

THE MEDICARE PHYSICIAN QUALITY REPORTING INITIATIVE: IMPLICATIONS FOR RURAL PHYSICIANS

Final Report
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Table of Contents

Executive Summary	1
Introduction	5
I. Background on the Physician Quality Reporting Initiative	6
II. Review of Literature	8
III. Key Informant Interviews	15
Overview	15
Methodology	15
Findings	18
Overview of Primary Care Physicians' Participation in PQRI.....	18
Challenges Related to Participation in PQRI.....	19
Factors that Affect Rural Physicians' Participation in PQRI	22
Recommendations to Improve Participation in PQRI	28
IV. Study Conclusions	31

Executive Summary

Policy Background - In December 2006, President Bush signed the Tax Relief and Health Care Act of 2006 (TRHCA), which authorized the establishment of a physician quality reporting system by the Centers for Medicare and Medicaid Services (CMS), titled the Physician Quality Reporting Initiative (PQRI). PQRI is a pay-for-reporting program (P4R), whereby physicians and other eligible professionals may receive an incentive payment for reporting on specific quality measures for their patients, though they need not demonstrate improvements in outcomes for those measures. P4R programs like PQRI test a provider's performance data capture and reporting processes, and may inform future pay-for-performance (P4P) initiatives. PQRI was designed with the following characteristics: (1) it is voluntary program; (2) physicians can select up to three measures that apply to them; and (3) the bonus is positive (e.g., currently, there is no other punitive component to the program). PQRI is CMS' first nationwide initiative that provides incentives to encourage reporting of quality data by physicians.

The Health Resources and Services Administration Office of Rural Health Policy funded the NORC Walsh Center for Rural Health Analysis to study the impact of rurality on primary care physicians' participation in the 2007 PQRI. To date, there remains considerable uncertainty about how to best design and implement P4P and P4R programs in rural communities. One of the key gaps in the P4P and P4R literature is the impact of rurality on physicians' participation in P4P and P4R programs.

Purpose - Given that the PQRI is the first attempt to bring P4R to physicians, we utilized PQRI as a proxy to explore the broader implications of P4P and P4R programs for primary care physicians. The objectives of this study were to:

- Explore the design and implementation of Medicare's PQRI, in order to identify the implications of the program for rural physicians, and
- Assess whether there are any unique opportunities or challenges related to participating in PQRI that would be systematically different for rural versus urban primary care physicians.

This report presents findings from: 1) a literature review; 2) interviews with representatives from medical societies about their memberships' experiences participating in PQRI; and 3) interviews with representatives from medical practices that participated in PQRI.

Methods - Semi-structured telephone interviews were conducted with representatives from five medical societies. Representatives from two additional medical societies provided written correspondence regarding our research questions. Also, in order to gather further information about the issues raised by medical society representatives, we conducted key informant interviews with representatives from four medical practices that participated in PQRI. This sample is small and not necessarily generalizable to providers across the country. There were several themes that emerged, however, even within this relatively small number of states and practices.

Specific areas of interest during the interviews were common questions that medical society representatives received from their memberships' regarding PQRI; perceptions of the design and implementation of PQRI and ease of participation; unique opportunities or challenges related to

participating in PQRI that would be systematically different for rural versus non-rural primary care physicians; and ways in which PQRI could be improved to facilitate participation by rural physicians.

Summary of Findings -

Primary care physicians' participation in PQRI

- The medical society representatives did not know how many of their members are participating in PQRI, and they knew little about the types of measures that their members were reporting through PQRI.
- Medical society representatives believed that few primary care physicians serving rural communities currently participate in PQRI.
- While none of the medical societies discourages its membership from participating in PQRI, only two out of seven medical societies encourage their members to participate in the program.
- Medical societies deliver information to their members via weekly newsletters, information on the society's website (e.g., live presentations, interactive seminars), webinars and calls, and a member hotline.

Challenges related to participation in PQRI

- Medical society representatives said that some of their members contacted them about the challenges that they encountered while participating in PQRI.
- Medical society representatives commented that members found the reporting process to be cumbersome, time-consuming, and difficult to understand.
- The lack of feedback on the reporting process from CMS was a key issue of concern for many respondents. In particular, medical practice representatives wanted additional information about which claims were considered unsuccessful reports to avoid making the same mistakes in the future.
- Respondents also expressed a desire for more feedback on their performance.

Factors that affect rural physicians' participation in PQRI

- Practice size and, in conjunction, the extent of the practice's quality measurement infrastructure and staff resources, were cited by several medical society representatives as being the most important factors in determining whether a physician will participate in PQRI.
- Practices with electronic medical records, patient registries, and data collection systems would have lower marginal costs for collecting and reporting data, and may have an easier time participating in PQRI.
- Very rural practices that also have high proportion of Medicare beneficiaries may be more likely to participate in PQRI.
- The 1.5% incentive payment was not viewed as a sufficient incentive to encourage practices to participate in PQRI. Some respondents commented that a higher incentive payment would encourage greater participation by physicians. Some were motivated by a concern that

incentives would be stronger in the future – including possibly penalties for not reporting – and wanted to participate now so they would have their systems working well by that time.

- Given the increased staff time necessary to participate in PQRI, physicians who do not receive an incentive payment may not be willing to participate in PQRI during the next reporting year.

Recommendations to improve physicians' participation in PQRI

- A key recommendation was more education for medical practices about PQRI. In-person meetings are preferable to webinars on PQRI. Respondents who made this recommendation found that remote education opportunities did not provide them with enough information, and they would prefer a meeting where they could ask questions.
- Providers are also interested in learning why certain measures were selected for inclusion in the program, and how the measures were derived. Combined with increased feedback on how providers are performing on the measures, this information would increase the likelihood that providers might use the PQRI process to improve quality, rather than simply seeking reimbursement for reporting the data.
- Representatives from medical societies and medical practices recommended a simplified reporting process.

Conclusions - Rural practices may be at a disadvantage with respect to participating in PQRI, but the challenges they face are not exclusively related to their geographic location. Primary care physicians' practice size, infrastructure, staff resources, and case mix were identified as factors that could present either challenges or opportunities related to participation – regardless of the geographic location of the practice. In as much as practice rurality is associated with these factors, rural practices – which tend to be smaller and have fewer resources and a less developed quality measurement infrastructure – may face greater challenges to participating in PQRI than their non-rural counterparts.

The size of the incentive payment or reward may also affect whether primary care physicians participate in PQRI. Overall, the 2007 PQRI's 1.5% incentive payment was not viewed as a sufficient incentive to encourage practices to participate in PQRI. Respondents participating in PQRI required additional resources and staff time to learn how to report their data, and for some, the incentive was not worth the investment.

Respondents provided a number of recommendations to improve physicians' participation in PQRI. Disseminating information to providers through state medical societies was cited as one way to educate participating professionals about PQRI. Additionally, respondents noted that more individualized feedback about the reporting process is essential for PQRI participants. In as much as rural primary care physicians are at a disadvantage with respect to participating in PQRI, they may not participate in PQRI again if they do not receive an incentive payment and adequate feedback the first time. Further research should investigate the results of the PQRI program for rural physicians, specifically.

Future studies should utilize CMS' PQRI data to describe the reporting characteristics of primary care physicians who practice in rural and urban areas. Quantitative analyses of PQRI data could be conducted over the program's history to explore whether there are rural-urban differences in primary care physicians' participation in PQRI, reporting rates, types of measures reported, average number of measures reported, and average incentive amount received. Findings from a more detailed analysis of rural primary care physicians' experiences in PQRI would be helpful in quantifying rural providers' participation in PQRI. Such research could inform the design and implementation of future CMS P4P and P4R programs, and potentially help to mitigate unintended program consequences for rural providers.

After this study was conducted, the Patient Protection and Affordable Care of Act of 2010 made several important changes to PQRI. The legislation extends the program from 2010 until 2014, and includes a punitive component for non-compliant providers. The legislation also mandates the development of a feedback process for providers as well as the coordination of PQRI and the electronic health record (EHR) incentive program established by the Health Information Technology for Economic and Clinical Health (HITECH) Act. The HITECH Act provides incentive payments to providers who demonstrate meaningful use of EHRs. Finally, in 2014, physicians who do not submit measures to PQRI will have their Medicare payments reduced. Further research is necessary to assess rural physicians' experiences in light of these changes.

Introduction

The Health Resources and Services Administration's Office of Rural Health Policy funded the NORC Walsh Center for Rural Health Analysis to study the impact of rurality on office-based physicians' participation in the 2007 Physician Quality Reporting Initiative (PQRI), a voluntary pay-for-reporting program in Medicare. PQRI offers a financial incentive to physicians and other eligible professionals who successfully report quality measures related to services provided under the Medicare Physician Fee Schedule.

