FRONT LINE OF HEALTHCARE REPORT 2015

The shifting US healthcare landscape by the numbers

BAIN & COMPANY

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The authors wish to give special thanks to Ben King for his work on this report and to the team he led, including Gautham Iyer, Lauren Brom, Julie Berez, Lauren Christman and Prilla Schenck. Additional thanks to Jason Schechter for his research, Gary Dispensa for his guidance and Linda Bergthold for her editorial support.

Contents

By the numbers: The shifting US healthcare landscape

- Of physicians who changed employment in the past five years, **72%** now work in large management-led organizations.

- Physicians across the country report that, in the last two years, use of electronic medical records has **nearly tripled** and use of treatment protocols has **more than doubled.**

- Pace of change differs across regions given wide variation in local market evolution. For example, use of electronic records and treatment protocols is **28%** and **11% higher,** respectively, in Massachusetts than in Mississippi and Alabama.

- Physicians in management-led organizations are less satisfied than those in physician-led organizations, giving an employee Net Promoter Score® of **–13 vs. 19.**

- Physicians have less control over devices they use and drugs they prescribe. In the last three years, the percentage of surgeons who state that procurement officers influence most of the purchasing decisions for devices has more than **doubled,** and **65%** of physicians say formularies limit their prescribing decisions.

- Sales reps' roles are declining in importance for sectors with low innovation or complexity: **26% fewer** physicians identify pharma sales reps as a top information source vs. three years ago.

- Reliance on sales reps varies by segment (specialty, organization and region): **69%** of surgeons in Alabama and Mississippi rate sales reps as one of their top sources of information, compared with only **31%** in Massachusetts.

- Category leadership matters; in **all** of the pharma and medtech categories covered in the survey, the revenue leader of a category also had the highest Net Promoter Score.

Executive summary

For those working on the front line of US healthcare, the pace of change must seem unrelenting. Powerful forces are affecting physician practice and healthcare institutions, and this has major implications for how we pay for care, how physicians make decisions and deliver care, and how organizations purchase and use drugs and devices. Although we have been talking about change for decades, this time, the trends may be irreversible.

To better explain the magnitude of these changes, in 2015, Bain & Company fielded a national survey of 632 physicians across specialties and 100 hospital procurement administrators in the US. (For a complete description of the methodology and the questions asked in the survey, see the Appendix.) This survey updates our 2011 Physician Attitudes Survey, which is discussed in the Bain publication "The new cost-conscious doctor: Changing America's healthcare landscape."

Our latest survey confirmed what we have long assumed to be true: The dynamics of change vary substantially across different regions of the country. To highlight these differences, we oversampled two regions that have distinct market characteristics—Massachusetts and Mississippi/Alabama. As we expected, in states like Massachusetts, the pace of change is faster because of several factors: more competition among payers and provider organizations, and an activist policy and regulatory environment that promotes change.

Other than the strong regional differences, the most provocative findings were the speed of change since our last survey; the growing dissatisfaction of physicians working in management-led organizations; the accelerated loss of autonomy over clinical decision making; the increasing number of surgeons who report that procurement departments exert more influence now than ever over purchasing decisions; and, for some segments of the market, the corresponding relative decline in the role of the sales representative as an information source on new products.

In this chart digest, we present the results of our survey and outline the implications for three sectors: care financing and delivery, medtech and pharma. We begin each chapter with our key findings, then illustrate the most significant survey responses with charts.

The financing and delivery of healthcare is becoming more systemized

While healthcare costs have slowed, in part due to macroeconomic forces, per capita costs have not decreased. Nonetheless, the effort to drive down costs and increase quality has led to a trend toward consolidation and more professionally managed organizations in many regions of the country. These organizational shifts have produced changes along a number of dimensions: increasing use of standardized clinical protocols and electronic medical records, more objective metrics for measuring clinical performance, payment models that put providers at risk for outcomes and a shift in physicians' perceptions of their own responsibility for cost. In order to better demonstrate the totality of these changes, we combined these dimensions into what we call a "systemization index" (*see Figure 1*).

Larger-scale, more systematic changes are occurring, partially because previous efforts to wring out excessive cost from the system through incremental measures have been ineffective. Although the environment was already forcing change, the Affordable Care Act has certainly served as a significant catalyst to transform a delivery system that has been largely unaccountable and fragmented.

Survey respondents report that systemization has produced compelling challenges for them individually and for their organizations. These organizations are struggling to identify optimal operating models by testing new strategies and managing massive organizational transformation, all while trying to keep their clinicians engaged and aligned with their mission.

When we asked physicians how their use of analytic and clinical tools has changed over time, they responded that over the last two years, use of electronic medical records (EMRs) has **nearly tripled** and use of treatment protocols has more than doubled, although there are differences by region and organization type, which we highlight later on. And **the percentage of physicians reporting a personal responsibility to control costs has more than doubled from a decade ago.**

The trend toward larger, professionally managed organizations has also increased physicians' ability and willingness to move from smaller independent practices to larger health systems. Why? The complexity of change and decreasing reimbursement are making private practice simultaneously more frustrating and more risky. In addition, larger systems are very interested in acquiring practices to add new access points to their overall network of care. Of physicians who switched their place of employment in the last five years, **72% report moving into larger organizations with more professional management in hopes of attaining more career sustainability**—stable compensation, less risk and higher earning potential. These management-led organizations (groups owned by health systems or independent physician groups of more than 70 full-time employees) have also been leading the charge on transforming the care model. For example, in addition to increased use of electronic medical records and treatment protocols, **use of treatment teams (such as care coordinators, case managers and medical homes) has more than doubled in the past two years.**

Another dimension of systemization is the increased pressure payers are exerting on physicians and their organizations to implement risk-based payment models, like bundled payments, shared savings and capitated payments, and utilize clinical tools, such as predictive analytics or comparative effectiveness data. We found that **use of these new payment approaches has increased to 69% in management-led organizations, but only to 55% in physician-led organizations.** Physicians' age is a factor in the uptake of these payment models and clinical tools as well. Younger, newly minted physicians who have been out of medical school for fewer than 15 years are considerably more likely to work in management-led organizations and use the newer tools to manage the care of their patients.

Regional differences emerged in almost every aspect of the survey. The use of electronic records and treatment protocols, for example, is higher by **28%** and **11%**, respectively, in Massachusetts than in Mississippi and Alabama. And **in Mississippi and Alabama, physicians are 20% less likely than those in Massachusetts to report that their organization uses risk-based payment models.** There are clear differences in the degree to which physicians in these states use metrics and other clinical tools as well.

Even though more physicians are working in larger, more professionally managed organizations around the US, they do not always feel aligned with their organization's mission. Our survey results show that physicians are moving into these organizations for stability, but they have lower levels of job satisfaction in management-led organizations. Satisfaction can be difficult to measure, so we used a tested indicator of satisfaction, the Net Promoter Score℠, which was developed by Bain & Company and measures whether or not physicians would recommend their organization to someone else as a place to work or to receive care. (A positive Net Promoter Score℠ indicates physicians' loyalty and support for their organization, while a negative score shows the opposite). **We found that physicians working in management-led systems of care are significantly less likely than those in physician-led organizations to recommend their organization to others.** One explanation may be that physicians in management-

Stronger engagement of clinical staff is most important change physicians feel is needed in their organization

What is the most important change your organization needs to make in order to achieve its mission?

Responses from physicians in management-led organizations

Note: Responses from physicians in management-led organizations
Source: Bain Front Line of Healthcare Survey, January 2015

led organizations also report having less knowledge of their organization's mission and being less engaged in the organization's activities. This could be a discouraging finding for these larger health systems, but there is a silver lining: **When management-led organizations take the time to engage physicians effectively, their Net Promoter Score rises dramatically, from –50 to 20.**

What do these changes mean for healthcare financing and delivery organizations?

The rapid but variable pace of change in many places around the country confirms the need for healthcare delivery systems and payers to tailor their business strategies to the local market while also transforming their operating models to improve the odds of implementation success. In particular, payers need to be confident that when they shift financial risk to providers, they have the right providers with the right tools in place. Delivery systems will undoubtedly continue to merge with or acquire new entities, so mobilizing and building alignment across the entire system will be critical for success. The most important factor in building alignment between clinicians and management is engaging clinical leaders from the start at every level in the change process. As simple as this sounds, it takes a singular focus on the part of the organization's leaders to make it happen.

The systemization of care has a direct impact on medtech and pharma manufacturers

These changes in healthcare cascade down the entire supply chain. As delivery systems become larger and more complex, decisions become more focused on outcomes and economics. Both surgeons and nonsurgical physicians

report a loss of autonomy in the decision-making process, whether the decision is about which device to purchase or which drug to prescribe.

Centralized purchasing in healthcare organizations has been happening over a decade, but our results show that increasing use of preferred vendor lists by procurement departments is rapidly reducing the number of available products and putting lower-share players at risk. In fact, 40% of surgeons report they no longer use a product simply because it is not available at their hospital. **The percentage of surgeons reporting that their procurement department makes most of the purchasing decisions for tools and devices has doubled in the past three years.**

As decision making shifts away from physicians to decisions shared with the procurement department, **two-thirds of surgeons report they are pressured to go along with their hospital's purchasing guidelines. Not surprisingly, procurement officers see it differently.** Only half as many believe surgeons are pressured to cooperate. Surgeons and procurement are not always at odds, however. They overwhelmingly agree that reliability and clinical evidence are important purchasing criteria, but they diverge again on the importance of price—only 53% of surgeons believe lowest price should be an important or a very important purchasing criterion, compared with 72% of procurement officers.

This decline of physician autonomy in decision making is also reflected in the pharmaceutical sector. Other than selected specialists such as oncologists, whose discretion over prescribing remains relatively stable because of the highly differentiated and high-impact nature of the drugs they use, physicians report more restrictions on the drugs they can prescribe. They report that there are more hoops to jump through to gain approval for the more expensive products. **Two-thirds of physicians say that formularies limit their decision making,** and about half feel those formularies affect the quality of care they are able to provide to patients.

These shifts in decision-making power also have implications for where physicians and surgeons obtain information about new products. Traditionally, sales representatives have been a common and highly valued source of information. Increasingly, though, we find that physicians rely on manufacturer websites, academic journals and conferences. **Only 41% of physicians in our survey report that sales reps are one of their top three sources of information about a new drug, compared with 56% three years ago.** This is also true for medical devices, with 48% of surgeons reporting that sales reps are an important source of information, down from 59% three years ago.

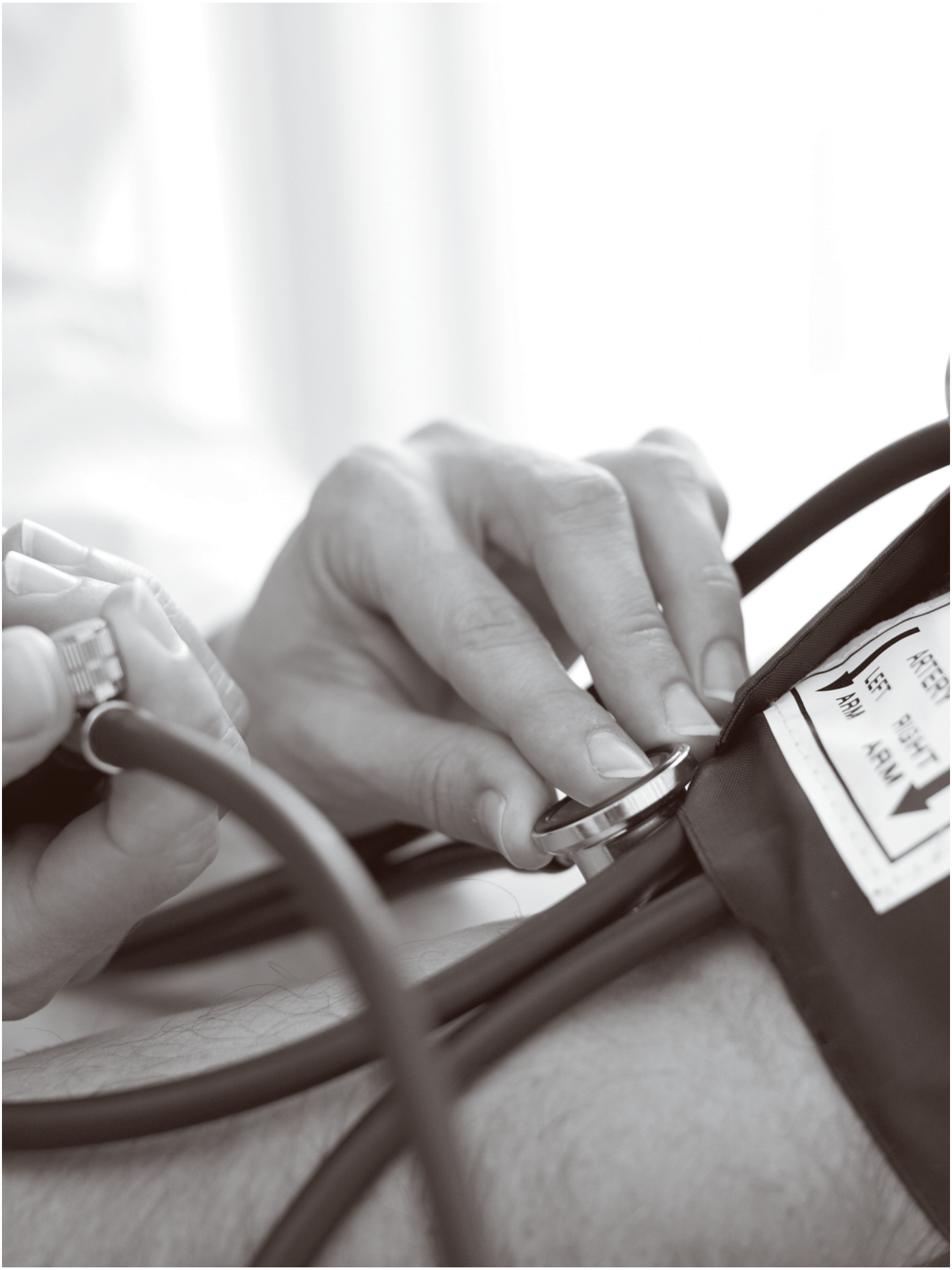
Sales reps are not entirely out of business, however. The dependence on reps varies by physicians' age, specialty, type of organization and region. **Of surgeons in Alabama and Mississippi, 69% rate sales reps as one of their top sources of information, compared with only 31% in Massachusetts.** More experienced physicians, orthopedic surgeons and cardiologists, or those who are self-employed, also report a higher reliance on sales representatives.

In a world of intense competition, how do manufacturers differentiate themselves to physicians, surgeons and procurement officers? **Companies whose category leadership is strong**—that is, companies with the largest market share within a physician's area of specialty—**had the highest Net Promoter Scores** and were more likely to be identified as the company best positioned to meet unmet needs. In other Bain research, we found that category leadership generates clear benefits and better financial performance. Our survey reinforces those findings: Physicians are most likely to recommend the leader in a category and view that company as the innovation leader—a dynamic that continues to strengthen the position of those that are able to achieve and sustain leadership.

What do these changes mean for medtech and pharma companies?

Medtech and pharma companies know that the purchase and sale of drugs and devices is becoming more competitive and centralized in hospitals and drug benefit plans. Our survey results show that surgeons still have discretion in the decision-making process, but procurement departments have increasing power as economics becomes an increasingly important criterion. Sales representatives will need to adapt to serve a more sophisticated customer, although their role still varies by segment, medical specialty and market. To meet these new challenges, manufacturers will need to develop more sophisticated and flexible go-to-market models that reflect these regional and practice differences. The winners will be those product companies that can achieve flexibility while minimizing the complexity of their operating model. Manufacturers should note that category leadership continues to matter more than breadth in a company's portfolio when it comes to loyalty and advocacy.

