Population Health as a Corporate Strategy
The Value of Investing in Wellness

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President
The Value of Investing in Wellness

- Medical Cost Reductions
- Productivity Gains
- Employee Engagement
- Employer of Choice
- Return to Investors
- Prosperity; the Connection Between Health & Wealth
Medical Cost Reductions

- JNJ Benchmark Research in Health Affairs
- Truven Large Employer Database Study
- Thomson Reuters Whitepaper
  - A Path to Eliminating $3.6 Trillion in Wasteful Healthcare Spending
- The Medically Homeless
- Keeping Well People Well
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.
A Culture of Health

**Only Known Sustainable Method to Bend Health Care Cost Curve**

**EXHIBIT 2**

Johnson & Johnson Adjusted Medical And Drug Costs Versus Johnson & Johnson Expected Medical And Drug Costs With Comparison-Group Trend

- Costs (Red line) with 4.8% growth
- Savings (Blue line) with 1.0% growth

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

High Performer Net Cost Trends 2005 - 2010
Adjusted For Consumer Price Index (CPI-U)
Inflation

<table>
<thead>
<tr>
<th>Compound Annual Trend (2005 = 100)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
</tr>
<tr>
<td>------</td>
</tr>
<tr>
<td>93</td>
</tr>
</tbody>
</table>

**High Performing Clients**

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.

**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.
A Fresh Perspective

*Root causes of unnecessary healthcare inefficiency*

1. Random access to care
2. Incidence of the “medically homeless”
3. Population readiness (un-readiness) to change
4. Employer / payer benefits efficiency myopia
What About The Medically Homeless?

- What % of first 600,000 visits to Retail Clinics had no place to send the medical care follow up report?
  - A) 40%
  - B) 30%
  - C) 20%
  - D) 10%

Answer A) 40%

The primary issue is not the building of medical homes but the elimination of the medically homeless.
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

Zero Trends; Dee Edington 2009
Is the trend of disease progression possible to slow down?
Insidious Progression of Disease:

SMOKING & ACUTE ILLNESS LEADS TO CHRONIC & CATASTROPHIC ILLNESS

normal → bronchitis

cancer ← emphysema
Productivity Gains

- Tenets of Human Resources – Skill & Will
- Presenteeism
- Impact of Obesity
- Multiple views of illness and employer costs
- Top Conditions related to productivity loss
- FULL cost of health on a business
The Skill & The Will

But What About Not Being ill!
Poor Health Also Impacts – Safety, Service & Financial Results

Continuum of Employee Performance Outcomes

- Not doing well while working
  - Errors
  - Complaints
  - Delays
  - Team breakdown
  - Unscheduled breaks
  - Unfocused time
  - Health exams on work time
  - Information gathering

- Not doing work on work time
  - Unscheduled absence
  - Disability
  - Workers’ comp
  - Replacement workers

- Not at work
  - Permanent disability
  - Early retirement due to health issues
  - Premature death
  - Spousal illness

- Lost to the workforce

Proprietary & Confidential
74% of the sample is overweight or obese

# Multiple Views of Health Related Costs

<table>
<thead>
<tr>
<th>Medical</th>
<th>Pharmacy</th>
<th>Medical &amp; Pharmacy</th>
<th>Productivity</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cancer (w/o skin)</td>
<td>Cancer (w/o skin)</td>
<td>Depression</td>
<td>Depression</td>
</tr>
<tr>
<td>2</td>
<td>Back/Neck Pain</td>
<td>Diabetes</td>
<td>Back/Neck Pain</td>
<td>Obesity</td>
</tr>
<tr>
<td>3</td>
<td>Other Chronic Pain</td>
<td>Hypertension</td>
<td>Other Chronic Pain</td>
<td>Anxiety</td>
</tr>
<tr>
<td>4</td>
<td>Coronary Heart Disease</td>
<td>Arthritis</td>
<td>Depression</td>
<td>Arthritis</td>
</tr>
<tr>
<td>5</td>
<td>Depression</td>
<td>Allergy</td>
<td>Coronary Heart Disease</td>
<td>GERD</td>
</tr>
<tr>
<td>6</td>
<td>Sleeping Problem</td>
<td>Depression</td>
<td>Arthritis</td>
<td>Allergy</td>
</tr>
<tr>
<td>7</td>
<td>Arthritis</td>
<td>Asthma</td>
<td>Diabetes</td>
<td>Hypertension</td>
</tr>
<tr>
<td>8</td>
<td>Skin Cancer</td>
<td>Anxiety</td>
<td>Hypertension</td>
<td>Back/Neck Pain</td>
</tr>
<tr>
<td>9</td>
<td>Diabetes</td>
<td>Migraine</td>
<td>GERD</td>
<td>Sleeping Problem</td>
</tr>
<tr>
<td>10</td>
<td>Obesity</td>
<td>Osteoporosis</td>
<td>Sleeping Problem</td>
<td>Fatigue</td>
</tr>
</tbody>
</table>

