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The “Business Case” For Investing in Employee Health: A Review of the Literature and Employer Self-Assessments

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- This *Issue Brief* reports on the findings from interviews with six large employers to learn more about what these employers actually do to promote employee health beyond offering health plans, why they do what they do, how they financially justify what they do to their peers and superiors, and what the prospects are for their more expansive and longer-term approach to health benefits costs in the current general economic climate and in the face of sustained health care inflation. Some of these employers attribute reductions in the cost of providing health benefits to strong management of employee health status, use of health care, and occupational injuries. However, they also believe that the cost of providing health benefits is strongly influenced by health care system and environmental factors outside the work place that affect health.
- Employers that offer health insurance to their workers generally believe that offering this benefit helps to create a more satisfied and productive work force. The fairly large, sophisticated employers discussed in this report have found that by aligning preventive health services and work place education programs with their health benefit programs, they can improve work force health and productivity and manage their employees’ use of health care.
- Such employers are increasingly concerned about distracted workers who are on the job but failing to pay full attention to their duties because of health problems. They’ve found that employee assistance and related health interventions can deal successfully with this problem.
- Innovative employers are making significant investments in education programs that discourage unhealthy habits and stress the need for timely and cost-effective responses when a medical problem is identified.
- Some economists have posited a link between the health of workers and the economic health of the broader society. When individual firms take action to create more productive workers, they argue, the nation’s GDP grows in a fashion that provides a more positive environment for all Americans.
- This economic argument also holds that the nation could be wealthier if the 35 million uninsured American workers and dependents had health coverage; even after the costs of their care were subtracted, there would be a net gain to society.
- Employers are becoming increasingly frustrated with annual premium increases that are a multiple of the general inflation rate. Unless and until they come up with a way of managing and finding greater value in such expenditures, the future of employment-based health benefits may be at stake.

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Introduction

Employers play a vital role in America's health care system. More than 175 million Americans are covered by employment-based health benefits (Fronstin, 2003a). Employers voluntarily provide health benefits to workers and their families and have considerable discretion with regard to plan establishment, continuation, and benefit design. Employers that choose to self-insure their health benefits (typically large employers) have even greater discretion than their counterparts that purchase commercial health insurance because self-insured benefits are not subject to state-level benefit regulations (Copeland and Pierron, 1998). For the most part, employers offer health benefits to attract and retain qualified workers based on the generally accepted view that employees desire them more than equivalent cash compensation and evidence that they outrank every other employee benefit in importance (Christensen, 2002). They also offer health benefits in order to provide workers and their families with protection from financial losses that can accompany unexpected serious illness or injury, to promote health, and to increase worker productivity.

For more than 25 years, the Employee Benefit Research Institute (EBRI) has examined trends in employment-based health benefits. As part of this work, EBRI has explored the attitudes and behaviors of employers related to their perceptions of the business value of offering health benefits, particularly with regard to employee recruitment, retention, and productivity (Christensen et al., 2002; Fronstin and Helman, 2000 and 2003). Recently, EBRI spearheaded complementary research, in collaboration with the Milbank Memorial Fund, which challenged the mainstream economic theory that employment-based health benefits help only those employees who have them. The research suggests that employers may realize more value with compensation packages that include health benefits than with packages that offer wages alone (O'Brien, 2003). It concludes that although empirical research has not yet adequately documented the gains employers achieve from providing health benefits to workers, some research does shed light on these gains, as surveys of employers and conversations with them reveal that they do think that providing health benefits positively affects the bottom line.

In the fall 2002, executives from six large employers were interviewed—Bank One, Dow Chemical Company, Elkay Manufacturing, Sherman Health System, Union Pacific, and one other large and innovative firm with a profile strongly resembling the other five that chose to remain anonymous. The senior management at all these firms explicitly acknowledge the value of their workers to their core business. They have all planned, shaped, and evaluated their health benefit programs for at least 10 years. All have significant numbers of employees enrolled in self-insured health benefits. All supplement their health benefits plans with health education, nurse counseling, and employee assistance program (EAP) services. They use a wide range of data sets to evaluate program effectiveness. They all acknowledge that health affects employee performance on the job. They all believe their programs have a positive impact on health status and behaviors and care utilization. None relies exclusively on health care cost trends to justify their programs. All acknowledge the critical importance of line management support for their programs. Together, these diverse organizations produce more than \$70 billion in annual revenue and employ about 246,000 workers (Figure 1).

The purpose of the interviews was to learn more about what these employers actually do to promote employee health beyond offering health plans. Each was asked why they do what they do, how they financially justify what they do to their peers and superiors, and what the prospects are for their more expansive and longer-term approach to health benefits costs in the current general economic climate and in the face of sustained health care inflation. Some of these employers attribute reductions in the cost of providing health benefits to strong management of employee health status, use of health care, and occupational injuries. However, they also believe that the cost of

Figure 1
Profile of Employers Interviewed

	2002 Annual Revenue (in \$ millions)	Number of Employees
Employer A	\$ 16,000	69,000
Dow Chemical	\$ 28,000	50,000
Bank One Corporation	\$ 17,000	74,000
Elkay Manufacturing	\$ 600	3,800
Sherman Health System	\$ 218	2,400
Union Pacific	\$ 12,000	47,000
Total	\$ 73,818	246,200

Source: Employee Benefit Research Institute.

providing health benefits is strongly influenced by health care system and environmental factors outside the work place that affect health.

The purpose of this *Issue Brief* is to report the findings from these interviews. It is not meant to be an analysis of or commentary on the companies' intentions, actions, or conclusions. While their programs and outcomes may not be generalized to other employers, these organizations regard their programs as valuable and fairly representative of those companies that seek to align employee health improvement and management with job performance and business success.

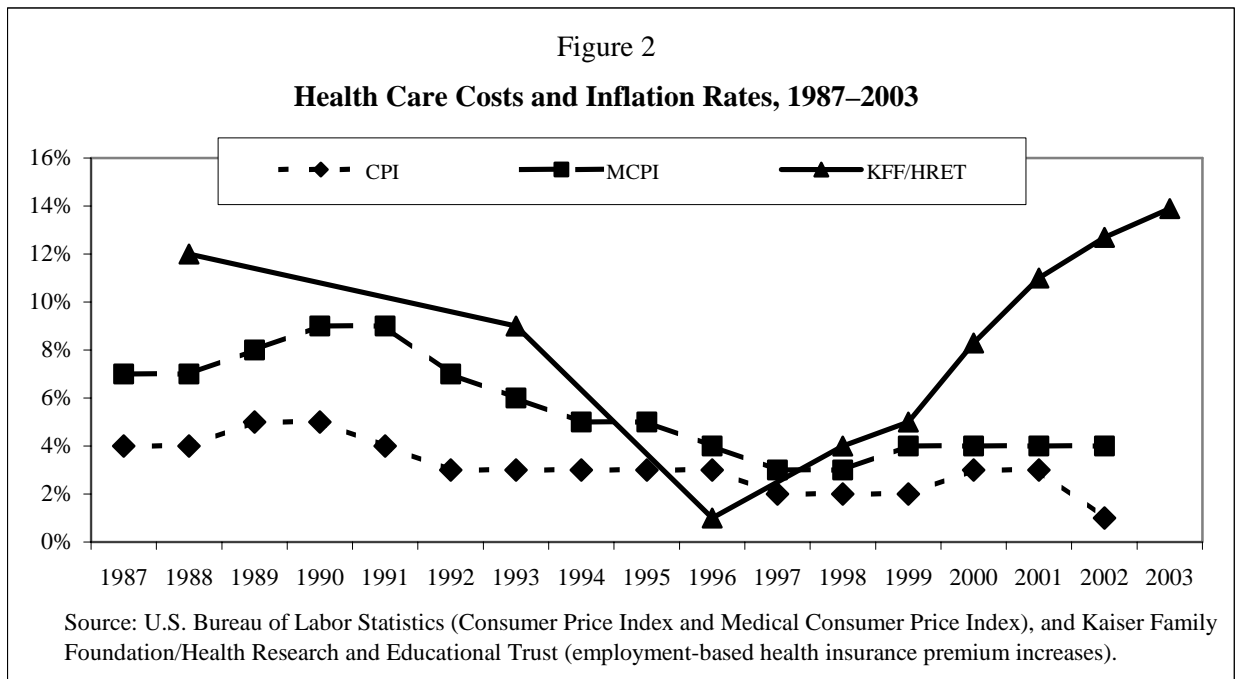
Background on Employment-Based Health Benefits

Despite the voluntary nature of employment-based health benefits, America's health care system "assumes" employers will provide these benefits. Federal and state coverage programs like Medicare and Medicaid generally target only those beyond the reach of employment-based health benefits. Consequently, 86 percent of nonelderly Americans without health insurance are either workers or are dependents of workers (Fronstin, 2003b). Large-scale changes in employer coverage practices that threaten their employees' ability to access and afford health care could have systemwide repercussions.

