MACRA: Charting your course using CMS data

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Abstract The purpose of this paper is to connect MACRA's QPP payment reform program to overall organisational strategy. Focusing on integrating these programs holistically rather than a siloed approach has many benefits. This paper pulls those pieces together through an overview of the important elements of MACRA's QPP and explores how organisations can use Centers for Medicare and Medicaid Services (CMS) data to design a comprehensive strategy. This paper presents a case study on how a large academic health system (Virginia Commonwealth University Health) designed and implemented a strategic and ongoing response to MACRA. This paper concludes with

a checklist of recommended actions to take during the initial years of MACRA's QPP implementation to ensure that the focus is on asking the right questions, at the right time, to effectively prepare for the future.

KEYWORDS: MACRA, QPP, strategy, HCPLAN, quality, cost

INTRODUCTION

The Medicare Access and CHIP Reauthorization Act (MACRA) will impact the entire US healthcare system in a number of ways, but for many, MACRA's biggest impact will be in how providers are paid through the law's Quality Payment Program (QPP). Healthcare providers, including medical groups, health systems, hospitals, medical supply companies, post-acute care providers, networks and commercial payers, are at the precipice of what may be one of the most profound shifts in payment dynamics in recent times. MACRA touches on many pieces of the healthcare ecosystem, because it impacts what may be the most expensive piece of equipment in healthcare: the pen. Choices in treatment plans — from drugs to facilities — begin with clinicians, and these decisions directly drive utilisation, which affects cost and quality of care. MACRA's QPP reforms how clinicians are reimbursed for treating traditional Medicare beneficiaries on the basis of quality and cost of care, which is very different from how it works today. This law is evolving as it is being implemented, making it challenging to keep tabs on all the QPP details. Those who are adequately prepared for those changes that will emerge as a result of MACRA implementation will find themselves well equipped to thrive.

This paper provides an overview of the important elements of MACRA's QPP as outlined in the final rule that was published in the *Federal Register* on 4 November 2016. It explores how organisations can use Centers for Medicare and Medicaid Services (CMS) data to design a comprehensive QPP strategy that takes into consideration more long-term implications such as its effect on compensation and recruiting. This paper then presents a case study on how a large academic health system (Virginia Commonwealth University Health) designed and implemented a strategic and ongoing response to MACRA. The paper concludes with a checklist of recommended actions to take during the initial years of MACRA's QPP implementation to ensure that the focus is on asking the right questions, at the right time, to effectively prepare for the future.

MACRA FRAMEWORK

Implementing MACRA, along with all the other CMS initiatives, is no small task. To make that task a little easier, CMS established 'The Health Care Payment Learning and Action Network' (HCPLAN) to help align payment approaches in both the public and the private sectors of the US healthcare system. HCPLAN's vision is to achieve the goals of better care, smarter spending and healthier people in the United States by substantially reforming its payment structure to encourage quality health outcomes and value over volume.[1] To that end, HCPLAN produced an alternative payment model (APM) framework to help track progress in the evolution towards those goals (see Figure 1).

The categories are:

Category 1 — Fee for service with no link to quality and value.
Category 2 — Fee for service linked to quality and value.
Category 3 — APMs built on fee-for-service architecture.
Category 4 — Population-based payment.

The models increase in complexity and evolve in architecture moving through the continuum. Category 1 rewards volume. Category 2 does as well but adds an element of incentive for value, while Category 3

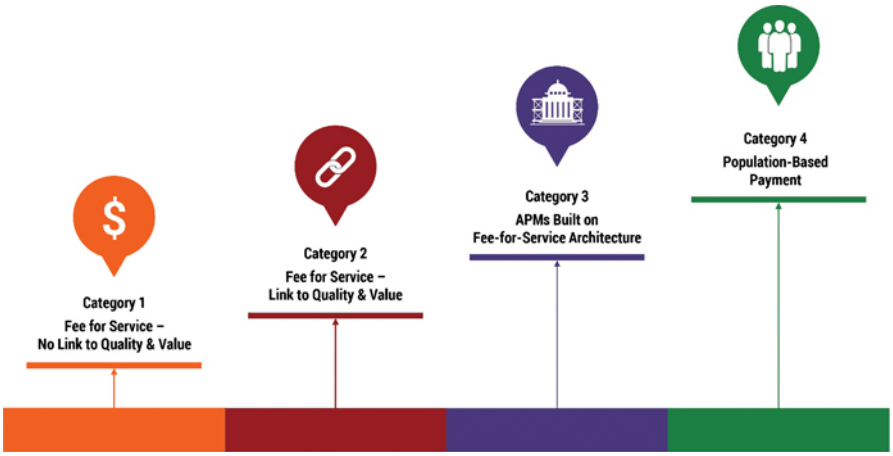

Figure 1: Source HCPLAN

expands that even further by adding 'risk' to the equation. Category 4 is a population-based payment model in which reimbursement has nothing to do with volume and everything to do with providing quality care to a defined population. Payment reform is moving the US healthcare system from a predominantly Category 1 model towards a Category 4 model. How quickly the US healthcare system moves away from Category 1 and towards new payment methodologies is uncertain, but MACRA's QPP currently sits squarely in Category 2. This is because, starting in 2019, based on 2017 performance in the QPP that includes both the cost and the quality of care, clinicians will not be paid the same for services given to Medicare beneficiaries.

