

# Change the Facts

Seven Keys to  
Greater Change:

Best Practices for  
Employer Health  
Programs

measurable change

seamless experience

advanced predictive models

beyond physical health

sustained engagement

tailored communications

total population

incentives strategy

science-based behavior change

relevant metrics

integrated technology

# Change the Facts

70% of U.S. smokers say they want to quit. 40% try each year. Yet almost 20% of American adults still smoke.<sup>1</sup>

55% of Americans say they would like to lose weight. 27% are making a serious attempt.<sup>2</sup> Yet 67% of American adults are overweight or obese.<sup>3</sup>

In five years, healthcare costs for obese Americans grew 82%; for overweight Americans, 36%; and for normal-weight Americans, 25%.<sup>4</sup>

The cost burden is profound for employers. More than 60% of Americans obtain health insurance coverage through an employer-based plan.<sup>5</sup> In the last decade, employer healthcare costs have increased approximately 150%.<sup>6</sup>

## Achieving Greater Change with Employer Health Programs

Healthcare cost trends have long been moving in the wrong direction. Some employers have successfully reduced the upward trajectory of health-related expenses with health and wellness programs, but wide variations exist in program performance. Newer approaches to health and well-being based on recent advances in science and research significantly improve outcomes.

This paper identifies seven key areas in health program design with the highest potential to achieve change. The most effective solutions support well-being across total populations, focus resources to prevent the highest-cost health developments, and motivate change with personalized support that drives the step-by-step process, recognizing the many factors that influence health behavior.

## [Smart approaches can reverse the trends.](#)

Many companies have implemented workplace health and wellness programs. In the U.S., 58% of employers are offering some type of wellness benefit, ranging from web-based resources to telephonic and onsite coaching programs. The percentage of large firms (200 or more workers) offering at least one wellness program grew from 88% in 2008 to 93% in 2009.<sup>7</sup>

The quantity of health and well-being programs available in the marketplace continues to grow. A meta-analysis of literature on costs and savings associated with workplace disease prevention and wellness programs found that for every dollar spent on wellness programs, medical costs fall by approximately \$3.27 and absenteeism costs, by \$2.73.<sup>8</sup> Figure 1.

Quality has improved with advances in knowledge and research. Yet national health statistics—and wide variances in program approaches and results—indicate room for improvement. At Healthways, the Center for Health Research uses objective scientific methods to:

- Assess and validate the value of health solutions, methodologies, and tools
- Support the development of improved solutions and approaches
- Lead the healthcare industry in innovation

Beyond committing substantial internal resources to best science, Healthways collaborates with well-known external experts—M.I.T. AgeLab, Pro-Change Behavior Systems, Gallup, and other strong partners.

Research, partnerships, and three decades of real-world experience have put Healthways on a continuous path of improvement. Through external assessment and internal evaluation, Healthways has identified [seven key areas in health program design](#) with the demonstrated potential to significantly improve the outcomes of employer health programs.

### [1. Serve the total population, looking beyond physical health, to cut costs and raise productivity.](#)

Nearly half of all Americans suffer from one or more chronic diseases and each year millions of people are diagnosed. Health support programs that serve only on a subset of the population—traditionally defined as those with existing chronic diseases or high health risks—can fail to prevent those new diagnoses and significant associated costs.

As leading wellness researcher Dee Edington noted at the University of Michigan's 28th Annual Workplace Wellness Conference<sup>9</sup>:

- Risks flow toward high-risk, and costs toward high-cost, if left unchecked.
- Keeping healthy people healthy is a critical health management strategy.

A comprehensive, three-pronged strategy—optimizing care for those with health conditions, reducing and eliminating lifestyle risks, and sustaining good health—serves the total population and prevents both short- and long-term avoidable costs.

