

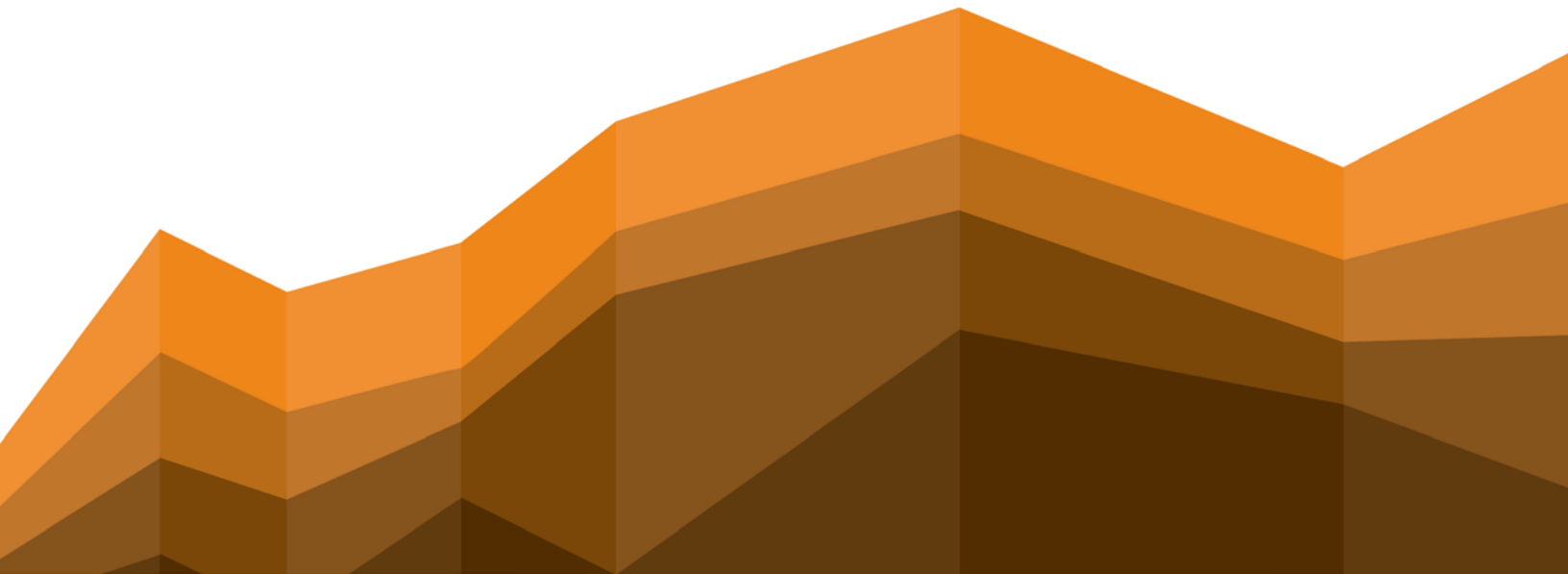
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High Cost Claimants: Private vs. Public Sector Approaches

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American Health Policy Institute (AHPI) is a non-partisan 501(c)(3) think tank, established to examine the impact of health policy on large employers, and to explore and propose policies that will help bolster the ability of large employers to provide quality, affordable health care to employees and their dependents. The Affordable Care Act has catalyzed a national debate about the future of health care in the United States, and the Institute serves to provide thought leadership grounded in the practical experience of America's largest employers. To learn more, visit americanhealthpolicy.org.

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Executive Summary

Everyone knows that health care in America is expensive. The share of the U.S. economy devoted to health care spending is currently 17.5 percent and is projected to reach 19.6 percent by 2024.¹ Total U.S. spending on health care is estimated to be more than \$5.4 trillion by that point, with both the private and the public sector each contributing approximately 50 percent of those enormous costs.²

Whether the private or public sector is paying, one common finding is that health care costs are concentrated among a relatively small percentage of high need individuals, those who cost \$50,000 or more in one year. These “high cost claimants,” as they are called, are at the top of a long list of the most expensive sources of health care costs, surpassing medical inflation, pharmaceuticals, and any specific disease or condition. According to the National Business Group on Health, high cost claimants are the number one cost driver for 43 percent of large employers.³

