AMA
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Analysis of the 2021 Quality Payment Program

Contents

1. Introduction

This is a preliminary analysis of the 2021 Merit-Based Incentive Payment System (MIPS) program using the QPP Public Use File (PUF) released by CMS on June 12, 2023. In addition, two other sets of data are used in the analysis:

- the 2019 QPP PUF file.
- the CMS "Provider Data Catalog" (PDC) files. These have more information about the MIPS measures, including the performance level on each measure, but less information than the QPP PUF regarding how CMS scored and evaluated the measures. These files also do not contain as much information about the practitioner and practice as is included in the QPP PUF. However, some records that are missing from the 2021 QPP PUF file are contained in the 2021 PDC files.

2. Summary of Key Points

The following are some of the key points that are described in more detail in the sections below:

- In most cases, the MIPS score assigned to a physician does not represent the quality or value of the services delivered by that physician; it represents the services delivered by a group of physicians in their group practice or ACO.
- In particular, the MIPS scores assigned to most specialists are based on services delivered by the primary care physicians and clinicians in a group or Alternative Payment Model in which the specialist is participating, not the services delivered by the specialist.
- Moreover, some physicians receive multiple MIPS scores because they deliver services through multiple practices; these scores are different, and the differences can be very large. In fact, some physicians receive a MIPS score in one organization that qualifies for a payment increase, while receiving a score in a different practice that qualifies for a payment reduction.
- A higher percentage of clinicians in small practices received low MIPS scores that qualified for payment reductions.
- The reason that some clinicians receive lower MIPS scores than others is partly due to lower scores on quality measures, but also because of lower scores in the "Promoting Interoperability" category.
- An increase or decrease in a physician's quality scores over time may or may not represent improvement or worsening of the quality of care they deliver; a change can occur because different measures are used and because of differences in the patients receiving services. Also, many quality measures do not reliably measure differences and changes in the quality of care, particularly for physicians with small numbers of patients.

3. Number of Clinicians Participating in MIPS

CMS reports that almost 700,000 clinicians were included in MIPS in 2021. However, only about 600,000 *different individuals* participated in MIPS in 2021. If a clinician bills for Medicare services through two or more practices or groups that have separate tax identification numbers (TINs), a separate MIPS score will be assigned to the clinician for each of those TINs (assuming that the clinician or TIN meet the eligibility criteria). Since each clinician has a unique National Provider Identifier (NPI), these are described as NPI-TIN combinations. There were 700,000 NPI-TIN combinations that received a MIPS score in 2021, but that represents only 600,000 unique NPIs.

(NOTE: The clinicians who participated in Virtual Groups and some individual participants are missing from the 2021 QPP PUF file, so the numbers of MIPS-eligible clinicians tabulated from the PUF and reported in the tables below are slightly lower than reported in the CMS *2021 Quality Payment Program Experience Report*.)

Table 1 2021 QPP Participation				
Type of Entity	Number of Participants	Number Engaged	% Engaged	Number With a Component Score
NPI/TIN Combinations	698,730	655,058	93.75%	655,268
Unique NPIs	595,855	558,022	93.65%	558,169
NOTE: Virtual Groups are missing from PUF data. Engagement is a category defined by CMS.				

The vast majority (87%) of clinicians only received a single MIPS score for a single TIN in 2021. However, over 65,000 clinicians received two different MIPS scores because they delivered services through two separate practices or groups that had separate TINs. An additional 14,700 clinicians received 3 or more different MIPS scores; over 1,600 of these clinicians received 5 or more different MIPS scores in 2021, and more than 100 of them received 10 or more different MIPS scores.

Table 2 Clinicians With Multiple MIPS Scores in 2021				
Number of Different TINs per Clinician	Number of Clinicians With This # of TINs	Average Difference in MIPS Scores	Maximum Difference in MIPS Scores	% of Clinicians Receiving Both a Penalty & a Bonus
1	515,757	0.0	0.0	0.0%
2	65,368	6.5	49.1	2.2%
3	10,511	10.4	63.9	6.4%
4	2,566	11.3	69.4	5.6%
5-9	1,544	13.0	80.4	5.4%
10+	109	26.4	79.5	21.1%

As shown above, for the clinicians who received multiple MIPS scores, the scores differed significantly. For clinicians receiving two different scores, the scores differed by an average of 6.5 points (i.e., about 7% of the total 100 point maximum MIPS score). The differences were larger for those with multiple scores. For those with 10 or more different TINs, the range of their scores averaged 26 points. Since the MIPS payment adjustments are tied to NPI-TIN combinations, this means the same clinician would receive different payment adjustments in different TINs. In some cases, the difference in scores is such that a clinician will receive a payment penalty for the services they deliver through one TIN and a payment increase for the services they deliver through another TIN.

The MIPS payment penalty or bonus for a clinician applies to the services they deliver in 2023 through the TIN associated with the MIPS score. As a result, if a clinician delivered services through multiple TINs in 2021, they could be paid more by delivering more of their services in 2023 through the TIN(s) where they received a higher MIPS score than by continuing to deliver similar proportions of services through the TINs where they worked in 2021. This could potentially reduce access to services for patients who rely for their care on the practices where clinicians received lower scores.

4. Method of Participation

There are four different ways that a clinician can participate in MIPS:

- as an individual clinician, in which case their MIPS score is based on the services they deliver personally;
- as part of a formal physician or clinician group, in which case their MIPS score is based on the services all of the clinicians in the group deliver;
- as part of a virtual group; in this case, multiple physicians are treated as though they were part of a formal group for the purposes of calculating their MIPS scores; and
- as part of an Alternative Payment Model (APM), where the clinician's MIPS score is based on the quality measures associated with the APM and the score is also calculated differently.

4.1. Types of Participation in 2021

Two-thirds of MIPS scores in 2021 were based on the performance of a group of physicians, and nearly one-fourth were based on the performance of an Accountable Care Organization or other Alternative Payment Model entity. Only 10% of the MIPS scores in 2021 were based on a clinician's individual performance, i.e., the services they delivered themselves. As a result, in almost all cases, a MIPS score does not measure the quality of care that is delivered by an individual physician or other clinician, but rather represents what is done by all of the clinicians in the group where the individual clinician works, or by all of the clinicians participating in the ACO or APM that the clinician is part of. (NOTE: The CMS *2021 QPP Experience Report* states that 55,331 NPI-TINs received scores through individual participation in 2021, whereas both the PUF data file and the PDC data file indicate that 71,000 did so. Consequently, it seems likely that the number in the published report is wrong.)

Table 3
2021 QPP Participation by Type

Participation Type	Total Number	Percent of Total	Number Engaged	% Engaged
Individual	71,003	10.2%	28,219	39.7%
Group	468,961	67.1%	468,088	99.8%
MIPS APM	158,766	22.7%	158,751	100.0%
Total	698,730	100.0%	655,058	93.7%
NOTE: Virtual Groups are missing from PUF data				

Since most MIPS scores represent the performance of a group or an ACO, the variation in scores for clinicians delivering services through multiple TINs represents differences in the overall performance of the groups or ACOs, not differences in the quality of care the individual clinician delivers through the different groups or ACOs. Moreover, in 2021, the majority of the physicians who participated as individuals did not submit measures and received the Performance Threshold score of 60 by default because of the MIPS EUC policies.

The stated goal of MIPS is to "reward high-value, high-quality Medicare clinicians with payment increases - while at the same time reducing payments to those clinicians who aren't meeting performance standards." However, in most cases, the measures and scores used to determine payment increases and reductions are not based on the quality or value of care delivered by individual clinicians.

On the other hand, MedPAC has criticized MIPS because its "design is at odds with the fact that quality

outcomes for patients … are determined primarily through the combined efforts of many providers rather than by the actions of any one clinician," when in fact, most clinicians are rewarded or penalized based on measures of group or ACO performance, not based on individual performance.

The quality measures in MIPS are used on the Care Compare website to enable patients to choose high-quality physicians, but in most cases, a patient is unable to obtain any information about the quality of care that is specific to an individual physician because most scores are based on the performance of a group or APM.

4.2. Changes in Participation Between 2019 and 2021

There were almost a quarter-million fewer NPI-TINs participating in MIPS in 2021 than in 2019, a 26% reduction. However, a large portion of this reduction was due to fewer clinicians receiving scores through multiple TINs. The number of *unique* clinicians participating in MIPS decreased by 121,000, a 17% reduction.

Table 4
QPP Participants, 2019 and 2021

Type of Entity	Participants in 2019	Participants in 2021	Change	% Change
NPI/TIN Combinations	944,376	698,730	−245,646	−26.0%
Unique NPIs	716,989	595,855	−121,134	−16.9%
NOTE: Virtual Groups are missing from 2021 PUF data				

The reduction in total NPI-TINs in MIPS between 2019 and 2021 was almost entirely due to a reduction in the number of clinicians participating in MIPS APMs.

Table 5
QPP Participants and Type of Participation, 2019 and 2021

Participation Type	Participants in 2019	Participants in 2021	Change	% Change
Individual	60,669	71,003	10,334	17.0%
Group	477,661	468,961	−8,700	−1.8%
Virtual Group	75			
MIPS APM	405,971	158,766	−247,205	−60.9%
Total	944,376	698,730	−245,646	−26.0%
NOTE: Virtual Groups are missing from 2021 PUF data				

However, a comparison of total participants ignores the fact that some clinicians in 2019 were no longer delivering services in 2021 or were not eligible to participate in MIPS, and that new clinicians began delivering services after 2019 or became eligible to participate in MIPS. A better understanding of the changes over time can be obtained by comparing the way individual clinicians participated in MIPS in 2019 and how they participated in 2021, as shown in the table below. Clinicians who participated in MIPS in two or more different ways through different TINs (e.g, as an individual and

as a group) are classified in this table as “Multiple.”

Notable findings include:

- The 121,134 reduction in the number of unique clinicians participating in MIPS between 2019 and 2021 represents the net effect of over 257,000 NPIs no longer participating in MIPS in 2021 and nearly 136,000 NPIs newly participating in 2021.
- In each category, a large proportion of the clinicians who participated in MIPS in 2019 did not participate in MIPS in 2021.
- The majority (61%) of clinicians who participated as Individuals in 2019 continued to participate as Individuals in 2021, and the majority of clinicians (62%) who participated (solely) through Groups in 2019 continued to do so in 2021.
- There were over 261,000 clinicians participating solely through MIPS APMs in 2019, but only about 90,000 were still participating that way in 2021, a reduction of 171,000. It appears that only a small portion of this reduction is due to a higher proportion of clinicians achieving Qualifying APM Participant (QP) status. Data on QP participants are not included in the QPP PUF, but the CMS *2021 Quality Payment Program Experience Report* indicates that in 2021, 271,231 clinicians had QP status and 3,365 had Partial QP status, for a total of 274,596. The 2019 report indicates that in 2019, 195,564 had QP status and 27,995 had Partial QP status, for a total of 223,559. This means that there were 51,000 more QPs and Partial QPs in 2021 than in 2019, which is equivalent to only 30% of the reduction in the number of MIPS APM participants.

Table 6 Changes in MIPS Participation, 2019-2021			
Method of Participation in 2019	**Method of Participation in 2021**	**Number of Unique NPIs**	**% of 2019 Group**
Individual	Individual	30,887	61%
	Group	5,497	11%
	MIPS APM	986	2%
	Multiple	1,191	2%
	Not in MIPS	12,265	24%
	Subtotal	50,826	100%
Virtual Group	Individual	10	20%
	Group	18	37%
	MIPS APM	13	27%
	Not in MIPS	8	16%
	Subtotal	49	100%
Group	Individual	15,546	5%
	Group	211,840	62%
	MIPS APM	10,450	3%
	Multiple	5,851	2%
	Not in MIPS	98,844	29%
	Subtotal	342,531	100%
MIPS APM	Individual	4,712	2%
	Group	35,511	14%
	MIPS APM	90,703	35%
	Multiple	5,437	2%
	Not in MIPS	125,149	48%
	Subtotal	261,512	100%
Multiple	Individual	3,998	6%
	Group	21,909	35%
	MIPS APM	7,205	12%
	Multiple	8,117	13%
	Not in MIPS	20,842	34%
	Subtotal	62,071	100%
Not in MIPS	Individual	7,161	5%
	Group	103,078	76%
	MIPS APM	21,798	16%
	Multiple	3,937	3%
	Subtotal	135,974	100%
Total	Total	852,963	100%
NOTE: Virtual Groups are missing in the 2021 QPP PUF Data, so "Not in MIPS" for 2021 includes some Virtual Group participants			

5. Characteristics of MIPS Participants

5.1. Types of Clinicians

Not surprisingly, the majority of clinicians participating in MIPS are MDs and DOs. However, fully one-third of MIPS participants were not physicians. (NOTE: The data below count each clinician once, whereas the *2021 QPP Performance Report* counts the same clinician multiple times if they participate through multiple TINs.)

