to the surveillance component; with early detection and intervention, the illness may be prevented from thoroughly disabling the employee. As a result of drug or alcohol abuse, employee job performance diminishes and there are reported increases in industrial accidents and absenteeism (Herzlinger & Calkins, 1986; Marcotte & Price, 1983). In addition, psychological impairment can result in poor decision making, reduced output,
mistakes, and increased workload for other workers (Dupont & Basen, 1980).

Worksite substance abuse programs are generally covered by these several approaches: written policy only; consultation only; referral to an outside treatment clinic (inpatient and/or outpatient); or internally staffed treatment programs. Most programs are part of an employee benefit package or under a broader program, usually referred to as an employee assistance program (Dupont & Basen, 1980). An essential component of all these approaches is called "constructive confrontation", where supervisors present the facts to the employee emphasizing impaired job performance, then go on to explain available options to the employee. In a literature review, Dupont and Basen (1980) report rehabilitation rates from 50 to 70 percent and outline the characteristics that enhance program efficacy: written policy; clear procedures; endorsement by top management and union executives; a joint union-management committee; education programs for management and supervisors, union executives and stewards, and employees and families; effective communication at all levels; an active, committed coordinator; informal and/or formal counselors; active involvement in Alcoholics Anonymous (for alcohol abuse); backup residential treatment service; good liaison with community services; and periodic assessment and updating of the program.

Stress. Stress management programs at the worksite look at both health and work variables. Schwartz (1980) maintains a balance must be reached between the requirements of the work setting and the worker's capacity to meet those requirements. Worksite stress management programs should result in minimizing sources of stress in the work environment as well as developing better means of coping with the work envi-
Stress management techniques include relaxation, meditation, biofeedback, problem solving, time management, assertiveness training, and other psychological self-control procedures (Manusco, 1983; Marcotte & Price, 1983; Murphy, 1984; Reed, 1984; Schwartz, 1980). Although not documented as yet, companies assume programs will benefit the employer and employee through decreased health care costs, absenteeism and personnel turnover, and increased productivity and employee morale (Marcotte & Price, 1983).

There have been studies on the incidence of stress-related illness according to occupation. In explaining the greater incidence of illness in line workers vs. managers, where the work of managers is believed to be more stressful, Reed (1984) concludes that perhaps the process of hiring managers helps select those individuals who are able to cope more effectively with stress. However, Hoiberg (1982) found differences in health risks among occupations and career phases in career Navy men. Hospital corpsmen and those assigned to culinary work had the highest stress-related illness incidence for all occupational groups. The highest hospitalization rates for stress-related diseases were during the third decade of a career for any group. The results supported the influence on health of occupational factors such as workload, responsibility for others, participation, and occupational status.

Studies at the worksite have shown significant changes when a combination of stress management techniques were conducted. Murphy (1984) assessed the efficacy of a work-based stress management training program using biofeedback and muscle relaxation with highway maintenance workers. The durability of physiological effects over time remained questionable, but all groups showed significant improvement on measures...
of anxiety, somatic complaints, sleep behavior, job satisfaction, and alcohol use. The Equitable Life Assurance Society used an individualized stress management training program incorporating muscle relaxation, breathing exercises, imagery techniques, and biofeedback (Manusco, 1983). Manusco (1983) reported the program as cost-effective and emphasized that employees with existing stress-related disorders should be given more intensive, individualized programs, whereas employees believed to be at risk, could benefit as much from group-administered programs. Stress management programs can also produce beneficial spinoffs, such as reducing drug usage, improving diet, and promoting exercise (Schwartz, 1980).

Employers are interested in employee stress reduction since the law classifies the relationship between workplace stress and illness using such terms as proximate cause, producing cause, contributing cause, or a preponderance of evidence (Ivancevich, Matteson, & Richards, 1985). Companies must commit themselves to change before collecting information about employee workplace stress and related health problems or they may be dangerously liable. This is one reason for the dramatic increase in the number and scope of company-sponsored employee assistance programs in the last several years.

Employee Assistance Programs

Employee assistance programs are created in order to aid employees in dealing with personal problems that interfere with job performance. In a historical review, Fuchs and Richards (1985) outlined the evolution of these programs from primarily treatment oriented mental health services to broader more preventive counselling and referral programs. With the greater acceptance of stress as a documented risk factor in physical and
mental illness, employee assistance programs have expanded to include: life crisis counselling, which covers financial, marital, legal or family problems; pre-retirement counselling to help employees with the social, economic, and mental transitions form worker to retiree; worksite stress intervention activities; and, often, the worksite substance abuse services are included under the employee assistance program. The companies design their employee assistance program in one or a combination of three ways. They may refer employees to community resources for counselling and/or treatment, offer company-sponsored off-site services, or provide on-site counselling (Behrens, 1983). For a highly successful program, employees must be assured of their confidentiality, and the program should be open to the family (Berry, 1981). Berry calculates up to a 6-1 return on dollars invested for various employee assistance programs in American companies.

Health Screening

Traditional physical examinations were previously the extent of screening activities for a company, however, recent trends have focused efforts on employee fitness testing and health risk appraisals (Fuchs & Richards, 1985; Herzlinger & Calkins, 1986). Multiphasic screening procedures vary depending on the characteristics of company employees, and perceived cost-benefits. Fuchs and Richards (1985) report those companies offering comprehensive health assessments are large corporations where comprehensive worksite health promotion programs are provided. There is some question as to the cost-effectiveness of expensive screening procedures for cancers such as colorectal cancer, due to the lack of data existing on the extent of cancer that worksite programs detect for the
first time. Herzlinger and Calkins (1986) do not strongly recommend worksite cancer screening programs, speculating that these may be merely supplanting screening the employees would otherwise arrange themselves. However, Thomas (1980) emphasizes the excessive medical costs to the company for a typical, late discovered cancer in a single industrial worker proving fatal versus the differential when found early and cured. Cannon Mills Company screened 11,000 of its 16,000 employees over an 18-month period and discovered 1,600 hypertensives, 80 diabetics and 21 with cancer (Berry, 1981).

A health hazard or health risk appraisal describes the probability of a person becoming ill or dying from particular diseases. Goetz, Duff, and Bernstein (1980) specify the fundamentals of risk appraisals as identifying the variables known to influence individual risk, quantifying their effect and interaction, and constructing algorithms to estimate risk. There are two hypotheses concerning the use of health risk appraisals:

1. Given a particular disease with a known incidence and for which there are identified risk indicators, a change in the prevalence of these risk indicators in the population will result in a change in the incidence of the disease;

2. Giving people information about their own risk will lead to actions perceived as, and directed at, reducing risk.

Summary of Current Programs

In this section on current worksite health promotion programs, a spectrum of programs has been described. There are companies with in-house comprehensive programs run by a professional staff as in the Johnson and Johnson Company and there are companies using all community re-
sources coordinated by a company employee, such as IBM. The medical department of Campbell Soup Company is responsible for their program implementation, whereas Kimberly-Clark has an expansive facility and staff localized in their fitness center. Though the strategies differ, there appears to be some common themes in worksite health promotion programs. The programs emphasize that they are volunteer and confidential in nature. The employees are introduced in advance to the program goals through orientation meetings or the company media. Screening and health appraisals end with personal "exit" interviews before risk reduction activities begin. The different activity options place the greatest emphasis on behavior change, with attention to maintenance considerations, thus promoting permanent lifestyle changes. In a study of San Antonio companies, results showed larger firms by number of employees were more likely to have worksite health promotion programs, and these were far more likely to be engaged in service-producing or finance-related work than manufacturing or trade types of work (McGill, Hubbard, & Shoffner, 1984).

Fielding and Breslow (1983b) surveyed 424 California employers in order to determine the nature and extent of existing and planned health promotion activities. Some surprising results were less than one-fifth of the companies had programs in substance abuse, just over 10% had exercise/fitness programs, and despite the major national effort to use the workplace as a prime site for high blood pressure detection and follow-up activities, only about 10 percent of the companies currently provided this option. The specific reasons cited for not having any current programs were "too costly," "no need/employees healthy," "too difficult to implement," and "high employee turnover." Encouraging data were the acceleration of growth in new programs in recent years, virtually all employers planned to
continue what programs now existed, and 217 new health promotion activities were projected.

Cost-Effectiveness of Worksite Health Promotion Programs

In the area of worksite health promotion programs, there is a paucity of data concerning cost-effectiveness. There are no means of producing immediate results or easily measured data with disease prevention and health promotion. Companies can show significant changes in behavior and risk factors, but actual savings depend on decreased morbidity and mortality (Marcotte & Price, 1983). Many companies feel it is not worth the considerable cost to do a careful evaluation, or they feel they lack the appropriate internal resources to carry it out (Fielding and Breslow, 1983b). The business world may have the expertise to quantify, monitor, tally, and evaluate changes following programs, however the cost associated with "proving" long-term economic benefits is quite sizable (Brennan, 1982a). It becomes more complex because of the many unrelated and unmeasurable factors that affect variables, such as health insurance premiums, absenteeism, turnover, and productivity. Thus, Haskell and Blair (1980) found there was little objective data available to judge existing programs. For example, less than one percent of companies with smoking cessation programs calculate their current financial costs as a result of smoking, and only 14.5% conducted an evaluation of the effectiveness of their smoking cessation program (Kent and Cenci, 1982). Wright (1982) concludes that it would be optimum to have some objective measurement of the cost containment effectiveness of each health promotion program, but they have not been able to devise such a system. Alterna-
tively, each program is assessed through perceived value by employees, program managers, and senior management. Data show positive improvements in employee self-image, job satisfaction, company loyalty, morale, and productivity.

Although bottom-line, long-range results have not been conclusively shown, studies are beginning to show convincing figures with some critical factors such as absenteeism, productivity, disability claims, and medical utilization patterns (Brennan, 1982a). Kimberly-Clark reported 70% fewer accidents and 43% less absenteeism than before their worksite health promotion program, at a cost of $150 per employee per year (Ardell & Dedman, 1981). Shephard, Corey, Renzland, and Cox (1982) report an average of $84.50 per employee per year savings on health care dollars (hospital days, medical claims) after implementation of a fitness and lifestyle modification program at the worksite. Many analyses in the literature estimate the return on investment, when taking into account certain indicators of a successful program. For example, Gelb (1985) reported a 2:1 return on the dollar, due to less absenteeism; Duff (1984) shows a 3.63:1 return from fewer and smaller averaged health claims. Kristein (1982), a health care economist, has claimed there is no clear-cut example of a company saving money in any category of direct spending (insurance, medical care). However, he believes the evidence to be highly suggestive of productivity and absenteeism as areas of improvement associated with worksite health promotion programs. He outlines the economic costs and savings for smoking cessation and hypertension programs, concluding that these will provide large dividends to the company and to society as well.

In reviewing the evidence, Fielding (1982) recommends hypertension control programs and smoking cessation programs as cost-beneficial but
states that the conclusions in corporate exercise/fitness and weight management programs are speculative, due to problems of study design and assumptions. However, several recent experimental studies point to exercise/fitness as very cost-beneficial. A decrease of 45.7% in major medical costs, 20.1% in average number of disability days, and 31.7% in direct disability dollar costs resulted in the one-year post-entry period of an industrial fitness program, supplemented with seminars on other risk factors (Browne, et al, 1984). The annual operational cost was an average of $120.60, while the average combined savings was $353.38 per participant. Other employee fitness programs benefited companies through decreased turnover and absenteeism, and increased productivity and worker satisfaction (Cox, Shephard, & Corey, 1981; Shephard, 1983).

Another common method of analyzing the cost-effectiveness of worksite health promotion programs is the estimation of expected illness (incidence and cost), actual illness, and prevented illness (saved). The cost savings from the prevented illness are potentially much greater than program costs for smoking cessation (Walsh, 1984), hypertension (Alderman & Melcher, 1983), colorectal cancer (Berry, 1981), and other risk factors (LeRoux, 1981). Long-term studies at the worksite have shown lower mortality and morbidity from coronary heart disease (Kornitzer, et al, 1983), and significant cardiovascular disease risk reduction (Stone, 1983).

In a survey of companies, only 21% offered health promotion programs because management saw them as ways of saving money, whereas 45% offered programs because they believed they would improve employee morale (Herzlinger & Calkins, 1986). Wilbur (1983), however, stresses the importance of health promotion as an integral part of a strategy to
help contain medical and other operating costs. He purports that worksite health promotion programs should be managed on an empirical basis, just as are other business efforts, in order to ensure better program control and decision making. The difficulty is in assigning monetary values to the desired outcomes of health, for instance the prevention of disease, disability and premature death (Ossler, 1984). Berry (1981) suggests that figures be developed that are as company specific as possible, dealing with lost wages or salary, absenteeism, cost of treatment of a preventable condition, cost of accidents on or off the job, and disability pay costs. Attempts should also be continued in obtaining the more difficult figures, including: full productivity value (people rarely work at peak potential); reduced productivity cost (ways to measure productivity); value of life saved; value of attitude change to productivity; cost of diseases related to lifestyle (heart attack, smoking, etc.); the number of days saved through lowering of risk factors; and the cost saving from early detection of diseases such as cancer. Berry summarizes that most experts believe health promotion programs will save money, but the primary value lies in the enhancement of employee health and well-being "which must increase productivity."

For companies planning to evaluate the efficacy of their health promotion program, Chenoweth (1983) describes the employee health indicators and corporate health indicators that should be studied simultaneously, and the sources of internal and external invalidity. Ossler (1984) recommends that programs be evaluated just as critically as all other company expenditures, and reviews the methods for conducting cost-benefits and cost-effectiveness analyses. The steps include identifying the problem, specifying the goals and objectives, determining alternative means of attaining
those goals and objectives, enumerating the costs and benefits or effects for each alternative, assigning monetary values to the costs and benefits or designating units of effectiveness, performing discounting, calculating the cost-benefit or cost-effectiveness ratio, and comparing these ratios using a design matrix to be used in the decision-making process.

Program Design Components

Marketing

Worksite health promotion programs will not succeed unless those capable of conducting them are able to "sell" them. In order to do this, business must be convinced and motivated through the use of business terms and values (Jennings & Tager, 1981). In order to survive in a competitive environment, a systematic and aggressive marketing campaign should be utilized. Golaszewski & Prabhaker (1984) define the marketing procedure as an orderly approach of producing, promoting, and selling a service or product to satisfy consumer needs in the most efficient and cost-effective manner. Fogel and Oleckno (1983) developed eleven guidelines for marketing health promotion as a "product" to industry. The product needs to be described in explicit and concise terms, along with its potential applications to industry. The marketing strategy should meet the needs of the people who make the decisions for the corporation, as well as the direct users. The prospective purchasers must be told why they need the product in business terminology. Alternative products should be compared while pointing out the advantages of the product being marketed. Short and long-term benefits are best stated in terms of the positive results from similar worksite programs. Any risks, such as up-front costs, or concerns of future escalating costs must be addressed. Program
incentives to attract participation should be described. The cost of the product in full or in part should be outlined in relation to the ability of the company to pay. The presentation of the product should be at an opportune time—not during job layoffs, for instance. An efficient use of existing resources should be shown and, finally, those participating in the marketing presentation need to be knowledgeable of business demands and pressures, be practical and efficient, and avoid appearing overly idealistic or philosophical.

**Planning**

The planning phase in program design is the time for working out the details for space allocation, scheduling of time for programs and personnel, developing intervention classes and materials or contracting with an outside provider, training of staff, a needs assessment of the employee population, educating and recruiting participants, and the most commonly cited item, acquiring the support and financial commitment (a budget) from top management (Duff, 1984; Grove, Reed, & Miller, 1979; Le Roux, 1981; Nast & McDonald, 1981; Reinertsen, 1983). This is also the time to plan adequate monitoring of the quality and performance of programs, and an evaluation system for long-term program effectiveness specifying what variables will be tracked and analyzed (Chenoweth, 1984; Duff, 1984; Herzlinger and Calkins, 1986; LeRoux, 1981; McEwin, 1980; Wilber, 1983).

In choosing what health promotion activities will be included, program objectives and goals should first be delineated (Herzlinger & Calkins, 1986; Nast & McDonald, 1981). Existing company data, such as health insurance claims, safety records, workers' compensation records, and medical department records, may point out some preventable conditions
or risk factors (Behrens, 1983). Current research on health promotion or other company programs may suggest the most up-to-date and cost-effective methods (Duff, 1984; LeRoux, 1981; McEwen, 1980; Nast & McDonald, 1981). The chances for a successful worksite health promotion program are increased when the scope is broad enough to offer something to everyone and awareness is kept alive with regular publicity and program options (Duff, 1984; McEwen, 1980; Marcotte & Price, 1983; Reinertsen, 1983; Wilber, 1983).

Current company activities should be reviewed, untapped resources such as people or materials should be investigated, and community resources can be examined. These options need to be fully explored before the final program proposal is developed (Herzlinger & Calkins, 1986; LeRoux, 1981; Nast & McDonald, 1981). A beneficial community resource is often an HMO or a hospital for establishing joint health promotion programs. This often solves problems with space limitations, counselling services availability, and budgets (Cantu, 1982; Carlaw & DiAngelis, 1982; Novelli & Ziska, 1982). Merwin and Northrop (1982) caution program planners to be suspicious of any outside providers claiming great success with little or no cost, and they stress the importance of having the patience for thorough planning before implementation and allowing sufficient time for results.

**Implementation**

The specifics of worksite health promotion program implementation vary greatly across companies, which differ in size and geographical scope (McDonagh, 1984). Some common examples of successful implementation show programs commencing with health assessment activities which end
with an interview or counselling session with a health care staff member, then various health enhancement/risk reduction activities, based on a lifestyle change methodology (Chenoweth, 1984; Duff, 1984; Grove, Reed, & Miller, 1979). The programs are augmented in different ways such as top-level executive written or verbal endorsement, or non-monetary incentives such as T-shirts. The activities may be workshops or seminars, but in whatever form they are in, the emphasis is on simple, progressively challenging material in a range of topics which are offered on a regular basis (Chenoweth, 1984; Duff, 1984; Wilber, 1983). When programs are first initiated, Brennan (1983) suggests beginning with a few selected topics for the particular company. For smaller company programs, Brennan advocates restricting participants to a target population and the use of other department talents to support the health promotion program. This will make program implementation more feasible for small-scale companies.

Communication with all employee levels by involving volunteer employees in the operation of the program simplifies the implementation process (Behrens, 1983; Herzlinger & Calkins, 1986; Nast and McDonald, 1981; Reinertsen, 1983). Dean (1981) diagramed a model for program organization using extensive employee volunteers. This model proved to be very effective for Kaiser-Permanente Medical Center. Employees are involved in planning stage committees, but also in the day-to-day implementation of the program. The health promotion networks at each of the 18 facilities are made up of highly committed employees who tailor the proposed events, activities, and materials to fit their facility needs. They also organize and schedule events, encourage participation, and provide
feedback to the program staff. This model saved money and promoted active employee involvement.

Other factors influencing smooth implementation are allowing families to be eligible for program activities (LeRoux, 1981; Reinertsen, 1983), a healthy supportive corporate environment (Behrens, 1983; Brennan, 1983; Herzlinger & Calkins, 1986), and implementation of the program actually on-site rather than off-site (Ruchlin, et al, 1984). Some considerations for aid in the implementation phase are a collaborative relationship with a local university (Taub, 1983), assistance from a health insurance company (Roccella, 1982), or the seemingly obvious use of the occupational health nurse (Brailey, 1980).

Promotion

A "critical mass" of employees, approximately one-third, must believe in the program benefits for it to be a success (Reinertsen, 1983). If the program cannot attract an adequate number of participants, than success is unlikely (Golaszewski and Prabhaker, 1984); the program should be altered to reflect employee need, and advertising (poster/pamphlets) should promote program quality, attributes and the relationship to employee needs. Other publicity/promotion activities are audiovisual presentations, a library of health-related books to promote awareness, and a weekly fitness column written in the company newsletter or paper (Nast & Marcos, 1979). Shahoda (1983) advocates the use of monthly health promotion brochures in paychecks. The eligibility of employee families, and retirees and their families has shown positive effects on recruitment and retention (Senn, Michaelson, and Marks, 1983). It was concluded that family participation benefits participants and facilitates program implementation, pro-
motion, and maintenance. An innovative promotion technique is seen in the use of a health carnival to attract and involve employees and their families in the worksite health promotion program (Wear, Hawley, & James, 1980).

**Maintenance**

Large variations in employee compliance rates have been reported at the worksite (Feldman, 1983). A company may use "boosters" to increase maintenance levels, for example acknowledgment of individual accomplishments by management, entering a corporate-wide competition with other plants, or establishing an incentive program for participation (Chenoweth, 1984). Feldman (1983) lists the methods for improving compliance with worksite health promotion programs. The optimum program setting is at the worksite, on company time, and having a convenient schedule with little waiting time. Health care facilitates compliance if it includes warm and caring providers, continuity of care, increased number of contacts, increased contact time, and strict confidentiality. Psychosocial factors promoting maintenance are adequate social support, and health education communications tailored to particular audiences. Psychological and behavioral techniques used to initiate and maintain compliance are self-monitoring, self-contracting, contracting with a significant other, material reinforcement, social reinforcement, graduated regimen, and tailoring. Behrens (1983) suggests that program visibility, enthusiastic and qualified leadership, a healthy corporate environment as the "Norm", regular follow-up procedures, and participation by key managers also increase maintenance.
Data Base

Employee health management in companies with health promotion programs can be more complete and operate with maximum efficiency if a computerized health data base management system is developed. Collings (1982) maintains that the ideal worksite health promotion program identifies target subpopulations with precision, provides interventions selectively to those populations based on anticipated yield, modifies and tailors interventions to the individual, and manages the program with the utmost efficiency. However, this cannot be done without sophisticated information processing capabilities. An extensive computerized health information system and its software programs have been described in the literature (Soto, et al, 1983). The system integrates personnel, medical and industrial hygiene/toxicology information into one data base. It includes individual health information, including a medical history summary, physical findings and X-ray interpretation, highlighted and normal test findings, computer interpretations, and a final one-page summary of problem and health-risk information. The most powerful feature is the capability of searching and finding trends in the data base. The system improves program delivery, data management, and provides data analysis capabilities. Goldberg, et al. (1982) note that data base systems need to be designed in terms of the company, and its methods for handling health problems.

Evaluation

The primary reason many worksite health promotion programs have not been evaluated is because of the complexity, and the requirement for a substantial, long-term commitment of corporate resources (Chen, 1984). The reasons for this and problems associated with cost-effectiveness
analyses have been examined in an earlier section on cost-effectiveness of worksite health promotion programs. Some employer considerations associated with evaluations will follow.

Data on participation levels and participant results are important for future decisions on allocation of funds (Brennan, 1983). Data should first be collected prior to participation in or implementation of programs (Reinertsen, 1983). Program leaders, especially outside vendors, should be carefully monitored for acceptance, attendance rates, and changes achieved in behavior and health care costs (Herzlinger & Calkins, 1986). Absenteeism, turnover, and measures of productivity should be tracked, and although difficult to quantify, employee self-image, job satisfaction, morale, and the enhancement of the company's internal and external image should be considered (McDonagh, 1984). Companies should know their health insurance claims experience, both cost and diagnoses, whether self-insured, or coverage purchased through health insurance companies (Brailey, 1980).

When attempting cost-effectiveness analyses, decisions need to be made about what costs to include or exclude, such as fixed costs (space, overhead), start-up costs, evaluation costs, and the cost of the program director's time, and services rendered by other departments (Brennan, 1983). Brennan suggests comparing program costs and outcomes to published "norms" of success rates and costs for specific topical programs. These provide established standards with which to judge programs. To undertake a true experimental study, the company needs to initiate a prospective study, collect data on participants and non-participants, and determine the specificity of program effects (Chen, 1984). Studies to date have most frequently been lacking in objective data due to inadequate controls (Marcotte & Price, 1983).
Summary

In summary, the idea behind worksite health promotion programs is to prevent avoidable disease and promote health and well-being of employees. The worksite is an ideal setting for these activities because the characteristics of worksites and employee populations are more conducive to success than are community programs. The incentives for companies to implement worksite health promotion programs are potential decreases in absenteeism, turnover, accidents, and benefit claims, and potential increases in employee morale, productivity and recruitment.

The scope of worksite health promotion programs range from single health screenings with no follow-up to comprehensive programs with long-term objectives. Eight comprehensive company programs were reviewed and showed markedly different approaches to health promotion. The methods ranged from simple distribution of educational materials and individual counselling following multiphasic health screening to well-funded, on-site seminars and treatment groups in elaborate facilities. Single topic risk-reduction programs at the worksite were reviewed and the most successful methodologies by topic were outlined covering exercise/fitness, hypertension, nutrition and weight control, smoking cessation, substance abuse, and stress management. Employee assistance programs, which cover a variety of personal problems through counselling and referral services were discussed as they pertain to worksite health promotion programs. Health screening activities may include tests for any or all of the following: diabetes; glaucoma; hearing; cancer of the breast, cervix, colon, and rectum; blood pressure; height; weight; cholesterol and trigly-
cerides; pulmonary function; flexibility; endurance; body fat; and health risk behaviors (Behrens, 1983; Herzlinger & Calkins, 1986). The decisions for inclusion of health screening procedures were discussed, and two hypotheses were given concerning the use of health risk appraisals. Previous surveys have found the large, service-producing or finance-related companies to be more likely to currently have worksite health promotion programs, and data has shown the greatest acceleration in growth of new programs has been in recent years.

Cost-effectiveness data is lacking on worksite health promotion programs. Bottom-line cost savings have not been conclusively shown due to problems in study design and difficulties in quantifying effects. However, the evidence is highly suggestive that higher productivity and lower absenteeism and accidents contribute substantially to greater returns on investment and to savings on health care-related dollars. The steps to consider in designing a worksite health promotion program are marketing, planning, implementation, promotion, maintenance, a data base system, and program evaluation. In the workplace, comprehensive health promotion programs will be more successful if run as a business, evaluated as a business, and described in business terms.
CHAPTER III

METHODS AND PROCEDURES

Research Design

The case study method, utilizing semi-structured personal interviews, was the design chosen for this research. It was the method most conducive to achieving the following four objectives. The first objective was to specify program elements to be used in the undertaking of future quantitative evaluations of worksite health promotion programs. This included identifying pre-existing conditions and program components which could be used as a basis for developing the quantitative instruments necessary for subsequent controlled intervention studies. Secondly, the interviews were intended to collect data on all aspects of the individual programs and not just those alleged to be important by the researcher. The third objective was to analyze the processes of the separate programs in order to describe such processes as how the program was set in motion, what sets the program apart (e.g., the population, the facilities), and the actual processes of implementation. The goal for this objective was to get a better picture of how the programs really work. The fourth objective was to be able to generate a theory from the available evidence as to the significant components incorporated in successful worksite health promotion programs: the theory to be tested by future research studies.

The semi-structured personal interviews allowed for the fixed-alternative questions from the survey form to be supplemented by open-
ended questions. This had the advantage of combining objectivity and depth. Borg and Gall (1979) endorse this method as it "often permits gathering valuable data that could not successfully be obtained by any other approach." Open-ended questions allow for flexibility, probing, and in-depth inquiry, while fixed-alternative questions have an advantage of being simple and in a form that is uniform and quick to analyze across subjects.

The personal interview was chosen over a mail-out questionnaire in order to ensure that all items would be fully answered and interpreted in the same manner. In addition, the survey form which was used to format the interviews was extensive. It has been documented that filling out long questionnaires brings down morale and affects data (Moser and Kalton, 1972); thus, it was believed the personal interviews could avert this and other frustrations associated with questionnaires by having the researcher available to discuss the questions and record all data, including qualifying remarks and insights from the respondent. All interviews were conducted on a one-to-one basis between the researcher and a corporate representative.

Instrument

The survey form instrument (Appendix A) used as a format for the interviews was developed by Janet A. Fuchs. Approval was obtained for the replication and use of this form for this study. The instrument was developed and validated in three stages (Fuchs, 1982). First, the preliminary form was developed using information gathered from professional and popular writings on instrument development and worksite health promotion programs. Input was also considered from the staff at the National Center for Health Education. Stage two was the review process by an expert
panel of judges, consisting of seven individuals from various disciplines, who had contributed to the field of health promotion and health education in occupational settings. The content of the instrument sections was assessed with respect to appropriateness, clarity, and comprehensiveness of coverage. Over half the panel rated all sections as meeting all three criteria, but some revisions were made based on their comments and suggestions. The third stage was the testing and assessment of the instrument in industrial work settings. Twenty corporations which met two or more stipulated criteria (having to do with program comprehensiveness) completed the process. The final survey form instrument resulted from revisions based on the assessments, marginal comments on the form, "other" responses written in, and the company data collected.

