Is There a Business Case for a Culture of Health?

The Value of Investing in Health

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MY BACKGROUND: A PATIENT, A PROVIDER, A PAYER, A PURCHASER, A VENDOR, A CONSULTANT, AN INFORMATIST
The Value of Investing in Wellness

- Medical Cost Reductions
- Productivity Gains
- Employee Engagement
- Employer of Choice
- Return to Investors
Medical Cost Reductions

*American Centric View But Proxy For Illness Burden*

- JNJ Benchmark Research in Health Affairs
- Truven Large Employer Database Study
- Keeping Well People Well
- HERO Score Predicts Medical Trend
Recent Experience In Health Promotion At Johnson & Johnson: Lower Health Spending, Strong Return On Investment

Abstract Johnson & Johnson Family of Companies introduced its worksite health promotion program in 1979. The program evolved and is still in place after more than thirty years. We evaluated the program’s effect on employees’ health risks and health care costs for the period 2002–08. Measured against similar large companies, Johnson & Johnson experienced average annual growth in total medical spending that was 3.7 percentage points lower. Company employees benefited from meaningful reductions in rates of obesity, high blood pressure, high cholesterol, tobacco use, physical inactivity, and poor nutrition. Average annual per employee savings were $565 in 2009 dollars, producing a return on investment equal to a range of $1.88–$3.92 saved for every dollar spent on the program. Because the vast majority of US adults participate in the workforce, positive effects from similar programs could lead to better health and to savings for the nation as a whole.

Average Savings 2002-2008 = $565/employee/year
Estimated ROI: $1.88 - $3.92 to $1.00
The New Benchmark: *Bending the Curve*
A Selected Few Employers Whose Healthcare Costs Are Going Down

Eight employers, with self funded plans, spanning multiple industries who also utilize TRUVEN HEALTH ANALYTICS decision support and analytic consulting services. These clients consistently outperformed net pay trend rates for the broader 53 client group each year and cumulatively from 2005 – 2010. As a group, they have consistently made innovative use of healthcare data to support all aspects of population health, productivity and plan management.

**TRUVEN HEALTH ANALYTICS High Performers Clients**

**MarketScan™**

A group of over 50 TRUVEN HEALTH ANALYTICS clients with 5 million members covered in self funded plans that contributed to MarketScan continuously since 2005.

**2010 Mercer National Survey**

A comprehensive survey of 2,836 US employers. Reflecting the average reported healthcare trend rates across group size, geographic region and industry type.
Greater Return to Keep The Well Well ~ 2.1:
Wellness Score & Medical Costs Over 3 Years

**N=27,799**
Wellness Score 81.1
Mean Cost $5,150

**YEAR 1**
- **ILL**
  - 9,452 (34%)
  - 71.8
  - $7,728
  - 6,285
  - 71.4
  - $8,801
  - 4,819
  - 70.9
  - $9,555

- **WELL**
  - 18,347 (66%)
  - 85.9
  - $3,822

**YEAR 2**
- **ILL**
  - 3,167
  - 82.5
  - $5,675
  - 1,466
  - 82.6
  - $6,564

- **WELL**
  - 2,810
  - 75.6
  - $7,051

**YEAR 3**
- **ILL**
  - 2,036
  - 83.9
  - $4,899
  - 1,131
  - 74.8
  - $6,812

- **WELL**
  - 1,504
  - 84.1
  - $6,728
  - 1,742
  - 76
  - $6,893

Zero Trends; Dee Edington 2009
Relationship Between HERO Scores and Health Care Expenditures

