

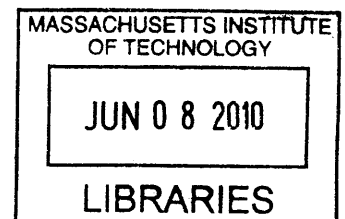
**The Medicare Physician Quality Reporting Initiative:
Perceived Costs and Return on Investment Influencing Participation**

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Doctor of Medicine
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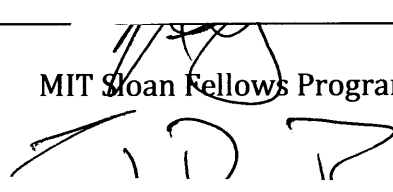
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ABSTRACT

The US health care industry is widely held view that it is failing in its ability to provide, safe, high quality care for its citizens. Escalating financial costs and regional variability in the provision of care have prompted a change in tactics for public health care administered by CMS (Centers for Medicare and Medicaid) to a "Value-based purchasing" strategy.

The Physician Quality Reporting Initiative (PQRI) is a federally funded, voluntary initiative aimed at encouraging community physicians to participate in the growing concept of value-based patient care. The initiative includes a financial incentive for MD's to provide their Medicare practice data to CMS, yet early results have identified little interest. The investment costs associated with PQRI participation and satisfaction with the perceived rewards of the program were explored. Partnering with the American Medical Association (AMA) and Massachusetts General Hospital (MGH) occurred to determine physician attitudes that influenced participation in this initiative and future strategies of value based reimbursement.

Utilizing a provider attitude survey, data was obtained on the return on investment for participation, including perceived costs associated with data entry, negative incentives that may be preventing physicians from considering the initiative and attitudes toward quality initiatives and physician payment. This study adds novel information to the literature regarding physician interest in improving quality of care as health care reform increasingly focuses on quality and patient value.

Ernst R. Berndt, Thesis supervisor
Louis E Seley Professor of Applied Economics

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Table of Contents:

1. Introduction.....5

2. Study Methodology

 Formation of the survey instrument.....14

 Motivation for study questions.....15

 Section I. Characteristics of physician practices.....16

 Section II. Incentives and attitudes of physicians.....18

 Section III. Characteristics of Current PQRI participants.....20

3. Results.....22

 Section I. Characteristics of physician practices.....23

 Section II. Incentives and attitudes of physicians.....26

 Section III. Characteristics of Current PQRI participants.....32

4. Discussion.....36

5. References.....51

6. Appendix.....56

Figures:

Figure 1. 2010 MIT Evaluation of Physician Attitudes and PQRI.....Appendix

Figure 2. Clinical Services Provided in Respondent Practices.....23

Figure 3. Number of Physicians in the Practice.....24

Figure 4. Previous Participation in Quality Initiatives.....25

Figure 5. Comparison of Physician Performance as an Incentive.....26

Figure 6. Quality Measure Linkage To Practice Guidelines Impacts Physician Autonomy.....27

Figure 7. Quality Reporting Impacts Quality of Patient Care.....28

Figure 8. Quality Reporting Leads to Improved Patient Outcome.....29

Figure 9. Payment Reform Will Improve Patient Outcome.....30

Figure 10. Pay for Performance will Improve Practice Revenues.....31

Figure 11. Early Compliance with Quality Standards Lends a Competitive Advantage.....31

Figure 12. Impression of Penalties for Quality Non-Compliance.....32

Figure 13. Clarity of PQRI Instructions.....33

Figure 14. Method of Data Reporting.....34

Figure 15. Personnel Responsible for PQRI Data Entry.....35

Introduction:

Health care is rapidly becoming one of the largest contributors to the increasing US federal deficit. Although ample benefits are obtained from our health care system, the recent rapid cost growth is overwhelming the current systems used to finance health care, including private employer-sponsored health insurance coverage and public insurance programs. In 2009, health care accounted for 17.3% of the U.S. economy.¹

In the examination of US health care costs, there are mounting concerns regarding the return on investment and attempts to restrain financial costs have increasingly targeted the quality of US healthcare. Management of quality in health care has significantly lagged behind efforts in other US industries. Much of the current manufacturing emphasis on quality arose with the post war efforts of Japan. Becoming widespread in the 1980's within the US, many industries applied "Total Quality Management" techniques in order to meet customer expectations and compete with Japanese products. Quality Excellence became recognized as a key to worldwide competitiveness and was heavily promoted throughout the industry.² However, it is worth noting that in other industrial sectors, the focus on quality improvement occurred only when other possible competitive strategies had been exhausted and the industry was in crisis.³

The health care industry remains unique in that quality is not yet a competitive measure of differentiation or market response and has not yet become a core

business strategy.⁴ In contrast to other industries, health care quality has only recently begun to evolve from its early focus on physician licensure and hospital accreditation. The emphasis by insurance companies and regulators has emerged within the academic literature only within the last 10 years. Although quality problems have been identified for several decades, there have been few organized attempts to assess value and improve quality.⁵ However, there is a cultural change occurring within the US whereby the Pandora's box of health care practice and administration has recently been opened and quality is increasingly being called into question.

Ample data demonstrate that US citizens too often do not receive high quality care. The 2001 IOM Crossing Quality Chasm highlighted the significant gaps in what is considered "good" care, and what is actually delivered.⁶ McGlynn's recent work confirmed that in spite of increasing costs, evidence-based recommended services do not occur with US citizens receiving ~55 percent of the recommended care for a variety of common conditions.⁷

Health care reimbursement has been targeted as a likely cause of the worsening economic and outcome trends. The current fee-for-service payment system is based on resource consumption and quantity of care, not quality or efficiency.

Government health expenditure administered by CMS (Centers for Medicare and Medicaid Services) currently accounts for ~20% of all US health care spending, with projections of escalating growth rates to 52% by 2019.⁸ As the largest administer of

health care, CMS has therefore adopted "Value- based purchasing" strategies to transition from passive payer to active purchaser. These value-based strategies emphasize avoidance of unnecessary cost while maintaining a focus on quality.⁹

The first value based strategy, PQRI was born from the Tax Relief and Health Care Act (TRHCA) in 2006.¹⁰ PQRI is a voluntary quality reporting system that provides financial incentives to health care professionals who report their quality measures data to CMS. It is one of the largest efforts to quantify quality services according to a set of standards, including both process and outcome measures. Although quality data is currently restricted to those covered by Medicare Part B (outpatient services), this policy has the potential to extend to additional arms of public health care and ultimately other third party beneficiaries.

Aside from its scale, PQRI is innovative in several respects. Previously there has been no universal collection method for quality data. PQRI has standardized data collection from submitted Medicare claims, using the universal billing codes or CPT (Current Procedural Terminology) codes employed throughout the health care industry. Recently, to encourage participation, CMS-approved registries have been developed for data collection, which are independent of the billing process. In addition, 2010 participants can now enter data to CMS via a qualified electronic health record (EHR) product.¹¹

Historically, hospital-based organizations and insurance plans were the only sources of information about physician practice. Limited information was available to the individual physician comparing his/her practice process or cost and virtually no data comparing patient outcomes. However, because claims data was the basis of comparison, it often lacked clinical relevancy and provided minimal meaningful information.¹² In contrast, PQRI collects quality information at the level of the individual practitioner and offers the individual community physician comparative information on the quality of his/her practice, a very novel idea. Feedback at the individual level is far more likely to cause change in physician behavior than when provided at the level of specialty group or practicing region.¹³

Another important differentiator, PQRI is a purely reporting program and financial incentives are not based on adherence to quality measures. In its current form it is purely a pay-for-reporting, not pay-for-performance (P4P) vehicle. This is likely an important distinction for physicians as the US reimbursement system moves toward one of P4P.^{14,15} This represents an abrupt change in culture within healthcare, necessitating a prolonged period of transition.

Implementation of PQRI has not been without its growing pains. In the first two years of the program only 16% of eligible professionals participated and of those, only 50% received an incentive payment.¹⁶ A follow up AMA survey, through Medical Group Management Association, to PQRI participants found that 61% found the program difficult to use, only 22% were able to download their feedback report

and less than half found it instructive. Feedback was not available until 1.5 years after reporting and the average physician payment for the second half of 2007 was \$600.¹⁷

The factors accounting for marginal physician participation have not yet been adequately studied. However, several factors are repeatedly cited: 1) the process is considered onerous and initially there were problems with many aspects of data entry, obtaining feedback, obtaining CMS assistance etc.; 2) opportunity costs are high for busy practitioners with the increasing administrative burden facing most physicians directly impacting their time to spend with patients; 3) many physicians are simply unaware of PQRI. All providers who care for patients that are Medicare beneficiaries are eligible to participate and enter quality data; however, the marketing of this initiative has been only moderately effective. The program has been heavily advertised through the CMS website; however, the frequency of visitation to the CMS website by community physicians remains unknown. Additional marketing opportunities exist at medical conferences and other educational arenas.