Employers are heterogeneous and unpredictable when it comes to future benefits' practices. Of the more than six million¹ employers in the United States, 66 percent offer health benefits to their workers (Gabel et al., 2003). However, while nearly all employers with 50 or more employees offer health benefits, 55 percent of employers with three to nine employees offer them. These employers account for more than 50 percent of all employers² but 13 percent of all jobs (Fronstin, 2003b). Most employers have fewer than 10 employees and 55 percent of them offer health benefits. Many employers that wish to remain competitive and continue in business are torn between controlling health benefit costs and providing quality, affordable health benefits to recruit and retain competent workers. A recent survey of employers reported that 18 percent are very confident that they can manage health care costs (Watson Wyatt Worldwide/WBGH, 2003). In addition, 43 percent are very confident that their organization will be providing health benefits in 2013.

Health care costs have been particularly vexatious to employers since the early 1980s, when national health expenditures and premiums began to accelerate at unprecedented rates. In just over 20 years, health care expenditures quintupled, doubled as a percentage of gross domestic product (GDP), and outstripped other measures of inflation. While rates of premium increases abated briefly

in the mid-1980s and 1990s, they have been increasing by more than 10 percent annually since 2001 (Figure 2), and are expected to continue to do so for the foreseeable future.³ Today, the annual cost of providing health benefits averages more than \$3,391 for employee-only coverage and \$9,075 for family coverage (Gabel et al., 2003). Employers of all sizes are concerned that cash compensation and all other benefits are re-emerging as a source of labor unrest.⁴



Largely as a result of an extraordinary surge in costs in 1980, some large employers began to look at health benefits more closely to determine the underlying causes of cost increases. As more large employers began to appreciate the financial benefits of self-insuring health benefits, they simultaneously gained greater access to detailed, aggregated information about health care services required by employees and their families from their claims' payments. Aided by newly emerging firms that specialize in health "data mining," these employers began to develop strategies to address the root causes of illness, injuries, and care utilization that were driving their costs. In general, the strategies that emerged fell into three categories and seemed to accelerate and spread with each spike in costs during this period:

- Health promotion and wellness programs predicated on evidence that as much as 50 percent of health care was driven by avoidable health risks.
- Use of managed care that introduced oversight and coordination of the continuum of care and specific care episodes to manage health care costs, quality, and access.
- Increasing use of health care data combined with other employee data to identify and explain the total cost burden of worker illnesses and injuries, and to develop and prioritize interventions to address them.

Despite sophisticated new approaches that associated health benefit costs with an array of determinants of population health, the rising cost of providing health benefits continues to plague most employers and could result in more costs being transferred to consumers, more uninsured workers, and more fluctuations in quality. So far, employers as a group have not shifted costs onto workers by increasing the employee share of the premium. On average, employers paid 84 percent of the premium for employee-only coverage and 73 percent of the premium for family coverage in

2003, and these figures are in large part no higher than they were in 1996 (Gabel et al., 2003). Employers and others continue to search for new and effective ways to stem rising costs without adversely affecting quality and health status. However, as the economy worsened over the past few years, the proportion of uninsured did increase: In 2002, 17.3 percent of nonelderly (under age 65) Americans lacked health insurance, a steady increase from 15.8 percent in 2000 (Fronstin, 2003).

What are missing in these deliberations are societal discussions concerning the affordability and value of health care services. What does “value” mean in this context, and at what point are health care cost increases unbearable?

Societal Impact of Offering Health Benefits and Other Worksite-Based Health Management Programs

The term “bottom line” in general parlance means the difference (usually called “net income”) between a firm’s revenues (the “top line”) and expenses. Expenditures for resources required by the firm to generate and maintain revenues are either: (1) fully recognized in the current fiscal year or (2) amortized over a period of years. The difference between (1) and (2) is the period of time over which an expenditure is expected to benefit the firm. Expenditures for computers are spread over multiple years; expenditures for people generally are not. Thus wages, benefits, employee training and recruitment and the like are, for financial purposes, only deemed useful in the current year regardless of their effect on employee performance. This factor has strongly influenced the emphasis employers continue to place on the control or reduction of health benefit costs as a principal way to improve the bottom line.

Starting in the early 1990s, as employers deepened their understanding of the total cost burden of worker illness and injury and the underlying causes by mining their new datasets, they also searched for better financial metrics to justify investments in health benefits and other health services beyond year-to-year costs. At this stage, some employers began speaking of quantifying employee health as a determinant of worker productivity. Within a few years, many of these employers partnered with organizations like the Washington Business Group on Health, Institute of Health and Productivity Management, Integrated Benefits Institute, Health Enhancement Research Organization, American College of Occupational Environmental Medicine, Disability Management Employer Coalition, and others, to share their experiences and explore new ways to manage employee health and health benefits, to ultimately make a positive contribution to their companies’ financial performance.

This work generally emphasized:

- That employee health was improvable through health risk reduction and care management.
- That health benefits needed to be complemented by worksite health education, health risk management, and sophisticated benefit counseling.
- That administration and management of health benefits plans, health promotion, workers’ compensation, non occupational disabilities, occupational health and safety, and behavioral health should be integrated to maximize their effectiveness.
- That improvement in health and care would counteract the increasing cost of providing health benefits and other employer costs associated with worker disability, absences, turnover, and production waste.⁵
- That it was necessary to develop common and pertinent metrics so as to document and communicate to senior management the full financial burden of employee illnesses and injuries.
- That a new way of thinking—and speaking—was needed to emphasize the long-term value of labor and health benefits. This led to a search for a way to correlate employee health with emerging perspectives of workers as *human capital*, a term that along with *intellectual* and *knowledge* capital gained prominence in the late 1990s with the rise of the technology industry and scarcity of good workers. Human capital theory treats workers as assets who

create the value of the business and contemplates ways for organizations to integrate business necessity with individual expectations and interests (Kochan, Orlikowski, and Cutcher-Gershenfeld, 2002). The term most frequently used by employers who are discussed below to refer to the ultimate financial consequence of impaired employee health is *presenteeism*, or working while physically or emotionally impaired. To state it another way, some employers are looking for possible connections between employee health improvement and top line growth and bottom line improvement.

Concurrent with the search by employers for new metrics to value employee health, members of the academic community, either independently or in collaboration with employers, were looking at the value of health and/or its impact on worker performance, business, and the economy.

Nordhaus (2003) examined the effect of improved health on national economic performance and concludes that improvements in population's health status account for a substantial measure of economic progress by the United States in the 20th century. Barro (1997) has also shown that life expectancy is significantly correlated with economic growth and that a 10 percent increase in national average life expectancy would raise economic growth by 0.4 percent annually.

Bloom, Canning, and Sevilla (2001) also examine the impact of health on labor productivity and economic growth. They find that a one-year increase in a population's average life expectancy contributes to a 4 percent increase in output.

Murphy and Topel (2003) examine the value of health and life expectancy. They estimate that improvements in life expectancy alone added \$2.6 trillion per year (in constant 1996 dollars) to national wealth during 1970–1998, with \$1.1 trillion due solely to the reduction in mortality from heart disease. The net addition to national wealth is estimated to be \$1.6 trillion per year during 1970–1998 after taking into account increased health expenditures to generate these gains. Murphy and Topel conclude that potential gains from further improvements in health care are also extremely large.

Cutler and Richardson (1999) developed a measure of the nation's "health capital," the dollar value of health a person will have over the course of his or her remaining life. They find that about 30 percent of the improvement in health capital over the last four decades would need to result from medical care advances for the improvement in medical technology to justify its cost, and conclude that increased medical technology is, on average, worth the cost.

