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Health and Wellness Research Study: Corporate and Worksite Wellness Programs:  
A Research Review Focused on Individuals with Disabilities

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## Section 1. Description of Study

### 1.1 Introduction

Corporate and worksite wellness programs can be described as employer-sponsored services designed to promote or maintain the good health of employees. Although such programs differ widely in scope, they can be readily distinguished from corporate health care programs, which typically focus on employee assistance and health insurance. In contrast, corporate and worksite wellness programs focus on promoting healthy behaviors and correcting employees' poor health in ways that also enhance the operation and productivity of the organization. Worksite wellness programs can include a broad spectrum of activities, from smoking cessation to physical fitness centers (Society for Human Resource Management, 2008).

According to the Healthy People 2010 plan (U.S. Centers for Disease Control and Prevention, 2005), people with certain disabilities are generally less physically active than people without disabilities and have higher rates of obesity, depression and other conditions that occur secondarily or in addition to their primary disability. Like all people, people with disabilities can benefit from programs that increase routine health and wellness examinations and screenings and support improvements in lifestyle, including physical fitness and mental health. This research review, a required deliverable of the Health and Wellness Research Study (Task Order DOLU089428186) for the Office of Disability Employment Policy (ODEP) of the U.S. Department of Labor (DOL), focuses on the extent to which corporate and worksite wellness programs have been or can be adapted to meet the needs of individuals with disabilities in particular, and, when universally designed and accessible, the needs of all employees generally.

Specifically, the review will:

- Identify research and technical documents on cost effectiveness, productivity, and access to corporate and worksite wellness programs;
- Use information and data to propose research design options that would examine corporate and worksite wellness programs for people with disabling or potentially disabling conditions; and
- Support development of knowledge transfer projects based on the research.

### Definitions

Because this literature review focuses on worksite wellness programs for employees with disabilities, this paper uses the definition of "disability" from the current text of the Americans with Disabilities Act of 1990 (ADA), as amended. (For a review, see Blanck, Hill, Siegal, & Waterstone, 2005). The definitions of "employee" and "employer" are those of the U.S. Census Bureau, and the definition of "worksite wellness programs" is from the Society for Human Resource Management.

- The ADA's basic definition of "disability" is an impairment that substantially limits one or more major life activities, a record of such an impairment, or being regarded as having such an impairment (Americans with Disabilities Act, 1990).
- The term "employee" means an individual employed by an employer. With respect to employment in a foreign country, the term includes an individual who is a citizen of the United States (U.S. Census Bureau, 2007).

- In general, the term "employer" means a person engaged in an industry affecting commerce who has 15 or more employees for each working day in each of 20 or more calendar weeks in the current or preceding calendar year, and any agent of such person, except that, for two years following the effective date of this subchapter, an employer means a person engaged in an industry affecting commerce who has 25 or more employees for each working day in each of 20 or more calendar weeks in the current or preceding year, and any agent of such person. The term "employer" does not include (i) the United States, a corporation wholly owned by the government of the United States, or an Indian tribe; or (ii) a bona fide private membership club (other than a labor organization) that is exempt from taxation under section 501(c) of title 26 (U.S. Census Bureau, 2007).
- "Worksite wellness programs" are employer-sponsored services designed to promote or maintain the good health of employees. They are sometimes referred to as corporate wellness programs when the employer is a corporation (Society for Human Resource Management, 2008). Wellness programs are also sometimes referred to as health promotion programs.

## 1.2 Background

Wellness programs have been introduced to worksites worldwide to try and improve the health and well-being of employees. Although the overarching purpose of worksite wellness programs is to provide a positive return on investment by reducing absenteeism and lowering health insurance premiums, the altruistic benefit has been the creation of a healthier workforce, which translates into a healthier population. While this is a successful merger between the financial demands of corporate policy and goals of public health, not all employees have benefited equally from this union. In particular, the needs of employees with disabilities have not been addressed in worksite wellness programs. Therefore, this document focuses on the extent to which worksite wellness programs can be adapted (or universally designed) to fit the needs of persons with disabilities. This may be one way to increase the recruitment and retention of persons with disabilities in the labor force and promote the return to work of those with recent-onset disabilities.

The concept of disability has evolved over time to encompass many different aspects and dimensions of health and functioning. However, not until the World Health Organization (WHO) revised its classification system for disability, as a companion to its *International Classification of Diseases (ICD)*, 9<sup>th</sup> edition (World Health Organization, 1997), were the complex interactions with the environment acknowledged as having an impact on the health and well-being of persons with disabilities. This new classification system for disability, the *International Classification of Functioning, Disability and Health (ICF)*, conceptually differentiates components of the disabling process. That is, the ICF distinguishes health and health-related components at the levels of (a) body structures and functions and (b) activities and participation (World Health Organization, 2001). The idea that environmental factors (such as architectural and communication environments) play a critical role in whether someone is defined as having a "disability" (Lollar, 2002) is fundamental to this framework. Yet, because the missions and goals of U.S. government agencies and non-profit organizations differ so widely, most agencies and organizations do not use the ICF to classify and code functioning and disability. Instead, they use their own definitions of disability to allocate their services and benefits. For example, as part of their mission, the Social Security Administration provides benefits to eligible persons who cannot work due to a disability. Therefore, its definition of disability is work-related. However, the National Center for Health Statistics is interested in measuring the health of all Americans, and, therefore, uses a broader definition of disability to estimate and track the number of people reporting any activity limitation – not just those that are work related.

### 1.3 Research Questions

Research questions guiding this review include the following:

- What is/should be the role of employers in promoting the health and productivity of workers with disabilities?
  - How and why were worksite wellness programs developed?
  - What elements are generally included in worksite wellness programs?
  - To what extent do employers promote the health and productivity of workers with disabilities in terms of professional development, regular salary increases, employee benefits, occupational advancement, and degree of autonomy in the workplace?
- How can employers create wellness programs that can be accessed by people with disabilities?
  - What are the characteristics of employers that provide accessible or universally designed programs?
  - How do wellness programs customize their services to meet the needs of people with disabilities?
  - What are some unique elements of wellness programs that have benefited individuals with disabilities?
- What programs/policies/supports would, if available, prolong labor force participation, delay disability program participation among workers with disabilities, and increase overall employee satisfaction and productivity?
  - What are the attitudes of people with disabilities in the workforce regarding the kinds of programs that would support or prolong their labor force participation and advancement?
- What types of interventions could be undertaken earlier in the disability onset process to prevent or delay labor force withdrawal? How might such interventions be financed?
  - To what extent does the type and severity of a disability prevent or delay labor force withdrawal?
  - How should interventions be customized to support different levels of disability severity?
  - What are the cost differences for interventions that may prevent/delay labor force withdrawal by type and severity of disability?
- What measures could be used to assess impact?
  - What are the direct and indirect costs and benefits of worksite wellness programs?
  - What research has been conducted on interventions that seek to prevent/delay labor force withdrawal?
  - Based on meta-analytic procedures, what interventions show promise in preventing/delaying labor force withdrawal?
- How will employers utilize best practices and lessons learned to develop and enhance employee access to health care and wellness services?

- What best practices are currently being used by employers to develop and enhance employee access to health care and wellness services?
- What can we do to encourage the most effective working relationships among employers, primary care organizations, and home- and community-based social services providers?
  - What existing employer/health care provider networks have successfully developed effective working relationships?
  - What are the characteristics of these programs?
- What are the measures that determine a value-added employment/health services partnership?

#### **1.4 Research Review Strategy**

For the research review, we first conducted a broad scan of the available literature (e.g., “worksite wellness programs”), narrowed the focus to individuals with disabilities and then to the individual research questions listed above. Our search included locating peer-reviewed journal articles and technical papers/documents (both published and unpublished) dating back to 1998 and reviewing agencies’ and organizations’ Web sites (e.g., Interagency Committee on Disability Research, Syracuse University’s Burton Blatt Institute, Cornell University’s Employment and Disability Institute, National Corporate Wellness, etc.). Appendix A describes the review methodology in detail.

#### **1.5 Report Organization**

This report is organized into five sections. Section 1 (this section) describes the study, defines critical terms, specifies the goals of the review, lists the research questions to which we are responding, and outlines our approach. Section 2 provides a history of corporate and worksite wellness programs. Section 3 describes the population of interest and draws lessons from community wellness programs that meet the needs of individuals with disabilities. Section 4 reports on research that relates to the specific research questions and on critical gaps in the literature. Finally, Section 5 outlines how the information presented here will be used to complete ODEP’s Health and Wellness Research Study and move the research forward.

## Section 2. History of Corporate and Worksite Wellness Programs

Investing in employee health is not a new concept for employers. In 1974, the Employee Retirement Income Security Act (ERISA) was established, setting the minimum standards for most voluntarily established pension and health plans in private industry to provide protection for individuals in these plans. Moreover, some employers have been offering health-related services and wellness programs to their employees for over half a century (Owens, 2006). What is new, however, is that in the past, the medical community led the charge to invest in health promotion programs as a way to prevent or delay the onset of certain chronic conditions. Today, communities of people with disabilities educate the medical community and the worksite wellness program industry that persons with disabilities can delay or prevent chronic conditions by participating in health and wellness programs.

### 2.1 Employee Assistance Programs

Corporations first began helping employees with health-related issues such as alcoholism and mental health as early as the 1950s (Owens, 2006). These programs, which were often peer-led, were initial forms of the Employee Assistance Programs (EAPs) that we are familiar with today.

Over the years, EAPs have evolved into a comprehensive benefit for employees, addressing not only substance abuse, risk management and injury prevention, but broader issues such as legal problems, elder care and other family concerns, and domestic violence. Today, EAPs are a major employer-based benefit that helps many employees stay productive and remain in the workforce. The Society for Human Resource Management's 2008 Benefits Survey Report found 70 percent of employers offer an EAP benefit (Society for Human Resource Management, 2008). This includes arranging for accommodations for persons with disabilities as required by the Americans with Disabilities Act (Blanck, 1993, 1994, 1995). Some examples of worksite accommodations offered by employers to persons with disabilities are listed in Table 1 below.

**Table 1. Selected Examples of Accommodations by Job Requirement and Impairment**

Impairment Category	Job Requirement	Specific Impairment	Accommodation
Physical	Copying files	Person uses a wheelchair	Office machines, such as copiers and faxes, placed at a lower level enabling a person using a wheelchair to access them from a seated position
Sensory	Computer programmer	Total loss of vision	Screen reading software
Cognitive or intellectual	Filing	Trouble concentrating	Space enclosures or a private office
Mental disorder	Accountant	Decreased energy	Flexible scheduling
Chronic disease	Receptionist	Chronic pain	Allow use of a personal attendant at work

Source: Office of Disability Employment Policy, Job Accommodation Network (<http://www.ian.wvu.edu/>).

The primary difference between EAPs and wellness programs is that the former are typically intended to help employees deal with personal problems that might adversely affect their work performance, health and well-being (Owens, 2006), while wellness programs are generally designed to improve employees' and dependents' health status by modifying health risk behavior (Leatherman et al., 2003) leading to positive effects to productivity, motivation, and quality of work.

## 2.2 Wellness Programs

Corporate and worksite wellness programs first appear in the literature in the early 1980s in articles discussing physical fitness efforts at work and their effects on worker performance (McKendrick, 1982; Shepard, 1981). As early as 1982, articles appearing in the *Journal of Occupational Health* described how corporations could set up wellness programs to reduce health care costs, reduce illness-related absences, and attract talented employees to the company.

Since then, much empirical work has been done to validate the benefits of health promotion programs. One of the main benefits of wellness programs (and one of the easiest to measure) is the reduction of absenteeism. Researchers have found a negative association between the number of days employees are absent from work (including the number of days on short-term disability) and their participation in a worksite health promotion program (Aldana, 2005; Bonner, 1990; Serxner, Gold, Anderson, & Williams, 2001). In other words, employees who participate in health promotion programs are significantly less likely to be absent from work. The cost-benefit of health promotion programs is harder to measure. However, researchers have estimated savings anywhere from more than \$1 million over a two-year period to a savings of \$15.60 for every dollar spent on the program (Aldana, 2005; Serxner et al., 2001). One question that researchers have yet to answer is what wellness programs will look like in the future. Stokols and his associates suggest that the field of worksite wellness may be undergoing a fundamental paradigm shift away from individually oriented programs (provided at the worksite and aimed primarily at changing employees' health behavior) and toward broader formulations emphasizing the joint impact of the physical and social environment at work, job-person fit, and work policies on employee well-being (Stokols, Pelletier, & Fielding, 1996).

Despite methodological limitations such as self-reported information, lack of control groups and information from one point in time, in many available studies, the results in the literature suggest that, when properly designed, worksite health promotion programs can increase employees' health and productivity (Blanck, 1994). Goetzel and Ozminkowski describe the characteristics of effective programs, including their ability to assess the need for services, attract participants, use behavioral theory as a foundation, incorporate multiple ways to reach people, and make efforts to measure program impact. Promising practices are noted, including senior management support for and participation in these programs (Goetzel & Ozminkowski, 2008).

