Introduction

Purpose of the SafeWell Guidelines

The purpose of the SafeWell Practice Guidelines (SafeWell Guidelines) is to provide a model and resources for comprehensive approaches to worker health that integrate and coordinate efforts to promote healthy behaviors, ensure a safe and healthy work environment, and provide resources for balancing work and life. The goal is that the Guidelines will provide organizations with a framework for implementing a comprehensive worker health program, along with specific strategies pertaining to the details of implementation. This includes descriptions of organizational processes, selected concrete tools, and links to other existing tools and resources to build, implement, and evaluate a comprehensive health program at your worksite.

The SafeWell Guidelines were created in response to feedback from multiple sources: academicians engaged in occupational safety and health and workplace health promotion research, and worksite partners directly engaged in and responsible for workplace health initiatives. These stakeholders noted a gap in current resources for a descriptive framework and for specific strategies for businesses attempting to implement comprehensive and integrated workplace health programs. The SafeWell Guidelines are different from other toolkits focused on workplace health in that they present an integrated and comprehensive approach throughout all aspects of program planning, implementation, and evaluation.

SafeWell Practice Guidelines: A special focus on health care

Although the overarching framework and many of the more specific strategies outlined in these guidelines could be applied to a variety of industries, the SafeWell Guidelines have been written specifically for large, well-resourced health care organizations.

Within the health care industry, the need and rationale for workplace health programs that are comprehensive and grounded in a culture of health is pronounced. Health care workers represent an aging population that is being increasingly affected by chronic health conditions. Planning and implementation of effective workplace health programs have much potential in retaining existing health care workers, and as current workers move out of the workforce, also improving recruitment of qualified staff. Workforce retention is one of the most important goals for a healthcare employer. Shortages of clinicians are widely documented both in the United States and other parts in the world. In the United States, literature shows that the turnover of newly hired nurse graduates is anywhere between 13-70% during their first year.[1] Studies show that the reasons newly hired nurses leave are rooted in psychosocial aspects of work: heavy workloads, time pressures, necessary non-nursing duties, and low value placed on their contributions to assigned units.[1-3]

In addition to the effects of policies and environmental standards on any workplace and workforce (e.g., availability of comprehensive benefits; access to nutritious foods, smoking cessation supports, and physical activity options; support for work-life issues; etc.), the health care setting has unique, industry-specific challenges and risk factors (e.g., the presence of shift work and extended overtime, and patient handling and transfer practices that pose back injury and other musculoskeletal disorder risks).

However, the industry also holds significant strengths for implanting comprehensive workplace health programs. The industry itself is rooted in health promotion and disease prevention ideals, and health care employees are likely to be knowledgeable about health promotion practices.

The Guidelines speak to these unique attributes and challenges in the health care industry. Many of the examples that are included throughout are specific to the health care industry, as are many of the particular challenges, suggestions, and tools.

Creation of the SafeWell Practice Guidelines

The SafeWell Practice Guidelines were created through a collaboration between the Harvard School of Public Health Center for Work, Health, and Well-being (CWHW) and Dartmouth-Hitchcock Health Care (D-H) in Lebanon, NH. At the same time that the SafeWell guidelines were being developed, D-H was implementing an integrated program called Live Well/Work Well (LWWW) in its Lebanon, NH site as well as planning to implement such programs in some of its sites in the Community Group Practices based in southern New Hampshire. Based on its experience, D-H provided "real-world" input on how implementation of the SafeWell guidelines might work. D-H

also helped to feed examples from practice to enrich the development of and examples in these guidelines.

