



## Value Innovations by Employers: Examples Beyond Cost Sharing

*Andrew Olson, Mark Japinga, Hannah Crook, Robert Saunders, Donald H. Taylor, Jr.*

### KEY THEMES:

- Employers are seeking new ways to manage rising health care costs and improve employee health. Many feel they have reached the limits they can achieve with existing strategies like high deductible health plans.
- Most employers are not in the business of health care themselves, lack the resources and expertise to develop new models, and have limited market power as individual firms to drive the health care system in a particular direction.
- While some employers are implementing new approaches themselves, many more are relying on third parties to manage population health and care for people with chronic diseases, develop and implement payment reforms, and identify high-value providers and help patients navigate the system.
- The employer sector has several advantages for health care transformation, including more regulatory flexibility than public payers, but questions remain as to how this sector will evolve as competition increases. Continued employer engagement; further identification of high-value local providers; and standardizing models, among others, will be critical for new approaches to succeed.

Employer-sponsored health insurance coverage accounts for 49 percent of insured Americans.<sup>1</sup> If the U.S. health system is to be transformed into one that rewards value, then employers must not only participate in the transition, but play a leading role.<sup>2</sup>

The employer-sponsored market is plagued by the same high and rising health care costs as the rest of the system. Average premiums are approaching \$7,000 for an individual and almost \$19,000 for families, having increased by almost 20 percent in the last 5 years.<sup>3</sup> Furthermore, more than half of workers have an annual deductible over \$1,000 (up from 34 percent in 2012).<sup>3</sup>

High health care costs have a financial impact on employers, who often pay a high proportion of health insurance coverage, and employees, as high health care costs have come at the expense of salary increases.<sup>4</sup> Employers have an interest in the value of care not only because they help pay for their employees' health insurance coverage, but also because better employee health means fewer missed days of work and better productivity.<sup>5</sup>

This brief explores three different approaches that employer plans are taking to improve value: population health management with employer-sponsored clinics, payment reform, and identifying high-value providers and navigating the health care system. We describe examples of these approaches, examine how they fit into the broader landscape of employer innovations, and consider how greater adoption could affect the employer-sponsored market and, ultimately, the broader health care system.

## **Employer Market Context**

While many employers have shown interest in trying new approaches to improve health care value, they are generally not in the business of health care and health insurance and do not have the expertise in house to create new approaches, develop new infrastructure, or evaluate results. Instead, most look for existing models that have shown positive outcomes in improving health care quality and value, but there is little evidence about what works to guide their decisions.<sup>6</sup>

Although employers control a large share of the health insurance market in aggregate, that power is diffused over many individual firms that each represent only a tiny fraction of the commercially insured population. Even the over one million employees who will be covered by the recently announced Amazon-JP Morgan Chase-Berkshire Hathaway joint venture are spread across the country and its many regional health care markets.<sup>7</sup>

Even with these challenges, employer-sponsored plans are well-positioned to innovate because they are not constrained by some of the same limitations as other market segments. For example, traditional Medicare has taken the lead in advancing value-based payment reform, but it has little ability to innovate in its network and benefit design. Self-insured employer plans, by contrast, have much greater flexibility to innovate by changing their provider networks, their benefit package, and how they pay providers. With these levers, employers may find new ways to contain costs and improve the value of care their employees receive, and by doing so accelerate innovation across the health care system.

## **High Deductible Health Plans: How Are Employers Using Them?**

Many employers have dealt with rising premiums by increasing cost sharing, such as through high deductible health plans (as noted earlier, more than half of employees had an annual deductible over \$1,000 in 2017).<sup>3</sup> In another recent survey, three-quarters of employers reported that they had already increased or were planning to increase the share of health care costs borne by employees.<sup>8</sup>

In theory, high deductible health plans should save money by encouraging individuals to avoid unnecessary treatments and seek high-value care because they have more “skin in the game.” Some employers have seen immediate cost savings by switching to high deductible plans, although there were questions about whether overall health care costs went down or whether employees simply paid more, suggesting there may be limits to this strategy.<sup>9</sup>

Some studies have found that consumers in high deductible plans reduce spending across the board, both for high-value services, like insulin and preventive care, as well as lower value services.<sup>10,11</sup> For example, JPMorgan CEO Jamie Dimon said his company experienced this first-hand, with employees failing to get necessary surgery because they could not afford the deductible, and the company plans to remove deductibles almost entirely for employees who make less than \$60,000 per year.<sup>9</sup> In addition, it is the case for many firms that a small number of employees (or their dependents) drive a large fraction on the plan’s cost. For these employees, traditional cost sharing incentives have little impact, since these complex patients have often met their deductible or out-of-pocket limit.<sup>12</sup> Finally, for consumer financial incentives to work, employees must have access to transparent information on price and quality, something that is very rare.<sup>13</sup>