After this discouraging start, CMS has introduced measures aimed to improve reporting complexity, provide more timely feedback and improve participation. Importantly, physicians appear to want to improve the quality of their patient care despite the low participation. Although PQRI does help physicians differentiate

themselves from their peers, their performance on quality measures is not publicly released and thus has no direct impact on patient revenues.¹⁸ A 2008 on-line survey by the Medical Group Management Association revealed that the primary motivation for PQRI participation was improvement in quality itself and not financial reward.¹⁹

Although altruism is a motivator for physicians, financial incentives have been successfully used in health care over the last 20 years.²⁰ In particular, when financial incentives are based on professionally accepted measures of clinical quality a greater impact on behavior change is seen. However, work from the fields of cognitive and organizational psychology has demonstrated that the effects of external rewards, such as financial incentives, are transient.^{21,22} Once the reward is discontinued, behavior frequently reverts to the level at or even below baseline. Sustainable behavioral change requires ongoing alignment with other professional initiatives, such as direct physician implementation of quality activities.²³ Unfortunately, this alignment is frequently absent within small community practices and is likely to doom the success of individual quality management initiatives.

Results using financial incentives for physicians have been varied. The literature exploring the effects of financial incentives on professional responsibility has unfortunately revealed that physician behavior can be negatively altered by financial motives as born out by our fee for service system.^{24,25} Campbell et al.²⁶ and

Lindenauer et al.²⁷ both studied the impact of financial incentives on specific quality indicators and found incentives to be a minimal motivator of behavioral change. However, the interplay of incentives, quality reporting and the effect on patient outcome remains unknown.

Historically incentives have been aimed primarily at the hospital or health plan level, such as the Leapfrog Initiative.²⁸ When the return on investment accrues to the benefit of a group or organization, there is minimal motivation for the individual physician; thus, limiting the potential for behavior change within the larger number community physicians. Incentives at the level of the individual physician have primarily occurred only within the HMO or structured health care environment, which again accounts for only a fraction of practicing US physicians.^{29,30} Thus, PQRI is attempting to better align incentives with individual physician practice.

Cost is a frequently cited reason for non-participation, although it is not just financial cost.¹⁷ Most physicians prefer to spend time with their patients, rather than performing administrative tasks, such as data entry. Currently some practices are outsourcing their billing services and their PQRI data entry, as evidenced by the proliferation of companies advertising both services.³¹ However, as this entails further cost, individual and small practices often have their own internal billing staff enter data or physicians must perform their own data entry, an economically inefficient model.

The proportion of eligible professionals who participate in PQRI has increased according to those at CMS. However, the characteristics of physicians that participate versus those that don't and the return on investment for participants in these new value-based initiatives has not been studied. While ROI evaluation typically includes estimates on financial costs, other investment costs likely exist that impact successful participation in PQRI. Physician attitudes regarding relevancy of quality measures to outcome, the accuracy of quality data to reflect patient condition and the impact of both positive and negatives incentives are likely to play a significant role in their participation.

The remainder of this thesis will evaluate the return on investment including perceived investment costs and rewards from PQRI participation and the physician attitudes likely to affect participation. Now in its fourth year, participation costs to be explored include: 1. Technical resources required for participation (software, technical resources, billing service charge); 2. Time cost of education of physicians and staff; cost of physician leadership time; time negotiating outlier cases with CMS; 3. Personnel costs required to produce and disseminate reports; 4. Perceptions of participation as a value-adding activity, perceived penalties for non-compliance; cultural change from cost to quality; measurement that is de-coupled from improvement.

Perceived returns for physicians involved in PQRI to be explored include: 1. Compliance with quality measures will lead to improvement in quality of care

within a physician practice; 2. Patient outcomes may improve with a reduction in practice variability; 3. With declining Medicare reimbursement, PQRI represents a way to recoup financial losses and improve office revenues; 4. Early compliance may yield a competitive advantage in the health care market.

Study Methodology

Formation of the survey instrument:

This study was carried out as a thesis project at the MIT Sloan School of Management, in its Sloan Fellows Program in Innovation and Global Leadership. The survey was designed to explore the attitudes and perceptions of return on investment influencing participation in the Physician Quality Reporting Initiative (PQRI), as well as in other future value-based strategies.

The survey instrument was designed with no requirement for PQRI participation, in order to explore possible contrasting attitudes of those physicians who were current participants and those who were not. Only the final 18% of the survey instrument was specific to current PQRI participants. Initial exploration of survey methods by the author with CMS providers indicated that a survey distributed to an American Medical Association (AMA) physician database could obtain a more robust sample with no governmental constraints.

The 16-question electronic provider attitude survey was devised after conferring with experts in the field of survey research and Medicare administration, as well as quality and safety management personnel. A systematic review of previous surveys focusing on PQRI participation was performed. The survey was divided into three parts as follows. Section I: Characteristics of physician practices; Section II: Incentives and attitudes of physicians; and Section III: Characteristics of current PQRI participants. The survey was sent electronically to community physicians in

the greater Chicago area using a database provided the author from the AMA. A letter of introduction was included in the survey and no financial incentive was used to encourage participation.

The beta test of the survey yielded two key findings. First, the language common to regulators and the quality improvement community was unfamiliar to several of the respondents. For example, while Pay for Performance was a recognized term, Value-based Purchasing was not. In addition, the beta test revealed the increased technology comfort of community physicians. The beta survey was performed per the AMA model, using a fax format; however, this was met with a limited response and an electronic version was created. Thus, the survey was placed into a web-based model, SurveyMonkey©, to increase ease of use and response rate. To encourage participation, participants in the survey were assured of the anonymity of their responses

The survey itself, Figure 1. *2010 MIT Evaluation of Physician Attitudes and PQRI*, is shown in the Appendix.

Motivation for study questions:

A review of the current literature revealed minimal academic or independent assessment of PQRI. The existing literature primarily involved instructions for

participants and statements from formal health care groups (i.e. American College of Physicians, AMA etc.) detailing their support of the program. Although several summaries of PQRI results existed, publicly available data on PQRI was over two years old. Other than annual updates from CMS, there was a lack of real-time results, and minimal critique of the program and rates of participation. Reports on physician attitudes were scarce, the exception being blogs expressing skepticism of the quality reporting process and the possible relationship between PQRI and decreasing Medicare revenues.³²

The survey was therefore designed to explore the attitudes and perceptions underlying current rates of PQRI participation. Given the heterogeneity of the community physician cohort, I hypothesized that participation was impacted by several key factors including perceived costs and return on investment for PQRI participation and most importantly, the impression of the relevancy of quality reporting to patient outcome. As the link between quality reporting and improved patient outcomes has not yet been firmly established, the survey would help to test the hypothesis that a bias against quality reporting underlies the low rates of PQRI participation which is seen as yet another regulatory effort, negatively impacting physicians' practice of medicine. The tipping point for participation occurs when the positive incentives and return on investment outweigh this bias.

Section I. Characteristics of physician practices

1. Clinical services provided- This question regarding physician specialty is offered since previous quality measures have been tracked disproportionately within general and surgical subspecialties, primarily due to the ease of following surgical procedures versus the myriad patient problems encountered by those in internal medicine/family practice.³³ Thus the focus on quality in many surgical fields pre-dates that within medical subspecialties/primary care. The increased exposure to quality measurement by surgeons may result in a greater willingness to participate in PQRI.

2. Number of physicians within a practice- This question aims to determine the impact of physician number on the perceived cost of PQRI participation. Practitioners within large groups are likely to have an established administrative staff with more personnel to offset the time cost of data entry.

3. Participation in quality initiatives - Previous participation is likely to positively correlate with interest in quality improvement and participation in PQRI.

4. Use of Electronic Health Records (EHR): The next two questions aim to address the impact of operations-specific factors on participation. Historically the presence of EHR within a practice has been cited as a key factor in the ease of data entry.¹⁶ Many practices have implemented specific quality measures within their

EHR software.³⁴ For 2010, in an effort to encourage the entry of EHR into community practices, an additional financial incentive has been developed.³⁵

5. Billing services: The presence of a formalized billing service within the practice may lower the perceived cost of data entry. However, as many larger practices are using independent billing services, this may further offset cost of participation.