Top 15 Drivers of Lost Work Time

Source: Kessler's HPQ – Adjusted to Workforce
Top 10 Health Conditions by Full Costs For Employers

(Med + RX + Absenteeism + Presenteeism) Costs/1000 FTEs

Economic View of Opportunity

The *Full Cost of Poor Health to Employers*

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**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

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*Iceberg of Full Costs from Poor Health*

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A large proportion of illness is preventable by reducing health risks (Healthy People 2000, 2010; Amler & Dull, 1987; Breslow, 1993; McGinnis & Foege, 1993; Mokdad et al., 2004).

Health risks can be improved through workplace health programs (Loeppke, et al., 2008; Wilson et al., 1996; Heaney & Goetzel, 1997; Pelletier, 1999).

Reductions of health risks can lead to reductions in health costs (Edington et al., 2001; Goetzel et al., 1999).
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
Engagement
REINFORCING BEHAVIORS

Cash  Trinkets  Lottery  Recognition  Competition  Better Benefits  Health

Moving Rewards From Extrinsic to Intrinsic
Leveraging Behavioral Economics to Improve Engagement

- **Use the magic of opt-out**
  - Make the preferred choice the default

- **Mere measurement**
  - Interventional surveys

- **Aversion of loss**
  - Taking away privileges or rewards

- **Value Based Benefit Design**
  - Out of pocket costs based on proven value provided by medication or treatment
  - No co-payments for generic “rescue inhalers” for asthmatics

- **Provide rewards and recognitions for healthy behaviors**
  - Completing health risk assessments
  - Having a non-smoking status
  - Participating in health coaching

- **Earn basic, better and best benefit plans**

- **Mastery**
  - Educate leading to self-care
  - Peer mentoring

- **Rank Comparison**
  - Competition
## Benefits of Longitudinality, Based on Evidence from the Literature

<table>
<thead>
<tr>
<th>Benefits</th>
<th>Identification with a Person</th>
<th>Identification with a Place</th>
</tr>
</thead>
<tbody>
<tr>
<td>Better problem/needs recognition</td>
<td>++</td>
<td></td>
</tr>
<tr>
<td>More accurate/earlier diagnosis</td>
<td>++</td>
<td></td>
</tr>
<tr>
<td>Better concordance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Appointment keeping</td>
<td>++</td>
<td>++</td>
</tr>
<tr>
<td>Treatment advice</td>
<td>++</td>
<td></td>
</tr>
<tr>
<td>Less ER use</td>
<td>++</td>
<td></td>
</tr>
<tr>
<td>Fewer hospitalizations</td>
<td>++</td>
<td>+</td>
</tr>
<tr>
<td>Lower costs</td>
<td>++</td>
<td>+</td>
</tr>
<tr>
<td>Better prevention (some types)</td>
<td>++</td>
<td>++</td>
</tr>
<tr>
<td>Better monitoring</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Fewer drug prescriptions</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Less unmet needs</td>
<td>++</td>
<td>+</td>
</tr>
<tr>
<td>Increased satisfaction</td>
<td>++</td>
<td></td>
</tr>
</tbody>
</table>

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++Evidence good  
+Evidence moderate

Trusted Clinician Relationships Drives Improved DM Engagement & Retention

* Lynch et al. Documenting Participation in a DM Program. JOEM 2006; 48(5)
1 Frazee et al. Leveraging the Trusted Clinician: Documenting Disease Management Program Enrollment. Disease Mgmt 2007; 10:16-29
2 Frazee et al: Leveraging the Trusted Clinician: Increasing Retention in Disease Management through Integrated Program Delivery POPULATION HEALTH MANAGEMENT Volume 11, Number 5, 2008
No single definition of Employee “Engagement”

- Total commitment & motivation
- Fully aligned with the company’s mission
- Willing to go the extra distance
- Proud of the company they work for
- Values the company, and is valued by it in return
Why does it matter?

