ENHANCING HEALTHY CAMPUS EFFORTS WITH BEHAVIORAL ECONOMICS AND BETTER CHOICE ARCHITECTURE

Indiana CUPA Spring Conference

April 24, 2012
Today’s Agenda

- What is a Healthy Campus?
- What are the Outcomes Associated with Being a Healthy Campus?
- Case Study
- Getting Stakeholders to Embrace the Initiative
- Behavioral Economics, Choice Architecture and the Role of HR
  - Introduction
  - Group Exercise
  - Applications for Advancing Healthy Campus Initiatives
- Key Takeaways
A Healthy Enterprise takes a holistic approach to address the health and behavior:

- **The Employees**
  - Personal and professional development physically, intellectually, emotionally, socially, spiritually

- **The Organization**
  - Behaviors in the organization impact outcomes: health, absence, turnover, engagement and productivity
  - Job challenge, continuous learning, supervisor support, autonomy, purpose, climate of respect and trust, work/life fit, economic security and accountability

Through Sibson’s work with clients and Rewards of Work research on employee engagement, we defined a healthy enterprise.
What Characterizes a Healthy Campus?

Organizational Culture
Climate of trust and respect, corporate responsibility, work/life balance, ethics

Behaviors at the Workplace
Behaviors consistent with corporate values to promote a productive and supportive workplace, such as collaborative, fun, dependable, safe

Lifestyle Choices
Behaviors conducive to physical, intellectual, emotional, financial, social, and spiritual wellbeing
Sibson designed the Healthy Enterprise Study to:
- Evaluate the relative importance of different initiatives on outcomes
- Test our maturity model for a Healthy Enterprise

The survey asked participants to:
- Rate the effectiveness and duration of various practices, beyond wellness
- Share demographic and outcome data related to health, absence and turnover

283 employers located in 44 states, representing over 2 million employees, participated in the Healthy Enterprise study.
The Healthy Enterprise model frames the discussion of investments by element and item, to provide a detailed understanding of the Healthy Enterprise Index.

<table>
<thead>
<tr>
<th>ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1. How effective are your smoking cessation programs?</td>
</tr>
<tr>
<td>Q2. How effective are your fitness programs?</td>
</tr>
<tr>
<td>Q3. How effective are your wellness coaching programs?</td>
</tr>
<tr>
<td>Q4. How effective is your worksite healthy eating policy?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INDEX ELEMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wellness Practices</td>
</tr>
<tr>
<td>Health Plans</td>
</tr>
<tr>
<td>Time-Off Programs</td>
</tr>
<tr>
<td>Workplace Support</td>
</tr>
<tr>
<td>Behavioral Health</td>
</tr>
<tr>
<td>Communications</td>
</tr>
<tr>
<td>Organizational Behavior</td>
</tr>
<tr>
<td>Measurement and Metrics</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INDEX ANALYSIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthy Enterprise Index</td>
</tr>
<tr>
<td>CORRELATION</td>
</tr>
<tr>
<td>OUTCOMES</td>
</tr>
<tr>
<td>Health Care Costs</td>
</tr>
<tr>
<td>Health Cost Increase</td>
</tr>
<tr>
<td>Turnover</td>
</tr>
<tr>
<td>Unscheduled Absence</td>
</tr>
<tr>
<td>Extended Absence</td>
</tr>
<tr>
<td>Workers Compensation</td>
</tr>
<tr>
<td>Participation</td>
</tr>
</tbody>
</table>
# Sibson’s Maturity Model

**WHAT IS A HEALTHY CAMPUS?**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Focus on Treatment</th>
<th>Focus on Prevention/Management</th>
<th>Focus on Optimal Behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Plans</td>
<td>Provides high quality and cost effective treatment</td>
<td>Reduces health risks and manages conditions</td>
<td>Optimizes health and fitness</td>
</tr>
<tr>
<td>Time-Off Programs</td>
<td>Replaces pay, rehabilitates, returns to work</td>
<td>Advocates safety, accountability, and risk management</td>
<td>Promotes life-long health, and personal and professional renewal</td>
</tr>
<tr>
<td>Financial</td>
<td>Effective at supporting and protecting employees from financial ruin</td>
<td>Effective at helping employees assess and manage financial needs and risks</td>
<td>Strong financial wellness plan tied to fiscal responsibility at work and home</td>
</tr>
<tr>
<td>Workplace Behavior</td>
<td>Addresses unacceptable behavior</td>
<td>Shapes desired behavior</td>
<td>Leaders model behavior consistent with institution’s values</td>
</tr>
</tbody>
</table>

