

**THE 2023 SCIENTIFIC MEETING OF THE
SOCIETY OF GYNECOLOGIC SURGEONS
HIGHLIGHTS ISSUE, PART 2**



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Surgeon in the C-suite

An ObGyn surgeon leader's vantage point on women's health care, factors that impact the business of medicine, and how clinicians can apply their management skills to advance health care

Beri Ridgeway, MD

“If you don't have a seat at the table, you are probably on the menu.” I first heard this quote in 2013, and it launched my interest in health care leadership and influenced me countless times over the last 10 years.

As Chief of Staff at Cleveland Clinic, I oversee nearly 5,000 physicians and scientists across the globe. I am involved in the physician life cycle: recruiting, hiring, privileging and credentialing, talent development, promotion, professionalism, and career transitions. I also sit at the intersection of medical care and the business of medicine. This means leading 18 clinical service lines responsible for 5.6 million visits, 161,000 surgeries, and billions of dollars in operating revenue per year. How I spend most of my time is a far cry from what I spent 11 years' training to do—gynecologic surgery. This shift in my career was not because I changed my mind about caring for patients or that I tired of being a full-time surgeon. Nothing could be further from the truth. Women's health remains my “why,” and my leadership journey has taught me that it is critical to have a seat at the table for the sake of ObGyns and women everywhere.

Women's health on the menu

I will start with a concrete example of when we, as women and ObGyns, were on the menu. In late 2019, the Ohio state House of Representatives introduced a bill that subjected doctors to potential

Dr. Ridgeway reports receiving grant or research support from NIH and PCORI, serving as a scientific advisory board member for Curadel, and being a cofounder of Ina Labs.

doi: 10.12788/obgm.0293

murder charges if they did not try everything to save the life of a mother and fetus, “including attempting to reimplant an ectopic pregnancy into the woman's uterus.”¹ This bill was based on 2 case reports—one from 1915 and one from 1980—which were both low quality, and the latter case was deemed to be fraudulent.² How did this happen?

An Ohio state representative developed the bill with help from a lobbyist and without input from physicians or content experts. When asked, the representative shared that “he never researched whether re-implanting an ectopic pregnancy into a woman's uterus was a viable medical procedure before including it in the bill.”³ He added, “I heard about it over the years. I never questioned it or gave it a lot of thought.”³

This example resonates deeply with many of us; it inspires us to speak up and act. As ObGyns, we clearly understand the consequences of legal and regulatory change in women's health and how it directly impacts our patients and each of us as physicians. Let's shift to something that you may feel less passion about, but I believe is equally important. This is where obstetrician-gynecologists sit in the intersection of medical care and business. This is the space where I spend most of my time, and from this vantage point, I worry about our field.

The business of medicine

Starting at the macroeconomic level, let's think about how we as physicians are reimbursed and who makes these decisions. Looking at the national health care expenditure data, Medicare and Medicaid spending makes up nearly 40% of the total spend, and it is growing.⁴ Additionally, private

health insurance tends to follow Centers for Medicare and Medicaid Services (CMS) decision making, further compounding its influence.⁴ In simple terms, CMS decides what is covered and how much we are paid. Whether you are in a solo private practice, an employer health care organization, or an academic medical center, physician reimbursement is declining.

In fact, Congress passed its year-end omnibus legislation in the final days of 2022, including a 2% Medicare physician payment cut for 2023,⁵ at a time when expenses to practice medicine, including nonphysician staff and supplies, are at an all-time high and we are living in a 6% inflationary state. This translates into being asked to serve more patients and cut costs. Our day-to-day feels much tighter, and this is why: Medicare physician pay increased just 11% over the past 20 years⁶ (2001–2021) in comparison to the cost of running a medical practice, which increased nearly 40% during that time. In other words, adjusting for inflation in practice costs, Medicare physician payment has fallen 22% over the last 20 years.⁷

Depending on your employment model, you may feel insulated from these changes as increases in reimbursement have occurred in other areas, such as hospitals and ambulatory surgery centers.⁸ In the short term, these increases help, as organizations will see additional funds. But there are 2 main issues: First, it is not nearly enough when you consider the soaring costs of running a hospital. And second, looking at our national population, we rely tremendously on self-employed doctors to serve our patients.

More than 80% of US counties lack adequate health care infrastructure.⁹ More than a third of the US population has less-than-adequate access to pharmacies, primary care physicians, hospitals, trauma centers, and low-cost health centers.⁹ To put things into perspective, more than 20% of counties in the United States are hospital deserts, where most people must drive more than 30 minutes to reach the closest hospital.⁹

There is good reason for this. Operating a hospital is a challenging endeavor. Even before the COVID-19 pandemic and the most recent health care financial challenges, most health care systems and large hospitals operated with very low operating margins (2%–3%). Businesses with similar margins include grocery stores and car



dealerships. These low-margin businesses, including health care, rely on high volume for sustainability. High patient volumes distribute expensive hospital costs over many encounters. If physicians cannot sustain practices across the country, it is challenging to have sufficient admission and surgical volumes to justify the cost base of hospitals.

To tie this together, we have very little influence on what we are paid for our services. Reimbursement is declining, which makes it hard to have financially sustainable practices. As hospitals struggle, there is more pressure to prioritize highly profitable service lines, like orthopedics and urology, which are associated with favorable technical revenue. As hospitals are threatened, health care deserts widen, which leaves our entire health care system in jeopardy. Not surprisingly, this most likely affects those who face additional barriers to access, such as those with lower income, limited internet access, and lack of insurance. Together, these barriers further widen disparities in health care outcomes, including outcomes for women. Additionally, this death by a thousand cuts has eroded morale and increased physician burnout.

Transforming how we practice medicine is the only viable solution. I have good news: You are the leaders you have been waiting for.

Physicians make good managers

To successfully transform how we practice medicine, it is critical that those leading the transformation deeply understand how medicine is practiced. The level of understanding required can be achieved only through years of medical practice, as a doctor. We understand how medical teams interact and that different sectors of our health care system are interdependent. Also, because physicians drive patient activity and ultimately reimbursement, having a seat at the table is crucial.

Some health care systems are run by businesspeople—people with finance backgrounds—and others are led by physicians. In 2017, *Becker's Hospital Review* listed the chief executive officers (CEOs) of 183 nonprofit hospital and health systems.¹⁰ Of these, only 25% were led by individuals with an MD. Looking at the 115 largest hospitals in the United States, 30% are physician led.¹⁰ Considering the top 10 hospitals ranked by *U.S. News & World Report* for 2022, 8 of 10 have a physician at the helm.

