

THE CASE FOR
HEALTH PROMOTION PROGRAMS

**AN EMPLOYER WHITE PAPER
PRESENTED BY**



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Executive Summary

Health promotion is an investment in human capital and productivity. Employees in optimal physical and psychological health are more likely to be on the job and performing well. They also are more likely to be attracted to, remain with and value a company that obviously values them.

Health and productivity management is based on the concept that an “at risk” workforce is a business liability with direct and hidden costs impacting productivity. Thus, an essential component of productivity management is managing employee health.

Dramatic ROI

Health promotion programs are a proven method for employers to help employees manage their health. Multiple peer-reviewed studies have concluded that businesses can realize from \$3 to \$8 for every dollar spent on health promotion. These savings represent both direct costs — reductions in medical costs and claims — and indirect savings in reduced absenteeism and disability and increased productivity. Many researchers believe the indirect, productivity-related savings are double the more easily measured direct health care costs.

Beyond ROI considerations, health promotion programs also are ideal for raising health awareness and getting employees to be active partners in their own health.

Research Conclusions Regarding Health Promotion Programs

- **Impact on health risks:** Numerous studies have demonstrated that well-conceived health promotion programs can help workers reduce their health risks.
 - **Link between health risks and medical care costs:** Being at high risk for any single health condition is associated with higher medical costs. Those with multiple risk factors cost even more.
 - **Changes in risk result in changes in costs:** The cost increases associated with increased risk are greater than the declines associated with decreased risk.
 - **Which employees should be targeted?** Many health promotion programs focus on high-risk individuals, while others focus on both high- and lower-risk employees. Some research indicates an effective strategy is to focus on keeping healthy people healthy by preventing those in low-risk categories from moving to medium- or high-risk status.
 - **Impact on health care costs:** A comprehensive review of 72 studies last year concluded that overall, health promotion programs result in lower health care costs and are considered a viable and effective method for helping employers reduce employee-related expenses.
 - **Impacts on productivity:** In addition to higher health care costs, negative impacts on productivity are a major, costly product of poor health. Some researchers believe productivity losses exceed actual health care costs.
- Worksite health promotion programs can improve productivity by attracting superlative workers, reducing absenteeism and lost time, improving time utilization and employee morale, building goodwill toward management and reducing employee turnover.
- **Absenteeism:** A common yardstick to measure productivity and absenteeism includes missing time from work, such as personal illness days, as well as short- and long-term disability and worker's compensation days. Health risks bear the

same relationship to days absent as they do to health care costs: the greater the health risks, the higher the absenteeism rates. Conversely, health promotion programs have been shown to significantly reduce absenteeism.

- **Presenteeism:** This relatively new concept considers the impact of workers who are present but not fully productive. On-the-job workers with higher health risks have more productivity loss, and presenteeism is the major contributor to these productivity losses. Researchers who studied one firm's call center operators were startled by the type of conditions that contributed most to presenteeism. Lower cost, chronic conditions such as allergies, asthma, digestive disorders, back pain and mental health problems were found to have a greater negative impact on productivity than did high health care cost conditions, such as cardiovascular disease, diabetes and cancer.

Instituting a Health Promotion Program

- Experts suggest certain elements are necessary for a successful health promotion program. These include:
- Determine your company's chief organizational health indicator issues.

- Match health promotion initiatives with health indicator issues.
- Utilize periodic health-risk assessment and screening programs.
- Systematically funnel workers identified as being at higher risk into appropriate follow-up programs.
- Measure and evaluate.

Depending on how comprehensive the plan, there is a wide cost range associated with health promotion programs. Some companies begin with relatively simple and inexpensive initiatives, such as distributing a wellness newsletter, which can be an effective way for a company to reach all of its employees and their dependents with proactive health messages. More comprehensive health promotion programs can range from less than \$50 to over \$400 per employee — a fraction of the \$4,000 to \$5,000 per year the average employer spends to ensure productivity through health benefits, which continue to experience annual double-digit increases. Factoring in productivity losses due to health, these expenses could amount to \$10,000 or more per employee per year.

Conclusion

As a means to reduce employees' health risks, curb health care costs and improve employee well-being, morale and productivity, health promotion programs are a significant, viable and cost-effective tool in employers' health care strategies.

Introduction

From a business perspective, health promotion is an investment in human capital.

“Employees are more likely to be on the job and performing well when they are in optimal physical and psychological health,” the Partnership for Prevention, a nonprofit association of corporations, nonprofits and state health departments, contends in *Healthy Workforce 2010: An Essential Health Promotion Sourcebook for Employers, Large and Small*. “They are also more likely to be attracted to, remain with and value a company that obviously values them. In short, a company’s productivity depends on its employees’ health.”¹

Top Reasons for Programs

According to the 1999 National Worksite Health Promotion Survey, the top reasons employers launch health promotion programs are to improve employee morale, retain good workers, attract good employees and improve productivity — all of which worksite health promotion programs target.²

Such programs can be particularly effective because, with a captive work force, companies are dealing with employees who experience a consistent environment and social and organizational support. Worksite health programs also have one other powerful feature workers find attractive: Employers, not the employees, pay for them.

As the Partnership for Prevention notes, the field has even spawned new business management concepts. Health and productivity management is based on the concept that an “at risk” workforce is a business liability with direct and hidden costs impacting productivity. Thus, an essential component of productivity management is managing employee health.

Nonetheless, health promotion and disease prevention have an image problem. While America has watched highly rated

medical shows like *ER* for years, there is no TV show about public health.

“It’s not as exciting, not as sexy as the immediate attention you get for saving a person’s life, finding a cure or treating a serious disease,” says Ron Z. Goetzel, Ph.D., vice president of consulting and applied research for the MEDSTAT Group in Washington, D.C. “But the reality is that the mundane, boring, common-sense things your mother told you to do 50 years ago — exercise, eat properly, don’t smoke, and balance your work, family and social life — actually make a big difference in your health and well-being.” All of which, in one way or another, health promotion programs address.

What About Results?