According to *Working Well: A Global Survey of Health Promotion and Workplace Wellness Strategies* (Buck Consultants, 2007), 86 percent of companies in the United States support some kind of wellness program, while only about one in five employers outside of the United States provide wellness programs. The components of wellness programs vary by company and geographical region. These programs have evolved over time and now include a host of different types of activities for employees. Additionally, most companies hire outside consultants to provide this benefit or use the internal resources of their health insurance companies.



## 2.3 Wellness Program Design

Workplace wellness programs are a combination of educational, organizational and environmental activities designed to support behavior conducive to the health of a business's employees and their families (Owens, 2006). The 2008 Employee Benefits Survey conducted by the Society for Human Resource Management (SHRM), identified a wide variety of wellness program components (see Table 2).

**Table 2. Wellness Program Components**

Component	Programs Including
Wellness resources and information	72%
On-site voluntary vaccination	69%
Health care premium discount for annual employee health risk assessment	11%
Health care premium discount for participation in wellness program	9%
Health care premium discount for abstinence from using tobacco products	8%
Fitness equipment subsidies	6%
Nap room	5%

Note: This is an abridged version of the table. The complete table is in Appendix D.

Source: Society for Human Resource Management.

There does not appear to be a standard set of initiatives that a wellness program must include, by definition. Instead, each company creates its own program with components it selects.

According to the Kaiser Family Foundation's 2008 Employer Health Survey, 54 percent of companies offer at least one of the following wellness components: weight loss, gym membership discounts or on-site exercise facility, smoking cessation programs, personal health coaching, classes in nutrition or healthy living, and Web-based resources or newsletters. Approximately 47 percent of employers allow an employee's family members to participate (Kaiser Family Foundation, 2008).

Examples of successful wellness programs include the winners of the C. Everett Koop National Health Award. Programs are evaluated annually by a panel of experts and include those developed or based in worksites, the community, health provider groups, insurance, government, innovators, or other organizations. Descriptions of four 2008 winning programs and two 2007 winners (taken from the award site) appear below.

- Dow Chemical's LightenUp Program (2008 winner).** In 2006, the Dow Chemical Company introduced a series of environmental interventions at the workplace aimed at reducing obesity rates among its workers. Interventions included offering healthy food choices in vending machines, cafeterias and company-sponsored meetings; directing employees to walking paths; saturating the workplace with targeted messaging promoting healthy eating and physical activity; introducing recognition programs for employees, program champions and leaders; establishing site-level health improvement goals; and training leaders on the value of a health strategy for the company. After one year, the company reported favorable results related to employees' weight, blood pressure, and tobacco use as well as early signs of improvements in employee absenteeism rates. The LightenUp Program is well-developed, comprehensive and evidence-based. Rigorous evaluation methods, using validated instruments, are being used as part of a multi-year study funded by the National Heart Lung and Blood Institute. This study represents a formal test of an ecological approach to reducing risk factors among employees. This project also led to the development of two new measurement instruments: the

Environmental Assessment Tool (EAT) and the Leading by Example (LBE) survey (C. Everett Koop National Health Award, 2008).

- **Energy Corporation of America’s (ECA) Platinum Wellness Program (2008 winner).** ECA’s Platinum Wellness Program has achieved participation rates as high as 95 percent in its 20-year history. For a company of this size (under 500 employees), ECA has developed an impressive, comprehensive, well-integrated and strategically sound program. The program is guided by theory and evidence-based practices. Although a small employer, the company has hired two full-time staff to run its health promotion program. Nurse planning sessions with each employee participant occur yearly, and spouses are eligible to participate. Annual consultations with a nurse address the risks identified in the Health Risk Assessment (HRA) such as weight loss, activity, nutrition and tobacco use. In addition, classes are held for health coaching and prevention of chronic diseases. EAC also provides a 24/7 medical and EAP consultant program. ECA has met or exceeded six of eight “Healthy People 2010” objectives. The company has achieved a 26 percent tobacco quit rate. The high-risk population has decreased by 1.4 percent per year over the last five years. Medical costs for the company have remained flat (at about \$5,000 per employee per year) over the past six years. The company is constantly striving to improve its wellness program (C. Everett Koop National Health Award, 2008).
- **IBM Wellness for Life Program (2008 winner).** IBM’s Wellness for Life is a comprehensive health promotion program encompassing low-risk health maintenance, risk reduction for those at high risk, consumerism and health plan integration. It focuses on changing the company’s culture and providing employees with social supports to improve their health through online communities. The company uses a Web-based strategy to reach a disbursed workforce. Benefit plan discounts and rebates are tied to active engagement in programs and risk reduction. Participation in programs is associated with lower health care cost increases for participants. There is also evidence of associated risk reduction. The program has achieved high participation rates (90,000 out of 120,000 eligible employees), and 84 percent of the employees completed at least one health risk assessment over the past three years. The company has achieved smoking quit rates of 22 to 26 percent, and physical activity rates have increased (C. Everett Koop National Health Award, 2008).
- **Lincoln Industries’ Wellness - go! Platinum Program (2008 winner).** A medium-sized business with about 1,000 employees, Lincoln Industries provides quarterly physicals to employees, a year-long physical activity challenge, health risk assessments, tobacco cessation programs, health education seminars, and wellness reimbursements. The company offers a “platinum award” to workers who achieve specific health goals. Winners of the award receive an all-expenses paid trip to climb to a 14,000-foot mountain in Colorado. The company has three full-time staff hired to run the wellness program. In terms of results, Lincoln Industries has seen its tobacco use rates drop from 42 to 19 percent (from 2004 to 2007). It also has achieved dramatic reductions in blood pressure risks. A financial analysis found that the company experienced a 9.7 percent drop in healthcare costs from 2006 to 2007 along with significant decreases in lifestyle-associated claims (from 34 percent of total to 17 percent). Senior management shows its commitment to employee health improvement by integrating wellness principles into company culture, business strategy, company policies and belief statements. There is a clear attempt to integrate wellness, safety and disease management programs (C. Everett Koop National Health Award, 2008).

- **Pepsi Bottling Group’s (PBG) Health Living Program (2007 winner).** The Pepsi Bottling Group’s Healthy Living Program offers employees and their families a comprehensive, well-formulated, and well-resourced health and productivity management system for health improvement and cost savings. Starting with the administration of a health risk assessment, the company offers several engagement opportunities for participants and follow-up lifestyle management, nurseline, disease management and immunization programs. Meaningful incentives are provided to employees who participate in the program, which has resulted in good participation rates. The company uses effective marketing and branding techniques to sell “health” as a product. Further, the program has stimulated increased cross-organizational collaboration and vendor program integration. PBG reports meaningful health improvements and risk reduction from its program and a return on investment of \$1.70 for every dollar spent. The company has conducted several evaluations of its efforts using multiple research partners. It is clear that the Healthy Living Program is based on proven methods for designing, implementing and evaluating an effective workforce health promotion initiative (C. Everett Koop National Health Award, 2008).
- **Wisconsin Energy Corporation (WE) Energies Health Enhancement Initiative (Lifestyle Rewards) (2007 winner).** The WE Energies Health Enhancement Initiative has been in operation for about a decade. It has achieved a cumulative 85 percent participation rate since its inception and annually enrolls about 50 percent of its employees in the program. Initiative goals, including health and financial improvements, are well aligned with its overall program design. An integrated strategy encompasses health management, safety, work-life balance, disease management and a supportive work environment. Employees are offered a significant annual incentive of \$300 to complete a health risk assessment, which, in turn, drives several health promotion programs. A University of Michigan longitudinal analysis of cost trends showed lower medical, absence and workers’ compensation cost increases for participants as compared to non-participants. For example, participants’ health care cost over a six-year period only increased by an average of 8.9 percent as compared to 13.3 percent for non-participants. Annual medical savings were estimated as averaging \$264 per participant. Additionally, significant risk reductions have been achieved across most risk categories over a three-year period (C. Everett Koop National Health Award, 2008).

All of the award-winning programs have several areas in common. They must be programs that improve health by reducing health risks, reduce medical care costs, and definitively document effectiveness goals. The winning programs described above are exemplary programs and exhibit the following attributes as demonstrated in the table below.

**Table 3. Award Criteria That Companies Must Achieve**

<b><i>Program Goals</i></b>	<ul style="list-style-type: none"> <li>• Must reduce the need and demand for medical services</li> <li>• Must be directed at Healthy People 2010 targets</li> <li>• Cost reduction is a major program element</li> </ul>
<b><i>Program Features</i></b>	<ul style="list-style-type: none"> <li>• Program has reasonable approaches for cost reduction</li> <li>• Program must have reasonable approaches to behavioral change</li> <li>• Program must be in operation for at least two years</li> </ul>
<b><i>Program Evaluation</i></b>	<ul style="list-style-type: none"> <li>• Study must measure program results either randomized control study, longitudinal study, or before and after comparisons</li> <li>• Programs should participate in ongoing research activities to determine effectiveness</li> </ul>

	<ul style="list-style-type: none"><li>• All data must be available for external review and broad dissemination</li></ul>
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This small selection of award-winning programs provides a glimpse of the diversity among successful corporate and worksite wellness programs. Some programs have on-site nurse consultants, while others have outside vendors conducting their worksite wellness programs. Each of the companies selected different aspects on which to focus such as obesity and activity or determination of risks by HRAs. All of the employees were eligible to participate on a voluntary basis. Notable, however, is the absence of information on individuals with disabilities, even in the context of the Lincoln Industries' program's all-expense paid mountain climbing award for program participants. In the literature, we found virtually no discussion of adaptations of corporate and worksite wellness programs specifically for persons with disabilities or considerations of their needs in program design.

## 2.4 Use of Industry Best Practices and Lessons Learned

In many companies, Human Resources (HR) is the gatekeeper for determining what types of features wellness programs will encompass. HR staff members are responsible for keeping up with benefit trends and determining benefits on an annual basis. Setting up an effective wellness program can require a substantial financial investment. According to the Business Roundtable, a Washington, DC-based association of chief executives, about 40 percent of large companies spent more than \$200,000 annually on wellness programs, and 20 percent spent at least \$1 million on wellness programs in 2007. Reliable data on wellness program spending by small- and medium-sized businesses was not reported (Business Roundtable, 2008).

One of the key pieces of literature on the long-term impact of wellness programs and return on investment is a 2002 study of Johnson & Johnson's Health and Wellness (H&W) Program, a comprehensive and integrated approach to employee health, wellness, disability management, employee assistance and occupational medicine. The program places a heavy emphasis on health promotion and disease prevention through health education, prevention activities, self-responsibility and self-care. As part of the wellness program, Johnson & Johnson offers health risk assessments, 30 on-site fitness centers, up to \$500 in incentives, and health and wellness professionals to administer risk management programs. Approximately 90 percent of Johnson & Johnson's domestic U.S. employees participate in the program (Ozminkowski et al., 2002).

An evaluation of the H&W program showed slight increases in health care utilization immediately after the program began, but large reductions in health care utilization up to four years after the program was implemented. This suggests that health problems were discovered and treated early, limiting or preventing the development of more serious diseases and complications (Ozminkowski et al., 2002).

Taking into account the cost of the H&W program and health care expenditures over the course of the seven years analyzed in the study, the program was estimated to have saved Johnson & Johnson on average of \$224.66 per employee for the four years after implementation, with most of the savings occurring in the third and fourth years after implementation. Although these results appear to be promising, it is important to keep in mind some of Johnson & Johnson's unique characteristics before extrapolating to other companies. First, Johnson & Johnson is the largest health care business in the United States, and its senior management team already had an acute understanding of the importance of health and disease prevention. The H&W program is comprehensive and carefully designed. It is not clear that less comprehensive programs that only include some of the elements would achieve similar results. Finally, Johnson & Johnson, as a large and profitable company, has sufficient resources to hire employment counsel to ensure that the incentives structure complies with regulations and does not place the company at risk for liability (Ozminkowski et al., 2002).

Corning Inc., a specialty glass and ceramics manufacturer, brought together several wellness initiatives under one coordinated umbrella, called Total Health, which includes disease management, smoking cessation, a newsletter, and an EAP. A key tactic is communications to ensure that employees are aware of the wellness programs available to them and the potential benefits of participating in a wellness program as well as maintaining a consistent corporate message. In addition, the company created measures to analyze the performance of the wellness program such as use of prevention services, productivity and absenteeism, aggregate risk levels and completion of HRAs. These measures are viewable through electronic dashboards so that managers can quickly evaluate how local programs are doing and compare them against company-wide performance. Corning's director of compensation,

integrated health and employee benefits reports that its disease management program has a return on investment of 3.7 to 1 over a two-year period (Business Roundtable, 2007).

Metlife, a large insurance and financial services provider, has a separate wellness and fitness team composed of health educators, health media specialists, exercise physiologists and other wellness experts. These individuals conduct a strategic assessment of the health needs of the employees in each location, develop company-wide health campaigns using scientific principles of health communication and behavior change, implement medically appropriate exercise programs that are safe and effective, and administer a wellness network of lay volunteers in 60 different sites. The company estimates a return on investment of 2.52 to 1 for its fitness program (Business Roundtable, 2007).

