

A Public Health Leadership Opportunity: Implementation of Worksite Wellness Programs to
Maximize Return on Investment in Small Businesses

By
Allison W. Rice

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ABSTRACT

The impact of wellness initiatives in American workplaces is multi-dimensional. This paper details the impact workplace health promotion programs have on the overall health of employees of large and small businesses and how these programs affect companies' return on wellness program investments (ROI). Selected effects of the wellness provisions in the Affordable Care Act (ACA) in relation to small businesses are highlighted, and best practices are discussed with an emphasis on the three core functions of public health -- assessment, policy development, and assurance. In addition to the core public health functions, active leadership best practices play a key role within small businesses to best leverage wellness program development, implementation, and dissemination in order to increase sustainable behavior changes among employees and, ultimately, increase ROI.

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LIST OF ABBREVIATIONS

ACA	Affordable Care Act (or the <i>Patient Protection and Affordable Care Act</i> 2010)
BMI	Body Mass Index
CDC	Centers for Disease Control and Prevention
CQI	Continuous quality improvement
EAPs	Employee assistance programs
HIPAA	Health Insurance Portability and Accountability Act
IFEBP	International Foundation of Employee Benefit Plans
NGOs	Non-governmental organizations
PDSA	Plan Do Study Act
ROI	Return on investment
RWJF	Robert Wood Johnson Foundation
SBA	Small Business Association
SEM	Socio Ecological Model
SWOT	Strengths Weaknesses Opportunities Threats
USCB	United States Census Bureau

Introduction

Although workplace wellness is not a new concept, the “landscape” of small businesses – that includes a lack of financial incentives, resources, and awareness – contributes to the absence of wellness programs. Because small businesses vary greatly in size there is a deficit of “effective adaptable and scalable models” for small businesses to implement and follow (Small Business Majority, 2012). This paper will describe how wellness programs can be implemented at small businesses to help them see a return on their wellness investment as well as how these programs benefit the health and wellness of employees.

Research Process

A comprehensive literature search was conducted utilizing academic databases (PubMed and Business Source Complete), governmental and non-governmental organizations’ (NGOs) websites. Peer-reviewed journal articles, health briefs, discussion articles, and periodicals were chosen, and “experts” in the field were consulted to directly inquire about worksite wellness programs and their respective ROI. Exclusion criteria comprised studies requiring payment to websites of a monthly/yearly subscription to access the complete article.

A search of PubMed utilizing the terms “Workplace [MAJR]” AND “Health Promotion [MAJR]” resulted in the identification of more than 100 articles, of which 50 sources were selected and reviewed by focusing on the key terms of wellness, employee wellness, ROI, small businesses, health outcomes, and effectiveness. Business Source Complete with the criteria of (DE “WORK environment”) and (DE “EMPLOYEE health promotion”) recovered more than 150 sources and 30 peer-reviewed articles and periodicals were selected.

Experts from the field, including the second reader for this paper from NC Prevention Partners, were consulted to provide feedback on further information to include in this paper, and available studies from industry thought leaders (e.g. Robert Wood Johnson Foundation [RWJF], Change Agent Work Group) were reviewed. Internet search engines were also used to find “grey literature” not represented in standard academic databases in order to uncover pertinent unpublished reports and study results. These searches led to relevant statistics that are referenced throughout this paper, such as data from the Centers for Disease Control and Prevention (CDC) and Small Business Administration (SBA). These databases provided the most recent statistics on chronic disease as well as the scale and frequency of wellness programs based on a business’ number of employees. Internet search engines also provided information used to determine the anticipated effects the *Patient Protection and Affordable Care Act 2010* (ACA) has (and will have) on small businesses.

The Issue

Research reveals there is a shifting trend in the burden of disease. In the past century, there has been a significant decrease in infectious diseases following the introduction of vaccines, antibiotics, and biotechnical advances. Due to longer life expectancy, there has been an increase in the incidence of chronic diseases, such as cancer and cardiovascular disease, among others. More people are experiencing forms of mental illness including depression and have serious health effects from life style behaviors such as smoking, alcohol abuse, and obesity (DeVol and Bedroussian, 2007; Randolph, 2012).

According to the CDC, preventable illnesses comprise an estimated 50% of the burden of illness and its associated costs. Eight out of nine leading causes of death in the United States are preventable and most stem from poor health behaviors such as tobacco use, poor nutrition and

physical inactivity, all which can be addressed in a worksite wellness program (CDC, 2012). According to the World Health Organization, if Americans did not smoke, ate healthy, and exercised adequately, up to 40% of cancer cases, as well as 80% of diabetes and heart disease cases, could be prevented (World Health Organization, 2005; Loeppke, n.d.). This is why investing in wellness is so valuable now and for future generations.

Together, the recently passed Affordable Care Act (ACA) and the correlation between preventable illness and behavior change serve as catalysts for leaders of businesses who want to create an environment that will encourage employees to adopt healthy behaviors. Employers' actions are impressionable on their staff and an absence of their support can hinder a change in environment, and in turn hinder changes in cultural norms and healthy employee behavior change. Environments with engaged leaders can promote wellness programs and help foster employees' awareness of available benefits. Routine preventative care, such as "screenings, counseling, and immunizations can reduce disability; extend the span of a healthy life, and lower unnecessary losses in worker productivity" (RWJF, 2005). Nevertheless, these preventative services are oftentimes not included in employer-sponsored health insurance, and when they are, they frequently go underutilized by employees due to a lack of awareness (RWJF, 2005). The ACA can impact the provisions of preventative services by all employers, as ACA provides tax incentives for small businesses that participate in wellness programs.

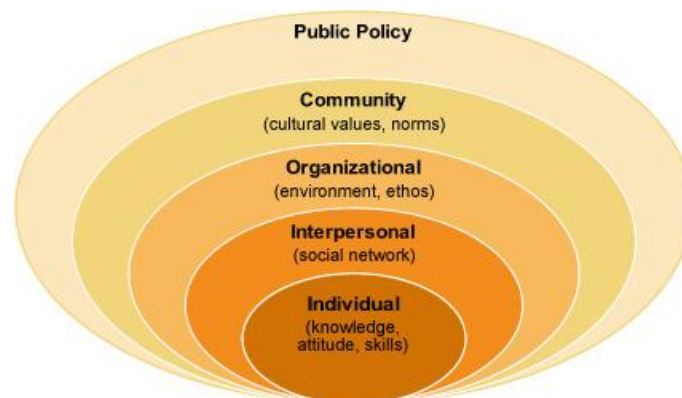
Because the average American spends nearly half their waking hours at work, the workplace environment "can profoundly influence individual health behaviors and risk factors" (Anderson, 2008). When employees work long hours and feel overloaded because of job pressures, burdened to stay connected during non-working hours, and failing to utilize vacation, employees begin to feel as if the work culture, norms, and job environment are unsupportive of

their health, and sometimes as if they do not need feel valued as an employee. This can ultimately lead to reduced productivity and efficiency, as employees' ability to focus can dwindle. The more overworked an employee, the greater the likelihood of "making mistakes, feeling angry, being stressed or depressed, and having decreased coping skills" (Randolph, 2012). Employee teams can break down during times of stress in the same way they break down when a worker is absent, decreasing output for the company. Workplace programs that support employees who have symptoms of depression or stress by offering services and proper guidance, can "ensure they remain healthy and more resilient to stress in the future" (Health at Work, n.d.). For example, workers who are going through divorce or tough financial times struggle to focus on their work duties. Outlets such as counseling services through the company's employee assistance programs (EAPs) can help workers cope with their hardships. In addition to stress from the workplace, chronic diseases are a major factor as to why companies overspend on staffing insurance costs. For example, smokers take many breaks during the day declining the company's overall efficiency and undermining its staffing model. Furthermore, workers with chronic disease such as diabetes, average more sick days than a healthy worker as well as reflect a higher cost to a company's insurance costs (Adams, 2009). For these reasons, small businesses are gaining a greater interest in wellness initiatives. Additionally, these businesses are realizing that promoting prevention and wellness initiatives at the workplace can be an effective approach to curb rising health care costs and the growing prevalence of chronic conditions (Washington, 2008).

A theoretical model can help to highlight the impact a wellness program can have on an individual, an organization, and even a community. The Socio Ecological Model (SEM) addresses the issue surrounding employees' lifestyle behavior choices (see figure 1). The SEM is

dynamic and interrelated, as “each sphere influences and is influenced by the other spheres” (Hayes, 2005). Three of the five spheres of the SEM – individual, interpersonal, and institutional, can be directly influenced through a worksite wellness program. Each sphere of the model “represents a set of influencing factors...and can either serve to promote or hinder healthy behavior” choices (Hayes, 2005). This is imperative as to why “successfully changing individual behavior” and sustaining healthy behavior change requires more than just “individual change strategies” (Hayes, 2005). Reshaping a worksite environment at the interpersonal and institutional level into one that is supportive of healthy behavior can help reshape cultural norms, “where [a] shift in individual behavior is so strong that a new or emerging community norm is forged” (Hayes, 2005).