## **Population Health Management with Workplace Clinics**

Over 150 million Americans are reported to have at least one chronic condition, driving 90 percent of US health care costs.<sup>14</sup> Patients with chronic conditions often require a wide variety of medical and social services from a diverse group of providers. Care coordination and patient education are essential, but often neglected under fee-for-service models. Better management of conditions like diabetes or high blood pressure can save money and improve health, but the health care system and employers alike have often struggled to achieve results.

Employers have targeted this issue in a number of ways. 62 percent of large employers and 38 percent of small employers offer health risk assessments, with an even larger percentage providing programs like smoking cessation, lifestyle coaching, and weight-loss management.<sup>15</sup> In another survey, 20 percent of employers report having opened onsite clinics, and 8 percent have near-site or multi-employer clinics, with a larger percentage of employers considering it.<sup>16</sup> However, the behavior changes required to effectively manage chronic conditions can be very difficult to achieve, and incentives or accessible care locations may not be enough by themselves to help employees improve their health and combat chronic conditions.

Vigilant Health is an example of a third party firm that has developed a model for employers that combines onsite or near-site clinic-based services with a population health management program. Their model has been developed with self-insured employer plans throughout the state of Mississippi that struggle with the costs and poor health outcomes associated with chronic disease burden in their covered populations.

The population health management program in the model is driven by a software platform that aggregates and analyzes claims data from the employer plan's third party administrator (TPA). This data is not only used to monitor patient health and for reporting purposes, but is also analyzed to help identify which patients in the plan's population are at risk for high costs and poor health so that their clinical team can try to engage those patients. The platform also integrates information about the employer plan's benefits and any incentive programs that the plan offers, such as discounts tied to biometric targets like blood pressure. It can then align those targets with patient care plans and report to patients on their status towards achieving them.

While population health management programs are a common strategy for provider organizations like accountable care organizations (ACOs) and patient-centered medical homes,

the Vigilant model for self-insured employer plans uses its population health management program to inform care that is delivered, in part, through workplace clinics. The clinics are staffed by a team of physicians, nurses, and nurse practitioners, with nurse practitioners playing the critical role of Nurse Navigators that develop and oversee care plans for individual patients, organize referrals, and coordinate communications with patients' existing providers.

The leaders from Vigilant that we spoke with emphasized how their experience developing their model demonstrates how important it is to join data-driven population health management with care delivery through workplace clinics. In an earlier iteration of their diabetes care management program, they did not receive full claims data from their employer plans. As a result, they struggled to target and engage high-risk patients in the plan who could benefit from the program. Likewise, they understand that simply staffing an onsite clinic without a program that engages patients and develops relationships with care managers is reduced to not much more than an urgent care model for a defined population.

The Vigilant Health model demonstrates how a third party model for population health management can be implemented by employers to target difficult chronic conditions that can drive considerable costs and negatively impact productivity over time. However, their model also demonstrates the level of engagement required of employers, going far beyond simply offering discounted gym memberships to, in this case, the establishment of workplace clinics and facilitating data sharing between the plan and third party group.

*Intensive care management programs can provide needed assistance to help employees control chronic diseases, but require significant and sustained engagement from employers.*

## **Payment and Delivery Reforms**

Employers are increasingly using value-based payment models as an alternative to fee for service, including accountable care organizations (ACOs), primary care-based models, and bundled payments. In a recent survey, over 20 percent of large employers were promoting Accountable Care Organizations (ACOs), with another 26 percent considering implementing such models in the near future.<sup>17</sup> Almost 90 percent of large employers expect to use Centers of Excellence for some health care services, with between a quarter to a half of those employers using bundled payments in those contracts.<sup>17</sup>

As one example of payment reform, a bundled payment is designed to simplify fee-for-service billing by “bundling” all of the various services associated with a surgery, procedure, or chronic disease management into a single payment. That single payment provides greater cost predictability for the payer. For the provider, bundles incentivize delivering care that is efficient, avoids unnecessary services, and prevents complications, as providers are able to keep the difference between their costs and the bundled payment amount (as long as they meet certain quality benchmarks).

