

## **MACRA AND RURAL HOSPITALS IN THE UNITED STATES**

### **ABSTRACT**

The cost of healthcare within the United States has continued to increase, while the quality of patient care has decreased. With the continued use of Medicare's former physician reimbursement algorithm, termed Sustainable Growth Rate (SGR), national expenditures within the U.S. have been expected to hike 5.6% annually. To modernize the delivery and financing of care, Congress has introduced the Medicare Access and CHIP Reauthorization Act (MACRA) of 2015 which has permanently eliminated and replaced the SGR. The purpose of this study was to review MACRA and its implementation to determine how it would financially impact rural hospitals. Two reimbursement pathways have been created for physicians under the MACRA. In addition, the financing and competition among facilities created by the act have been expected to impact physicians and healthcare organizations. Rural hospitals have been set to receive reduced government reimbursements and have been predicted to compete poorly with larger hospitals and healthcare corporations. Furthermore, the payment tracks available through the act have been projected to impact solo and small practice physicians negatively.

### **INTRODUCTION**

In 2015, Medicare spending increased 4.5% to \$642 billion contributing to the United States (U.S.) national health care expenditure of \$3.2 trillion or approximately 17.8% of the gross domestic product.<sup>1</sup> With the continued use of Medicare's former physician reimbursement algorithm, termed the Sustainable Growth Rate (SGR), national expenditures within the U.S. have been expected to hike 5.6% annually.<sup>1</sup> SGR has not been the only factor taking the blame for the rising costs of healthcare; also the traditional Fee-For-Service (FFS) payment system has also been emerging as a key contributor.<sup>2</sup> As these financial expenditures have continued to grow, quality of care within the U.S. has not.<sup>3</sup> To address these concerns, Congress has passed the Medicare Access, and CHIP Reauthorization Act of 2015 (MACRA) which has permanently eliminated and replaced SGR.<sup>4</sup> MACRA has altered Medicare physician reimbursement programs drastically. MACRA has sought to control national healthcare expenditures while also incentivizing value rather than volume.<sup>5</sup>

For many years, SGR has been the system utilized for determining physician Medicare reimbursement rates. SGR was originated from the Balanced Budget Act of 1997<sup>6</sup> and did not place direct limits on expenditures. The algorithm used to adjust physicians Medicare reimbursement rates has been based on actual expenses and target expenditures.<sup>7</sup> From 2002 to 2015, SGR has called for scheduled cuts in Medicare payments however, Congress has overridden the scheduled deductions every year except for 2002.<sup>7</sup> Furthermore, the SGR required a dramatic decrease in Medicare payments in 2015.<sup>6</sup> If MACRA had not repealed SGR, physician reimbursement rates would have decreased 21%, effective April 1, 2015.<sup>8</sup>

MACRA was bipartisan legislation signed into law April 16, 2015.<sup>4</sup> Title 1 of MACRA has repealed SGR, and changed the basis of Medicare payments to value rather than volume, condensed multiple quality programs into one new channel deemed Merit-Based Incentive Payment Systems (MIPS). It also has provided incentives for participation in eligible the Alternative Payment Models (APMs).<sup>9</sup> MACRA has been expected to help link 90% of all Medicare FFS payments to quality and 50% of Medicare payments to value through APMs by 2018.<sup>3</sup> The primary goals of MACRA have been to generate smarter spending and positive health outcomes by concentrating on incentives, quality care delivery, and information sharing.<sup>10</sup>

MACRA created two primary channels through which physicians would be reimbursed. Most providers have been expected to participate in MIPS which has intended to link traditional FFS payments to quality and value.<sup>11</sup> MIPS has streamlined pre-existing quality reporting programs such as the Physician Quality Reporting System (PQRS), Value-Based Payment Modifier (VM), and Medicare Meaningful Use (MU) into one system which would score the physician's individual performance.<sup>12</sup> The composite score has been set to be based on quality, resource use, clinical practice improvement activities (CPIA), and MU of certified Electronic Health Records (EHR) technology or Advancing Care Information (ACI). Based on this score, physicians would receive positive, negative, or neutral reimbursement adjustments.<sup>12</sup>