The cost benefits of prevention extend far beyond medical expenditures. Studies have calculated productivity costs associated with chronic disease and related health risks to be up to four times those of direct healthcare costs to employers.<sup>10</sup>

FIGURE 1: RETURN ON INVESTMENT



3.27

*On average, employee healthcare costs fell by \$3.27 for every \$1.00 spent on employee wellness programs.*

New insights into the factors that influence health and productivity suggest that health support programs couple a complete view of the total population with a more complete view of individual health and the work environment.

In her featured presentation at the Workplace Wellness Conference, Dr. Cathy Baase, Global Director of Health Services for Dow Chemical Company, emphasized the importance of including culture in corporate health strategies. The National Business Group on Health's National Conference on Health, Productivity, and Human Capital in October 2009 was focused on a similar theme.

The Gallup-Healthways Well-Being Index™, a comprehensive measure of national well-being, is amassing new data each day on the interrelationships of factors like social support, job satisfaction, physical health, healthy behavior, and levels of happiness, anger, and stress. Through 1,000 daily surveys, the Index collects and correlates information in six domains—Life Evaluation, Emotional Health,

Physical Health, Healthy Behaviors, Work Environment, and Basic Access. Findings since the launch of the Index in January 2008 have substantiated connections between:

- Work environment, physical health, and productivity
- Social support and well-being
- Exercise and levels of stress
- BMI and emotional health, financial stress, and recognition at work

Most mature employer health programs use Health Risk Assessments (HRAs) as a starting point for identifying health needs and as a benchmark for health improvement. HRAs focus primarily on physical health and may include limited aspects of mental health. Index findings and other research substantiate the need for a more multidimensional assessment—one that captures corporate culture and the influences of social and emotional factors on health and workplace performance.

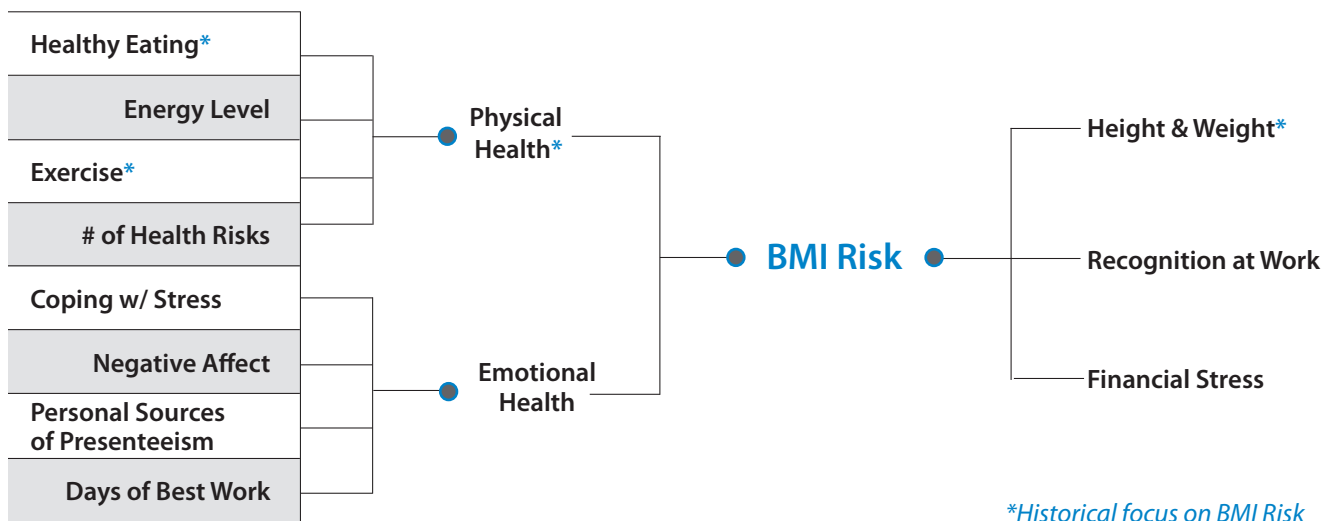
Historically, health support programs to reduce BMI would focus on healthy eating and physical activity. To be most effective, programs also need to address social and emotional needs, such as the ability to cope with stress and the presence or absence of positive recognition for performance at work. Figure 2.

