

Synergies at Work: Realizing the Full Value of Health Investments

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TABLE OF CONTENTS

Restoring “Health” to the Health Care Reform Debate	2
Quantifying the Impact of Health Investments	3
The Need for Comprehensive Measures for Defining and Quantifying Value	5
Future Directions for the Framework	12
Final Thoughts	17
References	18
Case Studies	21

RESTORING 'HEALTH' TO THE HEALTH CARE REFORM DEBATE

The passage of the Patient Protection and Affordable Care Act (PPACA, PL 111-148) has not eliminated the tension between apparently competing goals: providing better quality health care and decreasing medical spending. Enormous scrutiny has been devoted to the financial implications of the landmark legislation and its ultimate effect on the national deficit and the economy as a whole.¹ The most prominent and contentious issue for all stakeholders has been the cost of health care, both aggregate spend (estimated to exceed \$2.5 trillion in 2009) and, perhaps more critically, the rate of health care cost growth (a 5.7% increase between 2008 and 2009), with national health expenditures now representing 17.3% of the GDP.² That **the ultimate goal of our health care system is to produce health rather than to save money** seems to be barely an afterthought in the debate. The ultimate "good" to be purchased from our health care "system" is the overall health of Americans. In the case of employers as purchasers it is the overall health of their workforce. The true value produced by investments in health care cannot be accurately determined without focused attention on both the inputs and the resulting outputs that are relevant to America's businesses and their employees.

As a system output, "health" and its related components should have a more prominent role in the national health care debate. Much is at stake and the timing is critical. As a result of health care reform, employers will soon be deciding whether to (1) continue to provide health insurance for their employees, (2) opt-out of providing insurance and instead pay penalties and have employee insurance provided by health care exchanges or (3) opt-out but continue to provide health and wellness related programs. Employers' understanding of the value of a healthy workforce will be critical when making these decisions, and could substantially transform the provision of health care benefits in the US health care system.

It is widely accepted that (1) high-quality health care costs money, and that (2) there is already enough money in the US system to improve the quality of care. In comparison with other nations, the United States spends the most per capita on health care of all countries worldwide, yet many metrics of population health and quality of care in the US lag behind the metrics of several other nations.³ It is clear that clinicians, payers, health plans, employers, health sciences companies and policy makers in the United States need to focus on *how*—not just *how much*—we spend on health care and what we get for it. It is incumbent upon employers to shift their focus from “How much?” to “What value are we getting for our money?” in order to maximize the health produced per dollar spent.

Accordingly, this paper has three primary objectives:

- 1) to broaden the discussion from a focus limited to the **cost** of health services/products to one that encompasses the **value** that improved health creates in enhanced outcomes for businesses and their employees;
- 2) to propose the development of a conceptual model that ensures full measurement of the economic benefits of enhanced health and thereby ensures that comprehensive measures for defining and quantifying value are inclusive of all relevant outcomes; and
- 3) to sound a call to action in support of better evidence collection in order to capture the real value of interventions for employees and employers, in particular.

Employers' understanding of the value of a healthy workforce could substantially transform the provision of health care benefits.

QUANTIFYING THE IMPACT OF HEALTH INVESTMENTS

Before embarking on a process to create a methodologically sound and pragmatic model to measure the total impact of health care investments, it is important to recognize one commonly held misperception: that incremental health care expenditures should at least pay for themselves in medical savings across the various parts of the system, and that this required cost neutrality produced from health care expenditures should accumulate only from offsets in other medical spending.

Regarding Medical Cost Neutrality

It is well documented that most, if not nearly all, high-quality health care services do not result in reduced total medical spending—especially in the short time-frame used for fiscal scoring by governmental and other agencies.⁴ Note that most medical services, including many that are evaluated for well-established quality metrics (such as medications for hypertension and eye exams for individuals with diabetes), while cost-effective, are not reported as cost-saving if the outcome measured is only the impact on direct medical spending, particularly in the short term.⁴ Moreover, a database from The Center for the Evaluation of Value and Risk in Health at Tufts University reports that only a very small percentage of the medical services subjected to economic evaluation result in a net reduction in medical spending, even if a lifetime horizon is used.⁵ This important fact necessitates a careful re-examination of the requirement that new health care investments pay for themselves. Offsets in medical spending are only a part of the benefit that results from health care services.

A more long-term approach is particularly needed in the evaluation of chronic disease care, for which the 10-year time-window typically used for fiscal scoring is inadequate to capture outcomes that result from a variety of policy options over a longer period of time.⁶ This long-term approach should also be applied to most preventive interventions and screenings, as well as other services deemed as quality metrics by national accrediting organizations, such as the National Committee for Quality Assurance (NCQA). However, even with the longer perspective such services will often not appear to save money if only medical spending is considered. If we were to firmly adhere to the requirement of cost neutrality, given the totality of the published evidence on this rare outcome, new models of medical innovation, pricing, and reimbursement would be necessary. A more long-term view of outcomes achieved for dollars invested might counter the tendency to focus on cost neutrality as the main, or even sole, objective.

Instead, stakeholders would be better served if their focus were shifted to the creation of value, as favored in most other major sectors of the economy. Recognition by employers of the value that is returned to their businesses from their human capital investments, rather than simply the costs that appear as employee-related expenses on their books, would go a long way toward establishing support for improvements in employee health and productivity.

Why Health Care Spending Need Not Be Cost Neutral

The complex political/societal determinants that inform the decisions regarding the level of health care expenditures among and within countries are outside the scope of this paper. However, the wide variation in spending levels and medical service utilization confirms the lack of a universally accepted “formula” on which to base spending amounts. As in other essential sectors of the economy (such as defense, education and transportation), in the health care sector the accurate measurement of the impacts of investments is both imprecise and incomplete. The relative immaturity of methodologies and the challenges of performing formal cost-effectiveness evaluation in health care, combined with the inconsistent implementation of the findings, suggest that the direct financial implications of health care spending should be only one of several factors on which to base “value.” Only in recent decades, when double-digit cost growth has driven the health care sector to account for close to 17% of the GDP, has serious scrutiny been given to the amount spent on health care. Now attention needs to be paid to what we are getting in terms of health creation and its full value for that expenditure. Moreover, employers—who pay the substantial majority of health care premiums—are keen to demonstrate how additional health care spending can favorably impact the bottom line of their organizations, in addition to achieving their altruistic goals of improving the health of their beneficiaries. As the debate intensifies, increasing consideration will be attended to “Who pays?” and “Who benefits?”

Employers are keen to demonstrate how additional health care spending can favorably impact the bottom line of their organizations.

THE NEED FOR COMPREHENSIVE MEASURES FOR DEFINING AND QUANTIFYING VALUE

To accurately determine the value of health care investment—that is, the fiscal impact of added health and related work outcomes generated from health system expenditures—requires a thoughtful discussion of what makes up the health value equation.

Empirical studies and research reviews have long demonstrated that a decrease in the use of a specific medical service, such as reduced coverage for pharmaceutical treatment, mental health services, or ambulatory office visits, can result in higher costs in other areas, such as increased complications, emergency room visits and hospitalizations.⁷⁻¹⁴ Therefore, while the use of some medical services may not save money overall, their use avoids the cost of other less desirable medical outcomes and complications.

For example, one study concludes that reduced use of evidence-based therapies for rheumatoid arthritis led to higher absence rates with longer durations, increased work disability and lowered performance on the job.¹⁵ These work outcomes—absence, disability and job performance—that are directly related to health benefits achieved or foregone are rarely included when value is assessed.

Most actuarial assessments, including those undertaken by the US Congressional Budget Office, and those appearing in most published academic literature, ***systematically underestimate the economic benefits of health production, particularly to the employer***, because only medical cost offsets are considered in the calculations. Given this narrow perspective, a substantial portion of the economic payoff from high-quality health care services is currently being omitted from most impact assessments. For example, this approach does not recognize the value that is created beyond direct medical cost offsets due to reductions in health-related work absence and disability. Additional financial gains accrue to the employer from improved job performance and the resulting improvements in productivity. However, the perspectives of employer and employee can differ in terms of the value accrued. Employers might prefer to reduce sickness absence among salaried workers, as compared to hourly workers, because the salaried workers are paid regardless of illness. For employees, there is a lower value to reducing sickness absence for salaried workers than for hourly workers, because the incomes of the hourly workers are directly impacted by illness and those of salaried workers are not. This paper is primarily focused on the benefits that accrue to employers as the key decision-makers weighing the value of their health investment decisions. The value of health investments and associated benefits to employers is directly related to how employees are paid, whether on an hourly or salaried basis, to the duration of employment and related turnover, and other such employment factors. **An expanded paradigm that routinely includes a broader and more appropriate measure of the economic benefits of good health would ultimately allow decision-makers and payers to make better choices as to how much to invest in health care as well as how to determine the specific services in which to invest.**

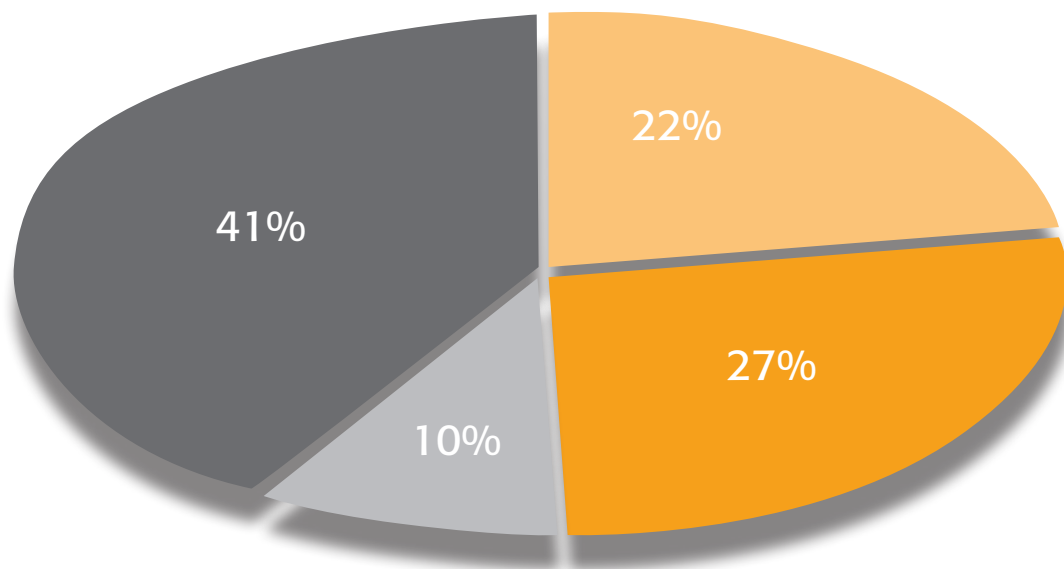
Evidence for Key Decision-Makers

There is evidence that chief financial officers (CFOs) in American companies take this broader view. In an initial survey of CFOs published on this topic in 2002, more than 6 in 10 reported a strong link between workforce health, productivity and the financial success of their companies.¹⁶ In a second study of CFOs four years later, a large majority understood that employees in poor health have higher medical costs (96%), have trouble focusing on their jobs (90%) and have more absence impacting their operating performance (86%).¹⁷

Evidence from new models developed by the Integrated Benefits Institute (IBI) that estimate the “full costs” of health demonstrates that the breadth of CFOs’ thinking about health is well founded. These models rely on information concerning employer characteristics and experience, national data (eg, Bureau of Labor Statistics and Current Population Survey) and IBI datasets on benefits program experience and self-reported health-related job performance.¹⁸ As an example, the figure on page 8 charts the full cost components for a sample employer, a 10,000-life employer in the health care services sector. The components include the cost of all medical care (including occupational injuries), wage-replacement payments for all forms of workplace absence and disability, and the cost of lost productivity (for absent employees and for decreased employee job performance based on health). The costs for all medical care, including the pharmacy benefit and workers’ compensation, represent less than 30% of all health-related costs for this sample employer. Seventy percent of the employer’s costs arise from wage replacement payments and lost productivity that result from absence or reduced job performance related to ill health.

