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Physician Quality Reporting System: Initiative to Improve Care for Medicare Beneficiaries

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Physician Quality Reporting System: Initiative to Improve Care for Medicare Beneficiaries

by

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Abstract

The Centers for Medicare and Medicaid Services (CMS) developed the Physician Quality Reporting System (PQRS) in response to congress mandating quality improvements for Medicare beneficiaries. This program has been heavily criticized for its cost, lack of provider participation and poor reception. However, recent reports show the PQRS has produced some quality improvements. Since PQRS will continue to be used in its current form through 2017 and will be incorporated into a new program starting in 2018, it is necessary to assess the weakness and strengths of this program. Addressing these are crucial for the successful continuation of PQRS and improving care for Medicare beneficiaries.

Introduction

In the early 2000s payment systems in health care were reassessed after many studies reporting on the dire state of health care in the United States recommended changes. The Institute of Medicine (IOM) reported between 44,000 and 98,000 people admitted to U.S. hospitals die annually because of medical errors (IOM, 1999). Another report estimated 45% of patients don't receive standard recommended care. This includes age appropriate and regular screenings, timely follow ups, and proper management of chronic diseases (McGlynn et al. 2003). It seemed our healthcare system was failing to provide safe and satisfactory care.

Due to growing concern about the state of health care, policy makers and private insurers started implementing pay for performance (P4P) programs in an effort to reduce medical error and improve the standard of care (Mullen et al. 2009). P4P systems seek to reinforce quality over

quantity by distributing bonuses to health care providers if they meet or exceed an agreed upon standard assessed by quality measures. In addition to rewarding high quality care with bonuses, financial penalties may be given to providers that have failed to reach specific goals (James, 2013).

In 2006, after an evaluation of over 100 P4P programs in the private sector, the IOM recommended Medicare incorporate a P4P system to better the quality of care for its users (Mullen et al. 2009, Berman et al 2013). As a result of this recommendation, the United States Congress mandated that Medicare establish a standardized performance reporting system. In response the Center for Medicare and Medicaid Services (CMS) established the Physician Quality Reporting Initiative (PQRI) under the 2006 Tax Relief and Health Care Act. This was made a permanent part of the Medicare reimbursement system in 2011 as the Physician Quality Reporting System (PQRS). The PQRS seeks to improve and standardize the quality of care Medicare beneficiaries receive. It was also designed to maximize income for providers, decrease complications, and limit health care expenditures (Harrington 2013).

Physician Quality Reporting System (PQRS)

The PQRS uses payment incentives to reward providers for satisfactorily reporting on selected quality measures. In its first form, the 2007 PQRS identified 74 quality measures, each identifiable by a numeric code, utilizable across a wide range of specialties. Quality measures were partially derived from existing Medicare claims and additional measures were developed by the American Medical Association Physician Consortium for Performance Improvement, and the CMS Quality Improvement Organization. These measures were developed to address specific gaps in the quality of care experienced by Medicare patients. The number of measures have nearly quadrupled, as of 2016 there are 284 measures available (CMS Reporting Experience,

2016). The PQRS measures are metrics that have been identified as important aspects of providing high quality healthcare. These measures quantify health care processes, outcomes, and organizational structure that fulfill goals of effective, safe, patient-centered, and timely care. Examples of measures that report on the process of care include those like #226; Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention, and #439; Age Appropriate Screening: Colonoscopy. An example of a measure that reports physiological outcomes is measure #1; Diabetes: Hemoglobin A1c Poor Control. An example of a measure that reports on organization metrics of care is #130; Documentation and Verification of the Current Medications in Medical Record is an example of an organizational metric (Dowd et al 2016, Berman et al 2013, James 2016).

