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Evolving the Approach to Identifying and Increasing Excellent Care for Planned Surgeries

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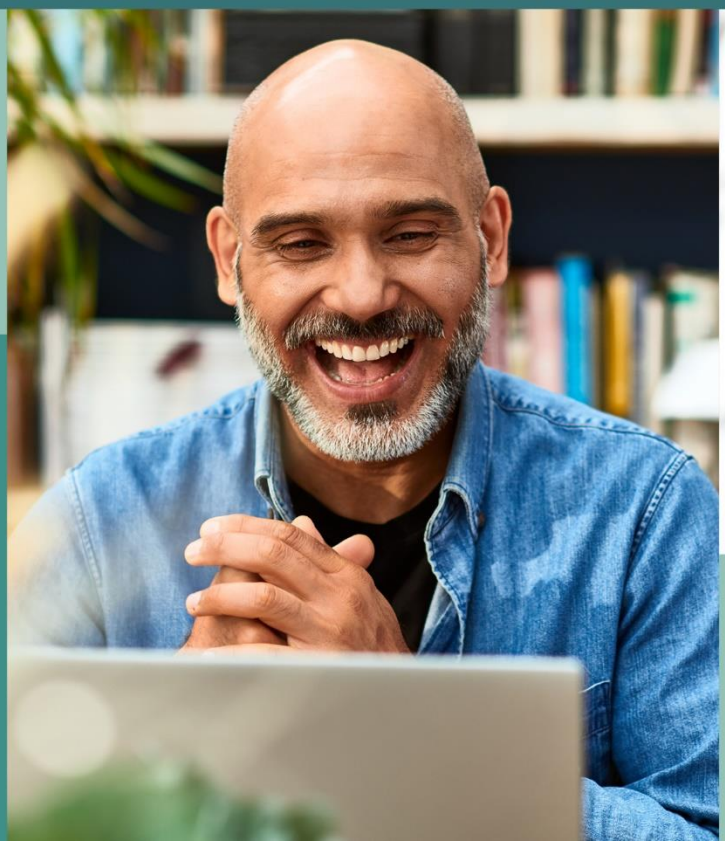


Evolving the Approach to Identifying and Increasing Excellent Care for Planned Surgeries

Surgeries range from routine outpatient procedures to matters of life or death. Regardless of the procedure, we are confronted with an American healthcare system that is not optimized to ensure that patients receive high-quality care. When it comes to surgery, the issues boil down to:

1) Provider quality is inconsistent

2) People often rely on the wrong data, like brand name of a health care organization, when making provider selections

3) Outcomes alone are not enough. Assessing appropriateness of care is also critical.

4) The cost is too high

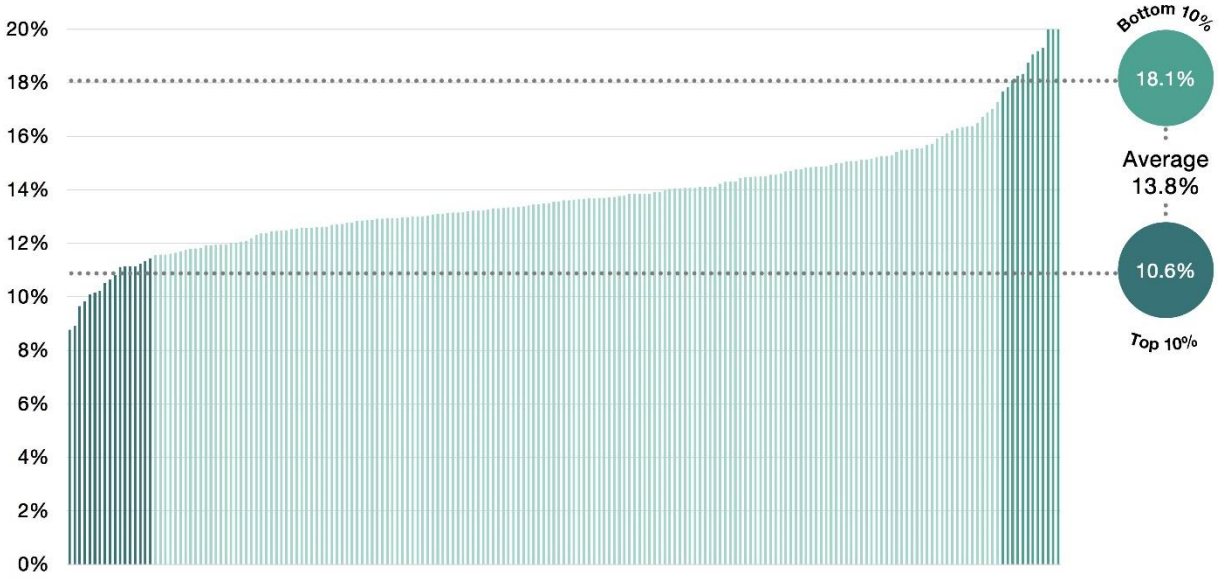
These are deep rooted issues. Solving them requires addressing the underlying causes.