Section II. Incentives and attitudes of physicians

6. Comparison to other physicians - This question explores physician comparison as an incentive for participation in PQRI. The comparison of physicians within a specialty is not a new phenomenon; however, quality comparison is unique in that it is being utilized for something other than self-improvement.

7. Impact on autonomy as a physician - There is a long-standing distrust of standardization within medicine, which is frequently cited as a threat to physician autonomy.³⁶ This question explores the perception of physicians as independent business entities and the impact on their autonomy when quality measures are linked to clinical guidelines.

8. Improving the practice of medicine by tracking compliance with quality measures- Early PQRI data suggests that most physicians are interested in quality

and improving patient outcome. However, physicians are increasingly portrayed in a negative light, concerned primarily with their financial best interests. This question aims to investigate the physician perception that quality reporting will improve the outcomes of patients in their practice.

9. Quality measurement leads to improved patient outcome - Physicians are primarily concerned with patient outcomes and criticize quality measures for their lack of relevancy to patient outcome. Therefore, this question investigates the link between quality reporting and patient outcome.

10. Payment for Performance system and patient outcome - This question explores physician perceptions that a change in the payment system will impact patient outcome.

11. Payment for Performance system and practice revenues - This question aims to investigate the impact of the change in reimbursement on office revenues, from a system focused on visit quantity, to one centered on quality.

12. Compliance with quality standards as a competitive advantage - The early transition to pay for performance lending a competitive advantage to the practice has been touted as a motivator for PQRI participation.³⁷ The applicability to other practice types is examined.

13. Penalties and PQRI - PQRI is a pay for reporting, not a pay for performance program. There is no penalty associated with non-participation or non-compliance with quality standards. However, penalties have been an on-going point of discussion within Medicare and Congress. This question aims to explore whether physicians believe that current penalties exist.

Section III. Characteristics of Current PQRI participants

14. Clarity of PQRI instructions - The language of quality improvement has become quite emotionally loaded since its introduction. As with many initiatives, quality management/improvement has developed its own unique language and could be perceived as foreign or even threatening to many physicians. This question aims to explore the comprehension of the quality improvement language by community physicians.

15. Personnel responsible for data entry - The administrative burden of quality reporting is very significant for PQRI participants and other quality initiatives. This burden falls directly on physicians at the expense of their time with patients or other duties. This question will better assess the impact of this burden on PQRI participation.

16. Method of data entry - In an effort to increase participation and improve usability, CMS has increasingly transitioned from a Claims Reporting Method to a

Registry Reporting Method. Unpublished data from CMS demonstrates that registry reporting has increased since its introduction.³⁸ This is likely to decrease some of the administrative burden associated with PQRI administration by having an external agent responsible for quality data entry and reporting.

Results

A total of 140 surveys were sent out with an introduction letter on 3-5-10. Surveys were sent only to those physicians still practicing clinical medicine and not full-time administrators, those in training or retired physicians. The percentage of time involved in patient care was not a selection criterion. A completed survey was defined as all 16 questions answered. Because PQRI participation was not a requirement, the number of surveys attempted was not anticipated to equal the number of surveys completed. Thus, of the 53 surveys attempted, only 21 were completed, indicating a PQRI participation rate of 39% as of 4-4-10.

A second distribution of the survey was performed on 4-26-10 through the Massachusetts General Physicians Organization (MGPO) bulletin, which included an introduction to the survey and the SurveyMonkey© link. The Massachusetts General Physicians Organization (MGPO) is a multi-specialty medical group dedicated to excellence and innovation in patient care, teaching and research. This yielded an additional 44 eligible surveys of which 22 were from PQRI participants (50%).

Of the combined total of 116 surveys initiated, 21 were incomplete and therefore disregarded. Of the remaining 97 surveys eligible for review, 43 respondents answered all 16 questions, indicating a combined PQRI participant rate of 44.3% as

of 5-3-10.

An overall analysis was done, using surveys with completed Sections I and II (not participants in PQRI) and another using surveys with Sections I-III completed (current participants in PQRI). Next, each group was analyzed individually, and the results of each question and section were charted using SurveyMonkey© software.

Section I. Characteristics of physician practices

1. Clinical services provided (Figure 2) - The largest group of respondents represented physicians practicing in a medical subspecialty (54%). Primary care physicians accounted for 23% of respondents, followed by 17% surgical subspecialists and 6% general surgery. When these results were evaluated against PQRI participants, medical subspecialists accounted for a higher proportion at 72% with surgical subspecialists and primary care physicians at 14% each. No general surgeons participating in PQRI responded to the survey.

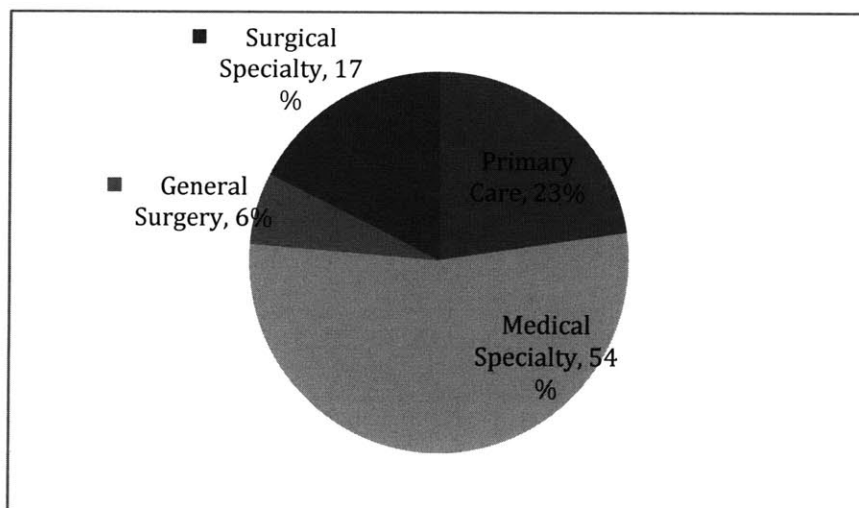


Figure 2. Clinical Services Provided in Respondent Practices

2. Number of physicians within a practice (Figure 3) - There was a positive correlation with survey respondents and number of members within the practice. 39% of physicians attempting the survey were in practices with > 50 physician members, whereas only 9% of those answering the survey were solo practitioners. When evaluated against participants in PQRI, 33% of this sample were in groups with > 50 physicians.

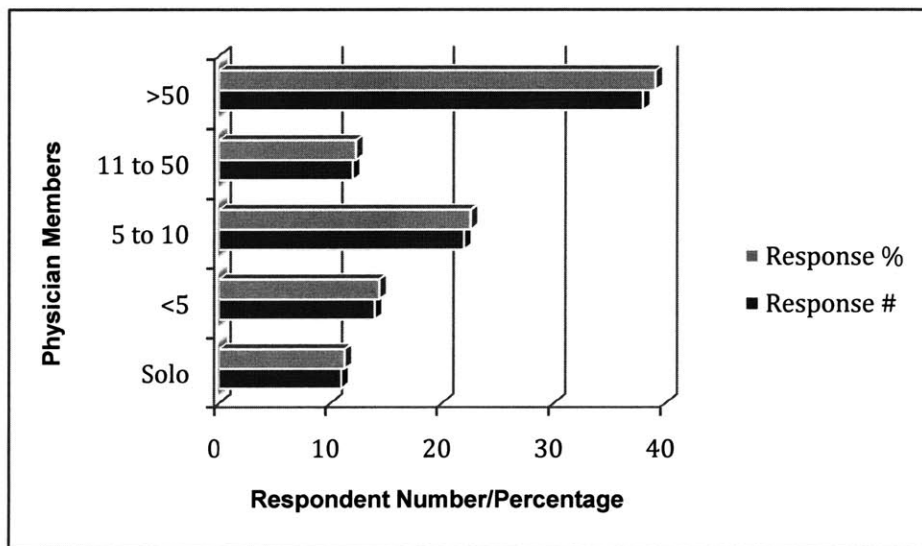


Figure 3. Number of Physicians in the Practice

3. Participation in quality initiatives (Figure 4) - Results were consistent with the hypothesis that previous participation in quality initiatives was positively correlated with current survey response. For those physicians attempting the survey, there was a 96% involvement in quality initiatives of some kind, with the strongest predictor occurring with initiatives within the physicians practice.

	Always/Sometimes (Response #/%)	Never (Response #/%)
Initiatives in Practice	81/81.3	16/16.5
Initiatives Regionally	51/52.5	46/47.4
Initiatives Nationally	53/44.3	44/45.3

(PQRI participants)

Figure 4. Previous Participation in Quality Initiatives

4. Use of EHR in the practice - Electronic health records were utilized > 50% of the time in 80.4% of respondent practices. The remaining 19.5% did not use EHR at all or used it < 50% of the time.