This study stems from a body of literature on pay-for-performance (P4P) programs across the United States since the Institute of Medicine released its 2001 report, *Crossing the Quality Chasm: A New Health System for the 21st Century*, which highlighted the importance of realigning incentives to improve health care quality.¹ P4P programs are designed to better align payment with quality of care by incentivizing providers to meet or exceed quality targets for specific measures.² In quality reporting, or pay-for-reporting (P4R) programs, physicians may receive a reward for reporting on specific quality measures for a percentage of their patients, though they need not demonstrate improvements in outcomes for those measures. P4R programs test a provider's performance data capture and reporting processes, and may inform future P4P initiatives. Research has explored different types of P4P and P4R programs in order to better understand the impact of these programs on quality of care and provider behavior.³ However, there remains considerable uncertainty about how to best design and implement P4P and P4R programs in rural communities. One of the key gaps in the P4P and P4R literature is the impact of rurality on primary care physicians' participation in P4P and P4R programs.

Given that PQRI is the first attempt to bring P4R to physicians, we utilize PQRI as a model to explore the implications of P4P and P4R programs for rural primary care physicians. The objectives of this study were to: 1) explore the design and implementation of Medicare's PQRI, in order to identify the implications of the program for rural physicians, and 2) assess whether there are any unique opportunities or challenges related to participating in PQRI that would be systematically different for rural versus urban primary care physicians. This research was comprised of three phases: 1) a literature review; 2) key informant interviews with representatives from medical societies about their memberships' experiences participating in PQRI; and 3) interviews with representatives from medical practices that participated in PQRI.

This report is organized around four major sections. In Section I, we present background on the PQRI. In Section II, we provide a review of the current literature on rural physicians' experiences in P4P and P4R programs, focusing on whether they face unique challenges or opportunities participating in these programs relative to their urban counterparts. Section III presents findings from the interviews with medical society professionals and representatives from medical practices, describing their attitudes and experiences related to PQRI and the challenges rural physicians face. Finally, Section IV presents the study's conclusions.

I. Background on the Physician Quality Reporting Initiative

In December 2006, President Bush signed the Tax Relief and Health Care Act of 2006 (TRHCA).⁴ Section 101 under Title I authorizes the establishment of a physician quality reporting system by the Centers for Medicare and Medicaid Services (CMS), titled the Physician Quality Reporting Initiative (PQRI). PQRI is a voluntary pay-for-reporting (P4R) program that provides a financial incentive to physicians and other eligible professionals who successfully report quality data related to covered services provided under the Medicare Physician Fee Schedule. PQRI emerged from the efforts of Senator Max Baucus (D-Montana) through his work on the Value-Based Purchasing Act, which focuses on pay-for-performance (P4P) for every major Medicare system. PQRI is CMS' first nationwide initiative that provides incentives to encourage reporting of quality data by physicians.

PQRI was designed with the following characteristics: (1) it is voluntary program; (2) physicians can select up to three measures that apply to them; and (3) the bonus is positive (e.g., currently, there is no other punitive component to the program). According to CMS, participating in PQRI is a way to prepare for future pay-for-performance programs.⁵

As part of the 2007 PQRI, physicians who successfully reported a set of quality measures on claims for dates of service from July 1, 2007 through December 31, 2007, could earn a bonus payment, subject to a cap, of 1.5% of total allowed charges for covered Medicare Physician Fee Schedule services.

In order to receive the PQRI incentive payment, eligible professionals must satisfactorily report data on at least three measures for at least 80 percent of the cases in which the measure was applicable. In 2007, eligible professionals chose from 74 quality measures.⁶ To report, eligible professionals use either paper-based or electronic claims. CMS issues bonuses as one lump sum payment to the holder of the tax ID. In 2007, information on individual providers or groups was not publicly reported. For the 2007 reporting period, the incentive payments were sent to physicians in July 2008.

According to CMS, 109,349 professionals and practices submitted measures as part of the 2007 PQRI – 16% of eligible professionals.⁷ A total of 56,772 (52%) were eligible professionals who satisfactorily reported and were eligible to receive the incentive payment. In 2007, the average incentive for an individual eligible professional was \$630. The average incentive for a physician group practice was \$4,713.⁸ There is no information available on how many eligible professionals were providing care in rural settings, or whether the amount of the incentive payments differed, on average, for rural versus urban professionals. CMS summary data from the 2008 and 2009 PQRI reporting periods are not yet available.

On March 23, 2010, President Obama signed the Patient Protection and Affordable Care Act (PPACA) into law, which modified the PQRI program in several ways.⁹ PPACA extended the PQRI program from 2010 to 2014. The legislation mandates the creation of a timely feedback process for providers that did not satisfactorily submit data on quality measures. The legislation also establishes a mechanism whereby an eligible provider may provide data on quality measures by completing a Maintenance of Certification program operated by a specialty body of the American Board of Medical Specialties.

PPACA also requires the coordination of PQRI and electronic health records (EHR) quality reporting efforts by January 1, 2012. Specifically, the legislation mandates the integration of the PQRI and the EHR incentive program established by the Health Information Technology for Economic and Clinical Health (HITECH) Act. The HITECH Act provides incentive payments to providers who demonstrate meaningful use of EHRs. Integration must consist of the selection of measures that demonstrate both meaningful use of EHRs and patient quality of care under PQRI. CMS solicited public comment on ways to coordinate the PQRI and EHR incentive programs, and is expected to release a final report soon.

Finally, in 2014, physicians who do not submit measures to PQRI will have their Medicare payments reduced.

II. Review of Literature

Research has explored different types of P4P and P4R programs in order to better understand the impact of these programs on quality of care and provider behavior.¹⁰ However, there remains considerable uncertainty about how to best design and implement these programs. To date, many performance improvement initiatives have focused on large health care entities, such as hospitals, which have internal resources that can be used to participate in P4P quality initiatives. One of the key gaps in the P4P and P4R literature is the impact of rurality on physicians' participation in P4P and P4R programs.

Some research has found that rural hospitals face unique challenges to participating in performance improvement initiatives, and that P4P programs must be designed to be relevant for small hospitals. For example, Greg, Moscovice and Remus (2006) found that because rural hospitals have limited access to capital, it is more difficult for them to adopt information technologies and infrastructure that support performance improvement efforts.¹¹ Further, the lack of infrastructure and limited staffing resources in rural hospitals makes it challenging to provide clear and adequate feedback for physicians and nurses participating in P4P programs. No systematic literature to date has explored the impact of rurality on primary care physicians' participation in P4P and P4R programs.

This review of literature explores rural physicians' experiences in P4P and P4R programs, and specifically analyzes whether they face unique challenges or opportunities participating in these programs relative to their urban counterparts.

Quality Programs in Physician Offices

Researchers have continued to study different types of P4P and P4R programs in a variety of settings – including the physician office setting – in order to better understand the impacts of these programs on quality of care and provider behavior.¹² In P4P programs, physicians may receive an annual “bonus” for meeting certain quality goals or targets. Depending on the program, physicians may *not* receive a certain percentage of their salary or bonus if they do not meet quality targets or requirements.¹³ In P4R initiatives, where participating is often voluntary in nature, physicians receive an incentive payment for reporting on specific quality measures for a percentage of their patients, though they need not demonstrate performance improvements in outcomes.

There are currently hundreds of programs operating in the U.S., and many more under development.¹⁴ There remains considerable uncertainty about how to best design and implement these programs – and whether they are actually effective in improving health care quality. Overall, few studies have evaluated the effectiveness of P4P and quality reporting initiatives. A 2004 review of literature of 5,054 publications found no ongoing randomized controlled trials of P4P.¹⁵ Observational studies have yielded mixed conclusions on the overall impact of these programs on provider behavior and patient care.¹⁶ Few P4P and P4R programs have been implemented in physician offices, and no systematic research has explored the prevalence of P4R programs in primary care practices.

A Growing Federal Role in Physician Quality

The federal government has developed and implemented several P4P and P4R programs targeted at physicians to align payment and non-financial incentives with higher quality.^{17,18} Four P4P demonstration projects that focus on physicians are: the Medicare Physician Group Practice Demonstration; the Medicare Care Management Performance Demonstration; the Medicare Health Care Quality Demonstration; and the Voluntary Chronic Care Improvement Program. CMS has also developed three P4R programs targeting physicians: the Physician Voluntary Reporting Program (PVRP),¹⁹ its successor, the Physician Quality Reporting Initiative (PQRI), and the E-Prescribing Incentive Program.

Table 1 provides an overview of past and current P4P and P4R programs that target physicians, as well as details about each program. Table 1 also demonstrates that physicians have had limited opportunities to participate in P4P and P4R programs. No research to date has explored the impact of physicians' rurality on their participation in these programs.