The SafeWell Vision

New vision needed for workplace health

As today's employers and workers are faced with ever-changing demands, there is a need for a new vision for the healthy worksite and for healthy workers. This new vision reflects that the health and safety of workers and workplaces are closely intertwined, and that effective workplace health programs address both areas. This approach has sometimes been termed as one that creates and sustains a *culture of health* in which employee health and well-being and organizational success are inextricably linked, and both the organization and individual employees support this culture. In settings where a strong culture of health exists, a dynamic interplay exists between employees' personal values, organizational values, and business performance. Employees are provided with opportunities and resources to engage in wellness behaviors and risk reduction, while at the same time, organizational leadership, benefits, policies, incentives, programs, and environmental supports are coordinated in order to support active engagement in and sustainability of safe workplaces and healthy lifestyles.[4]

The old approach: Separate silos

Traditionally, Occupational Safety and Health Programs (OSH), Worksite Health Promotion (WHP), and employee benefits and other supports (HR) have operated separately, even though they all promote worker health and well-being.

OSH programs are designed to prevent work-related injuries and illnesses by minimizing workers' exposures to job-related risks, including musculoskeletal disorders and exposures to safety, physical, biological, chemical, and psychosocial hazards. It emphasizes hazard prevention and control, following the concept of "hierarchy of controls" (also increasingly called "hierarchy of prevention" among OSH practitioners) that prioritizes the importance of hazard elimination through prevention, over merely controlling exposures. Participation in these programs is often seen as the responsibility of management.

WHP programs aim to promote healthy behaviors such as not using tobacco, keeping weight under control, eating a healthy diet, obtaining appropriate levels of physical activity, using seat belts, acquiring appropriate vaccinations, adhering to screening guidelines, and preventing substance abuse. Participation in these programs is often seen as the responsibility of individual employees.

HR programs somewhat overlap between OSH and WHP. In response to OSH psychosocial issues, HR may develop organizational policies supporting flexible work hours, or stress-reduction programs. HR may be involved in instituting bans on tobacco

use at the workplace to reduce consumption of and exposure to tobacco, and providing subsidized gym memberships for employees to support increased physical activity.

While it is common practice in many worksites to address health promotion, occupational safety and health, and human resources and employee benefits as distinct silos, there is increasing evidence that coordinating and integrating them leads to healthier workers and workplaces.[5-7]

The New Approach--Integrating Workplace Health

Coordinated and comprehensive approaches that include programs and policies that address the physical and organizational work environment and promote personal health among individual employees and their families may be more effective than using either workplace health promotion or occupational safety and health alone.[4, 5, 7]

Integrated approaches to workplace health have been shown to:

- Improve health behaviors including smoking cessation[4, 5, 8, 9], dietary improvements[4, 5, 10-13], and increased physical activity[9, 14-20]
- Improve employee participation in occupational safety and health (OSH) and health promotion programs. There is evidence that when workers are aware of OSH changes made at the worksite, they are more likely to participate in smoking cessation and healthy eating activities, and are more likely to participate in OSH strategies as well.[4, 5, 21-25]
- Reduce occupational injury rates. Good physical condition, absence of chronic disease, and good mental health are associated with low occupational injury rates.[5, 26-29] Workers with adverse health risk factors such as obesity, sleep deprivation, poorly controlled diabetes, smoking, and drug and alcohol abuse are shown to be more likely to sustain injuries.[5, 29, 30]
- Reduce health care costs, administrative costs, and costs resulting from lost productivity or increases in work absenteeism.[5, 7, 9, 31-45]

The integrated approach to workplace health programs fuses together and coordinates programs, policies, and practices of OSH, WHP, and HR, and employs multiple levels of intervention--environmental, organizational, and individual. This model addresses environmental exposures on the job, the social context of work, and workers' individual health behaviors through linking and coordinating policies and practices across these different areas. Integrated programs emphasize that workplace health programs are the responsibility of both organizational management and individual employees.

The way to integration

Merely stating that using an integrated approach improves worker and workplace health is not enough to change the status quo. Developing, executing, and sustaining comprehensive workplace health programs requires thoughtful and creative leadership, effective assessment and evaluation tools, and innovative implementation strategies.

The SafeWell Guidelines provide a theoretical framework as well as concrete tools and strategies to support and guide this work.