QUALITY PAYMENT PROGRAM BACKGROUND

President Obama signed MACRA into law in April 2015. The law, among other things, repealed the flawed Medicare sustainable growth rate (SGR) formula and created the QPP. The QPP has two distinct paths: a merit-based incentive payment system (MIPS) path and the advanced APM (AAPM) path. The MIPS path rewards or penalises clinicians on the basis of quality and cost of care compared with peer groups, while the AAPM path focuses on clinicians participating in models created by the Center for Medicare and Medicaid Innovation. Physician fee schedule rates in 2019 will remain the same until 2025, while eligible clinicians (ECs) can receive payment adjustments through MIPS or a financial incentive for participation in an AAPM. Beginning in 2026, ECs participating in an AAPM will receive a 0.75 per cent annual update to base Medicare Part B payments, while those who do not participate in AAPMs will receive a 0.25 per cent annual update.[2] Practices participating in an AAPM for a significant portion of their population will not be subject to the MIPS programme requirements. Clinicians are now charged with picking a path to determine their future Medicare reimbursement — either MIPS or AAPM. The MIPS programme will combine the physician quality reporting system (PQRS), the value-based payment modifier (VM) and the meaningful use (MU) programmes in 2019. There are four categories in MIPS, each with varying 'weights', as shown in Figure 2.

Quality (weight 60 per cent 2019 to 30 per cent 2021+)

Quality consists of current PQRS, outcome and additional measures that will be solicited by the secretary of Health and Human Services (HHS) from professional organisations. The secretary will publish annually a list of quality measures to be used in the next MIPS performance period. ECs will select which measures to report and to be assessed on. In the 2017 performance

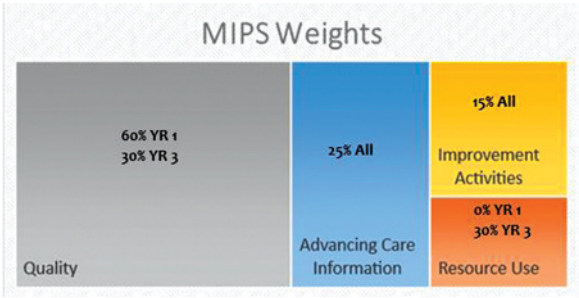

Figure 2: MIPS weights

period, six measures were to be selected, including one outcome or high-priority measure if an outcome measure was not available. Important focus areas included:

- Clinical care
- Safety
- Care coordination
- Patient and caregiver experience
- Population health and prevention

Cost (weight 0 per cent 2019 to 30 per cent 2021+)

Cost or 'resource use' will include measures used in the current VM programme with enhanced attribution and measurement methodologies determined through public input. Cost from this perspective is 'spend' or what the payer pays the providers. This category will allow ECs to report their specific role in treating the beneficiary (once patient relationship codes are implemented) and is intended to improve risk adjustment methodologies to ensure that ECs are not penalised for serving sicker populations. Important focus areas include:

- Total per capita costs for all attributed beneficiaries measure
- Medicare spending per beneficiary (MSPB)
- Episodes

Advancing care information (weight 25 per cent stable)

This is the next iteration of MU and is based largely on those requirements. There were four mandatory requirements in 2017, a list of performance-based measures and opportunities for bonuses. ECs must meet the base score requirements and may achieve additional points in the performance category as outlined below.

Base score components for the transition year — 2017 — included:

1. Security risk analysis
2. E-prescribing
3. Provide patient access
4. Health information exchange

Performance score components were:

1. Provide patient access
2. Health information exchange
3. View, download or transmit (VDT)
4. Patient-specific education
5. Secure messaging
6. Medication reconciliation
7. Immunisation registry reporting[3]

Improvement activities (weight 15 per cent stable)

This is a brand-new category with no legacy programme. In the new category, improvement activities will assess ECs on their efforts to engage in a variety of activities. ECs will be given credit for working to improve their practices and facilitating future participation in AAPMs. These activities include:

- Expanded practice access
- Population management
- Care coordination

- Beneficiary engagement
- Patient safety and practice assessment
- Participation in APMs[4]

ECs will receive composite performance scores of 0 to 100 based on performance in each of the four categories according to classification weight. Each EC's composite score will be compared with a performance threshold that consists of the average of the composite performance scores for all MIPS ECs during a period prior to the performance period. ECs whose composite performance scores are above the threshold will receive a positive payment adjustment; those whose scores fall below will receive a penalty, and if the composite performance score is at the threshold, the EC will receive zero adjustment. In terms of the current rule, this financial impact would be -/+ 4 per cent to -/+ 9 per cent between 2019 and 2024, but there are additional non-revenue neutral dollars of US$500m per year during this period to reward top-performing providers with bonuses ranging from 0.05 to 10 per cent of traditional Part B total annual revenue.[5] The money collected through penalties will be pooled, and CMS will distribute it to providers whose performance score exceeds the performance threshold. This process means that those with the highest scores will theoretically capture the maximum financial incentives. It is estimated that top-tier practices (those over the 25th percentile) could receive more than 127 per cent of Medicare payments, which could surpass commercial contract rates.