Quality Programs in Rural Physician Settings

The Institute of Medicine (IOM) and health care researchers have raised concerns about the applicability of current P4P programs to rural providers. In 2006, the IOM highlighted the need to ensure that performance improvement programs reflect the unique characteristics of rural providers.²⁰ Specifically, differences in the availability of providers, the availability of transportation, the selection of clinical domains for quality improvement, and the health status of the population are issues that need to be considered when designing a P4P program. Another report by the Minnesota Department of Health's Rural Health Advisory Committee explored health care reform for Minnesotans, and recommended the development of rural relevant evidence-based measures for P4P strategies.²¹

While no research to date has explored the implications of P4P or P4R programs for rural primary care physicians, in particular, some work has explored the implications of value-based purchasing programs for critical access hospitals (CAHs). In January 2009, the Rural Policy Research Institute Health Panel released a report that recommended that CMS should actively pursue value-based purchasing (also known as P4P) policies that include CAHs. The report explored the unique characteristics of CAHs and the implications of value-based purchasing in CAHs, concluding that value-based purchasing policies should carefully consider potential unintended program consequences for rural communities.²² Specifically, given that CAHs may have less access to quality improvement resources and health information technology than their larger urban counterparts, value-based purchasing programs should also offer assistance to build necessary quality improvement structure in CAHs.

Table 1: Quality Programs Targeting Physicians

Program	Initiation Information	P4P or P4R	Goals	Participants	Type of Participation	Incentive
Medicare Physician Group Practice Demonstration ²³	Centers for Medicare and Medicaid Service (CMS) through a legislative mandate, 2005	P4P	Encourage coordination of health care for Medicare fee-for-service (FFS) beneficiaries and reward physicians for improving processes and outcomes.	10 large group practices, composed of over 5,000 providers	Voluntary	Yes
Medicare Care Management Performance Demonstration ²⁴	Section 646 of the Medicare Prescription Drug, Improvement, and Modernization Act (MMA) of 2003	P4P, P4R	Improve the quality of care for chronically ill Medicare beneficiaries and foster the adoption and use of health information technology.	Physicians in solo or small to medium-sized practices (10 or fewer physicians) focused on primary care	Voluntary	Yes
Medicare Health Care Quality Demonstration Program ²⁵	Section 646, MMA 2003	P4P	Improve patient safety; reduce variations in utilization, using culturally and ethnically appropriate care. An extension of the Medicare Physician Group Practice Demonstration.	Physician groups, integrated health systems, regional coalitions.	Voluntary	N/A; must be budget neutral.
Voluntary Chronic Care Improvement Program ²⁶	Section 721, MMA 2003	P4P	Help fee-for-service beneficiaries to manage their care and provide physicians with technical support to manage care.	Includes physician group practices	Voluntary	N/A**
Physician Voluntary Reporting Program (PVRP) ²⁷	CMS	P4R	Capture data about the quality of care provided to Medicare beneficiaries to identify best practices in using quality measures in practice.	Physicians and other providers who bill Medicare	Voluntary	No
Physician Quality Reporting Initiative (PQRI) ²⁸	Tax Relief and Health Care Act of 2006	P4R	Link quality reporting to physician-level financial incentives.	Physicians, physician assistants, and others who bill Medicare	Voluntary	Yes
E-Prescribing (eRx) Incentive Program ²⁹	Medicare Improvements for Patients and Providers Act of 2008, Section 132	P4R	Establish a Medicare eRx incentive program for eligible professionals to report on adoption and use of a qualified eRx system by submitting information on one eRx measure.	Individual physicians, group practices*	Voluntary	Yes

*Eligible professionals do not need to participate in PQRI to participate in the eRx Incentive Program.

**Participating organizations must meet performance standards and are required to refund fees that CMS paid them if the fees exceed the estimated savings.

No research to date has validated that rural primary care physicians face unique challenges with respect to participating in P4P or P4R programs in comparison to their non-rural counterparts. However, research has explored the implementation of quality programs in small office practices. Given that solo or small office practitioners face similar challenges to rural physicians (geographic and financial barriers, and a lack of resources and infrastructure), we will treat the former as a proxy for the latter. Next, we present a body of literature that reveals that small office physicians – and by extension, rural physicians – face significant barriers to participating in quality programs. We also review literature that suggests that small and rural physicians will require more explicit financial incentives to participate in such programs, given the challenges they face.

Resource Shortages

Literature suggests that smaller physician practices may face distinct challenges with respect to participating in performance measurement initiatives. Locke and Srinivasan (2008) note that solo practitioners or those who practice in small group practice settings may not have the internal resources that are critical to documenting outcome improvements for P4P initiatives.³⁰ For example, small office practices tend to have fewer staff that can contribute to data collection, verification, and reporting of performance measures. Landon and Normand (2008) found that small office practices lack needed infrastructure – both technological, structural, and human resources – to support data collection for performance measurement.³¹

Health Information Technology

Perhaps the most literature exists on the challenges of implementing electronic medical records (EMRs) in small and rural practices. While EMRs are not a requirement to participate in many P4P and P4R programs, the technology helps physicians to track and report patient codes more easily, and in the future, EMRs may be used to transmit quality data directly to CMS.³² The National Center for Health Statistics found that only 25% of office-based physicians reported using full or partial EMR systems in 2005.³³ Rural physicians are significantly less likely to routinely use an EHR system,³⁴ and rural physician offices typically lag behind in the adoption of information technology (IT).^{35,36,37}

Casalino et al. (2003) highlights that small and large physician practices have different economies of scale in terms of IT. By conducting an assessment of large medical group practices through qualitative interviews with leaders of larger groups, hospitals, and health insurance plans, Casalino et al. found that only large group practices – as opposed to small or solo physician practices – are able to develop organized processes to improve quality.³⁸ Small or solo physician practices may not have existing processes in place that can be easily leveraged to facilitate data collection for performance measurement. Small rural providers are less likely to have their own information systems for measuring and improving quality than larger providers.³⁹ Additionally, they often have fewer resources to dedicate to quality improvement.

Landon and Normand (2008) discuss the challenges related to performance measurement in small office practices – noting that physicians in small office practices should seek health IT products that can automate performance data collection and facilitate the development of chronic disease patient registries. Stinson (2007) notes that small office practices may not be able to afford to implement

technologies that would allow them to participate in P4P and P4R programs – though small practices could most benefit from such programs and their incentives.⁴⁰

Additionally, the Medicare Payment Advisory Commission (2001) noted that small rural providers often lack the staffing resources necessary for quality improvement. A lack of staff dedicated to quality improvement work combined with a lack of infrastructure in small rural practices means that collecting quality data is more time consuming.⁴¹

Case Mix

Research has explored whether P4P programs adequately adjust payments to reflect the type or mix of patients treated within a medical practice. However, no research was available on whether case mix is an important factor affecting participating in P4R programs, specifically. Hood (2007) reported that P4P programs must be cognizant of the impact of case mix:

“Pay-for-performance programs that do not consider specific health disparities risk variables such as socioeconomic status, geographic location, race, ethnicity and level of disease burdens can create the real potential to economically penalize and cause unintended disincentives for individual physicians, medical groups and health institutions that have traditionally provided health services for these high-risk populations. These inequities will further worsen quality of care in high-risk populations and worsen health-care disparities.”⁴²

Physicians may exclude patients from their practices who are known to be at a high risk for adverse health outcomes in their effort to reach performance levels that will result in an incentive payment. Casalino et al. (2007) warns that health disparities can be exacerbated through P4P programs if rewards inadvertently reduce incomes for providers in low-income minority communities. In a national survey of general internists, Casalino et al. reported that approximately 82% of internists said they would avoid high-risk patients if it would affect their pay. Almost 60% of internists said that would divert their attention away from unrewarded quality measures and teach to the test.⁴³

In addition, physicians who provide care to a large proportion of high risk patients may receive lower ratings on quality measures than other physicians in P4P programs. For example, rural physicians' case mix typically includes a larger proportion of Medicare and Medicaid patients – who may require complex disease and care management strategies – than that of their urban counterparts. In 2006, rural physicians' received 56 percent of their revenue from Medicare and Medicaid compared with 45 percent for urban practices.^{44,45} As a result, it may be more difficult for rural physicians to demonstrate significant improvements on quality measures for the Medicare population, comprised of a large number of chronically ill patients, and the Medicaid population, comprised of individuals who are typically lower-income, less-educated, and sicker than the privately insured population.⁴⁶ Similarly, physicians who practice in communities that have poor health behavior may also be at a disadvantage in P4P programs.⁴⁷ Risk adjustment measures have been developed to correct this problem and capture the severity of illness of patients.⁴⁸

In *Pay for Performance: A Decision Guide for Purchasers*, the Agency for Healthcare Research and Quality (AHRQ) at the U.S. Department of Health and Human Services noted that providers who treat high risk populations (e.g., low income, low educational attainment, low literacy) may be disadvantaged by a one size fits all approach to P4P.⁴⁹ AHRQ suggested that P4P programs could be tailored for subsets of providers, such as safety-net hospitals.⁵⁰ AHRQ suggested that purchasers could set lower performance standards for small practices or rural providers – such as rewarding small or rural providers for giving 80 percent of their patients beta-blockers after a heart attack, though urban hospitals would be required to achieve 90 percent adherence to receive a bonus.⁵¹

Financial Incentives

Whereas small changes in payment can be expected to drive changes in behavior for institutional providers, it is uncertain whether small changes in payment will affect physician behavior comparably.⁵² Currently, there is no consensus on the appropriate size of a financial reward to incentivize physicians to participate in P4P programs. Studies suggest that successful expansion of P4P and P4R programs from large multi-specialty groups to solo and small group practices will require more explicit financial incentives.