While the principle is relatively simple, establishing a bundled payment arrangement requires significant technical work—defining the parameters of the bundle (duration of episode, services included, associated quality measures, etc.), selecting providers based on surgery appropriateness and quality outcomes, contracting with providers, and updating claims processing systems to adjudicate payments. Further, even large employers may lack the resources and scale to make it worthwhile for providers to participate in bundles and new payment designs.<sup>18-20</sup>

Given these challenges, many employers are turning to third parties to help with designing and implementing payment reforms. For example, Carrum Health was established in 2014 to help self-insured firms implement bundled payments without having to recreate all of the technical work described above. Their leaders chose to focus on bundled payments because they estimated that 40 percent of employers’ spend was on planned procedures and surgeries, which are best-suited for bundling.

Carrum began by developing bundled payments for common musculoskeletal, cardiac, and bariatric procedures, and it established bundled payment contracts with specific health

care systems that it judged were providing high quality and appropriate care in large regional markets. By combining the insured populations of multiple firms, the Carrum model was able to achieve the scale and market power of larger employers. The contracted providers benefit in that they get additional market share from the employees at the different firms and they do not have to establish bundled contracts with each employer individually.

The model enables employer plans to plug into the bundled payment infrastructure that has been established, but still depends on obtaining access to claims data from the plans. Carrum uses the data to identify which procedures are good candidates for bundles based on volume within the risk pool and potential cost savings, and also to run predictive analytics to identify members that are likely to have one of the surgeries or procedures covered by their bundled payments so that they can engage and educate them early, which helps with enrollment to a Carrum-affiliated provider.<sup>21</sup>

Although Carrum got its start by targeting a niche of small to mid-sized employers, a growing number of its clients are composed of large companies whose plans cover a substantial number of employees and dependents in total, but are spread out across the country and many regional health care markets.

Any partnership with a third party to create a bundled payment program is going to involve some measure of resource investment. There still must be some connection and communication between the employer, third-party firm, and the plan administrator. Furthermore, besides the financial investment needed to participate in a program such as this, the employer must also devote resources to providing data, educating employees, and evaluating the program.

## ***Employer Size and the Decision to Make vs. Buy***

Individual employers who wish to implement value-based models have to decide whether to try to craft their own models or select a third party offering. Two of the biggest factors driving this decision are the size of the firm and where their covered members are located. Walmart is a useful example of a large firm that faces this decision as it incorporates new approaches into its employer health plan.

Walmart spends approximately \$4.5 billion annually to cover its 1.4 million employees and dependents. Although the plan is large, its members are dispersed widely across the country, with the company reporting about 600-800 plan members per Supercenter—the chain's largest type of store. Walmart's population includes a high proportion of both younger and older associates, meaning their costs are concentrated in service areas like maternity care and chronic conditions. The leader that we spoke with explained that Walmart has identified wasteful care (such as inappropriate procedures and excessive readmissions) as a key driver of rising costs, and responded in part by contracting directly with providers through a centers of excellence program that utilizes bundled payments for specific procedures like spine and replacement surgeries.<sup>18,22</sup>

Walmart has built its centers of excellence program in partnership with the Employers Center of Excellence Network (ECEN), a joint initiative of the Pacific Business Group on Health (PBGH) and a number of large employers.<sup>18,23</sup> It steers plan members in need of certain procedures to designated provider organizations that have been selected because of the high-value care they deliver, which was determined through claims data analysis and site visits. The providers agree to bundled arrangements compared to typical fee-for-service arrangements in return for the increased volume of patients that they would receive from outside their regional catchment area.<sup>18</sup> To incentivize plan members to receive their care through centers of excellence, Walmart has eliminated deductibles and co-insurance for procedures and pays for travel, lodging, and travel expenses for the patient and a caregiver.<sup>24</sup> Conversely, if a member elects not to utilize a center of excellence for their procedure, Walmart only covers a part of the base plan design (with the employee responsible for deductibles and co-insurance).<sup>25</sup> Centers of excellence programs are becoming increasingly popular nationwide, but only 4 percent of employers, Walmart included, contract directly with COEs.<sup>26</sup>

Walmart demonstrates how a large company can design and implement its own reforms. One would assume that all large firms would choose this route since it allows them to tailor their own solutions and save on the costs of contracting with a third party firm. However, even very large firms are partnering with third party firms because they may not have sufficient scale in a given region, because large data sources and technical infrastructure are difficult to obtain, and a third-party partner allows the company to be nimble and try new approaches with less up-front investment.