The second incentive program created through MACRA was APMs. Possible APMs have included the CMS Innovation Center Model, Medicare Shared Savings Program, demonstration pilots under the Health Care Quality Demonstration Program, and models required by Federal Law.<sup>2</sup> Most providers who have participated in APMs would still be subjected to MIPS scoring; however, the physicians would receive more favorable scoring.<sup>10</sup> Only participants in Advanced APMs have been exempted from MIPS. Advanced APMs must meet the following

criteria: quality-based payment measures similar to MIPS, utilization of certified EHR technology, and either bears more than the theoretical financial risk for losses or be a medical home model.<sup>13</sup> Qualifying APM participants have also been scheduled to receive lump sum bonus payments annually starting in 2019.<sup>13</sup>

Independent practices have been predicted to be impacted the most by MACRA; however, hospitals have also been projected to be involved and directly affected by MACRA. The overall impact on hospitals has been suspected to be low in comparison with solo providers and small practices.<sup>9</sup> Hospitals would have to be aware of MACRA regulations to maintain steady revenue and patient volume from local physicians and clinics; additionally, hospitals have also been predicted to have to support local physicians and closely monitor any hospital owned facilities or affiliates operating outside the hospital.<sup>8</sup> Specifically, rural hospitals would have to obtain a knowledgeable understanding of MACRA to ensure daily operations have not been negatively impacted. Due to size, location, limited resources, higher percentages of Medicare patients, and small financial reserves, rural hospitals have heavily relied on government payments.<sup>14</sup>

The purpose of this study was to review MACRA and its implementation to determine how it would financially impact rural hospitals.

## **METHODOLOGY**

The methodology for this study consisted of a qualitative literature review. Research articles and peer-reviewed literature were located using Marshall University's EbscoHost, CINAHL, ProQuest, and PubMed research databases. When information could not be found in these databases, Google Scholar was utilized. The Google search engine was also used to research government and private associate websites. Keywords used in the search included 'MACRA' OR 'SGR repeal' OR 'MIPS' OR 'APMs' AND 'rural hospitals' OR 'hospitals' OR 'cost.' Thirty-Six (36) references reviewed and selected were limited to the English language and were published between of 2015 through 2018. The information gained from these articles and websites were used as the sources of primary and secondary materials. Following the review of relevant abstracts, appropriate articles were used for the reporting of information and conclusions. This search was completed by EK, RL, JV, and NP and validated by AC who acted as the second reviewer and determined if the references met inclusion criteria.

## RESULTS

### *Merit-Based Incentive Payment Systems (MIPS)*

The new Medicare physician payment system began data reporting in 2017; however, the reimbursement adjustments have not been scheduled to occur until 2019.<sup>15</sup> The 2017 performance period has been pronounced as a trial run for reporting. It has been estimated that about 738,000-780,000 clinicians billing under Medicare FFS would be excluded from MIPS for this first reporting period.<sup>16</sup> Some rural providers have been set to be exempt from the Quality Payment Plan (QPP) in 2017. These exemptions have included clinicians with low volumes of Medicare patients, Rural Health Clinics, and Federally Qualified Health Centers.<sup>15</sup> Clinicians with low Medicare volumes, who have seen fewer than 100 Medicare patients or billed less than \$30,000, have been predicted to be the largest cohort of clinicians excluded from MIPS. Approximately 32.5% of clinicians would be exempt from MIPS due to the fact the provider has seen less than 100 Medicare patients.<sup>16</sup> If providers are not found exempt, the reimbursement method has been set to default to MIPS: MIPS has been expected to be the payment system most clinicians in rural facilities utilize.<sup>17</sup> If clinicians have re-assigned billing rights to hospitals, the hospital has legally met criteria to be subjected to MIPS.<sup>18</sup>

For those providers not exempted from MIPS, the CMS has outlined a specific payment adjustment model.<sup>19</sup> MIPS would score physicians based on quality, resource use, CPIAs, and MU of EHR. Each category has been assigned to represent a specific weight of the total composite score, and the significance of each type has been set to change in 2021.<sup>20</sup> In 2019, the quality category has been established to represent 50% of the total composite score while the resource use category, will carry a weight of 10%.<sup>19</sup> CPIAs have been weighted to represent 15%, and MU of EHR would account for 25% of the total score for 2019 (Figure 1).<sup>20</sup>

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FIGURE 1 ABOUT HERE

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In 2021, quality has been scheduled to drop to 30% while resource use has been set to increase to 30%. CPIAs and MU of EHR have not been expected to change in 2021 (Figure 2).<sup>20</sup>