Change is a given ... but what direction will change take, and how will it affect those on the front line? Uncertainty is also a given, with questions about policy, payment and pace dominating the discussion. Will payers and procurement departments continue to emphasize economic decision making, or will we see a slowdown or even a backlash? Will organizations grow and merge more rapidly, or will physicians retreat to individual and small group practices? Bain will continue to conduct periodic surveys to measure what is happening on the front line of healthcare in order to help companies adjust and compete.


ARTERY
LEFT ARM
RIGHT ARM

1.

Care financing and delivery

- Strong macro trends—increased cost pressure, new government regulation, rapid technological innovation—continue to drive changes in healthcare delivery. One critical outcome has been the systemization of care, with larger, management-led delivery organizations providing more integrated and evidence-based care.

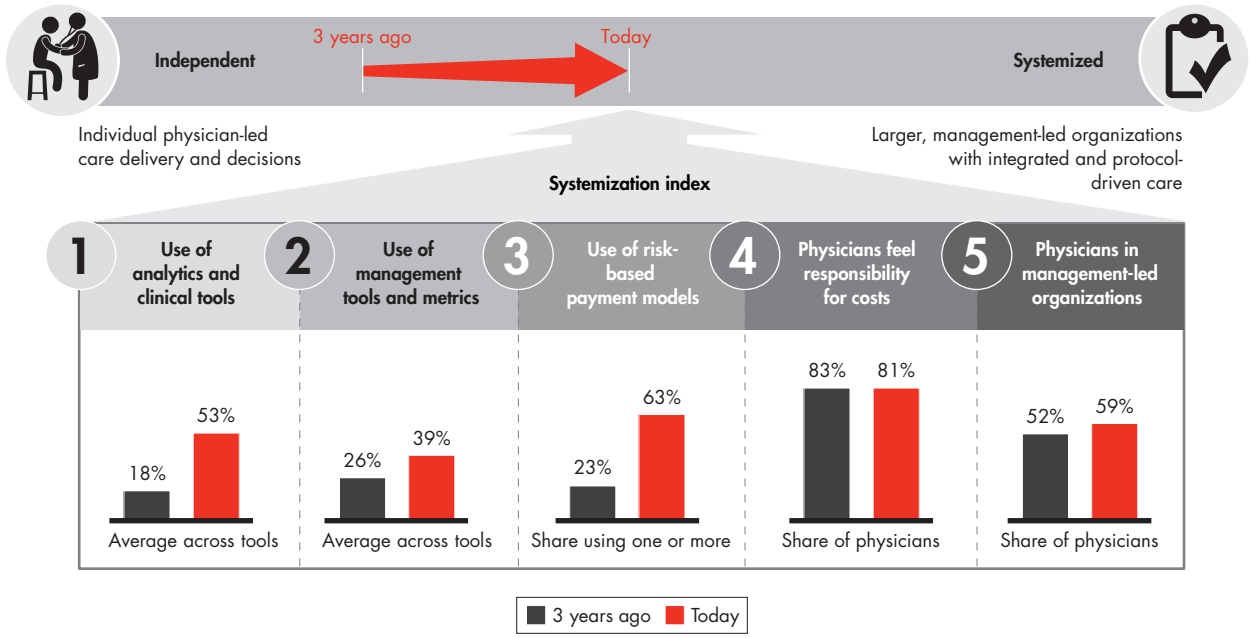
- Physician practice is changing across a number of dimensions, including the tools and technology that physicians use, where they are employed and how they are evaluated and paid. Nationally, physicians report that, in the last two years, use of electronic medical records has nearly tripled and use of treatment protocols has more than doubled. Of physicians who changed employment in the last five years, 72% are working in large management-led organizations in hopes of more financial stability and security. Two years ago, less than a quarter of physicians reported having experience with risk-based payment models vs. almost two-thirds today.

- The pace of change is not the same everywhere given the variability of local market dynamics. Physicians working in Alabama and Mississippi are 20% less likely than those in Massachusetts to implement risk-based payment models and even less likely to use care coordinators in their practice.

- Larger, management-led health systems are dealing with significant complexity and face a number of challenges in keeping physicians engaged and motivated. Physicians working in management-led systems are significantly less likely to recommend their organization to others as a place to work. However, those that invest in creating alignment and engagement see significant results. The Net Promoter Score for physicians who feel engaged in decision making is 70 points higher than for those who do not.

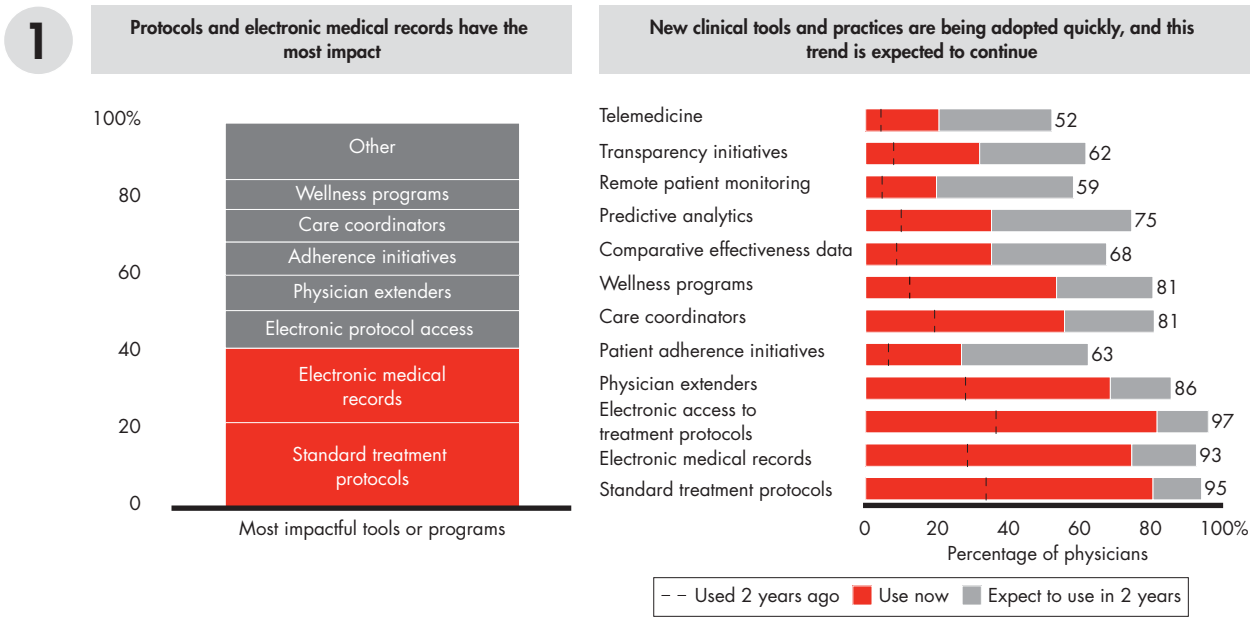
- We will see continued use of analytics and protocols to reduce variability in care and, in some cases, cost. There will be friction in organizations where physicians are not aligned, so it is essential to mobilize clinical leaders and have them prominently involved in all aspects of decision making.

Figure 1: Care delivery is shifting toward a more integrated, systemized model



Sources: Bain Front Line of Healthcare Survey, January 2015; Bain Physician Attitudes Survey, January 2011

Figure 2: Providers have invested in new tools to support more systemized care



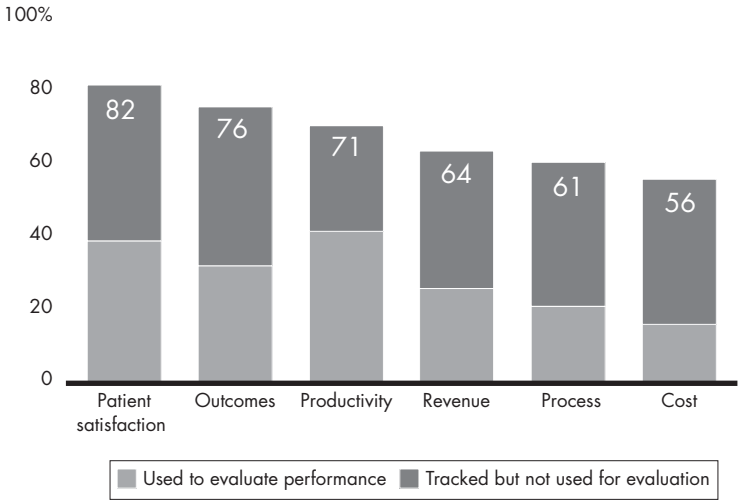
Note: Left-hand chart includes percentage of times each was ranked as one of the top three most impactful, with equal weight given to each of the top three rankings
Source: Bain Front Line of Healthcare Survey, January 2015

Figure 3: Organizations are increasingly tracking and reporting physician performance metrics …

2

Many physicians report using metrics in performance evaluations

Percentage of physicians reporting metrics are collected or used to track performance



Use of metrics is increasing

72%

of physicians say their organizations use metrics more today than 3 years ago

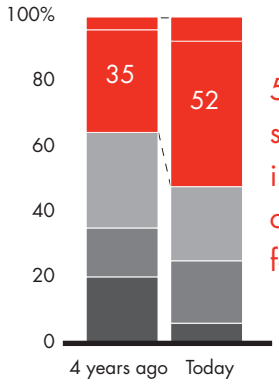
Source: Bain Front Line of Healthcare Survey, January 2015

Figure 4: … and are implementing more cost controls and treatment protocols

2

Organizations exert more cost controls

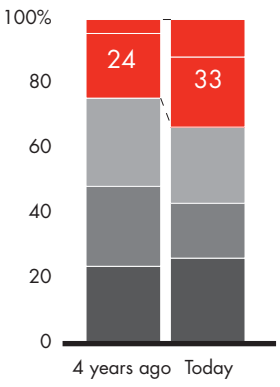
Percentage of physicians who say their organization exerts cost controls that influence care decisions



52% of physicians say their organization is exerting more cost controls, up from 35% four years ago

Organizations require use of protocols

Percentage of physicians who say their organization requires or provides incentives for use of protocols



33% of physicians say their organization requires or provides incentives for use of protocols, up from 24% four years ago

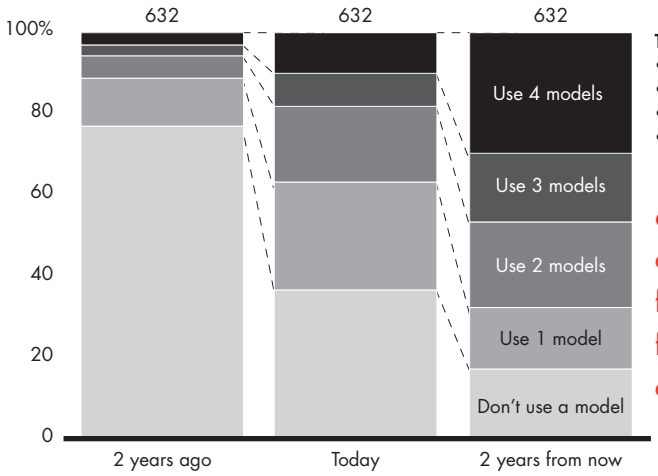
Sources: Bain Front Line of Healthcare Survey, January 2015; Bain Physician Attitudes Survey, January 2011

Figure 5: Physicians expect the move toward using more risk-based payment models to continue

3

Use of risk-based models is growing

Percentage of physicians using risk-based models



Types of risk-based payment models used:
- Bundled payments
- Shared savings
- Pay for performance
- Capitated payments

63% of physicians use at least one type of risk-based payment model today, up from 23% two years ago. Two years from now, 83% expect to use at least one risk-based payment model.

Source: Bain Front Line of Healthcare Survey, January 2015

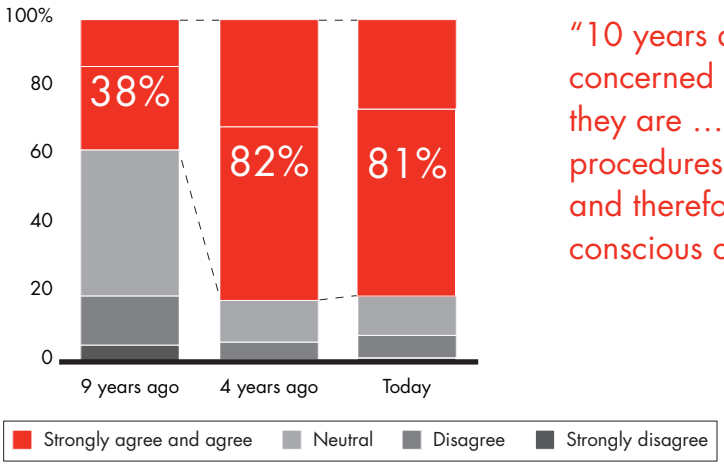
Figure 6: Physicians continue to feel personally responsible for controlling healthcare costs

4

Cost consciousness has grown over past decade, but has stayed steady recently …

… due in part to changes in insurance and technology

Percentage of physicians who say they feel responsibility to control healthcare costs

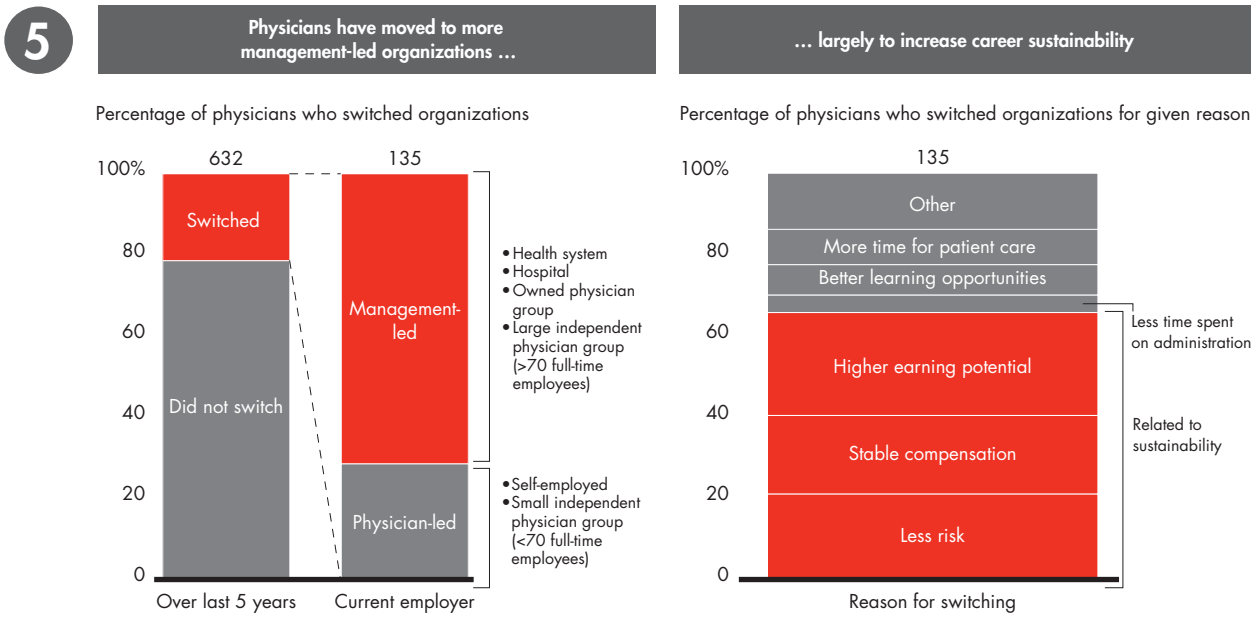


"10 years ago, physicians weren't concerned about costs, and now they are … We have more expensive procedures and technology available and therefore have to be more conscious of controlling costs."