Intuitively this all makes sense. But it has long been thought difficult, if not impossible, to quantify the financial benefits of health promotion programs. What is the return on investment, the ROI, of health promotion? While that may once have been hard to quantify, and to quantify in dollars and cents, a growing body of peer-reviewed studies has concluded there is an ROI, often dramatic, for employer-based health and wellness promotion programs. Multiple studies have shown that businesses can realize from \$3 to \$8 in savings for every dollar spent on health promotion. These savings represent both direct costs — reductions in medical costs and claims — and indirect savings in reduced absenteeism and disability and increased productivity. In fact, some researchers believe the indirect, productivity-related savings are double the more easily measured direct health care costs.³

“The data supporting the claim that health promotion programs can reduce medical care costs and reduce absenteeism is of higher quality than the data most businesses have to support other investments of similar cost,” writes Michael O’Donnell, editor in chief and president of the *American Journal of Health Promotion*.⁴

Joseph A. Leutzinger, Ph.D., director of health promotion at Union Pacific Railroad, agrees. “Most business leaders make a lot more important decisions related to monetary expenditures based on less data than they do for spending of health promotion programs,” he says. While he is an advocate of health promotion program evaluation and has conducted some impressive evaluations himself, Leutzinger is somewhat mystified by constant demands to justify health promotion expenditures.

“Most companies spend on health promotion what they spend on carpets and one-day company events,” he says. “Do we cost-justify all training programs, business equipment and all other discretionary spending at the same intensity and rigor that is required for health promotion? Typically, companies say everything has an ROI, but

most software or databases don’t have it. We also don’t look for ROI for medical and surgical procedures.”

But beyond the measurable ROI financial numbers, health promotion programs are an ideal vehicle to enable and encourage employees to be active partners in their own health — a goal of all employers.

Workplace health promotion, Leutzinger concludes, is simply common sense. “If you look at what’s happening in business trends, in the coming years it’s going to be important for employees to have a certain core set of skills to make a company profitable. It becomes pretty intuitive that if the bar is going to be raised on what’s required, if employees are not healthy or are dealing with health issues, obviously they are not going to be able to perform at this expected and projected higher level.”

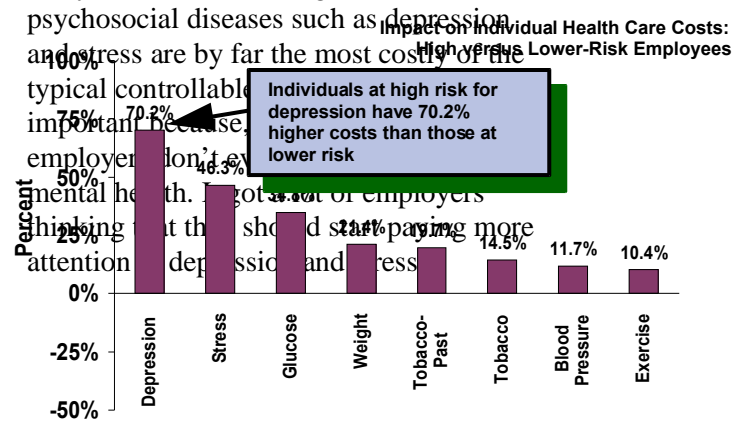
The Most Influential Studies on the Financial Impact of Health Promotion

As we have said, a growing body of peer-reviewed studies has demonstrated the financial impact of health promotion. Here are the dozen adjudged the most influential by an expert panel and summarized in a May/June 2001 *American Journal of Health Promotion* paper by Thomas Golaszewski, Ed.D., of the State University of New York–Brockport:

- HERO Studies:** In 1996 the Health Enhancement Research Organization (HERO) was created after organizers realized data existed to create a large, retrospective, multi-employer health promotion research database. HERO brought together the StayWell Company, which had a large database of health-risk assessments (HRAs), and the MEDSTAT Group, which had a large database of medical claims. The two companies were able to merge the health-risk assessments and medical claims data of 47,500 employees of six large employers: Chevron Corporation, Health Trust, Hoffman La Roche, Marriott and the states of Michigan and Tennessee. All of the employees were enrolled in their employers' fee-for-service, self-insured health plans between 1990 and 1996 and had completed one or more health-risk assessments.

The first HERO study evaluated 10 risk factors, six self-reported and four biometric measurements (cholesterol, blood pressure, blood glucose and weight). Participants were followed for up to three years after completing their first HRA, following which data showed that those with self-reported, persistent depression had adjusted annual health care expenditures that were 70 percent greater than those who didn't report being depressed. Highly stressed individuals incurred 46 percent greater

costs. They were followed by high blood glucose levels (35 percent more), obesity (21 percent more), tobacco use (former smokers 20 percent more, current smokers 15 percent more), high blood pressure (12 percent more) and poor exercise habits (10 percent more).⁵ “We thought obesity or smoking would be the most costly,” says Bill Witmer, the HERO president. “The study’s conclusion, though, was that the psychosocial diseases such as depression and stress are by far the most costly of the



Source: Goetzel et al. (1998)

- Witmer notes that only 2.2 percent of the workers assessed admitted to the costliest risk factor, depression, even though research indicates about 10 percent of the U.S. population at any given time is clinically depressed.

Another HERO study used the same data and subject group to explore the relationship between modifiable health risk and health care expenditures. Employees with modifiable health risks were responsible for 25 percent of total expenditures. Those employees who reported being under

constant stress with no methods for coping were responsible for 7.9 percent of total health care costs; former smokers, 5.6 percent; overweight, 3.3 percent; current smokers, 2.5 percent; high blood glucose, 1.7 percent; persistent depression, 1.5 percent; and high blood pressure, 0.5 percent.

“That 7.9 percent is enormous,” says Witmer. “It resulted in the *Harvard Business Review* doing a series of studies that concluded today’s workplace is the most chaotic in history. Mergers, acquisitions, downsizing and the taking away of retirement plans almost overnight has created unprecedented chaos, and there’s no question that’s going to generate stress and anxiety and take away from work performance.”