Figure 4 displays the predicted annual health care expenditures for organizations, with “high” (100 to 200) and “low” (0 to 99) HERO scores, as derived from hierarchical linear regression models that controlled for confounding variables. Organizations with “low” HERO scores maintained their health care spending at an even level, whereas organizations with “high” scores experienced an average of a 1.6 percentage point annual reduction in health care expenditures during the study period (2009 to 2011). The average change in annual health care expenditures per employee was $47.70 lower for the “high” scoring employer group than for the “low” scoring group ($P < 0.001).
Is the trend of disease progression possible to slow down?
Insidious Progression of Disease:
SMOKING & ACUTE ILLNESS LEADS TO CHRONIC & CATASTROPHIC ILLNESS

normal \[\rightarrow\] bronchitis

\[\downarrow\]

cancer \[\leftarrow\] emphysema

20-Year Lag Time Between Smoking and Lung Cancer

Cigarettes Smoked Per Person Per Year

<table>
<thead>
<tr>
<th>Year</th>
<th>Lung Cancer Deaths (Per 100,000 People)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1900</td>
<td>50</td>
</tr>
<tr>
<td>1920</td>
<td>100</td>
</tr>
<tr>
<td>1940</td>
<td>150</td>
</tr>
<tr>
<td>1960</td>
<td>200</td>
</tr>
<tr>
<td>1980</td>
<td>250</td>
</tr>
</tbody>
</table>

Cigarette Consumption (men)
Investing In Health

Productivity Gains

- Tenets of Human Resources – Skill & Will & NOT BE ILL
- Presenteeism
- Impact of Obesity
- FULL cost of health on a business
Poor Health Impacts – Safety, Service & Financials

Continuum of Employee Performance Outcomes

Not doing well while working
- errors
- complaints
- delays
- team breakdown

Not doing work on work time
- unscheduled breaks
- unfocused time
- health exams on work time
- information gathering

Not at work
- unscheduled absence
- disability
- workers’ comp
- replacement workers
- permanent disability
- early retirement due to health issues
- premature death
- spousal illness

Lost to the workforce
Obesity Business Costs

Pepsico Study \((N=11,217)\)

Adjusted predicted annual costs for employees by BMI

74% of the sample is overweight or obese

Economic View of Opportunity
The Full Cost of Poor Health to Employers

Personal Health Costs
- Medical Care
- Pharmaceutical costs

Productivity Costs
- Absenteeism
- Presenteeism
- Short-term Disability
- Long-term Disability
- Overtime
- Turnover
- Temporary Staffing
- Administrative Costs
- Replacement Training
- Off-Site Travel for Care
- Customer Dissatisfaction
- Variable Product Quality

Iceberg of Full Costs from Poor Health

Investing In Health Produces Employee Engagement

• **Engagement in Health Improvement**
  – Reinforcing Behavior
  – Behavioral Economics
  – The Impact of Trusted Clinicians
  – Engagement leads to results

• **Engagement in Work**
  – Discretionary Effort
  – Extension of Salesforce
  – Ambassador of Company
Top Performing Employees Are Healthier

Unilever LampLighter Findings

<table>
<thead>
<tr>
<th>Score</th>
<th>Top Performer</th>
<th>Middle Performer</th>
<th>Bottom Performer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>72.4</td>
<td>67.5</td>
<td>66.9</td>
</tr>
</tbody>
</table>
Health & Employee Commitment
Unilever Lamplighter Program

Health Benefits

• 18% increase in the number of employees who exercised
• 5% drop in the number of employees with high BMI
• 13% drop in the number of employees with high blood pressure...(down from 21% to just 8%)
• 8% drop in the number of employees with high cholesterol
• 5% decrease in the number of employees classed as having poor nutrition
• 8% decrease in the number of smokers. Overall the number of employees classed as ‘high health risk’ dropped by 5%
• Overall the number of employees classed as ‘low health risk’ increased by 23%

Engagement Enhancement

The Lancaster study showed that employees who participated in Lamplighter:

• Felt significantly more engaged with their work
• Were less likely to take time off work due to health problems
• Were able to perform better in their job
• Were less likely to be adversely affected by pressure at work
• Were more likely to practice healthy behaviors at work
Investing In Health
Enhances Employer of Choice Status

Health & Wellness Programs are key Reason cited in
*Fortune 100 Best Companies to Work For*

Yum Brands – Wellness Program Reducing Turnover

Goldman Sachs – *Retaining & Attracting the Best Talent*
The Value of “EOC”

Employer of Choice Benefits are Pervasive

The benefits of becoming an “employer of choice” are not easy to quantify due the pervasive effects it has on so many aspects of an organization.