Figure 1: Socio Ecological Model



Source: <http://www.esourceresearch.org/Portals/0/Uploads/Images/Glanz/SocialEcologicalModel.jpg>

Implementing a successful worksite wellness program is not a simple, short-term task and requires a sustained effort over time to cultivate healthy behavior change among employees. A variety of barriers need to be overcome in order to help decrease the number of people affected by chronic disease. Determinants such as diet, exercise, social support network, work structure and environment, and organizational culture combine to help or hinder one’s ability to live healthfully. The literature supports the notion that the workplace is an ideal intervention site,

as workplaces allow direct access to employees through “existing channels of communication and social support networks” (Merrill, 2011). Further, the worksite is a place where professionals spend most of their days, oftentimes sitting at a stationary desk for eight or more hours each day with limited opportunity for activity. Therefore, the worksite is an opportune public health setting to encourage health behavior change all the while reaching a large segment of the U.S. population that is suffering from preventable diseases.

Workplace wellness programs can take many different forms (see addendum A). Programs range from promoting participation in wellness activities, such as on-site flu shots, health fairs, employee assistance programs, and smoking cessation programs, to controversial programs that “impose significant financial penalties on employees who do not participate or fail to meet health goals, such as employer-defined Body Mass Index (BMI), cholesterol, blood glucose or blood pressure levels” (Volk, 2012).

Although wellness programs range in shape and size, many share similar offerings. Literature reveals employee wellness programs can be characterized along two dimensions – the method of delivery and the focus of intervention (Baicker, 2012). Research shows the most frequently used method of delivery is the health risk assessment – “a survey that gathers baseline self-reported health data from the employee, which are in turn used by the employer to tailor the subsequent intervention” (Baicker, 2012). Assessments are commonly used in conjunction with a clinical screening of risk factors including blood pressure, cholesterol, and body mass index. Common wellness interventions include the provision of self-help education materials, as well as “individual counseling with health care professionals”, or “onsite group activities led by trained personnel” (Baicker, 2012). Programs intended to increase employee physical health include educational seminars on personal health, personalized wellness programs emphasizing healthy

behaviors and rewarding employees, and smoking cessation programs (Taggart, 2009). EAPs address psychiatric referrals and counseling and offer 24-hour phone access, self-guided online options, and group approaches, as well as services to connect employees with counselors trained to deal with depression, anxiety, stress, eating disorders, trauma, and crisis response (Baicker, 2012).

Background

Current Statistics: The Rising Burden of Chronic Disease

Chronic diseases are the leading cause of death in the United States. According to the CDC, 70% of American deaths each year are due to chronic diseases. Among the most fatal of these common diseases are heart disease, cancer and stroke, which are responsible for more than half of all deaths each year (see figure 2) (CDC, 2012). In addition, non-fatal chronic conditions, such as musculoskeletal disorders and psychological disorders, are major sources of disability (Sorensen, 2011).

As reported by Sorensen and colleagues, more than 81 million Americans lived with cardiovascular disease in 2010, resulting in an estimated \$503 billion in health care costs. Other costly diseases include cancer (\$219 billion), diabetes (\$174 billion) and obesity (\$147 billion) (Sorensen, 2011). These diseases are often a result of lifestyle choices, such as tobacco use, physical inactivity, and poor nutrition habits.

More than 1.3 million Americans were diagnosed with cancer in 2005, while nearly 24 million people suffered from diabetes, which continues to be the leading cause of “kidney failure, non-traumatic lower-extremity amputations, and blindness among adults, aged 20-74” (CDC, 2012). In addition, obesity is among the fastest growing health concerns, as

approximately 67% of U.S. adults are overweight or obese, leading to higher health care costs in the United States (Sorensen, 2011).

Figure 2. Chronic Disease Chart

Table 1: Percentage of total deaths and lifestyle related risk factors for the 10 leading causes of death in the U.S.

Cause of Death	Percentage of Total Deaths	Primary Lifestyle Risk Factors
1. Heart Disease	28.0%	Smoking, hypertension, diet, high cholesterol, Type A behavior, lack of exercise, diabetes mellitus, obesity, stress (estimated 54% of risk is life style)
2. Cancers	24.0%	Smoking, alcohol, diet, environmental carcinogens, obesity (est. 37% of risk is life style)
3. Unintentional Injuries	5.9%	Alcohol, drugs, negative driving habits, not using seat belts (est. 60%+ of risk is life style)
4. Stroke	5.1%	Hypertension, smoking, high cholesterol, stress (est. 50% of risk is life style)
5. Chronic, obstructive lung disease	5.1%	Smoking
6. Diabetes Mellitus	2.9%	Obesity, diet (est. 34% of risk is life style)
7. Pneumonia & Influenza	2.4%	Smoking, alcohol (est. 23% of risk is life style)
8. Suicide	2.1%	Stress, alcohol, drugs (est. 60% of risk is life style)
9. Kidney Diseases & Cirrhosis	1.7%	Alcohol (est. 70% of risk is life style)
10. Alzheimer's Disease	1.5%	Blood pressure, cholesterol, diabetes mellitus, mental lassitude
Other	21.3%	

Source: (Adams, 2009)

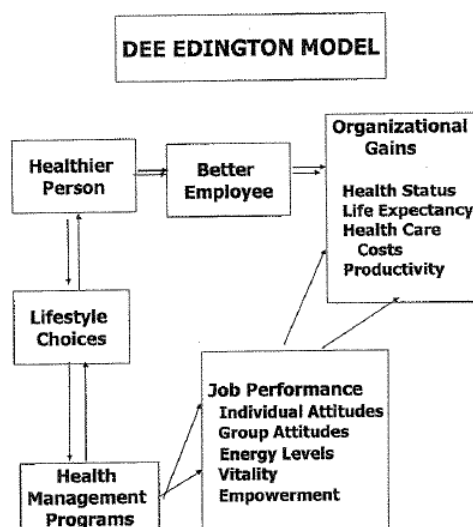
Domestic health care spending comprised more than 16% of the gross domestic product as of 2007, reaching \$2.25 trillion. In addition, average annual health care insurance premiums rose by 5%, making it a challenge for employees to continue to afford health care in a struggling economy (Edington, 2009). In fact, between 1991 and 2000, the national average annual percent growth in health care expenditures rose 6.5%, with Nevada seeing the largest increase over the past decade at 9.2% (Centers for Medicare & Medicaid Services, 2011).

Purpose and Specific Aims

Wellness Programs: An Untapped Resource

Although worksite wellness programs are an important piece of an effective benefits package, not all businesses are utilizing them. Worksite wellness programs have the potential to benefit not only the employees that participate in them, but also the financial stake and reputation of the employer. Studies have shown worksite wellness programs lead to a healthier workforce as a result of helping control “escalating employee health care costs, increase[ing] employee productivity, improv[ing] employee job satisfaction, lower[ing] absenteeism, promot[ing] a sense of community, and improve[ing] health behaviors and long-term health” (Pelletier, 2011). Collectively, these results lead to a greater return on a business’ wellness program investment. As illustrated by the Dee Edington Model (see figure 3), wellness programs serve as the foundation for employee and employer gain. Thus, it is no surprise a “public health goal in the United States [is] to increase both the number of worksites offering a comprehensive employee health promotion program and the number of employees who participate in employer-sponsored health promotion activities” (Merrill, 2011).

Figure 3. Dee Edington Model



Wellness Programs: A Possibility for a Greater ROI

Many businesses utilize benefits packages to not only retain current employees, but also to recruit the best talent that will increase productivity during a tough economy (Workplace Wellness, 2010). According to the International Foundation of Employee Benefit Plans (IFEBC), wellness programs have been in existence for “more than 30 years, but they are now evolving into an essential tool for employers and the broader health care community because of their ability to change the employee health behaviors that drive future health care costs” (RWJF, 2005). Therefore, including wellness programs as a part of the benefit package can result in potential cost savings and improved productivity, thus increasing a business’s financial return on the program. Return-on-investment is multifaceted and would not be immediate for the employer (Taggart, 2009). Lower operating costs are the result of the savings accumulated from a reduction in health care costs as well as a decrease in absenteeism and sick leave, positively impacting employee efficiency and productivity. Additionally, the recently passed Affordable Care Act offers a variety of tax credits to incentivize small businesses in providing benefits and wellness programs. Organizations with fewer than “25 full-time exempt employees may be eligible for tax credits to assist in the cost of health insurance up to 35% of the employer’s contribution toward insurance premiums,” with the exact amount of tax credits “depend[ing] on the number of employees and average wages” (Focus, 2012). Additionally, employers that did not previously offer wellness programs prior to March 2010 may be eligible for grant money to begin execution of program implementation (Focus, 2012).

The old adage by Benjamin Franklin, “an ounce of prevention is worth a pound of cure,” seems to be true (Loeppke, n.d.). A review of 22 studies reporting on the impact of wellness programs suggests that businesses adopting wellness programs see substantial positive returns,

even within the first few years after adoption (Baicker, 2012). The estimated ROI for worksite wellness programs is “\$3 to \$6 for every \$1 invested, generally after two or more years of comprehensive wellness program implementation” (Volk, 2012). Specifically, medical costs fall about \$3.27 for every dollar spent on wellness programs, and absentee day costs fall by about \$2.73 for every dollar spent (Baicker, 2012). Some of the savings is reflected in the employees’ pockets through lower insurance premiums; however, the employer will also see a return. The ROI is achieved through “lower use of health care services, reduced absenteeism, and reduced workers compensation and disability claims” (Volk, 2012). These findings suggest a wider adoption of wellness programs “could prove beneficial for budgets and productivity as well as health outcomes” (Baicker, 2012).