In our model, there are 16 characteristics, and our study tested 7.
The Index is Predictive of Improved Outcomes

**Healthy Campus Outcomes**

**ADJUSTED HEALTH CARE COST PER PARTICIPANT VS. HEALTHY ENTERPRISE INDEX**

<table>
<thead>
<tr>
<th>Healthy Enterprise Index Score</th>
<th>Adjusted Health Care Cost Per Participant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 30</td>
<td>$4,252</td>
</tr>
<tr>
<td>30 – 39</td>
<td>$4,174</td>
</tr>
<tr>
<td>40 – 49</td>
<td>$3,774</td>
</tr>
<tr>
<td>50 – 59</td>
<td>$3,610</td>
</tr>
<tr>
<td>60 – 69</td>
<td>$3,690</td>
</tr>
<tr>
<td>70+</td>
<td>$3,329</td>
</tr>
</tbody>
</table>

N = 205, correlation = -.17, statistical significance = .01

Increasing the Healthy Enterprise Index by 10% can reduce the health care cost per participant by $160 on average.
A Healthy Enterprise Achieves Better Outcomes

Sibson tested its model across each outcome metric and identified the key factors that lead to improved outcomes.

### COMPARISON OF AVERAGE ADJUSTED OUTCOME METRICS FOR THE TOP QUARTILE

<table>
<thead>
<tr>
<th></th>
<th>Top Quartile</th>
<th>All Others</th>
<th>Percentage Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthy Enterprise Index</td>
<td>78</td>
<td>50</td>
<td>56%</td>
</tr>
<tr>
<td>Annual Health Cost (PMPY)</td>
<td>$3,431</td>
<td>$3,769</td>
<td>-9%</td>
</tr>
<tr>
<td>Annual Health Cost Increase</td>
<td>$235</td>
<td>$302</td>
<td>-22%</td>
</tr>
<tr>
<td>Turnover</td>
<td>8.1%</td>
<td>12.1%</td>
<td>-33%</td>
</tr>
<tr>
<td>Extended Absence</td>
<td>3.9%</td>
<td>6.1%</td>
<td>-36%</td>
</tr>
<tr>
<td>Workers Compensation Cost</td>
<td>0.74%</td>
<td>0.89%</td>
<td>-17%</td>
</tr>
</tbody>
</table>

The participants in the top quartile for the Healthy Enterprise Index achieved 9% to 36% better outcomes.
Case Example: Engaging Employees and Leadership

**Situation**
- Company A, which had already made extensive investments in various health initiatives, wanted to measure the maturity and impact of its efforts.

**Approach**
- Researched best practices and went through a “visioning process” which included the input of the clinical and administrative leaders.
- Metrics were developed to measure the current state along with the institution’s progress along its stages of maturity toward its desired state.

**Result**
- Among the various outcomes:
  - Over 60% became risk free for cholesterol and hypertension.
  - Absence was reduced by 17% over a four year period.
  - $36 million of health care savings over 3 years.

**Lessons Learned**
- Healthy people cost less and are less likely to be absent.

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**Healthy Campus Outcomes**

![Graph showing health care costs and average sick leave utilization over years.](image)

**Focusing on health reduces unscheduled absence.**
Do Incentives Matter?

PERCENTAGE OF EMPLOYEES COMPLETING HEALTH RISK ASSESSMENT BY AMOUNT OF INCENTIVE*

While participation increases as incentives increase, other efforts are needed to optimize participation.

Source: Sibson Consulting
Relative Importance and Perceived Effectiveness of Various Practices

All practices are fairly prevalent. Effectiveness varies widely within each program, with a smoke-free worksite perceived most effective.