Population

A directory of employers in Portland, Oregon, was obtained from the Employee Health Education and Wellness Task Force of the Greater Business Group on Health (an affiliate of the Portland Chamber of Commerce). Included in this directory were 75 employers that had been identified as having conducted worksite health promotion programs. As the purpose of the study was to obtain information about ongoing worksite health promotion programs, an attempt was made to select companies which had more comprehensive programs. The criteria used for company selection were three or more risk reduction/health enhancement activities and two or more health assessment activities. Forty-three companies met these criteria and were contacted. Thirty-four companies took part in the study. This represents a 79.1% participation rate.
Participation in the study was requested from the representative of the company who was designated as coordinator, director, or responsible for the worksite health promotion program activities. The request was made by means of a phone call during which the following information was given: details of the study; approximate time involved completing the interview; what could be expected in return, i.e., an abstract of the completed study; and the anonymity and confidentiality of the company was assured at this time. Upon agreeing to participate, an appointment time, date, and location were arranged. Of the 43 companies contacted, 34 corporate representatives agreed to participate; 6 representatives declined because they felt, after discussing criteria for subject selection, that their company no longer qualified for inclusion in the study; 1 representative declined due to being in the process of a large-scale reorganization; and 2 representatives declined due to company policy.

Data Collection

Each interview was conducted between the researcher and a corporate representative, using a validated survey form instrument (Appendix A). All interviews took place at the worksite of the representative. Two copies of the instrument were brought to each interview: one for viewing by the representative, one for marking answers and writing notes by the researcher. At the onset of the interview, the purpose of the study was reiterated and initial questions from the representative were answered.

The interviews varied in length, ranging from 45 minutes to 2 hours, with the average interview being approximately 75 minutes. The length of interviews varied depending on several factors: the sites with
more extensive programs tended to result in the representative having more to say; the difference in answering and discussion styles of the representatives; and the number of interruptions. A time limit was needed to be adhered to in only a very few cases.

The 34 interviews were conducted over a 2-month period. Five trips to Portland, Oregon, with a length of 2 or 3 days per trip, averaging 3 appointments per day were necessary to complete the interviews.

Treatment of the Data

The worksite health promotion programs were analyzed as separate case studies. Individual profiles are presented with special attention to company characteristics, such as size (number employed, size of facilities), and type (hospital, manufacturing, service, insurance, construction, etc.). Comparative tables and charts are used to depict visually and to summarize program activities across the sample of companies. Due to the nature of the survey instrument, all data are nominal. Descriptive techniques and non-parametric statistical procedures are used in the analysis to achieve the objectives previously stated under Research Design. Implications for further research are discussed by using this data to generate theory and develop hypotheses to be tested in future studies.
CHAPTER IV

RESULTS AND INTERPRETATIONS

Results of the thirty four case studies are reported according to the first three objectives of this research study. Interpretations are presented to clarify the data and focus on the relevant issues. The fourth objective, to develop a theory, will be addressed in Chapter 5.

Description of the Sample

The major industrial classification of the companies are shown in Figure 1. Over one third of the companies were in the manufacturing classification. The second largest category was hospitals with a total of nine. These two classifications account for over one half of the sample companies.
The companies ranged from a personnel total of thirty five to over sixteen thousand employees. Figure 2 shows the number of companies by total number of employees. Over one third of the companies employed less than one thousand employees, about one third were included in the
1,000 - 2,499 category, and the remaining eight companies employed greater numbers of employees.

![Bar chart](image.png)

**Figure 2. Total Number of Employees in Companies.**

Figure 3 summarizes the worksetting for each worksite health promotion program. Those categorized as corporate headquarters,
branch/division office, or plant location were programs based at one location; nineteen company programs were at one site. Fifteen companies, however, coordinated their program among more than one company site.

Figure 3. Worksite Settings of Health Promotion Programs.

Worksite health promotion programs were divided into health assessment activities and risk reduction/health enhancement activities. The total number of program activities ranged from 5 to 24, with an average of 16.4 activities per company. This included health assessment activities ranging from 2 to 11 per company with an average of 6.0, and risk reduction/health enhancement activities ranging from 3 to 14 with an average of 10.5 per company. The size of the company did not appear to influence the number of activities the company provided.
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<th>Number of Risk Reduction/ Health Enhancement Activities</th>
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<td>23</td>
<td>9</td>
<td>39.1%</td>
</tr>
<tr>
<td>11</td>
<td>13</td>
<td>6</td>
<td>46.2%</td>
</tr>
<tr>
<td>12</td>
<td>15</td>
<td>5</td>
<td>33.3%</td>
</tr>
<tr>
<td>13</td>
<td>14</td>
<td>6</td>
<td>42.9%</td>
</tr>
<tr>
<td>14</td>
<td>13</td>
<td>5</td>
<td>36.5%</td>
</tr>
<tr>
<td>1000-2500 Employees</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>12</td>
<td>4</td>
<td>33.3%</td>
</tr>
<tr>
<td>16</td>
<td>17</td>
<td>6</td>
<td>35.3%</td>
</tr>
<tr>
<td>17</td>
<td>20</td>
<td>7</td>
<td>35.0%</td>
</tr>
<tr>
<td>18</td>
<td>24</td>
<td>11</td>
<td>45.8%</td>
</tr>
<tr>
<td>19</td>
<td>17</td>
<td>6</td>
<td>35.3%</td>
</tr>
<tr>
<td>20</td>
<td>19</td>
<td>7</td>
<td>36.8%</td>
</tr>
<tr>
<td>21</td>
<td>12</td>
<td>4</td>
<td>33.3%</td>
</tr>
<tr>
<td>22</td>
<td>12</td>
<td>2</td>
<td>16.7%</td>
</tr>
<tr>
<td>23</td>
<td>18</td>
<td>7</td>
<td>38.0%</td>
</tr>
<tr>
<td>24</td>
<td>10</td>
<td>2</td>
<td>20.0%</td>
</tr>
<tr>
<td>25</td>
<td>22</td>
<td>8</td>
<td>36.6%</td>
</tr>
<tr>
<td>26</td>
<td>12</td>
<td>3</td>
<td>25.0%</td>
</tr>
<tr>
<td>2500-4999 Employees</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>17</td>
<td>7</td>
<td>41.2%</td>
</tr>
<tr>
<td>28</td>
<td>13</td>
<td>3</td>
<td>23.1%</td>
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<tr>
<td>29</td>
<td>17</td>
<td>8</td>
<td>47.1%</td>
</tr>
<tr>
<td>30</td>
<td>22</td>
<td>9</td>
<td>40.9%</td>
</tr>
<tr>
<td>5000-9999 Employees</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>18</td>
<td>8</td>
<td>44.4%</td>
</tr>
<tr>
<td>32</td>
<td>23</td>
<td>10</td>
<td>43.5%</td>
</tr>
<tr>
<td>10,000-49,999 Employees</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>22</td>
<td>8</td>
<td>36.4%</td>
</tr>
<tr>
<td>34</td>
<td>17</td>
<td>5</td>
<td>29.4%</td>
</tr>
</tbody>
</table>
Objective 1

The first objective was to specify program elements to be used in the undertaking of future quantitative evaluations of worksite health promotion programs. This included identifying pre-existing conditions and program components which could be used as a basis for developing the necessary quantitative instruments and research design.

Program Coordinators and Activities

Program Coordinators were most likely based in the medical or occupational health department which accounted for close to one third of the company programs. In the majority of these cases, the coordinator was a health professional such as an occupational health nurse or physician. The remaining two thirds of the coordinators were divided among ten department titles. However, the department titles overlap somewhat as can be seen in Figure 4. For instance, Employee Benefits were often part of a Personnel Department, and Personnel was combined with another department such as Safety in some companies. One aspect that may warrant further research is any differences between worksite health promotion programs coordinated through medically-oriented personnel versus business-oriented personnel.
The health assessment and risk reduction/health enhancement activities that were included in the worksite health promotion programs across all companies are listed in Table 2 with the number of companies offering each activity. Hypertension screening was the health assessment activity most offered among the thirty four companies with 29 (85.3%) companies
providing a screening program. Health risk appraisals and work hazards identifications were offered by two thirds or more of the companies studied. Most of the risk reduction/health enhancement activities were offered by a majority of the companies. There were some very high frequencies in these categories such as alcohol abuse and smoking cessation programs in all but one of the companies. As this is a descriptive study, nothing can be inferred about the quality of each program in the different companies, however with the table on methods and materials (Table 12) and the individual case studies (Appendix B) there is a clearer picture of the intensity of each activity at each company.
<table>
<thead>
<tr>
<th>Health Assessment Activities</th>
<th>Number of Companies (N=34)</th>
<th>Risk Reduction/Health Enhancement Activities</th>
<th>Number of Companies (N=34)</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Cancer screening</td>
<td>16</td>
<td>a) Alcohol abuse/alcoholism</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>47.1%</td>
<td>b) Drug abuse</td>
<td>97.1%</td>
</tr>
<tr>
<td>b) Diabetes screening</td>
<td>16</td>
<td></td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>47.1%</td>
<td>c) Smoking cessation</td>
<td>91.2%</td>
</tr>
<tr>
<td>c) Physical fitness testing</td>
<td>52.9%</td>
<td>d) Nutrition/diet modification</td>
<td>97.1%</td>
</tr>
<tr>
<td>d) Health risk appraisal</td>
<td>23</td>
<td>e) Weight control</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>67.6%</td>
<td></td>
<td>82.4%</td>
</tr>
<tr>
<td>e) Hypertension screening</td>
<td>29</td>
<td>f) Exercise/fitness</td>
<td>88.2%</td>
</tr>
<tr>
<td></td>
<td>85.3%</td>
<td>g) Mental/emotional problems</td>
<td>82.4%</td>
</tr>
<tr>
<td>f) Periodic physical examination</td>
<td>19</td>
<td>h) Stress management</td>
<td>79.4%</td>
</tr>
<tr>
<td>g) Work hazards identification</td>
<td>24</td>
<td></td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>70.6%</td>
<td>i) Hypertension control</td>
<td>85.3%</td>
</tr>
<tr>
<td>h) Others:</td>
<td></td>
<td>j) Work safety practices</td>
<td>61.8%</td>
</tr>
<tr>
<td>Blood chemical screening</td>
<td>10</td>
<td></td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>29.4%</td>
<td>k) Off-the-job safety practices</td>
<td>82.4%</td>
</tr>
<tr>
<td>Hearing</td>
<td>18</td>
<td></td>
<td>19</td>
</tr>
<tr>
<td>Vision/glaucoma</td>
<td>9</td>
<td></td>
<td>55.9%</td>
</tr>
<tr>
<td>Pulmonary function</td>
<td>10</td>
<td>l) Others:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>26.5%</td>
<td>Healthy back</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cancer</td>
<td>29.4%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.9%</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cancer</td>
<td>58.8%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.9%</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CPR/first aid</td>
<td>67.8%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Diabetes</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.9%</td>
<td>20.6%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Arthritis</td>
<td>2.9%</td>
</tr>
</tbody>
</table>
Reasons for Providing a Health Promotion Program

Corporate representatives were asked to rank order the five most important reasons, in their opinion, the company provided a health promotion program at the worksite. The results can be seen in Table 3. If the representative did not want to rank order the reasons, the top five reasons were chosen and marked with a check mark; five companies are represented in this way.

Three reasons were ranked as "number 1" by over half of the representatives (58.8%) and were: to establish programs for reducing health risks (7 responses); to increase employee morale and productivity/effectiveness (7 responses); and to reduce/contain costs related to health benefits/services (6 responses).

Those reasons that were ranked either 1, 2, 3, 4, 5 or "checked" most frequently (i.e., the most cited reasons in total) were: to reduce health problems of employees and absenteeism/sickdays (29 responses); to reduce/contain costs related to health benefits/services (28 responses); to increase employee morale and productivity/effectiveness (27 responses); to establish programs for reducing health risks (25 responses); and to increase the ability of employees to assume greater responsibility for personal health (25 responses). These five reasons were cited by 73.5% or more of the companies, whereas all other reasons were cited by less than 24.0% of the respondents. The least rated response, of those given on the survey form, was to increase the life span of employees (2 responses).
### TABLE 3. SECTION II -- GENERAL REASONS FOR OFFERING A HEALTH PROMOTION PROGRAM

<table>
<thead>
<tr>
<th>Reasons</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>No Rank</th>
<th>All Rank Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) To establish effective health screening measures</td>
<td>2.9%</td>
<td>0.0%</td>
<td>2.9%</td>
<td>2.9%</td>
<td>8.8%</td>
<td>0.0%</td>
<td>17.6%</td>
</tr>
<tr>
<td>b) To establish a health information system/database</td>
<td>5.9%</td>
<td>2.9%</td>
<td>0.0%</td>
<td>2.9%</td>
<td>5.9%</td>
<td>0.0%</td>
<td>17.6%</td>
</tr>
<tr>
<td>c) To establish programs for reducing health risks</td>
<td>20.6%</td>
<td>11.8%</td>
<td>2.9%</td>
<td>11.8%</td>
<td>17.6%</td>
<td>8.8%</td>
<td>73.5%</td>
</tr>
<tr>
<td>d) To fulfill legal requirements</td>
<td>0.0%</td>
<td>0.0%</td>
<td>2.9%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>8.8%</td>
<td>17.6%</td>
</tr>
<tr>
<td>e) To increase employee morale and productivity/effectiveness</td>
<td>20.6%</td>
<td>11.8%</td>
<td>17.6%</td>
<td>14.7%</td>
<td>5.9%</td>
<td>8.8%</td>
<td>79.4%</td>
</tr>
<tr>
<td>f) To increase the ability of employees to assume greater responsibility for personal health</td>
<td>2.9%</td>
<td>17.6%</td>
<td>20.6%</td>
<td>11.8%</td>
<td>8.8%</td>
<td>11.8%</td>
<td>73.5%</td>
</tr>
<tr>
<td>g) To increase the life span of employees</td>
<td>0.0%</td>
<td>0.0%</td>
<td>2.9%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>5.9%</td>
</tr>
<tr>
<td>h) To meet needs as identified by employees and employee health/medical records</td>
<td>0.0%</td>
<td>5.9%</td>
<td>2.9%</td>
<td>2.9%</td>
<td>2.9%</td>
<td>2.9%</td>
<td>23.5%</td>
</tr>
<tr>
<td>i) To reduce health problems and absenteeism of employees</td>
<td>11.8%</td>
<td>20.6%</td>
<td>14.7%</td>
<td>11.8%</td>
<td>11.8%</td>
<td>14.7%</td>
<td>85.3%</td>
</tr>
<tr>
<td>j) To reduce/contain costs related to health benefits/services</td>
<td>17.6%</td>
<td>8.8%</td>
<td>14.7%</td>
<td>20.6%</td>
<td>11.8%</td>
<td>11.8%</td>
<td>82.4%</td>
</tr>
<tr>
<td>k) Others:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Program marketability</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>2.9%</td>
<td>0.0%</td>
</tr>
<tr>
<td>To create a climate of wellness which is important for business</td>
<td>2.9%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>2.9%</td>
</tr>
<tr>
<td>To project selves as an innovative employer</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>To reduce workers' compensation costs</td>
<td>0.0%</td>
<td>2.9%</td>
<td>2.9%</td>
<td>0.0%</td>
<td>2.9%</td>
<td>0.0%</td>
<td>5.9%</td>
</tr>
<tr>
<td>Philosophical commitment to human resource development</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>2.9%</td>
<td>2.9%</td>
</tr>
<tr>
<td>To have job placement compatible with health assessment</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>2.9%</td>
<td>2.9%</td>
</tr>
</tbody>
</table>
Employee Eligibility Criteria

The health assessment activities were generally available, without fees, to all employees in the companies where offered. The one major exception to this was periodic physical examinations which were offered only to top level executives in the majority of cases. Table 4 shows the employee eligibility criteria for each health assessment activity across all companies. One criteria that needs to be investigated is the inclusion of dependents, retirees, and surviving spouses for eligibility in the activities. This may increase participation levels, increase early detection and lower the cost of health benefits. These groups were not included to a great degree for health assessment activities.
### Table 4. Section III -- Employee Eligibility Criteria (Health Assessment Activities)

<table>
<thead>
<tr>
<th>Health Assessment Activities</th>
<th>Number of Companies Giving Eligibility to:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All Employees</td>
<td>Top Level</td>
</tr>
<tr>
<td>a) Cancer screening</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>b) Diabetes screening</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>c) Physical fitness testing</td>
<td>13</td>
<td>2</td>
</tr>
<tr>
<td>d) Health risk appraisal</td>
<td>20</td>
<td>2</td>
</tr>
<tr>
<td>e) Hypertension screening</td>
<td>28</td>
<td>1</td>
</tr>
<tr>
<td>f) Periodic physical testing</td>
<td>4</td>
<td>13</td>
</tr>
<tr>
<td>g) Work hazards identification</td>
<td>22</td>
<td>91.7%</td>
</tr>
<tr>
<td>h) Others:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blood chemical screening</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>Hearing</td>
<td>11</td>
<td>0</td>
</tr>
<tr>
<td>Vision/glaucoma</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>Pulmonary function</td>
<td>9</td>
<td>0</td>
</tr>
<tr>
<td>Nutrition</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Questionnaire</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Body fat</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Hydrostatic weighing, EKG</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. The percentages reflect the percent of the total number of companies with an existing program in that specific area (Table 2).
All employees were eligible for the risk reduction/health enhancement activities of their company in virtually all cases, as seen in Table 5. There were more co-payments or fees in these activities than in the health assessment activities. The numbers were low under "restricted to those who have paid fees" because in many cases there were more than one activity or method per risk reduction/health enhancement topic. For instance there may have been open lectures or seminars on smoking cessation, but a fee for the smoking cessation behavior change classes. The question of where to use fees paid by the employee in order to be most advantageous to both the employee and the company is a program element in need of further investigation. In addition, the eligibility of dependents, retirees, and surviving spouses could be studied in the risk reduction/health enhancement activities for increases in compliance and behavior change, as well as participation levels.
### TABLE 5. SECTION III -- EMPLOYEE ELIGIBILITY CRITERIA (RISK REDUCTION/HEALTH ENHANCEMENT ACTIVITIES)

<table>
<thead>
<tr>
<th>Risk Reduction/Health Enhancement Activities</th>
<th>All Employees</th>
<th>Top Level Executives</th>
<th>Salaried Employees</th>
<th>Hourly Wage Employees</th>
<th>Fee Basis</th>
<th>Employee Dependents</th>
<th>Retirees</th>
<th>Surviving Spouses</th>
<th>High-Risk Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Alcohol abuse/alcoholism</td>
<td>32</td>
<td>30</td>
<td>30</td>
<td>29</td>
<td>28</td>
<td>27</td>
<td>27</td>
<td>27</td>
<td>27</td>
</tr>
<tr>
<td>b) Drug abuse</td>
<td>97.0%</td>
<td>3.0%</td>
<td>3.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>42.4%</td>
<td>4.0%</td>
<td>3.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>c) Smoking cessation</td>
<td>96.8%</td>
<td>96.8%</td>
<td>96.8%</td>
<td>96.8%</td>
<td>96.8%</td>
<td>96.8%</td>
<td>96.8%</td>
<td>96.8%</td>
<td>96.8%</td>
</tr>
<tr>
<td>d) Nutrition/diet modification</td>
<td>87.9%</td>
<td>69.0%</td>
<td>69.0%</td>
<td>69.0%</td>
<td>69.0%</td>
<td>69.0%</td>
<td>69.0%</td>
<td>69.0%</td>
<td>69.0%</td>
</tr>
<tr>
<td>e) Weight control</td>
<td>96.4%</td>
<td>96.4%</td>
<td>96.4%</td>
<td>96.4%</td>
<td>96.4%</td>
<td>96.4%</td>
<td>96.4%</td>
<td>96.4%</td>
<td>96.4%</td>
</tr>
<tr>
<td>f) Exercise fitness</td>
<td>90.0%</td>
<td>90.0%</td>
<td>90.0%</td>
<td>90.0%</td>
<td>90.0%</td>
<td>90.0%</td>
<td>90.0%</td>
<td>90.0%</td>
<td>90.0%</td>
</tr>
<tr>
<td>g) Mental/emotional problems</td>
<td>71.4%</td>
<td>71.4%</td>
<td>71.4%</td>
<td>71.4%</td>
<td>71.4%</td>
<td>71.4%</td>
<td>71.4%</td>
<td>71.4%</td>
<td>71.4%</td>
</tr>
<tr>
<td>h) Stress management</td>
<td>96.3%</td>
<td>96.3%</td>
<td>96.3%</td>
<td>96.3%</td>
<td>96.3%</td>
<td>96.3%</td>
<td>96.3%</td>
<td>96.3%</td>
<td>96.3%</td>
</tr>
<tr>
<td>i) Hypertension control</td>
<td>93.1%</td>
<td>93.1%</td>
<td>93.1%</td>
<td>93.1%</td>
<td>93.1%</td>
<td>93.1%</td>
<td>93.1%</td>
<td>93.1%</td>
<td>93.1%</td>
</tr>
<tr>
<td>j) Work safety practices</td>
<td>92.9%</td>
<td>92.9%</td>
<td>92.9%</td>
<td>92.9%</td>
<td>92.9%</td>
<td>92.9%</td>
<td>92.9%</td>
<td>92.9%</td>
<td>92.9%</td>
</tr>
<tr>
<td>k) Off-the-job safety practices</td>
<td>92.9%</td>
<td>92.9%</td>
<td>92.9%</td>
<td>92.9%</td>
<td>92.9%</td>
<td>92.9%</td>
<td>92.9%</td>
<td>92.9%</td>
<td>92.9%</td>
</tr>
<tr>
<td>l) Others:</td>
<td>92.9%</td>
<td>92.9%</td>
<td>92.9%</td>
<td>92.9%</td>
<td>92.9%</td>
<td>92.9%</td>
<td>92.9%</td>
<td>92.9%</td>
<td>92.9%</td>
</tr>
<tr>
<td>Healthy back</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Cancer</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>CPR/first aid</td>
<td>22</td>
<td>22</td>
<td>22</td>
<td>22</td>
<td>22</td>
<td>22</td>
<td>22</td>
<td>22</td>
<td>22</td>
</tr>
<tr>
<td>Diabetes</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Arthritis</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>
| Note. The percentages reflect the percent of the total number of companies with an existing program in that specific area (Table 2).
Purpose of Program Offered

The corporate representatives were asked the purpose of each of the risk reduction/health enhancement program activities. Almost all companies had an informational program for each activity offered. In addition, many had both instructional and behavioral change programs. However, it was also common to offer either an instructional program or a behavioral change program for a particular topic along with the informational program. Physical activity programs were predominantly for exercise/fitness (89.3% of exercise/fitness company programs had physical activity; healthy back programs were next with 50.0%) but it is interesting to note the variety of risk reduction/health enhancement activities which incorporated a physical activity component into the program. Table 6 gives the frequencies of informational, instructional, behavioral change, or physical activity components to the program activities. Outcome measurements may vary depending on the purpose of the risk reduction/health enhancement activity. Future research could investigate the effect of different combinations of informational, instructional, behavioral change, and physical activity components in risk reduction/health enhancement programs.
<table>
<thead>
<tr>
<th>Risk Reduction/Health Enhancement Activities</th>
<th>Number of Companies Offering:</th>
<th>Informational Program</th>
<th>Instructional Program</th>
<th>Behavioral Change Program</th>
<th>Physical Activity Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Alcohol abuse/alcoholism</td>
<td>33</td>
<td>100.0%</td>
<td>24</td>
<td>28</td>
<td>2</td>
</tr>
<tr>
<td>b) Drug abuse</td>
<td>31</td>
<td>100.0%</td>
<td>24</td>
<td>27</td>
<td>2</td>
</tr>
<tr>
<td>c) Smoking cessation</td>
<td>30</td>
<td>99.9%</td>
<td>25</td>
<td>26</td>
<td>1</td>
</tr>
<tr>
<td>d) Nutrition/diet modification</td>
<td>27</td>
<td>96.4%</td>
<td>26</td>
<td>16</td>
<td>3</td>
</tr>
<tr>
<td>e) Weight control</td>
<td>26</td>
<td>86.7%</td>
<td>21</td>
<td>20</td>
<td>6</td>
</tr>
<tr>
<td>f) Exercise/fitness</td>
<td>27</td>
<td>96.4%</td>
<td>20</td>
<td>13</td>
<td>25</td>
</tr>
<tr>
<td>g) Mental/emotional problems</td>
<td>26</td>
<td>96.3%</td>
<td>14</td>
<td>21</td>
<td>0</td>
</tr>
<tr>
<td>h) Stress management</td>
<td>25</td>
<td>86.2%</td>
<td>26</td>
<td>21</td>
<td>5</td>
</tr>
<tr>
<td>i) Hypertension control</td>
<td>26</td>
<td>100.0%</td>
<td>19</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>j) Work safety practices</td>
<td>24</td>
<td>85.7%</td>
<td>23</td>
<td>14</td>
<td>0</td>
</tr>
<tr>
<td>k) Off-the-job safety practices</td>
<td>19</td>
<td>100.0%</td>
<td>9</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>l) Others:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Healthy back</td>
<td>10</td>
<td>100.0%</td>
<td>10</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>Cancer</td>
<td>20</td>
<td>100.0%</td>
<td>20</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>CPR/first aid</td>
<td>19</td>
<td>82.6%</td>
<td>20</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Diabetes</td>
<td>7</td>
<td>100.0%</td>
<td>5</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Arthritis</td>
<td>1</td>
<td>100.0%</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Note. The percentages reflect the percent of the total number of companies with an existing program in that specific area (Table 2).
Basis for Deciding on Specific Kind of Health Promotion Program

Tables 7 and 8 show the frequencies of the deciding factors for companies to offer specific health assessment activities or risk reduction/health enhancement activities. No one reason appeared to dominate in the decision making process in either table, but rather it would seem the program planners were influenced by a variety of factors. However, it is of interest that the least cited factors in both tables had to do with employee health assessments; health history/medical admission records and results of health assessments were the two least cited factors from Tables 7 and 8, respectively. *If these were infrequent factors because the data was not there or was not evaluated, health assessments may be an untapped source that has potentially convincing evidence of the need for work-site health promotion programs. In addition, the data may be an effective promotional and recruitment tool.*