5. Billing services - As suggested by the proliferation of independent physician billing services, outsourced billing is occurring frequently. 38.1% of practices outsourced their billing services. Cross-referencing outsourced billing services with practice size or utilization of EHR did not reveal an identified pattern.

Section II. Incentives and attitudes of physicians

6. Comparison to other physicians (Figure 5) - In contrast to the hypothesis, comparison with other physicians on clinical performance was surprisingly well received. 85.6% of respondents considered comparison of physician performance to be a positive or neutral incentive. However, this question did result in a number of negative comments from physicians regarding the use of comparisons by payers to further decrease reimbursement.

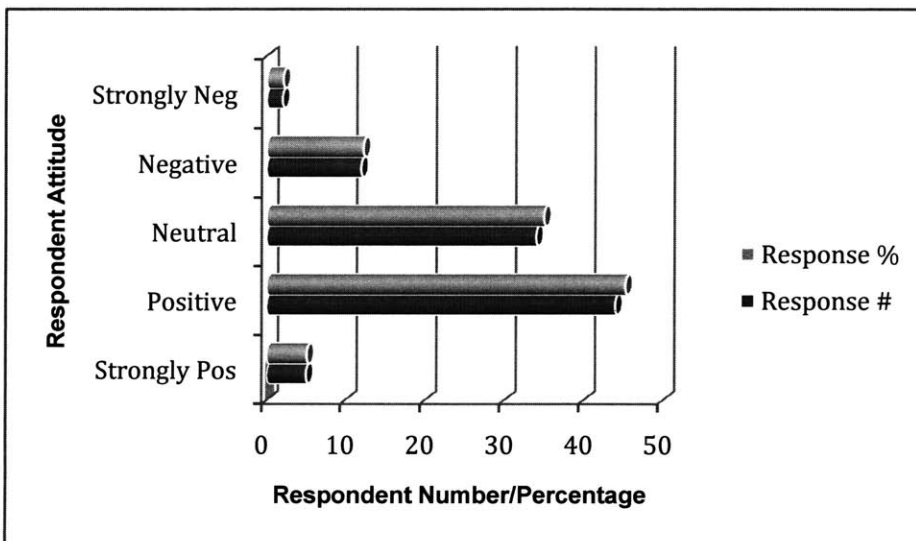


Figure 5. Comparison of Physician Performance as an Incentive

7. Impact on autonomy as a physician (Figure 6) - Clinical standardization is frequently postulated as a threat to physician autonomy. When asked if linking quality measures to practice guidelines limited their ability to use clinical judgment, physician opinions were quite diverse. However, 57.7% of respondents felt there

was a neutral impact or disagreed that this linkage imposed a constraint on their ability to use clinical judgment. Several comments included sentiments such as " I like having the guidelines, but I don't like being constrained by them, especially when they're based on wishful thinking."

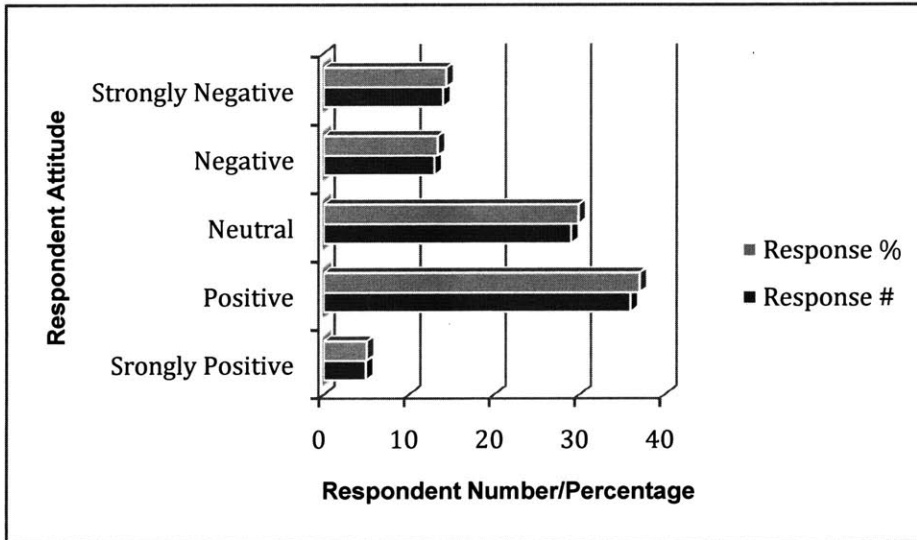


Figure 6. Quality Measure Linkage To Practice Guidelines Impacts Physician Autonomy

8. Improving quality of care by tracking compliance with quality measures (Figure 7) - 56.7% of physicians in this sample agreed with the premise that quality reporting is linked with improvement in the quality of patient care. However, additional comments by participants revealed concern that quality measures do not always take into account individual differences in patients. "It depends on the measure, some guidelines are completely misguided." and "It will improve the quality deemed to be relevant by the particular measure (whether valid or not)".

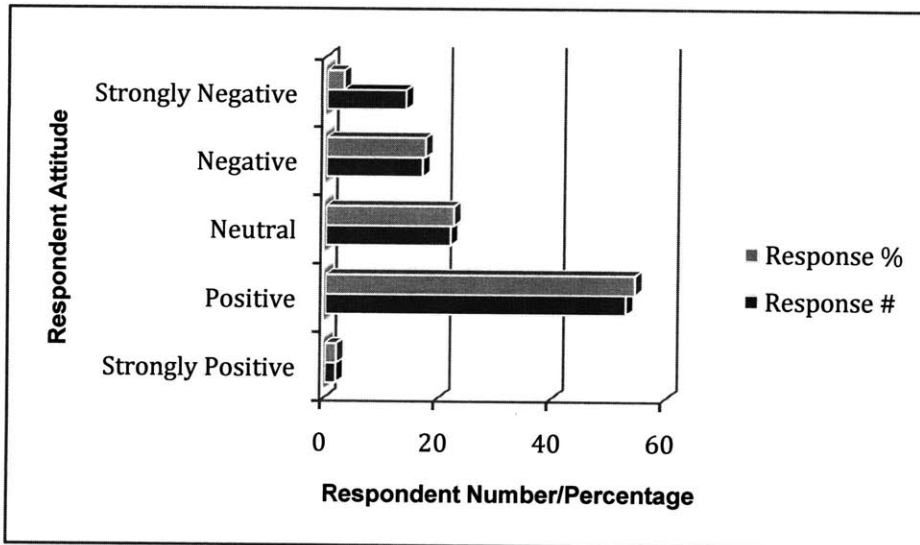


Figure 7. Quality Reporting Impacts Quality of Patient Care.

9. The use of standardized measures leads to improved patient outcome (Figure 8) - Further expressing these concerns, respondents had a more negative perception of the use of standardized quality measures to improve patient outcome. Only 25.8% of respondents felt that standardized measures would result in an improvement in patient outcome. Typical comments included " It will improve the measures of performance only." and "Any quality measurement scheme is essentially a game"

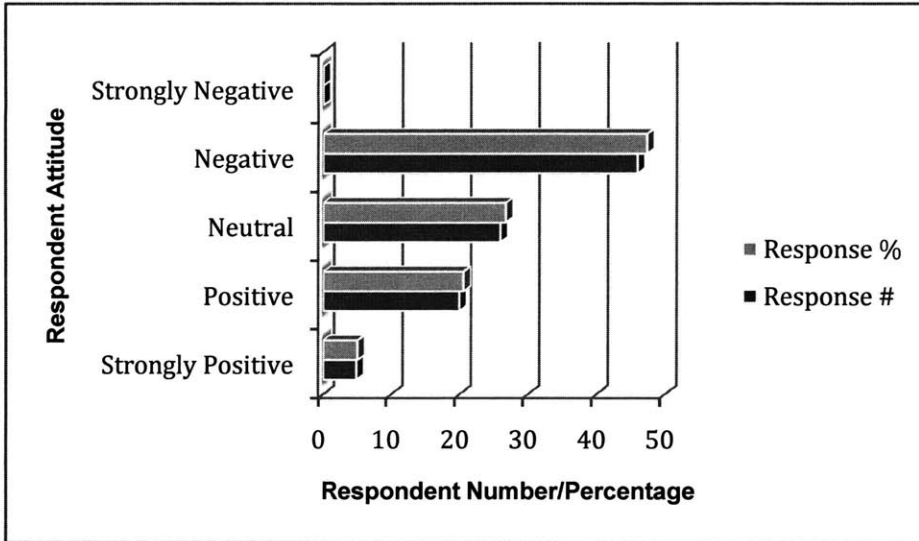


Figure 8. Quality Reporting Leads to Improved Patient Outcome

10. Payment for Performance system and patient outcome (Figure 9) -

Respondents were relatively mixed in their opinions regarding a change to a system of P4P and its impact on improved patient outcome. 49.4% of the sample strongly or somewhat agreed that payment reform could improve the outcome of their patients whereas 34% were neutral and 17% felt that the outcome of their patients would be adversely affected.