Beyond raters and rankers, physician-led hospitals do better. Goodall compared CEOs in the top 100 best hospitals in *U.S. News & World Report* in 3 key medical specialties: cancer, digestive disorders, and cardiac care.¹¹ The study explored the question: “Are hospitals’ quality ranked more highly when they are led by a medically trained doctor or non-MD professional managers?”¹¹ Analysis revealed that hospital quality scores are about 25% higher in physician-run hospitals than in manager-run hospitals.¹¹ Additional research shows that good management practices correlate with hospital performance, and that “the proportion of managers with a clinical degree has the largest positive effect.”¹²

Several theories exist as to why doctors make good managers in the health care setting.^{13,14} Doctors may create a more sympathetic and productive work environment for other clinicians because they are one of them. They have peer-to-peer credibility—because they have walked the walk, they

have insight and perspective into how medicine is practiced.

Physicians serve as effective change agents for their organizations in several ways:

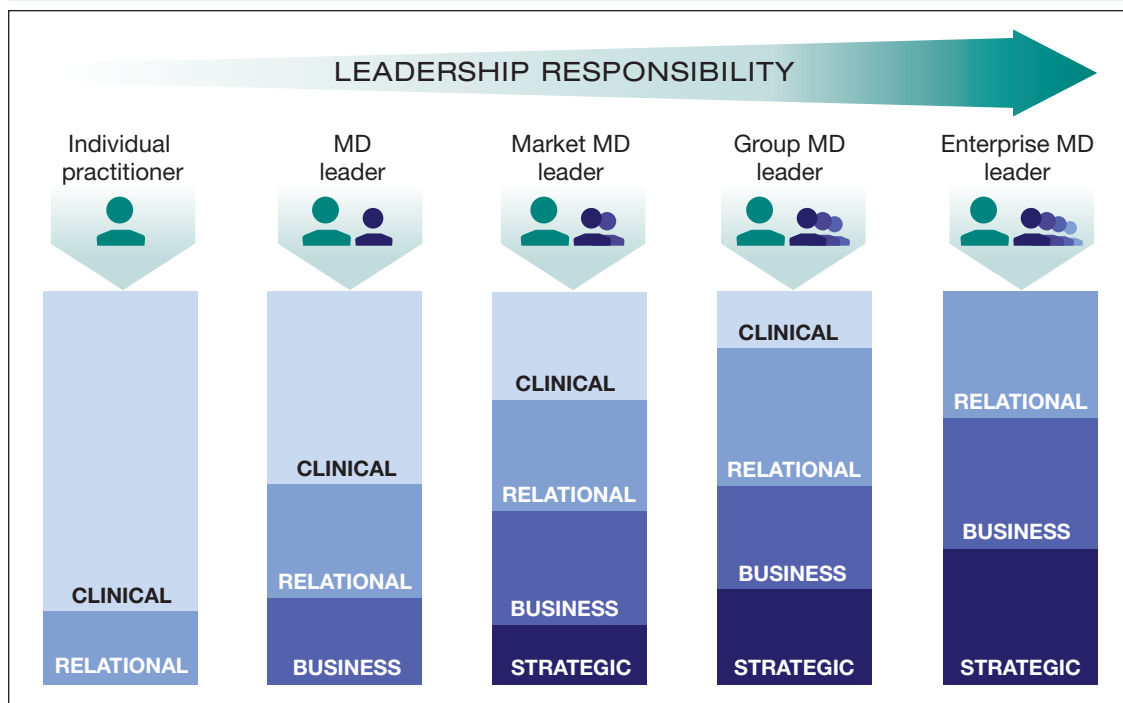
- First, physicians take a clinical approach in their leadership roles¹³ and focus on patient care at the center of their decisions. We see the people behind the numbers. Simply put, we humanize the operational side of health care.
- As physicians, we understand the interconnectivity in the practice of medicine. While closing certain service lines may be financially beneficial, these services are often closely linked to profitable service lines.
- Beyond physicians taking a clinical approach to leadership, we emphasize quality.¹³ Because we all have experienced complications and lived through bad outcomes alongside our patients, we understand deeply how important patient safety and quality is, and we are not willing to sacrifice that for financial gain. For us, this is personal. We don't see our solution to health care challenges as an “or” situation, instead we view it as an “and” situation.
- Physician leaders often can improve medical staff engagement.¹³ A 2018 national survey of physicians found that those who are satisfied with their leadership are more engaged at work, have greater job satisfaction, and are less likely to experience signs of burnout.¹⁵ Physician administrators add value here.

Surgeons as leaders

What do we know about surgeons as physician leaders? Looking at the previously mentioned lists of physician leaders, surgeons are relatively absent. In the *Becker's Hospital Review* study of nonprofit hospitals, only 9% of CEOs were surgeons.¹⁰ In addition, when reviewing data that associated physician leaders and hospital performance, only 3 of the CEOs were surgeons.¹¹ Given that surgeons make up approximately 19% of US physicians, we are underrepresented.

The omission of surgeons as leaders seems inappropriate given that most hospitals are financially reliant on revenue related to surgical care and optimizing this space is an enormous opportunity. Berger and colleagues offered 3 theories as to why there are fewer surgeon leaders¹⁶:

FIGURE Skills physician leaders need at different career stages¹⁸



- The relative pay of surgeons exceeds that of most other specialties, and there may be less incentive to accept the challenges presented by leadership roles. (I will add that surgeon leadership is more costly to a system.)
- The craftsmanship nature of surgery discourages the development of other career interests beginning at the trainee level.
- Surgeons have been perceived stereotypically to exhibit arrogance, a characteristic that others may not warm to.

This last observation stings. Successful leadership takes social skill and teamwork.¹⁴ Although medical care is one of the few disciplines in which lack of teamwork might cost lives, physicians are not trained to be team players. We recognize how our training has led us to be lone wolves or gunners, situations where we as individuals had to beat others to secure our spot. We have been trained in command-and-control environments, in stepping up as a leader in highly stressful situations. This part of surgical culture may handicap surgeons in their quest to be health care leaders.

Other traits, however, make us particularly great leaders in health care. Our desire to succeed, willingness to push ourselves to extremes,

ability to laser focus on a task, acceptance of delayed gratification, and aptitude for making timely decisions on limited data help us succeed in leadership roles. Seven years of surgical training helped me develop the grit I use every day in the C-suite.

We need more physician and surgeon leadership to thrive in the challenging health care landscape. Berger and colleagues proposed 3 potential solutions to increase the number of surgeons in hospital leadership positions¹⁶:

Nurture future surgical leaders through exposure to management training. Given the contribution to both expense in support services and resources and revenue related to surgical care, each organization needs a content expert to guide these decisions.

Recognize the important contributions that surgeons already make regarding quality, safety, and operational efficiency. An excellent example of this is the American College of Surgeons National Surgical Quality Improvement Program. Because surgeons are content experts in this area, we are primed to lead.

Hospitals, medical schools, and academic departments of surgery should recognize administrative efforts as an important part of the

overall academic mission. As the adage states, “No margin, no mission.” We need bright minds to preserve and grow our margins so that we can further invest in our missions.