Providers eligible to participate in PQRS are medical professionals (including physicians, therapists and practitioners), that bill Medicare for outpatient services, otherwise known as Medicare Part B. For a complete list of eligible providers see *Table 2*. Those eligible to participate in PQRS may report measures in a variety of ways. A single provider may choose to submit data, or as of 2010, a clinic may opt to report data for the practice as a whole (Dowd 2014). A majority of individual providers and clinics chose the claims-based reporting, in which quality measures are assigned to billing and claims data that is submitted to CMS. With this method 9 individual quality measures are selected and reported for at least 50% of Medicare Part B patients seen within the reporting year. This may be done by the individual provider or group via paper claims submission or submitted directly to CMS through the Electronic Healthcare Records (EHR). Providers may also use a certified data submissions vendor which will process the claims and submit them to CMS for a fee (Natarajan and Kanwal 2015). For practices that

have over 25 providers CMS offers a web interface to submit data directly (Natarajan and Kanwal 2015).

Growing in popularity is the registry-based reporting method. With this method eligible providers may report on a single measure group. A measure group is a subset of 4-10 measures that all relate to a particular condition such as asthma or diabetes. To have satisfactory reporting with this method providers will report on a 20 patient sample, where at least 11 in the sample are Medicare part B patients (Natarajan and Kanwal 2015). Like claims-based, registry based reporting may be done as an individual or for an entire clinic.

After submitting data individuals and clinics that have satisfactory reporting may qualify for a bonus. Bonuses are a set percentage of their Medicare part B claims. Bonuses are applied to the Medicare charges 2 years after the reporting year. For example, a provider that submitted data for the 2010 reporting year was eligible to revive a bonus that was 0.5% of their 2012 Medicare part B claims. Financial incentives have varied over the years (*Table 1*). From 2007-2009, providers could receive a bonus for 1.5% of their Medicare claims, bonus reached a high in 2010 with 2.0% and decreased the follow year to 1.0% and then from 2012-2014 bonuses of only 0.5% were distributed. Although PQRS started as an incentive program, in 2015 it changed to a penalty based program. Providers that had unsatisfactory reporting or opted not to submit data in 2013 will now receive a penalty that is 1.5% of their Medicare Part B claims. Penalties are set in increase to 2.0% in 2016 (Harrington et al 2013).

Since being enacted the PQRS has been a great source of debate in the medical community and among policy makers. PQRS will continue to be used in its current form through 2017, and will be incorporated into a new program starting in 2018. Since PQRS will remain a part of Medicare's payment system for the foreseeable future, it is necessary to assess the the

weaknesses and strengths of the program. Addressing these are crucial for the successful continuation of PQRS and improving care for Medicare beneficiaries.

Methods

A review of the literature pertaining to the utilization, perception and outcomes of the PQRS was conducted through multiple search engines. These include Pubmed, Endnote, Portland State University Library Database, Medline and Google Scholar. Key-words in searches included: Physician Quality Reporting System, PQRS, Medicare, pay for performance, provider perceptions, merit based payment systems, patient outcomes, and quality improvements. Research included in this review were peer-reviewed journals and articles conducted and published in the United State between 2005 and 2016. Additionally, data from IOM and CMS issued reports between the years 1990-2016 were utilized. This review did not include the Electronic Prescribing Initiative Program often tied with PQRS, or any private sector P4P programs.

Literature Review

In its nearly 9 years of use the PQRS has been criticized for low participation rates, and being incorrectly used by providers. Providers themselves have reported the system as complex, having little impact on care and not offering timely feedback. Additionally there has been raised concern about unintended consequences the program may have on vulnerable populations. The recent implementation of penalties as has also raised questions about the legality and efficacy of

the program. However recent data has suggested when used correctly, the PQRS is capable of improving some aspects of health care.

PQRS Participation

The PQRS has been slow to be adopted and utilized effectively. Provider participation has increased each year since its implementation in 2007, with 62% of eligible providers submitting data in 2014 (*Table 1*). However this leaves nearly 470,000 qualifying professionals that chose to accept the penalties over including PQRS in their practice (Manchikanti et al 2016). In addition, of the providers that submitted data, a smaller portion of those have satisfactory reporting (*Table 1*). Many providers over the years have submitted data but did not qualify for a bonus by failing to meet the threshold for reporting. Between 2007 and 2010 providers were required to submit data for a minimum of 80% of their Medicare Part B patients. This was reduced to 50% in the 2011 reporting year in hopes of encouraging provider participation by making financial rewards more obtainable (Berman et al 2013). After this adjustment there was great provider participation, however the number of providers that qualified for a bonus actually decreased in sequential years (*Table 1*). In 2014, with 62% provider participation, only 44% of those providers meet the reporting requirements and received a bonus (*Table 1*).