1 Ordered based on impact on overall wellness practice effectiveness.
## Collective Success Will Depend On…

<table>
<thead>
<tr>
<th>Vision + Consensus + Skills + Incentive + Resources + Action Plan =</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>_____ + Consensus + Skills + Incentive + Resources + Action Plan =</td>
<td>Confusion</td>
</tr>
<tr>
<td>Vision + __________ + Skills + Incentive + Resources + Action Plan =</td>
<td>Sabotage</td>
</tr>
<tr>
<td>Vision + Consensus + _____ + Incentive + Resources + Action Plan =</td>
<td>Anxiety</td>
</tr>
<tr>
<td>Vision + Consensus + Skills + _______ + Resources + Action Plan =</td>
<td>Resistance</td>
</tr>
<tr>
<td>Vision + Consensus + Skills + Incentive + __________ + Action Plan =</td>
<td>Frustration</td>
</tr>
<tr>
<td>Vision + Consensus + Skills + Incentive + Resources + __________ =</td>
<td>Treadmill</td>
</tr>
</tbody>
</table>
## Progression of Health (Conceptual Model Foundation)

<table>
<thead>
<tr>
<th>Environmental Factors</th>
<th>Lifestyle Factors</th>
<th>Risk Conditions (measures)</th>
<th>Disease States</th>
<th>Actuarial Outcomes</th>
<th>Actuarial Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demographics</td>
<td>Diet/Nutrition/Healthy Eating</td>
<td>Obesity (Weight/BMI/Body Fat)</td>
<td>Diabetes</td>
<td>Complications/Morbidity</td>
<td>Health Cost</td>
</tr>
<tr>
<td>Genetics</td>
<td>Exercise/Physical Activity/fitness</td>
<td>Hyperlipidemia (Elevated Cholesterol/LDL Level)</td>
<td>Heart Disease/Heart Attack</td>
<td>Presenteeism</td>
<td>Productivity Impact</td>
</tr>
<tr>
<td>Physical Environment</td>
<td>Stress/Anxiety</td>
<td>Hypertension (Elevated Blood Pressure)</td>
<td>Asthma/COPD</td>
<td>Absence</td>
<td>Absence Cost</td>
</tr>
<tr>
<td>Socio Economic Status</td>
<td>Addictive Behavior (Smoking/Tobacco/Alcohol/Other Substance Consumption)</td>
<td>Hyperglycemia (Elevated Blood Sugar/Glucose)</td>
<td>Stroke/Kidney Disease</td>
<td>Litigation/Accident/Property Loss</td>
<td>Property/Casualty Cost</td>
</tr>
<tr>
<td>Education</td>
<td>Risky Lifestyle Behavior</td>
<td>Hypertriglyceridemia (Elevated Fatty Molecule/Triglycerides)</td>
<td>Cancer</td>
<td>Workplace Injury</td>
<td>Workers' Compensation Cost</td>
</tr>
<tr>
<td>Culture</td>
<td>Sleep</td>
<td>Anxiety/Depression</td>
<td>Other Chronic and Non-Chronic Conditions</td>
<td>Disability</td>
<td>Disability Cost</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Loss of Activities of Daily Living</td>
<td>Long Term Care/Custodial Care Cost</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Mortality</td>
<td>Life Insurance, Retirement, Retiree Health</td>
</tr>
</tbody>
</table>

Sibson is Working with the Society of actuaries to develop an actuarial model for wellness.
Our research indicates that achieving a healthy campus requires a sound strategy. The strategy starts with clarifying the “vision” for a desired state that aligns with business strategy. Strategic imperatives define where to invest and what gets measured. Guiding principles clarify the manner in which investments are made.

The outcome of this process is a roadmap to achieve your vision and a metrics scorecard for evaluating success.
Have You Ever Seen These Behaviors?

- People spend little time making their annual benefit elections and a majority regret the decisions they made.
- People persist in behaviors which they know to be unhealthy and expensive.
- People neglect biometric screening and physical exams even when those services are free or associated with an incentive.
- When making decisions about surgery, hospitals and surgeons, few consumers access the substantial amount of data that is available about:
  - hospital costs
  - mortality rates
  - readmission rates
  - hospital-acquired infection rates
- People don’t:
  - optimize their voluntary contributions to 401(k) and 403(b) plans,
  - choose target date fund investments
  - choose annuities at retirement when they expect longevity
- New retirees ask a friend which Medicare Plan to purchase
What is Behavioral Economics?

“Behavioral economics is the study of how real people actually make financial choices; it draws on insights from both psychology and economics.”¹

“It is well recognized by psychologists that to make a decision, emotion is the necessary trigger. Without emotion, one would be reduced to the state of an idiot savant who goes on endlessly calculating without the ability to make a choice.”²


Let’s Break Into Two Groups
Behavioral Economics Explores Mental Short Cuts in Cognition and Decision-making

**Heuristics**
- Endowment Effect
- Loss Aversion
- Status Quo Bias
- Clue Seeking Bias
- Expert’s Certainty Bias
- Preference for Now v. Future
- Sentinel Event Sensitivity
- Optimism Bias

**Choice Architecture**
- Framing
- Naming
- Ordering
- Default Options
- Priming
- Anchoring
- Foot in the Door
- Behavioral Messaging

Heuristics are mental short cuts every person uses every day in decision-making. It is intuitive thinking; it's very easy, very fast and automatic.
What’s Going On When Plan Participants Make Health and Benefit Decisions: Human Nature!