This is not easy. Given the barriers, this will not happen organically. Charan and colleagues provided an outline for a leadership pathway adapted for physicians (FIGURE, page SS5).^{17,18} It starts with the individual practitioner who is a practicing physician and spends most of their time focused on patient care. As a physician becomes more interested in leadership, they develop new skills and take on more and more responsibility. As they increase in leadership responsibility, they tend to reduce clinical time and increase time spent on strategic and business management. This

framework creates a pipeline so that physicians and surgeons can be developed strategically and given increasing responsibility as they develop their capabilities and expand their skill sets.

The leadership challenge

To thrive, we must transform health care by changing how we practice medicine. As ObGyns, we are the leaders we have been waiting for. As you ponder your future, think of your current career and the opportunities you might have. Do you have a seat at the table? What table is that? How are you using your knowledge, expertise, and privilege to advance health care and medicine? I challenge you to critically evaluate this—and lead. ■

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Surgical volume and outcomes for gynecologic surgery: Is more always better?

An exploration of the association between surgeon and hospital volumes and patient outcomes, and the public health initiatives targeted at reducing perioperative morbidity and mortality—and their potential untoward consequences

Jason D. Wright, MD

Over the last 3 decades, abundant evidence has demonstrated the association between surgical volume and outcomes. Patients operated on by high-volume surgeons and at high-volume hospitals have superior outcomes.^{1,2} This relationship has provided a framework for a number of public health policies to try to align patients with appropriate providers and centers to optimize perioperative outcomes. In this article, we examine the volume-outcomes paradigm for gynecologic surgery and explore how this relationship is influencing patterns of care and policy.

Surgical volume in gynecology

The association between both hospital and surgeon volume and outcomes has been explored across a number of gynecologic procedures.³ A meta-analysis that included 741,000 patients found that low-volume surgeons had an increased rate of complications overall, a higher rate of intraoperative complications, and a higher rate of postoperative complications compared with high-volume surgeons. While there was no association between volume and mortality overall, when limited to gynecologic oncology studies, low surgeon volume was associated with increased perioperative mortality.³

While these studies demonstrated a statistically significant association between surgeon volume and perioperative outcomes, the magnitude of the effect is modest compared with other higher-risk procedures associated with greater perioperative morbidity. For example, in a large study that examined oncologic and cardiovascular surgery, perioperative mortality in patients who underwent pancreatic resection was reduced from 15% for low-volume surgeons to 5% for high-volume surgeons.¹ By contrast, for gynecologic surgery, complications occurred in 97 per 1,000 patients operated on by high-volume surgeons compared with between 114 and 137 per 1,000 for low-volume surgeons. Thus, to avoid 1 in-hospital complication, 30 surgeries performed by low-volume surgeons would need to be moved to high-volume surgeons. For intraoperative complications, 38 patients would need to be moved from low- to high-volume surgeons to prevent 1 such complication.³ In addition to morbidity and mortality, higher surgeon volume is associated with greater use of minimally invasive surgery, a lower likelihood of conversion to laparotomy, and lower costs.³

Similarly, hospital volume also has been associated with outcomes for gynecologic surgery.⁴ In a report of patients who underwent laparoscopic hysterectomy, the authors found that the complication rate was 18% lower for patients at high-versus low-volume hospitals. In addition, cost was lower at the high-volume centers.⁴ Like surgeon volume, the magnitude of the differential in

The author reports no financial relationships relevant to this article.

doi: 10.12788/obgm.0291

outcomes between high- and low-volume hospitals is often modest.⁴

While most studies have focused on short-term outcomes, surgical volume appears also to be associated with longer-term outcomes. For gynecologic cancer, studies have demonstrated an association between hospital volume and survival for ovarian and cervical cancer.⁵⁻⁷ A large report of centers across the United States found that the 5-year survival rate increased from 39% for patients treated at low-volume centers to 51% at the highest-volume hospitals.⁵ In urogynecology, surgeon volume has been associated with midurethral sling revision. One study noted that after an individual surgeon performed 50 procedures a year, each additional case was associated with a decline in the rate of sling revision.⁸ One could argue that these longer-term end points may be the measures that matter most to patients.

Although the magnitude of the association between surgical volume and outcomes in gynecology appears to be relatively modest, outcomes for very-low-volume (VLV) surgeons are substantially worse. An analysis of more than 430,000 patients who underwent hysterectomy compared outcomes between VLV surgeons (characterized as surgeons who performed only 1 hysterectomy in the prior year) and other gynecologic surgeons. The overall complication rate was 32% in VLV surgeons compared with 10% among other surgeons, while the perioperative mortality rate was 2.5% versus 0.2% in the 2 groups, respectively. Likely reflecting changing practice patterns in gynecology, a sizable number of surgeons were classified as VLV physicians.⁹

Public health applications of gynecologic surgical volume

The large body of literature on volume and outcomes has led to a number of public health initiatives aimed at reducing perioperative morbidity and mortality. Broadly, these efforts focus on regionalization of care, targeted quality improvement, and the development of minimum volume standards. Each strategy holds promise but also the potential to lead to unwanted consequences.

Regionalization of care

Recognition of the volume-outcomes paradigm has led to efforts to regionalize care for complex procedures to high-volume surgeons and centers.¹⁰ A cohort study of surgical patterns of care for Medicare recipients who underwent cancer resections or abdominal aortic aneurysm repair from 1999 to 2008 demonstrated these shifting practice patterns. For example, in 1999–2000, pancreatectomy was performed in 1,308 hospitals, with a median case volume of 5 procedures per year. By 2007–2008, the number of hospitals in which pancreatectomy was performed declined to 978, and the median case volume rose to 16 procedures per year. Importantly, over this time period, risk-adjusted mortality for pancreatectomy declined by 19%, and increased hospital volume was responsible for more than two-thirds of the decline in mortality.¹⁰

There has similarly been a gradual concentration of some gynecologic procedures to higher-volume surgeons and centers.^{11,12} Among patients undergoing hysterectomy for endometrial cancer in New York State, 845 surgeons with a mean case volume of 3 procedures per year treated patients