> **The SafeWell Vision: Effective workplace health programs implement programs, policies, practices, and benefits designed to promote health among individual workers in healthy, safe, and productive workplaces.**

Why is workplace health important?

Approximately 50% of Americans report living with at least one chronic disease.[46] Many of these chronic diseases are related to smoking, physical inactivity, and unhealthy diets. But worksites also have characteristics that may contribute to chronic diseases. Thus, chronic and acute diseases and injuries significantly impact workplaces and workers. At the same time, the workplace offers an important venue both to decrease morbidity and mortality that are directly linked to work activities, work environment, and work organization, as well as to support health promotion policies and activities inside and outside of work.

1. Workplace risk factors are related to injuries and illnesses

In 2009, more than 4,500 fatal and over 1.2 million nonfatal work-related injuries and illnesses were reported in private industry workplaces; just over half of the non-fatal injuries resulted in time away from work due to recuperation, job transfer, or job restriction.[47, 48] Musculoskeletal disorders constitute about 28% of all nonfatal work-related injuries.[49] Some workplace risk factors for musculoskeletal disorders include repetitive motions, forceful exertions, awkward postures, vibrations, and temperature extremes. Additionally, the workplace has risk factors for cardiovascular disease, including exposure to chemicals in tobacco smoke; organizational factors such as work schedules (e.g., long work hours and shift work); and psychosocial stressors such as high demand-low control work, high efforts on the job combined with low rewards, and organizational injustice. [50, 51] Such work schedule factors and psychosocial stressors also contribute to mental health disorders,[50] and lifestyle risk factors such as smoking, alcohol misuse, obesity, and lack of exercise.[52-54] Estimates of the proportion of cardiovascular disease attributable to workplace factors range from 15% [55] to 35%.[56]

2. Many individual risk factors are modifiable at the worksite

Modifiable individual risk factors are largely responsible for upward trends in chronic diseases and corresponding mortality trends in the United States. Data from 2005 showed tobacco use and high blood pressure to be responsible for approximately one in five and one in six deaths in the United States respectively[57], and overweight-obesity, lack of physical activity, and high blood glucose to each be responsible for nearly one in 10 deaths[57]. Workplace health programs present a unique opportunity to intervene in these behavioral risk factors and, in turn, to have an impact on the prevalence and

severity of chronic diseases. As the US workforce ages and is increasingly at risk for chronic conditions, such intervention opportunities become increasingly important.

3. The health of workers is tied to the health of organizations

An unhealthy workforce cannot sustain basic business activities, let alone participate in and contribute to the types of strategic growth, quality improvement, and innovative programming that is required of today's businesses to succeed in the face of increasing demands and competitive markets.

In addition to growing evidence that cites the direct cost savings of workplace health programs to health premiums and other employer-covered health care costs[44], increasingly an emphasis is also being placed on how integrated workplace health and safety programs can support savings in indirect and productivity-related costs. This latter area in particular focuses on the broader value of integrated workplace health and safety programming to support employees as valuable human capital and critical resources to organizational success. This shift in focus emphasizes the longer term and, in some cases, less quantifiable gains of integrated workplace health programs. The information below provides evidence on both the financial gains and other value gains that may be achieved through the development and implementation of the SafeWell approach to integrated workplace wellness, and may be helpful in building a business case to support use of the guidelines.

Healthcare spending and injury costs in US worksites are high. In 2009, U.S. healthcare spending reached 2.5 trillion dollars. This represents 17.6% of the nation's Gross Domestic Product, up from 16.6% in 2008. [58] According to the 2010 Liberty Mutual Workplace Safety Index, occupational injuries and illnesses in 2008 amounted to over $53 billion in direct workers' compensation costs.[59] The top five injury causes (overexertion, fall on same level, bodily reaction, struck by object, and fall to lower level) accounted for 71% of this cost burden. Overexertion (i.e., injuries related to lifting, pushing, pulling, holding, carrying, or throwing) has maintained its top rank for years. According to Liberty Mutual, overexertion accounts for $13.40 billion in direct costs– more than a quarter of the overall national burden.[59] In the healthcare industry, inflation-adjusted direct and indirect costs associated with back injuries are estimated to be $7.4 billion annually, in 2008 dollars.[60, 61]