Stinson (2008) suggests that the 1.5% reimbursement rate offers too small of a return on investment for small office practices to make the process and technology changes to participate in PQRI.⁵³ *Bridges to Excellence* found that the incentive should be at least \$5,000 per physician to motivate structural change. Other research suggests that physician practices may require a bonus of 10% to 25% to change behavior – larger than the typical 3% bonus offered by a health plan in a P4P arrangement.^{54,55}

The Rural Policy Research Institute Health Panel (2009) noted that financial incentives “will not be enough to ensure that all rural providers have the opportunity and adequate resources to improve clinical quality.”⁵⁶ The Panel notes that value-based purchasing or P4P programs must align with existing programs to provide resources and quality improvement technical assistance to participating rural providers.

Other literature suggests that bonus or incentive payments be tailored to certain types of providers – given that the cost of improving care will be greater for some than others. Reece (2008) noted that physician practices, in particular, face distinct challenges which make it more difficult to participate in P4P programs, and thus, should receive financial rewards that reflect these challenges.⁵⁷ Furthermore, Cannon (2006) noted that a physicians’ response to a financial incentive will depend on the net – rather than absolute – value of the incentive after accounting for the costs associated with program compliance.⁵⁸

Summary

Participating in P4P and quality reporting programs may be challenging for rural primary care physicians for several reasons: rural practices tend to be small or medium-sized practices or solo practitioners, and have rudimentary or no information system infrastructure, and limited staff and other resources. The literature reveals that the size of the physician’s practice, and the population served, may impact their ability or willingness to participate in performance measurement initiatives. The size of the incentive payment or reward may also determine whether a small or rural provider is

able to participate in the quality program. Other researchers suggest that financial incentives are not enough to ensure that all rural providers can participate in P4P initiatives, and quality improvement technical assistance is needed.

To attract physicians practicing in small offices, and potentially in rural settings, P4P and P4R programs must be designed in a manner that does not penalize physician practices that lack certain technological and structural resources. Future physician performance measurement initiatives should incorporate features that facilitate the inclusion of physicians practicing in small offices.⁵⁹

While we can extrapolate relevant findings from small and solo practices, further research is necessary to understand the impact of P4P and P4R programs on rural physicians, specifically.

III. Key Informant Interviews

Overview

The purpose of the key informant interviews was to obtain a variety of perspectives on the implications of the Physician Quality Reporting Initiative (PQRI) for rural primary care physicians, with a focus on whether rural physicians face unique challenges to participating in P4R programs like PQRI in comparison to their non-rural counterparts. NORC conducted interviews with medical society representatives and representatives from medical practices that participated in PQRI. Interviews were conducted between October 2008 and January 2009. The key topics addressed during the interviews were:

- Factors that affect rural primary care physicians' decisions to participate in PQRI;
- Challenges or opportunities related to participating in P4P or P4R programs that would be systematically different or challenging for rural versus non-rural primary care physicians;
- The impact a practice's case mix on participation;
- The implications of P4P and P4R for rural primary care physicians;
- Commonly asked questions from physicians who participated in PQRI; and
- Recommendations to improve participation in PQRI.

Methodology

In this section, we present the methodology of the study. We also discuss the characteristics of the respondents who participated in the key informant interviews. Finally, we discuss study limitations.

Study Design

To explore the design and implementation of PQRI, and how rural physicians might be affected by P4R programs such as PQRI, NORC conducted a series of semi-structured interviews with representatives from state medical societies and medical practices that participated in PQRI. Key informant interviews were conducted via telephone between October 2008 and January 2009.

The findings for this study are based on information from a total of ten respondents representing seven states.¹ Semi-structured telephone interviews were conducted with five medical society representatives. NORC also received written correspondence regarding our research questions from two additional medical society representatives. In order to build upon the findings from our interviews with medical society representatives, we also conducted interviews with four representatives from medical practices that participated in PQRI.

¹ NORC contacted medical societies in eight states. Representatives from seven of the eight medical societies responded to our research questions. Telephone interviews were conducted with representatives from five medical societies (one of which was also a provider in a PQRI-participating physician medical practice). Representatives from two medical societies provided feedback on our research questions, though they did not participate in an interview. One medical society representative chose not to participate.

NORC developed interview protocols informed by the literature review and initial discussions with PQRI experts. The protocols were designed to glean common themes, provide insight into the implications of rurality on participation in this program, and identify any unique challenges or opportunities related to participating in PQRI for rural physicians. The protocols were reviewed and approved by NORC’s Institutional Review Board.

Selection of States

NORC selected eight states from which we drew two types of study participants: 1) representatives from medical society representatives; and 2) representatives from medical practices who participated in PQRI. NORC was interested in selecting both “rural” and “urban” states. We calculated the percent of each state’s population residing in rural areas using U.S. Census 2000 data, and then listed the states in descending order of percent rural. States in the 1st and 4th quartiles were selected as “most rural” and “least rural,” respectively.

We were also interested in selecting states that are considered to be “high reporting” states – meaning that they have a large percentage of eligible providers who participated in the 2007 PQRI program by submitting quality data – as well as states that are considered to be “low reporting” states. NORC classified states as “high reporting” and “low reporting” based on preliminary 2007 CMS data accessed on our behalf by PQRI experts from the Senate Finance Committee. Of the most rural states, we selected two that were “high reporting” (Vermont, North Dakota), and two that were “low reporting” (Arkansas, Montana). Of the most urban states, we selected two that were “high reporting” (Florida, Illinois), and two that were “low reporting” (Hawaii, New York). We recruited medical society and practice representatives in the selected states. Table 2 displays the characteristics of the selected states.

Table 2: Characteristics of Selected States

State Selected for Interview ^a	Rurality		Participation in PQRI
	% State Population that is Rural ^b	Designated as Rural or Urban	Designated as High or Low Reporting State
Montana	46%	Rural	Low
Arkansas	47.6%	Rural	Low
Vermont	61.8%	Rural	High
North Dakota	44.2%	Rural	High
Illinois	12.2%	Urban	High
Florida	10.7%	Urban	High
Hawaii	8.4%	Urban	Low
New York	12.5%	Urban	Low

^a Study findings are based on responses from ten individuals in seven of the eight selected states.

^b Based on the percentage of the state’s population that is rural from the Census 2000, U.S. Census Bureau.

Selection of Medical Society Representatives

NORC attempted to recruit a representative from each of the eight states' medical societies to participate in a key informant telephone interview. We used publicly available information to contact the medical societies, sending them a letter via email about the purpose of the study and our interest in scheduling an interview. We followed up with the representatives via telephone and email to schedule the interviews. In total, representatives from seven of the eight state medical societies responded to our research questions. Telephone interviews were conducted with representatives from five state medical societies (one of which was also a provider in a PQRI-participating physician medical practice). Representatives from two state medical societies provided feedback on our research questions, though they did not participate in an interview. One state medical society representative chose not to participate.

Selection of Medical Practice Representatives

Data are not publicly available on the medical practices that participate in PQRI. NORC established a recruitment strategy for identifying primary care practices that participated in PQRI in the eight states. During the interviews with medical society representatives, we asked respondents to provide us with contact information for primary care physicians in their state that were likely participants in PQRI. We planned to use the contact information provided by the medical society representatives to develop a convenience sample of representatives from medical practices. Of the seven medical society representatives that participated in our study, only one provided contacted information for a medical practice that participated in PQRI – and this contact did not lead to an interview. One of the medical society representatives was a PQRI participating provider, and provided feedback from this perspective. The other five respondents were not able to suggest any medical practices to contact.

NORC also contacted a variety of organizations about the study, and asked whether they knew of medical practices that participated in PQRI and might be willing to participate in an interview. Specifically, NORC contacted the state offices of rural health in several states, the county medical society offices in one state, primary care associations, a medical school, and other rural stakeholders. The majority of the individuals did respond to our inquiry, but were unable to assist because they did not know of any primary care physicians participating in PQRI. Despite more than a dozen contacts with individuals working on health care in these states, we were only able to secure interviews with representatives from four medical practices in four states that participated in PQRI. The medical practices were from both rural and urban states and all classified as “low reporting.”