1. Provider quality is inconsistent

The chart below shows the likelihood of complications in post-lumbar spine surgery for 197 surgeons in Illinois. The data shows that the bottom 10% of surgeons had nearly double the complication rate of the top 10%.

Individual surgeon selection has a material impact on outcomes.

Outcomes: Variation in complication rate after lumbar spinal surgery



Outcomes: Complication rate after lumbar spinal surgery

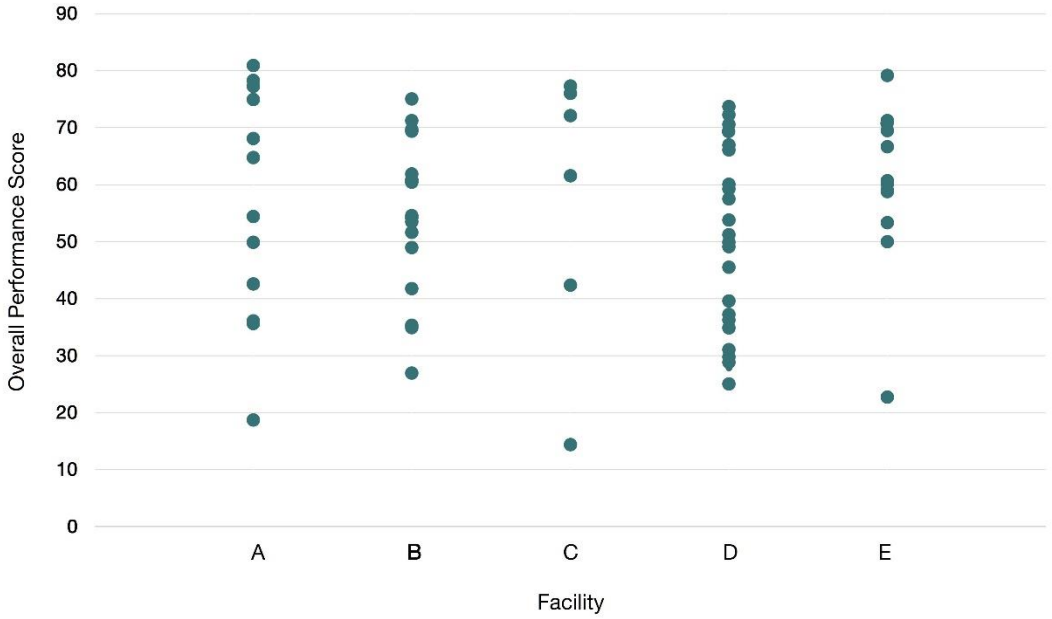
2. People often rely on the wrong data when making provider selections

Knowledge that provider-specific variation exists isn't enough. Heuristics typically used to assess quality, like the name brand of the health system or recommendations from carriers, simply cannot be relied upon to identify high-quality providers.