Workplace health programs have been found to reduce health care costs. A meta-analysis of the literature on costs and savings associated with worksite health promotion programs reported that medical cost reductions of about $3.27 are observed for every dollar invested in these programs.[31] A critical review of 16 studies published during 2004-2008 reported favorable clinical and cost outcomes of comprehensive health promotion and disease management programs.[32, 43] A recent evaluation of Johnson & Johnson's worksite health programs from 2002 to 2008 found that the company had experienced average annual growth in total medical spending that was 3.7 percentage points lower compared to similar large companies.[62] As healthcare costs

continue to rise and the majority of Americans continue to obtain health care coverage through employer-sponsored programs, these findings demonstrate direct cost-saving opportunities for employers.

A healthier workforce is more efficient and more productive. Research has shown that healthier workers are less likely to be injured or absent from work, and that absenteeism costs fell by $2.73 to every dollar spent on workplace wellness programming. In addition, job performance has been shown to be better among healthy workers, and the phenomenon of presenteeism (wherein workers are present but exhibit diminished performance) to be significantly reduced. [31, 36, 63] Such engagement has positive implications for business productivity, profitability, and organizational culture. These findings are particularly powerful when one considers that indirect costs such as absenteeism and presenteeism are considerable and have been found to be up to three times as large as direct medical costs for some companies. [64]

It is important to keep the aging workforce healthy. It is estimated that between 2006 and 2016, the number of workers 55 to 64 years of age will increase by 36.5%, and workers aged 65 and 74 years of age and 75 and older will increase by 80%.[5, 65] Older workers typically suffer from chronic health conditions and have multiple health risks. The conditions of older age groups require more care and are more difficult and costly to treat than the chronic conditions that are more common in younger age groups. In one analysis,[66] a company's 2003 annual aggregate medical claims costs for employees and their dependents rose according to age: employees aged 25 to 29 had an aggregate cost of about $2,148, for those aged 40 to 44 years the cost rose to $4,130, and for those between the ages of 60 and 64 the aggregate cost was to $7,622.[5, 66] The figures highlight the importance of keeping all workers, and especially older workers, healthy and managing chronic illnesses that do exist so that they do not worsen over time.

A healthy workplace contributes to a positive image for the organization. The World Health Organization's (WHO) Regional Guidelines for the Development of Healthy Workplaces defines a healthy workplace as one that tries to create a safe and healthy work environment, makes worksite health promotion and occupational safety and health part of management practices, supports work styles and lifestyles conducive to health, ensures total organizational participation, and offers positive supports to the surrounding community and environment.[7, 67] WHO maintains that such coordinated efforts can contribute to a positive image for the organization having a healthy workplace.

Health Care Reform may offer incentives for workplace health programs. Provisions under the Patient Protection and Affordable Care Act [68] have created incentives for employers to provide employee health care coverage and made technical assistance and support available to promote workplace health programs.[69] This is likely to result in increased interest in comprehensive worksite health programs as a means of reducing health and business costs.

Health at work, home, and community are already interconnected—integrated workplace health programs make sense. Work impacts health, and health impacts work. Hazardous exposures at work, including stressful working environments, can impact the health of workers as well as the physical environments in which organizations are situated. Employees who are suffering from a chronic disease, injury, or work-life imbalances may not be able to perform to their best abilities.

At the same time, organizations and communities that have programs and policies that support worker health (e.g. safe walking trails, smoking bans, healthy food choices, flexible work hours,) can contribute to improving the health of the worker, organization, and community. Hymel et al. [5] have suggested that this "three-legged stool" of workplace, home, and community include the workplace as part of the medical team in monitoring and improving worker health. The authors argue that integrated workplace health promotion and protection is a vital component to this effort.