In addition to low overall participation rates, there has been unequal participation among specialties. Specialties including emergency medicine, anesthesiology, and radiology all have above a 66% participation rate (2014 PQRS Experience Report). Perhaps not coincidentally these specialties are also eligible to receive some of the greatest bonuses for satisfactory reporting (2014 PQRS Experience Report). Conversely it has been shown that primary care providers including those in family practice, and internal medicine are among the top non

participatory groups (Manchikanti et al 2016). This is despite the fact that they are considered to be among the most eligible professionals to submit PQRS data (Manchikanti et al 2016).

Provider Perception

Studies that have evaluated provider's perception of PQRS have found the majority hold an overall negative opinion of the program (Goldberg et al 2013). Providers and clinics report the program is difficult to use and understand and feel under supported by CMS. Annual changes to the program make it difficult to keep up with requirements and participate successfully. This is made more difficult by the 2 year processing time after reporting. During this time providers are unsure if they have correctly submitted data and do not receive feedback before the next reporting year. This can lead to providers and clinics not making the appropriate adjustments if necessary and missing out on financial rewards or perhaps even accumulating penalties (Berman et al 2013). This has been a great source of frustration for those that have submitted data. Spending the time, money and effort to report with no certainty of reward has deterred many providers and practices from adopting PQRS (Goldberg et al 2013). However a study conducted among dermatologists found 62% of those surveyed felt quality reporting was worth-while (Dunn 2013).

Aside from improving care for beneficiaries, PQRS is supposed to serve and benefit providers. The PQRS program was developed to bring awareness to the gaps in quality that exist for Medicare beneficiaries and give feedback to providers. However providers have expressed feedback from CMS is untimely and often confusing, not lending itself useful to improving their practice. Without timely or clinically applicable feedback practices and providers feel it defeats the goal of continuous improvement (Berman et al 2013).

Many providers have expressed they feel PQRS has little impact on the quality of care their patients receive (Federman and Keyhani 2013). An early critic of pay for performance type programs suggested that financial incentives lead to better documentation of care, but do not improved the delivery or quality of care (Van Swol 2007). A study conducted among eligible physicians found that 50.1% of participating physicians reported they thought the PQRS had no effect on the quality of care a patient received (Federman and Keyhani 2013). This study found that primary care physicians were more likely to report the PQRS impacted care, although the majority assessed the effects as minimal, and only 1 in 5 reported moderate to large impacts on quality. (Federman and Keyhani2013).

In addition to varied opinions about its impact on quality, providers have reported their skepticism about the reliability and utility of quality measures. One study found 70% of primary care physicians reported they disagreed with the statement that quality measures are generally accurate (Casalino, 2005). Providers feel quality measures inadequately represent their overall level of care because PQRS measures only report on a small percentage of the total care given. For example, a primary care provider can manage 400 different conditions annually, however they may only report on 9 measures (Berenson 2013). This has many providers concerned that the use of quality measures creates a misleading snapshot of care. Also many providers and health policy experts question whether measures are assessing aspects of quality providers have enough to control to influence (Mullen et al 2009).

There has been concern among those in highly specialized areas of medicine about whether the PQRS is capable of capturing a complete and accurate image of quality. Although there are over 280 quality measures, specialties are often limited in the number of measures that are applicable to their patient population and practice. One such example comes from providers

that specialize in wound care. In its first year the PQRS offered no measures directly relevant to wound care, and in subsequent years only 1 measure was added that was directly applicable to treating wound care patients. To successfully report providers must select at least 9 quality measures, forcing some specialists to report on measures that are not applicable to their practice. Providers and health policy experts agree this predicament makes it unlikely that these measures are improving patient outcomes and decreasing cost of care (Fife et al, 2013).