***Even large employers may not have sufficient scale or in-house expertise to implement and administer reforms like ACOs or bundled payments themselves. Many are partnering with third parties as they provide employers the infrastructure necessary to administer them.***

## ***Identifying High-Value Providers and Navigating the Health Care System***

Cost sharing strategies like high deductible plans aim to incentivize employees to make shrewder financial decisions when it comes to their health care, but many still face difficulty navigating a complex health care system. How can they evaluate what their care needs are and identify which providers

offer high-value care to address them? In a 2016 survey, 55 percent of Americans were concerned about their ability to coordinate all aspects of their health care and benefits, while 80 percent said they would appreciate having a single resource to help with their needs, like selecting benefits, finding providers, coordinating care, and understanding treatment options.<sup>27</sup> Access to resources only goes so far. Consumers feel they need support to know what to do with available tools.

Employers have started to exercise their ability to help employees identify high-value providers by implementing strategies to improve their current network design. In our interviews with employers, many report that plan administrators continue to build networks based on price and location, as measures of quality and value are difficult to access. This has made the development of high-value networks move slowly. Slightly more than 10 percent of firms have introduced high performance or

tiered networks (although that number jumps to 30 percent for very large companies), and slightly under 10 percent of firms have rolled out narrow network plans (with 20 percent of large companies using such network designs).<sup>28</sup>

The ability for high performance and tiered networks to succeed increases if employees have additional tools to help use them, which employers are increasingly providing. A 2018 survey by the National Business Group on Health found 66 percent of companies will offer medical decision support services in 2018, up from 47 percent in 2017 and one of the largest increases in the survey.<sup>17</sup> Navigation assistance has become a critical part of improving the employee experience using their health benefits.

Grand Rounds is one example of a third party firm that focused on this challenge for employers. Their model seeks to match members with providers relevant to their care needs. The motivation is to circumvent the typical process of referrals, where patients and providers have little information on clinician quality.<sup>29</sup>

Grand Rounds offers two solutions for employer-sponsored plans. The first is Beacon, which helps connect patients with remote and in-person expertise for the most complex diagnoses. Their program allows patients to enter information about their health and medical records through Grand Rounds' online platform, which are then submitted to a leading expert for review and a written opinion. The model is designed for patients with disease cases that are difficult to treat and for which there is uncertainty about what care path is appropriate. Patients that utilize the program typically have issues related to musculoskeletal pain or therapeutic specialties like oncology and cardiology and are having trouble finding the right diagnosis and treatment. Experts often find that patients do not need the expensive therapy or procedure prescribed to them by another physician. For example, Costco, who contracts with Grand Rounds, found that 60 percent of the employees who used the second opinion service had their diagnoses and/or treatment plans changed.<sup>30</sup>

Grand Rounds' second service, Summit, also helps connect members to providers that will deliver high quality care and reduce unnecessary or wasteful spending, but it is designed for a much broader population than the complex cases seeking expert opinions. Through this offering, Grand Rounds coordinates office visits for plan members by identifying high quality providers in their area and insurance network, and complements it with financial guidance and concierge services. Patients are matched to providers for their in-person primary and specialist care needs—the most common use case is matching members to a primary care physician.

The leaders that we spoke with explained that Grand Rounds identifies providers through a combination of claims-based quality metrics and additional data sources, including physician peer surveys, expert opinions, and post-visit summaries. The model also incorporates background attributes of the clinician which are often publicly available to patients but are not necessarily easily interpreted indicators of quality. For instance, Grand Rounds found that where a physician completed his or her residency training has a stronger relation to quality of care than where a physician attended medical school.

By combining all of these data sources, Grand Rounds is building a large database on physician quality and value. That dataset grows as they partner with new employers, which allows them to incorporate additional claims data to evaluate providers and continue to refine their methods. As their dataset expands, it not only increases the insights that can be learned, but it also creates opportunities for new applications beyond the employer-sponsored market. The leaders that we spoke with explained that they are exploring other partnerships as well with entities such as direct primary care groups that are interested in utilizing data to inform their referral choices to specialists.

Access to a large dataset also helps with evaluation, which is a challenge for many payment and care delivery reform models.<sup>31</sup> For evaluation purposes, a model can easily track measures and outcomes for the patients it enrolls, but struggles to determine what would have happened to patients without these interventions. For its broader navigation program, Grand Rounds uses claims data to subset patient populations by location and clinical need, estimates where they would have received care, and compares the average quality and cost for those providers versus those matched by Grand Rounds. For their second opinion program, Grand Rounds includes information on what care the patient's existing providers recommended versus the expert opinion. Grand Rounds can then build decision trees based on existing literature and historical claims data to estimate cost differences between alternatives.

