A Narrative Review of Traditional Medicare and Medicare Advantage

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What is the message? Medicare Advantage (MA) plans have been gaining popularity in recent years, but how do they differ from traditional fee-for-service Medicare programs, and how do MA plans impact patient care? We outline a brief history of traditional Medicare and Medicare Advantage, and a comparison of cost, quality, patient care outcomes, and impact on care delivery innovations in the last decade.

What is the evidence? Published medical literature, reports from the government and policy institutions, publicly available information on select care delivery organizations

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What is Medicare Advantage and How Is It Changing?
Medicare is a blend of the traditional fee-for-service program (TM) and separate programs run by commercial health plans. In recent years, commercial plans (Medicare Advantage or MA plans) have been gaining popularity. MA enrollees now account for over 34% of Medicare beneficiaries.\(^1\) Medicare expansion proposals have also garnered much attention during the 2020 Democratic primary campaign, some of which proposed elimination of all commercial payers, others retained MA and other types of private options. Given the increasing interests from both patients and policy makers, we explore the origin of MA and what is known about the impact of the program on Medicare beneficiaries in this narrative review.

Previous studies have indicated that the quality of care between traditional Medicare and MA plans are similar, with MA plans incentivizing better resource utilization but tend to perform worse in access and patient satisfaction.\(^2,3\) To our knowledge, the most recent review was largely based on data from more than a decade ago.\(^3\) In this paper, we focus on evidence published since 2010 as well as recent practice innovations in the healthcare market.

History of Medicare

\textit{Overview of benefits & coverage}

Medicare was created in 1965 as a U.S. federal insurance program to cover the cost of healthcare services for the people aged 65 and older. Under the Social Security Amendments of 1972, this coverage was expanded to younger people with certain disabilities and anyone with end-stage renal disease needing dialysis or transplant. Originally, Medicare only included Part A which covered hospital services, and Part B which covered outpatient medical services. The 2003 Medicare Modernization Act (MMA) added Medicare Part D (the Medicare drug benefit) starting in 2006.\(^4\) These plans are fee-for-service insurance plans, with beneficiary premiums required for Part B and later for Part D. Together, the fee-for-service program is considered Traditional Medicare (TM).

Since the beginning, Medicare has also contracted with private plans such as health maintenance organizations (HMOs) such as Kaiser Permanente and the Health Insurance Plan of
NY to provide coverage for enrollees. In 2003, the MMA renamed the private plan option from Medicare + Choice (M+C) to Medicare Advantage (MA).

Currently, Medicare has nearly 60 million enrollees, two-thirds of whom are covered by TM, and the remaining 34% are covered through Medicare Advantage. Today, Part A covers not only hospital stays but also certain types of long term services such as short-term skilled nursing facility stays, hospice, and home visits. Part B includes outpatient services and preventive care. Part C, or Medicare Advantage, includes all benefits within Parts A and B and often Part D, as well as additional non-Medicare benefits such as dental, fitness, and vision coverage. Medicare Advantage enrollment has doubled in the last decade from 10.5 million people in 2009 to 22 million people in 2019.

Payment models & cost of care

Since 1966, Medicare has contracted with HMOs, which are individual networks of physicians and hospitals that provide service at a fixed monthly or annual payment, modeled after organizations such as the Kaiser Foundation Health Plan in California. In the beginning, these contracts were few due to the small number of HMOs and Medicare’s unattractive retrospective payment model. In the late 1970s to 1980s, though, there was a significant increase in the number of HMOs following the HMO Act of 1973 under President Nixon, which provided federal funding to catalyze the growth of this sector.