A similar phenomenon can be found in government programs, specifically Medicare and Medicaid. Between 2009 and 2011, about one percent of Medicaid beneficiaries accounted for 25 percent of costs, while the costliest five percent of beneficiaries accounted for 48 percent of costs.⁴ In the Medicare population, spending is less concentrated, as older patients are more likely to utilize health care services across the board. Even still, the top one percent accounted for 14 percent of program costs in 2010 and the top five percent for 39 percent of costs.⁵

In order to better understand the burden of high cost claimants’ costs to businesses’ health plans, as well as options for addressing these costs, the American Health Policy Institute (AHPI) surveyed 26 large employers on their claims data. Key findings from this grouping representative of large employers include:

- The average high cost claimant costs **\$122,382** annually
- **1.2 percent** of all members are high cost claimants
- High cost claimants comprise **31 percent** of total spending
- High cost claimants cost **29.3 times** as much as members on average
- **53 percent** of the health care costs for high cost claimants are for chronic conditions, while **47 percent** are for acute conditions
- The costliest claims include cancer treatments, heart disease, live birth and perinatal conditions, and blood infections

Exploring these trends in high cost spending will be useful in developing meaningful solutions to efficiently manage costs and better serve high risk employees. To compare and contrast high cost claimants covered under employer-sponsored insurance (ESI) with those covered by the public sector, we looked at a Leavitt Partners analysis of 2013 Medicare fee-for-service (FFS) claims data. Key findings of this study include:

- The average high cost claimant costs **\$105,004** annually
- **3.4 percent** of Medicare FFS beneficiaries are high cost claimants

- High cost claimants comprise **44 percent** of total spending
- High cost claimants cost **12.8 times** as much as members on average
- The costliest claims include end stage renal disease, acute respiratory failure, and congestive heart failure

These findings are of particular interest because the financing of U.S. health care is expected to “hit the wall” between 2025 and 2030.⁶ In that period, a variety of pressures on the health sector will reach a tipping point, presenting significant challenges to both private and public sector health financing. For example, Medicaid costs are expected to surpass \$1 trillion per year in 2025, while the worker to retiree ratio will dip below 3:1. Also by 2025, 53 percent of private sector employees who are heads of families will face an average family premium and deductible that will consume 9.5 percent or more of the family’s income, therefore classified as “unaffordable” under the ACA. By 2028, the Medicare HI trust fund will be depleted and by 2031, the Cadillac Tax will hit the average value plan. When we hit this wall, employer-sponsored health plans and government programs will be constrained to fundamentally change their delivery models to survive the coming challenges.

Given this high cost financing challenge, both the federal government and the private sector need to take a careful look at high cost claimants. Employers, for their part, are increasingly developing innovative approaches to high cost claimants and are in a unique position to establish programs that address this group. These new approaches, coupled with the slowness of our political system to respond to cost challenges, make it probable that employers will be nimbler and faster in developing innovative programs to address high cost claimants. Some possible initiatives that the private and public sectors can take include:

1. Mining health data to target certain chronic conditions
2. Engaging beneficiaries to be active plan participants
3. Implementing wellness programs with a clinical orientation
4. Developing Health Insurance Portability and Accountability Act (HIPAA)-compliant, predictive biometric screening profiles
5. Using care management to target the costs of particular diseases or procedures
6. State Innovation and Medicaid Waivers under Section 1115 of the Social Security Act and Section 1332 of the ACA

These strategies are not a panacea, but they are a start. It is clear from the overall high costs of high cost patients that this will be a crucial area for addressing the financing challenge of our health care system in the years ahead.

High Cost Claimants: A Snapshot

To cope with cost problems in both the private and public sectors, we need a better understanding of what health care costs lie behind high cost claimants. According to a study published in the *Journal of the American Medical Association*, seven procedures account for 80 percent of all hospital admissions, deaths, complications, and inpatient costs from emergency room surgery.⁷ These include: gallbladder removal, appendectomy, and surgery to treat ulcers. While common, these procedures are costly. National quality benchmarks and cost reduction efforts should focus on these general surgery procedures. While it can be difficult for employers to address acute conditions in their employee populations, it may be helpful to know which emergency procedures may be incurred by high cost claimants.