Even when looking at the types of name-brand institutes frequently marketed as "centers of excellence", the data shows high variation in the quality of surgeons as measured by effectiveness, appropriateness, and cost. The amount of clinical variation within institutes far exceeds the amount of variation between them.

Selecting a provider based on the strength of the institute's brand does not ensure high quality.

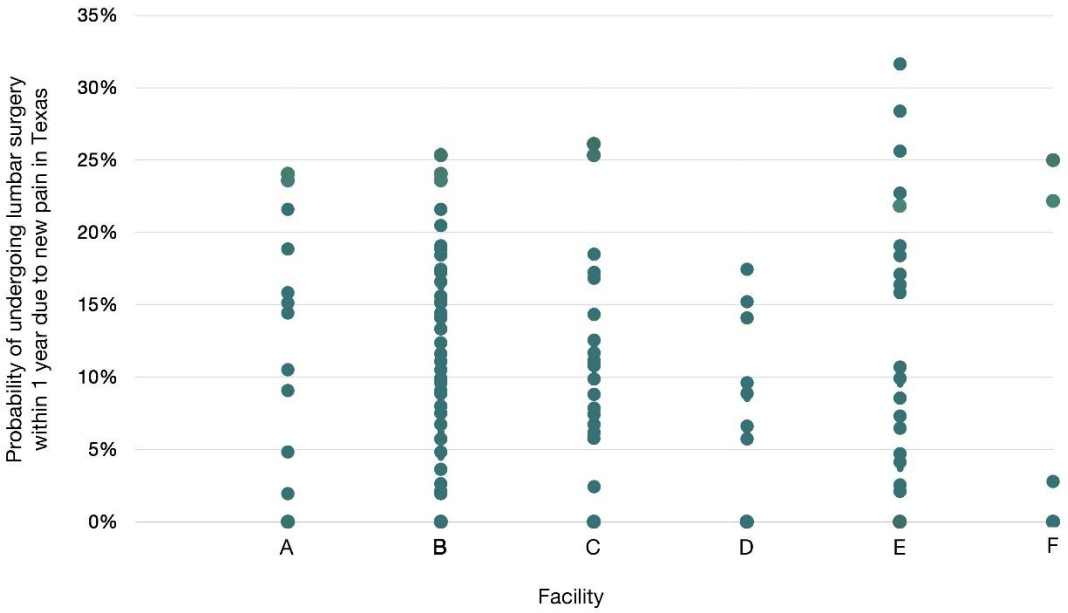
Centers of Excellence: Variation in quality among US surgeons affiliated with centers of excellence



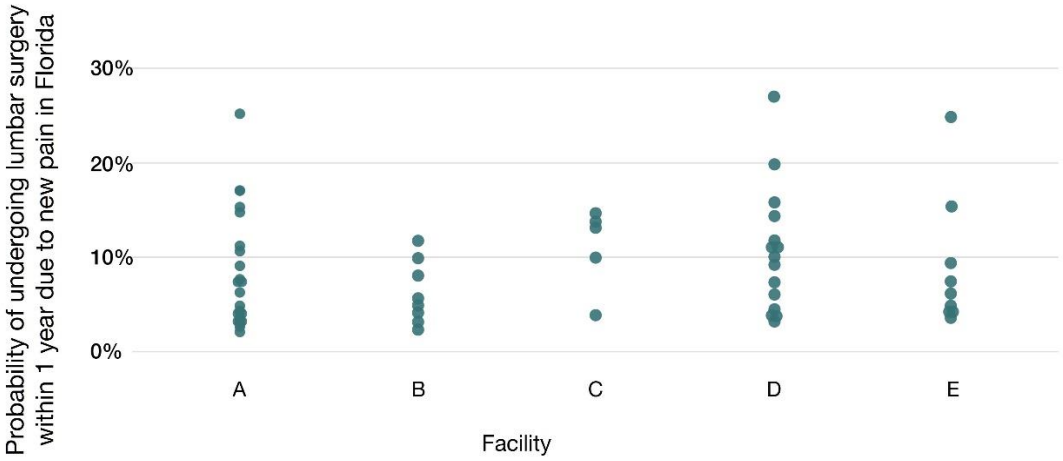
The same magnitude of variation in appropriateness of care and outcomes delivered exists across major health systems. As shown below, we see a wide variation within hospitals in the likelihood a surgeon moves to lumbar surgery within one year of new pain being reported, a key indicator of surgical appropriateness. And this phenomenon is not isolated to a single geographic area. In the figures below, we observe similar variation within health systems in both Texas and Florida.

