The Health & Economic Implications of Worksite Wellness Programs

Founded in 1983, the American Institute for Preventive Medicine is an award winning, internationally recognized authority on the development and implementation of health promotion, wellness, medical self-care, and disease management programs and publications.

We have helped over 12,500 organizations reduce health care costs and absenteeism, while helping over 15 million employees or members improve their health and well being. Our products educate, motivate, and change behavior. To receive our newest catalog please contact us.

An American Institute for Preventive Medicine
Wellness White Paper
For CFO’s, Human Resource Executives, Benefit Managers, Medical Directors, & Wellness Professionals

30445 Northwestern Hwy. | Ste. 350 | Farmington Hills, MI 48334
248.539.1800 | fax 248.539.1808 | aipm@healthylife.com | www.HealthyLife.com
In 2008, U.S. health care costs will total approximately $2.2 trillion or 16% of the gross domestic product. It is projected that companies will pay an average of $9,312 per employee for health care. Employees are increasingly being asked to pay a greater share of these costs. This share has increased from $1,284 in 2003 to $2,040 in 2008 – a 59% increase in only 5 years.

The cost of health insurance has far and away outpaced the rate of inflation and workers' earnings over the past 2 decades.

Source: Kaiser Family Foundation, 2005
If food prices had risen at the same rates as medical inflation since the 1930’s, we would be paying an astronomical amount for common grocery items as evidenced below.

1 dozen eggs $ 80.20  
1 pound apples $ 12.23  
1 pound sugar $ 13.70  
1 roll toilet tissue $ 24.20  
1 dozen oranges $ 107.90  
1 pound butter $ 102.07  
1 pound bananas $ 16.04  
1 pound bacon $ 122.48  
1 pound beef shoulder $ 43.57  
1 pound of coffee $ 64.17  

10 item total $586.56

Source: American Institute for Preventive Medicine, 2007

Health Care Share of Total Benefit Spending

Health care spending has also taken up a greater share of benefits spending accounting for 44% of total benefit costs in 2006.

Employers have made a variety of adjustments to deal with increased health care costs, including increased copays, higher deductibles, and switching providers. These changes are a supply management approach. Although initially they had encouraging effects, during the last few years, they have been more limited in reducing the health care costs. An alternative approach is demand management. This focuses on the employee and helps them live a healthier lifestyle and be wiser health care consumers. Wellness programs are the key component of this strategy.

![Bar chart showing percentage of companies offering wellness programs]

**Percentage of Employers Offering Wellness Programs**

Companies of all sizes implement wellness programs with the larger ones showing a slightly higher percentage. On average, 62% of all companies offer a wellness program.
Companies want to know what type of risks their employees face. Having employees fill out a Health Risk Assessment (HRA) can accomplish this. Separate from that, however, there are government statistics that show how many risk factors exist for every 100 employees. Unless your work force is very different from national demographics, you can expect to be experiencing similar percents within your employee population. The American Institute for Preventive Medicine developed the Wellness Wizard™ to help companies understand how these statistics apply to their employees. It also provides you with a cost breakdown for the risk factors and what the savings would be based upon a reduction in those risks. The Wellness Wizard™ is available at no charge by simply letting the Institute know how many employees you have.

25 have cardiovascular disease
12 are asthmatic
6 are diabetic
26 have high blood pressure
30 have high cholesterol
38 are overweight
21 smoke
31 use alcohol excessively
20 don’t wear seatbelts
24 don’t exercise
44 suffer from stress

Source: Department of Health and Human Services, 2007

The Cost of an Unhealthy Lifestyle

A major reason for the surge in wellness programs is that employee lifestyle counts for a vast majority of health care claims costs.

- 87.5% of health care claims costs are due to an individual's lifestyle.

Source: Indiana University-Purdue University, Fort Wayne (IPFW) Study, 2006
Benefits of Worksite Wellness Programs

Companies receive many benefits after implementing a worksite wellness program in addition to reducing costs. They include increases in employee morale, improved employee health, reduction in workers compensation claims, reductions in absenteeism, and increases in productivity.

