How a Better Centers of Excellence Benefit Can Curb Spend for 3 of Your Biggest Employee Health Cost Centers

Taking aim at runaway costs to address cancer, cardiovascular, and musculoskeletal conditions.

Healthcare costs are rising across the board—and employers are feeling the pinch. Average costs for U.S. employers that pay for their employees' healthcare will increase 6.5% to more than $13,800 per employee in 2023.*

*Source: professional services firm AON

Since the COVID-19 pandemic, cancer has edged ahead of musculoskeletal disease as the largest driver of healthcare costs, but medical costs related to musculoskeletal and cardiovascular conditions continue to grow at unsustainable rates too. Together, they round out the three most expensive medical conditions that are responsible for the majority of employers' healthcare costs.

To add insult to injury, self-insured employers face a backlog of patients in need of medical care after pandemic-induced delays in screenings and treatment that could last for years. At the same time, the fee-for-service healthcare model continues to drive up costs for employers by incentivizing inefficiencies and superfluous care.

Centers of Excellence (COE) programs offer a solution, but not all COE programs are created equal. Unit cost reductions are table stakes for most COE programs. But value-based COE solutions that bundle payments further help employers reduce uncertainty in the face of volatility through greater transparency. By bundling costs, companies can better predict their spend across their employees' most expensive medical conditions, even as the healthcare landscape evolves.

This report uncovers how the right COE can provide improved quality of life, better health outcomes, and cost-effective care while giving employers and patients increased control, transparency, and predictability.

The 3 Healthcare Cost Hot Spots

To begin, let's take a closer look at the three most costly health conditions that might be impacting your employees.

HOT SPOT #1

Cancer

This year, an estimated 1.9 million Americans will be diagnosed with the disease—up from 1.8 million in 2021, and the highest level seen since 2007. It's also become increasingly expensive. Costs attributable to cancer are expected to rise by over 30% between 2015 and 2030. Cancer surgeries alone can cost from $10,000 to $200,000, while a full course of treatment can cost from $120,000 to $400,000, depending on where a patient receives care, according to Carrum Health analysis.

For employers, cancer coverage is perennially among the top three spend categories, accounting for as much as 15% of their overall annual healthcare spend. A slew of factors contributes to these costs, including that cancer drug prices can increase by 25% in the years after their launch. Advanced diagnostic testing, extensive inpatient hospital stays, and the growing number of long-term, expensive, and complex treatments all give rise to skyrocketing direct costs. Now employers must confront another factor, as patients are being diagnosed with more-advanced, complicated cancers after delaying screenings during the pandemic.

As a result, cancer has overtaken musculoskeletal conditions as the top driver of large companies' healthcare costs, according to a survey from the Business Group on Health. In fact, 83% of employers say cancer is among their top three conditions that drive their health care costs. This trend is likely here to stay: 13% of employers said they have seen more late-stage cancers, and 44% anticipate such an increase, likely due to pandemic-related delays in care. This spike comes as medical experts are already girding for a "significant" increase in cancer cases as the U.S. population ages.

1 in 3 large employers say they're developing a more focused strategy to manage costly claims

4M

By 2030, nearly **4 million** total hip and knee replacement surgeries are expected to be completed in the U.S. each year

1 in 3 total knee replacement surgeries was deemed inappropriate in a recent study

$38,953

Average cost of readmission to the hospital after a total knee replacement

HOT SPOT #2

Musculoskeletal Conditions

Though cancer has edged ahead, musculoskeletal diseases maintain their dubious distinction as one of the most ubiquitous and expensive health problems worldwide. In the U.S., issues like back pain and arthritis affect 1 in 2 people, or about 126.6 million Americans, and cost an estimated $213 billion in annual treatment, care, and lost wages, according to the U.S. Bone and Joint Initiative.

In the past decade, musculoskeletal spending has nearly doubled, growing from $10 billion to about $20 billion, but this increase has not led to improved patient outcomes, according to Hinge Health's State of MSK Report 2021. Consider knee replacements, which are both common and costly. By 2030, nearly 4 million total hip and knee replacement surgeries are expected to be completed in the U.S. each year. Yet a study published in the medical journal *Arthritis & Rheumatology* found that over one-third of total knee arthroplasty surgeries were deemed inappropriate. An additional one-fifth were deemed inconclusive.