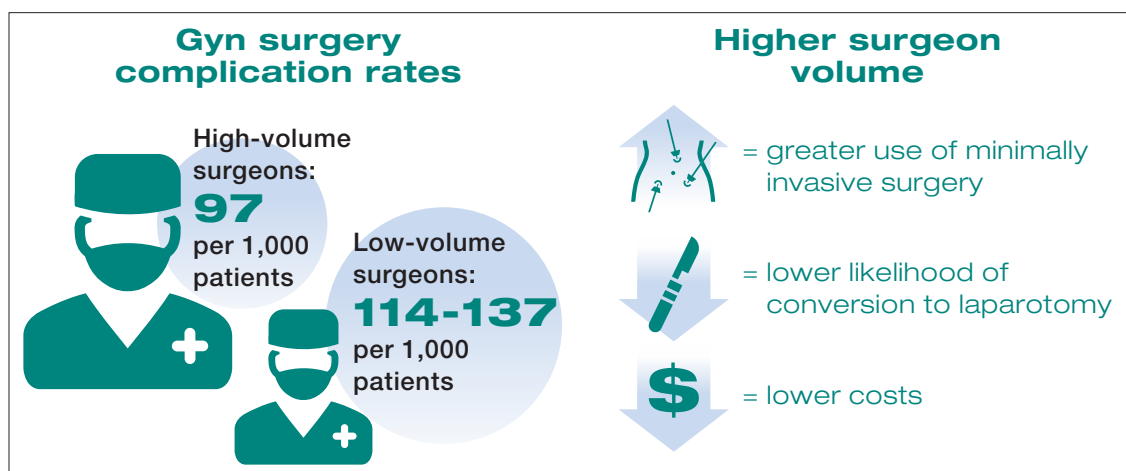
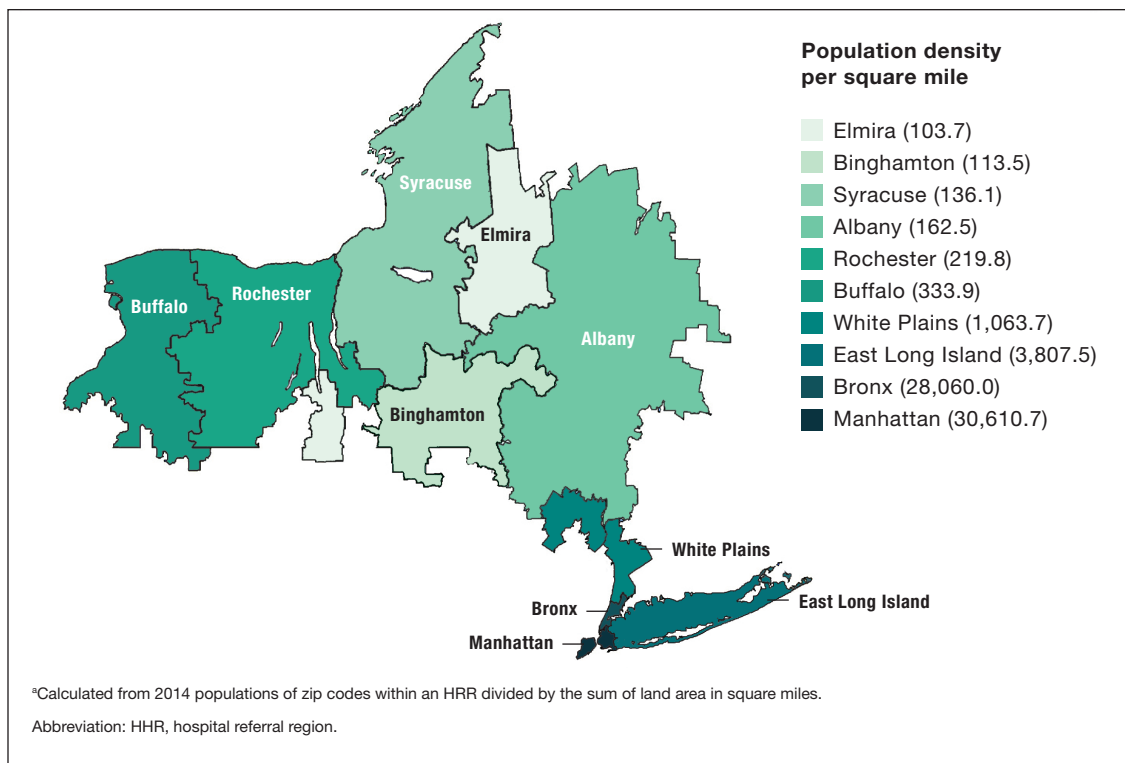


FIGURE 1 Hospital referral regions for hysterectomy care in New York State stratified by population density^{a,14}



in 2000. By 2014, the number of surgeons who performed these operations declined to 317 while mean annual case volume rose to 10 procedures per year. The number of hospitals in which women with endometrial cancer were treated declined from 182 to 98 over the same time period.¹¹ Similar trends were noted for patients undergoing ovarian cancer resection.¹² While patterns of gynecologic care for some surgical procedures have clearly changed, it has been more difficult to link these changes to improvements in outcomes.^{11,12}

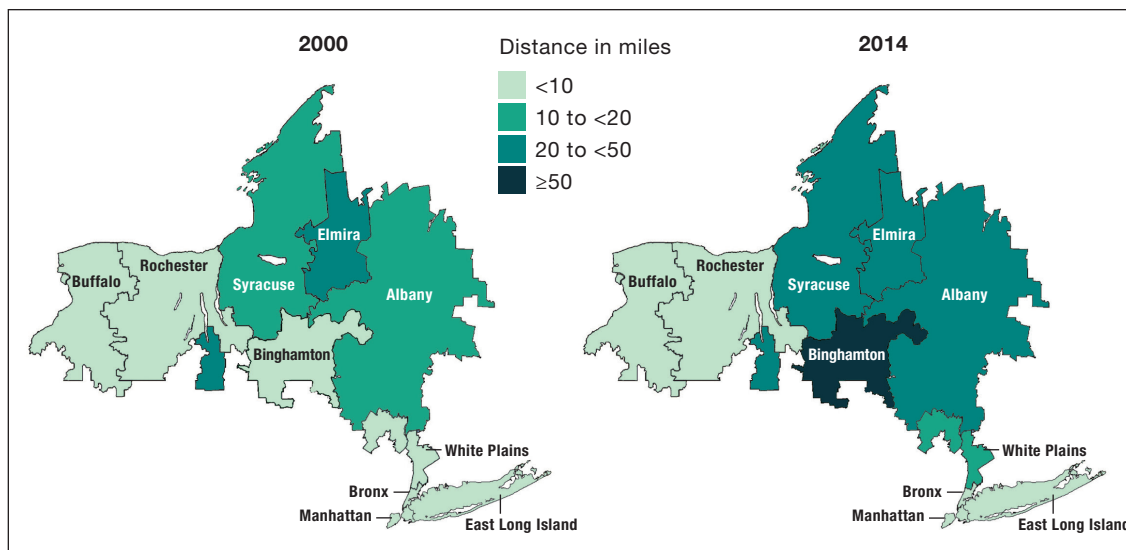
Despite the intuitive appeal of regionalization of surgical care, such a strategy has a number of limitations and practical challenges. Not surprisingly, limiting the number of surgeons and hospitals that perform a given procedure necessitates that patients travel a greater distance to obtain necessary surgical care.^{13,14} An analysis of endometrial cancer patients in New York State stratified patients based on their area of residence into 10 hospital referral regions (HRRs), which represent health care markets for tertiary medical care. From 2000 to 2014, the distance patients traveled to receive their surgical

care increased in all of the HRRs studied. This was most pronounced in 1 of the HRRs in which the median travel distance rose by 47 miles over the 15-year period (**FIGURE 1**; **FIGURE 2**, page SS10).¹⁴