In both tables 7 and 8 "at request of employees" or "survey of employees" were main deciding factors for activities. *As "company benefit or policy" and "suggestions of management to conduct such programs" were also important factors, a program element that may be worth investigation would be the success of an activity requested by the employees versus the activity available always as a company benefit. These factors may overlap as companies had more than one factor in deciding to offer a specific activity.*
<table>
<thead>
<tr>
<th>Health Assessment Activities</th>
<th>Number of Companies Considering:</th>
<th>National Health Health History/</th>
<th>Medical Admis-</th>
<th>Company Benefit or</th>
<th>At Risk Population Group</th>
<th>At Request of Management</th>
<th>At Request of Employees</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Initiatives/ Priorities</td>
<td>Records</td>
<td>Policy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Cancer screening</td>
<td>6</td>
<td>37.5%</td>
<td>0</td>
<td>0.0%</td>
<td>10</td>
<td>62.5%</td>
<td>9</td>
<td>56.2%</td>
</tr>
<tr>
<td>b) Diabetes screening</td>
<td>7</td>
<td>43.8%</td>
<td>0</td>
<td>0.0%</td>
<td>9</td>
<td>56.2%</td>
<td>4</td>
<td>25.0%</td>
</tr>
<tr>
<td>c) Physical fitness testing</td>
<td>8</td>
<td>44.4%</td>
<td>1</td>
<td>0.0%</td>
<td>8</td>
<td>44.4%</td>
<td>6</td>
<td>37.5%</td>
</tr>
<tr>
<td>d) Health risk appraisal</td>
<td>7</td>
<td>30.4%</td>
<td>2</td>
<td>0.0%</td>
<td>13</td>
<td>56.5%</td>
<td>9</td>
<td>50.0%</td>
</tr>
<tr>
<td>e) Hypertension screening</td>
<td>14</td>
<td>48.3%</td>
<td>3</td>
<td>0.0%</td>
<td>17</td>
<td>58.6%</td>
<td>10</td>
<td>47.8%</td>
</tr>
<tr>
<td>f) Periodic physical exam.</td>
<td>2</td>
<td>10.5%</td>
<td>1</td>
<td>0.0%</td>
<td>13</td>
<td>68.4%</td>
<td>1</td>
<td>24.1%</td>
</tr>
<tr>
<td>g) Work hazards identification</td>
<td>4</td>
<td>16.7%</td>
<td>3</td>
<td>0.0%</td>
<td>18</td>
<td>75.0%</td>
<td>7</td>
<td>51.7%</td>
</tr>
<tr>
<td>h) Others:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blood chemical screening</td>
<td>2</td>
<td>20.0%</td>
<td>0</td>
<td>0.0%</td>
<td>3</td>
<td>30.0%</td>
<td>4</td>
<td>50.0%</td>
</tr>
<tr>
<td>Hearing</td>
<td>3</td>
<td>16.7%</td>
<td>0</td>
<td>0.0%</td>
<td>7</td>
<td>38.9%</td>
<td>6</td>
<td>27.8%</td>
</tr>
<tr>
<td>Vision/glaucoma</td>
<td>1</td>
<td>11.1%</td>
<td>1</td>
<td>0.0%</td>
<td>2</td>
<td>22.2%</td>
<td>2</td>
<td>55.6%</td>
</tr>
<tr>
<td>Pulmonary function</td>
<td>2</td>
<td>20.0%</td>
<td>1</td>
<td>0.0%</td>
<td>3</td>
<td>30.0%</td>
<td>3</td>
<td>40.0%</td>
</tr>
<tr>
<td>Nutrition questionnaire</td>
<td>1</td>
<td>100.0%</td>
<td>0</td>
<td>0.0%</td>
<td>0</td>
<td>0.0%</td>
<td>0</td>
<td>100.0%</td>
</tr>
<tr>
<td>Body fat</td>
<td>0</td>
<td>0.0%</td>
<td>0</td>
<td>0.0%</td>
<td>0</td>
<td>0.0%</td>
<td>0</td>
<td>100.0%</td>
</tr>
<tr>
<td>Hydrostatic weight, EKG, etc.</td>
<td>0</td>
<td>0.0%</td>
<td>0</td>
<td>0.0%</td>
<td>0</td>
<td>0.0%</td>
<td>0</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Note. The percentages reflect the percent of the total number of companies with an existing program in that specific area (Table 2).
<table>
<thead>
<tr>
<th>Health Promotion Activities</th>
<th>Number of Companies</th>
<th>Health Initiatives</th>
<th>Major Cause of</th>
<th>Programs of</th>
<th>Major Cause of</th>
<th>Success in</th>
<th>Survey of</th>
<th>Suggestions</th>
<th>Evidence/Reports</th>
<th>Basis for Deciding on Specific Kind of Health Promotion Program (Risk Reduction/Health Enhancement Activities)</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Alcohol abuse/alcoholism</td>
<td>10</td>
<td>30%</td>
<td>13</td>
<td>4</td>
<td>12.1%</td>
<td>18.2%</td>
<td>13</td>
<td>9</td>
<td>27.3%</td>
<td>12 36.4% 17 51.5%</td>
</tr>
<tr>
<td>b) Drug abuse</td>
<td>11</td>
<td>35.5%</td>
<td>11</td>
<td>6</td>
<td>39.4%</td>
<td>18.2%</td>
<td>8</td>
<td>25.8%</td>
<td>8 35.5%</td>
<td>11 51.5% 15 45.4%</td>
</tr>
<tr>
<td>c) Smoking cessation</td>
<td>18</td>
<td>54.6%</td>
<td>17</td>
<td>2</td>
<td>12.9%</td>
<td>19.4%</td>
<td>4</td>
<td>12.1%</td>
<td>14 27.3%</td>
<td>9 27.3% 15 45.4%</td>
</tr>
<tr>
<td>d) Nutrition/diet modification</td>
<td>12</td>
<td>42.9%</td>
<td>11</td>
<td>6</td>
<td>39.3%</td>
<td>25.0%</td>
<td>2</td>
<td>7.1%</td>
<td>18 27.3%</td>
<td>5 17.9% 11 42.4%</td>
</tr>
<tr>
<td>e) Weight control</td>
<td>13</td>
<td>43.3%</td>
<td>11</td>
<td>3</td>
<td>30.0%</td>
<td>10.7%</td>
<td>3</td>
<td>13.3%</td>
<td>21 20.0%</td>
<td>13 30.0% 11 20.0%</td>
</tr>
<tr>
<td>f) Exercise fitness</td>
<td>12</td>
<td>42.9%</td>
<td>10</td>
<td>2</td>
<td>14.3%</td>
<td>14.3%</td>
<td>3</td>
<td>17.9%</td>
<td>21 27.3%</td>
<td>11 27.3% 11 27.3%</td>
</tr>
<tr>
<td>g) Mental/emotional problems</td>
<td>12</td>
<td>42.9%</td>
<td>10</td>
<td>1</td>
<td>30.0%</td>
<td>10.0%</td>
<td>5</td>
<td>13.3%</td>
<td>21 20.0%</td>
<td>11 27.3% 11 27.3%</td>
</tr>
<tr>
<td>h) Stress management</td>
<td>10</td>
<td>34.5%</td>
<td>13</td>
<td>1</td>
<td>3.7%</td>
<td>11.1%</td>
<td>7</td>
<td>38.1%</td>
<td>18 27.3%</td>
<td>11 27.3% 11 27.3%</td>
</tr>
<tr>
<td>i) Hypertension control</td>
<td>15</td>
<td>71.4%</td>
<td>14</td>
<td>9</td>
<td>21.7%</td>
<td>24.1%</td>
<td>5</td>
<td>21.7%</td>
<td>14 27.3%</td>
<td>8 27.3% 11 27.3%</td>
</tr>
<tr>
<td>j) Work safety practices</td>
<td>9</td>
<td>32.1%</td>
<td>10</td>
<td>7</td>
<td>3.6%</td>
<td>23.8%</td>
<td>1</td>
<td>38.1%</td>
<td>4 27.3%</td>
<td>11 27.3% 11 27.3%</td>
</tr>
<tr>
<td>k) Off-the-job safety</td>
<td>5</td>
<td>26.3%</td>
<td>4</td>
<td>1</td>
<td>21.0%</td>
<td>25.0%</td>
<td>1</td>
<td>18.5%</td>
<td>14 27.3%</td>
<td>5 17.9% 3 27.3%</td>
</tr>
<tr>
<td>l) Others:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Healthy back</td>
<td>1</td>
<td>10.0%</td>
<td>3</td>
<td>2</td>
<td>20.0%</td>
<td>20.0%</td>
<td>2</td>
<td>20.0%</td>
<td>2 20.0%</td>
<td>4 20.0% 4 20.0%</td>
</tr>
<tr>
<td>Cancer</td>
<td>8</td>
<td>40.0%</td>
<td>8</td>
<td>3</td>
<td>15.0%</td>
<td>10.0%</td>
<td>0</td>
<td>0</td>
<td>1 20.0%</td>
<td>10 20.0% 4 20.0%</td>
</tr>
<tr>
<td>CPR/first aid</td>
<td>3</td>
<td>13.0%</td>
<td>5</td>
<td>3</td>
<td>21.7%</td>
<td>13.0%</td>
<td>0</td>
<td>0</td>
<td>2 20.0%</td>
<td>9 20.0% 4 20.0%</td>
</tr>
<tr>
<td>Diabetes</td>
<td>2</td>
<td>28.6%</td>
<td>3</td>
<td>1</td>
<td>14.3%</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1 17.4%</td>
<td>1 17.9% 0 17.4%</td>
</tr>
<tr>
<td>Arthritis</td>
<td>0</td>
<td>0.0%</td>
<td>1</td>
<td>0</td>
<td>14.3%</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1 0.0%</td>
<td>0 17.9% 0 17.9%</td>
</tr>
</tbody>
</table>

Note. The percentages reflect the percent of the total number of companies with an existing program in that specific area (Table 2).
Scheduling of Activities

The majority of companies allowed the worksite health assessment activities to be scheduled during work hours, as shown in Table 9. Many health assessment procedures were short, simple tests and thus did not use much of the employee’s work time. For ongoing health assessment activities the employee was often given the freedom to go when he/she so chose, including before, during, or after work hours. This freedom of choice on the part of the employee may be a significant factor in encouraging participation because of the added convenience to the employee.
### TABLE 9. SECTION VI -- SCHEDULING (HEALTH ASSESSMENT ACTIVITIES)

<table>
<thead>
<tr>
<th>Health Assessment Activities</th>
<th>Number of Companies Scheduling Activity:</th>
<th>Lunch Hour</th>
<th>After Work Hours</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Shared Company/Employee Time</td>
<td>During Work Hours</td>
<td>Before Work Hours</td>
<td></td>
</tr>
<tr>
<td>a) Cancer screening</td>
<td>9</td>
<td>56.2%</td>
<td>11</td>
<td>68.8%</td>
</tr>
<tr>
<td>b) Diabetes screening</td>
<td>5</td>
<td>31.2%</td>
<td>12</td>
<td>75.0%</td>
</tr>
<tr>
<td>c) Physical fitness testing</td>
<td>6</td>
<td>33.3%</td>
<td>13</td>
<td>72.2%</td>
</tr>
<tr>
<td>d) Health risk appraisal</td>
<td>11</td>
<td>47.8%</td>
<td>15</td>
<td>65.2%</td>
</tr>
<tr>
<td>e) Hypertension screening</td>
<td>11</td>
<td>37.9%</td>
<td>24</td>
<td>82.8%</td>
</tr>
<tr>
<td>f) Periodic physical</td>
<td>4</td>
<td>21.0%</td>
<td>16</td>
<td>84.2%</td>
</tr>
<tr>
<td>examination</td>
<td>6</td>
<td>25.0%</td>
<td>24</td>
<td>100.0%</td>
</tr>
<tr>
<td>g) Work hazards identification</td>
<td>3</td>
<td>30.0%</td>
<td>5</td>
<td>50.0%</td>
</tr>
<tr>
<td>h) Others:</td>
<td>5</td>
<td>27.8%</td>
<td>13</td>
<td>72.2%</td>
</tr>
<tr>
<td>Blood chemical screening</td>
<td>2</td>
<td>22.2%</td>
<td>8</td>
<td>88.9%</td>
</tr>
<tr>
<td>Hearing</td>
<td>4</td>
<td>40.0%</td>
<td>8</td>
<td>80.0%</td>
</tr>
<tr>
<td>Vision/glaucoma</td>
<td>1</td>
<td>100.0%</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Pulmonary function</td>
<td>1</td>
<td>100.0%</td>
<td>0</td>
<td>100.0%</td>
</tr>
<tr>
<td>Nutrition</td>
<td>1</td>
<td>100.0%</td>
<td>0</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Note. The percentages reflect the percent of the total number of companies with an existing program in that specific area (Table 2).
The scheduling of risk reduction/health enhancement activities differed from health assessment activities in that the programs often had different parts scheduled at different times. Discussion/lectures, seminars, and required talks tended to be during work hours. Brown bag lunches with guest speakers were popular for the lunch hour. However, continuing activities such as exercise classes, or treatment programs for substance abuse or smoking cessation were generally on the employee's own time. A company may have scheduled any one or more of these times for different activities that address the same topic. One element that could be cost-beneficial to test would be the success of a company sponsored activity during work hours versus the same activity offered after hours. The outcome might have important implications for the scheduling of risk reduction/health enhancement activities.
### TABLE 10. SECTION VI -- SCHEDULING (RISK REDUCTION/HEALTH ENHANCEMENT ACTIVITIES)

| Risk Reduction/Health Enhancement Activities | Number of Companies Scheduling Activities: | | | | | Other |
|---------------------------------------------|-------------------------------------------|---|---|---|---|---|---|
|                                             | Number of Companies Scheduling Activities: | Shared Company/Employee Time | During Work Hours | Before Work Hours | Lunch Hour | After Work Hours | Other |
| a) Alcohol abuse/alcoholism | 3 | 9.1% | 15 | 45.4% | 11 | 33.3% | 16 | 48.5% | 18 | 54.6% | Treatment after hours |
| b) Drug abuse | 3 | 9.7% | 15 | 40.4% | 11 | 35.5% | 15 | 48.5% | 18 | 58.1% | Choice of sick time or after hours |
| c) Smoking cessation | 5 | 15.2% | 7 | 21.2% | 9 | 27.3% | 14 | 42.4% | 23 | 69.7% | Choice of sick time or after hours |
| d) Nutrition/diet modification | 4 | 14.3% | 9 | 32.1% | 7 | 25.0% | 17 | 60.7% | 17 | 60.7% | Choice of sick time or after hours |
| e) Weight control | 4 | 13.3% | 8 | 26.7% | 15 | 23.3% | 17 | 46.7% | 25 | 60.0% | Choice of sick time or after hours |
| f) Exercise/fitness | 5 | 17.9% | 4 | 14.3% | 6 | 53.6% | 7 | 60.7% | 10 | 89.3% | Choice of sick time or after hours |
| g) Mental/Emotional problems | 5 | 18.5% | 13 | 48.2% | 6 | 22.2% | 14 | 56.7% | 15 | 70.0% | Choice of sick time or after hours |
| h) Stress management | 3 | 10.3% | 17 | 48.3% | 9 | 20.7% | 12 | 48.3% | 5 | 57.1% | Choice of sick time or after hours |
| i) Hypertension control | 5 | 23.8% | 25 | 81.0% | 3 | 42.9% | 4 | 57.1% | 5 | 57.1% | Choice of sick time or after hours |
| j) Work safety practices | 3 | 10.7% | 8 | 89.3% | 5 | 26.4% | 4 | 14.3% | 8 | 17.9% | Choice of sick time or after hours |
| k) Off-the-job safety practices | 1 | 5.3% | 8 | 42.1% | 5 | 40.0% | 2 | 20.0% | 2 | 20.0% | Choice of sick time or after hours |
| l) Others: Healthy back | 2 | 20.0% | 7 | 70.0% | 3 | 30.0% | 4 | 40.0% | 2 | 20.0% | Supervisor discretion |
| Cancer | 3 | 15.0% | 11 | 55.0% | 6 | 30.0% | 8 | 40.0% | 7 | 35.0% | |
| CPR/first aid | 4 | 17.4% | 12 | 52.2% | 5 | 21.7% | 5 | 40.0% | 10 | 43.5% | |
| Diabetes | 1 | 14.3% | 4 | 57.1% | 4 | 21.7% | 3 | 42.9% | 4 | 57.1% | |
| Arthritis | 1 | 100.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | |

Note. The percentages reflect the percent of the total number of companies with an existing program in that specific area (Table 2).
Sources of Staff Personnel

All staff personnel, except voluntary health workers, were most frequently from in-house staff of the company or were an independently contracted resource. There were few personnel involved from state/local agencies or voluntary health organizations, except for those designated as a voluntary health worker or a health educator. With more investigation into community resources companies might benefit from more knowledgeable personnel in other areas as well; and these staff may provide services with lower fees.

The four categories of staff personnel cited most frequently were health educator, nurse, physician, and fitness specialist. Health educators came from in-house or off-site, were independently contracted, state/local agency personnel, or voluntary health organization personnel. Nurses were most likely in-house staff, while physicians were most likely independently contracted. Fitness specialists were employed as in-house staff in many cases, but were slightly more likely to be an independently contracted resource. Table 11 shows the wide range of expertise involved in worksite health promotion programs. For the activities to be well attended, and for the most beneficial results for both the employees and the companies to be realized, the optimum staff personnel must be matched to the activities for which they are responsible. This is an area where staff from different career orientations can be studied.
<table>
<thead>
<tr>
<th>Staff Personnel</th>
<th>In-House Staff</th>
<th>Independently Contracted Resource</th>
<th>State/Local Agency</th>
<th>Voluntary Health Organization</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Dietician/nutritionist</td>
<td>13 38.2%</td>
<td>11 32.4%</td>
<td>0 0.0%</td>
<td>3 8.8%</td>
<td>Volunteer services</td>
</tr>
<tr>
<td>b) Employee assistance director</td>
<td>16 47.1%</td>
<td>9 26.5%</td>
<td>1 2.9%</td>
<td>1 2.9%</td>
<td></td>
</tr>
<tr>
<td>c) Exercise physiologist</td>
<td>5 14.7%</td>
<td>13 38.2%</td>
<td>0 0.0%</td>
<td>1 2.9%</td>
<td></td>
</tr>
<tr>
<td>d) Fitness specialist</td>
<td>12 35.3%</td>
<td>19 55.9%</td>
<td>0 0.0%</td>
<td>0 0.0%</td>
<td>Hospitals &amp; doctor volunteers</td>
</tr>
<tr>
<td>e) Health educator</td>
<td>17 50.0%</td>
<td>16 47.1%</td>
<td>7 20.6%</td>
<td>14 41.2%</td>
<td></td>
</tr>
<tr>
<td>f) Industrial hygienist</td>
<td>9 26.5%</td>
<td>2 5.9%</td>
<td>0 0.0%</td>
<td>0 0.0%</td>
<td></td>
</tr>
<tr>
<td>g) Laboratory technician</td>
<td>7 20.6%</td>
<td>14 41.2%</td>
<td>0 0.0%</td>
<td>0 0.0%</td>
<td></td>
</tr>
<tr>
<td>h) Leisure/recreation specialist</td>
<td>4 11.8%</td>
<td>0 0.0%</td>
<td>0 0.0%</td>
<td>1 2.9%</td>
<td></td>
</tr>
<tr>
<td>i) Nurse</td>
<td>26 76.5%</td>
<td>5 14.7%</td>
<td>0 0.0%</td>
<td>1 2.9%</td>
<td></td>
</tr>
<tr>
<td>j) Nurse Practitioner/Physician Assistant</td>
<td>5 14.7%</td>
<td>1 2.9%</td>
<td>0 0.0%</td>
<td>0 0.0%</td>
<td>Volunteers</td>
</tr>
<tr>
<td>k) Physical therapist</td>
<td>7 20.6%</td>
<td>11 32.4%</td>
<td>0 0.0%</td>
<td>0 0.0%</td>
<td>Volunteers</td>
</tr>
<tr>
<td>l) Psychologist</td>
<td>5 14.7%</td>
<td>13 38.2%</td>
<td>2 5.9%</td>
<td>2 5.9%</td>
<td></td>
</tr>
<tr>
<td>m) Physician</td>
<td>9 26.5%</td>
<td>22 64.7%</td>
<td>0 0.0%</td>
<td>0 0.0%</td>
<td></td>
</tr>
<tr>
<td>n) Rehabilitation specialist</td>
<td>3 8.8%</td>
<td>13 38.2%</td>
<td>2 5.9%</td>
<td>0 0.0%</td>
<td></td>
</tr>
<tr>
<td>o) Safety specialist</td>
<td>19 55.9%</td>
<td>4 11.8%</td>
<td>1 2.9%</td>
<td>0 0.0%</td>
<td></td>
</tr>
<tr>
<td>p) Social worker</td>
<td>9 26.5%</td>
<td>7 20.6%</td>
<td>4 11.8%</td>
<td>1 2.9%</td>
<td></td>
</tr>
<tr>
<td>q) Voluntary health worker</td>
<td>2 5.9%</td>
<td>0 0.0%</td>
<td>2 5.9%</td>
<td>8 23.5%</td>
<td></td>
</tr>
<tr>
<td>r) Others:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Human resource staff</td>
<td>1 2.9%</td>
<td>0 0.0%</td>
<td>0 0.0%</td>
<td>0 0.0%</td>
<td>Volunteers</td>
</tr>
<tr>
<td>Program alumni/other employees</td>
<td>0 0.0%</td>
<td>0 0.0%</td>
<td>0 0.0%</td>
<td>0 0.0%</td>
<td></td>
</tr>
<tr>
<td>Respiratory therapist</td>
<td>1 2.9%</td>
<td>0 0.0%</td>
<td>0 0.0%</td>
<td>0 0.0%</td>
<td></td>
</tr>
<tr>
<td>Benefits manager</td>
<td>1 2.9%</td>
<td>0 0.0%</td>
<td>0 0.0%</td>
<td>0 0.0%</td>
<td></td>
</tr>
<tr>
<td>Medical department</td>
<td>1 2.9%</td>
<td>0 0.0%</td>
<td>0 0.0%</td>
<td>0 0.0%</td>
<td></td>
</tr>
<tr>
<td>University doctor, guest</td>
<td>0 0.0%</td>
<td>1 2.9%</td>
<td>0 0.0%</td>
<td>0 0.0%</td>
<td></td>
</tr>
<tr>
<td>Administration</td>
<td>1 2.9%</td>
<td>0 0.0%</td>
<td>0 0.0%</td>
<td>0 0.0%</td>
<td></td>
</tr>
</tbody>
</table>

Note. N=34
Methods and Materials

In general, counseling and discussion/lecture groups were the two most frequent methods for the risk reduction/health enhancement activities. Biofeedback was used infrequently even for its traditional uses in stress management and hypertension control. Behavior modification was a major program method for alcohol and drug abuse, smoking cessation, healthy back, and exercise/fitness (if physical activity classes were included under behavior modification). To a lesser extent, but still an important methodology, behavior modification was used in weight control and stress management. Less than 50% of the companies used behavior modification in each of the other topics. Self-instructional/programmed learning was not a major program method in any area but it is of interest that it was provided in almost every topic in at least some companies, with exercise/fitness self-instruction being offered in close to one third of the companies. Guest expert speakers were an important part of activities in all areas. Closed circuit television and telephone health messages were used very infrequently. Table 12 presents the frequencies of the program methods and materials for risk reduction/health enhancement activities in the thirty four companies.

A variety of materials were used for the different activities. The three categories that were consistently high were company newsletter, films/slides, and graphic materials, with the latter being the most frequent in every category except CPR/1st Aid. Graphic materials include posters, pamphlets and flyers which were used for publicity as well as information. Pay envelope inserts, models/demonstrations/exhibits, and tape recordings/cassettes were fairly low frequency items and may be under-
utilized. *Researching the effectiveness of these materials, in combination with the more popular materials and methods may prove beneficial.*

*In the area of program methods and materials the right combination for the needs of the company would most likely be the key to success.* A research design would have to be quite extensive to test program effects such as knowledge acquisition, behavior change, and changes in morbidity for every combination of methods and materials, for all topics, in every size and type company. *A more feasible quantitative study might use an instrument to rate methodologies to a standard, perhaps found in the literature, for that topic and track certain indices of cost-effectiveness.* There may be different critical program components for different corporate structures, industries, or size personnel or facilities. For those program components that have not been used widely or tested and reported in the literature, these can be added at some "experimental" company sites. *It may be necessary to develop some index of comprehensiveness of the entire worksite health promotion program or interaction between activities of the program.* For instance an employee assistance program that covers stress management as well as substance abuse may be more effective than an individual alcohol abuse program that uses the same methodology.
### TABLE 12. SECTION VIII -- METHODS AND MATERIALS USED IN HEALTH PROMOTION PROGRAM

<table>
<thead>
<tr>
<th>Risk Reduction/Health Enhancement Activities</th>
<th>Number of Companies Using:</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Alcohol abuse/dependence</td>
<td>20 2 24 23 7 24 3 4 17 10 25 5 20 7</td>
</tr>
<tr>
<td>b) Drug abuse</td>
<td>60.6% 6.1% 72.7% 69.7% 21.2% 72.7% 9.1% 12.1% 51.5% 30.3% 75.0% 15.2% 60.6% 21.2%</td>
</tr>
<tr>
<td>c) Smoking cessation</td>
<td>61.3% 6.4% 77.3% 71.0% 16.1% 71.0% 9.7% 9.7% 51.6% 32.3% 74.2% 16.1% 54.6% 22.6%</td>
</tr>
<tr>
<td>d) Nutrition/diet modification</td>
<td>24 3 21 24 9 18 0 2 18 8 24 4 16 4</td>
</tr>
<tr>
<td>e) Weight control</td>
<td>72.7% 9.7% 63.6% 72.7% 27.3% 54.6% 0.0% 6.1% 54.6% 24.2% 72.7% 12.1% 48.5% 12.1%</td>
</tr>
<tr>
<td>f) Exercise/fitness</td>
<td>39.3% 0.0% 60.7% 78.6% 28.6% 57.1% 3.6% 7.1% 64.3% 17.9% 85.7% 17.9% 39.3% 7.1%</td>
</tr>
<tr>
<td>g) Mental/emotional problems</td>
<td>56.7% 3.3% 70.0% 73.3% 26.7% 50.0% 0.0% 6.7% 56.7% 13.3% 76.7% 10.0% 30.0% 6.7%</td>
</tr>
<tr>
<td>h) Stress management</td>
<td>57.1% 3.6% 35.7% 64.3% 32.1% 53.6% 0.0% 7.1% 64.3% 25.0% 82.1% 25.0% 35.7% 14.3%</td>
</tr>
<tr>
<td>i) Hypertension control</td>
<td>40.7% 14.8% 77.8% 25.9% 7.4% 29.6% 0.0% 3.7% 51.5% 29.6% 51.8% 0.0% 18.5% 14.8%</td>
</tr>
<tr>
<td>j) Work safety practices</td>
<td>51.7% 31.0% 51.7% 82.8% 27.6% 55.2% 0.0% 6.0% 62.1% 27.6% 60.0% 3.4% 31.0% 37.9%</td>
</tr>
<tr>
<td>k) Off-the-job safety practices</td>
<td>42.9% 9.5% 99.5% 66.7% 23.8% 38.1% 0.0% 9.5% 57.1% 23.8% 95.2% 19.0% 38.1% 4.8%</td>
</tr>
<tr>
<td>l) Others:</td>
<td>26.8% 0.0% 53.6% 78.6% 14.3% 44.4% 7.1% 3.6% 53.6% 21.4% 82.1% 39.3% 71.4% 17.8%</td>
</tr>
<tr>
<td>m) Off-the-job safety practices</td>
<td>21.0% 0.0% 36.8% 63.2% 10.5% 42.1% 10.5% 0.0% 68.4% 36.6% 68.4% 31.6% 42.1% 10.5%</td>
</tr>
</tbody>
</table>

* If fitness classes are included, 25 (89.3%)

Note. The percentages reflect the percent of the total number of companies with an existing program in that specific area (Table 2).
Location of Facilities

Table 13 lists the potential facilities used in a worksite health promotion program and gives the frequencies of those facilities used on company sites or used for company activities at independently contracted sites. Those facilities used onsite in at least 50% of the companies were auditorium, meeting or class rooms, medical department/health clinic, health exhibit area, library, small exercise room, and showers/locker room dressing area. It is interesting to note that these facilities, with the exception of showers, may be found in a good number of companies without health promotion programs. This suggests the more expensive, elaborate facilities are unnecessary for a successful program. The differential between program effects, participation levels, and budgets of a company with the basic facilities and a company with extensive health care/athletic facilities and equipment would provide important cost-effectiveness information. Along the same lines, some quantitative results showing the net cost of contracting any facility after figuring savings from the program health enhancement/risk reduction benefits would help program planners to determine when or if to require fees from the participants.
<table>
<thead>
<tr>
<th>Facilities</th>
<th>Located at Company Site</th>
<th>Located at Contracted Site</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Auditorium - more than 50 seats</td>
<td>24</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>b) Meeting or class rooms</td>
<td>32</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>c) Meditation or quiet area</td>
<td>9</td>
<td>0</td>
<td>Nurse's room</td>
</tr>
<tr>
<td>d) Exercise physiology lab</td>
<td>5</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>e) Medical department/health clinic</td>
<td>19</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>f) Biofeedback area</td>
<td>4</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>g) Health exhibit area</td>
<td>23</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>h) Library for employee use</td>
<td>21</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>i) Gymnasium</td>
<td>4</td>
<td>7</td>
<td>School next door, discount at health club</td>
</tr>
<tr>
<td>j) Small exercise room</td>
<td>17</td>
<td>4</td>
<td>Discount at health club</td>
</tr>
<tr>
<td>k) Weight lifting/training room</td>
<td>11</td>
<td>3</td>
<td>Discount</td>
</tr>
<tr>
<td>l) Swimming pool</td>
<td>2</td>
<td>3</td>
<td>Discount, school pool next door</td>
</tr>
<tr>
<td>m) Tennis/racketball courts</td>
<td>2</td>
<td>5</td>
<td>School next door, discount</td>
</tr>
<tr>
<td>n) Track/path/trail</td>
<td>8</td>
<td>2</td>
<td>School, discount, encourage use of free one</td>
</tr>
<tr>
<td>o) Athletic field</td>
<td>4</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>p) Sauna/Whirlpool</td>
<td>2</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>q) Showers/lockers/dressing rooms</td>
<td>26</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>r) other:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basketball hoops</td>
<td>3</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Volleyball court</td>
<td>2</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Use of lobby after hours</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Fishing beach</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

Note. N=34
Use of Outside Resources

Most companies obtained informational literature from various outside resources as can be seen from the high frequencies in Table 14. However, not many outside resources were used for conducting the health assessment activities or risk reduction/health enhancement activities. Local hospitals were the major outside resources used to help conduct both health assessment and risk reduction/health enhancement activities. Nineteen companies enlisted the help of local hospital health promotion services and nine companies were hospitals; thus 28 of 34 companies used local hospitals for some of their activities. Voluntary health organizations were used in 50% of the companies to conduct some risk reduction/health enhancement activities. Some outside resources may be more efficient in running an activity because of their specialization, but in-house personnel may be less expensive. Some research in this area with different health promotion topics would be appropriate. Also, more investigation and documentation of available community resources is necessary on the part of the corporate health promotion program coordinators.
### TABLE 14. SECTION X -- USE OF OUTSIDE RESOURCES FOR HEALTH PROMOTION PROGRAM