Again, the determining factor of quality care is the individual provider, not the health system.

Major Health Systems: Variation in quality among US surgeons affiliated with the major health systems in Texas



Major Health Systems: Variation in quality among US surgeons affiliated with the major health systems in Florida



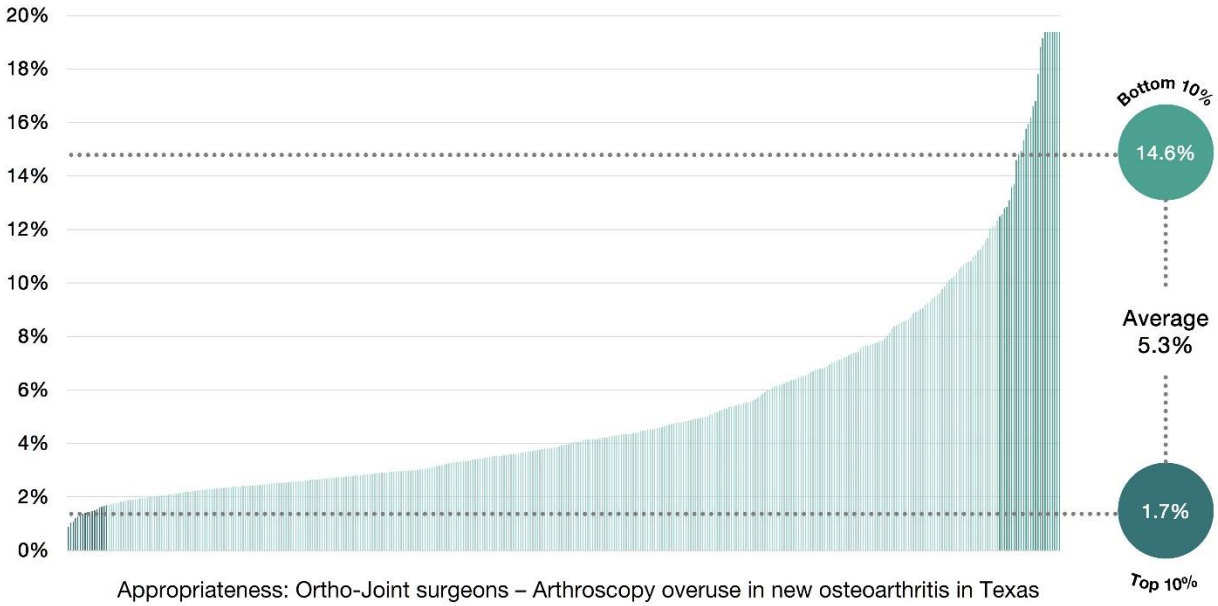
3. Outcomes alone are not enough. Assessing appropriateness of care is also critical.

Unnecessary care is poor quality regardless of whether the patient experiences complications. Appropriateness is a paramount consideration in quality of care as, often, the best outcome for a patient is to avoid surgery altogether. The variation in appropriateness of care shown in the two facility-specific charts above is endemic to the provider population at large.

The chart below shows the variation in the likelihood an orthopedic surgeon performs a knee arthroscopy within one year of a degenerative joint disease (DJD) diagnosis, a known measure of low-value care.

Here the data shows the bottom 10% of providers to be nearly 9 times more likely to move to overuse arthroscopy. A stunning order of magnitude difference in the likelihood a patient undergoes unnecessary surgery.