Issues Most Affecting Employee / Member Productivity

Research is being conducted on productivity and its relationship to health. This is due to the fact that employee productivity is influenced by a number of factors, the most important of which is stress, followed closely by chronic medical conditions, and lifestyle medical conditions.
Rising health care costs are a major concern for your employees. In fact, many employees are more worried about paying for health care than they are about losing their job, terrorism, or stock market losses.

**Cost of Presenteeism**

Another concern among employers is the issue of presenteeism. This refers to the fact that employees may be at work, but due to health concerns, they are not working optimally. Many HR executives consider it a problem in their companies.

- Annual cost to companies of over $180 billion / year
- The per employee cost is between $22 and $157 annually
- Persistent problem at over 50% of workplaces
- In 2006, 56% of HR executives viewed it as a problem vs. 39% in 2004

Sources: The Center for Work and Health, 2003
Journal of Occupational and Environmental Medicine, April, 2004
CCH, Riverwoods, IL, 2006
The Cost of Unhealthy Behavior

A great deal of research has been conducted on the excessive costs experienced by an employer when their employees live an unhealthy lifestyle. Studies conducted at Steelcase and Dupont exemplify this.

Although the costs for various lifestyle behaviors, such as smoking and obesity vary from company to company, the data clearly show risk factors are associated with extra costs.

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>Steelcase</th>
<th>Dupont</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smoking</td>
<td>$285</td>
<td>$960</td>
</tr>
<tr>
<td>Weight</td>
<td>$222</td>
<td>$401</td>
</tr>
<tr>
<td>Exercise</td>
<td>$488</td>
<td>N/A</td>
</tr>
<tr>
<td>Alcohol</td>
<td>$597</td>
<td>$389</td>
</tr>
<tr>
<td>Seatbelts</td>
<td>$196</td>
<td>$272</td>
</tr>
<tr>
<td>Hypertension</td>
<td>$327</td>
<td>$343</td>
</tr>
<tr>
<td>Cholesterol</td>
<td>$189</td>
<td>$370</td>
</tr>
</tbody>
</table>

1 American Journal of Health Promotion, 1991
2 American Journal of Health Promotion, 1993

High Risk Employees Cost More

The Health Enhancement Research Organization (HERO) study involving over 46,000 employees from 6 large companies reinforced the fact that unhealthy lifestyle is responsible for increased costs. It also showed that 2 psychological problems – depression and stress – are the highest cost drivers.

Impact on Individual Health Care Costs: High versus Lower-Risk Employees

Individuals at high risks for depression have 70.2% higher costs than those at lower risk.

A review of scores of published studies on worksite wellness found that the Return on Investment is $3.48:1 due to reduced medical costs and $5.82:1 due to reduced absenteeism.

### Return on Investment In Worksite Health Promotion

<table>
<thead>
<tr>
<th>Savings Per Dollar Invested</th>
<th>Medical Costs</th>
<th>Absenteeism</th>
<th>Medical Costs, Absenteeism, &amp; Workers Comp</th>
</tr>
</thead>
<tbody>
<tr>
<td>28 Studies$^{1}$</td>
<td>$3.93</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 Studies$^{2}$</td>
<td>$5.07</td>
<td></td>
<td></td>
</tr>
<tr>
<td>42 Studies$^{3}$</td>
<td>$5.93</td>
<td></td>
<td></td>
</tr>
<tr>
<td>56 Studies$^{4}$</td>
<td>$5.81</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


### Association of Risk Levels with Several Corporate Cost Measures

Research conducted at the University of Michigan has shown that low risk employees (1 – 2 risk factors) have lower costs for short term disability, workers’ compensation, absence, and health care costs whereas high risk employees (5 or more risk factors) have higher costs.