Although Ozminkowski's Johnson & Johnson study and the other analyses show a positive net return on investment for wellness programs, the current economic situation may limit the extent to which companies invest in such programs. The *New York Times* recently reported that many companies are trying to avoid layoffs by reducing benefits and cutting labor costs. Some of the tactics mentioned include wage freezes, pension freezes, unpaid vacations, reduced contributions to retirement and health care plans, and elimination of bonuses (Richtel, 2008). It is not yet clear what impact the current recession will have on wellness programs—this largely depends on whether or not they are perceived to be effective tools to reduce costs. More company case studies reporting on a variety of long-term outcomes should be published to allow critical evaluation of industry practices and to prove return on investment.

## **2.5 Laws Related to the Delivery of Wellness Programs**

Wellness programs are attractive to companies for many reasons, including controlling health care costs and reducing absenteeism; however, there are a variety of legal issues that must be considered when implementing a wellness program. Depending on the nature of the program and the type of incentives it may include, the Age Discrimination in Employment Act (ADEA), ERISA, ADA, Title VII of the Civil Rights Act, the Internal Revenue Code (IRS Code), the Public Health Service Act (PHSA), and individual state laws may affect program design and implementation.

Three of the above-mentioned laws (i.e., ERISA, ADA and IRS Code) were amended by the Health Insurance Portability and Accountability Act of 1996 (HIPAA) to provide for improved portability and continuity of health coverage. In 2007, DOL, the IRS and the U.S. Department of Health and Human Services (HHS) published regulations on wellness plans that were added through HIPAA, including IRS Code section 9802, ERISA section 702, and PHSA section 2702, each of which prohibit discrimination in health coverage based on health status.

The ADEA prohibits discrimination against an individual aged 40 or older with respect to any term, condition or privilege of employment, including benefits. Thus, a mandatory or quasi-mandatory wellness program must be designed to take into account the limitations of employees over the age of 40 or risk a violation of the law. For example, a large bonus for employees who complete a marathon could be considered a violation of ADEA because it is more difficult for older employees to participate in long-distance running (U.S. Equal Employment Opportunity Commission [EEOC], 2008a).

Title VII of the Civil Rights Act prohibits employment discrimination based on race, color, religion, sex or national origin. If a wellness program conditions an incentive on the achievement of a specific standard, it may place certain groups at a disadvantage. For example, women generally have a higher percentage of body fat and more difficulty losing weight. Wellness programs that offer incentives

for weight loss must take this into account in order to protect the company from liability (U.S. Equal Employment Opportunity Commission, 2008c).

ERISA states that eligible health plans must certify that associated wellness programs meet HIPAA and other requirements. The IRS code pertains to the taxation of incentives for participating in wellness programs. Discounts on health care premiums are generally not taxed; however, cash rewards are taxable as bonus payments (U.S. Department of Labor: Office of Disability Employment Policy, 2008).

DOL, HHS and the IRS issued a final regulation in late 2006, under HIPAA, to describe how wellness program incentives should be designed. If a wellness program offers a reward for achieving a health standard, it must meet the following five requirements:

- The program must be reasonable to promote health or prevent disease. It cannot be overly burdensome or a subterfuge for discrimination.
- The amount of the reward or penalty must not exceed 20 percent of the health premium (employer and employee combined).
- Participants must be able to qualify for rewards at least annually.
- The reward must be available to all similarly situated individuals. Participants for whom it is medically difficult or inadvisable to meet the standard must be offered an alternative. The participant can be required to provide a doctor's note.
- Program materials must state that an alternative is available, but the employer does not need to state the alternative. The alternative can be decided on a case-by-case basis.

After July 2007, all employer-based health and wellness plans were required to meet the wellness standards, and companies were required to review these arrangements for their existing plans to ensure they comply with HIPAA regulations for wellness incentives. It is not yet clear how many employers have conducted this review to date and, if so, how many made alterations to their wellness incentives to be in compliance.

Finally, there are two relatively new sets of regulations that restrict the types of incentives wellness programs can offer. These are the HIPAA Nondiscrimination Regulations issued in 2006 and the regulations contained in the ADA Amendments Act of 2008, both of which aim to level the playing field for employees with disabilities and ensure that employers consider the needs and limitations of all their employees when designing incentives for their wellness programs (U.S. Department of Labor, 2006; U.S. Equal Employment Opportunity Commission, 2008b).

On September 25, 2008, President George W. Bush signed the ADA Amendments Act of 2008 (ADAAA) (Blanck, 2008). These amendments made important changes to the definition of the term "disability" by rejecting the holdings in several Supreme Court decisions and portions of the ADA regulations administered by the Equal Employment Opportunity Commission's (EEOC). The ADAAA retains the ADA's basic definition of disability as an impairment that substantially limits one or more major life activities, a record of such an impairment, or being regarded as having such an impairment. However, it changes the way these statutory terms should be interpreted in several ways. Most significantly, the Act:

- Directs EEOC to revise the portion of its regulations defining the term "substantially limits;"
- Expands the definition of "major life activities" by including two non-exhaustive lists:

- The first list includes many activities that the EEOC has recognized (e.g., walking) as well as activities that EEOC has not specifically recognized (e.g., reading, bending, and communicating);
- The second list includes major bodily functions (e.g., "functions of the immune system, normal cell growth, digestive, bowel, bladder, neurological, brain, respiratory, circulatory, endocrine, and reproductive functions");
- States that mitigating measures other than "ordinary eyeglasses or contact lenses" shall not be considered in assessing whether an individual has a disability;
- Clarifies that an impairment that is episodic or in remission is a disability if it would substantially limit a major life activity when active;
- Provides that an individual subjected to an action prohibited by the ADA (e.g., failure to hire) because of an actual or perceived impairment will meet the "regarded as" definition of disability, unless the impairment is transitory and minor;
- Provides that individuals covered only under the "regarded as" prong are not entitled to reasonable accommodation; and
- Emphasizes a broader definition of "disability."

The EEOC will be evaluating the impact of these changes on its enforcement guidance and other publications addressing the ADA and ADAAA, which took effect on January 1, 2009. The major impact of the ADAAA on employer wellness programs is to expand the number of employees who could be considered persons with disabilities for legal purposes, and hence, need to be offered alternatives for meeting particular standards.

These laws and regulations may make it challenging for employers to design wellness programs that meet all legal requirements. The fear of liability may deter some companies from offering wellness programs at all. Even if a company does offer a wellness program, it may choose not to offer incentives for participation due to lack of understanding of how to design them in a non-discriminatory manner. Finally, employers may have difficulty in coming up with alternatives for employees with disabilities, particularly if the wellness program staff does not have experience in making appropriate modifications. Confusion about appropriate and legal design of wellness programs and their associated incentives may mean that fewer workers will be offered the opportunity to participate in a wellness program.



### Section 3. Demographics on Persons with Disabilities

In addition to offering significant economic benefits, work offers persons with disabilities important social benefits such as social identity and status; social contacts and support; activity involvement and personal achievement; and perhaps most importantly, self worth (Boardman, Grove, Perkins, & Shepherd, 2003; Schur, 2002). Yet, due to physical, psychological, emotional and attitudinal barriers, only two-fifths of persons with disabilities are employed.

In 2007, 22.3 million (12.8 percent) of the working age population (ages 21 to 64) reported having one or more disabilities. Among this population, 37 percent were employed (Erickson & Lee, 2008). In contrast, 80 percent of the working age population without disabilities was employed. Although the U.S. Census Bureau's definitions of disability and employment differ from those of the ADA (the U.S. Census Bureau defines "disability" as a long-lasting sensory, physical, mental or emotional condition or conditions that make it difficult for a person to do functional or participatory activities such as seeing, hearing, walking, climbing stairs, learning, remembering, concentrating, dressing, bathing, going outside the home or working at a job (U.S. Census Bureau, 2007)), it is clear that a significant proportion of the population with disabilities is underutilized in the workforce (Blanck, Schwochau, & Song, 2003; Cornell University, 2008).

#### 3.1 Employment Status

Employment rates for persons with disabilities vary by geographic location. For example, West Virginia and Puerto Rico have the lowest employment rates for persons with disabilities (27 percent and 22 percent, respectively) and North Dakota has the highest employment rate (56 percent).

**Table 4. Employment Rates by State and Disability Status, 2007**

State	Employed Percentage, Persons with Disabilities	Employed Percentage, Persons without Disabilities
Alabama	31.4%	79.5%
Alaska	47.4%	80.4%
Arizona	35.4%	77.3%
Arkansas	31.9%	79.0%
California	36.8%	77.3%
Colorado	44.6%	81.8%
Connecticut	42.7%	82.2%
Delaware	36.0%	79.8%
District of Columbia	33.3%	80.7%
Florida	37.6%	78.9%
Georgia	34.3%	79.2%
Hawaii	44.0%	80.0%
Idaho	41.7%	80.2%
Illinois	39.2%	79.3%
Indiana	37.1%	80.8%
Iowa	47.0%	85.2%
Kansas	43.7%	83.6%
Kentucky	30.4%	79.3%
Louisiana	33.6%	77.3%

<b>State</b>	<b>Employed Percentage, Persons with Disabilities</b>	<b>Employed Percentage, Persons without Disabilities</b>
Maine	38.6%	83.3%
Maryland	42.8%	82.5%
Massachusetts	36.5%	82.3%
Michigan	31.3%	76.7%
Minnesota	46.1%	84.2%
Mississippi	30.4%	77.3%
Missouri	37.6%	81.4%
Montana	42.2%	80.6%
Nebraska	48.0%	86.1%
Nevada	40.1%	79.7%
New Hampshire	43.2%	84.7%
New Jersey	37.2%	79.8%
New Mexico	38.3%	77.3%
New York	34.0%	78.6%
North Carolina	35.6%	80.5%
North Dakota	56.0%	85.8%
Ohio	35.9%	80.5%
Oklahoma	37.7%	80.4%
Oregon	41.2%	79.5%
Pennsylvania	35.3%	81.2%
Puerto Rico	21.8%	59.9%
Rhode Island	37.2%	82.4%
South Carolina	30.0%	79.3%
South Dakota	46.4%	86.2%
Tennessee	32.3%	79.9%
Texas	38.7%	78.5%
Utah	49.5%	80.9%
Vermont	46.7%	85.4%
Virginia	37.7%	82.3%
Washington	40.9%	80.6%
West Virginia	26.6%	76.3%

Source: Disability Status Report United States, Cornell University, 2007.

### 3.2 Socioeconomic Status

Persons with disabilities are at an economic disadvantage compared to persons without disabilities. In 2007, persons with disabilities had lower employment rates, were less likely to be working full time, and had lower median household incomes than persons without disabilities (see Table 5 below). Persons with disabilities also were less likely to have a bachelor's degree (or greater) and more likely to be living in poverty (Blanck, 2008). Taken together, these indicators suggest large socioeconomic disparities exist between persons with disabilities and persons without.

**Table 5. Socioeconomic Indicators by Disability Status, 2007**

	Persons with Disabilities	Persons without Disabilities
Employment rate	36.9%	79.7%
Working full time/full year	21.2%	56.7%
Poverty rate	24.7%	9.0%
Bachelor's degree or more	12.5%	30.8%
Median household income	\$38,400	\$61,000

Source: Erickson, W., & Lee, C. (2008). *2007 Disability Status Report: United States*. Ithaca, NY: Cornell University Rehabilitation Research and Training Center on Disability Demographics and Statistics.

Disability rates also vary by race and ethnic origin. In 2004-2006, the prevalence of disabilities among U.S. adults ranged from 11.6 percent among Asians to 29.9 percent among American Indians and Alaska Natives. Furthermore, self-rated health status differed within each racial/ethnic population. Adults with a disability were more likely to report fair or poor health than adults without a disability, with differences ranging from 24.9 to 8.1 percent among Asians and from 50.5 to 12.6 percent among American Indians and Alaska Natives (*Morbidity and Mortality Weekly Report*, 2008).

In sum, workers with disabilities are a heterogeneous group that cannot be studied as one large minority population. Future research must take into consideration not only how persons with disabilities differ from persons without disabilities, but also how they differ from one another and how they differ in terms of severity within disability types.

### 3.3 Health

#### 3.3.a Risks and Behaviors for Persons with Disabilities

The health care of persons with disabilities has long been a priority for the public health community. Until recently, however, the focus was primarily on the disabling conditions of persons with disabilities, not on their overall health status. This is partly due to the traditional training of health care providers, which is to prevent or cure disabilities, not necessarily to avert or delay emerging secondary conditions. The concept that persons with disabilities could have a disability *and* also be healthy is relatively new. In addition, persons with disabilities were not often involved in establishing priorities for research, developing research questions, and, when qualified, participating as investigators, contributors or collaborators (Kailes, 2006). This combination of factors has spurred health care providers to go beyond traditional practices to discover new ways to improve the overall health and well-being of persons with disabilities.

