

2011

# ROI-Based Analysis of Employee Wellness Programs

## The Problems...The Cost...The Solution

Organizations of all sizes and from all industries are investigating ways to save money in the form of health care, disability, sick time, recruitment and retention costs. This document looks at the problem facing employers, the cost attributed to that problem, and the critical components a wellness program must incorporate in order to provide a long-term, high ROI solution to that problem.



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### Executive Summary

The cost of health care to the bottom line of a large majority of corporations in America has clearly reached a pinnacle. The outdated model of focusing resources exclusively on treating those who are already sick or disabled can no longer be supported in an era of shrinking margins, global outsourcing and the rapidly escalating cost of treatment.

A growing number of employers (and a percentage expected to almost double in the next 12 months) are taking a preventative approach to these costs by providing employee wellness programs as a standard employee benefit. The research clearly demonstrates that by encouraging healthier choices among their current employees, they are reaping long term savings in terms of sick time, disability and health care costs. Further ROI analysis demonstrates that these measurables are only a portion of the cost savings. In reality, companies that have effectively developed a [wellness culture](#) also realize cost savings in reference to retention, recruitment, reputation and employee “presenteeism” (engagement).

There are a number of components and approaches available to employers with a measurable wellness quotient. Each individual organization must carefully examine the options available in order to select the program that is a best fit for their specific long term goals and objectives.



# ROI-based Analysis of Employee Wellness Programs

## The Problems

Health care... Disability... Sick Time... Retention. These four issues are quickly moving their way up the ladder to become among the most significant expense line items for organizations both large and small.

- **Health care** expenditures are increasing at a rate of 8-14% annually, with no indication of slowing significantly. This expenditure alone threatens the profitability and survival of organizations of all sizes. Interestingly, 75% of health care spending is attributable to illnesses that are preventable.<sup>1</sup>
- **Disability** has a significant financial impact on companies both large and small. In 2006, the total cost to employers for workers' compensation totaled \$87.6 billion.<sup>2</sup> Fortunately, there is a direct correlation between disability costs and pre-existing health and well-being.<sup>3</sup>
- **Sick Time** costs a company \$602 per year, per employee. And this figure does not include various indirect costs such as overtime pay for employees who are covering duties, the hiring of temporary employees, missed deadlines, lost sales, lowered morale and productivity, all of which add significantly to the direct costs.<sup>4</sup> It's been demonstrated in multiple studies that this figure can be reduced by 25% with an effective wellness program.<sup>5</sup>
- **Retention** of top employees is estimated to be at least 150% of annual salary<sup>6</sup> when considering everything from training costs to recruitment, lost productivity, new hire, lost sales, etc. Internal comparisons have demonstrated clearly that retention among wellness program participants can be two or more times better than among non-participants.

## **Origin of Noted Problems**

The latest data brings clarity in regards to the causes – intake and output. Only one in twenty adults consistently engages in the five most important health behaviors<sup>7</sup>:

- ✓ Regular exercise
- ✓ Healthy levels and types of fat intake
- ✓ Five daily servings of fruits and vegetables
- ✓ Moderate drinking
- ✓ Non-smoking

Over two-thirds of adults in the United States are either overweight or clinically obese.\* Combined, this constitutes over 133 million Americans, with the rates of obesity more than doubling in the past 20 years.<sup>8</sup>