Big vs. Small Businesses

In the reviewed literature, there is a wide range of how many employees constitute a small business. For this paper’s purpose, the suggestions provided are intended for businesses with 50 employees or fewer, as these businesses are less likely to have established wellness programs for their employees potentially due to limited discretionary income and the fear of upfront costs. The advent of the ACA, coupled with the impact of implemented wellness programs and an increase in the awareness of benefits, allows for businesses to have a great potential for a ROI through implemented wellness programs. While the best practices are targeted at the smallest of the small, the following data highlights components of wellness programs at businesses of all sizes.

According to the currently available data from the United States Census Bureau, there are more than 27.5 million domestic businesses (United States Census Bureau [USCB], 2009). Small businesses account for 99.9% of domestic businesses and 52% of the United States workforce,

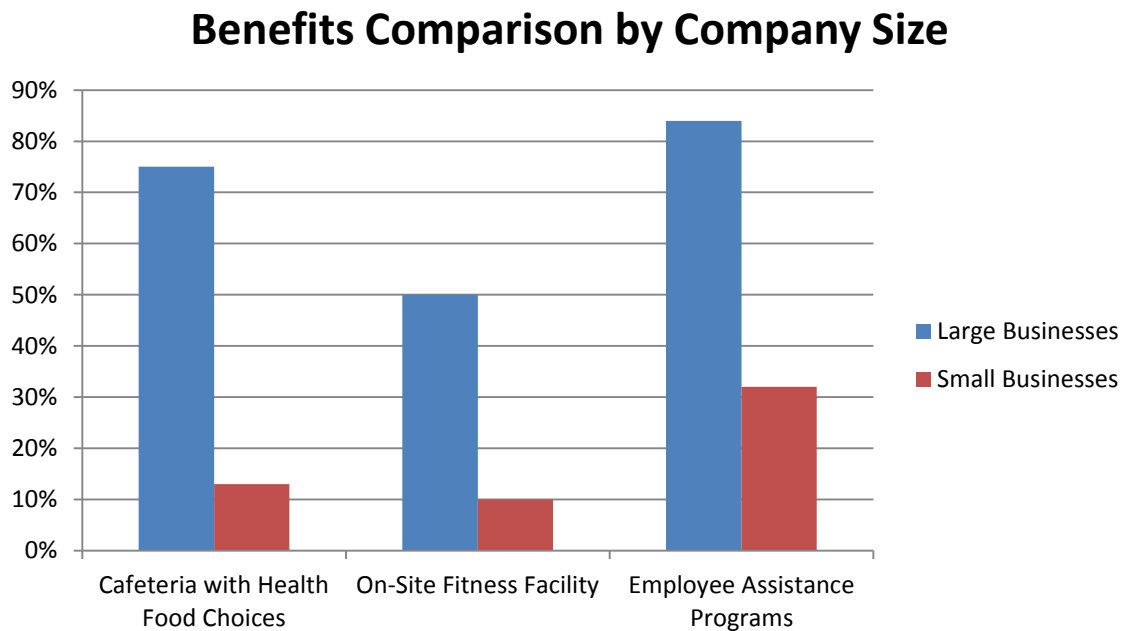
according to the Small Business Administration (SBA). The Office of Advocacy defines a small business as “an independent business having fewer than 500 employees” (United States Small Business Administration, 2012). Giant corporations make up only a tenth of a percent of this total. Of the small businesses in the United States, “some 19.6 million Americans work for companies employing fewer than 20 workers, 18.4 million people work for firms employing between 20 and 99 workers, and 14.6 million people work for firms with 100 to 499 workers” (Conte, n.d.).

According to key findings from a Robert Wood Johnson Foundation (RWJF) 2008 Program Results Report, employees of large businesses have advantages over workers of small businesses by the amount of resources their companies provide related to health and wellness. The 2008 Program Results reports “worksites with [a large number of] employees [are] more likely than smaller worksites to offer some type of health promotion, screening or disease management program” (see addendum B and figure 4, below) (RWJF, 2008). For example, the study found “84.2% of large [work]sites offer employee assistance programs [(EAPs)], [compared to only] 32% of sites with 50 to 99 employees” (RWJF, 2008). Furthermore, the report revealed EAPs and back injury prevention programs are offered at an estimated “half of all worksites, [both] large and small” and less commonly offered are stress management, nutrition, and weight management programs (RWJF, 2008). Additionally, about a third of employers offered blood pressure and drug and alcohol abuse screenings. Less common screenings included blood cholesterol, diabetes, and cancer. Even rarer is that only a quarter of worksites offered programs to manage cardiovascular disease and diabetes (RWJF, 2008).

To make matters worse, large employers are more likely than small employers to offer comprehensive health promotion programs and have “fitness opportunities and health-promoting

policies in place” (RWJF, 2008) (see addendums A and B). According to the RWJF report, “almost half of the large employers provided an on-site fitness facility versus less than 10% of small employers” (RWJF, 2008). The report found that the environments of larger worksites are more supportive to healthy living, as “75% of the large sites had a cafeteria, giving employees the choice to eat healthy foods, compared to 42% of medium worksites (250 to 749 employees) and 13% of small worksites” (RWJF, 2008). It is also more likely for larger employers to have supportive smoking cessation policies in place, as “40% of all employers had policies prohibiting smoking on worksite property. Almost 50% of large worksites prohibited smoking” (RWJF, 2008).

Figure 4. Benefits Comparison by Company Size per data in Robert Wood Johnson Foundation. Getting down to work: Engaging business in achieving a healthy workforce. (July, 29 2008.)



The Current Status of Wellness Programs in the United States

In 2007, RWJF published the results of the 2004 National Worksite Health Promotion Survey, revealing “two-thirds of [all large] worksites [have] at least one full- or part-time staff person with direct responsibility for health promotion and worksite wellness” (RWJF, 2008). Sites with a staff member “dedicated to health promotion [are] nearly 30 times as likely to offer a comprehensive program as sites without such a person” (Simplified Wellness Programs, 2010). The results also stated a quarter of large worksites offer gifts, discounts, and cash incentives to increase employee participation in health promotion and worksite wellness programs (RWJF, 2008).

Due to the voluntary nature of workplace wellness programs, employers are increasingly using incentives to encourage employee participation. Research shows 30% of wellness programs use incentives to motivate participation (Simplified Wellness Programs, 2010). In addition to monetary incentives such as bonuses and reimbursements for program participation, prizes such t-shirts, baseball caps, or gifts of significant value have been utilized in wellness programs (Simplified Wellness Programs, 2010).

Nevertheless, recent research has shown that “behavior-economics tools are sometimes better than monetary incentives” (Research Shows, 2011). Incentives, especially for small businesses, are not sustainable because if they are not increased every year it is hard to keep employees motivated. Findings support the belief that tailored messaging aimed at influencing behaviors is extremely effective and a low-cost tactic to increase wellness program participation. This is promising information, as creative and simple tools, based on people’s psychology, can actually “affect change without having to give people monetary incentives,” thus helping programs become sustainable (Research Shows, 2011).

Between 1999 and 2004, the number of health promotion programs remained stable at large worksites but dropped at those with fewer than 750 employees. Lack of management support and conflicts with work demands were reported at significantly higher rates in 2004 than in 1999 – other reasons included: lack of employee interest (63.5% in 2004 vs. 49.6% in 1999) and lack of company resources (63.4% in 2004 vs. 36.8% in 1999)” (RWJF, 2008). These are noteworthy findings because small worksites, as previously mentioned, comprise 99.9% of all businesses. Despite these negative findings about reductions to wellness programs in recent years, small businesses, even with a small budget, are fully capable of building a robust wellness program. For example, a company’s insurance provider may offer free access to wellness benefits, including employee surveys to discover the wellness needs of the company. Furthermore, small businesses may be able to allocate a few dollars toward some wellness benefits for employees. For example, the NC Prevention Partners has a \$150 wellness benefit for each staff member that they can use toward purchasing anything wellness related such as buying new running shoes or signing up for a race. Other options include free fruit in the break room, access to a room where exercises can be done during the workday, a policy of 30-minutes of paid physical activity time each work day, company “walking challenges,” only ordering healthy food options for catered events, and an annual review of health insurance benefits. The NC Prevention Partners also has a small wellness committee that meets monthly and includes senior leadership from the organization (E. Hodges, personal communication, November 1, 2012). These examples may not be as comprehensive as a large corporation, but they are a good way for small companies to see that a robust wellness program can be implemented on a small budget.

Barriers Small Businesses Face Related To Worksite Wellness Programs

Research shows that in light of today's economy, small businesses continue to face the challenge of combating the growing comprehensive medical care costs shared by both employee and employer due to an unhealthy workforce. To meet escalating costs, studies reveal employers reduce medical coverage and shift costs to the employee, through higher premiums for those who have certain risk factors, such as a high BMI or a smoking habit (Shackleford, 2008). However, this "cost-shifting" is not a sustainable solution, as adjusting "who pays" does not alter their employees' lifestyle behaviors that ultimately determine the employees' own health outcomes (Edington, 2009).

