2015 Reporting Experience

Including Trends (2007-2015)

Physician Quality Reporting System

2017

Table of Contents

Table of Figures

Listing of Tables

List of Appendix Tables (Excel File)

Table Name	Tab Name
Table A1: Individual PQRS Measure Numbers and Descriptions (2015)	Table A1
Table A2: Individual non-PQRS Measure Numbers and Descriptions (2015)	Table A2
Table A3: Participation and Incentive Eligibility by Reporting Mechanism/Option or Alternative Program (2015)	Table A3
Table A4: Participation and Incentive Eligibility by Eligible Professional Characteristics (2015)	Table A4
Table A5: Trends in Eligible Professionals by Specialty (2011 to 2015)	Table A5
Table A6: Trends in Participation by Reporting Mechanism/Option or Alternative Program (2012 to 2015)	Table A6
Table A7: Trends in Participation by Specialty (2012 to 2015)	Table A7
Table A8: Trends in Participation via Claims by Specialty (2012 to 2015)	Table A8
Table A9: Trends in Participation via Registry Individual Measures by Specialty (2012 to 2015)	Table A9
Table A10: Trends in Participation via Registry Measures Groups by Specialty (2012 to 2015)	Table A10
Table A11: Trends in Participation via EHR by Specialty (2012 to 2015)	Table A11
Table A12: Trends in Participation via QCDR by Specialty (2014 to 2015)	Table A12
Table A13: Participation by Specialty and Number of Beneficiaries (2015)	Table A13
Table A14: Participation by State (2015)	Table A14
Table A15: Claims Measures Submitted (2015)	Table A15
Table A16: Trends in Eligibility and Reporting Rate by Individual Measures (2012 to 2015)	Table A16
Table A17: Successfully Submitted Measures and Domains, Individual Participants (2015)	Table A17
Table A18: Successfully Submitted Measures and Domains, GPRO Participants (2015)	Table A18

I. EXECUTIVE SUMMARY

In 2007, the Centers for Medicare & Medicaid Services (CMS) implemented the Physician Quality Reporting System (PQRS), a quality reporting program for eligible professionals (EPs)[1] that has grown substantially from its inception. PQRS gives participating EPs and group practices the opportunity to assess the quality of care they provide to their patients, helping to ensure that patients get the right care at the right time. The PQRS program entered its ninth year in 2015. In the first eight years of the program, PQRS encouraged eligible professionals to report clinical quality data by providing a payment incentive for successful reporting.

The payment adjustment applied to 2015 payments was based on 2013 data that was reported during the first quarter of CY2014. PQRS reporting for the 2014 program year forms the basis for the 2016 payment adjustment and PQRS reporting for 2015 forms the basis for the 2017 payment adjustment.

This report summarizes the historical reporting experience of eligible professionals in the PQRS program through program year 2015. Unless otherwise noted, all tables and figures are based on data reported for calendar year 2015. Findings in this report summarized at the practice level include both eligible professionals participating individually, as well as group practices that participated through the GPRO. Results for group reporting for PQRS also include eligible professionals participating as part of a Medicare ACO under the Shared Savings Program. Eligible professionals participating in PQRS as part of a Pioneer ACO Model and the Comprehensive Primary Care (CPC) initiative are summarized as individual participants in this report.[2] For brevity, the tables and figures in this report present the Shared Savings Program and Pioneer Model ACO programs and CPC as "participation options" under PQRS; however, they are alternative programs and eligible professionals must meet all requirements under those programs. In addition, unless otherwise noted, participation information from eligible professionals who were part of group practices participating under the GPRO or as part of a Medicare ACO participating under the Shared Savings Program were combined with data for individual participants to describe the total number of eligible professionals that participated in the program.

Building on Existing Quality Programs

The Medicare Access and CHIP Reauthorization Act of 2015 (MACRA) streamlined three existing CMS programs with a single system where Medicare physicians and other eligible clinicians have a chance to be rewarded for better care. MACRA consolidated aspects of those programs into the Merit-based Incentive Payment System (MIPS) and incentive payments for participation in Advanced Alternative

[1] https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/PQRS/Downloads/2015_PQRS_List_of_Eligible_Professionals.pdf

[2] Eligible professionals within ACOs that meet specific PQRS requirements, as incorporated by the Shared Savings Program or Pioneer ACO Model, are eligible to receive PQRS incentive payments and avoid the PQRS paymentadjustment under the Medicare Shared Savings Program or the Pioneer ACO Model, respectively. Eligible professionals in the CPC initiative that elect a PQRS waiver and meet requirements under that program are eligible to receive PQRS incentive payments and avoid the PQRS payment adjustment.

Payment Models (Advanced APMs), which we refer to collectively as the Quality Payment Program. This program, which is expected to affect Medicare payments for more than 600,000 clinicians across the country, is a major step in improving care across the entire health care delivery system. Clinicians may choose how they want to participate in the Quality Payment Program based on their practice size, specialty, location, or patient population. At its core, the Quality Payment Program, is about improving the quality of patient care and patient outcomes.

The PQRS program, along with the Medicare EHR Incentive Program for EPs and the value modifier program, sunset in 2018. Components of these programs are the foundation for the new Merit-based Incentive Payment System. There are four connected pillars on which payment adjustments will be based under MIPS – quality, clinical practice improvement activities (referred to as "improvement activities"), meaningful use of certified electronic health record technology (referred to as "advancing care information"), and resource use (referred to as "cost").

The quality component of MIPS should look familiar to clinicians that participated in PQRS. CMS believes that given the flexibilities of the MIPS program, all clinicians, including those that received the downward payment adjustment under PQRS, can be successful in MIPS.

Please note, there are key differences between the PQRS program and MIPS which preclude drawing definitive conclusions for MIPS based upon historical PQRS data. Examples include program eligibility and quality measure requirements. Fewer clinicians will be eligible for MIPS than PQRS due to volume thresholds and the quality reporting requirements are significantly less burdensome and complex in MIPS compared to PQRS. Specifically, the PQRS program did not have an exemption for clinicians with a low volume of Medicare patients or allowed charges. CMS implemented this exemption based on analysis of the 2015 PQRS data applying the 2017 low volume threshold criteria (less than $30,000 in charges OR fewer than 100 Medicare beneficiaries in a year) to estimate what proportion of clinicians who participated in PQRS in 2015 would have fallen below the low volume threshold. Note that the charges used in PQRS are Physician Fee Schedule charges and not Part B charges used for MIPS/Quality Payment Program eligibility, so these estimates are not exact. Based on historical data, CMS found that the participation rate for practices falling below the low volume threshold "low volume" (< $30k charges OR <100 beneficiaries) would be approximately 60%. Based on historical data, the participation rate among practices falling above the low volume threshold (>= $30k charges AND >=100 beneficiaries) would be approximately 80%.

Table 1: Reporting Options, Mechanisms, and Alternative Programs (2007 to 2015)

Reporting Options and Mechanisms	2007	2008	2009	2010	2011	2012	2013	2014	2015
Individual Participation	--	--	--	--	--	--	--	--	--
Claims-based: Individual Measures	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Claims-based: Measures Groups	No	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Registry: Individual Measures	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Registry: Measures Groups	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
EHR: Individual Measures	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes

Reporting Options and Mechanisms	2007	2008	2009	2010	2011	2012	2013	2014	2015
Qualified Clinical Data Registry (QCDR)	No	No	No	No	No	No	No	Yes	Yes
GPRO	--	--	--	--	--	--	--	--	--
GPRO I Web Interface	No	No	No	Yes	Yes	No	No	No	No
GPRO II Claims	No	No	No	No	Yes	No	No	No	No
GPRO II Registry	No	No	No	No	Yes	No	No	No	No
Small GPRO Web Interface	No	No	No	No	No	Yes	No	No	No
Small GPRO Registry	No	No	No	No	No	No	Yes	Yes	Yes
Small GPRO EHR	No	No	No	No	No	No	No	Yes	Yes
Medium GPRO Web Interface	No	No	No	No	No	No	Yes	Yes	Yes
Medium GPRO Registry	No	No	No	No	No	No	Yes	Yes	Yes
Medium GPRO EHR	No	No	No	No	No	No	No	Yes	Yes
Large GPRO Web Interface	No	No	No	No	No	Yes	Yes	Yes	Yes
Large GPRO Registry	No	No	No	No	No	No	Yes	Yes	Yes
Large GPRO EHR	No	No	No	No	No	No	No	Yes	Yes
Accountable Care Organizations (ACO)	--	--	--	--	--	--	--	--	--
Shared Savings Program ACO via Web Interface	No	No	No	No	No	Yes	Yes	Yes	Yes
Pioneer ACO via GPRO Web Interface	No	No	No	No	No	Yes	Yes	Yes	Yes
Comprehensive Primary Care Initiative (CPC)	No	No	No	No	No	No	Yes	Yes	Yes

Notes: (1) In 2010, the Physician Quality Reporting System included a single option for group practices with 200 or more professionals (referred to as "GPRO I"). (2) In 2011, the GPRO II option was added for practices with 2 to 199 professionals. (3) In 2012, GPRO I and GPRO II were replaced with group practices reporting options for Large (100+ NPIs) and Small (25-99 NPIs) group practices. (4) In 2013, reporting options for Small (2-24 NPIs), Medium (25-99 NPIs), and Large (100+ NPIs) group practices became available; these options remained through 2015

- The number of PQRS quality measures from which eligible professionals could choose to participate in the PQRS decreased in program year 2015, but the number of non-PQRS measures more than doubled from 2014 (Table 2).

Table 1: Number of Quality Measures (2012 to 2015)

Mechanism or Option	2012	2013	2014	2015
Total number of PQRS measures	266	258	284	253
Total number of non-PQRS measures	N/A	N/A	300	739
Number of measures groups [a]	22	22	25	22
Measures within measures groups [a]	117	119	127	108
Measures reportable via Claims	143	137	110	72
Measures reportable via Registry	208	203	201	175
Measures reportable via EHR	51	51	64	64
Measures reportable via QCDR [b]	N/A	N/A	584	992
Measures reportable via GPRO Web Interface	29	22	22	17
Measures reportable by ACOs via the GPRO Web Interface	22	22	22	17
Measures reportable via the CPC Initiative	N/A	14	11	13

[a] Measures groups were available to report via Claims or Registry until 2013, and only via Registry starting 2014

[b] Any PQRS measure can be reported via QCDR. In addition, each QCDR registry could submit up to 20 custom, non-PQRS measures in 2014 and 30 non-PQRS measures in 2015

Note for table 2: Total number of measures reflects all measures, including all possible reporting mechanisms and options.

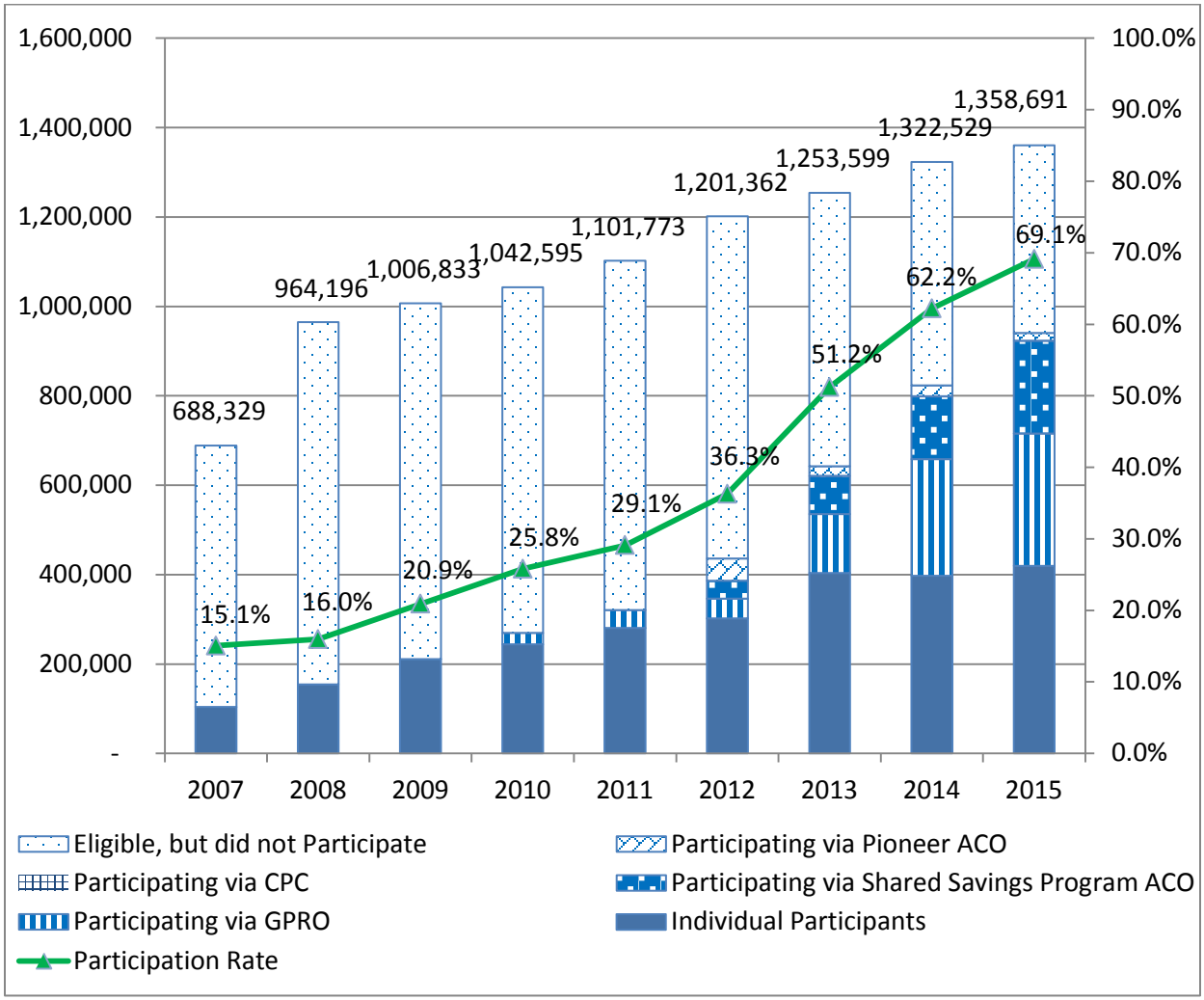
- Many of the measures reportable by the largest number of eligible professionals were preventive measures, which are not specific to a given diagnosis or condition and apply to a broad range of specialties (Table A16).
- CMS strives to include quality measures that are applicable to a wide range of specialties and annually requests suggestions for measures to be included in PQRS. Appendix Table A1 presents a list of PQRS measures in program year 2015. Of note, over 50% of these measures are related to effective clinical care.
- Nearly 1.36 million professionals were eligible to participate in the 2015 program year PQRS including those participating through the PQRS GPRO, those participating in Medicare ACOs under the Shared Savings Program or Pioneer ACO Model, and the CPC initiative—compared to 1.32 million eligible professionals in 2014 (Figure 1).
- Specialties with over 75,000 eligible professionals who participated in PQRS during program year 2015 included internal medicine, family practice, and nurse practitioner (Table A7).
- There were 4,089 practices (2,460 small, 1,040 medium, and 589 large) who self-nominated to participate via the GPRO in program year 2015, a significant increase from the 2,985 practices that self-nominated for the GPRO in 2014 and the 677 practices that self-nominated to report under the GPRO in 2013 (data not shown).

- There were 397 Medicare ACOs that were eligible for PQRS under the Shared Savings Program, 13 Pioneer ACOs were eligible, and 199 practices were eligible through the CPC initiative (data not shown).

Participation

- Participation in PQRS has increased every year, especially among eligible professionals within practices participating via a group reporting option (Figure 2).
- The number of participating eligible professionals increased by 14 percent between 2014 and 2015 from 822,810 (62.2 percent of those eligible in 2014) to 938,939 (69.1 percent of those eligible in 2015).
- In 2015, 295,308 eligible professionals participated in PQRS as part of practices electing to participate under the GPRO (Table 3).
- Another 206,859 eligible professionals participated as part of a Medicare ACO participating under the Shared Savings Program.
- 18,755 eligible professionals participated as part of a practice under the Pioneer ACO model and 444 participated under the CPC initiative.
- The participation rate among all eligible professionals using any method to participate in PQRS increased from 15 percent to 69 percent between 2007 and 2015 (Figure 1).
- Of the 4,089 practices that self-nominated to participate under the PQRS GPRO, 3,418 participated:
- 1,900 practices encompassing 25,472 eligible professionals participated via Small GPRO (2-24 eligible professionals),
- 946 practices encompassing 56,211 eligible professionals participated via the Medium GPRO (25-99 eligible professionals),
- 572 practices encompassing 213,625 eligible professionals participated via the Large GPRO (100+ eligible professionals).
- There were 394 practices encompassing 206,859 eligible professionals that reported under the Shared Savings Program.
- There were 13 ACOs with 18,755 eligible professionals participating via the Pioneer ACO Model and out of 199 practices eligible to participate via the CPC initiative, 83 practices including 444 eligible professionals actually did participate (that is, the practices accepted the PQRS waiver).

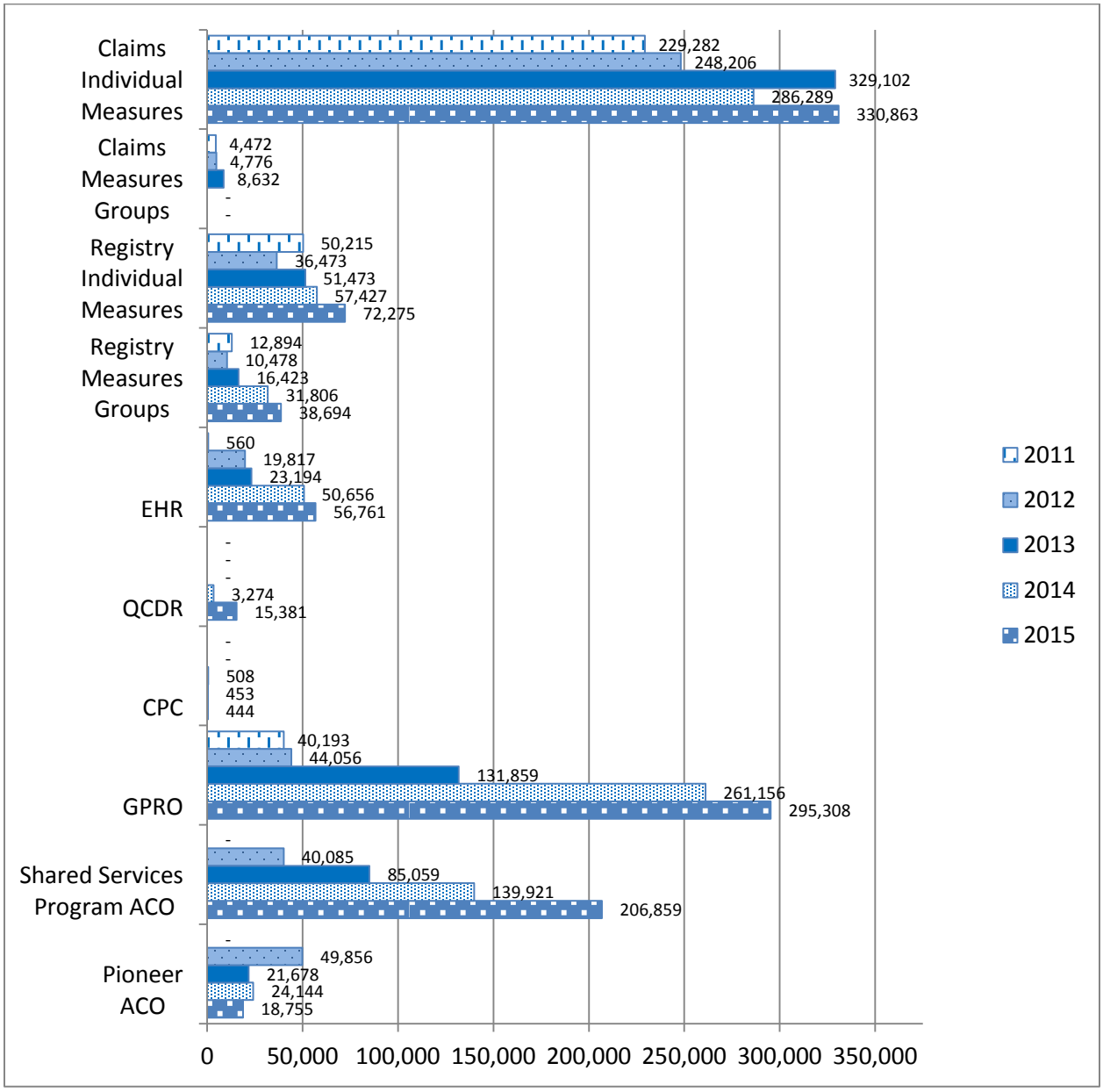
Figure 1 –Trends in Participation (2007 to 2015)



Notes for Figure 1: (1) Results include all reporting mechanisms and options.

- The most common participation method in PQRS in program year 2015 continued to be reporting individual measures through claims(Figure 2).
    - Registry reporting increased in program year 2015, particularly the use of registry measures groups; and the number of participants via the QCDR mechanism was over four times that of 2014 (15,381 eligible professionals, up from 3,274).
    - EHR reporting also showed continued strong growth in 2015, with a 12% increase over 2014 participation.

Figure 2 – Participating Eligible Professionals by Reporting Mechanism (2011 to 2015)



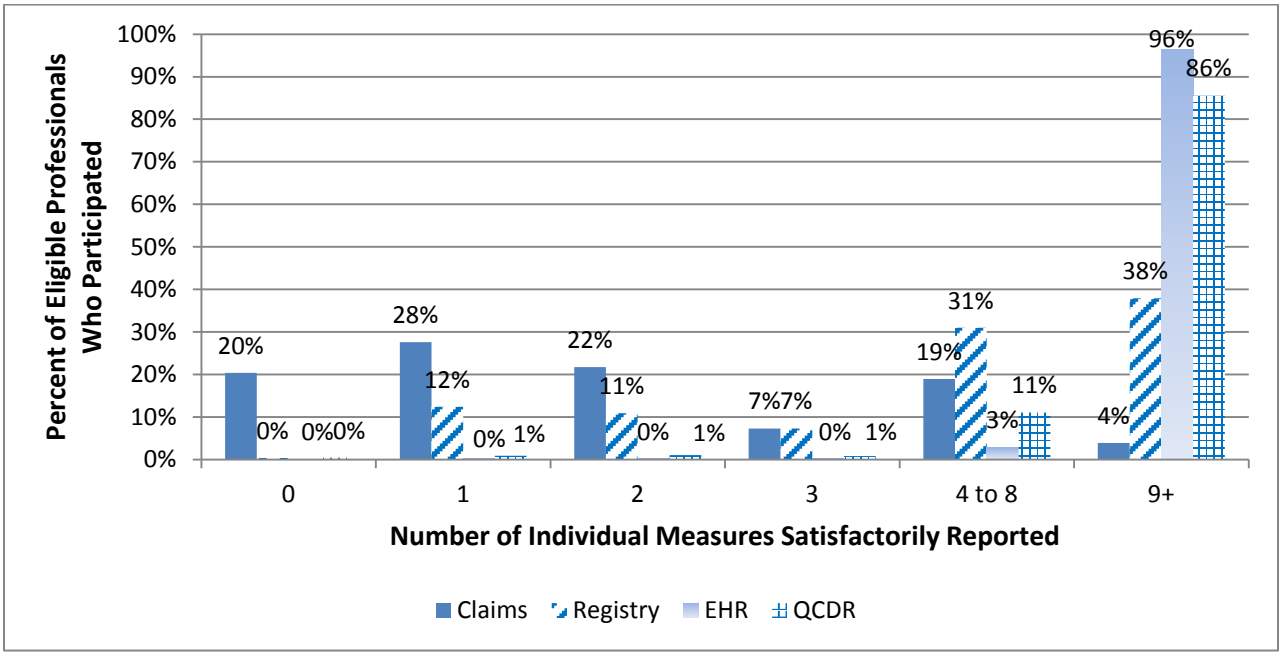
Note for Figure 2: Results include individually participating eligible professionals as well as eligible professionals in group practices that participated under the GPRO, eligible professionals in Medicare ACOs participating under the Shared Savings Program and Pioneer ACO Models, and eligible professionals participating through the CPC initiative. Some eligible professionals participated in more than one reporting mechanism.