–Primary care physician in Pennsylvania

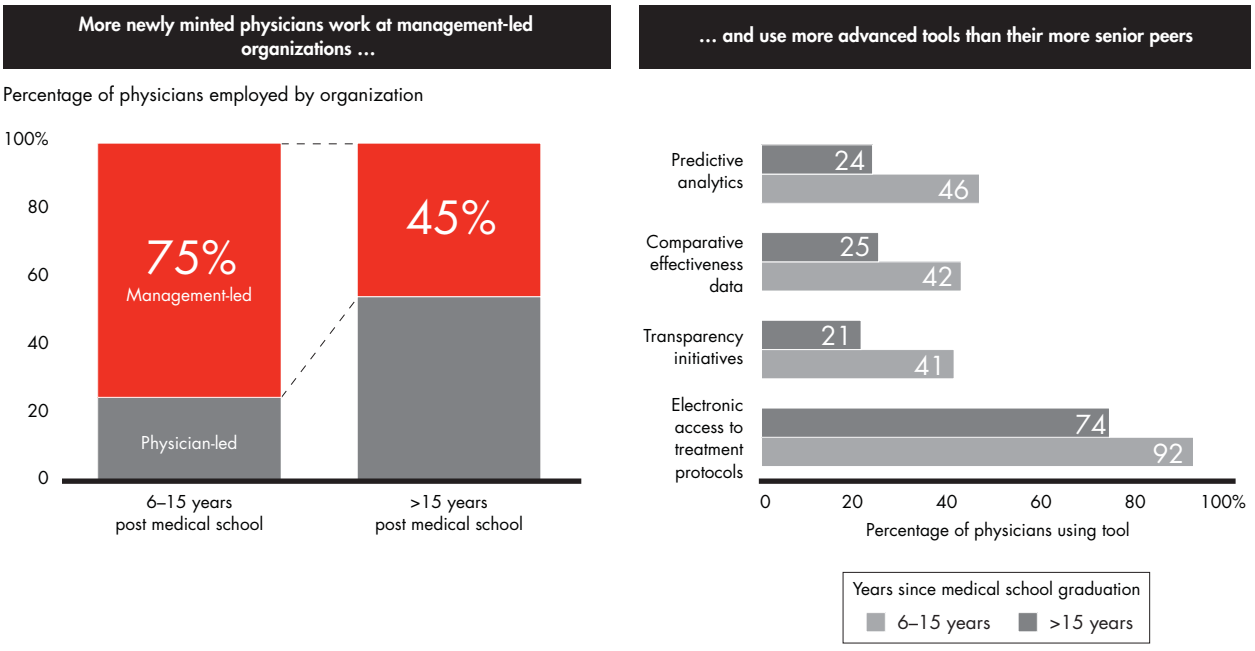
Sources: Bain Front Line of Healthcare Survey, January 2015; Bain Physician Attitudes Survey, January 2011

Figure 7: Physicians are taking jobs in management-led organizations for career sustainability



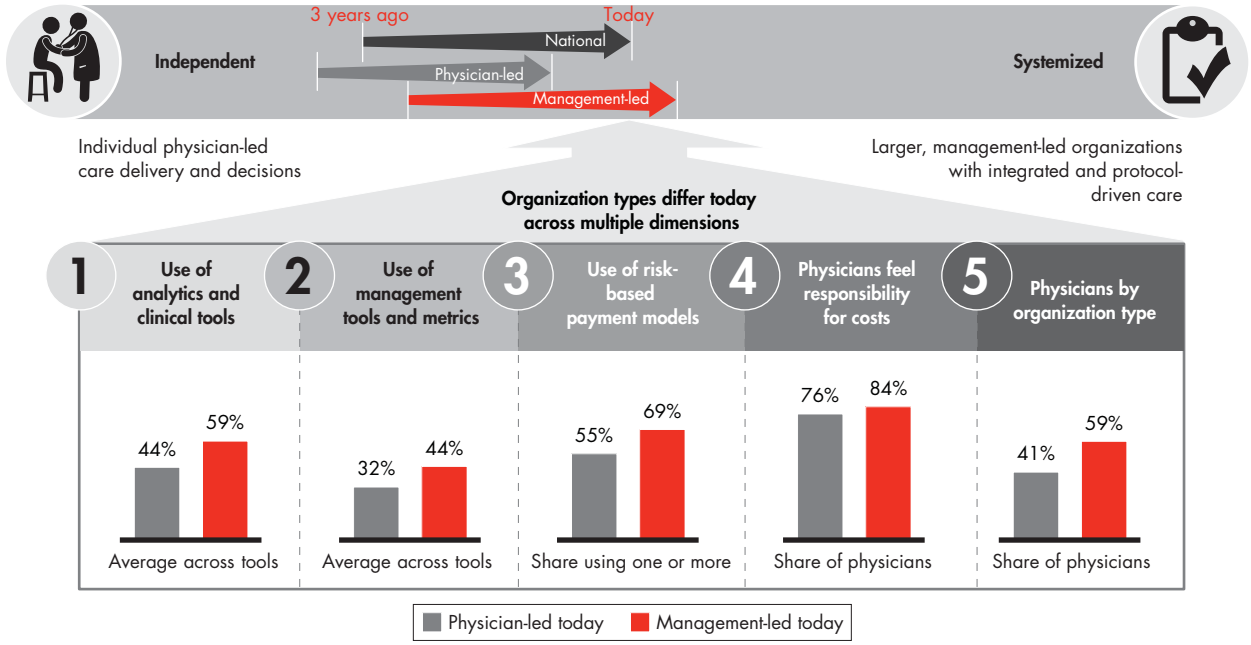
Source: Bain Front Line of Healthcare Survey, January 2015

Figure 8: Newly minted physicians are moving to management-led organizations



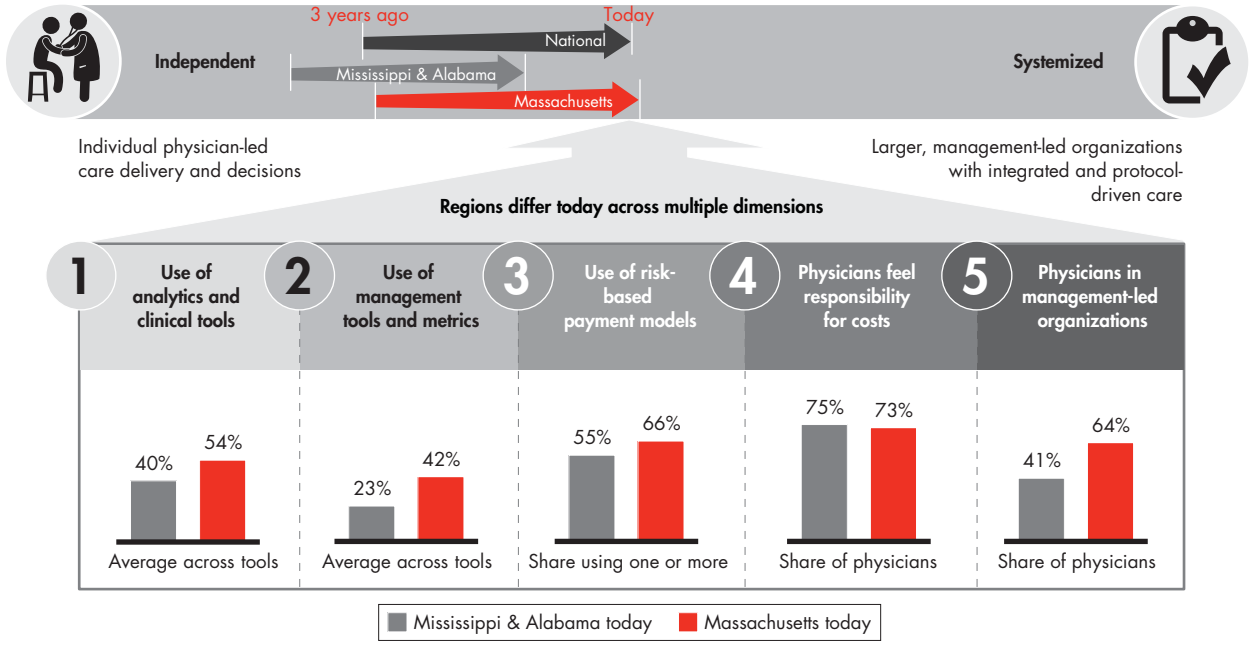
Source: Bain Front Line of Healthcare Survey, January 2015

Figure 9: Organizations of all types are becoming more systemized but at different paces …



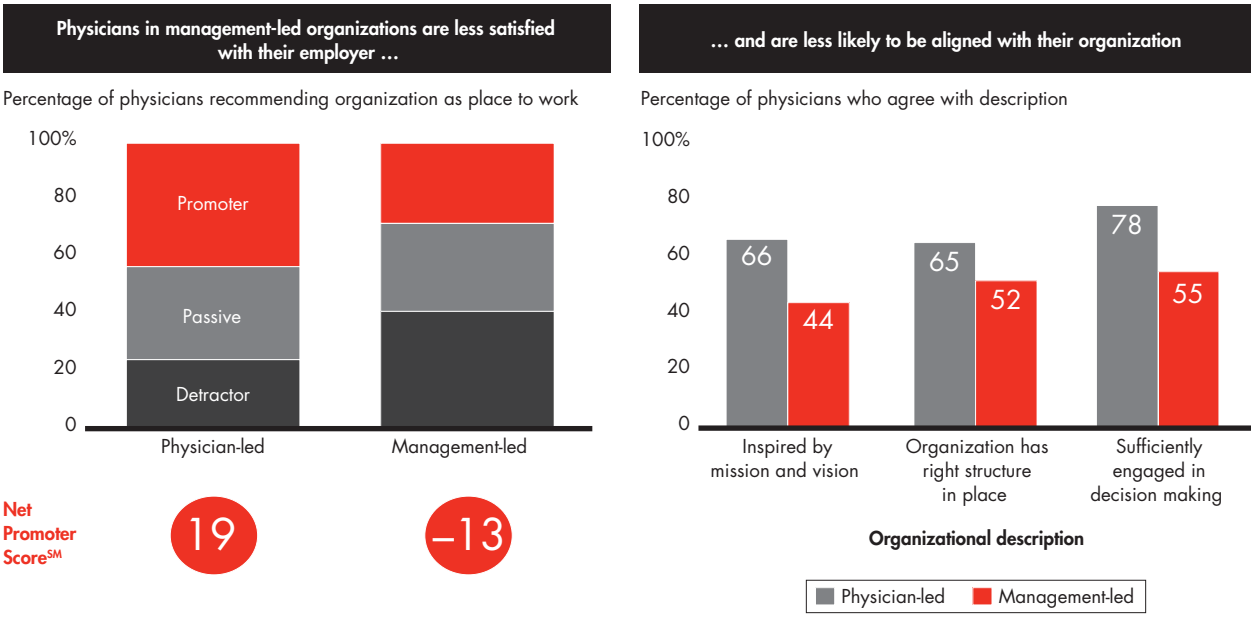
Sources: Bain Front Line of Healthcare Survey, January 2015; Bain Physician Attitudes Survey, January 2011

Figure 10: … and different regions are moving toward systemization at different rates



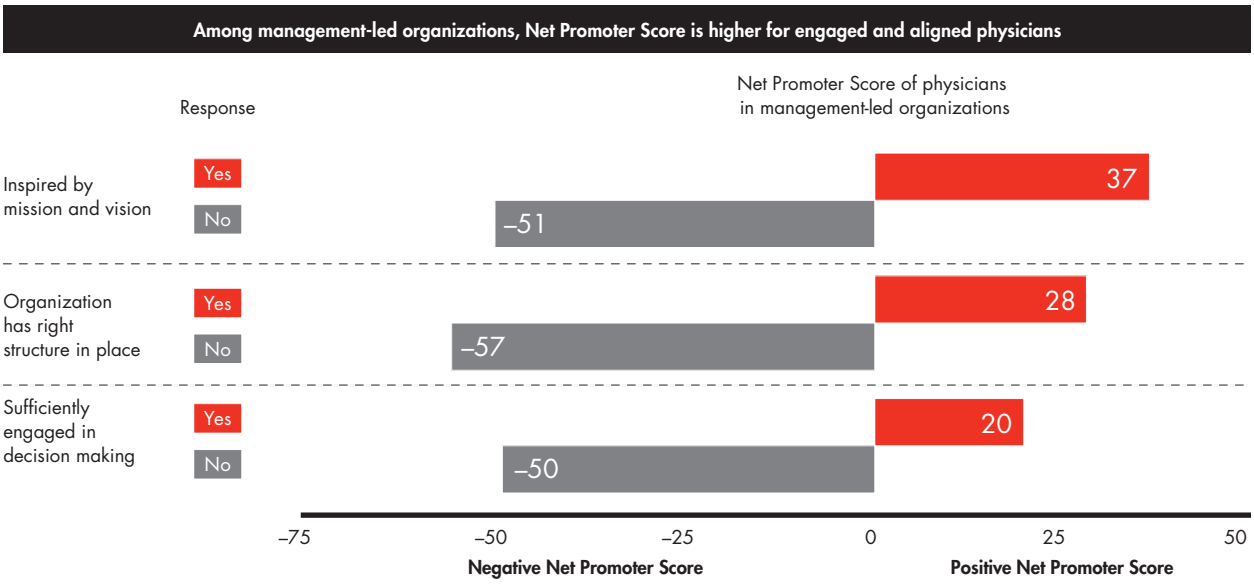
Sources: Bain Front Line of Healthcare Survey, January 2015; Bain Physician Attitudes Survey, January 2011

Figure 11: Physicians in management-led organizations are generally less satisfied



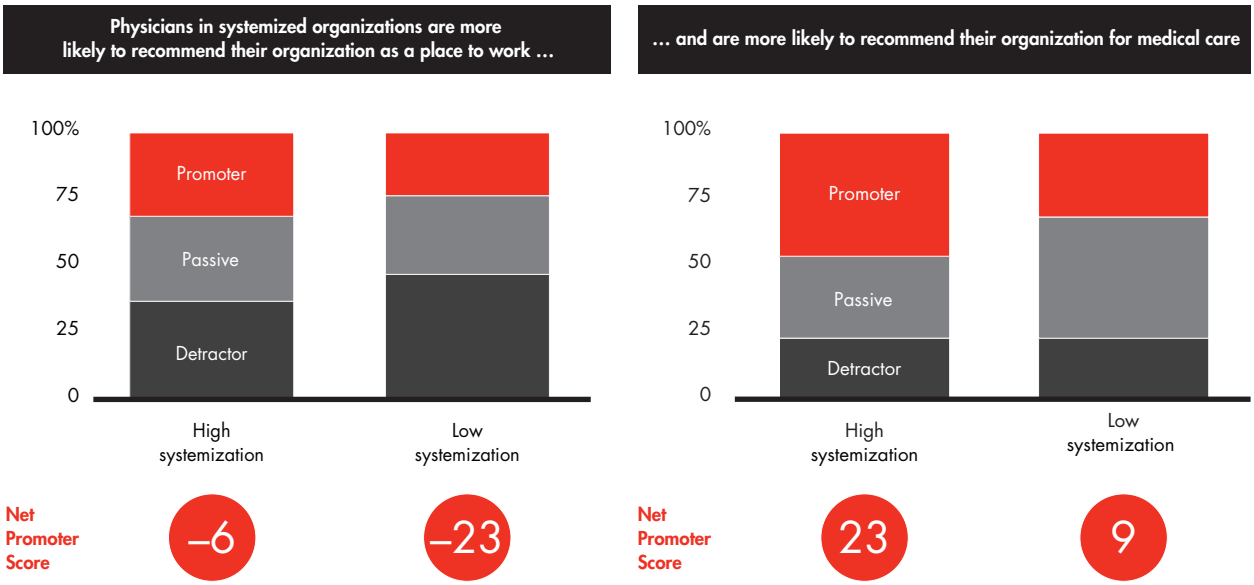
Note: Net Promoter Score℠ is the percentage of promoters minus the percentage of detractors
Source: Bain Front Line of Healthcare Survey, January 2015