One roadblock businesses face when they invest in a wellness program is the turnover rate of employees today, as 40% of employees change companies within five years (Taggart, 2009). Because of this rate of change, employers are hesitant to provide wellness programs, because they do not foresee a return on their investment for a large portion of their workforce (Taggart, 2009).

Another challenge facing employers is engaging employees in the wellness programs. Employers may be fearful that their employees will not take advantage of wellness programs offered. Critics claim wellness programs will take attention away from job duties and that they are too expensive to add as a component to the bundle of health benefits that are offered to employees.

Literature also reveals employers view "administrative complexity and Human Resources time commitment as large barriers" to implementing new wellness programs (Workplace Clinics, 2011). Small businesses face the challenges of coordinating staff to execute and be responsible for the wellness program. With already tight purse strings, small businesses are not always able

to hire additional staff. Distributing additional job responsibilities to existing staff leads to the potential for employees to become overworked, thus negating the effects of the wellness program for these select employees. Furthermore, employers fear wellness programs will be expensive and will not help accomplish short-term business objectives. They see wellness as a perk – a “nonessential expense” easily removed during hard times (Taggart, 2009). Therefore it is not surprising that businesses have been slow to “implement or expand workplace health management programs” (Taggart, 2009).

Another challenge small businesses face in creating a culture of health include privacy issues, as instituting programs designed to alter employees’ behaviors may be seen as crossing the line in regards to personal decisions in order to qualify or obtain benefits (Nilsson, 2011). There are implications for privacy and security of personal identifying information and personal health information. There have been grave concerns about information being requested by employers and the potential use of this information for decision-making about non-health related personnel issues, including hiring, firing, and promotional opportunities (Randolph, 2012).

Another concern is the fear and perception of discrimination. Wellness programs that tie the “cost of insurance to the ability to meet certain health status goals” have the potential to discriminate against lower-income individuals or racial and ethnic minorities, as these individuals are “more likely to have the health conditions that wellness programs target” (Simplified Wellness Programs, 2010). Additionally, these individuals may face difficult and personal barriers to healthy living outside the worksite, such as “financial [hardship] and environmental factors, including unsafe neighborhoods, [long commutes], and lack of access to healthy food” (Simplified Wellness Programs, 2010). Additionally, some critics warn that wellness program requirements can discourage participation by implementing “a system of

rewards or penalties totaling thousands of dollars annually to coerce employees who cannot meet health status goals to seek coverage elsewhere” (Simplified Wellness Programs, 2010). This “carrot vs. stick” system includes tactics such as reducing premium contributions for workers who are in wellness programs, or reducing the amount employees must pay in deductibles and copayments when obtaining health services (Simplified Wellness Programs, 2010). Another trend among employers leading to fear or the perception of discrimination is offering multiple health plans that allow participation in a comprehensive plan only to those employees who agree to participate in the wellness program. Employees who choose not to participate in the program, in turn, receive a less comprehensive plan, or one that requires them to pay more in premiums and/or deductibles. These employees may even choose to opt out of a plan altogether. Thus, there is “conflict over programs that tie rewards or penalties to individuals achieving standards related to health status – and especially over those arrangements that affect employee health insurance premiums or cost-sharing amounts” (Simplified Wellness Programs, 2010).

Myth Busting the Barriers

Realistic solutions to the key barriers are summarized in Figure 5 and discussed below.

Figure 5. Myth Busting the Barriers

Myth/Barrier	Reality/Solution
Fear of extra costs, resources/capacity and time, negatively affecting ROI	Employers can implement non-monetary rewards, reducing costs of a wellness program
Fear of employee turnover negatively affecting ROI	Employers who offer wellness programs are perceived to have valuable benefits packages and therefore employees are less likely to leave
Fear of low engagement/interest	Programs created with employees’ interests in mind will secure engagement because they will feel more invested
Fear of discrimination and infringement on employees’ privacy	Confidentiality protections through law address concerns about personal medical information being secure

Barrier: Fear of extra costs, resources and time, negatively affecting ROI

During a tough economy, employers must make a decision between cutting costs and investing in the health of their staff while maintaining an efficient business operation. Therefore, benefits packages are among the most critical decisions an employer faces when trying to maintain balance between profitability and rewarding staff. Fortunately, building a healthy worksite culture does not have to break the bank. What it does require is organizational vision and commitment from its leadership. Employers can be creative to determine non-monetary ways to reward employees that will promote healthy lifestyle choices. Additionally, it is reasonable to assume that having a wellness program will promote a reduction in absenteeism due to chronic illness and potentially reduce employee turnover. Retaining staff will in turn reduce training costs and raise the level of productivity, further advancing ROI and building a culture for wellness.

Furthermore, wellness programs can help employees improve mental health. This is important because the mental health of an employee has a great effect on stress levels. Conversely, while an employer may see short-term savings by not taking on the cost of a wellness program, employees are more likely to become stressed, burned out, or distracted by personal issues. In the long-term, employers would incur a greater financial burden on the company due to a drop in productivity, as well as incur the cost of finding additional staff to make up for the missed work, and related training costs. Thus, employers have a long-term incentive to make an initial investment in employee health (ROI-Based Analysis, 2008).

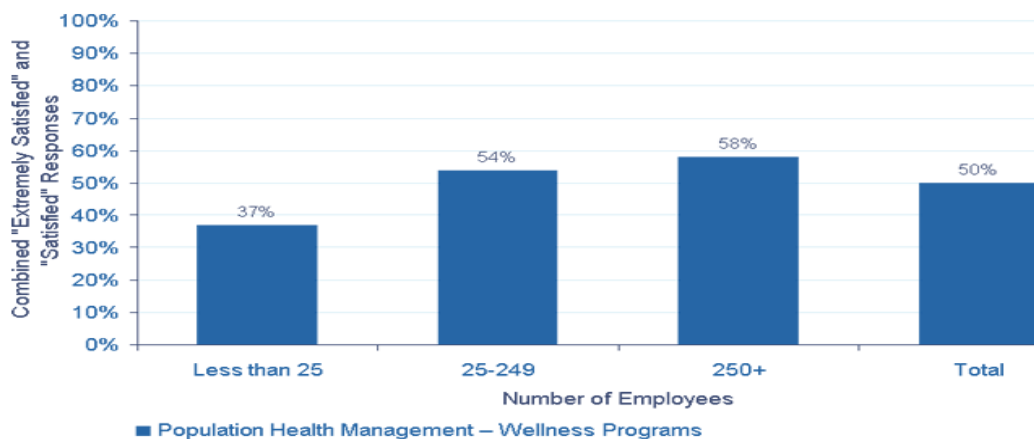
Barrier: Fear of low engagement/interest

Research reports that employees “generally like” wellness programs, and “value a strong benefits package” (Taggart, 2009). Therefore, these programs should be showcased as

prominently as 401Ks or any other perk of employment by the company. While some companies offer a wellness program, many do not meet the needs of the workforce (see figure 6).

According to a report from Pricewaterhouse Coopers' Health Research Institute that surveyed more than 100 large U.S.-based companies and more than 250 privately held small companies, even when employers offer a wellness program, less than half of employees are satisfied with the services offered. This is especially true of companies with less than 25 employees, as only 37% of employees of small businesses are satisfied with their current wellness programs (Pricewaterhouse Coopers, 2008).

Figure 6. Measure of Wellness Program Satisfaction Based on Number of Employees



Source: (Pricewaterhouse Coopers, 2008).

Oftentimes, employers choose plans that focus on what they incorrectly think employees want and need, thereby resulting in low engagement and participation from the workforce. Surveys have shown that what managers think employees want and what employees actually want can be very different things. For instance, employers might put in place wellness initiatives that surround health fairs and/or incentives for reaching certain physiological metrics (i.e. healthy BMI or blood pressure reading), when in reality, employees are more concerned about

obtaining a work-life balance. Wellness programs cannot be developed under a one-size-fits all philosophy. People have diverse issues, problems, and personalities that require dynamic outreach tactics to meet their individual needs. There are many online tools and resources that can be utilized to provide information to employers to meet these needs, such as the CDC [Total Worker Health Employee and Employer Resources](#) or the CDC wellness worksite [“Toolkit” page](#), as well as companies’ existing health insurance website tools.

An overview on how wellness program customization is achieved can be found in the next section of this paper – Best Practices to Introducing Wellness Programs to Small Businesses. To garner a positive return on investment from these programs, it is not only critical for employers to tailor initiatives to the demands of the workforce, but it is also critical to properly market the program and the initiatives that fall within, as employees will be more likely to participate in wellness program activities that interest them.

Additionally, participants may serve as motivation to non-participating staff. As participants receive tangible accommodation and results of their efforts, non-participants will want to be included and reap benefits themselves; and then participation will become the new worksite norm. This example illustrates altering the interpersonal and institutional spheres of the SEM in order to sustain healthy behavior changes. The participants influencing each other’s personal behavior choices showcases the interpersonal sphere of the SEM, and this in turn influences the cultural atmosphere of the workplace, resulting in new worksite norms. The worksite represents the institutional sphere, and personal behavior choices represent the interpersonal sphere.