- Some specialties participated in greater numbers and/or at higher rates in the 2015 programs than others (Appendix Table A7).
    - Internal medicine, family practice, nurse practitioner, physician assistant, and emergency medicine had the largest numbers of overall participants.

- Pathology and radiology had the highest participation rates in 2015 (over 85 percent) (Appendix Table A7).
- The participation rate of EPs rises with increasing number of patients going from 48.7% for EPs with 25 or fewer patients to 83.5% for EPs with more than 200 patients (Table A13).
- The median participation rate by state was 69.5% in 2015, with Wisconsin having the highest participation rate of any state (82.3%)(Table A14).

Satisfactory Reporting and Challenges to Reporting

Figure 3 – Distribution of Satisfactorily Reported Individual Measures (2015)



- As in previous years, rates of satisfactory reporting of at least one measure in PQRS varied by participation method. For registry, EHR and QCDR, 100% of eligible professionals who participated were able to satisfactorily report at least one measure while only 80% of eligible professionals who participated through claims were able to do so (Figure 3).
- The number of satisfactorily reported measures varied by submission mechanism as well: eligible professionals reporting via EHR and QCDR were most likely to report 9 or more measures (96 percent of those using EHR and 86 percent for QCDR), compared to only 38 percent of those participating via registry and 4 percent of those reporting via claims (Figure3).
- The most common reporting errors via registry were submitting data for an eligible professional that had no Part B PFS allowed charges and submitting data for an eligible professional who was in a practice participating as part of an ACO or as part of a practice participating under the CPC Initiative.
- The most common issue for QCDR was submissions for EPs who did not have PFS charges, reporting denominator not equal to the initial population minus exclusions, and reporting rate not being equal to the reporting numerator divided by the reporting denominator; CMS has

reached out to entities reporting data under this mechanism to help improve future submissions.

Table 3 presents a summary of eligibility and participation, in the PQRS in 2015, at the level of eligible professional and group practices. There were 1,358,691 eligible professionals with 938,939 participating using any method. The most commonly used participation mechanism was through claims.

Table 2: Reporting Results by Mechanism or Alternative Program (2015)

Outcome and Mechanism or Alternative Program	Eligible Professionals	Eligible Practices
Eligible	1,358,691	262,875
Participated via Any Method	938,939	98,619
Participated via Claims	330,863	67,493
Participated via Registry	110,296	29,232
Participated via EHR	56,761	11,441
Participated via QCDR	15,381	1,268
Participated via Small GPRO	25,472	1,900
Participated via Medium GPRO	56,211	946
Participated via Large GPRO	213,625	572
Participated via Shared Savings Program ACO	206,859	394
Participated via Pioneer ACO	18,755	13
Participated via CPC	444	83

Notes for Table 3: (1) Results include eligible professionals who were part of a practice that participated under the PQRS GPRO, as part of a Medicare ACO participating under the Shared Savings Program or Pioneer ACO Model, or through the CPC initiative. (2) Some eligible professionals participated in more than one reporting method.

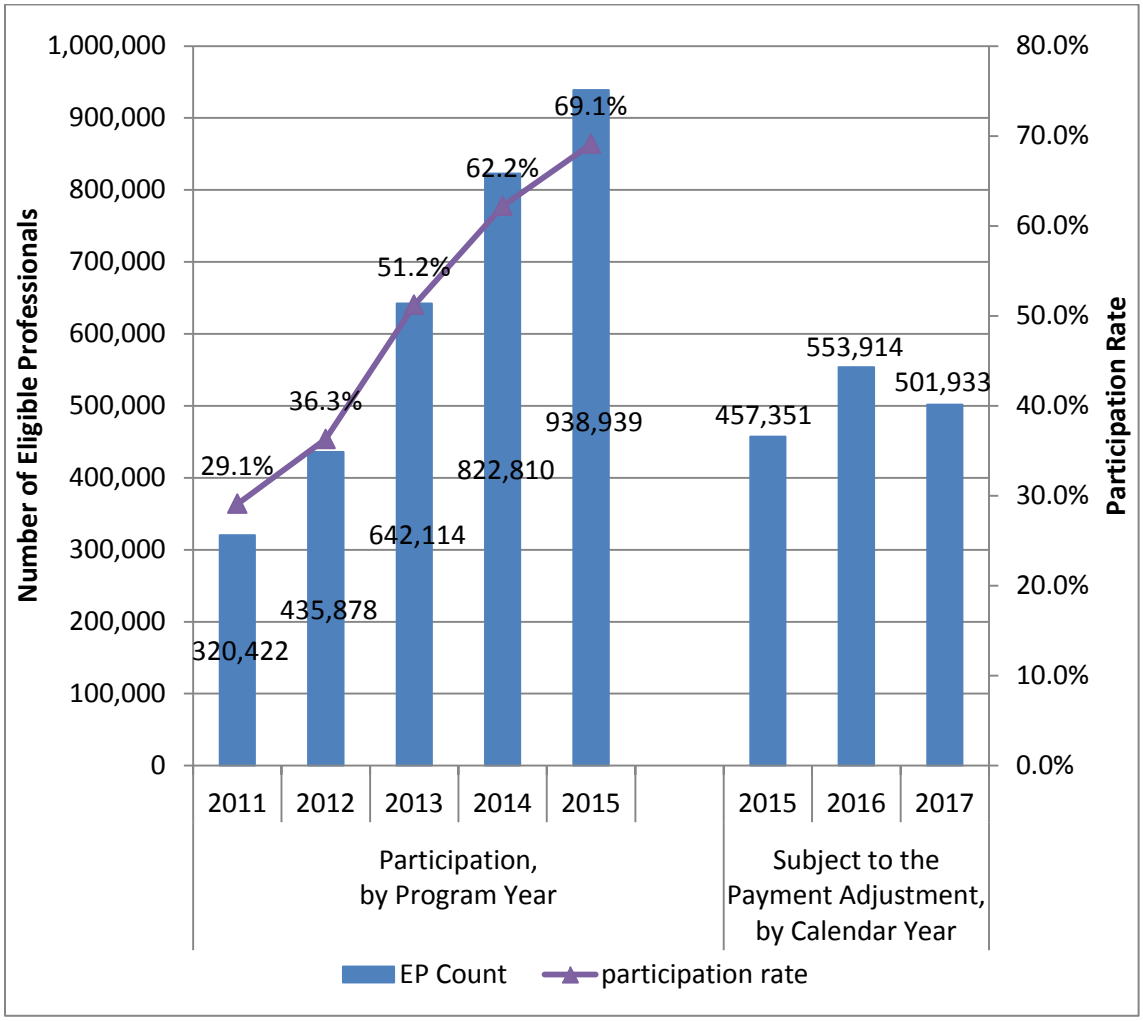
2017 PQRS Payment Adjustment

- Sixty-three percent of all eligible professionals avoided the reduction of 2.0 percent of their 2017 Part B PFS charges, based on 2015 PQRS reporting; this left 501,933 eligible professionals who were subject to the adjustment (Figure 4 and Table 16). Note that Table 16 is based on the eligible professionals who meet the definition of an eligible professional for the purposes of the payment adjustment (N=1,307,528).[3]
- Over seventy-eight percent of those subject to the adjustment did not attempt to participate in PQRS, and almost 21% of those subject to the payment adjustment were participating as individual professionals. Only 0.2 percent of those receiving the payment adjustment were unsuccessful participants, meaning their only attempt at participation involved the submission of invalid Quality Data Codes (QDCs). (Table 15).[4]

[3] 1,358,691 represents the number of EPs who had an eligible instance in claims or who participated through registry/QCDR/EHR/web-interface/ACO/CPC. When it comes to the payment adjustment, there are certain taxonomies that are automatically exempt. There are 51,163 such EPs who could never be subject for this reason so they are not part of the population of EPs who could be eligible. See https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/PQRS/Downloads/2015_PQRS_List_of_Eligible_Professionals.pdf and section III.C of this report for more information on the PQRS payment adjustment.

[4] For more information on various types of QDC errors, please refer to the section on Challenges to Successful Reporting in Section IV.D of this report.

Figure 4 – Trends in PQRS Participation and the PQRS Payment Adjustment (2011 to 2015)



Note for Figure 4: As shown in this chart, the participation counts and rates have increased every year; the number of EPs subject to the payment adjustment increased from 2015 to 2016 but has decreased for 2017. Table 18 provides more details on EPs who have avoided the payment adjustment as well as how they were able to do so.

- Eligible professionals who avoided the 2017 PQRS payment adjustment did so most often by reporting the required data (Table 18):
    - For eligible professionals who were eligible for individual participation, 92 percent (N=563,680) avoided the payment adjustment due to satisfactory reporting; 97 percent (N=287,183) of those eligible for GPRO participation avoided the payment adjustment based on satisfactory reporting; nearly 100 percent of those eligible for ACO participation avoided the payment adjustment due to successful reporting, and 94 percent (N=1,919) of those eligible for CPC avoided the payment adjustment based on successful participation.

- Some eligible professionals did not fit the specific definition of an eligible professional for the purposes of the payment adjustment; these individuals can submit measures data but they would not be subjected to the payment adjustment since they don't have the autonomy to provide services without direct orders of another clinician; a couple of examples are recreational therapist assistant and prevention professional. These eligible professionals made up seven percent (N=43,256) of those who were eligible for individual participation, four percent of those who were eligible for GPRO participation (N=10,521), four percent (N=825) of those eligible for Pioneer ACO participation, three percent (N=6,340) of those eligible for Shared Savings Program ACO participation, and less than one percent (N=10) of those eligible for CPC participation.
- Finally, regardless of whether an eligible professional was eligible for individual, GPRO, ACO, or CPC participation, three percent of those avoiding the 2017 payment adjustment did so based on informal reviews processed through March 29, 2017.

II. INTRODUCTION

In 2007, the Centers for Medicare & Medicaid Services (CMS) implemented the Physician Quality Reporting System (PQRS), a pay-for-reporting program for eligible professionals that has grown substantially from its inception.[5] The program (formerly, Physician Quality Reporting Initiative or PQRI) was authorized under Section 101(b) of division B of the Tax Relief and Health Care Act (TRHCA) of 2006 (Public Law 109-423; 120 Stat. 2975), and entered its ninth year in 2015. The program rewarded eligible professionals with a payment incentive—determined based on a percentage of the estimated Part B PFS allowed charges for covered professional services furnished by the eligible professional during the applicable reporting period—and applies a payment adjustment based on whether eligible professionals meet applicable requirements for reporting information on standardized clinical quality measures. The last year in which eligible professionals could earn an incentive payment was 2014. Beginning in 2015, eligible professionals who did not meet reporting requirements for program year 2013 or who did not have any other reason for avoiding the 2015 payment adjustment were subject to a 1.5 percent reduction in their Part B PFS charges. PQRS reporting in program year 2014 was used to determine which eligible professionals would be subject to a two percent reduction in their 2016 Part B PFS charges. PQRS reporting in program year 2015 was used to determine which eligible professionals would be subject to a two percent reduction in their 2017 Part B PFS charges.

This report summarizes the program year 2015 and historical reporting experience of eligible professionals in PQRS. Section III of this report presents background on the evolution of the PQRS program and payment adjustment and describes data and methods used for this report. Sections IV - VI detail findings for PQRS participation, payment adjustment, and clinical performance rates. Sections VII and VIII describe information about feedback reports available under PQRS and the services available from the Help Desk. Section IX concludes. At the end of the report is a table of abbreviations used in this report. The Appendix is a separate Microsoft Excel document for interested readers, which contains detailed tables of results.

This report uses the term "eligible professional" to describe physicians and other health care professionals who could participate in PQRS. The health care professionals who are eligible to participate in the program are precisely identified on the CMS website.[6] In general, this includes professionals who furnish PFS covered services to Medicare Part B beneficiaries (including Railroad Retirement Board [RRB] and Medicare Secondary Payer [MSP]) for whom selected PQRS measure(s) are applicable.

[5] http://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/PQRS

[6] https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/PQRS/Downloads/2015_PQRS_List_of_Eligible_Professionals.pdf

The unit of analysis for describing eligible professionals is a combination of a professional's National Provider Identifier (NPI) number and the Taxpayer Identification Number (TIN) under which they billed for services; this is commonly referred to as a "TIN/NPI" (please see Section III for more details). Findings reported at the practice level include both eligible professionals participating individually, summarized at the practice level, as well as practices that participated through the group practice reporting option (GPRO). The results include eligible professionals reporting (for the purposes of PQRS) through a Medicare Accountable Care Organization (ACO) under the Shared Savings Program, eligible professionals reporting through a Medicare ACO participating in the Pioneer ACO Model, and eligible professionals participating in the Comprehensive Primary Care (CPC) Initiative. For brevity, the tables and figures in this report present the Shared Savings Program and Pioneer model ACO programs and CPC as "participation options" under PQRS; however, we note that they are alternative programs and eligible professionals must meet all requirements under those programs. Eligible professionals participating via the Pioneer ACO Model or the CPC initiative are summarized in this report as individual participants. While reporting through the GPRO or through a Medicare ACO participating under the Shared Savings Program are not individual participation options, unless otherwise noted, the participation information from these options are combined with participation information from the individual participation options to describe the total number of individual eligible professionals that participated in the programs.

The information and data in this report generally address PQRS, but also include certain PQRS data related to eligible professionals within Medicare ACOs under the Shared Savings Program, Pioneer ACO Model, and the Comprehensive Primary Care (CPC) initiative, given that eligible professionals within ACOs must report through the ACO for the purposes of avoiding the payment adjustment and CPC participants avoid the payment adjustment through successful participation in that program. However, such eligible professionals participating in such initiatives outside the traditional PQRS are subject to the reporting, participation, and program requirements specific to that program. Unless otherwise indicated, the program requirements discussed below (e.g. reporting options, mechanisms, periods, criteria, measures, participation rules, etc.) pertain to PQRS.

III. BACKGROUND AND METHODS

A. Program Origins

The Physician Quality Reporting System is part of an overall effort to move toward a value-based purchasing (VBP) system that aims to reward the value of care provided, rather than the quantity of services. To this end, PQRS quality measures are intended to define, standardize and drive improvement in the quality of health care. A payment adjustment, applicable to professionals who do not satisfy the criteria for reporting quality data under PQRS, is intended to encourage professionals to adopt evidence-based, outcomes-driven healthcare delivery practices.

The authorizing legislation for the program is contained in Section 101(b) of Division B (Medicare Improvements and Extension Act of 2006 [MIEA]) of the TRHCA, which was enacted on December 20, 2006. Section 101(b) of the MIEA-TRHCA added subsection K to section 1848 of the Social Security Act and required the establishment of a quality reporting system. CMS initially referred to the Physician Quality Reporting System as the Physician Quality Reporting Initiative or PQRI.

Section 101(c) of MIEA-TRHCA established a financial incentive for professionals to participate in a voluntary quality reporting program, which has been amended by subsequent legislation. An eligible professional who chose to participate in the 2007 program and satisfied the reporting criteria on a set of quality measures was eligible for an incentive, subject to a cap, equal to 1.5 percent of the total estimated Part B PFS charges for covered professional services furnished by the eligible professional during the reporting period.

B. Program Evolution

Measures for the 2007 program were defined by the TRHCA as quality measures that were developed under the Physician Voluntary Reporting Program (PVRP) and published on the CMS website as of the date of enactment of the TRHCA. The statute also provided that measures could be changed by the Secretary through a consensus-based process if such changes were published on the CMS website by a specified date. A portion of the original 74 measures and their specifications were developed by the American Medical Association-Physician Consortium for Performance Improvement (AMA-PCPI), physician specialty organizations, and the National Committee for Quality Assurance (NCQA). The AMA-PCPI collaborated with CMS on defining reporting specifications for measures used in the 2007 program and developed instructions on how data would be captured through a claims-based reporting process using quality data codes (QDCs) based on either Current Procedural Terminology (CPT) II codes or G-codes. QDCs indicate performance of a quality action, non-performance of the action, or an exclusion from performing the action.

The Medicare, Medicaid, and SCHIP Extension Act of 2007 (MMSEA), enacted on December 29, 2007 (Pub. Law 110-173), extended the quality reporting system through 2008 and 2009. The MMSEA authorized incentive payments for 2008 and removed the cap on the total earned incentive amount previously mandated by TRHCA. Additionally, the MMSEA required that CMS establish alternative reporting periods, criteria for reporting groups of clinically-related measures, and collecting quality information through a clinical data registry. Registries do not require QDCs to accept clinical data. In 2008, MIPPA (Pub. Law 110-275, section 131(b)) made changes to the quality measure requirements as well as authorized incentives through 2010. In 2009 and 2010, the applicable quality percent for the incentive was set at two percent; it was decreased to one percent in the 2011 program year and to one-half percent for program years 2012 through 2014.

The Patient Protection and Affordable Care Act, Pub. Law 111-148, enacted on March 23, 2010, as amended by the Health Care and Education Reconciliation Act of 2010, Pub. Law 111-152, and collectively known as the Affordable Care Act, made a number of changes to the PQRS, including authorizing incentive payments through 2014 and requiring a payment adjustment (penalty), beginning in 2015, for eligible professionals and group practices who do not meet reporting requirements, described in more detail below.

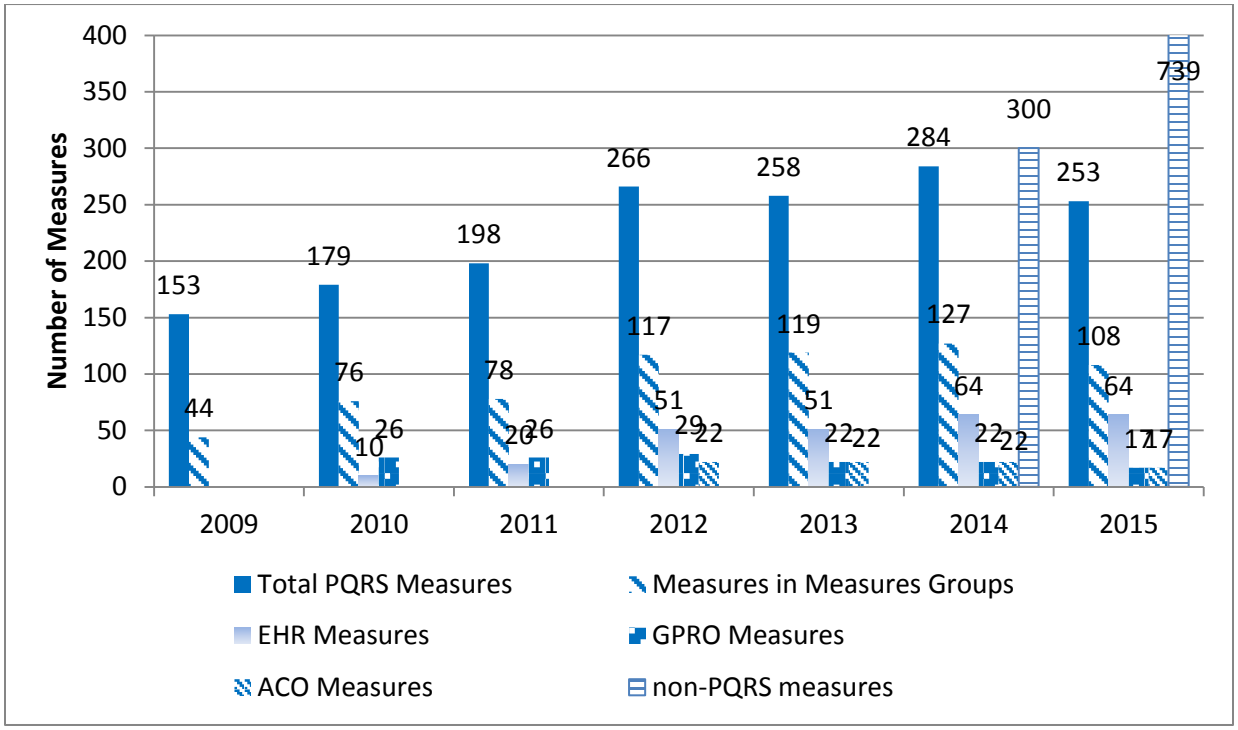
The Affordable Care Act also authorized an additional incentive (an additional one-half percent of PFS allowed charges) for 2011 through 2014 for eligible professionals who satisfactorily report data on quality measures under PQRS and satisfy certain requirements related to participation in a Maintenance of Certification Program Incentive (MOCP). Finally, Section 601(b) of the American Taxpayer Relief Act of 2012 (Pub. Law 112-240, enacted January 2, 2013) included an amendment to Section 1848 (m)(3) of the Social Security Act which would expand quality reporting options to include qualified clinical data registries (QCDRs) for 2014 and subsequent years.

PQRS Measures

CMS strives to include quality measures that are applicable to a wide range of specialties and annually requests suggestions for measures to be included in PQRS. CMS has generally expanded the number of measures and reporting options and mechanisms for PQRS each year (Figure 5). For example, the total number of measures available was 153 in 2009, 179 in 2010, 198 in 2011, and 266 in 2012. The 2013 program has 258 total measures; 10 measures were added and 18 measures were retired. The 2014 program further expanded the number of measures to 284. In 2015, the total number of measures declined to 253. Appendix Table A1 lists all individual measures that could be reported in the program during the 2015 program year. In 2016, the total measures will increase again to 281.

As seen in Figure 5, the number of measures reportable via the EHR mechanism has expanded from ten measures in 2010 when the reporting mechanism was first introduced to 51 measures in 2013, and 64 in 2014 and 2015. The measures under the GPRO web interface grew modestly from 26 in 2010 and 2011 to 29 in 2012, were reduced to 22 measures in 2013 and 2014, and to 17 in 2015, to align with the ACO GPRO web interface measures.

Figure 5 – Number of PQRS Measures by Reporting Mechanism/Option (2009 to 2015)



Notes for Figure 5: Categories are not mutually exclusive; for example, an individual measure can also be part of a measures group. GPRO counts for PQRS in 2011 do not include the GPRO II reporting option and GPRO counts in 2013- 2015 include web interface measures only. The number of measures also includes measures reported by EPs through Medicare ACOs participating in the Shared Savings Program and Pioneer ACO Model and measures reported by EPs through the CPC Initiative.