<table>
<thead>
<tr>
<th>Outcome Measure</th>
<th>Low Risk (N=671)</th>
<th>Medium Risk (N=504)</th>
<th>High Risk (N=396)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short term disability</td>
<td>$120</td>
<td>$216</td>
<td>$333</td>
</tr>
<tr>
<td>Worker’s compensation</td>
<td>$228</td>
<td>$244</td>
<td>$496</td>
</tr>
<tr>
<td>Absence</td>
<td>$245</td>
<td>$341</td>
<td>$527</td>
</tr>
<tr>
<td>Medical &amp; pharmacy</td>
<td>$1,158</td>
<td>$1,487</td>
<td>$3,696</td>
</tr>
<tr>
<td>Total</td>
<td>$1,751</td>
<td>$2,288</td>
<td>$5,052</td>
</tr>
</tbody>
</table>

Source: Wright, Beard, Edington, JOEM 44(12): 1126-1134, 2002
A three year study conducted at a health system in Minneapolis found that health risks decreased after the implementation of a comprehensive worksite wellness program. This led to increased savings due to reduced health care costs, absenteeism, and workers’ compensation claims each year of the program.

The most successful wellness programs include a medical self-care program to reduce unnecessary use of health care services. According to research, approximately 25% of all doctor visits are deemed to be unnecessary. With the average doctor visit cost of $101 per visit, employers are spending a great deal of money needlessly.

Total visits to non-federally employed, office based physicians
- 964 million
- Approximately 3.3 visits/person
Source: National Ambulatory Medical Care Survey-2006

Unnecessary Visits
- 25% or 241 million
Source: Dunnell, K. and Cartwright, C. Medicine Takers, Prescribers and Hoarders

Average cost - $121/visit
Source: U.S. Department of Health and Human Services, 2006
Emergency Room Visits Annually

The data regarding emergency room visits is even more compelling. Approximately 55% of all E.R. visits are unnecessary. At an average cost of $560 per visit, the unnecessary costs are quite high. The American Institute for Preventive Medicine can provide your company with a free Medical Self-Care Return on Investment Analysis to show what your company’s savings would be after implementing a medical self-care savings.

Total Annual E.R. Visits
- 115 million
- 37.8 visits / 100 persons
Source: National Ambulatory Medical Care Survey-2006

Unnecessary Visits
- 55% or 63 million
Source: National Ambulatory Medical Care Survey-2006

Average cost - $560/visit
Source: U.S. Department of Health and Human Services, 2006

Self-Care Studies

In 18 independent studies, the American Institute for Preventive Medicine’s self-care guides have demonstrated an average savings of $71.41 per person due to reduced doctor and emergency room visits in 9 months.

<table>
<thead>
<tr>
<th>Organization</th>
<th>Year</th>
<th># of People</th>
<th># of Months</th>
<th>Documented Cost Savings Research</th>
<th>R.O.I.*</th>
</tr>
</thead>
<tbody>
<tr>
<td>United Way</td>
<td>2005</td>
<td>4,819</td>
<td>6</td>
<td>$49.47 $125.96 $175.43</td>
<td>29:1</td>
</tr>
<tr>
<td>United Way</td>
<td>2005</td>
<td>1,360</td>
<td>6</td>
<td>46.57 33.59 80.16</td>
<td>13:1</td>
</tr>
<tr>
<td>Whatcom County</td>
<td>2005</td>
<td>95</td>
<td>6</td>
<td>3.47 8.06 11.53</td>
<td>3:1</td>
</tr>
<tr>
<td>United Teachers New Orleans</td>
<td>2004</td>
<td>130</td>
<td>12</td>
<td>17.35 72.00 89.35</td>
<td>17:1</td>
</tr>
<tr>
<td>Teamsters Local 436-Actives</td>
<td>2003</td>
<td>91</td>
<td>12</td>
<td>28.41 90.99 119.40</td>
<td>20:1</td>
</tr>
<tr>
<td>Teamsters Local 436-Retirees</td>
<td>2003</td>
<td>47</td>
<td>12</td>
<td>17.55 61.28 78.83</td>
<td>13:1</td>
</tr>
<tr>
<td>Bloomington Hospital</td>
<td>2001</td>
<td>839</td>
<td>12</td>
<td>28.65 69.01 97.66</td>
<td>16:1</td>
</tr>
<tr>
<td>Bloomington Hospital</td>
<td>2000</td>
<td>627</td>
<td>12</td>
<td>25.53 42.49 68.02</td>
<td>11:1</td>
</tr>
<tr>
<td>Bloomington Hospital</td>
<td>1999</td>
<td>625</td>
<td>12</td>
<td>27.19 63.36 90.55</td>
<td>15:1</td>
</tr>
<tr>
<td>Dean Health Plan</td>
<td>1999</td>
<td>366</td>
<td>6</td>
<td>44.07 15.50 59.57</td>
<td>13:1</td>
</tr>
<tr>
<td>Lewis-Gale Clinic</td>
<td>1997</td>
<td>327</td>
<td>12</td>
<td>57.79 14.44 72.23</td>
<td>14:1</td>
</tr>
<tr>
<td>Health Net</td>
<td>1996</td>
<td>165</td>
<td>6</td>
<td>17.88 16.97 34.85</td>
<td>14:1</td>
</tr>
<tr>
<td>Western Southern Life</td>
<td>1996</td>
<td>197</td>
<td>6</td>
<td>17.00 40.61 57.61</td>
<td>26:1</td>
</tr>
<tr>
<td>Lewis-Gale Clinic</td>
<td>1996</td>
<td>79</td>
<td>5</td>
<td>25.97 12.19 38.16</td>
<td>15:1</td>
</tr>
<tr>
<td>Capital Blue Cross</td>
<td>1995</td>
<td>371</td>
<td>12</td>
<td>26.01 13.05 39.06</td>
<td>5:1</td>
</tr>
<tr>
<td>Capital Blue Cross</td>
<td>1995</td>
<td>938</td>
<td>12</td>
<td>16.45 5.22 21.67</td>
<td>7:1</td>
</tr>
<tr>
<td>Indian Industries</td>
<td>1995</td>
<td>197</td>
<td>6</td>
<td>8.88 66.45 75.33</td>
<td>30:1</td>
</tr>
<tr>
<td>Florida Hospital</td>
<td>1994</td>
<td>801</td>
<td>5</td>
<td>18.26 57.81 76.07</td>
<td>38:1</td>
</tr>
</tbody>
</table>