Study Limitations

Study findings are based on responses from ten individuals in seven states; their perspectives may not reflect more broadly held views about PQRI – nor do they necessarily reflect the views of medical society representatives from other states. Likewise, our limited interviews with medical practice representatives may not reflect the views of other practices that participate in PQRI. However, we did find some strikingly common themes among the limited number of respondents.

It was our intention to focus on primary care physicians' experiences participating in PQRI. However, the feedback from medical society representatives may have related to other types of providers as well. It is unclear whether there are systematic differences between primary care and specialty practices that would lead this broader feedback to be less representative of primary care. Additionally, while respondents were asked to reflect on their experiences with the 2007 PQRI, it is possible that they commented on their experiences with PQRI in subsequent years.

This study was conducted prior to the changes to PQRI mandated through the Patient Protection and Affordable Care Act of 2010. The legislation extends PQRI from 2010 until 2014, and includes a punitive component for non-compliant providers. The legislation also mandates the development of a feedback process for providers and a plan to coordinate the PQRI and EHR incentive programs. Further research is necessary to assess rural physicians' experiences in light of these programmatic changes.

Finally, self-selection bias is a potential limitation of this study. Respondents' decisions to participate may have been a result of their strong opinions about PQRI generally or on the implications of PQRI for rural physicians. It is possible that respondents who believe that rural physicians face barriers or opportunities to participating in PQRI were more inclined to participate. Thus, the findings from this research should be considered valid in representing the perspectives of the study participants, but cannot be generalized to fully reflect the broader views and perspectives within each of the states.

Findings

In this section, we present findings from interviews conducted with representatives of state medical societies and medical practices. Results are organized by the interview objectives:

- Overview of primary care physicians' participation in PQRI;
- Challenges related to PQRI participation;
- Factors that affect rural physicians' participation in PQRI; and
- Recommendations to improve physicians' participation in PQRI.

Overview of Primary Care Physicians' Participation in PQRI

The seven medical society representatives answered a series of questions about their memberships' experiences participating in PQRI. Overall, the medical societies did not know how many of their members are participating in PQRI. One representative noted that they have few members who are attempting to participate: "Less than 10%, or 400, of our members are participating in PQRI." Medical society representatives noted that few primary care physicians serving rural communities participate in PQRI. One medical society recently conducted a survey of its membership about PQRI. Of the 197 providers that responded to the survey, about 21% (41) participated in PQRI – and 10 % (4) of those providers indicated that they serve rural communities.²

² Note that the survey was sent to the medical society's entire membership – not exclusively to primary care physicians.

While none of the medical societies discourages its membership from participating in PQRI, only two out of seven medical societies encourage their members to participate in the program. In addition, while the medical societies had differing policies with respect to encouraging or discouraging their members to participate in PQRI, the majority (5 out of 7) medical societies provide information about PQRI to their members. They deliver information to their members via weekly newsletters, information on the society's website (e.g., live presentations, interactive seminars), webinars and calls, and a member hotline.

Medical society representatives knew little about the types of measures that their members were reporting through PQRI. One medical society representative said that some members have reported pulmonary measures related to chronic obstructive pulmonary disease. Another medical society representative said that their members reported diabetes and cardiac procedures.

Two representatives from medical practices discussed the types of measures their practice has reported. Both individuals said that their practices reported on hemoglobin A1c in type 1 or 2 diabetes mellitus and blood pressure control in diabetics. In addition, one of the medical practices reported on measures for osteoporosis screening and treatment, and screening for fall risk, and the other practice reported on low density lipoprotein control in type 1 or 2 diabetes mellitus.

Two of the medical practices' reporting strategies were similar. One practice chose PQRI measures that are "easy to do and easy to remember" and those that "seemed like they wouldn't make much impact in terms of time with patients." A respondent from this practice said that the lipid parameter and advance directive measures would require too much time to collect, and thus, were not selected. A representative from another medical practice grouped specific diagnoses together and reported on measures that were similar. Explaining the process, the respondent said:

"We selected [measures] because they were grouped to a specific diagnosis. So, therefore, we felt our reporting would be complete because we were reporting all of our diabetics. Functionally, there are very few type 1 diabetics in Medicare; we would report any patient with diabetes, but basically we were aiming at type 2 diabetes. And we knew we would be able to have those measures and get those three measures we needed."

Challenges Related to Participation in PQRI

According to respondents, members that participated in PQRI – or were interested in participating in PQRI – contacted their state medical society with questions about participation. Three of the seven medical society representatives had contact with their members about PQRI, and were able to discuss the types of questions that they received. The issues raised by medical societies' memberships can be classified into two areas: 1) challenges with respect to the PQRI reporting process; and 2) challenges with respect to receiving adequate feedback about their participation.

Challenges in PQRI Reporting

Medical society representatives noted that their members experienced a number of challenges with regard to reporting. Their members found the PQRI reporting process to be "very complicated."

One medical society representative noted that “there is mass confusion about how to [report].” Another medical society representative noted that “[physicians] don’t understand how to [report].” These challenges were echoed by medical society representatives in rural and urban states:

- “Some office managers say they tried [to report data] but it was too complicated. [The medical society receives] lots of complaints about reporting.”
- “I think the actual process of reporting, and trying to define the measures that you are planning to report...may have been a challenge for some offices.”
- “The process was cumbersome, and we spent a lot of time. Reporting, inaccurate reporting and no way of getting interim reports were big road blocks.”
- “Physicians here do not have adequate staff available to learn the rules and look at the measures.”
- “People may not have understood how some of these validation processes seemed to work.”
- “Using the National Provider Identifier (NPI) is the number two issue because it [determines] whether or not [the provider] applies to PQRI or not.”
- “We conducted a survey of our membership, asking open-ended questions about PQRI. Members commented that PQRI is difficult to implement, the bonus is not sufficient, and [the reporting process] presents a bureaucratic burden.”

Challenges in Receiving Feedback

Medical society representatives also noted that members did not believe they had received adequate feedback about their participation in PQRI. The lack of feedback was a key issue of concern for many respondents and fell into two categories: feedback on whether claims counted as successful PQRI reports, and feedback on summary measures of quality.

“Feedback. Doctors would appreciate feedback. Did I do it right? Did I do it wrong? How did I compare to my fellow physicians? In a lot of these quality programs, feedback to physicians is actually valued more than the actual money.”

– Medical practice representative

According to CMS, 109,349 professionals and practices submitted measures as part of the 2007 PQRI.⁶⁰ A total of 56,772 were eligible professionals who satisfactorily reported and were eligible to receive the incentive payment – a success rate of only 52 percent. This is consistent with feedback that we received from representatives from medical societies and practices who said that CMS frequently did not accept provider reports as valid. One respondent noted: “I don’t know any practice in [this state] that has received any money [from PQRI].”

Complaints were widespread among medical practices and medical societies that CMS did not communicate whether practices’ reporting was meeting their requirements. Practices expected to receive a Final Feedback Report from CMS about the status of their reporting efforts prior to the calculation of their incentive payments. The report provides information about reporting rates, clinical performance, incentives earned by individual professionals, and a summary on reporting success.⁶¹ Multiple respondents said they did not receive a report until after their incentive payments

were calculated. One respondent noted that the 2007 Final Feedback Report was delayed on two separate occasions. It is unclear whether the Final Feedback Report was supposed to serve as an opportunity for providers to review their reporting status and correct mistakes prior to the calculation of the incentive payments. Regardless, it appears that providers were expecting to receive feedback prior to the calculation of the incentive payment.

Furthermore, providers felt that the Final Feedback Report did not provide adequate information to allow them to correct problems in their future reports to CMS. A medical society respondent noted that physicians were frustrated when they did not receive an incentive payment because they could not identify their reporting mistakes. The representative noted: “That led to a lot of frustration on the part of the physicians who thought they were going to get a bonus, and they didn’t because they didn’t report correctly... and they have no idea why. To the extent that happened to the people who tried to [participate], that may deter them from further participation.”

One practice representative described the experience this way:

“I have been reporting data since January, and in August, I am told that out of 34 opportunities to report, 27 are correct. Therefore, you get no bonus. Nobody is able or willing to tell me which of the 34 are correct and which of the 34 are incorrect. So, I have no way of going to look at a record to find out where my mistake is...I understand that we are not entitled to refute the information; I just want them to tell me what I did wrong... There is no way I am going to participate in [the future].”

One respondent noted that their practice’s participation in the program was hampered because they did not receive timely feedback about their reporting. The respondent noted that their practice spent two months trying to get feedback about “what they did wrong” with respect to their reporting; they contacted the regional carrier and a Medicare officer in their city.