As noted in the last section, both small and large employers work with third party firms for patient navigation and identifying high-value providers, with Grand Rounds partnering with both types of companies. (Among others, the firm works with Walmart, which was described in the earlier callout box for self-driven initiatives.) Grand Rounds offers regular reporting showing utilization, financial impact, and clinical impact, but ultimately it is up to the employer to use that data to understand where and how to continue to improve outcomes and lower costs, educate and engage employees, and align these services with other priorities.

*Third parties can facilitate access to high-value providers and make patient navigation of the health care system easier, but it is up to the employer to determine how to integrate these services with what they already offer and educate employees on how best to use them.*

## **Implications**

The approaches examined in this brief illuminate key points about how value-based reforms are spreading throughout the employer-sponsored insurance sector and their ability to bring further innovation to health care.

First, the leaders that we spoke with did not report any significant regulatory or legal obstacles to implementing and growing their models, demonstrating that employer plans have much greater flexibility for quickly adopting new models for payment, navigation, and care delivery than public payers. The third party models we examined have all expanded rapidly in recent years, working with new employer plans, in new geographic markets, and addressing new specialty and condition areas. However, this growth is still necessarily limited by the same constraints that every expanding business faces, including marshalling the financial and human resources to expand, developing relationships with new and prospective clients, responding to market factors, and navigating change management.<sup>19</sup>

Second, each of the models we examined are built on their ability to process and analyze substantial amounts of health care claims data and other health records. These data are siloed by each individual employer-sponsored plan. As third-party firms expand to contract with more employer plans, they absorb more and more data, increasing the power of the insights they are able to draw from it. However, this reliance on access to large data resources is a barrier to entry for any new entrepreneurs and limits transparency, since each model works off of different data sets.

Third, models are often innovating and spreading across multiple dimensions simultaneously. Our brief focuses on population health management, payment reform, and navigation and network design as separate initiatives, but many models transcend these neat categories. For example, operationalizing a bundle requires specifying high quality

and high value providers—a network design issue. Similarly, population health management models reform care delivery, but are often reimbursed by plans with capitated or global payments instead of fee-for-service—a payment reform.

Lastly, although third party models offer firms access to value-based models that they may not have the capacity or scale to implement themselves, employers still have to be engaged and invest in the resources required for the models to succeed. With multiple different models to choose from, employers must thoughtfully consider which is the best fit for them based on factors such as the characteristics of their member population and local health care market. Once they have selected a model, the employer still has a critical role to play in functions like requiring data sharing between their third-party administrator and the model, promoting participation in the model to their members, and closely monitoring the model's impact on employee health and utilization.

## **The Future of Value-Based Initiatives in the Employer-Sponsored Market**

The experience of these models also raises important questions about the growth of value-based initiatives throughout the employer-sponsored market, with important implications for the broader transformation of the health system.

First, what will be the saturation point for these models? Value-based innovations are still in early stages of development—there is plenty of room to grow and expand across self-insured employer plans. However, the nature of these models means that they have inherent limitations. For example, one can only drive so much volume to a high-value network before the best providers reach capacity. (For example, not every patient can travel to the Cleveland Clinic or other noteworthy health systems included in Centers of Excellence programs.) At that point, further growth of network design models will likely rely on identifying and driving patients towards the best local providers and helping more providers learn how to deliver care in a manner considered “high-value.” Ultimately, network design models will have to find more ways to use the existing health care infrastructure to continue growing.

Second, how will these models' relationships with health insurance plans continue to evolve? Many of them are taking over insurance design functions traditionally carried out by insurance plans themselves, such as negotiating alternative

payment rates and making payments to providers, or defining networks. However, as value-based initiatives continue to take hold throughout the health system, plans may seek to play a bigger role in executing the functions that are being carved out by third party models.<sup>32</sup>

Finally, when will standards need to be defined? At this point, a vigorous market fueled by increased demand from employers is encouraging the development of innovative new value-based models for the employer-sponsored insurance segment. However, too many different models may eventually burden providers and add costs to the system by overwhelming them with too many different performance measures. Provider burden has been well documented with the proliferation of measures.<sup>33-35</sup> As the market for value-based models continues to grow and evolve, it will be helpful to establish industry-wide standards for quality and outcome measures so that providers know more clearly what is expected of them.