An expanded paradigm that includes a broader measure of the economic benefits of good health will allow decision-makers to make better health care investments.

Components of Full Cost



- Lost productivity: Job performance
- All medical care
- Lost productivity: Absence
- Wage replacements

Source: Integrated Benefits Institute

The research among CFOs also indicates that CFOs are making decisions without a full range of information. Only about half of CFOs report having access to data on the incidence of absence, and only about a quarter get information on its financial consequence; only about 10% get information on decreases in health-related job performance, and only 8% get information on the financial consequences of reduced performance. Without these data, the positive impact of medical investments is systematically underestimated, and, as a result, fully informed assessments regarding the return on investment for health care expenditures cannot be made.

Framing the Value of Health and Productivity

To accurately measure value, the evaluation model must expand the assessment of the benefits derived from medical services and health interventions beyond consideration of only medical and pharmacy cost impacts.

While we recognize that the current model of health investments most often addresses **the direct medical cost offsets defined in the highlighted box on the next page**, our emphasis in this paper is on moving beyond this limited model to an expanded model that includes broader work-related outcomes, **the indirect health-related costs listed in the same box**.

The true value of health care investments cannot be determined without attention on both the inputs and the resulting outputs that are relevant to America's businesses and their employees.

Definitions Necessary to Allow Appropriate Measure of Health Care Value

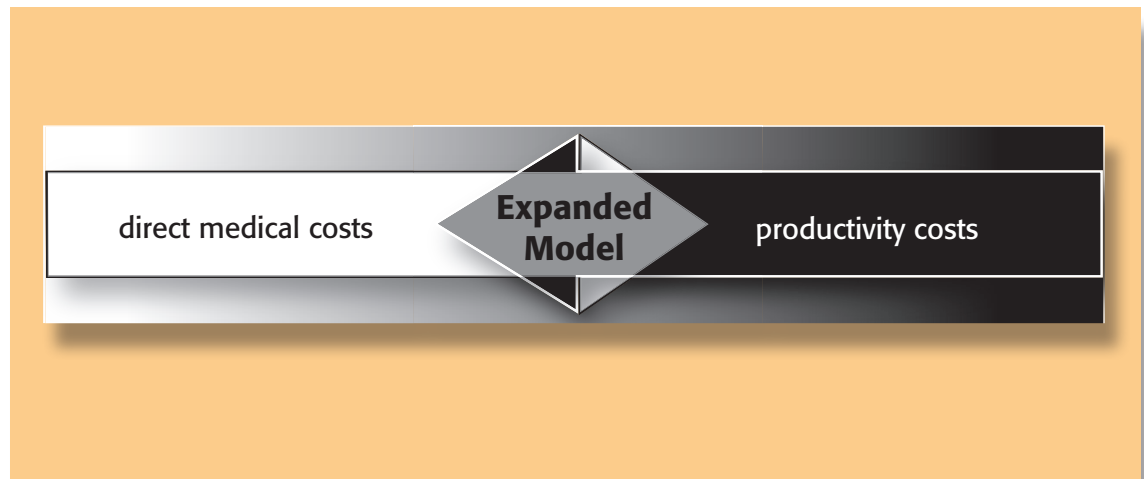
Direct Medical Costs (Cost Offsets)

The nearly \$3 trillion dollar US health care enterprise represents the direct expenditures for medical services, such as clinician visits, diagnostic tests, prescription drugs, procedures, ER visits and hospital stays. The great majority of economic assessments of medical services focus on the tradeoffs between added use of one service (such as immunization, enhanced clinician access, screenings, drugs) and how that service affects the utilization of other services. An example would be how the use of a long-acting asthma control medication would impact the use of emergency room visits for asthma exacerbation.

Productivity Costs (Indirect Health-Related Costs or Work Outcomes)

1. **Absence:** incidental absence/sick leave, absence to care for sick or disabled family members. Incidental absence is often a short-duration, unscheduled absence of 1-5 days, as opposed to the more prolonged health-related absence associated with disability. Paid-time-off (PTO) systems that do not track sick leave may refer to short-duration absences that do not fall under disability as “incidental absence.” Family Medical Leave (FML) programs allow unpaid, job-protected leave to care for sick family members.
2. **Disability:** occupational or non-occupational disability episodes, prolonged health-related absence from work. Workers’ compensation (occupational) and short-term disability (non-occupational) episodes represent the primary formal disability programs, usually having longer-term durations than sick leave or FML programs. Long-term disability (LTD) programs should also be examined, although lost productivity costs are typically minimized, as employers are usually able to find replacement workers during the short-term disability (STD) phase of a claim. Nevertheless, if costs related to replacing a worker extend beyond the STD phase, then the lost productivity costs will continue into the LTD phase as well.
3. **Job Performance:** decreased on-the-job performance due to illness, often called “presenteeism.” To the extent that under-performance on the job disrupts work, causing output delays or diminishing the quality and quantity of other team members’ work, there will be additional costs to the employer due to decreased job performance.

By failing to include these work outcomes and productivity benefits, empirical studies to date have systematically underestimated the full impacts of medical investments. When high-value medical services are increasingly used, employees should miss less work and perform at higher levels. From the resulting lower rates of absence and presenteeism, employers should experience greater health-related productivity.¹⁹⁻²⁸



In this broader framework, approaches in evaluation must be extended to address plan designs for programs that manage absence. For example, does the employer provide paid sick leave and, if so, at what level and for how long? For disability programs, what are the plan design parameters for the time periods before benefit payments commence (the elimination period); wage replacement rates (compensation to the worker for all or a portion of forgone wages); maximum duration of benefits (total amount of time that benefits are payable), and return-to-work (RTW) participation (degree of participation in programs that encourage safe and healthy return to work after illness or injury)?

Regardless of which employer programs provide benefits for time away from work (ie, sick leave, short-term disability, workers' compensation disability, long-term disability or Family Medical Leave), costs accrue from these absences that extend beyond lost-time payments, wages and benefits. These costs have real implications for corporate earnings. For example, some employers over-staff to make up for absent employees so that product goals can be met. Other employers respond by offering overtime pay or employing temporary help. These additional staffing costs directly affect potential earnings. Employers that are unable to meet their staffing needs may lose revenue through production or service shortfalls, and decline in product quality may result from absence patterns. Furthermore, these health-related productivity costs deflect resources away from other more productive investments.

Research has shown that the magnitude of these additional health-related productivity costs depends on several factors. Among these are: (1) the employer's ability to find replacement workers; (2) the team-based nature of the work (eg, "spillover" effects on the productivity of other non-absent workers) and (3) whether production delays can be experienced without affecting revenue.^{29, 30} In addition to these financial losses from lost productivity, the employer may also pay wage replacement costs to employees absent from work. Employers typically pay employees a portion of their wages when the employee is absent (eg, sick leave at 100% of the employee's wage, or disability leave at 67-75% of the wage). These costs are not limited to workers who are absent from work; the costs extend to performance while on the job as well. Illness on the job causes decreases in performance, resulting in time delays and poorer quality products and services, loss of revenue and erosion of the client base.³¹⁻³⁴

When medical and pharmacy claims costs for specific illnesses or conditions are compared to the related absence and presenteeism costs, the latter typically outweigh the former.^{35, 36} **Despite the clear need to measure both direct medical costs and productivity costs to accurately assess the true value of an intervention, studies that do this are extremely rare. Medical offsets and productivity gains are almost always discussed independently, in a vacuum, and the obvious synergies are rarely addressed.** The reason for this disconnect includes the difficulty of getting access to measures of both medical costs and productivity outcomes. Medical cost data typically are obtained from medical and pharmacy claims data (and even these two data sets often are not linked), whereas lost-time data typically come from a variety of sources, including disability claims data, employer absence records, workers' compensation data and health risk appraisals. Information on performance typically comes from employee self-reports and is translated into time lost from work. While medical cost offset studies tend to lack a lost-time measurement component, lost productivity studies tend to lack empirical data on the employer's actual response to lost time and the resulting attendant costs. Both literatures—medical offsets and lost productivity—could benefit from an expanded framework that bridges both by encompassing health-related lost resources.

By failing to include productivity benefits, empirical studies systematically underestimate the full impacts of medical investments.

“Our experience demonstrates that employers do not need to be afraid to challenge the status quo. They can actively manage the health and productivity of their workforce in much the same way as they manage other aspects of their supply chain.”