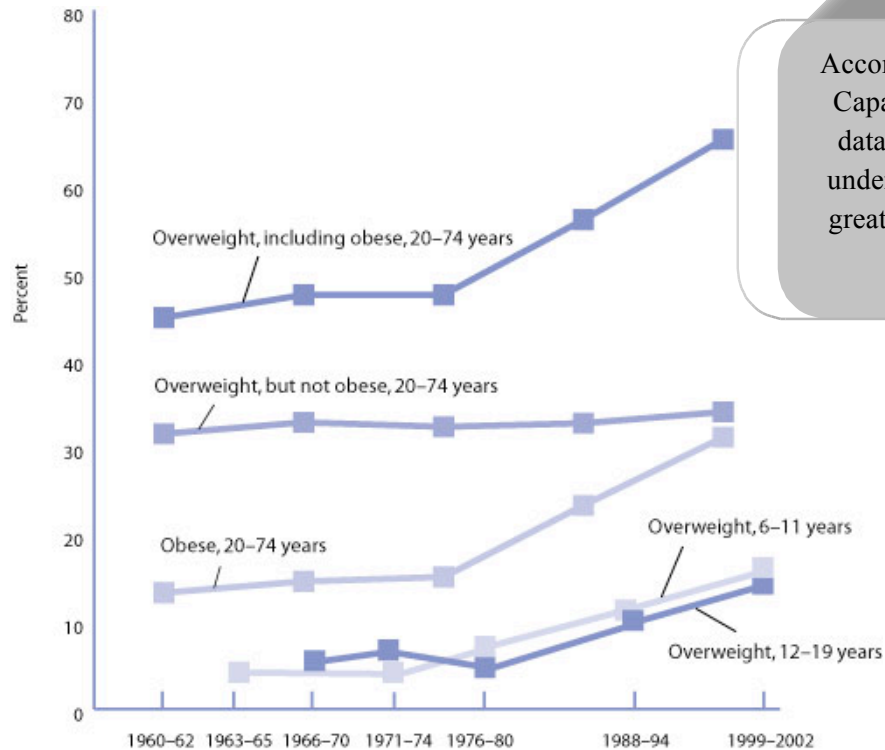
The prevalence has steadily increased over the years among genders, all ages, all racial/ethnic groups, all educational levels, and even all smoking levels. From 1960 to 2002, the prevalence of overweight individuals increased from 44.8 to 65.2 percent in U.S. adults age 20 to 74. The prevalence of obesity during this same time period more than doubled among adults age 20 to 74 from 13.3 to 30.5 percent, with the majority of this rise occurring in the last 20 years. From 1988 to 2002, the prevalence of extreme obesity increased from 2.9 to 4.9 percent, up from 0.8 percent in 1960.<sup>9 10 11</sup>

Overweight and obesity are known risk factors for<sup>12</sup>:

- diabetes
- coronary heart disease
- high blood cholesterol
- stroke
- hypertension
- gallbladder disease
- osteoarthritis (degeneration of joints)
- sleep apnea/other breathing problems
- some forms of cancer
- complications with pregnancy
- psychological disorders, including depression
- increased surgical risk

Nearly one third of the calories in the typical American diet come from junk food<sup>13</sup> so it's no surprise that we are carrying significant levels of extra weight. However, it is not just the American diet at fault. Rather, lack of activity and exercise play a strong role as well. Americans spend nine times as many minutes watching TV and movies as they do participating in sports, exercise and all other leisure-time physical activities combined.<sup>14</sup> The outcome of these two parallel issues is obvious.

## Overweight and Obesity by Age: United States, 1960–2002



According to the Industrial Physical Capability Services, Inc, new hire data demonstrates that applicants under the age of 40 actually have a greater prevalence for obesity than those over the age of 40.

Source: CDC/NCHS, Health, United States, 2005

Unfortunately, these problems are not going away. According to the Industrial Physical Capability Services, Inc, new hire data demonstrates that applicants under the age of 40 actually have a greater prevalence for obesity than those over the age of 40.<sup>15</sup>

Smoking, apparently off the radar screen for many employers due to the prevalence of non-smoking buildings, restaurants and bars, is far from being a minor issue itself. 21% of Americans (24% of men, 18% of women) continue to smoke. Cancer is now the leading cause of death for those under the age of 85 and continues to have close ties to smokers. The Surgeon General reports that cigarette smoking significantly harms almost every major organ of the body and has been directly linked to a new series of diseases including leukemia, cataracts, pneumonia and cancers of the kidney, cervix, pancreas and stomach. In addition, smokers are also 33% more likely to develop asthma.<sup>16</sup>