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*FIGURE 2 ABOUT HERE*

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The total composite score would be a numeral between 0-100 and would decide how much of an adjustment rate Medicare would make.<sup>19</sup>

In 2019, the CMS has planned to start making payment adjustments. The adjustments have been scheduled to increase in range each year until 2022. The first adjustment has been set to range from -4% to +4% based upon the physician's total composite score. The reimbursement rate would change to range from -5% to +5% in 2020 and -7% to +7% in 2021.<sup>20</sup> The adjustment rate range has been scheduled to increase one last time to -9% and +9% in 2022 (Figure 3).<sup>19</sup>

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*FIGURE 3 ABOUT HERE*

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Based on these numbers, the potential reward and risk for clinicians can be high. For example, a representative from a rural hospital in West Virginia has stated a 1% change in Medicare reimbursement rates approximated to \$1 million.<sup>21</sup> Rural clinicians, specialists, and other small practices do not have the financial reserves to survive a -4% reimbursement cut. Hospital officials have been predicted to have to step in and support local physicians to avoid decreased rates of admissions and outpatient procedures.<sup>22</sup>

For 2019, the CMS has estimated that 87% of solo physician practices and 70% of clinics with 2 to 9 physicians would experience negative adjustments while 81% of providers in practice with over 100 clinicians would experience favorable adjustments.<sup>15</sup> In May 2017, 34%-59% of clinicians remained within practices of 9 physicians or less while only 39% were employed through hospitals.<sup>17</sup> The predicted negative adjustments have supported the fact that many independent clinicians will join larger corporations to survive MACRA reimbursement

adjustments. Large hospitals and multi-million-dollar companies such as Davita have been predicted to be the type of businesses clinicians seek employment from to avoid negative adjustments.<sup>17</sup>

#### *Advanced Alternative Payment Models (APMs)*

The goal of the U.S. Department of Health & Human Services (HHS) has been to move 30% of Medicare payments into APMs by 2016 and 50% by the end of 2018.<sup>23</sup> Advanced APMs have offered incentives for participation and bonus payments for clinicians. Clinicians in the Advanced APMs or Qualified Participants (QPs) would be eligible to receive a 5% lump sum bonus payment for 2019-2024 and a 0.75% increase to their Medicare physician fee schedule in 2026 and beyond.<sup>15</sup> The 5% bonus payment has been set to attract clinicians to the APM payment track; however, clinicians who qualify for the bonus payment have to undertake a sizable financial risk.<sup>18</sup> To be awarded the bonus payment, CMS has set specific revenue and patient thresholds that the Advanced APM entities must meet.<sup>17</sup> CMS would then evaluate all of the eligible clinicians in the Advanced APM as a whole to determine if the threshold was reached.<sup>18</sup>

The CMS has created two methods that would determine if an Advanced APM has been considered eligible. The schemes have been termed the Payment Amount Method and the Patient Count Method.<sup>24</sup> The Payment Amount Method would ensure that the Advanced APM entity has received at least 25% of its Medicare Part B payments through the Advanced APM. The Patient Count Method was established to ensure that the Advanced APM entity would treat at least 20% of its Medicare patients through the Advanced APM.<sup>25</sup> Physicians have predicted to collaborate with hospitals to create advanced APMs that will exempt participating clinicians from MIPS as well as qualify them for the 5% annual bonus payment for APM participation.

The APMs has another payment under MACRA, while the Advanced APMs were a branch of APMs which has given the providers the chance to gain more bonus when it has been met the risk related outcomes with better patient care.<sup>22</sup> There are 7 models under the Advanced APMs: 1) the Comprehensive ESRD (End-Stage Renal Disease) Care (CEC); 2) the Comprehensive Primary Care Plus (CPC+); 3) Next Generation Accountable Care Organizations (ACO) Model; 4)The Shared Savings Program - Track 2 &3, Oncology Care Model (OCM); 5) Comprehensive Care for Joint Replacement (CJR) Payment Model and 6) Vermont Medicare ACO Initiative (as part of the Vermont All-Payer ACO Model)<sup>26</sup>. The first year to start the incentive Medicare payment through Advanced

APMs was January 1 of 2017. The requirement has been the practitioners receive 25% Medicare payments or take care 20% of their patients in 2017 and could get 5% incentive payment in the year of 2019 in a cycle of 2 years.<sup>27</sup>