Unnecessary musculoskeletal surgeries are a major driver of escalating health costs for employers—but inappropriate care creates a ripple effect that extends even further. It can put patients in harm's way when a less-invasive option might bring greater relief. It can disrupt the workforce without reason. And, when complications arise, it can potentially kick off months or even years of repeat hospital visits, to the tune of tens of thousands of dollars each. The average cost of readmission to the hospital after a total knee replacement, for example, is $38,953.

HOT SPOT #3

Cardiovascular Disease

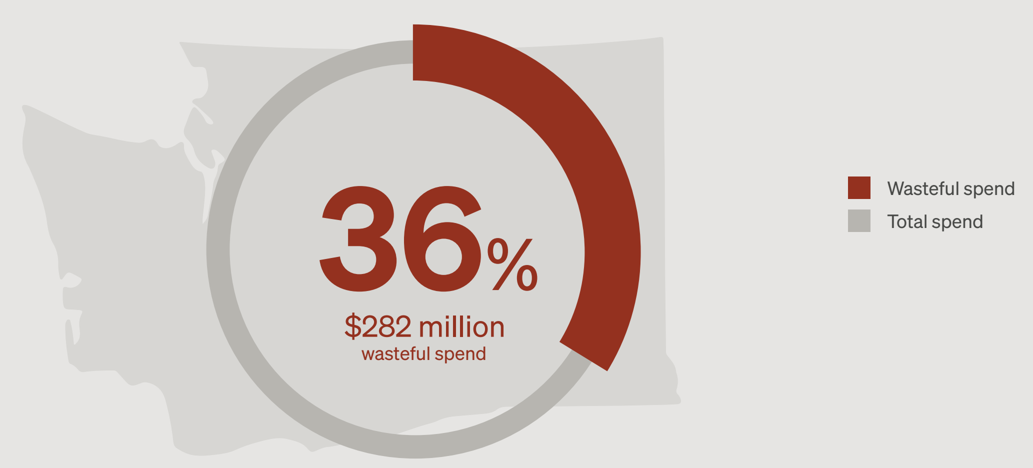
Nearly half of U.S. adults have some form of heart disease. Cardiovascular disease is responsible for one death every 34 seconds in the U.S.—the leading cause of death for men and women, and people of most racial and ethnic groups in the nation, according to the Centers for Disease Control and Prevention (CDC).

Treatment has become increasingly expensive: Adult cardiovascular spending increased from $212 billion in 1996 to $320 billion in 2016, according to a 2021 study published in the journal *Circulation*. What's more, the study found that rising service prices and intensity of treatment were responsible for much of the spending spike.