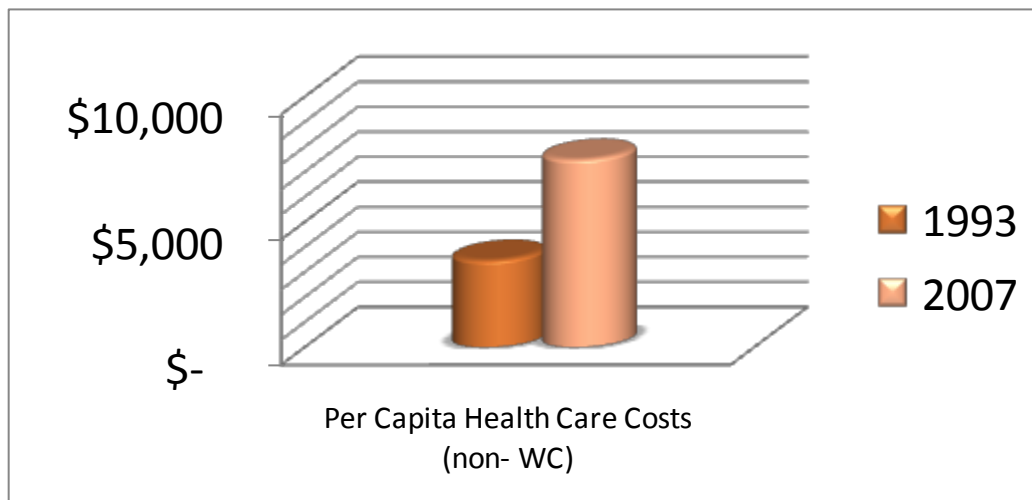
*\*Note: For definition purposes, obesity statistics are based on Belgian statistician and anthropometrist Adolphe Quetelet's BMI (Body Mass Index) calculation: Divide subject's weight in kg by the square of height in meters. Or, weight (lbs) x 703/height (inches). Then, the following categories are provided based on the following BMI levels:*

- Normal Weight: 18.5 – 24.9
- Overweight: 25.0-29.9
- Obese: 30.0-39.9
- Severely or Morbidly Obese: 40.0 or higher

## The Cost

Originating after World War II, employer sponsored health care plans became almost universal by the mid-1960's. Approximately 60% of Americans currently receive their health benefits through an employer-sponsored plan.<sup>17</sup> As a result, employers foot the bill for the majority of non-Medicare/Medicaid health care expenditures in this country, and this isn't a minor line item.

According to the Wall Street Journal, health care costs per capita will reach \$7,500 this year, more than double the \$3,470 per person in 1993. Of most concern is the fact that the rate of inflation in this arena continues to grow at an unsustainable annual rate of 8-14%.

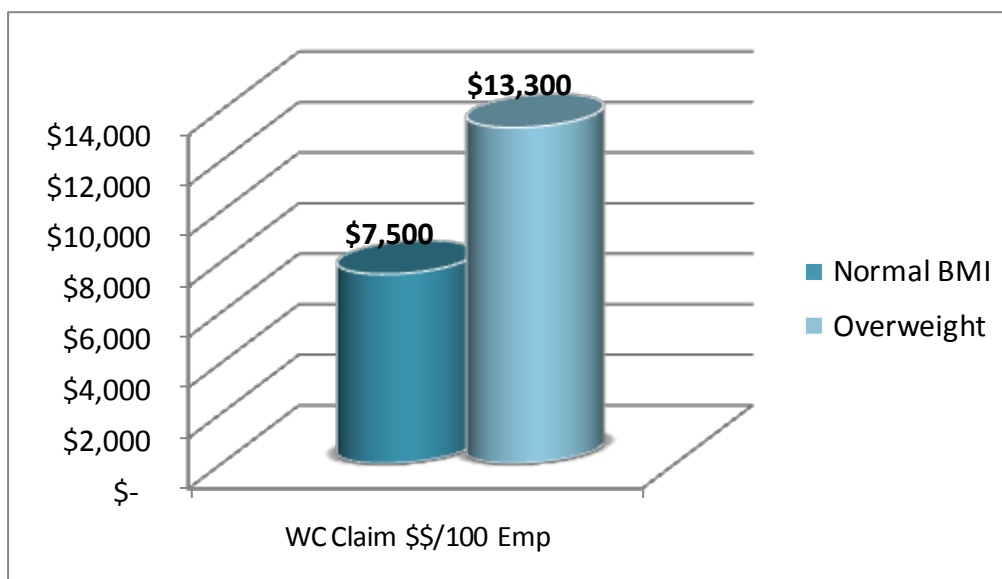


Excluding the indirect costs, the U.S. spent 15.3% of the entire Gross Domestic Product (GDP) on health care in 2004,<sup>18</sup> a figure that is clearly expected to escalate as newer data becomes available.