Whether patients are willing to travel for care remains a matter of debate and depends on the disease, the surgical procedure, and the anticipated benefit associated with a longer travel distance.^{15,16} In a discrete choice experiment, 100 participants were given a hypothetical scenario in which they had potentially resectable pancreatic cancer; they were queried on their willingness to travel for care based on varying differences in mortality between a local and regional hospital.¹⁵ When mortality at the local hospital was double that of the regional hospital (6% vs 3%), 45% of patients chose to remain at the local hospital. When the differential increased to a 4 times greater mortality at the local hospital (12% vs 3%), 23% of patients still chose to remain at the local hospital.¹⁵

A similar study asked patients with ovarian neoplasms whether they would travel 50 miles to a regional center for surgery based on some

FIGURE 2 Change in median travel distance by patients with endometrial cancer in New York State to receive surgical care from 2000 to 2014 stratified by hospital referral region¹⁴



degree of increased 5-year survival.¹⁶ Overall, 79% of patients would travel for a 4% improvement in survival while 97% would travel for a 12% improvement in survival.¹⁶

Lastly, a number of studies have shown that regionalization of surgical care disproportionately affects Black and Hispanic patients and those with low socioeconomic status.^{12,13,17} A simulation study on the effect of regionalizing care for pancreatectomy noted that using a hospital volume threshold of 20 procedures per year, a higher percentage of Black and Hispanic patients than White patients would be required to travel to a higher-volume center.¹³ Similarly, Medicaid recipients were more likely to be affected.¹³ Despite the inequities in who must travel for regionalized care, prior work has suggested that regionalization of cancer care to high-volume centers may reduce racial and socioeconomic disparities in survival for some cancers.¹⁸

Targeted quality improvement

Realizing the practical limitations of regionalization of care, an alternative strategy is to improve the quality of care at low-volume hospitals.^{5,19} Quality of care and surgical volume often are correlated, and the delivery of high-quality care can mitigate some of the influence of surgical volume on outcomes.

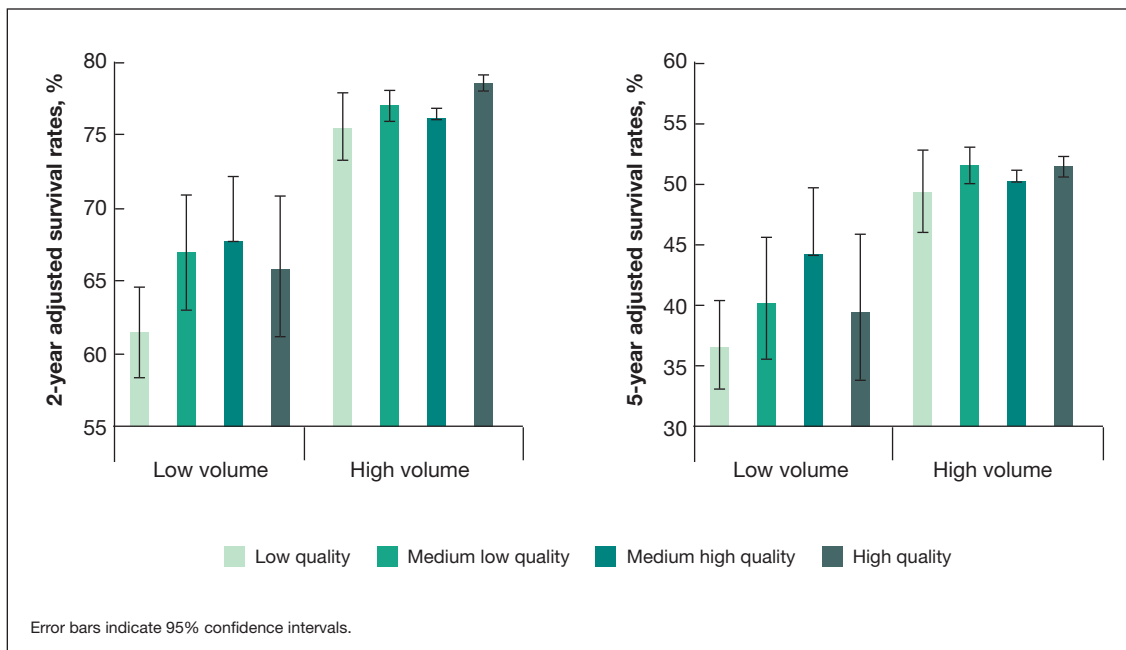
These principles were demonstrated in a study of more than 100,000 patients with ovarian cancer that stratified treating hospitals into volume quintiles.⁵ As expected, survival (both 2- and 5-year) was highest in the highest-volume quintile hospitals (**FIGURE 3**).⁵ Similarly, quality of care, measured through adherence to various process measures, was also highest in the highest-volume quintile hospitals. Interestingly, in the second-fourth volume quintile hospitals, there was substantial variation in adherence to quality metrics. Among hospitals with higher quality care, an improved survival was noted compared with lower quality care hospitals within the same volume quintile. Survival at high-quality, intermediate-volume hospitals approached that of the high-volume quintile hospitals.⁵

These findings highlight the importance of quality of care as well as the complex interplay of surgical volume and other factors.²⁰ Many have argued that it may be more appropriate to measure quality of care and past performance and outcomes rather than surgical volume.²¹

Minimum volume standards

While efforts to regionalize surgical care have gradually evolved, calls have been growing to formalize policies that limit the performance of some

FIGURE 3 2- and 5-year adjusted survival rates for low vs high annualized hospital volume and adherence to quality measures⁵



procedures to surgeons and centers that meet a minimum volume threshold or standard.²¹ One such effort, based on consensus from 3 academic hospital systems, was a campaign for hospitals to “Take the Volume Pledge.”²¹ The campaign’s goal is to encourage health care systems to restrict the performance of 10 procedures to surgeons and hospitals within their systems that meet a minimum volume standard for the given operations.²¹ In essence, procedures would be restricted for low-volume providers and centers and triaged to higher-volume surgeons and hospitals within a given health care system.²¹

Proponents of the Volume Pledge argue that it is a relatively straightforward way to align patients and providers to optimize outcomes. The Volume Pledge focuses on larger hospital systems and encourages referral within the given system, thus mitigating competitive and financial concerns about referring patients to outside providers. Those who have argued against the Volume Pledge point out that the volume cut points chosen are somewhat arbitrary, that these policies have the potential to negatively impact rural hospitals and those serving smaller communities, and that quality is a more appropriate metric than volume.²² The