Figure 12: However, organizations that invest in physician alignment and engagement have more satisfied doctors

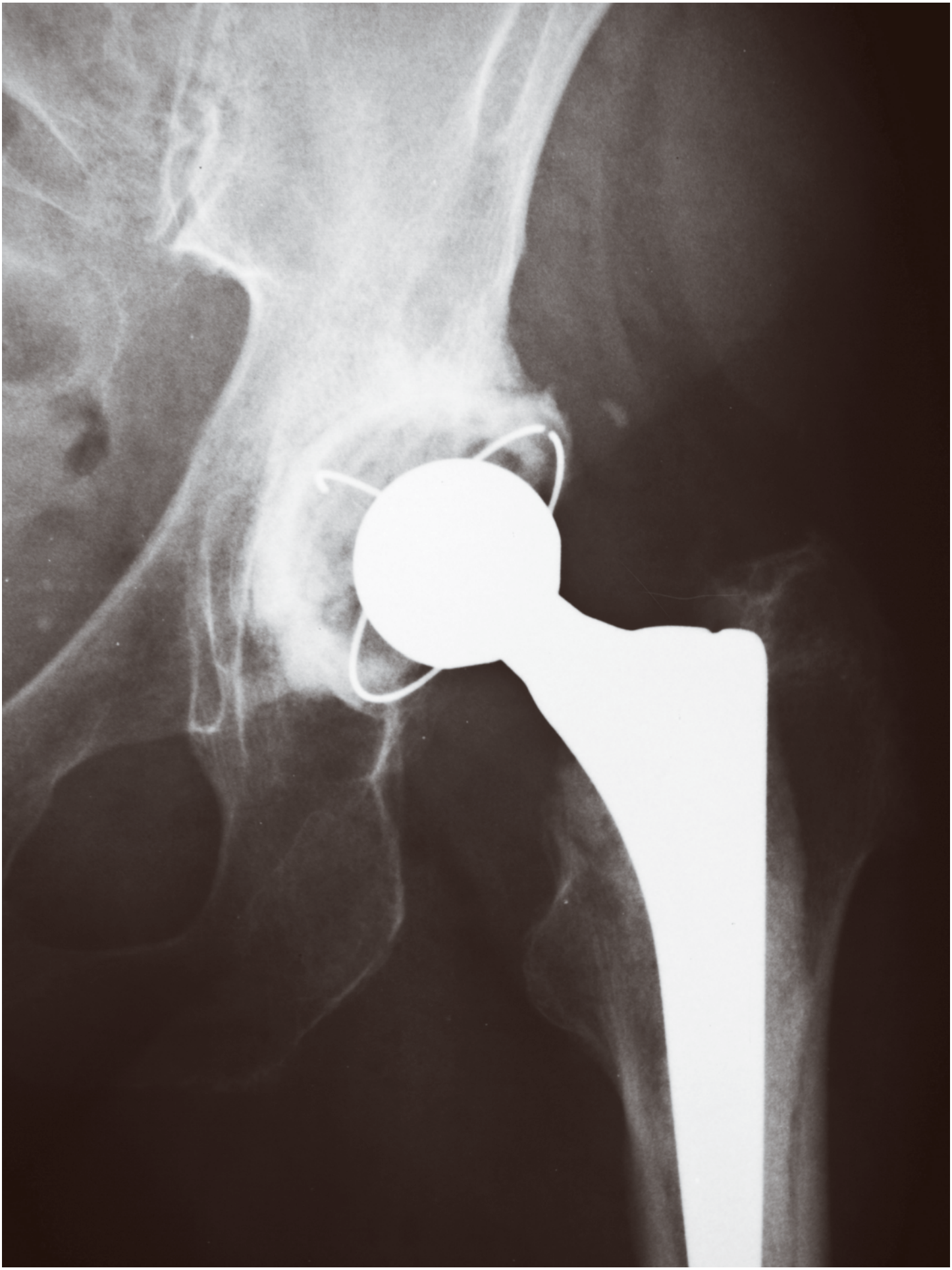


Note: Net Promoter Score is the percentage of promoters minus the percentage of detractors
Source: Bain Front Line of Healthcare Survey, January 2015

Figure 13: Organizations with higher levels of systemization also have more satisfied doctors



Note: Net Promoter Score is the percentage of promoters minus the percentage of detractors
Source: Bain Front Line of Healthcare Survey, January 2015



2.

Medtech

- Purchasing decisions for medical technology are becoming more centralized and focused on outcomes and economics. These changes affect medtech companies as they face more preferred vendor programs and a shift away from the physician preference model.

- The percentage of surgeons reporting that procurement departments influence most of the purchasing decisions has more than doubled in the past three years. Surgeons and procurement officers agree reliability and clinical evidence are important, but they differ on the importance of price. Only 53% of surgeons believe lowest price should be an important criterion, compared with 72% of procurement officers.

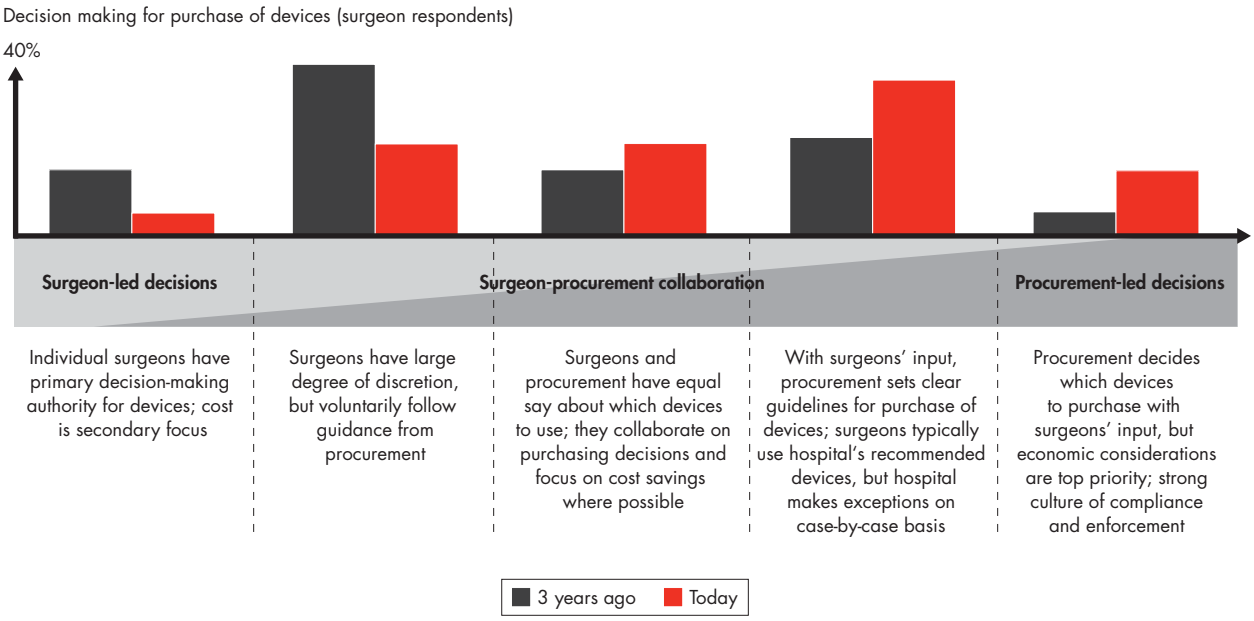
- Two-thirds of surgeons report feeling pressure to cooperate with central purchasing decisions, but only half as many procurement officers acknowledge that pressure.

- Sales representatives' roles are evolving, as they are less frequently viewed as a top source of information. Reliance on sales reps varies by specialty, organization and region. Of surgeon respondents in Alabama and Mississippi, 69% rate sales reps as one of the three top sources of information for medical devices and tools, compared with only 31% in Massachusetts.

- Companies leading in revenue in a given category are the same companies surgeons would recommend and view as innovative. Prior Bain research shows that a winning strategy should focus on category leadership rather than on overall scale or breadth across categories.

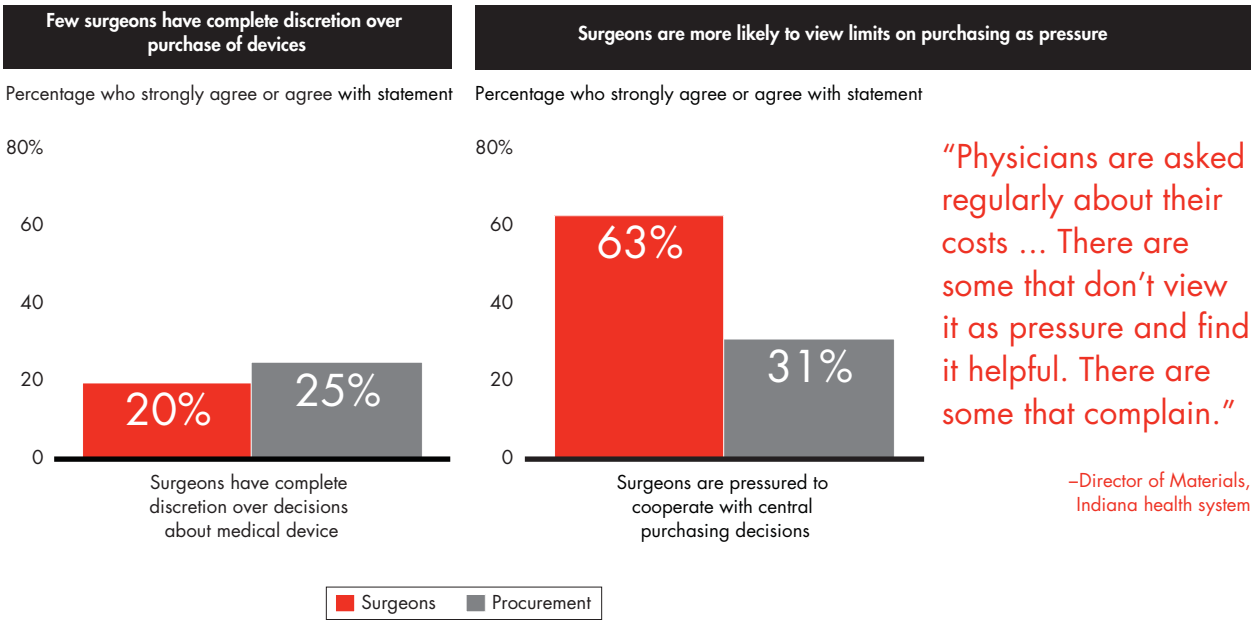
- New go-to-market models need to be more flexible to address the differences between surgeons and procurement officers and the ways regions and specialties differ.

Figure 14: Purchasing decisions for medical devices are becoming more centralized and procurement-led



Note: Responses from orthopedic, cardiac and general surgeons
Source: Bain Front Line of Healthcare Survey, January 2015

Figure 15: Surgeons are more likely than procurement officers to view limits on purchasing as pressure



"Physicians are asked regularly about their costs … There are some that don't view it as pressure and find it helpful. There are some that complain."

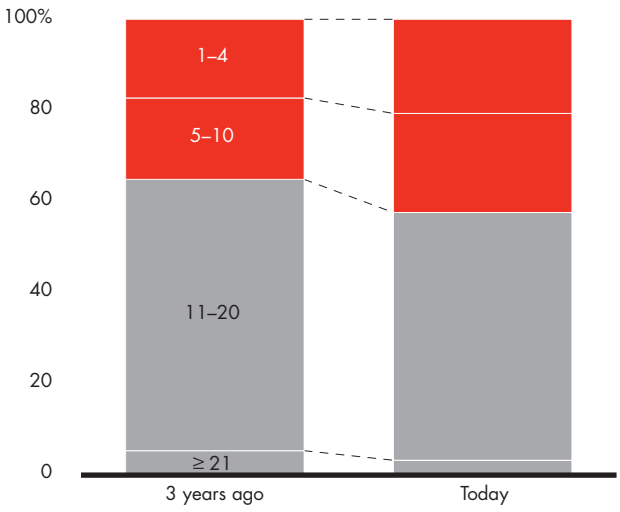
–Director of Materials, Indiana health system

Source: Bain Front Line of Healthcare Survey, January 2015

Figure 16: Procurement officers are consolidating vendors, putting lower-share players at risk

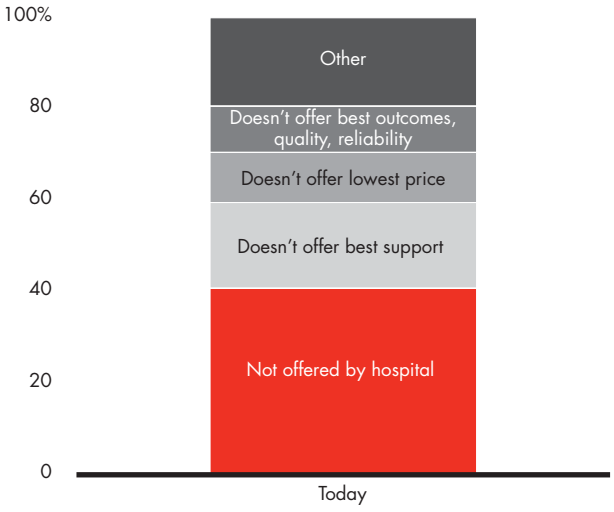
Procurement is limiting the number of vendors to control costs

Procurement's average number of suppliers (by service line)



Surgeons stop using products when they are not stocked by the hospital

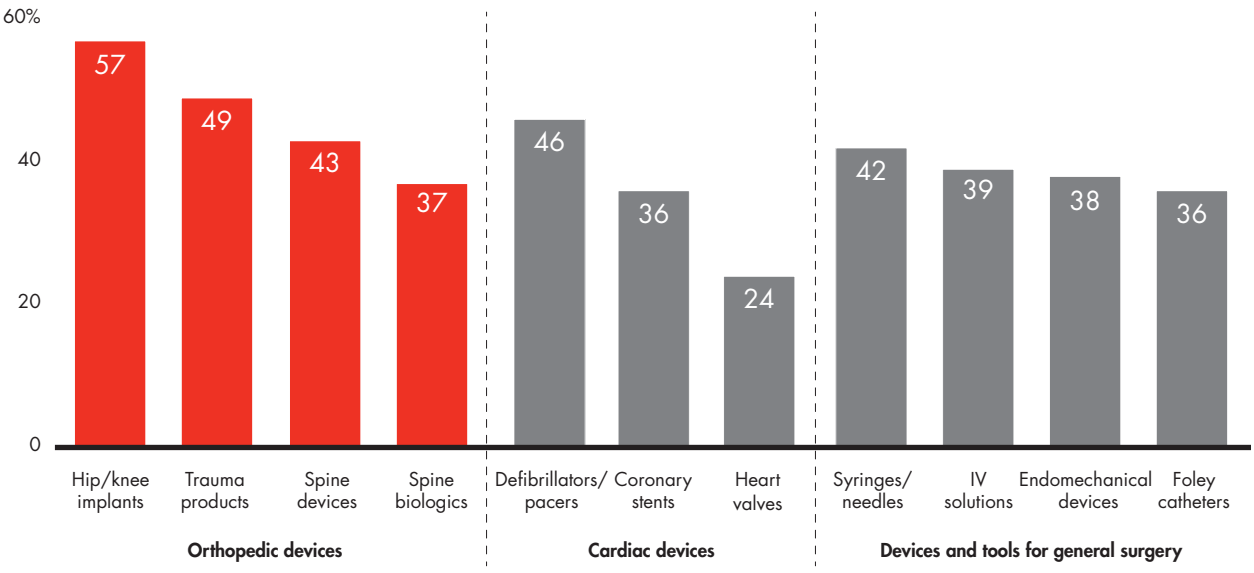
Reasons surgeons stop using a manufacturer