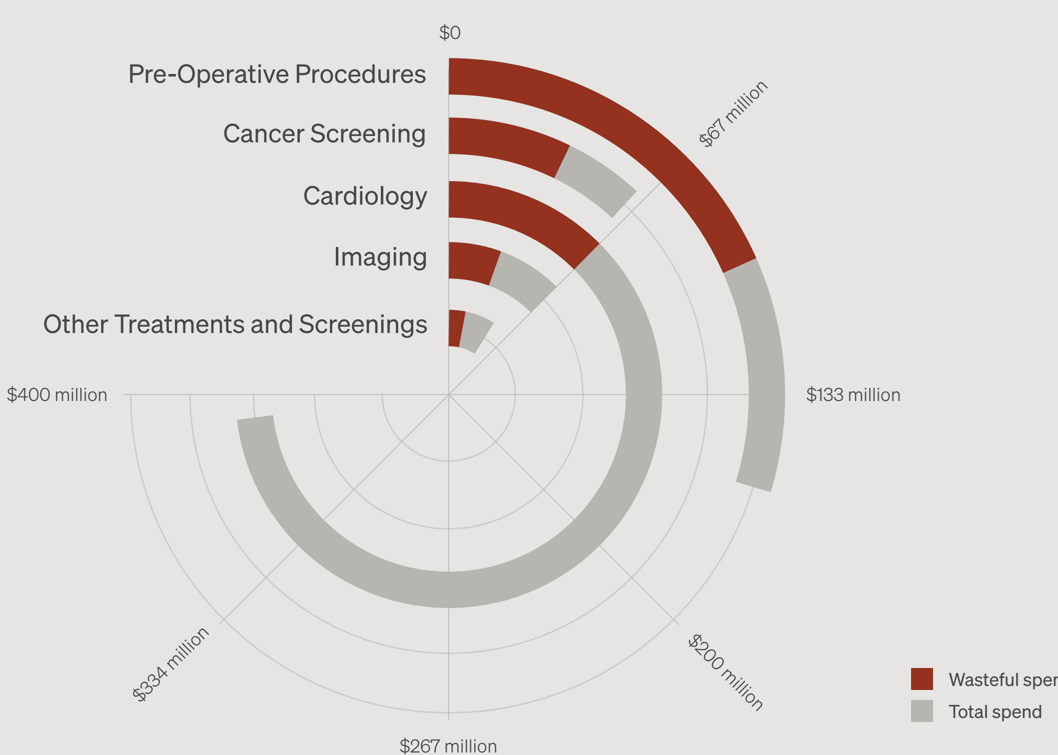
This trend is only expected to worsen over the next decade. Atherosclerotic cardiovascular disease expenditures are projected to double between 2015 and 2035, as total direct and indirect costs balloon to $1.1 trillion by 2035. This has major repercussions for employers, who spend $363 billion annually on workers' cardiovascular health, according to the CDC, including $216 billion in direct medical costs and nearly $147 billion in indirect costs such as lost productivity and absenteeism.

Case Study: 1 Year of Waste

In a yearlong Washington Health Alliance analysis of healthcare spending, 36% of spending on the healthcare services examined went to low-value treatments and procedures. This amounts to an estimated $282 million in wasteful spending.



The Biggest Offenders



More Isn't Always Better:

The Truth Behind Fee-for-Service Care

The facts are clear: As cancer, musculoskeletal conditions, and cardiovascular disease affect more individuals, the mushrooming costs of treating these diseases don't produce better outcomes.

Why is medical spending not more closely correlated to improved health? A major reason is overtreatment in the form of unnecessary tests and procedures. Overtreatment wastes an estimated $765 billion annually due to misaligned incentives, because in the fee-for-service model, more procedures can mean more profit. In fact, a peer-reviewed *PLOS ONE* study of over 2,100 physicians found that nearly 75% believed that doctors are more likely to perform unnecessary procedures when they profit from them—and that deemphasizing fee-for-service compensation would cut costs.

Fee-for-service incentives can become especially out of whack in oncology. Take, for example, radiation therapy. Long-term studies have shown that hypofractionated radiation therapy (in which patients receive fewer, higher doses of radiation at each visit) has equivalent outcomes to traditional radiation therapy. However, under traditional fee-for-service payment, hypofractionation results in fewer payments.

Although doctors need to make case-by-case clinical decisions on the best treatment for each patient, the slow uptake of hypofractionation suggests that other factors are holding back its adoption, and use remains limited across the country. This problem becomes even more significant given advancements in this type of radiation therapy, which has been shown to effectively treat prostate cancer with 28 daily treatments compared to the standard-of-care 41 treatments, according to a study in the *Journal of Clinical Pathways*. Even though shorter treatment regimens can lessen treatment side effects, physicians are not incentivized to adjust treatment plans when more treatment equals more profit.

Overtreatment is common in breast cancer treatment too. Across the country, only 10% of nonmetastatic breast cancer patients receive surgery without chemotherapy or radiation therapy, despite growing evidence that many patients do not benefit from the additional treatment. The results from a groundbreaking study published in *The New England Journal of Medicine* indicated that 70% of patients diagnosed with the most common form of breast cancer could safely avoid chemotherapy, but many providers aren't ordering the genomic tests to help inform the decision as to whether chemotherapy is necessary.