<table>
<thead>
<tr>
<th>Resource</th>
<th>Conducting Some/all Health</th>
<th>Conducting Some/all Risk Reduction/Health Enhancement</th>
<th>Conducting Some/all Activities</th>
<th>Conducting Some/all Other</th>
<th>Obtaining Informational Literature</th>
<th>Conducting Risk Reduction/Health Enhancement Assessment</th>
<th>Conducting Risk Reduction/Health Enhancement Literature Activities</th>
<th>Conducting Risk Reduction/Health Enhancement Other</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Local/state health agency</td>
<td>25</td>
<td>6</td>
<td>7</td>
<td>73.5%</td>
<td>17.6%</td>
<td>20.6%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Federal agency</td>
<td>26</td>
<td>1</td>
<td>2</td>
<td>76.5%</td>
<td>2.9%</td>
<td>5.9%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Colleges and universities</td>
<td>19</td>
<td>6</td>
<td>4</td>
<td>55.9%</td>
<td>17.6%</td>
<td>11.8%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Local hosp./medical clinic</td>
<td>28</td>
<td>19</td>
<td>19</td>
<td>82.4%</td>
<td>55.9%</td>
<td>55.9%</td>
<td></td>
<td>28, if hospitals in study are included</td>
<td></td>
</tr>
<tr>
<td>e) Voluntary health organization</td>
<td>31</td>
<td>7</td>
<td>17</td>
<td>91.2%</td>
<td>20.6%</td>
<td>50.0%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f) Professional organizations</td>
<td>17</td>
<td>0</td>
<td>2</td>
<td>50.0%</td>
<td>0.0%</td>
<td>5.9%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g) Religious groups</td>
<td>5</td>
<td>1</td>
<td>0</td>
<td>14.7%</td>
<td>2.9%</td>
<td>0.0%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>h) Industrial/trade organizations</td>
<td>22</td>
<td>0</td>
<td>3</td>
<td>64.7%</td>
<td>0.0%</td>
<td>8.8%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i) Commercial organization</td>
<td>15</td>
<td>1</td>
<td>7</td>
<td>44.1%</td>
<td>2.9%</td>
<td>20.6%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>j) Professional consulting firm</td>
<td>12</td>
<td>6</td>
<td>10</td>
<td>35.3%</td>
<td>17.6%</td>
<td>29.4%</td>
<td></td>
<td>Movies and films</td>
<td></td>
</tr>
<tr>
<td>k) Other industry sponsored resource</td>
<td>10</td>
<td>0</td>
<td>0</td>
<td>29.4%</td>
<td>0.0%</td>
<td>0.0%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>l) Other:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>YMCA</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>0.0%</td>
<td>2.9%</td>
<td>5.9%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Individual community instructors</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>2.9%</td>
<td>0.0%</td>
<td>5.9%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other companies with programs</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2.9%</td>
<td>0.0%</td>
<td>0.0%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Journal</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>8.8%</td>
<td>0.0%</td>
<td>0.0%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physicians</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>5.9%</td>
<td>0.0%</td>
<td>2.9%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nat workline, login</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2.9%</td>
<td>0.0%</td>
<td>0.0%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kaiser Health</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2.9%</td>
<td>0.0%</td>
<td>0.0%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research Center</td>
<td>2.9%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>2.9%</td>
<td>0.0%</td>
<td>0.0%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Planning and Implementation

Those responsible for planning and implementing the worksite health promotion programs were most likely to be an in-house company health promotion program committee or an in-house company health/medical department committees. As seen in Table 15, these two committees were the most frequent for all functions. However, the in-house company health/medical department committee was often cited with another category, for instance self-employed professional consultants, employees, or safety committee. The primary categories of personnel responsible for planning and implementing were the in-house committees or departments, while the other categories listed in Table 15 were usually secondarily cited. The professional background of the people on these committees or in these departments could strongly influence the nature of the program activities. It may be advantageous for companies to have interdepartmental committees including all levels of employees, which was the case in several of the in-house company health promotion program committees.
<table>
<thead>
<tr>
<th>Those Responsible for Planning and Implementing</th>
<th>Plan Health Assessment</th>
<th>Implement Health Assessment</th>
<th>Plan Risk Reduction/Health Enhancement</th>
<th>Implement Risk Reduction/Health Enhancement</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) In-house company health promotion program committee</td>
<td>10</td>
<td>29.4%</td>
<td>9</td>
<td>26.5%</td>
</tr>
<tr>
<td>b) In-house company health/medical department committee</td>
<td>13</td>
<td>38.2%</td>
<td>14</td>
<td>41.2%</td>
</tr>
<tr>
<td>c) In-house company employee benefit/employee relations personnel consultants</td>
<td>3</td>
<td>8.8%</td>
<td>6</td>
<td>17.6%</td>
</tr>
<tr>
<td>d) Self-employed professional consultants</td>
<td>4</td>
<td>11.8%</td>
<td>5</td>
<td>14.7%</td>
</tr>
<tr>
<td>e) Locally contracted hospital staff</td>
<td>2</td>
<td>5.9%</td>
<td>7</td>
<td>20.6%</td>
</tr>
<tr>
<td>f) College and university personnel</td>
<td>1</td>
<td>2.9%</td>
<td>1</td>
<td>2.9%</td>
</tr>
<tr>
<td>g) Local community voluntary health organization staff</td>
<td>2</td>
<td>5.9%</td>
<td>3</td>
<td>8.8%</td>
</tr>
<tr>
<td>h) Others:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Department of educational services</td>
<td>1</td>
<td>2.9%</td>
<td>1</td>
<td>2.9%</td>
</tr>
<tr>
<td>Department of corporate communications</td>
<td>1</td>
<td>2.9%</td>
<td>1</td>
<td>2.9%</td>
</tr>
<tr>
<td>Corporate program notebook</td>
<td>1</td>
<td>2.9%</td>
<td>1</td>
<td>2.9%</td>
</tr>
<tr>
<td>Employees</td>
<td>2</td>
<td>5.9%</td>
<td>2</td>
<td>5.9%</td>
</tr>
<tr>
<td>Management recommendations</td>
<td>3</td>
<td>8.8%</td>
<td>3</td>
<td>8.8%</td>
</tr>
<tr>
<td>Program coordinator/director</td>
<td>2</td>
<td>5.9%</td>
<td>2</td>
<td>5.9%</td>
</tr>
<tr>
<td>Safety committee</td>
<td>3</td>
<td>8.8%</td>
<td>4</td>
<td>11.8%</td>
</tr>
<tr>
<td>Employee assistance program</td>
<td>2</td>
<td>5.9%</td>
<td>2</td>
<td>5.9%</td>
</tr>
</tbody>
</table>
Publicizing and Encouraging Participation

The different forms of publicity and encouraging participation were frequently used as depicted in Table 16. *Pay envelope inserts is one form that is not used extensively, but may be a low-cost method with the potential of being quite effective since it would be received by every paid employee. More novel approaches, some listed under "other", may be worth evaluating such as promotional gimmicks and direct written communication from management.*
TABLE 16. SECTION XII -- PUBLICIZING AND ENCOURAGING PARTICIPATION IN HEALTH PROMOTION PROGRAM

<table>
<thead>
<tr>
<th>Ways of Publicizing and Encouraging Participation</th>
<th>Number of Companies (N=34) in Which:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Used for Health Assessment Activities</td>
</tr>
<tr>
<td></td>
<td>Health Enhancement</td>
</tr>
<tr>
<td>a) Bulletin board/poster/flyer announcements</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>82.4%</td>
</tr>
<tr>
<td>b) Pay envelope insert announcements</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>0%</td>
</tr>
<tr>
<td>c) Company newsletter announcements</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>26.5%</td>
</tr>
<tr>
<td>d) Person-to-person communications with employees</td>
<td>85.3%</td>
</tr>
<tr>
<td></td>
<td>27</td>
</tr>
<tr>
<td>e) Certificates/awards of achievement and participation</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>17.6%</td>
</tr>
<tr>
<td>f) Material/financial incentives</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>8.8%</td>
</tr>
<tr>
<td>g) Top level management endorsement/participation</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>82.4%</td>
</tr>
<tr>
<td>h) Department supervisor endorsement/participation</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>76.5%</td>
</tr>
<tr>
<td>i) Others:</td>
<td></td>
</tr>
<tr>
<td>Satisfied employees return to speak</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>0.0%</td>
</tr>
<tr>
<td>Weekly memos from management</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>2.9%</td>
</tr>
<tr>
<td>Booklet of class schedules</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>2.9%</td>
</tr>
<tr>
<td>Direct mail to home</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>2.9%</td>
</tr>
<tr>
<td>Videotape magazine</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>2.9%</td>
</tr>
<tr>
<td>Coordination with other sites</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>2.9%</td>
</tr>
<tr>
<td>Staff dressed in shorts to promote health fair</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>2.9%</td>
</tr>
<tr>
<td>Nurse's press relations work</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>2.9%</td>
</tr>
</tbody>
</table>
Financing

Corporate representatives were asked to rank order the sources of funding for their worksite health promotion program. The results are presented in Table 17. While "fees paid by participants" was a source of funds in the greatest number of companies, it was most likely a secondary source of funds. The "corporate budget", the "employee benefits/personnel department budget", or the "medical department budget" were more likely to be the primary source of financing the program activities. "Insured benefits" were a source in 18 of the companies but this was usually a lower ranking source. "Foundation grants" were very infrequent; only one of thirty four companies had partial funds through this source. *More information on the effect of participant fees on program participation levels and outcome measurements is necessary before strong recommendations are made to all companies. Voluntary health organization services may be a resource of which more companies probably need to be made aware.*
### TABLE 17. SECTION XIII -- FINANCING THE HEALTH PROMOTION PROGRAM

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>No Rank</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Fees paid by participants</td>
<td>3</td>
<td>13</td>
<td>6</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>27</td>
</tr>
<tr>
<td>b) Corporate budget</td>
<td>9</td>
<td>4</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>19</td>
</tr>
<tr>
<td>c) Medical Department budget</td>
<td>7</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>11</td>
</tr>
<tr>
<td>d) Employee benefits personnel budget</td>
<td>9</td>
<td>5</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>19</td>
</tr>
<tr>
<td>e) Insured benefit</td>
<td>1</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>1</td>
<td>3</td>
<td>18</td>
</tr>
<tr>
<td>f) Tax supported funds</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>g) Foundation grant</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>h) Voluntary health organization funds</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>i) Other:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Division operating budget</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Treatment provider (free services)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Education department budget</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>11.8</td>
</tr>
</tbody>
</table>

Ranking (N=34):
- 1: 27%
- 2: 17.6%
- 3: 14.7%
- 4: 11.8%
- 5: 8.8%

Percentages are rounded to the nearest whole number.
Data Base and Evaluation of Programs

The majority of companies have neither a data base specifically for their worksite health promotion program nor an objective evaluation procedure. Table 18 is incomplete in that several corporate representatives did not know what data base there was available at their company, due to the fact that no attempt was being made to correlate any existing data to program activities. In 20 of the 34 companies the representatives stated the data was not used for the purpose of documenting program effects. In 6 of the companies some data was reviewed and correlated to the health promotion programs, and 8 companies kept, tracked, and planned according to extensive data bases. The higher frequencies in Table 18 show that the data is available somewhere in the company, but no attempt has been made to analyze it by the health promotion program staff. The larger companies were more likely to keep and use a data base. Research is lacking in the use of company records and data as indices of change relating to the health promotion program activities. Valuable research would address what data is pertinent and what systems are most efficient for tracking the data.

Table 19 shows very low frequencies for all evaluative measurement criteria. Again, 20 corporate representatives specifically stated there were no formal, objective evaluation procedures. The reasons for the lack of evaluative data almost always included: 1) there has been no need/demand to justify program activities; and 2) an objective evaluation system is too hard/expensive to set up and implement. The larger companies were more likely to have set measurement criteria for an evaluation system. However, many representatives claimed to have evaluated pro-
grams subjectively for these same criteria and the staff, employees, and management were comfortable with this information.

Well documented research is necessary in the area of appropriate measurement criteria for worksite health promotion program results. This includes measurements of behavior and knowledge change of the participants, effectiveness of the individual program activities and leaders, and the program as a whole affecting company health-related data and expenditures.

Another area in need of study is the implementation and management of data base systems and evaluation procedures in companies of differing size and type. Not only will this be complex, but there appears to be evidence suggesting that there will be some resistance to the idea of evaluating worksite health promotion programs as another business activity.
<table>
<thead>
<tr>
<th>Database</th>
<th>Number of Companies</th>
<th>Percent of Companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Accident indices</td>
<td>27</td>
<td>79.4%</td>
</tr>
<tr>
<td>b) Causes of short term disability</td>
<td>21</td>
<td>61.8%</td>
</tr>
<tr>
<td>c) Duration of short term disability</td>
<td>19</td>
<td>55.9%</td>
</tr>
<tr>
<td>d) Incidence of short term disability</td>
<td>21</td>
<td>61.8%</td>
</tr>
<tr>
<td>e) Incidence of long term disability correlated with diagnostic data</td>
<td>12</td>
<td>35.3%</td>
</tr>
<tr>
<td>f) Individual risk estimates related to risk factors</td>
<td>6</td>
<td>17.6%</td>
</tr>
<tr>
<td>g) Modification of risk estimates related to changes in employee risk indicators</td>
<td>5</td>
<td>14.7%</td>
</tr>
<tr>
<td>h) Risk by person/person by risk</td>
<td>4</td>
<td>11.8%</td>
</tr>
<tr>
<td>i) Tracking of changes in health status</td>
<td>12</td>
<td>35.3%</td>
</tr>
<tr>
<td>j) Tracking of changes in cost of health care</td>
<td>23</td>
<td>67.6%</td>
</tr>
<tr>
<td>k) Tracking of changes in use of health/medical services</td>
<td>21</td>
<td>61.8%</td>
</tr>
<tr>
<td>l) Tracking of changes in insurance coverage</td>
<td>23</td>
<td>67.6%</td>
</tr>
<tr>
<td>m) Tracking of changes in employee productivity</td>
<td>11</td>
<td>32.4%</td>
</tr>
<tr>
<td>n) Utilization of health/medical benefits of employees</td>
<td>26</td>
<td>76.5%</td>
</tr>
<tr>
<td>o) Utilization of health/medical benefits of dependents, retirees, and surviving spouses</td>
<td>20</td>
<td>58.8%</td>
</tr>
<tr>
<td>p) Workers' compensation costs</td>
<td>27</td>
<td>79.4%</td>
</tr>
<tr>
<td>q) Absenteism</td>
<td>16</td>
<td>47.1%</td>
</tr>
<tr>
<td>Do not use information for health promotion program</td>
<td>20</td>
<td>58.8%</td>
</tr>
<tr>
<td>Use extensive database</td>
<td>8</td>
<td>23.5%</td>
</tr>
<tr>
<td>Track some data</td>
<td>6</td>
<td>17.6%</td>
</tr>
</tbody>
</table>
TABLE 19. SECTION XV -- EVALUATION OF THE HEALTH PROMOTION PROGRAM

<table>
<thead>
<tr>
<th>Measurement Criteria</th>
<th>Number of Companies (N=34) using for:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Health Assessment Activities</td>
</tr>
<tr>
<td>a) Change in absenteeism</td>
<td>7</td>
</tr>
<tr>
<td>b) Change in employee productivity</td>
<td>3</td>
</tr>
<tr>
<td>c) Change in employee morale/attitude</td>
<td>8</td>
</tr>
<tr>
<td>d) Change in attitude toward responsibility for personal health</td>
<td>10</td>
</tr>
<tr>
<td>e) Employee reason for participation in program</td>
<td>3</td>
</tr>
<tr>
<td>f) Comparison of participants in program activities with non participants</td>
<td>3</td>
</tr>
<tr>
<td>g) Drop out rates from program activities</td>
<td>2</td>
</tr>
<tr>
<td>h) &quot;Spill over&quot; effect</td>
<td>5</td>
</tr>
<tr>
<td>i) Change in health knowledge</td>
<td>5</td>
</tr>
<tr>
<td>j) Change in health attitudes</td>
<td>5</td>
</tr>
<tr>
<td>k) Change in health practices</td>
<td>3</td>
</tr>
<tr>
<td>l) Observed change in employee appearance/actions</td>
<td>1</td>
</tr>
<tr>
<td>m) Change in incidence of morbidity</td>
<td>3</td>
</tr>
<tr>
<td>n) Change in incidence of disability</td>
<td>3</td>
</tr>
<tr>
<td>o) Change in incidence of premature mortality</td>
<td>1</td>
</tr>
<tr>
<td>p) Change in prevalence of health risk indicators</td>
<td>4</td>
</tr>
<tr>
<td>q) Change in health care costs</td>
<td>9</td>
</tr>
<tr>
<td>r) Change in out-patient visits</td>
<td>3</td>
</tr>
<tr>
<td>s) Change in hospitalization</td>
<td>6</td>
</tr>
<tr>
<td>t) Change in incidence of accidents</td>
<td>11</td>
</tr>
<tr>
<td>u) Effectiveness of screening procedures</td>
<td>5</td>
</tr>
<tr>
<td>v) Use of facilities and equipment (other than medical)</td>
<td>3</td>
</tr>
<tr>
<td>w) Others:</td>
<td></td>
</tr>
<tr>
<td>Attendance (number of people)</td>
<td>1</td>
</tr>
<tr>
<td>Employee evaluation of program</td>
<td>5</td>
</tr>
<tr>
<td>No formal evaluation (subjective observations)</td>
<td>20</td>
</tr>
</tbody>
</table>
Program Implementation

Problems encountered in program implementation for the thirty-four companies are shown in Table 20. There was some difficulty for the corporate representatives in answering this question because the worksite health promotion programs were really many individual activities for which there were different implementation problems. This table represents the problems that needed to be worked out in order to implement a majority of the company activities. Some striking figures were for those conditions that were not a problem. In no company was a "lack of community resources to conduct programs" a problem. Unions were either not applicable or were cooperative. The availability of medical/health personnel to conduct programs was not a problem. "Evaluative data from previously conducted programs did not support existing or additional programs" was generally not a problem. This, however, was more likely due to the fact that most programs were begun within the preceding few years, and the fact that data was not kept.

Problems encountered in at least 50% of the companies were "inadequate or not readily available facilities" and "insufficient money/funds" to conduct the risk reduction/health enhancement activities, lack of employee interest/participation in risk reduction/health enhancement activities, and the lack of data to indicate effectiveness of such programs in reducing medical costs, morbidity, and mortality. Interesting data on this topic might be the documentation of how companies dealt with their implementation problems and carried out their worksite health promotion program activities.
<table>
<thead>
<tr>
<th>Problems Encountered in Program Implementation</th>
<th>Number of Companies (N=34):</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not a Problem</td>
</tr>
<tr>
<td>a) Inadequate or not readily available facilities to conduct specific activities</td>
<td>15 44.1%</td>
</tr>
<tr>
<td>b) Insufficient money/funds to conduct programs</td>
<td>16 47.1%</td>
</tr>
<tr>
<td>c) Not enough time for health/medical personnel to conduct such programs</td>
<td>21 61.8%</td>
</tr>
<tr>
<td>d) Not enough information/knowledge to implement certain types of programs</td>
<td>27 79.4%</td>
</tr>
<tr>
<td>e) No medical/health personnel available to conduct programs</td>
<td>30 88.2%</td>
</tr>
<tr>
<td>f) Lack of community resources to conduct programs</td>
<td>34 100.0%</td>
</tr>
<tr>
<td>g) Top management reluctant to invest time and other resources in programs</td>
<td>19 55.9%</td>
</tr>
<tr>
<td>h) Union reluctant to invest time and other resources in programs</td>
<td>31 91.2%</td>
</tr>
<tr>
<td>i) Lack of employee interest/participation in programs</td>
<td>14 41.2%</td>
</tr>
<tr>
<td>j) Employees fear loss of preferment or employment if illness/disabilities are detected</td>
<td>20 58.8%</td>
</tr>
<tr>
<td>k) Lack of data to indicate effectiveness of such programs in reducing medical costs, morbidity, and mortality</td>
<td>16 47.1%</td>
</tr>
<tr>
<td>l) Lack of adequate data to support implementation of additional programs</td>
<td>19 55.9%</td>
</tr>
<tr>
<td>m) Evaluative data from previously conducted programs did not support existing or additional programs</td>
<td>29 85.3%</td>
</tr>
<tr>
<td>n) Inadequate allotment of employee or company time to such programs</td>
<td>19 55.9%</td>
</tr>
<tr>
<td>o) Others: Coordinating 20 worksites</td>
<td>0 0.0%</td>
</tr>
<tr>
<td>o) Small company size yields small class no matter</td>
<td>0 0.0%</td>
</tr>
</tbody>
</table>
Objective 2

The second objective was to collect data on all aspects of the individual programs, not only those aspects alleged to be important by the researcher. The personal interviews with the corporate representatives enabled this objective to be accomplished. Many questionnaire items were not simple, straightforward answers for a particular company situation and the interview process allowed for discussion and clarification of the answers. In this way, many insights and additional information were made available that otherwise would have been lost in the fixed-alternative answers of the questionnaire. For instance, a representative, in describing the company programs, may cite ten of the fourteen potential implementation problems but elaborate on only three major problems. Understanding the minor role of the remaining seven problems allowed the researcher to better interpret the company situation, and make a comparison to other companies. In addition, information that would normally not have been given on the questionnaire was given during the interviews. For example, an employee assistance program was not listed on the questionnaire except for listing an employee assistance director as one of the possible staff personnel in Section VII. During the interviews it became clear that these programs were a major part of worksite health promotion programs in the companies that offered an employee assistance program. Other unique approaches or more extensive procedures were brought up during interviews which helped to determine the more, or less, comprehensive programs. This information highlighted differences among companies that might have
otherwise looked identical according to the tallied data of the questionnaire. This becomes more evident for Objective 3.

Objective 3

The third objective was to describe and analyze the settings and processes of implementation of the 34 separate worksite health promotion programs. Summaries of each case study are in Appendix B. The case studies are numbered "1" through "34"; with "1" being the company with the smallest personnel and company "34" employing the greatest number of people covered under its described worksite health promotion program. These case study summaries provide thirty-four individual program descriptions covering: company size, number of sites and industrial classification; program coordinator and number of activities provided; general reasons for offering a program; deciding factors leading to specific kinds of programs and their purpose; methods, materials, facilities, and resources used; scheduling, eligibility criteria, staffing, financing, planning, and implementation of the programs; publicizing and encouraging participation; data base available on employees, evaluation criteria, and problems in implementation of the program.

In order to interpret the case study summaries, a good understanding and familiarity of the survey form instrument is necessary. The condensed case studies are presented in a way in which the settings and program processes of the individual companies can be easily reviewed and analyzed. The main components in any program area are described, while the lesser components are left out of the summaries unless particularly unique or unusual. These lesser components were covered under Objective 1. Only the top two reasons for offering a worksite health promotion
program are given to represent the main emphasis of each program. Under "Purpose" the terms "informational, instructional, behavioral change, and physical activity" are used to describe the purposes of the programs offered in each company. Full definitions for these terms are found in Section IV of the survey form (Appendix A). In this study, informational programs were most likely company newsletter articles and poster displays, although a wide variety of methods were covered over the 34 companies. Popular instructional programs included "brown bag" lunch-time lectures, evening seminars, lecture-discussions, or self-instructional systems. Behavioral change programs were generally on-going classes for modifying a certain behavior, individual counseling, peer support groups, or offsite treatment programs. Physical activity programs were most often aerobic exercise classes or stretching programs. The most common methods and materials across all activities are presented for a company under "Methods and Materials". Behavior modification and counseling usually meant on-going activities, while discussion-lecture and guest expert speaker indicate periodic activities. The term "comprehensive" in this section is used when most methodologies are available for all topics in that company. Any abbreviations used in the case study summaries are defined at the beginning of Appendix B. With the above guidelines, the thirty four case studies can be readily examined in order of increasing size. Some highlights of the case studies will be discussed below.

**Size of Company**

The number of program activities did not appear to significantly increase with company size, as discussed in Objective 1. However, the case studies showed an increase in intensity or comprehensiveness of the
worksite health promotion programs with larger companies. For each program topic there were more activity methods available to the employees. Employee assistance programs were integral parts of worksite health promotion programs in larger companies and were more likely on-site in-house staff whereas the employee assistance programs in smaller companies were often independently contracted. Treatment programs were more likely to be brought on-site with greater numbers of employees, rather than making referrals to community programs. Smaller companies emphasized discussion/lectures while larger companies consistently had behavior modification as well. Those companies with extensive data bases and evaluation procedures tended to be the larger companies, but a large scale company did not guarantee these systems would be developed or used. Common implementation problems were shared by companies of differing size.

Type of Company

Hospitals as an industrial classification were similar on some program aspects. Many, varied, in-house staff participated in the programs. Health assessment activities were readily available during work hours with supervisor discretion. A common methodology was for the different hospital departments to put on an "in-service" or seminar for health promotion information on their specific health topic. Also, several hospitals were involved in providing classes to the community and allowed employees to participate in these for a discounted fee. However, even though health professionals were the employees, hospitals also shared the problem of lack of employee interest and participation as did the other companies.
Manufacturing companies had employee assistance programs in nine of the thirteen cases. In-house safety specialists also held a key responsibility in the health promotion programs. The health assessment activities and any required lectures were generally during work hours. Health enhancement/risk reduction activities were most often scheduled outside of work hours. A greater emphasis on alcohol abuse and drug abuse programs were noted in these companies.

Worksetting of Company

The number of company sites did not markedly change the processes of the programs. One area with a noticeable difference was facilities locations. Company programs operated at one site generally had the necessary facilities, but if there were facilities needing to be contracted off-site these were the companies with that necessity. The corporate representatives of the companies at one site more often discussed plans to arrange use of nearby college facilities, local health club memberships and community facilities, or encouraged the use of neighborhood school and park facilities available for free. Companies with more than one site contracted facilities off-site less often. However, each company site had different facilities and although available to all employees this still entailed travel to another location to participate in an activity.

There were some program approaches that were less common but seem to be of interest because of their unique qualities. Several company programs were built around a large annual health fair during which much information was imparted and health assessments could be conducted. The fair was used as an opportune time to recruit and enroll people into the
ongoing program activities. In the companies conducting annual health fairs there was great support and enthusiasm from all employee ranks.

Most facilities used across all 34 companies were located on-site or the company encouraged the use of free local community facilities. Fitness equipment and facilities were the least likely to be company owned. A novel approach to this problem was a company jointly owning a health and fitness facility with another independent company. Two companies had plans to build their own fitness center on-site and one company gave discount memberships at a private health club. Two companies used empty company owned buildings for fitness classes and were remodeling these into fitness rooms.

Some effective communication procedures were the use of direct written communication from management or the company president, and inner-office communications. In the first, the communication was either used for publicizing an event and showing management support, or it was a direct invitation to participate in a program sent during the birthday month of the employee. One company owned their own television station and thus were able to use this in the health promotion program for publicity and for informational or instructional purposes.

There were some unique approaches for encouraging participation. A manufacturing company with the majority of employees working outdoors would call spontaneous "tailgate" discussion/lectures in which all were expected to participate. This provided a break for the workers and also ensured all would participate. Another company relied on an elaborate point system with built-in incentives. A small insurance company was passively encouraged through what the president described as the exposure to the results of bad habits every day through incoming claims sent to the
company. Another technique cited by a notable number of companies was the designation of the "no smoking" building. Some companies had or were considering offering a choice of insurance benefits, the "cafeteria plan", giving the employee some flexibility in insurance coverage and a financial incentive to stay healthy.

The companies with multiple sites to coordinate for a worksite health promotion program sometimes cited this as an implementation problem. One company solved this by a very organized system of planning and communication with each site having a health promotion program committee. Some companies rotated program activities around the different sites, and others offered activities at a particular site which were open to all employees.

No matter how large the company the common implementation problems were facilities, money, and lack of employee interest. However, all corporate representatives treated these as ongoing problems of managing and promoting a service. Reluctance on the part of management due to lack of cost-effectiveness data was often cited as an implementation problem at the start of a worksite health promotion program, and this needed to be resolved before the program could be implemented. The support of management was the one factor consistently cited as absolutely necessary for a successful program.
CHAPTER V

SUMMARY, CONCLUSION, AND RECOMMENDATIONS

Summary

The purpose of this study was to describe a variety of current worksite health promotion programs in the Portland, Oregon, metropolitan area, and translate these observations into a theory and specific hypotheses of successful programs. This was accomplished through individual case studies and group comparisons of thirty-four worksite health promotion programs in companies of differing size and type. The data was collected during personal interviews with a corporate representative from each company. The interviews followed the format of the survey instrument developed by J. A. Fuchs (Appendix A).

Program elements were examined; the frequencies across all companies for specific program elements were reviewed and interpreted, thus raising relevant issues. Some very common elements became apparent such as eligibility to all employees, an open scheduling of health assessment activities during work hours, scheduling of risk reduction/health enhancement activities other than during work hours, and a striking lack of data bases or evaluations pertaining to health promotion program activities, participants, and company indices of change. Common implementation problems were insufficient funds, facilities, employee interest, and effectiveness data. There was greater diversity in the survey responses under reasons for offering a program, deciding factors for offering a specific
activity, purpose of programs offered, sources of staff personnel, source of financing, and the combination of program methods and materials.

Individual reviews of the companies were provided in the case study summaries. The separate settings, implementation processes and unique components of the worksite health promotion programs were presented in this way. The different facets of the particular programs were seen interrelating as do parts to a whole.