## **Conclusion**

Employers continue to search for new ways to manage rising health care costs and improve employee health, challenged by the fact that they are not in the business of health care themselves, lack the resources and expertise to develop new models, and have limited market power. While some employers are implementing new approaches themselves, many are relying on third parties to develop and implement innovative insurance design models. The amount of regulatory flexibility in this sector makes it ideal for both types of innovation, and regardless of whether a company chooses to make or buy innovative services, the employer market will be critical for developing new technologies. As innovation continues, special attention should be paid to identifying high-value local providers and standardizing quality metrics to help ensure the industry can continue to grow. With almost half of Americans insured by their employer, innovation in this environment is critical for innovation across the health care sector.

## References

1. The Henry J. Kaiser Family Foundation. Health Insurance Coverage of the Total Population. Kaiser State Health Facts Web site. <https://www.kff.org/other/state-indicator/total-population>. Accessed June 15, 2018.
2. Joszt L. Employers Play an Increasingly Important Role in the Move to Value-Based Care. *AJMC* Web site. <https://www.ajmc.com/conferences/acdc-spring-2018/employers-play-an-increasingly-important-role-in-the-move-to-valuebased-care>. Published May 15, 2018. Accessed June 26, 2018.
3. Kaiser Family Foundation and Health Research & Educational Trust. Employer Health Benefits 2017 Summary of Findings. Menlo Park, CA: The Henry J. Kaiser Family Foundation; 2017. <http://files.kff.org/attachment/Summary-of-Findings-Employer-Health-Benefits-2017>. Published September 19, 2017. Accessed July 3, 2018.
4. Auerbach D, Kellermann A. A Decade Of Health Care Cost Growth Has Wiped Out Real Income Gains for an Average US Family. *Health Aff (Millwood)*. 2011;30(9):1630-1636. doi:10.1377/hlthaff.2011.0585
5. Delbanco S, Murray R. Tension Between High-Deductible Health Plans and Payment and Delivery Reform. *Health Aff Blog*. October 26, 2017. <https://www.healthaffairs.org/doi/10.1377/hblog20171024.738089/full>. Accessed June 19, 2018.
6. Delbanco S, Olson A, McClellan M. Private Employers Should Demand and Share Evidence from Payment Reforms. *Health Aff Blog*. September 15, 2017. <https://www.healthaffairs.org/doi/10.1377/hblog20170915.062016/full>. Accessed June 19, 2018.
7. Abelson R, Hsu T. Amazon, Berkshire Hathaway and JPMorgan Name C.E.O. for Health Initiative. *The New York Times*. <https://www.nytimes.com/2018/06/20/health/amazon-berkshire-hathaway-jpmorgan-atul-gawande.html>. Published June 21, 2018. Accessed July 2, 2018.
8. Finn P, Gupta A, Lin S, Onitskany E. Growing Employer Interest in Innovative Ways to Control Healthcare Costs. McKinsey & Company. <https://healthcare.mckinsey.com/growing-employer-interest-innovative-ways-control-healthcare-costs>. Published May 2017. Accessed July 3, 2018.
9. Tozzi J, Tracer Z. Sky-High Deductibles Broke the U.S. Health Insurance System. *Bloomberg*. <https://www.bloomberg.com/news/features/2018-06-26/sky-high-deductibles-broke-the-u-s-health-insurance-system>. Published June 26, 2018. Accessed July 2, 2018.
10. Agarwal R, Mazurenko O, Menachemi N. High-Deductible Health Plans Reduce Health Care Cost And Utilization, Including Use of Needed Preventive Services. *Health Aff (Millwood)*. 2017;36(10):1762-1768. doi:10.1377/hlthaff.2017.0610
11. Buntin M, Haviland A, McDevitt R, Sood N. Healthcare Spending and Preventive Care in High-Deductible and Consumer-Directed Health Plans. *Am J Manag Care*. 2011;17(3):222-230.
12. Gabel J, Whitmore H, Pickreign J, Satorius J, Stromberg S. Small Employer Perspectives on the Affordable Care Act's Premiums, SHOP Exchanges, and Self-Insurance. *Health Aff (Millwood)*. 2013;32(11):2032-2039. doi:10.1377/hlthaff.2013.0861
13. Kratka A, Wong C, Herrmann R, et al. Finding Health Care Prices Online—How Difficult Is It to Be an Informed Health-Care Consumer? *JAMA Intern Med*. 2018;178(3):423-424. doi:10.1001/jamainternmed.2017.6841
14. Irving D. Chronic Conditions in America: Price and Prevalence. RAND Corporation. <https://www.rand.org/blog/rand-review/2017/07/chronic-conditions-in-america-price-and-prevalence.html>. Published July 12, 2017. Accessed July 3, 2018.
15. Kaiser Family Foundation and Health Research & Educational Trust. 2017 Employer Health Benefits Survey - Section 12: Health and Wellness Programs. Menlo Park, CA: The Henry J. Kaiser Family Foundation; 2017. <https://www.kff.org/report-section/ehbs-2017-section-12-health-and-wellness-programs>. Published September 19, 2017. Accessed July 3, 2018.
16. Willis Towers Watson. High-Performance Insights—Best Practices in Health Care. January 31, 2018. <https://www.willistowerswatson.com/-/media/WTW/PDF/Insights/2018/01/2017-best-practices-in-health-care-employer-survey-wtw.pdf>. Accessed July 3, 2018.
17. Large U.S. Employers Project Health Care Benefit Costs to Surpass \$14,000 per Employee in 2018, National Business Group on Health Survey Finds [press release]. National Business Group on Health. <https://www.businessgrouphealth.org/news/nbgh-news/press-releases/press-release-details/?ID=334>. Published August 8, 2017. Accessed June 18, 2018.
18. Slotkin JR, Ross OA, Coleman MR, Ryu J. Why GE, Boeing, Lowe's, and Walmart Are Directly Buying Health Care for Employees. *Harvard Business Review*. <https://hbr.org/2017/06/why-ge-boeing-lowes-and-walmart-are-directly-buying-health-care-for-employees>. Published June 8, 2017. Accessed July 2, 2018.
19. Huckman RS, Mehta S. Carrum Health: Scaling Bundled Payments. *Harvard Business School Case*. <https://www.hbs.edu/faculty/Pages/item.aspx?num=51867>. Published October 24, 2016. Accessed July 2, 2018.
20. Bailit Health Purchasing, LLC. Facilitators and Barriers to Payment Reform: Market-based, Governmental, Organizational, and Design Considerations. The Robert Wood Johnson Foundation. [http://www.bailit-health.com/articles/092713\\_bhp\\_rwj\\_facilitators.pdf](http://www.bailit-health.com/articles/092713_bhp_rwj_facilitators.pdf). Accessed July 2, 2018.