Unnecessary treatments continue in orthopedic practices, as well. Multiple clinical trials have shown that spinal fusions for back pain do not lead to better long-term outcomes when compared to physical therapy and core-strengthening exercises, yet spinal fusion rates continue to increase in the United States.

The solution is clear: To maximize the value of emerging technology and treatment efficiencies, a value-based approach that rewards optimized patient outcomes must replace fee-for-service care.

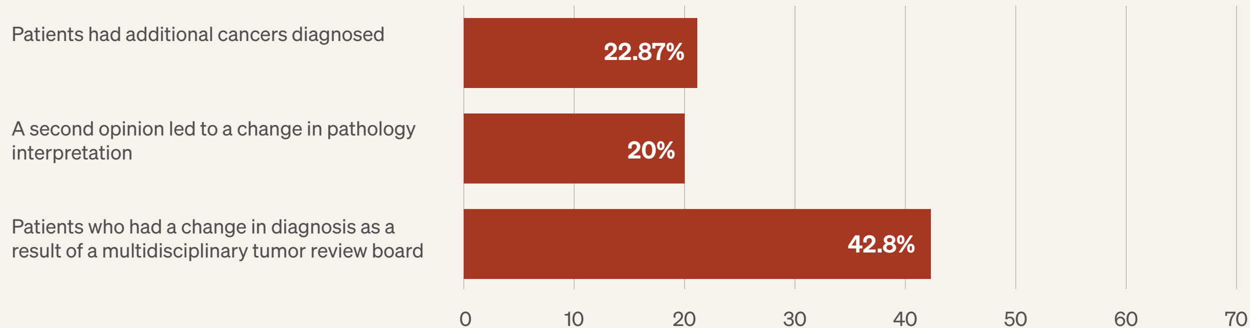
Value-based COE programs offer a solution by bundling payments and backing treatment with a warranty to encourage providers to pursue the best, evidence-based treatment and remove the possibility for additional profit from unnecessary care. A value-based COE program combines fewer unnecessary treatments with lower unit costs—the holy grail of cost containment.

Navigating the Treatment Maze

Beyond the healthcare industry's fee-for-service structure, many other nuanced issues contribute to overtreatment and poor patient outcomes. When patients face daunting health issues—whether unyielding back pain, a breast cancer diagnosis, or heart disease—they encounter an overwhelming landscape.

When faced with a cancer diagnosis, for example, the last thing patients should have to worry about is paying for and coordinating care. Still, employees today face many challenges in finding the right care for their cancer—even when trying to obtain an expert opinion to verify their diagnosis in the first place. The stakes are high, and navigating options can take time and expertise that many patients simply don't have.

The Value of a Second Opinion for Breast Cancer Patients



Source: National Library of Medicine (National Center for Biotechnology Information

Diagnosing cancer is notoriously complicated, as some cancers are trickier to pinpoint than others. Some are rare, which can make diagnosis more difficult. And sometimes identifying cancerous cells is challenging, as infections and other health conditions can resemble malignancies on scans. As such, patients often benefit from receiving an expert second opinion at a top-ranked center that specializes in the disease.

A study published in the *Annals of Surgical Oncology* found that 43% of breast cancer patients who received a second opinion from a tumor review board at a National Cancer Institute-designated cancer center received a change in diagnosis, including additional cancers diagnosed and changes in pathology interpretation. Another study, published in *Blood*, the journal of the American Society of Hematology, noted that about 1 in 4 patients who sought a second opinion after a lymphoma diagnosis left with a different diagnosis and different treatment plan.

Similarly, musculoskeletal patients frequently struggle to determine and access best-in-class, evidence-based treatment. For example, research shows that physical therapy is a preferred first-line treatment for patients with lumbar spinal stenosis and yields comparable results to surgery. Still, due to misaligned incentives, difficulty in accessing appropriate physical therapy, and a desire to fix their pain quickly, many patients wind up undergoing unnecessary surgery.