Table 7
2021 QPP
Type of Clinicians Participating

Clinician Type	MIPS Participants	% Total
Physician (MD/DO)	377,283	63.3%
Other Physician	18,760	3.1%
Practitioner	171,264	28.7%
Therapist	25,975	4.4%
Audiologist	2,543	0.4%
Other	30	0.0%
Total	595,855	100.0%

5.2. Location and Type of Practice

The categories in Table 4 in the CMS *2021 QPP Performance Report* are mislabeled – there were actually 108,000 small practitioners and 89,000 rural practices, whereas the report shows the reverse. Surprisingly, there is relatively little overlap between these categories.

Table 8
2021 QPP
Size and Practice Location

Type of Practice	NPI-TIN Participants	% Total
Small Practitioner	108,603	16%
Rural Clinician	89,573	13%
Both Small and Rural	18,214	3%
HPSA Clinician	128,526	18%
ASC-Based Clinician	1,042	0%
Hospital-Based Clinician	240,388	34%
Non-Patient Facing Clinician	119,151	17%
Facility-Based Clinician	104,213	15%
Total	698,730	100%

6. Measures Used in MIPS

6.1. Quality Measures

Under the MIPS program, clinicians have the flexibility to choose which quality measures they report. In 2021, MIPS quality scores for clinicians were based on a total of 372 different quality measures.

MIPS has been criticized because, in theory, every clinician could choose a different set of quality measures, making comparisions among clinicians impossible. However, as noted earlier, most clinicians participate in MIPS as part of a group or ACO, and all of the members of the group or ACO are scored on the same set of measures, so there is far less variation in practice than could theoretically occur.

As shown below, 2 measures (the CMS-calculated readmission rate and the Diabetes HbA1c Poor Control measure) were used to determine the scores of more than half of the NPI-TINs in MIPS, and an additional 6 measures were used by one-third of participants. All of the 8 most frequently used measures in MIPS in 2021 were measures that were required for ACOs in the Medicare Shared Savings Program. The readmission rate measure was automatically calculated and used by CMS for groups and APM entities if they had the minimum number of patients (200) to do so.

Moreover, the *2021 QPP Experience Report* indicates that the CMS Web Interface was the most frequently used method of submitting quality measures in 2021, with one third of measures were submitted this way. This is also the method ACOs were required to use. As a result, 6 of the 8 most frequently used measures were CMS Web Interface measures.

Table 9
Most Frequently Used Quality Measures in 2021

Measure Number	Measure Name	Number of NPI-TINs Measured	Mean Score	10th Percentile	Median Score	90th Percentile
479	All-Cause Unplanned Readmission Rate	411,023	6.1	3.0	5.8	9.5
001	Diabetes HbA1c Poor Control	369,959	8.3	5.5	9.3	10.0
236	High Blood Pressure Control	292,760	7.7	6.0	8.0	9.0
318	Fall Risk Screening	252,624	9.0	7.1	9.9	10.0
226	Tobacco Use Screening	237,456	8.5	6.0	9.1	10.0
112	Breast Cancer Screening	233,336	8.3	6.9	8.5	9.3
110	Influenza Immunization	231,267	8.6	7.1	9.1	10.0
113	Colorectal Cancer Screening	227,453	8.0	6.5	8.3	9.4
321	CAHPS for MIPS Clinician	174,886	8.0	6.2	7.7	10.2
480	Hip/Knee Replacement Complications	158,679	6.0	3.0	5.8	10.0
MCC1	Chronic Condition Admissions	158,608	5.0	3.0	4.5	8.2
128	BMI Screening	134,204	1.5	0.0	0.0	7.6
111	Pneumococcal Vaccination	128,293	0.7	0.0	0.0	3.0
065	URI Appropriate Tx	98,588	8.2	5.9	8.7	9.7
239	Pediatric Weight Assessment & Counseling	82,778	8.9	7.4	9.2	10.0
309	Cervical Cancer Screening	76,301	8.4	6.6	8.5	10.0
130	Documentation of Medications	70,938	5.3	3.0	5.8	7.0
134	Depression Screening	60,905	5.1	0.0	6.9	9.8
305	Alcohol/Drug Dependence Treatment	58,612	9.3	8.3	9.4	10.0
240	Childhood Immunization Status	47,976	9.1	7.2	9.6	10.0

At the other end of the spectrum, the 19 measures shown below were only used by a single clinician in 2021. Another 19 measures were each reported by fewer than 10 clinicians.

Table 10
Least Frequently Used Quality Measures in 2021

Measure Number	Measure Name	Number of NPI-TINs Measured	Mean Score	10th Percentile	Median Score	90th Percentile
264	Breast Cancer Lymph Node Biopsy	1	3.0	3.0	3.0	3.0
448	Endometrial Ablation Workup	1	3.0	3.0	3.0	3.0
469	Lumbar Fusion Functional Status	1	3.0	3.0	3.0	3.0
471	Lumbar Discectomy Functional Assessment	1	3.0	3.0	3.0	3.0
AAD12	Melanoma: -Appropriate Surgical Margins	1	3.0	3.0	3.0	3.0
AAO32	Standard BPPV Management	1	3.0	3.0	3.0	3.0
ACMS3	Antibiotic Prophylaxis for High Risk ...	1	3.0	3.0	3.0	3.0
ACMS5	Documentation of High-Risk Squamous C...	1	3.0	3.0	3.0	3.0
ACMS8	Limit quantity of opioids prescribed ...	1	3.0	3.0	3.0	3.0
ASPS28	Continuation of Anticoagulation Thera...	1	3.0	3.0	3.0	3.0
HM10	Outcomes of Hearing Loss Treatment	1	3.0	3.0	3.0	3.0
HM11	Outcomes of Treatment of Subjective T...	1	3.0	3.0	3.0	3.0
IGR15	Myocardial Perfusion Imaging (MPI) or...	1	3.0	3.0	3.0	3.0
IGR16	Myocardial Perfusion Imaging (MPI) St...	1	3.0	3.0	3.0	3.0
IGR17	Myocardial Perfusion Imaging (MPI) st...	1	3.0	3.0	3.0	3.0
IRIS1	Endothelial Keratoplasty - Post-opera...	1	3.0	3.0	3.0	3.0
IRIS24	Refractive Surgery: Patients with a p...	1	3.0	3.0	3.0	3.0
MBHR6	Sleep Quality Assessment and Sleep Re...	1	3.0	3.0	3.0	3.0
MEDNAX55	Use of ASPECTS (Alberta Stroke Progra...	1	3.0	3.0	3.0	3.0

It has often been asserted that clinicians "cherry pick" measures on which they will score well. However, many of the measures chosen by clinicians, including ones chosen by small numbers of clinicians, are ones where the clinicians received some of the lowest scores. (NOTE: The Pneumococcal Vaccination and BMI Screening measure scores were not used for calculating MIPS scores in 2021 because of problems with the measures themselves.)

Table 11
Lowest-Scoring Quality Measures in 2021

Measure Number	Measure Name	Number of NPI-TINs Measured	Mean Score	10th Percentile	Median Score	90th Percentile
409	Endovascular Stroke Treatment Outcome	44	0.0	0.0	0.0	0.0
HCPR14	Venous Thromboembolism (VTE) Prophylaxis	54	0.0	0.0	0.0	0.0
ACQR16	COPD Exacerbation or CHF Exacerbation...	152	0.3	0.0	0.0	3.0
275	IBD Hepatitis B Assessment	34	0.7	0.0	0.0	3.0
111	Pneumococcal Vaccination	128,293	0.7	0.0	0.0	3.0
128	BMI Screening	134,204	1.5	0.0	0.0	7.6
ABG40	Hypotension Prevention After Spinal P...	13	2.3	0.0	3.0	3.0
MEDNAX53	Use of Capnography for Non-Operating ...	99	2.5	0.0	3.0	3.0
205	HIV/AIDS STD Screening	19	3.0	3.0	3.0	3.0
261	Dizziness Referral for Otologic Eval.	100	3.0	3.0	3.0	3.0
264	Breast Cancer Lymph Node Biopsy	1	3.0	3.0	3.0	3.0
303	Cataract Surgery Improved Visual Function	4	3.0	3.0	3.0	3.0
304	Cataract Surgery Patient Satisfaction	2	3.0	3.0	3.0	3.0
336	Maternity Care Postpartum Care	17	3.0	3.0	3.0	3.0
377	CHF Functional Assessment	185	3.0	3.0	3.0	3.0
391	Mental Illness Hospitalization Follow-up	3	3.0	3.0	3.0	3.0
393	Cardiac Device Implantation Infection	2	3.0	3.0	3.0	3.0
401	Hepatitis C Screening for Carcinoma	7	3.0	3.0	3.0	3.0
413	Endovascular Stroke Treatment Timing	125	3.0	3.0	3.0	3.0
420	Varicose Vein Ablation Outcome	46	3.0	3.0	3.0	3.0

At the other extreme, there are a number of measures where most physicians have high scores. These so-called "topped out" measures are typically dropped or underweighted by CMS because they do not show siginificant differences in performance among clinicians. However, these types of measures perform an important function of enabling patients to know that their physician does provide high-quality care for the specific type of services they need, and that the cost measures used in MIPS are not encouraging undertreatment.

Table 12
Highest-Scoring Quality Measures in 2021

Measure Number	Measure Name	Number of NPI-TINs Measured	Mean Score	10th Percentile	Median Score	90th Percentile
AQI70	Prevention of Arterial Line-Related B...	3,156	10.0	10.0	10.0	10.0
IRIS48	Adult Surgical Esotropia: Postoperati...	17	10.0	10.0	10.0	10.0
472	DXA Scan Appropriate Use	7,246	10.0	10.0	10.0	10.0
IRIS26	Avoidance of Routine Antibiotic Use i...	788	10.0	10.0	10.0	10.0
ACMS4	Surgical Site Infection Rate - Mohs M...	16	10.0	9.9	10.0	10.0
323	Cardiac Stress Testing Routine Post-PCI	953	9.9	10.0	10.0	10.0
225	Radiology Mammogram Reminder	23,516	9.9	10.0	10.0	10.0
AQUA26	Benign Prostate Hyperplasia (BPH): In...	730	9.9	9.9	10.0	10.0
354	Anastomotic Leak Intervention	684	9.8	10.0	10.0	10.0
324	Cardiac Stress Testing in Low-Risk Patient	1,109	9.8	10.0	10.0	10.0
GIQIC10	Appropriate management of anticoagula...	193	9.7	8.5	10.0	10.0
164	CABG Prolonged Intubation	1,576	9.7	10.0	10.0	10.0
167	CABG Post-op Renal Failure	1,576	9.7	10.0	10.0	10.0
168	CABG Surgical Re-Exploration	1,535	9.7	10.0	10.0	10.0
AAO21	Otitis Media with Effusion: Hearing T...	408	9.7	10.0	10.0	10.0
MSN15	Use of Thyroid Imaging Reporting & Da...	775	9.7	10.0	10.0	10.0
AQI72	Perioperative Anemia Management	3,579	9.7	10.0	10.0	10.0
ECPR40	Initiation of the Initial Sepsis Bundle	4,065	9.6	10.0	10.0	10.0
322	Cardiac Stress Testing Preoperative	1,033	9.6	10.0	10.0	10.0
IRIS6	Acquired Involutional Entropion: Norm...	20	9.6	9.6	10.0	10.0

6.1.1. Specialty-Specific Reporting

If a multi-specialty practice chooses to participate in MIPS as a group, it will have to choose one set of measures that will determine the quality score for all physicians in the group who choose group scoring. However, that means the measures may also have little or nothing to do with the services delivered by some of the specialists in the group. Moreover, if the group wants to use the CMS Web Interface to submit measure information, it has to choose from among the ten measures that can be submitted that way.