In the CEC Model, there were 37 ESRD Seamless Care Organizations (ESCO). Even though there were more than 600,000 US citizens engaged in ESRD and they have received treatment more than once a week, these outcomes have been distrustful. The United States Renal Data System has estimated that no more than 1% patients of Medicare population consumed 7.2% of FFS expenditure which was \$32.8 billion within ESRD beneficiaries in 2014. The CEC model has been trying to improve the outcomes of ESCO by enhancing care coordination and care experience.<sup>28</sup>

In the CPC+ Model, there have been 2,893 healthcare organizations and have served more than 1.76 million beneficiaries. A re-designed of a CPC+ by a public-private partnership with 54 aligned payers in 14 regions has improved the quality of patient care and has reduced the waste of resources because of flexibility financial resources.<sup>29</sup>

There were 45 ACOs engaged in the Next Generation ACO Model. In this model, the health care providers and suppliers work together voluntarily to improve the quality of care and reduce the cost to their original Medicare patients. The goal of this model has been to test if the financial incentives have worked for the ACOs, which could improve outcomes and reduce the cost for original Medicare FFS beneficiaries.<sup>30</sup>

The Medicare Shared Savings Program or also Shared Savings Program was established by section 3022 of the Affordable Care Act of 2010, which aimed to provide better care for patients, better health for populations while lowering the growth in expenditures to improve outcomes and increase the value of care.<sup>31</sup>

There were 190 practices and 16 payers participating in the OCM. Each year in the US there have been more than 1.6 million individuals diagnosed with cancer. The goal of OCM has been aligning to financial incentives to improve the care coordination, appropriateness of care and access to care for beneficiaries undergoing chemotherapy.<sup>32</sup>

The CJR model has aimed to support inpatient surgeries for Medicare beneficiaries: hip and knee replacements. Hip and knee replacements have been the most common inpatient surgery for Medicare beneficiaries

and have required lengthy recovery and rehabilitation periods. In 2014, there were more than 400,000 procedures, costing up to \$7 billion for the hospitalization. The high volume of these surgeries, quality, and costs of care for these hip and knee replacement surgeries still has varied dramatically among healthcare providers.<sup>33</sup> Medicare expenditure for surgery, hospitalization, and recovery ranged from \$16,500 to \$33,000 for each procedure. This alternative payment model has helped to achieve Medicare goals, which was introduced by MACRA by having 30% of all Medicare FFS payments using alternative payment models by 2016 and 50% by 2018.<sup>33</sup>

The Vermont All-Payer ACO Model has been a new alternative payment model to CMS, in which, Medicare, Medicaid, and commercial healthcare payers have incentivized healthcare value and quality, with a focus on health outcomes. CMS has made available to Vermont start-up funding of \$9.5M in 2017 to support care coordination and have bolster collaboration between practices and community-based providers.<sup>34</sup> The Vermont All-Payer ACO Model has begun on January 1, 2017, and it has been estimated to conclude on December 31, 2022.<sup>34</sup>

In Table 1, it is shown an overview for Advanced AMPs and a streamline of each model with a concise description.

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*TABLE 1 ABOUT HERE*

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#### *Merit-Based Incentive Payment Systems and Rural Hospitals (MIPS)*

Rural hospitals have faced challenges meeting some of the quality requirements that were in place before MACRA.<sup>35</sup> The value-based purchasing models have been predicted to be a challenge for rural hospitals as well, as approximately 60% did not bill under the Medicare inpatient reimbursement model in 2015.<sup>35</sup> For this reason, CMS designed individual MIPS participation and reporting requirements for rural clinicians. To aid the participation on MIPS, several assistance programs have also been created. The Support for Small Practices initiative has offered rural clinicians hands-on training and education. This assistance program has provided support with technical assistance when selecting and reporting MIPS measures.<sup>35</sup>



## *Financing MACRA*

CMS has planned to take several steps to ensure proper allocation of resources for the MACRA initiative. One step utilized has been decreasing reimbursement rates to post-acute care facilities such as nursing homes and rehab centers.<sup>36</sup> It was also reported that post-acute care organizations were limited to one percent increase in 2018. An additional cost-saving measure has been to replace the expected one-time pay increase of 3.2% to inpatient hospitals. Instead, inpatient hospitals would receive 0.5% reimbursement increases from 2018 through 2023.<sup>36</sup> Furthermore, some rural hospitals could stand to gain approximately \$1 million with a 1% reimbursement increase. CMS revoking the 3.2% increase has been estimated to be detrimental to rural hospitals who rely majorly on government reimbursement to remain operational.<sup>36</sup>

