



Employers may discover strategies for reducing health care costs by analyzing data from sources such as biometric screenings, disease management programs and payroll.

6 Ways to Reduce Employee Health Costs Through Data Analytics

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With the cost of employee health benefits expected to rise 5.5% in 2018, cost containment is a top priority for health plan sponsors.¹ However, simply shifting costs to employees through higher deductibles and copays may not be a viable option, since affordability of medical coverage is a growing concern.² One way to reduce expenses without further shifting costs to plan participants is to use participant health data to design extremely targeted, high-value medical benefit programs.

A data-smart approach means moving beyond summary reports provided by carriers and medical management vendors to a comprehensive and secure data warehouse that includes not only medical claims but data from biometric screenings, use of disease management and wellness programs, disability claims, payroll and data about the neighborhoods where employees live. Security is critical since these data sets include highly personal information and are subject to a variety of federal and state privacy laws and regulations.

Here are six ways organizations can effectively use data analysis to improve the value of their investment in medical benefits.

Strategy 1: Measure the Impact of Health Management Programs

Carrier reports and reports from disease management, telemedicine and wellness programs typically say they are saving the plan money. However, careful analysis of an integrated data set can help employers determine:

- Are the vendors that run these programs targeting the right members for participation?
- Do program participants have better outcomes (e.g., cost, quality, return-to-work times) than nonparticipants?
- Which vendors do a better job of managing chronic disease and high-risk members?
- Are there subsets of employees (for example, by region, job category or demographic group) for whom the program is working better than others? What can be learned from this?

For one large self-insured employer with a total health management program, analysis revealed that health care costs and utilization among program participants dropped significantly, with hospital admissions decreasing by 32%.

However, among members who did not participate, inpatient admissions dropped by only 10%. Based on its comprehensive view of the data collected, the employer is considering adding programs offered by the vendor for lifestyle management and maternity management.³

Strategy 2: Create Centers of Excellence (COEs)

Health plans can use claims data to create COEs, identified as best-in-class health care providers that employers contract with for services in a specific medical specialty or surgical procedure. Employees and dependents can receive high-quality care at a bundled/lower price. Analyzing claims, cost and utilization data can help employers define target populations with potentially high-cost medical conditions that could benefit from a COE approach to care. Moreover, the data can be used to negotiate bundled payments with providers. With bundled payments, providers are paid a single rate for all services performed to treat a patient undergoing a specific treatment or procedure. For example, a bundled payment for total hip replacement would likely include pre- and postoperative care as well as the cost of the inpatient stay, professional services for the surgery and rehabilitation care.⁴

One employer negotiated a bundled payment per episode of care with one of the top facilities in the nation and also paid for hotel and travel costs for both the member and a companion. The arrangement produced the following results.

- More than half (52%) of members who were candidates for spinal fusion or cervical fusion avoided surgery after seeing a COE physician for a second opinion.
- Unscheduled hospital readmissions following the procedures performed at the COEs decreased significantly.
- Members who had surgery returned to work sooner, with coronary artery bypass graft patients returning to work 21% sooner than the national average.⁵

The program also saved lives: None of the members who received cardiac care through a COE suffered life-ending complications.

The employer continues to analyze its claims data to determine whether there is significant leakage—meaning instances where members could have used a COE, but chose not to—as well as to assess the impact of bundled payments.

Strategy 3: Create Targeted Health and Wellness Initiatives

Employers can gather data from medical and pharmacy claims as well as results from health risk assessments, absenteeism data, annual employee wellness surveys, and eligibility records for employees and their dependents to pinpoint opportunities to improve employee health through targeted health and wellness initiatives. Such an analysis can help employers determine:

- What types of health care risks do employees and their dependents face?
- Are workers at certain worksites healthier than employees at other sites?
- To what extent do existing wellness programs reduce employer health care costs while improving employee health?

For example, data can point to groups of employees who smoke or groups of employees who have high cholesterol or a high body mass index (BMI). With this information in hand, leaders can develop targeted, population-specific health initiatives that reduce health risks and offer incentives for participation. Such initiatives have been proven to make a difference in employee health, with a corresponding decrease in health care costs.

One large manufacturer created facility scorecards that track employee health metrics and costs. The scorecards showed performance around each metric at the facility level, such as average health care costs for wellness participants versus nonparticipants and how it has trended over time. Data also shed light on where each facility's performance stood in relation to the manufacturer's other plants and the company as a whole. This allowed leaders to tailor health and wellness initiatives for each facility.

The initiative significantly improved employee health while reducing medical cost of care and absenteeism. Tobacco use among employees decreased, and the number of employees at risk for diabetes and hypertension also declined. After sharing the data with employees, participation in wellness programs increased, and more employees are now completing their health risk assessments, which provide even greater insight into possible future health needs and risk factors.

Strategy 4: Encourage Use of Virtual Health Visits

Plan sponsors can use data to determine opportunities that incentivize employees to use *virtual visits*—care pro-

vided outside of the office typically via video or telephone. A recent Advisory Board survey showed that most working-age people are ready for virtual visits, with people aged 30 to 49 being the most receptive.⁶ Virtual care has been shown to provide greater flexibility and comparable outcomes for nonemergent conditions at reduced costs.⁷

Data analysis can show whether employees and their dependents are using virtual visits for scenarios such as:

- Questions regarding prescriptions or medication refills
- Presurgery and postoperative appointments
- Chronic condition management
- Select pregnancy checkups
- Coaching for weight loss or smoking cessation.