For patients with chronic conditions, it can be difficult to manage costs, particularly with rising drug and prescription costs. According to Mercer, on average, the sickest four percent of the population represent 41 percent of the total allowed medical and pharmacy spend.⁸ An S&P report found that drug costs rose by nearly 16 percent in 2015. Spending on drugs in the individual insurance market rose an astonishing 50 percent in 2015.

Private Sector

Recognizing the high percentage of health care costs derived from high cost claimants, AHPI commissioned a study examining the leading claims among a select group of large employers. There is no common consensus on what constitutes a high cost claimant. For purposes of this analysis, a claimant is considered high cost at \$50,000 or greater per year. AHPI collected claims data from 26 large employers that collectively cover 817,479 workers. Including dependents, these companies cover a total of 1,734,791 active members under their health plans. On average, the represented companies employ 31,442 workers and cover 66,723 active members. Therefore, the average member to employee ratio is 2.2:1. This broad sample size allows for results that are indicative of a typical large employer's high cost claimants. Other large employers can use these findings to determine whether their own high claimants' data are analogous.

Total health costs among the 26 companies amount to \$7.4 billion, with a large portion, \$2.3 billion, spent on high cost claimants. On average, total health care spend was \$285.8 million, with \$89.6 million on high cost claimants. High cost claimants therefore comprise 31.3 percent of total health spending, yet they are just 1.2 percent of all members. This shows just how significant high claimants are as major cost drivers in the system.

There are 20,099 high cost claimants across the 26 participants, with an average number of 773 per company. The average high cost member costs \$122,382 in annual health care spend, while members on average cost \$4,184. Accordingly, high cost claimants are 29.3 times as costly as members on average.

The survey results also found that 52.6 percent of high cost claims are for chronic conditions and 47.4 percent for acute conditions. For those with acute conditions, it would not be expected that these employees would accrue high costs perpetually. Employees with chronic conditions require continuing medical care that could likely get more expensive as time goes on if the conditions are not properly managed. Employers must recognize this reality in order to develop ways to solve the problem.

Public Sector

Working in conjunction with AHPI, researchers at Leavitt Partners conducted an analysis of high cost claimants using 2013 Medicare claims data. The analysis (see methodology below) found high overall costs in the Medicare program, but key differences in the shape of high cost claims when compared to the private sector. According to their analysis, 2013 spending was approximately \$452 billion (with prescription drug correction) for a total of 55 million FFS Medicare beneficiaries. The researchers found 1,879,120 Medicare FFS beneficiaries to be high cost, accounting for \$197.3 billion in spending. This equates to 3.4 percent of all beneficiaries with 43.6 percent of the total spend.

Data Set

Leavitt Partners looked at data taken from the 2013 Medicare Limited Data Set (LDS) claims files, which consist of a 100 percent sample of all inpatient, outpatient, skilled nursing facility, home health, and hospice claims. LDS files consist of a five percent sample of all carrier and durable medical equipment (DME) claims. It should be noted that the LDS claims files do NOT contain information on Medicare Parts C (Medicare Advantage) or D (Outpatient prescription data).

Methods

Using the five percent sample files for carrier and DME, Leavitt Partners created a five percent sample file for all Medicare claims. In total, this consists of 1,776,355 Medicare beneficiaries. They compiled each of the various claims data files into an all-claims data file, and then calculated total spend per beneficiary across each type of medical care. They then bucketed patients into four distinct categories depending on their total costs: less than \$50,000, between \$50,000 and \$99,999, between \$100,000 and \$249,999, and those greater than or equal to \$250,000.