Barrier: Fear of discrimination or infringement on employees' privacy

The United States Department of Health and Human Services has addressed the need for privacy of personal health information. Worksite wellness programs must adhere to a number of federal and state requirements, such as the Americans with Disabilities Act of 1990, the Genetic Information Nondiscrimination Act of 2008, and the Health Insurance Portability and Accountability Act of 1996 – HIPAA (*Simplified Wellness Programs*, 2010). Protecting confidentiality and privacy is imperative to preserving trust. For instance, in 2009, the North Carolina legislature passed a Comprehensive Wellness Initiative (North Carolina Session Law 2009-16), as part of the North Carolina State Health Plan for Teachers and Employees, to encourage healthy lifestyle choices (General Assembly of North Carolina, 2009). All plan members were initially placed into the higher premium category unless they could attest they did not use tobacco products; those state employees who did not wish to attest remained in the higher health insurance premium category while others received a discount (North Carolina State Health Plan, n.d.). Backlash against this disincentive occurred among North Carolina state government employees (Clark, 2012). People became very concerned that their employer would know their personal health habits and use it against them for future promotions (Clark, 2012). Though the law enacting the initiative was repealed in 2011, the State Health Plan continues to have difficulty convincing state employees that providing information about their personal health will not affect their insurance status (Clark, 2012; General Assembly of North Carolina, 2011). This is why personal medical information gathered as a result of employment or through wellness programs must be extended the same confidentiality protections as that collected for payment purposes (Randolph, 2012). Employers can establish trust through transparency, such as

including round-tables and one-on-one conversations to address concerns or suggestions to ensure the security of these data.

Significance

Best Practices for Introducing Wellness Programs to Small Businesses

A sound foundation for best practices should build upon the three core functions of public health—assessment, policy development, and assurance. Assessment involves the identification of health problems, policy development involves the identification of possible solutions, and assurance involves the implementation of the supposed solutions (Rowitz, 2009). A programmatic foundation based on these public health functions “serves as a bridge between and among measurement sciences, behavioral and organizational theories, health problems, and public health practice[s]” (Peoples-Sheps, 2002). With this foundation, best practices should guide “data and evidence-based planning within a framework that encourages [the] development of creative, responsive, and accountable interventions” for the wellness programs of small businesses. (Peoples-Sheps, 2002). Therefore, to successfully roll out a worksite wellness program in which employees will actively participate, an employer should consider the following best practices.

Note, these best practices are modeled after the CDC Framework of Evaluation (addendum C), Dee Edington’s Model (figure 3), Ripley’s Model (addendum D), the Socio Ecological Model (figure 1), and Components of the Policy Development Process (addendum E).

Assessment

Before a small business can implement a functioning wellness program, a planning committee should first be established. This committee of two to three employees can be selected based on qualification and availability. The planning committee should conduct an assessment

on a diverse landscape of the workforce, if not all employees, in order to get a complete snapshot of the health status problems employees face as well as assess the health service needs of the workforce. Additional organizational factors to be assessed include the capacity of resources such as leadership, staffing, fiscal and physical resources, work environment, and the organizational structure of the worksite.

The planning committee's role is to also systematically "collect, assemble, analyze, and make available" aggregated information on the health of the workforce, "including statistics on health status, perceived health needs, and identified health problems" (Loeppke, n.d.). The planning committee can capture data through the implementation of an anonymous survey to assess the needs and wants of staff members. This research should allow policy and program planners the ability to measure and identify key determinants of behavior about their employees, such as current barriers to health, interest areas and preferences, unmet needs, adequacy for existing services and workplace policies, and baseline understandings of health factors and conditions (Rowitz, 2009).

Ultimately, this needs-assessment approach should highlight specific areas for improvement and establish accountability amongst employees by including them as part of the process (Rowitz, 2009). Furthermore, demand for services and unmet needs of the workforce can be gauged, and employees' perceptions of future, potential wellness incentives can be revealed. This assessment process ends following the prioritization of identified health needs.

Policy Development

Following the assessment, wellness policies and program plans should be formed to address the identified and prioritized health problems, as well as general health maintenance supports for those who do not suffer from health ailments, thus supporting all employees in their

wellness efforts. Written policies ensure that businesses support wellness programs by defining and communicating expectations as well as create a foundation to justify funding, ultimately leading to sustainability. These workplace policies provide for the establishment and reach of determined initiatives and can complement healthy values and support changes to the worksite environment and policy standards. It is important for these policies to exist in support of future evaluation. As the quality of a wellness program can only be as effective as the formative research performed during the program assessment phase.

It is known that an effective policy is one that involves significant planning time, senior management commitment, and a strategic planning committee. The planning committee should include stakeholders from within the company in order to determine the worksite wellness mission and vision to create a culture of health. These stakeholders include company management, employees, and employee health care plan provider, as they can commit time and are in touch with health issues impacting companies. Because reflection stimulates participation, sharing the ownership and contributing to the decision-making process will create governance, and future wellness tactics will resonate stronger with employees. Incorporating the different viewpoints of stakeholders is essential to building a program that can lead to successful, sustainable behavior change (Chapman, 2011).

Furthermore, the multiple stakeholders' viewpoints should help determine parameters surrounding budget and timeframe, utilizing resource acquisition data and findings. A realistic budget should include the cost of the incentives used to encourage participation, materials used for the program, and people employed to run and implement the program (with a possible consideration of reallocation of job duties for existing staff). As the budget is being finalized, the timeline should be confirmed, detailing the commencement of the program and timing for

subsequent action items, as well as detailing when deadlines for completing goals and objectives should be accomplished and evaluated.

Senior management commitment and participation should also be regularly confirmed. Oftentimes, it takes evidence and research to prove to senior leaders the “financial correlation between productivity and healthy employees” (McGrory, 2012). Although, according to RWJF, a strategy that only recruits CEOs may slow down efforts in building a wellness initiative. This is because “CEOs [are] often willing to lend their names but [are] unable to commit the time to be active members” (RWJF, 2008). Nevertheless, the senior management team can make a real difference in employee health and productivity by leading by example, as this demonstrates a true commitment to improving the overall health of the work force and can help alter cultural norms in the workplace. Because senior employees hold status, they are able to “set the tone for a culture of health,” thus impacting the interpersonal level of the SEM (McGrory, 2012). With actively engaged upper management, employees will be positively influenced to follow suit. This illustrates the trickle-down effect leaders can have on their followers.

The planning committee should make sure to address perceived barriers of the workforce, by working with the Human Resources professional and establishing corporate policies that identify secure information practices relating to collecting and maintaining personal health information. These policies should be included in an employee handbook and reviewed with all employees in order to practice transparency.

It is important for planners and stakeholders to develop and embrace an organizational vision of health. Focusing on a reduction of employees’ short-term medical costs will lead to limited results. Instead, it is important to consider the institutional level of the SEM and focus on employee health as a central part of the organizational vision. Due to the fact that much of

employers' health care costs are a result of unhealthy lifestyle choices made by employees, health policies such as a smoke-free workplace, for example, are crucial to eliminate spending where possible (Goetzel, 2008).

During this policy development stage, S.M.A.R.T. (specific, measurable, attainable, realistic, time-sensitive) goals are developed to measure the effectiveness of the wellness program. Because health behavior is complex and influenced by a variety of different factors, SEM should be referenced while setting goals and objectives to ensure each applicable sphere (individual, interpersonal, institutional) is addressed. These goals will hold the program accountable by determining benchmarks and levels of success.

In addition, specific objectives should be created to further specify and achieve the set goals by translating the goals into action. Overarching goals and objectives will synergize to help create a worksite that is conducive to choosing healthy behaviors. At this point, the program should be thoroughly defined, including purpose, plan for implementation, as well as metrics that can gauge program success.

Furthermore, as noted by Taggart, a wellness program should offer services through diverse channels (e.g., phone, one-on-one, group interactions). Planners must also match employees to the right kind of channel and frame it in a supportive way (Taggart, 2009). Tailored communication and messaging of worksite wellness programs is a fundamental aspect of plan design. If the communication and messaging do not resonate with the target, employee participation will suffer.

As part of the design process, incentives and benefits should be considered and established to further drive participation and engagement. Employers can create innovative ways to reward employees who participate in programming, such as simple verbal recognition, rather

than invest in expensive rewards. The literature shows “a little ‘nudge’ can bring big results in employee engagement” (Research Shows, 2011). Low-cost and tailored messaging has been shown to effectively prompt employees to “make a plan” and significantly increase completion of a health activity, such as getting a flu shot. With cost containment being an important factor to small businesses, these behavioral-economics tools are a low-cost way to effectively increase employee health engagement (Research Shows, 2011). However, participatory incentives, while enticing, should not serve as the sole foundation of the program. The committee should rather focus on creating a supportive culture and atmosphere that helps establish sustainable healthy behavior change (James, 2012).