Measures groups were introduced to PQRS in the 2008 program year and expanded each year thereafter.[7] For program years from 2008 through 2014, measures groups are a subset of four or more clinically-related measures; in 2015, measures groups contain six or more clinically-related measures. Measures groups were reportable by claims or registry when first introduced, and from 2014 on are reportable via registry only. The number of measures groups has increased steadily: four measures groups in 2008, seven in 2009, 13 in 2010, 14 in 2011, 22 in 2012 and 2013, and 25 groups in 2014, though was reduced to 22 in 2015. In 2016, the number of measures groups will increase again to 25. Some measures groups are made up of measures reportable only via measures groups as noted below; although, beginning in 2014, eligible professionals reporting via the QCDR mechanism could report these "measures groups only" measures as individual measures.

[7] Measures groups do not apply to reporting by ACOs participating in the Shared Savings Program and Pioneer ACO Model or to the CPC Initiative.

CMS has also revised measure group reporting requirements over the years to simplify measure group reporting. Beginning in 2009, CMS introduced a new QDC that allowed eligible professionals reporting on measures groups via claims to use a single code to indicate if all recommended quality actions were performed for each measure in the group. That is, eligible professionals could report a single QDC—referred to as a composite G-code—for the entire measures group. Before this code existed, eligible professionals reported one QDC for each measure within the measures group. Moreover, in an effort to simplify measures group reporting, the 2009 program year requirement to report on consecutive patients was removed. That is, beginning in the 2010 program year, eligible professionals could report a measures group measure on 30 non-consecutive beneficiaries—appropriate for the measures group—during the reporting period. This change applied to reporting measures groups through both claims and a registry. The 2013 program lowered the required patient count from 30 to 20 patients. The 2014 program removed the claims-based measure group reporting option. The 2015 program deleted five measures groups (Back Pain, Cardiovascular Prevention, Hypertension, Ischemic Vascular Disease, and Perioperative Care) and added two (Acute Otitis Externa and General Surgery). The available measures groups in 2015 were:

- [New] Acute Otitis Externa (AOE) (eight measures)
- Asthma (six measures)
- Cataracts (eight measures)
- Chronic kidney disease (CKD) (six measures)
- Chronic obstructive pulmonary disease (COPD) (seven measures)
- Coronary artery bypass graft (CABG) surgery (seven measures)
- Coronary artery disease (CAD) (six measures)
- Dementia (ten measures)
- Diabetes mellitus (six measures)
- [New] General Surgery (seven measures)
- Heart failure (six measures)
- Hepatitis C (eight measures)
- HIV/AIDS (eight measures)
- Inflammatory bowel disease (IBD) (seven measures)
- Oncology (seven measures)
- Optimizing Patient Exposure to Ionizing Radiation (six measures) – measures group only
- Parkinson's disease (seven measures)
- Preventive care (ten measures)
- Rheumatoid arthritis (eight measures)
- [New] Sinusitis (six measures)
- Sleep apnea (seven measures)
- Total Knee Replacement (six measures)

Participation Options and Mechanisms

In addition to expanding the available measures, CMS has continued to refine the avenues for participation in the PQRS, as shown in Table 1. Individual reporting via a qualified EHR vendor directly was added to the program in 2010. In 2012, CMS added an EHR data submission vendor reporting mechanism, under which eligible professionals could work with an approved data submission vendor to submit EHR data on their behalf, rather than directly submitting EHR data. In addition, a new qualified clinical data registry (QCDR) reporting method was available for individual participants in 2014.[8]

Beginning in 2014, the claims-based measures group reporting mechanism was no longer available.

The group reporting option was introduced in 2010 for practices with 200 or more eligible professionals. GPRO reporting differs from reporting for individually participating eligible professionals. To participate through the GPRO, a group practice self-nominates with CMS.[9] Among practices that met requirements and were approved to participate through the GPRO, CMS provided a web interface containing a pre-selected sample of patients with select patient demographic and utilization characteristics.[10] The practices were responsible for completing data fields to report specific quality actions for GPRO measures for the selected patients. The GPRO was expanded in 2011 to include "GPRO I" for practices with 200 or more eligible professionals and "GPRO II" for practices with 2 to 199 eligible professionals. In 2012, GPRO I and GPRO II were replaced with Small GPRO for practices with 25 to 99 eligible professionals and Large GPRO for practices with 100 or more eligible professionals. In 2013, the GPRO option was further refined to include: Small GPRO (2 to 24 eligible professionals), Medium GPRO (25 to 99 eligible professionals, and Large GPRO (100 or more eligible professionals); these groups have been maintained since the 2013 program year. Figure 6 provides a summary of GPRO options over time.

[8] Eligible professionals submitting via the QCDR mechanism and using the QRDA III format could also be used to meet Medicare EHR Incentive Program requirements. See the CMS website for more information: https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/PQRS/Downloads/2015QCDRVendorCriteria.pdf

[9] For more information see: https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/PQRS/Downloads/2015_PQRS_GPRO_QRG.pdf

[10] In the 2011 program, GPRO I used the web interface for reporting; GPRO II practices used claims, registry, or EHR reporting. In both 2010 and 2012, group practices could report via one method, a database tool and an online web interface, respectively. In 2013, Small GPRO practices could only report via registry, while those participating in the Medium and Large GPRO could report via web interface or registry. In 2014, all sizes of GPRO practices could also report via EHR.

Figure 6 – Group Practice Reporting Options (2010 - 2015)

<table>
<tr><th>GROUP SIZE</th><th>2010</th><th>2011</th><th>2012</th><th>2013 - 2015</th></tr>
<tr><td>2-24</td><td>N/A</td><td rowspan="3">GPRO II</td><td>N/A</td><td>SMALL GPRO</td></tr>
<tr><td>25-99</td><td>N/A</td><td>SMALL GPRO</td><td>MEDIUM GPRO</td></tr>
<tr><td>100-199</td><td>N/A</td><td rowspan="2">LARGE GPRO</td><td rowspan="2">LARGE GPRO</td></tr>
<tr><td>200+</td><td>GPRO</td><td>GPRO I</td></tr>
</table>

Satisfactory Reporting and PQRS Payment Adjustments

Table 3: Summary of PQRS Payment Adjustment (2015 to 2018)

Statistic	2015	2016	2017	2018
Applicable Payment Adjustment Percentage Amount [a]	1.5% of PFS allowed charges	2.0% of PFS allowed charges	2.0% of PFS allowed charges	2.0% of PFS allowed charges
Program Year Evaluated to Determine Applicability	2013	2014	2015	2016
Number of Measures and Measures Groups	· 258 Total PQRS measures · 22 Measures Groups	· 284 Total PQRS measures · 300 Total non-PQRS measures · 25 Measures Groups	· 253 Total PQRS measures · 739 Total non-PQRS measures · 22 Measures Groups	· 281 Total PQRS measures · TBD Total non-PQRS measures · 25 Measures Groups

Statistic	2015	2016	2017	2018
How Individual Participants Can Avoid the Payment Adjustment	· Meet requirements to satisfactorily participate for incentive eligibility · Report at least one valid measure via claims, participating registry, or participating/qualified Electronic health Record (EHR, including Data submission Vendors and Direct EHR vendors) OR report at least one valid measures group via claims or participating registry. · Elect to participate in the CMS-calculated administrative claims-based reporting mechanism.	· Meet requirements to satisfactorily participate for incentive eligibility · Report at least 3 measures covering 1 NQS domain for at least 50 percent of the individual EP's Medicare Part B fee-for-service (FFS) patients via claims or qualified registry. Note that an individual EP that reported fewer than 3 measures covering at least 1 NQS domain via claims or qualified registry is subject to MAV. ·Participate via a qualified clinical data registry (QCDR) that selects measures for the individual EP, including at least 3 measures covering a minimum of 1 NQS domain AND submitted measures for at least 50% of applicable patients seen during the participation period in which the measure applies.	· Claims and registry: Satisfactorily report at least 9 measures covering at least 3 NQS domains and satisfactorily report at least 1 cross-cutting measure when required; if the EP reported on fewer than 9 measures and/or fewer than 3 domains, then they must pass MAV. · Registry measures groups: Satisfactorily report all measures within a measures group, at least one measure in the measures group must be reported for at least 20 patients, and at least one measure in the measures group must be reported for at least 11 beneficiaries. · EHR: Report at least 9 measures across at least 3 domains and at least one of those measures must include Medicare patient data (if data do not contain at least 9 measures across at least 3 domains, then must report all of the measures for which there is Medicare patient data). · QCDR: Satisfactorily report on at least 9 measures across at least 3 domains AND at least 2 of the satisfactorily reported measures are Outcome measures OR at least 1 of the satisfactorily reported measures is an Outcome measure and at least one of the satisfactorily reported measures is from the Person and Caregiver Experience and outcomes, Efficiency and Cost reduction or Patient Safety NQS domains.	· Claims and registry: Satisfactorily report at least 9 measures covering at least 3 NQS domains and satisfactorily report at least 1 cross-cutting measure when required; if the EP reported on fewer than 9 measures and/or fewer than 3 domains, then they must pass MAV. · Registry measures groups: Satisfactorily report all measures within a measures group, at least one measure in the measures group must be reported for at least 20 patients, and at least one measure in the measures group must be reported for at least 11 beneficiaries. · EHR: Report at least 9 measures across at least 3 domains and at least one of those measures must include Medicare patient data (if data do not contain at least 9 measures across at least 3 domains, then must report all of the measures for which there is Medicare patient data). · QCDR: Satisfactorily report on at least 9 measures across at least 3 domains AND at least 2 of the satisfactorily reported measures are Outcome measures OR at least 1 of the satisfactorily reported measures is an Outcome measure and at least one of the satisfactorily reported measures is from the Person and Caregiver Experience and outcomes, Efficiency and Cost reduction or Patient Safety NQS domains.

Statistic	2015	2016	2017	2018
How Group Participants Can Avoid the Payment Adjustment	· Meet requirements to satisfactorily participate for incentive eligibility · Report at least one valid measure via web interface (only available to practices of 25 or more EPs) or participating registry (available to all PQRS GPRO sizes) · Elect to participate in the CMS-calculated administrative claims-based reporting mechanism.	· Meet requirements for satisfactorily reporting for incentive eligibility. · Report at least 3 measures covering 1 NQS domain for at least 50% of the group practice's Medicare Part B FFS patients via qualified registry. · Report 1-8 measures covering 1-3 NQS domains for which there is Medicare patient data (subjecting the group practice to the MAV process) AND report each measure for at least 50% of the group practice's Medicare Part B FFS patients seen during the reporting period in which the measure applies.	· Web interface: Submit all web interface measures for the required population (at least one measure must have data for a Medicare patient). · Registry: If the group is required or elected to report CAHPS, then they must satisfactorily report on at least 6 measures across 2 domains; if they reported on fewer than 6 measures or across only 1 domain then they must pass MAV. If the group is not reporting CAHPS data then they must satisfactorily report on 9 measures across 3 domains (or they can report on fewer than 9 measures and/or fewer than 3 domains, provided they pass MAV) · EHR: If the group has elected or is required to report CAHPS, then they must report at least 6 measures across at least 2 domains; of these data at least 1 measure must include Medicare patient data. If the group is not reporting CAHPS, they must report at least 9 measures across at least 3 domains	· Web interface: Submit all web interface measures for the required population (at least one measure must have data for a Medicare patient). · Registry: If the group is required or elected to report CAHPS, then they must satisfactorily report on at least 6 measures across 2 domains; if they reported on fewer than 6 measures or across only 1 domain then they must pass MAV. If the group is not reporting CAHPS data then they must satisfactorily report on 9 measures across 3 domains (or they can report on fewer than 9 measures and/or fewer than 3 domains, provided they pass MAV) · EHR: If the group has elected or is required to report CAHPS, then they must report at least 6 measures across at least 2 domains; of these data at least 1 measure must include Medicare patient data. If the group is not reporting CAHPS, they must report at least 9 measures across at least 3 domains · QCDR: If the group is required or elected to report CAHPS, then they must satisfactorily report on at least 6 measures across 2 domains; otherwise the TIN must report at least 9 measures (PQRS measures and/or non-PQRS measures) covering at least 3 domains. Whether or not CAHPS data are reported, the submission must include at least 2 outcome measures. If 2 Outcome measures are not available, report at least 1 outcome measure and at least 1 of the following other types of measure: resource use, patient experience of care, efficiency appropriate use, or patient safety measure.

[a] Applicable Quality Percent is applied to estimated allowed charges for covered professional services furnished by the eligible professional in the applicable reporting period.

Notes for Table 4: Information in this table does not apply to EPs participating in Medicare ACOs under the Shared Savings Program or the Pioneer ACO Model, nor does it apply to those participating under the CPC Initiative.

C. PQRS Payment Adjustment

As mandated by Section 1848(a)(8) of the Social Security Act, a payment adjustment for the PQRS program was implemented in 2015, based on 2013 reporting. Eligible professionals and groups who did not meet reporting requirements in 2013 were subject to a 1.5 percent reduction in their PFS allowed charges in 2015; the adjustment increased to 2.0 percent reduction in PFS allowed charges for 2016, 2017, and 2018 based on reporting years 2014, 2015, and 2016 respectively (table 4).

CMS implemented changes to requirements for avoiding the payment adjustment for 2016. The administrative claims method was eliminated as a method to avoid the 2016 PQRS payment adjustment; to avoid an adjustment of two percent of PFS allowed charges in 2016, eligible professionals and groups had to meet more stringent criteria compared to prior program years (Table 4). For program year 2014, eligible professionals that assigned their reimbursement and billing to a critical access hospital under Method II (CAHs) also had to meet reporting requirements, or be subject to a two percent reduction in their 2016 CAH II charges.

The Measures Applicability Validation (MAV) process continued in 2015 for the claims and registry reporting mechanisms. MAV determines if eligible professionals reporting individual measures (via claims and registry) or groups reporting individual measures under the GPRO (via registry) satisfactorily reported despite reporting fewer measures than required under the satisfactory reporting requirements for avoiding the 2016 PQRS payment adjustment. For more details on MAV, please refer to the CMS website.[11]

There were several ways that individual eligible professionals could avoid the PQRS payment adjustment for 2017:

- For claims and registry individual measures: Satisfactorily report at least nine measures covering at least three NQS domains and satisfactorily report at least one cross-cutting measure when required (if the eligible professional saw at least one Medicare patient in a face-to-face encounter); if the EP reported on fewer than nine measures and/or fewer than three domains, then they must pass MAV.
- For registry measures groups: Report all measures within a measures group on a 20 patient sample; at least 11 of the 20 patients must be Medicare Part B FFS patients.
- For EHR: Report at least nine measures across at least three domains and at least one of those measures must include Medicare patient data (if data do not contain at least nine measures across at least three domains, then must report all of the measures for which there is Medicare patient data).

[11] For details on the MAV process in 2015, please refer to the claims and registry MAV documents found under the Analysis and Payment section in following link: https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/PQRS/2015_Physician_Quality_Reporting_System.html

- For QCDR: Satisfactorily report on at least nine measures across at least three domains AND at least two of the satisfactorily reported measures are Outcome measures; if the QCDR does not report 2 Outcomes measures, at least one of the satisfactorily reported measures is an Outcome measure and at least one of the satisfactorily reported measures is from the Person and Caregiver Experience and outcomes, Efficiency and Cost reduction or Patient Safety NQS domains.

Group practices could avoid the 2017 payment adjustment if they:

- For Web interface: Submit all web interface measures for the first 248 consecutively ranked beneficiaries. If the pool of eligible beneficiaries is less than 248, then report on 100 percent of assigned beneficiaries; there must be at least one measure for which there is Medicare patient data. Practices with 25-99 EPs (Medium) can elect to report CAHPS summary survey modules as well but practices with 100 or more EPs must report all CAHPS summary survey modules.
- For Registry: If the group has elected or is required to report CAHPS, then in addition to the CAHPS data they must report at least 6 measures across at least 2 domains; if fewer than 6 measures or 2 domains apply, then they are subject to MAV. If the group is not reporting CAHPS, they must report at least 9 measures across at least 3 domains; if at least one Medicare patient is seen in a face-to-face encounter then they must report on at least one cross-cutting measure; if they report on fewer than 9 measures or fewer than 3 domains then they are subject to MAV.
- For EHR: If the group has elected or is required to report CAHPS, then they must report at least 6 measures across at least 2 domains; of these data at least 1 measure must include Medicare patient data. If the group is not reporting CAHPS, they must report at least 9 measures across at least 3 domains

Other reasons for avoiding the payment adjustment were related to not being eligible for PQRS:

- Not having at least one eligible denominator claim; or
- Not meeting the definition of an eligible professional for the PQRS payment adjustment; or
- Not having any PFS charges in 2015; or
- Being a member of an independent lab or diagnostic testing facility in 2015.

In addition, individual eligible professionals or groups participating via GPRO, ACO, or CPC were able to request an informal review of their downward payment determination between September 26, 2016 and December 7, 2016, for the 2015 PQRS program year.

D. Data and Methods

Data

This report draws on multiple sources of data: (1) Medicare Part B claims data; (2) data submitted by qualified registries and QCDRs; (3) data submitted by qualified EHR vendors; (4) PQRS measure data submitted through an online web interface by practices that were approved to participate in the GPRO and by eligible professionals participating via the Shared Savings Program and the Pioneer ACO Model; and (5) Consumer Assessment of Healthcare Providers and Systems (CAHPS) for PQRS data submitted by practices participating under the GPRO. Data on the 2017 PQRS payment adjustment were from the PQRS Payment Adjustment file dated March 29, 2017.

Claims data encompassed services within the respective program years and must have been processed by the last Friday in February of the following year to be included in analyses. For example, the analysis of the 2015 program year encompassed claims with service dates from January 1, 2015 through December 31, 2015 and processed by February 26, 2016. Similar to claims data, data collected from the registry, QCDR, and EHR mechanisms as well as the GPRO web interface aligns with the program year and must have been received by CMS by the established deadline for the reporting option.

Information on physician specialty and location was obtained from the National Plan and Provider Enumeration System (NPPES), which is publicly available data and downloadable from the NPPES website.[12]

Unit of Analysis

The most common unit of analysis in the report is the individual eligible professional. The National Provider Identifier number (NPI) within a billing unit (i.e., the Taxpayer Identification Number [TIN]) defined an eligible professional; the NPI was the *performing* NPI.[13] All analyses regarding individual eligibility and participation were performed at the NPI level within a TIN (referred to as TIN/NPI). Consequently, a single eligible professional could be counted more than once if he/she worked for multiple practices (i.e., single NPI and more than one TIN).

An additional unit of analysis presented in the report is the group practice level, which was defined by a TIN. Practices that participated under the GPRO and Shared Savings Program ACO were analyzed at the practice (i.e., TIN) level. In addition to summarizing group reporting information at the TIN level, this report also aggregates information from individual eligible professionals to the practice (TIN) level for descriptive purposes. For these descriptions, a practice was defined as eligible or participating if at least one eligible professional associated with that practice was eligible or participating.

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[12] http://download.cms.gov/nppes/NPI_Files.html

[13] There are multiple NPIs associated with a service (performing, referring, and ordering); the performing NPI identifies the eligible professional who actually performed the service.

This report also describes counts of individual eligible professionals who belong to a practice that participated under group reporting options (including those in practices participating under the GPRO and eligible professionals within Shared Savings Program ACOs reporting PQRS data).[14] Unless otherwise noted, tables and figures that present counts of total eligible professionals also include the number of eligible professionals within practices participating under group reporting options. For the purposes of summarizing participation, all eligible professionals that are part of a practice that participates are considered to have participated. Eligible professionals that participated in PQRS as part of the Pioneer ACO model or by accepting the PQRS waiver as part of a CPC practice are reported as individual participants in this report.

The specialty and state for eligible professionals were obtained from NPPES. Region was based on CMS carrier regions on claims. In tables that provide regional breakouts, information on the Railroad Retirement Board (RRB) carrier is not provided. This is due to the RRB not being based on geographical location of the eligible professional.

[14] As part of their quality reporting requirements, practices within Medicare ACOs reporting PQRS data under the Medicare Shared Savings Program and Pioneer ACO models submitted data on 17 measures via the GPRO web interface.

IV. PARTICIPATION

A. How to Participate

CMS provided multiple resources on the PQRS website (http://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/PQRS/index.html?redirect=/PQRS/) to assist eligible professionals who chose to participate in the program. The *2015 Measure List and Implementation Guide* gave guidance on how to determine which measures to report, the reporting method, and claims-based reporting principles. CMS also provided Frequently Asked Questions (FAQ's) covering a wide range of topics regarding the program.

In 2015, there were six individual participation options and five participation group options (plus additional requirements for groups that elected to or were required to submit CAHPS data; see that section below for more details) for submitting measure data to PQRS. Unless otherwise noted, each mechanism applied to a 12-month period from January 1 to December 31, 2015:

1. Claims-Based Individual Measures. Eligible professionals could report QDCs for measures via claims. To avoid the 2017 payment adjustment, eligible professionals had to report on at least 9 measures from 3 NQS domains (or fewer than 9 measures or fewer than 3 NQS domains, subject to a MAV review) for at least 50 percent of reporting opportunities.
2. Registry-Based Reporting Individual Measures. Eligible professionals could submit measures through a qualified registry. To avoid the 2017 payment adjustment, eligible professionals had to report on at least 9 measures from 3 NQS domains (or fewer than 9 measures or fewer than 3 NQS domains, subject to a MAV review) for at least 50 percent of reporting opportunities.
3. Registry-Based Reporting Measures Groups. Eligible professionals could submit data through a qualified registry. To avoid the 2017 payment adjustment, eligible professionals had to report all applicable measures for at least 1 measures group on at least 20 patients (11 out of 20 patients had to be Medicare Part B FFS patients).
4. Qualified Clinical Data Registry (QCDR). Eligible professionals could submit measures through a CMS-approved entity that collects medical and/or clinical data for the purpose of patient and disease tracking to foster improvement in the quality of care furnished to patients. To avoid the 2017 payment adjustment, eligible professionals had to report at least 9 measures across 3 NQS domains for at least 50 percent of reporting opportunities, including 2 outcome measures or at least 1 Outcome measure and 1 measure from one of the following domains: Person and Caregiver Experience and outcomes, Efficiency and Cost reduction or Patient Safety; QCDRs are not limited to PQRS measures or Medicare beneficiaries.
5. EHR –Direct Submission Eligible professionals could submit data directly through a qualified EHR product. To avoid the 2017 payment adjustment, eligible professionals had to report on at least 9 EHR measures across 3 NQS domains for at least 50 percent of reporting opportunities via a direct EHR-based product that is CEHRT; if an eligible professional's CEHRT does not contain patient data for at least 9 measures and 3 domains, he or she must report the measures for which there is Medicare patient data. Successful submission of CQM data and one measure with at least one Medicare beneficiary will enable eligible professionals to avoid the payment adjustment and meet the CQM component of the Medicare EHR Incentive Program.
6. EHR – Data Submission Vendor (DSV) Eligible professionals could submit data through a qualified data submission vendor. To avoid the 2017 payment adjustment, eligible professionals had to

meet the same requirements as described for EHR Direct Submission except submitted via an approved data submission vendor that is CEHRT.