Similarly, if a specialist is part of an ACO and participates in MIPS through the MIPS APM, the measures used will be the measures required for the ACO, which may have little or nothing to do with the services that specialist delivers.

If a specialist participates as an individual, however, they have the ability to choose measures appli-

cable to the specific services they deliver to the patients they serve, if such measures exist.

For example, among the 10 most frequent quality measures used by ophthalmologists overall, there are only 3 measures specifically related to eye care.

Table 13
Top 10 Measures Used by Ophthalmology Clinicians in 2021

Measure Number	Measure Name	Number of NPI-TINs Measured	Mean Score	10th Percentile	Median Score	90th Percentile
117	Diabetes Eye Exam	7,142	7.0	0.0	8.9	10.0
238	Use of High-Risk Medications	5,277	9.9	10.0	10.0	10.0
226	Tobacco Use Screening	4,072	8.5	5.7	9.2	10.0
019	Diabetic Retinopathy Tx Communication	3,838	8.4	6.3	8.9	10.0
001	Diabetes HbA1c Poor Control	3,802	8.0	5.1	9.1	10.0
318	Fall Risk Screening	3,726	8.8	6.6	9.5	10.0
479	All-Cause Unplanned Readmission Rate	3,629	5.6	3.0	5.2	9.4
111	Pneumococcal Vaccination	3,545	0.7	0.0	0.0	3.0
110	Influenza Immunization	3,475	8.7	6.7	9.2	10.0
191	Cataract Surgery Visual Acuity	3,151	7.0	3.0	7.0	10.0

However, among the subset of ophthalmologists who participated in MIPS as individuals, 6 of the top 10 measures were directly related to eye care.

Table 14
Top 10 Measures Used by Ophthalmology Clinicians Reporting as Individuals in 2021

Measure Number	Measure Name	Number of NPI-TINs Measured	Mean Score	10th Percentile	Median Score	90th Percentile
117	Diabetes Eye Exam	1,494	4.5	0.0	5.5	10.0
130	Documentation of Medications	978	5.4	3.0	7.0	7.0
141	Glaucoma Intraocular Pressure Reduction	953	6.9	3.0	6.8	10.0
014	Macular Degeneration Exam	844	5.7	3.0	7.0	7.0
238	Use of High-Risk Medications	796	9.9	10.0	10.0	10.0
019	Diabetic Retinopathy Tx Communication	595	7.8	4.7	7.5	10.0
111	Pneumococcal Vaccination	493	2.5	0.0	0.0	7.8
191	Cataract Surgery Visual Acuity	442	7.8	3.5	10.0	10.0
226	Tobacco Use Screening	410	7.6	3.0	8.9	10.0
012	Glaucoma Optic Nerve Evaluation	346	7.6	3.0	8.5	10.0

This means that differences the MIPS scores for two different ophthalmologists are unlikely to reflect differences in the quality of ophthalmic care they offer.

6.1.2. Most Commonly Used Measures in Each Specialty

Because so many clinicians are participating through groups or ACOs, the most commonly used measures to determine MIPS scores in most specialties are the same.

Table 15a
Quality Measures Most Frequently Used for Scores in Each Specialty

Specialty	# of Clinicians in MIPS	Most Commonly Used Measure			Second Most Common Measure		
		Measure Code	Measure Name	% Using Measure	Measure Code	Measure Name	% Using Measure
Internal Medicine	47,031	479	All-Cause Unplanned Readmission Rate	72%	001	Diabetes HbA1c Poor Control	69%
Family Practice	39,785	001	Diabetes HbA1c Poor Control	77%	479	All-Cause Unplanned Readmission Rate	74%
Emergency Medicine	32,080	479	All-Cause Unplanned Readmission Rate	60%	001	Diabetes HbA1c Poor Control	37%
Diagnostic Radiology	22,598	225	Radiology Mammogram Reminder	56%	479	All-Cause Unplanned Readmission Rate	43%
Anesthesiology	20,022	479	All-Cause Unplanned Readmission Rate	45%	001	Diabetes HbA1c Poor Control	39%
Obstetrics/Gynecology	14,714	479	All-Cause Unplanned Readmission Rate	78%	001	Diabetes HbA1c Poor Control	72%
Orthopedic Surgery	14,349	479	All-Cause Unplanned Readmission Rate	63%	001	Diabetes HbA1c Poor Control	54%
Cardiology	13,551	479	All-Cause Unplanned Readmission Rate	72%	001	Diabetes HbA1c Poor Control	64%
Ophthalmology	13,222	117	Diabetes Eye Exam	50%	238	Use of High-Risk Medications	38%
General Surgery	12,659	479	All-Cause Unplanned Readmission Rate	78%	001	Diabetes HbA1c Poor Control	71%
Hospitalist	10,675	479	All-Cause Unplanned Readmission Rate	89%	001	Diabetes HbA1c Poor Control	75%
Neurology	10,335	479	All-Cause Unplanned Readmission Rate	74%	001	Diabetes HbA1c Poor Control	66%
Gastroenterology	9,400	479	All-Cause Unplanned Readmission Rate	66%	001	Diabetes HbA1c Poor Control	57%
Psychiatry	9,228	479	All-Cause Unplanned Readmission Rate	69%	001	Diabetes HbA1c Poor Control	68%
Dermatology	8,735	137	Melanoma Recall	33%	479	All-Cause Unplanned Readmission Rate	30%
Pathology	8,627	479	All-Cause Unplanned Readmission Rate	45%	249	Barrett's Esophagus	42%
Pulmonary Disease	7,008	479	All-Cause Unplanned Readmission Rate	71%	001	Diabetes HbA1c Poor Control	66%
Urology	6,716	479	All-Cause Unplanned Readmission Rate	62%	001	Diabetes HbA1c Poor Control	57%
Otolaryngology	6,098	479	All-Cause Unplanned Readmission Rate	52%	001	Diabetes HbA1c Poor Control	49%
Nephrology	5,844	001	Diabetes HbA1c Poor Control	53%	236	High Blood Pressure Control	51%
Hematology/Oncology	5,552	479	All-Cause Unplanned Readmission Rate	74%	001	Diabetes HbA1c Poor Control	63%
Physical Medicine and Rehabilitation	5,020	479	All-Cause Unplanned Readmission Rate	54%	001	Diabetes HbA1c Poor Control	48%
Pediatric Medicine	4,906	479	All-Cause Unplanned Readmission Rate	84%	001	Diabetes HbA1c Poor Control	74%
Infectious Disease	4,345	479	All-Cause Unplanned Readmission Rate	69%	001	Diabetes HbA1c Poor Control	62%

Table 15b
Quality Measures Most Frequently Used for Scores in Each Specialty

Specialty	# of Clinicians in MIPS	Most Commonly Used Measure			Second Most Common Measure		
		Measure Code	Measure Name	% Using Measure	Measure Code	Measure Name	% Using Measure
Endocrinology	4,037	001	Diabetes HbA1c Poor Control	77%	479	All-Cause Unplanned Readmission Rate	76%
Rheumatology	3,420	479	All-Cause Unplanned Readmission Rate	60%	001	Diabetes HbA1c Poor Control	57%
Neurosurgery	3,185	479	All-Cause Unplanned Readmission Rate	74%	001	Diabetes HbA1c Poor Control	65%
Radiation Oncology	3,120	479	All-Cause Unplanned Readmission Rate	67%	001	Diabetes HbA1c Poor Control	56%
Critical Care (Intensivists)	2,977	479	All-Cause Unplanned Readmission Rate	82%	001	Diabetes HbA1c Poor Control	71%
Interventional Cardiology	2,831	479	All-Cause Unplanned Readmission Rate	79%	236	High Blood Pressure Control	68%
Medical Oncology	2,445	479	All-Cause Unplanned Readmission Rate	77%	001	Diabetes HbA1c Poor Control	65%
Vascular Surgery	2,417	479	All-Cause Unplanned Readmission Rate	67%	001	Diabetes HbA1c Poor Control	61%
Plastic and Reconstructive Surgery	1,866	479	All-Cause Unplanned Readmission Rate	72%	001	Diabetes HbA1c Poor Control	64%
Pain Management	1,718	001	Diabetes HbA1c Poor Control	42%	479	All-Cause Unplanned Readmission Rate	41%
Allergy/Immunology	1,707	110	Influenza Immunization	46%	479	All-Cause Unplanned Readmission Rate	44%
Cardiac Electrophysiology	1,598	479	All-Cause Unplanned Readmission Rate	79%	001	Diabetes HbA1c Poor Control	67%
Thoracic Surgery	1,570	479	All-Cause Unplanned Readmission Rate	86%	001	Diabetes HbA1c Poor Control	74%
Interventional Radiology	1,510	479	All-Cause Unplanned Readmission Rate	52%	001	Diabetes HbA1c Poor Control	44%
General Practice	1,147	001	Diabetes HbA1c Poor Control	51%	236	High Blood Pressure Control	48%
Hand Surgery	1,064	479	All-Cause Unplanned Readmission Rate	61%	001	Diabetes HbA1c Poor Control	47%
Interventional Pain Management	1,036	128	BMI Screening	35%	130	Documentation of Medications	31%
Geriatric Medicine	1,028	479	All-Cause Unplanned Readmission Rate	81%	001	Diabetes HbA1c Poor Control	74%
Colorectal Surgery (Formerly Proctology)	999	479	All-Cause Unplanned Readmission Rate	71%	001	Diabetes HbA1c Poor Control	66%
Sports Medicine	995	479	All-Cause Unplanned Readmission Rate	77%	001	Diabetes HbA1c Poor Control	66%
Hospice and Palliative Care	944	479	All-Cause Unplanned Readmission Rate	87%	001	Diabetes HbA1c Poor Control	76%
Cardiac Surgery	864	479	All-Cause Unplanned Readmission Rate	84%	001	Diabetes HbA1c Poor Control	75%
Surgical Oncology	698	479	All-Cause Unplanned Readmission Rate	85%	001	Diabetes HbA1c Poor Control	69%
Gynecological/Oncology	638	479	All-Cause Unplanned Readmission Rate	85%	001	Diabetes HbA1c Poor Control	74%

This is not the case for clinicians who participate as individuals; the measures most frequently reported by individual physicians in each specialty are more directly related to the types of services that specialty delivers, and therefore they also differ significantly between many specialties. However, because there were not good specialty-specific measures for many specialties in 2021, many specialists were forced to use more generic measures of quality.

Table 16a
Quality Measures Most Frequently Used in Each Specialty
For Clinicians Reporting as Individuals

Specialty	# of Clinicians in MIPS	Most Commonly Used Measure			Second Most Common Measure		
		Measure Code	Measure Name	% Using Measure	Measure Code	Measure Name	% Using Measure
Internal Medicine	7,922	001	Diabetes HbA1c Poor Control	24%	236	High Blood Pressure Control	22%
Ophthalmology	4,734	117	Diabetes Eye Exam	31%	130	Documentation of Medications	20%
Family Practice	4,194	001	Diabetes HbA1c Poor Control	37%	236	High Blood Pressure Control	26%
Dermatology	3,942	137	Melanoma Recall	23%	238	Use of High-Risk Medications	18%
Orthopedic Surgery	3,827	128	BMI Screening	19%	130	Documentation of Medications	18%
Cardiology	2,882	236	High Blood Pressure Control	35%	128	BMI Screening	30%
Diagnostic Radiology	2,712	195	Carotid Imaging Stenosis Measurement	19%	436	Adult CT Dose Lowering Techniques	16%
Nephrology	2,269	128	BMI Screening	34%	119	Diabetes Attention for Nephropathy	31%
Gastroenterology	2,037	113	Colorectal Cancer Screening	23%	128	BMI Screening	22%
Otolaryngology	1,755	130	Documentation of Medications	18%	128	BMI Screening	14%
Neurology	1,711	130	Documentation of Medications	25%	128	BMI Screening	22%
Urology	1,622	128	BMI Screening	20%	130	Documentation of Medications	19%
Emergency Medicine	1,608	128	BMI Screening	4%	001	Diabetes HbA1c Poor Control	4%
Physical Medicine and Rehabilitation	1,457	130	Documentation of Medications	22%	128	BMI Screening	15%
Pulmonary Disease	1,415	130	Documentation of Medications	28%	128	BMI Screening	26%
General Surgery	1,260	128	BMI Screening	23%	130	Documentation of Medications	20%
Infectious Disease	962	130	Documentation of Medications	19%	128	BMI Screening	13%
Anesthesiology	852	130	Documentation of Medications	18%	128	BMI Screening	18%
Psychiatry	811	130	Documentation of Medications	15%	134	Depression Screening	10%
Rheumatology	735	130	Documentation of Medications	34%	128	BMI Screening	34%
Pain Management	643	130	Documentation of Medications	25%	128	BMI Screening	24%
Endocrinology	615	001	Diabetes HbA1c Poor Control	37%	128	BMI Screening	34%
Hematology/Oncology	583	128	BMI Screening	28%	143	Cancer Pain Quantification	27%
Pathology	571	249	Barrett's Esophagus	28%	395	Lung Cancer Report - Biopsy Specimen	22%