This example supports the recommendation that an expanded view is needed. This information can:

- Arm health professionals with a better understanding of the individuals they are working to help.
- Influence program implementation and communication strategies.

Next generation programs must address social and emotional needs in conjunction with physical health, or even in advance of it.

FIGURE 2: DRIVERS OF BMI RISK



## 2. Drive participation and sustain engagement with strategic communications, incentives and behavioral economics.

Without participants, health support programs don't have the chance to be effective. According to a 2009 survey of nearly 700 U.S. companies, typically fewer than 40 percent of eligible individuals enroll in wellness programs, and fewer than 15 percent in disease management programs.<sup>11</sup>

To motivate participation, U.S. respondents in a 2009 global survey of workplace wellness programs spent an average of \$163 per employee per year on wellness incentive rewards, up from \$145 the previous year.<sup>12</sup>

Incentives improve participation, but dollars alone don't deliver sustained program engagement. The Center for Health Research has studied program incentives evidence and best practices, and found:

- Incentives and disincentives can be effective at improving participation and behavior change, but they are not sufficient to improve long-term outcomes.
- Incentives are more effective when provided on an ongoing, periodic basis, and when their value reflects the perceived difficulty of the action.
- Incentives must be coupled with well-designed health and wellness programs and effective communication to have the greatest impact.<sup>13</sup>

High-performing employers identified in the Towers Perrin 2010 Health Care Cost Survey anticipated undertaking more communication activity and using new channels to support health program engagement in the next two years.<sup>14</sup> (High performers had lower relative healthcare costs per employee than low performers.)

**FIGURE 3: REINFORCEMENT VARIATION**



Best practices in health program communications include:

- Tailoring messages and communication vehicles to the audience
- Minimizing employee privacy concerns
- Maximizing reach with multiple methods and touches over time
- Driving participation with short-term, team-based challenges
- Demonstrating internal support, beginning with top management
- Tracking and addressing individual changes in program use

Tailored communication messages and rewards, based on individual patterns of interaction, can both improve engagement and lower incentive costs. To maximize the motivational impact of incentives, innovative programs are applying principles from behavioral economics. Figure 3.

People tend to discount the value of things if they do not perceive an immediate benefit – a concept known as hyperbolic discounting. The phenomenon helps explain why as many as 50% of individuals with doctor-prescribed medication fail to take their medication as prescribed.<sup>15</sup> Intermittent economic and noneconomic methods of reinforcement can overcome that tendency by providing a perceived benefit, but individuals respond differently to different types of messages and levels of reinforcement.

A study of one such program, using proprietary software to determine optimum, individual levels of economic reinforcement, found that it improved medication adherence by 34.6%—to 97.9%—while limiting costs.<sup>15</sup> In trial and commercial environments, the same system has produced 33% to 56% increases in sustained adherence to targeted behaviors while decreasing incentive budgets.

### 3. Use advanced predictive models to focus outreach on high-impact opportunities.

No organization has unlimited resources to invest in wellness. Investments that deliver the greatest impact will prevent the highest-cost, avoidable health problems. The challenge is to anticipate and prevent those health developments before they occur.

Fifty years ago, weather forecasters relied on information from land-based observation stations, balloons, and aircraft to predict the weather. Satellites and sophisticated computer modeling capabilities have since transformed the accuracy and value of weather forecasts. The same phenomenon has begun to take place in the field of health support. Advances in predictive modeling and data analysis allow increasingly accurate identification of the best opportunities to prevent high-cost health problems.

An analysis by the Center for Health Research identified several rules of healthcare costs across total populations.