Total Medicare spend for all beneficiaries within each cost category was calculated by summing the total patient spend for each beneficiary within each group. Because a five percent sample was used, the total costs were multiplied by 20 to get an estimate of the total spend across all beneficiaries. Since the total costs do not include spend on part D prescriptions, Leavitt Partners used the breakdowns of the Congressional Budget Office to estimate the expected costs of those claims. The CBO estimated that Part D costs account for approximately 14.7 percent of all Medicare spend. Thus, the researchers divided the final costs for all Medicare spend and the spend within each cost category by 14.7 percent to get an estimate of the total Medicare spend that would include Part D claims.¹⁰

The average high cost claimant accounts for \$105,004 in spending, while the average member costs only \$8,209. Therefore, high cost claimants are 12.8 times more expensive than the average member. This research suggests that high cost claimants are more prevalent in the Medicare population than in employer-sponsored health care, but the average high cost claimant on Medicare is \$17,348 less costly than those with ESI.

The table below compares AHPI data of the employer-sponsored population with Leavitt Partners data of the Medicare population.

Program	Percentage of beneficiaries who are high cost	Average high cost claimant	Percentage of spending on high cost claimants	Costliest claims
AHPI surveyed companies	1.2 percent	\$122,382 annually	31 percent	Cancer treatments, heart disease, live birth and perinatal conditions, and blood infections
Medicare	3.4 percent	\$105,004 annually	44 percent	End stage renal disease, acute respiratory failure, and congestive heart failure

A separate study commissioned by the California HealthCare Foundation (CHCF) published in 2010 analyzed high cost claimants enrolled in Medi-Cal, the state’s Medicaid program.¹⁰ The study found that of the \$47 billion spent on the program, seven percent of patients constitute more than 75 percent of fee-for-service expenditures. In this case, CHCF defined high cost claimants as those who consume \$10,000 or more in care in one year.

Beneficiaries enrolled in both Medi-Cal and Medicare coverage make up nearly half of Medi-Cal’s high cost population, even though dual-eligibles account for just 15 percent of the program’s overall population. CHCF found that high cost patients tend to have continuous Medi-Cal coverage and incur high cost claims for at least three years. This infers that the costs of high cost patients are a consistent burden on the system, racking up costs year after year. Annual expenditures for the 1,000 costliest beneficiaries average \$502,465 per person.

The analysis also revealed that high cost beneficiaries represent a diverse group in age and health conditions. Cardiovascular disease, pulmonary conditions, and neurological conditions appeared as the three leading cost drivers. One-half of high cost claimants have cardiovascular disease and two-thirds experience multiple health conditions. This shows that the most expensive patients often have complicated health histories that are unlikely to be redressed with a one-size-fits-all approach.

Public vs. Private Sector: A Comparison

As these data suggest, the private sector spends more money per high cost claimant than the public sector. This conclusion is somewhat counterintuitive, given that the government-sponsored coverage tends to be comprised of more medically-distressed populations.

And yet it also makes some sense that large employers would appear to pay more for high cost claimants than the federal government. More Medicare beneficiaries are high cost claimants as a percent, so that may account for the difference in the distribution of the claims. In terms of the average cost, one reason is that the types of high cost claims are different. Live birth complications, one of the most often cited reasons by employers for high cost claims, are very costly. These claims are for obvious reasons generally not an issue for Medicare. While there are other differences in the highest cost claimants in the two systems, none are as starkly different in terms of the application to one population and not the other. For example, cancer treatments and heart disease are two of the largest reasons cited by employers for high cost claims, while Medicare reports end stage renal disease and congestive heart failure at the top of its list.

Another possibility is that cost shifting may contribute to the difference between the two systems. Medicare reimbursement rates are set and controlled by the federal government. Other data show that on employers pay 63 percent more than Medicare for hospital claims.¹¹ This differential in pricing could, in some part, account for the fact that high cost claimants cost 29 times as much as average members among the large employers surveyed here, yet 12.8 times as much among Medicare beneficiaries.

Addressing High Cost Claimants: Proposed Solutions

The private sector is already addressing the chronic component of high cost claimants through programs that aim to influence employee behavior. Ultimately, the goal is to make participants healthier, lower costs, and improve both health and productivity.

But the government is looking at the problem as well. CMS has introduced a number of programs, models, initiatives, and rule changes designed to incent fundamental health care payer and delivery transformation towards improved quality of care and lower long-term costs. The Medicare Shared Savings Program (MSSP) as well as the Pioneer and Next Generation ACO models have catalyzed the creation of hundreds of accountable care organizations (ACOs).