7. GPRO – Registry Reporting. Practices with two or more NPIs that self-nominated and were selected for Small, Medium, or Large GPRO could report via a qualified registry. To avoid the 2017 payment adjustment, practices had to report on at least 9 measures across 3 NQS domains (or fewer than 9 measures or fewer than 3 NQS domains, subject to a MAV review) for at least 50 percent of the practice's eligible Medicare Part B FFS patients; if at least one Medicare patient was seen in a face-to-face encounter, then at least one cross-cutting measure had to be reported satisfactorily. (Note: under the GPRO registry mechanism, Small (2-24 EPs) and Medium (25-99 EPs) GPRO practices had the option to report CAHPS data in addition to registry; Large (100+ EPs) practices were required to report CAHPS data. The measure criteria for when practices report CAHPS data is described under that mechanism below.)
8. GPRO – EHR Direct Submission. Practices with two or more NPIs that self-nominated and were selected for Small, Medium, or Large GPRO could report through a qualified EHR product. Practices had to report on at least 9 EHR measures across 3 NQS domains for at least 50 percent of reporting opportunities via a direct EHR-based product that is CEHRT. If a practice's CEHRT does not contain patient data for at least 9 measures and 3 domains, it must report all measures for which there is Medicare patient data; it must report at least one measure with at least one Medicare beneficiary. (Note: under the GPRO EHR mechanism, Small (2-24 EPs) and Medium (25-99 EPs) GPRO practices had the option to report CAHPS data in addition to EHR; Large (100+ EPs) practices were required to report CAHPS data. The measure criteria for when practices report CAHPS data is described under that mechanism below.)
9. GPRO – EHR Data Submission Vendor (DSV). Same as GPRO EHR – Direct Submission except submitted via an approved data submission vendor that is CEHRT.
10. GPRO – Web Interface. Practices with 25 or more NPIs that self-nominated and were selected for Medium or Large GPRO could report the GPRO web interface for a pre-populated patient sample of 248 consecutively ranked and assigned beneficiaries. If the pool of eligible assigned beneficiaries is less than 248, they had to report on 100 percent of assigned beneficiaries. The group practice had to report on at least one measure for which there was Medicare patient data.
11. GPRO – CAHPS Certified Survey Vendor. Practices with more than 100 eligible professionals that reported via the web interface had to have all CAHPS for PQRS summary survey modules reported on the group's behalf via a CMS-certified survey vendor; practices with 25-99 eligible professionals had the option to supplement their reporting with CAHPS data. GPRO practices of 2-99 eligible professionals who reported via registry or EHR had the option of reporting CAHPS data, practices with 100 or more eligible professionals were required to report CAHPS data; if they reported CAHPS data, they were required to report at least 6 measures across 2 NQS domains for at least 50% of reporting opportunities. For registry reporters, the reporting of CAHPS data fulfilled the requirement of reporting at least one cross-cutting measure.

In addition to the participation options for the traditional PQRS described above, Medicare ACOs participating in the Shared Savings Program or Pioneer ACO Model were required to submit the same 17 quality measures via the GPRO web interface. Eligible professionals participating in ACOs could avoid the 2017 payment adjustment if the ACO met the same requirements as applicable to the Large GPRO (with the exception of the CAHPS for PQRS measures), in addition to meeting the requirements for successful participation in the ACO program. For further information on how eligible professionals

participating in a Medicare ACO under the Shared Savings Program or Pioneer ACO Model, CMS provides multiple resources on its website. Practices that were part of the CPC and electing a PQRS waiver were required to meet the eCQM reporting requirements under that program to avoid the 2017 payment adjustment. The CMS website includes further information on these programs and initiatives.[15]

To participate through the claims reporting mechanism, eligible professionals submitted the specified Quality Data Code(s) (QDC) for a given measure on a Medicare Part B professional services claim that met the denominator criteria for that measure. QDCs indicate that a specific quality action or outcome was or was not met, or that exclusion criteria for the measure were met. QDCs are entered on a line item on the claim, similar to procedure codes. A QDC for a given quality measure must be entered on a claim that also has all the required denominator criteria for that measure. For example, a measure could require a specific combination of diagnosis, procedure codes, and beneficiary age to be an 'eligible instance'; to report the measure validly, the eligible professional had to submit the required QDC(s) on line items for that claim.

To report measures through the registry, EHR, and QCDR mechanisms, eligible professionals submitted performance data via an approved vendor (for registry, QCDR, and EHR data submission vendor), or via an approved EHR product for each measure—such as number of eligible instances (denominator), instances of quality service performed (numerator), number of performance exclusions, reporting rates, and performance rates—in a file format specified by CMS.

B. Overall Participation Results

Eligibility

A professional was defined as eligible to participate individually in PQRS if he/she had at least one PFS professional services claim that contained the denominator criteria of the applicable quality measure for any PQRS measure, respectively, and was not part of an ACO practice participating under the Shared Savings Program; in addition, the eligible professionals could not submit individual PQRS data if they were participating under the CPC initiative or as part of a Pioneer ACO. Eligible practices (TINs) that chose to report under the GPRO applied and met requirements for participation.[16] All eligible professionals that were part of an Shared Savings Program ACO were considered eligible under that reporting option only. Eligible professionals were considered eligible via the Pioneer ACO or CPC mechanism if they elected to participate via these programs.

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[15] Information on the Shared Savings Program can be found at http://www.cms.gov/Medicare/Medicare-Fee-for-Service- Payment/sharedsavingsprogram/index.html; information on the Pioneer ACO Model can be found at http://innovation.cms.gov/initiatives/Pioneer-ACO-Model/; and information on the CPC Initiative can be found at http://innovation.cms.gov/initiatives/comprehensive-primary-care-initiative/.

[16] GPRO eligibility criteria varied by program year. In 2010, practices with at least 200 NPIs could participate in the GPRO option; in 2011, practices with 200+ NPIs could participate in "GPRO I" and those with 2-199NPIs could participate in the GPRO II option; in 2012, practices with 25-99 NPIs could participate in the "Small GPRO" option, while practices with 100+ NPIs could participate in the "Large GPRO" option; and in2013-2015, Small GPRO (2-24 NPIs), Medium GPRO (25-99 NPIs), and Large GPRO (100+ NPIs) were available.

In 2015, there were 1,358,691 professionals eligible to participate in PQRS, including 515,541 eligible professionals who were part of a group practice that self-nominated under the GPRO or as part of a Medicare ACO participating under the Shared Savings Program (Appendix Table A3). Among the 1,136,063 professionals eligible to participate individually, 1,116,864 were eligible to participate via claims, through registry, EHR, or QCDR,[17] 18,755 were eligible under the Pioneer ACO program and 2,127 as part of a CPC practice. Finally, 207,177 eligible professionals were eligible as part of an Shared Savings Program ACO.

Appendix Table A4 presents characteristics of eligible professionals that were eligible to participate in the 2015 PQRS. About half of all eligible professionals eligible for individual participation were in solo practices or practices with fewer than 25 NPIs and were in a primary care or other non-surgical specialty. The majority (over 70%) of eligible professionals eligible for group reporting (because their practice self-nominated) were in large practices (100 or more eligible professionals). Among individuals not participating in an Shared Savings Program ACO, Pioneer ACO, or CPC, almost half were eligible to report sixteen or more measures; however, 25 percent were eligible to report from one to five measures.

A broad range of specialties were eligible to report PQRS measures. Appendix Table A5 presents the number of eligible professionals who could have participated in PQRS through any reporting option by specialty for the 2011 to 2015 program years. As in prior years, internal medicine and family practice were the specialties with the largest number of eligible professionals who could have participated in the program in 2015 (119,111 and 113,930, respectively). Nurse practitioner and physician assistant also had large numbers eligible to participate (113,445 and 84,402, respectively). Most specialties had increases in the number of eligible professionals, with the largest increases seen in the nurse practitioner, physician assistant and other eligible professional categories (greater than 11%).

Participation

Eligible professionals were defined as participating in PQRS if they had a complete and valid submission of data on quality measures through claims or a valid submission from a qualified registry, EHR (via direct submission or the data submission vendor mechanism), or QCDR. A practice was defined as participating in the PQRS GPRO or Shared Savings Program ACO if the practice submitted data for an assigned sample of patients through a web interface provided by CMS (or submitted data through a registry or EHR for PQRS GPRO); all eligible professionals within a practice that participates under the GPRO or as part of an Shared Savings Program ACO are considered to be participating. A practice was defined as participating in PQRS as a Pioneer ACO if the TIN elected to participate in the Pioneer ACO model; note that some of these TINs are "split TINs" in which only some of the NPIs are participating in the Pioneer ACO model; in these cases, the non-ACO NPIs can only participate in PQRS through the usual individual participation mechanisms (i.e. claims, registry, EHR, or QCDR) unless the TIN was also

[17] These figures are based on all eligible professionals that were not part of an Shared Savings Program ACO; they do not reflect the number that actually had access to a registry, EHR, or QCDR.

participating under the GPRO. Eligible professionals were considered participating in PQRS via the CPC if they were eligible to participate in this program and had submitted a PQRS waiver.[18]

As shown in Figure 2 in the Executive Summary, past years of program operation have seen growth in participation across most reporting options except for a decline in registry reporting from 2011 to 2012, a decline in Pioneer ACO participation from 2012 to 2013, and a decline in claims reporting from 2013 to 2014. For the 2015 program year, there was a decrease in Pioneer ACO and CPC. Overall, 481,704 eligible professionals (42 percent of those eligible) participated individually in the 2015 PQRS (Appendix Table A3). In addition, 295,308 eligible professionals within 3,418 practices participated under the GPRO; 206,859 eligible professionals participated through 394 Medicare ACOs participating under the Shared Savings Program; 18,755 eligible professionals participated in 13 ACOs under the Pioneer Model (Table 3). Including all reporting options and participation in other programs for the sake of avoiding the 2017 payment adjustment, the overall participation rate was 69 percent, and the total number participating in the PQRS increased 14 percent from 2014.

[18] TIN/NPI that were on the CPC finder file but did not submit a PQRS waiver and submitted PQRS data via the claims, registry, QCDR, or EHR submission mechanisms are counted as participating under those mechanisms.

Eligible professionals who chose to participate in the 2015 PQRS using the registry, EHR, or QCDR-based reporting mechanisms contacted the CMS-qualified registries, EHR, or QCDR vendors listed in the posted CMS qualified lists.[19] In 2015, there were 99 qualified registries that could submit data on behalf of eligible professionals, compared to 87 in 2014; 80 registries submitted quality measure information in 2015 compared to 69 in 2014. In 2015 there were also 50 qualified clinical data registries, 29 of which submitted data. The Office of the National Coordinator for Health Information Technology (ONC) certification process has established standards and other criteria for structured data that EHRs must use. As seen in Appendix Table A3, within the individual reporting option:

- 69 percent of individual participants used the claims mechanism (N=330,863)
- 23 percent used registry reporting (N=110,296)
- 12 percent participated via EHR (N=56,761, unduplicated)
- 4 percent participated as part of a Pioneer ACO (N=18,755)
- 3 percent participated via the QCDR (N=15,381)
- <1 percent participated as part of the CPC (N=444)

The number of participants reporting using specific mechanisms increased over 2014, for all reporting mechanisms except for individuals participating as part of a Pioneer ACO (Figure 2). In total, 9.9 percent of individual participants used more than one reporting mechanism. About 5.3 percent of individual participants used more than one individual participation mechanism. For example, three percent of individuals used claims and registry, one percent used claims and EHR, and 0.6 percent used claims and QCDR; less than one percent used other combinations such as registry and EHR (0.1 percent), or claims/registry/EHR (0.1%).

Within the group reporting option, participation by mechanism varied by practice size (Appendix Table A3). Within Small GPRO practices, 76 percent of eligible professionals reported via registry (with or without CAHPS), compared to 24 percent via QRDA III; no GPRO practices used QRDA I. Within Medium GPRO, 65 percent of eligible professionals were in a practice reporting via registry (with or without CAHPS), compared to 12 percent using web interface (with or without CAHPS), and 23 percent using QRDA III (with or without CAHPS). Finally, among Large GPROs, most eligible professionals were in practices reporting via the web interface (48 percent), compared to 38 percent using registry, and 15 percent using QRDA III.

Appendix Table A4 presents information on the characteristics of eligible professionals who were eligible and participating in the 2015 PQRS. As with the distribution of those eligible, the Atlanta, and Chicago regions had the most participating eligible professionals. Among individual participants, over half could report on 15 or fewer measures. For those who were eligible for individual participation, participation

[19] Lists can be found at: https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/PQRS/2015_Physician_Quality_Reporting_System.html

rates were higher among those in larger practices; the same can be said for those who were eligible for group participation. It is also true that participation rates were higher for eligible professionals with higher beneficiary volumes and higher PFS charges.

C. Use of Measures Groups and Registries

Between 2014 and 2015, five measures groups were dropped and two were added. In 2015, one-third of eligible professionals reporting via registry (N=38,694 out of 110,269) reported via registry measures groups (Appendix Table A3). The number of eligible professionals participating using registry measures groups increased from 2014 to 2015 over 21% (Figure 2). Use of registry measures group reporting was concentrated within family practice, internal medicine, cardiology, oncology, nurse practitioner, and nephrology (Table A10).

The number of registries submitting data on behalf of eligible professionals had fluctuated over time. In 2008, 31 qualified registries submitted PQRS data on behalf of eligible professionals; this grew to 69 in 2014 and 80 in 2015 (data not shown).

Table 5 displays the registries that submitted data for the most eligible professionals in 2015[20]. Some registries are more specific to a certain specialty and, therefore, might not have a high volume of eligible professionals to report measures via their registry.

Table 4: Registries that Submitted Data on Behalf of the Most Participants (2015)

Rank	Registry Name	Eps Submitted	Practices Submitted
--	**Individual Participants**	--	--
1	CECity	19,656	N/A
2	MDinteractive	9,729	N/A
3	WebPT Inc.	9,439	N/A
4	NetHealth	7,485	N/A
5	NextGen_Registry	7,263	N/A
6	EClinicalWeb	5,796	N/A
7	PQRS Solutions	5,609	N/A
8	Covisint Corporation	5,156	N/A
9	athenaHealth, Inc.	4,131	N/A
10	Central Utah Informatics	4,038	N/A
--	**Group Participants**	--	--
1	PQRS Solutions	24,157	457
2	CECity	18,922	389
3	HealthCare Financial Services LLC	10,467	122
4	Crimson Care Registry	7,233	25

[20] A complete listing of qualified registries available for the 2015PQRS can be found at https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/PQRS/Downloads/2015QualifiedRegistries.pdf

Rank	Registry Name	Eps Submitted	Practices Submitted
5	WellCentive	7,045	103
6	NextGen_Registry	6,679	123
7	MDinteractive	6,581	109
8	EClinicalWeb	6,425	199
9	Massachusetts General Physicians Organization	5,990	7
10	Covisint Corporation	5,553	45

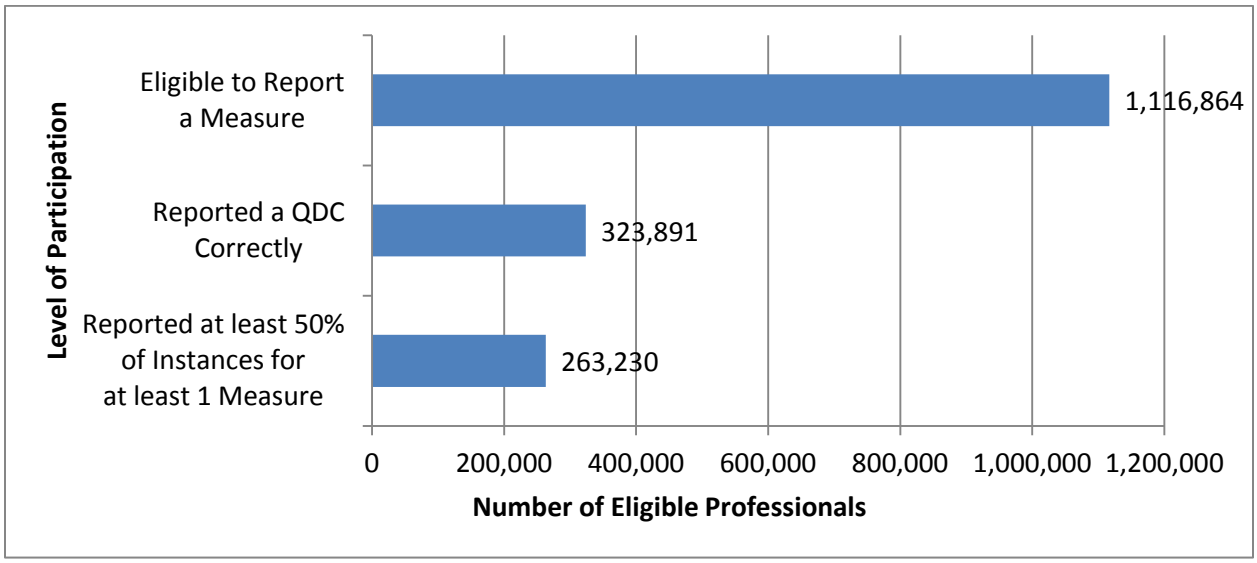
D. Challenges to Participation and Satisfactory Reporting

Different reporting methods had different challenges to reporting. For the claims reporting mechanism, the main challenges to satisfactory reporting in PQRS included: (1) failure to identify eligible patients or claims; (2) QDC submission errors; and (3) failure to submit QDCs for at least 50 percent of eligible instances. For example, QDC submission errors encompass submitting a QDC on a claim that did not have a qualifying diagnosis or the appropriate patient age, or submitting the QDC on an incorrect Healthcare Common Procedure Coding System (HCPCS) code. An invalid QDC could occur, for example, if an eligible professional submits a QDC on a claim that lacks the necessary combination of diagnosis and procedure codes to identify the measure denominator. Because ineligible claims are not included in the measure's denominator, QDC errors do not adversely affect an eligible professional's reporting rate.[21] An individual measure was satisfactorily reported when there were valid submissions for at least 50 percent of patients. As was seen in Figure 3, 20 percent of eligible professionals reporting via claims reported no (zero) measures satisfactorily, compared to zero percent of those reporting via registry, for EHR and QCDR.

Figure 7 summarizes participation through the claims-based individual measure reporting mechanism in 2015: 1,116,864 eligible professionals were eligible to participate individually via claims in PQRS in 2015, and 29% of these professionals participated by submitting at least one QDC without error via claims (N=323,891); note that the QDC counts for Figure 7 reflect the hierarchy used in our performance data, so eligible professionals who submitted through both claims and EHR or QCDR would not be reflected here since EHR and QCDR are higher in our hierarchy (See section VI. Clinical Performance Rates for an explanation of the hierarchy). Among all eligible professionals attempting to submit a QDC (N=332,119, regardless of the hierarchy), over 99 percent of them had at least one valid QDC (data not shown). Over 81 percent of those submitting at least one correct QDC were able to report at least 50 percent of instances for at least one measure.

[21] The reporting rate is the number of instances an eligible professional reported (e.g., a valid QDC) divided by the number of eligible instances.

Figure 7 – Summary of Individual Measures Reported through PQRS Claims Mechanism (2015)



Note: The counts for who reported a QDC correctly and who reported at least 50% of instances for at least 1 measure are derived after the application of our hierarchy in performance data.

Some PQRS participants who used a registry, QCDR, or EHR experienced submission problems. Eighty-four percent of registries submitted data for eligible professionals who did not have Part B PFS charges; this affected 7,096 eligible professionals. Of the eligible professionals who submitted through QCDR, about one percent were part of a practice participating as a Pioneer ACO. About five percent of EPs had submissions even though they did not have Part B PFS charges. The most prevalent data issues for QCDR were having reporting denominators not equal to the initial population count minus exclusions (affecting about four percent of eligible professionals submitting through a QCDR) and not having the reporting rate equal to the reporting numerator divided by the reporting denominator (also affecting about four percent of the eligible professionals submitting through a QCDR). CMS has communicated with the registries and QCDRs about these issues, so that they can improve on these submissions in future program years.

In addition, there were challenges for those who submitted data through the web interface (i.e. practices participating under the GPRO and eligible professionals participating as part of a Medicare ACO under the Shared Savings Program or Pioneer ACO Model). These included a lack of understanding about the assignment and/or sampling methodology, inexperience using the web interface, and challenges with the layers between those providing care and those abstracting the data for submission, which resulted in some users not inputting the data properly.

E. Participation by Specialty

The measures in PQRS apply to a broad range of specialties, providing numerous opportunities for eligible professionals in all specialties to report on their Medicare patients.[22] Appendix Table A7 shows participation rates by specialty across all reporting options from 2012 to 2015. Participation rates by specialty and submission mechanism for 2012 through 2015 can be found in Appendix Tables A8 through A12.

As shown in Table 6, of eligible professionals who participated through the claims-based reporting option, several hospital-based specialties were among the top ten specialties using this reporting mechanism. For example, emergency medicine had the largest representation among all specialties and also had a high rate of participation in this mechanism (55 percent), followed by nurse anesthetist and anesthesiology, which had participation rates of 60 and 64 percent respectively. Radiology had the fifth highest number of participants via claims. Hospital-based practices may have processes in place to capture clinical data, facilitating quicker uptake of reporting quality measure data. Eligible professionals in the fields of physical therapy, internal medicine, family practice, optometry, chiropractor, and physician assistant also had a relatively large number of professionals who participated in the 2015 program via claims; however, with the exception of physical therapy, these specialties had participation rates of less than 50 percent. (Appendix Table A8 presents results for all specialties reporting via claims.)

Table 5: Top Specialties Participating via Claims (2015)

Rank	Specialty	Eligible Professionals	EPs who Participated	Percent of EPs who Participated
1	Emergency Medicine	58,199	32,119	55.2%
2	Nurse Anesthetist	53,087	32,073	60.4%
3	Anesthesiology	44,822	28,744	64.1%
4	Physical Therapy	50,054	27,594	55.1%
5	Radiology	33,954	20,575	60.6%
6	Internal Medicine	86,292	19,831	23.0%
7	Family Practice	85,317	18,341	21.5%
8	Physician Assistant	65,746	17,165	26.1%
9	Optometry	35,574	14,977	42.1%
10	Chiropractor	45,584	14,832	32.5%

Notes for Table 6: Results exclude eligible professionals participating as part of a Medicare ACO under the Shared Savings Program or the Pioneer ACO Model and eligible professionals participating through the CPC initiative.

[22] In this section, "specialty" was determined based on the primary specialty that was listed for the NPI in the National Provider and Plan Enumeration System (NPPES).

Physical therapy, internal medicine, family practice, and nurse practitioner had the highest numbers of eligible professionals participating via the registry individual measures mechanism in 2015 (Table 7). Within the registry measures group mechanism, the top specialties included family practice, internal medicine, nurse practitioner and nephrology (See Appendix Tables A9 and A10 for results for all specialties). Among the specialties with the most participants, dermatology had the highest rate ofparticipation via registry individual measures (32 percent), and nephrology had the highest participation rate (28 percent) in registry measures groups.

