



The Dow Chemical Company Comprehensive health management: An investment in human capital

Employee health affects employee productivity, a fact easily proven by work statistics. As a worker's health declines, productivity and output decrease. Healthcare costs pose a serious threat to company competitiveness, despite US employers passing on cost increases to workers through higher cost sharing. However, this short-term fix does not address the primary drivers of soaring health costs – inadequate investment in health through primary prevention, health risk reduction and disease management¹.



By understanding the total economic impact of health on profitability companies gain a new perspective on the priority of health. When they position health expenditures as money invested in human capital, company executives see how health management is an investment rather than a cost. Through The Dow Chemical Company's Health and Human Performance Management initiative, the company has come to understand the significance of employee health on bottom-line results and has identified priority actions that can be taken to keep both its employees and the company healthy.

Dow's Health and Human Performance Management effort evolved over a number of years based on the growing belief of its champions that sustainable development derives from the performance, creativity, productivity, recruitment and retention of qualified, motivated employees. While technology may be duplicated, worker knowledge and human knowledge networks are primary sources of competitive advantage.

The Dow Chemical Company is a leading science and technology company with annual sales of US\$ 40 billion. The company serves customers in more than 175 countries and employs 43,000 people at manufacturing sites across the globe. Dow spends approximately US\$ 300 million annually on health for US employees. The estimated direct and indirect economic impact to Dow from health exceeds US\$ 750 million globally.

Dow's health strategy

Dow's first step towards a comprehensive focus was a health promotion program aimed at improving employee health, reducing healthcare costs and providing a service that employees would perceive as having high value. Dow later started providing health advocacy case management services supported by work site-based occupational health nurses. The company's healthcare program focuses on employee health both within the company and with its vendor partners.

As its health management strategy took shape, its champions used evidence that about 25% of Dow's direct and indirect healthcare costs could be positively impacted by aggressive company action. By demonstrating the relevance of health to Dow's other corporate priorities, these champions were able to demonstrate the importance of employee health to the company's sustainable development strategy.

¹ *Leading by Example*, Partnership for Prevention, 2005.



The relationship between health and performance

Based on the belief that there is a clear relationship between employee health and performance that is essential to the company's long-term sustainability, Dow's health strategy team proposed that money spent to improve employee productivity should be evaluated similarly to investments for facilities.

The company's Health and Human Performance (H&HP) strategy coordinates all business costs associated with health problems. In the initial years of the effort they concentrated on four 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 database;
- Centralized corporate communications framework to optimize program communication and administration.

Intervention priorities were set based on their expected impact on both direct and indirect costs. Three independent studies of internal and external data convinced the group's leaders that the strategy addresses an opportunity area of approximately US\$ 30 million annually.

"I believe that we need a sustained focus on prevention to maintain and improve the health of our people. Prevention has the power to make a real and lasting difference in our individual quality of life.

"At Dow, our analysis shows that prevention can improve both our direct and indirect health-related costs. Our profit potential is inextricably linked to the capability and performance of our employees." --
Andrew N. Liveris,
President and CEO, The
Dow Chemical Company

Building the business case

Dow built its business case for health program investment by creating credible scenarios for their return on investment (ROI). The business case document projected healthcare spending for the company over the next decade and alternative returns on investment based upon assumptions related to the success of its preventive health management efforts. This analysis demonstrates how such investment can bring about medical cost savings for the company.

In order to translate health and medical care issues into a language familiar to company financial managers, the team first quantified the large sums of money the company was spending in several areas to address the broad impact that illness may have. Using methods developed as part of a benchmarking project coordinated by the American Productivity and Quality Center, and reported by Goetzel *et al.*², Dow staff calculated the company's total annual US healthcare expenditures in 1998. These included medical expenditures for employees and dependents, and productivity-related expenditures for employees (i.e., dollars related to absence from work, disability, workers' compensation, and turnover).

From this benchmark study, Dow staff estimated the gap between their actual expenditures and values derived from the experience of best-practice organizations. This "gap analysis" pointed to an opportunity for savings of nearly US\$ 30 million annually in 1998 dollars based on a study of all Dow employees (actives and retirees) and their dependents.

That opportunity, coupled with a list of the different health programs and services provided by the company, convinced senior management that more attention should be devoted to coordinating these activities. The goal: ensure that multiple health-related

² Goetzel RZ, AM Guindon, J Turshen, RJ Ozminkowski. Health and productivity management: Establishing key performance measures, benchmarks, and best practices. *J Occup Environ Med.* 2001; 43: 10-17.

programs and services are delivered more effectively and efficiently. In addition, this analysis triggered a reframing of health and productivity management programs offered by the company as investments to be carefully managed, rather than an inevitable cost of doing business. Thus H&HP operations and administration are embedded into the organizational fabric whenever possible, rather than set up as separate programs. The goal remains to make employee health management an integral part of the way Dow does business.