Potentially more disturbing for organizations is the data related to Work Comp or Disability costs. In a Duke University study<sup>19</sup> involving 11,700 individuals, the increased costs tied to BMI (Body Mass Index) were eye-opening. When cross-referencing the work comp costs with employee BMI, a consistent trend appeared. Compared with employees with normal BMI, the Work Comp costs were significantly increased with each step up the BMI scale, as demonstrated in the following representation:



While the costs noted above for the severely obese clearly jump off the page, there may be an even more important discovery represented within the data. When analyzing the difference between employees with normal BMI with those considered simply “overweight,” the costs still almost double, moving from \$7,500 to \$13,300. It must be noted that this “overweight” category (excluding all obese levels), represents well over 30% of the entire population, comprising an immense cost to employers.



While significant, this data also should be an encouragement to employers who are considering the option of a [company-wide wellness program](#). The resultant cost-savings clearly can be significant with improvement across all ranges of BMI.

Keep in mind that direct health care costs are far from being the only expenses tied to a corporation's bottom line. Several other factors play a notable role as well, including:

- Unscheduled Absenteeism
- Productivity and what is commonly referred to as "Presenteeism"
- Turnover
- Customer Satisfaction and Loyalty
- Recruitment

An interesting study presented at the APHA Annual Meeting made it clear that healthy behaviors do have a significant financial impact for employers. The study looked at 6 modifiable health behaviors and compared them to annual illness days and health costs (and a sample size of 9,976 people). Health costs included lost workday compensation and benefits, and actual health care claims. The positive behaviors included weight control, stress coping, tobacco use, driving safety, mental health coping, and exercise. Participants with the positive health behaviors had lower annual lost workday costs and health care claims compared with those who did not. Specific examples include a \$389 reduction for those who maintained desirable weight, a \$360 reduction for those who coped better with stress, a decrease of \$314 for non-smokers, and \$174 reduction for those who exercised regularly.

More specifically to sick time and health care costs, those in the study with 6 positive behaviors experienced 1.7 fewer annual illness days and \$866 less in annual health costs compared with those who had 3 or fewer positive behaviors.<sup>20</sup>



## The ROI-Based Solution

In a survey of more than 500 U.S. companies, a distinct shift was present in reference to health care. While cost continues to be a concern, keeping employees healthy was (for the first time) also named as one of their top business and workforce issues in the coming year. 88 percent will make investments in longer-term solutions that will improve the health and productivity of their workforce over the next three to five years (this is up from 63 percent last year).<sup>21</sup>

Americans spend approximately half of their waking hours at work.<sup>22</sup> While employers may suggest that the majority of these individuals are healthy, the data indicates otherwise. These “healthy” individuals are at risk of being diagnosed with a medical illness as a result of inactivity, obesity, tobacco use or other behavior-based factors. In fact, most of these individuals will, indeed, develop chronic behavior-induced illnesses during their lifetime,<sup>23</sup> giving employers an opportunity to successfully intervene.

One of the foundational tenets of the field of **corporate wellness** is that it is clearly better to prevent health problems than to treat them later on. When done effectively (note – there are many forms of ineffective “wellness programs” – see 10 Critical Questions down below for analysis), health promotion has demonstrated a successful history of both improving health and providing a significant return, with ROIs ranging from 3:1 to 5:1 or higher.<sup>24 25</sup>

The following chart provides a clear indication of the expected long term benefits of an effective **employee wellness program**:

Study Parameter	Averages & Totals (N=60)
Average study years	3.77
Observational years	226.3
Year Reported (median)	1995
# of Study Subjects	552,339
# of Control Subjects	200,259
Average # of Program Targets	5.1
<b>% Change in Sick Leave</b>	<b>-25.3% (26)</b>
<b>% Change in HCs</b>	<b>-26.5% (27)</b>
<b>% Change in Workers' Comp</b>	<b>-40.7% (5)</b>
<b>% Change in Disability Mang.</b>	<b>-24.2% (3)</b>
Cost/Benefit Ratio	1:5.81 (22)

Source: Proof Positive: An Analysis of the Cost-Effectiveness of Worksite Wellness, Sixth Edition, 2007.