Another respondent noted that feedback is particularly important for rural practices because the cost associated with participating in the program is substantial for a rural practice. The representative noted that without adequate feedback, “you can get taken down a path where you are doing something that looks right but is wrong and never get it fixed.” The respondent went on to say that the “consequences might be greater in a rural jurisdiction where just by nature of the smaller margins within a rural practice, the investment costs may make this more problematic essentially.”

Respondents were not only interested in receiving feedback about why they did or did not receive an incentive payment, but they also wanted more information about the actual measures they are reporting. One medical society respondent noted that feedback to physicians – and the ability it would give to improve practice – is more important than the actual incentive payment:

“Pay-for-reporting is really not helpful in that setting unless the feedback is targeted in some other way... [The report] didn’t tell me what I was doing wrong, and I really couldn’t understand if there were clinical issues in the data that I reported. I am not saying the data wasn’t there, I am just saying that it wasn’t the way I could understand...Because what should have

happened is I should have gotten the report that said you reported this, you reported that, you correctly reported this, this percentage was good, this percentage was not...Then, it should have said, your A1c average was such and such, a good A1c is this, refer to this article, refer to that article for information showing a value of good A1c. Number 2, the blood pressures were this on average, your blood pressure average should have been here, refer to this article and the same thing for other measures.”

Another respondent noted that the current feedback received is not adequate for physicians to use the data to change their practice patterns.

Factors that Affect Rural Physicians’ Participation in PQRI

One of the objectives of this study was to explore whether the rurality of a physician’s medical practice impacts their participation in PQRI. The literature with respect to P4P and P4R programs in rural medical practices reveals that participation may be challenging for rural providers for a variety of reasons. To investigate these issues, we asked the respondents about the factors that might affect participation for rural physicians. Specifically, we asked respondents to discuss factors related to rurality that make the incentive payment more or less attractive; to identify incentives or disincentives to participating in PQRI that differ for rural practices; and to highlight any challenges or opportunities related to participating in PQRI would be systematically different for rural physicians. Respondents identified the following factors that affect rural physicians’ participation in PQRI:

- Practice size, infrastructure, and staff resources
- Incentive payment
- Case mix and volume
- Other factors

Each of these factors is described in detail next.

Practice Size, Infrastructure, and Staff Resources

Practice size and, in conjunction, the practice’s infrastructure and staff resources were cited by several medical societies as the most important factors that affect a physician’s participation in PQRI. Respondents identified key differences between large and small practices: the availability of technology and staff time to prepare for and participate in PQRI.

“I don’t think there is any disincentive for a rural practice [compared to] an urban practice. I think it comes down to what is the size of your practice, what is your case mix of Medicare compared to everything else, overall revenue from Medicare, and what kind of overhead staff time you have or you believe you are going to need for proper reporting and for tracking this – and that applies to practices no matter where they are.”

– Medical society representative

For some practices, process changes (e.g., modifications to billing systems or computer software, administration changes) were necessary to facilitate participation in PQRI. One of the medical practice representatives provided a succinct overview of the types of process changes made within their practice in order to participate in PQRI. According to this medical practice representative, a variety of players were involved in preparing for PQRI:

“We educated ourselves through practice journals, specifically as to what the requirements were in terms of what we had to report. We then confirmed with our software vendor that they had the ability to send these codes on to Medicare. We then educated our staff that every patient with type 2 diabetes had to have reporting codes attached to the diagnosis. And then we drew up a cheat sheet to explain what the proper codes were to be attached depending upon what the results were. It was the job of the physician to write down the specific results that the billing staff needed to translate into coded information to send on. If the billing staff received a counter form with the diagnosis, with the proper information, it was their job to track down the physician to get the proper information and those were the changes we made.”

Given the steps necessary to prepare for PQRI, respondents thought that larger practices were better equipped to participate in P4R programs like PQRI because they have more staff resources and infrastructure such as electronic billing systems and EMRs. For example, a medical society representative noted that larger practices have more standardized billing systems, which may help them in reporting: “A bigger group practice that has more centralized billing and a shared record process probably has a leg up in participating over a small practice that relies on individual claim billing.” Additionally, a medical society representative, who is also a PQRI-participating provider, likened a large medical practice to a business: “The large groups with multiple people working in the front office that are running a business – this is nothing for them.” Still, one participant noted that participating in PQRI remains a difficult process, even for urban physicians. Specifically, the respondent said that even larger physician groups with more than 10 to 15 physicians, have not found it feasible to participate in PQRI.

“It’s just overwhelming for smaller offices. With a one man practice, it’s almost impossible to participate in PQRI.”

– Medical society representative

In contrast, small practices or solo practitioners were thought to be at a disadvantage with respect to participating in PQRI because they lack the resources, infrastructure, and staff time. Respondents thought that smaller practices might have more difficulty affording the staff time necessary to participate in PQRI. One medical practice representative commented that rural practices would face similar challenges to small office practices, noting that rural practices do not have “enough staff to segregate those duties.”

The respondent went on to say that participating in PQRI has been an isolating experience: “In rural areas, it’s trying to figure out everything on our own. I am the only one that I know in PQRI, and not very many physicians are participating in my state.”

Additionally, the interviews revealed that health care professional shortages make participation in PQRI difficult for both rural and urban physicians. A medical society representative said: “We have a shortage of physicians, so they certainly do not have the time or staff to participate.” Another respondent noted that the shortage of health care professionals is an acute problem in urban areas in addition to rural areas: “In urban areas there is a little more participation [in PQRI], but urban practices would still need a dedicated staff person. The incentive payment would not offset the cost of paying for the extra staff.”

The theme of infrastructure – especially with regard to EMRs – surfaced in several interviews. Physicians with EHRs, registries, and standardized data collection systems were thought to have lower marginal costs for collecting the data, and thus, an easier time participating in PQRI. Respondents commented that participating in PQRI would be “a lot easier with an EMR” and “not such a burden.” However, the cost of the technology – should the practice decide to purchase an EMR or another system – was viewed as a barrier for smaller practices. One medical practice representative mentioned that there is an electronic health record on the market that captures PQRI measures and reports the data. According to the respondent, the cost is \$4,000 for the module and monthly maintenance fees of \$78. Purchasing the system would require \$4,000 up front plus \$1,000 per year to use the system for the purpose of reporting data in PQRI. This medical practice representative saw the cost of the system as an “issue” for a lot of physicians, noting that a practice might “break-even at best” if it received an incentive payment.

Without an EMR or other system, respondents noted that reporting is difficult and cumbersome. Some respondents were concerned that solo practitioners and small group practices may be more ambivalent to invest in these systems and make fundamental changes to their operations, without knowing whether they will receive an incentive payment. A medical society representative commented: “For individual solo rural practitioners, it might be harder if they do not have the technological capability to [report].” A medical practice representative commented that, due to problems with the office’s software, the practice had to print forms with the relevant transaction codes; then, the physician needed to circle the appropriate codes on paper. The respondent noted that this process was time consuming. Another medical practice representative noted that their work load increased as a result of their participation in PQRI: “I’m still using paper charts so it would have been too onerous to have the staff go do all of this other stuff. I take the measures that are reported, and do all of the coding for the measures on our billing form.”

Respondents commented on the linkage between the size of the practice and rurality of the practice, stating that urban practices tend to be larger, and have more staff and other resources in comparison to rural practices. One respondent noted that practice size is a more important factor affecting physicians’ participation in PQRI than whether the practice serves a rural or non-rural population:

“I tried to give some thought to what would make something more difficult in a rural setting and with this program, I can’t think of one other than the size of the group. If you are in an urban setting, you have a larger clinic that has billing. They have the staff and know-how to get the data and do this. Small practices, whether they are urban, suburban or rural, do not have the staff and other things necessary to do [PQRI].”

Another medical society representative commented that the size of the practice was regarded by some as a more important factor than the rurality of the practice with regard to reporting in PQRI. In as much as rural practices are likely to be smaller with fewer resources and are less likely to have an EMR, they may face greater challenges when participating in PQRI than their non-rural counterparts.

Incentive Payment

The incentive payment was identified as a factor that affects participation in PQRI. In order to receive the PQRI incentive payment, eligible professionals must satisfactorily report data on at least three measures for at least 80 percent of the cases in which the measure was applicable. Eligible professionals provide services paid under or based on the Medicare Physician Fee Schedule. In PQRI, CMS is required to pay an incentive payment equal to 1.5 percent of their allowed charges for covered professionals who satisfactorily report data. The 2007 reporting period is the focus of this study, and lasted from July 1, 2007 through December 31, 2007. For the 2007 reporting period, the incentive payments were sent to physicians in July 2008.

In 2007, the average incentive for an individual eligible professional was \$630. The average incentive for a physician group practice was \$4,713. There is no information available on how many eligible professionals were providing care in rural settings, or whether the amount of the incentive payments differed, on average, for rural versus non-rural professionals.