In an annual report for the Real Economic Impact Tour, an ongoing study with the Burton Blatt Institute of economic challenges for persons with disabilities, Hartnett, Morris, and Stengel (2008) reported that roughly \$1 billion dollars in tax credits goes unclaimed by eligible individuals with

disabilities. Persons with disabilities underutilize tax provisions because of lack of knowledge or fear of losing important benefits such as health care (Hartnett, Morris, & Stengel, 2008).

About 10 years ago, the federal government started to incorporate a more holistic approach to its public health messages and began to talk about preventing secondary health conditions facing persons with disabilities (also known as tertiary prevention). According to the Institute of Medicine, the goal of tertiary prevention is to reduce or stabilize the consequences of a primary health condition and prevent or mitigate secondary health conditions associated with a primary condition (e.g., evaluating the bone density of people with mobility impairments, such as cerebral palsy, to prevent fractures from secondary osteoporosis) (Institute of Medicine, 2007)). For example, the Surgeon General issued a “Call to Action to Improve the Health and Wellness of Persons with Disabilities” in 2005. Goal three of this report states, “Persons with disabilities can promote their own good health by developing and maintaining healthy lifestyles.” In addition, HHS’s Healthy People 2010 initiative created a new focus area on persons with disabilities and secondary health conditions (U.S. Department of Health and Human Services, 2005). This is the first time persons with disabilities have been a targeted population for these important objectives (Lollar, 2002). Taken together, these two initiatives suggest the federal government has taken its first step to collect data, monitor trends and provide guidelines in an area that persons with disabilities and their advocates have been promoting for years – health promotion and disease prevention for persons with disabilities.

The primary purpose of a wellness program is to delay or prevent the onset of primary or secondary health conditions by reducing or eliminating major risk factors such as cigarette smoking, physical inactivity and obesity. These risk factors are positively associated with chronic health conditions such as diabetes, hypertension and heart disease. Secondary conditions – more closely associated with certain types of disability – include pressure sores, arthritis and low bone mass. These conditions can also be severe depending on the duration and severity of the disability. However, a growing body of literature suggests that persons with disabilities can benefit just as much from wellness programs as persons without disabilities (Marge, 1988; Ravesloot, 2006; Rimmer & Braddock, 1999; U.S. Department of Health and Human Services: Office of the Surgeon General, 2005). In fact, because a higher percentage of persons with disabilities smoke cigarettes, are physically inactive and/or are obese, they may have more to gain from wellness programs than persons without disabilities.

Arguably, one of the greatest risk factors for chronic disease is physical inactivity. The health benefits of physical activity for all people (including persons with disabilities) have been well documented (Santiago & Coyle, 2004). Physical activity can reduce the risk of certain chronic diseases, help to maintain independent living, relieve symptoms of depression, and enhance overall quality of life (U.S. Department of Health and Human Services: Office of the Surgeon General, 1996). However, physical inactivity is especially prevalent among persons with certain disabilities (McGuire, Strine, Okoro, Ahluwalia, & Ford, 2007), who are already at increased risk for functional limitations and secondary health conditions (e.g., obesity, depression or social isolation) (Kinne, Patrick, & Doyle, 2004). In fact, in 2005, twice as many persons with disabilities (26 percent) were physically inactive compared to persons without disabilities (13 percent).

Given that it is only recently that the public health system has stressed the importance of preventing secondary conditions in persons with disabilities (U.S. Department of Health and Human Services, 2005), it is not surprising that a paradigm shift from disability prevention to prevention of secondary conditions has been slow in coming (Rimmer & Braddock, 1999). The phenomenon that may expedite this process is the aging of the “baby boom” generation. Employees who may not have had a disability when they started working are now at risk of developing chronic conditions such as lower back pain, osteoporosis, chronic obstructive pulmonary disease, etc. Whereas the health status of older

employees may not meet the ADA definition of disability initially, as they continue to age, the chronic conditions they develop are likely to render them in need of accommodations similar to those being received by younger employees who have disabilities.

One exception to this, however, is when older employees are encouraged to gradually work their way up to the full participation level of worksite wellness programs. For example, the general advice for older employees interested in participating in exercise programs is to start slowly and gradually work up to the recommended activity level. That is, instead of jogging two miles on the treadmill, start with walking one-quarter of a mile. Instead of participating in an aerobics class, start with a yoga class. While these recommendations might work for someone with Down's syndrome or depression, they might not work for someone with a mobility limitation due to multiple sclerosis or cerebral palsy.

Furthermore, the aging process is often different for persons with disabilities than for those without disabilities. For people with certain types of disabilities, the aging process can start at an earlier age and progress more rapidly. For example, conditions that once would have been fatal early on – such as Down's syndrome – now have median life expectancies as high as 57 years (Friedman, 2001). This means people that people aging with Down's syndrome are experiencing higher rates (or earlier onset) of conditions such as hearing loss, cataracts and endocrine disorders (Institute of Medicine, 2007) in addition to diseases such as Alzheimer's disease (Connolly, 2006). Society is not fully prepared to accommodate the aging of persons with disabilities. Different types of accommodations are needed, not only to enable them to participate in worksite wellness programs, but also to simply allow them to participate in the labor force.

The public health literature identifies three types of barriers that prevent persons with disabilities from participating in regular physical activity: interpersonal constraints, intrapersonal constraints and structural constraints (Baylor College of Medicine: Center for Research on Women with Disabilities, 2003). These constraints apply across the spectrum of physical, intellectual and sensory disabilities.

- Interpersonal constraints include an individual's attitudes and beliefs about his or her physical abilities, lack of knowledge and skills about how to exercise safely, and/or the physical limitations of the condition itself. For example, an individual might have low expectations about his or her ability to participate in an activity. Or, he or she may not feel confident to operate the equipment in a safe manner. Finally, some persons with disabilities face the additional challenge of overcoming pain or fatigue associated with their condition.
- Intrapersonal constraints arise from an individual's interactions with others such as family, fellow activity participants and co-workers. Numerous studies cite social support (e.g., someone to accompany you in a physical activity) as an important factor in becoming and staying active.
- Structural constraints are barriers that exist due to the external environment. This may include the high cost of participating in an activity, lack of transportation, inaccessible building design, and lack of trainers or coaches familiar with modifying exercises for someone with a particular type of disability (Schartz, Schartz, Hendricks, & Blanck, 2006; Zwerling et al., 2003; Zwerling et al., 2002). If designed in a disability-sensitive or universal manner, workplace wellness programs (activity or exercise programs, in particular) could go a long way toward lowering the structural and intrapersonal barriers faced by employees with disabilities. For example, an on-site fitness center could be designed in a wheelchair-accessible manner and fitness center staff be trained to safely modify exercises for different types of disabilities. Also, having the center located

within the workplace could provide individuals with companionship and eliminate transportation barriers.

In sum, because substantial health disparities exist between persons with disabilities and persons without (Drum, Krahn, Culley, & Hammond, 2005), wellness programs need to be designed that reduce the structural, organizational and attitudinal barriers that make it difficult for persons with disabilities to engage in health promotion practices (Rimmer & Rowland, 2008). Empowering persons with disabilities to self-manage their health requires community-based programs, employers and health care providers to change existing wellness programs so they fit the needs of all persons – not just persons without disabilities (Rimmer & Rowland, 2008).

### **3.3.b Examples of Wellness Programs for Persons with Disabilities**

A large amount of evidence-based research exists on the importance of health promotion and disease prevention programs for persons without disabilities (U.S. Department of Health and Human Services, 2005). There is less research on how to implement health promotion programs to prevent or delay secondary conditions for persons with disabilities. The difficulty is in applying existing practices and procedures to a diverse population that may have physical, mental and/or emotional limitations (Brandt & Pope, 1997).

### **3.3.c Community-based Wellness Programs**

Most of the literature on wellness programs for persons with disabilities is from community-based organizations or academic research centers that administer health promotion programs to non-institutionalized populations. This body of research may provide some guidance to organizations wishing to attract or retain employees with disabilities and needing to adapt their programs to better meet the needs of those employees.

One of the reasons for the success of community-based wellness programs for persons with disabilities is that the major stakeholders in the program – persons with disabilities and those who provide services for them – are asked to provide input into developing and administering the program. Rather than assuming what persons with disabilities need, these organizations ask the people who will be receiving the services and those who will be providing them what they think they will need (Living Well with a Disability, 2008). Another reason community-based programs are successful is that instead of trying to adapt an existing facility to meet the needs of persons with disabilities, they use or have their clients go to facilities that are specifically designed to meet the needs of persons with disabilities such as rehabilitation research centers or multi-service centers for people with disabilities (Hughes, Nosek, Howland, Groff, & Mullen, 2003; Rimmer & Hedman, 1998). Finally, realizing that health, behavioral and lifestyle modifications do not happen overnight, community-based programs often offer their services over time, as a series of workshops, a multi-part curriculum, etc., that focus on long-term goal-setting and behavior change (Hughes et al., 2003; Ravesloot, 2008).

### **3.3.d Government Wellness Programs**

Although the U.S. Government must follow the same HIPAA regulations for its wellness programs as other employers (i.e., respond to reasonable accommodation requests), some agencies have taken a proactive approach to developing health promotion plans that consider the needs of persons with disabilities from the start. For example, the Centers for Disease Control and Prevention Web site offers suggestions to employees on how to plan a wellness walk at their agency. The Web site instructs employees to “plan wellness walks that have very little or no traffic, smooth and even surfaces, and alternative routes for people with disabilities as needed” (U.S. Centers for Disease Control and Prevention, 2004).

HealthierFeds is the Office of Personnel Management's (OPM) health promotion initiative for the federal workforce. Although this program does not include any specific information about program adaptations for workers with disabilities, it does place emphasis on educating federal employees and retirees on healthy living and taking greater responsibility for their personal health.

The federal government includes hundreds of agencies, and each of these federal agencies is provided guidance by OPM and may develop their own programs using appropriated funds for civilian employees. Strong wellness programs have been established in OPM, HHS, DOL, the Department of Veterans Affairs, the Department of Defense (DoD), and the Department of Education. In addition, DoD has developed a robust "Force Health Protection" program designed to keep uniformed service members and their families healthy. These federal programs have evolved over time and now include a host of different components for their employees. Many agencies hire outside consultants to provide this benefit or use the internal resources. Please see Appendix E for a summary of federal programs.

### **3.3.e Worksite Wellness Programs**

Large corporations have only recently begun to think about how to modify their wellness programs to provide equal access and accommodations to persons with disabilities. Since return on investment (ROI) is the number one reason corporations have wellness programs, they must ensure that any changes they make not only follow the complex set of laws that exist, but also provide them with a positive ROI. Small- and medium-sized businesses are farther behind in modifying their wellness programs for employees with disabilities because they either 1) have limited resources to justify the cost of adapting their wellness programs to fit the needs of persons with disabilities, or 2) do not have wellness programs in place.

One of the first steps employers must take when adapting or creating their wellness programs to fit the needs of employees with disabilities is to subject themselves to a "litmus test" to see if their corporate culture includes or excludes persons with disabilities. The values, norms, policies and practices of a company strongly influence whether a person with disabilities will be hired and/or valued as a company employee (Schur, Adya et al., 2009). If corporate culture creates or reinforces obstacles for employees with disabilities, such employees are less likely to stay with the company. Yet, if a company removes or overcomes obstacles to allow persons with disabilities to fully participate in the corporate work-life, those employees are more likely to remain employed and add value to the company. The removal of barriers (both physical and attitudinal) has important benefits not just for persons with disabilities, but for all the employees in the organization (Schur, Kruse, & Blanck, 2005).

Corporations of all sizes must beware of contracting with wellness program providers that do not have established methods of accommodating their services to meet the needs of persons with disabilities. A review of select worksite wellness provider Web sites revealed statements indicating that their programs can minimize or reduce the likelihood of employees developing a disability due to risk factors in the workplace or specified health behaviors, but no mention was made of pre-existing disabilities. Furthermore, the Web sites of several worksite wellness companies did offer "custom services," but they did not specifically say that the services could be customized for employees with disabilities.

In sum, although corporations are more concerned with bottom line issues such as ROI than community-based services or government agencies, there is one factor that may unite these groups: the aging of the population. As the workforce ages (especially older women workers) (Federal Interagency Forum on Aging-Related Statistics, 2008) and employees begin to develop age-related disabilities (e.g., arthritis), corporations are going to feel a greater need to implement wellness programs that can help them retain the services of valued aging workers. In 2008, the oldest baby boomers began turning 62,

the youngest age to qualify for reduced Social Security retirement benefits. If a large number of baby boomers exit the labor force as is projected, there will be a shortage of workers to fill their jobs, and corporations will need to do more to retain their current employees.

There is a growing amount of evidence-based research on the success of health promotion programs targeted to the older population (Butler et al., 2008; Christmas & Andersen, 2000; U.S. Preventive Services Task Force, 2002). Many of the programs that are successful with older persons may serve as models for workplace wellness programs for persons with disabilities in the workplace (e.g., modified physical activity). Before deciding how to implement these modified wellness programs, corporations need to conduct further research to see if some community-based programs, government programs, or a combination might work best for the corporation.