Appropriateness: Variation in likelihood to perform knee arthroscopy within one year of DJD diagnosis



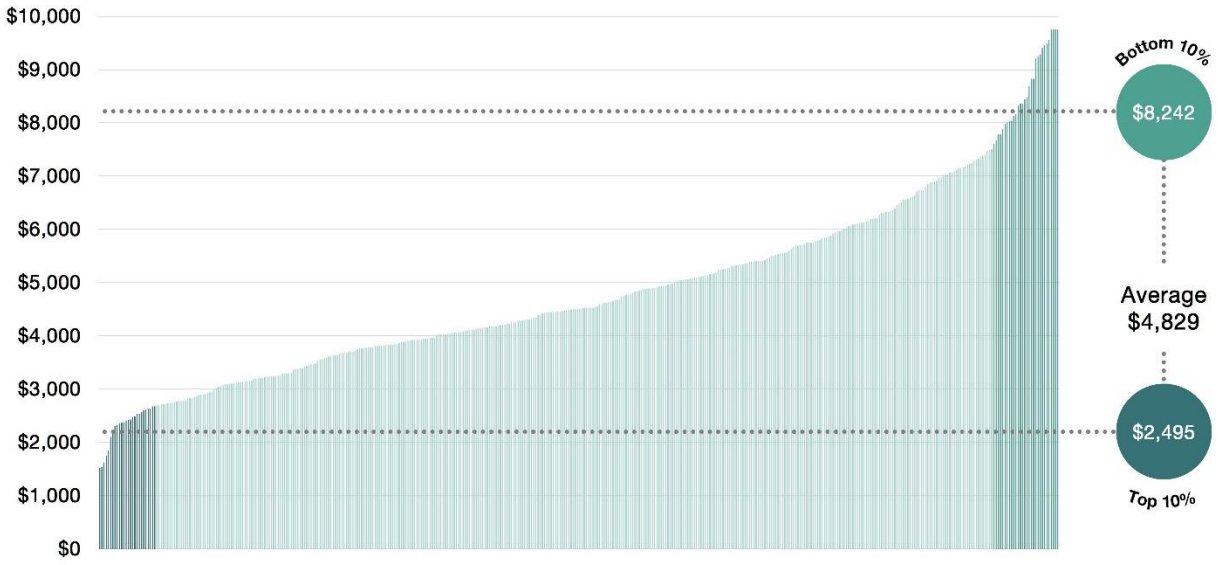
Appropriateness: Ortho-Joint surgeons – Arthroscopy overuse in new osteoarthritis in Texas

4. The cost is too high

Variation is not limited to appropriateness and outcomes – we also observe marked variation in cost of care. The chart below shows the per member per year cost of orthopedic joint care in Florida. Some surgeons consistently deliver care between $1,000 and $2,000 per member per year and others deliver care in excess of $9,000 per member per year even when adjusting for patient risk, social determinants of health, and provider factors including complexity of practice. This is driven by factors including contract reimbursement, network status, outcomes, and appropriateness of care, but makes one point clear:

The choice of surgeon is a major determinant of cost.

Cost: Variation in cost of care by ortho-joint surgeon



Cost: Variability between ortho-joint care in Florida (Per Member, Per Year)

To ultimately address these problems, solutions need to be designed that not only address the underlying issues but address them in a way that increases the utilization of high-quality providers. We have identified four levers that need to be pulled:

1) Determination of quality – assessing the quality of individual providers, in a scientifically rigorous, data-driven way

2) Steerage to quality – ensuring members are made aware of who the optimal providers are and are guided to them

3) Access to quality – marrying that steerage with accessibility, both geographically and prompt appointments

4) Affordability – lower cost of care that allows the plan to save and remove out of pocket responsibility for the member, so they can afford the care they need

Determination of Quality

Most quality assessment tools, narrow network or network quality designations, and COE solution providers base their approach primarily on facility metrics on account of data accessibility. As demonstrated, this approach is inadequate and may create a false sense of security for the member