Becker (1993, 1996) examined the correlation between birth rates, investments in education and training, investments in human capital, and economic progress as part of a broader investigation of ways to evaluate proposals to improve the quality of the work force through schooling, training, medical services, and child care. Acknowledging estimates that more than one-half of the economic wealth of the United States and other economically advanced nations comes from human capital, he concludes that more than one-fifth of the percentage of the GDP devoted to health care should be classified as an investment in human capital because it contributes to productivity and longer working life.

Becker and Huselid (1998) studied the strategic role of human resources management systems with regard to the financial performance of firms. Focusing on intellectual capital, knowledge work, and high-performance work systems to examine the notion that people are a source of competitive advantage in rapidly changing markets where speed, flexibility, and motivation are essential, he concludes that human resources systems can have a strong, positive influence on multiple measures of a firm's performance. However, he also emphasized the integrated nature of such systems and the difficulty of configuring such systems and embedding them inside individual firms.

Lev (2001) has challenged mainstream accounting practices affecting public disclosure of financial performance data by corporations, claiming they fall short of disclosing a firm's true worth. In a collaboration with the Securities and Exchange Commission beginning in the mid-1990s, Lev has sought to substantiate and demonstrate the importance of intangible assets—research and

development, innovation, brands, patents, and general know-how, which he believes could account for as much as 80 percent of a firm's value.

Finally, Kessler (2003) has advanced research on presenteeism and absenteeism related to mental health with employers in several business sectors using the World Health Organization (WHO) Health and Work Performance Questionnaire (HPQ). Developed by the Harvard Medical School Department of Health Policy and the WHO, the HPQ estimates the work-place costs of reduced job performance, sickness, absence, and work-related illness and injury.

These findings have implications for employers and the provision of employment-based health benefits and related health improvement initiatives. While most employers cannot precisely measure the impact of providing health benefits and other health resources in the context of their other employee relations programs on their companies' financial performance, the research summarized in this section, although fragmented and incomplete, shows that integrated policies and programs that lead to improved health and life expectancy have an impact on the bottom-line of national wealth and contribute to the value of individual companies. Theoretically, all employers will benefit from improved health and life expectancy of the population—even employers that do not offer health benefits. As long as employment-based health benefits and related programs facilitate access to goods and services that improve health and life expectancy, employers will benefit both directly from maintaining such programs and indirectly through increased national wealth.

Employers offering health benefits (whether or not they provide the additional programs discussed in this report) may be creating a public good, which would mean that there might also be a "free rider" problem in that employers that do not offer health benefits are able to hire workers from companies that do provide health benefits. Presumably, these workers would be healthier and more productive than workers hired from companies that do not offer health benefits. However, some economists hold the view that there are dual labor markets, with the primary labor market providing relatively high wages and benefits, and the secondary labor market providing lower wages and fewer or no benefits. According to one school of thought, there is very limited crossover between these labor markets. As a result, workers in jobs without health benefits would not be highly likely to switch to jobs that offer health benefits.

Employers not offering health benefits may also benefit indirectly through improvements in life expectancy to the degree that it affects national wealth. However, if individuals do not increase the number of years spent in the labor force, payouts from public programs such as Social Security will be longer, offsetting any increase in economic wealth due to improvements in life expectancy.

National wealth could be even higher if not for the fact that there are 35 million workers and their families without health insurance coverage. According to the Institute of Medicine (2003), these individuals incur costs for society in lost health and reduced life expectancy, financial risk, financial stress for and instability among health care providers that reduce the scope and amount of available health services, and lost work-force productivity. Overall, the total annualized cost of diminished health and lower life expectancy of the 43 million uninsured Americans is estimated to be between \$65–\$130 billion for each year of health insurance foregone. These are the benefits to national wealth that could be realized if extension of coverage reduced the morbidity and mortality of the uninsured to levels comparable to similarly situated privately insured Americans. This has implications for employers, as there are uninsured Americans both in firms that offer and do not offer health benefits.

The following sections examine specific employers and their approaches to providing health benefits.

Bank One

Headquartered in Chicago, and formed out of the mergers of Banc One Corporation and First Chicago NBD Corporation in 1998, Bank One Corporation (Bank One) is the nation's sixth-largest

bank holding company, with gross revenues of nearly \$17 billion and assets of \$287 billion. Bank One has nearly 74,000 nonunion, full- and part-time employees “with benefits” in 1,800 branches, mostly in 14 states and in 12 countries. Bank One also:

- Serves more than 6.9 million retail households and nearly 500,000 small businesses.
- Provides lending, treasury management, and capital markets products to corporations and middle-market businesses.
- Has more than 50 million credit cards in circulation and \$73 billion in managed receivables as the largest Visa card issuer in the United States.
- Has \$158 billion in assets under management as an investment management company.
- Manages the One Group mutual fund.

For the past two years, Bank One has been repositioning itself for future growth by restructuring its balance sheet and aggressively reducing costs. Emphasis is placed on management efficiency and accountability through fewer managerial layers and decentralized decision-making. Employees are essential to its growth plans and are characterized by Bank One’s CEO as Bank One’s most valuable competitive resource. Bank One continues to invest in work-life programs and a wide range of benefits to recruit and retain high-performing employees in a highly competitive work place.

Money magazine recently designated Bank One as a top 50 provider of benefits in the Fortune 100 group of companies. Also, *Working Mother* magazine selected Bank One as one of the country’s 100 best employers for working mothers in six of the past seven years. With women comprising two-thirds of its work force, Bank One emphasizes women’s health issues and offers flexible work scheduling; a day care center at a large facility; telecommuting and job sharing; and, at two locations, emergency child care resources.

Bank One began developing its strategy by recruiting a physician with expertise in health promotion in 1982 to manage—rather than merely reduce—rising health care costs. The goal was to identify the drivers of health care costs and emphasize prevention and health improvement over time, rather than merely to lower the cost of health benefits in the short term. Early analysis of claims data highlighted the cost impact of women’s health problems and mental illness. In time, the strategy that evolved and took hold in the late-1980s became known simply as the bank’s “Wellness Program,” with a strong emphasis on women’s health and mental health. Today, the Wellness Program is fully integrated into Bank One’s human resource management processes.

Currently, employees can choose health benefits from a health maintenance organization (HMO), preferred provider organization (PPO), point-of-service (POS) plan, or traditional indemnity plan. Of the total corporate population, 80 percent of employees participate in Bank One’s health plan, and 80 percent of these participants are in a self-insured benefit arrangement. The remainder are in insured programs.

The benefit formats are relatively traditional, although employee premium contributions are graduated based on income. Bank One has an EAP that covers all employees but is specifically integrated with its insured medical benefit plans. Also, employees who smoke pay more for supplemental life and disability benefits than those who do not.

Program Elements

Along with six worksite medical centers, three worksite fitness centers, disability management, the EAP, and executive physical examinations, Bank One’s Wellness Program is under the auspices of Health Management Services (HMS). The program is comprised of three components: a wide range of educational and health management resources and worksite-based services; an internally developed data warehouse dubbed the Occupational Medicine and Nursing Information System (OMNI); and a comprehensive, internally managed EAP.

Educational and Health Management Resources and Services

With 74,000 employees in 1,800 locations and employment at these sites ranging from single-digits to several thousand, communicating with workers is a significant issue. Bank One strives to reach out to its entire employee population through worksite-based programs and services in its larger locations, a wellness newsletter, and other print materials and videotapes. Bank One's Intranet site that is dedicated to health information contains links to a proprietary Mayo Clinic comprehensive health information Web site.

The program is comprehensive and consists of both customized and vendor-produced resources. The main categories are:

- *Health education and promotion.* Using a "multi-media" approach to dissemination, information is made available on a broad range of health topics, health risk reduction behavior, and discounted fitness services.
- *Personal health risk identification and management.* Periodic health risk assessments are available to all employees. Health screenings, immunizations, and physical examinations are offered to various cohorts of employees based on job category, travel destinations, or work location.
- *Women's health.* With its largely female employee population and depending on location, Bank One provides a full complement of specialized services for women: preconception and prenatal education, lactation services, and free mammography screening.
- *Nurse counseling.* Nurses are either available at the worksite or by telephone, depending on the location, to answer health questions or provide personal counseling to individual employees. Telephonic counseling is also available through some health plans.