Table 7: Top Specialties Participating via Registry (2015)

Rank	Specialty	Eligible Professionals	EPs who Participated	Percent of EPs who Participated
--	**Registry Individual Measures**	--	--	--
1	Physical Therapy	50,054	10,480	20.9%
2	Internal Medicine	86,292	6,024	7.0%
3	Family Practice	85,317	5,271	6.2%
4	Nurse Practitioner	89,732	5,060	5.6%
5	Physician Assistant	65,746	4,705	7.2%
6	Emergency Medicine	58,199	3,982	6.8%
7	Radiology	33,954	3,648	10.7%
8	Dermatology	11,273	3,558	31.6%
9	Other Eligible Professional	39,496	3,023	7.7%
10	Nurse Anesthetist	53,087	1,713	3.2%
--	**Registry Measures Groups**	--	--	--
1	Internal Medicine	86,292	5,047	5.8%
2	Family Practice	85,317	4,779	5.6%
3	Nurse Practitioner	89,732	3,315	3.7%
4	Nephrology	8,502	2,357	27.7%
5	Cardiology	20,459	2,347	11.5%
6	Oncology/Hematology	11,058	2,196	19.9%
7	Other Eligible Professional	39,496	1,904	4.8%
8	Physician Assistant	65,746	1,522	2.3%
9	Ophthalmology	18,876	1,424	7.5%
10	General Surgery	21,320	1,346	6.3%

Note for Table 7: Results exclude eligible professionals participating as part of a Medicare ACO under the Shared Savings Program or the Pioneer ACO Model, and eligible professionals participating through the CPC initiative.

Table 8 presents the specialties with the most eligible professionals reporting via EHR in 2015. Family practice and nurse practitioner topped the list for the specialties with the most eligible professionals participating in PQRS via the EHR mechanism, followed by internal medicine, ophthalmology, and physician assistant. The rate of participation among these specialties using the EHR mechanism was

relatively low with the highest being 25.4 percent for ophthalmology. See Appendix Table A11 for more detail.

Table 6: Top Specialties Participating via EHR (2015)

Rank	Specialty	Eligible Professionals	EPs who Participated	Percent of EPs who Participated
1	Family Practice	85,317	6,695	7.8%
2	Nurse Practitioner	89,732	5,797	6.5%
3	Internal Medicine	86,292	5,184	6.0%
4	Ophthalmology	18,876	4,799	25.4%
5	Physician Assistant	65,746	3,925	6.0%
6	Obstetrics/Gynecology	28,237	3,190	11.3%
7	Optometry	35,574	2,628	7.4%
8	Orthopedic Surgery	20,915	2,415	11.5%
9	Other Eligible Professional	39,496	2,186	5.5%
10	General Surgery	21,320	1,847	8.7%

Notes for Table 8: Results exclude eligible professionals participating as part of a Medicare ACO under the Shared Savings Program or the Pioneer ACO Model, and eligible professionals participating through the CPC initiative.

Table 9 presents the specialties with the most eligible professionals reporting via the QCDR mechanism in 2015. Anesthesiology had the most eligible professionals reporting via this mechanism, followed by nurse anesthetist. Thoracic/cardiac surgery had a relatively high rate of participation in this mechanism (17 percent) compared to 8 percent for Gastroenterology and anesthesiology, which had the second and third highest participation rates among the top 10 specialties based on participation counts (Table 9). See Appendix Table A12 for more detail on all specialties.

Table 7: Top Specialties Participating via QCDR (2015)

Rank	Specialty	Eligible Professionals	EPs who Participated	Percent of EPs who Participated
1	Anesthesiology	44,822	3,459	7.7%
2	Nurse Anesthetist	53,087	3,327	6.3%
3	Emergency Medicine	58,199	1,472	2.5%
4	Physician Assistant	65,746	1,138	1.7%
5	Gastroenterology	11,691	980	8.4%
6	Cardiology	20,459	893	4.4%
7	Thoracic/Cardiac Surgery	3,285	564	17.2%
8	Internal Medicine	86,292	533	0.6%
9	Nurse Practitioner	89,732	500	0.6%

Rank	Specialty	Eligible Professionals	EPs who Participated	Percent of EPs who Participated
10	Other Eligible Professional	39,496	421	1.1%

Notes for Table 9: Results exclude eligible professionals participating as part of a Medicare ACO under the Shared Savings Program or the Pioneer ACO Model, and eligible professionals participating through the CPC initiative.

The specialties with the most eligible professionals who were part of practices participating via the GPRO or as part of a Medicare ACO under the Shared Savings Program were concentrated among primary care (internal medicine, nurse practitioner, family practice, and physician assistant) (Table 10).

Table 8 : Top Specialties Participating via GPRO and Shared Savings Program ACO (2015)

Rank	Specialty	Eligible Professionals	EPs who Participated	Percent of EPs who Participated
--	**GPRO**	--	--	--
1	Internal Medicine	33,174	32,280	97.3%
2	Nurse Practitioner	31,553	30,312	96.1%
3	Family Practice	28,868	27,758	96.2%
4	Physician Assistant	24,968	24,099	96.5%
5	Emergency Medicine	17,204	16,448	95.6%
6	Radiology	11,361	10,831	95.3%
7	Nurse Anesthetist	10,805	10,082	93.3%
8	Obstetrics/Gynecology	10,143	9,870	97.3%
9	Other Eligible Professional	9,791	9,346	95.5%
10	Cardiology	9,336	9,040	96.8%
--	**Shared Savings Program ACO**	--	--	--
1	Internal Medicine	28,113	28,085	99.9%
2	Family Practice	25,737	25,693	99.8%
3	Nurse Practitioner	21,473	21,404	99.7%
4	Physician Assistant	16,144	16,119	99.8%
5	Cardiology	8,679	8,665	99.8%
6	Emergency Medicine	8,082	8,079	100.0%
7	Obstetrics/Gynecology	7,215	7,196	99.7%
8	Radiology	6,531	6,519	99.8%
9	Other Eligible Professional	5,957	5,941	99.7%
10	Nurse Anesthetist	5,516	5,515	100.0%

Finally, among eligible professionals who were participating in a Pioneer ACO or as part of practices participating in the CPC initiative the most common specialties were also internal medicine, family practice, and nurse practitioner (Table 11).

Table 9: Top Specialties via a Pioneer ACO or the CPC Initiative (2015)

Rank	Specialty	Eligible Professionals	EPs who Participated	Percent of EPs who Participated
--	**Pioneer ACO**	--	--	--
1	Internal Medicine	3,758	3,758	100.0%
2	Family Practice	2,079	2,079	100.0%
3	Nurse Practitioner	1,175	1,175	100.0%
4	Radiology	921	921	100.0%
5	Physician Assistant	888	888	100.0%
6	Other Eligible Professional	722	722	100.0%
7	Cardiology	681	681	100.0%
8	Obstetrics/Gynecology	657	657	100.0%
9	Pediatrics	566	566	100.0%
10	Emergency Medicine	555	555	100.0%
--	**CPC**	--	--	--
1	Family Practice	1,010	255	25.2%
2	Internal Medicine	598	77	12.9%
3	Nurse Practitioner	230	52	22.6%
4	Physician Assistant	220	42	19.1%
5	Geriatrics	21	7	33.3%
6	Other MD/DO	4	3	75.0%
7	Gastroenterology	3	2	66.7%
8	Pediatrics	9	2	22.2%
9	Emergency Medicine	2	1	50.0%
10	General Practice	10	1	10.0%

F. Participation by Beneficiary Volume and Specialty

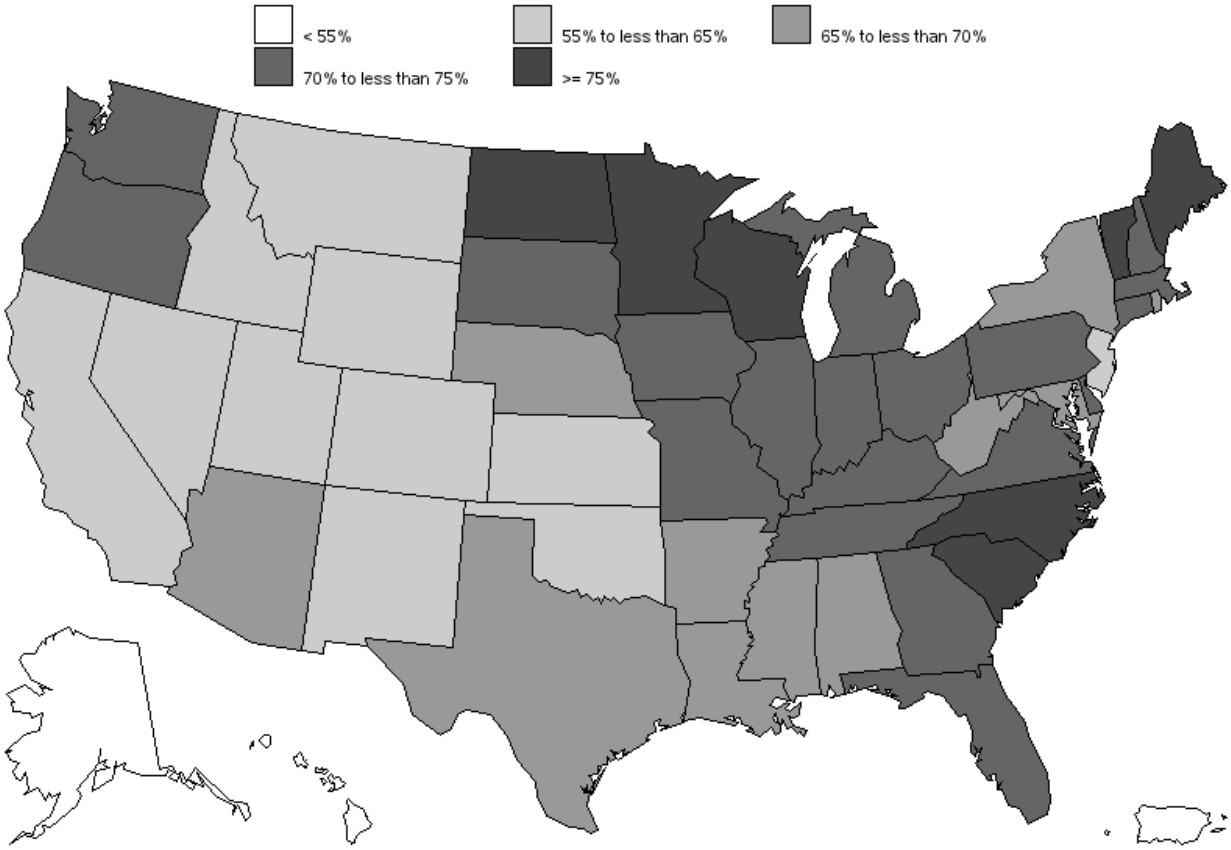
Participation rates among eligible professionals generally increased by beneficiary volume—defined as the number of beneficiaries who had an eligible claim for at least one PQRS measure—but patterns varied by specialty. Among all specialties, eligible professionals with 25 or fewer patients had a participation rate of 49 percent, compared to 66 percent among those with 26 to 100 patients, 76 percent among those with 101 to 200 patients, and 84 percent among those with more than 200 patients (Appendix A13). This general pattern was present for almost all specialties, especially MD/DOs and those with larger numbers of participants overall. Within emergency medicine, pathology, radiology, radiation oncology, oncology/hematology, and interventional radiology, eligible professionals with larger beneficiary volume (over 200 patients) had a participation rate of 90 percent and above (Appendix Table A13). Some specialties had relatively high rates of participation among eligible professionals with low beneficiary volume (fewer than 25 patients) including: pathology (80 percent), certified nurse midwives (76 percent), nurse anesthetist (71 percent), and radiology (75 percent).

G. Geographic Variation in Participation

Figure 8 demonstrates the geographic variation in participation rates for the 2015 PQRS.[23] Detailed state-by-state participation results are available in Appendix Table A14. Participation was generally highest in states in the Southeast, Midwest, and New England. Participation rates were highest in Wisconsin (82 percent), Minnesota and North Carolina (79 percent), Vermont (78 percent), North Dakota (77 percent), Maine and South Carolina (76 percent). Participation was lowest (below 45 percent) in Puerto Rico and the Virgin Islands. New York and California had the largest absolute number of eligible professionals who participated, although the participation rate in California was less than 60%.

[23] State was identified by the eligible professional in the National Plan and Provider Enumeration System (NPPES). Please see Appendix for details.

Figure 8 – Geographic Distribution of Eligible Professionals Participating in PQRS (2015)



Notes for Figure 8: Results include all individual participation PQRS mechanisms (i.e., claims, registry, EHR, and QCDR) as well as eligible professionals who belong to a practice that participated under the PQRS GPRO, eligible professionals participating as part of a Medicare ACO under the Shared Savings Plan or Pioneer ACO Model, and eligible professionals participating through the CPC initiative. The data used to populate this map can be found in Appendix Table A14.

H. Participation by Measure

Many measures in PQRS were selected because they were applicable to a wide range of eligible professionals and Medicare beneficiaries. The measures applicable to the largest number of eligible professionals in 2015 were those related to documentation of current medications, preventive care for high blood pressure, pain assessment and follow-up, body mass index (BMI) screening, tobacco use, and clinical depression, as well as advance care planning(Table 12).

Table 10: Top Measures Reportable by the Largest Number of Eligible Professionals (2015)

Rank	Measure Number	Measure Description	Eligible Professionals
1	130	Documentation of Current Medications in the Medical Record	815,432
2	317	Preventive Care and Screening: Screening for High Blood Pressure and Follow-Up Documented	810,094
3	131	Pain Assessment and Follow-Up	750,344
4	128	Preventive Care and Screening: Body Mass Index (BMI) Screening and Follow-Up Plan	724,894
5	226	Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention	683,457
6	134	Preventive Care and Screening: Screening for Clinical Depression and Follow-Up Plan	669,133
7	47	Advance Care Plan	664,131
8	181	Elder Maltreatment Screen and Follow-Up Plan	644,648
9	154	Falls: Risk Assessment	632,119
10	110	Preventive Care and Screening: Influenza Immunization	579,385

Notes for Table 12: Results include the claims, registry, EHR, and QCDR mechanisms, exclude results for eligible professionals participating as part of a Medicare ACO under the Shared Savings Program or the Pioneer ACO Model, and eligible professionals participating through the CPC initiative.

Table 13 lists the ten measures reported by the largest number of eligible professionals in 2015. The top reported measures include six of the measures with the most eligible professionals able to report:

#130, #317, #128, #110, #131 and #226. They also include a number of other preventive measures, Controlling high blood pressure (#236), and Colorectal Cancer Screening (#113) as well for Diabetes-Hemoglobin A1c Poor Control (#1), and Perioperative Temperature Management (#193).

Although a relatively large number of eligible professionals reported these measures, several measures were submitted by 15 percent or fewer of those to which the measure was applicable: #111 (Preventive Care and Screening: Pneumonia Vaccination for Patients 65 Years or Older), #110 (Preventive Care and Screening: Influenza Immunization), #1 (Diabetes: Hemoglobin A1c Poor Control), #131 (Pain Assessment and Follow Up) and #317 (Preventive Care and Screening for High Blood Pressure). Appendix Table A15 displays the percentage of eligible professionals who reported each measure and the average reporting rate (total instances reported for a measure divided by total eligible instances for the measure) for each measure reported through claims.

Table 11: Top Measures Reported by the Largest Numbers of Eligible Professionals (2015)

Rank	Measure Number	Measure Description	Participated	Percent of Eligible
1	130	Documentation of Current Medications in the Medical Record	208,174	25.5%
2	226	Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention	143,679	21.0%
3	128	Preventive Care and Screening: Body Mass Index (BMI) Screening and Follow-Up Plan	135,468	18.7%
4	317	Preventive Care and Screening: Screening for High Blood Pressure and Follow-Up Documented	98,422	12.1%
5	131	Pain Assessment and Follow-Up	86,517	11.5%
6	111	Pneumonia Vaccination Status for Older Adults	72,984	12.6%
7	110	Preventive Care and Screening: Influenza Immunization	71,396	12.3%
8	193	Perioperative Temperature Management	67,025	64.0%
9	1	Diabetes: Hemoglobin A1c Poor Control	63,031	13.7%
10	236	Controlling High Blood Pressure	58,796	19.8%

Notes for Table 13: Results include the claims, registry, EHR, and QCDR mechanisms, exclude results for eligible professionals participating as part of a Medicare ACO under the Shared Savings Program or the Pioneer ACO Model, and eligible professionals participating through the CPC initiative.

Table 14 presents information on the top five measures submitted by each specialty, identified by measure number, in 2015. Overall, among eligible professionals with an MD/DO, the top five measures reported in 2015 were: #130 (Documentation of Current Medications in the Medical Record), #226 (Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention), #128 (Preventive Care and Screening: Body Mass Index (BMI) Screening and Follow-Up), #317 (Preventive Care and Screening: Screening for High Blood Pressure), and #111 (Preventive Care and Screening: Pneumonia Vaccination for Patients 65 Years or Older). These measures were among the top five for most specialties.

Table 12: Top Reported Individual Measures by Specialty (2015)

Specialty	#1 (Top)	#2	#3	#4	#5
MD/DO	**130**	**226**	**128**	**317**	**111**
Allergy/Immunology	130	226	111	110	128
Anesthesiology	193	76	AQI 12	AQI 7	AQI 6
Cardiology	226	130	128	236	204
Colon/Rectal Surgery	130	226	113	128	111
Critical Care	130	47	226	76	111
Dermatology	130	226	137	224	138
Emergency Medicine	54	317	76	326	93
Endocrinology	1	130	226	128	119
Family Practice	130	226	1	128	111
Gastroenterology	130	113	226	128	111
General Practice	130	1	226	317	128
General Surgery	130	226	128	112	113
Geriatrics	130	226	110	128	1
Hand Surgery	130	226	128	131	238
Infectious Disease	130	226	128	110	111
Internal Medicine	130	1	226	47	128
Interventional Radiology	145	195	76	130	147
Nephrology	130	226	236	128	1
Neurology	130	226	128	204	111
Neurosurgery	130	226	128	111	110
Nuclear Medicine	147	195	145	130	226
Obstetrics/Gynecology	130	226	128	112	113
Oncology/Hematology	130	226	110	128	111
Ophthalmology	12	117	130	226	14
Oral/Maxillofacial Surgery	130	226	128	134	131
Orthopaedic Surgery	130	226	128	238	110
Other MD/DO	130	47	226	317	128
Otolaryngology	130	226	128	111	110
Pathology	99	249	100	395	251
Pediatrics	130	110	128	226	239
Physical Medicine	130	128	226	131	154
Plastic Surgery	130	226	128	112	110
Psychiatry	130	226	134	128	47
Pulmonary Disease	130	226	111	128	110
Radiation Oncology	130	226	110	128	111
Radiology	195	145	146	225	147
Rheumatology	130	226	128	111	236

Specialty	#1 (Top)	#2	#3	#4	#5
Thoracic/Cardiac Surgery	226	44	173	130	43
Urology	130	226	128	111	48
Vascular Surgery	130	226	128	204	111
Other Eligible Professionals	**130**	**128**	**131**	**226**	**182**
Agencies/Hospitals/Nursing and Treatment Facilities	130	128	131	154	182
Audiology	130	261	134	111	128
Certified Nurse Midwives	130	226	128	112	134
Chiropractor	131	182	130	128	226
Clinical Nurse Specialists	130	226	128	110	111
Counselor/Psychologist	134	130	226	181	128
Dentist	128	130	131	226	317
Dietitian/Nutritionist	128	130	1	181	226
Nurse Anesthetist	193	76	AQI 12	AQI 7	AQI 11
Nurse Practitioner	130	226	128	317	111
Occupational Therapy	131	130	182	154	128
Optometry	226	117	130	12	14
Other Eligible Professional	130	226	128	317	111
Physical Therapy	131	182	130	154	128
Physician Assistant	317	130	226	128	54
Podiatry	226	163	130	128	111
Registered Nurse	193	130	226	128	317
Social Worker	130	134	226	181	128
Unknown/Missing	**130**	**128**	**226**	**131**	**182**
Total	**130**	**226**	**128**	**317**	**131**

Notes: (1) Results exclude data for eligible professionals participating as part of a Medicare ACO under the Shared Savings Program or Pioneer ACO Model, and eligible professionals participating through the CPC initiative. (2) Results include the claims, registry, EHR, and QCDR mechanisms.

V. PQRS PAYMENT ADJUSTMENT

In 2017, eligible professionals who are eligible for PQRS but who did not meet the 2015 reporting requirements will be subject to a 2.0 percent payment reduction on all of their Part B Medicare PFS charges. Eligible professionals who are part of a practice that participated via the GPRO will be evaluated at TIN level. Eligible professionals who bill under the CAH II method continue to be potentially subject to the payment adjustment.

To avoid the PQRS payment adjustment for 2017, participants had to meet the criteria described in Section III.C and Table 4. Other reasons for not being subject to the payment adjustment were related to not being eligible for PQRS: not having at least one eligible denominator claim, not meeting the definition of an eligible professional for the 2017 PQRS payment adjustment, not having any PFS charges in 2015, or being part of an independent lab or diagnostic testing facility. Individual eligible professionals or groups participating via GPRO, ACO, or CPC were also able to request an informal review of their downward payment determination between September 26, 2016 and December 7, 2016, for the 2015 PQRS program year; this report presents payment adjustment results that reflect the informal reviews processed by March 29, 2017.

As seen in Table 15, 501,933 eligible professionals in total will be subject to the 2017 PQRS payment adjustment based on their 2015 reporting experience, prior to the final results from informal reviews. This count includes eligible professionals who participated in a Medicare ACO under the Shared Savings Program or Pioneer ACO Model as well as eligible professionals who participated through the CPC Initiative. The majority (79 percent) of eligible professionals who were subject to the adjustment did not submit any PQRS data in 2015. A limited number of eligible professionals subject to the payment adjustment attempted participation but were not successful because they submitted only invalid QDCs, and 21 percent of those subject to the 2017 adjustment were individual participants (compared to 15 percent who were subject to the 2016 payment adjustment) (Table 15).[24] It should be noted that the criteria for successful reporting for avoiding the payment adjustment required more in 2015 (for the 2017 payment adjustment) than it did in 2014 (for the 2016 payment adjustment); see Table 4 for details. A total of 10,745 eligible professionals who are subject to the 2017 payment adjustment were part of a practice eligible to report under the GPRO; 7,375 of these were non-participants.

The regional distribution of eligible professionals subject to the 2017 PQRS payment adjustment was similar to the geographical distribution of participants in PQRS in 2015 (Table 15 and Appendix Table A4). As with the 2016 payment adjustment, eligible professionals were more likely to be subject to the payment adjustment if they were part of smaller practices, had lower PFS allowed charges, or had lower beneficiary volume. For example, among eligible professionals receiving the payment adjustment who were eligible for individual participation, 70 percent were in practices with fewer than 25 NPIs; in comparison, for all eligible professionals who were eligible for individual participation in PQRS, only 48 percent were in practices with fewer than 25 NPIs (Appendix Table A4). In particular, solo practitioners

[24] Individual participants include any eligible professionals who submitted PQRS data from 1/1/2015 to 12/31/2015 and did not avoid the PQRS payment adjustment for any reason.

represented 29 percent of those who were eligible to participate as individuals and were subject to the adjustment, but 16 percent of those who were eligible to participate in PQRS as individuals (Table 15).