Assurance

Once the programs and policies have been developed, the next step is implementing the program. During this stage “an operational program plan, including fully described activities, budget, staffing requirements, and an implementation schedule, is developed from the objectives and policy development stage” (Peoples-Sheps, 2002). In order to implement a program, resources should be acquired such as pedometers for walking challenges, posters to encourage stairwell use, and bowls to hold fruit. Resource acquisition is another area that needs to be considered. Local non-profit organizations, such as the American Cancer Society, could be contacted to provide free educational sessions during the lunch hour (i.e. lunch-n-learns) on wellness topics, such as smoking cessation. Additionally, businesses can poll internally to see if an employee would be willing to host weekly exercise sessions. Various planning activities should take place, as well as managing organizational structure. Innovation should be embraced and programmatic responsibility is officially delegated to staff in order to oversee the program.

As previously mentioned, when it comes to implementation, senior leadership should lead by example, setting a precedent for the rest of staff. Leaders, such as managers and CEOs, are responsible for “ensuring all staff recognize their own responsibilities in the culture of health” because they “lead the way for establishing the programs and policies designed to encourage healthier lifestyles for employees” (McGrory, 2012). Over the course of the program, having senior leadership lead by example will create norms that support a worksite culture of health, in turn leading to a supportive environment that cultivates healthy behavior change for employees. Finally, the payoff – routines of providing the benefits and services – are developed. The actual program activities involve providing the wellness benefits and services as planned during development stages. In addition, tailored marketing and communication can help drive engagement and reinforce workplace wellness messages. Examples of this tactic include employee outreach through email, bulletin boards, newsletters, and meetings, as well as changes to workplace environment such as music and art in stairwells (Simplified Wellness Programs, 2010).

Following implementation of the program, small businesses should conduct outcome and impact evaluations to assess the program’s effectiveness. Evaluators can follow a variety of models that have parallel formulas such as the Plan Do Study Act (PDSA) model and the Strengths Weaknesses Opportunities Threats (SWOT) analysis model. Essentially, these models involve a comparison between the program’s actual experience in reaching its objectives and the targets that were originally set for those objectives. The resulting information, in turn, feeds directly into the next round of program planning and related adjustments to the wellness program.

The key purpose of the evaluation is reporting on program metrics, participant evaluation, and process data to stakeholders. Proper synthesis and interpretation of data will allow planners to confidently justify conclusions and recommendations made about the wellness program to the organization's leadership and further establishing credibility with stakeholders (Research Shows, 2011). By examining the actions of the program (implementation) and the metrics that were collected (performance and impacts), analysts should synthesize data and make recommendations for next steps. These metrics can help “connect investments [of the] program to short- and long-term results” (Berry, 2011).

Two classifications of impact analysis metrics should be considered to determine the net impacts of the program – those that measure the individual, as well as those that measure the organization. Employee metrics include “measures of participation [and penetration], satisfaction, health-risk status, and well-being,” while organizational metrics include “measures of finances, productivity [(such as absenteeism and presenteeism)], and cultural outcomes” such as trust in management and voluntary turnover (Berry, 2011). While a wellness program will dictate a regular timeline for measurement, the most common evaluation periods are weekly, monthly, quarterly, and yearly, depending on the metric and scope of the program. A spokesperson from the NC Prevention Partners recommends that if leadership is not regularly involved and updated on wellness program evaluation results and they are not involved in the wellness committee, optimization updates could take effect each quarter. These updates would be especially beneficial around the time that budgets are established for the upcoming fiscal year as presenting good numbers at that time would help solidify the need for continued funding for the program. (E. Hodges, personal communication, November 14, 2012).

The evaluation process can uncover problems, thus leading to conclusions about the program and identifying needs that should be further assessed and later addressed into policy changes. A biannual assessment of the wellness program allows for optimization and time to makes pertinent changes before the final year-end evaluation. Integrating these evaluation findings is an ongoing refinement of the program. Amendments made to the program should remain in line with the original goals and objectives. This type of continuous quality improvement (CQI) can help maximize effectiveness and obtain a higher ROI.

As transparent communication with employees remains a priority, another best practice is sharing collective evaluation metrics, thus maintaining employee confidentiality. For example, highlighting effective program outcomes, such as the percentage of employees engaged in the workplace wellness program each month, can help influence new norms and further the development of a culture of health in the workplace.

The Importance of Leadership

Engaging leadership is crucial for worksite wellness programs to become a welcomed facet of the workplace. In leading by example, senior management can help reset cultural norms, in turn, creating a supportive environment in which wellness initiatives can thrive (Sollecito, 2012).

Furthermore, it is important for leaders to understand that there may be resistance when first introducing a wellness program. Getting people in an organization to address “deeply felt issues,” such as those surrounding chronic disease and personal health, “is difficult and risky” (Heiftz & Linksy, 2002). Challenging the long-set values that employees hold dear – “their daily habits, tools, loyalties, and ways of thinking” – puts leaders in a vulnerable position (Heiftz & Linksy, 2002). People naturally become defensive when their personal lifestyle habits are

questioned. These habits, some of which stem from family upbringing, can lead to difficult value decisions. (Heiftz & Linksy, 2002). This is why the sustainability of change depends on having the people with the problem “internalize the change itself” (Heiftz & Linksy, 2002).

Leaders need to be receptive to fears, perceptions, and ongoing happenings of employees. It is important for leaders to “start where people are at,” as this allows leaders to take in their employees’ perspective as the starting point and makes leaders less likely “to be dismissed as irrelevant, insensitive, or presumptuous” (Heiftz & Linksy, 2002). Once a leader can understand where their employees are coming from, they can connect and engage them in change with the worksite wellness program and help establish a culture of trust and community. Additionally, there are important qualities leaders should possess in order to successfully steer wellness programs. These qualities include perseverance to combat backlash, listening and being open to others’ ideas, and command when employees are looking for direction (Heiftz & Linksy, 2002).

Creating a type of supportive environment can allow employees to truly focus on their job duties at hand and feel empowered, and empowerment is one of the basic components of effective CQI efforts (Evarts & Sollecito, 2012). Melum and Sinioris’ book entitled, *Total Quality Management*, provides a very good discussion about empowerment. They state that “more than anything else, it is the mutual respect and trust between employees and managers that make empowerment possible” (Melum & Sinioris, 1992). The impact this empowerment has on employee commitment leads to higher levels of motivation, and in turn productivity and a positive return on investment of the wellness program (Melum & Sinioris, 1992).

In sum, it is important for senior management of small businesses to exercise leadership and take up this challenge of providing wellness programs in the workplace, and committing ongoing resources to support one. By making the lives of people in the workplace better, an

organization's leadership "provides meaning in life...and creates purpose" (Heiftz & Linsky, 2002). Engaging upper-level management to practice and preach wellness creates a healthier work environment in which the development of supportive policies and benefits can improve a business' culture and its bottom line (Anderson, 2008).

Forecasting / Future Implications

A great proportion of Americans have adopted unhealthy lifestyle decisions as a cultural norm. This negligence has resulted in the growing health care cost crises the United States faces today. As noted by Dr. Ryan Loeppke, Vice President of the American College of Occupational and Environmental Medicine and Vice Chairman of US Preventive Medicine, preventable conditions account for 75% of health care costs and 70% of deaths in the United States. In fact, "96% of all Medicare expenditures are spent on these chronic conditions that have lifestyle health risk factors impacting their development" (Loeppke, n.d.).

Over time, preventative wellness programs have the ability to create widespread change. Instead of rationalizing the growing costs of health care, the focus should be on worksite wellness programs as a valuable business investment. Loeppke implores that if enough organizations alter their employees' lifestyle choices for the better, this can lead to a healthier country, as preventing people from getting sick would "unleash financial and clinical resources to better care for those who are ill," as well as "enhance and strengthen the safety net throughout our health care ecosystem" (Loeppke, n.d.).

Because small businesses employ more than half of the workforce, the leaders of public health and workplace wellness programs have an excellent opportunity to take action and make a big impact on the health of our nation. It is essential these employers invest in workplace wellness programs. Not only will these programs serve as a catalyst in reducing the burden of

risk and illness to the entire society, they will also “improve the health and productivity of [the American] workforce, the profitability of engaged employers and, ultimately, the vitality of our nation’s economy” (Loeppke, n.d.).

Conclusion

A wellness program is a mutually beneficial offering to both employees and employer. When implemented successfully, employees benefit from feeling valued and have the opportunity to incorporate sustainable and healthy choices into their lifestyles. On the other side of the spectrum, employers see gain through employee retention, lower health care premiums, and ultimately a more productive and efficient workforce. As small businesses realize this employee benefit is also a valuable investment, the number of worksite wellness programs should grow, resulting in a changed and healthier worksite environment, and ultimately, changed and healthier communities over time.