<table>
<thead>
<tr>
<th>Mental Shortcuts as BARRIERS TO CHANGE</th>
<th>Examples in Health and Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchoring to Old Value Systems</td>
<td>My parents smoked tobacco and lived to 100 years old. Why should I quit?</td>
</tr>
<tr>
<td>Inconsistency in Present Behaviors and Future Promises</td>
<td>I know I need to lose weight. When my diabetes gets worse, I will change my diet.</td>
</tr>
<tr>
<td>Overly Confident and Ignore Chance</td>
<td>My driving skills are in the top 10%, I don’t need to wear a seat belt.</td>
</tr>
</tbody>
</table>
### Behavioral Biases Can Also Be Used to Improve Outcomes

<table>
<thead>
<tr>
<th>Mental Shortcuts as BRIDGES TO CHANGE</th>
<th>Examples in Health and Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jumping on the Bandwagon</td>
<td>Have you heard about Bob’s weight loss? He is off those painful meds. Twenty other people had the same result!</td>
</tr>
<tr>
<td>Clue Seeking</td>
<td>Nudging &amp; Simplicity (use obvious cues)</td>
</tr>
<tr>
<td>Overvaluing Low Probabilities of High Rewards</td>
<td>Get your biometrics done and the Company is offering free lottery tickets. The Powerball is up to $100 million!</td>
</tr>
</tbody>
</table>

- **A. Healthy Choice Plan**
- **B. Thrifty Consumer Plan**
- **C. Catastrophic Plan**
- **D. No Coverage**
Choice Architecture is a Tool Behavioral Economists Use to Nudge Decision-making.

This slide will be available after the presentation on April 24.
Incentives, Timing Bias, Loss Aversion, Complexity Aversion

This slide will be available after the presentation on April 24.
## Diversity in Motivation

<table>
<thead>
<tr>
<th>Motivation Basis</th>
<th>Emotional Triggers Leading to a Response</th>
<th>Methods to Gain Attention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intrinsic Reward Seekers</td>
<td>Appeal to Intellect and to Personal Curiosity</td>
<td>Inspire Thinking about New Possibilities</td>
</tr>
<tr>
<td>Extrinsic Reward Seekers</td>
<td>Appeal to Financial Gain and Personal Vanity</td>
<td>Provide Incentives and Socialization</td>
</tr>
<tr>
<td>Disengaged</td>
<td>Instill Fear and Convey Hope</td>
<td>Intervention</td>
</tr>
</tbody>
</table>

Source: Sibson Consulting
Stages of Change

Varied Readiness for Change

- **Pre-contemplation**: People are not intending to take action in the near future.
- **Contemplation**: People intend to change within the next 6 months.
- **Preparation**: People intend to take action and have a plan for change.
- **Action**: People have modified their behaviors within the last 6 months and have made some progress. Relapse is possible.
- **Maintenance**: People are working to prevent relapse.

1 Prochaska and DiClemente’s Stages of Change Model (Transtheoretical Model) has been applied to a wide variety of unhealthy behaviors to describe how people go about change.
### To Encourage Rational Thinking

- Establish cognitive strain. Use difficult-to-read fonts.
- FORCE A BAD MOOD.
- Ask your audience to shake their heads from side to side.
- Make them frown.
- Use ratios and descriptive statistics.
- Use pale blues, mid-green and yellow colors.

### To Encourage Intuitive Thinking

- Establish cognitive ease by using easy-to-read fonts.
- Set a good mood and ask your audience to smile.
- Ask your audience to agree by nodding their heads up and down.
- Use **reds** and bright **blues**.
- Use “numbers of people” for impact statements and avoid statistics.