Public Performance Data

Starting in 2010, CMS began publishing provider performance information derived from PQRS data. Previously quality reports were privately shared with providers and clinics. Now anyone may access these performance records through the Physician Compare feature on Medicare's website. Releasing provider performance data was done with the intention that Medicare beneficiaries may use this information to make more insightful decisions about their care and the providers they chose. Additionally, public reporting is thought to hold providers accountable (Koltov et al 2014).

Critics questioned whether public performance data can actually help patients make better healthcare decisions (Bekelis et al 2015). In order for public performance scores to be useful patients have to understand and trust the ranking system in order to apply it to making decisions about their providers. Many reports had discussed the concerns about patient misunderstanding of performance data. These reports suggest the language and terms used may not be conducive for the patient's understanding. Additionally they have concerns that patients may not be able to interpreting high or low rates of an indicator as reflecting good or bad quality (Werner and Asch 2005). Besides patient perception, providers have also voiced concern for how they will be perceived by peers and purchasers. Public reports may also influence how they are

viewed by other providers and affect referral rates. Provider are also concerned about the potential for administrators and hiring committees to utilize public performance data when selecting providers and negotiate contracts (Werner and Asch 2005). Many providers have expressed concerns about whether the information made public is accurate in its representation of providers (Berman et al 2013).

Although public reporting is intended to incentives good performance critics have suggested there may be unintended consequences. Due to the far reaching influences of creating public record of performance data, many have brought up concerns about whether providers will engage in “risk aversion”. Risk aversion is when a provider or clinic will deny care to a patient with a known risk for a poor outcome, for fear of receiving unfavorable judgment in peer performance comparisons (Kaufman and Landercasper 2011, James 2013). This type of behavior can lead to access problems for patients or distorted treatment recommendations (Kaufman and Landercasper 2011, James 2013). Risk aversion has been found to increase with the introduction of physician report cards in previous systems (Werner and Asch 2005). One study assessing surgeons at a clinic in Pennsylvania that utilized report cards for coronary artery bypass grafts (CABG) found that after the implementation of report cards 63% of cardiac surgeons reported being reluctant to operate on high risk patients. A similar study in New York found the 67% of cardiac surgeons refused treatment to at least 1 patient in the last year that they perceived as high risk (Werner and Asch 2005).

Motivation

The PQRS program is aimed at improving and standardizing care, however critics of the program are concerned it will hinder overall advancements in quality. These critics have cited studies that claim there are negative consequences for rewarding and penalizing providers based

on a select few activities. Many studies have found that assessment of a limited selection of activities tends to decrease intrinsic motivation to perform well across the board (Berenson and Kaye 2013, Cassel and Jain 2012, Mullen et al 2009). Shifting provider focus to fulfilling quality measures and away from the underlying dimensions of quality makes improving care unlikely (Mullen et al 2009).

In addition, it has been suggested a pay-for-performance systems like PQRS, do not reward the skills that are most desirable in a provider and critical to quality patient care. A good practitioner can managing complex situations, has strong problem solving skills, is resourceful and creative. These are qualities that cannot accurately be captured and by PQRS. In fact it is believed these traits are diminished when there is a heavy focus on only a few quality measures (Cassel and Jain 2012, Berenson 2013).

Cost of Participation

Despite one of the original aims of the PQRS to maximize income for providers, participation can be very costly. A major barrier made evident by early PQRS adopters was the cost of implementation. The PQRS system in its current form is most efficiently used in conjunction with an Electronic Health Record (EHR) that allow providers to submit data electronically. For practices that are still using paper records the process of making the switch to EHR is expensive. At this time CMS does not offer financial assistance to clinics that wish to do so. For clinics already using EHR, adopting additional health information technology for data collection and reporting is still necessary (James, 2013). Upfront it requires purchasing the software and hardware, and then continual investment of additional time, money and resources. Practices that adopted the program early on reported that the incentive bonuses earned at the time were offset by the cost of implementing and maintenance. One practice reported individuals

received a \$772 bonus in 2010 after adjusting for the cost of implementation (Berman et al 2013). This practice felt the \$772 bonus received was not adequate for the time, effort and resources. (Berman et al 2013). Also providers and clinics may incur additional fees if they chose to work with a vendor that will collect, and transfer data to CMS on their behalf. Such a service can cost between \$300-500 annually (Natarajan and Kanwal 2015).

