Practicing value-based care: What do doctors need?

Perspectives from the Deloitte 2016 Survey of US Physicians

A report by the Deloitte Center for Health Solutions

Deloitte. University Press

Fee-for-service isn't over yet, but the shift to value-based care is here and evolving rapidly. It will vary by health sector and even by geography, affecting different systems at different times. The players left standing strong will be the ones that strategically embrace innovative changes starting now. Strategic integration and deliberate organizational transformation are essential to fully realize the benefit from the volume-to-value reimbursement shift and effectively manage financial and clinical risks. Deloitte is guiding clients across all sectors of the health care industry and across critical dimensions of the volume-to-value transformation.

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Executive summary

"I AM IN FAVOR OF PROGRESS; IT'S CHANGE I DON'T LIKE."—MARK TWAIN[1]

TRANSITIONING from volume-based to value-based payment and care delivery models in health care has been one of the most important industry-wide efforts over the past few years, but the pace of change has been slow. For instance, in a 2016 survey of executives at provider organizations, 94 percent indicated that they are on the path to value-based care, yet only 27 percent have completed pilots or are at some stage of rollout. These numbers show little change from 2015.[2]

What can health care organizations do to stimulate wider adoption of value-based care? They can try to gain a better understanding of physician perspectives: Physicians are obviously affected by industry changes, and they can have great influence on the cost and quality of care.

The Deloitte 2016 Survey of US Physicians, a nationally representative sample of 600 US primary care and specialty physicians, confirms the slow pace of adoption of value-based payment models among physicians: Currently, there is little focus on value in physician compensation, and physicians are generally reluctant to bear financial risk for care delivery. At the same time, however, many physicians conceptually endorse some of the principles behind value-based care, such as quality and resource utilization measurement. The survey results suggest that:

- Financial incentives have not changed.
  - Eighty-six percent of physicians reported being compensated under fee-for-service (FFS) or salary arrangements, similar to 2014.
  - Showing no change from 2014, one-half of physicians reported performance bonuses less than or equal to 10 percent of their compensation, and one-third were ineligible for performance bonuses.
- Tools to support value-based care vary in maturity and availability.
  - While three in four physicians have clinical protocols, only 36 percent have access to comprehensive protocols (that is, for many conditions).
  - Only 20 percent of physicians receive data on care costs.

The survey findings suggest that, to stimulate the adoption of value-based care and support physicians in delivering on the "Triple Aim,"[3]—lower cost, better health, and improved patient experiences—a combination of financial incentives and data-driven tools and capabilities may help. Specifically, organizations could seek to:

- *Tie physician compensation to performance:* At least 20 percent of a physician's compensation should be tied to performance goals. Current financial incentive levels for physicians are not adequate, as indicated in our survey, and should be increased to give physicians strong motivation to improve quality and cost.
- *Equip physicians with the right tools to help them meet performance goals:* Data and decision-support tools should be available, easy to

use and offer the appropriate level of detail. Physicians desire a broadening of available clinical protocols, quality measures that align with their specialties and emphasize outcomes rather than processes of care, and detailed data on their own performance and on those to whom they refer patients. Our survey findings suggest that many physicians currently lack these tools, but when made available, they impact performance.

- *Invest in technology capabilities to connect and integrate the tools:* Information should be timely, reliable, and actionable. Our survey results suggest that many physicians distrust the data they receive or find it difficult to integrate that information into their daily practices. Health systems and payers should address these concerns. When delivered in real time, accompanied by reliable benchmarks and goals, and incorporated in workflow, the information is more likely to be used.

Introduction

"THE most expensive piece of medical equipment, as the saying goes, is a doctor's pen," writes Atul Gawande, a prominent physician, writer, and health services researcher.[4] In fact, the majority of US physicians are currently reimbursed based upon volume under a system known as fee-for-service (FFS).[5] FFS encourages the use of more tests, procedures, and treatments, not all of which might be supported by evidence on quality and value.[6] It is not surprising, therefore, that many efforts to improve the performance of the US health care system are focused on physicians. Health systems, physician organizations, health plans and government payers, and life sciences companies want to better understand how to influence physician behavior to realize success under value-based payment models.

Transitioning from volume to value has been slow. Many health systems and medical groups still make the majority of their revenue under FFS.[7] Only 3 percent of health systems provide more than one-half of all care under value-based contracts.[8] And while health systems may have value-based contracts that put the organization as a whole under some risk for meeting quality and cost goals, many still compensate their physicians based primarily upon volume.

The Medicare Access & CHIP Reauthorization Act of 2015 (MACRA) intends to encourage the adoption of value-based care in the United States. MACRA will base Medicare payments to clinicians on their performance against certain cost and quality measures, starting in 2019. It encourages participation in alternative payment models that require financial risk-sharing while also improving quality.[9]

Given the increasing efforts to transition to value-based payment models, how can health care organizations stimulate wider adoption rates among physicians?

Given the increasing efforts to transition to value- based payment models (see sidebar, "About MACRA"),[12] how can health care organizations stimulate wider adoption rates among physicians? To explore this question, we draw on results from the Deloitte 2016 Survey of US Physicians, which provides unique insights on value-based care from a nationally representative sample of 600 primary care and specialty physicians. The survey sheds light on physicians' current sources of compensation, preferences regarding compensation arrangements, perceptions regarding care transformation efforts, needed tools and capabilities, and readiness for change.

ABOUT MACRA

Although clinicians aspire to improve health outcomes, the FFS model does not reward physicians for achieving these improvements. FFS, the most common payment system in the United States today, rewards physicians and hospitals for furnishing a high volume and intensity of services. Many experts agree that FFS works against population health goals of using "health care resources effectively and efficiently to improve the lifetime health and well-being of a specific population."[10]

Facing rising and unsustainable costs and subpar quality, employers, private health insurers, and government purchasers of health care are pushing for value-based payment models. Under these models, providers are paid based upon performance, measured in terms of cost, quality, and outcomes, not volume. (For an overview of specific value-based payment arrangements, please refer to Appendix 2 on page 22.)

MACRA aims to accelerate the adoption of value-based payment models by setting two reimbursement tracks for physicians in Medicare.[11] The default track is the Merit-Based Incentive Payment System (MIPS), which varies payments to physicians based upon their individual performance on cost and quality indicators as well as their use of health information technology and clinical improvement activity. Additional payments go to physicians (and other clinicians) who participate in advanced Alternative Payment Models (APMs), or certain value-based payment models that carry both upside and downside financial risk.

TOPICS COVERED IN THE DELOITTE 2016 SURVEY OF US PHYSICIANS

The survey asked physicians about a range of topics related to MACRA, consolidation, and health information technology. Since 2014, we have asked questions on value-based care.

The survey explored the following topics:

- **Use of care pattern data.** Care pattern reports can help physicians identify variation in how they deliver care and how their care patterns compare to peers' or to quality benchmarks. Care pattern information may also be useful in helping physicians decide which specialists or facilities they should refer their patients to. For instance, if one specialist is more likely to recommend surgery and the other favors a conservative approach, the "clinical path" for the patient may depend on which of these two specialists her doctor sends her to.
- **Measuring and reporting the quality of care** delivered by health systems and individual clinicians. Measurement is an essential component of care pattern analysis and a basis for performance-based physician compensation. Additionally, many private and public payers require quality reporting.
- **Reducing variation in care.** Utilizing clinical care guidelines, also called clinical protocols, is the main tool for standardizing care.