Table 16b
Quality Measures Most Frequently Used in Each Specialty
For Clinicians Reporting as Individuals

Specialty	# of Clinicians in MIPS	Most Commonly Used Measure			Second Most Common Measure		
		Measure Code	Measure Name	% Using Measure	Measure Code	Measure Name	% Using Measure
Interventional Pain Management	537	130	Documentation of Medications	28%	128	BMI Screening	28%
Vascular Surgery	534	128	BMI Screening	26%	130	Documentation of Medications	21%
Neurosurgery	521	130	Documentation of Medications	22%	236	High Blood Pressure Control	15%
Interventional Cardiology	504	236	High Blood Pressure Control	34%	130	Documentation of Medications	24%
Radiation Oncology	488	128	BMI Screening	23%	143	Cancer Pain Quantification	21%
Hospitalist	434	130	Documentation of Medications	11%	047	Advance Care Plan	9%
General Practice	348	001	Diabetes HbA1c Poor Control	20%	128	BMI Screening	18%
Allergy/Immunology	313	130	Documentation of Medications	30%	110	Influenza Immunization	26%
Hand Surgery	284	128	BMI Screening	19%	130	Documentation of Medications	18%
Cardiac Electrophysiology	280	236	High Blood Pressure Control	33%	317	High Blood Pressure Screening	20%
Obstetrics/Gynecology	273	128	BMI Screening	34%	112	Breast Cancer Screening	34%
Critical Care (Intensivists)	247	130	Documentation of Medications	15%	128	BMI Screening	14%
Plastic and Reconstructive Surgery	229	128	BMI Screening	21%	130	Documentation of Medications	20%
Interventional Radiology	163	145	Fluoroscopy Exposure Dose	19%	130	Documentation of Medications	15%
Medical Oncology	150	128	BMI Screening	26%	143	Cancer Pain Quantification	25%
Colorectal Surgery (Formerly Proctology)	125	113	Colorectal Cancer Screening	21%	128	BMI Screening	20%
Geriatric Medicine	118	130	Documentation of Medications	16%	047	Advance Care Plan	14%
Micrographic Dermatologic Surgery	114	137	Melanoma Recall	28%	047	Advance Care Plan	25%
Sports Medicine	111	128	BMI Screening	23%	130	Documentation of Medications	21%
Thoracic Surgery	106	236	High Blood Pressure Control	33%	438	CV Disease Statin Therapy	30%
Cardiac Surgery	70	130	Documentation of Medications	26%	130	Documentation of Medications	26%
Sleep Medicine	39	128	BMI Screening	38%	001	Diabetes HbA1c Poor Control	23%
Surgical Oncology	37	130	Documentation of Medications	24%	112	Breast Cancer Screening	19%
Gynecological/Oncology	34	110	Influenza Immunization	24%	110	Influenza Immunization	24%

6.2. *Improvement Activities*

The following tables show the Improvement Activities most and least frequently reported by clinicians in 2021. (The measures with higher scores are those weighted “High” by CMS.)

Table 17
Most Frequently Reported Improvement Activities in 2021

Measure Number	Measure Name	Number of NPI-TINs Measured	10th Pctile	Median Score	90th Pctile
IA_EPA_1	Provide 24/7 Access to MIPS Eligible Clinicians or Groups Who Have Real-Time Access to Patient's Medical Record	133,841	20	20	40
IA_BE_4	Engagement of patients through implementation of improvements in patient portal	100,483	10	10	20
IA_PSPA_16	Use of decision support and standardized treatment protocols	92,883	10	10	20
IA_BE_6	Collection and follow-up on patient experience and satisfaction data on beneficiary engagement	80,217	20	20	40
IA_CC_13	Practice Improvements for Bilateral Exchange of Patient Information	71,430	10	10	20
IA_PSPA_11	Participation in CAHPS or other supplemental questionnaire	57,750	20	20	40
IA_CC_2	Implementation of improvements that contribute to more timely communication of test results	41,877	10	10	20
IA_PSPA_18	Measurement and Improvement at the Practice and Panel Level	40,766	10	10	20
IA_PSPA_20	Leadership engagement in regular guidance and demonstrated commitment for implementing practice improvement changes	39,988	10	10	20
IA_PSPA_1	Participation in an AHRQ-listed patient safety organization.	39,752	10	20	20
IA_BE_13	Regularly assess the patient experience of care through surveys, advisory councils and/or other mechanisms.	36,433	10	10	20
IA_PSPA_6	Consultation of the Prescription Drug Monitoring Program	35,542	20	20	40
IA_PSPA_19	Implementation of formal quality improvement methods, practice changes, or other practice improvement processes	34,848	10	20	20
IA_PM_16	Implementation of medication management practice improvements	32,665	10	10	20
IA_EPA_2	Use of telehealth services that expand practice access	32,590	10	10	20
IA_PSPA_7	Use of QCDR data for ongoing practice assessment and improvements	30,350	10	20	20
IA_PM_13	Chronic Care and Preventative Care Management for Empaneled Patients	28,460	10	10	20
IA_EPA_3	Collection and use of patient experience and satisfaction data on access	22,542	10	10	20
IA_BMH_2	Tobacco use	21,528	10	20	20
IA_AHE_3	Promote Use of Patient-Reported Outcome Tools	21,211	20	20	40

Table 18
Least Frequently Reported Improvement Activities in 2021

Measure Number	Measure Name	Number of NPI-TINs Measured	10th Pcntile	Median Score	90th Pcntile
IA_PM_20	Glycemic Referring Services	3	12	20	20
IA_ERP_1	Participation on Disaster Medical Assistance Team, registered for 6 months.	40	10	10	20
IA_PSPA_9	Completion of the AMA STEPS Forward program	45	20	20	20
IA_BMH_10	Completion of Collaborative Care Management Training Program	54	10	10	20
IA_PM_19	Glycemic Screening Services	75	10	10	20
IA_PSPA_3	Participate in IHI Training/Forum Event; National Academy of Medicine, AHRQ Team STEPPS® or Other Similar Activity	94	10	10	10
IA_CC_18	Relationship-Centered Communication	146	20	20	20
IA_BE_19	Use group visits for common chronic conditions (e.g., diabetes).	150	10	10	20
IA_EPA_5	Participation in User Testing of the Quality Payment Program Website (https://qpp.cms.gov/)	182	20	20	20
IA_BE_17	Use of tools to assist patient self-management	222	10	20	20

6.3. *Promoting Interoperability Measures*

Compared to the other components of MIPS, there is a much smaller number of measures related to Promoting Interoperability, and clinicians have far less flexibility as to which measures must be reported.

The number of points assigned to each measure differs. Some can receive up to 40 points, some up to 20 points, and others up to 10 points. The greatest variability in performance was on the two measures for "supporting electronic referral loops."

Table 19
2021 QPP
Promoting Interoperability

Measure Number	Measure Name	Number of NPI-TINs Measured	10th Pcntile	Median Score	90th Pcntile
PI_PEA_1	Provide Patients Electronic Access to Their Health Information	276,296	31	39	45
PI_EP_1	e-Prescribing	272,337	9	10	10
PI_EP_2	Query of the Prescription Drug Monitoring Program (PDMP)	224,620	10	10	10
PI_PHCDRR_1	Immunization Registry Reporting	204,030	5	5	5
PI_HIE_5	Health Information Exchange(HIE) Bi-Directional Exchange	157,362	40	40	40
PI_HIE_4	Support Electronic Referral Loops By Receiving and Incorporating Health Information	95,220	3	8	20
PI_HIE_1	Support Electronic Referral Loops By Sending Health Information	91,853	1	5	18
PI_PHCDRR_4	Public Health Registry Reporting	86,050	5	5	5
PI_PHCDRR_2	Syndromic Surveillance Reporting	84,145	5	5	5
PI_PHCDRR_5	Clinical Data Registry Reporting	76,580	5	5	10
PI_PHCDRR_3	Electronic Case Reporting	28,822	5	5	5
PI_PHCDRR_1_MULTI	Immunization Registry Reporting	8,029	5	5	5
PI_PHCDRR_5_MULTI	Clinical Data Registry Reporting	5,822	5	5	5
PI_PHCDRR_4_MULTI	Public Health Registry Reporting	440	5	5	5
PI_PHCDRR_3_MULTI	Electronic Case Reporting	100	5	5	5
PI_PHCDRR_2_MULTI	Syndromic Surveillance Reporting	44	5	5	5

7. MIPS Scores

7.1. Overall MIPS Scores

In 2021, 86% of the 699,000 NPI-TINs in 2021 received a total MIPS score that qualified them for a positive payment adjustment in 2023 (and 78% were classified as having “exceptional” performance), whereas 3.4% had a score which would result in a negative payment adjustment.

Table 20
2021 QPP
Scores & Payment Adjustments

Type of Clinician	Number of NPI-TINs Scored	Average Score	Exceptional 85-100	Positive 60-85	Neutral 60.0	Negative 0-60
All Clinicians	698,730	89.2	77.8%	8.3%	10.5%	3.4%

7.2. MIPS Scores by Specialty

The distribution of scores was similar for most specialties. The largest number of physicians receiving scores qualifying for payment reductions were family physicians; 4.5% of the 45,000 clinicians in that specialty received a MIPS score below 60. Another specialty with a relatively large number of physicians qualifying for penalties was pathology; 5.3% of the 10,000 pathologists participating in MIPS received a score below 60. There were also higher-than-average percentages of negative payment adjustments for specialists in pain management, allergy/immunology, general practice, osteopathic manipulative medicine, preventive medicine, hyperbaric medicine, and peripheral vascular disease.

Table 21a 2021 QPP Scores & Payment Adjustments by Specialty						
Specialty	Number of NPI-TINs Scored	Average Score	Exceptional 85-100	Positive 60-85	Neutral 60.0	Negative 0-60
Internal Medicine	53,798	88.1	75.1%	6.9%	14.7%	3.3%
Family Practice	44,728	89.9	81.8%	4.9%	8.8%	4.5%
Emergency Medicine	43,522	87.6	71.3%	10.7%	16.4%	1.6%
Diagnostic Radiology	37,535	89.7	77.0%	13.1%	7.8%	2.2%
Anesthesiology	22,014	89.4	76.1%	16.3%	6.2%	1.4%
Cardiology	17,040	91.0	82.6%	4.3%	11.1%	1.9%
Orthopedic Surgery	16,636	86.0	69.1%	9.4%	18.1%	3.4%
Obstetrics/Gynecology	16,013	93.9	92.3%	2.5%	1.9%	3.3%
Ophthalmology	15,237	86.6	70.5%	3.0%	24.0%	2.5%
General Surgery	14,552	91.3	84.8%	4.9%	6.9%	3.4%
Neurology	12,277	90.1	82.1%	3.7%	11.2%	3.0%
Hospitalist	12,237	91.8	86.6%	4.2%	5.9%	3.3%
Gastroenterology	10,765	89.1	76.9%	6.3%	14.5%	2.3%
Psychiatry	10,202	90.7	83.7%	4.1%	8.8%	3.5%
Pathology	9,994	85.2	61.4%	24.0%	9.4%	5.3%
Dermatology	9,541	85.1	66.0%	5.1%	27.3%	1.6%
Pulmonary Disease	8,559	90.3	80.9%	4.4%	12.7%	2.1%
Urology	8,006	90.0	79.0%	5.9%	13.4%	1.7%
Otolaryngology	6,836	86.5	71.3%	5.1%	20.9%	2.7%
Nephrology	6,667	87.4	71.7%	4.9%	21.8%	1.6%
Hematology/Oncology	6,496	92.9	87.0%	6.5%	4.9%	1.5%
Physical Medicine and Rehabilitation	5,530	85.1	66.2%	7.0%	24.5%	2.3%
Pediatric Medicine	5,075	93.8	88.7%	7.1%	2.3%	2.0%
Infectious Disease	4,885	88.6	76.5%	3.4%	18.0%	2.1%
Endocrinology	4,468	90.7	83.0%	4.0%	10.2%	2.8%