Table 13: 2015, 2016 and 2017 PQRS Payment Adjustment by Eligible Professional Characteristics

Eligible Professional Characteristics	EPs Subject to 2015 Payment Adjustment	Percent of Total EPs Subject to 2015 Payment Adjustment	EPs Subject to 2016 Payment Adjustment	Percent of Total EPs Subject to 2016 Payment Adjustment	EPs Subject to 2017 Payment Adjustment	Percent of Total EPs Subject to 2017 Payment Adjustment
Participation Option [a]	--	--	--	--	--	--
Non-participants	449,228	98.2%	464,297	83.8%	394,439	78.6%
Attempted participation, but were not successful	7,642	1.7%	5,759	1.0%	1,162	0.2%
Individual Participants	359	0.1%	80,761	14.6%	103,123	20.5%
Small GPRO	34	0.0%	130	0.0%	630	0.1%
Medium GPRO	0	0.0%	183	0.0%	963	0.2%
Large GPRO	88	0.0%	2,169	0.4%	616	0.1%
Shared Savings Program ACO	0	0.0%	615	0.1%	1,293	0.3%
Geography (Regions) [b]	--	--	--	--	--	--
1 - Boston	30,521	6.7%	36,770	6.6%	30,871	6.2%
2 - New York	61,307	13.4%	69,332	12.5%	62,290	12.4%
3 - Philadelphia	45,074	9.9%	54,896	9.9%	46,898	9.3%
4 - Atlanta	79,843	17.5%	95,784	17.3%	85,896	17.1%
5 - Chicago	71,863	15.7%	88,044	15.9%	80,942	16.1%
6 - Dallas	47,434	10.4%	59,535	10.7%	56,641	11.3%
7 - Kansas City	19,628	4.3%	28,264	5.1%	23,219	4.6%
8 - Denver	15,471	3.4%	20,510	3.7%	19,480	3.9%
9 - San Francisco	64,985	14.2%	74,502	13.5%	72,690	14.5%
10 - Seattle	19,904	4.4%	26,342	4.8%	23,274	4.6%
Unknown	5	0.0%	86	0.0%	41	0.0%
Practice Size (# of NPIs)	--	--	--	--	--	--
Individual Participants	--	--	--	--	--	--
1	145,747	31.9%	153,997	27.8%	144,721	28.8%
2-4	74,492	16.3%	83,358	15.0%	80,472	16.0%
5-10	57,317	12.5%	63,240	11.4%	60,933	12.1%
11-24	55,683	12.2%	62,294	11.2%	61,772	12.3%

Eligible Professional Characteristics	EPs Subject to 2015 Payment Adjustment	Percent of Total EPs Subject to 2015 Payment Adjustment	EPs Subject to 2016 Payment Adjustment	Percent of Total EPs Subject to 2016 Payment Adjustment	EPs Subject to 2017 Payment Adjustment	Percent of Total EPs Subject to 2017 Payment Adjustment
25-50	41,774	9.1%	51,950	9.4%	49,001	9.8%
51-99	30,162	6.6%	43,371	7.8%	39,485	7.9%
100-199	18,728	4.1%	33,372	6.0%	24,084	4.8%
200+	29,921	6.5%	42,522	7.7%	39,936	8.0%
Group Participants	--	--	--	--	--	--
1-24	486	0.1%	4,444	0.8%	3,973	0.8%
25-50	217	0.0%	2,348	0.4%	2,329	0.5%
51-99	763	0.2%	2,569	0.5%	2,033	0.4%
100-199	1,520	0.3%	3,622	0.7%	1,964	0.4%
200+	541	0.1%	6,827	1.2%	1,975	0.4%
Total PFS charges per EP	--	--	--	--	--	--
Individual Participants	--	--	--	--	--	--
less than or equal to $2,500	113,815	24.9%	139,598	25.2%	123,294	24.6%
$2,501 - $10,000	99,694	21.8%	110,800	20.0%	106,283	21.2%
$10,001 - $40,000	118,190	25.8%	138,959	25.1%	133,933	26.7%
$40,001 - $100,000	60,324	13.2%	74,096	13.4%	72,694	14.5%
over $100,000	61,801	13.5%	70,651	12.8%	64,200	12.8%
Group Participants	--	--	--	--	--	--
less than or equal to $2,500	689	0.2%	4,427	0.8%	2,539	0.5%
$2,501 - $10,000	684	0.1%	4,038	0.7%	2,426	0.5%
$10,001 - $40,000	1,027	0.2%	5,351	1.0%	3,307	0.7%
$40,001 - $100,000	683	0.1%	3,427	0.6%	2,014	0.4%
over $100,000	444	0.1%	2,567	0.5%	1,988	0.4%
Beneficiary Volume	--	--	--	--	--	--
Individual Participants	--	--	--	--	--	--
1-25	195,126	42.7%	222,864	40.2%	193,313	38.5%
26-100	118,255	25.9%	139,232	25.1%	133,716	26.6%
101-200	59,562	13.0%	72,437	13.1%	68,677	13.7%
201+	80,880	17.7%	98,635	17.8%	104,233	20.8%
Unknown	1	0.0%	936	0.2%	465	0.1%
Group Participants	--	--	--	--	--	--
1-25	1,082	0.2%	6,583	1.2%	3,531	0.7%

Eligible Professional Characteristics	EPs Subject to 2015 Payment Adjustment	Percent of Total EPs Subject to 2015 Payment Adjustment	EPs Subject to 2016 Payment Adjustment	Percent of Total EPs Subject to 2016 Payment Adjustment	EPs Subject to 2017 Payment Adjustment	Percent of Total EPs Subject to 2017 Payment Adjustment
26-100	965	0.2%	5,283	1.0%	3,253	0.6%
101-200	645	0.1%	3,304	0.6%	1,955	0.4%
201+	831	0.2%	4,514	0.8%	3,530	0.7%
Unknown	4	0.0%	126	0.0%	5	0.0%
Specialty	--	--	--	--	--	--
MD/DO	--	--	--	--	--	--
Primary Care	78,931	17.3%	96,366	17.4%	82,545	16.4%
Surgery	24,646	5.4%	30,508	5.5%	25,130	5.0%
Other Specialties	128,435	28.1%	161,370	29.1%	143,336	28.6%
Other Eligible Professionals	--	--	--	--	--	--
Physicians	68,361	14.9%	78,443	14.2%	78,213	15.6%
Physician Assistant	23,511	5.1%	28,201	5.1%	24,626	4.9%
Nurses	53,011	11.6%	66,593	12.0%	59,542	11.9%
Other Eligible Professionals	80,454	17.6%	92,433	16.7%	88,535	17.6%
Unknown/Missing	2	0.0%	0	0.0%	6	0.0%
Provider Age	--	--	--	--	--	--
44 and younger	51,096	11.2%	55,765	10.1%	40,314	8.0%
45 to 54	79,234	17.3%	99,003	17.9%	85,048	16.9%
55 to 65	90,986	19.9%	115,874	20.9%	101,032	20.1%
66 to 80	37,451	8.2%	50,772	9.2%	48,363	9.6%
Older than 80	2,078	0.5%	2,870	0.5%	2,804	0.6%
Unknown	196,506	43.0%	229,630	41.5%	224,372	44.7%
Total (Unduplicated)	**457,351**	**100.0%**	**553,914**	**100.0%**	**501,933**	**100.0%**

[a] Non-participants include any EPs who did not submit any PQRS data and did not avoid the payment adjustment for any reason. Attempted participation but were not successful means the eligible professional submitted only invalid QDCs and did not avoid the payment adjustment for any other reason. Individual participants include any EPs who submitted PQRS data and did not avoid the payment adjustment for any reason

[b] Regions are defined as follows: Boston (CT, MA, ME, NH, RI, VT); New York (NJ, NY, PR, VI); Philadelphia (DC, DE, MD, PA, VA, WA); Atlanta (AL, FL, GA, KY, MS, NC, SC, TN); Chicago (IL, IN, MI, MN, OH, WI); Dallas (AR, LA, NM, OK, TX); Kansas City (IA, KS, MO, NE); Denver (CO, MT, ND, SD, UT, WY); San Francisco (AZ, CA, HI, NV); and Seattle (AK, ID, OR, WA). Some eligible professionals submitted claims through multiple regions; consequently, sums across categories within the Geography results do not

equal totals. Information about the RRB carrier is not displayed due to the RRB not being based on the geographical location of the eligible professional.

Notes:(1) Results include eligible professionals participating in a Medicare ACO that participates under the Shared Savings Program or Pioneer ACO Model as well as eligible professionals participating under the CPC Initiative. (2) Individual Participants exclude TIN/NPIs that are part of a Medicare ACO participating under the Shared Savings Program Model.

The number of eligible professionals subject to the 2017 payment adjustment represents 38 percent of the 1,307,528 eligible professionals who did not automatically avoid the adjustment because they did not meet the CMS definition for eligible professionals subject to the payment adjustment (data not shown). Eligible professionals who were MD/DOs were less likely than those in non-MD/DO specialties to be subject to the 2017 payment adjustment based on 2015 reporting (see Table 16). For example, 32 percent of MD/DOs are subject to the payment adjustment compared to 49 percent of non-MD/DOs.

Table 14: 2015, 2016, and 2017 PQRS Payment Adjustment, by Specialty

Specialty	EPs Subject to 2015 Payment Adjustment	Percent of EPs Subject to 2015 Payment Adjustment	EPs Subject to 2016 Payment Adjustment	Percent of EPs Subject to 2016 Payment Adjustment	EPs Subject to 2017 Payment Adjustment	Percent of EPs Subject to 2017 Payment Adjustment
MD/DO	**232,012**	**31.8%**	**288,244**	**36.6%**	**251,011**	**31.6%**
Allergy/ Immunology	1,918	49.6%	2,089	52.5%	1,829	45.9%
Anesthesiology	10,759	22.7%	14,960	30.4%	14,236	28.5%
Cardiology	6,747	24.0%	8,442	26.4%	6,308	20.2%
Colon/Rectal Surgery	407	30.0%	472	32.2%	366	24.4%
Critical Care	931	31.8%	1,151	35.1%	967	28.6%
Dermatology	4,287	36.0%	4,604	36.9%	4,508	35.3%
Emergency Medicine	11,445	19.0%	18,394	28.2%	18,316	27.4%
Endocrinology	1,586	25.5%	2,048	30.1%	1,583	23.8%
Family Practice	37,067	35.3%	46,333	40.6%	38,176	33.5%
Gastroenterology	3,803	27.3%	4,896	32.2%	3,721	24.5%
General Practice	3,887	63.9%	4,592	72.0%	4,194	65.9%
General Surgery	8,634	34.9%	10,665	39.4%	8,658	31.8%
Geriatrics	1,649	35.1%	1,873	38.4%	1,427	31.0%
Hand Surgery	710	36.9%	910	41.6%	746	33.8%
Infectious Disease	2,273	34.9%	2,585	37.1%	2,144	30.4%
Internal Medicine	34,708	31.5%	41,157	35.4%	36,384	30.6%
Interventional Radiology	398	19.4%	675	28.6%	717	27.7%
Nephrology	2,660	27.3%	3,427	31.4%	2,760	25.2%
Neurology	4,709	31.1%	5,809	34.7%	4,808	28.6%
Neurosurgery	1,636	31.7%	2,229	38.2%	1,843	31.5%
Nuclear Medicine	214	30.1%	239	31.6%	163	22.5%

Specialty	EPs Subject to 2015 Payment Adjustment	Percent of EPs Subject to 2015 Payment Adjustment	EPs Subject to 2016 Payment Adjustment	Percent of EPs Subject to 2016 Payment Adjustment	EPs Subject to 2017 Payment Adjustment	Percent of EPs Subject to 2017 Payment Adjustment
Obstetrics/ Gynecology	15,185	43.8%	16,315	44.5%	13,480	36.8%
Oncology/ Hematology	2,572	19.5%	3,672	24.9%	2,693	18.6%
Ophthalmology	5,637	27.5%	7,351	34.0%	7,591	35.2%
Oral/Maxillofacial Surgery	288	71.3%	328	72.2%	310	69.7%
Orthopaedic Surgery	8,094	34.6%	10,180	39.4%	8,311	32.4%
Other MD/DO	4,717	36.1%	5,925	39.6%	5,649	35.8%
Otolaryngology	3,537	36.4%	4,240	40.8%	3,587	34.7%
Pathology	1,555	14.4%	1,891	16.0%	2,542	20.5%
Pediatrics	3,269	31.8%	4,284	33.9%	3,791	31.5%
Physical Medicine	4,275	46.2%	4,885	49.6%	4,277	43.8%
Plastic Surgery	2,839	59.6%	3,092	60.4%	2,792	54.6%
Psychiatry	21,634	66.9%	23,641	70.7%	21,553	64.0%
Pulmonary Disease	3,350	29.1%	4,166	32.5%	3,283	25.7%
Radiation Oncology	1,251	24.3%	1,591	28.8%	1,196	21.6%
Radiology	7,326	18.3%	10,932	25.5%	9,737	22.2%
Rheumatology	1,218	24.6%	1,657	30.0%	1,210	21.9%
Thoracic/Cardiac Surgery	931	22.0%	1,243	27.4%	923	20.6%
Urology	2,799	26.7%	3,912	33.1%	3,051	26.8%
Vascular Surgery	1,107	30.0%	1,389	34.6%	1,181	28.7%
Other Eligible Professionals	**225,336**	**50.7%**	**264,831**	**55.0%**	**250,916**	**48.9%**

Specialty	EPs Subject to 2015 Payment Adjustment	Percent of EPs Subject to 2015 Payment Adjustment	EPs Subject to 2016 Payment Adjustment	Percent of EPs Subject to 2016 Payment Adjustment	EPs Subject to 2017 Payment Adjustment	Percent of EPs Subject to 2017 Payment Adjustment
Agencies/Hospitals/Nursing and Treatment Facilities	57	38.5%	18	12.6%	23	45.1%
Audiology	3,502	48.1%	4,252	57.5%	3,373	45.1%
Certified Nurse Midwives	698	34.2%	798	33.4%	662	25.0%
Chiropractor	36,515	77.8%	37,082	80.3%	34,514	75.4%
Clinical Nurse Specialists	1,485	54.0%	1,644	55.2%	1,499	48.1%
Counselor/ Psychologist	25,483	75.8%	27,778	81.8%	26,528	77.4%
Dentist	2,633	84.9%	2,570	83.7%	2,490	82.2%
Dietitian/ Nutritionist	1,824	57.8%	1,813	55.6%	1,707	48.1%
Nurse Anesthetist	16,239	31.2%	19,408	35.0%	15,121	25.7%
Nurse Practitioner	34,530	41.8%	44,734	44.9%	42,189	37.2%
Occupational Therapy	2,523	44.5%	3,054	47.9%	3,215	49.3%
Optometry	20,300	58.5%	25,616	71.6%	29,479	81.0%
Other Eligible Professional	1,998	48.1%	1,525	43.2%	1,750	43.1%
Physical Therapy	16,011	34.7%	21,735	42.5%	20,401	38.9%
Physician Assistant	23,511	35.0%	28,201	37.2%	24,626	29.2%
Podiatry	8,913	48.9%	13,175	69.7%	11,730	61.9%
Registered Nurse	59	43.7%	9	10.0%	71	46.7%
Social Worker	29,055	85.2%	31,419	88.1%	31,538	83.5%
Unknown/Missing	**3**	**9.1%**	**839**	**56.4%**	**6**	**17.6%**

Specialty	EPs Subject to 2015 Payment Adjustment	Percent of EPs Subject to 2015 Payment Adjustment	EPs Subject to 2016 Payment Adjustment	Percent of EPs Subject to 2016 Payment Adjustment	EPs Subject to 2017 Payment Adjustment	Percent of EPs Subject to 2017 Payment Adjustment
Total	**457,351**	**38.9%**	**553,914**	**43.6%**	**501,933**	**38.4%**

Notes: Results include eligible professionals who were part of a practice that participated under the PQRS GPRO, eligible professionals participating as part of a Medicare ACO participating under the Shared Savings Program or the Pioneer ACO Model, and eligible professionals participating through the CPC initiative.

Table 15: Eligible Professionals Avoiding the 2017 PQRS Payment Adjustment

Method of Participation	Eligible Count	Participating Count	Participation Rate
Individual Participants	616,904	593,653	96.23%
GPRO	297,619	295,215	99.19%
Pioneer ACO	18,755	18,755	100.00%
Shared Savings Program ACO	205,648	205,566	99.96%
CPC	2,054	1,954	95.13%
Total	**856,758**	**832,607**	**97.18%**

Notes on Table 17: (1) This table provides an unduplicated count of eligible professionals avoiding the PQRS payment adjustment, including CAH II eligible professionals.

Table 18 provides more detail on how eligible professionals and practices avoided the 2015, 2016 and 2017 PQRS payment adjustments. Eligible professionals participating individually avoided the 2017 PQRS.

payment adjustment most often by reporting the required data (86 percent of those avoiding the adjustment), as seen in the rightmost column of Table 18, which applies a hierarchy to reasons for avoidance from top to bottom so each reason is represented as mutually exclusive. About 10 percent of individual eligible professionals avoided the adjustment because they did not meet the definition of an eligible professional for the 2017 PQRS payment adjustment, had no 2015 PFS charges, or did not have at least one denominator-eligible claim. Finally, four percent avoided the 2017 adjustment after an informal review. Among eligible professionals who were part of a practice reporting under the GPRO, 89 percent of those avoiding the adjustment did so because the practice met reporting requirements, while only four percent avoided the adjustment because they did not meet the definition of an eligible professional for the purposes of the 2017 PQRS Payment Adjustment, and three percent did so based on informal review. Among those in an Shared Savings Program ACO, 91 percent avoided the adjustment by meeting reporting requirements while among those in Pioneer ACOs, 58 percent of eligible professionals avoided the adjustment by meeting reporting requirements (note that these figures are based on the application of the hierarchy and all Pioneer participants were successful reporters).

Table 18 also highlights that eligible professionals met multiple conditions to avoid the adjustment. For example, 19,041 individually-participating eligible professionals in total avoided the 2017 adjustment because they did not have at least one denominator eligible claim, but 17,451 of these also did not meet the definition of an eligible professional for the PQRS payment adjustment or did not have PFS charges, and therefore only 1,590 are counted as avoiding the payment adjustment because they did not have at least one denominator eligible claim after applying the hierarchy used in the right-most column of the table. Many eligible professionals who met the reporting requirements also met one of the other conditions for avoiding the adjustment, especially among individual eligible professionals, those reporting under the GPRO, and those in an ACO participating under the Shared Savings Program.

Table 16: How Eligible Professionals Avoided the 2015, 2016 and 2017 PQRS Payment Adjustments, in Total and by Hierarchy

Reason for Avoiding Payment Adjustment	EPs Avoiding 2015 Payment Adjustment, Total	EPs Avoiding 2015 Payment Adjustment, After Hierarchy	EPs Avoiding 2016 Payment Adjustment, Total	EPs Avoiding 2016 Payment Adjustment, After Hierarchy	EPs Avoiding 2017 Payment Adjustment, Total	EPs Avoiding 2017 Payment Adjustment, After Hierarchy
Individual Participants	**388,196**	**388,196**	**341,439**	**341,439**	**616,904**	**616,904**
Did Not Meet the Definition of an Eligible Professional for the PQRS Payment Adjustment	65,724	65,724	36,317	36,317	43,256	43,256
Did Not Have MPFS Charges	36,221	6,048	6,755	6,746	17,412	16,352
Did Not Have at least 1 Denominator Eligible Claim	6,378	474	20,583	14,049	19,041	1,590
Member of an Independent Lab or Diagnostic Testing Facility	N/A	N/A	N/A	N/A	558	535
Elected Administrative Claims	1,083	1,034	N/A	N/A	N/A	N/A
Met Reporting Requirements	322,296	303,319	295,615	270,947	563,680	530,000
Informal Review	11,597	11,597	13,406	13,380	25,171	25,171
GPRO	**305,250**	**305,250**	**263,624**	**263,624**	**297,619**	**297,619**
Did Not Meet the Definition of an Eligible Professional for the PQRS Payment Adjustment	9,899	9,899	9,422	9,422	10,521	10,521
Did Not Have MPFS Charges	1,539	1,357	14	13	0	0
Did Not Have at least 1 Denominator Eligible Claim	7,430	5,819	173	173	15,499	14,757
Member of an Independent Lab or Diagnostic Testing Facility	N/A	N/A	N/A	N/A	429	397

Reason for Avoiding Payment Adjustment	EPs Avoiding 2015 Payment Adjustment, Total	EPs Avoiding 2015 Payment Adjustment, After Hierarchy	EPs Avoiding 2016 Payment Adjustment, Total	EPs Avoiding 2016 Payment Adjustment, After Hierarchy	EPs Avoiding 2017 Payment Adjustment, Total	EPs Avoiding 2017 Payment Adjustment, After Hierarchy
Elected Administrative Claims	172,336	164,646	N/A	N/A	N/A	N/A
Met Reporting Requirements	214,893	121,950	242,136	234,392	287,183	263,631
Informal Review	1,580	1,579	19,645	19,624	8,313	8,313
Pioneer ACO	**17,743**	**17,743**	**24,144**	**24,144**	**18,755**	**18,755**
Did Not Meet the Definition of an Eligible Professional for the PQRS Payment Adjustment	697	697	538	538	825	825
Did Not Have MPFS Charges	5,842	5,631	9,521	9,521	7,126	6,802
Did Not Have at least 1 Denominator Eligible Claim	6,108	260	9,521	0	7,441	311
Member of an Independent Lab or Diagnostic Testing Facility	N/A	N/A	N/A	N/A	1	0
Elected Administrative Claims	0	0	N/A	N/A	N/A	N/A
Met Reporting Requirements	17,743	11,155	24,144	14,085	18,755	10,817
Informal Review	0	0	0	0	0	0
Shared Savings Program ACO	**85,059**	**85,059**	**139,408**	**139,408**	**205,648**	**205,648**
Did Not Meet the Definition of an Eligible Professional for the PQRS Payment Adjustment	2,899	2,899	4,584	4,584	6,340	6,340
Did Not Have MPFS Charges	0	0	24	24	0	0
Did Not Have at least 1 Denominator Eligible Claim	3,766	3,606	89	89	11,945	11,478

Reason for Avoiding Payment Adjustment	EPs Avoiding 2015 Payment Adjustment, Total	EPs Avoiding 2015 Payment Adjustment, After Hierarchy	EPs Avoiding 2016 Payment Adjustment, Total	EPs Avoiding 2016 Payment Adjustment, After Hierarchy	EPs Avoiding 2017 Payment Adjustment, Total	EPs Avoiding 2017 Payment Adjustment, After Hierarchy
Member of an Independent Lab or Diagnostic Testing Facility	N/A	N/A	N/A	N/A	99	89
Elected Administrative Claims	0	0	N/A	N/A	N/A	N/A
Met Reporting Requirements	85,059	78,554	139,214	134,635	205,445	187,721
Informal Review	0	0	76	76	58	20
CPC	**1,221**	**1,221**	**1,096**	**1,096**	**2,054**	**2,054**
Did Not Meet the Definition of an Eligible Professional for the PQRS Payment Adjustment	15	15	12	12	10	10
Did Not Have MPFS Charges	107	104	93	91	123	121
Did Not Have at least 1 Denominator Eligible Claim	111	4	34	7	125	2
Member of an Independent Lab or Diagnostic Testing Facility	N/A	N/A	N/A	N/A	2	2
Elected Administrative Claims	171	168	N/A	N/A	N/A	N/A
Met Reporting Requirements	1,109	901	995	956	1,919	1,873
Informal Review	29	29	30	30	46	46
Total	**796,248**	**796,248**	**768,615**	**768,615**	**856,758**	**856,758**

Notes: (1) The "Total" columns of data provide total counts of eligible professionals who avoided the PQRS payment adjustment for the reason cited; the "After Hierarchy" columns of data provide an unduplicated count of eligible professionals avoiding the PQRS payment adjustment based on the application of a hierarchy of exemption reasons in the order given. (2) Eligible professionals (TIN/NPI) in the Pioneer finder file and TINs on the Shared Savings Program ACO finder file are used to identify EPs eligible for these programs. (3) Administrative claims was only an option in program year 2013 (2015 payment adjustment) and does not apply to program years 2014 (2016 payment adjustment) or 2015 (2017 payment adjustment).