Average Totals: 670 8.88 26.47 44.94 71.41 16:1

*Return-On-Investment - The number of dollars saved for every dollar spent on the publication.
Northeast Utilities – The company’s Well Aware Program demonstrated a $1.4 million decrease in behavioral claims, 31% decrease in smoking, 29% decrease in inactivity, 16% decrease in mental health risk, and 11% decrease in cholesterol risk. The Return on Investment was 6:1.


Motorola – Program participants experienced an increase of only 2.4% in health care costs whereas non-participants experienced an 18% increase in health care costs. The Return on Investment was $3.93:1.


Union Pacific Railroad – The company’s wellness program produced a $53 million reduction in health care costs in one year.


Caterpillar – Participants in the Healthy Balance Program who completed the Health Risk Assessment reduced their doctor visits by 17% and hospital days by 28%.


Dupont – A study involving 45,000 blue collar workers found that absences from non-job related illness decreased 41% at locations where a worksite wellness program was offered compared with a 5.8% decline at 19 sites where it was not. The Return on Investment was $1.42:1 due to reductions in absenteeism.


Johnson & Johnson – The results of a 4 year worksite wellness program involving 18,331 employees demonstrated an overall savings of $8.5 million annually due to reduced health care costs. This amounted to a savings of $225 per employee per year.


Florida Power & Light – After an employee wellness program, total health care costs were reduced by 35%, workers compensation costs were reduced by 38% per claim, and 82% of employees reported personal health improvements.


Xerox Corporation – A worksite wellness program revealed a drop in the frequency of workers’ compensation claims and the average cost per injury. 5.6% of wellness participants filed claims with an average cost of $6,506 per injury. 8.9% of non-wellness participants filed claims with an average cost of $9,482 per injury.


Citibank – A comprehensive health management program showed a $4.56:1 Return on Investment in reduced total health care costs.


Washington County School District – Wellness program participants averaged 3 fewer missed workdays than those who did not participate in the program. The decrease in absenteeism produced a Return on Investment of $15.60:1.


Manufacturing Company – A 6 year wellness program including 2,596 participants saved $623,040 due to reductions in disability absence days. This resulted in a Return on Investment of $2.30:1.


Large Company – A worksite wellness program compared 13,048 participants who filled out a Health Risk Appraisal with 13,363 non-participants. Overall, the HRA participants cost an average of $212 less on medical costs than non-participants.