## **DISCUSSION**

The purpose of this research has been to study MACRA and to determine the financial impact the implementation of MACRA would have on rural hospitals. This theory has been supported by the findings of this review which has covered MACRA financing, MACRA payment methods and reimbursement rates, and competition that rural hospitals have been projected to face in transitioning to MACRA.

Most of small and independent practices have been projected to be impacted negatively by MACRA. The negative reimbursement rates have been estimated to cause these clinicians to move away from primary care practices and into large corporations. Large corporations can help support and protect clinicians from MACRA and its implications. Rural hospitals have not been predicted to compete well with large organizations for the clinicians leaving primary care due to low financial reserves.

It has been anticipated that MACRA will cause a significant decrease in hospital reimbursement and also has been projected to be a direct result of the transition from volume-based payment to value-based reimbursement. Financing MACRA has also impacted hospital reimbursement rates and government payouts. Inpatient hospitals were set to receive a one-time pay increase of 3.2%; however, MACRA has cut this expected payment and instead has configured the hospitals to earn 0.5% pay increases annually starting in 2018 and ending in 2023.

Physicians have been given a choice to be included in two different payment tracks under MACRA which have been termed APMs and MIPS. Most providers have been expected to fall under MIPS. MIPS has offered physicians either a substantial reward or substantial penalty based on the provider's clinical performance. Individual physician performances have been set to be evaluated and compared to the performance of other clinicians. Physicians who have participated in eligible APMs have the potential to earn favorable reimbursement rates and bonus payments; however, the APM eligible physicians have to take more financial risks than MIPS providers.

Throughout this research study, various shortcomings have been noted. The study design utilized was a literature review. Researchers and publications bias may have existed. MACRA has been implemented since January 1, 2017; therefore, long-term effects have not been able to be studied or calculated. The number of research articles performed has been limited. Also, MACRA reimbursement rates have been set to go into effect in 2019. Thus the current analysis of the impacts of MACRA has been based on predictions and projections. The search strategy utilized and the number of databases searched has also limited this study.

#### *Practical Implications*

MACRA has been attempting to push providers and other healthcare delivery systems to value rather than volume reimbursement methods. MACRA has set two payment tracks for providers that offer many rewards but also several penalties. Most small and independent practices are projected to receive negative reimbursement rates in 2019. Rural hospitals are expected to be awarded reduced amounts of government reimbursements. Hospitals are also anticipated to have to compete with one another for clinicians who choose to seek protection from MACRA by joining a bigger corporation. These actions would thus make it critically important for clinicians and all healthcare organizations to be well-informed on MACRA and its potential implications.

To improve the soundness of this study, primary research studies should be performed once data collection is completed in 2019. The studies may include specific study variables that represent adjustments made to physician reimbursement rates based on data being collected from 2017 until 2019. Also, this review could be expanded to compare MIPS and APMs in their relationship with small practices and rural hospitals. A meta-analysis and/or a systematic review could also be utilized to improve this study.