Setting the payment rate for Commercial health plans in Medicare has been a challenge over time. The 1982 Tax Equity and Fiscal Responsibility Act (TEFRA) set prospective risk-based capitated payments at 95% adjusted average per capita cost (AAPCC) of traditional Medicare based on the county of residence and demographics of the enrollee with the concept that the Medicare program would share in the efficiencies of the commercial market. Unfortunately, this payment model created strong incentives to recruit enrollees heathier than traditional Medicare enrollees, a practice known as favorable selection or cream skimming. Because risk-adjustment mechanisms were inadequate at this time, Medicare was found to be paying more for the care of a patient through Medicare Advantage than under traditional Medicare.
The Balanced Budget Act (BBA) of 1997 adjusted payments rates for private Medicare plans in attempts to contain cost, increase access, and correct for favorable selection. The BBA established the Medicare + Choice program and payment floors for rural counties. It also included enrollees’ demographic status in Medicare’s payment rate adjustments for private plans. New plan options such as preferred provider organizations (PPOs), private fee-for-service (PFFS), and high-deductible plans were created. BBA changes to the payment rules slowed the growth of M+C plan payments and led to increased beneficiary premiums and reduced benefits. This financial model proved unattractive to many commercial health plans who left the market as a result.

Adjustments have continued during the past two decades. In 2000, the Benefits Improvement and Protection Act (BIPA) raised the payment rates for private plans in both rural and urban counties and added diagnostic information to the risk adjustment models. In 2003, the MMA again raised payments and established a new bidding system in which private plans bid on the cost of delivering care for a county, and if the bid is lower than benchmark TM spending, the plan would receive a rebate that can be used to expand enrollee benefits. These various adjustments led to higher average per capita federal payments for enrollees in private plans. By 2009, payments to MA plans were as much as 14% higher than that for an equivalent enrollee in TM.

The 2010 Affordable Care Act (ACA), commonly known as Obamacare, took further steps to risk adjust for geography & enrollee health statuses in MA plans. Other changes included adjusting MA plans’ risk scores to account for increased coding intensity, and a new payment model where plans received bonuses based on quality. As a result of the ACA, payments to MA plans are now more aligned with TM spending, and MA enrollments have gradually increased. From 2017 to 2019, the per capita MA to TM payment ratios, after adjusting for risk and including quality bonuses, was close to 100% (Figure 1). However, MedPac estimates that if coding intensity had been fully considered beyond the 5.9% statutory rate, it would add another 1-2% to the relative MA payment rate.
While federal spending is thought to be roughly equal by formula between the two models, a comparison of claims level data between several private MA plans and traditional Medicare found that actual per capita healthcare spending of enrollees in MA plans is much lower, largely due to lower utilization of services among MA enrollees. Enrollees in Medicare Advantage also tend to pay lower premiums than for traditional Medicare since they no longer need supplemental insurance and/or a separate prescription drug plans. Average premiums paid by MA enrollees was $29 per month in 2019, down from $44 per month in 2010, while the Part B premium is $144.60 and part D premiums vary by plan in TM. Traditional Medicare does not have an out-of-pocket maximum as it is required for MA plans. However, little is known about the total out-of-pocket costs for enrollees in traditional Medicare and Medicare Advantage.
Evidence on Quality, Outcomes and Utilization

In addition to reviewing information from CMS and the Kaiser Family Foundation on Medicare Advantage care quality and utilization patterns, we searched PubMed for comparative studies of MA and TM fee-for-service (FFS) using key words such as “Medicare Advantage”, “HMO”, “health maintenance organization”, “Medicare fee-for-service” or “traditional Medicare.” Regional or national studies published from 2010 to 2020 were included. Single-institutional studies or studies utilizing data from before 2000 were excluded. Commentaries or studies not relevant to quality, outcomes, or utilization of care were also excluded.

Overall, comparisons across studies are difficult due to differences in study designs, data sources, timing, and specific outcomes measured. With the exception of patient experience data captured through CAHPS, most of the studies we reviewed draw data from administrative claims or other types of secondary data which may limit characterization of the patient populations or services delivered to beneficiaries. Unlike HEDIS measurements collected for MA plans, TM claims data often do not enable direct measurement of quality. Analysis of large population samples are relatively overpowered, so even small effects are found to be statistically significant while clearly not achieving clinical significance.