Source: Bain Front Line of Healthcare Survey, January 2015

Figure 17: Procurement looks for savings across all types of devices; orthopedic devices under scrutiny

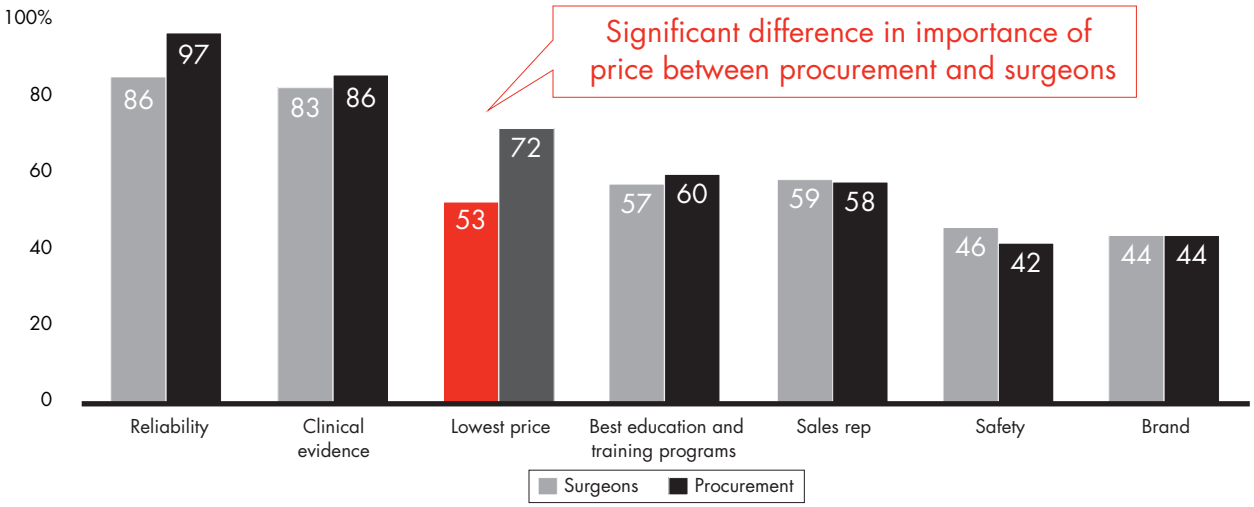
Opportunity for cost reduction within product category (procurement respondents)



Source: Bain Front Line of Healthcare Survey, January 2015

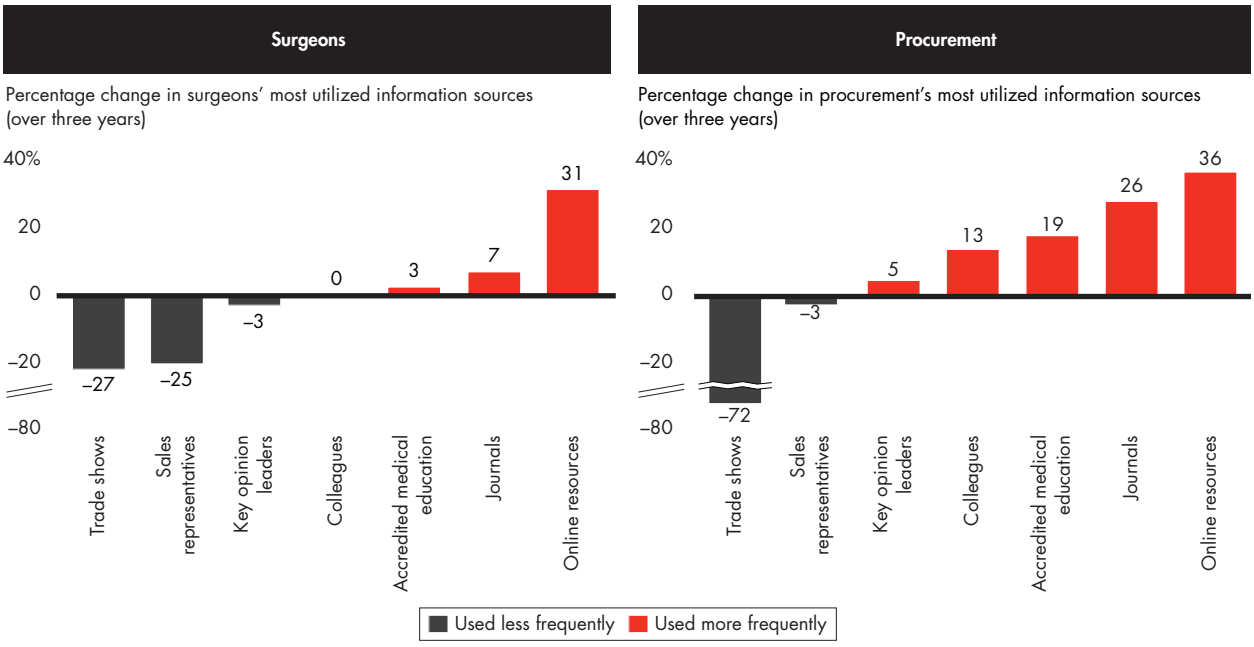
Figure 18: Surgeons and procurement agree that clinical evidence and reliability are important, but they differ on the importance of price

Responses indicated criterion is important or very important for purchasing medical devices



Source: Bain Front Line of Healthcare Survey, January 2015

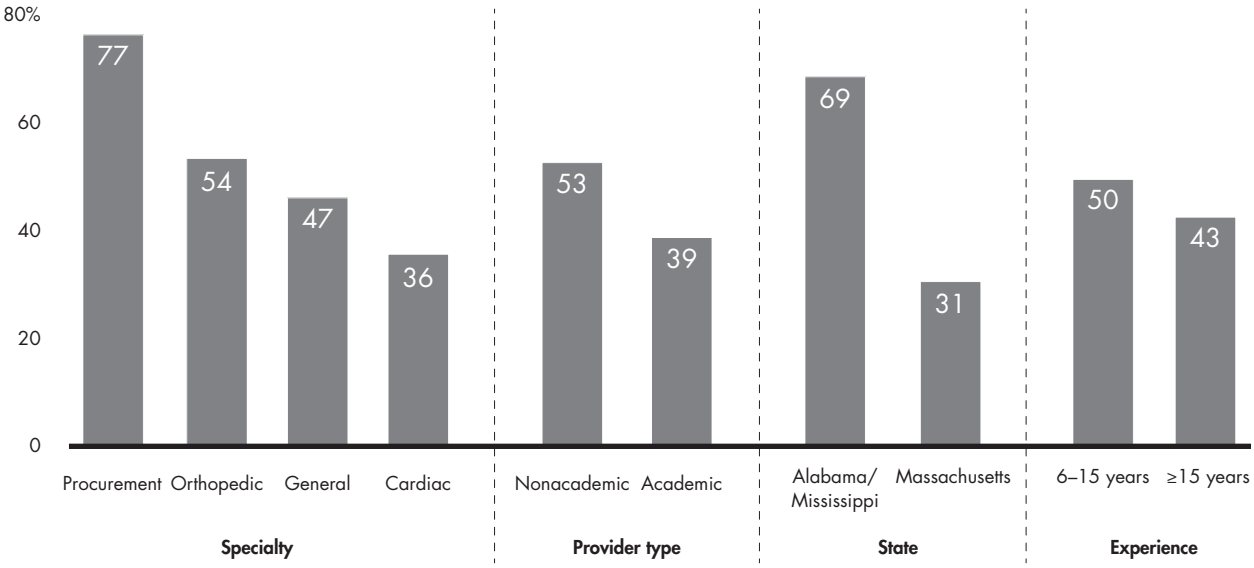
Figure 19: Sales reps and trade shows are becoming less important for surgeons and procurement



Source: Bain Front Line of Healthcare Survey, January 2015

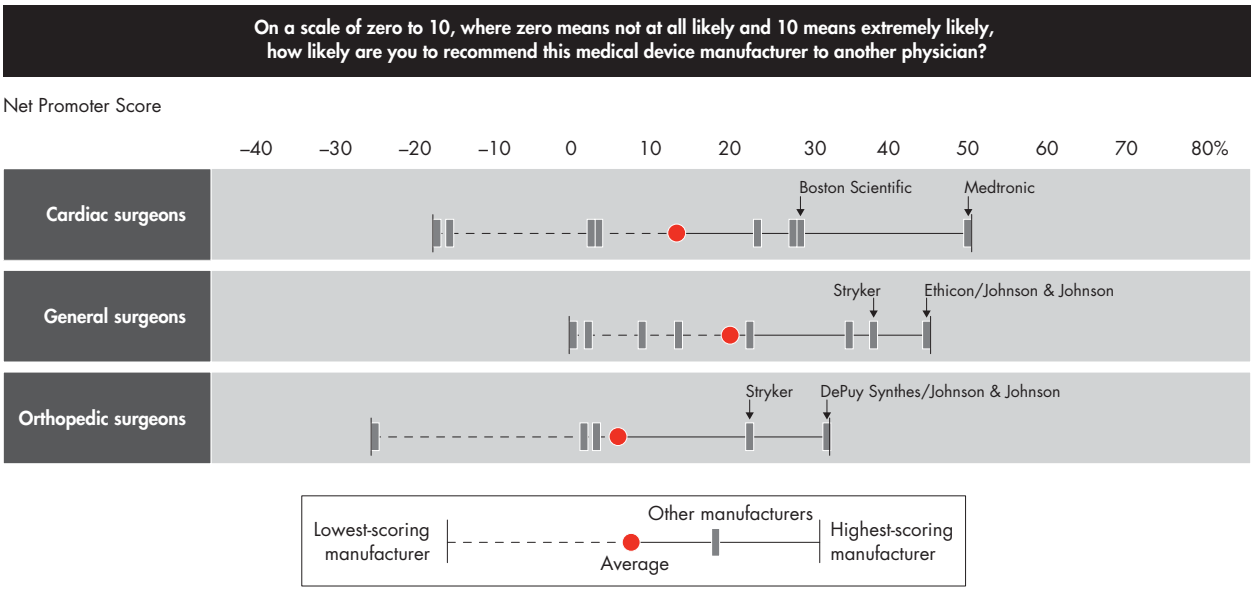
Figure 20: Importance of sales reps varies by segment, requiring a more diversified go-to-market strategy

Percentage of surgeons who say sales reps are one of their top 3 information sources



Source: Bain Front Line of Healthcare Survey, January 2015

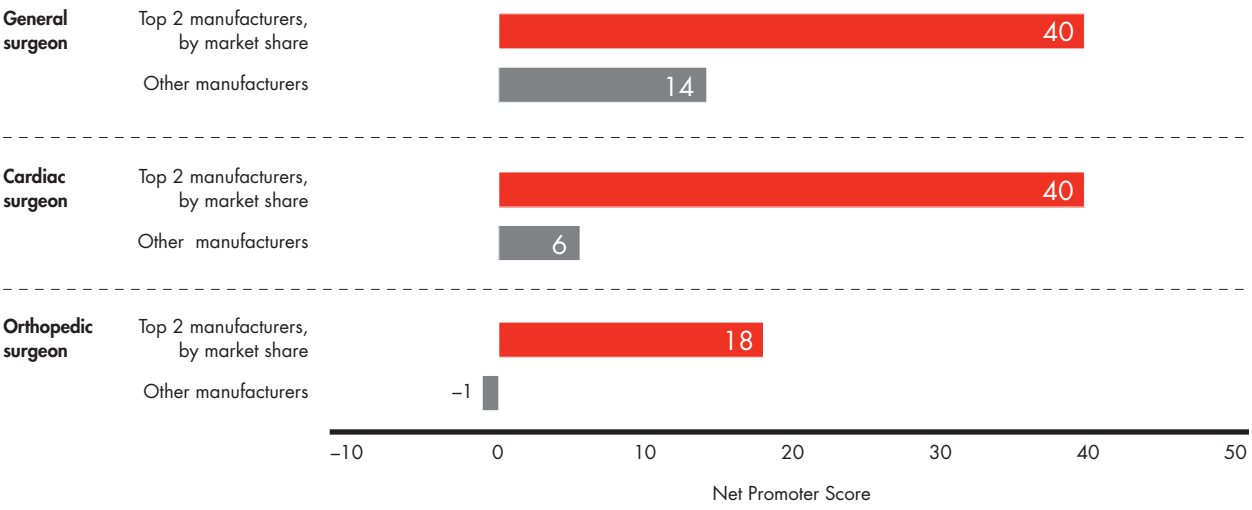
Figure 21: Surgeons tend to be differentially loyal to category leaders



Note: Net Promoter Score is the percentage of promoters minus the percentage of detractors
Source: Bain Front Line of Healthcare Survey, January 2015

Figure 22: Category leaders have stronger customer advocacy

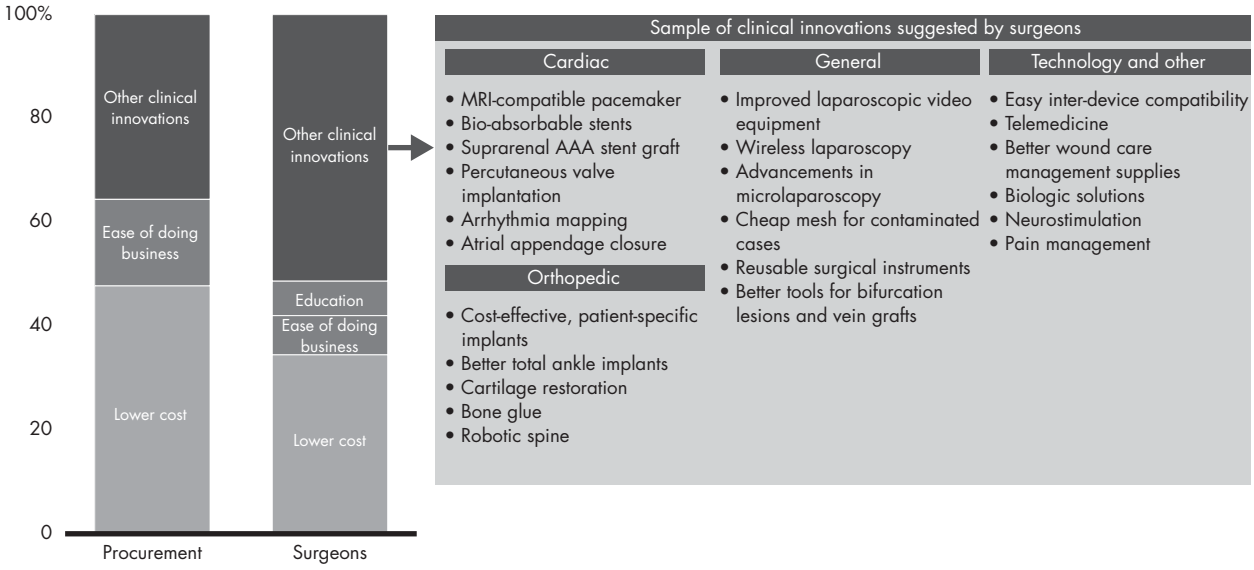
Average medical device manufacturers' Net Promoter Score as rated by surgeons



Note: Net Promoter Score is the percentage of promoters minus the percentage of detractors
Sources: Bain Front Line of Healthcare Survey, January 2015; EvaluatePharma

Figure 23: Surgeons view clinical innovations and cost-control measures as their biggest unmet needs