The case studies of the larger companies revealed more comprehensive methods and materials for the risk reduction/health enhancement activities, greater use of on-site treatment programs and employee assistance programs, and more extensive data bases and program evaluations if data were kept. Hospitals, as an industrial classification, were similar in that the employees were involved in the health promotion program as both participants and staff. Manufacturing companies relied more heavily on employee assistance programs and the company safety department. Companies at one site, of any classification, more often promoted the use of local community athletic facilities than did companies with more than one site.

Unique program components were discussed and included the use of annual health fairs, pooling resources with another company, and publicity methods tailored to individual company styles and needs. Companies with multiple sites worked out logistics problems through company communication networks or moving the program activities from site to site. A common theme throughout the case studies was the need of management support and effective leadership for the worksite health promotion program activities.
Conclusion

The fourth objective of this study was to generate a theory from the available evidence, to be tested in future research, as to the significant components incorporated in successful worksite health promotion programs. Careful analysis of 34 companies with worksite health promotion programs was completed, and the current literature on this subject was reviewed. The following theory evolved from this data.

A successful worksite health promotion program originates with a thorough planning stage. The Program Director, Coordinator, or the person designated as being "in charge" should be knowledgeable in both health promotion and business, and be someone who is able to maintain the respect of management. A health promotion program committee, made up of representatives from various departments and employment levels should be involved in the planning stage. Initially, management support and commitment need to be obtained; a budget should be set. The committee should clarify management expectations and assess the interests and needs of the employees through existing records and current surveys. An assessment of the available resources of the company and the community should be documented; benefits, personnel policies such as flexible work time, medical services, legal requirements, facilities, food service, and community provider programs (private and volunteer organizations). Short and long term objectives for the program need to be clearly stated and appropriate evaluations and data base collection methods planned for the employees, activities, program staff, and the company. The short term objectives should pertain to participation, awareness, and knowledge levels, while the long term objectives can relate to increases in productivity or decreases in absenteeism, health claims, and
health care costs. Publicity for the program should be highly visible and include some messages customized for the company employee population. Employees, dependents, retirees, and others covered under the company health plan should be eligible for the activities. The health assessment activities should be voluntary and available at the convenience of the employee, with some supervisor discretion. The program leaders should be qualified and effective in their field and be continually evaluated. Available facilities should include some small and large meeting rooms, showers, and a dressing area. Some components that need to be more closely tailored to the needs and circumstances of the particular company include: co-payments by the employees; scheduling of risk reduction/health enhancement activities during or outside of work hours; and the methods and materials used for health assessment and risk reduction/health enhancement activities. Ideally, all risk reduction/health enhancement topics would have informational, instructional, and behavior change program components. The information should be accurate and the method current as reported in the literature, or be closely tracked and evaluated if experimental. The initial topics addressed should be those requested by the employees, and other health assessment and risk reduction/health enhancement activities can then be slowly introduced. The company environment should reinforce healthy behavior, such as no smoking policies and low fat cafeteria food. Sufficient time must be allotted for the entire program to be implemented as planned and stimulate change in the behavior of the employees and their families.

This theory can be broken into a series of directional hypotheses that pertain to health promotion programs at the worksite:
1) An interdepartmental health promotion program committee would develop a program more closely matched to the needs of the employee population, resulting in higher participation levels.

2) A worksite health promotion program with management participation and financial backing will show higher levels of positive change for the evaluation measurement criteria.

3) Program objectives divided into short term cognitive and attendance objectives, and long term behavior change and cost savings objectives will more likely be met than will one sweeping program goal.

4) Health assessment activities scheduled during work hours will be better attended by employees than health assessment activities scheduled after hours.

5) Worksite health promotion programs in which all employees, their dependents, retirees, and surviving spouses are eligible will achieve increased participation levels and long-term positive results.

6) Companies providing showers and a dressing area, a room for exercising, and promoting physical activity through classes and the use of free outdoor facilities (on-site or in the nearby community) will achieve comparable participation rates in physical activities as do companies with expensive fitness centers.

7) Co-payments by the company and employees for participation in the risk reduction/health enhancement activities will not significantly reduce attendance levels.
8) Worksite health promotion programs including instructional and behavior change components to their program as well as informational components will be more successful in meeting their long term objectives than will programs implementing informational programs alone.

9) A company in which the environment supports and promotes healthy behavior will have greater success in attaining and maintaining the long term objectives of the worksite health promotion program.

Recommendations

Recommendations For Future Research on Worksite Health Promotion Programs

The recommendation for future case study research in this area would be to research each case more in depth. This could be done with the same survey instrument form expanded in selected areas to elicit more specific, in depth responses. Some suggestions include documenting the specific numbers associated with each program area researched, for instance where the budgeted money is allocated within the program and the exact participation figures. The case studies could also include an assessment of the activity frequencies, methodologies, and results, for example researching how often discussion/lectures of weight control take place, what is included during the lecture such as individual questions, "how-to" material or registration for a behavior change class, and what changes result in the health behavior of program participants. It would be advantageous to acquire some data on exactly how much time and money are in-
olved in worksite health promotion programs, and what percentage of the eligible population participate.

Another recommended research approach is a quasi-experimental design study of existing worksite health promotion programs where the methodologies are rated to a standard and program results (individual behavior change, and company statistical data) are compared between companies and between participants and non-participants. Ideally, a true prospective, experimental design study would be implemented with random subject selection to different worksite health promotion programs with a non-participant control group at each site.

More research is needed in the development of effective health promotion program methodologies and how to adapt these to individuals or specific population groups and their worksetting. As the majority of the American working population (54%) work in situations with 100 or less employees, and 68% work with 250 or less employees (Merwin & Northrup, 1982), there is a striking need for research on health promotion program strategies for smaller companies. Research studies based in smaller towns and in more rural settings would address the unique needs of worksites with lower personnel totals. In order to still attain some economy of scale these work situations would benefit from further investigation and documentation into program and cost sharing among companies, and the use of community resources and services.

There appears to be a dramatic lack of data base utilization and evaluation measurement criteria pertaining to worksite health promotion programs. This is an area open to research and development, and would include data-processing systems, relevant measurement criteria, and introducing the system into different corporate structures. Data-processing
systems specifically for worksite health promotion programs need to be developed and studied to help discover the most pertinent data and the most efficient way to track this data in different worksettings. Relevant measurement criteria, in order to objectively evaluate worksite health promotion programs, need to be documented for a variety of company goals. Objective measures relevant to employee behavior change results, changes in employee health status, changes in company health related expenditures, effectiveness of different methodologies for risk reduction/health enhancement topics, and changes in absenteeism, disability claims, and productivity are several important indices of change pertaining to various worksite health promotion program goals. Research is needed in order to establish measures in economic terms of the effectiveness of worksite health promotion programs. Until there is a relatively simple and inexpensive way to track data and evaluate results in monetary terms, worksite health promotion programs will not be widely adopted in the American business world. The business world needs to be convinced the cost-savings are real and will be seen through easily implemented data-processing and evaluation systems.

Recommendations for Education and Industry

The recommendation for education is to establish appropriate professional preparation curriculum in the area of employee health education. A variety of professionals (personnel managers, occupational health nurses, fitness specialists) are involved in practicing and coordinating health education in the workplace. These professionals need some further education in the area of health education and promotion. In addition, these professionals, and health educators as well, need specific training in health edu-
cation at the worksite and management of a comprehensive health promotion program for employees. The challenge for education is to develop an appropriate training program in which the student comes away with the skills to plan, implement, evaluate, and manage a worksite health promotion program. This should include curriculum in health risk appraisals and program design, as well as cost-containment benefits and corporate network structures. Prior to offering training programs in this field, terminology associated with employee health education and promotion should be defined, program materials produced, and model worksite health promotion programs developed.

The major recommendation to a company about to institute a worksite health promotion program would be to seriously and carefully follow through on the planning and assessment steps. This includes analyzing existing data in the organization, obtaining information from reliable sources, assessing the existing and potential on-site facilities, investigating the resources available in the community (hospitals, universities, voluntary agencies, extension services, other businesses), surveying the employees, and eliciting management support and commitment. In addition, the "health environment" of the company should be assessed and changes made as needed to support a healthy atmosphere in the areas of food service, benefit plans, smoking policies, and flexible time for program activities. Involving the employees in the design and implementation of the program activities will increase their interest and enthusiasm, and providing knowledgeable, qualified leadership and publicity will maintain their participation levels.

There seems to be a place for a clearly defined role of Health Educator at the worksite; a person with background in both health education
and business. This will only be possible through a cooperative effort between universities and industries, coordinating their expertise to develop a relevant program and curriculum. They need to combine the knowledge and experience from both settings in order to create a true training specialty in the field of worksite health promotion programs.
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APPENDICES
Appendix A

A Survey Form for Describing Health Promotion Programs in Industrial Worksettings
A SURVEY FORM FOR
DESCRIBING HEALTH PROMOTION
PROGRAMS IN INDUSTRIAL WORKSETTINGS

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<table>
<thead>
<tr>
<th>Section Number</th>
<th>Section Title</th>
<th>Page Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Company Characteristics</td>
<td>1</td>
</tr>
<tr>
<td>II</td>
<td>General Reasons for Offering a Health Promotion Program</td>
<td>2</td>
</tr>
<tr>
<td>III</td>
<td>Eligibility Criteria for Health Promotion Program</td>
<td>2</td>
</tr>
<tr>
<td>IV</td>
<td>Purpose of Health Promotion Program</td>
<td>3</td>
</tr>
<tr>
<td>V</td>
<td>Basis for Deciding on Specific Kind of Health Promotion Program</td>
<td>4</td>
</tr>
<tr>
<td>VI</td>
<td>Scheduling of Health Promotion Program</td>
<td>5</td>
</tr>
<tr>
<td>VII</td>
<td>Sources of Staff Personnel of Health Promotion Program</td>
<td>5</td>
</tr>
<tr>
<td>VIII</td>
<td>Methods and Materials Used in Health Promotion Program</td>
<td>6</td>
</tr>
<tr>
<td>IX</td>
<td>Location of Facilities Used for Health Promotion Program</td>
<td>6</td>
</tr>
<tr>
<td>X</td>
<td>Use of Resources for Health Promotion Program</td>
<td>7</td>
</tr>
<tr>
<td>XI</td>
<td>Planning and Implementing the Health Promotion Program</td>
<td>7</td>
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<tr>
<td>XII</td>
<td>Publicizing and Encouraging Participation in Health Promotion Program</td>
<td>8</td>
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<tr>
<td>XIII</td>
<td>Financing the Health Promotion Program</td>
<td>8</td>
</tr>
<tr>
<td>XIV</td>
<td>Data Base for Health Promotion Program</td>
<td>9</td>
</tr>
<tr>
<td>XV</td>
<td>Evaluating the Health Promotion Program</td>
<td>9</td>
</tr>
<tr>
<td>XVI</td>
<td>Implementation of the Health Promotion Program</td>
<td>10</td>
</tr>
</tbody>
</table>

Health Promotion Programs in Industrial Worksettings (For those not offering a program.)
A SURVEY FORM FOR DESCRIBING HEALTH PROMOTION PROGRAMS IN INDUSTRIAL WORK SETTINGS

A HEALTH PROMOTION PROGRAM IS ONE WHICH INCLUDES COMPANY SPONSORED ACTIVITIES DESIGNED FOR:

A. HEALTH ASSESSMENT
   --TO IDENTIFY EXISTING OR POTENTIAL HEALTH RISKS AND/OR PROBLEMS

B. RISK REDUCTION/
   HEALTH ENHANCEMENT
   --TO REDUCE EXISTING OR POTENTIAL HEALTH RISKS /
   OR TO MOVE FROM GOOD HEALTH TO BETTER HEALTH

Based on the description above, indicate whether or not your company offers a HEALTH PROMOTION PROGRAM for employees. Check (√) the appropriate box.

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
</table>

Continue your response according to the instructions which follow below:

If you checked "NO", please turn to the last page of this survey form and answer the questions.

If you checked "YES", please continue responding to the questions below and on the following pages.

SECTION I
COMPANY CHARACTERISTICS

A. Check (√) below the frame of reference for which your responses to this survey form are applicable.

   (a) Responses apply only to the specific site at which the respondent is located.
   Check (√) below one of the following which describes best your specific site:

   ☐ corporate headquarters  ☐ branch or division office  ☐ plant location

   (b) Responses apply to all of the company sites where health promotion programs are offered.

All responses which follow should pertain to either a specific site or all company sites whichever you have indicated above in Item A.

B. Check (√) the total number of employees to which your responses pertain.

   (a) 50,000 or more employees  (e) 1,000 - 1,499 employees
   (b) 10,000 - 49,999 employees  (f) 500 - 999 employees
   (c) 1,000 - 9,999 employees  (g) less than 500 employees
   (d) 2,500 - 4,999 employees

C. Specify the percentage of employees to which your responses pertain.

   ☐ 1 (a) male, managerial employees
   ☐ 1 (b) female, managerial employees
   ☐ 1 (c) male, non-managerial employees
   ☐ 1 (d) female, non-managerial employees
SECTION II
GENERAL REASONS FOR OFFERING A HEALTH PROMOTION PROGRAM

From the alphabetized list below, rank order five (5) reasons, with "1" as the most important reason, that best describe why your company offers a health promotion program for employees:

- (a) to establish effective health screening measures
- (b) to establish health information system or data base
- (c) to establish programs for reducing health risks
- (d) to fulfill legal requirements
- (e) to increase employee morale and productivity/effectiveness
- (f) to increase the ability of employees to assume greater responsibility for personal health
- (g) to increase the life span of employees
- (h) to make needs as identified by employees and employee health/medical records
- (i) to reduce health problems of employees and absenteeism/sickness
- (j) to reduce/contain costs related to health benefits/services
- (k) other, please specify

SECTION III
ELIGIBILITY CRITERIA FOR HEALTH PROMOTION PROGRAM

Check (X) the criteria that best describe those who are eligible to participate in specific health assessment and risk reduction/health enhancement activities.

<table>
<thead>
<tr>
<th>Health Assessment Activities:</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
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<th>(6)</th>
<th>(7)</th>
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<tbody>
<tr>
<td>(a) cancer screening</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>(b) diabetes screening</td>
<td></td>
<td></td>
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<td>(c) physical fitness testing</td>
<td></td>
<td></td>
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<td>(d) health risk appraisal</td>
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<td>(e) hypertension screening</td>
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<td>(f) periodic physical examination</td>
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<tr>
<td>(g) work hazards identification</td>
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<table>
<thead>
<tr>
<th>Risk Reduction/Health Enhancement Activities For:</th>
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<th>(6)</th>
<th>(7)</th>
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<th>(9)</th>
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<tbody>
<tr>
<td>(a) alcohol abuse/alcoholism</td>
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<td>(b) drug abuse</td>
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<td>(c) smoking cessation</td>
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<td>(d) nutrition/diet modification</td>
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<td>(f) exercise/fitness</td>
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<td>(g) mental/emotional problems</td>
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<td>(i) hypertension control</td>
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<td>(j) work safety practices</td>
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<td>(k) off-the-job safety practices</td>
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</table>

-2-
SECTION IV
PURPOSE OF HEALTH PROMOTION PROGRAM

RESPONSE KEY FOR TABLE 2:

<table>
<thead>
<tr>
<th>INFORMATIONAL</th>
<th>DISTRUCTIONAL</th>
<th>BEHAVIORAL CHANGE</th>
<th>PHYSICAL ACTIVITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;Consists primarily of health messages presented through media (e.g., posters, pamphlets, nutritional facts on menus, bulletin board displays, dia-sheets)&quot;</td>
<td>&quot;Consists of face-to-face activities which are conducted by a qualified instructor in a classroom setting or which the individual pursues independently with a study guide (e.g., lectures-discussions, computer-assisted instruction, programmed instruction, listening to tapes)&quot;</td>
<td>&quot;Consists of opportunities that support or help employees change habits and practices that affect health and/or job performance (e.g., counseling, peer support groups, behavior modification)&quot;</td>
<td>&quot;Consists of opportunities to use equipment/facilities which are provided for employees to engage in activities (e.g., using exercise machines, jogging, swimming)&quot;</td>
</tr>
</tbody>
</table>

TABLE 2: RISK REDUCTION/HEALTH ENHANCEMENT ACTIVITIES

Using the response key above, check (✓) which of the following best describe(s) the purpose of risk reduction/health enhancement programs offered at your company.

<table>
<thead>
<tr>
<th>Purpose of Program Offered</th>
<th>Informational Program (✓)</th>
<th>Instructional Program (✓)</th>
<th>Behavioral Change Program (✓)</th>
<th>Physical Activity Program (✓)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company-sponsored</td>
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<tr>
<td>Risk Reduction/Health Enhancement Program Activities</td>
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<tr>
<td>(a) alcohol abuse/alcoholism</td>
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<tr>
<td>(b) drug abuse</td>
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<tr>
<td>(c) smoking cessation</td>
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<tr>
<td>(d) nutrition/diet modification</td>
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<td>(e) weight control</td>
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<tr>
<td>(f) exercise/fitness</td>
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<td>(g) mental/emotional problems</td>
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<tr>
<td>(h) stress management</td>
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<tr>
<td>(i) hypertension control</td>
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<tr>
<td>(j) work safety practices</td>
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<tr>
<td>(k) off-the-job safety practices</td>
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<tr>
<td>(l) other, please specify</td>
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</tbody>
</table>

*For response to letters: (a), (f), (h), and (j).*
SECTION V
BASIS FOR DECIDING ON SPECIFIC KIND OF HEALTH PROMOTION PROGRAM

TABLE A: HEALTH ASSESSMENT ACTIVITIES

For the health assessment activities listed below, check (x) one or more of the deciding factors which led to offering each of the activities.

<table>
<thead>
<tr>
<th>Health Assessment Activities</th>
<th>National health policy or priorities</th>
<th>National health medical benefit program</th>
<th>At request of employees</th>
<th>At company request</th>
<th>At request of management</th>
<th>At request of employees</th>
<th>Other</th>
<th>Please specify</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) cancer screening</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>(b) diabetes screening</td>
<td>x</td>
<td>x</td>
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<tr>
<td>(c) physical fitness testing</td>
<td>x</td>
<td>x</td>
<td>x</td>
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<tr>
<td>(d) health risk appraisal</td>
<td>x</td>
<td>x</td>
<td>x</td>
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<tr>
<td>(e) hypertension screening</td>
<td>x</td>
<td>x</td>
<td>x</td>
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<td></td>
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<tr>
<td>(f) periodic physical examination</td>
<td>x</td>
<td>x</td>
<td>x</td>
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<td></td>
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<tr>
<td>(g) work hazards identification</td>
<td>x</td>
<td>x</td>
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<tr>
<td>(h) other, please specify</td>
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</tbody>
</table>

TABLE B: RISK REDUCTION/HEALTH ENHANCEMENT ACTIVITIES

For the risk reduction/health enhancement activities listed below, check (x) one or more deciding factors which led to offering each of the activities.

<table>
<thead>
<tr>
<th>Risk Reduction/Health Enhancement Activities</th>
<th>National health policy or priorities</th>
<th>National health medical benefit program</th>
<th>At request of employees</th>
<th>At company request</th>
<th>At request of management</th>
<th>At request of employees</th>
<th>Other</th>
<th>Please specify</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) alcohol abuse/alcoholism</td>
<td>x</td>
<td>x</td>
<td>x</td>
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<tr>
<td>(b) drug abuse</td>
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<tr>
<td>(c) smoking cessation</td>
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<tr>
<td>(d) nutrition/diet modification</td>
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<tr>
<td>(e) weight control</td>
<td>x</td>
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<tr>
<td>(f) exercise/fitness</td>
<td>x</td>
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<tr>
<td>(g) mental/emotional problems</td>
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<tr>
<td>(h) stress management</td>
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<tr>
<td>(i) hypertension control</td>
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<tr>
<td>(j) work safety practices</td>
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<tr>
<td>(k) off-the-job safety practices</td>
<td>x</td>
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### SECTION VII

**SCHEDULING OF HEALTH PROMOTION PROGRAM**

Check (/) those time periods that best describe the scheduling of your company's health assessment activities and risk reduction/health enhancement activities.

#### Scheduling of Activities

<table>
<thead>
<tr>
<th>Health Assessment Activities</th>
<th>shared company/employee time</th>
<th>during work hours</th>
<th>before work hours</th>
<th>during lunch hours</th>
<th>after work hours</th>
<th>other please specify</th>
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<tbody>
<tr>
<td>(a) cancer screening</td>
<td>(1)</td>
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<tr>
<td>(b) diabetes screening</td>
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<tr>
<td>(c) physical fitness testing</td>
<td>(3)</td>
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<tr>
<td>(d) health risk appraisal</td>
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<tr>
<td>(e) hypertension screening</td>
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<tr>
<td>(f) periodic physical examination</td>
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<tr>
<td>(g) work hazards identification</td>
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<td>(h) other, please specify</td>
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#### Risk Reduction/Health Enhancement Activities Per:

<table>
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<th>(1)</th>
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<th>(3)</th>
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<tbody>
<tr>
<td>(a) alcohol abuse/alcoholism</td>
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<tr>
<td>(b) drug abuse</td>
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<td>(c) smoking cessation</td>
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<td>(d) nutrition/diet modification</td>
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<td>(f) exercise/fitness</td>
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<td>(g) mental/emotional problems</td>
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<td>(i) hypertension control</td>
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<td>(j) work safety practices</td>
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<tr>
<td>(k) off-the-job safety practices</td>
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<td>(l) other, please specify</td>
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</table>

### SECTION VII

**SOURCES OF STAFF PERSONNEL OF HEALTH PROMOTION PROGRAM**

Check (/) those sources from which staff personnel came who have a key responsibility for your company's health promotion program.

#### Sources of Staff Personnel

<table>
<thead>
<tr>
<th>Staff Personnel</th>
<th>In-house staff</th>
<th>Indepen-</th>
<th>State/</th>
<th>Voluntary</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Full-time</td>
<td>dently</td>
<td>local</td>
<td>health</td>
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<tr>
<td></td>
<td>employees</td>
<td>constructed</td>
<td>agency</td>
<td>organization</td>
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<td></td>
<td></td>
<td>resources</td>
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<td></td>
</tr>
<tr>
<td>(a) dietitian/nutritionist</td>
<td>(1)</td>
<td></td>
<td></td>
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<tr>
<td>(b) employee assistance director</td>
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<tr>
<td>(c) exercise physiologist</td>
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<td></td>
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<tr>
<td>(d) fitness specialist</td>
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<td></td>
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<tr>
<td>(e) health educator</td>
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<tr>
<td>(f) industrial hygienist</td>
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<tr>
<td>(g) laboratory technician</td>
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<tr>
<td>(h) leisure/recreation specialist</td>
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<tr>
<td>(i) nurse</td>
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<td>(j) nurse practitioner/physician assistant</td>
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<tr>
<td>(k) physical therapist</td>
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<tr>
<td>(l) psychologist</td>
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<tr>
<td>(m) physician</td>
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<tr>
<td>(n) rehabilitation specialist</td>
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<tr>
<td>(o) safety specialist</td>
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<tr>
<td>(p) social worker</td>
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<tr>
<td>(q) voluntary health worker</td>
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<td>(r) other, please specify</td>
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</table>

- 5 -
### Section VIII

**Methods and Materials Used in Health Promotion Program**

Check [✓] which of the following best describe(s) the methods and materials used in your company's risk reduction/health enhancement effort activities.

#### Methods and Materials

<table>
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</thead>
<tbody>
<tr>
<td>(a) Alcohol abuse/alcoholism</td>
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<tr>
<td>(b) Drug abuse</td>
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<td>(c) Smoking cessation</td>
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<td>(d) Nutrition/diet modification</td>
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<td>(e) Weight control</td>
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<tr>
<td>(f) Exercise/fitness</td>
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<td>(g) Mental/emotional problems</td>
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<td>(h) Stress management</td>
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<tr>
<td>(i) Hypertension control</td>
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<tr>
<td>(j) Work safety practices</td>
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<tr>
<td>(k) Off-the-job safety practices</td>
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<tr>
<td>(l) Other, please specify</td>
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</tr>
</tbody>
</table>

### Section IX

**Location of Facilities Used for Health Promotion Program**

Check [✓] the location(s) of the following facilities used for your company's health promotion program.

#### Location of Facility

<table>
<thead>
<tr>
<th>Facilities Used for Health Promotion Program</th>
<th>Located at a company site</th>
<th>Located at independently contracted site</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Auditorium (over 50 seats)</td>
<td>[✓]</td>
<td>[ ]</td>
</tr>
<tr>
<td>(b) Meeting or class room</td>
<td>[✓]</td>
<td>[ ]</td>
</tr>
<tr>
<td>(c) Meditation area or quiet area</td>
<td>[✓]</td>
<td>[ ]</td>
</tr>
<tr>
<td>(d) Exercise physiology laboratory</td>
<td>[✓]</td>
<td>[ ]</td>
</tr>
<tr>
<td>(e) Health facility</td>
<td>[✓]</td>
<td>[ ]</td>
</tr>
<tr>
<td>(f) Physical fitness area</td>
<td>[✓]</td>
<td>[ ]</td>
</tr>
<tr>
<td>(g) Library for employee use</td>
<td>[✓]</td>
<td>[ ]</td>
</tr>
<tr>
<td>(h) Gymnasium for team/sports</td>
<td>[✓]</td>
<td>[ ]</td>
</tr>
<tr>
<td>(i) Small exercise room</td>
<td>[✓]</td>
<td>[ ]</td>
</tr>
<tr>
<td>(j) Weight lifting/training room</td>
<td>[✓]</td>
<td>[ ]</td>
</tr>
<tr>
<td>(k) Swimming pool</td>
<td>[✓]</td>
<td>[ ]</td>
</tr>
<tr>
<td>(l) Tennis/pickleball courts</td>
<td>[✓]</td>
<td>[ ]</td>
</tr>
<tr>
<td>(m) Running track/path/trail</td>
<td>[✓]</td>
<td>[ ]</td>
</tr>
<tr>
<td>(n) Athletic fields</td>
<td>[✓]</td>
<td>[ ]</td>
</tr>
<tr>
<td>(o) Sauna/whirlpool</td>
<td>[✓]</td>
<td>[ ]</td>
</tr>
<tr>
<td>(p) Showers/lockers for dressing</td>
<td>[✓]</td>
<td>[ ]</td>
</tr>
<tr>
<td>(q) Other, please specify</td>
<td>[✓]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>
### SECTION V

**USE OF RESOURCES FOR HEALTH PROMOTION PROGRAM**

Check (✓) the purpose for which the following outside resources are used.

<table>
<thead>
<tr>
<th>Outside Resources</th>
<th>Obtaining Informational Literature</th>
<th>Conducting Some/All Health Assessment Activities</th>
<th>Conducting Some/All Risk Reduction Management Activities</th>
<th>Other, Please Specify</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) local/state health agency (e.g. public health department)</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>(b) federal agency (e.g. NIH, CDC)</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>(c) colleges and universities</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>(d) local hospital/medical clinics</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>(e) voluntary health organizations (e.g. American Heart Association, American Cancer Society)</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>(f) professional organizations (e.g. American Medical Association)</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>(g) religious groups (e.g. Seventh Day Adventists)</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>(h) industrial/trade organizations (e.g. insurance, dairy councils)</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>(i) commercial organizations (e.g. smoking cessation packages)</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>(j) professional consulting firms</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>(k) other industry sponsored resources (e.g. drug/dairy companies)</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>(l) other, please specify</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
</tbody>
</table>

### SECTION VI

**PLANNING AND IMPLEMENTING THE HEALTH PROMOTION PROGRAM**

Check (✓) the functions assumed by those responsible for planning and implementing the health assessment and risk reduction/health enhancement activities.

<table>
<thead>
<tr>
<th>Function</th>
<th>Plan Health Assessment Activities</th>
<th>Implement Health Assessment Activities</th>
<th>Plan Risk Reduction/Health Enhancement Activities</th>
<th>Implement Risk Reduction/Health Enhancement Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) in-house company health promotion program committee</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>(b) in-house company health/medical department committee</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>(c) in-house company employee benefit or employee relations personnel</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>(d) self-employed professional consultants</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>(e) locally contracted hospital staff</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>(f) college and university personnel</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>(g) local community voluntary health organization staff</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>(h) other, please specify</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
</tbody>
</table>
SECTION XII
PUBLICIZING AND ENCOURAGING PARTICIPATION IN HEALTH PROMOTION PROGRAM

Check /\) in what were program activities are publicized or how participation in your company’s health promotion program is encouraged.

<table>
<thead>
<tr>
<th>Wave of Publicizing and Encouraging Participation</th>
<th>Used for Health Management Activities</th>
<th>Used for Risk Management/Health Promotion Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) bulletin board/poster/flyer announcements</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>(b) pay envelope insert announcements</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>(c) company newsletter announcements</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>(d) person-to-person communication with employees</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>(e) certificates/awards of achievement and participation</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>(f) material/financial incentives for achievement and participation</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>(g) top level management endorsement and/or participation</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>(h) department supervisor endorsement and/or participation</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>(i) other, please specify</td>
<td>[ ]</td>
<td>[ ]</td>
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</tbody>
</table>

SECTION XIII
FINANCING THE HEALTH PROMOTION PROGRAM

Rank order one or more of the sources through which your company’s health promotion program is financed. Use "X" as the major source of financing support.