Data analysis also can qualify the potential savings of a move toward increased virtual care offerings for members. One employer discovered that virtual visits accounted for less than 1% of eligible visits. By increasing the proportion of virtual visits to just 5% of eligible visits, the employer could save close to \$82,000 annually.⁸ With this information, the employer could design a communications program and possibly eliminate copayments or deductibles to provide incentive for its members to go virtual when medically appropriate.

Strategy 5: Improve Patient Safety

As widely reported, *adverse events*—unintended injuries or complications that result from medical error—are a persistent problem in the U.S. Estimates suggest that 1,000

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John C. Garner, CEBS. International Foundation. 2015.

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takeaways

- Employers can analyze employee data including information from biometric screenings, disease management and wellness programs, disability claims, payroll and demographics to develop strategies to cut the costs of health care claims.
- Employers should analyze vendor reports to determine whether health management program vendors are saving the plan money.
- Analyzing health care claims, cost and utilization data can help employers target populations with potentially high-cost medical conditions who might benefit from a centers-of-excellence approach to care.
- Information from medical and pharmacy claims, health risk assessments, attendance records and other sources can help employers create targeted health and wellness initiatives.
- Analyzing employee demographics can help identify opportunities for cost savings by creating programs that appeal to specific age groups, socioeconomic groups or even those who live in rural areas.

people die each day from adverse events in U.S. hospitals.⁹ Using claims data, employers can determine:

- The likelihood of an adverse event having occurred during a hospitalization
- The types of adverse events experienced
- The likelihood of an adverse event occurring at specific hospitals
- The cost of adverse events due to longer hospitalizations and/or followup care.

One large retailer launched an initiative to identify the number of members who experienced adverse events during their inpatient stays. Six percent of inpatient stays were identified as possibly having an adverse event. Medication errors, lacerations and postoperative infections topped the list of adverse events experienced by employees and their dependents.

Results also showed costs of admissions with adverse events were nearly double the cost of average inpatient admissions. With this data in hand, the retailer ranked hospitals on a 1-to-5 scale based on the likelihood of experiencing an adverse event during an inpatient stay, with 1 being least likely and 5 being most likely. The retailer then examined ways to encourage members to use hospitals where an adverse event would be less likely to occur.¹⁰

Strategy 6: Identify Employee Demographic Subgroups for Tailored Programs

One size does not fit all or most. Today's workforce often has members across the age spectrum with employees from four different generations—Generation Z, Millennials, Generation X and Baby Boomers. It is well-known that illness and health care costs increase with age, but it's not as well recognized how age can affect how people access care along with adherence to treatment. Where people live also makes a difference.

For instance:

- Types of conditions vary. Younger people typically have fewer chronic conditions but more episodic conditions related to injury and maternity care.
- Younger people tend to be more cost-conscious and less loyal to their doctors. They are also most amenable to the use of technology, including virtual visits and e-coaching.
- Middle-aged people tend to value quality over cost.

Data analytics can help employers identify subgroups of employees and their particular needs and preferences. Increasingly, employers are linking their traditional data sources to external data—such as provider locations and demographic characteristics—to better understand utilization patterns and opportunities for cost containment within their unique employee population.

Recently, a rural health system noticed the return-to-work time for its behavioral health disability claimants was longer than expected. Examination of the cause revealed the program was not meeting the needs of its members across several dimensions. First, the plan charged a higher copay for mental health services, which steered members toward lower costs at outside organizations but was less effective for providers. The plan also identified fewer mental health providers available to members but required behavioral health disability claimants to consult with a mental health professional at least once. To offset the location issue, the health system found a telemedicine partner, resulting in faster member recovery and quicker return-to-work time.

Lessons Learned

Data analysis provides employers with actionable insights needed to improve employee health and productivity, reduce absenteeism and lower health care costs. While each employer has unique circumstances, some common lessons emerge. Employers should:

- Look for “pockets” of opportunity among particular employee groups. A focused intervention may have far greater benefit than a program designed for an entire workforce.
- Educate employees on the benefits of COEs, virtual visits and other programs. Not only do these programs typically save money, but workers may prefer them.
- Measure the impact of interventions. Employers should not rely on vendor reports to measure impact. They should use their own data instead and leverage it to identify adjustments that may be needed to make the inventions work even better.
- Engage with the hospitals and physicians in the community to promote patient safety and reduce cost of care. Consider sharing analyses and insights with the provider community, and open up a discussion about costs, quality and patient safety. Partner with them to improve medical benefits and the value they bring to your employees.

At a time when employee benefits costs are rapidly increasing, a data-smart approach to managing medical costs and improving employee satisfaction should be a priority for employers. 📍

Endnotes

1. See www.shrm.org/resourcesandtools/hr-topics/benefits/pages/employers-benefits-costs-rise.aspx.
2. See www.forbes.com/sites/teresaghilarducci/2018/08/25/despite-what-you-might-think-health-insurance-does-not-shrink-the-gap-in-pay/#70b2ba2626ff.
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