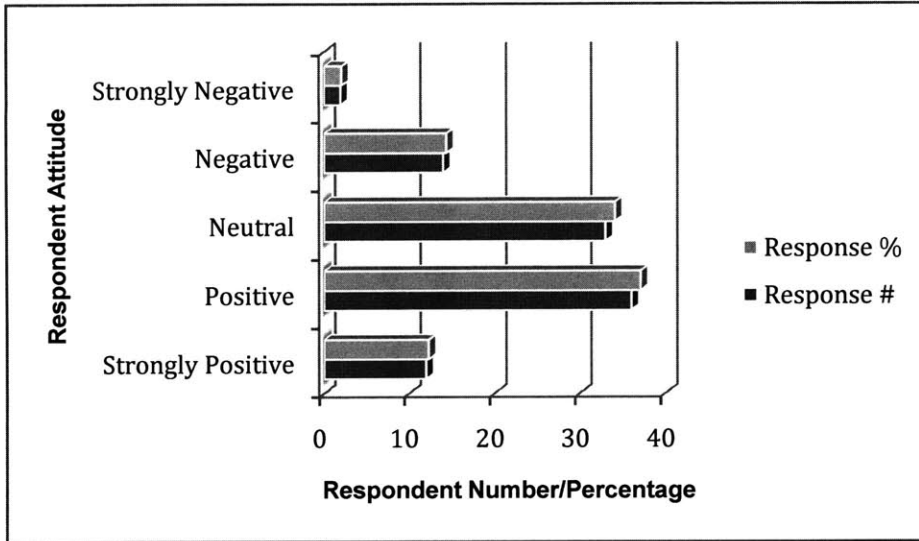


Figure 9. Payment Reform Will Improve Patient Outcome

11. Payment for Performance system and practice revenues (Figure 10) -

There was a negative trend in perceptions regarding the impact of a performance based reimbursement system on practice revenue. 41.2 % of the sample disagreed that P4P would improve practice revenues. However, when compared to practice size, those in larger practices felt that revenues would be improved with the change in reimbursement. Comparison to clinical services provided yielded no trend. .

Volunteered comments included statements such as "Depends on what the measures are and whether I feel it is ethical to improve measures vs. treat the patient optimally."

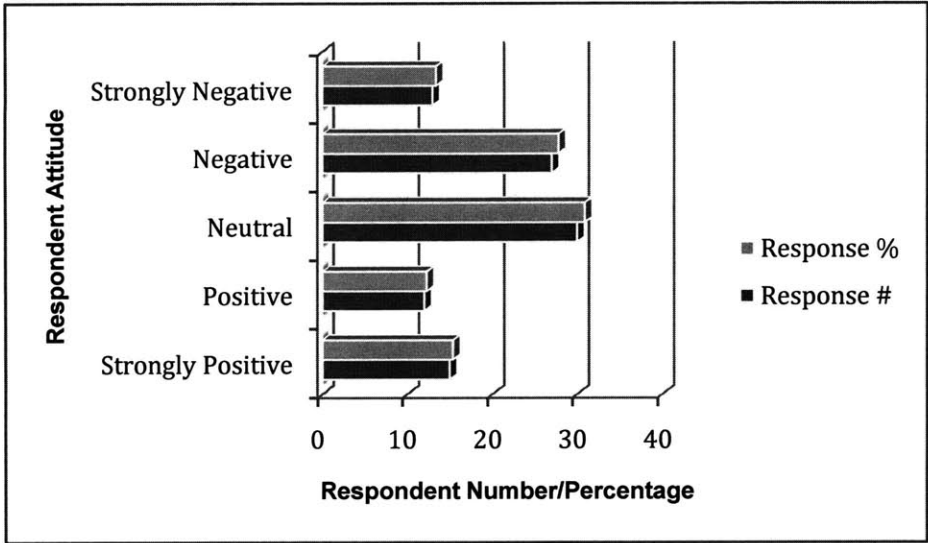


Figure 10. Pay for Performance Will Improve Practice Revenues

12. Compliance with quality standards as a competitive advantage (Figure 11) - 60.8% of respondents agreed somewhat or strongly that early compliance with quality standards provides a competitive advantage. However, several comments noted that the advantage conferred was related to ease of the transition and not competition with other physician groups.

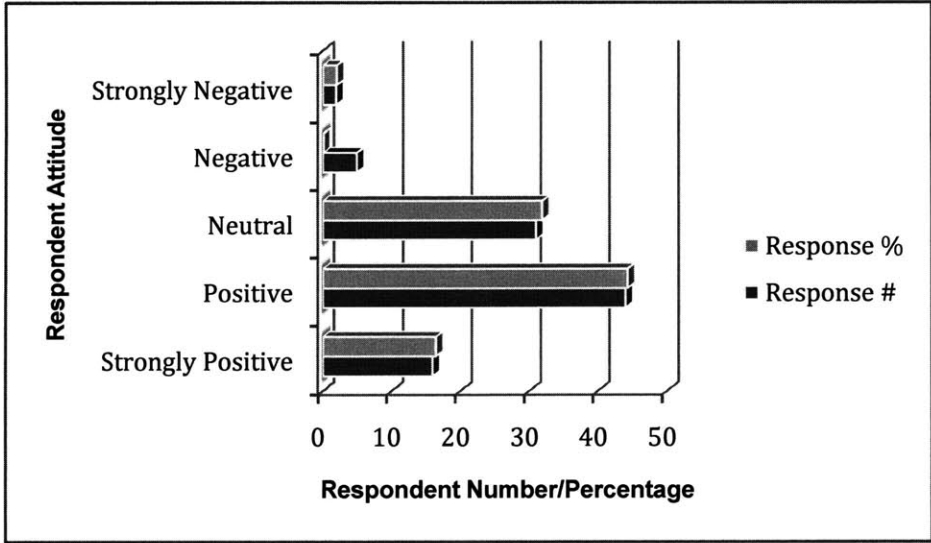


Figure 11. Early Compliance with Quality Standards Lends a Competitive Advantage

13. Penalties and PQRI (Figure 12) - Respondents were overall unaware that there is no penalty associated with non-participation or non-compliance with PQRI quality standards, with only 52.5% of the sample answering correctly.

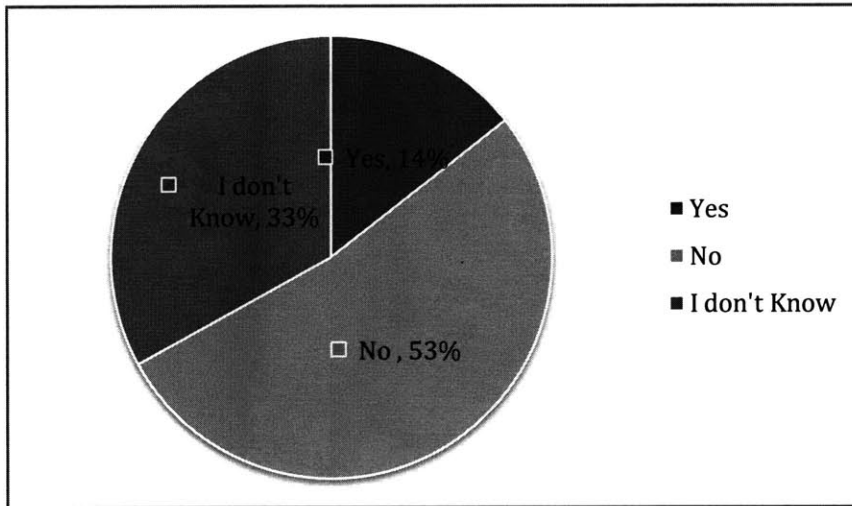


Figure 12. Impression of Penalties for Quality Non-Compliance

Section III. Characteristics of Current PQRI participants

This section represents data from those physicians who undertook the survey and who are participants in PQRI, specifically, 43 of the 97 respondents (44.3%). The percentage values referred to below utilize this smaller group of 43 PQRI participants as the denominator.