Table 21b 2021 QPP Scores & Payment Adjustments by Specialty						
Specialty	Number of NPI-TINs Scored	Average Score	Exceptional 85-100	Positive 60-85	Neutral 60.0	Negative 0-60
Rheumatology	3,888	91.1	83.4%	3.8%	10.5%	2.3%
Radiation Oncology	3,851	90.1	78.5%	10.2%	8.8%	2.5%
Neurosurgery	3,796	90.0	80.9%	5.7%	10.4%	3.0%
Interventional Cardiology	3,727	92.6	85.4%	4.9%	8.0%	1.7%
Critical Care (Intensivists)	3,505	92.2	86.7%	4.1%	7.0%	2.2%
Vascular Surgery	3,018	89.5	79.4%	5.4%	12.4%	2.9%
Medical Oncology	2,812	92.4	84.9%	11.3%	2.7%	1.1%
Interventional Radiology	2,195	91.0	80.2%	10.8%	7.2%	1.8%
Plastic and Reconstructive Surgery	2,065	90.5	80.8%	6.6%	9.6%	3.0%
Cardiac Electrophysiology	2,063	92.4	85.7%	4.0%	8.3%	1.9%
Pain Management	1,932	81.4	56.7%	10.0%	28.9%	4.3%
Thoracic Surgery	1,848	93.1	88.1%	5.8%	3.9%	2.2%
Allergy/Immunology	1,807	84.1	65.7%	14.9%	14.4%	4.9%
General Practice	1,233	81.2	58.6%	7.9%	26.9%	6.6%
Hand Surgery	1,164	86.2	68.2%	10.1%	19.3%	2.3%
Geriatric Medicine	1,133	91.1	84.2%	3.4%	9.4%	3.0%
Interventional Pain Management	1,123	78.5	48.9%	9.8%	37.5%	3.8%
Sports Medicine	1,093	91.4	84.4%	5.6%	7.3%	2.7%
Colorectal Surgery (Formerly Proctology)	1,084	90.3	81.6%	5.9%	9.3%	3.1%
Hospice and Palliative Care	1,038	92.6	88.2%	5.5%	2.8%	3.5%
Cardiac Surgery	976	92.8	87.2%	4.4%	6.1%	2.3%
Gynecological/Oncology	792	93.9	87.2%	8.5%	2.5%	1.8%
Surgical Oncology	785	93.7	86.8%	9.4%	2.5%	1.3%
Hematology	675	93.5	86.2%	11.6%	1.2%	1.0%
Advanced heart failure and transplant cardiology	587	95.3	94.0%	1.2%	3.1%	1.7%

7.3. Small and Rural Practices

There were three times as many clinicians in small practices that had MIPS scores qualifying for payment penalties – 11.9% vs. 3.4% overall. In addition, a much smaller percentage of clinicians in small practices qualified for payment increases, but this was because more than a third of small practices received a neutral payment adjustment, likely through the automatic exception for individual clinicians.

A slightly higher-than-average percentage of clinicians in rural practices had MIPS scores below 60, but in general, the distribution of scores for rural practices was similar to the overall distribution.

Table 22
2021 QPP
Scores for Small and Rural Practices

Type of Clinician	Number of NPI-TINs Scored	Average Score	Exceptional 85-100	Positive 60-85	Neutral 60.0	Negative 0-60
Small Practices	108,603	73.7	43.4%	7.6%	37.1%	11.9%
Rural Practices	89,573	88.3	76.2%	8.7%	10.4%	4.6%
All Clinicians	698,730	89.2	77.8%	8.3%	10.5%	3.4%

7.4. Small and Rural Specialty Practices

The disparity in performance between smaller and larger practices differs significantly by specialty. For example, in ophthalmology, the percentage of physicians in small practices receiving negative payment adjustments was only slightly higher than for ophthalmologists overall, whereas there was a large difference for family physicians in small practices. The difference for orthopedic physicians in small vs. large practices was higher than average, but less than for family physicians.

Table 23
2021 MIPS Scores for Small and Rural Ophthalmology Practices

Type of Clinician	Number of NPI-TINs Scored	Average Score	Exceptional 85-100	Positive 60-85	Neutral 60.0	Negative 0-60
Small Practices	8,716	81.1	56.4%	3.2%	36.8%	3.6%
Rural Practices	1,636	83.8	62.9%	3.5%	30.4%	3.1%
All Clinicians	15,237	86.6	70.5%	3.0%	24.0%	2.5%

Table 24
2021 MIPS Scores for Small and Rural Family Practice Practices

Type of Clinician	Number of NPI-TINs Scored	Average Score	Exceptional 85-100	Positive 60-85	Neutral 60.0	Negative 0-60
Small Practices	5,938	71.1	40.7%	5.0%	40.1%	14.2%
Rural Practices	9,361	88.8	78.8%	6.4%	10.0%	4.7%
All Clinicians	44,728	89.9	81.8%	4.9%	8.8%	4.5%

Table 25
2021 MIPS Scores for Small and Rural Orthopedic Surgery Practices

Type of Clinician	Number of NPI-TINs Scored	Average Score	Exceptional 85-100	Positive 60-85	Neutral 60.0	Negative 0-60
Small Practices	2,579	69.3	29.7%	8.3%	53.1%	8.9%
Rural Practices	2,296	85.8	70.2%	7.3%	18.2%	4.3%
All Clinicians	16,636	86.0	69.1%	9.4%	18.1%	3.4%

7.5. Variation in MIPS Scores by Participation Type

Clinicians reporting as individuals were less likely to receive positive payment adjustments than others, but this is because so many qualified for a neutral adjustment. Only a small percentage of physicians reporting as individuals received a negative adjustment.

Clinicians reporting through groups had the highest percentage of negative adjustments. At the other extreme, 98% of clinicians scored through MIPS APMs were classified as “exceptional,” and almost all qualified for a positive payment adjustment.

Table 26
2021 QPP Scores by Participation Type

Method of Participation	Number of NPI-TINs Scored	Average Score	Exceptional 85-100	Positive 60-85	Neutral 60.0	Negative 0-60
Individual	71,003	69.9	25.0%	3.6%	70.9%	0.5%
Group	468,961	89.3	78.9%	11.3%	4.8%	5.0%
MIPS APM	158,766	97.3	98.3%	1.3%	0.4%	0.0%

This pattern is similar for clinicians in individual specialties.

Table 27
2021 MIPS Scores for Ophthalmology by Participation Type

Method of Participation	Number of NPI-TINs Scored	Average Score	Exceptional 85-100	Positive 60-85	Neutral 60.0	Negative 0-60
Individual	4,801	69.2	23.6%	2.0%	73.7%	0.7%
Group	8,961	94.0	90.9%	3.9%	1.3%	3.9%
MIPS APM	1,475	98.2	99.3%	0.7%	0.0%	0.0%

Table 28
2021 MIPS Scores for Family Practice by Participation Type

Method of Participation	Number of NPI-TINs Scored	Average Score	Exceptional 85-100	Positive 60-85	Neutral 60.0	Negative 0-60
Individual	4,231	73.1	33.3%	2.4%	64.1%	0.3%
Group	25,043	88.2	80.4%	6.9%	4.6%	8.1%
MIPS APM	15,454	97.3	97.4%	2.3%	0.3%	0.0%

7.6. Score Differences for Clinicians in Multiple TINs

It is impossible to tell from the previous tables whether the clinicians who participated as individuals delivered poorer-quality care than those in groups or MIPS APMs, or whether the difference in scores reflects the measures used and the services delivered by the other clinicians in the groups and APMs.

The table below examines the subsets of clinicians who participated in MIPS both as individuals and through a group and/or APM. As can be seen, the scores assigned to the subset of physicians who also participated in a group are all similar to the overall average scores for clinicians in groups, regardless of whether the clinician's score as an individual was very high or very low. In fact, the clinicians who had very high scores as individuals received lower scores from the groups they also participated in.

Similarly, clinicians who also participated in an APM received a very high MIPS score for that, even if they received a very low score as an individual. This means that participating in a MIPS APM was one way for an otherwise poorly-performing clinician to avoid being penalized for that performance.

Table 29
Size and Scores in Other TINs
for Clinicians Participating as Individuals

MIPS Score Group	Total Clinicians	Avg Score as Individual	Group Participation		APM Participation	
			% Also in Group	Avg Score in Group	% Also in APM	Avg Score in APM
<30	61	23.4	11.5%	91.6	3.3%	95.0
30-59	272	48.1	5.5%	84.0	2.2%	94.9
60.0	50,358	60.0	10.2%	84.4	2.6%	95.9
61-74	901	69.6	7.8%	81.0	2.4%	96.3
75+	19,411	96.2	7.6%	86.2	1.7%	96.2

A similar pattern can be seen for clinicians in individual specialties.

Table 30
Size and Scores in Other TINs
for Internal Medicine Clinicians Participating as Individuals

MIPS Score Group	Total Clinicians	Avg Score as Individual	Group Participation		APM Participation	
			% Also in Group	Avg Score in Group	% Also in APM	Avg Score in APM
<30	2	25.5	0.0%		0.0%	
30-59	25	48.3	4.0%	91.3	12.0%	96.3
60.0	5,625	60.0	10.1%	80.5	2.7%	95.7
61-74	134	70.3	8.2%	75.4	2.2%	95.1
75+	2,216	97.1	6.6%	81.2	1.9%	97.6

7.7. Geographic Locations of Lowest Scoring Clinicians

The percentage of the clinicians participating in MIPS through groups who received low MIPS scores is much higher in some states than others. Although overall, 5% of clinicians participating through groups received scores qualifying for penalties, the percentages were much higher in some states. For example, 19% of clinicians in West Virginia and South Carolina who participated in MIPS through groups received scores less than 60.

Table 31
States With Highest % of Groups Receiving Penalties

State	Number of NPI-TINs Scored	Average Score	Exceptional 85-100	Positive 60-85	Neutral 60.0	Negative 0-60
WV	1,696	77.5	47.4%	27.1%	6.4%	19.1%
SC	5,227	77.6	64.2%	9.8%	7.3%	18.7%
ME	1,099	78.7	67.8%	8.3%	6.9%	17.0%
RI	604	75.4	49.3%	26.2%	9.3%	15.2%
VT	394	86.3	79.7%	2.8%	5.6%	11.9%
AL	5,586	77.0	49.7%	15.6%	24.7%	10.0%
AR	3,327	74.1	42.0%	14.7%	33.8%	9.5%
IA	3,587	87.0	80.8%	5.9%	3.7%	9.5%
HI	1,090	91.2	89.1%	2.4%	0.4%	8.2%
AK	1,643	89.4	83.3%	7.4%	1.2%	8.2%
KS	5,289	85.5	76.0%	11.5%	4.5%	8.1%
IL	11,317	84.3	73.0%	10.2%	9.2%	7.7%

In contrast, less than 2% of the clinicians scored through groups in North Dakota and Maryland received penalty scores.

Table 32
States With Smallest % of Groups Receiving Penalties

State	Number of NPI-TINs Scored	Average Score	Exceptional 85-100	Positive 60-85	Neutral 60.0	Negative 0-60
ND	2,708	97.3	97.7%	0.4%	0.3%	1.6%
MD	15,824	95.0	92.1%	5.5%	0.5%	1.9%
WI	18,484	94.8	94.1%	1.9%	1.7%	2.3%
WY	1,648	87.5	68.1%	29.0%	0.6%	2.3%
NM	4,479	92.9	85.8%	9.8%	1.9%	2.4%
DE	1,332	89.9	70.3%	25.2%	2.0%	2.6%
CO	12,508	92.3	83.7%	12.0%	1.8%	2.6%
SD	1,478	95.4	96.5%	0.2%	0.3%	3.0%
AZ	10,517	87.1	72.2%	20.1%	4.7%	3.0%
CT	7,622	93.1	81.5%	13.0%	2.5%	3.0%
VA	14,363	90.5	82.7%	10.3%	3.3%	3.6%
NJ	12,936	89.3	77.3%	14.0%	4.8%	3.9%

As shown earlier, only a small percentage of the clinicians participating in MIPS as individuals received scores qualifying for payment penalties. The highest percentages were in Iowa, Vermont, and Kentucky.