Raymond Zastrow, MD,
President of QuadMed

FUTURE DIRECTIONS FOR THE FRAMEWORK

In addition to medical interventions aimed at disease treatment, value-based designs (ie, programs designed to maximize a value such as employee health or, ideally, health and productivity) can also include a workforce-wide component, such as prevention and wellness strategies. There is an interest among a variety of stakeholders (eg, patients, providers, health plans, policy makers and employers) in these broader population-focused strategies for value-based investment.³⁷⁻⁴¹ Indeed, many of these same stakeholders believe that a shift is needed toward providing better incentives for preventive services, not just benefits after an illness or sickness has occurred, in order to maximize the value of health-related investments.⁴²

Changes in Employer Practice

A recent survey of employers confirmed that most value-based design efforts are focused on reducing copayments for medications to treat chronic conditions, while a slightly smaller share are focused on motivating and rewarding behavior change.⁴³ This and other surveys have found that a sizeable proportion of employers have not adopted value-based designs.^{44, 45}

However, a 2009 survey suggests that there are growing efforts among employers to expand the reach of value-based investments in employee health to include prevention and wellness programs, in addition to chronic care management and care delivery.⁴⁶ A recent 18-month cohort study of a worksite health-promotion program demonstrated savings in a screening program for disease management that included the measurement of casual absence and of short and long-term disability outcomes.⁴⁷

We interviewed eight companies that provide value-based programs to gain a better understanding of the approaches that employers are using and the measures they track to monitor program success. These companies were selected from a pool of respondents to IBI's 2009 health and productivity management survey, based on whether the respondents had what they considered to be a value-based program and used at least one of the outcomes in the broader value spectrum to measure program impact (eg, sick day/disability absences, presenteeism and/or health-related lost productivity).⁴⁴ The final case sample was supplemented with other cases, identified via member communication or in the existing literature, that

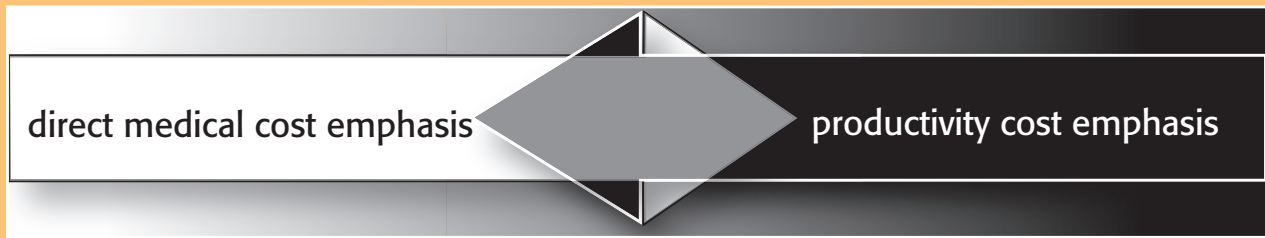
were known to have value-based programs and to measure these broader outcomes. The appendix provides detailed descriptions of these eight cases, representing a variety of industries, including health services, county government, manufacturing, the non-profit sector, and energy/utilities. In general, we found that employers' value-based approaches typically have either a predominant focus on productivity cost reduction (eg, reduction of disability claims costs, return of individuals to work as soon and as safely as possible after injury or illness) or a predominant focus on medical and pharmacy cost reduction (eg, reduction of medical or pharmacy claims costs, declining premium trend). But in all cases these employers are moving in the direction of a holistic approach to workforce health management in their companies that emphasizes both direct medical costs and productivity. Some employers are closer to achieving this synergistic approach than others, particularly in terms of the measures they use to assess the value of their health-related investments.

In the figure on page 14, the cases are organized according to whether they emphasize health care cost reduction, or productivity cost reduction. Those in the middle, for example Lafarge and Colorado Springs Utilities, are the furthest progressed in moving away from a one-sided cost perspective toward inclusion of the value of health and productivity in their program assessments. The cases closest in color to black or white tend to emphasize one dimension over the other (particularly in terms of what outcomes are measured, reported and tracked).

"Integrating the wellness program with value-based design has been a key strategy for improving employee engagement over time."

Tamara Kirk
Benefits Supervisor
Colorado Springs Utilities

Integrating Cost Offsets and Productivity Gains*



Company	Current Approach	Challenges/Future Directions	Evidence
Chippewa County, Wisconsin	Improve health and conditioning of their employees in order to reduce health-related costs, WC incidents and WC case duration	Improving understanding among unions of investments in employee health; moving thinking away from disability and sick leave and toward prevention and wellness	Reduced total health care costs and premiums
QuadMed	Holistic approach to wellness and chronic disease management	Major acquisition resulted in an influx of geographically dispersed employees; therefore, they will add more internet-based engagement mechanisms	Medical costs have declined
Goodwill	Wellness coaching, on-site screenings, disease management	While Goodwill does track lost time outcomes, they are challenged in using these outcomes to improve health investment decision-making	Among employees with high health risks, 42% experienced sickness absence and 48% experienced presenteeism (lowered on-the-job performance due to health reasons)
EBMS	On-site clinics, disease management and targeted member engagement	Planning to improve the health risk assessment to include broader absence dimensions in order to track lost time and productivity improvements associated with their services; can build on their workers' compensation management services where they currently track time away from work	Clients using the EBMS value-based health strategy were able to decrease their overall medical cost trend and reported improvements in overall employee morale and productivity
Colorado Springs Utilities	Biometrics, wellness coaching, disease management and follow-up	Mapping their results to sick leave experience	Health risks and costs reduction as well as absence and presenteeism reductions
Lafarge	Comprehensive medical, disability and absence management program	Adding human resource absence records to their integrated database	Lower medical claims costs and lower utilization of STD and LTD
A Security Wholesaler	Biometrics, Health Risk Appraisal (HRA), disease management, medical coaching	Improving participation in disease management and HRA completion	Biometrics improved and health risks declined. Lost productivity and absenteeism have declined
A Midwest Utility	Case management for Stay-at-Work/Return-to-Work (SAW/RTW) program	A new chronic condition management team has been implemented to tackle some of the most prevalent chronic conditions among employees	Early indicators of the pilot program in the company's call centers show a significant decrease in employee absenteeism as measured by reduced sick hours per year

*Cases are ordered by the evidence used to assess progress as outlined in the chart above. The gray color in the center indicates more integration of health and productivity outcomes. White indicates an emphasis on health care cost reduction, while black indicates an emphasis on productivity costs.

Supporting Better Evidence

In order to advance and include broader notions of “value” in plan and program designs and the outcomes that they assess, significant work remains in the implementation of data collection and in further refining measures (eg, of presenteeism) and methods to demonstrate these broader impacts.

On the data front, without full workforce information it is difficult to make the case for value creation, as opposed to narrow cost savings. Typically, only claimants are included in studies of cost reduction. For wellness programs, in particular, it becomes important to begin measuring work absence, work disability and job performance in order to demonstrate the value created in terms of higher worker productivity. This value may never become apparent in databases restricted to only medical and pharmacy claims.

In order to know whether an intervention has an effect, the gold standard is to use a randomized controlled study design. However, employers are reluctant to have their employees participate in such designs for a variety of reasons, including union resistance, lowered employee morale, and the perception among some of unfairness. Rather than arguing for a randomized design, researchers can identify matching control groups, such as groups from other departments or regions that are not involved in the study but are similarly matched in demographics and other factors that might influence the outcomes under study. When such studies are completed, the results should be published in the peer-reviewed literature, and thereby contribute to the growing review database on workplace interventions.⁴⁸

In measuring outcomes, employers and their evaluation partners need to begin to include measurement of lost work time such as absence, job performance and work disability. Collecting information on the incidence of absence and work disability will allow companies to assess how the incidence is changing over time in relation to the implementation of plans and programs. By also collecting information on the duration of lost work time, employers will be able to assess whether coaching, return-to-work counseling and other interventions have an impact on shortening the duration of an absence event, even after a work disability episode occurs. Health-related job performance arguably is more difficult to assess and there is less consensus in the field

“A ‘dividend sharing’ risks and rewards model ... would introduce and instill the ultimate concept of consumerism. You are responsible for your health and it could also provide you with some wealth.”

Connie Goss
Risk/Purchasing Manager,
Chippewa County, WI

on the best ways to measure health-related job performance decreases (or presenteeism). While there are several leading instruments available to measure presenteeism (eg, the Health and Work Performance Questionnaire [HPQ/HPQ-Select], Work Limitations Questionnaire [WLQ], Stanford Presenteeism Scale [SPS], Worker Productivity and Activity Impairment [WPAI]), more work is needed, and evidence should be generated to provide guidance to the field on which measures to use for differing purposes. Even if lost time is measured as either absence or job performance decreases, most employers will want monetized information in order to assess the financial impact on their business. As mentioned earlier in this paper, there are several ways to monetize the lost time. Some methods apply only the actual daily wage in determining monetary value, whereas others apply an additional factor or multiplier to account for the effects in lost productivity (eg, on team members, in time delays in output and in replacement costs) related to the individual who is absent or performing below par because of illness.¹³

Finally, the methods used need to include the collection of longitudinal data to better judge the timing of the impacts of interventions (eg, medical costs savings, reductions in absence and disability, and improvements in job performance) and the use of longer time horizons in order to assess the variety of impacts that may result from value-based interventions and plans. It may be that the effects on absence are measurable in the near-term, whereas the effects on medical cost may not become significant for several years—or vice versa. In addition to taking the long view, benefits program evaluators and researchers also need to include methods that account for the broader impacts of different value-based designs on the business. By improving data collection, measurement and methods, the field will be better able to capture an accurate assessment of the real value of interventions in ways that matter to employees and employers.

FINAL THOUGHTS

If costs continue to rise, every employer in the United States will face the stark question of “staying in” or “getting out” of providing health care coverage and programs. If the calculus for this decision rests solely on a narrow definition of the costs of health—that is, medical and pharmacy claims costs for self-insured employers, or premium payments for insured employers—many employers simply will pay the requisite fines and shift care for their employees and dependents to health care exchanges. However, for employers looking more broadly at the full costs of health and looking horizontally across benefits programs, rather than vertically down program silos, the calculus becomes more complex but also more relevant to the business decisions around the value of a healthy workforce. Employers can contribute greatly to the transformation of the health care system by focusing on value and not simply on financing and who pays. In order for value to be accurately assessed, it is imperative that we move beyond the current paradigm of exclusively measuring medical offsets, and include measurement of the effects in increased productivity that accompany improvements in health. This more robust approach can replace the status quo, which has systematically undervalued the impact of improved health outcomes to businesses and their employees, and can become a catalyst towards the transformation of the health care system.

Employers can contribute greatly to the transformation of the health care system by focusing on value and not simply on financing and who pays.

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CASE STUDIES

CASE STUDIES

LAFARGE NORTH AMERICA**BUSINESS DESCRIPTION:**

Lafarge North America, part of the France-based, global building conglomerate Lafarge Group, is the largest diversified supplier of construction materials in the United States and Canada. Headquartered outside of Washington, DC, Lafarge employs approximately 13,000 people who work at more than 900 Lafarge locations across the United States and Canada. Lafarge employees produce and sell cement, ready-mixed concrete, gypsum wallboard, aggregates, asphalt, and related products and services. These products are used in communities across North America to build homes, apartments, offices, schools, hospitals, banks, museums, roads, highways and bridges, as well as parks and swimming pools.¹ Lafarge North America accounts for about 20% of Lafarge Group's sales.²

INITIATION OF VALUE-BASED APPROACH:

In 2004, Lafarge put its medical, disability, and absence management programs out to bid because these programs were not well managed. There was an abundance of high cost claimants and members with chronic conditions that caused the medical cost trend to average a 13% increase annually from 2001 to 2006. Additionally, the company saw a \$5.8 million increase in catastrophic claims in 2006 and a 200% increase in the long-term disability rate. With this backdrop, Lafarge decided to develop an integrated health and productivity program in 2007 called "Building A Better You." Through financial incentives, free preventive screenings and a focus on total health management, prevention, and safety, the company aimed to reduce its annual medical cost trend to below the market average.