OMNI

In 1987, OMNI was launched based on the premise that "what is of interest to senior management is of interest to Health Management Services." OMNI is a repository for medical claims for health care services and pharmaceuticals, short-term disability events, absenteeism records, health risk assessment/screening/laboratory test/physical examination results, participation in health education and management programs, employee demographics, and productivity factors. It is an online event-based file that is accessible to multiple authorized users and is housed in the medical department to protect employee confidentiality.

Health benefit costs were of interest initially, but cost drivers and their long-term management were considered as well. At first, costs associated with women's health and mental health were targeted based on initial analyses of claims data. But early on, HMS leaders recognized that the financial consequences of avoidable or manageable health problems extended far beyond health benefits costs, meaning that there are indirect costs (absenteeism, lack of productivity, etc.) as well as direct costs (insurance premiums).

OMNI is now used to:

- Evaluate and refine the full complement of health benefit plans and related interventions.
- Measure the performance and quality of the health plans and health care providers.
- Choose health plans.
- Estimate future costs.

Employee Assistance Program

Bank One has maintained its employee assistance program for 23 years, although the EAP has undergone many changes over the years based on the knowledge gained through Bank One's evolving development and use of employee health data. The most significant change was the expansion of the EAP in 1984 to include a wide range of quality, cost-effective mental health services aimed at early problem identification and treatment and improved management of treatment during periods of disability.

Today, each of Bank One's six largest facilities (with employment totaling about 60 percent of the company's entire work force) has an EAP psychologist or social worker as well as an occupational health nurse. Headquarters HMS also manages a network of external providers that supports the EAP staff. Focusing on emotional and interpersonal problems that influence job performance, the EAP oversees a broad spectrum of programs and other resources that address employee emotional problems, stress, interpersonal conflicts, substance abuse and dependency, violence, and parenting skills.

Program Results

Over the nearly 20-year life of the OMNI program, Bank One's health care costs have always been a matter of concern for management, and the company's health cost trends have, in general, tracked national trends. However, with a strong reliance on research and data that illustrate the broadest possible spectrum of the financial implications of avoidable and manageable health problems, and despite changes in corporate culture in the late 1990s due to the mergers of three large regional banking institutions to form Bank One, the emphasis on employee health as a key determinant of productivity remains firmly in place.

For the past 15 years, Bank One has engaged in research collaboration with the University of Michigan's Health Management Resource Center to measure the health risk, care utilization, and financial impact of worksite-based programs and resources to improve employee health. This collaboration produced a customized Worker Productivity Index (WPI) first reported in 1999. The WPI is a blend of direct claims costs, time lost to absenteeism and disability, and job performance based on documentation of specific and measurable tasks.

The research generated from the collaboration has generally shown that Bank One is getting a strong return on its investment in worker health. In summary, Bank One studies have found the following:

- As the number of health risks increases, an employee's productivity decreases, with some health risks being associated with increased absenteeism and others with increased failure to maintain production while at work (Burton et al., 1999).
- A short-term disability management program reduced event duration and the costs associated with disability (Burton and Conti, 2000).
- Workplace prenatal education classes can result in significant savings in health and disability costs (Burton et al., 2000).
- A significant correlation exists between an increase in pollen counts and a decrease in productivity for workers with allergies (Burton et al., 2001). Compared with workers without allergies, workers with allergies who did not take allergy medication showed a 10 percent decrease in productivity.

Other Considerations and the Program's Future

By carefully following a strategy of anchoring employee health interventions and evaluations in worker performance as defined by avoidable lost days of work and actual work output and quality, HMS has developed a strong working relationship with senior and line management. Bank One's Wellness Program has endured and grown for more than 20 years despite major organizational transformations associated with Bank One's growth strategy over the same period.

While a prolific disseminator of evaluations of the economic benefits of their program to Bank One, HMS managers caution those in other organizations that their results apply only to Bank One in the context of its history, business strategy, internal value drivers, and work-force composition. Results will vary in different organizations and different businesses. Nevertheless, the results strongly suggested that companies might benefit in many ways from well-developed and implemented health management programs in the work place.

Dow Chemical Company

The Dow Chemical Company (Dow) is a leading science and technology company providing chemical, plastic, and agricultural products and services to many essential consumer markets. With annual sales of about \$33 billion, Dow, headquartered in Midland Michigan, serves customers in more than 180 countries and employs nearly 46,000 people at manufacturing sites across the globe.

Dow's business strategy includes a focus on sustainable development. In creating value for its shareholders, Dow strives to help society meet current needs without compromising the ability of future generations to meet their own needs. To be successful in the 21st century, Dow believes it must simultaneously excel with regard to the "triple bottom line" of sustainable development: economic prosperity, corporate social responsibility, and environmental stewardship. One of Dow's eight guiding principles of sustainable development is the enhancement of the human potential of Dow employees through education and training.

Dow's "Health and Human Performance Management" effort evolved over many years based on the growing belief of the program's champions that sustainable development derives from the performance, creativity, productivity, recruitment, and retention of skilled employees. While technology may be duplicated, the company believes that worker knowledge is likely the primary source of competitive advantage.

The strategy evolved following a formal focus on health promotion, which originated in the mid-1980s. In the early 1990s, another perspective was added as related departments and expertise were brought together to respond to management concern over mounting health care costs. While the number of workers at Dow has fluctuated with business cycles, currently there are approximately 46,000 employees globally. In the United States, employees, retirees, and their dependents are covered by Dow's self-insured health plans and HMO partners at an annual cost of about \$300 million. About 16 percent of U.S. Dow employees are represented by unions. The presence of this "bargained-for" group has not been a barrier for Dow's health strategy.

The first step toward this comprehensive focus was a health promotion program aimed at reducing health care costs, improving employee health status, and providing a service that employees would perceive as having high value. Dow later provided health advocacy case management services, supported by work site-based occupational health nurses. As these programs unfolded, employees and managers learned to appreciate the deeper financial implications of health care expenditures. In the past, health care costs were generally viewed as corporate overhead; there was not an ongoing focus that concentrated on the size of the expenditure or understood its influence over other costs and drivers of financial performance.

Dow's health management strategy evolved at a time of change in its business strategies, work force, and core philosophy with respect to employees. In slightly more than 20 years, Dow's revenues tripled and its global business strategy and segments changed. Originally a relatively paternalistic organization, Dow came to embrace a work-force doctrine of "shared accountabilities." As its health management strategy took shape, the program's champions used evidence that about 25 percent of Dow's direct and indirect health care costs could be positively impacted by assertive action. They proposed interventions and enlisted management's support for their recommendations. By demonstrating the relevance of health to Dow's other corporate priorities, these champions were able to expand the focus on costs to acknowledge the importance of employee health to Dow's sustainable development strategy.

Program Elements

After extensive planning, Dow's Integrated Health Management (IHM) strategy emerged in 1997 to better coordinate all business costs associated with health problems and develop a "breakthrough approach to human capital management" by concentrating on four initial priority areas:

- Superior illness and injury case management.
- Mental health interventions to improve worker effectiveness.
- Ongoing intervention evaluation by means of a fully integrated health-related database.
- A centralized corporate communications framework to optimize program communication and administration.

IHM's vision is based on the belief that employee health is essential to Dow's long-term sustainable success. Intervention priorities were set based on their expected impact on both direct and indirect costs. Three independent studies of internal and external data convinced IHM's leaders that implementation of the strategy could produce savings from an opportunity target calculated to be as much as \$30 million of the company's annual spending.

Marketing of their strategy meant using financial evidence to document the actual cost consequences of pilot programs or changes in health services as well as projections of future savings. To manage this comprehensive approach, several sources of costs and "opportunity" were identified, ranging from health, employee assistance programs, and disability and worker's compensation costs to health promotion, safety, industrial hygiene, and return-to-work initiatives. IHM's success continues to depend on winning and maintaining the support of five "audiences":

- Dow's corporate leaders and shareholders.
- Leaders of their business units.
- Employee health and safety leaders.
- Human resources leaders.
- Employees.

Case Management

Dissatisfied with its existing situation for rapid return to health/work effectiveness, Dow set out to improve case management and integrate its various components. Using the results from a pilot program in Michigan, Dow developed a companywide model based on the principles of patient advocacy. In broad terms, "patient advocacy" usually means a third party liaison (a health professional) who coordinates care access and facilitates return to health and return to work. At Dow, key staff drawn from their internal Health Services group of physicians and nurses serve as these patient health advocates. Nurses constitute the majority of Dow's health professionals and Dow set a goal of those involved becoming certified case managers.