Volume Pledge does not include any gynecologic procedures, and to date it has met with only limited success.²³

Perhaps more directly applicable to gynecologic surgeons are ongoing national trends to base hospital credentialing on surgical volume. In essence, individual surgeons must demonstrate that they have performed a minimum number of procedures to obtain or retain privileges.^{24,25} While there is strong evidence of the association between volume and outcomes for some complex surgical procedures, linking volume to credentialing has a number of potential pitfalls. Studies of surgical outcomes based on volume represent average performance, and many low-volume providers have better-than-expected outcomes. Volume measures typically represent recent performance; it is difficult to measure the overall experience of individual surgeons. Similarly, surgical outcomes depend on both the surgeon and the system in which the surgeon operates. It is difficult, if not impossible, to account for differences in the environment in which a surgeon works.²⁵

A study of gynecologic surgeons who performed hysterectomy in New York State demonstrates many of the complexities of volume-based

credentialing.²⁶ In a cohort of more than 55,000 patients who underwent abdominal hysterectomy, there was a strong association between low surgeon volume and a higher-than-expected rate of complications. If one were to consider limiting privileges to even the lowest-volume providers, there would be a significant impact on the surgical workforce. In this cohort, limiting credentialing to the lowest-volume providers, those who performed only 1 abdominal hysterectomy in the prior year would restrict the privileges of 17.5% of the surgeons in the cohort. Further, in this low-volume cohort that performed only 1 abdominal hysterectomy in the prior year, 69% of the surgeons actually had outcomes that were better than predicted.²⁶ These data highlight not only the difficulty of applying averages to individual surgeons but also the profound impact that policy changes could have on the practice of gynecologic surgery.

Volume-outcomes paradigm discussions continue

The association between higher surgeon and hospital procedural volume for gynecologic surgeries and improved outcomes now has been convincingly demonstrated. With this knowledge, over the last decade the patterns of care for patients undergoing gynecologic surgery have clearly shifted, and these operations are now more commonly being performed by a smaller number of physicians and at fewer hospitals.

While efforts to improve quality are clearly important, many policy interventions, such as regionalization of care, have untoward consequences that must be considered. As we move forward, it will be essential to ensure that there is a robust debate among patients, providers, and policymakers on the merits of public health policies based on the volume-outcomes paradigm. ■

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Gender and racial biases in Press Ganey patient satisfaction surveys

Are we collecting the best data, and enough of it, to evaluate physician performance based on patient satisfaction?

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Patient satisfaction questionnaires were developed in the 1980s as part of the movement to better understand the patient's experience and their perspective of the quality of care. In 1985, the Press Ganey survey—now the most widely used method to assess patient satisfaction—was developed by 2 professors in anthropology and sociology-statistics at Notre Dame. Initially intended for inpatient admissions, the survey was validated based on a few thousand survey results.¹ Given the strong interest in improving patient satisfaction at the time, it became widely adopted and quickly expanded into outpatient encounters and ambulatory surgery settings.

The authors report no financial disclosures related to this editorial.

doi: 10.12788/obgm.0294

Although other surveys have been developed,² the Press Ganey survey is the most commonly used assessment tool for patient satisfaction metrics in the United States, with approximately 50% of all hospitals and more than 41,000 health care organizations using its services.^{3,4} The survey consists of 6 domains related to satisfaction with:

1. the care provider
2. the nurse or assistant
3. personal issues
4. overall assessment
5. access
6. moving through the visit.

Survey items are scored using a 5-point Likert scale, with scores ranging from “very poor” (a score of 1) to “very good” (a score of 5). According to the company, because this format is balanced and parallel (unlike a “poor” to “excellent”

format), responses can be quantified and used statistically without violating methodologic assumptions. Also, variability in patients' responses with this format allows for the identification of opportunities to improve, unlike "yes/no" response formats.¹ There are limitations to this design, however, which can impact data quality,⁵ as we will see.

While the distribution process varies by institution, there is an algorithm laid out by Press Ganey for administering surveys to patients in their preferred language after outpatient visits. Based on recent research into Press Ganey response rates, the typical response rate is estimated to be 16% to 19%.⁶ Although this low response rate is typical of survey data, it inherently introduces the risk of responder bias—meaning results may be skewed by patients who represent the extremes of satisfaction or dissatisfaction.

Adoption of the survey as we move toward value-based care

More recently, patients' satisfaction with their health care has received increased attention as we move to a patient-centered care model and as health care reimbursement models shift toward value-based care. Current trends in health care policy statements include the importance of raising the standard of care and shifting from a "fee-for-service" to a "pay-for-performance" reimbursement model.^{7,8} As a result, hospitals are establishing systems to measure "performance" that are not nationally standardized or extensively studied with objective measures. The changing standard of health care expectations in the United States is a topic of much public debate.⁹ And as expectations and new standards are defined, the impact of implementing novel measures of performance should be evaluated prior to widespread adoption and utilization.

Patient satisfaction also has been identified as a driver for hospital finances through loyalty, described as the "likelihood to return to that system for future medical services."^{10,11} This measure has contributed to policy changes that reinforce prioritization of patient satisfaction. For example, the Affordable Care Act tied Medicare reimbursement and patient satisfaction together in the Hospital Value-Based Purchasing Program. This program uses measures of clinical processes, efficiency,

outcomes, and patient experiences to calculate a total score that results in hospital reimbursement and incentives,¹² which creates a direct pathway from patient experience to reimbursement—underscoring hospitals' desire for ongoing assessment of patient satisfaction.

Gender, race, and age bias

Although the rationale behind gathering patient input is important, recent data suggest that patient satisfaction surveys are subject to inherent biases.^{6,13,14} These biases tend to negatively impact women and non-White physicians, adding to the systemic discrimination against women and physicians of color that already exists in health care.

In a single-site retrospective study performed in 2018 by Rogo-Gupta et al, female gynecologists were found to be 47% less likely to receive top patient satisfaction scores than their male counterparts owing to their gender alone, suggesting that gender bias may impact the results of patient satisfaction questionnaires.¹³ The authors encouraged that the results of patient satisfaction surveys be interpreted with great caution until the impact on female physicians is better understood.