The current state of value-based care among physicians

Current financial incentives for value-based care participation might not be sufficient

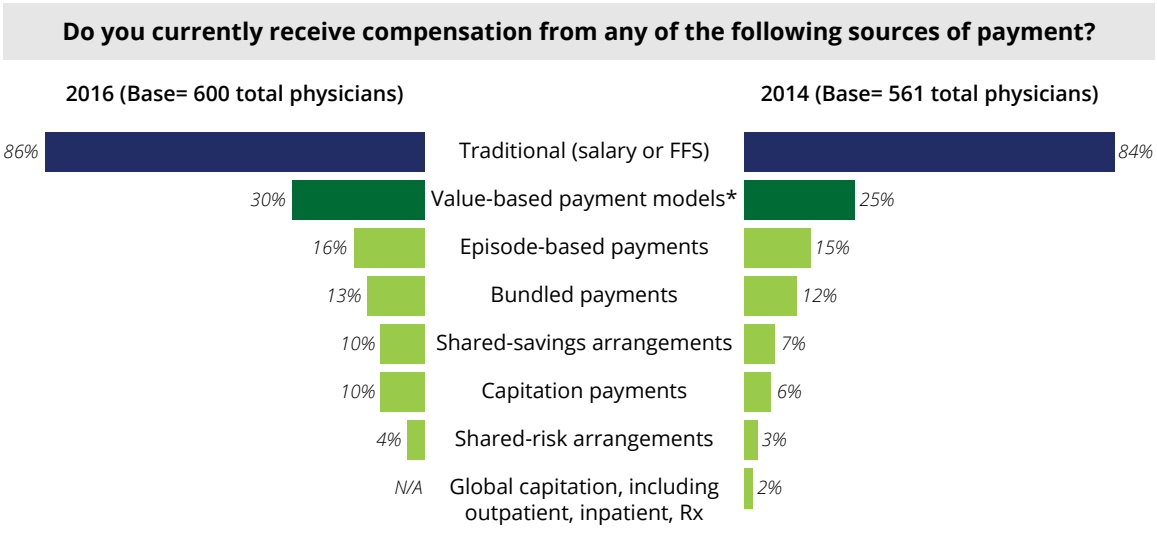
Even though many stakeholders in the health care industry are committed to value-based care, our findings indicate that most individual physicians are not yet compensated under value-based models. Understanding physicians' views on various compensation methods can help guide health systems and other organizations working with physicians in structuring physician compensation to better align with value-based care principles.

VALUE-BASED PAYMENTS MAKE UP A SMALL PROPORTION OF PHYSICIAN COMPENSATION

Similar to our 2014 findings, a majority of physicians (more than 8 in 10) still report being compensated under FFS or salary (figure 1). While physician participation in value-based payment models is increasing (30 percent in 2016 versus 25 percent in 2014), few physicians participate in models that have the greatest downside risk (10 percent in capitation and 4 percent in shared-risk arrangements).

Even for organizations participating in Centers for Medicare and Medicaid (CMS) pilots, such as accountable care organizations (ACOs), a study revealed that the structure of physician compensation

Figure 1. Value-based payment arrangements represent a relatively small source of physician compensation; three in ten physicians now receive some compensation from value-based arrangements.



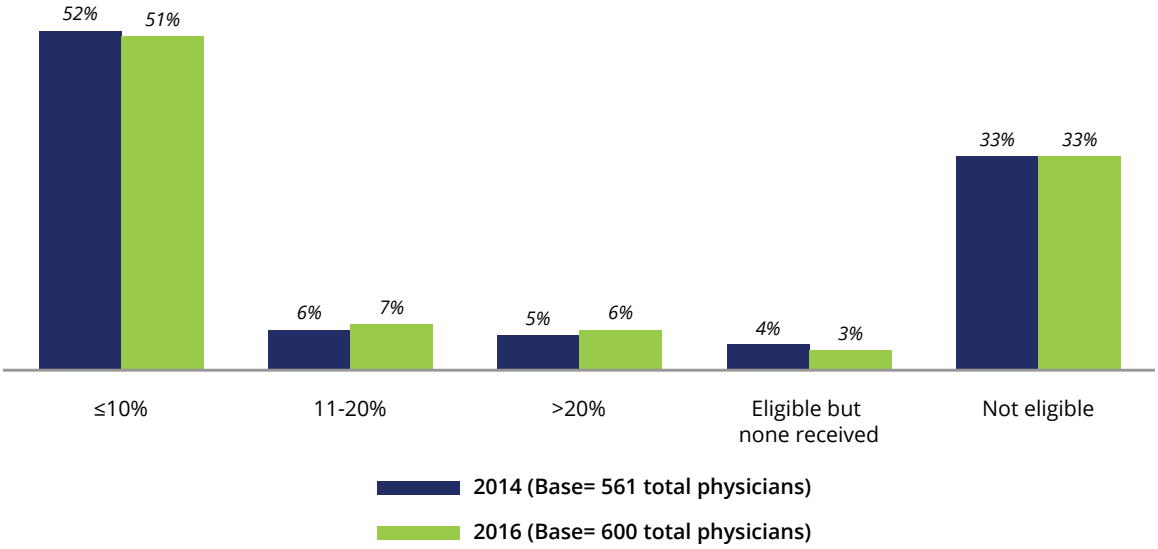
**Total includes any of the models below*

Source: Deloitte 2016 Survey of US Physicians.

Graphic: Deloitte University Press | dupress.deloitte.com

Figure 2. The amount of physician compensation from performance bonuses remains small.

What percentage of your personal compensation comes from bonuses or other incentive payments directly tied to achieving specified performance goals (for example, quality-of-care scores, patient satisfaction scores, productivity improvements, or cost reduction)?



Source: Deloitte 2016 Survey of US Physicians.

Graphic: Deloitte University Press | dupress.deloitte.com

was similar to that in organizations that were not part of an ACO. The study found that physicians in ACOs and those not in ACOs earned 49 percent of their compensation from salary, 46 percent from productivity (volume), and only about 5 percent from quality and other factors.[13]

Not only are value-based sources of payments an uncommon source of physician compensation, but the proportion of compensation tied to performance, such as better quality or lower cost, is also small (figure 2). One-half of physicians in the survey reported performance bonuses less than or equal to 10 percent of their compensation, and one-third reported that they were ineligible for performance bonuses. These numbers are well below the threshold (20 percent of total compensation) that the literature suggests would be effective in incentivizing physicians and producing behavior change.[14]

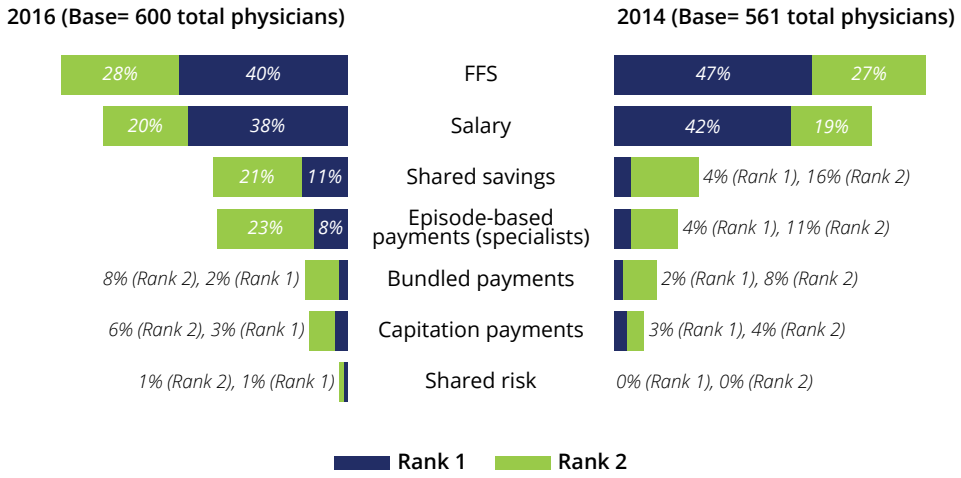
Interestingly, physicians reported that they would be willing to accept sizeable proportions of compensation at risk, if required to. The median reported proportion is 15 percent, meaning one-half of surveyed physicians would put more than 15 percent of compensations at risk and the other half would accept less than 15 percent.

PHYSICIANS STILL PREFER FFS AND SALARY, THOUGH SOME VALUE-BASED ARRANGEMENTS HAVE BECOME MORE ATTRACTIVE

Most physicians reported that they prefer FFS and/or salary (figure 3). As in 2014, few physicians preferred value-based payment models that carry significant financial risk (such as capitation and shared risk). However, compared to 2014, more physicians preferred models that include some upside risk component, such as shared-savings models.

Figure 3. Preference for shared savings and episode-based payments is increasing, but physicians like FFS and salary best.

Which of the following types of compensation arrangements would you prefer to have? Please rank your top three choices, from most preferred to least preferred, with 1 being your top choice.



Note: Only the first two ranks are depicted in the charts.

Source: Deloitte 2016 Survey of US Physicians.

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IMPLICATIONS

Studies show that incentives are most effective when they go directly to the clinician (rather than to the medical group or treatment team), and outcomes are most likely to improve when financial incentives are sufficiently large—at least 20 percent.[15] Geisinger Health System, known for its employed-physician model and strong cost and quality performance, uses an 80/20 compensation model (20 percent of physician compensation is based upon cost and quality performance). Since instituting this compensation structure in 2006, Geisinger has seen improved health outcomes and lower costs for 18 common treatment interventions for conditions such as congestive heart failure.[16]

What should you consider?