• **Engaged employees:**
  • Perform up to 20% better than less-engaged employees
  • Are 87% less likely to leave the organisation than employees with low levels of engagement
  • Are more innovative
  • Are more committed to customer satisfaction
  • Contribute more to their organisation than their less engaged peers
  • Consistently go the extra mile

(Source: CLC. 50,000 employees worldwide, 2004)
Why does it matter?

Companies with HIGH employee engagement saw:
- 13.2% improvement in net income growth
- 19.2% improvement in operating income
- 27.8% improvement in Earnings per Share

Companies with LOW employee engagement saw:
- 3.8% decline in net income
- 32.7% decline in net income growth
- 11.2% decline in EPS

(Source: ISR. 664,000 employees worldwide, one-year study, 2006)
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></td>
<td>72.4</td>
<td>67.5</td>
<td>66.9</td>
</tr>
</tbody>
</table>

Health
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
The Health & Performance Chain

Health → Engagement → Personal Performance → Business Performance

Engagement → Health

Personal Performance → Engagement
Employer of Choice

• Supporting Health & 100 Best Companies to Work For

• Yum Brands – reducing turnover

• Goldman Sachs – retaining and attraction the best talent
Fortune Magazine

Workplace Health as a Key Driver of Employee Satisfaction

Comprehensive health and wellness services are mentioned several times as the reason why a company achieved “Employer of Choice” status.
Yum Brands

Reducing Turnover

Our Associates - Our Team

- Associates Rights & Responsibilities
- Human & Labor Rights Policy
- Our Culture
- Employer Brand of Choice
- Building People & Capability
- Associate Wellbeing

OUR ASSOCIATES - OUR TEAM

The sustainability of our business starts with our commitment to our nearly 1.5 million global associates. We know our greatest competitive strengths are our culture and the associates in our restaurants and Restaurant Support Centers worldwide. For many of our team members, working in one of our restaurants is often their first job. We take seriously our responsibility to help all our associates develop the life skills they need to be successful in whatever they do.

With more than 39,000 restaurants in over 125 countries and territories, our business is diverse and complex. Over 80% of our U.S. restaurants and 90% of YRI restaurants are owned by franchisees or licensees. For that reason, we cannot oversee associate practices in every restaurant. We do, however, offer guidelines, coaching...
The Goldman Sachs Wellness Exchange

*Attracting and Retaining Talent*

- An integrated suite of services designed to support your personal health and well-being and to help you manage your personal and family responsibilities.

- While specific services may vary by location/region, core offerings generally include: **Supporting Your Health and Well-Being**
  - On-site health centers with access to medical professional
  - On-site fitness centers or off-site fitness subsidies
  - Referrals to medical professionals
  - Patient advocacy and critical health solutions assistance
  - Smoking cessation programs
  - Travel resources and immunizations
  - Ergonomic work station evaluations
  - Recreational activities/events (outings, runs/walks, team clubs and leagues)
The Value of “EOC”

Employer of Choice Benefits are Pervasive

The benefits of becoming an “employer of choice” are not easy to quantify due to 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!

http://findtalentkeeptalent.wikispaces.com/Quest+Employer+of+Choice+Model
Return to Investors

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

• Our Most Recent Publication
  – 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*
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
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 $400,000 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 2001

• Again, this portfolio has consistently outperformed the market by magnitudes; in both good times and bad
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
“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.”
The Connection Between Health & Wealth

• **Towers Watson Study**
  – The Value of a Healthy Workforce

• **At the State Level**

• **At the Country Level**
  – Closing with a Big Data Healthcare HERO
    • **HANS ROSLING – BBC clip**
Health Means Wealth

Companies with the most effective H&P programs have:

1.3 percentage points lower medical trends

>$1,000 lower medical costs per employee

2.0 fewer days (PEPY) in total absence

39% higher revenue per employee

18% difference in market premium

2009 Towers Watson Study
Health Means Wealth

*Life Expectancy Correlates With Income at State Level*

Life Expectancy

Average Income

Source – Mapping the Measure of America 2010-2011
Health Means Wealth

Life Expectancy Correlates With Income Globally

Hans Rosling BBC 200 Countries, 200 Years in 4 Minutes

http://www.youtube.com/watch?v=jbkSRLYSgo