Overall, respondents did not believe that the 1.5% incentive payment is a sufficient incentive to encourage practices to participate in PQRI. Representatives from the three medical practices commented that participating in PQRI required additional resources and staff time to learn how to report. One individual noted that “you have to have more staff to dedicate a lot more time to PQRI reporting” and that the incentive payment “will probably not cover increased staff time.” Additionally, another medical practice representative said that the payment was not sufficient to encourage most physicians to participate in PQRI. Finally, the third medical practice representative said that the incentive payment was “not at all” sufficient. This respondent noted that the incentive was not sufficient because of the additional administrative work required to participate. According to the individual, the practice received an incentive payment of \$650, though the administrative and staff costs associated with their participation totaled \$2,000.

None of the medical society representatives commented that the incentive payment was sufficient to encourage practices to participate. One representative from a medical society in a rural state commented that the incentive payment is not large enough to stimulate participation given economic factors: “The economic times aren’t good...so the whole economic atmosphere is not conducive, and the 1.5 [percent] is certainly not enough to entice people to participate.” The medical society that conducted a survey of its membership found that respondents did not feel it was “worth the time to report at the bonus payment rate.” Another medical society representative said: “Physicians feel that [participation] is too much work, and the incentive does not balance out the work involved.” These perceptions may have been influenced not only by the 1.5 percent payment rate, but also by the fact that some practices that attempted to report were not paid because their reports were not considered acceptable by CMS.

Not surprisingly, respondents commented that a higher incentive payment would encourage greater participation by physicians. One respondent said that participation could be easily improved by “increasing the nominal amount of the incentive” and another said that “if you make the carrot big enough, that’s certainly going to attract more people into the program.” In addition, one respondent noted that rural providers actually need a different incentive altogether than urban providers, and

commented, “I’m not sure that this program was geared for rural states.” The respondent did not specify what type of incentive would be desirable, however.

Medical society respondents did not feel that the incentive payment – independent of other factors – was more or less attractive to rural physicians in comparison to urban physicians. Rather, these respondents said that the key issues affecting rural physicians’ participation in PQRI are case mix, patient volume, practice infrastructure, and other factors that are discussed later.

One medical practice representative conveyed a unique perspective on how the incentive payment affects a rural practice’s decision to participate in PQRI. The physician thought that the incentive payment would be a sufficient incentive for very rural practices with high Medicare penetration: “[Rural practices] are stuck; they can’t get enough revenue, so they need any measure that would increase their revenue.”

Results also suggest that given the increased staff time necessary to participate in PQRI for some practices, physicians who do not receive an incentive payment may not be willing to participate in the next reporting year. One respondent commented: “I know one pulmonologist, a single practitioner, who did participate, but they got nothing out of it and they don’t plan to participate again.” This finding is also particularly relevant to rural physicians, who many need to invest more time, money, and other resources in order to participate. For example, one medical practice representative said that the office dedicated resources and staff time to participate in PQRI, but did not receive an incentive payment; as a result the practice will not participate again in the future.

Thus, the incentive payment is a factor that affects a physician’s participation in PQRI. The incentive payment may be a particularly critical factor for rural physicians with high Medicare penetration rates, as they are encouraged by an opportunity for additional revenue.

Case Mix and Volume

Respondents noted that case mix and volume were factors that determined whether a physician participates in PQRI. Compared to their urban colleagues, rural physicians may face competing incentives to participate in PQRI stemming from these factors.

Many rural physician offices have relatively low volumes of patients. This gives them a low margin of error in reporting to CMS. In order to report successfully in PQRI, eligible professionals had to report on at least three quality measures for at least 80 percent of the cases in which the measure was applicable. For a measure that applies to twenty patients, failing to report correctly on just five would disqualify a provider on that measure. In 2007, there was a total of 74 clinical quality measures from which providers could choose. One medical practice representative commented that providers must report more than three measures in order to ensure that at least three measures are reported adequately.

Low volume may also be a disincentive to report. The fixed cost of setting up reporting systems within the office may be spread over a much smaller number of patient visits in a low-volume office. A medical society representative expressed this concern, stating that “a rural state does not have the volume of patients to participate in PQRI.” Multiple medical society representatives said that

Medicare volumes need to be high for physicians to invest the time into reporting, because the 1.5 percent incentive needs to be applied to a large payment base to result in a significant amount of money.

At the same time, some rural physician practices see a much higher proportion of Medicare beneficiaries than non-rural practices. One respondent noted that very rural practices with high Medicare penetration are likely to participate because of the opportunity for revenue.

“[For] this particular program, being in a rural area did not affect us at all. In other practices, where it is extremely rural and the Medicare penetration is much higher, [the incentive payment] would have a much bigger impact...the 1.5% would be sufficient to participate for pay-for-reporting. [The incentive] is more likely to be sufficient in rural areas. Medicare and Medicaid proportions are both likely to be higher.”

In order to further explore the impact of case mix and volume on participation, respondents were asked what proportion of an average practice’s patients would need to be Medicare beneficiaries to make PQRI reporting a worthwhile endeavor. One medical society respondent said that greater than 50% of a practice’s patients would need to be Medicare beneficiaries, and that “it does not make sense” for practices serving children to participate. Another medical society representative commented that between 80% and 90% of a practice’s patients would need to be Medicare beneficiaries, and as a result, “in rural areas, participation is just not beneficial.”

The representatives from medical practices estimated a smaller proportion of Medicare beneficiaries could still make it worthwhile to participate. One medical practice representative said that 50% of their practice is composed of Medicare beneficiaries. The second representative said that the practice would need at least half of its patients to be Medicare beneficiaries. The third representative noted that an average practice would need their proportion of Medicare patients to be between 30% and 35% for the practice to participate and “break even.” The fourth medical practice representative said that 20% of patients would need to be Medicare beneficiaries.

One medical society respondent said that rural physicians that have a high Medicaid case mix may also be likely to participate in the program; specifically, providers with a high Medicaid case mix might look at the PQRI incentive payment as an important opportunity to earn additional income to make up for the lower payments associated with their Medicaid patients. Thus, case mix and volume may be factors that influence a physician’s decision to participate in PQRI. For rural providers, however, these factors may have mixed effects.

“If rural practices could get more money for their Medicare patients, then at least it helps to offset the lower income from the high Medicaid mix that a lot of the rural practices have.”
– Medical practice representative

Other Factors

Two other factors mentioned that affect rural physicians’ participation in PQRI are (1) participation in other quality reporting or P4P initiatives in the past, and (2) fear that the PQRI program – now voluntary – will soon become compulsory.

One of the medical society representatives – who is also a participating PQRI – commented that physicians are not used to recording and reporting their data: “Physicians in their offices are not doing statistical analyses on who they see and what they do. This is a very very brand new concept. It’s not going to happen overnight. That is a major impediment to any of these programs.” Thus, there is a concern that physicians – and especially physicians in rural areas – may not be likely to report their data in a new way. A medical society respondent also commented that rural physicians may be less likely to participate in “a new initiative” like PQRI because their staff “are set in their ways and not open to new challenges such as this one.”

In contrast, one medical society representative from a rural state said that PQRI fits into the other quality initiatives and the quality improvement culture of that state. Initiatives described were those that focus on the expansion of EMRs, the coordination of care for individuals with chronic diseases, and the adoption of health information technology in primary care offices. In describing these programs, the respondent noted: “There are other reasons why the physicians are already looking at these types of issues. So, PQRI [is] maybe one way of fitting into that.”

Another factor that has affected physicians’ decisions to participate is the fear that PQRI will eventually become a compulsory program. Medical society and medical practice representatives noted that this concern has prompted some providers to participate in PQRI. When asked about their motivation for participating in PQRI, one of the medical practice representatives said:

“It seemed fairly clear that in the future CMS would make this mandatory, and [we] just thought it was good to get experience doing this before there is a mandatory deadline for participation. And at least this way, although the incentive is not very much, there is not a disincentive for not participating that has been published.”

While worth mentioning, there was not evidence to suggest that rural practices were more likely to have this concern than non-rural physicians. As of the April 2009 iteration of the PQRI program, participation in PQRI is still voluntary.

Recommendations to Improve Participation in PQRI

In December 2009, CMS released a report on the 2007 PQRI reporting experience.⁶² The report identified unanticipated issues that affected providers’ reporting experiences, and potential remedies for the future. Issues discussed in the report included incorrect quality reporting data, claims submission errors, and the content of the feedback reports, among others. In an effort to increase interest and participation among providers, CMS is implementing lessons learned from the 2007 PQRI, such as developing a more provider-focused education campaign, changing the analysis of claims-based submissions, and increasing the use of registries. The report, however, does not comment on rural providers’ experiences, specifically.