Primary care, which is the foundation for population health management, was given a transformative change in payment methodology in the creation of the comprehensive primary care (CPC) model – along with the subsequent and expanded CPC+ model. The bundled payments for care improvement (BPCI) initiative and comprehensive care for joint replacement (CJR) program hard-wired bundled payments for episodic care, putting pressure on providers to improve care coordination, technology integration, and transparency all in the name of quality. No group is potentially more affected by these industry alterations than high cost patients. The end-game for CMS is driving a preponderance of payment outside of a traditional fee-for-service system by 2018.

There is of course some overlap in approach in how the private and public sectors address the issue of the cost of high cost patients. Nevertheless, as we look ahead, employers may have the capacity to be bolder and more experimental in finding ways to reduce costs.¹² Although it is hard to prevent acute conditions such as accidents and catastrophic illnesses, proper assessment can more easily predict which chronic conditions are prone to high cost claimants. Going forward, there are a number of things that employers can do in the future to reduce the impact of high cost claimants. If they are successful in pursuing these strategies, the public sector may be able to follow their lead, which could save money for taxpayers as well.

1. Data Mining

Employers have the ability to mine their health data to determine which chronic diseases are the most prevalent and target them accordingly. If they do this well, employers could address chronic conditions in advance, and thereby find solutions that reduce health care costs for high cost claimants while at the same time ensuring that employees get needed care.

2. Increase Participation

Employers need to engage their employees to become active participants. Lack of employee engagement is a frequent concern of Chief Human Resource Officers and their teams. As Pam Murray, Benefits Senior Consultant at DuPont, told the American Health Policy Institute, “We give our employees tools to compare quality and cost, but the use of those tools continues to be low.”¹³ Instead of simply providing enrollment materials and directing employees to a website for self-enrollment, employers could offer individual education sessions to explain plan options in detail. This way, the employer is able to encourage which type of plan is best suited for each employee according to his or her specific circumstances. A survey from DirectPath found that 71 percent of employers opt for passive enrollment instead of taking a hands-on approach. Yet for those who do offer in depth educational tools, consumer-directed health plan enrollment increases from 11 percent to 69 percent.¹⁴ Employees who tend to accumulate high cost claims would especially benefit from this training, and by choosing the right plan, would save money for both themselves and their employer.

3. Wellness Programs

One method employers use to promote a healthier employee population is through wellness initiatives. Wellness programs can be a beneficial way to reduce health care costs for high cost claimants, if tailored correctly to the employee population and tied to specific clinical outcomes in a measurable way. Widely accepted elements of a well-designed wellness plan include developing a multiyear, strategic plan for the program, creating a communications campaign that will inform employees of their progress, as well as that of their peers, and having metrics that allow employers to evaluate program effectiveness and return on investment (ROI).

Eighty-one percent of employers with more than 200 employees offer wellness programs to encourage weight loss and tobacco cessation and provide other lifestyle coaching. These programs tend to be available to all participants: The Kaiser Family Foundation found that in 2013, 65 percent of these wellness programs were open to both employees and their dependents.¹⁵ They are also expensive: According to a survey by Fidelity Investments and

the National Business Group on Health, average spending on wellness per worker reached \$693 in 2015. Large employers spend even more—those with more than 20,000 employees spend an average of \$878 per worker.¹⁶

Research on whether wellness programs produce greater health outcomes and ROI yield mixed results. Employers looking to achieve optimal ROI on their wellness programs are better off targeting employees who already have chronic diseases, according to a RAND Corporation study of seven Fortune 100 companies.¹⁷ Wellness programs that incorporate disease management address immediate health problems; therefore, benefits are realized in the shorter term. For example, focusing on employees with emphysema may avoid high cost claims from extended hospital stays due to pneumonia. On the other hand, wellness programs with a greater focus on lifestyle management will have longer-term benefits. For example, offering lower premiums to employees who exercise regularly may prevent hypertension in the future. An analysis in the *Journal of Occupational and Environmental Medicine* found that the most successful wellness programs are those that embrace a culture of wellbeing rather than offering isolated health promotion initiatives.¹⁸ These wellness initiatives offer a wide range of programs that encourage exercise, healthy eating, and stress reduction. To build employee participation, they emphasize the “carrot” in a carrot and stick approach by not penalizing employees for poor health or an inability to participate. They are also continuously evolving based on employee input.