VI. CLINICAL PERFORMANCE RATES

Although PQRS focuses on reporting of quality data by eligible professionals, clinical performance rates that use quality data submitted through the program can also be used to evaluate the quality of care provided to Medicare beneficiaries, and were used as part of the Physician Value-Based Payment Modifier (Value Modifier) Program beginning in 2015, based on performance in the 2013 performance year. Eligible professionals reported data on recommended quality actions that were performed, not performed, or did not apply (i.e., exclusions) on eligible instances; this information is used in this report to describe eligible professionals' clinical performance on measures. Performance on a measure was calculated as the number of times the eligible professional reported that the recommended quality action for that measure was performed (numerator), divided by the number of instances they could have performed the quality action (denominator), multiplied by 100. For example, under claims-based reporting options, the numerator was the number of times the eligible professional reported the measure-specific QDC indicating the quality action was met and the denominator was the number of eligible instances for that measure identified through claims. Instances that did not apply (i.e., reported as exclusions) were excluded from performance rate calculations.

The following hierarchy was applied if an eligible professional participated through more than one reporting mechanism: (1) QCDR, (2) EHR (QRDA III, then QRDA I)[25], (3) claims, and (4) registry. The hierarchy ensured only one performance rate for each measure for an eligible professional is displayed in results.

This report also presents data on measure performance trends; however, multiple factors should be considered when interpreting performance trends in this report. For example, there have been many changes within PQRS across program years. As described above, the participation options have been changed and refined. Individual measures have been added, removed, and in some cases their definitions have changed. Moreover, the eligible professionals who participated each year change, and there has been a shift from individual to group reporting. As a result, it is unclear the extent to which any observed changes in measure performance were artifacts of the aforementioned changes or trends in provided care.

Nonetheless, this section of the report aims to describe clinical performance rates and trends. The appendix contains detailed tables on reporting and performance rates; please refer to Appendix Tables A1 and A2 for the full name of measures in these tables. Appendix Table A16 provides eligibility and reporting information across program years for individual measures.

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[25] EHR performance rates of zero percent have been excluded. CMS has found that the EHR method of reporting has a high instance of zero percent performance rates. We believe this has to do with EHR functionality and submission that can result in a measure being submitted for an EP who did not intend to report the measure. These instances do not give an accurate reflection of performance and are notcomparable to other reporting methods where we are certain that an EP has intended to report the measure. Due to our concerns with the reliability of the EHR data for performance measurement, our policy has been to suppress the zero percent performance rates for PQRS measures in our public facing reports until we are more confident with the accuracy of the performance data

Appendix Table A19 presents the average number of reported instances and the average performance rate by measure for 2012 through 2015. To provide more context on cohort effects, Appendix Table A20 shows the number of eligible professionals who consistently reported measures across successive program years. Appendix Tables A21 through A23 also provide total counts and performance rates for eligible professionals who reported a measure for two, three or four consecutive years. These tables can provide context for changes in measure performance rates related to how constant the cohort reporting a measure has been over time.

Tables 19 and 20 display the measures with the largest percentage point decline and improvement in performance between 2012 and 2015, among eligible professionals who reported the measure for all four years (2012 to 2015). While this approach attempts to account for changes in participating eligible professionals, it does not account for other changes. For example, trends in reporting mechanisms—such as a growth in EHR reporting or a measure changing to/from registry reporting only—could cause performance rates to change. Other examples of changes to measures include the addition of new exclusions or changes in thresholds used to define clinical control of a condition. Registries, in some cases, incorporate processes that support eligible professionals' selection of appropriate measures, edits that help to ensure that measures are submitted accurately, and reminders that help providers meet the performance criteria of the measures. In addition, performance rates may be less stable among measures with smaller reporting populations, as is the case with a number of the measures in the following tables.

The decrease in performance rates shown in Table 19 could be attributed to a change in the measure specifications; measure 317 started as simply screening for high blood pressure and was expanded in 2013 to include documentation of a follow-up plan. Measure 18 had a change in available reporting mechanisms; both claims and registry reporting were no longer available for this measure starting in 2015. Table 20 presents the five measures with the largest improvement in performance. These measures appeared to remain stable for the four program years analyzed and they did not receive any major revisions, although claims reporting was no longer available for measure 122 starting in 2015; this could suggest a genuine improvement in performance, although the number of eligible professionals reporting this measure consistently over the four year period is rather low.

Table 17: Individual Measures Reported with the Largest Percentage Point Decrease in Clinical Performance Rate (2012 to 2015)

Rank	Measure Number	Measure Description	2012 Performance Rate	2015 Performance Rate	EPs Reporting the Measure in each year from 2012 to 2015	Percentage Point Change 2012-2015
1	317	Preventive Care and Screening: Screening for High Blood Pressure and Follow-Up Documented	97.5%	57.1%	2,840	40.4%
2	18	Diabetic Retinopathy: Documentation of Presence or Absence of Macular Edema and Level of Severity of Retinopathy	96.8%	59.0%	1,823	37.8%

Rank	Measure Number	Measure Description	2012 Performance Rate	2015 Performance Rate	EPs Reporting the Measure in each year from 2012 to 2015	Percentage Point Change 2012-2015
3	19	Diabetic Retinopathy: Communication with the Physician Managing Ongoing Diabetes Care	92.5%	81.6%	2,648	10.9%
4	261	Referral for Otologic Evaluation for Patients with Acute or Chronic Dizziness	86.8%	76.0%	42	10.7%
5	173	Preventive Care and Screening: Unhealthy Alcohol Use - Screening	86.7%	77.2%	47	9.5%

[a] Inverse measure; lower performance rate indicates better performance.

Notes for table 19: (1) Results include the claims, registry, EHR, and QCDR mechanisms. (2) Results include measure performance regardless of whether eligible professionals reporting the measure met the satisfactory reporting requirements. (3) Measures are limited to those reported by at least 10 eligible professionals.(4) Results are restricted to eligible professionals who reported the same measure from 2012 to 2015

Table 18: Individual Measures Reported with the Largest Increase in Clinical Performance Rate (2012 to 2015)

Rank	Measure Number	Measure Description	2012 Performance Rate	2015 Performance Rate	EPs Reporting the Measure in each year from 2012 to 2015	Percentage Point Change 2012-2015
1	219	Functional Deficit: Change in Risk-Adjusted Functional Status for Patients with Lower Leg, Foot or Ankle Impairments	38.7%	88.0%	162	49.3%
2	222	Functional Deficit: Change in Risk-Adjusted Functional Status for Patients with Elbow, Wrist or Hand Impairments	52.7%	89.7%	45	37.0%
3	220	Functional Deficit: Change in Risk-Adjusted Functional Status for Patients with Lumbar Spine Impairments	55.8%	89.6%	258	33.8%
4	223	Functional Deficit: Change in Risk-Adjusted Functional Status for Patients with Neck, Cranium, Mandible, Thoracic Spine, Ribs, or Other General Orthopedic Impairments	53.4%	87.0%	170	33.6%
5	122	Adult Kidney Disease: Blood Pressure Management	48.1%	79.4%	43	31.3%

[a] Inverse measure; lower performance rate indicates better performance.

Notes: (1) Results include the claims, registry, EHR, and QCDR mechanisms. (2) Results include measure performance regardless of whether eligible professionals reporting the measure met the satisfactory reporting requirements. (3) Measures are limited to those reported by at least 10 eligible professionals.(4) Results are restricted to eligible professionals who reported the same measure from 2012 to 2015.

For some measures, improvement in measure performance over time was limited by measure performance that 'topped out.' In other words, if performance is at or near 100 percent, the ability to improve performance is limited. Table 21 displays the measures—mostly QCDR non-PQRS measures— with the highest mean clinical performance rates in 2015.

Table 19: Individual Measures Reported with the Highest Mean Clinical Performance Rates (2015)

Rank	Measure Number	Measure Description	Mean Performance Rate	EPs Submitting
1	359	Optimizing Patient Exposure to Ionizing Radiation: Utilization of a Standardized Nomenclature for Computerized Tomography (CT) Imaging Description	100.0%	122
2	362	Optimizing Patient Exposure to Ionizing Radiation: Computed Tomography (CT) Images Available for Patient Follow-up and Comparison Purposes	100.0%	94
3	363	Optimizing Patient Exposure to Ionizing Radiation: Search for Prior Computed Tomography (CT) Imaging Studies Through a Secure, Authorized, Media-Free, Shared Archive	100.0%	34
4	ABG 12	Anesthesia: Patient Experience Survey	100.0%	87
5	ABG 13	Malignant Hyperthermia [a]	0.0%	38
6	ABG 14	Corneal Abrasion [a]	0.0%	33
7	ABG 5	Composite Procedural Safety for All Vascular Access Procedures [a]	0.0%	73
8	ABG 8	Use of Checklist for Transfer of Care From Anesthesia Provider	100.0%	104
9	ABG 9	OR Fire [a]	0.0%	143
10	AGACCSSR 4	Performance of Upper Endoscopic Examination With Colonoscopy	100.0%	11
11	IRIS 6	Acquired Involutional Entropion: Normalization of Eyelid Position within 90 Days Following Surgery for Acquired Involutional Entropion	100.0%	12
12	MUSIC 3	Prostate Cancer: Avoidance of Overuse of CT Scan for Staging Low Risk Prostate Cancer Patients:	100.0%	20
13	PInc 21	Thrombolytic Therapy	100.0%	42
14	THPSO 4	Pneumothorax rate as a complication of central line placement [a]	0.0%	164
15	THPSO 12	Respiratory Arrest in PACU rate [a]	0.0%	917
16	THPSO 11	Post-obstructive Pulmonary Edema rate following endo-tracheal intubation [a]	0.0%	1,118
17	THPSO 3	Perioperative Peripheral Nerve Injury rate [a]	0.0%	915
18	ABG 7	Immediate Adult Post-Operative Pain Management	100.0%	71
19	GIQIC 5	Incidence of perforation [a]	0.0%	1,082
20	THPSO 8	New perioperative central neurologic deficit [a]	0.0%	931
21	ABG 3	Total Perioperative Mortality Rate [a]	0.0%	143
22	THPSO 6	Perioperative Myocardial Infarction rate in low risk patients [a]	0.0%	905

Rank	Measure Number	Measure Description	Mean Performance Rate	EPs Submitting
23	THPSO 21	Immediate Perioperative Mortality Rate [a]	0.0%	969
24	THPSO 7	Perioperative Myocardial Infarction rate in high risk patients [a]	0.0%	921
25	ABG 2	Total Perioperative Cardiac Arrest Rate [a]	0.0%	143
26	THPSO 20	Immediate Perioperative Cardiac Arrest Rate [a]	0.0%	970
27	THPSO 10	Postoperative nausea and vomiting rate - Pediatrics [a]	0.0%	701
28	ABG 11	Anaphylaxis During Anesthesia Care [a]	0.0%	142
29	THPSO 2	Post-dural puncture headache rate [a]	0.0%	765
30	THPSO 13	Dental Injury Rate following airway management [a]	0.0%	954
31	THPSO 1	Perioperative Aspiration Pneumonia rate [a]	0.0%	913

[a] Inverse measure; lower performance rate indicates better performance.

Note for Table 21:(1) Results include the claims, registry, EHR, and QCDR reporting mechanisms. (2) Results include measure performance regardless of whether eligible professionals reporting the measure met the satisfactory reporting requirements. (3) Measures are limited to those reported by at least 10 eligible professionals.

Some measures show particularly high rates of performance across all eligible professionals reporting the measure. Table 22 displays the top measures for which at least 90 percent of the eligible professionals who reported the measure achieved performance at or above 90 percent in 2015. Appendix Table A24 is similar and displays the percent of eligible professionals who reported a measure and had a performance rate at or above 90 percent by individual measure.

Table 20: Individual Measures Where at least 90 Percent of *Submitting* EPs had at least a 90 Percent Performance Rate on the Measure (2015)

Measure Number	Measure Description	Percent of EPs with At Least 90% Performance Rate
258	Rate of Open Repair of Small or Moderate Non-Ruptured Abdominal Aortic Aneurysms (AAA) without Major Complications (Discharged to Home by Post-Operative Day #7)	100.0%
327	Pediatric Kidney Disease: Adequacy of Volume Management	100.0%
335	Maternity Care: Elective Delivery or Early Induction Without Medical Indication at >= 37 and < 39 Weeks	100.0%
336	Maternity Care: Post-Partum Follow-Up and Care Coordination	100.0%
348	HRS-3: Implantable Cardioverter-Defibrillator (ICD) Complications Rate [a]	100.0%
359	Optimizing Patient Exposure to Ionizing Radiation: Utilization of a Standardized Nomenclature for Computerized Tomography (CT) Imaging Description	100.0%
362	Optimizing Patient Exposure to Ionizing Radiation: Computed Tomography (CT) Images Available for Patient Follow-up and Comparison Purposes	100.0%
363	Optimizing Patient Exposure to Ionizing Radiation: Search for Prior Computed Tomography (CT) Imaging Studies Through a Secure, Authorized, Media-Free, Shared Archive	100.0%
386	Amyotrophic Lateral Sclerosis (ALS) Patient Care Preferences	100.0%
392	HRS-12: Cardiac Tamponade and/or Pericardiocentesis Following Atrial Fibrillation Ablation [a]	100.0%
393	HRS-9: Infection within 180 Days of Cardiac Implantable Electronic Device (CIED) Implantation, Replacement, or Revision [a]	100.0%
AAAAI 10	Documentation of the Consent Process for Subcutaneous Allergen Immunotherapy in the Medical Record	100.0%
AAAAI 7	Documented Rationale to Support Long-Term Aeroallergen Immunotherapy Beyond Five Years, as Indicated	100.0%
ABG 1	Anesthesia Safety in the Peri-Operative Period	100.0%

Measure Number	Measure Description	Percent of EPs with At Least 90% Performance Rate
ABG 11	Anaphylaxis During Anesthesia Care [a]	100.0%
ABG 12	Anesthesia: Patient Experience Survey	100.0%
ABG 13	Malignant Hyperthermia [a]	100.0%
ABG 14	Corneal Abrasion [a]	100.0%
ABG 2	Total Perioperative Cardiac Arrest Rate [a]	100.0%
ABG 3	Total Perioperative Mortality Rate [a]	100.0%
ABG 5	Composite Procedural Safety for All Vascular Access Procedures [a]	100.0%
ABG 7	Immediate Adult Post-Operative Pain Management	100.0%
ABG 8	Use of Checklist for Transfer of Care From Anesthesia Provider	100.0%
ABG 9	OR Fire [a]	100.0%
ACRad 14	Participation in a National Dose Index Registry	100.0%
ACRad 20	CT IV Contrast Extravasation Rate (Low Osmolar Contrast Media) [a]	100.0%
ACRad 23	Lung Cancer Screening Abnormal Interpretation Rate [a]	100.0%
ACS 10	Risk Standardized Decubitus Ulcer Rate within 30 Days Following Operation [a]	100.0%
ACS 2	Discontinuation of Prophylactic Antibiotics in Abdominal Trauma	100.0%
ACS 4	Prevention of Central Venous Catheter (CVC) - Related Bloodstream Infections in Elective CVC Insertions following Trauma	100.0%
ACS 6	Documentation of Glasgow Coma Score at Time of Initial Evaluation	100.0%
AGACCSSR 2	Colonoscopy Assessment (Cecum reached) - Cecal Intubation / Depth of Intubation	100.0%
AGACCSSR 3	Hospital Visit Rate After Outpatient Colonoscopy [a]	100.0%
AGACCSSR 4	Performance of Upper Endoscopic Examination With Colonoscopy	100.0%
AGACCSSR 5	Unnecessary Screening Colonoscopy in Older Adults [a]	100.0%
ASBS 3	Specimen orientation for partial mastectomy or excisional breast biopsy	100.0%

Measure Number	Measure Description	Percent of EPs with At Least 90% Performance Rate
ASNC 1	Cardiac Stress Nuclear Imaging Not Meeting Appropriate Use Criteria: Preoperative Evaluation in Low Risk Surgery Patients [a]	100.0%
ASNC 10	Nuclear cardiology imaging studies terminated due to technical problems [a]	100.0%
ASNC 2	Cardiac Stress Nuclear Imaging Not Meeting Appropriate Use Criteria: Routine Testing After Percutaneous Coronary Intervention (PCI) [a]	100.0%
ASNC 3	Cardiac Stress Nuclear Imaging Not Meeting Appropriate Use Criteria: Testing in Asymptomatic, Low-Risk Patients [a]	100.0%
ASNC 4	Utilization of standardized nomenclature and reporting for nuclear cardiology imaging studies	100.0%
ASNC 7	Nuclear cardiac stress imaging not meeting appropriate use criteria [a]	100.0%
ASNC 9	Physician reader is CBNC certified in nuclear cardiology	100.0%
ECPR 17	Three Day All Cause Return ED Visit Rate with Placement Into Inpatient or Observation Status on Re-Visit [a]	100.0%
GIQIC 5	Incidence of perforation [a]	100.0%
GIQIC 8	Age appropriate screening colonoscopy [a]	100.0%
IRIS 18	Chronic Anterior Uveitis: Post-treatment visual acuity	100.0%
IRIS 5	Acquired Involutional Ptosis: Improvement of Marginal Reflex Distance within 90 Days Following Surgery for Acquired Involutional Ptosis	100.0%
IRIS 6	Acquired Involutional Entropion: Normalization of Eyelid Position within 90 Days Following Surgery for Acquired Involutional Entropion	100.0%
MBS 1	Medical Complications [a]	100.0%
MBS 2	Surgical Site Complications [a]	100.0%
MBS 3	Serious Complications [a]	100.0%
MBS 7	Extended Length of Stay (LOS) [a]	100.0%

Measure Number	Measure Description	Percent of EPs with At Least 90% Performance Rate
MBSAQIP 3	Risk standardized rate of patients who experienced a reoperation (likely related to the initial operation) within 30 days following a Laparoscopic Roux-en-Y Gastric Bypass or Laparoscopic Sleeve Gastrectomy operation, performed as a primary (not revisional) procedure. [a]	100.0%
MUSIC 2	Unplanned Hospital Admission within 30 Days of TRUS Biopsy: [a]	100.0%
MUSIC 3	Prostate Cancer: Avoidance of Overuse of CT Scan for Staging Low Risk Prostate Cancer Patients:	100.0%
OBERD 13	Orthopedic Functional and Pain Level Outcomes [a]	100.0%
PInc 21	Thrombolytic Therapy	100.0%
THPSO 1	Perioperative Aspiration Pneumonia rate [a]	100.0%
THPSO 10	Postoperative nausea and vomiting rate - Pediatrics [a]	100.0%
THPSO 11	Post-obstructive Pulmonary Edema rate following endo-tracheal intubation [a]	100.0%
THPSO 12	Respiratory Arrest in PACU rate [a]	100.0%
THPSO 13	Dental Injury Rate following airway management [a]	100.0%
THPSO 2	Post-dural puncture headache rate [a]	100.0%
THPSO 20	Immediate Perioperative Cardiac Arrest Rate [a]	100.0%
THPSO 21	Immediate Perioperative Mortality Rate [a]	100.0%
THPSO 3	Perioperative Peripheral Nerve Injury rate [a]	100.0%
THPSO 4	Pneumothorax rate as a complication of central line placement [a]	100.0%
THPSO 6	Perioperative Myocardial Infarction rate in low risk patients [a]	100.0%
THPSO 7	Perioperative Myocardial Infarction rate in high risk patients [a]	100.0%
THPSO 8	New perioperative central neurologic deficit [a]	100.0%
THPSO 9	Postoperative nausea and vomiting rate - Adults [a]	100.0%
USWR 18	Complications or Side Effects among patients undergoing Treatment with HBOT	100.0%
ASPIRE 11	Colloid use limited in cases with no indication	99.6%
165	Coronary Artery Bypass Graft (CABG): Deep Sternal Wound Infection Rate [a]	99.4%

Measure Number	Measure Description	Percent of EPs with At Least 90% Performance Rate
MBSAQIP 4	Risk standardized rate of patients who experienced an anastomotic/staple line leak within 30 days following a Laparoscopic Roux-en-Y Gastric Bypass or Laparoscopic Sleeve Gastrectomy operation, performed as a primary (not revisional) procedure. [a]	99.2%
MBSAQIP 6	Risk standardized rate of patients who experienced a postoperative surgical site infection (SSI) (superficial incisional, deep incisional, or organ/space SSI) within 30 days following a Laparoscopic Roux-en-Y Gastric Bypass or Laparoscopic Sleeve Gastrectomy operation, performed as a primary (not revisional) procedure. [a]	99.2%
MBSAQIP 8	Risk standardized rate of patients who experienced extended length of stay (> 7 days) following a Laparoscopic Roux-en-Y Gastric Bypass or Laparoscopic Sleeve Gastrectomy operation, performed as a primary (not revisional) procedure. [a]	99.2%
249	Barrett's Esophagus	99.1%
224	Melanoma: Overutilization of Imaging Studies in Melanoma	99.0%
396	Lung Cancer Reporting (Resection Specimens)	99.0%
166	Coronary Artery Bypass Graft (CABG): Stroke [a]	98.8%
ECPR 11	Three Day All Cause Return ED Visit Rate - All Patients [a]	98.8%
ECPR 13	Three Day All Cause Return ED Visit Rate - Pediatrics [a]	98.7%
251	Quantitative Immunohistochemical (IHC) Evaluation of Human Epidermal Growth Factor Receptor 2 Testing (HER2) for Breast Cancer Patients	98.6%
388	Cataract Surgery with Intra-Operative Complications (Unplanned Rupture of Posterior Capsule Requiring Unplanned Vsitrectomy) [a]	98.6%
146	Radiology: Inappropriate Use of "Probably Benign" Assessment Category in Mammography Screening [a]	98.5%
AQI 5	Composite Anesthesia Safety	98.5%