ADVANCED ALTERNATIVE PAYMENT MODEL BACKGROUND

The alternative to the MIPS path is the AAPM path that requires providers to take on a 'more than nominal' financial risk through participation in payment models that reward attributes above and beyond volume. Many of the aspects of AAPMs are also components of categories in the MIPS programme as many of the 'outcomes' and 'focus areas' are similar (ie patient access). With AAPMs, providers share in more of the risk relative to achieving goals and are therefore rewarded with greater financial incentives. AAPMs include programmes created by the CMS Center for Medicare & Medicaid Innovation (CMMI) such as:

- Medicare Shared Savings Programs (MSSP) — Tracks 1+, 2 and 3
- Next Generation Accountable Care Organisation (ACO) Model
- Comprehensive End-Stage Renal Disease (ESRD) Care (CEC) Model — Two-Sided Risk
- Comprehensive Primary Care Plus (CPC+) Model
- Oncology Care Model (OCM) — Two-Sided Risk Arrangement
- Comprehensive Care for Joint Replacement Model (CJR)

There are many other APMs that are not considered 'advanced' in the QPP.[6] Practices must have at least 25 per cent of their Part B payments or 20 per cent of patients attributed in an AAPM in the 2017–2018 performance periods and increase it to 75 per cent in 2019 and beyond.[7] In terms of financial incentives, practices participating in one of these models will receive a 5 per cent lump sum bonus each year from 2019 to 2024 and, starting in 2026, they will receive an additional 0.5 per cent increase over practices participating in the MIPS programme. Starting in the 2018 performance period, two tracks will be available for professionals to qualify for the bonus incentive. The first option will be based on receiving a significant percentage of Medicare Part B payments or patients through an AAPM, as already discussed; the second will be based on receiving a significant percentage of AAPM Part B payments or patients combined from Medicare and other payers.[8]

Regardless of the path, it is important to appreciate that in just seven short years the reimbursement spread between the 'best performing' and the 'worst performing' providers could approach 40 per cent in the

Medicare Part B payer category. Perhaps even more important is appreciating that there is a window for obtaining credit for transforming a practice in terms of commercial payer contracts. The overarching goals of MACRA's QPP are to improve health outcomes and to spend wisely.[9] There is an opportunity to seize the moment in terms of capitalising on practice transformation activities by incorporating a QPP strategy with commercial contracting efforts. Practices that utilise this opportunity to align and integrate payer incentive programmes to improve clinical outcomes and the patient experience along with improving cost efficiency will have a competitive advantage.

PART B LEGACY PROGRAMMES

To create a QPP strategy, practices must first analyse historical performance in legacy Part B quality programmes, including the MU programme, the PQRS and the VM programmes. For the MU programme, practices can examine practice performance and stage of adoption. Practices must also ensure that their technology meets, at a minimum, 2014 certified health record technology (CEHRT) criteria — the 2015 CEHRT criteria may soon be required.[10] The VM programme incorporates quality and cost (weighted equally at 50 per cent), providing for differential payments to clinicians under the Medicare Physician Fee Schedule (PFS) based on the quality of care furnished compared with the cost of care during a performance period.[11] The VM programme affected clinicians starting in calendar years (CY) 2013–2016 with payment adjustments applied at the taxpayer identification number (TIN) level, assessed 24 months after the performance period (which is similar to MIPS). In other words, performance in 2013 resulted in a positive, negative or neutral adjustment to traditional Part B payments in CY 2015.

Clinicians can learn about how their practice compares with that of their peers relative to quality and cost in the VM programme by reviewing quality and resource use reports (QRURs). QRURs are produced by CMS twice a year — each spring and autumn — and can be downloaded from the CMS website (https://portal.cms.gov/). Many of the VM programme elements are included in the QPP, as depicted in Figure 3:

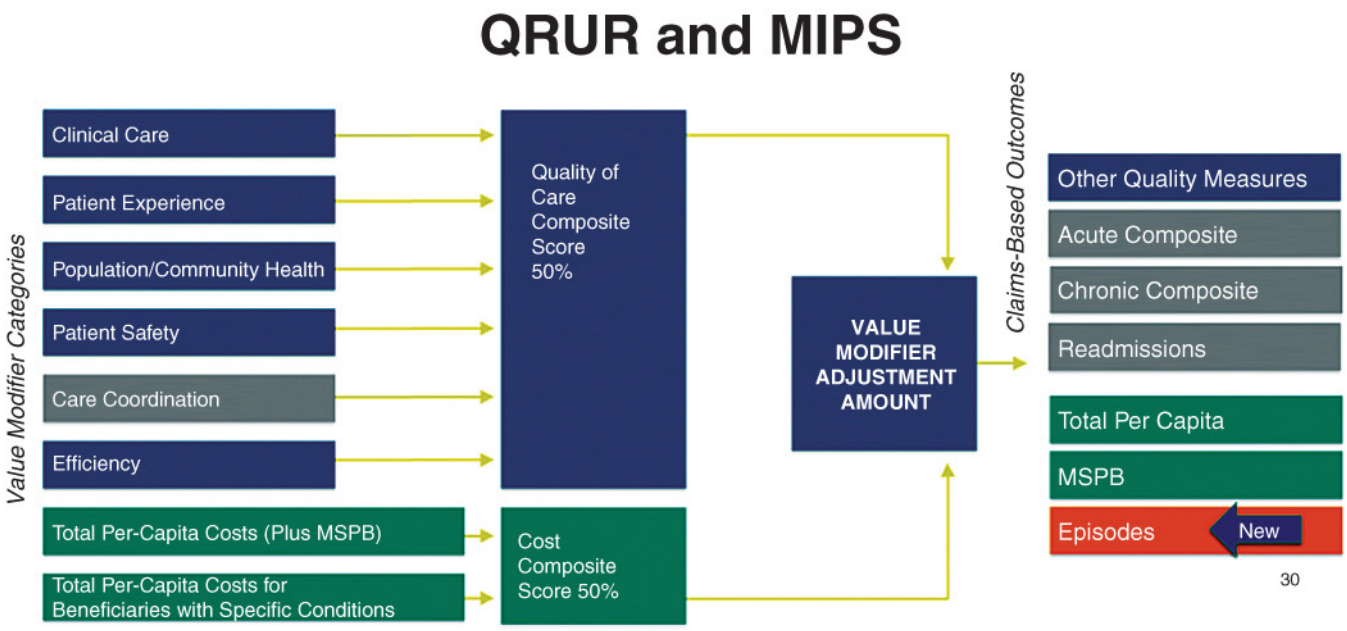

Figure 3: QRUR mapped to MIPS

Starting on the left-hand side of the figure, the VM's quality and cost composite scores used for quality-tiering summarise each TIN's performance on quality measures across six quality domains and on cost measures across two cost domains. The quality domain score represents 50 per cent of the composite score and includes:

- Clinical care
- Patient experience
- Population/Public health
- Patient safety
- Care coordination — which includes claims-based outcome measures
- Efficiency

The cost composite score represents 50 per cent of the composite score and includes:

- Total per capita cost — which includes costs for beneficiaries with specific conditions
- MSPB

Quality and cost score composites are used to determine tiering and the VM adjustment.

On the right-hand side of the figure are the VM programme components, with arrows indicating how they transition to MIPS. In the quality category, in addition to quality measures, are outcome measures including acute and chronic composites as well as readmissions, which fold into the quality category in the QPP. In the VM's cost composite, total per capita and MSPB contribute to the cost category in the QPP. There is also a new measure in MIPS — episodes, defined by the CMS as a 'set of services provided to treat, manage, diagnose, and follow up on a clinical condition or treatment'.[12] In 2017, CMS had ten measures, but there will be many more to come. In the QPP, this cost category component is currently being defined, and clinicians and policymakers are crafting the episode framework. Details about episodes can be found in supplemental QRURs or 'sQRURs' and are also available on the CMS portal. They are like QRURs in that they have a summary and detailed information. We anticipate the integration of additional episodes as QPP implementation continues and as CMS gathers input from stakeholders to identify and construct the foundation for this component in the 'resource use' category.

Attribution in the cost or resource use category attributes beneficiaries (see Figure 4) to providers using a two-step process for the per capita cost measure:

Step 1: Assigns a beneficiary to a TIN if the beneficiary receives the plurality of primary care services from a primary care physician within the TIN.

Step 2: Assigns a beneficiary to a TIN if the beneficiary (a) received at least one primary care service from a physician of any specialty within the TIN, and (b) received most of his or her primary care services from clinicians within the TIN.[13]

Primary care services include evaluation and management visits in an office, other outpatient services, skilled nursing facility services and