PROGRAM OBJECTIVES:

The Building A Better You program has the following four objectives:

1. To control health care costs without unnecessarily shifting costs to employees (ie, to reduce the trend to a level below the market average).
2. To improve/maintain the health of all plan participants (ie, to reduce the number of days missed due to disability and to ensure compliance to prescription regime for members with chronic conditions).
3. To create a culture of health.
4. To impact bottom-line company financial performance.

PROGRAM COMPONENTS:

All clinical resources and benefits are integrated through a dedicated team of Lafarge employees and vendors.

- Aetna provides disability management, disease management and group health coverage.
- Pharmacy benefits are provided through Express Scripts. Pharmacy data is integrated with Aetna's data through a Thomson Reuters database where disability and medical claims are reviewed for follow-up identification.
- Mercer performs the claims analysis of the short-term disability cases by condition and duration, and provides Lafarge with weekly or daily reports. Thus, Lafarge and its data partners use data rigorously to measure outcomes and monitor success.

As part of this program, Lafarge offers on-site screenings to help identify and increase awareness of health conditions. All preventive care is free. The company also uses an incentivized design to increase prescription drug compliance for certain chronic diseases

along with incentives to reward healthy actions. There is a three-tiered plan design for copayments; medicines and services listed on the first tier require a \$5 copay, second tier require a \$20 or \$30 copay, and third tier require a \$40 copay. For targeted groups identified by the Mercer claims analysis, the copay for all generics used to treat diabetes, asthma and hypertension has been dropped from \$20 to \$5, and individuals with those conditions are enrolled in disease management programs. Additionally, Lafarge offers 30 different disease management programs that are open to employees and their spouses.

A cornerstone of the program is the use of communication and education to impact employee health behaviors. Recognizing that most Lafarge employees do not have access to computers at work or at home, and that the spouse is often the benefits decision-maker/influencer, the company relies heavily on materials mailed to employees' homes. In fact, every piece of educational material is mailed to every employee, including an eight-page quarterly newsletter, and there are targeted mailings such as birthday postcards reminding employees to obtain annual health screenings. The company also has developed other educational materials that are available in the workplace, such as health care posters.

All Lafarge union employees in the US have waived their rights to bargain over health care benefits and are afforded the same plans and financial incentives for which salaried employees are eligible. This approach relies heavily on support from the operating plants/quarries, including operations managers, supervisors, and plant personnel, who are encouraged to motivate and educate employees about Lafarge's health care programs and initiatives.

PROGRAM RESULTS:

The Building A Better You program has saved Lafarge more than \$30 million in medical and pharmacy costs over three years, roughly \$10 million each year. The program doubled the percentage of patients complying with their pharmaceutical treatments. It also decreased the number of emergency room visits and inpatient visits and days. Having healthier, more compliant chronic disease members and more employees at work due to lower disability incidence has positively impacted Lafarge's bottom line.

Specific results include:

1. The actual trend in combined medical and pharmacy spending was reduced to 4.7% by 2006, from a high of 13% in 2001.
2. For high users of health care services with an average annual claim amount over \$50,000.
 - The most recent year was at the lowest level in the past five years.
 - The average claim has decreased annually since 2006.
 - The number of high utilization claimants using case management increased by 32% from 2006 to 2007.
3. Improved drug (Rx) compliance and other factors contributed to reduced resource utilization:
 - The medical cost per diabetic was reduced by 25%, driven by a reduction in emergency room (ER) visits per 1,000 every year since 2006, and a 28% decrease in hospital admissions per 1,000 from 2007 to 2008.
 - The medical cost per asthmatic was reduced by 36%, driven by a 37% reduction in ER visits per 1,000 since 2006.
 - ER visits for congestive heart failure were down 14%, and coronary artery disease admissions per 1,000 were down 10% from 2007 to 2008.

CASE STUDIES

4. Disease management participation increased, comparing June 2009 to December 2006:
 - 7,102 members were participating in disease management in 2009, as compared to 2,738 in 2006 (a 159% increase).
 - 565 members were participating at the nurse engagement level in 2009, as compared to 157 in 2006 (a 260% increase).
5. Year-over-year increase for all wellness exams and screenings metrics:
 - There were 2,116 on-site wellness screenings in 2009, through October.
 - The cholesterol screening rate was 32% higher than the benchmark.
 - Preventive exams were up 17%, year-over-year.
 - Prostate-specific antigen (PSA) screenings were up 9%.
6. Tobacco cessation utilization exceeded goals (January to October 2009):
 - Twenty percent were enrolled, as compared to a goal of 10%, and the vendor book of business (BOB) benchmark of 10%.
 - There was a quit rate of 44%, as compared to a goal of 30%, and the BOB benchmark of 48%. (There was no financial incentive for this program.)
7. Weight management utilization (January to October 2009): 462 were enrolled (3.9% utilization). (There was no financial incentive for this program.)
8. The health risk assessment (HRA) completion rate was 86% for 2009, through October, compared to 29% in 2006.
9. Short-term disability durations decreased by 9% from 2007 to 2008, due to a 20% decrease in durations for integrated health and disability (IHD) managed claims.
10. Long-term disability claims per 1,000 prior to moving to the IHD model were 6.6 per 1,000, compared to 4.8 per 1,000 in 2008.

PROGRAM CHALLENGES:

Although much progress has been made to date, it remains difficult to integrate the incentives for participation in the disease management program with the drug copay incentives for diabetes, asthma and hypertension, because of the limited data integration between the disease management dataset and the pharmacy utilization dataset. This is causing significant administrative problems for Lafarge's program vendors.

Eventually human resource absence records will also be added to the integrated database as important outcomes. Different business units will have different responses to absence. For example, at a manufacturing plant (cement) it might be easier to fill in when there is an absence without much effect on the business, but for ready-mix concrete with "just in time" delivery, an absence can shut down parts of the delivery service. Additionally, the ready-mix section has employees who are morbidly obese, employees with multiple chronic conditions, including low back pain and dislocated shoulders which can be exacerbated by the nature of the truck driving and the lifting work they do. Developing business-relevant measures for the different lines of products and services remains a key goal.

COLORADO SPRINGS UTILITIES

BUSINESS DESCRIPTION:

Community-owned Colorado Springs Utilities, a municipal utility, provides natural gas, electric, water and wastewater services to about 655,300 customers in the Pikes Peak region of Colorado. Colorado Springs Utilities' service territories include Colorado Springs, Manitou Springs, and many surrounding residential areas, along with the military installations of Fort Carson, Peterson Air Force Base, and the US Air Force Academy.³ The utility company's focus has been on providing exceptional customer service while keeping costs low, engaging in responsible environmental practices, and offering customers a voice in how their utility operates.⁴

INITIATION OF VALUE-BASED APPROACH:

2005 was a key year for Colorado Springs Utilities—it was the year the utility implemented its health and wellness programs. In creating its "Healthy Living Wellness Program" the utility took a key value-based approach aimed at identifying and reducing health risks, thereby lowering medical costs and improving work productivity over time. The program specifically targeted diabetes, coronary, and respiratory programs.

PROGRAM OBJECTIVES:

The Healthy Living Wellness Program's main focus is on reducing health-related risks. In order to do so, the program follows five primary goals, listed here with associated objectives for 2009:

- Goal 1:** Health risks of the population will be accurately measured. Objective: 60% will complete the Health and Productivity Assessment (HPA).
- Goal 2:** Health risks of the population will be significantly reduced, as measured by the HPA. Objective: The number of participants with four or more risks will be reduced by 15% as measured by the "Time 2" HPA cohort report compared to the "Time 1" baseline. This risk level reduction is measured by the five medical and seven lifestyle risk factors identified in the HPA.
- Goal 3:** Eligible participants will participate in the Colorado Springs Utilities Healthy Living Wellness Program. Objective 1: 75% of all eligible participants will participate in the Colorado Springs Utilities Healthy Living Program by November 15, 2009. Objective 2: 35% of all eligible participants will participate in a Wellness Challenge by November 15, 2009.
- Goal 4:** Participants will recognize and value the Colorado Springs Utilities Healthy Living Wellness Program as evaluated through an interest survey. Objective: By November 15, 2009, at least 80% of respondents who participated in the wellness program will be satisfied with the program. This will be measured by the end-of-program survey.
- Goal 5:** Employees will complete the program criteria in the Colorado Springs Utilities Healthy Living Wellness Program and earn the program incentive. Objective: 35% of all eligible participants will complete the wellness program criteria by November 15, 2009.

CASE STUDIES

PROGRAM COMPONENTS:

Alere, a key service provider of the Healthy Living Wellness Program described below for Colorado Springs Utilities, pairs claims data with self-reported health assessment data and provides detailed progress reports that include identification of risk profiles, areas for improvement, and potential for health care and productivity cost savings.

Components of the Healthy Living Wellness Program:

Employees earn points toward an incentive during the program year through participation and engagement in the Healthy Living Wellness Program. The participants must have sufficient points and completion of the wellness assessment to earn the incentive. Activities are multi-optional, serving varied needs and interests, from those of the beginner to those with optimal health achieved. Key strategies for participation and engagement also include:

- Ongoing promotions, campaigns, and communications using print and electronic messaging and themes.
- A rotating wellness committee of employees who serve as advocates for the program
- Engaging lifestyle-change challenges, teaching healthy behaviors by doing, sometimes involving competing teams.
- Incenting use of the periodic online-assessment tool in order to measure improvement.

Improvement of aggregate lifestyle risk factors:

- 5-6 regular challenges to occur each year, with a focus on healthy eating, regular exercise such as walking, hydration, stress management, etc.
- Ad hoc challenges occurring periodically; bonus points can be earned.
- Wellness coaching services available through the employee assistance program, disease management service, and health improvement program with a health learning center.
- Education via online seminars and periodic on-site classes.