- Organizations employing physicians, or working closely with physicians on value-based care efforts, should consider aligning physician incentives with their own.
- At least 20 percent of a physician's compensation should be tied to performance goals. This could help increase physicians' buy-in of value-based care initiatives and strengthen their motivation to improve cost and quality.
- Steps to achieve this may include assessment and goal setting for individual physician performance and compensation. Effective compensation redesign strategies involve active participation from physician leaders and regular, open communication with rank-and-file physicians.

Variations in care lead to variations in cost and quality. Based on an analysis of this variation, the Dartmouth Atlas of Care estimates that as much as 20 percent to 30 percent of all US health care spending may be unnecessary.[17] For organizations participating in value-based payment models, reducing unwarranted variation in care is an important clinical priority since doing so can help improve quality and cost performance. Some approaches to reducing unwarranted clinical variation include:

- **Use of evidence.** Availability of clinical protocols (commonly known as clinical care guidelines) at the point of care can reduce unwarranted variation by making it easier for physicians to choose treatment options that are cost-effective and firmly grounded in evidence.
- **Greater transparency through use of care pattern data.** Care pattern data can help physicians become aware of their own practice patterns and variations in care vis-à-vis benchmarks or standards of care.
- **Shared decision making that involves clinician-patient interaction** to help patients make informed choices that reflect patients' values and preferences.[18] We did not explore this approach in our study.

Tools and capabilities to support delivery of value-based care vary in availability and maturity

Regardless of financial incentives to reduce costs and improve care quality, physicians would have a difficult time meeting these goals if they lack data-driven tools. These tools can give them insight on cost and quality metrics, and can help them make care decisions that are consistent with effective clinical practice. Our survey explored physicians' needs for and usage of such tools: clinical protocols to inform decisions, care pattern data for performance measurement and improvement, care pattern data for outside referrals, and electronic health records (EHR) technology. Most physicians reported having some access to these tools, but the access varied by type of physician and tool.

CLINICAL PROTOCOLS ARE WIDELY AVAILABLE, AND PHYSICIANS VALUE THEM

Physicians reported that they have access to clinical protocols and acknowledge their value. Three out of four surveyed physicians reported having clinical protocols, with 36 percent of all respondents having access to comprehensive protocols for many medical conditions. Anecdotally, care standardization has a longer history in inpatient settings (that is, hospitals), and our survey results confirm greater protocol availability among inpatient-based (90 percent) compared to outpatient-based (69 percent) physicians. We also see large differences between employed and independent physicians: 92 percent of employed physicians versus 68 percent of physicians in independently owned practices have protocols (see figure 4).

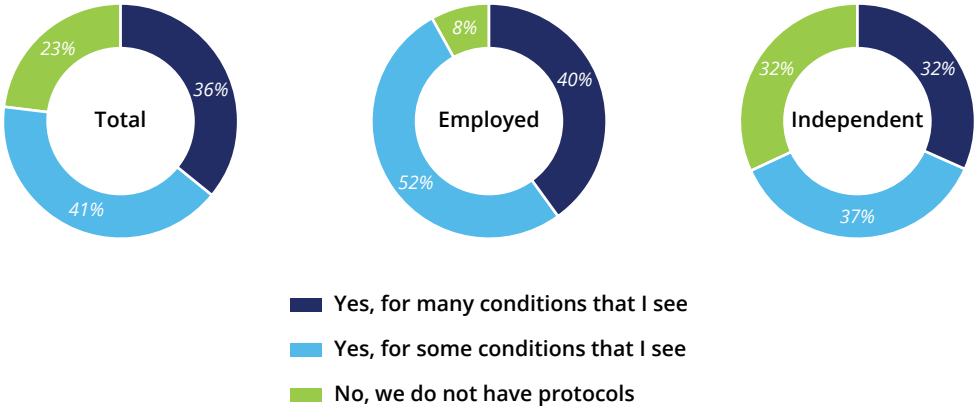
Since implementing clinical protocols at the point of care can require EHRs and clinical decision support, the cost of these technologies may explain the lower adoption rate among independently owned physician practices.[19]

Overall, physicians held positive views about clinical protocols and the idea of reducing clinical variation. Three in five (60 percent) physicians reported that on balance, the positive aspects of having protocols outweigh the negatives (figure 5) and nearly one-half (48 percent) think that reducing clinical variation could help improve the performance of the US health care system (figure 6).

Physicians with access to clinical protocols tended to have more favorable views about controlling costs and quality, measuring performance, and reducing clinical variation. And those with access to protocols were more likely to favor value-based payment models and public reporting of individual physicians' performance, even though these strategies are generally unpopular.

Figure 4. Three in four physicians report having clinical protocols, at least for some conditions they see.

At your primary work setting, do you have clinical protocols or guidelines that you are encouraged to follow?



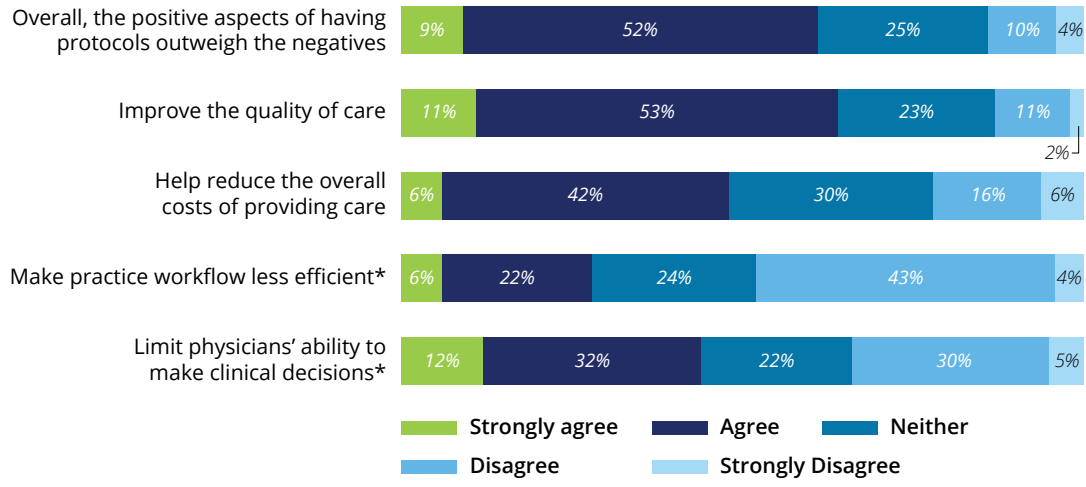
Base= 600 (total physicians)

Source: Deloitte 2016 Survey of US Physicians.

Graphic: Deloitte University Press | dupress.deloitte.com

Figure 5. Physicians' attitudes about clinical protocols are generally positive.

To what extent do you agree or disagree that clinical protocols...

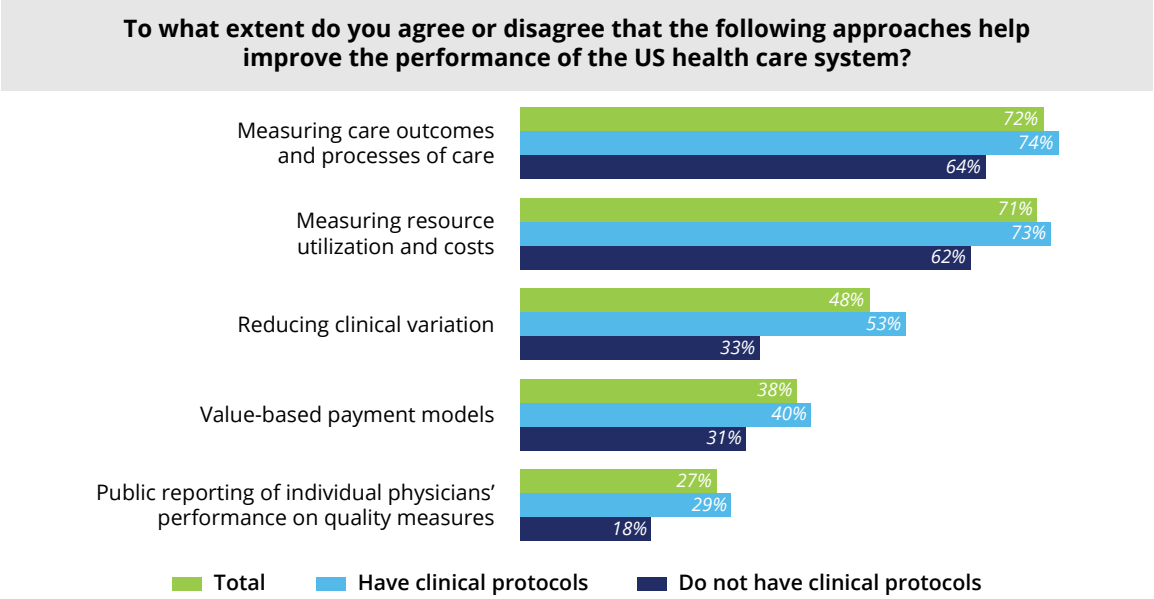


**Negatively worded survey response options*
Base= 600 (total physicians)

Source: Deloitte 2016 Survey of US Physicians.