Measure Number	Measure Description	Percent of EPs with At Least 90% Performance Rate
MBSAQIP 5	Risk standardized rate of patients who experienced a bleeding/hemorrhage event requiring transfusion, intervention/operation, or readmission within 30 days following a Laparoscopic Roux-en-Y Gastric Bypass or Laparoscopic Sleeve Gastrectomy operation, performed as a primary (not revisional) procedure. [a]	98.4%
250	Radical Prostatectomy Pathology Reporting	98.3%
255	Rh Immunoglobulin (Rhogam) for Rh-Negative Pregnant Women at Risk of Fetal Blood Exposure	98.2%
AQI 10	Composite Procedural Safety for Central Line Placement	98.2%
167	Coronary Artery Bypass Graft (CABG): Postoperative Renal Failure [a]	98.0%
192	Cataracts: Complications within 30 Days Following Cataract Surgery Requiring Additional Surgical Procedures [a]	98.0%
ECPR 12	Three Day All Cause Return ED Visit Rate - Adults [a]	97.9%
PInc 25	ICU VTE Prophylaxis	97.7%
ASBS 2	Surgical Site Infection and Cellulitis After Breast and/or Axillary Surgery [a]	97.6%
43	Coronary Artery Bypass Graft (CABG): Use of Internal Mammary Artery (IMA) in Patients with Isolated CABG Surgery	97.5%
168	Coronary Artery Bypass Graft (CABG): Surgical Re-Exploration [a]	97.2%
ASBS 6	Perioperative Care: Discontinuation of Prophylactic Parenteral Antibiotics (Non-Cardiac Procedures)	97.0%
378	Children Who Have Dental Decay or Cavities [a]	96.9%
PInc 7	Venous Thromboembolism (VTE) Prophylaxis	96.8%
ASPIRE 5	Administration of dextrose containing solution or glucose recheck for patients with perioperative glucose < 60	96.7%
GIQIC 9	Documentation of history and physical rate - Colonoscopy	96.6%

Measure Number	Measure Description	Percent of EPs with At Least 90% Performance Rate
100	Colorectal Cancer Resection Pathology Reporting: pT Category (Primary Tumor) and pN Category (Regional Lymph Nodes) with Histologic Grade	96.6%
ABG 4	PACU Intubation Rate [a]	96.3%
156	Oncology: Radiation Dose Limits to Normal Tissues	96.3%
MBSAQIP 7	Risk standardized rate of patients who experienced postoperative nausea, vomiting or fluid/electrolyte/nutritional depletion within 30 days following a Laparoscopic Roux-en-Y Gastric Bypass or Laparoscopic Sleeve Gastrectomy operation, performed as a primary (not revisional) procedure. [a]	96.1%
MBS 9	Unplanned Hospital Readmission within 30 Days of Principal Procedure [a]	95.8%
IRIS 9	Diabetic Retinopathy: Dilated Eye Exam	95.7%
MBSAQIP 2	Risk standardized rate of patients who experienced an unplanned readmission (likely related to the initial operation) to any hospital within 30 days following a Laparoscopic Roux-en-Y Gastric Bypass or Laparoscopic Sleeve Gastrectomy operation, performed as a primary (not revisional) procedure. [a]	95.3%
99	Breast Cancer Resection Pathology Reporting: pT Category (Primary Tumor) and pN Category (Regional Lymph Nodes) with Histologic Grade	95.2%
334	Adult Sinusitis: More than One Computerized Tomography (CT) Scan Within 90 Days for Chronic Sinusitis (Overuse) [a]	94.9%
67	Hematology: Myelodysplastic Syndrome (MDS) and Acute Leukemias: Baseline Cytogenetic Testing Performed on Bone Marrow	94.8%
263	Preoperative Diagnosis of Breast Cancer	94.6%
MBSAQIP 9	Percentage of patients who had complete 30 day follow-up following any metabolic and bariatric procedure.	94.5%
ASBS 5	Perioperative Care: Selection of Prophylactic Antibiotic - First OR Second Generation Cephalosporin	94.1%

Measure Number	Measure Description	Percent of EPs with At Least 90% Performance Rate
USWR 14	Blood glucose check prior to hyperbaric oxygen therapy (HBOT) treatment	94.0%
182	Functional Outcome Assessment	93.6%
81	Adult Kidney Disease: Hemodialysis Adequacy: Solute	93.5%
333	Adult Sinusitis: Computerized Tomography (CT) for Acute Sinusitis (Overuse) [a]	93.3%
GIQIC 4	Photodocumentation of the cecum (also known as cecal intubation rate) - Screening Colonoscopies	93.1%
ABG 10	Day of Surgery Case Cancellation Rate [a]	93.0%
MUSIC 1	Prostate Biopsy: Compliance with AUA best practices for antibiotic prophylaxis for transrectal ultrasound-guided (TRUS) biopsy	92.9%
72	Colon Cancer: Chemotherapy for AJCC Stage III Colon Cancer Patients	92.8%
ASBS 7	Unplanned 30 day re-operation after mastectomy	92.8%
323	Cardiac Stress Imaging Not Meeting Appropriate Use Criteria: Routine Testing After Percutaneous Coronary Intervention (PCI) [a]	92.7%
264	Sentinel Lymph Node Biopsy for Invasive Breast Cancer	92.6%
262	Image Confirmation of Successful Excision of Image-Localized Breast Lesion	92.5%
USWR 13	Patient Vital Sign Assessment Prior to HBOT	92.3%
PInc 22	Discharged on Statin Medication	92.0%
PInc 24	Venous Thromboembolism (VTE) Prophylaxis	91.9%
AAAAI 9	Assessment of Asthma Symptoms Prior to Administration of Allergen Immunotherapy Injection(s)	91.7%
MBS 4	MBSC Venous Thromboembolism prophylaxis adherence rates for Perioperative Care	91.7%
GIQIC 3	Photodocumentation of the cecum (also known as cecal intubation rate) - All Colonoscopies	91.6%
141	Primary Open-Angle Glaucoma (POAG): Reduction of Intraocular Pressure (IOP) by 15% OR Documentation of a Plan of Care	91.6%
52	Chronic Obstructive Pulmonary Disease (COPD): Inhaled Bronchodilator Therapy	91.3%

[a] Inverse measure; lower performance rate indicates better performance.

Note for Table 22: Results include the claims, registry, EHR, and QCDR reporting mechanisms. This table includes measure performance for eligible professionals regardless of whether the eligible professional met the satisfactory reporting requirement.

Appendix Tables A25 through A28 summarize quality measure reporting and performance of the group practices participating in the 2015 PQRS as a GPRO or ACO, via registry (Table A25), EHR (Table A26), web interface (Table A27), and CAHPS for PQRS (Table A28). Each table presents results separately for the type of group practice that could report via that mechanism.

Among practices participating via the Small GPRO registry mechanism, the most frequently reported registry measures were documentation of current medications (#130) and preventive measures such as tobacco screening and cessation intervention (#226) and BMI screening and follow-up (#128) (Appendix Table A25). The performance rates across the registry measures varied widely. All of the Small GPRO EHR submissions used the QRDA III format. The measures reported by the most practices under the Small GPRO EHR mechanism were also #226 and #130 (Appendix Table A26).

Group practices reporting under the Medium or Large GPRO web interface or as an ACO (Shared Savings Program or Pioneer) reported 17 measures covering care coordination/patient safety, coronary artery disease, diabetes mellitus, heart failure, hypertension, ischemic vascular disease, mental health, and preventive care. Among practices participating via the Medium and Large GPRO and the Shared Savings Program and Pioneer ACO model web interface, the highest performance rates are for the Care-3 (Documentation of Current Medications in the Medical Record) and Prev-10 (Prevention Care and Screening: Tobacco Use: Screening and Follow-up Plan); the lowest performance was in Prev-12 (Preventive Care and Screening: Screening for Clinical Depression and Follow-Up Plan) and MH-1 (Depression Remission at Twelve Months).

Performance rates among practices participating in the Medium and Largo GPRO via registry and EHR exhibited similar patterns to those among Small GPRO practices (Appendix Tables A25 and A26). The measures reported by the most TINs under the Medium and Large GPRO include Documentation of Current Medications (#130) and Tobacco Screening and Cessation Intervention (#226). In general, within the GPRO groups, the performance rates on similar measures were higher for those submitted via web-interface compared to those submitted via registry or EHR.

The 2015 CAHPS for PQRS Survey includes the core questions contained in the CAHPS Clinician & Group Survey (CG-CAHPS, Version 2.0)[26], plus additional questions that measure key domains of beneficiaries' experiences of care, for a total of 12 patient experience of care summary survey measures:

- Getting Timely Care, Appointments and Information
- How Well Providers Communicate
- Patient's Rating of Provider
- Access to Specialists
- Health Promotion and Education
- Shared Decision-Making

[26] The survey instrument and further information regarding summary survey measures and scoring are available at: http://www.pqrscahps.org.

- Health Status and Functional Status
- Courteous and Helpful Office Staff
- Care Coordination
- Between Visit Communication
- Helping You to Take Medications as Directed
- Stewardship of Patient Resources

Three of the summary survey measures (Health Promotion and Education, Shared Decision-Making, and Health Status and Functional Status) are comprised of subsidiary measures that are used to derive the overall summary survey measure score. To develop a score for each summary survey measure, a numerical value is assigned to each individual question response for that measure. Then, sampling and non-response weights are applied, case mix adjustment is applied, the assigned score is linearly transformed to a 0-100 possible range, and then the weighted, case mix adjusted, transformed responses are averaged to produce the overall summary score.

Appendix Table A28 presents the overall 2015 mean for the 12 CAHPS for PQRS summary survey measures, and, where applicable, the subsidiary measures that are used to derive them. Scores are presented on a 0-100 scale. In 2015, group practices with 100 or more EPs were required to contract with a vendor to administer the CAHPS for PQRS Survey to their patients. Group practices with 2-99 EPs that report via the GPRO web interface, EHR, or registry could elect to participate in the 2015 CAHPS for PQRS survey. In all, 461 practices participated in the CAHPS for PQRS Survey in 2015.

The national practice mean was above 90 out of 100 for How Well Providers Communicate (93 out of 100), Patient's Rating of Provider (92 out of 100) and Courteous and Helpful Office Staff (93 out of 100). In contrast, practices showed greatest room for improvement on the Stewardship of Patient Resources summary survey measure, which had a national practice mean of 27 out of 100.

VII. PQRS FEEDBACK REPORTS

A. Background

CMS provides PQRS feedback reports for the Physician Quality Reporting System each year. Although these reports are not provided simultaneously with the notification of payment adjustment letters to eligible professionals, CMS strives to make PQRS feedback reports available as closely as possible to delivery of payment adjustment letters. A PQRS feedback report will be generated for each individual TIN/NPI and/or TIN for GPROs that reported PQRS data or that submitted Medicare PFS claims that included denominator-eligible events but did not submit PQRS data. The PQRS feedback reports will include all measures reported by the individual TIN/NPI and/or TIN for GPROs for each submission mechanism utilized (Registry, Claims, EHR, Web Interface and QCDR). The two types of feedback reports available for both individual TIN/NPI and group practices that submitted data as a GPRO are:

- PQRS Payment Adjustment Feedback Report – contains information regarding the individual EP's or PQRS group practice's payment adjustment status, rationale as to why the payment adjustment was or was not applied, and high-level PQRS reporting detail.
- PQRS Payment Adjustment Measure Performance Detail Report – contains specific detail on the measure(s) submitted by each mechanism utilized by the individual EP or PQRS group practice during the 2015 reporting year. Additionally, the Claim Measure tab on this table will identify measure(s) that had denominator-eligible instances that potentially could have been reported.

B. Accessing PQRS Feedback Reports

To access the 2015 PQRS feedback reports, an EIDM account with the appropriate role is required. Anyone is eligible to register for an EIDM account, but the account owner is the only user allowed to utilize the account. EIDM role requests are made at the TIN level and should be utilized by authorized representatives of the TIN. If a user is a representative of multiple TINs, a role for each TIN is required in order to access the feedback reports. A Security Official may also approve access for other group users who apply for the Group Representative roles and an Individual Practitioner may approve access for other Individual Practitioner Representative roles.

The Quick Reference Guide (QRG) for Accessing the 2015 PQRS Feedback Reports will provide information on accessing, navigating, and downloading the PQRS feedback reports. This document can be found on the PQRS Analysis and Payment webpage.

2014 PQRS feedback reports for TIN-level reports and the NPI-level reports are available through the Annual Quality Resource and Use Report (QRUR) at the Physician Value Portlet. The process for requesting 2008-2013 NPI-level feedback reports was established in 2011, allowing report requests to be made through the PQRS Communication Support Page (CSP).[27]

[27] http://www.qualitynet.org/portal/server.pt/community/communications_support_system/234

VIII. HELP DESK

A. Background

In 2008, CMS recognized the need for a dedicated Physician Quality Reporting System Help Desk to support the reporting efforts of eligible professionals. The QualityNet Help Desk was tasked with providing such support, and began working with the External User Services Help Desk and all of the Medicare A/B Medicare Administrative Contractors (MACs) and carriers. Professionals who have questions on eligibility, reporting, accounts for Portal access, informal reviews, PQRS feedback reports, or payments can contact the appropriate support desk for assistance.

B. Support Desks

1. The CMS A/B MAC and Carrier Provider Contact Centers provide Medicare enrollment and claims submission support. This now includes the responsibility of disbursing the PQRS incentive payments to eligible professionals who earned incentives, paid at the TIN level for program years 2014 and prior. They answer questions related to payment disbursement, Remittance Advice, and any offsets or payment adjustments. The A/B MAC Carriers previously were tasked with accepting requests for individual NPI-level feedback reports through the Alternative Feedback Report Request Process. Instead, the CSP was made available in early 2012 as a means for individual eligible professionals to request NPI-level feedback reports for the years 2008-2013. The CSP is available through the Portal, and does not require an account login. This alternative was implemented in response to some difficulties eligible professionals were having obtaining their account login. The TIN-level and NPI-level feedback reports for the 2014 PQRS program year and the 2015 PQRS feedback reports are available through the Annual Quality and Resource Use Report (QRUR) at the Physician Value Portlet, and do require an EIDM account.
2. The QualityNet Help Desk initially consisted of one level of support, known as Tier I, which consisted of a team dedicated to issues related to the PQRS and eRx Incentive Programs. This tier handled questions in the summer and fall of 2008 regarding 2007 program year payments and feedback reports, as well as questions regarding 2008 program year reporting. They were available to answer a range of questions on issues such as eligibility, measures, reporting options, portal login, feedback reports, registries, and payments. In the summer of 2009, a second Tier was added, known as Inquiry Support, to address specific measure questions and assist CMS with escalated payment or report issues. This Tier was able to provide a level of detailed data review to eligible professionals who did not qualify for an incentive and needed information in addition to their feedback report. The Inquiry Support team became the Tier II Inquiry Support level to handle claims detail requests as well as other data specific issues. In 2010, a Tier II Inquiry Support team was implemented to focus on providing answers to measures questions and program inquiries for both individual measure reporting as well as measures groups reporting, so that eligible professionals could better understand their feedback reports and use that knowledge to be more successful in future years. Currently, there are two Tier II support teams; Physician Quality Measurement Management (PQMM) handles questions related to measures and Physician Quality Programs Management and Implementation (PQPMI) handles program inquiries. Near the end of 2010, the IACS support for PQRS transitioned to the QualityNet Help Desk (Tier I). This includes vetting for the Security Official role in Organizations, IACS account issues, the new Annual Recertification requirement, assistance in obtaining the data submission role, etc. The IACS accounts have transitioned to EIDM accounts for all of the

above noted access. Eligible professionals still need to contact the EUS Help Desk for issues related to Medicare enrollment and the PECOS system. In 2011, the QualityNet Help Desk at all levels also began to assist with questions related to the eRx payment adjustments for 2012-2014. Starting in 2013, all helpdesk levels began to assist with questions related to the PQRS payment adjustment for the 2015 and 2016 PQRS payment adjustment years.

3. There are additional Support Teams that the QualityNet Help Desk Tiers work with to resolve related issues:
    a. The EHR Meaningful Use Information Center assists with Medicare EHR Incentive Program reporting, as well as with issues stemming from the eRx payment adjustment EHR-related significant hardship exemptions.
    b. The PQPMI Support Team within the Tier II Help Desk assists with vetting new Registry and QCDR vendors, helps train these entities, and assists the aforementioned vendors and MOCP vendors with file submissions at the end of the reporting periods.
    c. The PQMM Support team within the Tier II Help Desk assists with vetting PQRS measures that all Registry and QCDR vendors would like to support for the program year.
    d. The Tier II ACO Help Desk provides guidance related to ACOs that report (via the GPRO Web Interface) on behalf of eligible professionals for purposes of Physician Quality Reporting System reporting under the Shared Savings Program or the Pioneer ACO model.
    e. The Physician Value Tier II Help Desk assists with Value-Modifier (VM) and QRUR questions, as well as online registration to avoid Physician Quality Reporting System or VM adjustments.
    f. The Physician Compare Tier II Help Desk assists with questions regarding public reporting of quality care data on Physician Compare data posted in calendar year 2014 & 2015.

Eligible professionals are encouraged to utilize the services provided by these support desks. The contact information for the support desks follows:

1. External User Services Help Desk for Medicare enrollment and PECOS questions:
    - Phone: 1-866-484-8049
    - TTY/TDD: 1-866-523-4759 (Monday-Friday; 7am-7pm EST)
    - Email: EUSSupport@cgi.com
2. CMS A/B MAC and Carrier Provider Contact Centers:
    - To get information regarding Contact Centers, see the "Provider Compliance Group Interactive Map" by clicking on the following link: http://www.cms.gov/Research-Statistics-Data-and-Systems/Monitoring-Programs/provider-compliance-interactive-map/index.html.
3. QualityNet Help Desk for first-level questions on EIDM, Portal Login, payments, reports, measures, GPRO, ACO, Physician Value, eRx adjustments, file submissions etc. The Help Desk incidents generated, may then be escalated to the appropriate Tier II or Tier III support teams:
    - Phone: 1-866-288-8912

- TTY: 1-877-715-6222
- Email: Qnetsupport@hcqis.org

IX. CONCLUSION

Participation in PQRS has increased steadily since its inception in 2007. The program saw strong growth in the 2015 program year, with a 15 percent increase in the number of participants over the 2014 program year and more than two-thirds of eligible professionals participating in the program via individual or group reporting options, as part of an ACO, or through the CPC initiative. The final year for reporting in this program will be 2016.

The PQRS program offered incentives for participation in program years 2007 through 2014. Beginning in calendar year 2015, the PQRS payment adjustment is applied to Part B FFS payments based on performance in program year 2013. Reporting in each of the program years in 2014, 2015, and 2016 determines who is subject to the payment adjustment for Part B FFS payments in calendar years 2016, 2017, and 2018, respectively. In the second year of the PQRS payment adjustment (2016), over 768,000 eligible professionals avoided the adjustment with most of them doing so by meeting the 2014 reporting requirements. In the third year of the payment adjustment, 2017, even more eligible professionals will avoid the payment adjustment (N=840,396) with most of them doing so by meeting the reporting requirements for 2015. Among those subject to the 2017 payment adjustment, most continued to be in small practices and were not participating in the program; however, an increasing proportion participated or at least tried to participate in the program compared to the 2016 payment adjustment.

CMS continues to foster growth and participation in PQRS and alignment with other programs. First, CMS is actively working to reduce the burden on eligible professionals by allowing them to report once for multiple programs. This is accomplished by aligning measures reported through various quality reporting initiatives. Second, CMS continues to streamline the measures available by eliminating measures that are topped out, redundant, or under-reported. Lastly, CMS continues to align with the National Quality Strategy by streamlining measures across programs as it balances competing goals of establishing parsimonious sets of measures while including sufficient measures to facilitate provider participation.

In addition to the payment adjustment, the Physician Value-Based Modifier (VM) was implemented in 2015 to provide a payment adjustment to PFS payments based on quality of care and cost. The VM was authorized under section 3007 of the Affordable Care Act; it began in calendar year 2015 and will continue through calendar year 2018. The VM was phased in over time with the first payment adjustment occurring in calendar year 2015 for physicians in groups of 100 or more eligible professionals based on quality and cost performance in 2013. The second year of the VM occurred in calendar year 2016 and is applied to PFS payments for physicians in groups of 10 or more eligible professionals based on quality and cost performance in 2014. The 2017 VM applies to PFS payments for physician solo practitioners and physicians in groups of 2 or more eligible professionals based on quality and cost performance in 2015. The final year of the VM, 2018, applies the adjustment to PFS payments for physicians, physician assistants, nurse practitioners, clinical nurse specialists, and certified nurse

anesthetists who are solo practitioners or in groups of 2 or more eligible professionals based on quality and cost performance in 2016. More detail on the VM can be found on the CMS website.[28]

The Medicare Access and CHIP Reauthorization Act of 2015 (MACRA) ended the Sustainable Growth Rate formula and replaced a patchwork collection of quality programs (the Medicare EHR Incentive program, PQRS and the VM) with a single system, called the Quality Payment Program, where Medicare physicians and clinicians have a chance to be paid more for better care. Clinicians will be able to practice as they always have, but they can get paid more for high quality care and investments that support patients. There are two (2) paths to quality in this program:

- Merit-based Incentive Payment System (MIPS)
- Advanced Alternative Payment Models (APMs)

The first performance year of the Quality Payment Program began on January 1, 2017 and the first payment adjustment year will be 2019. There is more information on the Quality Payment Program and transitioning from PQRS, VM and the Medicare EHR Incentive program on qpp.cms.gov. [29]

Table 21: Abbreviations

Abbreviation	Meaning
ACO	Accountable Care Organization
AMA	American Medical Association
CAP	Community-Acquired Pneumonia
CKD	Chronic Kidney Disease
CMS	Centers for Medicare & Medicaid Services
COPD	Chronic Obstructive Pulmonary Disease
CPC	Comprehensive Primary Care Initiative
CPT	Current Procedural Terminology
CSP	Communication Support Page
CVP	Cardiovascular Prevention
eCQM	Electronic Clinical Quality Measure
EHR	Electronic Health Record
EP	Eligible Professional
EUS	External User Services
FFS	Fee for Service

[28] See the following link for more details on the value-based modifier: https://www.cms.gov/medicare/medicare-fee-for-service-payment/physicianfeedbackprogram/valuebasedpaymentmodifier.html

[29] See the following link for more information on the Quality Payment Program: https://qpp.cms.gov/

Abbreviation	Meaning
GPRO	Group Practice Reporting Option
HCPCS	Healthcare Common Procedure Coding System
HCV	Hepatitis C Virus
HIC	Health Insurance Claim number
HIV/AIDS	Human Immunodeficiency Virus / Acquired Immunodeficiency Syndrome
IACS	Individuals Authorized Access to CMS Computer Services
ICD-9-CM	International Classification of Diseases, 9th Revision, Clinical Modification
IVD	Ischemic Vascular Disease
MAV	Measure Applicability Validation
MD/DO	Doctor of Medicine or Doctor of Osteopathy
MG	Measures Groups
MIEA	Medicare Improvements and Extension Act of 2006
MIPPA	Medicare Improvements for Patients and Providers Act of 2008
MMSEA	Medicare, Medicaid, and SCHIP Extension Act of 2007
MOCP	Maintenance of Certification Program
NCQA	National Committee for Quality Assurance
NPI	National Provider Identifier
NPPES	National Plan and Provider Enumeration System
PCPI	Physician Consortium for Performance Improvement
PECOS	Provider Enrollment, Chain, and Ownership System
PFS	Physician Fee Schedule
PQRI	Physician Quality Reporting Initiative
PQRS	Physician Quality Reporting System
QCDR	Qualified Clinical Data Registry
QDC	Quality Data Code
QRUR	Quality Resource Use Report
RRB	Railroad Retirement Board
SCHIP	State Children's Health Insurance Program
SSP	Medicare Shared Savings Program
TIN	Taxpayer Identification Number
TRHCA	Tax Relief and Health Care Act of 2006
VBP	Value-Based Purchasing
VM	Value Modifier