## **Section 4. Research Specific to the Research Questions and Critical Gaps in the Literature**

Research has found that employee wellness programs benefit employers by reducing employee health care costs and absenteeism. This results in improved productivity and a positive ROI, making wellness programs attractive investments for corporations. The sections below link the questions that informed this review with the research specific to the question and point out gaps in the literature that suggest areas where additional research may increase our understanding of how corporate and worksite wellness programs can be adapted to meet the needs of employees with disabilities.

### **4.1. Accessible Wellness Programs**

***How can employers create wellness programs that can be accessed by people with disabilities? What are the characteristics of employers that provide accessible or universally designed programs? How do wellness programs customize their services to meet the needs of people with disabilities?***

While a large body of literature exists on corporate and worksite wellness programs (Bonner, 1990; Heany & Goetzel, 1997; Okie, 2007), little information exists on how these programs are adapted to fit the needs of persons with disabilities. This gap in the literature can partially be explained by late acceptance of wellness programs as cost saving programs by employers. However, now that most companies can see a return on their investment, they are looking to expand the outreach of their wellness programs to fit the needs of all of their employees.

Generally, the characteristics associated with companies that provide wellness programs include a large workforce (i.e., not small businesses), profitability, a unionized workforce, an aging workforce with increasing health care costs, and a stable workforce with relatively low turnover (so that the company can benefit from long-term health care savings) (Society for Human Resource Management, 2008). These are the companies that will likely be the first to adapt their wellness programs to meet the needs of persons with disabilities. Because small companies are not likely to have the same resources as large companies to incorporate structured wellness programs for persons with disabilities, they might have to deal with their employees' needs on a case-by-case basis.

Some examples of how wellness programs can be customized to meet the needs of persons with disabilities include providing on-site fitness centers to eliminate transportation issues; adapting exercise routines, health risk reduction plans, and goal setting so that persons with disabilities can work towards the same incentives as persons without disabilities; and providing counselors to develop individualized health promotion plans.

The North Carolina Office on Disability and Health, in cooperation with the Center for Universal Design, created a guide to increase the accessibility of health clubs and fitness facilities to individuals with disabilities. The guide includes a broad spectrum of information from marketing to a wide audience to hiring practices to making the physical spaces inside the facility more accessible (North Carolina Office on Disability and Health, 2001).

Qualitative research is needed to learn more about worksite wellness programs for persons with disabilities through surveys, focus groups and interviews with HR professionals from companies with well-established wellness programs. Also, we recommend interviews with major corporate and worksite wellness program providers to gain a better understanding of the strategies they might use to address employees with disabilities and how frequently their clients request these modifications.

## 4.2. Prolonging Labor Force Participation

***What programs/policies/supports would, if available, prolong labor force participation, delay disability program participation among workers with disabilities, and increase overall employee satisfaction and productivity? What are the attitudes of people with disabilities in the workforce regarding the kinds of programs that would support or prolong their labor force participation and advancement?***

There is a body of literature on vocational rehabilitation for workers who develop disabilities during their working lives; however, research on assisting employees in managing pre-existing or congenital disabilities at work is less prevalent.

Wellness programs need to employ a variety of strategies to address the three constraints (interpersonal, intrapersonal and structural) outlined in Section 3. For example, companies could offer workshops to increase employees' self-efficacy through goal-setting and problem-solving. These workshops could also be a source of social support to encourage health behavior changes, such as starting a fitness routine. However, the barrier most employers need to address to make a workplace wellness program successful is to modify the workplace attitude towards persons with disabilities (Blanck, 2008; Blanck et al., 2003; Schur et al., 2005; Schur, Kruse, Blasi, & Blanck, 2009). For example, companies need to ensure that not only are fitness centers accessible to persons with disabilities, but that they are welcoming environments that are staffed with trainers who are familiar with safely modifying activities to fit the needs of persons with disabilities.

Further study is needed to evaluate the efficacy of various strategies that companies could use to help their employees with disabilities overcome interpersonal, intrapersonal and structural constraints to physical activity and other healthy behaviors. In addition, it would be beneficial for companies to organize a series of discussions with providers of community-based wellness interventions for persons with disabilities to learn how those programs might be modified for a workplace setting.

## 4.3 Interventions

***What types of interventions could be undertaken earlier in the disability onset process to prevent or delay labor force withdrawal? How might such interventions be financed?***

Persons with disabilities also often have "secondary conditions," which are preventable physical, mental and social disorders resulting directly or indirectly from their disabilities (Kinne et al., 2004; Lollar, 2002; Simeonsson & McDevitt, 1999). This group is more vulnerable than the general population to disorders that may lead to labor force withdrawal such as depression and fatigue (Lollar, 2002). A growing body of literature suggests that by providing persons with disabilities access to health promotion screening (e.g., mammograms and routine physical exams) and wellness programs (e.g., smoking cessation and weight management), they will improve their overall health status and delay or prevent the onset of secondary conditions (Kinne et al., 2004; Rimmer & Braddock, 1999; U.S. Department of Health and Human Services: Office of the Surgeon General, 2005).

Yet, for the most part, this group is not receiving the health promotion screening they need or participating in the wellness programs that are offered (U.S. Department of Health and Human Services, 2005). This is especially problematic since the 2002 Behavioral Risk Factor Surveillance System found a higher percentage of persons with disabilities to be current daily smokers, physically inactive, and obese than persons without disabilities (U.S. Centers for Disease Control and Prevention, 2004; U.S. Department of Health and

Human Services, 2005). These unhealthy behaviors are known risk factors for a variety of chronic diseases including heart disease, high blood pressure, cancer, stroke, diabetes and lower back pain (Blanck, 1994).

The 2005 Surgeon General's report "Call to Action to Improve the Health and Wellness of Persons with Disabilities" suggests that the reasons persons with disabilities are not benefiting from health promotion screening and wellness programs are twofold: 1) the focus of health care professionals often remains on the person's disability, and not other health issues, and 2) health promotion and illness prevention information, programs, and activities are often not tailored to the needs of persons with disabilities (U.S. Department of Health and Human Services: Office of the Surgeon General, 2005). Counseling is needed for both the person with the disability – to learn how to advocate for him- or herself and for the healthcare providers to learn to treat the "whole" patient. More research is needed on how best to teach these groups to communicate better with each other so that persons with disabilities know what to ask for and health providers know what to look for. Early intervention in the disability onset process may delay or prevent secondary conditions from occurring.

Another type of intervention that may delay persons from exiting the labor force is vocational rehabilitation. Vocational rehabilitation is a mechanism for people to make adjustments in their careers and to continue working as long as they are able and want to. This mechanism provides services, support and training that enable persons with disabilities to obtain, maintain and advance in jobs that are compatible with their interests, abilities and experience. Vocational rehabilitation is an early intervention that has proved to be especially successful for people who have multiple sclerosis (Rumrill, 2006).

One of the most common accommodations for people with disabilities is schedule modification including flexible schedules, telecommuting and/or home-based employment (Schartz et al., 2006). Other accommodations that have proven effective in helping persons with disabilities stay at work include low vision aids (e.g. magnification machines, voice output software); accessible parking; building renovations to allow for wheelchair access; ergonomic keyboards and chairs; and voice-activated computer programs. However, it is important to remember that just as the population of older workers is not homogenous (Toder, Johnson, Mermin, & Lei, 2008), neither is the population of workers with disabilities. Not only do they differ by their abilities – but also by level of education, skills, knowledge, age and other factors. More research is needed to find out how the needs of this population vary and what, if any, broad programs can be implemented that can be customized by the employer or employee to accommodate most types of disability.

The ADA requires that employers provide work accommodations unless to do so would impose an undue hardship on the operation of the employer's business (Blanck et al., 2005). If the cost of providing the needed accommodation would be an undue hardship, the employee must be given the choice of providing the accommodation or paying for the portion of the accommodation that causes the undue hardship. However, there is little information in the literature about how intervention programs could be financed. Presumably, if companies have disability management programs already in place, the goal of keeping people working as long as possible could fall under that purview. More research is needed to categorize the different disability management and rehabilitation programs that exist to better understand if people with pre-existing disabilities are eligible to participate in these types of programs.

#### **4.4 Best Practices and Lessons Learned**

##### ***How do employers utilize best practices and lessons learned to develop and enhance employee access to wellness services?***

Employers can access a variety of resources to learn about best practices and lessons learned to develop and enhance employee access to wellness services. Journals such as the *American Journal of*

*Health Promotion* and the *Journal of Occupational and Environmental Medicine* focus primarily on promoting health and wellness. There are also organizations that provide their members with information on this topic, for example, the Wellness Council of America ([www.welcoa.org](http://www.welcoa.org)), Workforce Management ([www.workforce.com](http://www.workforce.com)), and Suncoast Human Resource Management Association ([www.suncoasthr.org](http://www.suncoasthr.org)). Finally, there are departments, centers and institutes within universities that are dedicated to researching, teaching and communicating important topics in health and wellness such as the Fisher Institute for Wellness and Gerontology at Ball State University and the Burton Blatt Institute at Syracuse University. While the number of resources employers can access to guide them to best practices in implementation of wellness programs is growing, there are few, if any, resources available to guide employers in implementing wellness programs for persons with disabilities.

Most of the literature on best practices and lessons learned for the population of workers with disabilities focuses on employee access and necessary accommodations. The EEOC provides multiple resources for both employers and employees explaining what and when work accommodations are required for people with disabilities (EEOC, 1997). Other government agencies, such as the Government Accountability Office, have produced multiple reports on a wide range of disability-related topics, including the need for more strategic coordination among federal disability programs (GAO-08-635), the facilitation of better data collection efforts on people with disabilities (GAO-08-872T), and several reports on national indicators (GAO-05-1). None of these reports, however, specifically mentions providing access to wellness programs for persons with disabilities.

We reviewed several successful worksite wellness programs in Section 2.4, but more research is needed before best practices and lessons learned from those programs can be adapted to meet the needs of persons with disabilities. This research should synthesize the facets of existing wellness programs and examine how programs are customized, advertised and utilized by employees with disabilities. The ADA makes it unlawful to discriminate in all employment practices including the option to participate in “benefits” (e.g., health insurance) and “all other employment-related activities;” wellness programs are, therefore, covered by the ADA as a benefit of employment. An employer can offer a health insurance policy that excludes coverage for certain pre-existing conditions. The courts are split on whether the ADA affects pre-existing condition clauses contained in health insurance policies even though such clauses may adversely affect employees with disabilities more than other employees. In addition, if the health insurance offered by an employer does not cover all of the medical expenses related to a person’s disability, the company does not have to obtain additional coverage. The ADA only requires that an employer provide employees with disabilities equal access to whatever health insurance coverage is offered to all other employees.

#### **4.5 Effective Working Relationships**

***What can we do to encourage the most effective working relationships among employers, primary care organizations, and home- and community-based service providers?***

The ADA prohibits private employers, state and local governments, employment agencies and labor unions from discriminating against qualified individuals with disabilities in job application procedures, hiring, firing, advancement, compensation, job training, and other terms, conditions, and privileges of employment (EEOC, 1990). As defined by the ADA, a qualified employee or applicant with a disability is an individual who, with or without reasonable accommodation, can perform the essential functions of the job in question. Reasonable accommodation may include, but is not limited to: making existing facilities used by employees readily accessible to and usable by persons with disabilities; job restructuring, modified work schedules, or reassignment to a vacant position; acquiring or modifying equipment or devices; adjusting or modifying examinations, training materials, or policies; and providing

qualified readers or interpreters. An employer is required to make a reasonable accommodation to the known disability of a qualified applicant or employee if it would not impose an "undue hardship" on the operation of the employer's business. Undue hardship is defined as an action requiring significant difficulty or expense when considered in light of factors such as an employer's size, financial resources, and the nature and structure of its operation (U.S. Equal Employment Opportunity Commission, 1990).

Employers have an economic interest in retaining qualified workers with disabilities and helping them maximize their productivity. Providing reasonable workplace accommodations is one way employers do this. But sometimes employees with disabilities need more than an employer can offer to stay employed. Accessible transportation, working medical equipment and psychological counseling are all important factors that can determine whether someone stays employed. However, an employer is not required by ADA to provide these, and often neither is a health insurance company. This is an area where community-based service providers can step in to help both employers and the employees. As "cash and counseling" programs exist for Medicaid beneficiaries, providing monthly allowances for people to use to hire their choice of personal care workers and purchase other services and goods, perhaps a similar program can be implemented for people with disabilities who want to work. By filling in the gaps that are not covered by employers or health insurance companies, community-based service providers can help employees stay employed and reduce the cost of absenteeism for employers.