Graphic: Deloitte University Press | dupress.deloitte.com

Figure 6. Physicians with access to clinical protocols are generally more supportive of approaches to control health care costs and quality.



Base= 600 (total physicians)

Source: Deloitte 2016 Survey of US Physicians.

Graphic: Deloitte University Press | dupress.deloitte.com

Some physicians expressed concern that clinical protocols limit physicians' ability to make clinical decisions (43 percent agree and 35 percent disagree with this statement). According to other research on this topic, concern about losing clinical autonomy has been a major barrier to clinical protocol adoption.[20] Our results show that physicians with access to protocols generally viewed them more favorably. We also find that even physicians with access to clinical protocols had concerns over loss of clinical autonomy: 37 percent agreed and 39 percent disagreed that protocols limit physicians' ability to make clinical decisions.

IMPLICATIONS

Physicians' favorable attitudes about using clinical protocols suggest that the industry is making strides in bringing the evidence-based approach to the point of care. Nevertheless, the following hurdles remain: adopting protocols among physicians who do not currently have them; broadening the protocol scope to include more conditions; and reviewing and updating existing clinical guidelines to ensure that they accurately reflect the evidence base. Reasons for low adoption of clinical protocols, especially for small independent practices, may include absent or inadequate HIT systems, skepticism about the utility of clinical guidelines, and distrust of the guideline development process.[21]

What should you consider?

- To increase physician support and use of clinical protocols, organizations employing physicians, or working closely with physicians on value-based care efforts, should seek to understand physicians' specific concerns regarding protocol use.
- Once the concerns are understood, organizations can devise strategies to overcome these hurdles, which may include:
  - Involving physicians in the protocol development process to help convince and engage the skeptics
  - Demonstrating the connection between protocol use and patient outcomes to support the business case for protocol adoption and wider use
  - Broadening the scope of current protocols to include a greater number of patient conditions, which would increase the relevancy of protocols for specialty areas that are currently poorly covered by what's available
  - Communicating the rules about exceptions and allowable deviations, and streamlining the documentation requirements to support deviations from the protocols to allay concerns about loss of clinical autonomy
  - Investing in HIT systems to enable easier dissemination and smooth integration of protocols into daily practice

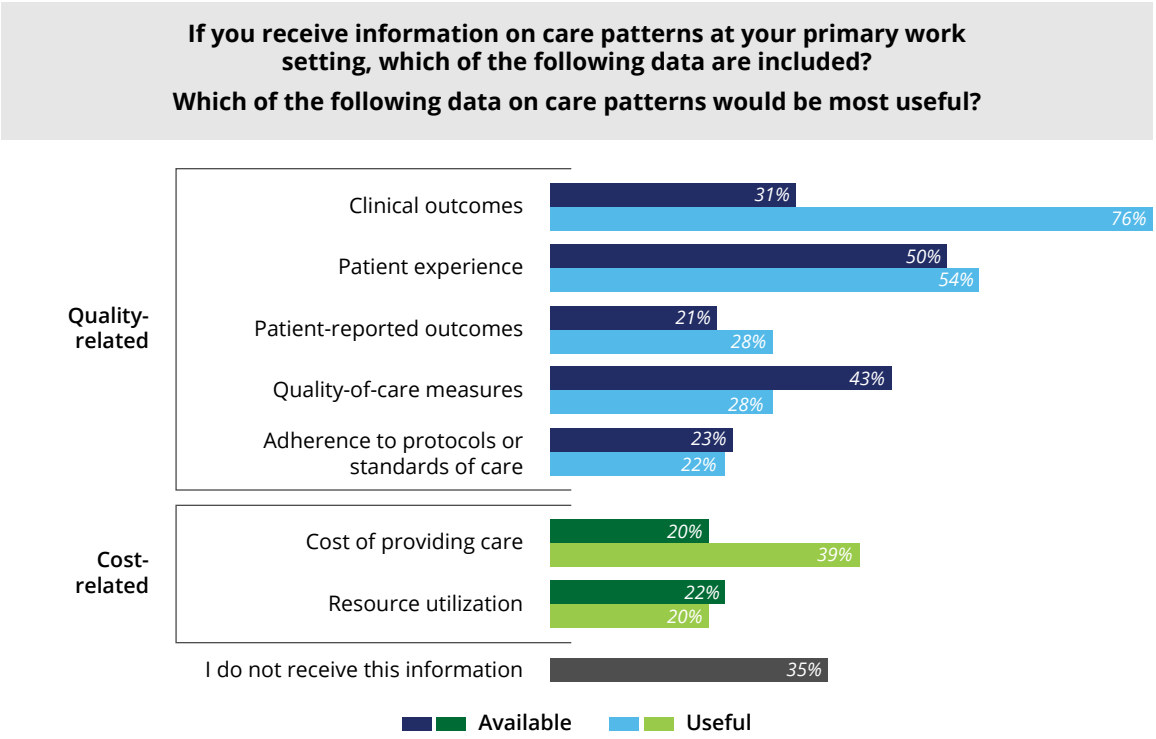
CARE PATTERN REPORTS ARE AVAILABLE TO MOST PHYSICIANS, BUT CHALLENGES REMAIN

Care pattern reports provide physicians with feedback on their clinical practices. They may contain information on the patient experience, the quality of care, resource use, or cost, and can be used for continuous quality improvement or for performance-based compensation.

Sixty-five percent of surveyed physicians reported receiving care pattern information. However, the survey also reveals some gaps between the reported availability and the perceived usefulness of these tools. Physicians noted that care pattern reports should contain information on clinical outcomes, patient experience measures, and cost. In practice, though, physicians reported mostly receiving information on "process" measures, such as quality-of-care information, rather than clinical outcomes. Patient experience is a frequently available quality metric, and many physicians find it useful.

Compiling and reporting accurate care pattern data can be challenging, due to time lags in data collection and attribution when patients see multiple doctors. While many measures exist for primary care, there are few for specialties like oncology and nephrology.[22] Quality reporting is expensive, with an estimated cost of around $40,000 per physician per year.[23] Our survey results show that:

Figure 7. Clinical outcomes data are deemed the most useful type of care pattern information, but they are not readily available to most physicians.



Base= 600 (total physicians)

Source: Deloitte 2016 Survey of US Physicians.

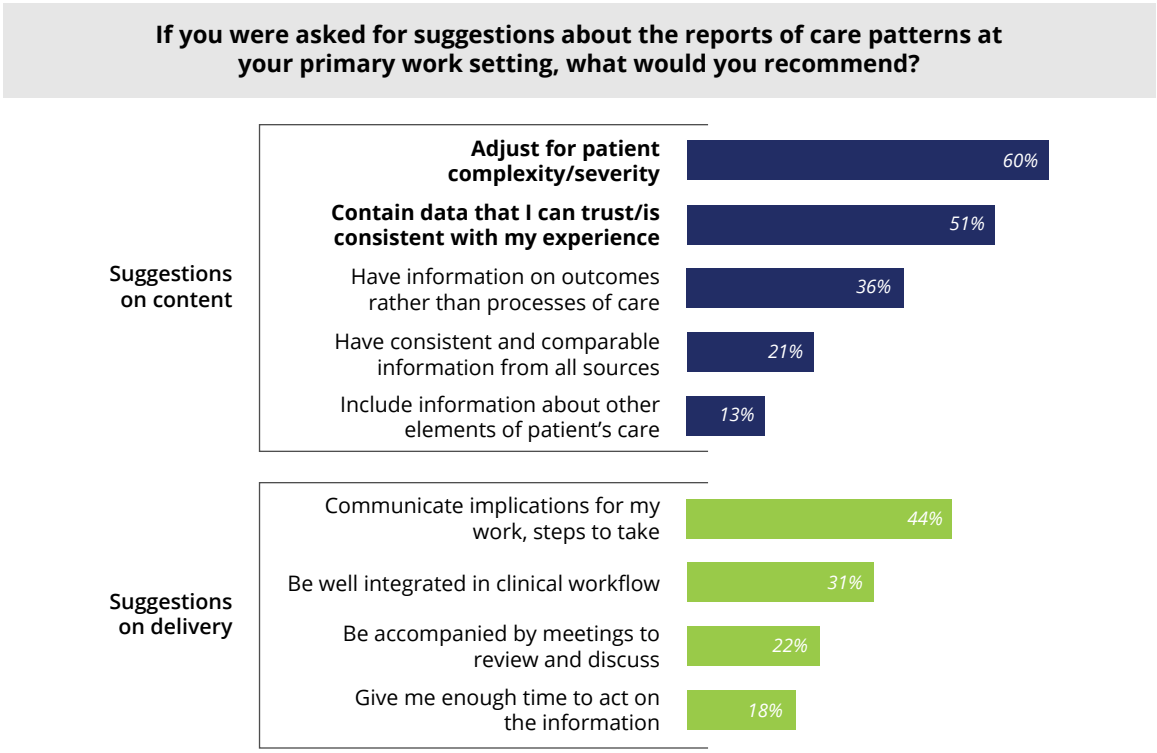
Graphic: Deloitte University Press | dupress.deloitte.com