Towers Watson found that employers have a hard time engaging their workforce in wellness, with only one-third of employees reporting that wellbeing initiatives encouraged them to live healthier lifestyles. In addition, 32 percent say the initiatives offered by their employers don’t meet their needs, and 46 percent don’t want their employers to have access to their personal health information due to privacy concerns.¹⁹ It is vital that employers evaluate their employee population before selecting a wellness program that best suits their specific workforce demographic. Employers must also understand that investing in wellness is a long-term commitment and that ROI will not occur immediately.

An example of a public-private partnership approach to wellness is the National Diabetes Prevention Program (DPP). Led by the Centers for Disease Control (CDC), the DPP began as a randomized trial looking at how to prevent prediabetes from developing into diabetes. Based on a program designed by professionals at the University of Pittsburg Medical Center, the CDC found that lifestyle change involving healthy eating and physical activity was the most effective form of prevention. The DPP brings together community organizations, private insurers, employers, health care organizations, and government agencies to establish local, evidence-based lifestyle change programs for people at high risk for type 2 diabetes. In addition to those who have health coverage with participating insurers, the DPP is also available to both veterans and Medicare beneficiaries.²⁰

4. Biometric Screenings

Employers can assess the baseline health of their workforce and identify potential high cost claimants through onsite biometric health screenings. These individual tests typically include basic measurements of cholesterol and glucose levels, blood pressure, waist circumference, and body mass index. Health screenings can identify chronic illnesses in their early stages, detect the presence of a chronic disease even when an individual is asymptomatic, and determine what types of interventions or referrals will have the greatest impact.

In addition to wellness initiatives and health screenings, employers can create a culture of health at the workplace by offering healthy eating options and onsite fitness centers. Research shows that self-motivation and positive influence are the most effective ways to spur behavior change.²¹ By creating an environment conducive to healthy living, there is no fear or guilt associated with the motive to change unhealthy habits. Rather, employees are encouraged to make beneficial changes to their health by their own choice. These workplace accommodations may mitigate long-term health risks. The proactive design of a healthy work environment can reduce detrimental lifestyle behaviors that lead to expensive chronic conditions, including heart disease, diabetes, and stroke.

5. Care Management

Employers and the government alike can implement care management programs to serve high cost claimants. These programs use a holistic approach by helping high need patients and their families address medical, behavioral, and psychosocial needs. Care management incorporates teams of clinicians that connect patients who have chronic conditions and advanced illnesses with the appropriate providers and resources. The care management process begins by identifying which patients are high need and having a provider perform a health assessment on each one. A personalized care team of medical professionals is then formed to determine the best course of action for the patient by coordinating efforts across settings. Effective care management programs are patient-centric, improve outcomes, and cut back on unnecessary or disadvantageous care.²²

Care management programs can be provider-led, payer-led, or purchaser-led and can be used in the public sector as well as the private. For example, the Pacific Business Group on Health developed the Intensive Outpatient Care Programs (IOCP), a care management program to serve Medicare beneficiaries within 23 delivery systems across five states. Over a two-year period, IOCP collected data from 15,000 Medicare patients enrolled in the program and found a significant reduction in inpatient utilization and emergency department use.²³

Aligning the payment and incentives in provider contracts can promote better care management. The employer can play an overt role in the core management, but medical management is driven by clinicians. Employers can do a lot to line up the payment in order to drive this kind of management and improve the care for the sickest patients.

The Honeywell Example

Honeywell International Inc. has successfully utilized biometric screenings and care management to help keep company costs flat for approximately seven years. Through the use of biometric screenings, 63 percent of employees with five different risk factors eliminated at least one risk factor within a two-year period. While Honeywell initially incentivized employees to participate in health screenings by linking participation to Health Savings Account contributions, the company switched to penalizing employees \$1,500 for non-participation.

Honeywell has also found success with a “Surgical Decision Initiative.” This initiative provides care management for employees seeking back, hip, and knee surgeries—all of which have high variability in costs and high variability in potential treatments.