- **HealthPartners Study:** This HMO based in Minneapolis studied 5,689 of its members who were over 40 and had one or more chronic conditions to determine the relationship between modifiable health risks and health care costs. Over an 18-month period: health care costs decreased from the median by 4.7 percent for every day of the week subjects exercised; costs increased 1.9 percent above the median for every increment in Body Mass Index; and for current and former smokers, there were increases of 18 percent and 25 percent, respectively, over nonsmokers.
- **Steelcase Study:** University of Michigan researchers followed 796 employees at this office furniture maker who completed health-risk assessments before and after the 1985–1990 study period. Based on 10 lifestyle and biomedical risk factors, such as blood pressure and cholesterol levels, the workers were classified as either high or low risk (two or fewer risk factors) during each of two periods: 1985–1987 and 1988–1990. High-risk workers had high health costs. Those that managed

to go from high to low risk cost an average of \$129 less per year; those that moved from low risk to high risk cost \$734 more per year. Since then, ongoing studies by the university’s Health Management Research Center have continued to show positive results.

- **Johnson & Johnson Study:** Between 1979 and 1983 Johnson & Johnson divided more than 11,000 employees at different work locations in 18 states into three groups to judge the value of interventions such as health screenings, introductory lifestyle seminars, lifestyle improvement programs such as smoking cessation and stress management, and work environment changes, such as healthier cafeteria foods and exercise facilities. One group was exposed to such interventions early, another group received delayed intervention and the third group received none. Analysis of medical care and utilization data indicate the groups that received interventions experienced lower rates of increases for health care costs, hospital admissions and hospital days. J&J saved \$980,316 (in 1979 dollars), or \$116 per subject over the four years.
- **DuPont Study:** DuPont gauged the effectiveness of comprehensive worksite health promotion on days lost to disability during the 1980s. Comparing more than 29,000 hourly workers from 41 intervention sites to more than 14,000 from nonintervention control sites, DuPont concluded the interventions significantly cut disability days by .4 days per employee over two years. That saved 11,726 disability days and resulted in a savings of \$1.42 for every dollar invested.
- **Birmingham, Ala. Study:** The city implemented a comprehensive health intervention program in 1985. Its elements included health promotion, such as mandatory HRAs, referrals for high-risk individuals, a shift to managed care and other medical plan redesigns. Between 1985 and 1990 the average employee medical expenses were virtually unchanged (while

Alabama state employees' health care costs mushroomed 82 percent). During that same period, both hospital admissions (-55 percent) and hospital days (-38 percent) declined significantly.

- **Citibank Study:** In 1994 the financial corporation launched a mass communication health promotion intervention to all of its employees. It included a health-risk assessment; targeted educational programming, including print material, telephone counseling and telephone-accessed audio material, for those identified as high risk. There also were follow-up letters and telephone information access for lower-risk employees, and follow-up HRAs, reports and self-care books for everyone. Comparing more than 11,000 participants with more than 11,000 non-participants, researchers concluded that health care expenditures ultimately increased just 25 percent for participants but 43 percent for non-participants, a difference of \$34.03 per person per month. Overall total savings were estimated at between \$6.6 million and \$7 million, with a return of between \$4.56 and \$4.73 for every dollar spent.
- **CalPERS Study:** The California Public Employees' Retirement System during the early 1990s gauged the effect of a health-risk assessment and health promotion program on PERS employees and retirees both on and not on Medicare. Interventions included HRAs every six months, individualized reports and recommendation letters, as well as self-management/medical self-care books and materials. The results: Claims for the combined employee and retiree intervention group were \$361 lower than the controls; in just the retiree group, the difference was \$758 per member. The cost savings over the entire population was estimated at between \$3.2 million and \$8 million.
- **Travelers Study:** In 1986 the insurer introduced a health promotion program that focused on both lifestyle and medical self-care interventions to all 36,000 of its employees and retirees. The program featured multiple communications vehicles, including newsletters, brochures, videos and a self-care reference book, committees and social events such as health fairs and contests, and a large fitness facility at the corporate headquarters in Hartford, Conn. A total cost-to-benefit analysis was completed for 1986 to 1990 and projected to the year 2000. Researchers estimated the cost-benefit ratio at \$3.4 for every dollar spent, a cumulative gain of \$146 million by 2000.⁶

What Researchers Have Concluded About Health Promotion Programs

Researchers have looked at the impact of health promotion in a variety of ways, including what effect they have on health risks, health care costs and productivity.

Impact of Health Promotion Programs on Health Risks

Numerous studies have demonstrated that well-conceived health promotion programs can help workers reduce their health risks. For example, a three-year study of nearly 10,000 employees at four auto manufacturing plants compared four different approaches at the sites: periodic screening and referral only; such screenings and awareness materials and classes; those services plus individual follow-up counseling for at-risk employees and a menu of interventions; and additional social organization at the plant. Participation in the more comprehensive third and fourth approaches was five times greater, and substantially greater improvements were achieved in blood pressure results, weight loss and smoking cessation. Persistent outreach and multiple contacts by counselors were linked closely to risk reductions.⁷

Other examples:

- Coors' eight-week "Lifecheck" program significantly reduced its employees' risk of heart disease. Spending \$32 each for 692 participants resulted in declines in blood pressure, blood cholesterol and weight.
- Two years after the Minneapolis/St. Paul Metropolitan area began a weight control/smoking cessation program, program participants had lost an average of nearly five pounds and 24 employees had quit smoking. That represented only a 2 percent quit rate, but at a cost of just \$62.50 per successful quitter.
- Just three months after launching a 20-minute stretching program before its employees began repetitive work, Steelcase enjoyed significant declines in on-the-job injuries. Such injuries were even halved in one department, and workers reported their muscles ached less, they felt better physically and were sleeping better.⁸

Link Between Health Risks and Medical Care Costs

High risk for any single health-risk factor is associated with higher medical costs. For example, a collaborative 1995 study between what was then the Chrysler Corporation and the United Auto Workers Union concluded that smokers generate 31 percent higher claim costs than non-smokers, and those with unhealthy weights had 14.3 percent higher hospitalization utilization than those with healthy weights.⁹

Likewise, a study published in 2002 concluded that a worker with diabetes generates, on average, more than twice the medical, prescription and disability costs as a worker without the disease. The tab at a Fortune 100 manufacturing firm: \$7,780 per year for workers with diabetes, \$3,370 for those without it. Nearly a third of the additional costs were attributed to productivity losses.¹⁰

Health promotion researchers such as Dee W. Edington, Ph.D., with the Health Management Research Center, Division of Kinesiology at the University of Michigan, have also classified employees according to multiple risks. Those with five or more risk factors — the high-risk group — and those with medium risk (three or four risk factors) cost employers more. Researchers have calculated that the excess amounts these groups cost employers above the cost of the low-risk group (two or less risk factors) have a mean of about 25 percent of total corporate medical costs.