Table 33
States With Highest % of Individual Clinicians Receiving Penalties

State	Number of NPI-TINs Scored	Average Score	Exceptional 85-100	Positive 60-85	Neutral 60.0	Negative 0-60
IA	452	71.1	28.5%	4.4%	65.3%	1.8%
VT	86	69.7	25.6%	4.7%	68.6%	1.2%
KY	948	69.0	22.7%	2.5%	73.6%	1.2%
AR	716	68.6	22.6%	2.2%	74.3%	0.8%
TX	6,448	71.5	29.0%	4.8%	65.3%	0.8%
NC	1,508	72.3	31.8%	3.2%	64.2%	0.8%
WA	665	69.5	23.3%	6.3%	69.6%	0.8%
DC	135	69.0	23.0%	2.2%	74.1%	0.7%
WI	280	70.6	26.8%	4.6%	67.9%	0.7%
TN	1,569	72.7	32.6%	3.8%	63.0%	0.7%

8. Why Do Clinicians Receive High or Low MIPS Scores?

The tables below shows the extent to which each of the three components used to calculate a clinician's MIPS score – the Quality score, the Improvement Activities score, and the Promoting Interoperability score (the Cost score was not used to calculate MIPS scores in 2021) – and the Complex Patient Bonus contributed to the overall scores for clinicians with low and high total MIPS scores.

Because the scores were weighted differently for some clinicians and groups under the Extreme and Uncontrollable Circumstances (EUC) and Hardship policies, the tables show both the average actual scores and the scores that would have been calculated using the standard weights in order to estimate the extent to which the EUC weighting changes affected the final score. The table also shows the percentage of clinicians who received an EUC or Hardship adjustment for each category. (The PUF data file does not report exactly what reweighting was used for individual clinicians, so it is impossible to determine exactly how the precise score for an individual clinician was calculated.)

8.1. Clinicians Reporting as Individuals

As shown in the table below, the vast majority of clinicians reporting as individuals received a MIPS score in 2021 equal to the Performance Standard; CMS assigned this score automatically unless the clinician chose to submit data for at least two categories.

Most of the other clinicians received very high scores. The high total scores resulted from high scores on all three of the MIPS components used, and it also appears that a high percentage of physicians with a high overall score received hardship adjustments for their Promoting Interoperability scores. (Clinicians who are not physicians are not required to report PI measures.)

8.1.1. Clinicians With Low Scores

The small number of clinicians who received 2021 MIPS scores below 60 (thereby qualifying for a payment reduction in 2023) did so primarily because of low quality scores and secondarily based on low PI scores or failure to submit PI measures.

Table 34
Components of 2021 MIPS Scores for Clinicians Participating as Individuals

MIPS Score Group	Total Clinicians	Mean Total Score			Mean Component Scores				% Recieving EUC or Hardship				
		Total MIPS Score	Diff From Calc. Score	Calculated Using Standard Weights	Complex Patient Bonus	Quality Score	IA Score	PI Score	EUC Quality	EUC IA	EUC PI	Hrdshp PI	Reweight PI
<30	61	23.4	2.9	20.5	4.3	16.3	40.0	0.5	8%	7%	10%	7%	15%
30-59	272	48.1	5.1	43.0	4.6	40.0	39.1	65.3	12%	9%	10%	7%	30%
60.0	50,358	60.0	51.6	8.4	5.0	37.3	40.0	77.8	7%	7%	7%	3%	33%
61-74	901	69.6	5.0	64.6	4.5	61.5	39.6	68.4	6%	3%	4%	7%	41%
75+	19,411	96.2	12.6	83.6	4.4	92.7	39.9	91.7	2%	1%	2%	12%	32%

Clinicians with the lowest scores had very low quality scores; only two reported Promoting Interoperability measures and most of the others did not receive EUC or hardship exemptions, so this contributed to their overall low scores.

8.1.2. Clinicians With Scores Between 60 and 75

There were 900 clinicians who received scores greater than 60 but less than 75 in 2021. These clinicians qualify for a bonus in 2023 because the performance threshold was 60, but since CMS has increased the performance threshold to 75 in 2022 and 2023, the same score in 2022 or 2023 will result in a penalty. These clinicians scored lower than higher-scoring clinicians due to both lower quality scores and lower PI scores, but the lower quality scores had a bigger impact because of the

much higher weight.

There was very little difference in the Complex Patient Bonuses awarded to clinicians in the different categories, so at least based on the measures used to calculate those bonuses, it does not appear that the lower-scoring clinicians had more complex patients.

8.1.3. Comparison to 2019

A potentially big difference between the 2021 MIPS scores and the MIPS scores clinicians will receive in 2022 and 2023 is that cost measures were not used in 2021. The most recent year in which cost measures were used was in 2019, and the table below shows the scores for clinicians reporting as individuals in that year. The data indicate that differences in the cost scores were not a significant factor causing clinicians to have higher or lower overall MIPS scores. As in 2021, lower total MIPS scores were caused by a combination of lower quality and lower PI scores.

Table 35
Components of 2019 MIPS Scores for Clinicians Participating as Individuals

MIPS Score Group	Total Clinicians	Mean Total Score			Mean Component Scores					% Recieving EUC or Hardship				
		Total MIPS Score	Diff From Calc. Score	Calculated Using Standard Weights	Complex Patient Bonus	Quality Score	IA Score	PI Score	Cost Score	EUC Quality	EUC IA	EUC PI	Hrdshp PI	Reweight PI
30.0	26,254	30.0	26.1	3.9	0.0	32.9	38.6	64.0	65.9	2%	2%	2%	5%	31%
31-60	4,100	51.0	5.2	45.8	2.7	42.2	39.5	42.2	66.8	0%	0%	0%	23%	40%
61-74	5,056	68.4	4.1	64.3	2.5	63.2	39.8	56.1	66.5	0%	0%	0%	15%	30%
75+	25,259	91.7	5.2	86.5	2.5	91.2	39.9	77.4	68.7	0%	0%	0%	16%	32%

8.2. Clinicians Reporting Through Groups

8.2.1. Scores in 2021

Most of the clinicians who received MIPS scores below 60 in 2021 participated in MIPS through a group. Over 23,000 clinicians received scores below 60 and will thereby qualify for a payment reduction in 2023, and 15,000 of them received scores under 30. The groups with scores between 30 and 60 received low scores primarily due to low scores on quality measures, while the groups with scores below 30 had very low quality scores and most did not report PI measures.

An additional 15,000 clinicians participating in groups received scores between 60 and 75, and these scores were lower than higher-scoring groups due to a combination of lower quality scores and lower PI scores.

Table 36
Components of 2021 MIPS Scores for Clinicians Participating Through Groups

MIPS Score Group	Total Clinicians	Mean Total Score			Mean Component Scores				% Recieving EUC or Hardship				
		Total MIPS Score	Diff From Calc. Score	Calculated Using Standard Weights	Complex Patient Bonus	Quality Score	IA Score	PI Score	EUC Quality	EUC IA	EUC PI	Hrdshp PI	Reweight PI
<30	14,984	15.2	−2.2	17.4	4.3	22.5	40.0	1.2	2%	1%	3%	3%	31%
30-59	8,420	43.4	2.5	41.0	4.6	52.7	39.1	87.4	7%	3%	4%	4%	38%
60.0	22,445	60.0	36.3	23.7	5.6	56.6	39.8		97%	29%	31%	7%	85%
61-74	14,918	69.6	6.4	63.2	4.4	62.2	39.0	63.1	23%	18%	21%	18%	75%
75+	408,194	95.3	2.6	92.8	4.6	90.8	40.0	92.4	11%	7%	10%	6%	56%

8.2.2. Scores in 2019

2019 was the most recent year in which groups were evaluated on cost measures. As with clinicians participating as individuals, differences in scores on the cost measures did not contribute significantly to the differences in overall scores.

Table 37
Components of 2019 MIPS Scores for Clinicians Participating Through a Group

MIPS Score Group	Total Clinicians	Mean Total Score			Mean Component Scores					% Recieving EUC or Hardship				
		Total MIPS Score	Diff From Calc. Score	Calculated Using Standard Weights	Complex Patient Bonus	Quality Score	IA Score	PI Score	Cost Score	EUC Quality	EUC IA	EUC PI	Hrdshp PI	Reweight PI
<30	2,607	23.8	7.3	16.5	2.6	13.3	38.4	62.4	70.5	0%	0%	0%	7%	57%
30.0	2,970	30.0	4.4	25.6	0.1	48.3	11.8		71.2	93%	93%	92%	25%	60%
31-60	41,426	46.8	3.2	43.6	2.8	47.4	39.8	64.1	69.6	0%	0%	0%	12%	49%
61-74	54,751	68.6	−0.6	69.2	2.7	66.6	39.8	55.4	70.8	0%	0%	0%	21%	57%
75+	375,907	89.4	−2.2	91.6	2.6	90.6	40.0	73.2	73.9	0%	0%	0%	13%	48%

8.3. Characteristics of Low- and High-Scoring Clinicians

The clinicians participating as individuals who received low MIPS scores in 2021 were almost entirely (91-92%) in small practices, whereas less than two-thirds of the highest scoring individual clinicians were in small practices.

Low-scoring clinicians were no more likely to be in rural practices than high-scoring clinicians.

Table 38
Characteristics of Clinicians Participating as Individuals

MIPS Score Group	Total Clinicians	Small Practitioners	Rural Clinicians	Both Small and Rural	HPSA Area	ASC Clinician	Hospital Clinician	Non-Patient Facing Clinician	Facility -Based Clinician
<30	61	92%	13%	11%	20%	0%	7%	3%	5%
30-59	272	91%	17%	17%	28%	1%	11%	7%	7%
60.0	50,358	70%	14%	10%	23%	1%	19%	8%	15%
61-74	901	58%	16%	12%	28%	1%	21%	9%	18%
75+	19,411	65%	17%	11%	26%	0%	10%	4%	7%

The highest scoring groups had 2-3 times as many Medicare beneficiaries as lower-scoring groups, but the lowest-scoring groups were actually somewhat larger (in terms of patients) than than those with higher scores.

Table 39 Size of Groups			
MIPS Score Group	Total Clinicians	Average # of Beneficiaries	Average Charges
<30	14,984	17,748	$15,761,649
30-59	8,420	13,902	$11,414,885
60.0	22,445	18,080	$7,265,200
61-74	14,918	11,796	$4,676,201
75+	408,194	33,199	$28,285,440

8.4. How Quality Measures Contributed to Low and High MIPS Scores

A clinician could receive a lower Quality score than another clinician for two different reasons:

- because they scored lower on the same quality measures as other clinicians; or
- because they used measures on which clinicians in general received lower scores.

For clinicians who participated as individuals, the clinicians who had lower overall MIPS scores scored lower on most individual quality measures than clinicians with higher MIPS scores.