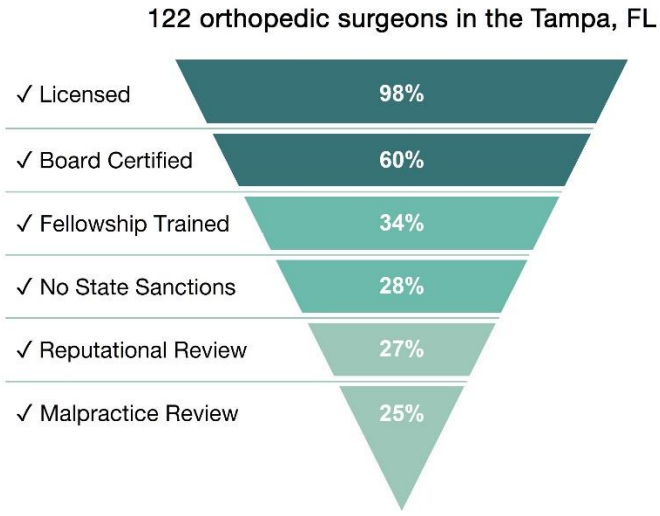
First, it is the physician, not the facility, that makes the decision to do (or not do) the procedure and delivers the technical skill necessary to drive outcomes. Assessing individual physician training, credentials, licensure, board certifications, pre- and post-operative approach, experience, and past outcomes are critical to understanding the quality they will deliver to their patients.

Second, surgeries are specific. Deep experience operating on knees does not necessarily translate to expertise operating on shoulders. In one study published in the British Medical Journal, the relative risk reduction from surgeon specialization and experience, measured by the frequency of doing a specific procedure was substantially greater than surgeon volume.[1] Narrow specialists overwhelmingly outperform generalists, even high-volume generalists. Only when assessing individual physicians can one reach the level of granularity necessary to truly understand provider quality.

In fact, if in-network surgeons (e.g., contracted with major carriers) were filtered by a more rigorous credentialing process that considers factors like procedure-specific volume requirements, fellowships, and board certifications, the majority of in-network surgeons would be eliminated.

[1] Sahni, Nikhil R, Maurice Dalton, David M Cutler, John D Birkmeyer, and Amitabh Chandra. 2016. “Surgeon Specialization and Operative Mortality in United States: Retrospective Analysis.” *BMJ*, July, i3571. https://doi.org/10.1136/bmj.i3571.

Below, are the results of a review of 122 major carrier contracted orthopedic surgeons in Tampa, Florida in which all 122 were put through a surgeon specific-credentialing process. Only 25% made it through credentialing without being removed from consideration.[2]



That story remains consistent when surgeons in major carrier contracted centers of excellence are considered. In those cases, somewhere between one-half and two-thirds of surgeons do not clear basic hurdles around volume, certifications, and sanctions. Available, surgeon-specific data and research must be leveraged to filter the physician universe.

Steerage to Quality

In recent years, attempts to affect steerage have relied on making certain quality and pricing data elements more transparent. The hypothesis is that patients will be active and informed consumers of medical data. Unfortunately, this focus on transparency has yielded disappointing results. Patients simply don't use the data when it is available. In fact, one study published in the American Journal of Managed Care surveyed 140 million members of 31 different commercial health plans with access to transparency tools and found they were only utilized by 2% of that population.[1\3] Further, when the data is presented, it is challenging to understand, often misleading and may lead to unintended consequences such as intentionally choosing a more expensive provider with the inaccurate presumption that cost correlates with quality.

Instead, patients typically follow the advice of trusted relationships, like their physicians or friends and family. A recent National Bureau of Economic Research Study showed a physician's referral has "dramatically greater" influence than does the out-of-pocket cost to patients or their

[2] Analysis of major carrier contracted surgeons in Tampa, FL by SurgeryPlus
[3] Aparna Higgins, M. A., PhD Nicole Brainard, and M. P. P. German Veselovskiy. 2016. "Characterizing Health Plan Price Estimator Tools: Findings from a National Survey." The American Journal of Managed Care 22 (2). https://www.ajmc.com/view/characterizing-health-plan-price-estimator-tools-findings-from-a-national-survey.