Initially offering an incentive of \$500 for participation, the company did not see enough employee engagement to provide ROI. Since introducing a \$1,000 penalty, however, 90 percent of employees seeking these surgeries participate in the initiative, or about 500 people per year. One in four of these participants elect treatment other than surgery. Surveys show that Honeywell’s surgical care management program receives a 99 percent approval rating from employees. Honeywell has now expanded this program to hysterectomies and weight loss surgery. It is soon to roll out a similar initiative to tackle cancer, which results in \$50 million in company spending per year.

Honeywell undertook its aggressive employee engagement efforts after discovering that 10 percent of its population accounted for 84 percent of health costs. Honeywell’s efforts targeted its acute costs via the surgical initiative and its chronic costs via the new wellness plan. Although the federal government initially tried to prevent Honeywell from imposing penalties via the wellness initiative, the two sides have now amicably resolved their differences.

6. State Innovation and Medicaid Waivers

Under Section 1115 of the Social Security Act and Section 1332 of the ACA, the federal government gives states flexibility to test new approaches in operating Medicaid programs so long as the changes are budget neutral. Approved 1115 Medicaid waivers include provisions such as implementing managed care programs, charging patients small premiums, and using healthy behavior incentives to reduce premiums and/or co-payments. In Florida, for example, Medicaid beneficiaries receive incentives for behaviors such as smoking cessation and attending wellness visits.²⁴ State innovation and Medicaid waivers are another way the government can encourage healthy behavior in high cost patients with chronic illnesses.

While the government can identify high-risk beneficiaries by analyzing claims data and prior utilization history, it is much more difficult for government to develop ways to reduce the amount of high cost claims. This is especially true in unmanaged, fee-for-service systems. It is unrealistic to expect the government to enact a national wellness program, for example, whereas the employer is better positioned to propose innovative solutions for its more manageable population size.

Conclusion

In looking at all of these strategies, employers and the government alike need to be thinking ahead. To put a dent in spending, the private and public sectors must focus on where the spending is and target these accordingly. Due to the unpredictability of American politics, it is more likely that the key innovations will be coming from the employer side, but both sides need to look at this problem. Furthermore, government needs to think about this problem from the regulatory side as well. To be successful, employers must plan interventions that do not run afoul of regulatory guidelines, but that also need no regulatory fix or legislation to be passed. Regardless of who becomes the next president or which party claims Congress, employer strategies need to be robust enough to be effective, yet nimble able to withstand regulatory scrutiny.