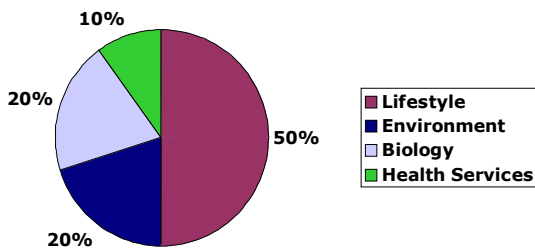
Wellness scores, which most commercially available HRAs calculate, also show a strong

correlation between wellness and health care costs.

Changes in Risk = Changes in Costs

As risks increase or decrease, so do costs, according to the University of Michigan’s findings, first with Steelcase and then with other members of its corporate consortium. Interestingly enough, the cost increases associated with increased risk are greater than the declines associated with decreased risk.¹¹

Lifestyle Accounts for 50% of Deaths



Source: CDC (1980)

How Soon Does ROI Appear?

“When can we expect to see the benefits of these programs?” Edington hears that question all the time. The benefits of low-cost programs often become apparent more quickly than those of high-cost programs. Both Steelcase and Progressive realized a savings-to-cost ratio of greater than 3.5:1 within the third year of some of their low-cost programs. One company in the University of Michigan consortium that spent less than \$30 per participant experienced a 3:1 savings-to-cost ratio after three years. While the return also was positive for its more intense programs that cost up to \$200 per employee, it wasn’t as high after three years. But Edington’s experience indicates savings will triple expenses within five years.¹²

Which Employees Should We Target?

Most health promotion programs, perhaps understandably, focus on high-risk individuals: trying to get smokers to quit, for instance, or obese workers and/or heart patients to lose weight. “The whole health promotion field, which was begun initially to address cardiovascular disease, has been brought up thinking about risk reduction as more of a medical rather than a health promotion model, trying to reduce medical problems rather than promoting health,” says Edington.

But Edington’s research suggests the most effective strategy to increase the proportion of low-risk people in a workforce is to prevent those already in low-risk categories from moving into medium- or high-risk categories. In other words, he says we should focus on keeping the healthy people healthy.

“Naturally, you want to prevent heart disease, lung cancer and diabetes, and most corporations who sponsor these worksite programs of course are interested in that,” says Edington. But the only way to measure the success of such efforts is over the long-term, 10 to 15 years from now. But generally employers, especially companies with high turnover rates — two to three years in some cases — are more interested in outcomes over the next two or three years, in such measures as short-term medical costs or impact on productivity.

Using such a yardstick, Edington’s preliminary results suggest that investing in the low- and medium-risk groups maximizes the health promotion ROI. Only when programs are able to spend more than \$300 per year per individual, he says, should health promotion programs target high-risk individuals.¹³

Based on multiple risk factors, low-risk employees represent at least 60 percent of the population, with 25 percent more in the medium-risk category, according to Edington. “These are your champions,” he says. “These are your low-cost people who have low absenteeism rates.”

In reality, most companies that launch health promotion programs try to address both groups. Says MEDSTAT’s Ron Goetzl: “You need to expend funds on primary prevention programs to keep people healthy at the same time you

spend money on high-risk people in order to change their risk profile.

Impact of Health Promotion Programs on Health Care Costs

A comprehensive review of 72 studies by Brigham Young University’s Steven G. Aldana, Ph.D., last year concluded, “The implementation of health promotion programs seems to result in lower levels of absenteeism and health care costs.” While conceding there may be some questions about the actual causal relationship between health promotion programs and reduced health care costs, he concluded that “health promotion programs should be considered a viable and effective method for helping employers reduce employee-related expenses.”¹⁴

Aldana’s review of 13 studies that reported benefit/cost ratios indicated the mean benefit was \$3.72 in reduced health care costs and \$5.06 in reduced absenteeism costs per dollar invested.¹⁵ Another review of studies by Goetzel reported a median benefit of health promotion programs of \$3.14 per dollar invested, a median benefit of programs that addressed demand for medical services of \$4.50 and a median benefit for disease management of \$8.88.¹⁶

Consider these examples:

- When Citibank spent \$2 million to provide a health-risk appraisal and appropriate follow-up interventions for chronic conditions to 40 percent of its 42,000 employees, over a 38-month period it realized \$12.6 million in program benefits — mostly from the

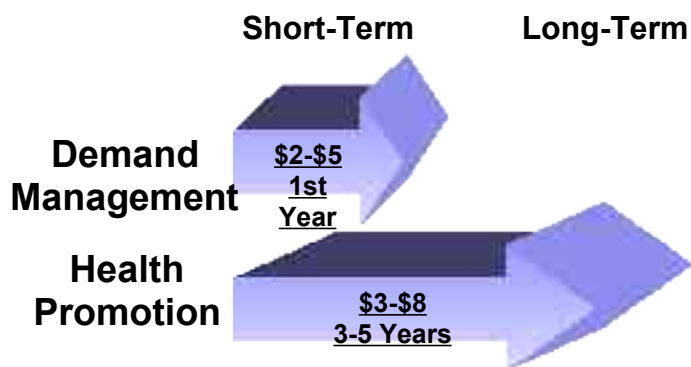
difference in medical expenditures for employees who had taken part in the program and those who hadn’t.