Improvement of aggregate biometric risk factors:

- Regular on-site biometric screening services, with an on-site wellness coach to explain what the biometric numbers mean and aid in the development of a lifestyle-change plan:
 - Cholesterol (fasting HDL/LDL–lipid and blood sugar profile)
 - Body Mass Index–weight and body mass, waist circumference
 - Blood pressure
 - Bone density
- Identification of at-risk individuals for referral to a physician or hospital

PROGRAM RESULTS:

The goals listed under Program Objectives had the following results:

Goal 1: 61.4% of employees completed the health assessment.

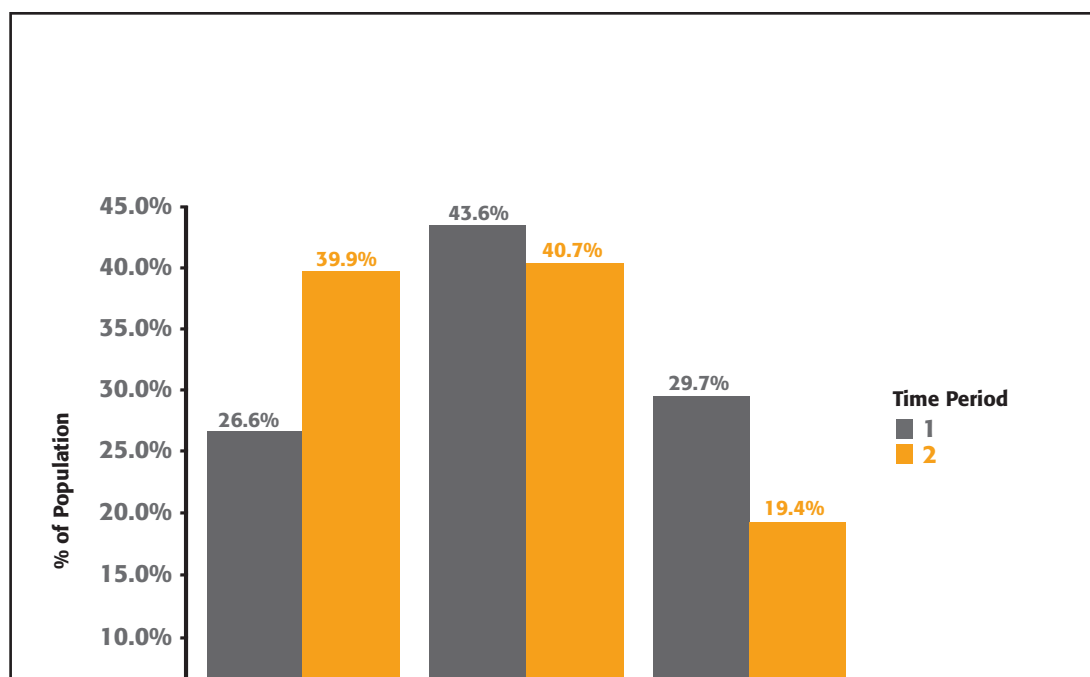
Goal 3: 73.6% of all eligible participants participated in the Healthy Living Program, on time.

Goal 4: 92.4% of respondents who participated in the wellness program were satisfied with the program.

Goal 5: 41.1% of all eligible participants completed the wellness program criteria on time.

As for Goal 2, which focuses on health risk reduction, Colorado Springs Utilities has demonstrated over time a shift in the risk profile of its employees from high risk to low risk. Colorado Springs Utilities will continue to target services to all three groups; low, middle and high risk; while working simultaneously to grow the low risk group and shrink the high risk group.

CASE STUDIES

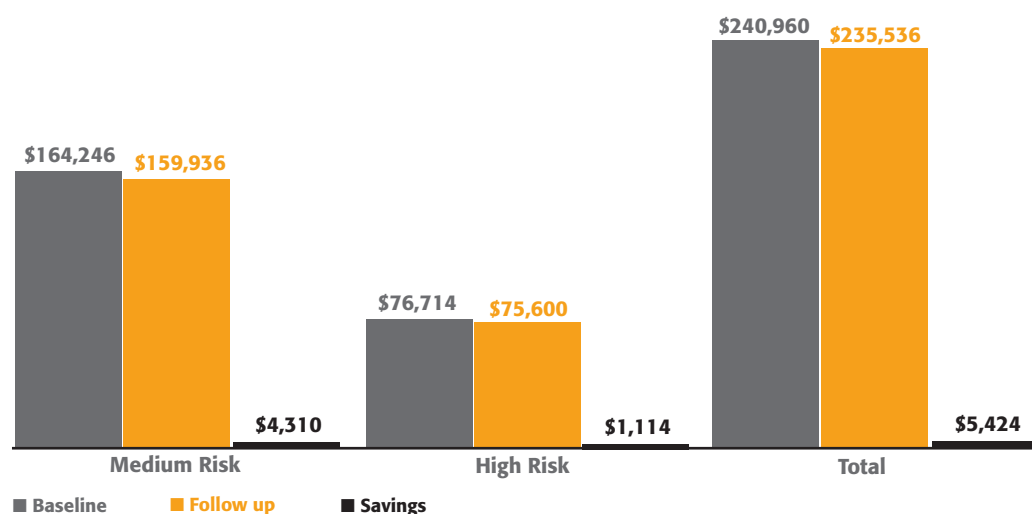


Source: Colorado Springs Utilities

This shift in risk profile has resulted in both medical and productivity cost savings, as illustrated in the graphs “Excess Health Care Costs” (below) and “Productivity Savings” (page 28). The concept of excess costs associated with excess risks is based on the calculation of the estimated maximum percentage of savings for an entire group, assuming that all in the group achieve a low risk profile of health, and that changes in health care costs follow the changes in risks. Excess cost estimates used here are based on the work of the Health Research Management Center at the University of Michigan, Ann Arbor.

Excess Health Care Costs

Total Excess Health Care Cost by Risk Status at Baseline and Follow-up and Savings

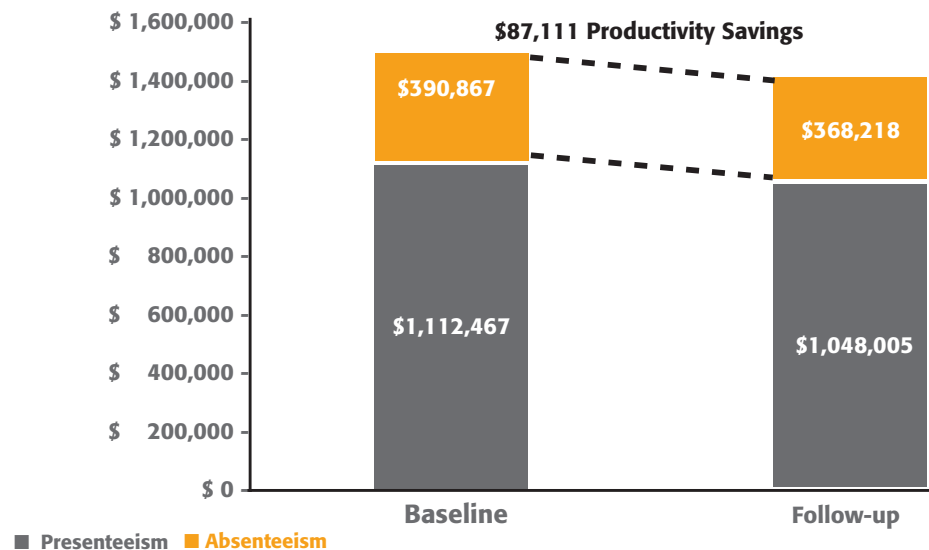


Source: Colorado Springs Utilities

CASE STUDIES

Productivity Savings

Costs of Lost Productivity at Baseline and Follow-up and Savings



Source: Colorado Springs Utilities

PROGRAM CHALLENGES:

Colorado Springs Utilities would like to better understand how its sick leave experience maps to these results. The company will work with Gallagher Benefits Services (GBS) to provide analyses of unit costs (pharmacy and medical costs), and trends for those engaged versus those who are unresponsive to the program intervention. GBS will also complete a longitudinal assessment of sick leave usage and will analyze the correlation between risk scores and sick time, including trends for participants who have completed an HRA and/or have earned a wellness incentive. By extending the outcomes assessed to include sick leave usage, Colorado Springs Utilities will gain a better understanding of the value that its health investments are delivering.

A SECURITY WHOLESALER

BUSINESS DESCRIPTION:

This security wholesaler (name withheld) is the nation's leading independently owned wholesale distributor of security products and services, employing over 350 employees in 14 locations across the United States. This security wholesale company stocks more than 40,000 items representing 350 manufacturers; utilizes a national sales force; and deploys a variety of business development tools, including computer assistance, to help organize shops, check stock, and place orders.

INITIATION OF VALUE-BASED APPROACH:

The company offers its employees two types of benefit plans, Gold and Silver, with a built-in incentive to drive individuals to the more generous Gold plan. If individuals complete both a health risk assessment (HRA) and biometric testing, they qualify for the Gold plan. Both plans require use of in-network health care providers.

PROGRAM OBJECTIVES:

The program's objectives are to improve employee health while reducing costs (claims, absence and lost productivity), as well as to increase morale around the perceived value of the benefit plan.

PROGRAM COMPONENTS:

The Gold and Silver Plans differ in the required amount of contribution from the employee. For the Gold Plan there is no deductible and the plan pays 100% of the costs of care, with the exception of some modest copays and a premium contribution as outlined below. The Silver plan has a \$500/\$1500 individual/family deductible and the plan pays 90% coinsurance, with the insured paying 10% of costs only after expenses have exceeded deductibles for services without a set copay. Under the Gold plan there is an office visit copay of \$25 for primary care and \$40 for a specialist, versus \$30 and \$50 copays, respectively, under the Silver Plan. There is also a \$10 to \$20 difference between plan types in the employee contribution tier to the premium. The prescription coverage is identical for both plans, with \$10, \$30, and \$40 copayments for generic, brand, and non-formulary prescriptions, with the exception of prescriptions for asthma, diabetes, and hypertension, for which the copayment is a flat \$10 for both generics and brands.

The plan structure supports engagement in the key components of the program:

1. Completion of an HRA
2. Engagement in preventive activities
3. Adherence to prescribed medication
4. Participation in disease management
5. Participation in three educational segments per year
6. Engagement in medical coaching one-on-one

CASE STUDIES

PROGRAM RESULTS:

A little over 80% of the employees completed an HRA. The admission to the Gold Plan requires completion of the HRA and biometric testing. Between 2008 and 2009 biometric results improved and health risks declined. Costs related to premiums, excess health claims, lost productivity and absenteeism appear below. The concept of excess costs associated with excess risks is based on the calculation of an estimated maximum percentage of savings for an entire group assuming everyone reduces to low risk, and assuming that changes in health care costs follow the changes in risks. Excess cost estimates used here are based on peer-reviewed literature.^{5,6} The estimates shown in the "Quantifying Impact on Costs" figure below represent the potential cost savings related to the specific risk factors identified within the HRA specific to the employee population.