- 85 percent of physicians said they would need additional resources to comply with Medicare-required quality reporting at their practices;
- 74 percent said that collecting and reporting the information for these quality measures is burdensome;
- 83 percent did not feel that the measures accurately capture quality of care for their specialty.

Physicians with access to some types of advanced capabilities (for example, clinical protocols and/or care pattern information) were less likely to say they feel underprepared for quality reporting requirements such as those considered under MACRA. But even in this group, most say that quality reporting is burdensome. For instance, 72 percent of physicians with access to clinical protocols versus 82 percent of those without described quality reporting as burdensome, and 84 percent versus 87 percent said they would need additional resources to comply with reporting requirements.

When asked about improvements to care pattern reports, physicians cited that they would like the data to be adjusted for patient complexity or severity (60 percent), to be trustworthy and consistent with their experience (51 percent), and to have a stronger focus on outcomes instead of processes (36 percent). Some of the desired features had more to do with the delivery and usability of care pattern reports than with their actual content (see figure 8).

Figure 8. Adjustments for patient severity and trustworthiness of care pattern data top the list of suggestions for improvements to care pattern reports.



Base= 392 (Receive care pattern information)

Source: Deloitte 2016 Survey of US Physicians.

Graphic: Deloitte University Press | dupress.deloitte.com

IMPLICATIONS

Under MACRA, performance on resource utilization and quality measures will be factors affecting the level of physician reimbursement in Medicare. The fact that only one in five physicians reported receiving resource utilization data (figure 7) points to the need to develop these reporting capabilities further.[24] Not only do physicians need to receive this type of information, but the data need to be presented in a way that is useful, easy to understand, and actionable.[25]

Similarly, quality data used in setting performance benchmarks should be reliable, reproducible, and focused on outcomes within physicians' control. Methodological details and rationale about outcome measurements (such as severity adjustments, or lack thereof) and patient attribution should be clearly explained, as well as the implications for physicians' work and what they would need to do to improve.

What should you consider?

- In designing performance-based physician compensation, ensure that performance goals are meaningful and realistic, and that the number of measures is reasonable.
- Prioritize quality performance over cost.
- Educate physicians about the performance measures and help them prioritize efforts.

PHYSICIANS REPORT LOW USE OF COST OR QUALITY DATA IN INFORMING PATIENT REFERRALS

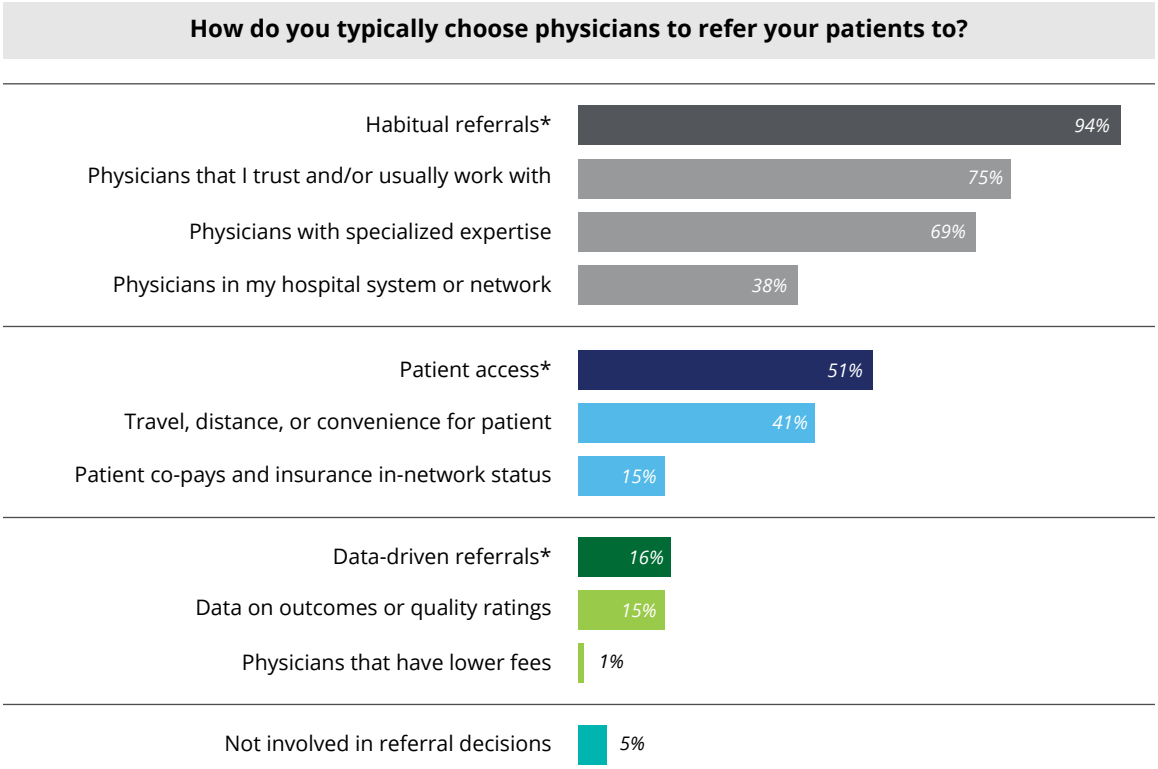
For organizations building value-based care capabilities, understanding physician referral behaviors and patterns of referrals can be a way to find savings or improve outcomes.[26] One study found that, in cases where treatment guidelines were unclear, physicians in high-spending regions were much more likely to choose intensive clinical approaches than physicians in low-spending areas, and a number of those approaches involved referrals (for example, referrals to specialists for one-time consultations or for ongoing management, to tests and diagnostic procedures, to hospitals or intensive care units).[27] There is also high variation in health care prices that is unrelated to quality; this variation exists even within the same markets, where the prices for the same procedure can vary by a factor of three or four.[28]

Our surveyed physicians cited trust or working relationship (75 percent) and specialized expertise (69 percent) as the top two criteria in patient referrals (see figure 9). Other studies also show that physicians value clinical expertise.[29]

Consistent with the literature, patient access considerations (51 percent) are also prominent in referral decisions. This is especially true among primary care (58 percent) and nonsurgical specialists (60 percent).

Our survey results suggest data-driven and evidence-driven referral patterns are uncommon: Only 15 percent of physicians said they take into account outcomes or quality ratings when they make referrals. Cost considerations were also infrequent, as 15 percent of physicians considered patient co-pays and insurance in-network status and only 1 percent took into account physicians' fees.

Figure 9. Physicians rarely use data on quality or cost in referral decisions.



**Combined response categories include any of the responses in the category; they do not represent the sum of responses.*
Base= 600 (total physicians)

Source: Deloitte 2016 Survey of US Physicians.

Graphic: Deloitte University Press | dupress.deloitte.com

Not surprisingly, physicians were interested in different types of information for different types of referrals. The rate of complications would be useful for 64 percent of physicians in referrals to procedural specialists. For referrals to specialists who mostly provide consultations, patient experience (55 percent) and rate of diagnostic errors (42 percent) were considered most useful. For referrals to treatment facilities, patient experience (44 percent) topped the list. And for referrals to outpatient diagnostic facilities, cost to the patient (52 percent) was the number one choice, followed by the rate of diagnostic errors (45 percent).