- Duncan Aviation in Battle Creek, Mich., over several years saw health insurance costs for its 450 workers rise only 7 percent to 14 percent while neighboring companies suffered 18 percent to 40 percent increases. Duncan got the better rates, even though its health plans are more comprehensive, because over a 13-year period its health awareness program had eliminated 60 percent of its employees’ identified health risks.¹⁷

As the Partnership for Prevention notes, even narrowly focused health promotion programs can generate significant financial savings:

- Sunbeam-Oster Co., a manufacturer of small electrical appliances with a largely female workforce, made it mandatory for its pregnant employees to attend prenatal classes. They made it easy by offering the classes on site during work hours, and paid the women their full salaries while they were in class. The result: In the eight years after the program was launched, just four premature births occurred, compared with five in the two years before the program began. Even including the cost of the prenatal classes, the company’s costs for maternal and newborn care declined by 86 percent in just two years. Average costs fell from \$27,243 to \$3,792 per program employee.

- The Hanford Nuclear Reservation cut lost workdays nearly in half among workers who took advantage of flu vaccinations offered at various worksites. Estimated savings per person vaccinated were nearly \$84, including productivity gains and medical care and prescription drug reductions.¹⁸



Impacts on Productivity

Besides health care costs, negative impacts on productivity are considered a major, and costly, product of poor health. Some researchers even believe productivity losses exceed actual health care costs.

According to the Partnership for Prevention, worksite health promotion programs can improve productivity by:

- Attracting superlative workers.
- Reducing absenteeism and lost time.
- Improving on-the-job decision making and time utilization.
- Improving employee morale and fostering stronger organizational commitments.
- Reducing organizational conflict by building a reservoir of goodwill toward management.
- Reducing employee turnover.¹⁹

Absenteeism

One common yardstick to measure productivity losses is absenteeism. That includes days missed from work, including personal illness days. It also encompasses short- and long-term disability and worker's compensation days. At Steelcase, for example, researchers early on discovered that the health risks bore the same relationship to days absent as they did to health care costs.

Results of health promotion programs on reduced absenteeism can be dramatic. Consider these examples gathered by the Partnership for Prevention:

- A 1998 analysis of five absenteeism studies concluded the programs averaged savings of almost \$5 for every dollar spent. A health promotion program at DuPont was credited with cutting days lost to illness or disability by 14 percent. A rehab program Coors sponsored for 180 post-coronary patients cut lost days by 68 percent.

- Control Data estimates its StayWell program saved the company at least \$1.8 million over six years as a result of reduced absenteeism among employees who had lowered their health-risk scores.
- In the year after a health promotion program was launched at multiple sites involving a police force, a chemical company and a banking firm, weekly participation in supervised exercise cut sick leave by an average of 4.8 days per person.²⁰

Presenteeism

Recently, researchers also have been focusing on the impact of presenteeism: workers being present at work, but not fully productive. Measuring on-the-job productivity is difficult, and necessarily has to be job-specific. In a study of Bank One call center operators, University of Michigan researchers found that workers with higher health risks have more productivity loss, and presenteeism was the major contributor to those productivity losses.

One of the most startling results of the Bank One study was the type of conditions that contributed most to the presenteeism. Researchers compared the impact of expensive, high health care cost conditions, such as cardiovascular disease, diabetes and cancer — conditions that many health promotion programs target — and lower-cost but chronic conditions such as allergies, asthma, digestive disorders, back pain and mental health problems. The results: The lower-cost conditions heavily impact productivity. While a heart attack results in high medical costs, after four weeks or so most workers can return fully productive.²¹

“But if you have a condition that affects you on a daily basis, minute to minute, like headaches or back pain or irritable bowel syndrome,” explains Edington, “you’re not going to be productive since your mind is trying to get through the pain before actually concentrating on your work.”

Goetzl agrees: “If I’m at my desk eight hours a day and suffering from allergies, migraines or headaches, back pain or a host of other issues, what proportion of my day is

essentially unproductive because I'm not performing at optimal levels? Some research indicates that may be as much as a quarter or half a day lost if you are suffering from

these conditions without being effectively treated.”

Presenteeism, Edington concludes, contributes more to productivity losses than absenteeism does.

Instituting a Good Health Promotion Program

Depending on how comprehensive the plan, there is a wide cost range associated with health promotion programs. Some companies begin with relatively simple and inexpensive initiatives, such as distributing a wellness newsletter. On the more comprehensive side, multi-faceted health promotion programs usually begin with a health-risk assessment to benchmark the starting point and to guide future steps. The costs for programs pale when you consider what most employers already are spending to ensure health and productivity.

“The average employer today is spending between \$4,000 and \$5,000 per year on health benefits. With annual double-digit increases, in some cases over 20 percent, spending is going up dramatically on the health care side,” says Goetzel. “If you factor in productivity losses due to health — absences, disability, workers compensation and items such as turnover costs — that figure can double to \$10,000 or more per employee per year.

“When viewed that way, the cost of a prevention program doesn’t look all that significant.”

Experts such as Goetzel and Union Pacific’s Joseph Leutzinger suggest certain elements are necessary for a successful health promotion program. These include:

- **Align the program with the company’s purpose and mission:** “You can’t have programs sitting off in the backwoods in a trailer somewhere where it’s very easy to get rid of them when times get tough,” says Goetzel. “Companies whose mission statements focus on human capital — such as being dedicated to attracting and motivating the best employees, being an employer of choice, making sure employers work in safe and protected environments and making sure the employees are physically and mentally performing at optimal levels — indicate the business and program objectives are aligned.”
- **Determine your company’s chief organizational health indicator issues:** Some organizations, says Leutzinger, determine these issues through an analysis of health claims data that might, for instance, identify heart disease risk, high cholesterol and/or obesity. Other companies might be more interested in productivity issues, such as absenteeism, employee relations, or recruitment and containment.
- **Match health promotion programs with health indicator issues:** “If you’re most interested in reducing claims from one year to the next, you probably want to install a self-care education program that can show an immediate return. If that was your goal, you wouldn’t want to open an 80,000-square-foot fitness center in the first year,” says Leutzinger. “But if a company like Microsoft was interested in recruiting and retaining promising younger-generation employees, being able to show off a large fitness center at the end of the interview may help persuade the candidate to take the job.”
- **Senior management must champion the program.**
- **Champions at the worker level also must be passionate and enthusiastic:** Their advocacy must be a meaningful part of their work.
- **Periodic health-risk assessment and screening program:** Regular assessments get as many employees as possible involved. Incentives might be necessary. According to Goetzel, Citibank offered employees a \$10 credit on their benefit plan and generated a 50 percent participation rate in their assessment program; a Johnson & Johnson program that offered employees a \$500 incentive generated a 90 percent participation rate. According to the

University of Michigan's Dee W. Edington, annual health-risk assessment participation rates of 20 percent to 30 percent are common. Among long-term employees at Progressive, over 10 years 80 percent of the employees participated at least once; 60 percent did so at least twice and 40 percent at least three times. So, given the chance, most employees eventually will participate.

- **Systematically triage and funnel workers identified as being at higher risk into appropriate follow-up programs.**
- **Encourage individuals to participate in multiple programs:** This is a key success indicator. At Progressive, individuals who took part in programs multiple times over a nine-year period had lower health care costs. For those who participated in zero to three programs during that period, health care costs rose 7.8 percent annually. Those who participated in four or more programs saw health care costs decrease 1 percent annually — a total savings of nearly \$4 million over nine years.
- **Measure the program's impact.** You can have the finest science and motivational managers, but if you don't document the program in any ways you're wasting money," says Goetzel. "Eventually someone is going to ask 'Does this work?' Unless you have the data to support that it is working, both in terms of improving health and potentially saving money, you're going to have a hard time justifying the program."



Tips to Increase Participation

Here's some advice from the Partnership for Prevention on how to increase employee participation in health promotion programs:

- **Involve people in planning:** Ensuring good participation starts with the program planning process. Broad

employee involvement stimulates interest and ownership of the program; it's contagious. Encourage advisory committee members to talk up the program informally, even before a program starts. Word of mouth often is the best marketing device.

- **Ask people what they want and give it to them:** A needs-assessment survey builds a sense of anticipation and excitement that can help increase participation. Failure to understand the needs and interests of potential program participants will almost assure low program participation.
- **Make the program fun:** People enjoy doing what's fun. Use balloons, flowers and music to create a festive atmosphere for health fairs or health-screening activities.
- **Provide incentives:** Well-conceived incentives can be expected to increase program participation rates by 12 percent to 35 percent. Incentives also can encourage the completion of or attendance at multiple program sessions and help participants adhere to long-term behavior change.
- **Publicize the program in different ways:** Use multiple upbeat methods to promote the program to potential participants, including bulletin boards, pamphlets, payroll inserts, voice-mail messages, electronic billboards, etc. A creative program name and logo will help to create a positive image that can help increase utilization.
- **Wow, the boss is doing it!** Small business owners or top managers who participate in a program encourage others by their example. The general manager for a large refinery in Joliet, Ill., frequently told employees that anyone could talk with him while he is on the treadmill where he works out virtually every morning. Cultivate support from all levels of management.
- **Remove barriers:** Make health promotion and related activities easy to sign up for and conveniently located.
- **Provide program choices:** Don't just offer a group smoking cessation program. Also offer guided self-help programs such as

video or audiotapes and workbooks that employees can use privately.

- **Ask how you are doing:** Routinely measure program participants' satisfaction with the program content, instructors, logistical arrangements and other program components. A simple evaluation can determine what

participants liked best about the program, what they liked least and also solicit suggestions for program improvements or new topics to address.

- **Why not?** Ask some of the people who do not participate, why not? Their answers can help formulate strategies to help ensure participation of non-participants.²²

Basic Components of Health Promotion Programs

Following are some of the initiatives included in corporate health promotion programs:

Newsletters and Other Health Education Materials

Newsletters are an affordable first step and an ongoing foundation for corporate wellness efforts. Newsletters or magazines can combine news about company programs with general interest articles on timely health topics. A wealth of print, online and video materials also is available, including self-care guides, self-management advice for persons with chronic conditions and instruction sheets on wellness topics. Such educational tools can heighten awareness, enhance personal performance and reduce costly health care utilization. Such communication materials:

1. **Send a positive message:** Employees receiving such materials notice and appreciate their company's concern for their health and well-being and that of their families.
2. **Educate people to make better health decisions:** As we ask people to take greater responsibility for their health, health and wellness communications help them make better informed health decisions, then reinforce such decisions regularly.
3. **Enable companies to reach each employee's unique health interests:** To ensure that there's something for everyone in each issue, most newsletters address a variety of important wellness topics in each issue.
4. **Offer visual appeal:** Bold formats are attractive and inviting to readers, both employees and insured dependents.
5. **Reach readers at home:** This is where health issues and health decisions occur.

6. **Offer interactive services** such as personal menus for access to health encyclopedias.
7. **Offer special topic-targeted supplements:** These enable employers to address special needs within their organizations, such as self-care cost containment programs, chronic conditions, substance abuse issues, productivity and seniors' health.

Health-Risk Assessments (HRAs)

These gauge risks, health history and readiness to change. Generally offered to employees on a voluntary basis, HRAs are the key to identifying the health and lifestyle status of your workers. They also provide immediate confidential feedback that can get people thinking about their lifestyles and how choices they make affect their health. By building such awareness, health assessments are the first step in encouraging employees to maintain their healthy lifestyles and to take positive steps to improve their health status.

Focusing on behaviors that people can change, assessments cover such areas as activity and exercise; alcohol use; back care; demographics; driving; eating habits; height, weight and body frame; mental health; screening exams; screening values; self-care skills; smoking/tobacco use; stress management; weight control; family history of chronic disease; and readiness to change.