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People are more alarmed by “50 of your 10,000 coworkers died from a preventable disease” than by “0.5 percent of Americans die from preventable diseases.”
### Sibson’s Behavioral Segmentation Model for Healthy Enterprise Workforce Engagement

<table>
<thead>
<tr>
<th>Stage of Behavior Change</th>
<th>Intrinsically Motivated</th>
<th>Extrinsically Motivated</th>
<th>Disengaged</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-contemplation</td>
<td>Inspire with messaging and imagery</td>
<td>Advertise to get attention</td>
<td>Intervene to capture attention</td>
</tr>
<tr>
<td>Contemplation</td>
<td>Provide <strong>high-quality</strong> resources and support</td>
<td>Provide rationale and <strong>incentives</strong></td>
<td>Frame the choice architecture with consequences</td>
</tr>
<tr>
<td>Preparation</td>
<td>Allow the patient and practitioner relationship to <strong>flourish</strong></td>
<td>Provide <strong>easy-to-use</strong> resources</td>
<td><strong>Reinforce</strong> gains and lost opportunities</td>
</tr>
<tr>
<td>Action</td>
<td><strong>Satisfy</strong> basic security &amp; psychological needs</td>
<td>Eliminate barriers during change process</td>
<td>Monitor <strong>compliance</strong> and enforce accountability</td>
</tr>
<tr>
<td>Maintenance</td>
<td>Invite them to <strong>help others</strong></td>
<td>Create new workplace <strong>social norms</strong></td>
<td>Advance to new <strong>goals</strong></td>
</tr>
</tbody>
</table>

**What the cell colors above signify:**
- Encourage intuitive thinking
- Encourage rational thinking

Source: Sibson Consulting
Making Incentives Work

- Incentives work best with extrinsically motivated individuals
- Rewards must be large enough to gather attention and motivate behavior change
- Rewards can’t be too large or they may create a “choking” effect
- There are very different timing approaches used with lifestyle change when leveraging behavioral economic principles
Prime the Workforce with Positive Messages

This slide will be available after the presentation on April 24.
Engage Communities of Interest to Increase Engagement

Communities of Interest Are Defined By:

- Proximity / Location
- Generation
- A Hobby
- A Disease
- Other cohorts

Lessons from Behavioral Research

- People are inherently social and biased toward cooperating within their peer group.
- Involve caring leaders, who are admired and liked.
- Influence perceptions with priming and instill new beliefs with anchoring.
- Use / monitor social media to encourage positive developments and to quash availability cascades.
Influence Various Communities of Interest with Anchoring

This slide will be available after the presentation on April 24.
QUIT NOW OR DIE YOUNG, AND IN PAIN

Ladies, smoking harms nearly every organ of your body. It smells bad. It’s expensive. It ruins your looks, your breath and your clothes.

If you don’t quit, chances are you’ll die younger and in pain. Plus, it harms other people around you.

You have a choice. Do us one small favor? Take a new cigarette, crumble it, and crush it!

You are on your way to quitting!

Call Human Resources now at 555 – 1212.
We will introduce you to your personal health coach.

Source: Sibson Consulting
What is the Role for Human Resources in a Healthy Enterprise Behavior Change Campaign?

HR should engage in behavioral messaging:

1. Establish Personal Relevance: Establish personal relevance by using familiar references and consistent branding. Nudge caring leaders in workforce communities of interest who are admired and liked.

2. Trigger Emotional Reactions: Trigger emotional responses (hope, fear, excitement, love, greed, caring).

3. Define Clear Choices and Convey Value: Define clear choices about health and illness, about consumerism and waste. Convey value in making smart choices (save money, save time, feel better, perform better).

4. Ask a Small Related Request: Ask employees to complete a small task related to a larger goal (crumble up one cigarette, take the stairs instead of the elevator, identify a freestanding urgent care center near home).

5. Channel to the Best Resource: Channel employees to the best High Quality / Easy to Use resource available (schedule an appointment for them, provide directions and a map to them).

Source: Sibson Consulting
Key Takeaways

Institutions need a comprehensive Healthy Campus strategy

➢ There is no silver bullet:
  • Inventory your initiatives and communications to clarify the current “choice architecture”
  • Clarify desired behavior changes and quantify the potential value gain
  • Develop a strategy
  • Involve various stakeholders including leadership and “communities of interest”
  • Customize your approach

➢ In order to sustain your initiatives:
  • Organize what you have
  • Determine how best to allocate and prioritize your finite resources
  • Measure effectiveness and impact, adjust as appropriate

➢ In times of so much uncertainty, make investments that can:
  • Improve the engagement and capacity of your workforce
  • Save health care and absence costs in the long term
  • Prepare your organization for the future

Develop a health strategy designed to shape a healthy environment.
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