21. Prospective Bundled Payment: The County of Santa Barbara. *Catalyst for Payment Reform*. <https://www.catalyze.org/product/prospective-bp-santa-barbara>. Accessed July 2, 2018.
22. Baker S. Walmart Wants More Hospital Contracts. *Axios*. <https://www.axios.com/newsletters/axios-vitals-15dbc64a-341f-44a3-9d3e-4437cf918268.html?chunk=2#story2>. Published June 25, 2018. Accessed July 2, 2018.
23. Employers Centers of Excellence Network. Pacific Business Group on Health Web site. <http://www.pbgh.org/ecen>. Accessed July 2, 2018.
24. Walmart, Lowe's and Pacific Business Group on Health Announce a First of its Kind National Employers Centers of Excellence Network. Walmart Web site. <https://corporate.walmart.com/news/news-archive/2013/10/08/walmart-lowes-pacific-business-group-on-health-announce-a-first-of-its-kind-national-employers-centers-of-excellence-network>. Published October 8, 2013. Accessed July 17, 2018.
25. Welborn S. The Right Care at the Right Time: Expanding Our Centers of Excellence Network. Walmart Web site. <https://news.walmart.com/news/2016/10/10/the-right-care-at-the-right-time-expanding-our-centers-of-excellence-network>. Accessed July 2, 2018.
26. Livingston S. More Employers Join Push for Value-based Healthcare. *Modern Healthcare*. <http://www.modernhealthcare.com/article/20161005/news/161009964>. Published October 5, 2016. Accessed July 2, 2018.
27. Survey Finds Consumers Not Prepared to Be CEO of Their Health. *Accolade* Web site. <https://www.accolade.com/press-release/survey-finds-consumers-not-prepared-to-be-ceo-of-their-health>. Published February 11, 2016. Accessed July 3, 2018.
28. Kaiser Family Foundation and Health Research & Educational Trust. 2017 Employer Health Benefits Survey - Section 14: Employer Practices and Health Plan Networks. Menlo Park, CA: The Henry J. Kaiser Family Foundation; 2017. <https://www.kff.org/report-section/ehbs-2017-section-14-employer-practices-and-health-plan-networks>. Published September 19, 2017. Accessed July 2, 2018.
29. National Academies of Sciences, Medicine, and Engineering. *Improving Diagnosis in Health Care*. Washington D.C.: The National Academies Press; 2015. <https://doi.org/10.17226/21794>. Accessed July 17, 2018.
30. Herper M. Should Big Data Pick Your Next Doctor? *Forbes*. <https://www.forbes.com/sites/matthewherper/2016/12/14/should-big-data-pick-your-next-doctor>. Published December 14, 2016. Accessed July 3, 2018.
31. McClellan M, Richards R, Japinga M. Evidence on Payment Reform: Where are the Gaps? *Health Aff Blog*. April 25, 2017. <https://www.healthaffairs.org/doi/10.1377/hblog20170425.059789/full>. Accessed July 18, 2018.
32. Caballero AE, Murray R, Delbanco SF. Are Limited Networks What We Hope And Think They Are? *Health Aff Blog*. February 12, 2018. <https://www.healthaffairs.org/doi/10.1377/hblog20180208.408967/full>. Accessed July 17, 2018.
33. Institute of Medicine. *Vital Signs: Core Metrics for Health and Health Care Progress*. Washington D.C.: The National Academies Press; 2015. <https://doi.org/10.17226/19402>. Accessed July 17, 2018.
34. Meaningful Measures Hub. Centers for Medicare and Medicaid Services Web site. <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/QualityInitiativesGenInfo/MMF/General-info-Sub-Page.html>. Updated May 18, 2018. Accessed July 2, 2018.
35. Health Care Payment Learning and Action Network (HCP-LAN). *APM Measurement Progress of Alternative Payment Models Methodology Report*. The Mitre Corporation; 2017. [http://hcp-lan.org/workproducts/apm\\_measurement\\_report\\_2017.pdf](http://hcp-lan.org/workproducts/apm_measurement_report_2017.pdf). Published 2017. Accessed July 2, 2018.