When employees retake these assessments in subsequent years, they receive comparative data that illustrate how much or how little progress they are making toward healthier lifestyles and reduced risk. Whether it's the first or umpteenth time an employee has taken an HRA, the assessments reinforce positive scores; compare the individual to others of the same age and gender; highlight each individual's main health risks; outline the benefits of changing risky habits; and suggest positive steps to take immediately. Employees also are alerted to any

health conditions that warrant a doctor's prompt follow-up.

Meanwhile, employers receive an aggregate data report on their workforce. The StayWell Company's management reports, for example, highlight:

- **Risk factors:** Reports identify five primary risks in the total workforce and among high-risk individuals, who — as we have seen — usually cost more to cover. The reports also outline the degree of readiness to change at each risk level, which is key information for targeting behavior-change programs.
- **Avoidable costs:** Based on the company's risk profile, the report estimates the direct health care costs, indirect costs (such as absenteeism and low productivity), total costs associated with behaviors that people can change, and the potential savings from reducing risk.
- **Recommendations:** By identifying the most costly health issues and the degree of readiness to change, recommendations are geared toward creating the greatest benefit for employees and the company. To control health costs and improve well-being, recommendations might include behavior-change programs for high-risk individuals, education programs to increase individuals' readiness to change and organization-wide health promotion programs to motivate people to consider the benefits of improved behaviors.

Armed with such information, interventions and incentives can be targeted and the effectiveness of an employer's program can be closely monitored.

Health-Risk Assessment Follow-up

Once an initial assessment identifies a company's needs, various health promotion programs can be implemented. These include:

Focused interventions: Phone-based and on-site wellness coaching and mail-based educational programs on lifestyle and chronic disease management issues targeted to risk level and tailored to individual needs. Intervention programs with health educators can include:

- Weight management
- Nutrition
- Exercise
- Stress management
- Self-care
- Smoking cessation
- Blood pressure management
- Cholesterol management
- Adult asthma
- Type 2 diabetes
- Coronary artery disease
- Hypertension
- Chronic heart failure
- Back care/occupation ergonomics
- Chronic disease self-management
- **Online services:** Intranet or Internet-based health improvement tools include HRAs, health and self-care information, personalized health news and customer-specific resources.
- **Onsite services:** Health screenings, health fairs and events, campaigns and fitness center management.
- **Telephone services:** Toll-free help lines employees can call for informational support, guidance and encouragement to motivate healthy lifestyle change.
- **Fitness center** enrollment and individualized fitness programs.
- **Single-session workshops**
- **Intensive group and self-study education**
- **Periodic general and specific health screenings**
- **Safety training**
- **Program management:** Your health promotion partner can help with program design and development, marketing, promotion, implementation management and evaluation.

Some elements of health promotion programs can be hard to track, such as the percentage of employees who read a newsletter or take part in a fitness activity. In an early UAW-GM study, the recorded cumulative participation rate after three years was just 40 percent. But when employees responded to a randomly administered survey, self-reporting pushed that percentage to over 80 percent.

“These nontrackable components provide an important benefit and likely

contribute to the overall cost-effectiveness of an established health promotion program,” Edington says. “Newsletters, bulletin boards and telephone numbers are all part of maintaining low-risk employees and creating an overall environment that keeps healthy lifestyle and quality-of-life issues in front of people all the time.

“They are a way to improve knowledge, awareness and attitudes, and once people move through those these phases, you get behavior change.”

Conclusion

The average annual health insurance premium in 2000 was \$2,655 for single coverage and \$6,772 for family coverage in private-sector companies, according to the Agency for Health care Research and Quality. Those levels represent increases of 33.3 percent for individuals and 36.7 percent for families since 1996. Despite these increases, the percentage of private-sector companies that offered health insurance also increased, from 52.9 percent to 59.3 percent. As a result, almost 90 percent of all employees worked for establishments that offered such coverage, compared with 86.5 percent in 1996.²³

Given such cost and participation increases, it has become increasingly urgent for both employers and employees to seek ways to curb the spiraling cost of health care, which continues to significantly outpace inflation.

"Those who don't make time for wellness will be forced to take time for illness," Jeff Null, manager of Dow Chemical's South Charleston, W. Va., fitness center, asserts in the National Safety Council's *Safeworker*.²⁴

Clearly, as a means to reduce employees' health risks, curb health care costs and improve employee well-being, morale and

productivity, wellness programs represent a significant, cost-effective tool.

Therefore, companies that purchase insurance plans, says Kenneth Sperling, health care practice leader at Hewitt Associates' Norwalk, Conn., should select health plans that have adequate disease management capabilities, since that can result in lower premiums based on claims experience.

**"Those who don't make time
for wellness will be forced
to take time for illness."**

Likewise, Sperling says, the growing number of self-insured companies now have few options beyond health promotion programs.

"How am I possibly going to beat the inflationary trend if I don't manage the claims?" he wonders. "In one sense, the market is driving toward health promotion because that is all we have left other than prescription drug strategies and cost sharing. Cost sharing changes the way the pie is divided up, but disease management is one of the biggest arrows in the quiver to reduce the size of the pie."



The Union Pacific Story

Union Pacific Railroad opened its first employee fitness center at its Omaha, Neb., headquarters in 1987. It soon began to outfit a number of rail cars as fitness centers; the cars would follow crew members who were responsible for track repair. Since crew members who used to live in bunk cars now get a lodging per diem, Union Pacific has retired its fitness rail cars.

But a program that originally started out just for rail workers now has grown to more than 500 exercise facilities (mostly vendor contracted) spread across 25 states. “We believe it’s the largest employer-sponsored exercise program in the country,” says Joseph A. Leutzinger, Ph.D., Union Pacific’s director of health promotion.

That exercise program has remained the foundation of Union Pacific’s health promotion program — but it is by no means the only health promotion element. In 1992 Union Pacific introduced Health Track, a risk identification/risk reduction program that targets 10 lifestyle risk factors and chronic conditions. Last year the company modified its Health Track program to offer workers a broader menu of approaches that vary in time, intensity and commitment. The modification is an attempt to reach workers who haven’t completed a health-risk assessment and also to encourage those who’ve completed an assessment to do so regularly — every six months or at least annually for those with identifiable risk factors.