Case management primarily consists of help in navigating health care resources. It also includes early identification of health and injury risks and coordination between health plan and worker's compensation administration. Tracking and reporting results have been essential to maintain the support of leadership and to enable quality management.

Case management is voluntary and employees and worksite supervisors are overwhelmingly satisfied with the services.

Mental Health Interventions—Based on the principle of worker effectiveness, and relying on data that demonstrated the inflationary power of depression on costs, other illnesses and injuries, and performance impairment, Dow targeted stress as a critical health issue and a priority for its overall Integrated Health Management efforts. A team examined available data from more than a dozen data sources, including benefits, workers' compensation, and EAP costs and utilization, reports of various service providers, employee surveys, absenteeism data, and performance reports. These sources were used in an attempt to quantify the magnitude of the impact of worker stress on Dow's business. There was no easy and direct way to quantify stress or to determine its impact or the effectiveness of programs in a quantitative manner. However, it was felt that a better framework for assessment and coordination of interventions would be beneficial.

Stress management services are ultimately customized for each individual, are multi-functional, and involve external and community-based providers. Data necessary to identify intervention opportunities, shape services, and evaluate their effectiveness is a priority within the comprehensive approach to employee health.

One of the primary tools and data sources is called the “Pressure Management Indicator” (PMI, a product of Resource Systems in the United Kingdom). The PMI is a globally applicable tool, has been translated into multiple languages, and has been tested to be culturally appropriate. This was one of the reasons it was chosen, as Dow used a very rigorous set of criteria to select the tool. This tool is used to assess individual and organization pressure sources and resilience factors. The PMI has three domains:

- *Sources of pressure*, such as workload, relationships, and the organizational environment.
- *Individual differences*, such as drive, sense of control, and social support.
- *Organizational effects*, such as job satisfaction, organizational commitment, and resilience.

The PMI provides important feedback to individuals and the organization. Individuals use the information provided by a confidential individual report to help them develop personal well-being and stress-coping skills. The organization uses it to compare itself to internal and external benchmarks and identify work-place stressors and make process and environmental improvements.

Employee Data Warehouse—Dow is committed to data-driven intervention design, prioritization, and evaluation. Committed to managing the total economic impact of health costs, and needing to integrate several sources of costs and then determine financial opportunities, Dow built a centralized data warehouse consisting of the following elements:

- Medical and pharmaceutical costs.
- Work-force demographics.
- Health promotion participation.
- PMI data.
- Clinical information relative to health status.
- Unscheduled absences and overtime.
- Presenteeism data.

Data from these sources are integrated to produce annual high-level management reports profiling the total economic impact of employee health on the company. Not all data elements listed above are used in the standard management reports, but they are available for ad hoc analyses.

Communications—To sustain IHM and increase its value to Dow, the strategy has been communicated to key audiences in the organization. Opportunities are taken to build and explain the business case and link its business priorities. The intent is that IHM operations and administration are embedded into the organizational fabric whenever possible.

Dow’s Intranet provides Web-based resources for all employees. A common central Intranet page under the logo and name for all health related programs and services was established to be a single-source Web portal, named “Good Health for the Whole Self.” This name reinforces the perspective of a multidimensional health focus that addresses the physical, mental, emotional, social, and spiritual dimensions of health.

Program Results

The continued evolution of IHM at Dow has been characterized by its comprehensive scope, intervention array, and data measurement and expansion throughout Dow’s U.S. operations. More recently, the name of the program has evolved to be “Health and Human Performance.” Company management says that IHM/Health and Human Performance is not merely a health program: It is a long-term management strategy and dynamic work-force health improvement process that will go

through another evolutionary phase in 2005, when Dow hopes to have progressed in its goal to “implement the optimal array of health and human performance-related programs and services to promote peak employee performance” throughout the organization.

Dow’s measurement tools remain a combination of projections and results documented by cost trends, managerial support, employee satisfaction and health skills, and health status indicators. However, new tools are under development:

- The Health and Productivity Management Economic Valuation Tool (HPM-EVT). The HPM-EVT is a joint project with the Institute for Health and Productivity Management (IHPM). Its purpose is to enable decision-making and conceptualize “return on investment” scenarios. It is also a reference guide for:
 - Estimating the total health and productivity cost burden for an organization, and the magnitude of improvement opportunities.
 - Identifying the HPM drivers that cross internal organizational boundaries.
 - Establishing the baseline for what is done and how well it is done.
 - Valuing and prioritizing HPM interventions.
 - Outlining the business case.
- A study to establish the baseline and reality of *presenteeism* at Dow. *Presenteeism* is a term used by employers and researchers that addresses the effect of physical and mental illness on actual work performed. Dow collaborated with Merck, Medstat, and the Wharton School of Business to examine presenteeism associated with chronic illness.

Dow distributed a Web-based survey instrument to more than 12,000 employees in two locations, achieving a 63 percent response (very high for surveys). The survey is comprised of three survey tools, including, the Stanford Presenteeism Scale, the Work Limitations Questionnaire, and the widely used SF-36 (the SF-36 helps understand how health care affects individual health and helps measure the general health and functionality of populations). These surveys were combined for measuring health status, outcomes, and work limitations, and were subsequently merged with other Dow data. With the results, the Dow team was able to better understand and communicate the magnitude and effects of presenteeism, benchmark against other employers, and refine its interventions’ agenda and data collection initiative.

Dow’s work has received numerous awards in the United States from the Institute of Health and Productivity Management, Wellness Councils of America, American College of Occupational and Environmental Medicine, the state of Michigan, and The Health Project, as well as awards from Brazil, Singapore, and Germany.

Other Considerations and the Program’s Future

IHM continues to change the value case for employee health at Dow. Understanding employee health as an element of a core strategy aligned with sustainable development is a novel way of thinking, for most business leaders. More complete financial analysis that documents the actual cost and economic impact of IHM must be communicated with senior management, functional partners, and employees. Further analysis is required to determine the global applicability of the IHM principles.

Elkay Manufacturing

Headquartered in Oakbrook, IL, a suburb of Chicago, Elkay Manufacturing makes kitchen sinks and accessories, cabinets, drinking fountains, faucets, water coolers, and water filtration products. Founded nearly 80 years ago and family owned, Elkay’s 10 companies generate more than \$600 million in annual revenues. Elkay employs more than 3,800 individuals in the United States, Canada, and Mexico, with approximately 900 employees in the Chicago area.

As a financially strong industry leader, Elkay acknowledges the contributions of its work force to the success of the business in its corporate Values and Visions statements. With regard to health benefits, the company goal is to:

Engage and empower employees and their families to achieve better health...resulting in reduced costs of sickness, injury and death, and a more robust work force better able to meet the challenges of the modern work place.

Elkay's health benefit plan provides a uniform benefit for its salaried and 1,100 union employees, is self-insured, and is administered by a large health insurance company. Elkay launched its employee health management initiative in 1993 to counteract health benefit cost increases that were once again approaching double-digit levels.

Like many other privately held companies, Elkay's culture, including its perspective on health benefits, was strongly influenced by its owners' values. Individualism, freedom of choice, and personal responsibility are held in high regard at Elkay. As a result, although eager to bring health care costs under control, Elkay resisted replacement of its current health care programs with HMOs and other conventional managed care arrangements. Instead, a different health management strategy, more in tune with the company's management philosophy, was adopted.

Developed and put into operation by another Chicago company in the early 1980s, this strategy integrated a customized benefit design that promoted personal involvement in care decisions with a variety of complementary, internally developed and commercial educational programs and resources, and a telephone-based nurse "mentoring" service called Health Counseling. Elkay made some modifications, opting to continue with its more conventional health benefit plan as the program anchor, and chose other vendors for some services.

Elkay places considerable emphasis on education and health counseling to help individuals avoid and manage personal health risks. Over time, employees are expected to develop a set of identified, health-affecting skills and behaviors (improved fitness, medical self-care, effective use of health care and health benefits, personal health risk management, early illness detection, and general health maintenance, etc.) and to maintain (and whenever possible) improve their health.