Total Economic Impact of Health at Dow

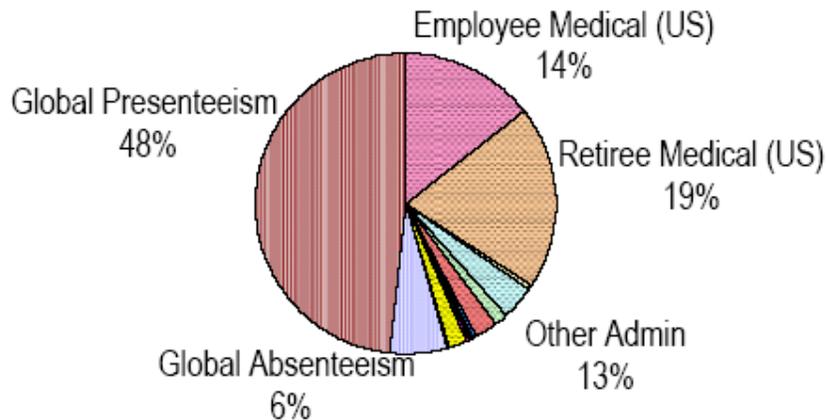


Figure 1: Total economic impact of health at Dow

Measuring opportunities

Presenteeism is a term used by employers and researchers to reflect the effect of physical and mental illness on actual work performed. One study found that, on average, 7% of workers were physically present at work despite a health problem³. In a subsequent study by the same investigators, 25% of respondents experienced impaired presenteeism before incurring a work absence, and about 20% experienced impairment after returning to work. Accounting for impaired presenteeism led to an additional 16% production loss, when the total burden of illness was estimated.⁴

To measure the effects of chronic illness on presenteeism company-wide, Dow collaborated with Merck, Medstat, and the Wharton school of Business on employee surveys and analysis. 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 intervention agenda and data collection initiative.

Presenteeism at Dow

The study found that 63% of the nearly 8,000 respondents reported having one or more of the 10 chronic health conditions (conditions are listed on Figure 2 below). Overall, a chronic condition appears to impair individual performance by a reported 10-20%. Respondents' general health status (excellent/very good/good/fair/poor) correlated closely with their reported presenteeism.

³ Brouwer WBF, MA Koopmanschap, FFH Rutten. Productivity losses without absence: measurement validation and empirical evidence. *Health Policy* 1999;48:13-27.

⁴ Brouwer WBF, NJA van Exel, MA Koopmanschap, FFH Rutten. Productivity costs before and after absence from work: as important as common? *Health Policy* 2002;61:173-187.



The costs of presenteeism at Dow

Based on the experiences of those employees who reported a primary condition, Dow estimated the total cost of each condition individually. Among employees who reported at least one primary condition, the highest total cost per worker per year was for those reporting depression, anxiety, or emotional disorder as their “primary health condition” (US\$ 18,864 in year 2002 dollars), and the lowest was for those reporting allergies (US\$ 6,947).

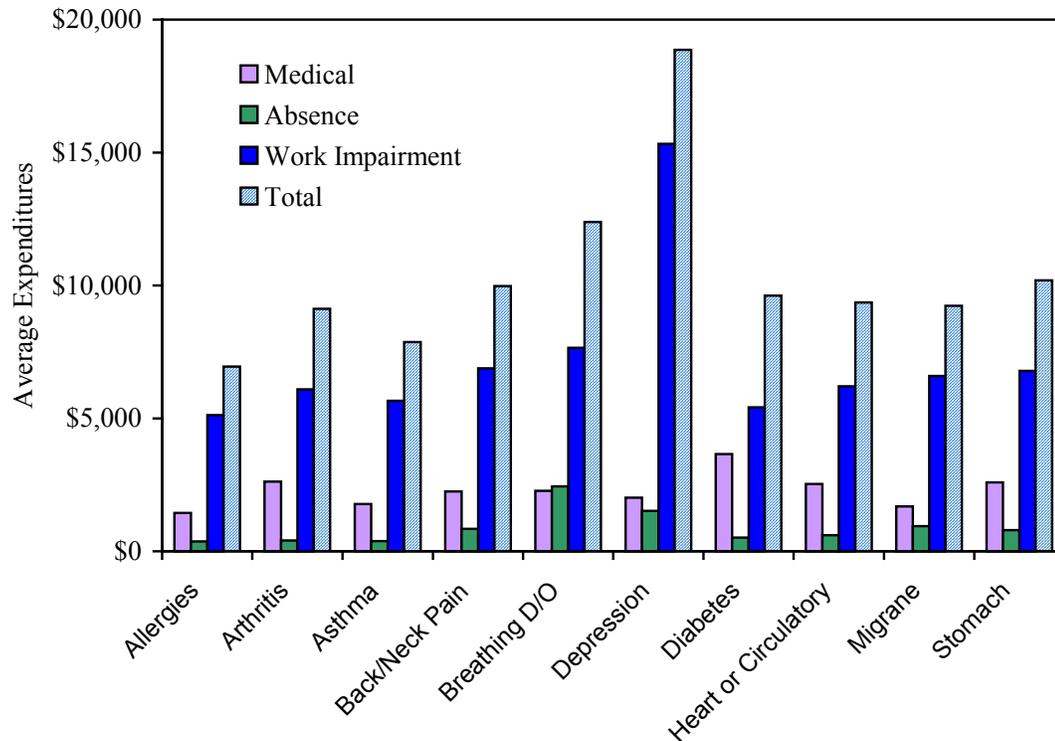


Figure 2: Estimated cost of 10 chronic conditions

The total cost for an individual with one of these chronic conditions is multiplied by the number of people with these conditions to determine the total cost of each condition.