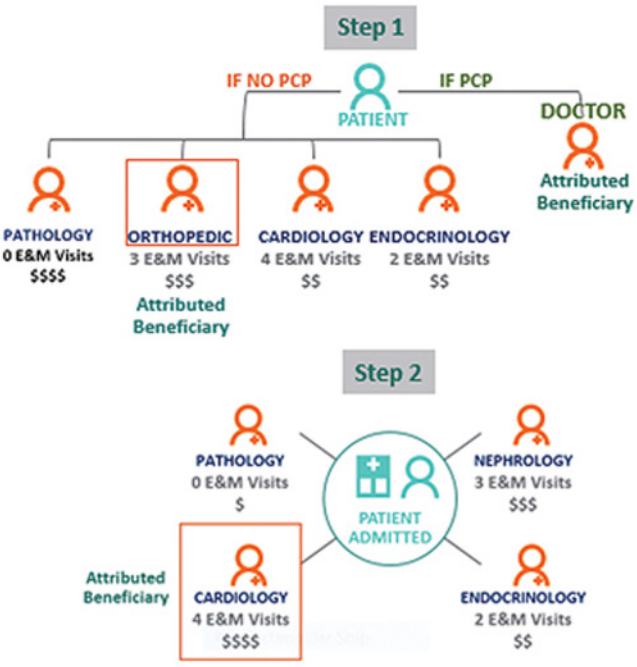

Figure 4: Attribution methodology

those services rendered in home settings. Primary care physicians include family practice, internal medicine, general practice and geriatric medicine. Step 2 is used when a beneficiary does not receive a primary care service from a primary care physician during the performance period. For example, a QRUR analysis for a dermatology group recently found they had about 100 attributed lives. If a beneficiary visited their group during the year but did not visit a primary care provider, and they provided the most 'evaluation and management' (E&M) services, then they would be attributed total cost for care associated with that beneficiary for the entire performance period in the per capita cost measure. The other measure in the resource use category is the MSPB. Attribution in this measure is more straightforward. It is based on the provider billing the most Medicare-allowable charges regardless of specialty during the inpatient episode of care.[14] These attribution methodologies are evolving. There are new patient relationship category codes that will be implemented as the QPP rolls out to improve the attribution methodology.

QUALITY AND RESOURCE USE REPORTS BACKGROUND

QRURs contain a summary report, exhibits and excel tables that provide details by clinician and beneficiary. The summary report outlines how the group compares with peers relative to quality and cost components, depicting overall performance by quadrant as seen in Figure 5. In this example, the group falls in the 'high quality, high cost' quadrant. The yellow bar indicates performance within one standard deviation from the mean. Groups falling within these 'guardrails' are held harmless in the VM programme and have no payment adjustment, but these guardrails come down in the QPP. In the QPP, clinicians are graded on a curve compared with peers and potentially prior performance, and will be held harmless only if they are at the actual performance threshold (depicted in Figure 6), which means that very few clinicians will have a zero adjustment in the QPP. Clinicians above the performance threshold will have a positive adjustment, and those below will have a negative adjustment. Those performing very well will enjoy additional payment for exceptional performance (tapping into the additional non-revenue neutral US$500m), which can range from 0.5 to 10 per cent of annual traditional Part B payments. Also, performance in the QPP will be made publicly available on the Physician Compare website.[15]

QRURs contain detailed data that can be analysed in many ways and provide deeper insights into performance by clinician in the cost composite category of the VM programme. Examples of detail analyses include, but are not limited to, attribution by clinician, total per capita cost contribution by clinicians inside and outside the TIN, MSPB by clinician, hierarchal condition category (HCC) compared with MSPB

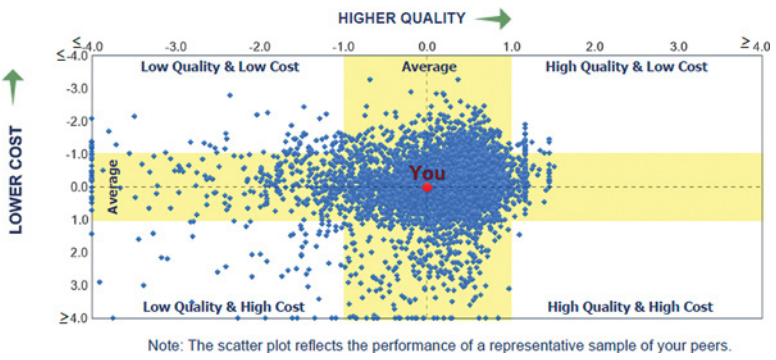

Figure 5: QRUR scatterplot

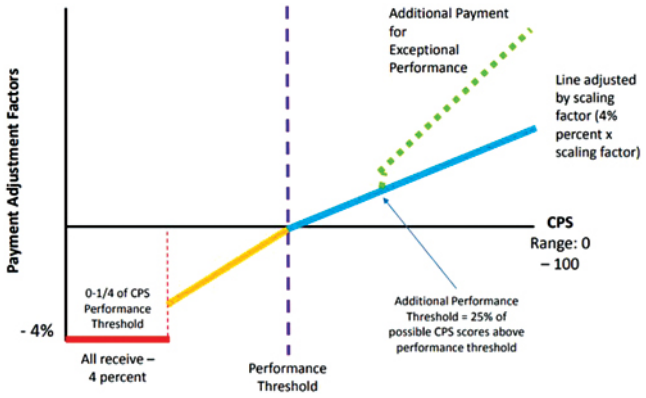

Figure 6: QPP scoring example

by clinician, and discharge disposition by HCC and total per capita cost by clinician. Figure 7 depicts an example of a sample analysis created using QRUR data that will be used to demonstrate how to connect the dots when designing a strategy in the QPP. Figure 7 shows the frequency of admissions by attributed provider by category summarised by the count of beneficiaries coming through the emergency department (ED), acute ambulatory care-sensitive condition (ACSC) and readmissions. In this example of a small multispecialty practice, data showed an excessive number of beneficiaries frequenting the ED owing to a number of flu-related admissions. Additional analysis showed that it was necessary to address access issues for provider 'I', who had the most ED admissions, and open

Lead EP	Admission Via the ED	ACSC Admission	Unplanned All-Cause Readmission Within 30 Days of Discharge
Dr A	2	2	0
Dr B	1	0	1
Dr C	1	1	2
Dr D	0	0	0
Dr E	6	2	0
Dr F	8	5	3
Dr G	2	0	0
Dr H	0	0	0
Dr I	11	5	2
Grand Total	31	15	8

Figure 7: QRUR sample analysis

the schedule to accommodate high-risk patients. More visits on the practice side equate to increased revenue and less total cost as expense associated with ED visits, and ultimately inpatient care, is much greater than outpatient care. Lower overall cost equates to a better score in the QPP.