Since eligible providers are now penalized for not participating it would seem beneficial for providers and clinics to report PQRS data in order to avoid penalties. However even with penalties, providers may receive greater financial gain by not participating. Currently, an eligible provider that does not submit PQRS data to CMS can expect penalties of \$2,000 to \$10,000. However participating in PQRS can cost up to \$30,000 to \$50,000 annually (Manchikanti et al 2016). In many cases then the cost of submitting data is much greater than the resulting penalties for noncompliance, making participation an undesirable option.

Penalizing underperforming or non-complying providers has been met with some apprehension. There is particular concern for physician groups in safety net practices and those working in low income and disadvantaged areas. Many of these clinics treat a large number of Medicare patients and often have minimal or even zero profit margins. Clinics that have a large portion of payment coming from Medicare reimbursement are at the greatest risk for large penalties. In these cases incurring financial penalties could be harmful to their practice's business. If these practices suffer too great of financial strain and are forced to close this could greatly reduce access to care for these vulnerable populations (James 2013, Braid 2016). However, CMS has claimed that many safety-net providers tend to outperform those that do not treat a high volume of low-income patients. This has been supported by a study that found safety net and non-safety net hospitals have comparable mortality and readmission rates (James 2013).

With the cost of participating in PQRS, and the addition of penalties, there is growing concern that providers may “up-code” to compensate for lost profits (Berenson et al 2013, Braid 2013). Up-coding is assigning multiple, or inaccurate billing codes for a medical procedure or treatment to increase reimbursement. This is fraudulent practice that increases the cost of care for patients and taxpayers.

The future of penalties for non-participatory providers at this time is unknown. After the first round of financial penalties, issues about the legality of administering penalties for unfunded mandates has surfaced. Some are saying that because the PQRS was developed in response to a mandate from U.S. Congress the assessment of penalties is not legal. They have cited penalties as being in contrast to the Supreme Court ruling that unfunded mandates must not be permitted (Manchikanti et al 2016). Currently CMS plans to distribute penalties as outlined by the PQRS in 2015 and 2016.

Patient Outcomes

Despite the criticism PQRS has received, recent studies have found evidence for positive patient outcomes as a result of this program. A recent study assessed the relationship between providers PQRS participation and patient’s inappropriate utilization of health care services and their annual health care expenditures. This study found no significant changes in either quality measure overall, however it found there was significant improvements in some patient groups. These included a small decrease in ambulatory care sensitive admission, re-hospitalizations and risk adjustment cost in three subpopulations including males, rural providers and practices with more patients. This study also found both readmissions and non-emergent emergency department use was reduced in practices with older beneficiaries. (Dowd et al 2016).

Other studies have found significant improvements with the utilization of PQRS. Improvements have been particularly evident in surgical specialties. In a study that looked at postoperative complications, 30-day mortality rates and 1 year mortality rates for asymptomatic abdominal aortic aneurysms and asymptomatic carotid artery disease procedures found the rates were significantly higher when PQRS measures were not met (Bensley et al 2016). These findings suggests PQRS measures can be a good indication of quality and that successful utilization of PQRS can increase the quality of care given.

Conclusions

The current PQRS program will continue to be used through 2017. Moving forward CMS has decided to continue and evolve their P4P programs. Starting in 2018 the PQRS will be incorporated into a new program the includes the Value-based Payment Modifier (VBM) and the Medicare Electronic Health Record incentive program as required by the Medicare Access and CHIP Reauthorization Act of 2015 (MACRA) (Manchikanti et al 2016). This program is known as the Merit-based Incentive Payment System or MIPS.