However the following is generally accepted for just the benefits of lower turnover:

- The costs of time and lost productivity are no less important or real than the costs associated with paying cash to vendors for services such as advertising or temporary staff.

- These calculations will easily reach 150% of the employees annual compensation figure. The cost will be significantly higher (200% to 250% of annual compensation) for managerial and sales positions.

- To put this into perspective, assume the average salary of employees in a given company is $50,000 per year. Taking the cost of turnover at 150% of salary, the cost of turnover is then $75,000 per employee who leaves the company.

For the mid-sized company of 1,000 employees who has a 10% annual rate of turnover, the annual cost of turnover is $7.5 million!
Investing In Health

Return to Investors

• I-trax (AMX:DMX) Research (2006)
  – The Connection of Workplace Health Centers and Market Performance

• Our Most Recent Publication (2013)
  – The Link Between Workforce Health and the Bottom Line – Tracking the Market Performance of Companies that Nurture a Culture of Health

• The HealthNEXT Advantage Fund (today)
  – Portfolio of Top 30 Culture of Health Companies
I-trax Research *(2006)*

- Over 200 onsite health clinics; Over 60 employers; 65% of them publicly traded
- Tracked as an investment portfolio; back-cast to 2003
- For every $1 invested in the DJIA and S&P 500, our (I-trax) client portfolio yielded at least 2X the growth to their shareholders in less than 3 years
Marketplace rewards companies who achieve cultures of health:

- Used the ACOEM Corporate Health Achievement Award (CHAA) culture of health award winners as a stock portfolio
- A portfolio of approximately twenty publicly traded award winners; over nearly two decades
- Published September 2013 in the JOEM
- Once again the portfolio outperformed the market significantly; in all four test scenarios
Scoring An Employees Culture of Health

**Employer Health Opportunity Assessment™ EHOA**

- **Goal: Assist Employers to achieve benchmark**
  - Establishes evidence based master framework (and baseline) for assessing & tracking employer work environment, benefit design, leadership approach, etc.
  - Benchmarked to employers who have already achieved enduring cultures of health

- **Process: Comprehensive Audit**
  - Claims data review by physician executives
  - Benefit design review by experienced physician executives as well as health plan program experts
  - Select management interviews & workplace observation
  - Initial scoring vs. benchmark employers
  - Gap analysis
  - Foundation for multi-year plan development

- **Advantages: Action Oriented**
  - Much more objectivity & granularity
  - Built from benchmarking success & evidence based research
  - Interactive simulations (“what if”) capability for plan development, plan valuation & tracking progress
  - Facilitates remediation customization
  - Establishes a framework for multi-year planning & tracking of progress towards specific goals

- **218 “Elements”**
- **In 10 “Categories”**
- **11 “Thresholds” of implementation**
- **5 “Degrees” of completion**
HealthNEXT Research
*(Health Advantage Fund 2008 – present)*

- Created a stock portfolio based on the key learning from the HealthNEXT Employer Health Opportunity Assessment (EHOA) scorecard
- Invested $500,000 into the portfolio of approximately 30 publicly traded companies most invested in the health of their workforce; using a scoring criteria to weight & unweight the portfolio based on employer score
- Back-casted to 2000, but investment started late 2008
- Again, this portfolio has consistently outperformed the market by magnitudes; in both good times and bad

**ACTUAL** = Since late 2008 appreciation 161% compared to S&P 500 107%
Research Conclusion

A preponderance of mounting evidence

“Though correlation is not the same as causation, the results consistently and significantly suggest that companies focusing on the health and safety of their workforce are yielding greater value for their investors as well. More research needs to be done to better understand the value of building these “cultures of health” in the workplace. Perhaps such efforts as this simply identify “smart” companies that out-perform. But the evidence appears to be building that healthy workforces provide a competitive advantage in ways that benefit their investors.”