Quantifying Impact on Costs			
	2008	2009	Difference
Results from Health Risk Assessment (HRA)			
Excess Health Claims	\$612,720	\$579,050	- \$33,670
Lost Productivity	\$501,350	\$455,470	- \$45,880
Cost of Absenteeism	\$76,590	\$71,410	- \$5,180

Source: a security wholesaler

EBMS (EMPLOYEE BENEFIT MANAGEMENT SERVICES, INC)

BUSINESS DESCRIPTION:

Employee Benefit Management Services, Inc. (EBMS) is a third party administrator (TPA), specializing in the management and administration of self-funded, corporate employee benefit plans. EBMS was founded in 1980 when a local employer needed a claims administrator to accurately adjudicate claims and provide superior service to its covered employees and their dependents. Today, EBMS continues to assist this client and hundreds more in controlling benefit plan costs. Over the past 30 years, EBMS has created a fully integrated health management system that provides self-funded health plans with tools and strategies to manage the personal and fiscal health of their organizations.⁷

INITIATION OF VALUE-BASED APPROACH:

In the early 2000s, EBMS began to establish disease management programs for its clients, including catastrophic case management, disease management, and wellness. By 2006, EBMS had increased the benefit level for preventive screenings, expanded the wellness program resources dedicated to worksite health promotion and introduced incentives for participation in wellness activities, disease management programs and achieving health targets. Recently, EBMS has expanded operations to include the development and management of miCare clinics, on-site health clinics at their clients' worksites.

PROGRAM OBJECTIVES:

EBMS' value-based health strategy features a value-based benefit design; comprehensive health management programs and targeted member engagement techniques to ensure members are receiving the right care, from the right provider, at the right place, at the right time. Incentive programs are aimed at getting individuals with chronic conditions into disease management programs.

PROGRAM COMPONENTS:

To encourage visits to a miCare clinic by a client's employees, an incentive program is established by EBMS. For example, an employee who completes a health risk assessment, biometric testing and follow-up, if necessary, with a physician will have \$150 deposited into his Health Reimbursement Account. A doctor and/or nurse practitioner and medical assistant provide primary care at the worksite via the miCare clinic and refer employees as appropriate to specialty care offered through networked providers, which could include referral to off-site locations. Additional money is deposited in the reimbursement account if the patient is compliant with his prescribed treatment and/or if he falls within a healthy range on the "Know Your Numbers" report regarding blood pressure, cholesterol, Body Mass Index and tobacco cessation.

Through a partnership with Ingenix, a health information company, the miCare program uses claims analysis to identify individuals who are out of compliance with evidence-based medicine; that is, individuals who have been diagnosed with one or more chronic conditions and are not receiving the recommended care according to practice guidelines. These targeted individuals are referred to EBMS' in-house team of nurses, certified health educators and wellness coaches for ongoing education, health coaching and case management.

Another value-maximizing service is provision of on-site primary care clinics at the employer site. Through these clinics preventive care and other general health care, prescriptions, health assessments and biometric testing are offered. Traditional barriers to care are

CASE STUDIES

removed by offering office visits and laboratory tests at no cost to the member. Generic prescriptions are provided for free.

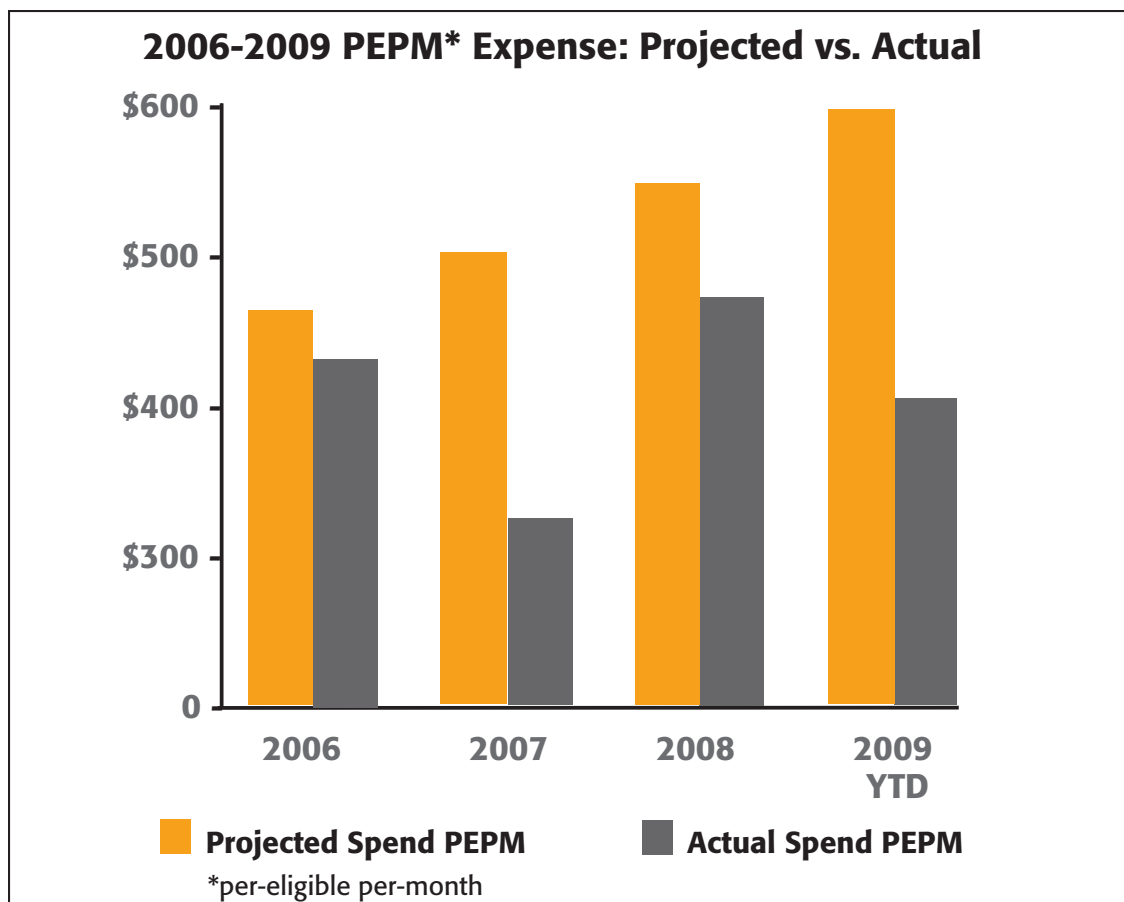
The Benefits of m/Care include the following:

Employer Benefits

- Measurable cost savings and employee health improvement
- Increase in employee morale
- On-site pharmacy coordinated with pharmacy benefit manager (PBM)
- Integrated case management
- Workers' Compensation case management
- Productivity improvement (while there may be more time with a physician, there is less time off work)
- An employer's current TPA, Plan Design, PBM and PPO can remain unchanged

Employee Benefits

- No copays and no deductibles for the m/Care clinic
- Little to no time spent in a waiting room
- Online appointment scheduler
- A doctor and/or nurse practitioner and medical assistant provide primary care at the worksite
- Covered conditions include colds, diabetes, asthma, etc.
- Medications are dispensed on site
- Convenient, no costs, no forms, and no claim disputes
- Completely voluntary



Source: EBMS

PROGRAM RESULTS:

Clients using the EBMS value-based health strategy were able to decrease their overall medical cost trend and reported improvements in overall employee productivity.

EBMS measures lost productivity by evaluating the average time it takes to see a doctor in the retail market minus the average time it takes for a miCare appointment; the difference represents the savings in time. EBMS uses an average value of three hours for a visit to a doctor in the retail market, which includes driving time to/from the appointment, waiting, visiting with the provider, and getting a prescription. With miCare, the on-site clinics, the average time away from work for an employee is 20 minutes for an office visit plus five minutes to get to and from his desk. This equates to a net savings of 155 minutes, which is multiplied by the average employee's salary to arrive at the monetized value of lost productivity.

PROGRAM CHALLENGES:

EBMS' clients have reported savings in terms of reductions to loss in productivity, but these productivity losses have not been captured systematically to date. EBMS does track time away from work when clients are using the workers' compensation management services. They plan to improve the health risk assessment to include the broader absence dimension in order to track lost time and productivity improvements associated with their services.

CASE STUDIES

GOODWILL INDUSTRIES OF CENTRAL INDIANA, INC.**BUSINESS DESCRIPTION:**

Goodwill helps people find jobs, and provides services for people who want to work and for those who want to improve their education. Goodwill is a community resource committed to deploying its assets and leveraging its resources with others in the community to create more opportunities for people who need assistance in improving their abilities to better support themselves and their families.⁸

INITIATION OF VALUE-BASED APPROACH:

Goodwill's health and wellness initiative, Good Signs™, began in 2004 to address rising health care costs. Since then, the program has expanded to support a more holistic approach by addressing educational attainment, financial well-being and social support among employees and their immediate family members.⁹ The 2005-2008 Action Plan launched the comprehensive health and wellness program that Goodwill Industries of Central Indiana has today.

PROGRAM OBJECTIVES:

The program's objective is to support employees in making healthy choices and in seeking health care services from superior providers.

PROGRAM COMPONENTS:

The Goodwill health and wellness program is multi-faceted, targeting many different diseases and lifestyle choices. A variety of services are provided through a network of external providers. Internally Goodwill offers health-related communications, in-house wellness coaching and on-site screenings. The predominant external health and wellness partner is CIGNA.

Incentives for health improvement are offered through the CIGNA Healthy Awards account, which allows up to \$300 per year for reimbursement for items such as health-related program participation, being a non-smoker, and getting preventive care. Preventive care is covered 100%, including smoking cessation coverage.

The Asthma Management Compliance Program was initiated in 2005, aimed at improving inhaler use. Inhaler compliance was at 68% at the beginning of the program, but quickly went to 100% with the introduction of the inhaler assistance program. With continued free access to inhalers, the compliance rate has stayed at 100%.

With these kinds of programs, communication is key to participation. For Goodwill, communication is a challenge; the organization strives to employ individuals with disabilities, including hearing problems and illiteracy, which makes both telephone communication and printed materials less effective. Goodwill has dealt with this issue by employing two in-house wellness coaches who travel to satellite office and store locations and meet with employees. This has also helped employees who work in locations further away from the main Goodwill location to feel less disconnected and that their needs are being met.