We folded these findings into a QPP strategy, as depicted in Figure 8, by identifying whether there was a measure that made sense given the data, and identified measure #110, which relates to flu immunisation, to incorporate as a measure for the quality category. Next, we looked for an improvement activity that would address those avoidable admissions and selected 'expanded practice access'. This measure is highly weighted and is eligible for bonus points if reporting is electronic (it provides bonus points in the advancing care information (ACI) category too). Also, using the immunisation registry is worth up to ten points in the ACI category, which helps boost that score as well. We know that reducing unnecessary admissions reduces cost, so we are working on 'resource use' as well.

Another strategy identified from this analysis was the opportunity to institute a chronic care management programme. The group instituted billing for chronic care management and after-hours current procedural terminology (CPT) codes. Although Medicare does not reimburse for

• 60% Quality – QRS Measure
• #110 – Preventive care and screening: Influenza immunization • Reduce Readmissions
• 15% Improvement Activity (IA)
• Expanded patient access
• 25% ACI
• End-to-end bonus points if IA reported using end-to-end CEHRT • Immunization registry reporting worth up to 10 points
• **0% Cost** – Prep next year but fold into strategy
• Reduce avoidable readmissions
• **Other** – Bill for CPT codes
• Chronic care management 99490 – complex 99487 and 99489 • After hours/weekends 99050 and 99051 (commercial)
• **Prep for AAPM** – Patient access points for PCMH

Figure 8: QPP measure examples

after-hours care, many commercial payers do, and monetising shows that the group is optimising performance in the QPP and enhancing revenue.

Finally, this group is in the process of becoming a certified medical home, and patient access is also a measure for these programmes. By incorporating this APM participation goal and aligning with a QPP strategy, the practice is catching many fish with one worm. Although QPP detailed reports are not currently available, we anticipate that many of these elements from QRURs will carry forward in the new datasets as important elements in the VM programme translate to the QPP.

MACRA MORE . . .

There are opportunities to incorporate a QPP strategy into a wider strategic plan for practices capitalising on diving deeper into data and measures. A few examples include payer contracting, recruiting and compensation plans. Practices can incorporate QPP strategy into contracting by leveraging cost comparison data, aligning quality measures across contracts, and integrating technology advances and improvement activities into value propositions. For example, if a practice has lower cost-per-episode than peer groups, it could translate into performance with other payers. QRUR data provide cost by facility and referring provider, and clinicians can start to evaluate how referral patterns impact total cost of care, and this can translate into other payer programmes.

In terms of recruiting, practices can utilise data available (ie QRUR data) to better understand historical performance in Part B legacy programmes to project potential implications in the QPP. The QRUR can be viewed as a practice's resume. In the QPP, payment adjustments will follow clinicians, so it will be critical to understand performance and essential drivers. Compensation plans may be affected as QPP implementation rolls out. For practices that are accustomed to rewarding volume, consideration of other elements such as quality and cost should be incorporated to align incentives and to encourage the practice care team to row in the same direction. Compensation plan evolution will be important for independent and affiliated practices as revenue implications become more impactful as programme implementation unfolds. There are many factors to consider in developing and integrating a QPP strategy into an organisation's initiatives and its overall

strategic plan. Let us turn our attention to a case study examining how one organisation is navigating payment reform.

CASE STUDY

This case study focuses on Virginia Commonwealth University Health System (VCU Health System), a US$3.5bn net revenue academic health system headquartered in Richmond, Virginia, that proudly supports an 805-bed academic centre, a practice plan with over 800 physicians, a long-term care children's hospital, a community hospital with a long-term care facility and an insurance plan with over 200,000 covered lives. It serves as the safety net hospital primarily for the proximate service area but also throughout the Commonwealth of Virginia, depending on the type and acuity of care needed. VCU Health System is the clinical delivery enterprise for the broader brand representing VCU Health that includes five health science schools at Virginia Commonwealth University, and is an integral and vital source of support and coordination to deliver the other two important pieces of its mission, education and research.

VCU HEALTH AND PAYMENT INNOVATION

Describing the history of VCU Health and large-scale payment innovations is simple. There was not one. There were, however, pockets of significant, impressive work that had been going on for many years that served as a base for the fundamentals of payment reform. For example, one of VCU Health's faculty members, Dr Peter Boling, assisted in the development of the 'Independence at Home' model that has achieved significant success in reducing the overall costs to the most chronically ill by 20 per cent over the last few years. The premise of the Independence at Home model is coordinating the care of patients with myriad chronic conditions where they are most comfortable: their homes.