A multi-center study by the same group (Rogo-Gupta et al) assessed the same construct across 5 different geographically diverse institutions.¹⁵ This study confirmed that female gynecologists were less likely to receive a top satisfaction score from their patients (19% lower odds when compared with male gynecologists). They also studied the effects of other patient demographics, including age, race/ethnicity, and race concordance. Older patients (aged ≥ 63 years) had an over-3-fold increase in odds of providing a top satisfaction score than younger patients. Additionally, Asian physicians had significantly lower odds of receiving a top satisfaction score when compared with White physicians, while Asian patients had significantly lower odds of providing a top satisfaction score when compared with White patients. Lastly, in most cases, when underrepresented-in-medicine patients saw an underrepresented-in-medicine physician (race concordance), there was a significant increase in odds of receiving a top satisfaction score. Asian race concordance, however, actually resulted in a lower likelihood of receiving a top satisfaction score.¹⁵

Literature from other specialties supports these findings.

These results are consistent with emerging data from other medical specialties that also suggest that Press Ganey survey data are subject to inherent biases. For example, data from emergency medicine literature have shown discrepancies between patient satisfaction for providers at tertiary inner-city institutions versus those in affluent suburban populations,¹⁶ and that worse mortality is actually correlated with better patient satisfaction scores, and vice versa.¹⁷

Another study by Sotto-Santiago in 2019 assessed patient satisfaction scores in multiple specialties at a single institution where quality-related financial incentives were offered based on this metric. They found a significant difference in patient satisfaction scores between underrepresented and White physicians, which suggests a potential bias among patients and institutional practices—ultimately leading to pay inequities through differences in financial incentives.¹⁸

Percentile differences reveal small gaps in satisfaction ratings

When examining the difference between raw Press Ganey patient satisfaction data and the percentiles associated with these scores, an interesting finding arises. Looking at the 2023 multicenter study by Rogo-Gupta et al, the difference in the top raw scores between male and female gynecologists appears to be small (3.3%).¹⁵ However, in 2020, the difference in top scores separating the top (75th) and bottom (25th) percentile quartiles of physicians was also small, at only 6.9%.

Considering the percentiles, if a provider who scores in the 25th percentile is compared with a colleague who scores in the 75th percentile, they may think the reported satisfaction score differences were quite large. This may potentially invoke feelings of decreased self-worth, negatively impact their professional identity or overall well-being, and they may seek (or be told to seek) improvement opportunities. Now imagine the provider in question realizes the difference between the 25th percentile and 75th percentile is actually only 6.9%. This information may completely change how the results are interpreted and acted upon by administrators. This is further changed with the understanding that 3.3% of the difference may be due to gender alone,

narrowing the gap even further. Providers would become understandably frustrated if measures of success such as reimbursement, financial bonus or incentives, promotion, or advancement are linked to these results. It violates the value of fairness and does not offer an equitable starting point.

Evolution of the data distribution. Another consideration, as noted by Robert C. Lloyd, PhD, one of the statisticians who helped develop the percentile statistical analysis mapping in 1985, is that it was based on a classic bell-shaped distribution of patient satisfaction survey scores.¹⁹ Because hospitals, medical groups, and physicians have been working these past 20 years to achieve higher Press Ganey scores, the data no longer have a bell-shaped distribution. Rather, there are significant clusters of raw scores at the high end with a very narrow response range. When these data are mapped to the percentile spectrum, they are highly inaccurate.¹⁹

Impact of sample size. According to Press Ganey, a minimum of 30 survey responses collected over the designated time period is necessary to draw meaningful conclusions of the data for a specific individual, program, or hospital. Despite this requirement to achieve statistical significance, Sullivan and DeLucia found that the firm often provides comparative data about hospital departments and individual physicians based on a smaller sample size that may create an unacceptably large margin of error.²⁰ Sullivan, for example, said his department may only have 8 to 10 Press Ganey survey responses per month and yet still receives monthly reports from the company analyzing the data. Because of the small sample size, 1 month his department ranked in the 1st percentile and 2 months later it ranked in the 99th percentile.²⁰

The effect of a high ceiling rate. A psychometrics report for the Press Ganey survey is available from the vendor that provides vague assessments of reliability and validity based on 2,762 surveys from 12 practices across 10 states. This report describes a 12-question version of the survey with “no problems encountered” with missingness and response variability. The report further states that the Press Ganey survey demonstrates construct, convergent, divergent, and predictive validities, and high reliability; however, these data are not made available.¹

In response to this report, Presson et al analyzed more than 34,000 surveys from one institution to evaluate the reliability and validity of the Press Ganey survey.²¹ Overall, the survey demonstrated suitable psychometric properties for most metrics. However, Presson et al noted a significantly high ceiling rate of 29.3% for the total score, which ranged from 55.4% to 84.1% across items.²¹ (Ceiling rates are considered substantial if they occur more than 20% of the time.) Ultimately, a high ceiling rate reduces the power to discriminate between patients who have high satisfaction (everyone is “happy”) with those who are just slightly less than happy, but not dissatisfied. This data quality metric can impact the reliability and validity of a survey—and substantial ceiling rates can notably impact percentile rankings of scores within an institution, offering a possible explanation for the small percentage change between the top and bottom percentiles.

Other issues with surveys

In addition to the limitations associated with percentile groupings, survey data are always subject to nonresponse bias, and small sample size can lead to nonsignificant results. Skewed responses also can make it difficult to identify true outlying providers who may need remediation or may be offering a superior patient experience. Satisfaction surveys also lack an assessment of objective data and instead assess how patients perceive and feel, which introduces subjectivity to the results.

Additionally, focusing on improving patient experience ratings can incentivize unnecessary or inappropriate care (ie, overprescribing of narcotics, prescribing antibiotics when not indicated, or ordering testing that may not change management). Some physicians even state that they are not getting the type of feedback that they are asking for and that the survey is not asking the right questions to elicit patient input that is meaningful to their practice. Lastly, the incorporation of trainees and advanced practice providers in the patient care experience leads to the assessment of an alternative provider being included in the ultimate score and may not be representative of that physician.

Patients’ perception and survey results. In some circumstances, the patient’s understanding of their medical situation may affect their responses. Some may argue that patients may mistake a

physician’s confidence for competence, when in reality these two entities are mutually exclusive. In a randomized controlled trial, researchers from Mount Sinai School of Medicine and Columbia University Medical Center surveyed inner-city women with newly diagnosed and surgically treated early-stage breast cancer for their perceived quality of care and the process of getting care, including referrals, test results, and treatments. They compared the responses with patient records to determine the actual quality of care. Of the 374 women who received treatment for early-stage breast cancer, 55% said they received “excellent care,” but most—88%—actually got care that was in line with the best current treatment guidelines. Interestingly, the study found African American women were less likely to report excellent care than White or Hispanic women, less likely to trust their doctor, and more likely to say they experienced bias during the process. However, there was no difference in actual quality of care received in any group.²²

You can’t improve what you can’t control. Ultimately, while many providers think patient satisfaction survey results may help inform some aspects of their practice, they cannot improve what they cannot control. For example, the multicenter study by Rogo-Gupta et al found that older patients (≥ 63 years) have more than a 3-fold increase in odds of giving a top satisfaction score than younger patients (≤ 33 years), independent of other aspects of the care experience.¹⁵ Additionally, they found that older physicians (≥ 56 years) had a significant increase in odds of receiving a top satisfaction score when compared with physicians who were younger than 55 years old.¹⁵ Given that physicians clearly cannot control their own age or the age of their patients, the negative impacts of these biases need to be addressed and remedied at a systems level.