Table 40
Quality Measures Used by Clinicians Participating as Individuals Who Achieved Higher and Lower Total MIPS Scores

Measure Number	Measure Name	% Using the Measure for Clinicians With Total MIPS Score of:				Mean Score for Clinicians With Total Score of:			
		<30	30-60	60-75	75+	<30	30-60	60-75	75+
130	Documentation of Medications	41.0%	65.4%	61.7%	0.0%	3.2	4.3	5.1	0.0
117	Diabetes Eye Exam	13.1%	14.7%	10.1%	0.0%	0.0	1.4	1.8	0.0
128	BMI Screening	13.1%	32.4%	37.4%	0.0%	2.9	3.1	2.2	0.0
001	Diabetes HbA1c Poor Control	9.8%	18.4%	26.6%	33.5%	0.0	1.2	2.9	5.7
021	Perioperative Antibiotics	6.6%	5.1%	0.9%	0.6%	3.0	3.9	4.7	6.3
480	Hip/Knee Replacement Complications	6.6%	5.9%	1.7%	0.0%	4.2	6.4	5.3	0.0
047	Advance Care Plan	3.3%	25.7%	28.7%	17.4%	3.0	3.6	6.6	7.8
110	Influenza Immunization	3.3%	20.6%	24.5%	0.0%	1.5	3.0	3.9	0.0
113	Colorectal Cancer Screening	3.3%	7.0%	10.3%	0.0%	1.5	3.3	4.6	0.0
261	Dizziness Referral for Otologic Eval.	3.3%	0.0%	0.0%	0.0%	3.0	0.0	0.0	0.0
111	Pneumococcal Vaccination	1.6%	22.4%	23.8%	0.0%	0.0	3.0	2.9	0.0
112	Breast Cancer Screening	1.6%	3.3%	5.5%	0.0%	3.0	3.0	4.3	0.0
119	Diabetes Attention for Nephropathy	1.6%	2.9%	10.2%	0.0%	0.0	2.2	4.6	0.0
134	Depression Screening	1.6%	8.5%	7.4%	0.0%	3.0	3.5	4.1	0.0
141	Glaucoma Intraocular Pressure Reduction	1.6%	10.3%	5.5%	0.0%	3.0	4.2	6.4	0.0
182	Functional Outcome Assessment	1.6%	3.7%	2.4%	0.0%	3.0	3.4	6.4	0.0
195	Carotid Imaging Stenosis Measurement	1.6%	2.2%	2.8%	0.0%	3.0	3.7	5.2	0.0
236	High Blood Pressure Control	1.6%	12.5%	24.6%	0.0%	0.0	3.5	4.6	0.0
239	Pediatric Weight Assessment & Counseling	1.6%	1.8%	5.1%	0.0%	0.0	1.9	4.2	0.0
005	HF Medications	0.0%	0.0%	14.0%	1.7%	0.0	0.0	3.4	7.8
008	HF Beta-Blocker	0.0%	0.0%	13.5%	1.0%	0.0	0.0	3.1	6.6
014	Macular Degeneration Exam	0.0%	9.9%	4.8%	2.9%	0.0	3.7	4.7	6.4
019	Diabetic Retinopathy Tx Communication	0.0%	2.2%	1.6%	4.9%	0.0	3.0	3.7	6.9
023	Perioperative VTE Prophylaxis	0.0%	2.6%	0.9%	0.4%	0.0	3.6	5.0	6.4
039	Osteoporosis Screening	0.0%	2.6%	2.7%	1.6%	0.0	3.0	3.4	7.8

A similar pattern can be seen for low-scoring groups vs. high-scoring groups.

Table 41
Quality Measures Used to Score Clinicians Participating Through a Group Who Achieved Higher and Lower Total MIPS Scores

Measure Number	Measure Name	% Scored Using the Measure for Clinicians With Total MIPS Score of:				Mean Score for Clinicians With Total Score of:			
		<30	30-60	60-75	75+	<30	30-60	60-75	75+
130	Documentation of Medications	28.6%	36.1%	29.8%	10.6%	3.5	4.1	4.5	5.7
128	BMI Screening	12.2%	25.6%	14.2%	28.1%	3.2	3.5	2.8	1.3
001	Diabetes HbA1c Poor Control	10.3%	17.1%	14.8%	48.3%	0.0	0.9	5.3	7.4
117	Diabetes Eye Exam	9.5%	10.3%	3.1%	2.8%	0.0	0.1	3.7	7.1
479	All-Cause Unplanned Readmission Rate	8.1%	8.4%	26.9%	60.3%	3.4	4.1	4.7	6.3
317	High Blood Pressure Screening	7.8%	11.8%	6.4%	7.2%	3.1	4.5	6.0	7.8
047	Advance Care Plan	6.7%	11.8%	14.6%	5.4%	3.2	4.0	7.8	8.3
480	Hip/Knee Replacement Complications	6.4%	7.6%	13.7%	37.8%	3.4	5.9	4.4	6.1
141	Glaucoma Intraocular Pressure Reduction	6.3%	6.0%	1.0%	0.7%	3.3	6.4	6.7	7.3
134	Depression Screening	5.6%	10.6%	5.3%	13.5%	3.0	3.7	4.3	5.1
CAHPS_1	Timely Care	5.5%	0.8%	0.0%	0.0%	7.0	3.4	0.0	0.0
CAHPS_2	Provider Communication	5.5%	0.8%	0.0%	0.0%	6.6	3.0	0.0	0.0
CAHPS_3	Patient Rating of Provider	5.5%	0.0%	0.0%	0.0%	6.9	0.0	0.0	0.0
CAHPS_8	Courteous and Helpful Office Staff	5.5%	0.8%	0.0%	0.0%	9.1	3.0	0.0	0.0
CAHPS_9	Care Coordination	5.5%	0.8%	0.0%	0.0%	7.9	3.0	0.0	0.0
321	CAHPS for MIPS Clinician	5.5%	0.8%	0.0%	3.8%	6.3	3.1	0.0	7.4
CAHPS_5	Health Promotion and Education	5.2%	0.8%	0.0%	0.0%	3.1	3.0	0.0	0.0
110	Influenza Immunization	4.9%	13.2%	11.3%	15.2%	3.0	3.7	5.0	7.8
236	High Blood Pressure Control	4.4%	15.5%	17.5%	29.4%	3.2	4.7	6.1	7.2
CAHPS_6	Shared Decision-Making	4.3%	0.8%	0.0%	0.0%	5.9	3.0	0.0	0.0
111	Pneumococcal Vaccination	4.3%	11.2%	12.4%	28.9%	3.1	3.5	2.1	0.5
014	Macular Degeneration Exam	4.0%	4.7%	1.0%	0.6%	3.1	4.4	4.7	6.1
113	Colorectal Cancer Screening	3.4%	6.5%	8.2%	15.3%	3.2	4.0	4.9	7.3
226	Tobacco Use Screening	2.9%	9.8%	13.1%	17.2%	3.1	4.7	6.0	7.8
154	Fall Risk Assessment	2.3%	7.8%	4.6%	2.1%	3.1	4.4	5.7	6.4

8.5. How Promoting Interoperability Measures Contributed to MIPS Scores

The lower PI scores for clinicians that received lower MIPS scores seems primarily due to the fact that they reported fewer PI measures, rather than that they scored worse on the measures they did report.

Table 42
PI Measures Used by Clinicians Participating as Individuals Who Achieved Higher and Lower Total MIPS Scores

Measure Number	Measure Name	% Using the Measure for Clinicians With Total MIPS Score of:				Mean Score for Clinicians With Total Score of:			
		<30	30-60	60-75	75+	<30	30-60	60-75	75+
PI_HIE_5	Health Information Exchange(HIE) Bi-D...	1.6%	2.6%	8.8%	26.3%	0.0	48.6	37.1	40.6
PI_PEA_1	Provide Patients Electronic Access to...	1.6%	22.4%	42.7%	65.0%	1.0	36.7	37.6	48.0
PI_EP_1	e-Prescribing	0.0%	16.9%	39.6%	62.2%	0.0	9.1	9.5	9.7
PI_EP_2	Query of the Prescription Drug Monito...	0.0%	8.5%	18.2%	29.5%	0.0	10.0	10.0	10.0
PI_HIE_1	Support Electronic Referral Loops By ...	0.0%	5.1%	9.9%	11.5%	0.0	14.5	16.3	20.3
PI_HIE_4	Support Electronic Referral Loops By ...	0.0%	5.5%	5.8%	13.5%	0.0	14.1	13.4	16.2
PI_PHCDRR_1	Immunization Registry Reporting	0.0%	2.9%	4.8%	13.5%	0.0	7.5	6.9	6.1
PI_PHCDRR_3	Electronic Case Reporting	0.0%	1.5%	2.8%	2.1%	0.0	5.0	5.6	5.8
PI_PHCDRR_4	Public Health Registry Reporting	0.0%	4.0%	9.5%	27.0%	0.0	6.4	6.0	5.8
PI_PHCDRR_5	Clinical Data Registry Reporting	0.0%	6.6%	15.6%	36.2%	0.0	7.2	6.5	5.8
PI_PHCDRR_5_MULTI	Clinical Data Registry Reporting	0.0%	1.5%	4.8%	7.1%	0.0	5.0	5.0	5.0

A similar pattern can be seen for PI measures reported by groups.

Table 43
PI Measures Used by Clinicians Participating Through a Group Who Achieved Higher and Lower Total MIPS Scores

Measure Number	Measure Name	% Using the Measure for Clinicians With Total MIPS Score of:				Mean Score for Clinicians With Total Score of:			
		<30	30-60	60-75	75+	<30	30-60	60-75	75+
PI_PEA_1	Provide Patients Electronic Access to...	23.5%	35.8%	25.5%	61.9%	36.6	39.0	32.1	39.3
PI_EP_1	e-Prescribing	23.5%	35.7%	24.8%	61.1%	9.8	9.8	9.2	9.8
PI_EP_2	Query of the Prescription Drug Monito...	21.8%	31.3%	18.7%	51.4%	10.0	10.0	10.0	10.0
PI_PHCDRR_1	Immunization Registry Reporting	21.2%	27.3%	10.5%	47.6%	5.1	5.3	6.7	5.3
PI_HIE_5	Health Information Exchange(HIE) Bi-D...	14.4%	19.0%	1.8%	36.3%	39.5	38.5	37.3	40.0
PI_HIE_1	Support Electronic Referral Loops By ...	9.0%	14.4%	18.5%	20.6%	7.9	6.9	2.7	7.6
PI_HIE_4	Support Electronic Referral Loops By ...	8.5%	13.7%	10.9%	21.7%	10.1	9.1	7.9	9.8
PI_PHCDRR_4	Public Health Registry Reporting	8.2%	11.3%	1.2%	19.2%	5.1	5.2	6.5	5.3
PI_PHCDRR_2	Syndromic Surveillance Reporting	8.0%	8.4%	13.1%	19.5%	5.0	5.0	5.0	5.0
PI_PHCDRR_5	Clinical Data Registry Reporting	5.1%	7.9%	1.2%	16.6%	5.2	5.7	6.6	5.9
PI_PHCDRR_1_MULTI	Immunization Registry Reporting	1.4%	2.5%	0.0%	1.8%	5.0	5.0	5.0	5.0
PI_PHCDRR_3	Electronic Case Reporting	1.3%	3.0%	9.5%	6.5%	5.0	5.0	5.0	5.1

9. Changes in Quality Measure Scores Over Time

Clinicians can receive a higher Quality score if the aggregate score on the quality measures has improved from the prior year. However, because there is no requirement that the same quality measures be used from one year to the next, "improvement" could result from the use of a different set of measures where the clinician or group have better scores, rather than actually improving performance on the same quality measures.

9.1. Changes in Individual Measures

As shown in the table below, a large proportion of clinicians were not scored on the same measures in 2021 as in 2019. The measures that were repeated most often were measures collected through the CMS Web Interface or measures required of ACOs.

For those clinicians who were scored on the same measures in 2021 as in 2019, the average scores for many of the measures were similar in the two years, but this masked a signficant amount of change at the individual clinician/group level. A large subset of clinicians had improved performance, while another large subset had worse performance.

Table 44
Changes in Quality Measures Used and Performance, 2019-2021

Measure ID	Measure Name	NPIs Scored Using Measure in 2019	% NPIs Scored in 2021	Avg Score in 2019	Avg Score in 2021 if Used in 2019	% NPIs With Higher Score in 2021	% NPIs With Lower Score in 2021
001	Diabetes HbA1c Poor Control	244,089	87%	8.7	8.6	56%	34%
236	High Blood Pressure Control	231,464	78%	8.0	7.9	38%	60%
318	Fall Risk Screening	213,198	77%	9.1	9.2	39%	31%
112	Breast Cancer Screening	205,319	75%	8.3	8.4	52%	47%
113	Colorectal Cancer Screening	202,610	72%	8.0	8.2	60%	39%
ACO321	CAHPS for ACOs	155,058	0%	10.8			
458	All-cause Hospital Readmission	118,841	0%	4.4			
128	BMI Screening	59,559	54%	7.6	2.6	15%	78%
130	Documentation of Medications	48,959	51%	5.6	5.4	26%	32%
111	Pneumococcal Vaccination	47,395	50%	7.6	1.6	6%	90%
317	High Blood Pressure Screening	43,371	29%	7.6	7.7	38%	47%
239	Pediatric Weight Assessment & Counseling	34,776	74%	8.9	9.3	61%	21%
066	Pharyngitis Appropriate Testing	33,912	21%	8.5	7.4	22%	61%
226	Tobacco Use Screening	32,069	53%	6.5	7.8	69%	23%
309	Cervical Cancer Screening	30,992	73%	8.3	8.8	74%	18%
240	Childhood Immunization Status	28,339	66%	9.2	9.2	22%	45%
371	Depression Utilization of the PHQ-9 Tool	27,194	0%	9.2			
119	Diabetes Attention for Nephropathy	25,440	45%	7.3	7.4	26%	61%
238	Use of High-Risk Medications	21,628	58%	6.0	8.6	93%	5%
310	Chlamydia Screening for Women	20,874	49%	8.7	8.4	16%	70%

NOTE: Only includes NPIs who participate in both 2019 and 2021. A measure is counted as being used by an NPI if it was used in any method of scoring for that NPI.