The program includes:

- *Medical self-care training*, including a self-care handbook augmented by a dedicated online medical information database, is offered to all employees regardless of their participation in the benefit plan. In this program, employees are taught how to treat common health problems, manage chronic illnesses, seek care when necessary, and communicate effectively with health professionals.
- *Telephone-based nurse-support*, available to all employees and their families by means of an 800 number, 24 hours a day, seven days a week. Nurses are available as a "first point of contact" for individuals who need information about health concerns, options, and resources. A separate 24-hour phone line is maintained to supplement the EAP to address substance abuse and other behavioral health concerns of employees and their families.
- *Early detection and personal risk management training* are provided to reinforce the importance of appropriate health-affecting behaviors. Individuals are encouraged to complete personal health risk assessments that provide personal health improvement plans. Employees are taught to perform various types of self-examination and to recognize early signs of illness and disease in classes taught at the work place. The company also offers periodic screenings at work sites for a wide range of health risks linked to diabetes, heart disease, hypertension, and other conditions.
- *Active "marketing" of personal health risk management to employees*, to provide continuous reinforcement of the availability and importance of these services. A full range of educational materials is provided, including newsletters, books, brochures, and videos, some of which are mailed to employees' homes and others are made available at the worksite.

The hub of Elkay's health information system is its proprietary, American Accreditation Healthcare Commission-approved health information portal. This Web site enables employees and their families to access a full range of health information services, including full details of their benefit plans; a tool to track their health improvement efforts based on results of their health risk assessments; numerous other health information and news resources; and a dedicated medical information database that provides detailed information on diseases, symptoms, tests, and treatments.

Program Performance

Elkay's health management strategy is in its 10th year, and it is perceived as a success. Elkay initially sought to rein in its health benefit costs by teaching employees a variety of health management skills through an integrated system of work site training; high-quality, continuous information dissemination; and personalized coaching. Over that time, Elkay has come to define its success in broader terms. While containing direct health care costs related to sickness, injury, and death is the main objective, program performance is becoming increasingly thought of as the return on "investment" in health management resources. The "return" is based on reduced absenteeism, improved morale, and productivity resulting from better management of health risks, *as well as* the direct costs of medical care and health insurance.

A variety of metrics, as well as anecdotal evidence, are used to measure the effectiveness of the programs. Cost trends are the principal metric. At Elkay, sickness, injury, disability, and death costs rose at less than one-third the national average for the first seven years and were generally regarded as virtually flat. However, Elkay also considers other factors as important indicators of the overall value of this strategy to its future business success:

- Medical self-care has reduced physician visits, phone calls, and emergency room use.
- Employees report that medical self-care training in concert with early detection training and screenings has led to earlier (and less invasive and expensive) treatment of diabetes, cancer, infections, and cardio-vascular disease.
- Three companywide surveys, annual program evaluations, claim data and random testimonials document that the support provided by such programs is highly valued by employees and leads to improved health and health care outcomes.
- Participation in screening and training programs, nurse line advice, and employee assistance programs exceeds national averages.
- While individual health information is a matter of strict confidentiality, aggregate data collected from these programs allow Elkay to develop new programs or modify existing programs based on the health status and health requirements of its work force. This knowledge helps Elkay's business as well as Elkay's employees, as more is understood about the effects of personal health on job performance.

Other Considerations and the Program's Future

Despite seven years of modest health care cost inflation and widespread installation and use of this program, Elkay, like virtually all companies, is feeling the impact of the latest round of health benefit cost increases and the downturn in the economy. Support from line management in the form of program endorsement and time allocated for training is strongly influenced by current cost trends and other pressures on their business. Elkay senses that costs are based more on health care system, and environmental factors outside the work place that affect health than they are on utilization behaviors targeted by their health management programs. As a mid-sized company, Elkay can influence utilization and health status; however, system-level factors outside their control that drive health costs, as well as increasing competitive pressures on their business, make it increasingly difficult to prove the "business case" for the company's health improvement programs to senior and line management.

Sherman Health

Sherman Health, in Elgin, IL, west of Chicago, is the one of largest networks of medical care facilities in Chicago's far northwest suburbs. Sherman Health includes Sherman Hospital, Sherman West Court (a long-term care facility), Sherman Home Care Partners, three occupational health/immediate care facilities, and a physician practice management entity. Sherman Hospital, a provider of health care for more than a century, is a regional heart center, performing more cardiac procedures than any other hospital in Chicago or its north, northwest, or western suburbs. Other hospital services include emergency services and a Level II Trauma Center, cancer care services, a diabetes center, orthopedic care, and a birthing center with a neonatal intensive care nursery.

Sherman employs 2,400 associates: physicians, professional and technical health care personnel, and administrative and support staff. With more than \$218 million in annual net revenues, Sherman has ranked for many years among the more financially successful care systems and continuously monitors employee and patient satisfaction. Sherman's CEO of less than three years strongly supports the achievement of performance excellence and patient satisfaction by creating a culture of leadership, values, commitment, and competency.

In 1991, as a health system, employer, and provider of occupational health management services to more than 3,000 local businesses, Sherman witnessed the causes and consequences of rising costs from multiple vantage points. Faced with total benefit costs approaching 25 percent of payroll and double-digit health care cost increases, Sherman decided to adopt a "demand-side" approach to cost management, emphasizing employee health improvement rather than relying on provider-directed strategies. Sherman developed a multi-year health improvement strategy to address demand for, and consumption of, health services by employees and their families based on the simple philosophy that healthy people are productive and essential to healthy, productive organizations.

Sherman also followed an atypical approach toward health management by attempting to integrate it into a broader organizational development initiative designed to maximize the overall well-being of the work force and the organization as a whole:

- "Whole-person" physical, mental, and financial health was emphasized as vital to personal well-being.
- Efforts were made to merge organizational development priorities into health improvement priorities to promote personal and organizational productivity and creativity.
- Employee responsibility and participation were to be expected.
- Cost containment was to be balanced with an appreciation of the importance of investment in people.
- Economic realities were to be shared with everyone.

Subsequent planning and program implementation contemplated the eventual creation of a solid, responsible relationship between Sherman and its employees, based on their having established (with Sherman's help) personal financial and career self-management and health improvement plans.

Starting in 1991, a benefit plan audit was conducted and a five-year plan for revamping the entire benefit program structure was announced. A communication campaign to explain the impact of current program costs accompanied increases in employee contributions for health benefits. In addition, a Sec. 125 pre-tax health insurance premium contribution feature was added.

Numerous other benefit program changes, accompanied by financial planning education, were introduced before the health management changes:

- The pension plan was converted from a noncontributory defined benefit plan to an integrated defined contribution retirement savings program. The retirement plan changes were accompanied by personal financial planning education to encourage employees to develop a long-term financial risk management and asset accumulation strategy and become active savers and investors.

- Portable and more financially efficient life insurance was offered, as well as Sec. 125 spending accounts and a credit union.
- Separate sick, vacation, and personal time off arrangements were integrated into a single program. This was designed to encourage workers to preserve earned time-off assets, to self-assume a portion of short-term disability risk, and to permit limited time-off benefits for family crises.

Health Program Elements

Like many other hospitals in the Chicago area, Sherman self-insures its health benefit plan. Approximately 1,400 employees are covered by the plan, with the remaining 1,000 not enrolled. An insurance company administers the benefits.

The new health program was inaugurated in January 1995. It was important to Sherman that employees:

- Trusted the new program as an extension of Sherman's interest in the well-being of employees, and did not view it as just an attempt to reduce costs at their expense.
- Became involved in the economic realities of health care, and understood the implications of high costs to them personally and to Sherman as an employer.
- Began to embrace all levels of prevention: primary (or illness and injury avoidance); secondary (or chronic disease management); and tertiary (or medically complex and serious disease and disability management).

The plan changes began with increased deductibles and co-payments that lowered overall health plan expenditures. Out of the \$1–\$2 million in anticipated annual savings attributable to these changes, \$500,000 was to be reserved each year for reinvestment in prevention. Later, the plan was split into two options. Employees who chose to participate in wellness, prevention, and screening programs, which included health risk appraisals and personal health status improvement plans, qualified for the high-option plan. Employees who did not participate in these programs were required to make higher contributions for a lower level of benefits. Other changes included medical self-care resources, specified subsidies for fitness centers, healthy children programs, and an injury prevention program.