So far, 18,000 of Union Pacific’s 50,000 employees have completed at least one health-assessment. But Leutzinger notes that is not the only way employees can interact with the company’s health promotion programs. To build health awareness, it also offers a “Know Your Numbers” promotion four times a year. It conducts presentations, produces videos and

offers informational packets on key health numbers everyone should know in relation to good health, such as:

- 80: Minimum desirable HRA score
- 30: Recommended minutes of exercise most days of the week
- 24: Desirable body mass index
- 8: Recommended hours of sleep

Union Pacific also conducts an active information campaign. Ten times a year workers receive an exclusive Union Pacific newsletter, *Well Workplace*. It also produces and distributes an on-line newsletter three times a week that features one or more health tips, a health article and news about the company’s health promotion programs. Employees also receive region-specific newsletters, and employees at the headquarters can see a billboard-type TV that delivers about 100 health messages, usually text messages, every five minutes.

During the mid-1990s, Union Pacific also implemented a company-wide medical self-care program. Five years ago it began to integrate its health promotion program with its alertness management initiatives — an important priority for a company with railroad operations. Integrating health into the core operations of the railroad, the company endeavors to help its employees see the link between lifestyle habits and fatigue, and the critical relationship between health, alertness and productivity. Data still being analyzed, says Leutzinger, shows a relationship between some of the risk factors identified through the health-risk assessment, such as being overweight, and injury rates and severity of injuries.

The results of Union Pacific’s health promotion initiatives have been impressive. In 1990 the company concluded 29 percent of its

health care dollars were spent on known lifestyle-preventable causes. Five years later, after implementing several programs to provide employees and spouses with assistance in reducing their respective risk factors, just 24 percent of the railroad's health care costs were related to poor lifestyle habits. Data just in indicates such habits contributed to only 19 percent of Union Pacific's 2001 health care costs.

The self-care program, meanwhile, was designed to help workers understand when it's appropriate to self-treat conditions, rather than going to a doctor or emergency room, and to make sure that when they do visit a doctor they make the best use of that visit by being prepared for it. "We're simply trying to make the employee a more proactive consumer when it comes to his or her own personal

health and health care," says Leutzinger. The ROI Union Pacific measured was similar to the results of other peer-reviewed, published self-care initiatives: a benefit-cost ratio of \$2.77:\$1.

It all adds up. Union Pacific also recently used the HERO database to project its health care cost increases over the next 10 years based on changing demographics and risk factor profiles. The study tested four different scenarios. They ranged from what would happen if the company eliminated its health promotion program, to achieving a 1 percent annual reduction (or 10 percent total reduction over the 10-year period) in total risks. The result: a \$77 million difference between eliminating the program and cutting risks just 1 percent per year, which, Leutzinger notes, Union Pacific has been achieving.

The Northeast Utilities Story

Northeast Utilities (NU), New England's largest utility company, won a C. Everett Koop National Health Award for its WellAware programming.²⁵

After instituting the program for its employees in 1994, the company analyzed its impact on 1996 medical claims. It wanted to know:

- Does the program produce a positive ROI?
- Did the estimates for how much the program would save the company jive with its actual health claims experience?
- Have initiatives targeted at specific lifestyle and behavioral risks produced their intended results?

Examining annual per capita health benefits costs for the years 1992 through 1996, an analysis concluded that — during a time when most employers were experiencing per capita health care cost increases of 15 percent to 20 percent — NU experienced flat per capita costs. Of the total savings, NU experienced a \$1.4 million reduction in lifestyle and behavioral claims.

Conservatively attributing 70 percent, or \$1 million, of those savings to the positive effects of the WellAware program yielded a return on investment of 1.6:1. The C. Everett Koop National Health Awards concluded WellAware's expected impact on reducing claims would grow greater with time. Broadening participation in programs, the lag between the change in unhealthy behaviors and reduced health care claims for many preventable conditions, and opportunities to address high cost claimants all were thought to be factors that could improve NU's ROI in the future.

The first step in participating in NU's WellAware program is the completion of StayWell's HealthPath Health-Risk Assessment (HRA). The HRA provides an assessment of important health risks that participants can reduce through changes in

lifestyle habits. Between 1998 and 2000, 4,125 individuals at NU participated in the HRA. Based on their modifiable health risks, StayWell estimates these participants generated \$8.8 million in avoidable direct and indirect costs.

During that same three-year period, 2,577 participants completed a second HRA. Their overall average lifestyle score improved from 70 to 73, and they also experienced significant reductions in risks, including:

- 31 percent decrease in smoking
- 29 percent decrease in lack of exercise
- 16 percent decrease in mental health risk
- 11 percent decrease in cholesterol risk
- 10 percent improvement in eating habits
- 5 percent decrease in stress

Also, the number of health risks for these repeat HRA participants improved.

Participants with:

- less than three risk factors increased 6 percent.
- less than two risk factors increased 9 percent.
- six or more risk factors decreased 4 percent.

Based on the risk reductions of the 2,577 repeat HRA participants, StayWell estimated annual savings to NU of more than \$1 million.

While completing an HRA alone has been shown to reduce health care costs, NU's experience illustrates that completing an HRA and participating in a wellness activity reduces risks even further. For example, NU employees who completed an HRA, participated in at least one health education activity and completed at least 12 weeks of cardiovascular activity experienced greater risk reductions than those who just completed a HRA in the following categories: blood pressure, cholesterol, eating habits, exercise, smoking and stress.

Finally, NU's program illustrates the effectiveness of telephone-based intervention programs for workers at high risk in two or more health areas.

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- ¹⁹ *Healthy Workforce 2010: An Essential Health Promotion Sourcebook for Employers, Large and Small.* Partnership for Prevention. Fall, 2001. Page 4.
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- ²⁵ See <http://healthproject.stanford.edu/koop/NortheastUtilities/documentation.html>.