Research is needed to see if it is cost-effective for home- or community-based service providers to provide comparable wellness programs for people with disabilities that companies provide to their employees. Because evidence-based research that suggests that wellness programs benefit both the employer (by providing them with employees who are healthier and take fewer sick days) and the employee (by help them prevent or delay the onset of certain chronic conditions, illnesses and/or injuries), a demonstration project involving one or more companies could be implemented to see if an effective working relationship could be developed between a company and one or more home- and/or community based service providers to test the viability of this option.

In sum, persons with disabilities face the same barriers that persons without disabilities face when contemplating participating in a health promotion program—lack of time, motivation, resources, and knowledge (Painter, Durstine, & Rimmer, 1998; Temple & Walkley, 2007). If corporations break down these barriers for persons with disabilities, they would also be removing them for persons without disabilities who may then be more likely to participate.

## Section 5. Moving the Research Forward

Over the past two decades, many studies have been funded to evaluate the clinical- and cost-effectiveness of worksite wellness programs (Heany & Goetzel, 1997; Ozminkowski et al., 2002). While the ROI is not always easy to calculate on wellness programs (*Workforce Management*, May 2008), research has demonstrated that worksite wellness programs that are comprehensive, intensive and have long-term strategies are successful in maintaining and improving employees' health status (Chapman, 2004; Heany & Goetzel, 1997). Such programs benefit employers by helping their employees stay healthy, take fewer sick days, and maximize their productivity (Chapman, 2004; Ozminkowski et al., 2002; Pelletier, 2001). They benefit employees by helping them prevent or delay the onset of certain chronic conditions, illnesses and/or injuries (Chapman, 2004; Maciosek et al., 2006; Ozminkowski et al., 2002).

One area where information on worksite wellness programs falls short is how they are, or can become, accessible for persons with disabilities. The small body of literature that does exist on wellness programs for persons with disabilities focuses on how secondary health conditions among this population can be prevented or delayed by participating in health promotion and disease prevention activities such as physical activity, smoking cessation, weight management and stress reduction (Lollar, 2002; Rimmer & Braddock, 1999; U.S. Department of Health and Human Services: Office of the Surgeon General, 2005). If corporations are adapting their wellness programs to fit the needs of their employees with disabilities, this information has yet to appear in the literature.

Another significant area of research is to look beyond the ROI in wellness programs in terms of worker productivity to the concept of health behavior change (HBC) theory and its relevance to rehabilitation research and practice. An extensive review of HBC-related literature pertinent to rehabilitation was conducted focusing on the potential impact of these theories and models in enhancing long-term results of rehabilitation with regard to lifestyle change and health promotion, and outlining the benefits of incorporating HBC themes into rehabilitation and wellness practices (Epstein, 2006).

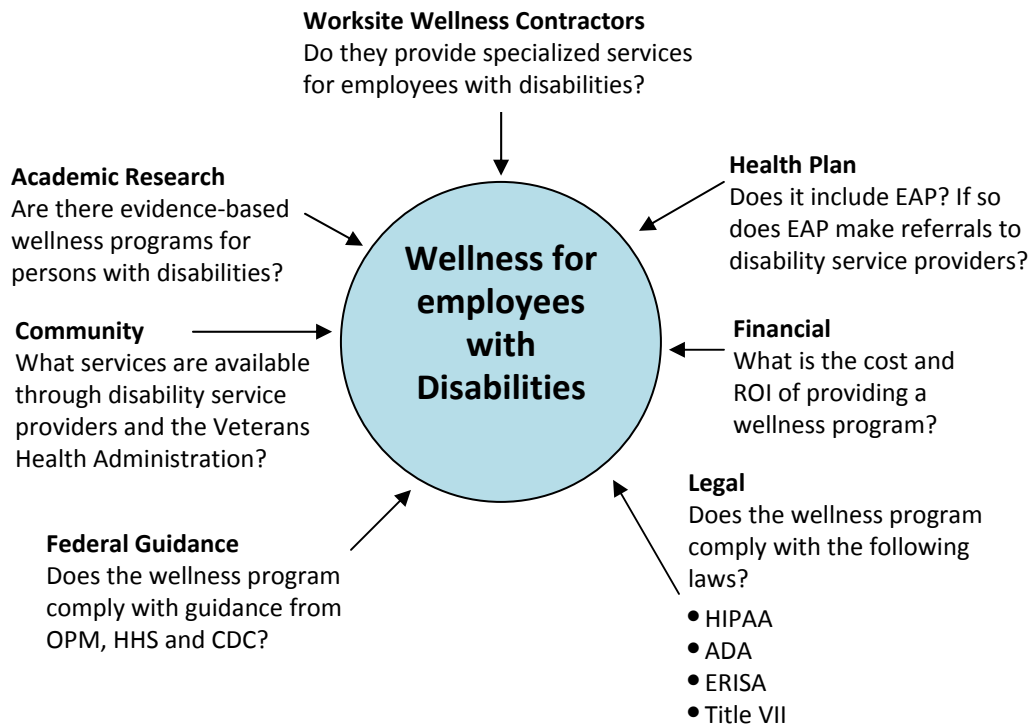
Research on the benefits of worksite and corporate wellness programs will also benefit from evaluation models that focus on overall population-based impact. Models such as the RE-AIM framework, which is an evaluation framework to expand the assessment of public health interventions beyond efficacy to multiple criteria that may better identify the translatability and impact of the interventions, can be used to more fully evaluate public health innovations. The criteria for RE-AIM are: **R**each into the target population, **E**fficacy or effectiveness, **A**doption by target settings or institutions, **I**mplementation (consistency of delivery of the intervention), and **M**aintenance of intervention effects in individuals and populations over time. This evaluation framework helps remind us of the key purposes of public health, organizational change, and community interventions beyond the economic benefits to employers (Glasgow, Vogt, & Boles, 1999).

Understanding where corporations are in making wellness programs accessible to persons with disabilities is a critical first step to opening up wellness programs to *all* employees. If corporations are in the early stages of this process, public health administrators, community-based service providers and persons with disabilities have time to come together to help inform the process.

An important first step for corporations to take in deciding how best to adapt their wellness programs is to gather utilization and evaluation data on their existing wellness programs and catalog the types of services and programs that are offered. The second step is to survey HR management and

persons with disabilities to see what, if any, barriers exist for persons with different disabilities and of differing severity to participate in these wellness programs. Focus groups can be organized to discuss these barriers and brainstorm ideas on how best to overcome them. Best practices from community-based organizations or government agencies could be considered as possible solutions for the corporations. Ultimately, the decisions that are made by individual companies will differ based on the size of the company, location, local unemployment rate, and other factors such as corporate culture and attitudes (Schur, Kruse et al., 2009), but best practices on how companies should make these decisions should be able to be compiled fairly early in the process.

**Figure 1. Factors Influencing Worksite Health and Wellness for Employees with Disabilities**



Source: Altarum Institute, 2009.

Based on this literature review, there are many factors that influence a company's decision to modify an existing wellness program to accommodate employees with disabilities (see above chart). First, companies must decide if it is cost-effective for them to offer wellness programs to their employees. Given the current state of the economy, companies have to make difficult decisions about where to invest their resources. Next, since most companies already offer health plans that include employee assistance programs (EAPs), they will have to evaluate which services within their EAPs are targeted to persons with disabilities and whether additional services are needed. If companies decide to develop universal wellness programs, or revise their existing wellness programs to incorporate all employees, they will need to make sure the programs comply with federal guidelines and all current laws. The requirements mandated under HIPAA and ADA, combined with the broadening of the definition of disability under the new ADAAA of 2008, suggests that starting in 2009, small, medium and large companies will need to scrutinize their wellness programs to determine how they do, or do not, provide equal access to persons with disabilities. Successful wellness programs will be based on evidence-based research stemming from a combination of studies on worksite wellness programs and community-based wellness programs for persons with disabilities. A set of "best practices" has yet to be developed for corporations to follow, but given the recent interest in this topic, it is likely that some form of guidance

will soon be issued from the government. Finally, companies will need to decide if the wellness services they want to offer persons with disabilities are provided directly through their company, through contractors working for their company, or by local disability service providers such as the Veterans Health Administration (VHA).

## **Conclusion**

Worksite wellness programs have proven to be cost-effective investments for employers. Such programs differ by worksite, but typically offer a range of programs designed to reduce unhealthy risks and behaviors such as smoking, obesity and stress. Best practices have been developed by the government and the many associations and businesses that have been created as part of this new phenomenon. Yet, as with most advancements in society, persons with disabilities largely have been left behind. That is, worksite wellness programs have been developed without taking into account the special needs of persons with disabilities. Given that the medical community has been slow to realize the benefits of health promotion for persons with disabilities, it is not surprising that worksite wellness programs also are lagging behind. Health care workers are only now being trained to recognize and treat more than just the primary disability in some people (e.g., people with paraplegia) (Institute of Medicine, 2007). Persons with disabilities are finally being encouraged to participate in health and wellness programs to prevent or delay the onset of chronic health conditions such as diabetes and hypertension. Unsure about how to accommodate the needs of so many different types of disabilities, corporations could benefit from a medical model describing the different types of accommodations necessary for people to participate in health and wellness programs.

This literature review reveals that there are two types of health and wellness programs – those that are easy to accommodate for persons with disabilities and those that are not. Programs and activities that are sedentary and take place on-site in a meeting room (or online) are easy to provide accommodations for because they typically only require activities in which the person is already engaged (i.e., moving about the workplace, sitting, listening, etc.). For example, cigarette smoking cessation and weight reduction programs typically take place on-site and can easily be adapted for persons with disabilities via sign language interpreters, Braille or large print reading material, adequate space for assistive devices, and/or simplified program goals. Persons with disabilities can participate in these types of programs with minimal changes to the program.

The types of wellness programs that are not as easy to provide accommodations for are those requiring physical activity such as fitness walks, exercise and/or health evaluations. These activities often take place off-site (or at least require employees to be ambulatory) and do not always have accommodations in place for those who need them. These types of programs are in the greatest need of guidance on how to provide accommodations for different types, and varying degrees, of disabilities. It is a complex, multi-faceted challenge that includes finding viable solutions in areas such as providing transportation to and from the event/facility, finding different ways to participate in the event, and developing comparable incentives for employees with disabilities to do so.

The available literature tells us that it is possible to modify worksite health and wellness programs to meet the needs of employees with disabilities, which would increase access to routine examinations and support improvements in lifestyle, including physical fitness and mental health. Yet, there is little research being done on how health and wellness programs should be modified or who should be providing the direction. Further research is recommended to better understand 1) the types of programs and services that are currently being offered by worksite wellness programs, 2) employer reductions in recruitment and retention costs, 3) the medical community's role in developing



appropriate accommodations, and 4) how secondary conditions may differ for people who are aging with a disability.

## References

- Aldana, S. G., Merrill, R.M., Price, K., Hardy, A., & Hager, R. (2005). Financial Impact of a Comprehensive Multisite Workplace Health Promotion Program. *Preventive Medicine, 40*, 131-137.
- Baylor College of Medicine: Center for Research on Women with Disabilities. (2003). Improving the Health and Wellness of Women with Disabilities: A Symposium to Establish a Research Agenda: Health Promotion. Retrieved November 17, 2008, from <http://www.crowdbcm.net/healthpromotion/interven-gen.htm>.
- Blanck, P.D. (1993). *The Americans with Disabilities Act: Putting the employment provisions to work*. Washington, D.C.: The Annenberg Washington Program, White Paper.
- Blanck, P.D. (1994). The Americans with Disabilities Act: Issues for back and spine related disability. *Spine, 19*(1), 103-107.
- Blanck, P.D. (1995). Implementing the Americans with Disabilities Act: 1996 Follow-up Report on Sears, Roebuck & Co. *Spine, 21*(13), 160-208.
- Blanck, P.D. (2008). The Right to Live in the World: Disability Yesterday, Today, and Tomorrow. Jacobus tenBroek Disability Law Symposium. *Texas Journal on Civil Liberties and Civil Rights, 13*, 367-401.
- Blanck, P.D., Hill, E., Siegal, C., & Waterstone, M. (2005). *Disability Civil Rights Law and Policy: Cases and Materials*: Thomson/West Publishers. [Teacher's Manual, 2006.]
- Blanck, P.D., Schwochau, S., & Song, C. (2003). Is it Time to Declare the ADA a Failed Law? In D. C. Stapleton & R. V. Burkhaue (Eds.), *What is Causing the Decline in the Employment of People with Disabilities?: A Policy Puzzle* (pp. 301-337): UpJohn Institute.
- Boardman, J., Grove, B., Perkins, R., & Shepherd, G. (2003). Work and employment for people with psychiatric disabilities. *British Journal of Psychiatry, 182*, 467-468.
- Bonner, D.J. (1990). Effects of Corporate Wellness Programs on Absenteeism and Health Care Costs: A Meta-Analysis. *Applied HRM Research, 1*(2), 32-37.
- Brandt, E. N., & Pope, A. M. (1997). *Enabling America: Assessing the Role of Rehabilitation Science and Engineering*. Washington, DC: Institute of Medicine (U.S.). Committee on Assessing Rehabilitation Science and Engineering.
- Buck Consultants. (2007). *WORKING WELL: A Global Survey of Health Promotion and Workplace Wellness Strategies*.
- Business Roundtable. (2007). *Doing Well through Wellness: 2006-07 Survey of Wellness Programs at Business Roundtable Member Companies*. Washington DC.
- Business Roundtable. (2008). *Doing Well Through Wellness*. Retrieved December 31, 2008, from [http://www.businessroundtable.org/sites/default/files/BR\\_Doing\\_Well\\_through\\_Wellness\\_09192007.pdf](http://www.businessroundtable.org/sites/default/files/BR_Doing_Well_through_Wellness_09192007.pdf).
- Butler, R. N., Miller, R. A., Perry, D., Carnes, B. A., Williams, T. F., Cassel, C., et al. (2008). New model of health promotion and disease prevention for the 21st century. *BMJ, 337*, a399.
- C. Everett Koop National Health Award. (2008). Retrieved December 31, 2008, from <http://healthproject.stanford.edu/koop/2008winnerindex.html>.
- Chapman, L. (2004). Expert Opinions on Best Practices in Worksite Health Promotion. *American Journal of Health Promotion, 18*(6), 1-6.
- Christmas, C., & Andersen, R. (2000). Exercise and older patients: Guidelines for the clinician. *J Am Geriatr Soc, 48*(3), 318-324.
- Connolly, B.H. (2006). Issues in aging in individuals with lifelong disabilities. *Revista Brasileira de Fisioterapia Sao Carlos, 10*(3), 249-262.
- Cornell University. (2008). Disability Statistics: Online Resource for U.S. Disability Statistics. 2008, from <http://www.ilr.cornell.edu/edi/DisabilityStatistics/>.