Three of Sherman's most significant program elements were targeted at the management of high-cost complex diseases, occupational and nonoccupational disabilities, and treatment of behavioral health problems.

During the planning phase, Sherman determined that 5 percent of its employees were responsible for 50 percent of medical claims. Sherman's response was the establishment of the Integrated Health Advocacy Process (IHAP). IHAP provides personalized assistance to help employees and family members with the most serious health challenges improve their health and well-being and address progressive sickness. With its "whole person" focus and generous level of benefits, this award-winning⁶ program offers high-level financial and professional support to address physical, psychological, social, and other needs to help individuals fully participate in their own health care.

IHAP's principles and techniques are also used to help employees recover from occupational injuries and illnesses and return to productivity. Case management and advocacy are provided, and in the case of occupational and nonoccupational disabilities, rehabilitative duty assignments are charged to the benefit plan and not to managers' operating budgets.

In 1994, Sherman conducted an extensive audit of its former EAP and found significant deficiencies in both assessment and care. Based on findings that individuals with multiple health problems and productivity losses attributable to undiagnosed and untreated behavioral problems each could exceed the cost of appropriate diagnosis and treatment, the mental health coverage for care arranged through a rigorously selected EAP was raised to 100 percent with no deductible, no plan limits, and a \$1 million lifetime maximum (the same limit as for medical care services).

Program Performance

Sherman's integrated approach to using its benefit program to help improve personal and organizational performance is in its 12th year. Using four measures, Sherman views the benefit program as a success. Despite numerous changes in program infrastructure to create more personal responsibility for health management and financial security, benefits satisfaction levels remain high.

In 1991, cost increases led to years of benefits planning and changes that eventually dampened future cost increases and provided other financial returns for Sherman. From 1994 through 2001, average annual per-person health care costs at Sherman declined by 22 percent, while these same costs for all similarly situated hospitals increased by 31 percent. Sherman also realized a significant return from the IHAP and its disability and behavioral health programs: High returns from primary level prevention initiatives for the most part were not anticipated, except with regard to smoking reduction and medical self-care; nevertheless, typically 98 percent of employees participated in prevention activities and 99 percent completed health risk assessments.

Other Considerations and the Program's Future

The program has benefited Sherman in many ways: health care benefit costs are lower, employees are satisfied, and performance has improved. While the underlying philosophy of personal responsibility for health and financial security seem to be accepted by its employees, Sherman believes more work needs to be done to integrate its health and financial education processes into other organizational development and employee performance improvement processes. Specifically, health improvement needs to be more strongly linked to improvement of job performance, as are other human resource disciplines such as employee training, organizational development, and compensation.

Current financial turbulence in the health care industry, a planned capital improvement program that includes state-of-the-art information systems technology, and the nursing shortage are top priorities for Sherman's management these days. Sherman is also concerned with the influence of systemic problems in health care and, as a provider, is acutely aware of the financial and operational drivers of costs and quality and of employers' (and especially small employers') limited ability to act alone to control costs at their source. As is the case with many other employers, Sherman is re-examining its past benefit strategies, but the commitment to IHAP and wellness remains strong.

Union Pacific Railroad

Union Pacific Corporation (UP), based in Omaha, NE, is the parent company of the Union Pacific Railroad, the largest railroad in North America.

While its major business is transporting a wide range of commodities by rail in 23 states, UP owns a sizable trucking business and operates a commuter railroad in Chicago. With more than \$12 billion in annual operating revenues and 47,000 employees (about 42,000 union employees and 5,000 nonunion employees), UP's vision is to be a company in which "our customers want to do business, our employees are proud to work, and shareholder value is created."

UP is currently one of 587 companies in 66 industries in Fortune's published list of "America's Most Admired Companies," and has also ranked No. 1 among railroads for three consecutive years. In the railroad category, UP has taken first place in all eight key attributes: quality of management, quality of products, quality of services, innovativeness, long-term investment value, financial soundness, employee talent, social responsibility, and use of corporate assets.

Federal laws and regulations unique to the industry govern employee relations in the railroad industry. Wages and benefits for union employees are bargained uniformly across railroads at the national level pursuant to the Railway Labor Act. The Federal Employers' Liability Act, instead of state workers' compensation laws, establishes liability for occupational injuries. Under these laws, UP has more control over nonunion health benefits and financing than it does over union benefits,

and greater financial exposure for occupational injuries and illnesses (in the railroad industry, employer financial liability to an individual who is injured on the job is greater than it would be under state workers' comp laws applicable to most other businesses). As railroad work can be hazardous to employees, customers, and, in some cases, to entire communities, employee safety, safe practices, and behavioral health management are high priorities at UP.

As a railroad, UP also has an unusual cluster of benefit arrangements. Approximately 17,000 employees are members of the UP Hospital Association.⁷ UP's union employees are covered by a single, nationally negotiated health and welfare contract that covers virtually all railroad union employees, provides health benefits for dependents of hospital association members, and establishes uniform benefit parameters (pertaining to all railroads) that indirectly influence the financing of hospital associations. UP maintains 20 HMO plans and two PPO plans for nonunion employees who are not hospital association members and their dependents. About 5,000 employees and their dependents can be characterized as *self-insured* as that term is used in other organizations.

Planning for UP's health management strategy began in 1986, but took shape in 1987, following a conversation between UP's CEO and the CEO of Southern California Edison that had established a highly regarded companywide managed care program. The interest in managed care shifted somewhat to a concept of managed health that incorporates resources to improve employee health status, reduce occupational injuries, and promote return to work following disabilities.

Health Program Elements

UP's major strategy is to keep people with few health risks at low risk, and intervene where possible with regard to those at high risk. UP emphasizes education and personal support to enable employees to improve and/or maintain their health through a variety of custom-designed programs, which began in 1990:

- A case management system for serious illnesses and injuries was initiated. Twenty physicians and more than 20 nurses were selected in various communities to oversee and coordinate care and rehabilitation for workers and facilitate their return to work. Various forms of case management are also integrated into the company's HMOs and PPOs.
- Health risk assessments were distributed and the results were used to identify certain high-risk groups, especially those with high levels of risks associated with as smoking, high blood pressure, physical inactivity, and hypoglycemia.
- A health promotion initiative began by targeting cardio-vascular risks.
- A fitness center in Omaha was opened and additional centers, including two mobile centers in railcars, were later made available to employees.
- Due to its high-risk operations and federal regulations, UP has a long-established and sophisticated behavioral management and drug testing program.

Emphasis on risk identification and intervention continued throughout the 1990s by means of ongoing refinements to the company's health risk assessment tool. A research project conducted in the early part of this decade compared UP's health claims and health risk data with data from a large multi-employer database. From this analysis it was estimated that for causes related to modifiable or "lifestyle" risks, costs would increase by 2.6 percent per year. Interventions were further modified, and UP collaborated with pharmaceutical companies and other health services companies in developing and implementing pilot programs based on behavior modification and disease management and focusing on issues such as diabetes, depression, and weight control at various sites across the UP system.

Program Performance

With their focus on education and health-affecting behavior, UP's varied programs require strong management support, especially at the operational level, to remain effective. Programs are

aggressively “sold” internally and service to operating managers is stressed. UP has a dedicated television channel that can be used to disseminate health information across its system by integrating it into regular programming. However, without data that demonstrate the financial benefits of such programs to the business, these programs could become marginalized.

UP measures the financial benefits in several ways and in three broad categories: actual costs and risk reduction, expected costs based on population risk profiles, and productivity.

It is difficult to calculate the actual cost savings produced by these programs due to the relatively low number of “self insured” plan participants (those not covered by the nationally negotiated plan). UP does have evidence, however, that management of occupational injuries reduced the annual inflation rate for medical costs from double-digit levels to low single digits over 10 years. Also, work-place safety has improved and the percentage of employees who smoke dropped from 40 percent to 23 percent.

To measure the wider range and depth of costs that have been, or might be, affected by its array of programs, UP has devised a model for merging internal data with other external data sets. Using this tool, supplemented with focus group and health risk assessment data, UP has determined that:

- About 3 percent of annual health cost growth is attributable to modifiable health behaviors.
- It has reduced high cost health risks in its work force.