[ ] (a) fees paid by program participants
[ ] (b) corporate budget
[ ] (c) medical department budget
[ ] (d) employee benefits/personnel budget
[ ] (e) insurance
[ ] (f) tax supported funds
[ ] (g) foundation grant
[ ] (h) voluntary health organization funds
[ ] (i) other, please specify
**SECTION IV**

**DATA BASE FOR HEALTH PROMOTION PROGRAM**

Check (*) the kinds of data/information on your company's employees that best describe the data base currently available for your health promotion program.

- [ ] (a) accident incidence
- [ ] (b) causes of short term disability
- [ ] (c) duration of short term disability
- [ ] (d) incidence of short term disability
- [ ] (e) incidence of long term disability correlated with diagnostic data
- [ ] (f) individual risk estimates related to risk factors
- [ ] (g) modification of risk estimates related to changes in employee risk indicators
- [ ] (h) risk by person/person by risk
- [ ] (i) tracking of changes in health status
- [ ] (j) tracking of changes in cost of health care
- [ ] (k) tracking of changes in use of health/medical services
- [ ] (l) tracking of changes in insurance coverage
- [ ] (m) tracking of changes in employee productivity
- [ ] (n) utilization of health/medical benefits of employees
- [ ] (o) utilization of health/medical benefits of dependents, retirees, and surviving spouses
- [ ] (p) work's compensation costs
- [ ] (q) other, please specify

---

**SECTION IV**

**EVALUATING THE HEALTH PROMOTION PROGRAM**

Check (*) the measurement criteria used or to be used in evaluating your company's health promotion program activities.

<table>
<thead>
<tr>
<th>Measurement Criteria</th>
<th>Activities Evaluated</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) change in absenteeism</td>
<td>Health Enhancement Activities</td>
</tr>
<tr>
<td>(b) change in employee productivity</td>
<td></td>
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<tr>
<td>(c) change in employee morale/attitude toward work</td>
<td></td>
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<tr>
<td>(d) change in attitude toward responsibility for personal health</td>
<td></td>
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<tr>
<td>(e) employee reasons for participation in program</td>
<td></td>
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<tr>
<td>(f) comparison of participants in program activities with non-participants</td>
<td></td>
</tr>
<tr>
<td>(g) drop out rates from program activities</td>
<td></td>
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<tr>
<td>(h) &quot;spill-over&quot; effects (e.g. effects on non-participants)</td>
<td></td>
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<tr>
<td>(i) change in health knowledge</td>
<td></td>
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<tr>
<td>(j) change in health attitudes</td>
<td></td>
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<tr>
<td>(k) change in health practices</td>
<td></td>
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<tr>
<td>(l) observed change in employee appearance/actions</td>
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<tr>
<td>(m) change in incidence of morbidity</td>
<td></td>
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<tr>
<td>(n) change in incidence of disability</td>
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<tr>
<td>(o) change in incidence of premature mortality</td>
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<tr>
<td>(p) change in prevalence of health risk indicators</td>
<td></td>
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<tr>
<td>(q) change in health care costs</td>
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<tr>
<td>(r) change in out-patient visits</td>
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<tr>
<td>(s) change in hospitalization</td>
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<tr>
<td>(t) change in incidence of accidents</td>
<td></td>
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<tr>
<td>(u) effectiveness of screening procedures</td>
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<tr>
<td>(v) use of facilities and equipment (other than medical)</td>
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<tr>
<td>(w) other, please specify</td>
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</tbody>
</table>


SECTION XVI
IMPLEMENTATION OF THE HEALTH PROMOTION PROGRAM

From your experience, check (x) any problems that were encountered and which had to be resolved before implementation of your health promotion program.

| Problems Encountered in Program Implementation: | Type of Activities | For Health 

| | Management | Reducation | Educational 

| | Activities |
| --- | --- | --- |
| (a) inadequate or not readily available facilities to conduct specific activities | | |
| (b) insufficient money/funds to conduct programs | | |
| (c) not enough time for health/medical personnel to conduct such programs | | |
| (d) not enough information/knowledge to implement certain types of programs | | |
| (e) no medical/health personnel available to conduct such programs | | |
| (f) lack of community resources to conduct programs | | |
| (g) top management reluctant to invest time and other resources in programs | | |
| (h) union reluctant to invest time and other resources in programs | | |
| (i) lack of employee interest/participation in programs | | |
| (j) employees fear loss of preference or employment if illnesses/disabilities are detected | | |
| (k) lack of data to indicate effectiveness of such programs in reducing medical costs, morbidity, and mortality | | |
| (l) lack of adequate data to support implementation of additional programs | | |
| (m) evaluative data from previously conducted programs did not support existing or additional programs | | |
| (n) inadequate allowance of employee or company time to such programs | | |
| (o) other, please specify | | |

Thank you

Name of Respondent: 
Title of Respondent: 
Department Name: 
Company: 
Address:  
(Street or box number) 
(city) (state) (zip code) 
Telephone:  

-10-
Appendix B

Individual Case Study Summaries

The case study summaries provide information for each of the 34 companies relative to the 16 sections of the survey form. The case study summaries are meant to be analyzed with the response options of these survey form sections.

The following abbreviations were used in the individual case studies summaries:

- H.A.: Health Assessment Activities
- R.R.: Risk Reduction/Health Enhancement Activities
- H.P.P.: Health Promotion Program
- E.A.P.: Employee Assistance Program
- Dpt.: Department
- Med.: Medical
CASE STUDY #1

COMPANY CHARACTERISTICS
* 35 employees
* Branch office
* Insurance company
* Program coordinator-President
* Number of activities-16
* (6 N.A. 10 R.R.)

REASONS FOR OFFERING
* To reduce/contain cost of health benefits/services
* To reduce health problems, absenteeism

ELIGIBILITY CRITERIA
* Physical fitness testing
* All employees eligible for all activities
* Physical examinations limited to salaried employees

PURPOSE
* All on-site RR activities are informational and instructional in nature
* Most behavior change/treatment programs were referrals to community programs; one on-site smoking cessation program

DECIDING FACTORS
* N.A. activities were considered a company benefit and were initiated at president's request
* R.R. activities were offered because of evidence/reports of prevalent problems and major causes of absenteeism
* Success of the smoking cessation program encouraged the company president to expand H.P.P.

SCHEDULING
* All activities are offered during work hours

STAFF PERSONNEL
* All speakers, instructors, and program personnel were independently contracted or personnel from voluntary health organizations

METHODS AND MATERIALS
* Variety of methods for each topic; annual, periodic, and ongoing activities.
* Behavior modification, self-instruction/programmed learning, counseling, discussion/lecture groups, guest speakers
* Materials graphics, memos from management, exposure to insurance claims (results of "bad habits")
FACILITIES
* On-site-meeting rooms
* Off-site-medical department/health clinic, very near local school facilities e.g. pool

RESOURCES
* Many outside resources for information
* Use local hospital, university, and voluntary health organizations for conducting activities

PLANNING & IMPLEMENTATION
* Company president with input from other companies and professionals

PUBLICIZING AND ENCOURAGING PARTICIPATION
* Wide variety; included all except pay envelope inserts
* Financial incentive was six extra paid days per year—one-half per month for being well

FINANCING
* Mainly:
  1. Corporate Budget
  2. Insured Benefit
* Secondary:
  3. Employee benefits/personnel budget
  4. Voluntary health organization funds

DATA BASE
* Keeps this data/information on employees
* Not computerized

EVALUATION
* Word of mouth most important; then check subjectively
* Checks absenteeism records, productivity, attitude, etc.

IMPLEMENTATION PROBLEMS
* Not big enough to build gym and track
* Nothing that was a significant problem for planned activities
CASE STUDY #2

COMPANY CHARACTERISTICS
* 112 employees
* Division
* Marketing Division; forestry products
* Program coordinator -- Personnel Manager
* Number activities 20 (H.A. 6, R.R. 14)

REASONS FOR OFFERING
* A self-insured company. Looking at reducing costs.
* To reduce/contain costs related to health benefits/services.

ELIGIBILITY CRITERIA
* Physical exams for top executives only
* All other activities are available to all employees, dependents, retirees and surviving spouses.

PURPOSE
* All programs have an informational and instructional component
  -- once per month information is sent out on a health topic, and
  an instructor or speaker is arranged for on-site bag lunch/lecture.
* An E.A.P. covers alcohol and drug abuse/emotional problems
  stress management
* Aerobic/fitness classes on-site
* Treatment programs sponsored off-site

DECIDING FACTORS
* All activities are considered a company benefit or policy.
* Corporate headquarters implement programs company-wide.
* To address major causes of medical/health-care costs
* Each division has a notebook guide describing materials, resources, how-to-implement, etc.

SCHEDULING
* Exercise/fitness classes are after-hours
* Nutrition/diet activities are during lunch
* All other activities are during work hours
* Treatment programs are after hours

STAFF PERSONNEL
* Except for the coordinator, all staff are independently contracted resources
* Some speakers from voluntary health organizations

METHODS AND MATERIALS
* The E.A.P. provides counseling -- behavior change treatments are off-site
* Program generally consists of guest expert speakers
  company newsletter and graphic materials
* Aerobics classes are on-site
FACILITIES
* Meeting rooms, quiet area, health exhibit area, Library
* Small exercise room, showers/locker room are provided and are used on-site

RESOURCES
* Information from the insurance company
  -- local hospitals
  -- both state/local health agencies
  -- voluntary health organizations
  -- a professional consulting firm (E.A.P.)
* All used for information and conducting the program activities

PLANNING & IMPLEMENTATION
* Corporate program notebook guidelines and the personnel manager were responsible for planning and implementation
* Local hospital staff and community voluntary health organization staff help with implementation stages

PUBLICIZING AND ENCOURAGING PARTICIPATION
* Financial incentive for smoking cessation only
* Others; posters, newsletter, person-to-person and management endorsement and participation

FINANCING
1 Employee benefits/personnel budget -- most
2 Corporate budget
3 Fee shared by employees for aerobics classes

DATA BASE
* This is done in the corporate headquarters, (out-of-state) and the figures are not directly related to the health-promotion program
* Corporate office sends report with figures on changes and per/employee costs

EVALUATION
* Employee self-report

IMPLEMENTATION PROBLEMS
* Top management support was not a problem and was essential
* Was given go-ahead even before budget.
* Facilities
* Lack of effectiveness data
* Lack of information of providers
CASE STUDY #3

COMPANY CHARACTERISTICS
* 200 employees
* Division office
* Light manufacturing
* Program coordinator -- Personnel Administrator
* Number activities -- 11 (4 H.A., 7 R.R.)

REASONS FOR OFFERING
* To reduce/contain costs related to health benefits/services
* Establish programs for reducing health risks

ELIGIBILITY CRITERIA
* Physical exam - top executives only
* All others for all employees

PURPOSE
* Informational; management also taught to recognize signs of health problems
* Treatment for those covered under health plan
* Instructional in 5 of 7 risk reducing activities
* Bigger plans for the next year, fitness facilities will be off-site

DECIDING FACTORS
* N.A. decisions on the part of management - "cost effective thing to do"
* R.R. questionnaire to employees and suggestions of management -- did look at worker's compensation claims

SCHEDULING
* Screening during work hours
* Classes/lectures after hours
* Go on disability for treatment for lasting problem

STAFF PERSONNEL
* Safety committee in-house heads program
* Other staff independently contracted

METHODS AND MATERIALS
* Graphic materials on all topics, some films and cassettes
* Guest speakers/and or classes for 5 of 7 activities
* No smoking building

FACILITIES
* Meeting rooms, literature rack, showers on-site
* Nearby school with free athletic facilities

RESOURCES
* Used a local hospital to help conduct H.A. and R.R. activities
* Information used from local hospitals and federal agencies
PLANNING & IMPLEMENTATION
* Personnel department, three-person committee surveyed employees

PUBLICIZING AND ENCOURAGING PARTICIPATION
* Posters, pay envelope inserts, newsletter
* Management support and participation
* Financial incentive for smoking cessation only

FINANCING
1. Personnel department
2. Insured benefit
3. High cost activities - employees share costs

DATA BASE
* Large data base available if wanted to relate to program
  - doesn't at this time
* Did look at utilization of health/medical benefits

EVALUATION
* Accidents
* Change in health care costs

IMPLEMENTATION PROBLEMS
* Insufficient funds, but believe in employee contributing
* Lack of data on effectiveness and to support additional activities
* Would be interested in more activities but population (work force) is too small
CASE STUDY #4

COMPANY CHARACTERISTICS
* 250 employees
* Hospital - One Site
* Program Coordinator -- Assistant Administrator for Nursing Services
* Number of Activities - 14 (3 H.A., 11 R.R.)

REASONS FOR OFFERING
* To establish programs for reducing health risks
* To establish health information system or data base

ELIGIBILITY CRITERIA
* H.A.
  Hypertension reduction for all employees; dependents and retirees, as well as surviving spouses
  Cancer work hazard -- lab work for high tech. risk groups
* R.R.
  Open to all employees

PURPOSE
* Informational and instructional for all
* Behavioral change programs when needed; employee assistance program.
  * Fitness classes

DECIDING FACTORS
* Multiple reasons for all
* Predominant factors were survey of employees and suggestion of management
* Others; national health incentives/priorities
* Reports of successful programs
* At-risk groups

SCHEDULING
* Activities offered 2 or 3 times during 24-hour period
* All shifts have opportunity to attend
* Employees have choice of before, after, during their work hours (depending on job responsibilities)
* Treatment programs and exercise classes are after hours

STAFF PERSONNEL
* Employee Assistance Director (independent)
* Employees from in-house departments
* Physicians volunteer time
* One speaker from American Cancer Society

METHODS AND MATERIALS
* Discussion/lecture groups mainly
* Use of posters, filmstrips
* Counseling through EAP
FACILITIES
* Facilities on-site
* Nearby pool -- [at another hospital] -- free use for hospital employees

RESOURCES
* Information from multiple resources
* Assistance in conducting program from American Cancer Society and industrial/trade organizations

PLANNING & IMPLEMENTATION
* Assistant Administrator delegates responsibility to nurses
* Safety committee, infection control committee, physical therapy help assistant administrator w/planning and nurses w/implementing

PUBLICIZING AND ENCOURAGING PARTICIPATION
* No newsletter or awards
* All others

FINANCING
1. Corporate budget -- the educational fund for each dept.
2. Insured benefit -- if go into treatment programs

DATA BASE
* Keep track of data "somewhere" -- do not correlate w/H.P.P.

EVALUATION
* Questionnaire to employees, but not consistently

IMPLEMENTATION PROBLEMS
* Insufficient funds -- people don't like to go unless paid for
* Biggest Problem: Lack of employee interest/participation
* Lack of data to justify or continue
CASE STUDY #5

COMPANY CHARACTERISTICS
* 400 employees
* Plant location
* Manufacturing
* Program Coordinator - Personnel & Safety Director
* Number Activities: 17 (8 H.A., 9 R.R.)

REASONS FOR OFFERING
* To increase employee morale, productivity/effectiveness
* To increase employee ability to assume greater responsibility for personal health

ELIGIBILITY CRITERIA
* Physical exams for top-executives, only
* All others for all employees and their dependents

PURPOSE
* Informational for all
* Instructional for 7 of 9
* Referral out for treatment programs
* Physical activity classes for fitness and for healthy back problems
* Specific training programs required for management to recognize physical symptoms/problems and distress

DECIDING FACTORS
* Feeling of obligation to employees -- management decision was the deciding factor
* Others; better employee relations; accident prevention; legal requirements

SCHEDULING
* H.A.
  During work hours; except fitness classes after hours
* R.R.
  Required talks, lectures, orientations -- during work hours;
  Counseling, treatment on own time

STAFF PERSONNEL
* Safety specialist on staff
* All others independently contracted or from voluntary health organizations

METHODS AND MATERIALS
* Employee assistance program
* Multiple methods for each topic
* Activities use: counseling, lectures, self-instructional programs, demonstrations, guest speakers
* Materials include: newsletter, graphics, videos, models
FACILITIES
* Auditorium and gymnasium -- contracted off-site; but in process of building one w/showers
* On-site meeting rooms and health exhibit area; library

RESOURCES
* Multiple resources for information
* Local hospitals, voluntary health organization and independent resources helped conduct activities

PLANNING & IMPLEMENTATION
* Superintendent's idea -- management brainstorming idea
* Personnel and Safety Director & Specialist planned and implemented

PUBLICIZING AND ENCOURAGING PARTICIPATION
* Everything but pay envelope inserts
* Tailgate meetings, T-shirts, blood pressure readings, cards, etc.

FINANCING
1 Personnel and Safety budget
2 Aerobics fees paid by participant
3 Insured benefits for treatment programs

DATA BASE
* Corporate office keeps track of data
* Too early to look at it yet, program new

EVALUATION
* Do not evaluate formally
* Ask people - subjective
* Do look at accidents

IMPLEMENTATION PROBLEMS
* Inadequate facilities and funds
* Union was reluctant
* Lack of employee interest/participation
* Lack of effectiveness of data gathered
CASE STUDY #6

COMPANY CHARACTERISTICS
* 450 employees
* Hospital - on-site
* Program coordinator - Employee Health Nurse, director
* Number of activities - 21 (9 H.A., 12 R.R.)

REASONS FOR OFFERING
* To establish programs for reducing health risks
* To increase employee morale, productivity/effectiveness

ELIGIBILITY CRITERIA
* H.A.
  Health risk appraisal and physical fitness testing are restricted to those who pay fees
  Other health assessment activities are available to all employees
* R.R.
  All employees are eligible for risk reduction activities; employees pay for aerobic classes
* Educational part free - employee pays treatment costs

PURPOSE
* Smoking cessation, nutrition, weight control
* Exercise, diabetes-stress instructional, behavior change, and physical activities
* Other topics mainly informational, some instructional components

DECIDING FACTORS
* Employees survey was main factor for deciding on activities; major cause of health care cost was the underlying reason.
* A committee is brainstorming future ideas

SCHEDULING
* Most programs are between 8 AM - 3 PM;
* Employees can go when they choose.
* Activities are offered at different times so everyone gets a chance while people are still on the floor of the hospital

STAFF PERSONNEL
* Staff are recruited from in-house departments
* Some personnel come from voluntary health organizations

METHODS AND MATERIALS
* Methods - counseling and discussions/lecture groups, some guests speakers, many in-services, annual health fair, referrals to off-site behavioral modification programs;
* Materials - pay envelope inserts are used for all topics
* Some graphics, exhibits, films cassettes
FACILITIES
* Negotiating with nearby community college to use athletic facilities
* Auditorium, meeting rooms and showers on site

RESOURCES
* Various resources used to obtain information
* Federal agency helps in conducting some risk reduction activities

PLANNING & IMPLEMENTATION
* In-house health promotion program committee

PUBLICIZING AND ENCOURAGING PARTICIPATION
* Wide array of publicity methods
* Points system with incentives; working on materials/financial incentives and management participation

FINANCING
1. Educational budget
2. Fees paid by program participants

DATA BASE
* Follow all injuries, illness, time loss
* Other data available if wanted

EVALUATION
* Change in incidence of accidents and disability
* No real evaluation of program parts or as a whole

IMPLEMENTATION PROBLEMS
* Not readily available facilities
* Insufficient funds
* Top management reluctant due to lack of cost effectiveness data
CASE STUDY #7

COMPANY CHARACTERISTICS

* Less than 500 employees
* Hospital-one site
* Program coordinator-Employee Health Nurse
* Number activities-13 (2 H.A., 11 R.R.)

REASONS FOR OFFERING

* To increase the ability of employees to assume greater responsibility for personal health
* To increase employee moral and productivities/effectiveness

ELIGIBILITY CRITERIA

* H.A.-all employees (and community)
* R.R.-opened to any employee who pays fees-discount over community rate
* Employee assistance program free

PURPOSE

* Almost all R.R. activities have informational-instructional-behavior change components to them
* Many incorporate physical activity into the program

DECIDING FACTORS

* Employees survey was an important factor, as was evidence/reports of prevalent problems
* Multiple other factors figured into different topics (i.e., health assessments, absenteeism, national health priorities, health care cost)

SCHEDULING

* H.A. activities and R.R. speakers/discussions-during work hours
* R.R. classes, treatments-after hours

STAFF PERSONNEL

* All personnel come from in-house departments staff

METHODS AND MATERIALS

* Classes offered to community on behavior change or different health behaviors, employees can take at discount rate
* Individual counselling and in-house services during work
* Graphics and films used
FACILITIES
* All facilities on-site; auditorium, meeting rooms, biofeedback area, small exercise room, library, weight lifting

RESOURCES
* Many outside resources are information only
* Hospital itself conducts own program

PLANNING & IMPLEMENTATION
* In-house company health promotion program committee

PUBLICIZING AND ENCOURAGING PARTICIPATION
* Posters, newsletters, word of mouth
* Management supervisors endorse and participate

FINANCING
1. Fees paid by program participants
2. Education department budget
3. Personnel department

DATA BASE
* Some data kept but not tracking changes
* Not correlated to health promotion program

EVALUATION
* Nurses observations - employee health nurse
* Nothing formal - use of facilities, i.e. weight room

IMPLEMENTATION PROBLEMS
* Low participation; employees request programs, then low attendance
* Also, facilities-funds-time had to be resolved
* Knowledge/information needed to be obtained
* Lack of cost effectiveness for programs
CASE STUDY #8

COMPANY CHARACTERISTICS
* Less than 500 employees
* Plant location
* Manufacturing
* Program Coordinator -- Safety Director
* Number activities - 21 (8 H.A. 13 R.R.)

REASONS FOR OFFERING
* Increase employee morale
* Increase productivity/effectiveness

ELIGIBILITY CRITERIA
* All employees and dependents are eligible
* Dependents rarely use
* Some fees w/certain activities of higher cost

PURPOSE
* Informational and instructional for all R.R. topics
* Physical activity for fitness and hypertension control
* Behavior change program for insured substance abuse treatment programs

DECIDING FACTORS
* H.A. - national health initiative/priorities, and at risk population groups
* R.R. - survey of employees
* Preventive medicine background of safety director influences activities selections

SCHEDULING
* H.A.
  - during work hours, except physical exam on own time.
* R.R.
  - substance abuse, smoking, fitness are before or after work (own time)
* Choice on others, depending on when seminar is offered (i.e., what shift)

STAFF PERSONNEL
* In-house nurse, health educator, fitness specialist, safety specialist
* Independently contracted - EAP director, health educators, psychologist
* Speakers from state/local agencies and voluntary health organizations
METHODS AND MATERIALS
* Methods—behavioral modification, counseling, discussions/lectures, guest speakers
* Materials—newsletter, pay envelope inserts, graphics, films
* Variety on each topic

FACILITIES
* Discount at a health club for company employees
* On-site: showers, training room, meeting rooms, health exhibit area and library, athletic field

RESOURCES
* Some help in conducting activities from local/state agency and federal agency
* University helped with/screening procedures
* Information obtained from all these resources

PLANNING & IMPLEMENTATION
* Safety director and nurse work together

PUBLICIZING AND ENCOURAGING PARTICIPATION
* All publicity methods
* Awards of achievement to full shift for decreased lost time and accidents
* Encourage participation with/coffee, luncheons

FINANCING
* Different for different activities. Most do not cost money.
* If a cost:
  1. Fees paid by participants
  2. Employee benefits/personnel budget
  3. Insurance

DATA BASE
* Some data kept

EVALUATION
* No formal evaluation

IMPLEMENTATION PROBLEMS
* Insufficient funds
* Difference of opinion on allotment of employee or company time
* Time
* Lack of data
* Lack of employee interest/participation
* Fear of drug detection on some screening procedures
CASE STUDY #9

COMPANY CHARACTERISTICS
* 500-999 employees
* More than one company site
* Construction
* Program coordinator-Personnel Coordinator
* Number of activities-5 (2.H.-3R.R.)

REASONS FOR OFFERING
* Reduce costs, increase productivity
* Fulfill legal requirements
* Reduce absenteeism

ELIGIBILITY CRITERIA
* Physical exams, top-level executives, and at-risk groups
* Others available to all employees

PURPOSE
* Informational; main component
* Occasional instruction
* Insurance for treatment
* CPR-information and instruction

DECIDING FACTORS
* Company policy or benefit, and management suggestion

SCHEDULING
* During working hours

STAFF PERSONNEL
* Independently contracted
* Health educators and physicians

METHODS AND MATERIALS
* Pay envelope inserts for all health promotion topics
* R.R.
  Discussion/lecture group, guest speaker, filmstrips
* Exercise room available

FACILITIES
* On-site at main office
* Meeting rooms, small exercise room, showers, and locker rooms

RESOURCES
* Local hospital treatment center for substance abuse use for information and help in conducting drug and alcohol abuse programs
PLANNING & IMPLEMENTATION
  * Management recommendations, approved by president
  * Publicizing and encouraging

PUBLICIZING AND ENCOURAGING PARTICIPATION
  * Pay envelope inserts only

FINANCING
  1. Corporate budget
  2. Employee benefits/personnel budget
  3. If in-treatment participant pays some and insurance pays some

DATA BASE
  * Not for health promotion program evaluation

EVALUATION
  * No evaluation

IMPLEMENTATION PROBLEMS
  * Company so diversified, hard to get everyone together out of office often
  * Not enough time
  * Lack of interest
CASE STUDY #10

COMPANY CHARACTERISTICS
* 500 to 999 employees
* Plant location
* Manufacturing
* Program coordinator—Occupational Health Nurse
* Number activities—23 (9 H.A., 14 R.R.)

REASONS FOR OFFERING
* Main reason—reduce/contain cost relating to health benefits/services

ELIGIBILITY CRITERIA
* H.A.
  The more expensive screening procedures for top level executives and those at risk
  Hypertension, vision, hearing, and lung test for all employees
* R.R.
  All employees;
  Fees for the fitness class which is also open to dependents;
  Stress management for all and dependents and retirees

PURPOSE
* Program activities are informational, instructional, and rely on behavior changes
* Behavior change component in activities sponsored both on and off site (treatments)
* Physical activity for fitness also

DECIDING FACTORS
* Differing reasons for each, but evidence/reports of prevalent problem and cost mentioned most frequently
* Company policy for some, legal requirement for four of the H.A. activities
* Did survey of management and employees; did health assessments

SCHEDULING
* H.A.
  Hypertension any time (takes little time);
  Others; shared time or during work if required
* R.R.
  Both during and after hours; lectures during—classes after

STAFF PERSONNEL
* In-house—EAP director, nurse, and safety specialist
* Independently contracted—speakers, instructors, EAP counselors, medical personnel
* Some psychologists and health educators from state/local agencies or voluntary health organizations
METHODS AND MATERIALS
* Very comprehensive
* Behavior modification treatments off site, counseling both on and off site
* Discussions/lecture groups on-site, guest speakers
* Self-instructional programs
* Exercise classes
* Free blood pressure machine
* Telephone health messages, company newsletter, graphics, films/videos cassettes

FACILITIES
* Extensive on-site facilities, including gym and athletic equipment indoors and outdoors
* Contract off-site facilities when needed for biofeedback, exercise physiolgy lab, or extra gymnasium

RESOURCES
* Uses university personnel for training
* Local hospital helps conduct some health assessments activities and R.R. activity
* Information obtained from multiple resources

PLANNING & IMPLEMENTATION
* In-house company house/medical department; committees plan and implement; report to employee benefit department
* Help from self employed fitness instructors and volunteer employee committee for fitness activities; from local hospital for implementation of activities

PUBLICIZING AND ENCOURAGING PARTICIPATION
* Posters, newsletter, word-of-mouth
* Top level management endorsement and participation

FINANCING
1. Medical department
2. Fees paid by program participants
3. Corporate budget

DATA BASE
* Data not easily analyzed
* Not correlated to health promotion program

EVALUATION
* Employee self-report for many measurement criteria
* Subjective observations

IMPLEMENTATION PROBLEMS
* Facilities, funds, time, information had to be worked out
* Management reluctant at first, employees lack of interest
* Lack of data
CASE STUDY #11

COMPANY CHARACTERISTICS
* 500-999 employees
* Corporate headquarters
* Light manufacturing
* Program coordinator/Safety/Health Manager
* Number of activities 13 (6 H.A, 7 R.R.)