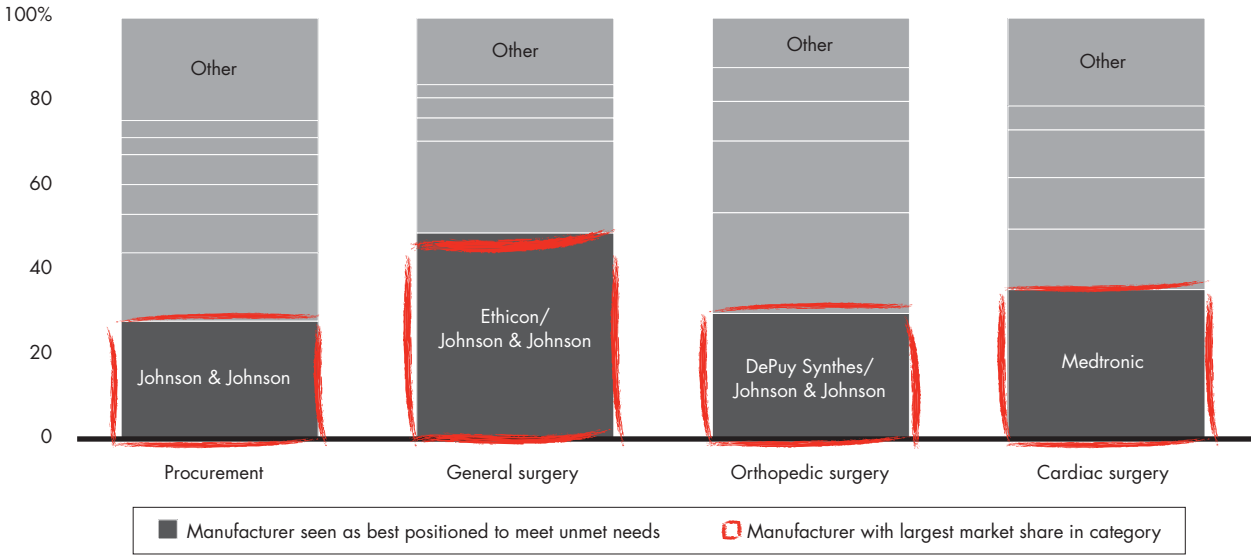
Surgeons' most significant unmet needs (percentage of mentions)



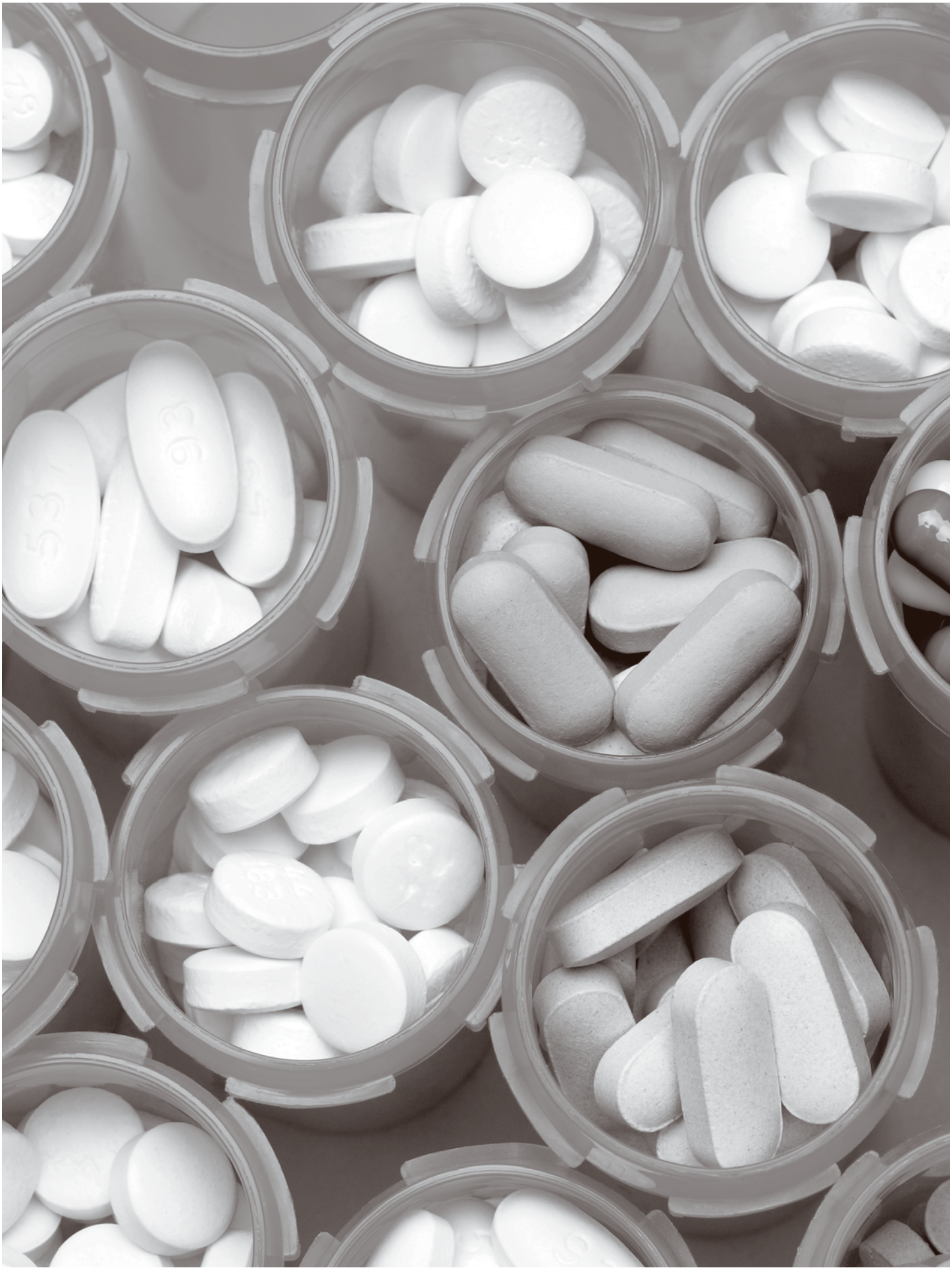
Source: Bain Front Line of Healthcare Survey, January 2015

Figure 24: Customers expect innovation to come from category leaders

Medical device manufacturers most likely to meet unmet needs



Sources: Bain Front Line of Healthcare Survey, January 2015; EvaluateMedTech



3.

Pharma

- Trends that are driving changes across other sectors are also changing the way nonsurgical physicians make decisions about which drugs to prescribe. Technology has made it easier to access information, and at the same time, there is more robust real-world data available. Cost pressure has led to more restrictive formularies.

- Physicians still feel they have discretion over prescriptions, but their discretion is diminishing: 65% say patient formularies limit their prescribing decisions, and 53% feel formularies limit their ability to provide quality care. Clinical effectiveness and safety remain the most important prescribing criteria, but 61% report that price also matters.

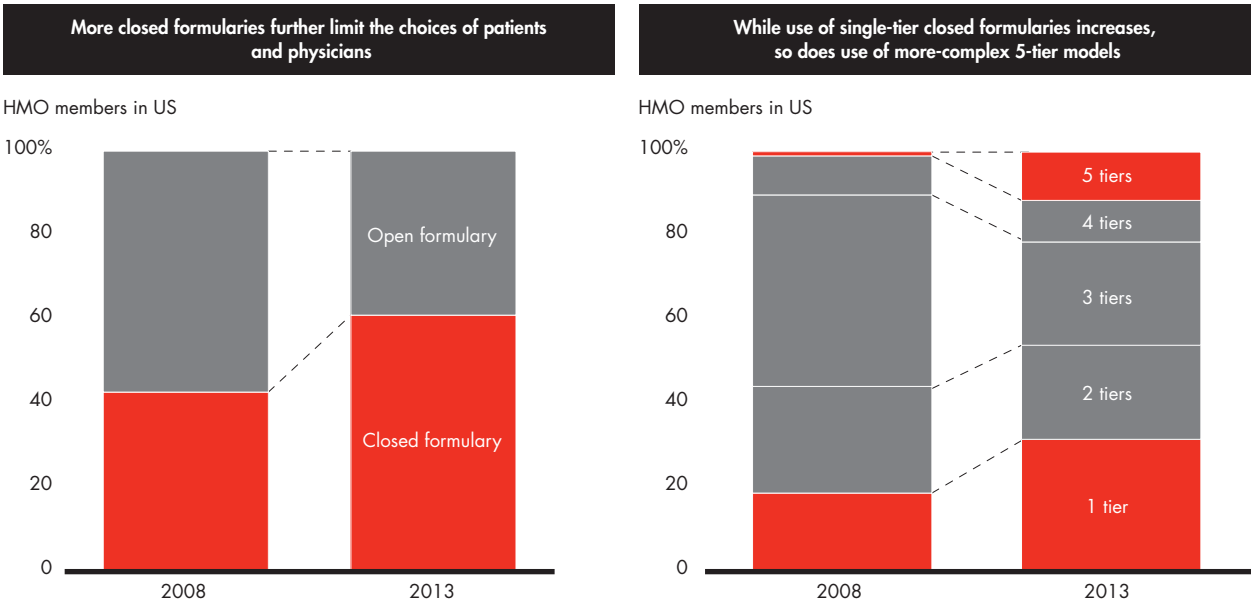
- In specialties where individual drugs are more highly differentiated, formularies often impose fewer restrictions. For example, compared with other specialists, fewer oncologists feel that formularies limit their decisions and half as many report that price is important in their decisions.

- The go-to-market model is evolving as sales reps become a less important source of information for pharma products. In 2015, only 41% of physicians mention sales reps as one of their top three sources of information, compared with 56% three years ago. The use of sales reps varies by segment: More tenured physicians and those who are self-employed report using sales reps more, as do physicians in Mississippi and Alabama.

- Physicians say cost and clinical innovation are the most important unmet needs that a pharmaceutical product could address, but disagree about which companies could best fill those needs. Nonetheless, companies leading in revenue in a given category are the same companies that physicians recommend and view as innovative. Category leadership continues to matter more than breadth of product offering.

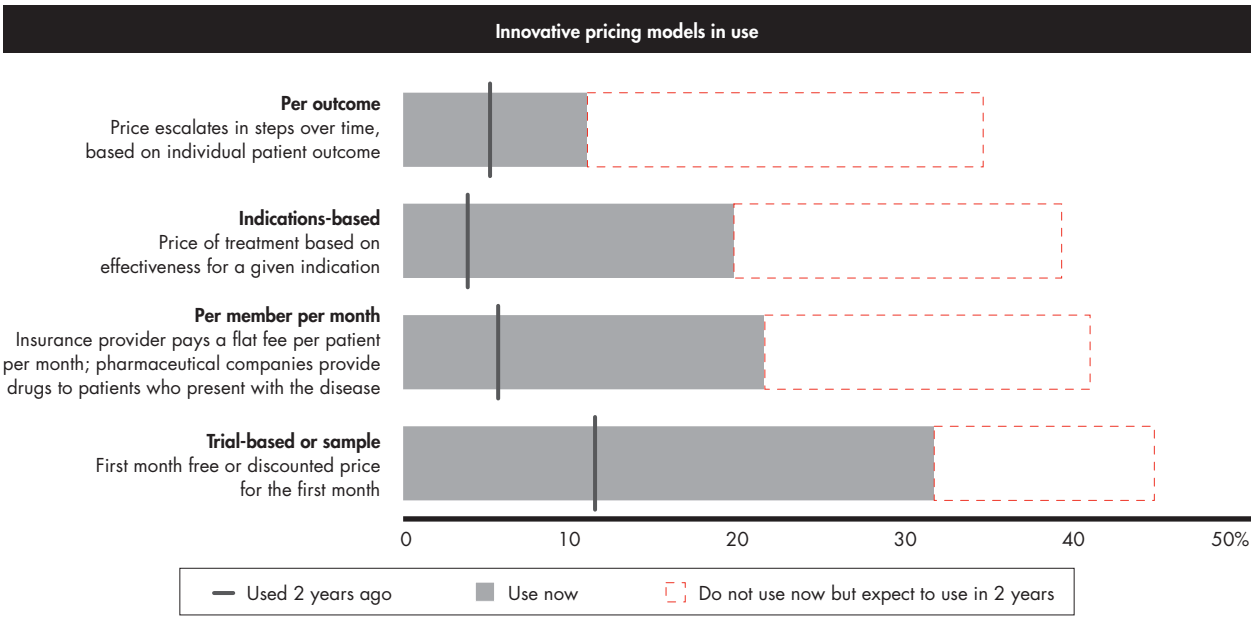
- New go-to-market models need to be highly sophisticated in order to engage stakeholders across multiple channels and to tailor product and sales approach to region, specialty and facility size.

Figure 25: Formularies are becoming increasingly restrictive



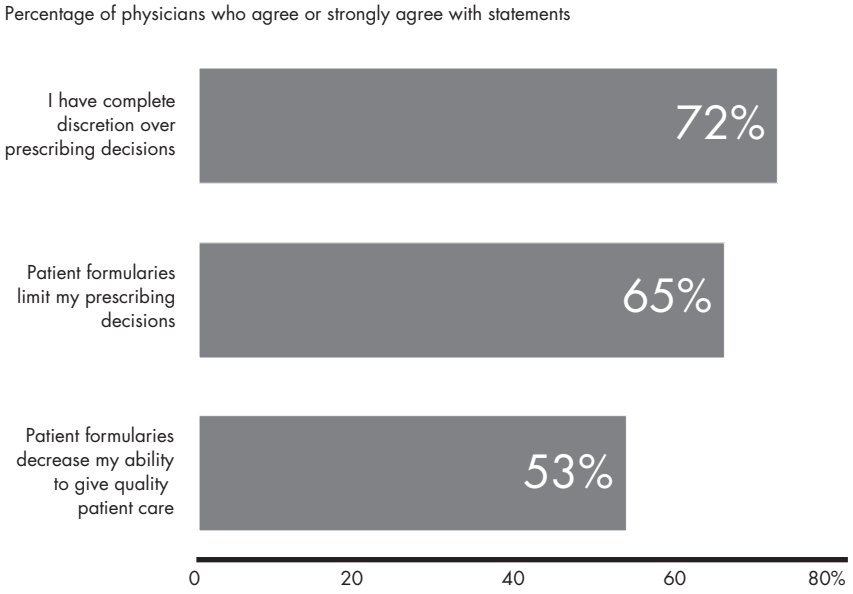
Note: Open formularies use tiers to shift prescribing toward cheaper options; closed formularies may restrict access to single drugs for certain classes or make off-formulary drugs prohibitively expensive
Source: Managed Care Digest, 2009 and 2014

Figure 26: Payers are using more innovative pricing models to share risks with providers and manufacturers



Note: Responses from nonsurgical physicians (primary care physicians, endocrinologists/diabetologists, medical oncologists and non-interventional cardiologists)
Source: Bain Front Line of Healthcare Survey, January 2015

Figure 27: Physicians still have prescribing discretion, but formularies increasingly limit their decisions