Dow is using these results from measuring presenteeism for three important purposes:

- Feedback to management to keep them aware of the health and productivity connection;
- Feedback to the Health Strategy implementation team to assist with its planning process and identify the best opportunities for improvement;
- Sharing the results with Dow's health plans so they can better partner with Dow to reduce presenteeism as an outcome from services they provide.

Most important of these, though, is the first – converting from a cost mindset to an investment mindset concerning the dollars being spent on human capital. By doing this study Dow now understands the significance of presenteeism related to chronic health problems much better and has identified priority actions that can be taken to address them.



Internal communications are key

Internal communications rest on the shoulders of a cross-functional team that links all the relevant health-related programs and services offered by the company. The overall intent is to create a culture supportive of health. Marketing their strategy means using financial evidence to document the actual cost consequences of pilot programs or changes in health services as well as projections of future savings by identifying several sources of costs and savings. These range from direct health benefits, the company's employee assistance program, disability and worker's compensation costs to health promotion, safety, to industrial hygiene and return-to-work initiatives.

The program'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.

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 as a single source 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.

Results

As these programs have unfolded, employees and managers have learned to appreciate the deeper financial implications of healthcare expenditures. As a result of their health advocacy case management efforts, more than 1,000 US employees using the services have obtained appropriate and expedient medical care following illness or injury, whether it was work or non-work related. For the employee, it has meant faster and fuller recovery, with 100% of respondents in follow-up surveys stating that the service had been of benefit. Dow has benefited from this effort by saving an estimated 5,000 days away from work. Figure 3 translates those days saved into estimated cost savings. The direct cost savings is based on average salary, while the indirect savings is based on other projected administrative and work output factors.

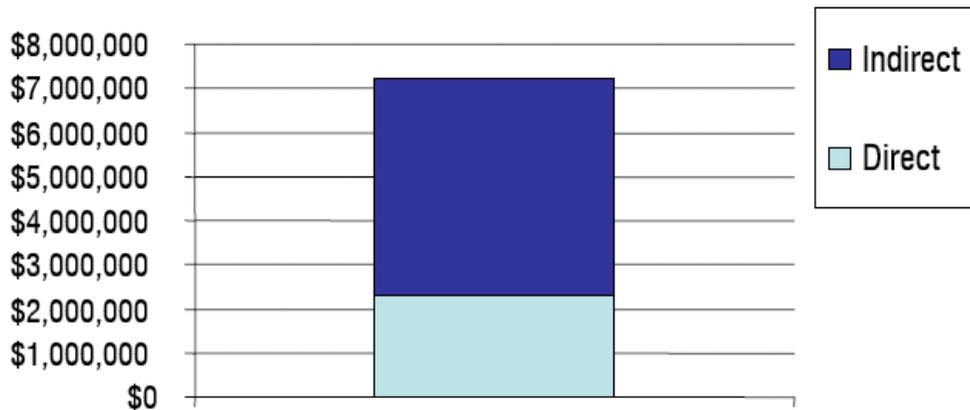


Figure 3: 2004 Projected Cost Savings (US only) from Case Management



In addition, Dow's US employees highly value these services. Of those eligible for a health assessment in 2004, approximately 90% participated. A satisfaction survey of these participants showed that 95% of employees responded that the health assessment is a valuable service provided by Dow.

As the company has progressed in their efforts, several lessons have been learned:

- Strategic planning
 - Have a vision in mind
 - Be grounded to some principles
 - Be persistent
- Coordination
 - All health/safety related functions working together
 - Take small steps
- Present the business case: shift from cost to investment mindset
- Focus on efforts that achieve outcomes
 - Need for metrics
 - Continuous reevaluation
- Recognize and harness the importance of culture to achieve success.

About the WBCSD

The World Business Council for Sustainable Development (WBCSD) is a coalition of leading international companies that share a commitment to the principles of sustainable development via the three pillars of economic growth, ecological balance and social progress. All regions of the world and most major industry sectors are represented in our membership. The WBCSD also benefits from a global network of national and regional business councils and partner organizations representing a large and diversified group of business leaders.

Our mission is to:

- Provide business leadership as a catalyst for change towards sustainable development;
- Support the business license to operate, innovate and grow in a world increasingly shaped by sustainable development issues.

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