Assessing the effect of such programs on work force productivity is much more difficult. Employers, such as UP, that are investigating the productivity effects of health status and health management are looking beyond the direct costs of health, disability, and death benefits to costs associated with employee absenteeism and “presenteeism.”

Presenteeism is even harder to quantify. A term used by employers and researchers concerned with the effect of illness on work, *presenteeism* usually refers to workers who report to work but whose performance is impaired by mental or physical illness. UP has investigated the implications of work-place health interventions on the indirect costs of specific illnesses, in the development and testing of an instrument for measuring this relationship.

Other Considerations and the Program’s Future

As is the case with nearly all employers, cost stabilization is a top priority. UP is re-examining its benefits structure and recognizes the heightened importance of proving the financial reasons for its many successful programs. UP acknowledges the growing level of system-level drivers of health costs that are beyond its control, such as poor quality and patient safety. UP also plans to devote more of its educational resources to equipping employees to play a more active role in health cost and quality management.

Conclusion

The dominant issue in health care today is its affordability for the governmental and private-sector benefit plan sponsors that finance most of the care delivered, and for individuals who pay the remaining costs. One factor that bears on affordability, but that has received scant attention until recently, is the value to individuals, sponsors, and society of the outcomes of effective health care and other health-affecting interventions.

Because “health” is a blend of objective and subjective factors, and “value” is usually expressed in terms of financial or other benefits derived from expenditures, the value of health is an elusive concept that usually yields to considerations of more concrete health care costs relative to other business costs. Some alternatives to measuring value exclusively in cost terms can be found in the work of a few employers that find value in understanding how to reduce employee illnesses and injuries through a wide range of interventions that mitigate other employee costs and impairments to performance.

Investigating the value of health and health care is particularly important today. Employers, frustrated with the magnitude and resilience of the latest round of health care inflation, are trying to figure out how much of the cost burden they will be able to afford and how much will be transferred to employees through premium increases, higher deductibles and co-payments, and new benefit formats. At stake may be the future of employment-based health benefits.

Currently, there is no single systematic way of thinking about health and health care, and their value to those who need health care and pay for it. Moreover, there is no single configuration of programs applicable to all employers. Comprehensive health management programs like those reported here are strongly influenced by the business strategies, market performance, internal champions, and cultures of the companies that maintain them. Also, the evidence thus far indicates that programs and work-place health determinants are difficult to isolate for research purposes. Consequently, there are no near-term prospects for a universal “template” that will help America’s employers decide how much health care they can afford and what, if anything, they can do either independently or collectively with other employers, with sufficient certainty to enhance the value of health management to individual businesses. However, the preceding discussion of the work of five organizations is instructive with regard to the core elements of health management and several relevant metrics. The promise of this work and the work summarized in the introduction is that it may stimulate new thinking about value, and it should be useful to those who would like to have such a template in the future.

The primary reason given by employers of all sizes for providing health benefits in the work place is business necessity. While they may express their priorities differently, employers deem health benefits as important to employee recruitment, retention, and productivity. However, each of the employers interviewed in 2002, like a small number of other employers, has probed the questions of health and health care manageability and value more deeply than most other organizations in the context of their employee populations and business strategies. While there are many differences in the specifics of their approaches and their work forces, there are many common threads.

As mentioned, all of these firms explicitly acknowledge the value of their workers to their core business. They have all planned, shaped, and evaluated their programs for at least 10 years. All have significant numbers of employees enrolled in self-insured health benefits. All supplement their health benefits plans with health education, nurse counseling, and EAP services. They use a wide range of data sets to evaluate program effectiveness. They all acknowledge that health affects employee performance on the job. They all believe their programs have a positive impact on health status and behaviors and care utilization. None relies exclusively on health care cost trends to justify their programs. All acknowledge the critical importance of line management support for their programs.

Despite the efforts, successes, and perseverance of firms like those discussed in this report, it is not yet possible to establish a useful template that could be generalized to maximize the value of employee health and make a convincing business case for taking an investment approach to health and health care expenditures. There are many unanswered questions yet remaining:

- Can we effectively demonstrate financial benefits other than lower health benefit costs trends, so that smaller employers which do not self-insure health benefits have a more comprehensive and reliable business case for health benefits and other health programs than they have now? With self-insured plans, employers can fairly easily and quickly measure the financial impact of benefit structure changes and/or health management programs. If the programs are successful, claim payments dampened due to lower utilization of health care services translate into immediate savings. Costs for insured plans are normally determined by premiums based on several factors and not merely actual, current claims of the sponsoring employer.
- What effects will continued double-digit benefit cost increases have on the sustainability of such programs?

- What effect will adoption of new benefits formats that give employees more decision-making responsibility have on employer health and productivity initiatives?
- What effect will the economy or a firm's profitability have on such programs?
- How dependent are these programs on cultural and environmental factors and work force demographics?
- Do we know enough about the interrelationship between interventions such as those described in this report and other determinants of health to predict the financial benefits of such interventions with sufficient confidence?
- What do we know about the impact of the health care system and environmental factors outside the work place that affect health?
- Do the benefits and costs of coverage and employee health programs vary by such factors as sector of the economy, firm size, geographic region, and employee characteristics?

This report has emphasized efforts made by a few large companies in the context of current research to find and promote economic value in health improvement by connecting health and work place output. However, there is considerable evidence that health affects work, and that work affects health (Lynch, 2001). Many investigations are under way that document the influence of the nature of work; psychological, productivity, and cognitive demands; declining upward mobility; the introduction of part-time workers; and outsourcing and other work-place experiences that affect health and subsequent losses to firms, workers and their families, and society in general (Lavis, 1998).

The U.S. work force is projected to reach 147 million by the year 2005 and will change in many ways. Diversity, work restructuring, and new technologies will be commonplace. Evidence suggests that our evolution from an industrial economy to a service economy and the way work is organized may directly affect worker health (U.S. Department of Health and Human Services, 2000). A competitive global economy based on new flexible production strategies poses risks to worker health by intensifying the pace and demands of work, requiring longer hours, increasing wage polarization, and reducing employment security and reliability (Polanyi and Tompa, 2002).

In the long run, evidence suggests that the willingness and ability of employers (which are the primary source of health benefits for workers and their families in the United States) to sponsor health care coverage and other health services will depend on the importance of these benefits to the success of the business. In the past, the value of health benefits was perceived to be their effect on employee recruitment and retention. In the future, value may be measured by the effect of health benefits on worker resilience, commitment, and ability to innovate.

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Endnotes

¹ See www.meps.ahrp.gov/MEPSDATA/ic/2001/Tables_I/TIA1.pdf (last reviewed November 2003).

² See www.meps.ahrp.gov/MEPSDATA/ic/2001/Tables_I/TIA1.pdf (last reviewed November 2003).

³ For recent reports on future estimated health insurance premium growth, see the Congressional Budget Office (www.cbo.gov/showdoc.cfm?index=4916&sequence=0, which says: "There is no evidence to suggest that excess cost growth will disappear rapidly. It is likely to continue, to some degree, for some time to come."), and *Health Affairs* (<http://content.healthaffairs.org/cgi/reprint/hlthaff.w4.79v1>, which says: "We project private health insurance premiums per enrollee to grow 10.4 percent in 2003, the third consecutive year of double-digit premium growth. However, we believe that premium growth will slow to 7.1 percent in 2005...").

⁴ As of this writing, grocery workers in Southern California and in other states are striking over proposed changes to health benefits. Other recent strikes over health benefits included workers at General Electric, Hershey Foods, Unicco, Consolidated Services, the State of Minnesota, Associated General Contractors, Domino Sugar, Freeman Coal, Sodexo, Alltel, and the City of San Francisco. These strikes involved workers from the following unions and others: Service Employees International Union, United Food and Commercial Workers, United Mine Workers, Hotel Employees and Restaurant Employees Union, and the Communications Workers of America.

⁵ Production waste occurs when impaired workers use more materials or take longer to make a product than normally would be necessary.

⁶ The program has received citations from the Worksite Wellness Council, the American Hospital Association's Society of HR Administrators, and the American College of Occupational Medicine.

⁷ Hospital Associations, which date back to the early 20th century, and resembled prepaid group practice plans, were originally formed to provide health care services to railroad workers injured while "on duty." Over the years many were replaced with more conventional health benefit plans, but a few remain. They generally cover only employees.