14. Clarity of PQRI instructions (Figure 13) - This question aimed to explore the community physician comprehension of the language used on the CMS website. 63.9% of respondents agreed or were neutral regarding the clarity of the language used in CMS guidelines and instructions. However, it is notable that 34.8% strongly

disagreed, with two vehement complaints about the complexity of instructions including "Why do they insist on using terms like "final action claims" - I'm not an accountant."

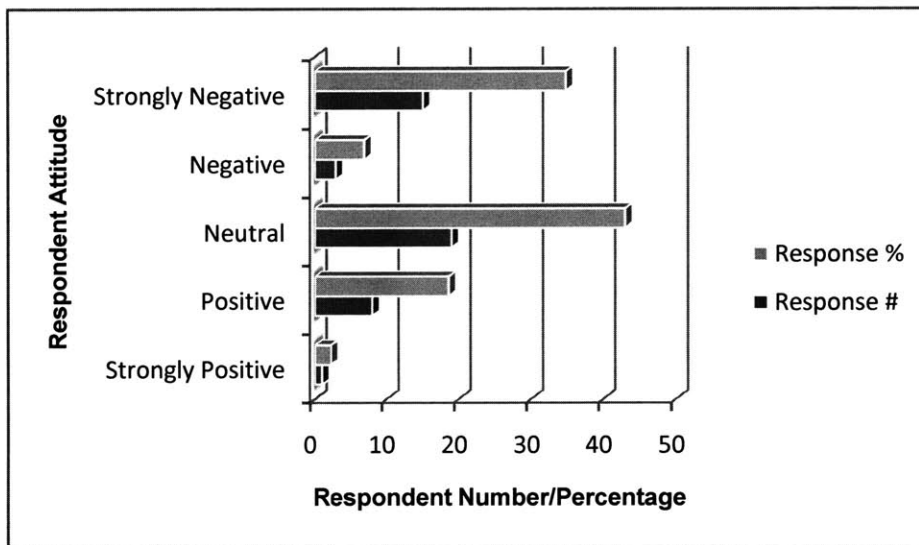


Figure 13. Clarity of PQRI Instructions

15. Method of data entry (Figure 14)- At the time of this survey, more respondents utilized the Claims reporting (60.4%) as their primary method of data entry compared to the Registry reporting (39.6%). However, it appears that both methods are actually in use within their practices for data entry.

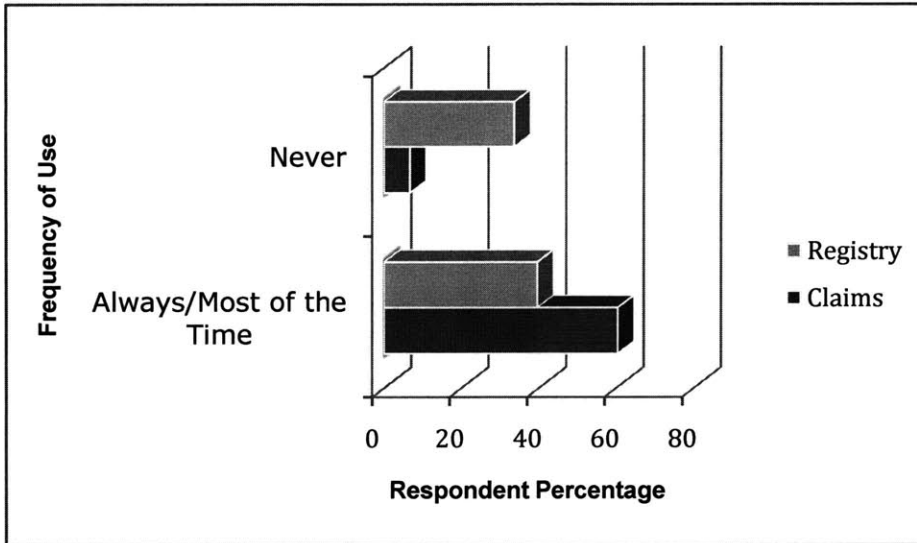


Figure14. Method of Data Reporting

16. The burden of data entry (Figure 15) - Within the sample of 43 PQRI participants, there is tremendous variation in personnel responsible for PQRI data entry and in many settings, it appears that the burden is shared. Physicians reported that they alone bear the burden of data entry in 38.5% of practices with administrative staff (27.9%) always performing data entry in other practices. When evaluated against practice size, the larger groups often utilized several different members of the administrative and professional staff, whereas smaller groups relied primarily on their administrative staff. Of those practices that utilized independent billing services, 42% also utilized these services for quality data entry.

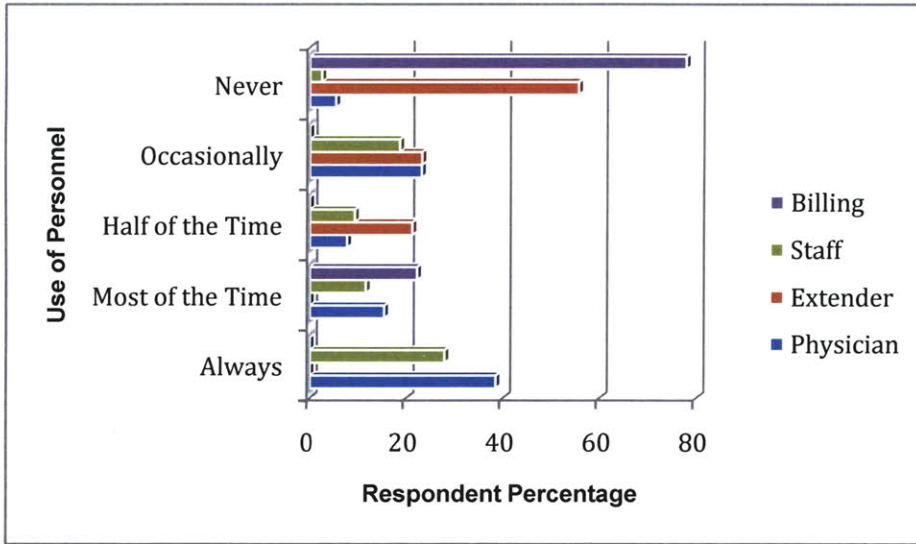


Figure 15. Personnel Responsible for PQRI Data Entry

Discussion

The passage of the 2010 Patient Protection and Affordable Care Act (PPACA) offers a chance for macroeconomic change within the healthcare industry. CMS and Medicare have taken the initial steps toward long-needed change to value-based health care, focusing on quality as well as cost and access. Physician Quality Reporting Initiative (PQRI) represents one of the first large-scale initiatives to improve quality, aimed directly at the individual physician.

However, physician participation in PQRI, and with quality initiatives in general, remains problematic. Quality initiatives in healthcare have historically had only modest yields at best and with high cost, particularly those involving information technology.³⁹ The indirect ability of physicians to affect pricing in healthcare and the evolution of the third party insurance system has created some perverse incentives and much dissatisfaction with our current reimbursement system. The *2010 MIT Evaluation of Physician Attitudes and PQRI* survey sought to define some of the underlying physician perceptions and attitudes regarding quality initiatives PQRI participation.

Return on Investment analyses are used to assess the efficiency of an investment. Although this metric typically measures actual financial cost and returns, here ROI

compared perceived costs with the likely returns from participation in PQRI. As accurate data involving costs and returns are not available and are frequently non-measurable, ROI was used as proxy to evaluate the impact of the factors influencing participation.

Investment costs were addressed through questions evaluating the technical requirements (costs) for participation and the costs associated with the investment in time. In addition, the influence of physician number and personnel utilization as costs was explored. Furthermore, the perceptions of participation in the PQRI program as a value-adding activity was explored. Value-adding was defined as those activities likely to improve patient outcome, not personal financial gain.

The evaluation of the technical resource costs included an evaluation of factors previously cited as impediments to participation: the lack of electronic health records and method of data entry. Surprisingly, this evaluation revealed that the majority of community physicians utilize EHR > 50% of the time which is higher than recent reported rates of 43.9%.⁴⁰ This likely represents a selection bias from a 2008 Massachusetts law mandating use of EHR in hospitals and community health centers by 2015.⁴¹ A comparison between survey respondents in Massachusetts versus Illinois revealed that Boston area physicians reported EHR use of 91% versus 68% in the Chicago area. However, as an exact definition of EHR was not specified, the functional abilities of the current EHR systems may be inadequate for PQRI.

Given that EHR in a community practice affords additional financial rewards may in fact, be playing a role in the high presence reported.⁴²

The time investment for physicians considering PQRI involvement has been frequently cited as a reason for non-participation. This evaluation explored practice size as a variable of significance and revealed a positive correlation with size of physician practice and PQRI participation. While not directly explored, sharing of patient data and the collective oversight of program participation and the education of physician and staff members within the practice, likely yield a more beneficial return on investment time. Personnel costs are also likely to follow this logic: resources from a larger number of physicians are pooled to subsidize the costs of staff needed for data entry, training and the time needed for negotiation of outlier cases.