- Drum, C. E., Krahn, G., Culley, C., & Hammond, L. (2005). Recognizing and Responding to the Health Disparities of People with Disabilities. *Californian Journal of Health Promotion, 3*(3), 29-42.
- Erickson, W., & Lee, C. (2008). *2007 Disability Status Report: United States*. Ithaca, NY: Cornell University Rehabilitation Research and Training Center on Disability Demographics and Statistics.
- Federal Interagency Forum on Aging-Related Statistics. (2008). *Older Americans 2008: Key Indicators of Well-Being*. Retrieved from <http://www.agingstats.gov>.
- Friedman, J. (2001). Racial disparities in median age at death of persons with Down Syndrome-United States, 1968-1997. *Morbidity and Mortality Weekly Report, 50*(22), 463-465.
- Glasgow, R., Vogt, T., & Boles, S. (1999). Evaluating the public health impact of health promotion interventions: The RE-AIM framework. *American Journal of Public Health, 89*(9), 1322-1327.
- Goetzel, R., & Ozminkowski, R. (2008). The Health and Cost Benefits of Worksite Health Promotion Programs. *Annual Review of Public Health, 29*(4).
- Hartnett, J., Morris, M., & Stengel, J. (2008). *Building a Better Economic Future: A Progress Report for Individuals with Disabilities & Their Families in America*. CED Press: School of Community Economic Development, Southern New Hampshire University.
- Heany, C., & Goetzel, R. (1997). A Review of health related outcomes of multi-component worksite health promotion programs. *American Journal of Health Promotion, 11*, 290-307.
- Hughes, R., Nosek, M., Howland, C., Groff, J., & Mullen, P. D. (2003). Health Promotion for Women with Physical Disabilities: A Pilot Study. *Rehabilitation Psychology, 48*(3), 182-188.
- Institute of Medicine. (2007). *The Future of Disability in America*. Washington, DC: The National Academies Press.
- Kailes, J. (2006). A user's perspective on midlife (ages 18 to 65) aging with disability. In M. Field, A. Jette & L. Martin (Eds.), *Workshop on Disability in America: A New Look*. (pp. 194–204). Washington, DC: The National Academies Press.
- Kaiser Family Foundation. (2008). *2008 Employer Health Survey*.
- Kinne, S., Patrick, D. L., & Doyle, D. L. (2004). Prevalence of Secondary Conditions Among People With Disabilities *American Journal of Public Health, 94*(3), 443-445.
- Leatherman, S., Berwick, D., Iles, D., Lewin, L. S., Davidoff, F., Nolan, T. et al. (2003). The business case for quality: Case studies and an analysis. *Health Affairs, 22*(2), 17-30.
- Lollar, D. (2002). Public health and disability: emerging opportunities. *Public Health Rep, 117*(2), 131-136.
- Maciosek, M., Coffield, A., Edwards, N., Flottemesch, T., Goodman, M., & Solberg, L. (2006). Priorities among effective clinical preventive services: results of a systematic review and analysis. *Am J Prev Med, 31*, 52-61.
- Marge, M. (1988). Health Promotion of People with disabilities: Moving beyond rehabilitation. *American Journal of Health Promotion, 2*(4), 29-44.
- McGuire, L., Strine, T., Okoro, C., Ahluwalia, I., & Ford, E. (2007). Healthy lifestyle behaviors among older U.S. adults with and without disabilities, Behavioral Risk Factor Surveillance System, 2003. *Prev Chron Dis 4*, A09.
- McKendrick, N. (1982). Portraits of Fitness Programs: How Six Major Companies are Helping Their Employees Stay Fit. *Management World*.
- Morbidity and Mortality Weekly Report. (2008). Disability Rates. *MMWR October 3, 2008, 57*(39), 1069-1073.
- North Carolina Office of Disability and Health. (2001). *Removing Barriers to Health Clubs and Fitness Facilities*. Chapel Hill, NC: Frank Porter Graham Child Development Center.
- Okie, S. (2007). The employer as health coach. *New England Journal of Medicine, 357*(15), 1465-1469.

- Owens, D. (2006). EAPs for a diverse world: employers that provide culturally competent employee assistance programs show employees they care. *HR Magazine*.
- Ozminkowski, R., Ling, D., Goetzel, R., Bruno, J., Rutter, K., Isaac, F., et al. (2002). Long-term impact of Johnson & Johnson's Health & Wellness Program on health care utilization and expenditures. *J Occup Environ Med, 44*(1), 21-29.
- Painter, P., Durstine, J., Rimmer, J., Morgan, D., Franklin, B., & Pitteti, K. (1998). Increasing physical activity in disabled populations. *Medicine and Science in Sports and Exercise, 30*(suppl.), S86.
- Pelletier, K. R. (2001). A Review and Analysis of the Clinical- and Cost-Effectiveness Studies of Comprehensive Health Promotion and Disease Management Programs at the Worksite: 1998-2000 Update. *American Journal of Health Promotion, 16*(2), 107-116.
- Ravesloot, C. H., Seekins, T., Cahill, T., Lindgren, S., Nary, D.E., & White, G. (2006). Health promotion for people with disabilities: development and evaluation of the Living Well with a Disability program. *Health Education Research, 22*(4), 522.
- Ravesloot, C. (2008). Living Well with a Disability Website. Retrieved December 31, 2008, from <http://www.livingwellweb.com/lwpage1.htm>.
- Richtel, M. (2008). More Companies are Cutting Labor Costs Without Layoffs. *New York Times*.
- Rimmer, J.H. & Braddock, D. (1999). Health Promotion for People with Disabilities: The Emerging Paradigm Shift from Disability Prevention to Prevention of Secondary Conditions. *Physical Therapy, 79*(5).
- Rimmer, J.H. & Hedman, G. (1998). A health promotion program for stroke survivors. *Topics in stroke rehabilitation, 5*(2), 30-44.
- Rimmer, J.H. & Rowland, J.L. (2008). Health Promotion for People with Disabilities: Implications for Empowering the Person and Promoting Disability-Friendly Environments. *American Journal of Lifestyle Medicine, 2*(5), 409-420.
- Rumrill, P. D. (2006). Help to stay at work: vocational rehabilitation *MS in Focus*.
- Santiago, M., & Coyle, C. (2004). Leisure-time physical activity and secondary conditions in women with physical disabilities. *Disabil Rehabil, 26*, 485-494.
- Schartz, H., Schartz, K., Hendricks, D., & Blanck, P. (2006). Workplace Accommodations: Empirical Study of Current Employees. *Mississippi Law Journal, 75*, 917-943.
- Schur, L. A. (2002). The difference a job makes: The effects of employment among people with disabilities. *Journal of Economic Issues, 36*, 339-348.
- Schur, L., Adya, M., Nishii, L., Bruyere, S., Kruse, D., & Blanck., P. (2009). *Disability and corporate culture: case study evidence*. Paper presented at the Labor and Employment Relations Association Annual Conference.
- Schur, L., Kruse, D., & Blanck., P. (2005). Corporate Culture and the Employment of Persons with Disabilities. *Behavioral Sciences and the Law, 23*:, 3-20.
- Schur, L., Kruse, D., Blasi, J., & Blanck., P. (Forthcoming). Is Disability Disabling In All Workplaces?: Disability, Workplace Disparities, and Corporate Culture. *Industrial Relations*.
- Serxner, S., Gold, D., Anderson, D., & Williams, D. (2001). The Impact of a Worksite Health Promotion Program on Short-Term Disability Usage. *Journal of Occupational and Environmental Medicine, 43*(1), 25-29.
- Shepard, R. J. (1981). Fitness Program Participation: Its Effect on Worker Performance. *Journal of Occupational Medicine, 23*, 359-363.
- Simeonsson, R. J., & McDevitt, L. (1999). *Disability & Health: the Role of Secondary Conditions and Quality of Life*. Chapel Hill, NC: University of North Carolina.
- Society for Human Resources Management. (2008). *2008 Employee Benefits Survey*: Wells Publishing.
- Stokols, D., Pelletier, K. R., & Fielding, J. E. (1996). The Ecology of Work and Health: Research and Policy Directions for the Promotion of Employee Health. *Health Education and Behavior, 23*(2), 137.

- Temple, V. A., & Walkley, J. W. (2007). Perspectives of constraining and enabling factors for health promoting physical activity. *Journal of Intellectual and Developmental Disability, 32*, 28-38.
- Toder, E. J., Johnson, R. W., Mermin, G. B. T., & Lei, S. (2008). What Strategies Could Promote Work at Older Ages? In *Capitalizing on the Economic Value of Older Adults' Work*: Urban Institute, Retirement Policy Program.
- U.S. Census Bureau. (2007). *American Community Survey*. Washington, DC: U.S. Department of Commerce.
- U.S. Centers for Disease Control and Prevention. (2004). Physical Activity for Women with Disabilities. *Health Matters for Women*.
- U.S. Department of Health and Human Services. (2005). *Healthy People: Midcourse Revisions: Objective 6-10, Accessibility of Health and Wellness Programs*. Retrieved December 31, 2008, from <http://www.healthypeople.gov/data/midcourse/pdf/fa06.pdf>.
- U.S. Department of Health and Human Services: Office of the Surgeon General. (1996). *Physical activity and health: A report of the Surgeon General*. Retrieved December 31, 2008, from <http://www.cdc.gov/nccdphp/sgr/pdf/sgraag.pdf>.
- U.S. Department of Health and Human Services: Office of the Surgeon General. (2005). *The Surgeon General's Call to Action to Improve the Health and Wellness of Persons with Disabilities: What It Means to You* Retrieved December 31, 2008, from <http://www.surgeongeneral.gov/library/disabilities/calltoaction/whatitmeanstoyou.pdf>.
- U.S. Department of Labor. (2006). Nondiscrimination and Wellness Programs in Health Coverage in the Group Market: Final Rules. Retrieved December 31, 2008, from <http://www.dol.gov/ebsa/regs/fedreg/final/2006009557.pdf>.
- U.S. Department of Labor: Office of Disability Employment Policy. (2008). DisabilityInfo.gov: The New Freedom Commission's Online Resource for Americans With Disabilities. Retrieved November 17, 2008, from <http://www.disabilityinfo.gov/digov-public/public/DisplayPage.do?parentFolderId=500>.
- U.S. Equal Employment Opportunity Commission (1990). The Americans with Disabilities Act of 1990, Titles I and V. Retrieved March 20, 2009, from <http://www.eeoc.gov/policy/ada.html>.
- U.S. Equal Employment Opportunity Commission (1997). *Best Practices of Private Sector Employers*. Retrieved December 31, 2008, from [http://www.eeoc.gov/abouteeoc/task\\_reports/practice.html](http://www.eeoc.gov/abouteeoc/task_reports/practice.html).
- U.S. Equal Employment Opportunity Commission. (2008a). The Age Discrimination in Employment Act of 1967. Retrieved December 31, 2008, from <http://www.eeoc.gov/policy/adea.html>.
- U.S. Equal Employment Opportunity Commission. (2008b). Notice Concerning The Americans With Disabilities Act (ADA) Amendments Act Of 2008. Retrieved December 31, 2008, from [http://www.eeoc.gov/ada/amendments\\_notice.html](http://www.eeoc.gov/ada/amendments_notice.html).
- U.S. Equal Employment Opportunity Commission. (2008c). Title VII of the Civil Rights Act of 1964. Retrieved December 31, 2008, from <http://www.eeoc.gov/policy/vii.html>
- U.S. Preventive Services Task Force. (2002). *Recommendations and rationale screening for breast cancer*. Retrieved December 31, 2008, from [www.ahrq.gov/clinic/3rduspstf/breastcancer/brcanrr.htm](http://www.ahrq.gov/clinic/3rduspstf/breastcancer/brcanrr.htm).
- World Health Organization. (1997). *Manual of the International Classification of Disease, Injuries and Causes of Death*: Geneva: WHO.
- World Health Organization. (2001). *International Classification of Functioning, Disability, and Health: ICF*. Geneva: WHO.
- Zwerling, C., Whitten, P. S., Sprince, N. L., Davis, C. S., Wallace, R. B., Blanck, P. et al. (2003). Workplace Accommodations for People with Disabilities: National Health Interview Survey Disability Supplement, 1994-5., *Journal of Occupational and Environmental Medicine, 44*(2), 358-364.