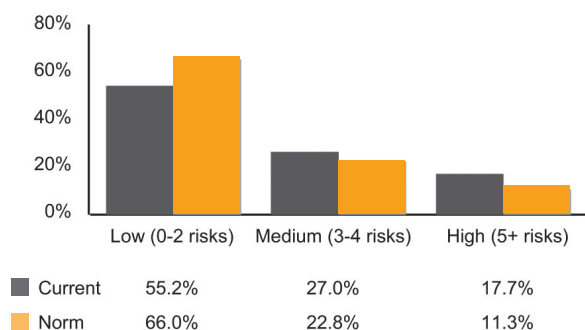
PROGRAM RESULTS:

Goodwill uses in-house surveys, health assessments and analysis by vendors to track program performance, health risks, health conditions, costs and productivity outcomes.

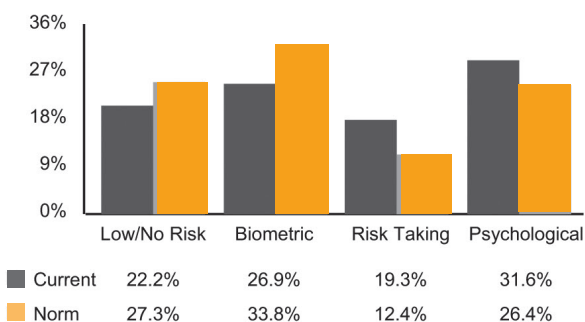
The "Health Assessment–Risk Review" figure below from a vendor report shows the average medical spend by risk group, justifying the focus of Goodwill on shifting as many individuals to the low risk group as possible and keeping them there. Goodwill results are represented under "current" in the chart, while vendor comparison results are represented under "norm."

Health Assessment–Risk Review

Population by risk level



Risk cluster analysis



Average spend by risk level

	Current	Norm	Variance
Low	\$2,875	\$2,913	-1.3%
Medium	\$5,774	\$4,745	21.7%
High	\$7,954	\$7,579	4.9%

Ranked health risks - percent of respondents

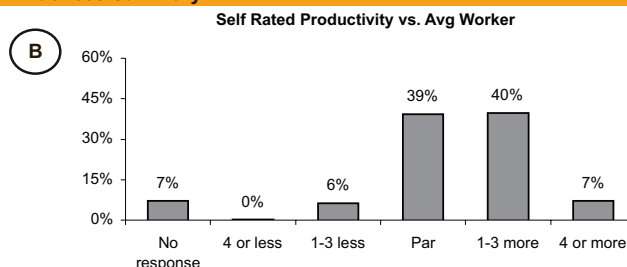
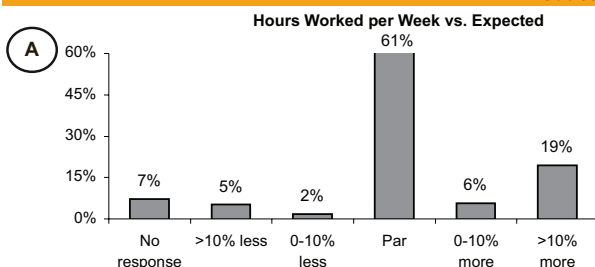
	Total Risks			Current Primary Risk
	Current	Norm	Variance	
Weight	46.0%	46.2%	-0.2%	21.7%
Cigarette Smoking	30.8%	12.0%	18.8%	27.6%
Stress	29.1%	20.5%	8.6%	5.0%
Blood Pressure	23.9%	22.8%	1.1%	3.2%
Use of Drugs	23.1%	14.1%	9.0%	4.0%
Life Satisfaction	16.4%	13.0%	3.5%	1.0%
Medical Problems	15.9%	8.3%	7.6%	6.0%
Physical Activity	14.0%	16.6%	-2.6%	7.7%
Perceived Health	13.7%	9.0%	4.7%	6.2%
Personal Illness	13.6%	6.1%	7.5%	0.5%
Job Satisfaction	12.6%	9.5%	3.1%	1.3%
Safety Belt Use	9.9%	12.7%	-2.8%	0.7%
Age Risk	4.3%	2.1%	2.3%	0.0%
HDL Cholesterol	2.7%	11.0%	-8.4%	0.3%
Cholesterol	1.8%	3.1%	-1.3%	0.0%
Alcohol Use	1.6%	3.4%	-1.8%	0.4%

Source: Goodwill Industries of Central Indiana

Health Risk Assessment Productivity

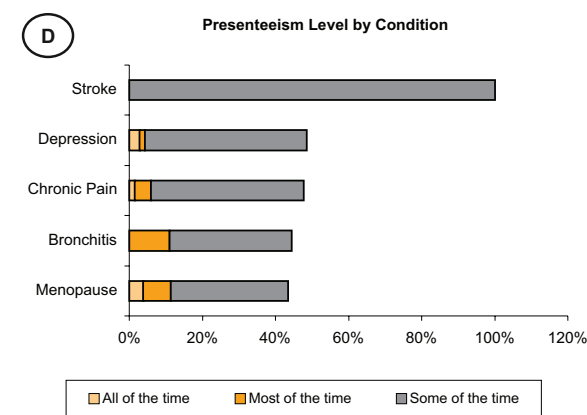
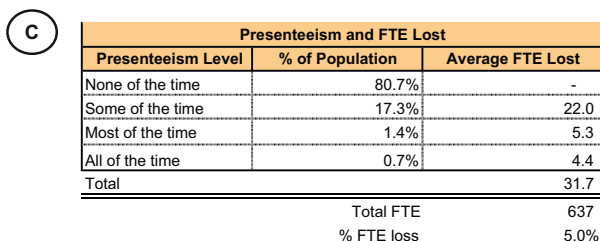
April 2009–June 2009

HRA Productivity Influences Summary



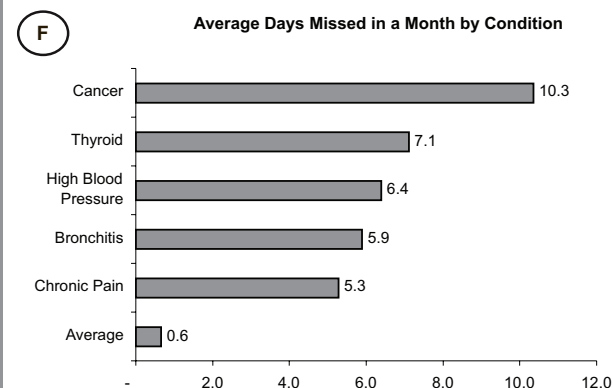
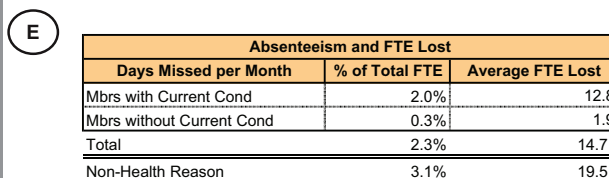
Presenteeism

On-the-job productivity loss due to health conditions

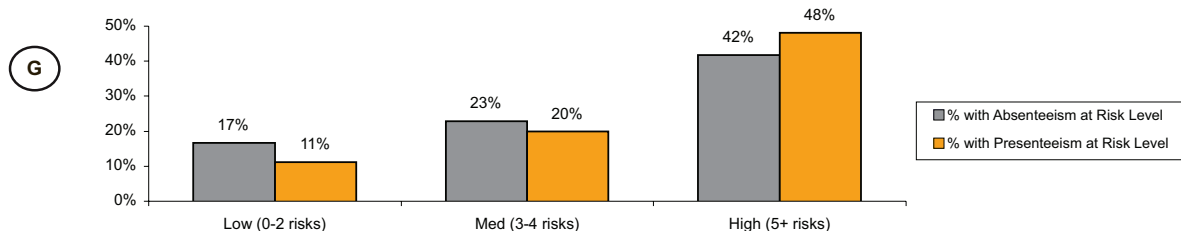


Absenteeism

Productivity loss from missed work days due to health



Presenteeism and Absenteeism by Risk Level



Health Risk Assessment Summary

- ✓ 25% of respondents report having worked more hours than expected [A]
- ✓ Using a 1-10 scale, 47% of respondents feel that they are outperforming their peers [B]
- ✓ 19% of employees experience productivity loss while on-the-job [C]
 - Presenteeism costs approximately 32 full time employees every year
 - Members with stroke experienced the most presenteeism [D]
- ✓ In a 28-day period, there were 468 days off for health reasons [E]
 - Absenteeism costs approximately 15 full time employees every year
 - Members with cancer experienced the most absenteeism [F]
- ✓ Of the high risk members, 42% experienced absenteeism and 48% experienced presenteeism [G]

In addition to their medical costs, these risk groups have significant influence on productivity-related costs arising from absence and presenteeism, as depicted in the figure "Health Risk Assessment Productivity, April 2009–June 2009," on page 36. Presenteeism among Goodwill employees is measured by response to an item in the University of Michigan Health Management Research Center Health Risk Appraisal, as follows: "During the past 4 weeks how much did your health problems affect your productivity while you were working?" The response options are: "no health problems," "none of the time," "some of the time," "most of the time," "all of the time," and "does not apply." The chart labeled C in the Health Risk Assessment Productivity figure depicts responses to the four options from "none of the time" through "all of the time."

In addition to this component of the employee health assessment, Goodwill has high job satisfaction and employee morale levels, including trust by employees, as measured by 360 degree management evaluations.

PROGRAM CHALLENGES:

A diverse workgroup dispersed in 50 different locations makes effective communication a challenge. Goodwill strongly believes that if communication is effective, the result will be employees who are engaged in their own health and who can overcome unhealthy behaviors with outcomes that include lower absence and higher job performance.

CASE STUDIES

A MIDWEST UTILITY

BUSINESS DESCRIPTION:

This company (name withheld) is a large Midwestern utility with generation, transmission and distribution operations across multiple Midwestern states.

INITIATION OF VALUE-BASED APPROACH:

This utility company's value-based absence-management program includes utilization of medical case management, with early intervention for work and non-work related illness or injury. In 1985, the company initiated medical case management on the occupational side (eg, work-related injuries and illnesses). Because of the resulting success in returning injured workers to modified or full duty earlier than previously experienced, by 1990 the company began medical case management of non-occupational absences.

PROGRAM OBJECTIVES:

The main objective of the company's absence-management program is to intervene early and to proactively improve the employee's health and return to work by use of medical case management. This case management model identifies and validates health conditions that impact work function, and the medical necessity for time off, and facilitates best-care practices to minimize absenteeism. Using this comprehensive approach better addresses the employee's health or disability needs, and supports the company's efforts to provide appropriate benefits and manage the employee's safe and timely return to the workplace.