Addendums

A. Types of Program Offerings, Based on Business Size

TABLE 1—

Selected Health Promotion Programs and Services, by Worksite Size: National Worksite Health Promotion Survey, 2004

	Total (n = 730), % (95% CI)	50–99 Employees (n = 179), % (95% CI)	100–249 Employees (n = 229), % (95% CI)	250–749 Employees (n = 211), % (95% CI)	≥ 750 Employees (n = 111), % (95% CI)
Programs or activities					
Employee assistance	44.7 (39.28, 50.13)	32.4 (23.49, 41.28)	48.07 (39.03, 57.12)	63.3 (52.40, 74.24)	84.2 (69.70, 98.62)
Smoking cessation	18.6 (14.51, 22.46)	8.8 (3.51, 14.12)	19.4 (12.66, 26.08)	32.0 (21.92, 42.17)	68.1 (53.13, 83.14)
Physical activity	19.6 (15.54, 23.67)	9.0 (3.67, 14.30)	23.6 (16.11, 31.11)	28.5 (19.50, 37.42)	66.1 (49.15, 83.10)
Cholesterol reduction	19.9 (15.55, 24.14)	16.4 (9.02, 23.87)	17.5 (11.41, 23.55)	29.3 (19.78, 38.86)	42.1 (23.80, 60.45)
Nutrition	22.7 (18.16, 27.24)	11.0 (4.61, 17.34)	30.4 (21.92, 38.85)	34.0 (23.50, 44.45)	43.0 (24.71, 61.35)
Stress management	24.9 (20.10, 29.86)	17.6 (9.92, 25.19)	27.7 (19.44, 35.92)	32.3 (22.20, 42.49)	54.3 (35.18, 73.39)
Weight management	21.4 (16.94, 25.93)	11.3 (5.11, 17.40)	24.8 (16.79, 32.86)	34.1 (23.81, 44.43)	56.1 (37.14, 75.14)
Back injury prevention	45.0 (39.28, 50.65)	37.2 (27.70, 46.67)	46.1 (37.08, 55.11)	55.7 (44.88, 66.56)	81.5 (71.80, 91.17)
Health care consumerism ^a	21.6 (16.76, 26.48)	16.5 (8.64, 24.34)	27.0 (18.59, 35.35)	22.7 (14.69, 30.69)	27.6 (13.20, 42.02)
HIV/AIDS ^a	14.6 (10.53, 18.70)	11.3 (4.55, 18.12)	14.2 (7.54, 20.92)	24.9 (15.51, 34.38)	16.8 (6.97, 26.72)
Screenings or counseling services					
Cancer screening	21.8 (17.45, 26.09)	14.3 (7.82, 20.74)	22.1 (14.90, 29.27)	29.4 (20.06, 38.67)	70.2 (55.57, 84.85)
Diabetes screening	27.4 (22.47, 32.25)	19.0 (11.50, 26.56)	27.7 (19.67, 35.68)	39.9 (29.39, 50.32)	70.2 (54.99, 85.46)
Blood pressure screening	36.4 (30.98, 41.74)	27.1 (18.22, 35.92)	35.8 (27.15, 44.35)	51.5 (40.41, 62.69)	84.9 (73.16, 96.63)
Blood cholesterol screening	29.4 (24.50, 34.39)	21.8 (13.77, 29.91)	26.8 (19.13, 34.49)	43.5 (32.94, 54.20)	80.5 (68.00, 93.01)
Alcohol or drug abuse support	35.9 (30.76, 41.09)	28.6 (20.14, 37.03)	37.3 (28.96, 45.65)	45.0 (34.20, 55.78)	70.7 (54.39, 86.94)
Disease management programs					
Diabetes	25.0 (20.10, 29.83)	21.8 (13.45, 30.08)	22.4 (15.40, 29.39)	33.6 (23.67, 43.53)	48.2 (28.63, 67.73)
Asthma ^a	19.1 (14.84, 23.39)	15.8 (8.64, 22.95)	20.8 (13.97, 27.65)	18.7 (12.08, 25.37)	39.4 (19.10, 59.66)
Cancer ^a	22.5 (17.66, 27.28)	17.5 (9.61, 25.44)	25.8 (17.78, 33.74)	27.9 (18.39, 37.38)	28.3 (14.62, 41.88)
Depression ^a	20.5 (16.11, 24.87)	15.5 (8.44, 22.64)	24.3 (16.88, 31.69)	25.6 (16.92, 34.36)	23.2 (11.51, 34.95)
Hypertension ^a	22.9 (18.10, 27.60)	20.1 (11.87, 28.31)	23.3 (15.94, 30.72)	28.1 (19.44, 36.77)	29.6 (13.94, 45.26)
Back pain ^a	20.1 (15.59, 24.57)	16.1 (8.71, 23.42)	22.3 (14.86, 29.72)	23.4 (14.75, 31.95)	32.3 (15.71, 48.96)
Cardiovascular disease	26.1 (21.14, 31.10)	20.1 (12.73, 29.22)	27.8 (20.04, 35.59)	30.3 (20.51, 40.04)	50.9 (31.34, 70.36)
Chronic obstructive pulmonary disease ^a	15.6 (11.62, 19.61)	13.3 (6.59, 19.98)	14.3 (8.55, 20.05)	21.7 (13.07, 30.25)	29.3 (9.53, 49.06)
Obesity	16.4 (12.22, 20.53)	11.9 (5.12, 18.61)	16.8 (10.00, 23.56)	29.1 (19.27, 38.92)	16.6 (7.70, 25.56)
High-risk pregnancy	18.6 (14.22, 22.94)	14.8 (7.39, 22.14)	18.8 (12.35, 25.21)	22.7 (14.43, 31.05)	41.4 (21.23, 61.49)

Note. CI = confidence interval.

^aNonsignificant between-group difference.

Source: (Linnan, 2008)

<http://www.ncbi.nlm.nih.gov/libproxy.lib.unc.edu/pmc/articles/PMC2446449/table/t1/>

TABLE 2—

Selected Work Environment and Policy Characteristics, by Worksite Size: National Worksite Health Promotion Survey, 2004

	Total (n = 730), % (95% CI)	50–99 Employees, % (95% CI)	100–249 Employees, % (95% CI)	250–749 Employees, % (95% CI)	≥ 750 Employees, % (95% CI)
Physical environment					
On-site fitness center	14.6 (9.97, 19.14)	9.8 (2.20, 17.30)	13.17 (5.63, 20.71)	17.5 (9.46, 25.50)	49.6 (29.98, 69.24)
On-site shower facilities	27.6 (22.87, 32.36)	20.9 (13.59, 28.15)	29.7 (21.43, 37.99)	32.4 (23.28, 41.50)	63.8 (45.54, 82.11)
Signage promoting stair use	6.2 (3.57, 8.85)	2.1 (0.12, 4.01)	11.7 (5.14, 18.32)	4.2 (1.57, 6.74)	11.4 (3.45, 19.24)
Fitness/walking trails	13.5 (9.66, 17.28)	7.7 (2.17, 13.13)	13.9 (7.22, 20.64)	22.1 (12.62, 31.59)	40.5 (21.83, 59.16)
Food/beverage services	79.6 (74.5, 84.7)	70.8 (61.47, 80.17)	82.1 (74.16, 90.01)	95.9 (92.67, 99.21)	95.4 (91.12, 99.61)
Cafeteria					
Has a cafeteria	24.0 (19.39, 28.65)	12.9 (5.92, 19.97)	24.5 (17.02, 31.95)	41.9 (30.75, 52.98)	74.1 (59.13, 88.71)
Healthy food choices labeled	37.4 (26.32, 48.56)	34.6 (6.50, 62.75)	28.8 (11.39, 46.26)	32.4 (16.50, 48.37)	73.1 (53.64, 92.63)
Special promotions offered	5.6 (3.07, 8.09)	3.9 (0.00, 8.03)	5.4 (1.37, 9.42)	7.4 (3.62, 11.12)	18.6 (4.46, 32.71)
Policies					
Fitness breaks provided	12.4 (8.59, 16.21)	11.0 (4.59, 17.48)	13.0 (7.02, 18.95)	13.5 (6.08, 20.97)	17.6 (4.21, 31.37)
Catering policy	6.1 (0.00, 11.49)	6.3 (0.85, 11.79)	5.7 (1.37, 9.93)	4.7 (0.00, 10.35)	12.4 (1.69, 23.09)
Smoking policy					
Smoking completely prohibited	39.9 (34.12, 45.65)	34.2 (24.66, 43.73)	45.6 (36.52, 54.61)	40.8 (29.98, 51.60)	48.5 (28.91, 68.26)
Smoking restricted to designated inside areas	34.7 (27.81, 41.48)	32.0 (21.01, 43.03)	36.4 (25.25, 47.46)	39.3 (25.88, 52.73)	36.3 (18.94, 53.56)
Smoking restricted to outside areas	56.5 (49.24, 63.77)	50.8 (38.90, 62.67)	56.5 (44.59, 68.35)	70.3 (59.31, 81.30)	77.4 (64.17, 90.61)
Alcohol use prohibited	91.1 (87.46, 94.75)	86.3 (79.55, 92.96)	93.2 (87.67, 98.75)	98.5 (97.02, 100.00)	99.2 (98.18, 100.00)
Drug use prohibited	93.4 (90.30, 96.54)	91.8 (86.37, 97.36)	94.4 (89.46, 99.30)	94.2 (88.36, 100.00)	99.2 (98.18, 100.00)
Occupant protection policy (vehicles)	45.0 (39.18, 50.98)	49.0 (39.22, 59.00)	38.9 (29.83, 48.00)	45.6 (34.40, 56.72)	53.2 (35.54, 71.03)
Firearms prohibited	85.8 (81.75, 90.01)	83.0 (75.66, 90.43)	87.5 (81.09, 93.97)	87.4 (79.72, 95.05)	96.3 (92.11, 100.00)
Incentives to promote participation	25.9 (20.0, 31.82)	23.4 (12.75, 34.10)	27.5 (18.11, 36.84)	27.7 (17.70, 37.63)	28.7 (12.17, 46.22)

Note. CI = confidence interval.