World-class organizations are transitioning to integrated systems already. Johnson and Johnson has been supporting an integrated system for worker health since the late 1970s. Goetzel describes a number of other world-class organizations that have also instituted integrated health, safety, and productivity management programs.[44] These include such diverse organizations as Caterpillar, CIGNA Corporation, Daimler-Chrysler/United Auto Workers, Union Pacific Railroad, and Citibank. The National Aeronautics and Space Administration is also implementing an integrated program for worker health.[6]

SafeWell Integrated Management System for Worker Health: Framework of areas, levels of engagement and organizational functions

Figure 1 represents the SafeWell Integrated Management System (SIMS) for Worker Health. It is designed after other recognized management systems, including the American management systems standard in occupational safety and health (i.e., ANSI Z10)[70] used in companies (e.g., IBM),[6] and a healthy workplace model offered by the World Health Organization[71].

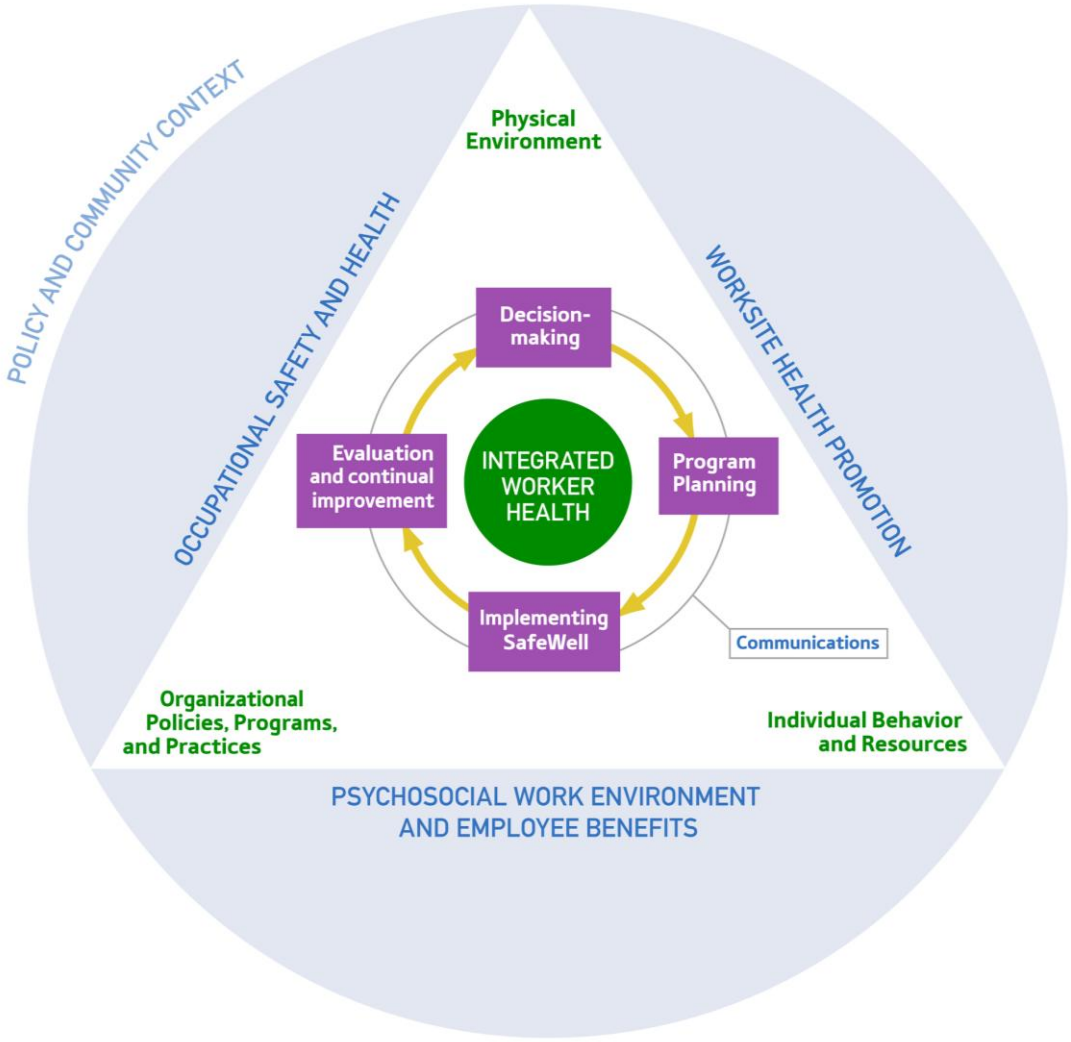

Figure 1—The SafeWell Integrated Management System for Worker Health

Starting with the outside circle, it is important to note that SIMS is situated within a larger policy and social context. Decisions that are made within worksites often are influenced by regulatory and legislative efforts, economic conditions, and the image the

organization wants to portray in the community. While these may seem to be macro-level issues, they can impact individual health in many ways. For instance, is there access to safe, affordable recreational activities in the neighborhood? Are healthy food options available? Does the state have comprehensive and affordable health insurance programs for its inhabitants that organizations offer to their employees?

The main emphasis of these guidelines, however, is on the components inside the circle, and they represent the SIMS approach to worker health. On the three sides of the triangle, rest the three major disciplinary areas to integrate for worker health: occupational safety and health (OSH), worksite health promotion (WHP), and the psychosocial work environment and employee benefits (HR). Within the three corners of the triangle are the three levels of engagement for SafeWell: the physical environment; organizational policies, programs, and practices; and individual behavior and resources. The main organizational functions that drive the SIMS are represented by the boxes within the triangle in Figure 1 and are further defined in "Chapter 1: Implementation." The functions include: decision-making, program planning, implementation of SafeWell, and evaluation and continual improvement. Chapters of the Guidelines are organized around these topics. Communications is an additional important component of each of the aforementioned functions, so it is represented as an additional box linking to each of the other boxes just described.