## **CONCLUSION**

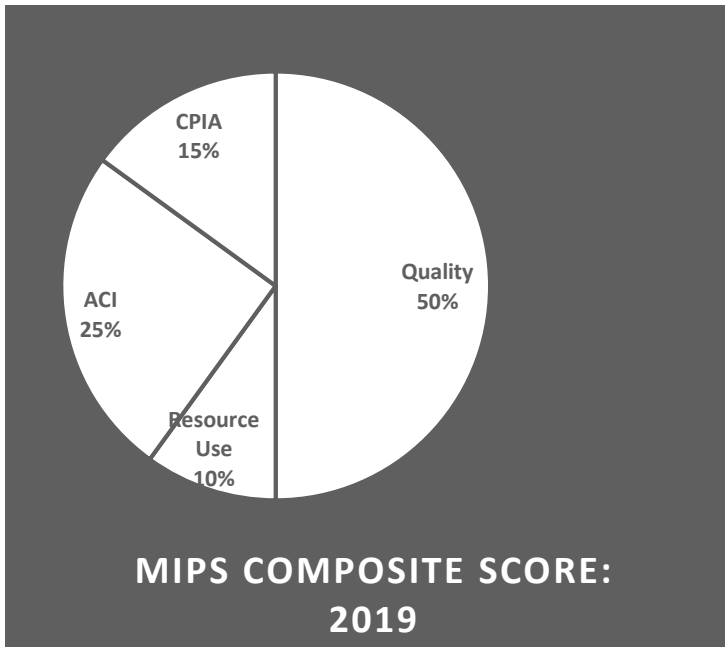
Although the long-term effects of MACRA have not been able to be studied, MACRA has the potential to impact rural hospitals financially negatively. MACRA has possible risks and benefits for physicians associated with its two reimbursement payment methods. The estimated negative reimbursements and set reductions to hospital reimbursements supported the fact that physicians and all healthcare organizations need to be aware and fully prepared for MACRA implementation.

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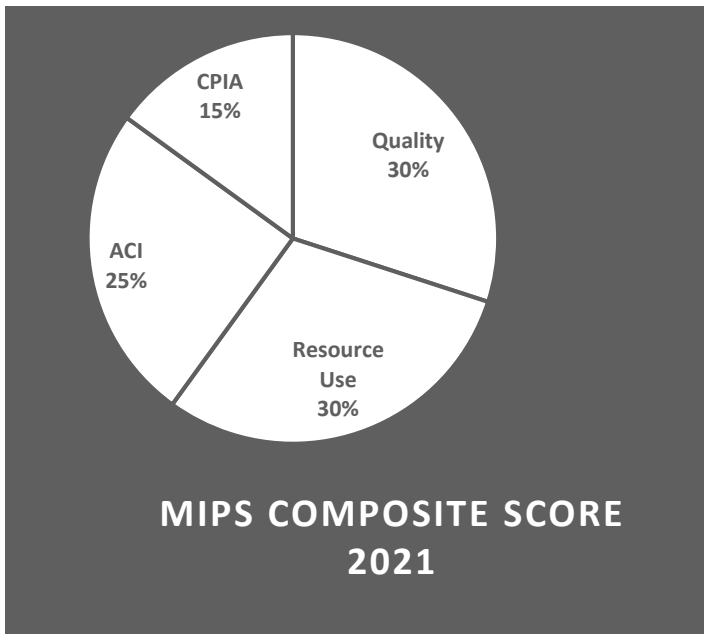
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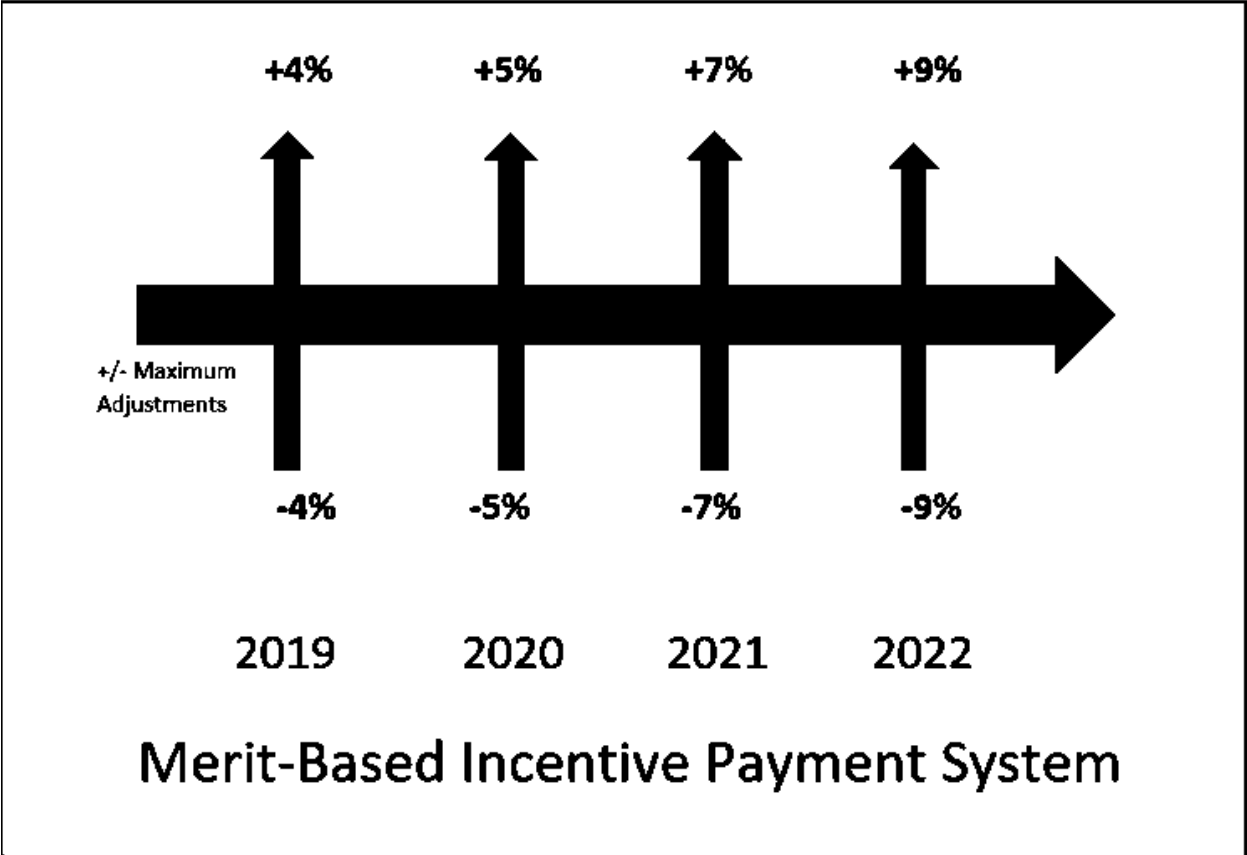
Reference: (CMS, n.d.)<sup>20</sup>