Like the PQRS, VBM is focused on monitoring the quality of care, however it is also directed at controlling cost for patients and taxpayers (James, 2013, Chien and Rosenthal 2013). VBM established both penalties and bonuses based on quality and cost performance. Underperforming, or non-participating providers and groups can receive up to a 1% deduction in Medicare reimbursement. Providers with above average performance can receive bonuses up to 2% of their Medicare fees (Chien and Rosenthal 2013).

Under MIPS, the PQRS, VBM and EHR incentive program are merged into a single payment adjustment. Providers will receive a Composite Performance Score, based on their

performance in PQRS, VBM and the EHR incentive (Natarajan and Kanwal 2015). Providers are scored on a scale of 0 to 100, this score will determine their level of reimbursement. Thresholds for performance scores will be determined annually. Providers that meet or exceed the benchmark are eligible for bonuses. Providers that do not participate or do not meet the threshold may be subjected to penalties. This means under MIPS a provider can accumulate up to a 3% deduction in reimbursement, 2% from PQRS and 1% from the VBM (Natarajan and Kanwal 2015).

MIPS is one of the two payment tracks that will be utilized starting in 2018. For some providers that qualify there is an alternative payment model. This offers a 5% lump sum bonus to eligible providers practicing in a patient-centered medical home, or for provider that successful participate in another payment model such as Accountable Care Organizations. (Natarajan and Kanwal 2015).

Since P4P systems are projected to become a permanent fixture of Medicare's reimbursement system, many important questions will require more research and considered. It will be crucial to determine the level of incentive payment necessary to encourage participation and high performance in both the PQRS and VBM. Additionally how can quality improvements be sustained year to year? Furthermore, what degree of penalties is justified? Raising penalties under MIPS should also be weighed against possible consequences for financially challenged clinics. With this in mind, long term effects on vulnerable populations should also be monitored. Finally, with the success that PQRS has shown thus far, design elements that have consistently produced positive outcomes while minimizing concerns should be identified (James 2013).

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Appendix One

Table 1. Physician Quality Reporting System Overview 2007-2016

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Participation rate of eligible providers*	15%	16%	21%	26%	29%	36%	51%	62%	***	***
Providers that qualified and received incentive payment	59%	56%	57%	62%	53%	31%	39%	44%	***	***
Incentive payment	1.5%	1.5%	1.5%	2%	1%	0.5%	0.5%	0.5%		
Penalty	x	x	x	x	x	x	x	x	1.5%	2%
Number of measures	74	119	153	179	198	266	258	284	253	284

Table 1: Physician Quality Reporting System Overview 2007-2016

Table 1 data collected from the Centers for Medicaid and Medicare Services PQRS Experience Reports, 2007-2014 and 2009 Reporting Experience Including Trends 2007 – 2010

*Eligible providers are medical professionals including physicians, therapists and practitioners, that bill Medicare for outpatient services. See *Table 2* for complete list of eligible providers

***Data pending processing and release from Centers of Medicare and Medicaid Services.

Appendix Two

Table 2. PQRS Eligible Providers

Medicare physicians:	Practitioners:	Therapists:
Doctor of Medicine	Physician Assistant	Physical Therapist
Doctor of Osteopathy	Nurse Practitioner	Occupational Therapist
Doctor of Podiatric Medicine	Clinical Nurse Specialist	Qualified Speech-Language
Doctor of Optometry	Certified Registered Nurse	Therapist
Doctor of Oral Surgery	Anesthetist, and	
Doctor of Dental Medicine	Anesthesiologist Assistant	
Doctor of Chiropractic	Certified Nurse Midwife	
	Clinical Social Worker	
	Clinical Psychologist	
	Registered Dietician	
	Nutrition Professional	
	Audiologists, Includes	
	Advanced Practice	
	Registered Nurse (APRN)	

Table 2: PQRS Eligible Providers

Comprehensive list of providers eligible to participate in PQRS. Data collected from Centers for Medicaid and Medicare website.