The circle in the middle of Figure 1 is the ultimate goal of SIMS—to achieve and maintain integrated worker health.

While Figure 1 represents a rendition of an optimal integrated management system for worker and workplace health and well-being, not all organizations will have every component integrated. The important principles to consider are:

- A systems-level approach that coordinates programs, policies, and practices
- Coordination of occupational health and safety, worksite health promotion, and human resources
- Programs, policies, and practices that address the work environment/organization and worker health and well-being

What is included in the Guidelines?

The SafeWell Guidelines are laid out in the four chapters described below. Each chapter speaks to a different part of the process of implementing and sustaining a comprehensive approach to workplace health programs.

Chapter 1. Providing the foundation: Organizational leadership and commitment: Recommendations are made for engaging top management and creating a culture of health, integrating workplace health programs, and engaging mid-level management and employees in these efforts, all through the SafeWell Integrated Management System (SIMS).

Chapter 2: Program planning: How to inform the program planning process including a worksite analysis, incorporate broad-based input from all organizational levels, and design plans for programming.

Chapter 3: Implementation: What is meant by an integrated program; what it looks like; the steps of the implementation process; and some implementation examples.

Chapter 4: Evaluation and continual improvement: How to define evaluation goals, incorporate evaluation strategies into program planning and execution, and integrate evaluation results into quality improvement strategies. A real-world case from Dartmouth Hitchcock Medical Center in Lebanon, NH is provided to exemplify how one organization is implementing the SafeWell approach using the organizational functions of decision-making, program planning, implementation, and evaluation for continual improvement toward total worker health.

How to use the Guidelines

Read together, these chapters follow a chronological order and for some employers it may make sense to read and implement strategies in that order. However, the Guidelines have also been developed so that each chapter may be read independently from the others. Depending on an organization's needs and the type and level of health programming already in place, it may make sense to focus on particular chapters (and/or particular elements within chapters). At a minimum, the SafeWell approach requires that OSH, WHP, and HR be addressed comprehensively and at multiple levels.