**Figure 1:** Weighted Categories for MIPS Composite Score 2019



Reference: (CMS, n.d.)<sup>20</sup>

**Figure 2:** Weighted Categories for MIPS Composite Score 2021



Reference: (Clough & McClellan, 2016)<sup>19</sup>

**Figure 3:** Merit-Based Incentive Payment System Positive and Negative Maximum Adjustments



**Table 1** Advanced Alternative Payment Models Overview

Model Name	Details
Comprehensive ESRD (End-Stage Renal Disease) Care (CEC)	<ul style="list-style-type: none"> <li>➤ 37 ESCO</li> <li>➤ 600,000 US citizens engaged</li> <li>➤ Improve outcome by enhancing care coordination and care experience</li> </ul>
Comprehensive Primary Care Plus (CPC+)	<ul style="list-style-type: none"> <li>➤ 2,893 health care organizations</li> <li>➤ 1.76 million beneficiaries</li> <li>➤ 54 aligned payers in 14 regions</li> <li>➤ Improve the quality of patient care due to flexibility financial resources</li> </ul>
Next Generation Accountable Care Organizations (ACO)	<ul style="list-style-type: none"> <li>➤ Health care providers and suppliers work together voluntarily</li> <li>➤ Test if the financial incentives worked for the ACOs</li> </ul>
Shared Savings Program - Track 2 &3	<ul style="list-style-type: none"> <li>➤ Provide better care for patients</li> <li>➤ Better health for populations</li> <li>➤ Lowering growth in expenditures</li> <li>➤ Improve outcomes</li> <li>➤ Increase value of care</li> </ul>
Oncology Care Model (OCM)	<ul style="list-style-type: none"> <li>➤ 190 practices and 16 payers</li> <li>➤ Align to financial incentives to improve the care coordination</li> <li>➤ Appropriateness of care and access to care for beneficiaries undergoing chemotherapy</li> </ul>
Comprehensive Care for Joint Replacement (CJR)	<ul style="list-style-type: none"> <li>➤ Support inpatient hip and knee replacement surgeries</li> <li>➤ The high volume, quality, and costs of these surgeries vary significantly among providers</li> </ul>
Vermont Medicare ACO Initiative (as part of the Vermont All-Payer ACO Model)	<ul style="list-style-type: none"> <li>➤ Vermont start-up funding of \$9.5M</li> <li>➤ Support care coordination</li> <li>➤ Bolster collaboration between practices and community-based providers</li> <li>➤ Began on January 1, 2017</li> <li>➤ Conclude on December 31, 2022</li> </ul>