Endnotes

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- ¹ National Health Expenditures 2014-2024, Centers for Medicare & Medicaid Services. <https://www.cms.gov/research-statistics-data-and-systems/statistics-trends-and-reports/nationalhealthexpenddata/nationalhealthaccountshistorical.html>
- ² Keehan, Cuckler, et al., "National Health Expenditure Projections, 2014–24: Spending Growth Faster Than Recent Trends," *Health Affairs*, August 2015, Vol. 34 No. 8, 1407-1417. <http://content.healthaffairs.org/content/34/8/1407.full>
- ³ Health Care Benefits Cost Increases to Hold Steady in 2016, National Business Group on Health, August 12, 2015. <https://www.businessgrouphealth.org/pressroom/pressRelease.cfm?ID=263>
- ⁴ Medicaid: A Small Share of Enrollees Consistently Accounted for a Large Share of Expenditures, United States Government Accountability Office, May 2015. <http://www.gao.gov/assets/680/670112.pdf>
- ⁵ Health Care Spending and the Medicare Program, Medicare Payment Advisory Commission, June 2014. <http://www.medpac.gov/documents/publications/jun14databookentirereport.pdf>
- ⁶ Tevi Troy and Mark Wilson, "Hitting the Wall: When Health Care Costs Are No Longer Manageable," American Health Policy Institute, June 2015. http://www.americanhealthpolicy.org/content/documents/resources/hitting_the_wall_2015_final.pdf
- ⁷ Scott, Olufajo, et al., Use of National Burden to Define Operative Emergency General Surgery, *JAMA Surgery*, June 15, 2016. <http://archsurg.jamanetwork.com/article.aspx?articleid=2516780>
- ⁸ Mercer Health Advantage Saved Employers Nearly \$2.70 for Every \$1 Spent While Improving Chronic Condition Management, Mercer, April 18, 2016. <http://www.mercer.com/newsroom/mercer-health-advantage-saved-employers-nearly-2-70-for-every-1-spent-while-improving-chronic-condition-management.html>
- ⁹ Medicare Benefit Payments by Type of Service, 2013, The Kaiser Family Foundation, February 2013. <http://kff.org/medicare-benefit-payments-by-type-of-service-2013-medicare-5>
- ¹⁰ Where the Money Goes: Understanding Medi-Cal's High-Cost Beneficiaries, California HealthCare Foundation, 2010. <http://www.chcf.org/~media/MEDIA%20LIBRARY%20Files/PDF/PDF%20W/PDF%20WhereTheMoneyGoesMediCalHighCostSnapshot.pdf>
- ¹¹ Avalere Health, analysis of American Hospital Association Annual Survey data, published 2014.
- ¹² Besides the six initiatives discussed below, employers may implement a variety of other plan designs to help increase consumerism and reduce costs for high cost claimants, including reference pricing.
- ¹³ Tevi Troy and Kara Jones, "State of Employer Sponsored Health Care, Part I: Top Concerns of CHROs and Their Teams," American Health Policy Institute, June 2016. http://www.americanhealthpolicy.org/Content/documents/resources/ESI_CHRO_Concerns_2016.pdf
- ¹⁴ Rebecca Moore, "Active Engagement Helps Employers Meet Health Benefits Goals," *PlanSponsor*, April 20, 2016. <http://www.plansponsor.com/Active-Engagement-Helps-Employers-Meet-Health-Benefits-Goals/>
- ¹⁵ Karen Pollitz and Matthew Rae, "Workplace Wellness Programs Characteristics and Requirements," The Kaiser Family Foundation, May 19, 2016. <http://kff.org/private-insurance/issue-brief/workplace-wellness-programs-characteristics-and-requirements/>
- ¹⁶ Companies are Spending More on Corporate Wellness Programs but Employees Are Leaving Millions on the Table, National Business Group on Health, March 26, 2015. <https://www.businessgrouphealth.org/pressroom/pressRelease.cfm?ID=252>
- ¹⁷ Do Workplace Wellness Programs Save Employers Money?, RAND Corporation. http://www.rand.org/content/dam/rand/pubs/research_briefs/RB9700/RB9744/RAND_RB9744.pdf
- ¹⁸ Goetzl, Henke, et al., "Do Workplace Health Promotion (Wellness) Programs Work?" *Journal of Occupational and Environmental Medicine*, September 2014 - Volume 56 - Issue 9 - p 927–934 doi: 10.1097/JOM.0000000000000276. http://journals.lww.com/joem/Abstract/2014/09000/Do_Workplace_Health_Promotion_Wellness_Programs.6.aspx
- ¹⁹ U.S. Employers Struggle to Engage Employees in Health and Well-Being Programs, Willis Towers Watson, November 19, 2015. <https://www.towerswatson.com/en/Press/2015/11/us-employers-struggle-to-engage-employees-in-health-and-well-being-programs>

²⁰ Diabetes Prevention Program (DPP), U.S. Department of Health and Human Services, http://www.niddk.nih.gov/about-niddk/research-areas/diabetes/diabetes-prevention-program-dpp/Documents/DPP_508.pdf

²¹ Nicola Davies, "Healthier Lifestyles: Behaviour Change," *Nursing Times*, 107: 23, 20-23. <http://www.nursingtimes.net/download?ac=1245890>

²² Developing Care Management Programs to Serve High-Need, High-Cost Populations

²³ Ibid.

²⁴ Blumenthal, Saulsgiver, et al., "Medicaid Incentive Programs to Encourage Healthy Behavior Show Mixed Results to Date and Should Be Studied and Improved," *Health Affairs*, doi: 10.1377/hlthaff.2012.0431 Vol. 32 No. 3 497-507, March 2013. <http://content.healthaffairs.org/content/32/3/497.full>