PROGRAM COMPONENTS:

The absence-management program is also known as a Stay-at-Work/Return-to-Work (SAW/RTW) program, and follows the principles of the national SAW/RTW initiative supported by the American College of Occupational and Environmental Medicine (ACOEM). The company management process includes the worker's day-one reporting of illness or injury to supervision, and then timely referral for medical case management (first day referral for work-related illness or injury and fifth day referral for personal illness or injury). Absence tracking occurs regionally to confirm eligibility for benefits and to comply with applicable state and federal regulations. Modified work assignments are available in most instances to avoid or minimize the worker's time away from work. Aggressive use of transitional work is a cornerstone of the program's success.

The medical case management components include the basic steps of assessment, plan, implementation, care coordination and prevention. The case manager acts as a health advocate and facilitates communications among providers, the company and the employee. The medical model utilizes standardized assessments, frequent employee contacts, medical standards of care, physician oversight and duration guidelines to manage employee return to function.

PROGRAM RESULTS:

Over the past four years, those areas of the company that utilized this medical case management model in their absence-management efforts experienced a 4% reduction in sick hours each year.

PROGRAM CHALLENGES:

The demographics of the population include a male-dominated workforce of which two thirds are over 45 years of age. The prevalent health conditions that impact work productivity are age and lifestyle-related risks, including heart and lung diseases, diabetes, and associated comorbid conditions such as depression.

To meet this challenge, the company is piloting a new component—a complex or chronic condition management team. The goal for this team is to manage the impact of chronic illness, ie, fibromyalgia, degenerative disc disease, diabetes, and depression, on absenteeism and productivity. Different interventions are utilized, including medical assessments, mental health evaluations, and employee education, to support this process. Early indicators of the pilot program in the company's call centers show a significant decrease in employee absenteeism.

CASE STUDIES

QUADMED**BUSINESS DESCRIPTION:**

QuadMed was created in 1990 as a subsidiary of leading printer Quad/Graphics as a progressive solution to provide affordable, high-quality health care for Quad/Graphics' 11,000 employees, while controlling escalating health care expenditures. Starting with a small worksite health care clinic at Quad/Graphics' plant in Pewaukee, Wisconsin, QuadMed took the bold, new approach of bringing nearly all primary health care services in-house, eliminating costly middlemen and burdensome paperwork. The results have been extraordinary. Today Quad/Graphics, through its subsidiary QuadMed, employs its own medical staff, operates its own laboratory, pharmacy, fitness and rehabilitation centers, and contracts with local hospitals for specialized and advanced care. Employees more actively participate in preventive health care and spend fewer days in the hospital. This is all at a cost per employee that is 30% less than the average Wisconsin company.¹²

INITIATION OF VALUE-BASED APPROACH:

The QuadMed program embraces a value-based, holistic approach to health and wellness. QuadMed operates 11 workplace clinics in four states, employing 42 full-time-equivalent providers. These primary care providers actively manage the overall health profile of the employee, serving as the "medical home" for employees and their dependents. QuadMed is also an accountable care organization (ACO), and in some ways is very much like a staff model HMO. Employees are encouraged to select a primary care provider (PCP), and there is open access scheduling with an average of 30 minutes per patient visit. QuadMed acts as its own third party administrator in administering the health plan and has arranged for easy access to level-1 specialists. Level-1 is the preferred level of care and includes primary care at QuadMed's on-site clinics and specialty care, including hospitalization, through a network of providers and facilities. According to QuadMed, Level-1 providers offer the member the best level of coverage.

PROGRAM OBJECTIVES:

The three main components to the program include:

1. Patient-centered primary care
2. Incentivized wellness programs
3. Proactive management of chronic conditions (along the lines of the Asheville, NC program, with a focus today on diabetes, and a focus on hypertension and asthma to come).¹⁴

PROGRAM COMPONENTS:

There are three tiers in the QuadMed plan which is a pure "point-of-service" plan. The weekly premiums (\$24 per single employee; \$37 per couple; \$52 per family) do not vary by tier. Plan participants can receive an \$11 total per-week reduction in their premium if they remain tobacco free (\$9) and have an annual preventive physical (\$2). Incentives are oriented toward use of primary care over self-referral to specialists; therefore, copayments and the percentage of costs covered are different for each of the three tiers. If employees utilize the first tier, which includes the QuadMed on-site clinics and contracted specialists, they pay a \$7 copay per on-site visit. Not surprisingly, about 85% of participants who have geographic proximity use this first tier benefit. Employees can also use a second tier of approved providers at a higher out-of-pocket price, much like a PPO, and a deductible comes into play. For the third tier, the "universe" of all providers, the out-of-pocket expenses are even higher.

Incentives are directed both at members (employees, spouses and dependents) and providers. Salaried providers can earn bonuses based on clinical quality outcomes and customer satisfaction, among other outcomes. Members participating in QuadMed's "Lean You!" wellness program can earn a cash award up to \$400, or a contribution to their flexible spending plan, and pay lower weekly premiums as mentioned above. Copayments for diabetes medications and supplies are waived in order to improve compliance.

An on-site Employee Assistance Program (EAP) works in concert with primary care providers to meet beneficiaries' counseling needs and identify and treat chronic conditions such as depression. Ongoing claims analysis also identifies patient-population needs for preventive screenings, and opportunities to improve compliance with medical and pharmacy treatment. QuadMed has maintained electronic health records for almost 12 years. QuadMed will begin conducting predictive modeling with its new data warehouse partner, Thomson Reuters.

PROGRAM RESULTS:

Actuarial analysis has shown that the aggregate spend is one third less than would be expected. This result is due to a mixed bag of price reductions, declines in unnecessary care, use of less expensive drugs and healthier habits.

PROGRAM CHALLENGES:

A major acquisition (Quad/Graphics acquired Worldcolor in July 2010) will increase the proportion of employees who lack geographic access to on-site treatment, and therefore the need for more means of engaging individuals in their health "at-a-distance" via the Internet. Instead of the single plan that Quad/Graphics currently has, the Worldcolor group has multiple plans which will eventually be rolled into the single QuadMed program.

CASE STUDIES

CHIPPEWA COUNTY, WISCONSIN

BUSINESS DESCRIPTION:

Chippewa County, Wisconsin has a current population of 60,609, according to US Census Bureau estimates.¹⁵ County-wide, there were 1,375 employers and 16,525 employees as of 2003.¹⁶ The Chippewa Falls area, the major metropolitan center in Chippewa County, has over 13,000 residents and is home to more than 40 manufacturing companies that employ more than 5,500 people, including Mason Companies, Leinenkugel Beers, W.S. Darley Pumps, SGI, and Cray Computers.

INITIATION OF VALUE-BASED APPROACH:

Using a health risk assessment coupled with biometric testing, the Risk Management and Centralized Purchasing Division identifies needs among employees and guides them into preventive care and/or disease management.

PROGRAM OBJECTIVES:

Because the county is self-funded for group health and workers' compensation (WC), the county's main goals are to improve the health and conditioning of their employees in order to reduce health-related costs, WC incidents and WC case duration.

PROGRAM COMPONENTS:

There are four main components to the value-based program:

1. **Health risk assessment (HRA) with biometrics.** Incentives are used to encourage both employees and spouses to participate in the HRA. In the past these incentives have included items such as gift cards from a local sporting goods store, Green Bay Packers football tickets, and other gift certificates. In 2009, the big draw was a "free" flu shot, a \$35 value. Because the county is committed to the value of the baseline HRA biometric testing, it allows employees to use paid time to participate in the HRA screening tests.
2. **Health reimbursement accounts.** In 2004, the county added a high deductible health plan with a health reimbursement account. The account belongs to the employee and rolls over year to year.
3. **Self-funded workers' compensation.** Being self-funded allows the county to run its wellness and loss control activities through its WC program.
4. **Strategic analytics.** A strategic resource for the county has been Concert Health Resources, which provides health cost reduction programs, health risk evaluation, motivational counseling, data interpretation, health care claims evaluation, medical resources, educational seminars and wellness programs. Concert Health works with the county's broker, Associated Financial Group, in developing a Health Plan Intelligence (HPI) Dashboard report called the PlanIt report. The HPI Dashboard provides a detailed listing of utilization and costs by types of services and has summary graphics.

The county also works with Humana which provides claims analysis and is the county's third party administrator. Humana develops reports to identify target areas and summarize progress on several measures: top clinical conditions, medical and pharmacy utilization, spending stratified by demographics, and member engagement. Combined, the PlanIt report and the Humana Compass report are used to develop plan design and strategies to engage plan participants in their health.

The county has contracted with Springbrook to implement a new financial software package with a human resources component to track absence days as part of the program. This will be beneficial in data analysis to determine the true and complete cost impact that all lost time (WC or personal) has on the organization.

PROGRAM RESULTS:

The first year that the county implemented the program at the highway department, it had an 80% HRA participation rate, with 62% of those who completed the study being referred to a physician. The Center for Health Value Innovation recently reported the results of Chippewa County's value-based initiatives.¹⁷ The county's use of value-based benefit design has resulted in the following outcomes:

1. The premium trend was reduced from 16.1% to 3% in five years (2004 to 2009).
2. Total health care costs were reduced in 2008 by \$500,000 over the 2007 budget.
3. Between 2007 and 2008, premiums dropped 7%, from \$1,654 to \$1,546 per family plan, per month, and the program ended the 2007 year with an 82% loss ratio, which was 18% under the budgeted expected claims. A loss ratio is the proportionate relationship of incurred losses to earned premiums expressed as a percentage (eg: if a firm pays \$100,000 in premiums for workers compensation insurance in a given year, and its insurer pays and reserves \$50,000 in claims, the firm's loss ratio is 50 percent, or \$50,000 incurred losses/\$100,000 earned premiums).¹⁸

PROGRAM CHALLENGES:

One of the program's challenges is working with the unions to lower what are perceived as "up front" benefits to create more long-term savings. For example, the county tried to lower from 720 hours to 400 hours the sick leave that employees can accumulate, and to change the long-term disability plan from 90 days to 60 days, putting the savings into a long term health reimbursement account for future health care costs, but the union would not support it. The union was concerned that its members would lose money "up front."

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Center for Value-Based Insurance Design

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The University of Michigan Center for Value-Based Insurance Design (V-BID) is the leading advocate for development, implementation and evaluation of innovative health benefit plans. Since 2005, the Center has been actively engaged in understanding the impact of value-based insurance design and collaborating with employers, health plans, policy leaders, and academics, to improve clinical outcomes and enhance economic efficiency of the US health care system. For more V-BID information and resources, please visit: www.vbidcenter.org.



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