- A consistently small percentage of individuals typically generate the greatest costs within a population—30% of employees accounted for 80% of one employer’s costs.
- The high-cost population changes from year to year—only 12 to 18% of one year’s costliest group remained so the next year.
- Neither chronic disease nor clinical risks alone best predict healthcare needs and costs. Other important indicators include multiple conditions, medications, prior utilization patterns, self-management, health behaviors, demographics, and psychosocial factors.
- A prediction of high-cost healthcare needs does not guarantee an opportunity to make an impact that improves health or reduces costs.<sup>16</sup> Figure 4a-b.

Predictive modeling mathematically determines the likelihood of defined outcomes. Neural net technology builds models by identifying hidden patterns in data—combinations of risks, claims, and other information that signal potential future costs.

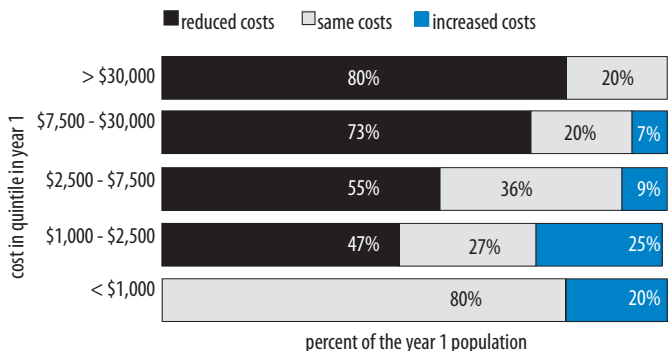
Predictive models for health support programs should consider:

- Which individuals are likely to incur high costs in a given time period (6 to 12 months or 12 to 24 months)
- Cost trajectories—some individuals are likely to return to lower costs and stable health status without intervention
- Gaps in care, or actionable risks, that can be addressed to reduce disease progression and medical spending
- The high-cost health consequences of individual risks and sets of risks, in combination with demographics and other available information

Results can guide an appropriate level of intervention for each individual within the population, making the most cost-effective use of outreach resources. Proactive outreach may include care support and coaching from a primary health professional or team. Every member of the population should receive some level of health support.

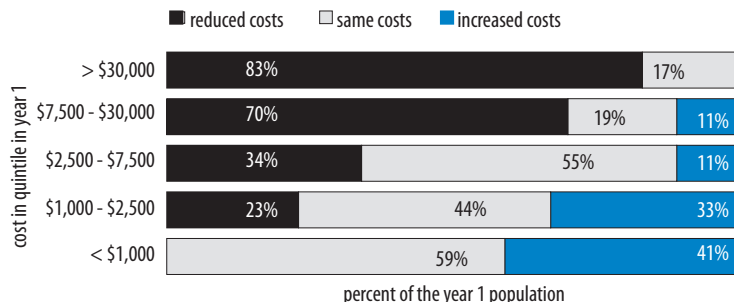
**FIGURE 4a:**

CHANGE IN HEALTHCARE COSTS AMONG 13,000 MALE EMPLOYEES, YEAR 1 TO YEAR 2 *Lynch and Gardner, 2009*



**FIGURE 4b:**

CHANGE IN HEALTHCARE COSTS AMONG 898 DIABETIC MALE EMPLOYEES, YEAR 1 TO YEAR 2 *Lynch and Gardner, 2009*



#### 4. Move each person forward with a science-based approach to behavior change.

Preventing avoidable, adverse health developments requires more than informed outreach—it requires change in health-related behaviors. The most effective programs:

- Use a proven behavior change approach to guide interventions
- Address multiple behaviors
- Draw on the benefits of social support
- Embed the change process into online resources for individuals and technology that supports health professionals

The Transtheoretical Model (TTM) of behavior change—addressing self-efficacy, decisional balance, and the five stages of change—produces significant behavior change even in populations that include large numbers of unmotivated participants.<sup>17</sup>

Studies of the ProChange TTM, implemented in populations in which 70 to 80% of people were not ready to take action, have found:

- Individualized interventions for smoking cessation, the most difficult behavior to change, produced long-term abstinence rates within the range of 22 to 26%.