IMPLICATIONS

Many physicians are interested in using data on quality in their referrals; in its absence, they rely on habitual referrals. Given this interest and MIPS incentives tied to resource use measures, physicians may see value in referring patients to providers who routinely use low-intensity (or conservative) approaches. Additionally, if the current trend of increased patient cost sharing due to high deductibles continues, physician interest in cost-related information may grow, since many physicians are attuned to patient access considerations.

What should you consider?

- Organizations employing physicians, or working closely with physicians on value-based care efforts, may need to collaborate with payers in their markets around quality and cost transparency. This should enable the development of comprehensive reports that contain care pattern data both for internal and external physicians and facilities.
- Care pattern data to support referrals should contain information that referring physicians find relevant; the type of "referral destination" may suggest which information should be prioritized.

Understanding physicians' willingness to participate in value-based payment models

TO better understand the factors most likely to contribute to physicians' participation in value-based payment models, we built a regression model that used a combination of demographics, practice-setting characteristics, and measures of tools and resource availability (see Appendix 3 for details).

We found that, with regard to their willingness to adopt value-based payment models, physicians can be classified in three broad segments:

- *Willing*. With appropriate incentives, these physicians were likely to participate in value-based payment models. Many already had experience with—and the tools for—value-based care and performance-based compensation models.
- *On the fence*. These physicians were more cautious about value-based payment models. They had less experience with them, and fewer supporting tools.
- *Resistant*. Resistant physicians were skeptical about value-based care and unlikely to participate in these models, even with incentives.

Our analysis shows important differences in demographics and practice setting characteristics of the physicians in the three segments (see figure 10, and Appendix 3 for full details):

- Willingness to participate in value-based payment models was higher among younger physicians and those who were employed by or affiliated with a health system. Older physicians and those in independently owned practices, especially in solo practices, were more likely to be resistant to value-based payment models.
- Those who had a high Medicare Advantage payer mix, practiced in the west, and/or were surgical specialists were more willing to participate in value-based care.

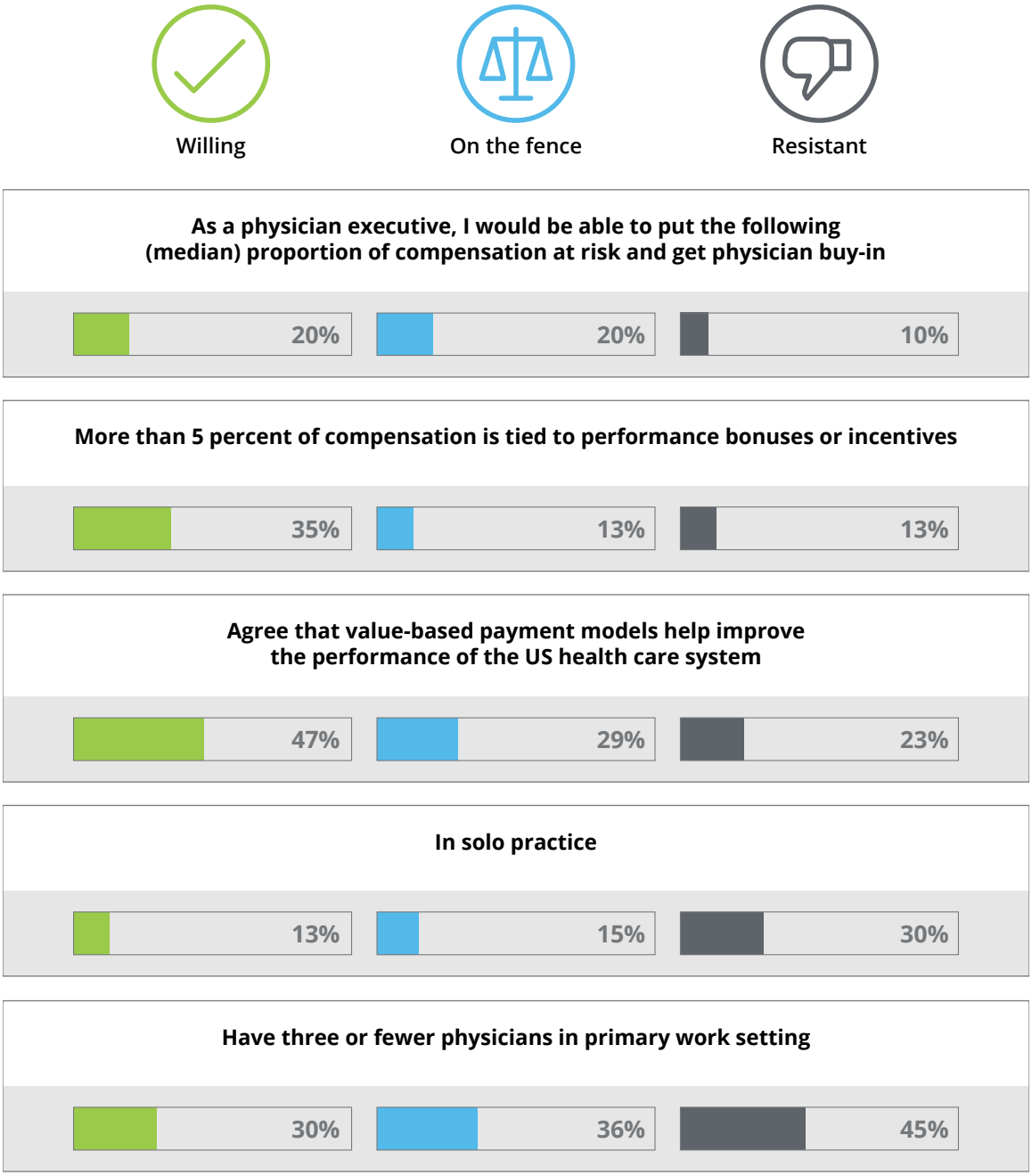
Our analysis also revealed large differences among segments in attitudes, experience with performance-based compensation, and risk tolerance. For instance, 36 percent of physicians in the willing segment already receive some compensation from a value-based source of payment versus 24 percent of physicians who are on the fence and 21 percent of resistant respondents.

The demographic and practice setting differences between the segments have particular implications for value-based care efforts. For instance, solo practitioners and those in small practices might be more difficult to engage effectively as they tend to be more resource-constrained, both in terms of staffing and technology availability.

Interestingly, however, our analysis shows that the availability of tools and resources helps mitigate the effects of non-modifiable demographic characteristics. For instance, when physicians have care pattern information, clinical protocols, and Stage 3 Meaningful Use EHRs, their willingness to participate in value-based care increases. Making these tools available could help move physicians from the on the fence to the willing category.

Physicians' views on needed resources and capabilities provide further insights into what would increase the likelihood that they would accept risk-

Figure 10. The segments differ on demographics, attitudes, and experience with performance-based compensation.



Source: Deloitte 2016 Survey of US Physicians.

Graphic: Deloitte University Press | dupress.deloitte.com

based compensation. For instance, while many physicians consider the ability to track costs as a prerequisite for accepting risk-based compensation, two-thirds (67 percent) of willing physicians thought so. On-the-fence physicians gave much greater weight to patient engagement tools than the other segments, while resistant physicians were more skeptical of risk-based compensation; 28 percent said none of the presented options would make physicians more likely to accept more risk (table 1).

Table 1. Easy-to-use patient engagement tools are more likely to persuade physicians "on the fence" to accept more risk.

Which of the following would make physicians more likely to accept risk-based compensation?

Base= 600 (total physicians)	All physicians	Willing	On the fence	Resistant
Being part of an organization	58%	65%	49%	47%
Ability to track costs	58%	67%	50%	44%
A standard set of quality measures	42%	47%	39%	31%
Contracting and financial expertise	41%	42%	46%	36%
Easy-to-use patient engagement tools	33%	26%	52%	35%
None of the above	11%	5%	10%	28%

Source: Deloitte 2016 Survey of US Physicians. **Graphic: Deloitte University Press | dupress.deloitte.com**

IMPLICATIONS

While financial incentives and supporting tools are important, this analysis indicates that there are additional factors associated with a physician's propensity to bear financial risk.

What should you consider?