Performance measures and outcomes

Each year, CMS attempts to measure the quality of services provided by Medicare Part C (MA) & Part D (prescription drugs) plans using the Star rating system. The ratings are on a scale of one to five, with a score of five being the highest quality rating. The Star ratings are calculated from clinical measures reported by the plans and patient experience data. For MA contracts that offer prescription drug plans (MA-PDs), 52% of the 210 contracts that will be offered in 2020 had a rating of 4.0 or higher, 82% of MA-PD enrollees are in such contracts currently.15 The ratings may not reflect the actual care received for a specific enrollee, as the MA contracts often draw enrollees from multiple geographic areas with varied levels of care quality.12

In general, the limited available evidence continues to suggest mixed results with respect to quality and patient outcomes between MA plans and TM. [Appendix Table 1] A number of studies have demonstrated higher performance on ambulatory and preventive care quality measures for MA plans compared to TM. These data include process measures such as disease screening and
vaccination rates, as well as medication treatment adherence.\textsuperscript{16–20} Positive performance differences between MA and TM plans can be more pronounced in MA-HMO plans than for MA-PPO plans, suggesting the impact of better care coordination on these measures.\textsuperscript{20} In contrast, there is also some evidence that TM beneficiaries may be more likely to receive care from higher quality facilities or providers.\textsuperscript{21–23}

While MA plans appear to be more successful at implementing preventive efforts, these successes sometimes do not directly translate into improved clinical outcomes. In a recent secondary prevention study, MA plan beneficiaries with coronary heart disease were slightly more likely than TM patients to receive secondary prevention treatments, but both populations achieved similar results in terms of blood pressure control and lipid management.\textsuperscript{24} Overall, studies comparing risk-adjusted mortality rates between TM and MA beneficiaries again show mixed results, and there is evidence that over time the mortality rates converge between patients in these two types of Medicare.\textsuperscript{25–27} Studies on differences in hospital readmission rates also vary and appear to be sensitive to risk adjustment methodologies, geography, and data sources.\textsuperscript{28–31}

Based on data from the Consumer Assessment of Healthcare Providers and Systems (CAHPS), patient experiences across TM and MA plans are also mixed. There is evidence that MA patients tend to report more ease in getting medications and in getting information on cost and coverage, but TM may outperform MA in patient reported access to care.\textsuperscript{20,32} A longitudinal national study of Medicare beneficiaries from 2003-2009 suggested that MA patient ratings of their physicians are improving over time.\textsuperscript{16} In both MA and TM, higher intensity of care appears to be associated with worse care experiences, and patients with depressive symptoms tend to also have more negative experiences, and the differences may be larger in MA than in TM.\textsuperscript{33,34}

\textit{Access and utilization}

One major feature of MA plans is that they offer members more limited provider networks, although Medicare has implemented network adequacy requirements that all plans must meet. The Kaiser Family Foundation examined hospital network access for ~400 MA plans in 2015, it
found that plan networks on average included roughly half of all hospitals in a given county. The range of narrow vs. broad networks varied significantly across MA plans, with the former including up to 30% of hospitals and the latter including 70% or more hospitals. \(^{35}\) In a follow up study of physician networks within MA plans, it was found that on average the plans included 46% of all physicians in a given county, and again the network size varied greatly. Across 26 medical specialties that MA plans are required to include, access to psychiatrists was the most restricted. Access to cardiothoracic surgeons, neurosurgeons, plastic surgeons, and radiation oncologists were also restricted for some plans. \(^{35}\)

With respect to utilization, studies suggest that beneficiaries in MA plans tend to have more appropriate use of services than beneficiaries in traditional Medicare. \(^{36–40,18,41–44}\) Better utilization of resources is reflected in the lower rates of specific interventional procedures, fewer preventable hospitalizations, shorter lengths of stay in hospitals, as well as more efficient use of post-acute care services. [Appendix Table 2] At least three recent studies suggest that MA beneficiaries tend to have shorter rehabilitation stays with better outcomes. \(^{42–44}\)

**Innovative Care Delivery Models**

Under the capitated payment model, MA plans are financially incentivized to find innovative ways of delivering better quality of care at lower cost. MA plans have the advantage of being able to implement new care models at scale across providers and geographic areas. TM has also implemented novel payment models such as Accountable Care Organizations, Primary Care Transformation, and Episode-based Payment Initiatives, though these models largely rely on individual provider organizations for design and execution of care models within the program constraints.