The same holds true when it comes to cardiovascular treatment. In just one example, coronary stents have been deemed the most overused service across multiple medical specialties, according to the nonpartisan healthcare think tank Lown Institute. This follows a major 2018 study in *The Lancet* that found that implanting stents to relieve angina, or chest pain due to heart disease, is ineffective.

Value-based COE solutions solve these problems by facilitating care with top-ranked specialists to ensure patients receive the appropriate diagnosis and the best treatment available to them. As part of the bundled, all-inclusive pricing delivered through their employers, cancer patients receive up to two years of care, from diagnosis and surgery through chemotherapy, radiation and follow-up visits, at best-in-class cancer centers. Musculoskeletal patients, meanwhile, gain access to digital physical therapy, health coaching for behavioral change, long-lasting pain management technology, and, if necessary, pre- and post-operative care and high-quality surgery. Cardiac patients, too, are guided to best-in-class providers and receive holistic support throughout their treatment plan.

Simply by fast-tracking patients' path to the correct diagnosis and best treatment plan, employers can realize savings of up to 11% across the board, according to Carrum Health analysis. It can also minimize side effects from ineffective treatment or surgeries and reduce complications that send patients to emergency rooms. At the same time, connecting employees with renowned specialists gives patients peace of mind that they are receiving the best possible care, with few to no out-of-pocket costs.

Fighting Financial Toxicity

In addition to rewarding waste and obscuring the best treatments, fee-for-service care also contributes to a burgeoning crisis: unaffordable bills and soaring medical debt. This so-called "financial toxicity" not only adds incredible stress to patients' daily lives, but it can actually harm medical outcomes by increasing the risk of eviction, food insecurity, and other lifestyle factors that worsen health, per a study published in *JAMA Network Open*.

Conventional private insurance offers little protection against affordable bills, the study found. As a result, more than 100 million people in America, including 41% of adults, are saddled with medical debt, according to Kaiser Health News.

Financial toxicity for cancer patients is among the most extreme, given the prevalence of out-of-pocket costs and productivity loss. And it's only getting worse as new, highly effective and incredibly expensive treatments like chimeric antigen receptor T-cell therapy gain traction. A recent study by the American Cancer Society and The University of Texas MD Anderson Cancer Center shows that out-of-pocket costs went up more than 15% for all cancers over a seven-year span.

Cardiovascular and musculoskeletal diseases also put patients at far higher risk for financial toxicity and medical debt. As new therapeutics for heart disease have proliferated, out-of-pocket costs have also increased, and research suggests that 1 in 8 heart patients reports cost as a reason for medication nonadherence. At the same time, treatment for obesity-related illnesses, which include both heart and orthopedic issues, ballooned to consume 28% of the nation's healthcare dollars over a recent eight-year period, up from 21%, the Government Accountability Office (GAO) reported in 2019. Meanwhile, the economic cost of musculoskeletal disease, including direct healthcare costs and lost wages, was pegged at nearly $1 trillion per year in 2012 through 2014.

COEs' bundled payment model addresses the scourge of financial toxicity by removing surprise bills and most out-of-pocket costs, as well as eliminating provider incentives to prescribe higher-cost drugs and deliver unnecessary care. What's more, the best COE solutions take a value-based approach designed to make sure patients get the right care at the right time. They pay providers for consultations and hold them accountable for patient outcomes with a warranty, creating a pricing model that doesn't reward unnecessary treatment but instead holds up evidence-based, best-in-class approaches.

A Better Option Exists

People want to work for employers that understand their needs and offer the benefits they deserve. But companies must also stay focused on the bottom line.

Having a Centers of Excellence network can reduce costs and improve predictability to allow employers to better plan for healthcare costs. COEs set quality standards, negotiate bulk rates, and create incentives to deliver consistent patient outcomes. They take the guesswork out of choosing a provider by doing the homework for their members.

How Do COE Programs Contain Costs?

Economies of scale allow COE programs to negotiate preferred prices with providers that have been selected based on specific quality metrics. These prices cover specific procedures—and some COE solutions may feature a warranty covering all related care within a predetermined time period. Because most complications, such as readmissions, happen within the first month after surgery, this type of warranty incentivizes providers to deliver the best possible outcome every time.