The pattern is similar when examining changes in measure use and performance for individual specialties.

Table 45
Changes in Quality Measure Use & Performance for Family Practice , 2019-2021

Measure ID	Measure Name	NPIs Scored Using Measure in 2019	% NPIs Scored in 2021	Avg Score in 2019	Avg Score in 2021 if Used in 2019	% NPIs With Higher Score in 2021	% NPIs With Lower Score in 2021
001	Diabetes HbA1c Poor Control	22,876	93%	8.8	8.6	53%	36%
236	High Blood Pressure Control	20,815	85%	8.1	8.1	39%	60%
112	Breast Cancer Screening	19,485	81%	8.4	8.4	51%	48%
113	Colorectal Cancer Screening	18,958	81%	8.1	8.2	57%	42%
318	Fall Risk Screening	18,218	80%	9.1	9.3	46%	24%
ACO321	CAHPS for ACOs	14,477	0%	10.9			
458	All-cause Hospital Readmission	8,977	0%	5.1			
111	Pneumococcal Vaccination	4,240	45%	7.8	1.1	5%	92%
317	High Blood Pressure Screening	3,386	31%	7.9	8.2	27%	52%
128	BMI Screening	3,290	50%	8.0	1.2	4%	90%
239	Pediatric Weight Assessment & Counseling	3,040	77%	9.0	9.4	64%	18%
309	Cervical Cancer Screening	3,036	68%	8.5	9.0	74%	23%
066	Pharyngitis Appropriate Testing	2,597	27%	8.7	6.9	15%	77%
240	Childhood Immunization Status	2,476	69%	9.3	9.3	25%	44%
371	Depression Utilization of the PHQ-9 Tool	2,156	0%	9.3			
130	Documentation of Medications	2,150	46%	5.7	5.5	21%	33%
119	Diabetes Attention for Nephropathy	1,931	43%	7.4	7.3	36%	57%
226	Tobacco Use Screening	1,524	58%	6.8	8.4	82%	16%
065	URI Appropriate Tx	1,174	59%	7.1	7.7	62%	28%
310	Chlamydia Screening for Women	1,118	49%	8.9	8.6	15%	69%

NOTE: Only includes NPIs who participate in both 2019 and 2021. A measure is counted as being used by an NPI if it was used in any method of scoring for that NPI.

Table 46
Changes in Quality Measure Use & Performance for Ophthalmology , 2019-2021

Measure ID	Measure Name	NPIs Scored Using Measure in 2019	% NPIs Scored in 2021	Avg Score in 2019	Avg Score in 2021 if Used in 2019	% NPIs With Higher Score in 2021	% NPIs With Lower Score in 2021
117	Diabetes Eye Exam	5,679	86%	8.2	7.0	41%	47%
238	Use of High-Risk Medications	3,840	71%	6.9	9.9	100%	0%
019	Diabetic Retinopathy Tx Communication	3,791	60%	8.1	8.6	44%	43%
012	Glaucoma Optic Nerve Evaluation	3,653	36%	7.3	7.6	39%	55%
318	Fall Risk Screening	3,166	68%	9.0	9.0	32%	41%
191	Cataract Surgery Visual Acuity	2,956	53%	7.9	7.3	24%	63%
001	Diabetes HbA1c Poor Control	2,831	72%	8.6	8.5	56%	32%
130	Documentation of Medications	2,678	49%	6.0	5.7	20%	26%
388	Cataract Surgery Intraop Complications	2,667	0%	6.9			
236	High Blood Pressure Control	2,404	62%	8.2	8.1	34%	62%
112	Breast Cancer Screening	2,239	61%	8.3	8.4	54%	45%
113	Colorectal Cancer Screening	2,196	59%	8.1	8.3	67%	33%
226	Tobacco Use Screening	1,974	50%	7.2	8.4	67%	22%
192	Cataract Surgery Complications	1,945	0%	6.7			
ACO321	CAHPS for ACOs	1,718	0%	10.8			
111	Pneumococcal Vaccination	1,614	65%	7.9	1.0	3%	93%
014	Macular Degeneration Exam	1,610	55%	5.7	5.9	31%	18%
141	Glaucoma Intraocular Pressure Reduction	1,306	71%	6.1	7.4	51%	19%
374	Receipt of Specialist Report	1,280	46%	8.3	8.9	45%	35%
458	All-cause Hospital Readmission	1,225	0%	4.2			

NOTE: Only includes NPIs who participate in both 2019 and 2021. A measure is counted as being used by an NPI if it was used in any method of scoring for that NPI.

9.2. Changes by Method of Participation

One of the reasons that the quality measures used by clinicians have changed from year to year is that clinicians change the method in which they participate in MIPS. If a clinician switches from individual participation to group participation or vice versa, the measures that will be used to determine their quality score will also likely change.

The quality scores assigned to MIPS APM participants are much higher than the scores assigned to groups, and on average, the scores assigned to groups are somewhat higher than the scores assigned to individuals. In most cases, however, clinicians who participated as individuals in 2019 and changed to a group or MIPS APM in 2021 were as likely to see their quality scores worsen as to improve.

Clinicians who participated in a group in 2019 and switched to a MIPS APM or to indivdual participation were more likely to see their quality scores worsen than those who remained in a group.

Quality scores for clinicians who participated in a MIPS APM in 2019 decreased significantly in 2021, regardless of the method by which they participated in 2021.

Table 47
Changes in MIPS Participation and Quality Scores, 2019-2021

Method of Participation in 2019	Method of Participation in 2021	Number of Unique NPIs	% of 2019 Group	Mean Quality Score 2019	Mean Quality Score 2021	Change in Quality Score		
						% Improved	% Same	% Worsened
Individual	Individual	30,459	60%	76.4	77.4	36%	28%	36%
	Group	5,136	10%	81.6	80.8	43%	16%	41%
	MIPS APM	945	2%	79.7	88.9	52%	1%	47%
	Multiple	1,680	3%	77.1	81.2	47%	7%	45%
	Not in MIPS	12,191	24%	71.6				
	Subtotal	50,411	100%	76.2	79.0	39%	23%	38%
Virtual Group	Individual	10	20%	82.9	44.1	0%	0%	100%
	Group	18	37%	83.2	90.3	0%	0%	100%
	MIPS APM	13	27%	83.2	90.5	100%	0%	0%
	Not in MIPS	8	16%	89.5				
	Subtotal	49	100%	84.6	80.9	57%	0%	43%
Group	Individual	14,113	5%	75.3	65.0	33%	11%	56%
	Group	168,008	57%	87.5	87.9	43%	15%	42%
	MIPS APM	9,232	3%	87.1	89.4	46%	1%	53%
	Multiple	16,604	6%	87.4	86.2	42%	6%	52%
	Not in MIPS	88,371	30%	79.5				
	Subtotal	296,328	100%	84.6	87.3	43%	14%	43%
MIPS APM	Individual	4,080	2%	99.3	80.4	5%	45%	50%
	Group	27,684	13%	99.0	91.6	2%	39%	59%
	MIPS APM	70,936	33%	99.7	90.3	0%	7%	93%
	Multiple	7,171	3%	99.7	89.2	0%	13%	87%
	Not in MIPS	103,075	48%	99.6				
	Subtotal	212,946	100%	99.6	90.4	1%	14%	85%
Multiple	Individual	5,876	4%	84.6	75.8	36%	14%	50%
	Group	37,157	24%	89.7	88.1	39%	13%	48%
	MIPS APM	22,136	14%	96.9	90.5	12%	7%	82%
	Multiple	38,623	25%	90.6	88.0	31%	7%	61%
	Not in MIPS	53,463	34%	91.9				
	Subtotal	157,255	100%	91.5	88.3	30%	9%	61%
Not in MIPS	Individual	7,099	5%		76.3			
	Group	91,988	68%		84.1			
	MIPS APM	20,867	15%		90.1			
	Multiple	16,020	12%		86.8			
	Subtotal	135,974	100%		85.3			
Total	Total	852,963	100%	90.4	87.3	29%	13%	58%

NOTE: Virtual Groups are missing in the 2021 QPP PUF Data, so "Not in MIPS" for 2021 includes some Virtual Group participants

9.3. Reliability of Quality Measures

A clinician's performance on a quality measure can change from one year to the next not only because the quality of the care they deliver has changed, but due to the inherent statistical variation in the patients included in the measures. Many of the measures used in the MIPS program have low statistical reliability, meaning that differences between physicians in quality measures scores are more likely to reflect variations in patients rather than differences in the quality of care the physicians deliver; this also means that changes in scores over time are likely to reflect changes in the characteristics of the patients, not just changes in the quality of care delivered.

The reliability of a measure is lower when fewer patients are being measured, which means that measure scores for individual clinicians and small practices are less likely to be accurate than the scores for larger practices, and changes in measure scores over time for small practices are less likely to reflect changes in the quality of care than they are for larger practices.

For example, clinicians who report as individuals have lower scores on the breast cancer screening measure if they have small numbers of patients eligible for breast cancer screening. However, as shown below, clinicians with small numbers of patients also experience much more dramatic changes in the measures from year to year than clinicians with larger numbers of patients. From 2019-2020, over 40% of clinicians with 50 or fewer patients included in the breast cancer screening measure experienced an increase or decrease of more than 10 percentage points in the percentage of women who received a screening, while only 25% or fewer clinicians with 200 or more patients experienced changes over time that large. Conversely, a higher share of the year-to-year changes for clinicians with larger numbers of patients were less than 2 percentage points.

Table 48
Change in Performance, Individual Clinicians, 2019-2021
Breast Cancer Screening

Number of Patients Measured	Number of Clinicians	Avg # of Patients Measured	Average Performance in 2019	Average Performance in 2021	Change in Performance, 2019-2021		
					> +10 or < -10	+2-10 or -2-10	Change -2 to +2
0-50	168	37	57.4	58.1	43%	38%	18%
50-100	431	77	61.0	60.5	32%	50%	18%
100-200	1,016	150	63.4	61.6	31%	48%	21%
200-500	1,767	321	64.0	62.8	25%	50%	25%
500-1000	531	646	62.0	60.7	24%	47%	28%
1000+	49	1,315	64.2	63.9	14%	45%	41%

NOTE: Only includes NPIs who participated in both 2019 and 2021 and used the measure in both years

This means that, depending on the year, a clinician with a small number of patients might look much better or much worse on a measure merely because of random variation in their patients. However, the MIPS scoring structure will reward or penalize them for the random variation in the same way it would if the actual quality of care had improved or worsened.

A similar phenomenon can be seen for groups reporting the breast cancer measure, but the proportions of cases with large swings in performance are somewhat smaller.

Table 49
Change in Performance, Group Practices, 2019-2021
Breast Cancer Screening

Number of Patients Measured	Number of Groups	Avg # of Patients Measured	Average Performance in 2019	Average Performance in 2021	Change in Performance, 2019-2021		
					> +10 or < -10	+2-10 or -2-10	Change -2 to +2
0-50	24	37	58.0	59.2	33%	46%	21%
50-100	79	75	69.1	68.9	22%	48%	30%
100-200	129	144	66.9	65.1	23%	47%	29%
200-500	347	346	57.7	57.5	20%	58%	23%
500-1000	279	712	56.2	57.1	26%	51%	23%
1000+	888	10,200	52.7	53.6	21%	48%	31%

NOTE: Only includes NPIs who participated in both 2019 and 2021 and used the measure in both years