## ***Acknowledgements***

We would like to thank the following individuals and organizations for interviewing with us during our information gathering stage for this issue brief. They provided crucial insight as well as answered key questions we had, and we greatly appreciate their time and contributions to this work. The viewpoints expressed in this brief do not necessarily reflect the viewpoints of the individuals below nor their organizations.

Dugal Bain, Chief of Staff, Grand Rounds

Marshall Bouldin, Vice Chairman / Chief Medical Officer, Vigilant Health

Paul Boykin, Vice President of Technology and Software, Vigilant Health

Nate Freese, Sr. Director of Data Strategy, Grand Rounds

Sach Jain, CEO, Carrum Health

Marcus Osborne, Vice President, Walmart

Austin Triggs, CEO, Vigilant Health

We would like to thank members of our broader research team at Duke University's Robert J. Margolis Center for Health Policy for strategic guidance and input, including Mark B. McClellan, MD, PhD, Aaron McKethan, PhD, David Anderson, MS, and Ellen de Graffenreid, MA, MBA. Thanks also to the Center staff who made this project possible, including William Bleser, PhD, MSPH.

Support for this brief was provided by the Robert Wood Johnson Foundation. The views expressed here do not necessarily reflect the views of the Foundation. We would like to acknowledge specific support and interest from Katherine Hempstead, PhD.

## ***About the Robert Wood Johnson Foundation***

For more than 45 years the Robert Wood Johnson Foundation has worked to improve health and health care. We are working alongside others to build a national Culture of Health that provides everyone in America a fair and just opportunity for health and well-being. For more information, visit [www.rwjf.org](http://www.rwjf.org). Follow the Foundation on Twitter at [www.rwjf.org/twitter](https://www.rwjf.org/twitter) or on Facebook at [www.rwjf.org/facebook](https://www.rwjf.org/facebook).

## ***About the Duke Margolis Center for Health Policy***

The Robert J. Margolis, MD, Center for Health Policy at Duke University is directed by Mark McClellan, MD, PhD, and brings together expertise from the Washington, DC, policy community, Duke University and Duke Health to address the most pressing issues in health policy.

The Center's mission is to improve health and the value of health care by developing and implementing evidence-based policy solutions locally, nationally, and globally. For more information, visit [healthpolicy.duke.edu](http://healthpolicy.duke.edu).

For more information about this brief, please contact: Andrew Olson, MPP at [andrew.olson@duke.edu](mailto:andrew.olson@duke.edu).