Source: (Linnan, 2008)

<http://www.ncbi.nlm.nih.gov/libproxy.lib.unc.edu/pmc/articles/PMC2446449/table/t2/>

TABLE 3—

Incorporation of Key Elements of a Comprehensive Program, by Worksite Size: National Worksite Health Promotion Survey, 2004

	Total (n = 730), % (95% CI)	50–99 Employees (n = 179), % (95% CI)	100–249 Employees (n = 229), % (95% CI)	250–749 Employees (n = 211), % (95% CI)	≥ 750 Employees (n = 111), % (95% CI)	P
Health education	26.2 (21.54, 30.84)	17.8 (10.37, 25.32)	26.2 (18.80, 33.67)	38.1 (27.61, 48.49)	70.3 (54.22, 86.40)	< .001
Supportive social and physical environment	29.9 (24.67, 35.03)	24.0 (15.28, 32.73)	32.5 (24.40, 40.68)	33.5 (23.43, 43.63)	53.7 (34.70, 72.80)	.04
Integration	28.6 (23.37, 33.74)	20.6 (12.24, 29.05)	33.3 (24.85, 41.75)	30.9 (20.62, 41.17)	61.4 (43.20, 79.54)	.002
Linkage to related programs	41.3 (35.87, 46.71)	29.6 (20.68, 38.43)	43.7 (34.66, 52.70)	59.3 (47.87, 70.82)	80.5 (65.61, 95.36)	< .001
Worksite screening	23.5 (18.68, 28.27)	15.8 (8.07, 23.49)	25.3 (17.58, 33.05)	30.5 (20.99, 39.96)	62.4 (44.10, 80.76)	< .001
All 5 elements	6.9 (3.87, 10.02)	4.6 (0.00, 9.36)	6.0 (1.72, 10.33)	11.3 (3.80, 18.76)	24.1 (4.03, 44.21)	.03

Note. CI = confidence interval.

Source: (Linnan, 2008) <http://www.ncbi.nlm.nih.gov/libproxy.lib.unc.edu/pmc/articles/PMC2446449/table/t3/>

B. Odds of Providing a Comprehensive Wellness Program based on Business Size

TABLE 4—

Relative Odds of Providing of a Comprehensive Health Promotion Program, by Worksite Characteristics: 2004 National Worksite Health Promotion Survey

	Unadjusted OR (95% CI)	Multivariate Adjusted OR (95% CI)
No. of employees		
50–99 (Ref)	1.00	1.00
100–249	1.34 (0.35, 5.14)	0.97 (0.25, 3.83)
250–749	2.66 (0.70, 10.13)	1.75 (0.44, 7.03)
≥ 750	6.66 (1.42, 31.23)*	4.41 (0.92, 21.07) ^a
Experience^b	0.59 (0.22, 1.60)	0.52 (0.21, 1.35)
Industry type		
Manufacturing (Ref)	1.00	1.00
Finance	0.26 (0.09, 0.73)*	0.29 (0.10, 0.82)*
Wholesale/retail	0.63 (0.20, 1.97)	1.06 (0.31, 3.61)
Transportation	0.31 (0.07, 1.33)	0.40 (0.09, 1.90)
Agriculture/mining	0.15 (0.03, 0.86)*	0.15 (0.02, 0.96)*
Business/professional services	0.94 (0.31, 2.83)	1.2 (0.41, 3.49)
Staff person in place	29.86 (7.13, 125.07)*	10.26 (1.97, 53.41)*

Note. OR = odds ratio; CI = confidence interval.

^aP = .06.

^bNumber of years program had been in place; the reference category was programs in place for less than 5 years.

* P < .05.

Source: (Linnan, 2008) <http://www.ncbi.nlm.nih.gov/libproxy.lib.unc.edu/pmc/articles/PMC2446449/table/t4/>

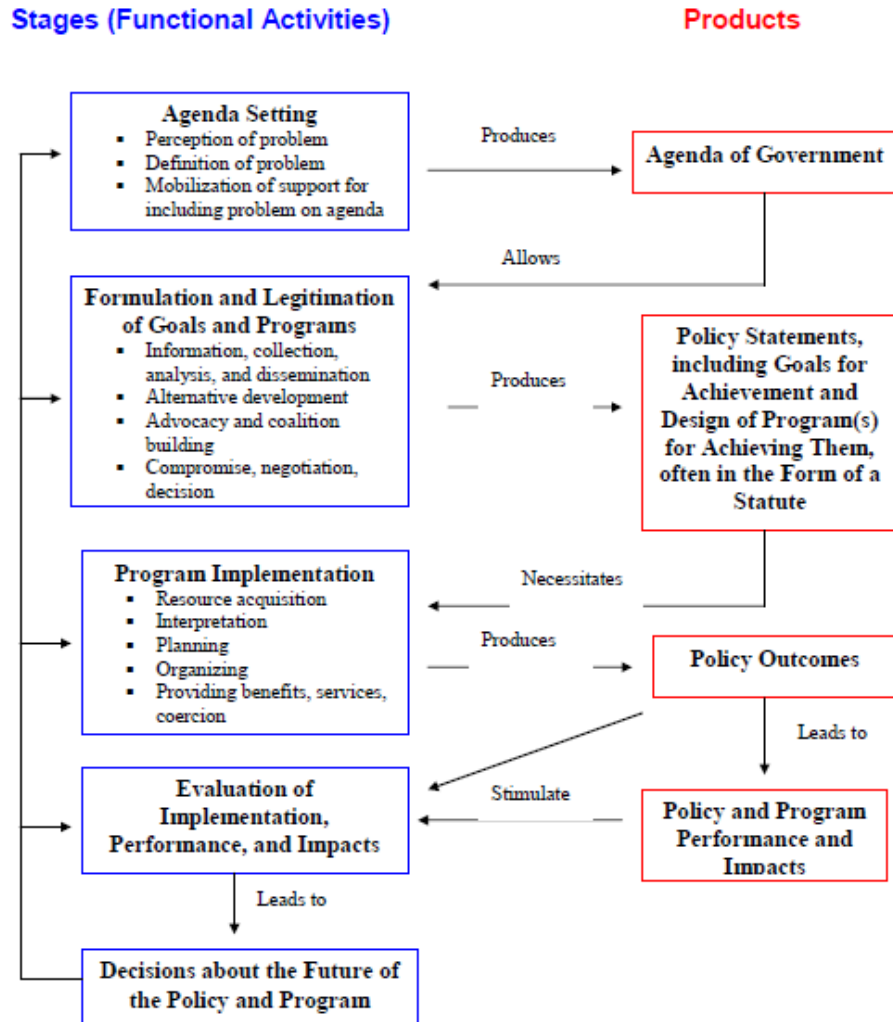
C. CDC Framework of Evaluation



Source: CDC Framework of Evaluation, <http://www.cdc.gov/eval/framework/index.htm>

D. Ripley's Model

Ripley's Model
Flow of Policy Stages, Functional Activities, and Products



From Policy Analysis in Political Science, 1 edition, by Ripley. © 1985. Reprinted with permission of Wadsworth, an imprint of the Wadsworth Group, a division of Thomson Learning. Fax 800-730-2215.

Source: (Ripley, 1985)

E. Components of the Policy Development Process

Components of Policy Development Process			
Ryder¹	Steckler-Dawson²	Lashwell³	Johns Hopkins Competencies⁴/ Public Health Workforce⁵
Agenda setting	Problem awareness and identification	Collection of information regarding problem	Collect and summarize data relevant to issue
Issue filtration	Problem refinement; data collection; needs assessment		
Issue definition			
Forecasting	Setting policy objectives	Formulation of various solutions to problem	State policy options
Options analysis	Estimation of consequences of alternative actions	Prescription of preferred alternative	State feasibility and expected outcomes of each policy option
Objective setting	Selection of courses of action	Invocation, or provisional enforcement of new policy	Write policy statement
	Political ratification of selected courses of action		Articulate implications of each policy option
	Implementation	Actual implementation of policy	Develop plan to implement policy with goals, outcomes, etc.
Monitoring	Program evaluation Policy evaluation	Appraisal and monitoring of policy impact	Develop way to monitor/evaluate programs for effectiveness and quality
Maintenance/succession/ termination		Termination, renewal, or revision of policy	

¹ Ryder, D. (1996). The Analysis of Policy: Understanding the Process of Policy Development. *Addiction*, 91(9), 1265-1270.

² Steckler, A. & Dawson, L. (1982). The Role of Health Education in Public Policy Development. *Health Education Quarterly*, 9(4), 275-292.

³ Lashwell, H. (1956). *The Decision Process: Seven Categories of Functional Analysis*. College Park, MD: University of Maryland.

⁴ Bruce, T.A. & McKane, S.U. (2000). *Community-Based Public Health: A Partnership Model*. Washington, DC: American Public Health Association.

⁵ U.S. Department of Health and Human Services. Public Health Service. *The Public Health Workforce: An Agenda for the 21st Century*.

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