Recently, the increase in MA enrollment has spawned the growth of a number of new primary care provider models focused on improving care for the elderly and/or high-risk populations under fully capitated payment arrangements. These programs often feature integrated team-based care and use custom technology for health records, decision support and care management. Several have experimented with physician panel sizes related to patient acuity, with the mix of providers on the clinical team, and with ways in which technology can support
the overall care goals of the organization.

Many of these new models have demonstrated clinical improvements in their target population. ChenMed is an example of a high-touch primary care center for seniors that has been able to lower per member per month spending and hospital admission rates. Iora Health is another rapidly growing network of primary care clinics that targets the Medicare population, and it has reported better hypertension and diabetes control, and reduced hospital admissions and ER visits for their patients. Oak Street Health provides care for Medicare, Medicaid, and dual-eligible patient, and despite having a panel of clinically and socially complex patients, Oak Street reported large reductions in hospital admission rates, ER visits, and 30-day readmission rates. CareMore, which is now an integrated health delivery system under Anthem, grew out of a novel care model targeting high-risk populations in the early 90s and became a MA program by 1997, reported that it has been able to lower hospital and skilled nursing facility utilizations, 30-day hospital readmissions, and provide care at a lower cost than other MA plans. Another example of a fast-growing MA company is Devoted Health. Its model is built upon technology-enabled decision making as well as partnerships with existing care providers, but it also has its own in-house care coordination and care delivery teams that focus on the highest risk populations.

Looking Forward
In the past, payment rules resulted in Medicare overspending on patients enrolled in MA compared to TM. This risk of overpayment has been reduced, but not eliminated, due to implementation of more sophisticated risk-adjustment mechanisms and increased accountability for quality. CMS now spends a near equal amount for enrollees in TM and FFS, and there is evidence that the cost of care delivery in MA plans are less than in TM. At least some of these savings are passed on to MA enrollees as lower premiums and out-of-pocket costs. In sum, recent comparative data on quality, outcomes, and utilization remain largely unchanged since previous reviews.

The growth of MA is partially a reflection of the market competitiveness of private health plans based on the perception of value by consumers. Many MA plans have developed and recently
introduced innovative care delivery models. While there is early evidence of success of some of these models, whether they can maintain their performance as they scale remains an important question for further research.

Appendix
<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Publication Year</th>
<th>Category</th>
<th>Data Source</th>
<th>Outcomes of Interest</th>
<th>Direction of Effect</th>
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<td>Ahmad et al.</td>
<td>2010</td>
<td>Quality</td>
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<td>Liu et al.</td>
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<td>Leibovitch et al.</td>
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<td>Friedman et al.</td>
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<td>Vanderweele et al.</td>
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<td>Bembridge et al.</td>
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<td>Enzmann et al.</td>
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<td>Panagiotou et al.</td>
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<td>Hittner et al.</td>
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<td>Vogel et al.</td>
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<td>Flinter et al.</td>
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<td>Alpert et al.</td>
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Appendix Table 1: Studies comparing MA and TM fee-for-service (FFS) on quality, outcomes, care experience.