proximity to that care. This is striking as the literature has consistently shown physician referral decisions to be less than ideal, both because physicians often lack the necessary data and because their referrals may be motivated by considerations beyond cost or quality (e.g., attempts to keep a patient within a vertically integrated healthcare system given economic incentives). Ultimately, this means patients are often directed away from higher quality, lower cost options.[4]

These two facts point to a solution:

- Fact 1: Patients do not engage with data when it is made available
- Fact 2: Patients trust experts to steer them to care

The solution: a partner that will be both prescriptive in identifying the individual, high-quality providers best suited for a patient's care and make those referrals using a rigorous, data-driven methodology.

Thankfully, solutions exist today that do just this.

1. First, there are an emerging set of provider guide tools that drive behavior change through clarity and concision. Instead of exposing the data, they clearly label the high quality providers and highlight associated benefits like reduced out of pocket expense and do so with appropriate specificity. This step from transparency to true choice architecture effectively nudges patients to high-quality providers. The results of the few more advanced tools have been powerful in changing behavior.

2. Second, centers of excellence can augment the referring physician as a trusted expert. The critical components here are:
   - A rigorously credentialed network of providers
   - A concierge experience to identify the right provider for that specific member – taking into account the member's acuity, and diagnosis / care needed
   - Network adequacy, measured in distance and time to placement

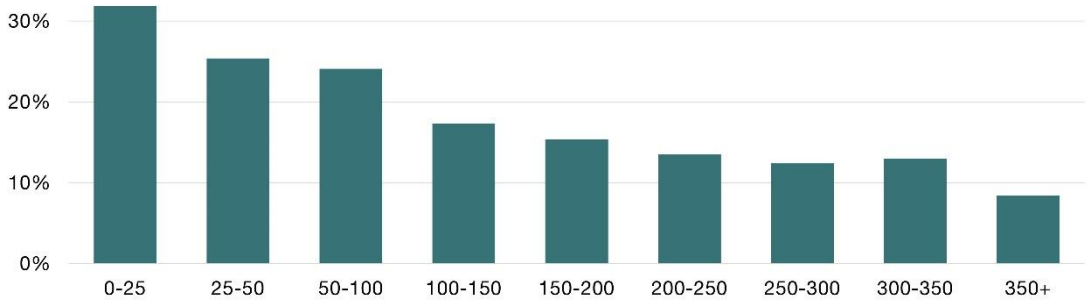
[4] Chernew, Michael, Zack Cooper, Eugene Larsen-Hallock, and Fiona Scott Morton. 2018. "Are Health Care Services Shoppable? Evidence from the Consumption of Lower-Limb MRI Scans." Www.nber.org. July 30, 2018. https://www.nber.org/papers/w24869.

Access to Quality

Access is critical, enabling patients to have their surgeries with the best doctor for them. Effective access means two criteria have been addressed — distance and scheduling.

Surgeons need to be close to the patient. In fact, a review of tens of thousands of patients considering procedures through surgical centers of excellence across the United States showed a steep and consistent drop off in conversion as the distance to the provider increased.[5]

Conversion Rate by Member Proximity to Closest Provider (mi)



When providers are close to a patient, utilization is 2 to 4 times what it is when a patient has to travel.

Scheduling is also a significant hurdle. Doctors are busy, as procedures delayed by COVID-19 are now being scheduled. Patients are facing significant delays accessing excellent physicians, potentially increasing utilization for less experienced providers with substandard outcomes. In fact, a May 2020 study of orthopedic surgery volumes in the Journal of Bone and Joint Surgery predicted a backlog of more than one-million total joint and spine surgery cases.[6]

The right solution, though, cuts through this scheduling backlog. COEs with a white glove concierge model and direct relationships at the surgeon or physician practice level help resolve the scheduling issue. With concierge access, wait times can be 50% of what the average patient experiences in the United States.[7,8]