- Understand how these segments align with physicians in your network
- Recognize the different approaches and support that may be required to engage different types of physicians
- Prioritize investing in tools that enable physicians to track cost and quality
- Apply learnings about the effective incentives and potential challenges with different types of physicians to gain their support for and alignment with value-based care efforts

Stakeholder implications

FINANCIAL incentives, when coupled with supporting tools and capabilities, can potentially increase the pace of physicians' transition to value-based care. Organizations in each of the health care sectors should consider how they can best help physicians make this transition.

HEALTH SYSTEMS: OPPORTUNITY TO GROW VALUE-BASED CONTRACTING, INCREASE INCENTIVES, AND IMPROVE TOOLS FOR PHYSICIANS

- *Practice value-based contracting*. Value-based contracting can help to better align physician incentives. Plus, our survey findings show that as physicians gain more experience with value-based care, their confidence in, and support for, value-based care transformation efforts tend to grow.
- *Raise the stakes for physicians*. To effect behavior change, research suggests that a minimum of 20 percent of physicians' total compensation should be tied to quality and cost goals.[30]
- *Use data-driven tools*. Data-driven tools, such as care pattern reports and clinical protocols, can help support quality goals, inform clinical decisions, and track physician performance.
- *Implement a performance management program*. Developing a robust performance management program will help ensure that physicians receive the feedback they need. In designing performance-based compensation, try to:
  - Make performance goals meaningful.
    - The evidence suggests that physicians are more motivated by patient outcomes than they are by pure cost savings. In Geisinger's experience, for instance, cost reduction was a consequence of quality improvement.[31]
    - Similarly, patient outcomes would be a more convincing rationale than cost considerations in encouraging initial adoption or expansion of clinical protocols.
  - Set a reasonable number of measures and realistic performance benchmarks.[32]
  - Educate physicians about the performance measures and help them prioritize efforts.
- *Use performance data to support organizational clinical quality improvement programs*. For instance, certain clinical variations or deviations from quality benchmarks may suggest a need to develop or change clinical protocols and/or processes.

HEALTH PLANS: OPPORTUNITY TO SERVE AS A DATA AND ANALYTICS RESOURCE FOR COST AND REFERRAL INFORMATION TO SUPPORT VALUE-BASED CARE

- *Share information with physicians and health systems in real time or nearly in real time*, as this could better enable and support physicians in their efforts to act on it.[33] Health plans have a lot of the data that physicians and provider organizations do not, such as longitudinal views of patients across all sites of care, the cost of patient care, and outpatient pharmacy utilization. Health plans can also help identify high-cost patients or those at risk of becoming high cost so that physicians can intervene with these patients in a timely manner.
- *Invest in ways to better support independent physicians to help them remain independent,* which may benefit payers in the longer term by supporting market competition. Physicians in independent small practices might need the most support. CMS's announced funding to educate small practice physicians on MACRA can

help, but other payers might consider helping with these efforts as well.

- *Align quality and resource utilization measures with MIPS.* Doing this in pay-for-performance programs may be a way to alleviate some of the quality reporting burden on physicians.
- *Use the principles around performance-based compensation and clinical improvement programs* described earlier to help physicians improve their quality and cost performance. This is especially relevant for health plans that employ or have value-based contracts with physicians.

BIOPHARMA AND MEDTECH COMPANIES: OPPORTUNITY TO BUILD ECONOMIC EVIDENCE AND PARTNER FOR VALUE

- *Develop the evidence on products' ability to reduce the cost of care or further other population health goals* in alignment with value-based care incentives. Changing financial incentives have the potential to influence physicians' decisions about the products they choose to use in clinical practice. Cost is a factor that is being incorporated into the design of clinical protocols and order sets, elevating the importance of economic differentiation in competitive product classes. Products that are not differentiated both clinically and economically are likely to see a decline in utilization. MACRA, which measures and holds physicians accountable for resource utilization, may accelerate these trends.
- *Invest in the development of real-world evidence,* not only to support product value propositions, but also to help providers and health plans work toward population health goals.
- *Partner with health plans and providers to gather, analyze, and interpret this evidence.* The data could be incorporated into clinical protocols to help bolster the use of products associated with positive outcomes.
- *Provide services to help health systems and physicians achieve value-based goals.* Some examples include adherence solutions, patient education and support, development of patient registries, and data analytics.
- *Implement value-based contracts, as physicians increase their focus on value.* Contracts focused on product performance could help align with value-based care incentives for physicians and perhaps redirect the conversations with customers from unit price to total value. Companies could work with interested providers and health plans to overcome regulatory and operational challenges and begin to experiment with these types of contracts.

Having physicians engaged and involved is critical for value-based care since their decisions impact treatment, costs, and quality. The various stakeholders should consider how they will each play a part in helping physicians transform care delivery. Only when all of the stakeholders are working together toward the same goal can the Triple Aim of lower cost, better health, and improved patient experience truly be within reach.

Appendix 1. Methodology

SINCE 2011, the Deloitte Center for Health Solutions has surveyed a nationally representative sample of US physicians on their attitudes and perceptions about the current market trends impacting medicine and predictions about the future state of the practice of medicine. The general aim of the survey is to understand physician adoption and perception of key market trends of interest to the health plan, health care provider, life sciences, and government sectors. The 2016 survey included 600 US primary care and specialty physicians and had new questions on MACRA. The national sample is representative of the American Medical Association (AMA) Masterfile with respect to years in practice, gender, geography, practice type, and specialty, so as to reflect the national distribution of US physicians.

The AMA is the major association for US physicians and its Masterfile is a census of all US physicians (not just AMA members). The database contains records of more than 1.4 million US physicians and is based upon graduating medical school and specialty certification records. It is used for both state and federal credentialing, as well as for licensure purposes. This database is widely regarded as the gold standard for health policy work among primary care physicians and specialists, and is the source used by the federal government and academic researchers for survey studies among physicians. We selected a random sample of physician records with complete mailing information from the AMA Masterfile, and stratified it by physician specialty, to invite participation in an online 20-minute survey.

Appendix 2. Overview of value-based payment models

VALUE-BASED PAYMENT MODELS AND CMS PILOT DEFINITIONS

- **Bundles (bundled payments):** Instead of paying separately for hospital, physician, and other services, payments for services linked to a particular condition, reason for hospital stay, and period of time are grouped together. Providers can keep the money they save through reduced spending on some component(s) of care included in the bundle.
- **Global capitation:** An organization receives a per-person per-month payment intended to pay for all attributed individuals' care, regardless of which services they use.
- **Patient-centered medical home (PCMH):** A team-based model of care, typically led by a primary care physician who is focused on the whole person and provides continuous, coordinated, integrated, and evidence-based care. Physicians may receive additional payments (for example, care coordination and/or performance-based incentives) on top of FFS payments.
- **Shared savings:** This type of arrangement generally requires an organization to be paid using the traditional FFS model, but at the end of the year, total spending is compared with a target; if the organization's spending falls below the target, it can share some of the difference as a bonus. Or, if patients have better-than-average quality outcomes, the provider receives a bonus or increased payment.
- **Shared risk:** As a complement to shared savings, if an organization spends more than the target, it must repay some of the difference as a penalty. Or, if patients fail to have better-than-average quality outcomes, the provider receives a lower payment.
- **Downside risk:** Payment models in which the provider is penalized if its patients fail to have better-than-average quality/cost outcomes.
- **Upside risk:** Payment models in which the provider receives a bonus if its patients have better-than-average quality/cost outcomes.
- **CMS Bundled Payment Care Improvement (BPCI):** Initiative for organizations to be paid under bundles for specific procedures/conditions. The first program is for joint replacement. After the first level of the program, participants are required to participate with gradually increasing levels of downside risk.
- **Medicare Comprehensive Joint Replacement (CJR) program:** A mandatory bundled payment model for lower extremity joint replacement services in select geographic areas.
- **Medicare Shared Savings Program (MSSP):** Initiative for organizations to develop ACOs for Medicare patients and be paid via shared savings arrangements. After the first level of the program, participants are required to participate in shared-risk arrangements with gradually increasing levels of downside risk.

Appendix 3. Segmentation analysis methodology

TO better understand the factors most likely to contribute to physicians' participation in value-based payment models, we built a regression model that uses a combination of demographics, practice setting characteristics, and measures of tools and resource availability to predict willingness.

We first classified physicians into three segments based on their willingness to participate in value-based payment models under two hypothetical scenarios. In the first scenario, participation is incentivized: If physicians accept any of the value-based options, they are guaranteed a 5 percent increase in reimbursement. By contrast, the second scenario includes the possibility of reduced reimbursement if physicians remain in FFS.