Examples of companies that have pursued a model of wellness are expansive and growing quickly. 27% of employers offer one or more [wellness programs](#) as part of their employee benefits with large firms (over 200 employees) more likely to offer one or more wellness alternatives (62% with large companies compared with 26% of small companies).<sup>26</sup>

As highlighted in the Kansas City Business Journal<sup>27</sup> in an article entitled *One Wellness Program Doesn't Fit All Businesses*, the key to a [successful wellness program](#) is developing a customized program that meets the individual goals and needs of each person within that organization. While an on-site facility might work well for at least a small percentage of employees in a large, centralized corporate base, it may be ineffective for a more decentralized organization.

An effective program must take into account three distinct areas: Organizational Culture, Available Resources and Individual Choices. Anything less will severely limit the overall wellness program results.



***Organizational Culture*** incorporates leadership at all levels to produce a setting in which successful choices are encouraged through the consistent utilization of available resources.

***Resources*** involve readily available provisions that will maximize the potential for positive individual health and wellness outcomes on a personal level across the entire team.

***Individual Choices*** recognize that while culture and resources will be a focal point of emphasis, the final step toward long term success is dependent upon assisting each individual team member in making the right choice for his or her long term health and well-being.

## 10 Critical Questions in Identifying an Effective Employee Wellness Program

As you examine the various options available to your organization, rate the program from 1 (“Absent”) to 10 (“Always”) for each of the areas indicated<sup>28</sup>. The closer to a total score of 100, the more likely it is that you will create a long term ROI.

1. The program is built around ongoing individual employee wellness goals, created by each employee (as compared to a limited number of generic curriculum options from which employees can select).
2. Employee engagement and satisfaction with the program are both monitored and tracked regularly.
3. Design of the program drives cultural changes across the *entire* organization.
4. Time commitment necessary on the part of the HR Professional or other Wellness Champion within the organization is less than 1 hour per month.
5. Momentum is sustained throughout the year (rather than seasonal or launch-dependent).
6. Wellness Coaching offers employees a variety of options in terms of unique personalities, preferences, goals, etc (as compared to single point of contact option).
7. Employee participation in the program expands (not shrinks) over time.
8. The program adjusts with each employee as their wellness pursuits change over time.
9. If employees are not initiating activity, the program regularly provides steps to re-engage the process.
10. You *personally* enjoy participating in the program.

Using the above questions, you and your team will be able to clearly identify the approach that will best address your needs in developing your unique [corporate wellness program](#). They will assist you in identifying and objectifying your specific ROI-based goals and the best options and tools that will help you in effectively achieving those key indicators and outcomes.

## Conclusion

At the current rate of increase, the cost of health care to employers will likely be the single most significant detriment to profitability and viability over the next decade. Annual increases of 8-14% in direct costs, in addition to the even more notable indirect costs, cannot continue without catastrophic outcomes. While significant, this is only a small part of the overall ROI provided by an effective employee wellness program, which will also positively impact a number of other bottom line variables.

Forward-thinking companies across the country have already implemented [successful wellness programs](#), with notable results. Decreased sick time, enhanced engagement or “presenteeism,” lowered disability and overall health care costs, as well as improved recruitment and retention have all been clearly demonstrated on both a case by case and broader organizational basis.

*Wellness Nation is the home for customized and personalized employee wellness programs from across the globe. While offering the full range of standard wellness services such as personalized coaching, Health Risk Assessments and much more, the focus is on improving the health and wellness of every one of your employees for the long haul with a customized program specifically designed to meet the needs of your organization. This is accomplished through a personalized approach with each individual on your team, coming alongside each employee in a way that provides not only exceptional accountability and tracking, but also the encouragement and full range of tools to allow each person to be successful with health and wellness pursuits.*

*The focus of the Wellness Nation Team is on results, at both a micro and macro-organizational level, utilizing a variety of outcome-based approaches to achieve those results.*



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<sup>1</sup> The Centers for Disease Control and Prevention (CDC). *The Burden of Chronic Diseases and Their Risk Factors*, February 2002.

<sup>2</sup> Sengupta I, Reno V, Burton JF. *Workers' Compensation: Benefits, Coverage, and Costs 2006*. Washington, DC: National Academy of Social Insurance, 2008

<sup>3</sup> Hitti, Miranda. *Obesity Costly In Workers' Comp*. CBSNews.com (in reference to Duke University study published in the Archives of Internal Medicine). April 27, 2007.