Individual organizations and worksites vary considerably in their needs, capacity, and experience with employer health programming. Strategies that work well for one organization may not be a fit for others. The SafeWell Guidelines recognize this variability and have been developed to fit with a range of organizational experiences and requirements. This information is not intended to dictate a single, correct approach that should be adopted by all employers, and as such, each chapter in these Guidelines provides a variety of suggestions for how these components of an integrated framework may be implemented. The Guidelines are intended to provide health care organizations with a broad framework for implementing comprehensive health programs and, within this, a menu of options for how the components of this framework may be executed.

Throughout the SafeWell Guidelines, examples and experiences from the field are provided to illustrate the broader framework, strategies, and information through helpful examples. These examples are drawn from experiences at Dartmouth-Hitchcock Health Care, Partners HealthCare, and other partner organizations. Three types of field experiences are included:

Notes from the field provide specific examples of how comprehensive approaches have been implemented in health care settings.

Tools from the field give concrete tools and resources that organizations have used in their implementation of workplace health programming.

Challenges and tips from the field highlight issues that may arise when implementing the SafeWell guidelines and how other organizations have overcome these.

Who should use the Guidelines?

The SafeWell Guidelines are intended for management of health care organizations who are directly engaged in and responsible for employee health, safety, and wellness. This may include directors and/or managers of occupational health, human resources, individual medical units, or other departments. While written for this audience, the principles described in the guidelines have been used in manufacturing and service-oriented sectors too.

Cost savings of implementing the SafeWell Guidelines

The cost of implementation will depend on the size of the worksite as well as on the comprehensiveness of the integrated program--for example, whether to include employee dependents in its programming. Goetzel et al. analyzed data from 43 worksites consisting of approximately about one million employees. They found that the 1998 median health and productivity management costs these organizations paid equaled $9,992 per employee.[72] These costs included such elements as group health, turnover, unscheduled absence, non-occupational disability, and workers' compensation costs. When expenses related to employee assistance, health promotion, occupational medicine, safety, and work/life services also were added into the equation, the combined total cost per employee reached $10,365. With costs of $9,992 per employee, the researchers determined that the cost savings for implementing a comprehensive program could be about $2,562 per employee per year, a savings of about 26%.[72]

Additional resources

The resources included below provide additional information and details to support the development and implementation of integrated workplace health programs. Readers may find these helpful in garnering the support of business leaders and strengthening the rationale for developing new workplace health programs and/or enhance existing health services within their particular organization, though none are truly as integrated as the SafeWell approach.

Total Worker Health
NIOSH's website for its Total Worker Health initiative has many resources, toolkits, and calculators for worker health.
http://www.cdc.gov/niosh/twh/resources.html

Leading by Example
The Leading by Example initiative is a peer-to-peer communication campaign for CEOs on the efficacy of worksite health promotion. The publications have useful talking points

and tools for CEOs.
http://www.prevent.org/Initiatives/Leading-by-Example.aspx

Health and Productivity Management
This knowledge center supported by the American College of Occupational and Environmental Medicine contains information for businesses about the costs, benefits, and importance of addressing worker health and worksite safety.
http://www.acoem.org/Page3Column.aspx?PageID=7351&id=1350

Making the Business Case for Safety and Health
This OSHA website provides various information sources to illustrate why investing on safety and health is beneficial to the organization's financial performance.
http://www.osha.gov/dcsp/products/topics/businesscase/index.html

Estimated Costs of Occupational Injuries and Illnesses and Estimated Impact on a Company's Profitability Worksheet – As part of OSHA's $afety Pays Program, businesses can use this cite to estimate the direct and indirect costs of occupational injuries.
http://www.osha.gov/dcsp/smallbusiness/safetypays/estimator.html

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