- Interventions directed toward effective stress management changed behavior and stress levels for 60% of an at-risk national population originally identified with levels of stress that predicted a need for care within two weeks.
- Interventions to address adherence to cholesterol-lowering drugs and antihypertensive medication moved 60% of the non-compliant population to compliant during a six-month treatment period.
- Other interventions trimmed the number of physically inactive participants by 40% and moved 25% of the population from unhealthy to healthy eating habits.

Full implementation of the TTM addresses behavior at every stage of change, from pre-contemplation (not even thinking about change) to maintenance of a new healthy habit. The concepts of self-efficacy and decisional balance are essential to the change process, determining and building:

- The confidence to change
- A favorable balance of pros and cons influencing the decision to change.

Research and experience support the idea that behaviors are interrelated and that people tend to change them in clusters. If someone wants to stop smoking but fears weight gain or irritability,

those fears may hamper or prevent change. Figure 5.

Addressing multiple behaviors simultaneously, rather than sequentially, boosts effective change in single behaviors<sup>18</sup> and influences more behaviors, offering advantages in both efficiency and outcomes.

Social support is another increasingly recognized tool to influence behavior change. An analysis of Healthways QuitNet Comprehensive tobacco cessation program found that active or passive use of QuitNet’s online therapeutic communities boosted quitting success by more than 15%.<sup>19</sup> Figure 6a-6b (*next page*).

#### 5. Provide options and consider preferences for interaction to elevate outcomes.

On a daily basis, consumers receive personalized recommendations for books, movies, music, and even banking products based on past online transactions and other available data. One-size-fits-all programs are becoming a thing of the past as the trend toward personalization spreads across every industry.

Receptivity varies by individual to certain information, messages, and methods of contact. A person’s response can relate to factors like level of education, age, social environment, personal preference, and personal circumstance.

Research has shown that different modalities—online, telephone, face-to-face, and others—can achieve comparable levels of successful behavior change. The use of multiple modalities and the opportunity to select a modality of preference both improve outcomes.<sup>19</sup>

Beyond the modality, or communication channel, aspects of

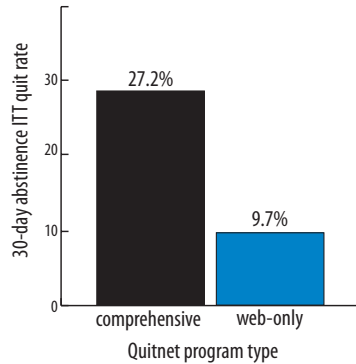
FIGURE 5:

THE INCREASED PROBABILITY OF PROGRESSING TO ACTION ON A SECOND BEHAVIOR (E.G. DIET) WHEN INDIVIDUALS HAVE PROGRESSED TO ACTION ON AN INITIAL BEHAVIOR (E.G. SMOKING)  
Pro-Change Behavior Systems, Inc., 2009

Co-variation in	Odds Ratio
Control Group	.85
TTM Intervention Group	3.44

**FIGURE 6a:**

QUITNET COMPREHENSIVE OUTCOMES SURPASS THE WEB-ONLY OFFERING



personalization that can improve the effectiveness of interventions include:

- The tonality: informational, educational, motivational, or empathetic messages can work best for different personalities and at different junctures
- The frequency or intensity
- The depth and density of content, based on personality and literacy level

Key to making the tailoring process cost-effective is automation. A sophisticated software feedback system can assess and respond to what members do and what they react to, incorporating input from employees and health professionals.