Why might these biases exist?

While we cannot completely understand all of the possible explanations for these biases, it is important to emphasize the long-standing prejudice and discrimination against women and people of color in our society and how this has impacted our behavior. While strides have been made, there clearly still seems to be a difference between what we say and how our biases impact our behavior. Women are still tougher on women in professional

evaluations in other fields as well²³; it is not unique to medicine. While workplace improvements are slowly changing, women still face inequities. The more research we publish to describe it, the more we hope the conversation continues, allowing us to reduce the impact of bias on our sense of self-worth and identity related to our careers, narrow the pay gap, and see women advance at the same rate as male counterparts. Considerable transformation is crucial to prevent further workforce attrition.

With regard to the lower scores provided by Asian patients, studies suggest that cultural response bias, rather than true differences in quality of care, may account for these discrepancies. Previous literature has found that Asian patients are more likely to select midpoints, rather than extremes, when completing Likert-type studies²⁴ and are not more likely to change medical providers than other race/ethnicities, indicating that lower ratings may not necessarily imply greater dissatisfaction with care.²⁵

Far-reaching effects on finances, income, well-being, job satisfaction, etc.

Depending on how the results are distributed and used, the effects of patient satisfaction surveys can extend well beyond the original intentions. At some institutions, income for physicians is directly tied to their Press Ganey satisfaction scores, which could have profound implications for female and Asian physicians,^{13,15} who would be paid less—resulting in a wider pay gap than already exists.¹⁸

When negative and not constructive, patient evaluations can contribute to physician burnout and a loss of productive members of the workforce.²⁶ This is especially important in obstetrics and gynecology, where physicians are most likely to experience burnout due to multiple factors such as high-risk medical conditions, pressures of the electronic medical record (EMR), the medicolegal environment, and difficulty balancing patient expectations for autonomy with professional judgment.²⁷ Burnout also disproportionately affects women and younger physicians, which is especially concerning given that, in 2017, approximately one-third of practicing obstetrician/gynecologists were women, while that same year more than 80% of trainees matching into the field were women.²⁸ In

Another commonly used patient satisfaction survey

In 2005, the Centers for Medicare and Medicaid Services and the Agency for Health care Research and Quality developed the Hospital Consumer Assessment of Health care Providers and Systems (HCAHPS) survey in response to criticisms of the Press Ganey survey. The HCAHPS survey consists of 27 questions with 3 broad goals¹⁹:

- to produce data about patients' perspectives of care that allow for objective and meaningful comparisons of hospitals
- to publicly report survey results and create new incentives for hospitals to improve quality of care
- to produce public reports that enhance accountability by increasing transparency.

One difference with the HCAHPS is that it measures frequency, or how often a service was performed (“never”, “sometimes”, “usually”, “always”), whereas Press Ganey measures satisfaction. It also only surveys inpatients and does not address outpatient encounters. Despite the differences, it is a widely used patient satisfaction survey and is subject to similar issues and biases as the Press Ganey survey.

one survey sent to members of a prominent medical society, 20% of the medical professionals who responded said they have had their employment threatened by low patient satisfaction scores, 78% reported that patient satisfaction surveys moderately or severely affected their job satisfaction, and 28% stated they had considered quitting their job or leaving the medical profession.²⁹

Another related effect is the association between malpractice proceedings and a lack of satisfaction with perceived quality of physician-patient communication.³⁰ This may be an important determinant of malpractice lawsuits, and ensuring high patient satisfaction may be a form of defensive medicine.

Controlling the narrative for the future: Proposed strategies

The rapid, widespread adoption of the Press Ganey survey across specialties, clinical care settings, and geographic areas may have been largely due

to the ease and operational benefits for hospitals rather than after rigorous study and validation. For example, repeated use of a specific measurement tool may facilitate comparison across areas within a hospital but also across institutions, which can help assess performance at a national level. Hospitals also may have a financial incentive to work with a single third-party or vendor instead of using multiple options across multiple vendors. However, the impact of adoption of novel measures of performance should be evaluated prior to widespread adoption and utilization.

A similar example of an emergence of a technological advancement that has changed the field of medicine and how we provide care is the EMR. Epic is now the most commonly used medical record system and holds the market share of the industry, covering 78% of patients in the United States.³¹ While there are certainly many potential benefits of a common EMR, such as ease of information sharing and standardization of formatting, opportunities are identified in real time and require product adjustment. For example, modifications have been made to accurately represent gender outside of the previously used dichotomous options. Diagnoses such as cervical cancer screening can now be used even if the patient gender is listed as male.

Similarly, the Press Ganey and other patient satisfaction questionnaires should be evaluated and modified to address existing societal biases. The World Health Organization estimates that it will take 300 years to fix gender inequality,³² but we have an opportunity now to control the narrative and improve patient feedback.

Future research avenues

Ultimately, there is a need to further explore currently available methods of evaluating clinical encounters to better understand the inherent biases and limitations. We hope this review will encourage other physicians to examine their specialties and hospitals and require similar analyses from vendors of such satisfaction rating products prior to using them. At the very least, health systems should be willing to partner with vendors and

Proposed strategies to address bias in patient satisfaction surveys

- Appeal to the Press Ganey corporation with the results of recent data and other studies to ensure they are aware of the biases that exist in their product
- Appeal to hospital-level administration to refrain from using Press Ganey scores as a tool to dictate reimbursement; instead rely on other more objective measures of performance (such as publications, presentations, research accomplishments, patient and surgical outcomes, promotion, committees, national leadership roles, etc)
- Apply a “corrective factor” or “adjustment factor” to eliminate the baseline discrepancy between scores for men and women
- Consider moving to an alternative survey methodology
- Provide patient education to define “performance” (ie, frame what a patient can expect from a provider such as being on time, courteous, and empathetic; caution against asking patients to assess competence and knowledge)

physicians on an ongoing basis to better understand the biases involved in these survey results and make modifications as needed. Patients also obtain information from and contribute to self-reported, publicly available websites; therefore, additional exploration into a nationalized standard for assessing patient satisfaction also may serve as an opportunity to standardize the information patients evaluate.³³ Further assessment of the potential financial and emotional impact of using the currently available patient-reported surveys on female physicians, Asian physicians, young physicians, and physicians who see young patients is needed. It is time to put pressure on a broken patient satisfaction system and improve on a national level to avoid undue negative consequences on our physicians. Use of patient satisfaction survey data should be limited until we all understand and account for the biases that are evident. ■

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