REASONS FOR OFFERING
* Variety -- establish data base; reduce health risks; legal requirements; increase productivity; reduce absenteeism

ELIGIBILITY CRITERIA
* All employees eligible
* Building a fitness center -- will house program
* H.A.
  1. Pre-employment screening
  2. Available upon request for some
  3. Depending on job, some periodic

PURPOSE
* Informational for all topics
* On-site:
  Discussions/lectures for some, behavior modifications for others
* Referrals off-site; substance-abuse treatment, emotional/stress treatment

DECIDING FACTORS
* H.A. -- Company benefit & employee request; legal requirement for some
* R.R. -- Major cost of health care costs, survey of employees and evidence of prevalent problem
* Fitness center being built at suggestion of management

SCHEDULING
* H.A. -- Employee can choose time; before, during, after work hours (health risk appraisal/own time)
* R.R. -- During lunch hour or before/after work (except work safety practices/work hours)

STAFF PERSONNEL
* In-house: EAP nurses, safety specialist, health educator, will have fitness specialist with new fitness center
* Independently contracted: nutritionist, instructors, lab tech., physician
* State/local agency or voluntary org. -- health educators
METHODS AND MATERIALS
* Comprehensive
* Variety of methodologies for each [1,3,4 some 5,6, EAP (From Section VIII, Survey)]
* Materials -- Graphics, films, cassettes

FACILITIES
* On-site -- everything on-site for the program
* Fitness center being built

RESOURCES
* Information and help in conducting risk reduction activities from professional organization, local hospital, voluntary health organizations, insurance company, a commercial smoking cessation program, and local/state health agency
* Information also from colleges/universities and other industry sponsored resources

PLANNING & IMPLEMENTATION
* Some programs; safety/health department just decides -- plans -- implements
* Employees request and have input on some
* The Fitness Center will have an advisory board

PUBLICIZING AND ENCOURAGING PARTICIPATION
* No material/financial incentives or pay envelope inserts
* All other forms of publicity listed

FINANCING
1. Corporate budget
2. Fees paid by participants

DATA BASE
* Safety manager has records
* No records from private insurance companies
* Statistics could be accessible, but not done in past

EVALUATION
* No evaluation or tracking as yet, but will be planned along with new center

IMPLEMENTATION PROBLEMS
* Not enough room was main problem
* Not out to track changes so lack of data was not a problem
CASE STUDY #12

COMPANY CHARACTERISTICS
* 500-999 employees
* Plant location
* Manufacturing
* Program coordinator-Employee Relations Manager
* Number of activities-15 (5H.A.,10R.R.)

REASONS FOR OFFERING
* To establish effective health screening measures
* To establish programs for reducing health risks

ELIGIBILITY CRITERIA
* Most H.A. activities upon hiring and annual thereafter
* All employees eligible for R.R. activities, some are required for at risk employees
* Employee dependents included in substance abuse

PURPOSE
* Informational component to all activities
* Instructional and behavior change for substance abuse, hypertension, mental/emotional, stress management, work safety practices

DECIDING FACTORS
* H.A.-all response options were underlying factors in program
* R.R.-response options 1,2, and 8 for smoking, weight control, nutrition, and exercise/fitness
  -no survey of employees, or earlier company programs, but all others for substance abuse, stress, hypertension, and safety

SCHEDULING
* During work hours
* Graphics, information anytime

STAFF PERSONNEL
* In-house EAP, safety specialist, nurses, health educator
* Independently contracted-nutritionist, health educators, lab. techs., physician, rehabilitation specialist, social worker

METHODS AND MATERIALS
* Very comprehensive drug and alcohol prevention and treatment activities; includes classes, counseling, lectures, speakers, behavior-modification treatments
* Counseling for all topics
* Materials-direct mail, graphics, films, demos in training classes
FACILITIES
* On-site: meeting rooms, medical department, showers, health exhibit area and library
* Contracted off-site: rooms, exercise physiology lab, health clinic

RESOURCES
* Physicians, local hospital, and the State accident prevention Division; information and help in conducting activities
* Information from various other sources

PLANNING & IMPLEMENTATION
* In-house company health promotion program committee made up of one-half hourly and one-half management
* Input from counseling professions and local hospital staff

PUBLICIZING AND ENCOURAGING PARTICIPATION
* All methods included, except material/financial incentives

FINANCING
1. Insured benefit-largest cost is alcohol and drug abuse treatment
2. Corporate budget
3. Fees paid by program participants
4. Also treatment providers providing free services

DATA BASE
* Data all individually kept; not put together for "big picture," not correlated to health promotion program

EVALUATION
* Individuals tracked that have gone thru in-treatment programs
* Health care costs, accidents, hospitalizations; good statistics but not related to H.P.P.
* Drop-out rates
* Observed change in appearance/actions

IMPLEMENTATION PROBLEMS
* Main initial problems: employees lack of interest, fear of loss of employment, lack of data
* Also facilities, funds, time
* Not doing more because not enough information/knowledge to implement certain types of programs
CASE STUDY #13

COMPANY CHARACTERISTICS
* 900 employees
* Corporate headquarters
* Manufacturing
* Program Coordinator-Risk and Benefits Manager
* Number of activities-14 (6H.A., 8R.R.)

REASONS FOR OFFERING
* To reduce health problems and absenteeism/sick days
* To reduce/contain costs related to health benefits/services

ELIGIBILITY CRITERIA
* Health risk appraisals for salaried employees only
* H.A.-medical insurance covers physical exams for all
* Work hazards, hearing lung function for all
* R.R. activities-all employees eligible

PURPOSE
* Informational, instructional, and behavior change,
* May be cutting back to just information and health assessments

DECIDING FACTORS
* H.A.-company policy, and legal requirements
* R.R.-major cause of medical/health costs, and absenteeism, management's suggestions

SCHEDULING
* H.A.-shared company/employee time
* R.R.-lunch hour or after hours, safety programs during work hours

STAFF PERSONNEL
* Nurse on-site
* All others contracted

METHODS AND MATERIALS
* Behavior modification, counseling, lectures, guests, (may be cutting off)
* Monthly newsletters, graphics, flyers, films

FACILITIES
* On-site: auditorium and meeting rooms, used for everything

RESOURCES
* Local hospital program conducted activities (H.A. and R.R.)
* Information obtained from various resources
* Insurance company was important source
PLANNING & IMPLEMENTATION

* In-house health promotion committee and medical department together with local hospital program staff help

PUBLICIZING AND ENCOURAGING PARTICIPATION

* Newsletter major source
* Posters for R.R., word-of-mouth
* Top level management and supervisors endorse and participate

FINANCING

1. Medical department budget and employee fees 50/50
2. Physicals insured benefit

DATA BASE

* Accidents, disability, changes in costs and usage of health care, absenteeism, workers' compensation

EVALUATION

* No evaluation

IMPLEMENTATION PROBLEMS

* Management believes in it, but hard to spend money when other things needed. Funds
* Lack of data
* Planning "flexible spending accounts"-ties into "cafeteria plan" insurance; uses credits
* Didn't want to just put out money to let "jocks" do it on company time. Need incentive program, spouse support and incentive for line managers to let people participate
* Need tracking in computer centers to show actual increase or decrease in costs and productivity
CASE STUDY #14

COMPANY CHARACTERISTICS
* 950 employees
* Corporate headquarters and plant location
  (across the street)
* Manufacturing (textiles)
* Program coordinator·Occupational Health Nurse
* Number of activities: 13 (5 H.A., 8 RR)

REASONS FOR OFFERING
* To reduce health problems and absenteeism/sick days
* To reduce/contain costs related to health benefits/services
* To be placed in job comfortable with/health assessment

ELIGIBILITY CRITERIA
* Work hazards identification and safety practices for hourly employees
* All other activities, all employees eligible

PURPOSE
* Informational and instructional/mainly
* Exercise/fitness classes
* Behavior change treatment referred to community programs,
  except hypertension control (on-site)

DECIDING FACTORS
* H.A.
  Company benefit and national health initiatives/priorities
  Some requested by employees and management
* R.R.
  Major cause of medical/health care costs
  Also, reports of successes in other companies
  Survey of employees
  National health initiatives/priorities

SCHEDULING
* H.A.
  During work hours
* R.R.
  Lunch hour and during work hours, treatment programs after
  hours, exercise classes after hours

STAFF PERSONNEL
* In-house nurse, safety specialist, medical assistant
* Independently contracted and voluntary health agencies:
  speakers, instructors, all volunteers, fee for lab technicians
METHODS AND MATERIALS
* Out-patient behavior modification programs in community
* On-site: counseling, some discussion/lecture, self-instruction and guest speakers
* Materials: inner office communication, graphics, films, cafeteria booths

FACILITIES
* Everything on-site except when an employee referred to a community program
* Meeting rooms and quiet area, medical department, health exhibit and library, small exercise room and showers

RESOURCES
* Information obtained from many sources
* Local or voluntary health agencies, local hospital and a commercial organization helped to conduct different activities

PLANNING & IMPLEMENTATION
* In house company medical committee

PUBLICIZING AND ENCOURAGING PARTICIPATION
* All methods including awards and materials incentives

FINANCING
1. Medical department budget
2. Employee benefits/personnel budget
3. Corporate budget
4. Employees paid for aerobics/exercise class

DATA BASE
* Disability, health care costs, and usage data
* Not correlated to health promotion program

EVALUATION
* No evaluation
* Management wanted program offered but not interested in tracking statistics

IMPLEMENTATION PROBLEMS
* Top management reluctant to invest time and resources
* Lack of employee interest/participation
* Fear of loss of preference or employment
* Inadequate allotment of employee or company time
CASE STUDY #15

COMPANY CHARACTERISTICS
* 1000-2499 employees
* All company sites (20)
* Government
* Program coordinator - Employee Relations/Health Promotion Coordinator
* Number of activities - 12 (4H.A., 8R.R.)

REASONS FOR OFFERING
* Establish programs for reducing health risks
* Increase productivity/effectiveness
* Employees able to assume responsibility for personal health,
* Reduce health problems, absenteeism and sick days
* Reduce/contain costs of health benefits/services

ELIGIBILITY CRITERIA
* Blood chemical profile and exercise/fitness classes
  (employees must pay part)
* All other activities for all employees
* Dependents may be included on fitness testing, and employee assistance program services

PURPOSE
* R.R. activities informational and instructional
* Behavior change component in smoking cessation, and EAP, alcohol and drug abuse, mental/emotional problems, counseling, stress management
* Aerobic classes

DECIDING FACTORS
* H.A. - Employees survey and at risk population
  Hypertension screenings - company benefit
* R.R. - EAP - success in other companies, management suggestion,
  absenteeism high
  National health priorities, health care costs, evidence of problems

SCHEDULING
* H.A. - Management/supervisor discretion, shift workers scheduled
to not interfere with work
* R.R. - Some shared time (get out early), most lunch hours and after hours
  Encourage participation on own time
  Some seminars during work hours
* Flex time policy

STAFF PERSONNEL
* In-house health educator, nurses
* Independently contracted - EAP, fitness and nutritional specialists, physician
* Volunteers from Kaiser Medical Center and the University
METHODS AND MATERIALS
* Comprehensive for each topic
* Multiple approaches to each topic for both methods and materials
* Extensive range of techniques

FINANCIAL
* Contracts for what is needed, wide array of facilities and locations
* Makes use of empty buildings (owned by this segment of the government)
* Encourages use of free facilities, i.e., track

RESOURCES
* Information obtained from many resources
* Local health agency, local hospital, EAP, YMCA help conduct H.A. activities
* Local university, hospital, voluntary health organization, EAP, YMCA helped conduct R.R. activities

PLANNING & IMPLEMENTATION
* Health Promotion Coordinator, along with a number of committees at different sites made up of interested employees, EAP, and employee relations advisory committee

PUBLICIZING AND ENCOURAGING PARTICIPATION
* All methods, plus weekly memos for management, and satisfied employees as speakers to other groups

FINANCING
1. Employee benefits, personal budget
2. Employee fees
3. (Government is tax supported)
4. Voluntary health organization funds

DATA BASE
* Accidents, disability figures, changes in cost and usage of health care service and benefits, worker's compensation, absenteeism

EVALUATION
* Employee self-report
* Attendance
* If easy to track

IMPLEMENTATION PROBLEMS
* Dealing with 20 worksites (logistics)
* Budget dependent on election ballot measure
* Facilities, funds, management reluctant, knowledge and personnel
* Lack of data; lack of employee interest, time
CASE STUDY #16

COMPANY CHARACTERISTICS
* 1000-2499 employees
* All company sites
* Communications
* Program coordinator - Area Administrator, Health Resources
* Number of activities: 17 (6H.A., 11R.R.)

REASONS FOR OFFERING
* Establish programs for reducing health risks
* Increase employee morale; productivity; and effectiveness
* Reduce costs of health benefits
* Assume responsibility for personal health
* Reduce health problems; absenteeism

ELIGIBILITY CRITERIA
* Stress management and physical exam for salaried employees only
* Weight control and smoking cessation (employee pays for treatment component, community referral program)
* All employees eligible for other programs

PURPOSE
* Mainly informational and instructional
* Stress management has a behavior change and physical activity component
* Back program (also behavior change)

DECIDING FACTORS
* Company benefit/policy for both H.A. and R.R., some legal requirements
* National health initiative/priorities for R.R.; some evidence of prevalent problems for certain topics

SCHEDULING
* H.A. - during work hours; choice on blood chemical analysis
* R.R. - during work hours; exercise/fitness own time

STAFF PERSONNEL
* In-house - EAP; safety specialist; stress management instructor
* Contracted - fitness specialist; lab tech; physician; safety specialist
* State/local agency - rehabilitation specialist, social worker

METHODS AND MATERIALS
* Discussion/lecture groups & guest speakers, counseling for behavior change
* Company newsletter, some films and graphics
FACILITIES
* All on company sites
* Exercise physiology, lab (where screening tests done) located at corporate HQ out of state. Company plane flies employees to HQ at no cost.
* Showers & smaller athletic facilities
* Rooms
* Library

RESOURCES
* Information from: federal agency, voluntary health organizations, commercial organizations
* Professional consulting firm conducts some H.A. activities

PLANNING & IMPLEMENTATION
* Human Resources Administrator
  (with various department managers from the health promotion committee)

PUBLICIZING AND ENCOURAGING PARTICIPATION
* Posters, newsletter, word-of-mouth
* Management & supervisors endorse and participate

FINANCING
1. Corporate budget
2. Employee fees - depends on program
3. Insured benefit for treatment programs

DATA BASE
* Data kept at corporate headquarters --
  Not correlated to health promotion program

EVALUATION
* No evaluation

IMPLEMENTATION PROBLEMS
* Space for exercise
* Funds, management reluctant, lack of employee interest;
* Lack of cost-effectiveness data, inadequate allotment of time
CASE STUDY #17

COMPANY CHARACTERISTICS
* 1,000 - 2,499 employees
* Branch office and plant locations
* Manufacturing
* Program Coordinator - Medical Director
* Number Activities - 20 (7 H.A, 13 R.R.)

REASONS FOR OFFERING
* To reduce health problems, absenteeism/sickdays
* To reduce workers compensation costs

ELIGIBILITY CRITERIA
* All Employees eligible, except for physical exams - top level executives only

PURPOSE
* Informational, instructional and behavior change components to all risk reduction activities

DECIDING FACTORS
* H.A.
  Company benefit/policy
* R.R.
  Major cause of medical/health care costs and evidence/reports of a prevalent problem.

SCHEDULING
* All activities are during work hours

STAFF PERSONNEL
* Lab technicians, therapists, and social workers are contracted
* In-house EAP, nutritionist, fitness specialist, nurses, physician, health educator

METHODS AND MATERIALS
* Counseling and discussion/lectures (for all)
* Newsletter, pay envelope inserts and graphics (for all)

FACILITIES
* On-site:
  Auditorium, meeting rooms, medical department, showers and locker room

RESOURCES
* Obtain information from local/state health agency, federal agency, voluntary health organizations, professional organizations, and industrial/trade organizations
PLANNING & IMPLEMENTATION
* In-house company employee benefit and employee relations personnel

PUBLICIZING AND ENCOURAGING PARTICIPATION
* All methods

FINANCING
* Four Sources:
  - Insured Benefit
  - Corporate Budget
  - Medical Department Budget
  - Employee Benefits/Personnel Budget

DATA BASE
* Extensive data base available

EVALUATION
* Change in absenteeism and employee productivity
* Change in employee morbidity, disability, health care costs, out-patient visits, hospitalization, and accidents
* Effectiveness of screening procedures

IMPLEMENTATION PROBLEMS
* Not readily available or inadequate facilities for some risk reduction activities.
CASE STUDY #18

COMPANY CHARACTERISTICS
* 1,000 employees
* Plant location
* Manufacturing
* Program Coordinator - Nursing Coordinator
* Number of Activities - 24 (11 H.A., 13 R.R.)

REASONS FOR OFFERING
* To establish programs for reducing health risks
* To increase employee morale, productivity and effectiveness

ELIGIBILITY CRITERIA
* H.A. activities for all employees
* R.R. for all employees, plus dependents, retirees, and surviving spouses

PURPOSE
* Programs include informational, instructional, and behavior change components in each area
* Exercise/fitness includes aerobics, a physical activity program

DECIDING FACTORS
* Hypertension screening was a local initiative; decision to use at plant
* Other screening procedures are company benefits or policies
* R.R. main cited reasons were success of earlier company sponsored programs, reports of success in other cos., and results of health assessments; other factors were employee survey, health case costs, reports of a problem, social responsibility

SCHEDULING
* Most activities are during work hours
* Smoking cessation and off-the-job safety are after hours,
* Exercise/fitness and CPR are shared time

STAFF PERSONNEL
* In-house: EAP, lab tech., industrial hygienist, nurses, and safety specialist
* Independently contracted: dietician/nutritionist, fitness specialist, nurses, psychologist, physician, rehab. specialists

METHODS AND MATERIALS
* Comprehensive H.P.P.
* Most activities include behavior modification, counseling, discussion/lecture, some self-instruction and guest speakers
* Materials: mainly newsletter, graphics, films; some pay envelope inserts, tapes, magazines
FACILITIES
* Wide variety on site, including outdoor athletic facilities, and a private fishing beach on river
* Contracted: gymnasium and sometimes a health clinic if sent outside

RESOURCES
* Information from multiple resources
* Local hospital helped conduct some risk reduction activities and a commercial organization conducted first aid classes

PLANNING & IMPLEMENTATION
* Medical department administrator, with help from health safety committee, professional consultants, university personnel, employee benefits, and local community voluntary health organization staff

PUBLICIZING AND ENCOURAGING PARTICIPATION
* All methods, including contests with awards, cash, prizes, dinners, and trips

FINANCING
1. Medical department budget
2. Employee benefits/personnel budget
3. Corporate budget
4. Insured benefit
5. Fees paid by participants

DATA BASE
* Extensive data base tracked and correlated to program

EVALUATION
* Uses insurance records, individual physical exam records, etc.
* Evaluations at time of activities
* Verbal evaluations
* While in medical department—ask for employee evaluation

IMPLEMENTATION PROBLEMS
* Time for health personnel to plan programs
* Lack of employee interest/participation
* Lunchtime seminars not well attended; evening seminars well attended on and off site
* Going to use more outside speakers
CASE STUDY #19

COMPANY CHARACTERISTICS
* 1200 employees
* Corporate headquarters and other sites (2 miles away)
* Hospital
* Program coordinator-Director, Health Education Department
* Number of activities-17 (6N.A., 11R.R.)

REASONS FOR OFFERING
* Philosophical commitment to human resource development
* To increase the ability of employees to assume greater responsibility for personal health

ELIGIBILITY CRITERIA
* N.A.-for all full and part-time, hearing for those at risk only
* R.R.-employees get 50% off community classes

PURPOSE
* All R.R. activities include informational, instructional, and behavior change components to the programs
* The substance abuse, weight control, exercise/fitness, and health back programs include physical activity

DECIDING FACTORS
* N.A.
   In varying degrees, but for all activities-national health initiatives, company benefit/policy, at risk population, and employee request
* R.R.
   National health initiatives/priorities, Results of health assessments, Employee survey, and reports of prevalent problem
* Back program-health care costs, absenteeism also
* Have computer software available

SCHEDULING
* If during work hours, the employee compensates for it
* Mainly, before and after work, and during lunch hours

STAFF PERSONNEL
* All staff are in-house; personnel from many areas

METHODS AND MATERIALS
* Comprehensive
* Most activities include behavior modification, counseling, discussion/lectures, guest expert speakers, and telephone health messages
* In process of building a fitness center
* Materials-many graphics, exhibits, and films, some tapes/cassettes
FACILITIES
* Access to nearby schools
* Will have a fitness center
* On-site-auditorium, meeting rooms, running track, bio-feedback lab

RESOURCES
* Obtain information from multiple sources
* As a hospital, conduct all activities in-house

PLANNING & IMPLEMENTATION
* Health education department and interdepartmental health promotion program committee

PUBLICIZING AND ENCOURAGING PARTICIPATION
* Letter from president goes out to employees during their month of birth inviting them to participate
* H.A.-newsletter and management endorse/participate
* R.R.-all methods

FINANCING
1. Employee benefits/personnel budget
2. Fees paid by program participants
   Screening free for employees, 50% for spouses, RR - 50% for employees

DATA BASE
* Large database
* Look at some of the data/information and correlate to health promotion program

EVALUATION
* Not really "pulling data together"
* Absenteeism, drop-out rates, change in morbidity, disability, health risk indicators, health care costs, hospitalization and accidents

IMPLEMENTATION PROBLEMS
* Employee interest and participation is an on-going challenge, but not a problem for implementation
* Some complaints on space
* Had to convince management
COMPANY CHARACTERISTICS
* 1,000-2,499 employees
* Corporate headquarters
* Hospital
* Program Coordinator - Director, Health & Fitness Services
* Number of activities - 19 (7H.A., 12R.R.)

REASONS FOR OFFERING
* To increase employee morale, productivity/effectiveness
* To increase ability of employees to assume greater responsibility for personal health
* Marketability of program

ELIGIBILITY CRITERIA
* H.A. - all employees; physical exam during pre-employment
* R.R. - all employees, co-payment if there is a charge

PURPOSE
* All R.R. includes informational, instructional, and behavior change components
* Nutrition, wt. control, exercise/fitness, stress management, and hypertension control include physical activity

DECIDING FACTORS
* H.A. - company benefit/policy & national health initiatives/priorities
  - legal requirement for some
* R.R. - mainly national health initiatives/priorities and evidence/reports of a prevalent problem
* Smoking - also costs, absenteeism and health assessments

SCHEDULING
* H.A. - during work hours, except cancer screening shared time
* R.R. - before or after hours, and during lunch hours

STAFF PERSONNEL
* YMCA helps with fitness classes
* All others in-house, and personnel drawn from most departments

METHODS AND MATERIALS
* R.R. - discussion/lectures, guest speakers, classes
* Newsletter and graphics

FACILITIES
* All facilities on-site; has everything except outdoor athletic facilities
RESOURCES
* Information obtained from state/local health agencies and federal agency, voluntary health organizations and professional organizations
* H.A. - some help from voluntary health organization
* R.R. - some commercial organization program packages

PLANNING & IMPLEMENTATION
* Program Director

PUBLICIZING AND ENCOURAGING PARTICIPATION
* All methods except pay envelope inserts, and certificates

FINANCING
1. Employee benefits/personnel budget
2. Corporate budget
3. Employee fees

DATA BASE
* Data kept on participants in a specific health plan

EVALUATION
* Mainly subjective evaluation
* Change in health knowledge and attitudes
* Change in health care costs related to the H.A. activities
* Change in prevalence of health risk indicators

IMPLEMENTATION PROBLEMS
* Facilities, funds, medical personnel time, management reluctance, employee interest/participation, lack of data
CASE STUDY #21

COMPANY CHARACTERISTICS
* 1,000 - 2,499 employees
* 3 hospital sites
* Hospital
  * Program Coordinator - Director, Occupational Health
  * Number activities - 12 (4 H.A., 8 R.R.)

REASONS FOR OFFERING
* To reduce/contain costs related to health benefits/services
* To reduce health problems of employees and absenteeism/sickdays

ELIGIBILITY CRITERIA
* All employees eligible
* Some selection on weight control

PURPOSE
* Informational for all
* Instructional on most
* Physical activity component to exercise/fitness and stress management
* Mental/emotional and substance abuse referred out for treatment component

DECIDING FACTORS
* Multiple and varying factors for different program activities
* Dominant factors appear to be major cause of health care costs, and survey of employees

SCHEDULING
* H.A. - choice of time, at employee's convenience
* R.R. - when offered; both employee and company time

STAFF PERSONNEL
* Most in-house, variety of departments
* Some lab techs and physicians contracted

METHODS AND MATERIALS
* Mainly consists of individual and group counseling and discussion/lectures
* Fitness classes
* Few graphics and films

FACILITIES
* All necessary facilities on-site; rooms, library, swimming pool, running track, showers

RESOURCES
* Obtain information only from various resources
PLANNING & IMPLEMENTATION
* Occupational Health Department personnel

PUBLICIZING AND ENCOURAGING PARTICIPATION
* Some awards for swimming
* Posters, flyers, newsletter, and person-to-person

FINANCING
1. Occupational Health Department part of Human Resources
2. Corporate Budget
3. Employee fees - for instructors and outside providers

DATA BASE
* Attainable, but not correlated to health promotion program

EVALUATION
* Employee evaluates individual sessions
* No evaluation. On corporate level, know some changes, statistics

IMPLEMENTATION PROBLEMS
* Room size, funds
* Top management reluctant
* Some lack of employee interest initially
* Time for staff and employees
* Lack of data problem in decision making
CASE STUDY #22

COMPANY CHARACTERISTICS
* 1,000 - 2,499 employees
* All company sites (plant, service centers, sales)
* Manufacturing
* Program Coordinator - EAP manager
* Number activities - 12 (2H.A., 10R.R.)

REASONS FOR OFFERING
* To increase employee morale and productivity/effectiveness
* To reduce health problems, absenteeism/sickdays

ELIGIBILITY CRITERIA
* All employees, dependents and retirees

PURPOSE
* Informational program for all activities
* Behavior change programs for all topics on site, except mental/emotional problems referred out
* Little instructional program

DECIDING FACTORS
* H.A. - company benefit/policy, employee request for hypertension
* R.R. - multiple and varied factors for each activity, most commonly cited: national health initiatives/priorities, reports of success in other companies, and evidence/reports of prevalent problems

SCHEDULING
* H.A. - during work hours, employee's choice
* R.R. - during and after work hours; whenever activity offered, or counseling at employee's convenience

STAFF PERSONNEL
* Most personnel from in-house staff - EAP, and nurses, safety specialist, nutritionist, health educator
* Contracted or volunteer - psychologist, physician, rehabilitation specialist, social workers

METHODS AND MATERIALS
* Behavior modification, counseling, and guest speakers
* Some discussion/lecture, self-hypnosis
* Materials – company newsletter, graphics

FACILITIES
* Contract off-site – auditorium, biofeedback area if needed
* On-site – conference rooms, nurse's office, health exhibit and library, showers and lockers, access to city running trail, basketball hoops
RESOURCES
* Obtain information from multiple resources
* Local hospital and voluntary health organization helped conduct N.A. and R.R. activities, some referral to independent professionals
* Commercial program - SmokEnders, conducts smoking cessation program

PLANNING & IMPLEMENTATION
* Employee Assistance Program Manager

PUBLICIZING AND ENCOURAGING PARTICIPATION
* No material, financial incentives, all other methods used

FINANCING
1. EAP budget
2. Employee fees (certain % paid)
3. Insured benefit

DATA BASE
* EAP files are confidential; does track changes, though
* Sees changes, subjectively, because manager has been there so long

EVALUATION
* Once a year, questionnaire on attitude, happiness, what want from company
* Absenteeism, successes, drop-out rate, disability accidents
* "See" changes in health practices

IMPLEMENTATION PROBLEMS
* Facilities, top management reluctance, time, lack of data to implement additional programs, employees feared loss of preferment or employment
CASE STUDY #23

COMPANY CHARACTERISTICS
* 1,000 - 2,499 employees
* One site
* Hospital
* Program Coordinator - Health Promotion Program Coordinator
* Number activities - 18 (7 H.A., 11 R.R.)

REASONS FOR OFFERING
* To increase employee morale, productivity and effectiveness
* To increase the ability of employees to assume greater responsibility for personal health

ELIGIBILITY CRITERIA
* All employees eligible for all activities
* Some fees

PURPOSE
* Mainly informational and instructional
* Behavior change for smoking cessation, nutrition, and weight control. Community alcohol abuse center at hospital

DECIDING FACTORS
* H.A. - request of employees, suggestion of employee fitness committee
* RR - individual hospital departments putting together program for their area of expertise, survey of employees, during health fair sign-up for classes

SCHEDULING
* H.A. - anytime, supervisor discretion
* RR - mainly after hours, some brown bag lunches, required seminars during work

STAFF PERSONNEL
* Many varied in-house hospital personnel
* One outside fitness specialist
* Outside people doing fat calibration during health fair

METHODS AND MATERIALS
* Annual Health Fair
* EAP - counseling
* Predominantly classes after hours - some just discussion/lecture, some include behavior modification
* Materials - graphics, little films/videos
FACILITIES
* All on-site; auditorium, meeting rooms, cafeteria, health exhibit areas and library space

RESOURCES
* Working from within hospital, little information or help from outside resources
* University personnel did health fair fat calibrations

PLANNING & IMPLEMENTATION
* In-house health promotion program committee,
* Others involved - human resources administrator, hospital medical departments

PUBLICIZING AND ENCOURAGING PARTICIPATION
* Posters, flyers, newsletter
* Person-to-person, top management and supervisors participate
* Dressed in shorts and promoted day of health fair

FINANCING
1. Corporate budget
2. Employee fees - for classes

DATA BASE
* Available data base, but not used
* Haven't had to justify the need to do program for top management

EVALUATION
* No formal evaluation
* Management open to hearing about it; just haven't freed up money yet

IMPLEMENTATION PROBLEMS
* Facilities; priority is patient care
* Time, volunteers have their full-time jobs as well
* Lack of interest somewhat
CASE STUDY #24

COMPANY CHARACTERISTICS
* 1000-2499 employees
* Corporate headquarters and outlying areas (20-25)
* Insurance company
* Program coordinator-Corporate Communications Coordinator
* Number of activities-10 (2H.A.,BR.R.)