A number of salient recommendations emerged from the key informant interviews, and many echo the findings of CMS’s review. These recommendations ranged from improving education about the PQRI reporting process to implementing a more structured feedback mechanism for providers.

More Education for Practices and Office Personnel. Medical society respondents identified a lack of education for practices as a key challenge to improving participation in PQRI. According to respondents, the reporting process is not “simple enough” and physicians want a “step-by-step process” to follow. One of the medical society representatives commented that the society provides education in the form of online seminars. However, members who have participated in PQRI want greater access to a CMS representative to voice their questions or concerns. A medical society commented that educational pamphlets are not sufficient. Rather, a more active learning environment is desired:

“We will need a lot more education to make it successful – and not just audio conferences. Trying to read all of the information on the CMS website is near impossible. I’ve been in management for 30 years, and if I had tried to participate, I would have been so discouraged. I probably wouldn’t participate. Information is not presented in manner where office personnel can follow steps. If CMS wants this to be successful...They will need a lot more education – having seminars where a representative of CMS is on site, and participants can come to a meeting and sit down and hear it, see it, and can ask questions, referencing written information.”

In-person meeting opportunities for participating PQRI professionals were also identified as a preferable means of education. One medical society representative said that providers do not understand how to participate, and that “CMS webinars” did not provide them with enough information. Respondents also noted that PQRI participants would prefer a meeting whether they could ask questions.

Understanding the Measures and Physician Performance. A medical society representative noted that members should be able to learn more about why certain measures were selected for inclusion into PQRI, and how the measures were derived. According to a medical practice representative, more information about PQRI would serve as a key incentive:

“There are clear cut derivations, but most physicians don’t know where these things were coming from. Why are they selected? Who decided that these were good measures to use? We need ongoing education on this for physicians. Most physicians – if they were given insight into how the measures were derived and they were given access to this information – [would find the information] tremendously helpful. They don’t have the background. This would be a very important incentive.”

Respondents also recommended more feedback on physician performance based on the measures, as well as a place for the provider to go for more information on practice guidelines or other tools for improving performance.

A Simplified Reporting Process. Respondents recommended a simplification of the reporting process. Specifically, one respondent noted that physicians should receive the reporting instructions in a textbook format with examples, similar to materials currently available for other Current Procedural Terminology (CPT) Codes. The preference was also to receive the information via mail.

The respondent noted that they had to struggle to find the correct CPT 2 Codes on the Internet: “I have to struggle to find the [codes] – I have to go to websites, whereas right now most doctors have these books that come in the mail. They should be an attachment or part of that book that says these are for PQRI, or even [provides] examples.” One medical practice representative noted that the registration process and security policies were also difficult to navigate.

Feedback Mechanism on Whether Reports are Acceptable. Interim feedback for physicians about how well they are reporting is critical, and was cited as an important issue in several key informant interviews. Recommendations to improve the feedback provided are that the feedback report should be timely and specific. Some respondents also eluded that they wanted an interim report so that they could correct problems and still qualify for incentive payments at the end of the year. One medical society representative commented that they receive complaints from their members about trying to access the PQRI website to view their feedback reports. As one respondent put it: “I had to jump through hoops that you couldn’t believe. And I finally get the hoop, and there is not enough information in the report for me to do any constructive changes in my office.”

An Opportunity to Appeal Final Decisions. Some respondents believed that providers should have an opportunity to challenge the determination of whether they reported successfully. As of 2009, there was no appeals process. One medical society representative commented that the implementation of an appeals mechanism to challenge whether reporting was successful will remove a key barrier from participation:

“If somebody can demonstrate that they have...provided that data but it may not have captured it properly, there ought to be an appeal process by which they can say, ‘I have done this, give me the credit for doing this.’...If you have a mechanism and provide an interactive feedback, you certainly take a barrier from people to participate.”

While the respondent did not believe that an appeals process would encourage practices to participate, they did suggest that the mechanism would remove an objection to participate.

IV. Study Conclusions

This study explored the implications of PQRI for rural primary care physicians. Given that PQRI is CMS' first nationwide initiative that provides incentives to encourage reporting of quality data by physicians, we used this program as a proxy to explore the implications of P4P and P4R programs for rural primary care physicians, more generally. PQRI is designed as a P4R program, whereby eligible professionals may receive an incentive payment for reporting on specific quality measures for a percentage of their patients, though they need not demonstrate improvements in outcomes for those measures.

The purpose of this research was to explore the design and implementation of Medicare's PQRI program, in order to assess whether there are any unique opportunities or challenges related to participating in PQRI that would be systematically different for rural versus urban primary care physicians. The conclusions for this study are based on the literature review and feedback from ten representatives from state medical societies and medical practices. This study was conducted prior to the Patient Protection and Affordable Care Act of 2010's new PQRI provisions. Therefore, further research is necessary to assess rural physicians' experiences in light of programmatic changes.

Conclusion 1: Rural practices may be at a disadvantage with respect to participating in PQRI – not necessarily because of their geographic location, but because they tend to be smaller practices that have fewer resources and a less developed quality measurement infrastructure.

The key informant interviews revealed that factors such as practice size, resources, practice infrastructure, and case mix, among others, could present challenges related to participation – regardless of the rurality of the practice. For example, a practice without an EMR (rural or urban) may find it challenging to participate in PQRI. Similarly, practices with a low Medicare case mix may not find it worthwhile to participate, while practices with a high volume of Medicare patients may see the 1.5% payment as a sufficient incentive. That being said, in as much as rural practices are likely to be smaller with fewer resources and a less developed quality measurement infrastructure, they may face greater challenges when participating in PQRI than their non-rural counterparts.

Conclusion 2: The 1.5% incentive payment was widely considered insufficient to incentivize primary care physicians to participate in PQRI if they did not have staff and systems to support quality reporting.

Generally, respondents participating in PQRI required additional resources and staff time to learn how to report. None of the medical society representatives commented that the incentive payment was sufficient to encourage practices to participate. A theme that surfaced was that a higher incentive payment would encourage greater participation by physicians, especially those with a significant proportion of Medicare patients.

This conclusion suggests that the incentive payment is benefiting practices that are already well-resourced, and potentially need it the least. Practices that have staff dedicated to quality improvement and systems to support quality reporting can participate in PQRI with minimal burden. Conversely, as we heard in the key informant interviews, practices that do not have quality

measurement infrastructure or available staff do not participate in PQRI because the costs exceed the value of the incentive payment. To the extent that the American Recovery and Reinvestment Act of 2009 encourages practices to adopt EMRs and other forms of health information technology, this could be less of a problem in the future.

Conclusion 3: Rural practices that did not receive the incentive payment and/or did not receive adequate feedback may be less likely to participate in PQRI in the future.

Respondents provided a number of recommendations to improve physicians' participation in PQRI. Specifically, respondents noted that more feedback is essential for PQRI participants to learn from the reporting process. Medical society representatives noted that members did not believe they had received adequate feedback about their participation in PQRI. The lack of feedback was a key issue of concern for many respondents. Given that it is likely a greater burden for some rural physicians to participate in PQRI than their urban counterparts, rural physicians may be less likely to participate in PQRI in the future if they do not receive adequate feedback. Additionally, physicians that do not receive an incentive payment may be less likely to participate in the future. For example, a representative from a rural medical practice that did not receive a bonus payment – and did not feel that adequate feedback was provided – does not intend to participate in PQRI in the future. The Patient Protection and Affordable Care Act of 2010 created a provision for timely feedback to physicians that have not satisfactorily reported quality data. Further research is necessary to assess physicians' experiences soliciting feedback on their quality data.

Conclusion 4: Medical societies are engaging with their memberships about PQRI on a limited basis, but could potentially serve as a useful mechanism to disseminate educational information about PQRI to their memberships.

Medical societies are engaging with their members about PQRI, albeit on a limited basis. Most of the medical societies interviewed do not collect data on whether their members participate in PQRI. Additionally, the medical society representatives did not know about the types of measures that their members report to PQRI. Medical societies, however, were identified as an important resource for professionals participating in PQRI. The interviews revealed that many societies provide information about PQRI to their members via the web and newsletters. In the future, medical societies may be able to disseminate additional resources to their memberships about PQRI and other P4P and P4R initiatives.

Conclusion 5: Further research should investigate the results of the PQRI program for rural primary care physicians, specifically.

The literature review did not identify any research that has quantified rural providers' participation in PQRI. No data is publicly available on the number of rural providers who participated in PQRI in 2007 or in subsequent years. Quantitative analyses of PQRI data over the program's history should explore whether there are statistically significant rural-urban differences in primary care physicians' participation in PQRI, reporting rates, types of measures reported, and incentive amount received. Findings from a more detailed analysis of rural primary care physicians' experiences in PQRI could inform the design and implementation of future CMS P4P and P4R programs, and potentially help to mitigate unintended program consequences for rural providers.

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