Notes: CAHPS = Consumer Assessment of Healthcare Providers and Systems
HEDIS = Healthcare Effectiveness Data and Information Set
HCUP-SID = AHRQ’s Healthcare Cost and Utilization Project State Inpatient Databases
MBSF = Master Beneficiary Summary File
MDS = Minimum Data Set
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<th>Category</th>
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<th>Sample Size</th>
<th>Outcomes of Interest</th>
<th>Direction of positive outcome</th>
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<td>Basu et al.</td>
<td>2012</td>
<td>Utilization</td>
<td>2004</td>
<td>Regional</td>
<td>AHRQ’s Healthcare Cost and Utilization Project (HCUP-SDI)</td>
<td>336,698 Total Admissions</td>
<td>Preventable and referral-sensitive hospitalizations in NY, FL, CA</td>
<td>MA</td>
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<td>Nicholas LH</td>
<td>2013</td>
<td>Utilization</td>
<td>1999-2005</td>
<td>Regional</td>
<td>Healthcare Cost and Utilization Project (HCUP) State Inpatient Databases (SID)</td>
<td>&gt;1,500 MA enrollees and 5,000 FFS</td>
<td>Rates of hospitalizations in Arizona, Florida, New Jersey and New York</td>
<td>MA</td>
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<td>Matlock et al.</td>
<td>2013</td>
<td>Utilization</td>
<td>2003-2007</td>
<td>Regional</td>
<td>Medicare Enrollment Database; Administrative, claims, and clinical electronic health record data from the Cardiovascular Research Network</td>
<td>5,013,650 FFS and 878,339 MA patients</td>
<td>Rates of coronary angiography, percutaneous coronary intervention (PCI), and coronary artery bypass grafting (CABG)</td>
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<td>Raetzman et al.</td>
<td>2015</td>
<td>Utilization</td>
<td>2013</td>
<td>Regional</td>
<td>Healthcare Cost and Utilization Project (HCUP) State Inpatient Databases (SID) for 13 States</td>
<td>4,165,200 FFS and 1,650,200 MA hospital stays</td>
<td>Hospital lengths of stay</td>
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<td>Waxman et al.</td>
<td>2016</td>
<td>Utilization and Quality</td>
<td>2010-2011</td>
<td>National</td>
<td>CMS OASIS File, American Community Survey</td>
<td>30,837,130 FFS and 10,594,658 MA beneficiaries</td>
<td>Proportion of beneficiaries receiving home health and duration of use</td>
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<td>Henke et al.</td>
<td>2018</td>
<td>Utilization</td>
<td>2013</td>
<td>Regional</td>
<td>HCUP State Inpatient Databases, AHA Annual Survey data, Medicare Enrollment Denominator File</td>
<td>1,926,712 MA and 5,907,956 TM discharges</td>
<td>Length of stay and cost per hospital discharge</td>
<td>Neutral or Mixed</td>
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<tr>
<td>Li et al.</td>
<td>2018</td>
<td>Utilization</td>
<td>2007-13</td>
<td>National</td>
<td>Medicare claims data, HEDIS, Outcome and Assessment Information Set (OASIS), Minimum Data Set, Medicare beneficiary summary file</td>
<td>54,000,000 total Medicare beneficiaries</td>
<td>Geographic variations in the use of home health, SNF, and hospital care between Medicare Advantage and traditional Medicare.</td>
<td>Neutral or Mixed</td>
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<td>Kumar et al.</td>
<td>2018</td>
<td>Utilization and Outcome</td>
<td>2011-2015</td>
<td>National</td>
<td>Master Beneficiary Summary File, Medicare Provider and Analysis Review data, Healthcare Effectiveness Data and Information Set data, the Minimum Data Set, and the American Community Survey</td>
<td>211,296 FFS and 75,554 MA patients</td>
<td>Rehabilitation service use, length of stay, and outcomes in Hip fracture patients</td>
<td>MA</td>
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Appendix Table 2 – Studies comparing MA and TM fee-for-service (FFS) on utilization, including some studies examining both utilization and outcome or utilization and quality.

Notes: CAHPS = Consumer Assessment of Healthcare Providers and Systems
HEDIS = Healthcare Effectiveness Data and Information Set
HCUP-SID = AHRQ’s Healthcare Cost and Utilization Project State Inpatient Databases
MBSF = Master Beneficiary Summary File
MDS = Minimum Data Set

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(Note references 50-60 are for appendix tables only)


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