Big data used on a small scale can yield impressive results

Benchmarking data from Blue Health Intelligence® (BHI®) provided independent verification that the Spine Team Texas (STT) approach to treating low back pain resulted in lower costs for insurers and employers.

Background

"To cut is to cure" is a well-known aphorism among surgeons. And the American reimbursement system has rewarded that mindset. The more surgeries that are performed, the more money that is made.

But what if going under the surgeon's knife is the opposite of what is best for the patient?

STT is one of the largest multidisciplinary spine practices in the country. While many practices assume the end game for most low back pain is surgery, STT's clinicians practice conservative care, assuming at least 90% of low back pain sufferers will not need surgery if they leverage different care protocols.

The secret to STT's approach is clinicians – specialists in physical medicine and rehabilitation (PM&R), physical therapy, anesthesiology and pain management, spine neurosurgery, and orthopedic spine surgery – who work together to alleviate their patients' low back pain. They do this using a multidisciplinary approach. The group develops a comprehensive plan for patients to individually address their pain, strengthen their core, and get them back to work. If patients do need surgery, surgeons use only minimally invasive procedures, which expedite recovery and lower costs.

"We have an inverse model of traditional spine care," said David Rothbart, MD, a neurosurgeon and the founder of STT. "Our practice is comprised mostly of nonsurgical providers. But typical spine practices are made up of mostly surgeons and a few nonsurgical providers. The problem is that if your only tool is a hammer, everything starts looking like a nail."

Challenge: Establish proof of lower costs

From a cost, quality, and contentment standpoint, STT's patients are well satisfied. But low overall cost and high patient satisfaction have not resulted in the widespread adoption of the company's approach when introducing the model to employers and payers.

"We are very committed to our model and it's financially sound," said Mark Hood, STT's CEO. "While we may be able to earn more money by performing more surgeries, we provide high-quality care for our patients, and it results in lower costs to employers and insurance companies. That's the real story."

It is a story, however, that would greatly benefit from using objective data to construct the narrative.

Broad data allowed for deep research

STT reached out to BHI to help it produce real-world evidence in support of its model. BHI manages one of the largest health insurance claims data sets in the country – 22.6 billion total claims, representing 217 million unique members.[1]

Having access to this many claims allows organizations to do in-depth searches for answers to business-critical questions. STT engaged BHI to compare the costs of its services to similar spine practices. STT looked at three years of BHI claims data and focused its study on a few key service/delivery areas.

STT looked at cases of individuals who had a primary diagnosis of low back pain who were treated by neurosurgeons, orthopedic surgeons, pain management, and PM&R specialists. And it focused on specific CPT code

"This study helped us address the cost side of the quality and cost equation. It independently verified what we know to be true: that we're the lowest-cost low back pain providers."

MARK HEBARD, COO OF SPINE TEAM TEXAS

Gaining traction
STT's conservative treatment model for low back pain costs less, but insurers and employers needed hard data to help steer participants to the provider.

Verifying outcomes
STT conducted a claims data study with BHI comparing low back pain costs in Dallas-Fort Worth and across the state of Texas to validate the accuracy of its low-cost claims.

Proving value
The study showed the company's surgery rates were 54% lower than other providers; rates for spinal fusions were 79% lower.

classifications to segregate surgical procedures. The breadth of BHI's data made it possible to do a statistically significant study in a well-defined geographic area.

Data proved lower costs, conservative care

BHI's claims data showed that STT's patients had 54% fewer back surgeries than other low back pain providers in the market. Its patients also had 79% fewer spinal fusions, making a strong case for the practice's conservative care model.

"There are a few reasons why that spinal fusion number is so important," Dr. Rothbart said. "First, it is the most expensive of common spine procedures. Second, research shows that spinal fusions are overutilized. Third, of all of the spine surgeries for routine degenerative conditions, spinal fusions have the highest complication rate and the longest return-to-work times post-surgery."

Practice leaders agreed that BHI's robust information and expertise made the research process easier.

"They were very helpful in guiding us and making sure that we weren't slanting the study or going off track," Hebard said. "They validated our parameters. They edited what we originally submitted, ensuring we had the proper ICD-10 coding for low back pain and the proper CPT procedure classifications."

STT's model lowers costs

BHI's data showed payers and employers could reduce overall musculoskeletal costs if they directed their members and employees with low back pain to STT. Such costs are usually the number one healthcare expense for employers, and spine-related treatments are typically the highest cost within that category. STT can keep costs low because of its unique approach.

"We've defragmented the model," Dr. Rothbart said. "There's quite a bit of confusion, not only among patients but also among primary care physicians, as to how best to treat low back pain. Our model uses clinical algorithms for the most effective prescriptive pathways to care."

It is not enough to provide high-quality care at a lower cost with happier patients as a result. For payers and employers to take notice, providers need data and analytics to help prove their approach delivers superior results.

[1]Blue Health Intelligence, January 2021. https://www.bluehealthintelligence.com