<sup>4</sup> Smith, Maureen. *Sick Leave Abuse: A Chronic Workplace Ill?* About.com Human Resources

<sup>5</sup> Chapman, Larry. *Proof Positive: An Analysis of the Cost-Effectiveness of Worksite Wellness*, Sixth Edition, 2007.

<sup>6</sup> Bliss, William G. *Cost of Employee Turnover*. Bliss & Associates, 2007

<sup>7</sup> Berrigan, D et al (2003). *Patterns of health behavior in U.S. adults*. Preventative Medicine; 36(5): 615-23.

<sup>8</sup> National Center for Health Statistics. *Chartbook on Trends in the Health of Americans*. Health, United States, 2005. Hyattsville, MD: Public Health Service. 2005

<sup>9</sup> Flegal KM, Carroll MD, Kuczmarski RJ, Johnson CL. Overweight and obesity in the United States: Prevalence and trends, 1960-1994. *International Journal of Obesity*. 1998; 22:39-47.

<sup>10</sup> National Center for Health Statistics. *Chartbook on Trends in the Health of Americans*. Health, United States, 2005. Hyattsville, MD: Public Health Service. 2005

<sup>11</sup> Flegal KM, Carrol MD, Ogden CL, Johnson CL. Prevalence and trends in obesity among U.S. adults, 1999-2000. *Journal of the American Medical Association*. 2002; 288:1723-1727.

<sup>12</sup> US Department of Health and Human Services. *Statistics Related to Overweight and Obesity*. October 2006

<sup>13</sup> Block, Gladys. *Foods contributing to energy intake in the US: data from NHANES III and NHANES 1999-2000*. *Journal of Food Composition and Analysis*. June-August 2004: 439-447.

<sup>14</sup> Dong, Linda et al. *Activities Contributing to Total Energy Expenditure in the United States: Results from the NHAPS Study*. *International Journal of Behavioral Nutrition and Physical Activity*. 2004 1:4.

<sup>15</sup> Gilliam, Thomas B. *Solving a Weighty Problem: Companies can combat the rising costs of obesity in the workplace*. 2006.

<sup>16</sup> Center for Disease Control (CDC). *New Surgeon General's Report Expands List of Diseases Caused by Smoking*. May 27, 2004.

<sup>17</sup> National Coalition on Health Care. *Facts on Health Insurance*. 2008.

<sup>18</sup> Timiraos, Nick. *Health Care: Time for Universal Coverage?* Wall Street Journal. June 2, 2007.

<sup>19</sup> Hitti, Miranda. *Obesity Costly In Workers' Comp*. CBSNews.com (in reference to Duke University study published in the Archives of Internal Medicine). April 27, 2007.

<sup>20</sup> Bertera, Robert L. *Role of positive health behaviors in controlling health care costs and increasing workplace productivity* (abstract 55245 from the 2003 meeting of APHA).

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<sup>21</sup> Hewitt Quarterly. Companies to get more involved in the health of their workforce, but employees cautious of new role. *Health of the Workforce*, Volume 6, Issue 1

<sup>22</sup> “Table 1. Time Spent in Primary Activities (1) and Percent of the Civilian Population Engaging in Each Activity, Averages Per Day by Sex, 2007 Annual Averages.” *Economic News Release*. Washington, DC: U.S. Department of Labor, Bureau of Labor Statistics, 2007.

<sup>23</sup> Centers for Disease Control, National Center for Chronic Disease Prevention and Health Promotion. Chronic Disease Overview, 2004.

<sup>24</sup> Goetzel RZ, Juday TR, Ozminkowski RJ. *What’s the ROI? A Systematic Review of Return on Investment Studies of Corporate Health and Productivity Management Initiatives*, American Journal of Health Promotion, 2001.

<sup>25</sup> Aldana, SG. *Financial Impact of Health Promotion Programs: A Comprehensive Review of the Literature*, American Journal of Health Promotion, 2001 May-June: 15(5):296-320

<sup>26</sup> Kaiser Family Foundation. *Employer Health Benefits 2006 Summary*. P. 6

<sup>27</sup> Bell, Ted. One Wellness Program Doesn’t Fit All Businesses. *Kansas City Business Journal*. 2007 June 15.

<sup>28</sup> US Corporate Wellness Micro-Audit, 2008.