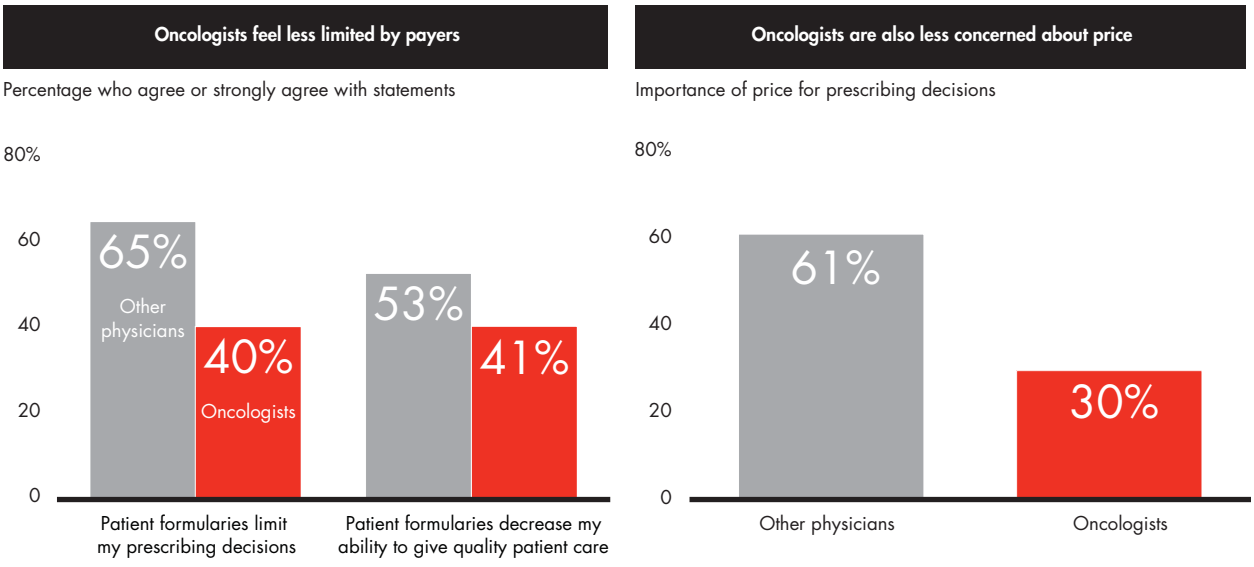


"You do have the right to prescribe, but it can be challenging to get your patient what you want. You may have to switch to a generic … you may need to go through hoops to get medicines approved …"

–Urgent care physician of large health system

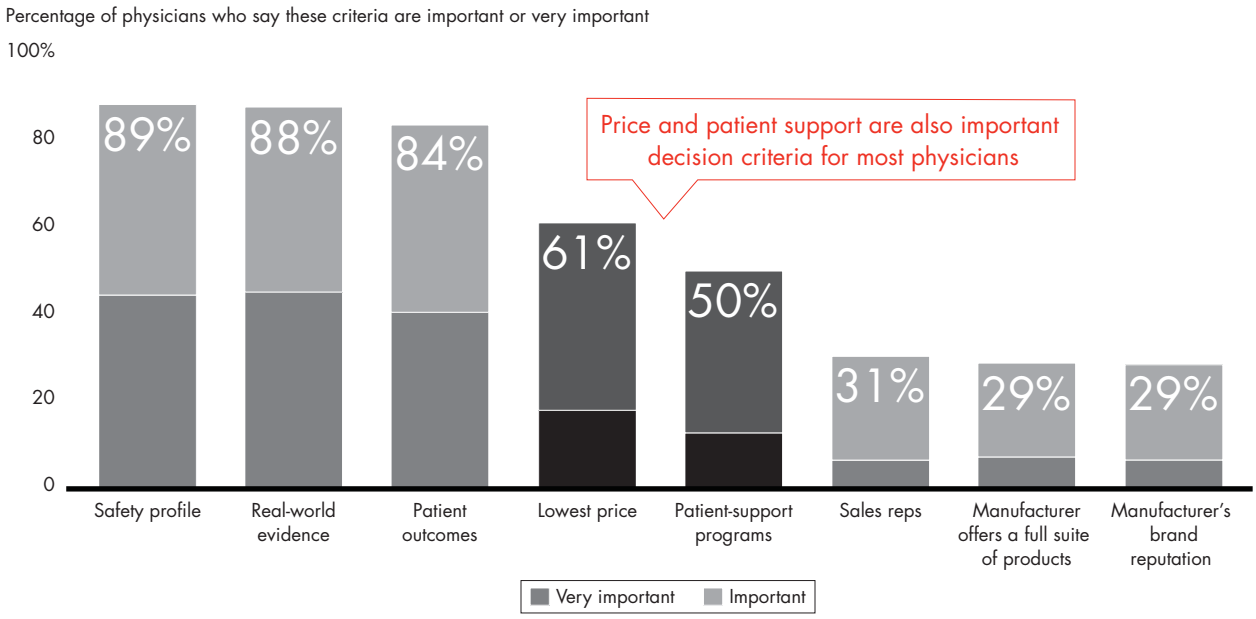
Note: Responses from nonsurgical physicians (primary care physicians, endocrinologists/diabetologists, medical oncologists and non-interventional cardiologists)
Source: Bain Front Line of Healthcare Survey, January 2015

Figure 28: Payers exert less control over highly innovative oncology drugs



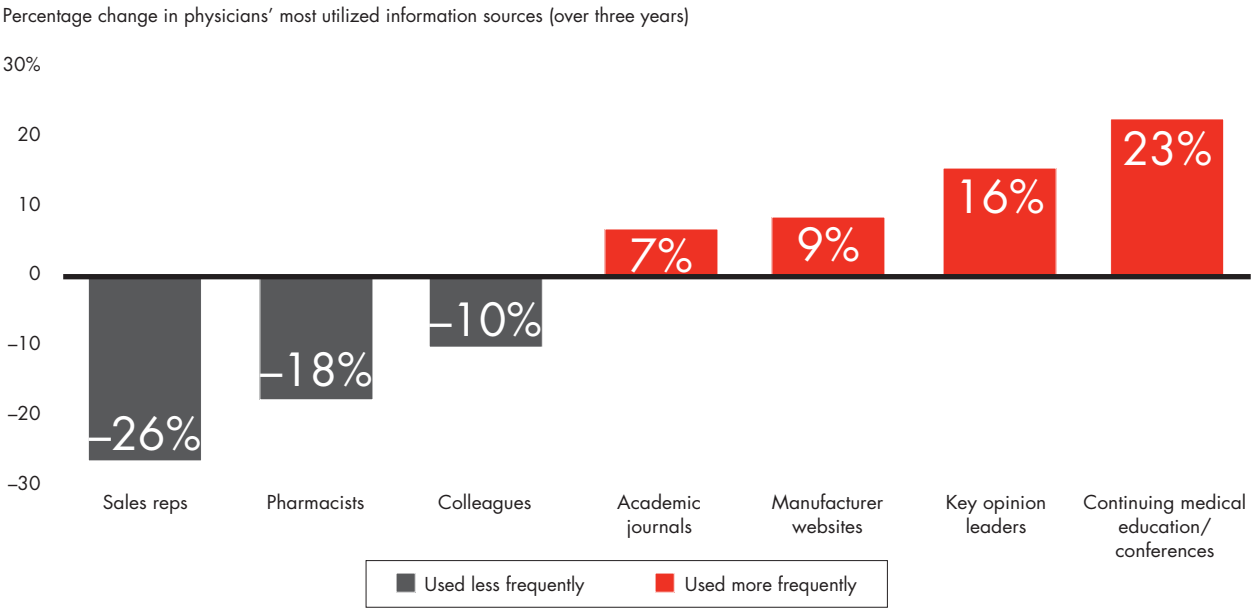
Note: Responses from nonsurgical physicians (primary care physicians, endocrinologists/diabetologists, medical oncologists and non-interventional cardiologists)
Source: Bain Front Line of Healthcare Survey, January 2015

Figure 29: Safety, evidence and quality are important prescribing criteria, as are price and patient support



Note: Responses from nonsurgical physicians (primary care physicians, endocrinologists/diabetologists, medical oncologists and non-interventional cardiologists)
Source: Bain Front Line of Healthcare Survey, January 2015

Figure 30: The role of sales reps is declining in importance as physicians shift toward online and academic sources of information



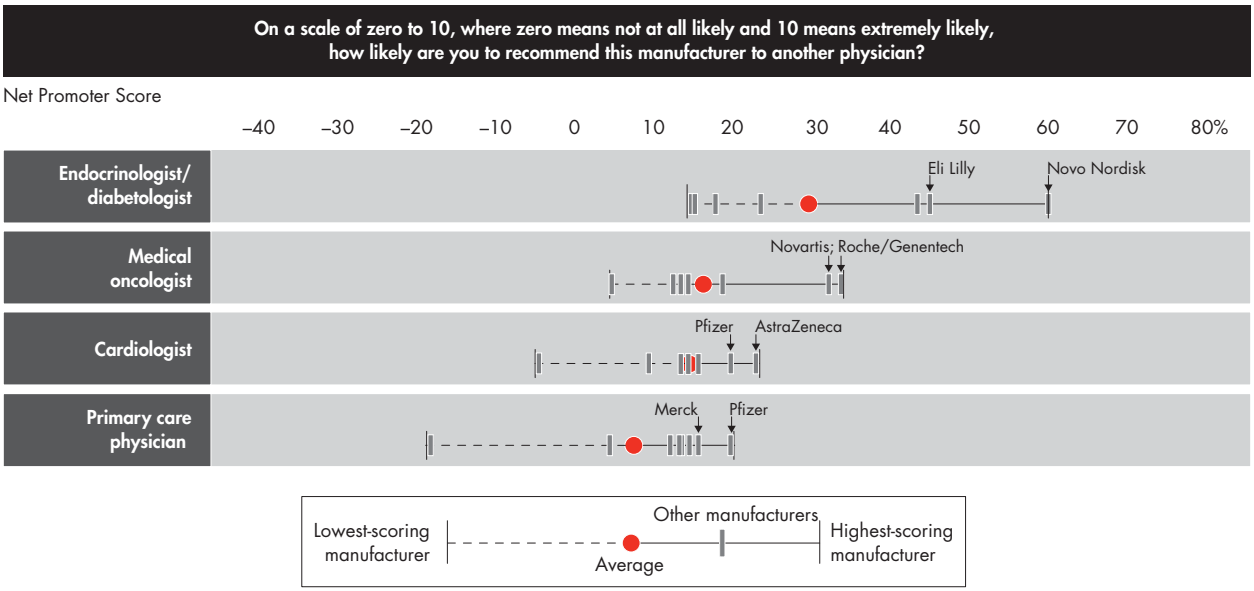
Note: Responses from nonsurgical physicians (primary care physicians, endocrinologists/diabetologists, medical oncologists and non-interventional cardiologists)
Source: Bain Front Line of Healthcare Survey, January 2015

Figure 31: Importance of sales reps varies by segment, requiring a more diversified go-to-market strategy

Percentage of physicians who say sales reps are one of their top 3 information sources

Note: Responses from nonsurgical physicians (primary care physicians, endocrinologists/diabetologists, medical oncologists and non-interventional cardiologists)
Source: Bain Front Line of Healthcare Survey, January 2015

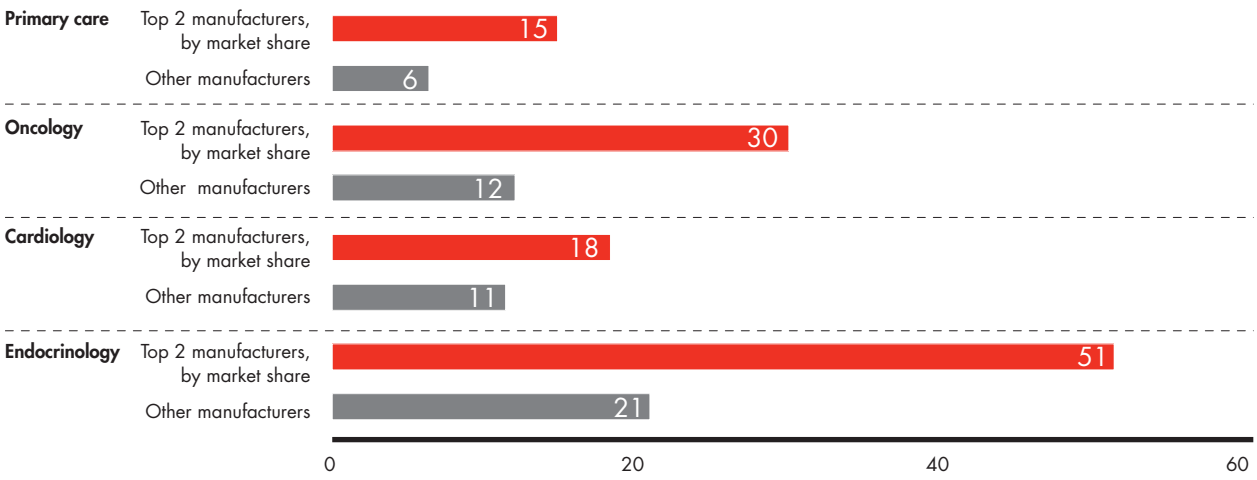
Figure 32: There are significant differences in the level of physician advocacy of manufacturers



Notes: Net Promoter Score is the percentage of promoters minus the percentage of detractors; responses from nonsurgical physicians (primary care physicians, endocrinologists/diabetologists, medical oncologists and non-interventional cardiologists)
Source: Bain Front Line of Healthcare Survey, January 2015

Figure 33: Category leaders show stronger physician advocacy

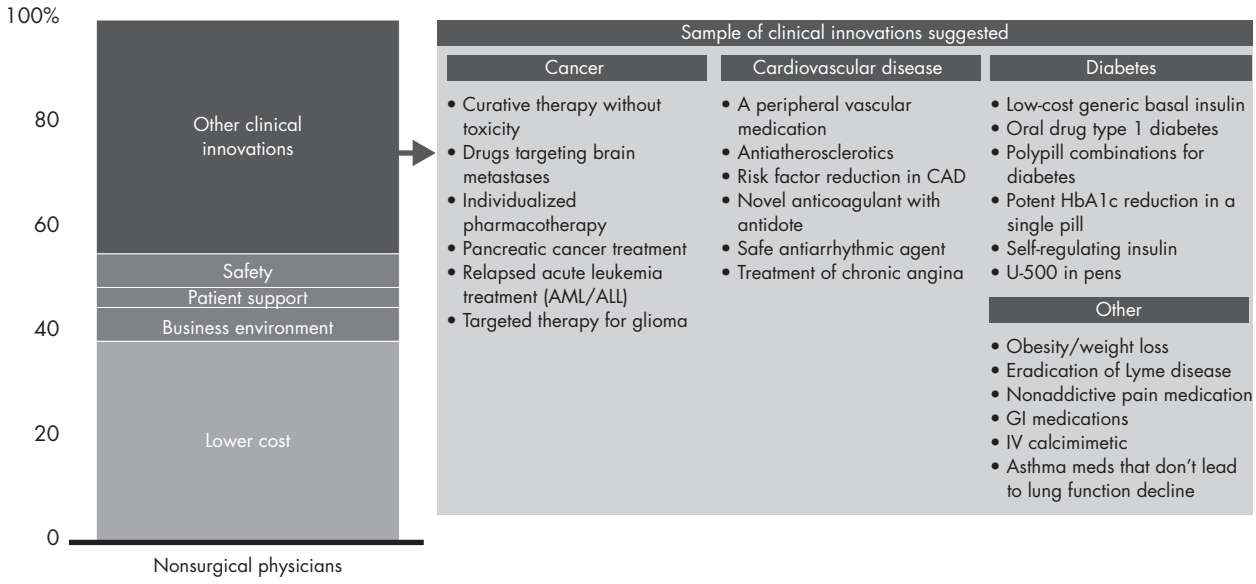
Average pharmaceutical manufacturer's Net Promoter Score for market leaders and all others (as rated by physicians in the indicated specialties)



Notes: Net Promoter Score is the percentage of promoters minus the percentage of detractors; responses from nonsurgical physicians (primary care physicians, endocrinologists/diabetologists, medical oncologists and non-interventional cardiologists)
Source: Bain Front Line of Healthcare Survey, January 2015; EvaluatePharma

Figure 34: Nonsurgical physicians view clinical innovations and cost-control measures as their highest unmet needs