[5] Analysis of SurgeryPlus utilization data 2016 to through 2022

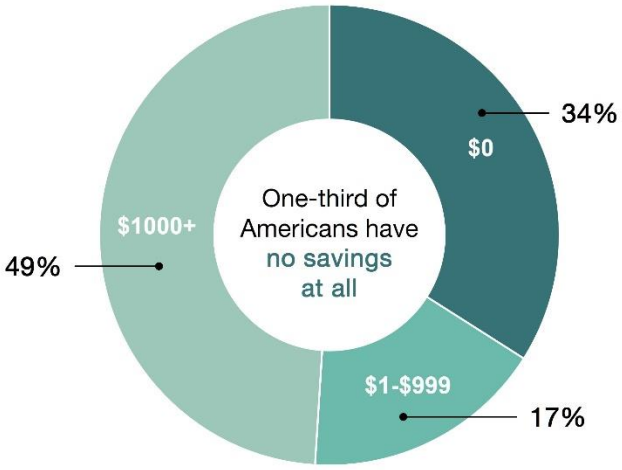
[6] "Cutting through the COVID-19 Surgical Backlog | McKinsey." n.d. Www.mckinsey.com. Accessed March 6, 2023. https://www.mckinsey.com/industries/healthcare/our-insights/cutting-through-the-covid-19-surgical-backlog.

[7] Law, Tyler J., Derek Stephens, and James G. Wright. 2022. "Surgical Wait Times and Socioeconomic Status in a Public Healthcare System: A Retrospective Analysis." BMC Health Services Research 22 (1). https://doi.org/10.1186/s12913-022-07976-6.

[8] Analysis of SurgeryPlus procedure data, January through December 2022

Affordability

Finally, high-quality care is all too often unaffordable. One-third of employees are enrolled in plans with $2,000 or higher deductibles. That number climbs to 49% when looking at smaller companies. 26% of members are on a plan with an out-of-pocket maximum of $6,000 or higher.[9] This is untenable given the state of most American's finances. As shown in the chart below, half of all Americans have less than $1,000 in savings – far below what is needed to fund the out-of-pocket costs associated with surgeries.



[10]

Plan sponsors need to lower member cost share, but the only realistic way to do this is for these employers to realize significant savings. Certain surgical center of excellence solutions demonstrate average savings of 50% or more per procedure. This is more than enough for plan sponsors to remove member cost share. With the appropriate solutions in place, employers can elect to alleviate this financial burden, ensuring their employees and their family members have access to the care they need, affordably. This is a key lever that employers are pulling as they consider the DEI implications of their health plan offerings.

Plan sponsors can also lower member cost burden by steering within their existing carrier network. By directing members to the highest quality providers, cost of care is reduced by approximately $1,700.[11] Notably, these savings include both surgical and non-surgical spending and are relevant to a far greater number of individuals on an employer's health plan. While this isn't as dramatic as the savings from narrow networks constructed by surgical centers of excellence, the savings still allow plan sponsors to waive some portion of a member's out of pocket expenses, and offers a broader solution to impact more lives, across a greater range of

[9] Oct 27, Published:, and 2022. 2022. "2022 Employer Health Benefits Survey - Summary of Findings." KFF. October 27, 2022. https://www.kff.org/report-section/ehbs-2022-summary-of-findings/.

[10] "The State of Personal Finance in America 2022." n.d. Ramsey Solutions. https://www.ramseysolutions.com/budgeting/state-of-personal-finance.

[11] Embold Health analysis of total cost of care related to joint, orthopedic, spine, ENT and GI procedures

heath needs. What's more, when put in place together, these approaches are highly complementary.

Conclusion

Improving the quality of outcomes for surgical patients in the US means addressing a multi-pronged problem. First, members need to be made aware of the right physicians for them – parsing between high-quality and low-quality doctors. Second, members need steerage to ensure they arrive at the physician's office. Third, these doctors need to be accessible, close to home instead of across the country. Finally, the cost needs to be made manageable. While these problems are complex and systemic, solutions exist. The challenge now becomes putting those solutions in the hands of patients at the right time.