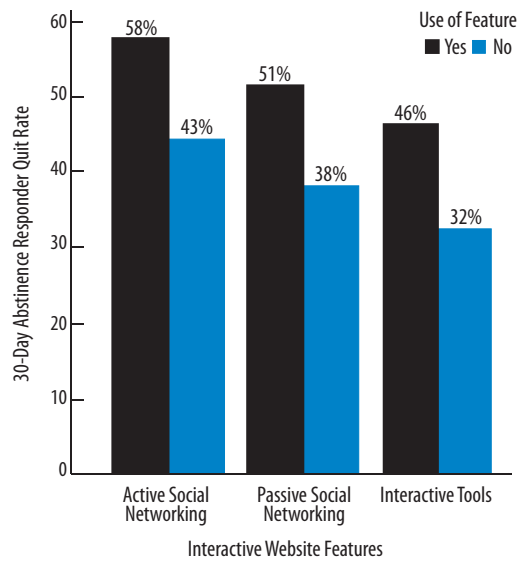
### [6. Track valid, consistent, comparable measures to direct program improvement.](#)

Only 22 percent of employers reported using financial metrics to measure the success of wellness programs in a recent global survey.<sup>20</sup> Rates were higher among U.S. employers, but measurement practices are far from uniform. Faulty measurement tactics can inflate success and mask program failure.

The World Economic Forum's recommended best practices for

**FIGURE 6b:**

QUIT RATES ARE HIGHER FOR MEMBERS WHO USE INTERACTIVE WEBSITE FEATURES



wellness program measurement include:

- Using clinically valid measures that relate to emerging research on the factors most closely associated with chronic illness
- Developing and using consistent measures that enable comparative analysis and benchmarking
- Regularly re-measuring to determine the impact of steps taken
- Ensuring consistent data practices and effective tracking with a systems approach to data management<sup>21</sup>

Frequent reporting and direct, real-time access to meaningful metrics support program success and ongoing efforts to improve engagement and outcomes.

Relevant metrics for employer health and well-being solutions may include:

- Financial returns on short- and long-term avoidance of health care costs
- Health improvement opportunities identified through assess-

ment tools (including population physical, emotional, and social health factors) with comparisons to a benchmark population

- A population health risk profile, including percentages of high-risk, medium-risk, and low-risk participants; aggregate numbers of individuals by identified health risk (BMI, tobacco use, physical inactivity, stress management need, etc.); eligibility and enrollment; and actionable risks improved and eliminated
- Interaction details, including two-way interactions and use of online resources

### [7. Support a seamless experience with integrated technology that builds on every interaction.](#)

Many solutions appear integrated from the outside but lack the technology that supports true integration. Without an integrated technology platform, the conversation that a clinician has with an individual about recent heart palpitations is not available to the fitness coach promoting high-energy workouts.

Coordinating services through manual reports or periodic calls can minimize health conflicts but alienate participants by requiring them to share the same information multiple times. Truly integrated services build on every interaction.

An integrated system with a clinician dashboard that identifies the most important items to address in each interaction supports health professionals in guiding the change process. Online tools that respond to individual input can help set goals and identify steps to action, working in tandem with other interactions.

Integrated technology connects multiple vendors, programs, health care providers, and pharmacies. It enables timely, informed health outreach and supports the concept of the personal health record.

In the Towers Perrin 2010 Health Care Cost Survey, 51% of high-performing companies said they build connectivity across all health-related programs and vendors, compared to 21% of low performers.<sup>22</sup> More than 60% of high-performing employers expect to support personal health records for their populations by 2012.<sup>23</sup>

## Conclusion

Employer health programs can achieve measurable health change and significant healthcare cost savings. The programs with the highest impact will:

- Serve the total population, looking beyond physical health.
- Use tailored communication and incentive strategies that attract and sustain engagement.
- Focus outreach resources on the greatest opportunities to contain costs and improve health.
- Embed a science-based behavior change process into all interactions.
- Offer individuals a highly personalized experience.
- Use valid measurements of program impact.
- Integrate all program elements to build on every interaction.

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