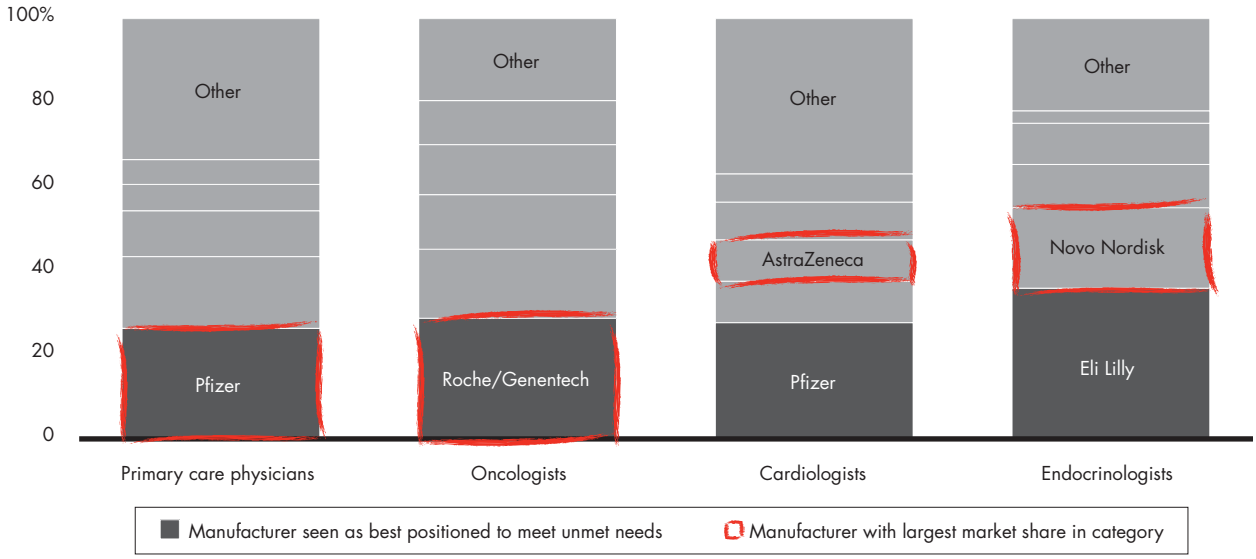
Nonsurgical physicians' most significant unmet needs, by category (percentage of mentions)



Note: Responses from nonsurgical physicians (primary care physicians, endocrinologists/diabetologists, medical oncologists and non-interventional cardiologists)
Source: Bain Front Line of Healthcare Survey, January 2015

Figure 35: Customers expect innovation to come from category leaders, with some exceptions

Pharmaceutical manufacturers most likely to meet significant unmet needs



Note: Responses from nonsurgical physicians (primary care physicians, endocrinologists/diabetologists, medical oncologists and non-interventional cardiologists)
Sources: Bain Front Line of Healthcare Survey, January 2015; EvaluatePharma

Appendix: Methodology and survey questions

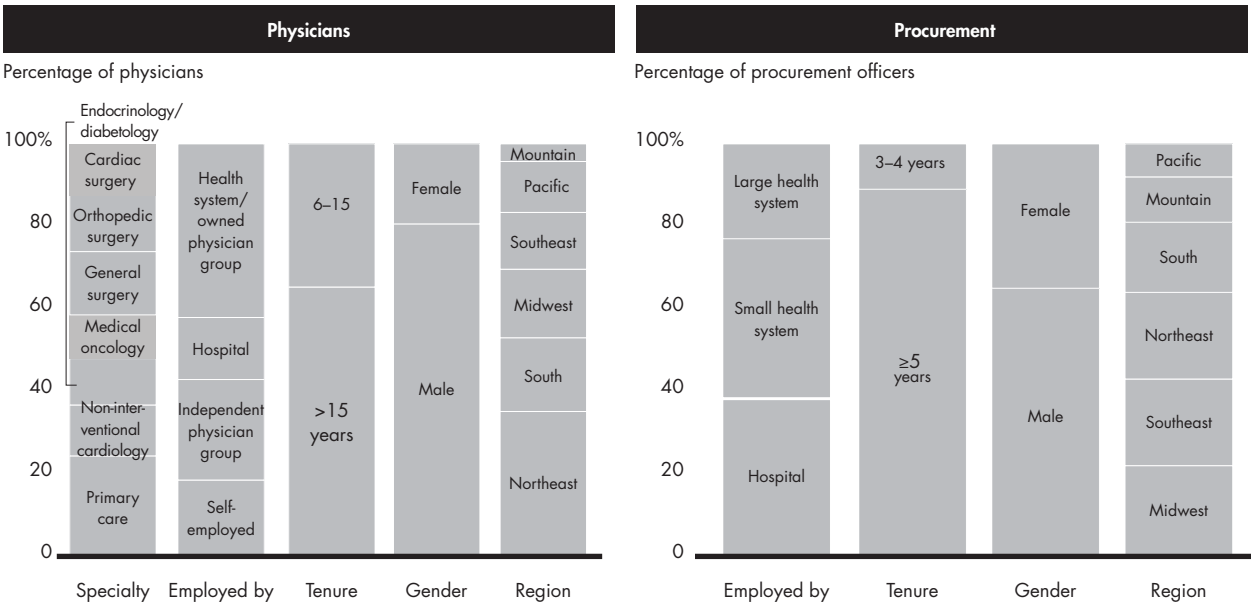
Methodology

Respondents were weighted by their specialty to make the survey sample representative of the national population

Bain's 2015 survey included 632 physicians and 100 procurement officers across the US. The survey targeted physicians in seven specialties: Three were surgical and four were nonsurgical. Surgical specialties included general, cardiac and orthopedic; responses from participants in these groups were used as input for the care financing and delivery and medtech sections. Nonsurgical specialties included primary care, medical oncology, non-interventional cardiology and endocrinology/diabetology; responses from participants in these groups were used as input for the care financing and delivery and pharma sections. These specialties were chosen based on revenue base and level of ongoing change due to the shifting healthcare environment. We also surveyed a national sample of procurement officers to capture purchasing trends for medical devices.

Our survey oversampled physicians in Massachusetts, Mississippi and Alabama in an effort to track the pace of change in the healthcare landscape in different regions. For a select set of questions, we also incorporated data from Bain's 2011 Physician Attitudes Survey to give us longitudinal perspective. When making comparisons with the 2011 survey, we used a sample of 393 physicians (from a total of 502), which matched the seven specialties included in our 2015 survey.

Figure 36: Respondents represent a national sample



Source: Bain Frontline of Healthcare Survey, January 2015 (n=632 for physicians; n=100 for procurement officers)

When reporting aggregated national results, we weighted our sample to ensure the proportion of each specialty group in our survey is representative of the overall physician population in the US. Additionally, for any national results, we down-weighted Massachusetts, Mississippi and Alabama to their true national proportions to account for oversampling. We used the same weighting methodology when incorporating 2011 survey data. Weights were calculated using employment data from the Association of American Medical Colleges, 2013.

Respondents from physician-led organizations include those who are self-employed or work for an independent physician group with fewer than 70 physicians.

Respondents from management-led organizations include those working for a hospital or health system; a physician group owned by a hospital, health system or parent company; or a physician-owned group with more than 70 physicians.

Surgeon respondents belong to the following specialties: orthopedic, cardiac and general surgery.

Nonsurgical physician respondents belong to the following specialties: primary care, endocrinology/diabetology, medical oncology and non-interventional cardiology.

Survey questions

Figure 1: For the columns labeled "3 years ago," we used a combination of data collected two to four years ago. For use of clinical tools and payment models, we asked respondents in our 2015 survey if they use these today and if they used them two years ago. We based the percentages for management tools usage and physician cost consciousness on "agree" or "strongly agree" responses on a Likert scale from the 2011 and 2015 surveys. We calculated today's usage of metrics from the percentage of physicians reporting that they are evaluated on three or more metrics; past usage was calculated by asking a question assessing change in metrics use over the last three years. Overall, systemization was calculated as the average of the level of systemization for each employer category (physician-led or management-led), weighted by the number of physicians in each employer category.

Figure 2: *Left chart:* "Currently, which tools or programs have the most significant, positive impact on the healthcare environment in which you work? Rank three tools." *Right chart:* "Please indicate to what extent you have used these tools or programs in the past (two years ago), currently or expect to use them in two years, whether by your own choice or your organization's or hospital's choice."

Figure 3: *Left chart:* "Which of the following metrics are collected and monitored within the healthcare environment in which you typically work, and how are those metrics used?" *Right hand side:* "The healthcare environment in which I typically work is using more metrics now than three years ago." Agreement percentage is based on the percentage of "agree" or "strongly agree" responses on a Likert scale.

Figure 4: *Left chart:* "In an effort to control costs, my hospital or practice exerts a range of controls or incentives that influence care decisions." *Right chart:* "My organization requires or provides incentives to use standard treatment protocols or guidelines." In the 2015 survey, physicians who indicated that they did not use treatment protocols were included in the "strongly disagree" category. For both charts, respondents were asked the same question in the 2011 and 2015 surveys.

Figure 5: The chart is based on a question asking respondents to indicate the extent to which they have used various payment models with their patients over the following time periods: two years ago, today and in the

next two years. Risk-based payment models tested in the question were shared savings, bundled payments, pay for performance and capitated. Number categories indicate how many of the four risk-based payment models were selected.

Figure 6: We calculated the percentages for four years ago and today from responses to the following statement (asked in both the 2011 and 2015 surveys): "I feel it is part of my responsibility as a physician to help bring health-care costs under control." Percentages for nine years ago were also based on that question and the 2011 survey question: "As compared with five years ago, to what degree do you feel your responsibilities include considering the cost of therapeutic options?"

Figure 7: *Left chart:* "In the past five years, have you switched your employer?" and other questions about respondents' current employers were asked to assess whether employers are physician-led or management-led. An employer is defined as the organization that makes a respondent's employment and compensation decisions. *Right chart:* "Which of the following statements best describes why you switched employers?"

Figure 8: *Left chart:* Percentages are based on a series of questions about respondents' current employers in order to assess whether employers are physician-led or management-led. An employer is defined as the organization that makes a respondent's employment and compensation decisions. Response bias due to participation in a residency or fellowship is unlikely, as the grouping of respondents who are 6 to 15 years out of medical school shows the same pattern as for those 8 to 15 years out. *Right chart:* "Please indicate to what extent you currently use tools or programs (whether by your own choice or by your organization's or hospital's choice)."

Figure 9: Systemization was calculated for physicians practicing in physician-led and management-led organizations, with the same methodology used in Figure 1.

Figure 10: Systemization was calculated for physicians in Massachusetts and Mississippi/Alabama, with the same methodology used in Figure 1.

Figure 11: *Left chart:* "On a scale of zero to 10, where zero means not at all likely and 10 means extremely likely, how likely are you to recommend your organization to a friend or a colleague as a place to work?" Those with scores of zero to 6 are detractors, 7 to 8 are neutral and 9 to 10 are promoters. The Net Promoter Score is calculated as the percentage of promoters minus the percentage of detractors. *Right chart:* "To what extent do you agree or disagree with the following statements about your employer?" Only physicians who answered "agree" or "strongly agree" are included.

Figure 12: "On a scale of zero to 10, where zero means not at all likely and 10 means extremely likely, how likely are you to recommend your organization to a friend or a colleague as a place to work?" and "To what extent do you agree or disagree with the following statements about your employer?" "Yes" is a "strongly agree" or "agree" response; "no" is a "neutral," "disagree" or "strongly disagree" response.

Figure 13: For each respondent, we calculated systemization with the same methodology used in Figure 1. *Left chart:* "On a scale of zero to 10, where zero means not at all likely and 10 means extremely likely, how likely are you to recommend your organization to a friend or a colleague as a place to work?" *Right chart:* "On a scale of zero to 10, where zero means not at all likely and 10 means extremely likely, how likely are you to recommend your organization to a friend or a colleague in need of medical services?"

Figure 14: "There are several purchasing methods that healthcare facilities use when purchasing medical devices. Please check the option that best describes the hospital where you spend the majority of your time today and three years ago." Responses from surgeons only.

Figure 15: *Left chart:* "To what extent do you agree or disagree with the following statement about medical devices: Physicians have complete discretion over all medical device decisions." *Right chart:* "To what extent do you agree or disagree with the following statement about medical devices: Physicians feel strong pressure to cooperate with purchasing decisions made by the administration (e.g., peer pressure, pressure from shared metrics, etc.)." Responses from surgeons and procurement officers only.

Figure 16: *Left chart:* "Select the average number of vendors you purchase high tech devices or tools from within a given service line." Responses from procurement officers only. *Right chart:* "Please select the reason that best describes why you discontinued using the manufacturers' devices and tools." Responses from surgeons only.

Figure 17: "In which product categories is there opportunity for your organization to achieve cost reductions?" Responses from procurement officers only.

Figure 18: "How important is each of the following criteria when deciding which manufacturer to use for your medical devices?" Responses from surgeons and procurement officers only.

Figure 19: "Which of the following sources do you utilize most to get information about high tech medical devices and tools?" Respondents were asked to rank their top sources of information. The data represents the number of times each option was listed in respondents' top three rankings. Responses from surgeons and procurement officers only.

Figure 20: "Which of the following sources do you utilize most to get information about high tech medical devices and tools?" The data represents the percentage of times respondents selected sales representatives as one of their top three sources. Responses from surgeons only.

Figure 21: "On a scale of zero to 10, where zero means not at all likely and 10 means extremely likely, how likely are you to recommend this manufacturer to another physician?" Responses from surgeons only.

Figure 22: "On a scale of zero to 10, where zero means not at all likely and 10 means extremely likely, how likely are you to recommend this manufacturer to another physician?" Responses from surgeons only.

Figure 23: "In one to four words, please list the most significant unmet need that could be addressed with medical technology, devices or tools." Responses from surgeons and procurement officers only. The category for ease of doing business includes customer support, transparency, marketing, supply chain and regulations. A sampling of individual responses is listed.

Figure 24: "Which manufacturer is best positioned to meet [your most significant unmet] need?" Most significant unmet need refers to the need identified in Figure 23 by the respondent. Responses from surgeons and procurement officers only.

Figure 25: See note in figure.

Figure 26: "Which of the following payment models for pharmaceutical products listed below are being utilized by your patients' insurance coverage providers?" Responses from nonsurgical physicians only.

Figure 27: "To what extent do you agree or disagree with the following statements?" Responses from nonsurgical physicians only.

Figure 28: *Left chart:* "To what extent do you agree or disagree with the following statements?" *Right chart:* "How important are the following criteria when deciding which drug(s) to prescribe to a patient?" The data shows responses of "important" and "very important." Responses from nonsurgical physicians only for the criterion related to price.

Figure 29: "How important are the following criteria when deciding which drug(s) to prescribe to a patient?" Responses from nonsurgical physicians.

Figure 30: "Today and three years ago, which of the following sources do you utilize most to get information about pharmaceutical products?" Respondents were asked to rank the top data sources they use. The data represents the number of times an option was listed in the top three. Responses from nonsurgical physicians only.

Figure 31: "Today, which of the following sources do you utilize most to get information about pharmaceutical products?" The data represents the percentage of times respondents selected sales representatives as one of their top three sources. Responses from nonsurgical physicians only.

Figure 32: "On a scale of zero to 10, where zero means not at all likely and 10 means extremely likely, how likely are you to recommend this manufacturer to another physician?" Responses from nonsurgical physicians only.

Figure 33: "On a scale of zero to 10, where zero means not at all likely and 10 means extremely likely, how likely are you to recommend this manufacturer to another physician?" Responses from nonsurgical physicians only.

Figure 34: "In one to four words, please list the most significant unmet need that could be addressed with a pharmaceutical product." Business environment includes responses related to coordination with insurance companies or pharmaceutical manufacturers. Sampling of individual responses listed. Responses from nonsurgical physicians only.

Figure 35: "Which manufacturer is best positioned to meet [your most significant unmet] need?" Most significant unmet need refers to the need identified in Figure 34 by the respondent. Responses from nonsurgical physicians only.

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