This approach helps reduce costs by making medical care more efficient and reducing the many costs associated with complications. Plus, COE programs come to the table representing millions of employees, which gives them negotiating power that individual employers don't have.

These cost savings often have a domino effect. Many employers that offer a COE program see such significant savings in that they can eliminate out-of-pocket costs like copays, coinsurance, and deductibles for their employees for covered procedures, which helps boost employee engagement and loyalty for the long term.

Traditional carrier COE programs are unable to mimic this approach because they are invested in the fee-for-service model and provider networks they have built. Abandoning their fee-for-service claims process in favor of bundled payments would be expensive and time intensive. In-network providers that are left out of the COE designation can retaliate by litigating or simply raising prices on other services.

COE programs that are independent of carriers do not have this baggage and are able to negotiate competitive prices for their customers. But cost reduction is table stakes for COE programs. The best value-based solutions go beyond the baseline to provide world-class care, white-glove service, and quality standards that are a cut above the rest.

Providing the Right COE Benefit

How do you ensure you're bringing your employees a best-in-class program that delivers savings and satisfaction? From medical outcomes to communication to customer service, the quality of care a COE solution provides is what sets it apart.

However, not all COE programs have the same quality standards. Some set the bar higher than others—and any corners that are cut could have real-life ramifications for your employees.

7 Key Things to Look For When Choosing a COE Solution

1. Appropriateness of care

The best COEs take a value-based approach to make sure patients get the right care at the right time. They pay providers for consultations and evaluate them on outcomes, creating a pricing model that doesn't reward unnecessary procedures. Instead, doctors feel empowered to recommend less-invasive treatments first. Fewer unnecessary procedures combined with lower unit costs is the holy grail of cost containment for companies and also reduces risk for employees.

30%

of patients who were initially recommended for surgery were redirected to less-invasive treatment options when using Carrum Health.

2. Quality

While some COE programs focus on partnering with the largest number of hospitals and surgery centers, the best ones analyze individual providers to ensure reliable patient outcomes. They use a comprehensive quality evaluation methodology that includes dozens of metrics to assess both doctors and facilities, vetting them on factors related to readmissions and complications, appropriateness, patient safety and satisfaction, coordination of care and even time back to work post-procedure.

By visiting facilities, interviewing doctors, and asking the questions that others don't, the best solutions determine what makes a provider tick. In partnership with expert advisors from across the medical field, they handpick doctors and facilities that make informed, medically appropriate decisions, whether the proposed treatment plan is targeting cancer, musculoskeletal conditions, or heart conditions. Solutions that are truly effective are independently validated by peer-reviewed studies to ensure appropriateness, reduced readmission rates, and cost savings.

~80%

By partnering with the top medical providers in the country, Carrum Health's solution reduces readmissions by 74% to 86% relative to the national average.

3. Warranty

Improving the quality of healthcare is difficult when the insurance reimbursement model rewards failure and inefficiency. That's why the best COE solutions ask providers to guarantee their patient outcomes by agreeing to cover all costs associated with complications, such as readmissions, for 30 days or more. Incentivizing provider performance leads to fewer complications and readmissions, which means lower costs for employers and shorter recovery times for employees.

30 days

Carrum Health's COEs back every surgical procedure with a standard 30-day warranty covering readmissions and complications. For cancer, the warranty is extended to 2 years.

4. Bundled prices

One of the biggest benefits of the best COE solutions is that there are no surprise bills. Using economies of scale, they negotiate affordable, flat rates for end-to-end care associated with specific procedures and the highest-cost conditions, including bariatric, oncology, and musculoskeletal treatments. This provides full cost transparency and greater predictability in regard to a company's annual healthcare spend.

Employees benefit from bundled prices, as well. Many employers save so much money with a top-notch, value-based COE solution that they waive any related out-of-pocket costs for their employees and sponsor any travel needed to get them to a COE. Plus, the best programs have agreements with their COEs that restrict them from issuing any patient bills for services included in the bundles.