The responsibility for data entry among PQRI participants in this sample demonstrates a similar sharing pattern amongst practice physicians and staff. Only within the solo and smaller practices was data entry allocated to a single individual. Of interest is the high percentage of physicians who are involved in data entry. This would appear to be an economically inefficient use of physician time and talent; however, given the initial difficulties with the program and the high "failure rate" of those attempting participation, this may, in fact, have been the most efficient model. A review comparing participation attempts by different personnel versus successful

payment might reveal additional information for physicians and a better allocation of PQRI duties. The increased utilization of registries is also likely to play an important role over time.

Entering quality data from billing claims was challenging for participants in the first year of PQRI, including problems with attaching appropriate CPTII codes with a resulting in considerable tension. Since 2009, CMS has utilized registries for data collection in an effort to encourage participation. This provides physicians with an opportunity to review the data and add key clinical information regarding the patient at anytime. Importantly, providers do not need to select CPTII codes for registry reporting and performance data is submitted separately from the billing process.

With the separation of performance data from the billing process, the private sector has responded rapidly to the opportunity, partnering with physician groups with > 60 PQRI registries now qualified by CMS. This survey revealed that physician practices are utilizing both methods of data entry. Although trending data is lacking, it is quite likely that registry utilization will continue to increase. As physicians joined PQRI, the infrastructure to support this participation was likely established within the practice and the slow clock speed of change in this setting, likely accounts for the continued use of a reportedly onerous process

Although independent billing services are becoming increasingly available for community physician practices, this field remains in its infancy with <40% of practices outsourcing their billing. Billing services appeared to follow an all or none usage pattern. Possible reasons for this model may involve the lack of knowledge of outside billing services, perceived risk regarding their expertise or it may simply reflect excessive cost. Given the increasing importance of coding and billing on practice revenues, it is possible that some physician groups are hesitant to hand over the key to their economic solvency to an outside service. However, this is likely the start of an increasing trend toward increasing outsourced billing, as the resources of the individual practices will be outstripped. Independent billing and data entry services can better keep up with the frequent changes, complexity of the requirements and plus have the ability to compete on cost.

The emphasis of the survey was on the underlying perceptions of PQRI as a value adding activity. Given the escalating administrative burdens faced by physicians, any additional administrative task requires evaluation of its return. An initial question aimed to explore the influence of previous quality experience on current interest in quality. Previous experience with quality initiatives was found to be almost universal among the respondents to the survey, with an expected increase in PQRI participants reporting involvement in national initiatives. Only 4% of respondents reported no participation in a quality initiative. This finding stands in

direct contrast to the portrayal of physicians as having little interest in quality initiatives.

The metaphor of "herding cats" is frequently applied to physicians, particularly around issues of quality of care, although this may not be appropriate. A particularly difficult problem is that the starting point toward improved quality remains unknown. In response to this problem, hospitals have in recent decades adopted the idea of the "organized medical staff" whereby otherwise unrelated physicians collaborate to ensure the quality of care in the facility, and most particularly the quality of care provided by their peers. However, there is no comparable governance for the myriad community physicians who are frequently viewed as independent business entities. This weak oversight of health care practice in the US has burdened our system with variability in quality.

The evidence is overwhelming that variation in practices, outcomes and costs of US health care is unconscionably large. While other industries have introduced standardization techniques to reduce variability and yield high quality, implementation within healthcare has traditionally been met with distrust and disdain. Medicine is highly valued as a synergy of art and science, and standardization is often seen as ablating the art of medicine. However, this attitude may be changing.

Unfortunately in practice, standardization frequently refers to efforts aimed at

healthcare process/operations as part of cost cutting measures, which can undermine all attempts to reduce variation within actual practice. Successful introduction of standardization techniques aimed at practice have been launched including an increasing number of evidence-based medicine routines and clinical guidelines, which accept the individual nature of patients. The oft-forgotten goal is to increase the practice of medicine based on evidence and to diminish the influence of personal experience in decision-making. Survey respondents were surprisingly ambivalent regarding the impact of practice guidelines on their ability to use clinical judgment, with 72.2% reporting a positive effect or no effect. Thus, physicians do not appear to feel that their autonomy is threatened by evidence based medicine or clinical guidelines. Perhaps it is the arbitrary nature in which reimbursement is linked to implementation of these standardized practices that is the source of tension.

A more successful method for engaging physicians in quality improvement may be to consider quality as a form of documenting one's thought process during patient visits. Quality measurement and reporting could serve as a method of checks and balances in day-to-day practice, instead of merely an additional administrative requirement. However, to be effective in its implementation, the quality process would have to be a real time course correction; thus, the 1.5-year lag time of PQRI feedback to physicians is grossly inadequate.

Importantly, survey respondents indicated that quality measurement and improvements in quality are value-adding activities for the welfare of their patients. Compliance with quality measures was thought to improve the actual quality of care provided to patients. Yet, a frequent point of physician discontent with quality measures is the lack of relevancy to current practice and patient outcome. Too often measures focus on the process issues with little attention paid to the issue about which physicians are most concerned: patient outcome. This is likely related to the fact that process issues are simple to measure while patient outcomes frequently require input from the patient themselves, often involve more than one health care provider and frequently have a time horizon too long for convenient measurement. Another point of concern for physicians is the use of rates in quality measures i.e. Coronary Artery Bypass Graft (CABG): Deep Sternal Wound Infection Rate.⁴³ By defining a measure in a specific time frame, rates are too limiting and summarize a phenomenon more complex than any single number can report.

Many respondents commented on the inability of measures to reflect patient condition. PQRI and other quality measures could be linked to severity of illness or DRG, similar to payment adjust or risk indices in Medicare. This would help in leveling the playing field between physicians and remove the "my patients are sicker" concerns.

There is increasing direct evidence that an improvement in health care quality directly improves patient outcome.⁴⁴ However, there is conflicting evidence in the

literature that reporting of quality measures actually improves the quality of care provided to patients.⁴⁵⁻⁴⁷ Several respondents voiced concerns that compliance is being rewarded without actually improving quality. Consistent with this attitude, Rosenthal et al raises concerns of "multitasking" whereby effort will be preferentially spent on perfecting performance on quality measurements that are rewarded. They claim that quality measurement techniques only reward those that already provide high quality care and not those that would benefit from feedback.⁴⁸ The relationship of compliance with quality measures and the outcome of patients is even weaker. This study reveals that many physicians also question the logic of linking adherence to quality measures to an improvement in patient outcome.

When asked if a US reimbursement reform would improve patient outcomes, slightly more than half of the physicians within this sample agreed. Those entering a neutral or negative response may already have experience with a version of payment for performance or this may simply represent suspicion towards the linkage of non-relevant performance criteria with financial compensation. It was quite clear that physicians are concerned about the impact of Pay for Performance on practice revenues, with only 27.7% of physicians seeing the incorporation of quality measures into reimbursement criterion as having a positive impact. In the current economic climate of decreasing Medicare reimbursement and cost cutting, the attitude of suspicion is not unexpected. The concerns of the misalignment between quality measure relevancy and payment represent a significant obstacle to physician approval of the Pay for Performance strategy.

Yet, physicians in larger group practices reported that revenues would be improved with the change in reimbursement. Reimbursement based on concrete measures may simply represent a way to recoup financial losses seen in the current payment system where value of physician time is somewhat arbitrary.⁴⁹ This may also reflect the experience of a decreased burden of quality reporting in larger practices or the sharing of actual quality data among group members.

Physicians in this sample cohort view early compliance with quality measures as yielding a competitive advantage in the health care market. This was an interesting finding given that quality measures are felt to be non-relevant with little impact on patient outcome. Physicians were still willing to participate in an initiative that resulted in a positive financial gain. Thus, as has been shown repeatedly within the history of US physician reimbursement, market forces do result in physician behavior change.⁵⁰

The industry culture surrounding quality information is of significant import: while providing the best possible care has been the motivation of most physicians, the measurement of quality is a relatively new focus, started not by patients or physicians, but by payers, a likely cause for suspicion. It would likely have been better tolerated if it came from within the provider industry, aimed at the improvement of care for patients and not from an opposing external force focused on cost. As such the sharing of quality data with CMS is in a precarious position between these conflicting forces. Most physicians would like to improve their

quality for their own personal satisfaction as well as the welfare of their patients. However, there is risk of delivering this information with an implicit threat to the participating practitioner. That 47.3% of survey respondents answered there was a penalty for not meeting PQRI quality requirements or that they did not know indicates that the feelings of distrust run deep among physicians.