## **APPENDIX A: Methodology**

We conducted a literature review on disability and corporate wellness to better understand the existing body of knowledge on these topics. As an initial step, we used the following databases and search engines to look for key search terms: Google, PubMed (National Library of Medicine, National Institutes of Health), BioMed Central (Springer Science and Business Media), SHRM Online (Society for Human Resource Management), CINAHL (Cumulative Index to Nursing and Allied Health Literature), PAIS (Public Affairs Information Service), JSTOR, and the Web sites of the following disability-related organizations: ICDR (Interagency Committee on Disability Research), Cornell University's Employment and Disability Institute, SSA (Social Security Administration), DOL (U.S. Department of Labor) and VCU (Virginia Commonwealth University). To simplify and standardize our methods, the literature review team split up the research questions into subcategories and assigned each one a label. As we entered references into the endnote database, we tagged the reference with the corresponding research question(s).

The next steps were to group the information by topic, review to understand how the topics were linked together, and conduct synthesis and analysis. It quickly became apparent that there was not much information on the exact topic we were researching—worksite health and wellness programs for persons with disabilities. However, there was information available on various aspects of the topic such as health and wellness for persons with disabilities in the community, worksite health and wellness programs, and laws concerning inclusion of persons with disabilities in wellness programs. We revised the outline to reflect the information currently available and continued searching for journal articles, reports and documents that would round out the overview of literature available on this topic. Finally, we created a document that summarizes the body of literature and lists the important topics and strategies needed to move the research agenda forward.

### *Key Search Terms*

*To facilitate the search, we developed the following list of terms to pursue.*

Individuals with disabilities and/or

- professional development
- salary increases
- benefits
- occupational advancement
- autonomy
- labor force participation
- stay in the labor force
- stay in the workforce
- workforce *and* advocacy
- interventions *and* stay in the workforce
- interventions *and* stay in the labor force
- interventions *and* labor force participation
- workforce withdrawal
- labor force withdrawal
- leaving the workforce
- early retirement

- customized interventions
- intervention *and* cost
- intervention *and* impact
- intervention *and* measures
- labor force withdrawal *and* research
- labor force withdrawal *and* outcomes
- labor force withdrawal *and* meta-analysis
- wellness programs *and* best practices *and* access
- employers *and* social services *and* primary care *and* networks
- employers *and* social services *and* primary care *and* relationship
- employers *and* social services *and* primary care *and* partnership
- states *and* disability services *and* primary care *and* department of labor
- wellness programs
- employer wellness programs
- disabled-accessible *and* wellness
- corporate wellness
- health and wellness programs

***APPENDIX B: Detailed Description of the Databases****Electronic Database Search Engines*

What follows is the core list of electronic databases that were searched across topics.

- **BioMed Central**
- **CINAHL**
- **EconLit**
- **JSTOR**
- **JSTOR-economics**
- **PAIS International**
- **Pubmed**



**APPENDIX C: Related Organizations and Web Site Searches****Related Organizations and Web Sites**

Agency for Healthcare Research and Quality	<a href="http://www.ahrq.gov/">http://www.ahrq.gov/</a>
American Public Health Association	<a href="http://www.apha.org/">http://www.apha.org/</a>
Centers for Disease Control and Prevention	<a href="http://www.cdc.gov/">http://www.cdc.gov/</a>
Centers for Medicare & Medicaid Services	<a href="http://www.cms.hhs.gov/">http://www.cms.hhs.gov/</a>
Consortium for Citizens with Disabilities	<a href="http://www.c-c-d.org/">http://www.c-c-d.org/</a>
Centers for Workers with Disabilities	<a href="http://cwg.aphsa.org/Home/home_news.asp">http://cwg.aphsa.org/Home/home_news.asp</a>
The Employee Benefit Research Institute (EBRI)	<a href="http://www.ebri.org/">http://www.ebri.org/</a>
The Employee Benefits Security Administration (internal to DOL)	<a href="http://www.dol.gov/ebsa/">http://www.dol.gov/ebsa/</a> <a href="http://www.dol.gov/ebsa/faqs/faq_consumer_hipaa.html">http://www.dol.gov/ebsa/faqs/faq_consumer_hipaa.html</a>
Health Management Research Center	<a href="http://www.hmrc.umich.edu/">http://www.hmrc.umich.edu/</a>
Interagency Committee on Disability Research	<a href="http://www.ICDR.US">http://www.ICDR.US</a> <a href="http://www.icdr.us/proceedings.html">http://www.icdr.us/proceedings.html</a>
International Monetary Fund	<a href="http://www.imf.org/external/index.htm">http://www.imf.org/external/index.htm</a>
Internal Revenue Service	<a href="http://www.irs.gov/">http://www.irs.gov/</a>
The Kaiser Family Foundation Annual Employee Health Benefits Survey	<a href="http://www.kff.org/insurance/7790/">http://www.kff.org/insurance/7790/</a>
Mathematica	<a href="http://www.mathematica-mpr.com/disability/#Reports">http://www.mathematica-mpr.com/disability/#Reports</a>
National Center for the Dissemination of Disability Research	<a href="http://www.ncddr.org/">http://www.ncddr.org/</a>
National Center on Physical Activity and Disability Health Promotion	<a href="http://www.ncpad.org/">http://www.ncpad.org/</a>
Pennsylvania Association for Individuals with Disabilities	<a href="http://www.paid-online.org/">http://www.paid-online.org/</a>
Rehabilitation Research and Training Employment Policies for Persons with Disabilities (Cornell University)	<a href="http://www.ilr.cornell.edu/edi/p-eprrtc.cfm">http://www.ilr.cornell.edu/edi/p-eprrtc.cfm</a>
Social Security Administration	<a href="http://www.ssa.gov/">http://www.ssa.gov/</a>
Urban Institute	<a href="http://www.urban.org/">http://www.urban.org/</a>
U.S. Department of Health & Human Services	<a href="http://www.hhs.gov/">http://www.hhs.gov/</a>
U.S. Department of Labor	<a href="http://www.dol.gov/">http://www.dol.gov/</a>
Virginia Commonwealth University's Benefits Assistance Resource Center	<a href="http://www.vcu-barc.org/">http://www.vcu-barc.org/</a>
World Health Organization	<a href="http://www.who.int/en/">http://www.who.int/en/</a>

**Relevant Journals**

American Journal of Health Promotion
Applied HRM Research
Disability and Health Journal

Disability and Rehabilitation
Disease Management and Health Incomes
Family and Community Health
Health and Social Care in the Community
Health Education Research
Journal of Occupational & Environmental Medicine
Journal of Rehabilitation
Mental Retardation and Developmental Disabilities Research Reviews
Occupational Medicine
Preventive Medicine

### **Books**

Rimmer, J.H., B. Riley, E. Want, & A. Rauworth (2005). <i>Accessibility of Health Clubs for People with Mobility Disabilities and Visual Impairments</i> . Washington, DC: American Public Health Association.
Spechler, J.W. (1996). <i>Reasonable Accommodation: Profitable Compliance with the Americans with Disabilities Act</i> . Delray Beach, FL: St. Lucie Press.

**APPENDIX D: 2008 SHRM Employee Benefits Survey Results**

<b>Prevention Health and Wellness Benefit</b>			
In the 2008 Employee Benefits Survey Report by the Society for Human Resource Management (SHRM), employers indicated their strong support for a variety of wellness initiatives. The following table is drawn from a report, released in June 2008 at the SHRM 60 <sup>th</sup> Annual Conference & Exposition, held in Chicago. Benefits survey respondents were asked whether their companies have various types of wellness programs. Data may not sum to 100 percent due to rounding.			
	Yes	No	Plan to
Wellness resources and information	72%	21%	7%
Vaccinations on-site (including flu shots)	67%	32%	1%
Wellness programs	58%	31%	10%
CPR/first-aid training	55%	42%	3%
24-hour nurse line	50%	49%	1%
Health fairs	44%	47%	9%
Health screening programs	41%	52%	8%
Smoking-cessation program	40%	53%	7%
Wellness newsletter/column	40%	56%	4%
Fitness center membership subsidy/reimbursement	36%	61%	3%
Health and lifestyle coaching	33%	58%	9%
Weight loss program	31%	66%	4%
Preventive programs targeting employees with chronic health conditions	30%	64%	7%
Rewards or bonuses for achieving or completing certain health and wellness goals/programs	23%	66%	11%
On-site fitness center	21%	77%	2%
Nutritional counseling	20%	76%	4%
On-site blood pressure machine	17%	82%	1%
On-site fitness classes	15%	83%	2%
Stress reduction program	14%	82%	4%
Massage therapy services at work	14%	84%	2%
On-site medical care	12%	87%	1%
Health care premium discount for getting annual health risk assessment	11%	82%	7%
Health care premium discount for participating in wellness program	9%	85%	7%
Health care premium discount for not using tobacco products	8%	88%	4%
Fitness equipment subsidy/reimbursement	6%	94%	1%
Nap room	5%	94%	1%

**APPENDIX E: Federal Wellness Programs***Federal Support for Wellness Programs*

Federal Agency	Support	Description of Program
U.S. Office of Personnel Management (OPM)	Supplies the civilian workforce for federal agencies	Establishes policies and handbook on establishment of programs.
U.S. Department Of Health and Human Services (HHS)	<p>U.S. government's principal agency for protecting the health of all Americans and providing essential human services, especially for those who are least able to help themselves.</p> <p>The Department includes more than 300 programs, covering a wide spectrum of activities. Some highlights include:</p> <ul style="list-style-type: none"> <li>• <i>Health and social science research</i></li> <li>• <i>Preventing disease, including immunization services</i></li> <li>• <i>Medicare (health insurance for elderly and disabled Americans) and Medicaid (health insurance for low-income people)</i></li> </ul>	<p>The Secretary of Health and Human Services (HHS) created the Office on Disability (OD) in October 2002. The Director of the Office reports to the Secretary and serves as an advisor on HHS activities relating to disabilities. The OD oversees the implementation and coordination of disability programs, policies and special initiatives for 54 million persons with disabilities.</p> <p>The charge to the Office is to:</p> <ul style="list-style-type: none"> <li>• Serve as the focal point within HHS for the implementation and coordination of policies, programs, and special initiatives related to disabilities with the Department and with other federal agencies;</li> <li>• Oversee the implementation and coordination of disability programs, policies and special initiatives;</li> <li>• Heighten the interaction of programs within HHS and with federal, state, community and valuable private sector partners;</li> <li>• Support plans and initiatives designed to tear down barriers facing people with disabilities, which prevent them from fully participating and contributing in an inclusive community life;</li> <li>• Increase focus and awareness to help Americans living with disabilities.</li> </ul>

Federal Agency	Support	Description of Program
Centers for Disease Control and Prevention (CDC), HHS	<p>Online source for credible information for the nation in areas of health and prevention.</p> <p>New from CDC to support evidence-based decision.</p>	<p>“Healthier Worksite Initiative” CDC is committed to helping people everywhere become safer and healthier. To this end, in 2002, the CDC developed the Healthier Worksite Initiative (HWI) for its own employees with the vision of making CDC a worksite where “healthy choices are easy choices,” and sharing the “lessons learned” with other federal agencies.</p>
U.S. Department of Defense (DoD)	<p>The DoD has two groups of employees: civilian general service workers and Service Members.</p>	<p>The Civilian Personnel Management Service is responsible for the civilian wellness programs. Use the insurance program to conduct any wellness program.</p> <p>Force Health Protection and Readiness programs safeguard the health and well-being of Service members and their families, promote and sustain a healthy and fit force, prevent injuries and illness and protect the force from health hazards, and sustain world-class medical and rehabilitative care to the sick and injured anywhere in the world. Very robust program at <a href="http://deploymentlink.osd.mil/">http://deploymentlink.osd.mil/</a>.</p>
U.S. Department of Veterans Affairs (VA)	<p>National Center for Health Promotion and Disease Prevention (NCP) office in VA guides and directs all activities for VA employees and health care providers.</p>	<p>Be Active Your Way <b>VA!</b></p> <p>Supports the U.S. Department of Health and Human Services' 2008 Physical Activity Guidelines for Americans</p>