VCU HEALTH'S ENGAGEMENT WITH MACRA

While some great efforts had been made by specific programmes at VCU Health, the system had yet to develop a system-wide value-based thought pattern. While the practice plan had participated for several years in the VM programme, the results were always within the neutral zone (one standard deviation), so there were no financial gains or losses to the practice plan. At the same time, a new productivity-based compensation model was being implemented that did not have any value-based components.

VCU Health was entering the summer of 2016 with little operational education at the executive level on MACRA and no active planning on how to roll MACRA out. A MACRA planning committee was formed in August 2016 and began meeting monthly. This committee was later renamed the Value Payment Committee to encompass all value-based strategies related to the ambulatory part of the system. It became clear early on that the committee would be on a MIPS route, and so the strategy became twofold. First, determining how VCU Health could maximise the MIPS component and, second, determining how VCU Health could develop an APM strategy as a system. One of the first tasks the committee undertook was sharing the QRURs for the academic practice and for the community hospital practice.

Committee members identified the essential quality areas the system needed to examine, including improving documentation. On the cost/spend side, they optimised the overlap with the MSPB on the hospital side associated with the value-based purchasing programme. As an academic medical centre, VCU Health's MSPB amounts in relation to the QRUR and in relation to the hospital's value-based purchasing programme were within dollars of each other. The committee analysed the hospital file by post-acute provider and then by attributed physician, because when there is improvement in the performance on the hospital side, there will

also be improvement in the performance on the physician side, and vice versa. On the hospital side, there had not been previous work performed on this metric (which is now 25 per cent of the value-based purchasing programme), and over US$1m in reimbursement was left on the table last year.

The Value Payment Committee created a communication plan that included presentations, podcasts and written informational items regarding MIPS and its components. It is a multidisciplinary team that has proven helpful in working through the complex system. VCU Health joined Transforming Clinical Practice Initiative (TCPI), a Medicare demonstration programme, which assists in gap finding for value-based programmes and resourcing of analytics.

VCU HEALTH — THE JOURNEY AHEAD AND BARRIERS

There is still so much to do to create a new culture of thinking beyond the walls and across the care continuum of our health system. VCU Health has decided to partner with active MSSPs in the area to gain the experience and knowledge through their programs. Participating in the MSSPs provide umbrellas to apply what has been learned in the smaller programmes within VCU Health to a larger patient population. At the same time, a focus on important strategies with several large commercial contract negotiations is instrumental in aligning similar incentives so that the efforts underway for this transition to value-based care can have several payoffs financially.

The volume and value equation is unique to each provider, and therefore, each provider needs to find its appropriate balance of what should be paid for against the work efforts being deployed. Providers need to avoid the metric creep of multiple definitions and sources of data and, overall, the payers have been receptive to these conversations. VCU Health has created a preferred post-acute network that is operational with quality metrics and even some funds at risk for performance by the post-acute partners. VCU Health partnered with another health system to avoid metric overload and to create consistency in the market. The challenge now is how to optimise this alongside these new value-based payments. Related to other value-based work, VCU Health has purchased its bundled payment historical data and is working to optimise the learnings from the continuum of care data as well as to be prepared to participate in bundled payments. VCU Health's insurance company is discussing concepts about trials of bundle payments and accountable care type arrangements internally.

There are two barriers to successful implementation of MACRA. The first is the changing regulations. The mandatory bundled payment programmes are a good example of this given the changes in both of the Medicare mandatory programmes (joint replacements and cardiac). The MSSP regulations have changed several times since it first came out as well and, of course, the MACRA legislation is also shifting. Dynamic regulations lead to the inability to efficiently plan more than a few years ahead. The models require more than a modest amount of resources, and planning is vital. Another barrier is the infrastructure and culture of healthcare systems themselves. The shift from a reactive to a proactive approach to care for an individual and a community requires a provider to integrate the holistic patient view into the day-to-day care planning for all aspects of a patient's experience. This will not be captured in a single payment model but rather in myriad models that cross over each other.

In conclusion, establishing a MACRA strategy is a team effort. Forward-thinking organisations will integrate payment reform initiatives (such as MACRA's QPP) with a wide lens considering implications across functional areas (see Figure 9). MACRA's QPP is shifting the way clinicians are paid away from volume and towards value. This shift will impact many variables, as outlined in this