45%

Carrum Health's bundled solution saves more than 45% per procedure.

5. Technology

It's easy to waste hours—or even days—trying to schedule and prepare for a medical procedure. The best COE solutions use technology to streamline the process and provide a seamless patient experience. Employees appreciate easy-to-use apps that help them keep their information organized and easily accessible, as well as provide direct access to a care specialist who can answer any questions they might have.

Top solutions also use data and predictive analytics to identify employees who may be at risk for surgery and inform them about the benefits their employer offers. For musculoskeletal conditions, for instance, people who have gone to physical therapy or received injections for pain would be good candidates for targeted, timely outreach efforts that boost benefit utilization to help companies make the most of their investment.

The Carrum Health platform virtualizes almost every step of a surgical episode while radically simplifying the adoption of COE solutions for employers.

6. Experience driven

White-glove service is another offering that separates the best COE solutions from the rest. Offering a single point of contact helps employees navigate the entire process, from scheduling a procedure to arranging necessary travel. Care specialists help patients understand requirements they might need to meet ahead of time. With bariatric surgery, for instance, people might be required to meet with a psychologist and a registered dietitian for presurgical evaluations, and to complete certain presurgical imaging. A care specialist can connect them with services in their benefits network to help them meet that goal.

Specialists can also cut through the confusion and help patients feel more comfortable with their treatment journey. But the quality of care patients receive is ultimately what defines their experience. When employees receive well-planned, expertly executed medical care that improves the quality of their lives, they return to work healthier and happier—which can boost employee engagement across the board.

Carrum Health changes the way employees experience healthcare by providing personalized service for important events in their health journey.

7. Regional care access

Ensuring that your COE solution provides access to care near employees is another key factor in selecting the right one. The right COE solution needs to be able to expand and contract geographically as employer growth dictates. Offering options that minimize travel to receive care not only increases convenience for employees but keeps costs down for you.

While COE network breadth is important, it should not come at the cost of compromising care quality. The best programs keep quality at the forefront of their COE evaluation methodology as they expand into new geographic locations so more employers can provide access to the highest-quality care closer to home.

95%+

Through our network and partnerships, Carrum Health can provide access to top medical providers that are within driving distance of over 95% of the U.S. population.

Find the Right COE Benefit for Your Company

Use this simple checklist when comparing programs to find one that will provide a better patient experience and curb your runaway healthcare costs—particularly for the most costly of conditions.

- **Assess value-based quality outcomes.** Analyze key metrics, including their rate of unnecessary-procedure avoidance, readmission rates, any warranties they offer, and the methodology used to establish their network of medical providers.
- **Scrutinize the fine print.** Bundled solutions shouldn't come with any surprise bills. Review the payment model to make sure costs are communicated transparently upfront.
- **Ask around.** Brokers and consultants are uniquely positioned to gather peer feedback and reviews and to assess employee satisfaction. Peer-reviewed studies are another way to verify which potential partners are actually delivering the value they promise.
- **Download the app.** Make sure they offer a streamlined patient experience through a digital platform, such as an app. If a COE program doesn't have the right technology and customer support capabilities, your people could be stuck picking up the slack.
- **Crunch the numbers.** The right program should offer a significant return on investment. Make sure the costliest conditions—including cancer, musculoskeletal, and cardiovascular procedures—are covered, and do the math to make sure you and your employees are getting the maximum benefit.

Contact Carrum Health

to see how we can help get your company's healthcare spend in check.

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About Carrum Health
Carrum Health was founded in 2014 with a mission to "bring common sense to healthcare" through a value-based healthcare model that benefits families, employers, and providers. Headquartered in the San Francisco Bay Area, Carrum's award-winning surgery benefits platform connects self-insured employers with top providers under standardized bundled payment arrangements to better manage healthcare costs. By aligning provider incentives with quality performance, Carrum drives improvements in patient experience and health outcomes. Customers include Fortune 500 companies and public sector organizations.

For more information, visit **carrumhealth.com**

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