However, the survey revealed that overwhelmingly, physicians see comparison of performance as a positive incentive. Inter-physician comparison between physicians is not a new entity. However, its use for something other than physician improvement *is* new. The current comparison of physicians according to quality measures is novel in that they are being used by external agents and they are being used to decrease physician reimbursement, a very different concept from quality as a personal goal. Thus, quality has often taken on a negative connotation instead of something to which one aspires.

While it is easy to blame physicians for a negative attitude, what underlies this distrust is the significant misalignment between a commitment to healthcare quality and the terms of reimbursement. A major impediment to improvement in the variability in healthcare quality is the multitude of evidence that the business case for quality improvement is quite weak.⁵¹ Improved quality and improved coordination of care reduces patient visits, which in the current reimbursement system of fee for service yields an economic loss. While the majority of physicians

recognize the problems, the lack of financial incentives to change the system results in the current inefficiencies.

The influence of the increasingly time driven environment for community physicians cannot be over emphasized. The burden of quality reporting for physicians is enormous with a recent study quantifying what most physicians' feel: Physicians spend three hours per week interacting with health plans. When time was converted to dollars, \$23 billion to \$31 billion is spent by medical practices annually interacting with insurance plans.⁵²

An important survey finding was the identification of language as a source of tension. Language is a well-recognized source of power.⁵³ As such, to encourage physician acceptance of the new initiative, the language could be better geared to this audience. The CMS website, the source of PQRI information and instructions for physicians utilizes a language common to those within the regulatory and academic environment, but not that of the community physician. Therefore, the survey asked the simple question regarding the clarity of the language used in CMS guidelines and instructions. For those respondents currently participating in PQRI, the response was quite diverse. While the majority found the language clear, 35% strongly disagreed and several comments indicated that the language was confusing and foreign. This would indicate that although many practitioners have become familiar with the language, for others it remains a barrier for participation in quality initiatives. Certainly, as the terms are increasingly utilized in medical journals as

well as the media, the comfort level will increase; however, language likely remains another source of tension and suspicion among physicians. Language could be a powerful tool to engage physicians, rather than being used as a force function.

The obvious limitations of this study involve the use of a survey as a method of determining physician bias and attitudes. However, a survey was the best possible option, given the dispersion of individual physician practices, the lack of a single medical governing body and the limited availability of data on PQRI participation. The lack of statistical significance within the sample limits the scientific rigor of the survey results. The small sample size of survey respondents is a significant limitation of this study and likely reflects the lack of any incentive for participants to answer the survey. Interestingly, it was found that the leadership of health groups was reticent to distribute the survey, perhaps concerned with overburdening the physician work force with further administrative tasks.

The sampling frame is predictably biased towards those physicians with an underlying interest in healthcare quality and previous experience with other quality initiatives. Other respondents likely did not even attempt the survey after reading the description. The distribution of the surveys to individuals via a physician within Quality Management at the AMA likely introduced further selection. The overall response rate of 38% likely represents this bias and the 40% response from PQRI participants is significantly higher than that reported by CMS. Response bias was

likely also introduced by previous CMS experience, as Medicare reimbursement is highly variable depending on geographic location.

Although this preliminary work suggests that PQRI represents an uphill battle for CMS, this study reveals some crucial findings. The current shift in focus for insurers to quality improvement has at its core, the goal of cost reduction, with the added benefit of improved patient care. This motivation is bound to generate suspicion from physicians who have seen a steady reduction in the perceived value of their services as evidenced by falling reimbursement rates.

Currently the ROI for program participants is negative, with perceived costs exceeding returns. Although most physicians would see PQRI participation as a value-adding activity *for patients*, altruism in isolation has not been shown to change behavior.⁵⁴ Physicians, however, appear to be genuinely interested in improving the quality of care provided to their patients. This is likely to be key in attempts to engage them in the quality improvement change that needs to occur in health care.⁵⁵ Stimulating the curiosity of physicians, not by focusing on cost, but by attending to what brings pride in their work is likely to encourage their participation. This would involve improving the relevancy of quality measurement to the actual practice of medicine through the further use of evidence-based medicine and increasing the focus on outcome data, rather than process-based cost reduction.

The CMS shift to value-based medicine is a tremendous cultural shift and should utilize some of the same change management techniques used in other industries.⁵⁴ Simply increasing the financial incentives is unlikely to engage the physician community. As physicians face increasing accountability to patients and payers alike, successful participation in PQRI early on may provide value beyond the immediate program incentives. Ongoing work is necessary to uncover the feedback utility and financial motivation "tipping point " needed for participation.

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Appendix:

2010 MIT Evaluation of Physician Attitudes and PQRI Survey

I am a physician with 15 years of patient care experience, currently a Sloan Fellow at MIT. While on leave from patient care, I am writing a thesis looking at physician attitudes toward quality reporting.

The Physician Quality Reporting Initiative (PQRI) is in its third year as an incentive program for physicians who report quality data to Medicare. My interest in this study is to explore underlying perceptions and physician incentives given the increasing interest in physician quality. Your help with this study will strengthen the physician voice as decisions are being made on a national level. **Participation in PQRI is not a requirement for the purposes of this study.**

A link to an on-line survey follows that includes 16 questions. Given the many constraints on our time, this survey should require no more than 5 minutes to complete. Your responses will be strictly confidential and participants cannot be identified by name or practice.

This study will be a public document and you are welcome to view the results. You will be notified when an executive summary of the results are available in mid-summer.

Thank you in advance for your time and participation.

Section I. Characteristics of physician practices:

1. Clinical services provided

Primary Care; Medical Subspecialty; General Surgery; Surgical Subspecialty

2. Are you in a solo practice or a group?

If a group practice, how many members (≤ 5 ; 5-10; 10-50; > 50)

3. Do you participate in

_____ Quality initiatives within your practice (always, sometimes, never)

_____ Quality initiatives regionally (always, sometimes, never)

_____ Quality initiatives nationally (always, sometimes, never)

~~3.4.~~ Do you utilize EHR (Electronic Health Records) in your practice over 50% of the time?

Yes or no

~~4.5.~~ Are your billing services provided by an independent firm?

Yes, Sometimes, No, we do our own billing

Section II. Incentives and attitudes of physicians

~~5.6.~~ PQRI reports allow for the comparison of physician performance. Is this a positive or negative incentive for you to participate in quality reporting programs

(Strongly positive, positive, neither positive or negative, negative, strongly negative)

~~6.7.~~ Your ability to use clinical judgment is impacted when quality measures are linked to practice guidelines?

Strongly agree - somewhat agree- neither agree or disagree- somewhat disagree- strongly disagree

~~7.8.~~ Tracking adherence to specific quality measures will improve the quality of care provided to your patients?

Strongly agree - somewhat agree- neither agree or disagree- somewhat disagree- strongly disagree

~~8.9.~~ Standardized measures such as those in PQRI will improve patient outcomes?

Strongly agree - somewhat agree- neither agree or disagree- somewhat disagree- strongly disagree

~~9.10.~~ The change to a system of "Payment for Performance" will improve patient outcomes?

Strongly agree - somewhat agree- neither agree or disagree- somewhat disagree- strongly disagree

~~10.11.~~ The change to a system based on a Value Based Purchasing system that incorporates quality measures will improve revenues to your practice compared to the current "Fee for Service" system?

Strongly agree - somewhat agree- neither agree or disagree- somewhat disagree- strongly disagree

~~11.12.~~ Early compliance with quality standards will provide a competitive advantage for your practice?

Strongly agree - somewhat agree - neither agree or disagree - somewhat disagree - strongly disagree

~~12.13.~~ Are there penalties currently for not meeting the PQRI quality requirements?

(Yes, No, I don't know)

Section III. Characteristics of Current PQRI participants

~~13.14.~~ The language used in CMS guidelines and instructions regarding quality reporting participation is clear?

Strongly agree - somewhat agree- neither agree or disagree- somewhat disagree- strongly disagree

15. Does your PQRI participation involve (check all that apply)

Specific measures (all the time, most of the time, half the time, occasionally, never)

Use of a registry (all the time, most of the time, half the time, occasionally, never)

~~14.16.~~ Who performs the data entry for PQRI? (Check all that apply)

Physician (all the time, most of the time, half the time, occasionally, never)

Physician extender or Nurse (all the time, most of the time, half the time, occasionally, never)

Administrative Staff (all the time, most of the time, half the time, occasionally, never)

17. Optional comments:

Thank you for your participation in this study. You will be notified when an executive summary of the results is available in mid-summer.