REASONS FOR OFFERING
* To establish programs for reducing health risks
* To increase employee morale, productivity and effectiveness

ELIGIBILITY CRITERIA
* All employees eligible for activities
* Dependents included in benefit package ("wellness" oriented)

PURPOSE
* Mainly instructional and behavior change;
* Physical activity for weight control and fitness
* Informational through company publications

DECIDING FACTORS
* Brainstorming idea of Senior Vice President-
  Department of Corporate Communications
* R.R.-also survey of employees

SCHEDULING
* H.A.-anytime
* R.R.-mainly lunch hour and after hours

STAFF PERSONNEL
* In-house-dietician/nutritionist, health educator, nurse, and physician
* Volunteers or contracted-exercise physiologist, fitness specialist, health educators, and psychologist

METHODS AND MATERIALS
* No smoking building
* Methods-free blood pressure machine, discussion/lectures, behavior modification, self-instruction, guest speakers
* Materials-monthly and weekly publications, films, graphics, self-care book to everyone
FACILITIES
* All on-site auditorium and meeting rooms, nurse's room, showers, health exhibit area and library, small exercise and weight lifting room
* Employees given self-help health book

RESOURCES
* Obtain information from several resources
* Local/state health agency and voluntary health organizations help conduct some R.R. activities

PLANNING & IMPLEMENTATION
* Department of Corporate Communications

PUBLICIZING AND ENCOURAGING PARTICIPATION
* No pay envelope insert or certificates/awards, but all other methods

FINANCING
1. When there is a fee; employee fees
2. Voluntary health organization funds
3. Corporate budget
4. Employee benefits/personnel budget, sometimes pays all, depending on activity

DATA BASE
* Absenteeism
* Utilization of health/medical benefits of employees
* Personnel keep track of disability, etc.

EVALUATION
* Personal interviews; productivity, attitudes about health, morale(job), knowledge, health practices
* Hospitalizations, use of facilities and equipment

IMPLEMENTATION PROBLEMS
* No real implementation problems
* Not interested in effectiveness data to implement initial or additional programs, just interested in employees
CASE STUDY #25

COMPANY CHARACTERISTICS
* 2000 employees
* Corporate headquarters
* Hospital
* Program coordinator-Health Education Programmer
* Number of activities-22 (BH.A.,14R.R.)

REASONS FOR OFFERING
* To establish programs for reducing health risks
* To increase the ability of employees to assume greater responsibility for personal health

ELIGIBILITY CRITERIA
* H.A.-all employees, dependents, and retirees
* R.R.-all employees and dependents eligible; fees for classes at discount for employees

PURPOSE
* Informational, instructional, behavior change components for each topic
* Physical activity for weight control, exercise, and stress management

DECIDING FACTORS
* Initial health promotion task force within hospital identified health promotion needs of employees; did not look at absenteeism or costs
* At risk population groups and survey of employees

SCHEDULING
* H.A.-at employee convenience; depending on job, supervisor discretion
* R.R.-before or after work, or during lunch hours for majority
* If required, during work hours

STAFF PERSONNEL
* Uses most listed personnel from in-house staff
* Some health educators, exercise physiologist and fitness specialist independently contracted

METHODS AND MATERIALS
* Individual counseling, behavior modification, exercise classes, discussion/lecture groups, guest expert speaker, closed circuit T.V.
* EAP
* Materials-newsletter, graphics, films, some models and demonstrations
FACILITIES
* Hospital paid for remodeling of building owned by school district for fitness center rooms
* On-site-auditorium, medical department, health exhibit area and library, showers

RESOURCES
* Some community instructors helped conduct risk reduction classes
* All other resources used to obtain information only

PLANNING & IMPLEMENTATION
* Department of Educational Services plus Outreach Services Department

PUBLICIZING AND ENCOURAGING PARTICIPATION
* Screening during "topic for month", i.e. cancer screening during cancer month
* Booklet of class schedules put out three times per year
* No certificates/awards or material/financial incentives, but all others

FINANCING
1. Educational Services budget and Occupational Health budget
2. Fees paid by program participants
3. Insured-for chemical dependency

DATA BASE
* Personnel and employee health nurse keep data
* Educational Services department does not use data

EVALUATION
* Do not evaluate programs as to employee health changes
* Evaluate attitude and satisfaction with the program and instructors
* Smoking cessation and weight control-long term statistics

IMPLEMENTATION PROBLEMS
* Facilities were main problem
* Lack of employee interest/participation somewhat
* Inadequate allotment of employee or company time
CASE STUDY #26

COMPANY CHARACTERISTICS
* 2288 employees
* Many company sites
* School district
* Program coordinator: Director of Employee Relations
* Number of activities-12 (3H.A.,9R.R.)

REASONS FOR OFFERING
* To increase employee morale, productivity/effectiveness
* To reduce health problems of employees and absenteeism/sick days

ELIGIBILITY CRITERIA
* Periodic physical examinations for assistant superintendents
* All other activities-employees and dependents eligible

PURPOSE
* Mainly informational and behavior change
* Exercise classes
* Some instructional lectures

DECIDING FACTORS
* H.A.-company benefit or policy
* R.R.-absenteeism, success in other companies, management suggestions, national health initiatives/priorities, and evidence/reports of prevalent problems

SCHEDULING
* H.A.-during work hours
* R.R.-after hours

STAFF PERSONNEL
* Red Cross for CPR and First Aid
* Fitness specialists, nurses, health educators in-house
* EAP independently contracted

METHODS AND MATERIALS
* Behavior modification, counseling (EAP)
  discussion/lecture, guest speakers
* Graphic materials, exhibits/demonstrations, films

FACILITIES
* Schools' athletic facilities available to employees and public
* Meeting rooms, gymnasium on site
RESOURCES
* Professional consulting firm (EAP) helps conduct many of the activities
* Information from voluntary health organizations

PLANNING & IMPLEMENTATION
* Each building has own wellness committee
* Administrative office sets criteria
* EAP-planned and implemented most programs

PUBLICIZING AND ENCOURAGING PARTICIPATION
* Posters/flyers, newsletter, person-to-person
* Supervisor participation

FINANCING
1. Employee benefits/personnel budget
2. Insured benefit

DATA BASE
* Extensive data base

EVALUATION
* Absenteeism, employee productivity evaluations, attitude/grievances
* Attendance of H.A. and R.R. activities
* Incidence of morbidity, prevalence of health risk indicators, accidents

IMPLEMENTATION PROBLEMS
* A public agency being supported by tax dollars and every dollar has to be justified.
* Have to prove cost-effectiveness.
* Director could show some productivity and morale increase, but could not prove cost savings
* Took funds out of other purpose and did pilot project—convinced employees, management and school board.
CASE STUDY #27

COMPANY CHARACTERISTICS
* 2500-4999 employees
* All company sites
* Hospital
* Program coordinator-Employee Health Promotion Coordinator
* Number of activities-17 (7H.A., 10R.R.)

REASONS FOR OFFERING
* To create a climate of wellness, which is important for business
* To meet needs as identified by employees and employee health/medical records

ELIGIBILITY CRITERIA
* All employees, dependents, and retirees eligible for all activities

PURPOSE
* Informational for all
* Instructional program for some, behavioral change programs for the others

DECIDING FACTORS
* H.A.-company benefit
* R.R.-national health initiatives/priorities, employee survey, and management suggestions

SCHEDULING
* H.A.-on own time
* R.R.-lunch hours and after hours

STAFF PERSONNEL
* Many varied in-house staff
* Nutritionist and nurse from voluntary health organizations
* Fitness specialist and some health educators are independently contracted

METHODS AND MATERIALS
* Varied methods by topic, behavior modification and discussion/lectures, classes
* Counseling through an EAP
* Frequent use of newsletters, pay envelope inserts, and graphics
FACILITIES
* Both on and off site facilities for auditoriums, meeting rooms, and exercise rooms
* Have health exhibit areas, library, and showers;
* Contract gymnasium

RESOURCES
* Voluntary health organization had some small parts in risk reduction activities
* Other outside resources just for information

PLANNING & IMPLEMENTATION
* Top/management plus
* In-house (for each topic) company health promotion program committees--also local ones for each facility to help implement

PUBLICIZING AND ENCOURAGING PARTICIPATION
* All methods, including awards and prizes

FINANCING
1. Corporate budget
2. Fees paid by program participants

DATA BASE
* Personnel department keeps data
* Health promotion program does not track changes

EVALUATION
* Periodic employee survey for needs assessment, participation, and feelings
* Subjective-observed changes in employee appearances/actions

IMPLEMENTATION PROBLEMS
* Funds--but works within budget
* Make do with facilities
* Time factor a problem for both staff and employees, design of program requires lots of involvement at all levels
CASE STUDY #28

COMPANY CHARACTERISTICS
* 3792 employees
* All company sites
* Government
* Program coordinator: Employee Benefits Manager
* Number of activities: 13 (3H.A., 10R.R.)

REASONS FOR OFFERING
* To reduce/contain costs related to health benefits/services
* To increase ability of employees to assume greater responsibility for personal health
* To project selves as an innovative employer

ELIGIBILITY CRITERIA
* H.A.: many new tests being planned; all employees eligible
* Physicals restricted to those under certain health plan (40%)
* R.R.: all employees and dependents eligible, (aerobics just for women so far - fee)

PURPOSE
* Informational for many
* Instructional for most
* Behavioral change on all
* Women's aerobics class

DECIDING FACTORS
* H.A.: mainly company benefit, but all these reasons were discussed during planning
* R.R.: no health assessments done on employees, but all other factors are relevant

SCHEDULING
* H.A.: employees own time, except if required - during work hours
* R.R.: employee choice of sick time or after hours

STAFF PERSONNEL
* In-house: EAP, occupational health nurse, psychologist, rehabilitation specialist, safety specialist and benefits manager
* Contract: EAP, aerobics instructor, psychologists, physician, rehabilitation specialist
* Voluntary health organizations: health educator, volunteer health worker
METHODS AND MATERIALS
* Mainly behavior modification and
discussion/lectures, some guest speakers
* Counseling through the EAP
* Materials-newsletter, pay envelope inserts,
  graphics

FACILITIES
* On-site auditorium, meeting rooms, health exhibits
  area, showers, small exercise room
* Contracted off-site medical department/health clinic

RESOURCES
* Local government information network
* Information obtained from all listed resources
* Help in conducting activities from local hospital,
  professional consulting firm, and a commercial
  organization

PLANNING & IMPLEMENTATION
* Primary responsibility of Benefits Manager
* Interdepartmental committee including employee
  relations, personnel, risk management and operational
  departments

PUBLICIZING AND ENCOURAGING PARTICIPATION
* Some financial incentives through benefits programs
* No awards, but all other forms of publicity

FINANCING
1. Employee benefits/personnel budget
2. Fees paid by program participants
3. Foundation grant
4. Corporate budget

DATA BASE
* Accident indices, various short and long-term
  disability figures, worker's compensation costs,
  health/medical benefits utilization, changes in
  insurance coverage, absenteeism
* Planning computerized system

EVALUATION
* Extensive evaluation -- most measurement
  criteria used

IMPLEMENTATION PROBLEMS
* With screenings, some employees fear loss of
  preferment if disabilities detected
* Facilities, funds, time
* Personnel, reluctant management, reluctant union
* Inadequate effectiveness data or data from previous program
CASE STUDY #29

COMPANY CHARACTERISTICS
* 3,300 employees
* All company sites
* Utility, services
* Program Coordinator -- Occupational Health Nurse, Employee services
* Number of Activities = 17 (8 H.A., 9 R.R.)

REASONS FOR OFFERING
* To establish a health information system or data base
* To establish programs for reducing health risks

ELIGIBILITY CRITERIA
* Physical exams for top-level executives, in-house fire brigade, and truckers only
* All other H.A. open to all employees
* R.R. All employees eligible, smoking cessation open to dependents also, fees for some R.R.

PURPOSE
* Informational, instructional, and behavioral change for most
* Physical activity for exercise/fitness classes

DECIDING FACTORS
* H.A. Variety of factors; national regulation, company benefit, at risk population, employee request, national initiatives/priorities.
* R.R. Evidence/reports of prevalent problem, employee survey, cause of health care costs, success of earlier or other company programs.

SCHEDULING
* H.A. During work hours
* R.R. Shared company/employee time; during work hours, lunch hours and after hours (treatment after hours)
* Different activities for each topic

STAFF PERSONNEL
* In-house E.A.P., industrial hygienist, pre-retirement specialist, nurses, safety specialist, counselors.
* Independently contracted -- dietician, exercise physiologist, health educators, lab techs, physician, counselors, fitness specialists and any others necessary
METHODS AND MATERIALS
* Variety of methods per topic
  behavior modification, counseling, discussion/lectures,
  self-instruction, guest expert speakers
* Materials -- company newsletter, graphics, films, tapes/cassettes

FACILITIES
* Many facilities on-site
  Auditorium; meeting rooms, quiet area, exercise physiology
  lab, health clinic, library, small exercise room, weight lift
  and training room, running tracks, showers and locker rooms
  and volleyball/basketball courts
* Will sometimes contract gymnasium

RESOURCES
* Obtain information from many resources
* Local hospital helps w/H.A. activities
* Local hospital, professional consulting firm and
  commercial organization involved in conducting R.R.
  activities

PLANNING & IMPLEMENTATION
* In-house company health/medical department committee
* Company employee relations personnel, self-employed
  consultants and local hospital staff help implement
  health assessment and risk reduction activities

PUBLICIZING AND ENCOURAGING PARTICIPATION
* Site coordinators publicize
* Posters, newsletter, person to person, management and
  supervisor endorsement and participation.

FINANCING
1. Corporate budget
2. Medical department budget
3. Fees paid by program participants
4. Employee benefits/personnel budget
5. Insured benefit

DATA BASE
* Accident indices, risk factors, health care costs and
  usage changes
* Insurance coverage changes, worker's compensation costs

EVALUATION
* Absenteeism, personal health attitudes, comparison of
  participants and non-participants, change in health
  practices, change in health care costs, change in number
  of accidents.

IMPLEMENTATION PROBLEMS
* Facilities, reluctant union, employees fear loss of preferment
  or employment, lack of effectiveness data
* Inadequate allotment of employee or company time
CASE STUDY #30

COMPANY CHARACTERISTICS
* 4,500 employees
* All company sites
* Finance
* Program Coordinator -- Occupational Health Nurse
* Number of activities - 22 (9 H.A., 13 R.R.)

REASONS FOR OFFERING
* To increase employee morale, productivity and effectiveness
* To reduce health problems of employees and absenteeism/sickdays

ELIGIBILITY CRITERIA
* Physical examinations for top-level executives and security guards.
* Hearing and vision and work safety practices in specific work areas where employees at risk.
* All other activities -- all employees eligible; some outlying facilities do not get all the program activities unless come to main office.

PURPOSE
* Informational, instructional, and behavioral change components to each activity
* Physical activity program for exercise/fitness

DECIDING FACTORS
* H.A.
  National health initiatives/priorities, department ideas
  Company policy or legal requirement for two H.A. activities
* R.R.
  Mainly national health initiatives/priorities and evidence/reports of a prevalent problem

SCHEDULING
* H.A. -- During working hours
* R.R. -- Mainly during work hours, some lunch hours
* Exercise/fitness on own time

STAFF PERSONNEL
* In-house
  Nutritionist, E.A.P., nurses, safety specialist
* Independently Contracted
  Fitness specialist, health educators, lab tech.s, physician, exercise physiologist, psychologist, social worker, rehabilitation specialist
* State and local voluntary health educators & organizations
METHODS AND MATERIALS
* Comprehensive
* EAP
* Some treatment programs on-site, substance abuse referred off-site
* Multiple methods per topic: behavior modification, some bio-feedback, counseling, discussion/lectures, some self-instruction, guest expert speakers
* Materials: Company newsletter, some pay envelope inserts, graphics, models/demos, films, records/cassettes

FACILITIES
* On-site:
  Auditorium, meeting rooms, quiet area, medical department, health exhibit area, library

RESOURCES
* Multiple resources for information, plus books on step-by-step process for health promotion program
* Some help in conducting W.A. and R.R. activities from Health Sciences Center, local hospital and voluntary health organization

PLANNING & IMPLEMENTATION
* In-house company health/medical department committee

PUBLICIZING AND ENCOURAGING PARTICIPATION
* All methods except material/financial incentives

FINANCING
  1. Medical Department budget
  2. Fees for blood screening and smoking cessation booklet

DATA BASE
* Health department does not keep track of data for program
* Some data kept by Personnel

EVALUATION
* Ask employees for evaluation after any specific activity

IMPLEMENTATION PROBLEMS
* None
* Turn down programs that cost too much for allotted budget
CASE STUDY #31

COMPANY CHARACTERISTICS
* 5,000 - 9,999 employees
* Division office
* Finance
* Program Coordinator - Training Officer,
  Training and Communications Resources
* Number of Activities - 18 (8 H.A., 10 R.R.)

REASONS FOR OFFERING
* To establish programs for reducing health risks
* To fulfill legal requirements

ELIGIBILITY CRITERIA
* H.A.
  Physical exams for top-level executives only,
  all other activities for all employees and retirees
* R.R.
  All employees and retirees; exercise/fitness includes dependents also

PURPOSE
* Informational for all
* Instructional for some, behavioral change for some
* Physical activity for exercise/fitness and stress management

DECIDING FACTORS
* H.A.
  Various reasons included: cost of health care; at-risk
  population; management request; employee request.
* R.R.
  Different reasons per topic. Most commonly cited were major cause
  of health care costs and survey of employees. Others were
  management suggestion, absenteeism, and national health
  initiatives/priorities.

SCHEDULING
* H.A.
  Shared company/employee time; during work hours & lunch hours
* R.R.
  Behavioral change activities; after hours or lunch hours
  some activities during work hours

STAFF PERSONNEL
* In-house, E.A.P., fitness specialist, volunteer employees
* Contracted -- any necessary speakers or staff - covers most
  categories
* State/local agency - health educators, social worker,
  voluntary health workers
* Volunteer health organization
METHODS AND MATERIALS
* Behavioral modification and counseling for many
* Discussion/lectures with guest speakers for 6 out of 10.
* Self-instructional programs on most topics in-house
* E.A.P
* Health club owned jointly with other business firm
* Materials: company newsletter; graphics and films

FACILITIES
* On-site:
  - Auditorium, meeting rooms, exhibit areas, library, showers,
  - exercise room, weight lifting/training rooms, sauna/whirlpool
* Contracted off-site: meeting/classrooms, exercise/physiology lab

RESOURCES
* Obtain information from most listed resources
* Involved in conducting activities: local/state agency,
  - university, local hospital and voluntary health organization
* Worked with professional consultant on video tape products.

PLANNING & IMPLEMENTATION
* In-house company health promotion program committee
  - most members within training and communication resources
* In-put from benefits department, professional consultant,
  - local hospital staff, university personnel & American Cancer Society

PUBLICIZING AND ENCOURAGING PARTICIPATION
* Posters/flyers, newsletter, person to person, monthly magazine
  - video tape, management and supervisor endorsement/participation.
* Subsidized payments for health club

FINANCING
1. Corporate budget
2. Employee benefits/personnel
3. Insured benefit
4. Fees paid by program participants

DATA BASE
* Good data base
  - Accident indices, short-term disability, incidence and causes,
  - individual risk estimate/risk factors, changes in health care
  - usage and costs, worker's compensation costs.

EVALUATION
* Surveys to supervisors and management
* Change in employee morale/attitudes toward work and responsibility
  - for personal health
* Change in incidence of disability, health care costs and accidents

IMPLEMENTATION PROBLEMS
* Budget is biggest problem
* Top management reluctance, lack of previous effectiveness data,
  - inadequate allotment of employee or company time
* Lack of employee interest for screening activities initially,
  - fear of loss of preferment or employment
CASE STUDY #32

COMPANY CHARACTERISTICS
* 5,000 - 9,999 employees
* All company sites
* Light manufacturing
* Program Coordinator - Staff Nurse
* Number of Activities - 23 (10 H.A., 13 R.R.)

REASONS FOR OFFERING
* To establish programs for reducing health risks,
* Fulfill legal requirements, increase employee's responsibility for personal health, meet needs as identified by employees & health/medical records and reduce health problems and absenteeism/sickdays

ELIGIBILITY CRITERIA
* H.A. activities and substance abuse programs
  all employees and dependents eligible
* R.R. all employees eligible, fee for exercise/fitness classes

PURPOSE
* Informational, instructional, behavioral change components for each topic
* Physical activity for exercise/fitness and healthy back programs

DECIDING FACTORS
* H.A.
  National health initiatives/priorities, at risk population group and employee requests
* R.R.
  Covers all factors; varied factors for each topic, some high cost and prevalent problem, some from employee's survey and results of health assessments

SCHEDULING
* H.A. - during breaks, lunch, before or after work
* R.R. - offered on own time, if immediate problem (i.e., counseling) done during working hours.
Required seminars during work hours.

STAFF PERSONNEL
* In-house - nurses, safety specialist
* Contracted - EAP, fitness specialist, exercise physiologist, lab tech., physical therapist, physician
* Voluntary health organizations - nutritionist, exercise physiologist voluntary health workers
METHODS AND MATERIALS
* Methods: counseling, behavior modification, discussion/lectures, self-instruction/programmed learning for some topics, guest expert speakers
* Materials: Company newsletter, graphics, demonstrations/exhibits, films
* Large annual health fair
* Very comprehensive

FACILITIES
* On-site - auditorium, meeting or classrooms, medical dept.

RESOURCES
* Obtain information from multiple resources
* Help in conducting R.R. activities from a university, local hospital, voluntary health organizations, and professional consulting firm

PLANNING & IMPLEMENTATION
* In-house company health/medical department committee

PUBLICIZING AND ENCOURAGING PARTICIPATION
* Posters/flyers, newsletter, person-to-person
* Top level management and supervisor endorsement, participation

FINANCING
1. Medical department budget
2. Voluntary health organization funds
3. Fees paid by program participants

DATA BASE
* Risk management department keeps figures at hand. Used in planning programs. A monthly summary is computed.
* Extensive data base
* Indicators of risk reduction

EVALUATION
* After yearly health fair, many indicators are put together to show management it was worthwhile.
* Every program is evaluated; employee written evaluations are compiled along with a summary on the program

IMPLEMENTATION PROBLEMS
* Medical personnel's time to do screening activities
* Reluctant top management, lack of employee interest/participation
* Sometimes data from previously conducted programs did not support existing or additional programs
CASE STUDY #33

COMPANY CHARACTERISTICS
* 16,800 employees
* All company sites
* Communications
* Project Coordinator - Medical Director
* Number activities - 22 (8 HA., 14 R.R.)

REASONS FOR OFFERING
* To establish programs for reducing health risks
* To meet needs as identified by employees and employee health/medical records.

ELIGIBILITY CRITERIA
* H.A. Physical exams for top level executives only, all employees eligible for all others.
* RR - All employees eligible; dependents and retirees eligible for substance abuse programs.

PURPOSE
* Instructional for all programs
* Informational on most
* Behavioral change for substance abuse, nutrition, weight control, smoking cessation, and mental emotional.

DECIDING FACTORS
* To cut down personal risk as a service of the company
* H.A. National health initiatives/priorities, at risk population groups, employee request
* R.R. Varied responses per topic, covering all listed. Most commonly cited are medical department suggestion, employee survey, major cause of health care costs.

SCHEDULING
* H.A. Anytime, depending on department freedom
* R.R. May be on company time sometimes, but more likely on own time; before or after work or lunch hours.

STAFF PERSONNEL
* In-house - EAP director, nurses, nurse practitioner, physician, safety specialist, social worker.
* Contracted - health educators, psychologist
* Health educators also from state/local agency and voluntary health organizations.
METHODS AND MATERIALS
* Own TV studio - monthly health and safety messages
* EAP
* Methods - Counseling and discussion/lectures for all, also behavior modification, guest speakers, closed circuit TV.
* Materials - Company newsletter/magazine, graphics, demonstrations, films, tape/cassettes.

FACILITIES
* On-sites - Auditoriums, meeting or class rooms, 4 medical departments, health exhibit areas.

RESOURCES
* Information from federal agency, university doctors, local hospital, voluntary health organizations, and professional organizations.
* Local hospital helps conduct hypertension screening, voluntary health organization, help w/ H.A. and RR activities.

PLANNING AND IMPLEMENTING
* In-house company health/medical department and safety department committee.
* Takes suggestions from union and voluntary health organization from the community.

PUBLICIZING AND ENCOURAGING PARTICIPATION
* Posters/flyers, newsletter and magazine, person-to-person,
* Top management and supervision endorsement and participation.

FINANCING
1. Corporate budget
2. Medical department budget

DATA BASE
* Benefit plan requires tracking of all absences.
* Extensive data base - back for years
* All indices covered

EVALUATION
* Evaluation not demanded
* Supervisors evaluate productivity, attitudes
* Absenteeism
* Changes in indices of morbidity, disability, accidents, hospitalization
* Change in prevalence of health risk indicators and change in health care costs

IMPLEMENTATION PROBLEMS
* Facilities, funds, medical personnel time,
* Inadequate allotment of employee or company time to such programs
* Small number of employees fear loss of preferment or employment if illness/disabilities are detected
CASE STUDY #34

COMPANY CHARACTERISTICS
* 10,000-49,999 employees
* All company sites
* Light manufacturing
* Program coordinator-Corporate Safety and Health Department Manager
* Number of activities-17 (5H.A.,12R.R.)

REASONS FOR OFFERING
* To reduce/contain costs related to health benefits/services
* To reduce health problems of employees and absenteeism/sick days

ELIGIBILITY CRITERIA
* H.A.-all employees eligible
* R.R.-stress management during management training only, all other activities open to all employees

PURPOSE
* Informational for all topics
* Instructional programs for smoking cessation, nutrition and weight control, stress management, cancer prevention, and healthy back care
* Behavioral change programs for substance abuse, smoking cessation, nutrition and weight control, hypertension control, mental/emotional problems, and work safety

DECIDING FACTORS
* H.A.-company benefit or policy, and employee requests
* Legal requirement for work hazards
* R.R.-employee survey, major cause of absenteeism, evidence/reports of prevalent problems

SCHEDULING
* H.A.-shared company/employee time, try to encourage during break or lunch, but free to go anytime
* R.R.-all after hours except stress management training, healthy back, and work safety

STAFF PERSONNEL
* In-house - occupational health nurse, EAP-"troubled employee" personnel, safety specialist, human resources staff.
* Independently contracted-exercise physiologist, fitness specialist, laboratory technician, physician
* State/local agency-safety specialist
* Voluntary health organizations-dietician/nutritionist, and health educators
METHODS AND MATERIALS

* Different groups (sites) run different programs, have different facilities, but available to all company employees
* EAP
* Methods - behavior modification, counseling, lectures, guest expert speakers, self-help hypertension control, and cancer prevention
* Materials - graphics, brochures, demonstrations, films
* Fitness classes

FACILITIES

* On-site auditoriums, meeting rooms, nurse's stations, health exhibits, small exercise room, weight lifting/training room, running track/trail, basketball hoops, showers and dressing rooms

RESOURCES

* Obtain information from multiple resources
* Local hospital helps conduct screening tests
* Voluntary health organizations, SmokEnders, and a professional consulting firm help conduct R.R. activities

PLANNING & IMPLEMENTATION

* In-house company health department committee (nurses) and employees
* With input from employee relations personnel, self-employed professional consultant, local hospital staff, community voluntary health organization staff

PUBLICIZING AND ENCOURAGING PARTICIPATION

* Nurse's PR work
* Posters, brochures, company newsletter, person-to-person communication

FINANCING

1. Individual division operating budgets
2. Insured benefit
3. Fees paid by program participants

DATA BASE

* No company wide correlation w/health promotion program and statistics
* Data available, though

EVALUATION

* No evaluation by company
* Individual classes may keep own evaluations
* Have no program for overall correlation

IMPLEMENTATION PROBLEMS

* Top management reluctant to invest time and other resources
* Lack of employee interest/participation for RR activities; good response for health assessments
* Lack of data for cost-effectiveness, or support for additional programs
* Inadequate allotment of employee or company time to such programs