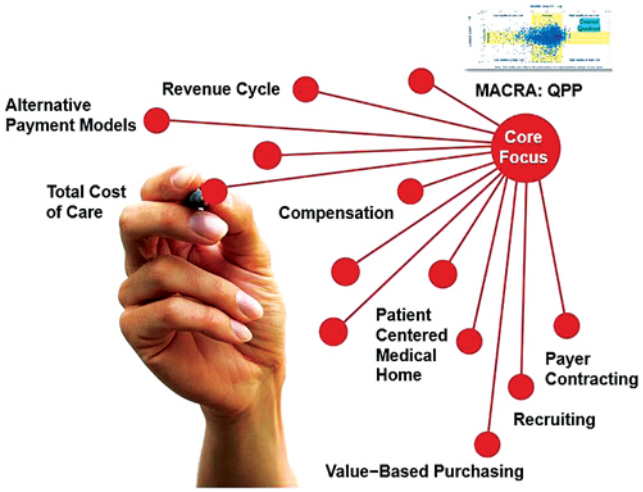

Figure 9: QPP enterprise implications

Box 1

	Timeline			
MACRA Action Plan	**Qrt 1**	**Qrt 2**	**Qrt 3**	**Qrt 4**
Meet with important stakeholders within the organisation and determine level of engagement for the performance period. If the group elects active participation in MIPS and wishes to report as a 'group' , identify 'owner(s)' of each MIPS category.	X			
Establish a MACRA oversight team within the organisation charged to monitor progress relative to MIPS categories: quality, ACI, cost and IA. Team should meet at least monthly and communicate status by category (preferably document through minutes) to leadership regularly.	X	X	X	X
Complete a mock scoring activity incorporating quality, ACI and IA using available feedback reports from practice selected vendors and reports from practice systems. Identify measure adjustments as applicable and determine subsequent mock scoring timeline.	X	X	X	
Incorporate CMS analysis findings into hospital system managed care contracting strategy focusing on rewarding the practice for 'value'.	X	X	X	X
Monitor legislation for changes as MACRA programmes are being created in real time and opportunities for participation in CMMI initiatives, quality programmes, plan design and more will continue to evolve as CMS evaluates programme performance. Determine if affiliation partners will provide insight regarding APMs.	X	X	X	X
Identify and integrate opportunities for billing for services as they relate to the QPP. Work with internal/external resource(s) to implement new billing routines.	X	X		
Prepare for discussions around provider compensation. If the current model rewards volume primarily, consider attributing a portion of compensation to value-based criteria.			X	X
Review annual list of measures published in the Federal Register in November and identify additions/deletions to current measures reported for each MIPS category. Revise your QPP strategy for the next performance period.			X	X

(*Continued*)

(*Continued*)

Quality				
Review past performance in legacy programmes (ie PQRS) and recommended measures for the performance period. Determine measures for reporting and strategy for this category.	X			
Determine if eligible clinicians will report individually or as a group.	X			
Validate reporting mechanism for the performance period considering reporting method, cost, measure availability and monitoring system.	X			
Review measure specifications and validate measure target list.	X			
When selecting measures, choose measures that matter, include a additional measures targeting efforts towards reducing admissions and readmissions.	X			
Continuously monitor performance and develop a continuous metric improvement plan.	X	X	X	X
Establish monthly calls with applicable vendors to assess performance for each selected measure and communicate to MACRA oversight team.	X	X	X	X
Resource Use/Cost				
Incorporate inquiry regarding primary care provider (PCP) relationship with patients focusing on those with chronic conditions. Educate patients regarding necessity of establishing care with a PCP.	X	X	X	X
Institute a methodology for identifying patients with chronic conditions at the front end and develop community relationships to expand care coordination efforts to ensure patients with chronic conditions are being managed by appropriate providers.	X	X	X	X
Utilise Health Insurance Claim (HIC) numbers in QRUR exhibits to identify attributed beneficiaries having chronic conditions to determine if there are opportunities for enhanced care management and/or care coordination activities.	X			
Review patients with low HCCs and higher than expected cost (using HIC numbers) to identify opportunities for potential documentation and coding improvement.	X	X		
Assess episode measure list and if potentially impactful, review future reports for performance information. Explore possibilities of sharing best practices with affiliation network(s).			X	
Review CMS data to determine areas in need of further focus.	X		X	
Explore possible strategies for decreasing avoidable admissions as applicable.	X	X	X	X
Improvement Activities				
Review recommended measures and verify target list by examining IA descriptions and specifications.	X			
Ensure that practice attests for measures utilising CMS methodology.			X	X
Determine if measures with bonus points are possible by discussing with electronic medical record (EMR) vendor.	X	X		
Identify optimum performance for any continuous 90-day time period in 2017 for year end reporting.		X	X	X
Advancing Care Information				
Identify EMR vendor's plan for certification to meet 2015 requirements and how this applies to your current software version. Begin planning based on outcomes of discussion.	X	X		
Schedule monthly calls with EMR vendor to discuss mandatory/optional ACI measures and verify optional measures targeted to maximise ACI score. Document progress and circulate to MACRA oversight team on a monthly basis.	X	X	X	X

(*Continued*)

(*Continued*)

Initiate ACI measure testing with EMR vendor and establish feedback mechanism.	X	X		
Monitor ACI measure reporting with EMR vendor and request draft score calculations for 90-days time period.		X	X	X
Alternative Payment Models				
Assess emerging networks, virtual groups and APMs in the market to identify affiliation interest based on MACRA measures and general alignment goals.	X	X	X	X
Monitor CMS communications for notification of AAPM pilots and determine interest level.	X	X	X	X

paper, and integrating strategic initiatives considering the shift will allow providers proactively to prepare for the future. We have provided a check list (see below) to jump-start the process. As discussed in the case study, there are many considerations and barriers to address. Preparing for MACRA will help all organisations identify critical focus areas across business functions and enable providers to develop a sustainable strategy for thriving in the future.

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