We classify physicians as willing (56 percent in our sample) if they chose to participate in value-based care models under both scenarios. The resistant segment (24 percent) is defined as those who opted for FFS under both scenarios. Physicians who are on the fence (20 percent) chose value-based arrangements in one scenario but not in the other.

The classification of physicians into segments is a robust way to define willingness to participate. For instance:

- 36 percent of physicians in the willing segment already receive some compensation from a value-based source of payment versus 24 percent of on-the-fence and 21 percent of resistant.
- Physicians in the willing and on-the-fence segments would accept a higher proportion of compensation tied to performance than physicians in the resistant segment (20 percent versus 10 percent).

Figure 11. Survey-based scenarios used to classify physicians into segments

Scenario 1	Scenario 2
Assume your largest payer guaranteed a 5 percent increase in reimbursement if you accepted any of the following compensation arrangements. Which would you choose?	Assume there was a possibility of gain or loss of up to 4 percent in reimbursement from your largest payer, based on your individual performance against cost and quality benchmarks if you stayed in FFS. Which would you choose?
• Capitation payments per patient per month • Shared-savings arrangements, where you are rewarded if your patients have better-than-average quality/cost outcomes • Shared-savings arrangements, where you are penalized if your patients fail to have better-than-average quality/cost outcomes • Bundled payments • Procedural episode-based payments and/or complex and chronic disease management episode-based payments • I would not accept any of these arrangements. I would choose fee-for-service payments or salary.	

Source: Deloitte 2016 Survey of US Physicians.

Graphic: Deloitte University Press | dupress.deloitte.com

- Physicians in the willing segment have favorable attitudes toward many principles behind value-based care, while physicians in the resistant segment express the least support (see table 5).

We then use an ordinal logistic regression model to predict willingness to participate in value-based payment models on the basis of demographic, practice setting, and resource availability characteristics. The regression-based approach to predict segment

Table 2. Willingness to participate in value-based payment models is associated with both demographic and resource characteristics.

Variable	Finding
Demographics	
Generation: Graduated from medical school before 1990 (Baby Boomers), 1990–2010 (Generation X), after 2010 (Millennials)	Millennials are more open to participation in value-based payment models.
Practice setting: Employed/affiliated, independent	Independents are less interested in value-based payment models.
Physician specialty: PCP, surgical, non-surgical	Not significant.
Region: Northeast, South, Midwest, West	The West region is associated with higher willingness for participation in value-based models, presumably due to a strong tradition of capitation. The Northeast region is associated with low willingness.
Payer mix: Commercial, Medicare, Medicare Advantage, Medicaid	Physicians with high Medicare Advantage in their payer mix are more open to value-based models since Medicare Advantage contracts are often capitated.
Resource availability	
Availability of ***care pattern*** information	Both the type and amount of care pattern information matter. Physicians receiving any kind of care pattern information versus none at all are more willing to participate in value-based payment models. Care pattern information on cost of care is most strongly associated with willingness.
Clinical protocols: Available for most conditions, available for some conditions, not available	Having protocols versus not having them is another strong predictor of willingness. How many conditions are covered by protocols is less important.
EHR: Current or future Stage 3, current or future Stage 2, all others	Physicians with EHR at Stage 3 or planning to achieve Stage 3 in the near future are more likely than those at Stage 2 or lower to be interested in value-based payment models.
The effect of demographic characteristics (such as practice setting and region) diminishes with the presence of care patterns and clinical protocols. In the final model, the combination of EHR, clinical protocols, and care patterns neutralizes the effect of practice setting (independent versus employed/affiliated) and geography.	

Source: Deloitte 2016 Survey of US Physicians. **Graphic: Deloitte University Press | dupress.deloitte.com**

Table 3. Resistant physicians are more likely to be in solo practice or in small practice settings; otherwise, the three segments have many similarities.

Demographic variables	Willing	On the fence	Resistant
Solo practice setting	13%	15%	30%
Multi-practice setting (single-specialty, multi-specialty, concierge, or other medical groups)	87%	85%	70%
Self-employed or independently owned practice	61%	65%	70%
Employed or affiliated with a health system or large medical group	38%	31%	30%
Practice size: 3 or fewer physicians (first tercile)	30%	36%	45%
Practice size: 4–10 physicians (second tercile)	38%	25%	30%
Practice size: 11 or more physicians (third tercile)	32%	39%	25%
PCP	36%	48%	41%
Surgical specialist	33%	19%	28%
Non-surgical specialist	30%	33%	31%
Graduated before 1990	42%	40%	50%
Graduated between 1990 and 2009	44%	43%	43%
Graduated between 2010 and 2015	14%	17%	6%
Male	70%	61%	65%
Female	30%	39%	35%
Midwest	20%	20%	19%
Northeast	20%	25%	30%
West	23%	22%	18%
South	36%	32%	32%

Source: Deloitte 2016 Survey of US Physicians. **Graphic: Deloitte University Press | dupress.deloitte.com**

membership helps identify the individual contribution of each variable when several factors are related to each other. Our final model included eight independent variables, of which seven were statistically significant (individually and jointly) and the overall model is statistically significant (based on the likelihood ratio test and score test). The regression model's percent concordance is 65 percent and c-statistic value is 0.65, suggesting a moderate level of prediction. The model suggests a significant association of demographics and practice setting with the willingness to adopt new value-based payment models. The model also highlights the ability of certain levers, such as access to care pattern reports and clinical protocols, to assist physicians in adoption of value-based care models. Table 2 shows the results of the regression model to predict segment membership.

Segment characteristics

An analysis of the demographics of the three segments shows similarities and important differences (table 3). The largest differences in demographics for the three segments are with practice setting and practice size. The resistant segment has a higher proportion of physicians in solo practice and small practice than the willing and on the fence segments.

Physicians in the willing segment are more likely to have access to data-driven tools than physicians in the other two segments.

Table 4. Physicians in the "willing" segment tend to have access to more data-driven resources than physicians in other segments.

Clinical protocols	Willing	On the fence	Resistant
Yes, for many conditions that I see/treat	**39%**	33%	30%
Yes, for some conditions that I see/treat	**44%**	39%	37%
No	17%	28%	33%
Care pattern information at primary care setting			
Patient experience/satisfaction	**60%**	38%	35%
Quality of care measures	**54%**	29%	30%
I do not receive this information	24%	**48%**	**50%**
Current or future EHR stage			
Stage 1	5%	4%	**11%**
Stage 2	14%	10%	**19%**
Stage 3	**36%**	24%	16%
Do not know/no stage	45%	62%	54%

Source: Deloitte 2016 Survey of US Physicians. **Graphic: Deloitte University Press | dupress.deloitte.com**

Table 5. Attitude differences by segment

	Willing	On the fence	Resistant
Attitudes on care transformation (Agree that the following approaches help improve the performance of the US health care system)			
Reducing clinical variation	50%	58%	35%
Measuring care outcomes and processes of care	77%	75%	60%
Measuring resource utilization and costs	77%	66%	60%
Value-based payment models	47%	29%	23%
Public reporting of individual physicians' performance on quality measures	32%	17%	22%
Attitudes on clinical protocols (Agree that clinical protocols…)			
Help reduce the overall costs of providing care	53%	53%	29%
Make practice workflow less efficient	20%	30%	45%
Improve the quality of care	72%	68%	40%
Limit physicians' ability to make clinical decisions	37%	47%	56%
Overall, the positive aspects of having clinical protocols outweigh the negatives	70%	60%	37%
Attitudes on quality reporting (Agree that quality measures required by Medicare for your specialty…)			
The measures accurately capture quality of care for my specialty	21%	6%	16%
The measures are comprehensive for my specialty	26%	22%	12%
It is a good idea to tie individual physician compensation to the quality measures used in my specialty	27%	17%	9%
Collecting and reporting the information for these quality measures is burdensome	72%	75%	80%
In my primary work setting, no additional resources are needed to comply with reporting these quality measures	16%	17%	14%
Attitudes on EHRs (Agree that EHR technology…)			
Helps improve clinical outcomes	54%	45%	30%
Reduces physician productivity	64%	63%	77%
Hinders care coordination	28%	36%	46%
Improves practice workflow	55%	45%	31%
Supports value-based care	58%	44%	26%
Is useful for providing analytics and other reporting capabilities	82%	71%	77%
Supports the exchange of clinical information between different providers' systems	62%	59%	49%
Increases practice costs	72%	72%	84%

Source: Deloitte 2016 Survey of US Physicians.

Graphic: Deloitte University Press | dupress.deloitte.com

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